

ORDINANCE No. \_\_\_\_\_

116655

COUNCIL BILL No. \_\_\_\_\_

109596

*James*

The City of

AN ORDINANCE amending the Seattle Building Code, Chapter 22.100 of the Seattle Municipal Code, as adopted by Ordinance 116012, to incorporate changes in requirements of the Washington State Ventilation and Indoor Air Quality Code and requirements of the Washington State Building Code regulating fire sprinklers in portable school classrooms, regulating the use of solid-fuel-burning devices, regulating emergency and standby power for hazardous occupancies, regulating residential group care facilities, and requiring space for recyclable material in new buildings; and adding local provisions for code alternates, for methane reduction measures for sites near methane-producing landfills; for mitigation of liquefaction potential, and revising construction standards for transformer vaults.

Honorable President:

Your Committee on \_\_\_\_\_

to which was referred the within Council Bill, report that we have considered the same and

4-14-93

Full Co

COMPTROLLER FILE No. \_\_\_\_\_

Introduced: 3-15-93	By: Donaldson
Referred: 3-15-93	To: Land Use
Referred:	To:
Referred:	To:
Reported: APR 24 1993	Second Reading: APR 24 1993
Third Reading: APR 25 1993	Signed: APR 25 1993
Presented to Mayor: APR 27 1993	Approved: APR 27 93
Returned to City Clerk: Apr 29 93	Published:
Vetoed by Mayor:	Veto Published:
Passed over Veto:	Veto Sustained: <span style="border: 1px solid black; border-radius: 50%; padding: 5px;">OK</span>

# The City of Seattle--Legislative Department

Date Reported  
and Adopted

## REPORT OF COMMITTEE

President:

Committee on \_\_\_\_\_

was referred the within Council Bill No. \_\_\_\_\_

that we have considered the same and respectfully recommend that the same:

4-14-93

3-0 Do Pass

Full Council vote 7-0

\_\_\_\_\_  
Committee Chair

ORDINANCE 116655

1  
2 AN ORDINANCE amending the Seattle Building Code, Chapter  
3 22.100 of the Seattle Municipal Code, as adopted by  
4 Ordinance 116012, to incorporate changes in requirements  
5 of the Washington State Ventilation and Indoor Air  
6 Quality Code and requirements of the Washington State  
7 Building Code regulating fire sprinklers in portable  
8 school classrooms, regulating the use of solid-fuel-  
9 burning devices, regulating emergency and standby power  
10 for hazardous occupancies, regulating residential group  
11 care facilities, and requiring space for recyclable  
12 material in new buildings; and adding local provisions  
13 for code alternates, for methane reduction measures for  
14 sites near methane-producing landfills; for mitigation  
15 of liquefaction potential, and revising construction  
16 standards for transformer vaults.

9 BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

10  
11 Section 1. Subsection 103(a) of the Seattle Building  
12 Code, 1991 Edition, is amended as follows:

13 SCOPE OF THIS BUILDING CODE

14 **Sec. 103. (a) Applicability.** The provisions of this  
15 building code shall apply to the construction, alteration,  
16 moving, demolition, repair and occupancy of any building or  
17 structure within the City, except work located primarily in a  
18 public way, public utility towers and poles, mechanical  
19 equipment not specifically regulated in this building code,  
20 and hydraulic flood control structures.

21 Additions, alterations, repairs and changes of occupancy or  
22 character of occupancy in all buildings and structures shall  
23 comply with the provisions for new buildings and structures,  
24 except as otherwise provided in Sections 104, 308 and 502 of  
25 this building code.

26 A building which fully complies with the State of  
27 Washington Building Code may be permitted for construction  
28 and occupancy without meeting all requirements of this  
Seattle Building Code, provided the building complies with  
the following Seattle Building Code provisions, when  
applicable:

- 23 1. Sections 702(c)2b and Section 1705(c)3 special  
24 provisions for mini-storage facilities;
- 25 2. Section 901(g) and 2333(a)2 special requirements for  
26 pre-application meetings for hazardous occupancies and  
27 building with unusual load resisting structural designs;
- 28 3. Section 1202(b) and 3305(g) special requirements for  
one-hour construction and corridor construction for  
certain residential occupancies;
4. Chapter 16 fire district;
5. Section 1716 special provisions for atriums;

1 6. Section 1807 special provisions for high rise buildings;

2 7. Section 3802(b), (d), (e) and (h) special sprinkler  
3 requirements for certain basement-like stories and  
4 certain storage and R-1 occupancies;

5 8. Chapter 57 addressing provisions;

6 9. Chapter 58 special provisions for floating homes; and

7 10. Chapter 59 special provisions for waterfront piers.

8 Section 2. Section 103 of the Seattle Building Code,  
9 1991 Edition, is amended by adding Subsection (c) as follows:

10 **Sec. 103 (c) Conflict with Ventilation Code.** In the case  
11 of conflict between the ventilation requirements of Section  
12 605, Section 705, Section 905 and Section 1205 of this code  
13 and the ventilation requirements of Chapter 10.1 of the  
14 Mechanical Code, the provisions of Chapter 10.1 shall govern.

15 Section 3. Section 103 of the Seattle Building Code,  
16 1991 Edition, is amended by adding Subsection (d) as follows:

17 **Sec. 103. (d) Conflict with Barrier-free Requirements.** In  
18 case of conflicts with other provisions of this code,  
19 Washington State Building Code Chapter 31, 51-20-3100  
20 Washington Administrative Code and Appendix Chapter 31, 51-  
21 20-93100 Washington Administrative Code and requirements  
22 affecting barrier-free access in Sections 3304(b), 3304(h),  
23 3306(g), and 3306 (i) shall govern.

24 Section 4. Subsection 401(a) of the Seattle Building  
25 Code, 1991 Edition, is amended as follows:

#### 26 DEFINITIONS

27 **Sec. 401. (a) General.** For the purpose of this code,  
28 certain terms, phrases, words and their derivatives shall 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.

Where terms are not defined, they shall have their ordinary  
accepted meanings within the context with which they are  
used. *Webster's Third New International Dictionary of the  
English Language, Unabridged*, copyright 1986, shall be  
considered as providing ordinarily accepted meanings.

~~((Certain terms defined in this chapter are denoted by an  
asterisk(\*).--These terms are based upon Washington State  
Department of Social and Health Services regulations for  
facilities licensed by that department.--Certain terms used  
in these definitions are not defined.--See Titles 212 and  
388, Washington Administrative Code (WAC), for the following:  
adult; developmentally disabled; adult in need of protection;  
aged person; birth service; child or foster child; child  
placing agency; crisis residential center; drop-in care;~~

1 evaluation-and-treatment-facility;-family-abode;-full-time  
2 care-provider-or-facility;-infant;-infirmity;-juvenile;  
3 licensee;-licensing-agency;-nonambulatory;-nonambulatory;  
4 mobile;-premises;-psychiatric-impairment;-secure-detention  
5 facilities;-spenser-))

6  
7 Section 5. Section 402 of the Seattle Building Code,  
8 1991 Edition, is amended as follows:

9 **A**

10 **Sec 402. ACCESS FLOOR SYSTEM** is an assembly consisting of  
11 panels mounted on pedestals to provide an under-floor space  
12 for the installations of mechanical, electrical,  
13 communication or similar systems or to serve as an air-supply  
14 or return-air plenum.

15 **ACI** is the American Concrete Institute, Box 19150, Redford  
16 Station, Detroit, Michigan 48219.

17 **ADDITION** is an extension or increase in floor area or  
18 height of a building or structure.

19 ~~((**\*ADULT-RESIDENTIAL-TREATMENT-FACILITY**-is-a-building-or  
20 portion-thereof-designed-and-organized-primarily-to-provide  
21 24-hour-residential-care,-crisis-and-short-term-care-and/or  
22 long-term-individualized-active-treatment-and-rehabilitation  
23 for-clients-diagnosed-or-evaluated-as-psychiatrically  
24 impaired-or-chronically-mentally-ill---(212-43-WAC))~~

25 **AEROSOL** is a product which is dispensed by a propellant  
26 from a metal can up to a maximum size of 33.8 fluid ounces or  
27 a glass or plastic bottle up to a size of 4 fluid ounces,  
28 other than a rim-vented container.

**AGGREGATE** for the purpose of emission control design is  
crushed stone, stone, or other inert material or combinations  
thereof having hard, strong, durable pieces.

**AGRICULTURAL BUILDING** is a structure designed and  
constructed to house farm implements, hay, grain, poultry,  
livestock or other horticultural products. This structure  
shall not be a place of human habitation or a place of  
employment where agricultural products are processed, treated  
or packaged; nor shall it be a place used by the public.

**AIR BARRIER** is a continuous material or system of materials  
utilized for the purpose of minimizing the movement of air  
across a defined boundary, and capable of withstanding the  
maximum pressure developed across it, without failing by  
becoming significantly more leaky.

**AIR, SUPPLY** is that air delivered to the conditioned space  
and used for ventilation, heating, cooling, humidification or  
dehumidification.

**AISC** is the American Institute of Steel Construction, Inc.,  
400 North Michigan Avenue, Chicago, Illinois 60611.

29 ~~((**\*ALCOHOLISM-TREATMENT-FACILITY**-is-a-facility-operated  
30 primarily-for-the-treatment-of-alcoholism-including-the  
31 following-services:---(212-40-WAC))~~

1 ((Alcohol-detoxification-services-are-those-services  
2 required-for-the-care-and/or-treatment-of-persons-intoxicated  
3 or-incapacitated-by-alcohol-during-the-period-in-which-the  
4 system-is-cleared-of-alcohol-and-the-individual-recovers-from  
5 the-transitory-effects-of-intoxication---These-include  
6 screening-of-intoxicated-persons;-detoxification-of  
7 intoxicated-persons;-counseling-of-alcoholics-regarding-their  
8 illness-to-stimulate-motivation-to-obtain-further-treatment  
9 and-referral-of-detoxicated-alcoholics-to-other-appropriate  
10 alcoholism-treatment-programs-))

6 ((Alcoholism-intensive-inpatient-treatment-services-are  
7 those-services-provided-to-the-detoxified-alcoholic-in-a  
8 residential-setting-which-include,-as-a-minimum,-limited  
9 medical-evaluation-and-health-supervision,-alcoholism  
10 education,-organized-individual-and-group-counseling,  
11 discharged-referral-to-necessary-supportive-services-and-a  
12 client-follow-through-program-after-discharge-))

10 Alcoholism-long-term-treatment-services-is-long-term  
11 (ninety-days-or-more)-provision-of-a-residential-care-setting  
12 with-personal-care-services-for-alcoholics-with-impaired  
13 self-maintenance-capabilities-who-need-personal-guidance-and  
14 assistance-to-maintain-sobriety-and-optimum-health-status-

12 ((Alcoholism-recovery-house-services-is-the-provision-of-an  
13 alcohol-free-residential-setting-which-provides-social-and  
14 recreational-activities-for-detoxified-alcoholics-to-aid  
15 their-adjustment-to-normal-patterns-of-living-and-their  
16 engagement-in-occupational-training,-gainful-employment-or  
17 other-types-of-normal-community-activities-))

15 ALLEY is any public space or thoroughfare 16 feet or less  
16 but not less than 10 feet in width which has been dedicated  
17 or deeded to the public for public use.

17 ALTER OR ALTERATION is any change, addition or modification  
18 in construction or occupancy.

18 AMUSEMENT BUILDING is a building or portion thereof, used  
19 for entertainment or educational purposes and which contains  
20 a system which transports passengers or provides a walkway  
21 through a course so arranged that the required exits are not  
22 apparent due to theatrical distractions, are disguised or not  
23 readily available due to the method of transportation through  
24 the building or structure.

22 Permanent amusement building is any amusement building not  
23 otherwise classified as portable or temporary.

23 Portable amusement structure is an amusement building  
24 designed and constructed to be portable to be erected and  
25 used on a short term basis at each location.

25 Temporary amusement building is an amusement building used  
26 for that purpose for a period of 6 weeks or less in any given  
27 twelve months.

27 ANSI is the American National Standards Institute, 1430  
28 Broadway, New York, New York 10018.

1        **APARTMENT HOUSE** is any building or portion thereof which  
2 contains three or more dwelling units and, for the purpose of  
3 this code, includes residential condominiums.

4        **APPROVED**, as to materials and types of construction, refers  
5 to approval by the building official as the result of  
6 investigation and tests conducted by the building official,  
7 or by reason of accepted principles or test by recognized  
8 authorities, technical or scientific organizations.

9        **APPROVED AGENCY** is an established and recognized agency  
10 regularly engaged in conducting tests or furnishing  
11 inspection services, when such agency has been approved.

12        **APPROVED FABRICATOR** is an established and qualified person,  
13 firm, or corporation approved by the building official  
14 pursuant to Section 306 (f) of this code.

15        **ARCHITECT.** See "Project Architect or Engineer."

16        **AREA** See "Floor Area."

17        **ASSEMBLY BUILDING** is a building or a portion of a building  
18 used for the gathering together of 50 or more persons for  
19 such purposes as deliberation, education, instruction,  
20 worship, entertainment, amusement, drinking or dining or  
21 awaiting transportation.

22        **ASTM** is the American Society for Testing and Materials,  
23 1916 Race Street, Philadelphia, Pennsylvania 19103.

24        **ATRIUM** is an opening through two or more floor levels other  
25 than enclosed stairways, elevators, hoistways, escalators,  
26 plumbing, electrical, air-conditioning or other equipment,  
27 which is closed at the top and not defined as a mall. Floor  
28 levels, as used in this definition, do not include balconies  
within assembly occupancies or mezzanines which comply with  
Section 1716.

**AUTOMATIC**, as applied to fire-protection devices, is a  
device or system providing an emergency function without the  
necessity of human intervention and activated as a result of  
a predetermined temperature rise, rate of rise of temperature  
or increase in the level of combustion products.

**AWNING.** See Section 4602.

**AWNING SIGN.** See Section 4602.

## B

      Section 6. Section 403 of the Seattle Building Code, 1991  
Edition, is amended as follows:

**Sec 403. BALCONY** is that portion of the seating space of an  
assembly room, the lowest part of which is raised 4 feet or  
more above the level of the main floor and shall include the  
area providing access to the seating area or serving only as  
a foyer.

1           **BALCONY, EXTERIOR EXIT.** See Section 3301(b).

2           **BASEMENT** is any floor level below the first story in a  
3 building. See "Story."

4           (~~(\*BOARDING-HOME-is-any-building-or-portion-thereof-which  
5 provides-board-and-domiciliary-care-to-3-or-more-aged-persons  
6 not-related-by-blood-or-marriage-to-the-operator--(212-36  
7 WAE))~~)

8           **BOAT YARD STRUCTURES** are structures with areas in excess of  
9 three thousand square feet used for building or repairing of  
10 vessels of combustible construction, other than spray  
11 application of flammable plastic resin.

12           **BOILER, HIGH-PRESSURE,** is a boiler furnishing steam at  
13 pressures in excess of 15 pounds per square inch (psi) or hot  
14 water at temperatures in excess of 250°F., or at pressures in  
15 excess of 160 psi.

16           **BOILER ROOM** is any room containing a steam or hot water  
17 boiler.

18           **BUILDING** is any structure used or intended for supporting  
19 or sheltering any occupancy.

20           **BUILDING, EXISTING** is a building erected prior to the  
21 adoption of this code, or one for which a legal building  
22 permit has been issued, under the prior code, and  
23 construction has been started within eighteen months after  
24 adoption of this code.

25           **BUILDING OFFICIAL** is the Director of the Department of  
26 Construction and Land Use. As used in this code, the term  
27 includes authorized representatives of the Director of the  
28 Department of Construction and Land Use.

**BUILDING PERMIT APPLICATION, FULLY COMPLETE** is an  
application which the building official has judged to meet  
the requirements of Section 302. (It shall be the  
application for all the architectural and structural parts of  
a building, except when the building official allows  
application for portions of buildings, the application shall  
be at least the complete structural frame.)

          Section 7. Section 404 of the Seattle Building Code,  
1991 Edition, is amended as follows:

c

**Sec. 404. CAST STONE** is a precast building stone  
Manufactured from portland cement concrete and used as a  
trim, veneer or facing on or in buildings or structures.

**CENTRAL HEATING PLANT** is environmental heating equipment  
which directly utilizes fuel to generate heat in a medium for  
distribution by means of ducts or pipes to areas other than  
the room or space in which the equipment is located.

**C.F.R.** is the Code of Federal Regulations, a regulation of  
the United States of America available from the  
Superintendent of Documents, United States Government  
Printing Office, Washington, D.C. 20402.

1           **CHIEF OF THE FIRE DEPARTMENT** or **FIRE CHIEF** is the head of  
the fire department or a regularly authorized deputy.

2           **CHILD DAY CARE** means the care of children during any period  
of a 24-hour day.

3           **CHILD DAY CARE HOME, FAMILY** is a child day care facility,  
4           licensed by the state, located in the family abode of the  
person or persons under whose direct care and supervision the  
5           child is placed, for the care of twelve or fewer children,  
including children who reside at the home.

6           **CITY**, as used in this code, is the City of Seattle,  
Washington.

7           **COMBUSTIBLE LIQUID**. See the Fire Code.

8           **CONDOMINIUM, RESIDENTIAL**. See "Apartment House."

9           **CONGREGATE RESIDENCE** is any building or portion thereof  
which contains facilities for living, sleeping and  
10           sanitation, as required by this code, and may include  
facilities for eating and cooking, for occupancy by other  
11           than a family. A congregate residence may be a shelter,  
convent, monastery, dormitory, fraternity or sorority house  
12           but does not include jails, hospitals, nursing homes, hotels  
or lodging houses.

13           **CONTRACT DOCUMENTS** are those design drawings, written  
specifications, letters, sketches and other documents that  
14           fully define the work to be constructed.

15           **CONTROL AREA** is a space bounded by not less than a one-hour  
fire-resistive occupancy separation within which the exempted  
16           amounts of hazardous materials may be stored, dispensed,  
handled or used.

17           **CORROSIVE** is a chemical that causes visible destruction of,  
or irreversible alterations in, living tissue by chemical  
18           action at the site of contact. A chemical is considered to  
be corrosive if, when tested on the intact skin of albino  
19           rabbits by the method described in the United States  
Department of Transportation in Appendix A to CFR 49 Part  
20           173, it destroys or changes irreversibly the structure of the  
tissue at the site of contact following an exposure period of  
21           four hours. This term shall not refer to action on inanimate  
surfaces.

22           **COURT** is a space, open and unobstructed to the sky, located  
at or above grade level on a lot and bounded on three or more  
23           sides by walls of a building.

24           Section 8. Section 405 of the Seattle Building Code,  
1991 Edition, is amended as follows:

25           D

26           **Sec 405. ((\*) DAY CARE CENTER** is an agency which provides  
care for 13 or more children for periods of less than 24  
27           hours. ((388-73-014-WAC))

28           **((\*) DAY TREATMENT CENTER** is an agency which provides  
care, supervision and appropriate therapeutic and educational

1 services during part of the 24-hour day for children. ((212-  
54-WAE))

2 **DEPRESSURIZATION SYSTEM** is a contaminated soil gas control  
3 technique that depressurizes the space below a concrete slab  
4 or other soil gas retarder relative to the space above it.  
5 The purpose of the depressurization system is to maintain a  
6 slightly lower pressure in the soil gas under the slab or  
7 other soil gas retarder, compared to the indoor pressure  
8 above it, to ensure that flows are from the indoors to the  
9 soil, thus preventing mass transport of contaminated soil gas  
10 to the indoor air.

11 **DIRECTOR.** See "Building Official."

12 **DISPENSING** is the pouring or transferring of any material  
13 from a container, tank or similar vessel, whereby vapors,  
14 dusts, fumes, mists or gases may be liberated to the  
15 atmosphere.

16 **DISPERSAL AREA, SAFE.** See Section 3322(b).

17 **DRAFT STOP** is a material, device or construction installed  
18 to restrict the movement of air within open spaces of  
19 concealed areas of building components such as crawl spaces,  
20 floor-ceiling assemblies, roof-ceiling assemblies and attics.

21 **DWELLING** is any building or any portion thereof which  
22 contains not more than two dwelling units.

23 **DWELLING UNIT** is any building or portion thereof which  
24 contains living facilities, including provisions for  
25 sleeping, eating, cooking and sanitation, as required by this  
26 code, for not more than one family, or a congregate residence  
27 for 10 or less persons.

28 Section 9. Section 407 of the Seattle Building Code,  
1991 Edition, is amended as follows:

**F**

19 **Sec. 407. FABRICATION AREA (fab area)** is an area within a  
20 Group H, Division 6 Occupancy in which there are processes  
21 involving hazardous production materials and may include  
22 ancillary rooms or areas such as dressing rooms and offices  
23 that are directly related to the fab area processes.

24 **FAMILY** is a non-profit housekeeping unit consisting of any  
25 number of related persons; eight or fewer non related, non-  
26 transient persons; or eight or fewer related and non-related,  
27 non-transient persons other than congregate residences,  
28 fraternities, sororities, or groups occupying dormitory  
buildings or residential clubs.

**FAMILY ABODE** is a single dwelling unit and accessory  
buildings occupied for living purposes by a family which  
provides permanent provisions for living, sleeping, eating,  
cooking and sanitation.

~~((\*-FAMILY-DAY-CARE-HOME-is-a-foster-family-home-which  
regularly-provides-care-during-part-of-a-24-hour-day-to-6-or  
fewer-children-including-the-licensee's-own-children-and  
foster-children-under-12-years-of-age-or-2-or-fewer-children~~

1 under-2-years-of-age-including-the-licensee's-own-children  
and-foster-children-of-such-age---(388-73-014-WAC))

2 ((\*-FAMILY-HOME-FOR-ADULTS-is-a-foster-family-home-which  
3 regularly-provides-care-on-a-24-hour-basis-for-4-or-fewer  
developmentally-disabled-adults-or-adults-in-need-of  
4 protection---(388-73-014-WAC))

5 **FIRE ASSEMBLY.** See Section 4306(b).

6 **FIRE CODE** is the Seattle Fire Code.

7 **FIRE RESISTANCE or FIRE-RESISTIVE CONSTRUCTION** is  
construction to resist the spread of fire, details of which  
are specified in this code.

8 **FIRE RETARDANT COVERING.** See Section 4602.

9 **FIRE-RETARDANT-TREATED WOOD** is any wood product impregnated  
with chemicals by a pressure process or other means during  
10 manufacture, and which, when tested in accordance with U.B.C.  
Standard No. 42-1 for a period of 30 minutes, shall have a  
flame spread of not over 25 and show no evidence of  
11 progressive combustion. In addition, the flame front shall  
not progress more than 10-1/2 feet beyond the center line of  
the burner at any time during the test. Materials which may  
12 be exposed to the weather shall pass the accelerated  
weathering test and be identified as Exterior type, in  
13 accordance with U.B.C. Standard No. 25-28. Where material is  
not directly exposed to rainfall but exposed to high humidity  
14 conditions, it shall be subjected to the hygroscopic test and  
identified as Interior Type A in accordance with U.B.C.  
15 Standard No. 25-28.

16 All materials shall bear identification showing the fire  
performance rating thereof. Such identifications shall be  
17 issued by an approved agency having a service for inspection  
of material at the factory.

18 **FLAMMABLE LIQUID.** See the Fire Code.

19 **FLOOR AREA** is the area included within the surrounding  
exterior walls of a building or portion thereof, exclusive of  
20 vent shafts and courts. The floor area of a building, or  
portion thereof, not provided with surrounding exterior walls  
shall be the usable area under the horizontal projection of  
21 the roof or floor above.

22 **FM** is Factory Mutual Engineering and Research, 1151 Boston-  
Providence Turnpike, Norwood, Massachusetts 02062.

23 **FOAM PLASTIC INSULATION** is a plastic which is intentionally  
expanded by the use of a foaming agent to produce a reduced-  
24 density plastic containing voids consisting of hollow spheres  
or interconnected cells distributed throughout the plastic  
for thermal insulating or acoustical purposes and which has a  
25 density less than 20 pounds per cubic foot.

26 **FOOTING** is that portion of the foundation of a structure  
which spreads and transmits loads directly to the soil or the  
27 piles.

28 ((\*-FOSTER-FAMILY-HOME-is-an-agency-which-regularly  
provides-care-during-all-or-any-part-of-the-24-hour-day-to

1 one-or-more-children,-expectant-mothers,-developmentally  
2 disabled-adults-or-other-adults-in-need-of-protection-in-the  
3 family-abode-of-the-person-or-persons-under-whose-direct-care  
4 and-supervision-the-child,-expectant-mother-or-adult-is  
5 placed---It-shall-include-and-be-limited-to-family-homes-for  
6 adults,-foster-family-homes-for-children-or-expectant-mothers  
7 and-family-day-care-homes--(388-73-014-WAC))

8 ((\*-FOSTER-FAMILY-HOME-FOR-CHILDREN-OR-EXPECTANT-MOTHERS-is  
9 a-foster-family-home-which-regularly-provides-care-on-a-24-  
10 hour-basis-to-4-or-fewer-foster-children,-3-or-fewer  
11 expectant-mothers,-6-or-fewer-children-including-the  
12 licensee's-own-children,-or-2-or-fewer-children-under-2-years  
13 of-age-including-the-licensee's-own-children-of-such-age-  
14 (388-73-014-WAC))

15 **FRONT OF LOT** is the front boundary line of a lot bordering  
16 on the street and, in the case of a corner lot, may be either  
17 frontage.

18 Section 10. Section 408 of the Seattle Building Code,  
19 1991 Edition, is amended as follows:

20 **G**

21 **Sec. 408. GARAGE** is a building or portion thereof in which  
22 a motor vehicle containing flammable or combustible liquids  
23 or gas in its tank, is stored, repaired or kept.

24 **GARAGE, PRIVATE** is a building or a portion of a building,  
25 not more than 1000 square feet in area, in which only motor  
26 vehicles used by the tenants of the building or buildings on  
27 the premises are stored or kept. (See Section 1101.)

28 **GARAGE, PUBLIC** is any garage other than a private garage.

**GRADE (Adjacent Ground Elevation)** is the lowest point of  
elevation of the finished surface of the ground, paving or  
sidewalk within the area between the building and the  
property line or, when the property line is more than 5 feet  
from the building, between the building and a line 5 feet  
from the building.

For grade of structures built over water see Chapter 59.

**GRADE (Lumber)** is the classification of lumber in regard to  
strength and utility.

((\*-GROUP-CARE-FACILITY-is-a-facility-which-is-maintained  
and-operated-for-the-care-of-a-group-of-children-on-a-24-hour  
basis--(388-73-014-WAC))

**GUARDRAIL** is a system of building components located near  
the open sides of elevated walking surfaces for the purpose  
of minimizing the possibility of an accidental fall from the  
walking surface to the lower level.

**GUEST** is any person hiring or occupying a room for living  
or sleeping purposes.

**GUEST ROOM** is any room or rooms used, or intended to be  
used, by a guest for living or sleeping purposes. Every 100

1 square feet of superficial floor area in a dormitory shall be  
2 considered to be a guest room.

3 Section 11 . Section 409 of the Seattle Building Code,  
4 1991 Edition, is amended as follows:

5 H

6 **Sec. 409. HABITABLE SPACE (ROOM)** is space in a structure  
7 for living, sleeping, eating or cooking. Bathrooms, toilet  
8 compartments, closets, halls, storage or utility space, and  
9 similar areas are not considered habitable space.

10 **HANDLING** is the deliberate transport of materials by any  
11 means to a point of storage or use.

12 **HANDRAIL** is a railing provided for grasping with the hand  
13 for support. See also Section 408, definition of  
14 "guardrail."

15 **HAZARDOUS PRODUCTION MATERIAL (HPM)** is a solid, liquid or  
16 gas that has a degree of hazard rating in health,  
17 flammability or reactivity of 3 or 4 and which is used  
18 directly in research, laboratory or production processes  
19 which have, as their end product, materials which are not  
20 hazardous.

21 **HEALTH HAZARD** is a classification of a chemical for which  
22 there is statistically significant evidence based on at least  
23 one reproducible study conducted in accordance with  
24 established scientific principles that acute or chronic  
25 health effects may occur in exposed persons. The term  
26 "health hazard" includes chemicals which are ((carcinogens))  
27 toxic or highly toxic agents, ((reproductive-toxins))  
28 irritants, corrosives, ((sensitizers)) hepatotoxins,  
nephrotoxins, neurotoxins, agents which can have an acute  
effect ((aet)) on the hematopoietic system, and agents  
((which-damage)) that have acute effects on the lungs, skin,  
eyes or mucous membranes.

1 **HEIGHT OF BUILDING** is the vertical distance above a  
2 reference datum measured to the highest point of the coping  
3 of a flat roof or to the deck line of a mansard roof or to  
4 the average height of the highest gable of a pitched or  
5 hipped roof. The reference datum shall be selected by either  
6 of the following, whichever yields a greater height of  
7 building:

8 1. The elevation of the highest adjoining sidewalk or  
9 ground surface within a 5-foot horizontal distance of the  
10 exterior wall of the building when such sidewalk or ground  
11 surface is not more than 10 feet above lowest grade.

12 2. An elevation 10 feet higher than the lowest grade when  
13 the sidewalk or ground surface described in Item 1 above is  
14 more than 10 feet above lowest grade.

15 The height of a stepped or terraced building is the maximum  
16 height of any segment of the building.

17 **HELIPORT** is an area of land or water or a structural  
18 surface which is used, or intended for use, for the landing  
19 and take-off of helicopters, and any appurtenant areas which

1 are used, or intended for use, for heliport buildings and  
2 other heliport facilities.

3 **HELISTOP** is the same as a heliport, except that no  
4 refueling, maintenance, repairs or storage of helicopters is  
5 permitted.

6 **HIGHLY TOXIC MATERIAL** is a material which produces a lethal  
7 dose or a lethal concentration which falls within any of the  
8 following categories:

9 1. A chemical that has a median lethal dose (LD<sub>50</sub>) of 50  
10 milligrams or less per kilogram of body weight when  
11 administered orally to albino rats weighing between 200 and  
12 300 grams each.

13 2. A chemical that has a median lethal dose (LD<sub>50</sub>) of 200  
14 milligrams or less per kilogram of body weight when  
15 administered by continuous contact for 24 hours (or less if  
16 death occurs within 24 hours) with the bare skin of albino  
17 rabbits weighing between 2 and 3 kilograms each.

18 3. A chemical that has a median lethal concentration  
19 (LC<sub>50</sub>) in air of 200 parts per million by volume or less of  
20 gas or vapor or 2 milligrams per liter or less of mist, fume  
21 or dust, when administered by continuous inhalation for one  
22 hour (or less if death occurs within one hour) to albino rats  
23 weighing between 200 and 300 grams each.

24 Mixtures of these materials with ordinary materials, such  
25 as water, may not warrant a classification of highly toxic.  
26 While this system is basically simple in application, any  
27 hazard evaluation which is required for the precise  
28 categorization of this type of material shall be performed by  
an experienced, technically competent person.

**HORIZONTAL EXIT.** See Section 3301(b).

17 ~~((HOSPITAL-is-any-building-or-portion-thereof-which  
18 provides-accommodations,-facilities-and-services-on-a-24-hour  
19 basis-for-observation,-diagnosis-or-care-of-2-or-more-persons  
20 not-related-to-the-operator-who-are-suffering-from-illness,  
21 injury,-deformity-or-abnormality,-or-from-any-other-condition  
22 for-which-obstetrical,-medical-or-surgical-services-would-be  
23 appropriate-for-care-or-diagnosis---(212-28-WAC))~~

24 **HOTEL** is any building containing six or more guest rooms  
25 intended or designed to be used, or which are used, rented or  
26 hired out to be occupied, or which are occupied for sleeping  
27 purposes by guests.

28 **HOT-WATER HEATING BOILER** is a boiler having volume  
exceeding 120 gallons, or a heat input exceeding 200,000  
Btu/h, or an operating temperature exceeding 210°F that  
provides hot water to be used externally to itself.

**HPM STORAGE ROOM** is a room used for the storage or  
dispensing of hazardous production material (HPM) and which  
is classified as Group H, Division 2, 3 or 7 Occupancies.

**HVAC** means heating, ventilating and air conditioning.

1 Section 12. Section 414 of the Seattle Building Code,  
2 1991 Edition, is amended as follows:

3 M

4 **Sec. 414. MARQUEE** is a rigid structure projecting from and  
5 supported by a building.

6 **MASONRY** is that form of construction composed of stone,  
7 brick, concrete, gypsum, hollow clay tile, concrete block or  
8 tile, glass block or other similar building units or  
9 materials or combination of these materials laid up unit by  
10 unit and set in mortar.

11 **MASONRY, SOLID** is masonry of solid units built without  
12 hollow spaces.

13 (~~\*-MATERNITY-HOME-is-a-building-or-portion-thereof-in  
14 which-facilities-are-maintained-for-the-care-of-4-or-more  
15 women-not-related-by-blood-or-marriage-to-the-operator,  
16 during-pregnancy-or-during-or-within-10-days-after-delivery-  
17 (212-44-005-WAC)~~)

18 (~~\*-MATERNITY-SERVICE-is-an-agency-which-provides-or  
19 arranges-for-care-or-services-to-expectant-mothers,  
20 regardless-of-age,-before-or-during-confinement,-or-which  
21 provides-care-as-needed-to-mothers-and-their-infants-after  
22 confinement---(212-64-and-388-73-014-WAC)~~)

23 **MAY**, as used in this code, is permissive for compliance.

24 **MECHANICAL CODE** is the Seattle Mechanical Code.

25 **MEMBRANE PENETRATION FIRE STOP** is a material, device or  
26 construction installed to resist, for a prescribed time  
27 period, the passage of flame, heat and hot gases through  
28 openings in a protective membrane in order to accommodate  
cables, cable trays, conduit, tubing, pipes or similar items.

**MEZZANINE** or **MEZZANINE FLOOR** is an intermediate floor  
placed within a room.

29 (~~\*-MINI-DAY-CARE-CENTER-is-a-day-care-center-for-the-care-of  
30 12-or-fewer-children-in-a-building-other-than-the-family  
31 abode-of-the-person-or-persons-under-whose-direct-care-and  
32 supervision-the-child-is-placed,-or-the-care-of-from-7  
33 through-12-children-in-the-family-abode-of-such-person-or  
34 persons---(388-73-014-WAC)~~)

35 **MOTEL** shall mean hotel as defined in this code.

36 **MOTOR VEHICLE FUEL DISPENSING STATION** is that portion of a  
37 building where flammable or combustible liquids or gases used  
38 as motor fuels are stored and dispensed from fixed equipment  
into the fuel tanks of motor vehicles.

1 Section 13. Section 415 of the Seattle Building Code,  
2 1991 Edition, is amended as follows:

3 N

4 **Sec. 415. NONCOMBUSTIBLE** as applied to building  
5 construction material means a material which, in the form in  
6 which it is used, is either one of the following:

7 (a) Material of which no part will ignite and burn when  
8 subjected to fire. Any material conforming to U.B.C.  
9 Standard No. 4-1 shall be considered noncombustible within  
10 the meaning of this section.

11 (b) Material having a structural base of noncombustible  
12 material as defined in Item (a) above, with a surfacing  
13 material not over 1/8 inch thick which has a flame-spread  
14 rating of 50 or less.

15 "Noncombustible" does not apply to surface finish  
16 materials. Material required to be noncombustible for  
17 reduced clearances to flues, heating appliances or other  
18 sources of high temperature shall refer to material  
19 conforming to Item (a). No material shall be classed as  
20 noncombustible which is subject to increase in combustibility  
21 or flame-spread rating, beyond the limits herein established,  
22 through the effects of age, moisture or other atmospheric  
23 condition.

24 Flame-spread rating as used herein refers to rating  
25 obtained according to tests conducted as specified in U.B.C.  
26 Standard No. 42-1.

27 (~~\*-NURSING-HOME-is-a-building-or-portion-thereof-in-which  
28 operates-or-maintains-facilities-providing-convalescent-or  
chronic-care,-or-both,-on-a-24-hour-basis-for-3-or-more  
persons-not-related-by-blood-or-marriage-to-the-operator,-who  
by-reason-of-illness-or-infirmary-are-unable-to-properly-care  
for-themselves--(212-32-WAC)~~)

19 Section 14 . Section 417 of the Seattle Building Code,  
20 1991 Edition, is amended as follows:

21 P

22 **Sec. 417. PANIC HARDWARE.** See Section 3301(b).

23 **PEDESTRIAN WALKWAY** is a walkway used exclusively as a  
24 pedestrian trafficway.

25 **PENETRATION FIRE STOP** is a through-penetration fire stop or  
26 a membrane-penetration fire stop.

27 **PERMIT** is an official document or certificate issued by the  
28 building official authorizing performance of a specified  
activity.

**PERSON** is a natural person, heirs, executors, adminis-  
trators or assigns, and also includes a firm, partnership or  
corporation, its or their successors or assigns, or the agent  
of any of the aforesaid.

1 **PLASTIC MATERIALS, APPROVED** other than foam plastics  
2 regulated under Sections 1705(e) and 1713, are those having a  
3 self-ignition temperature of 650° F. or greater and a smoke-  
4 density rating not greater than 450 when tested in accordance  
5 with U.B.C. Standard No. 42-1, in the way intended for use,  
6 or a smoke-density rating no greater than 75 when tested in  
7 the thickness intended for use by U.B.C. Standard No. 52-2.  
8 Approved plastics shall be classified and shall meet the  
9 requirements for either CC1 or CC2 plastic.

10 **PLATFORM.** See Chapter 39.

11 **PLUMBING CODE** is the Seattle Plumbing Code.

12 **PORTABLE SCHOOL CLASSROOM** is a structure, transportable in  
13 one or more sections, which requires a chassis to be  
14 transported, and is designed to be used as an educational  
15 space with or without a permanent foundation. The structure  
16 shall be trailerable and capable of being demounted and  
17 relocated to other locations as needs arise.

18 ~~((**\*-PRIVATE-ADULT-TREATMENT-HOME** is any dwelling providing  
19 food, shelter, beds and care for 2 or fewer psychiatrically  
20 impaired clients, provided these clients are detained and the  
21 home is certified as an evaluation and treatment facility.  
22 (212-45-WAC))~~

23 **PROJECT ARCHITECT OR ENGINEER** is the licensed Architect or  
24 Engineer who has been commissioned as the prime consultant,  
25 having overall responsibility for the design and the  
26 coordination of the design work of other consultants and  
27 whose seal is on the contract documents.

28 **PROTECTIVE MEMBRANE** is a surface material which forms the  
required outer layer or layers of a fire-resistive assembly  
containing concealed spaces.

~~((**\*-PSYCHIATRIC-HOSPITAL** is a building or portion thereof  
receiving and/or caring for any insane, alleged insane,  
mentally ill or other incompetent person requiring  
psychiatric treatment. (212-40-WAC))~~

**PUBLIC WAY.** See Section 3301(b).

Section 15. Section 419 of the Seattle Building Code,  
1991 Edition, is amended as follows:

**R**

**Sec. 419. REPAIR** is the reconstruction or renewal of any  
part of an existing building for the purpose of its  
maintenance.

~~((**\*-RESIDENTIAL-TREATMENT-FACILITY-FOR-PSYCHIATRICALY  
IMPAIRED-CHILDREN** is a building or portion thereof designed  
and organized to provide 24-hour residential care and long-  
term individualized active treatment for children who have  
been diagnosed or evaluated as psychiatrically impaired.  
(212-42-WAC))~~

1           Section 16. Section 420 of the Seattle Building Code,  
2 1991 Edition, is amended as follows:

3 **S**

4       **Sec. 420.** (~~(\*SEMISECURE-FACILITY-is-a-facility,-including~~  
5 ~~but-not-limited-to-crisis-residential-centers-or-foster~~  
6 ~~family-homes-licensed-as-crisis-residential-centers,-operated~~  
7 ~~in-a-manner-to-reasonably-assure-that-children-placed-there~~  
8 ~~will-not-run-away.---(388-73-012-WAC))~~)

9       **SENSITIZER** is a chemical that causes a substantial  
10 proportion of exposed people or animals to develop an  
11 allergic reaction in normal tissue after repeated exposure to  
12 the chemical.

13       **SERVICE CORRIDOR** is a fully enclosed passage used for  
14 transporting hazardous production materials and for purposes  
15 other than required exiting.

16       **SHAFT** is an interior space, enclosed by walls or  
17 construction, extending through one or more stories or  
18 basements which connects openings in successive floors, or  
19 floors and roof, to accommodate elevators, dumbwaiters,  
20 mechanical equipment of similar devices or to transmit light  
21 or ventilation air.

22       **SHAFT ENCLOSURE** is the walls or construction forming the  
23 boundaries of a shaft.

24       **SHALL**, as used in this code, is mandatory.

25       **SHIPYARD STRUCTURES** are structures used for repair or  
26 building of vessels of noncombustible construction.

27       **SIGN.** See Section 4903.

28       **SMOKE DETECTOR** is an approved device that senses visible or  
invisible particles of combustion.

**SOIL GAS RETARDER MEMBRANE** is a flexible sheet material  
placed between the soil and the indoor air for the purpose of  
reducing the flow of soil gas into the building.

**STAGE.** See Chapter 39.

**STORY** is that portion of a building included between the  
upper surface of any floor and the upper surface of the floor  
next above, except that the topmost story shall be that  
portion of a building included between the upper surface of  
the topmost floor and the ceiling or roof above. If the  
finished floor level directly above a basement or unused  
under-floor space is more than 6 feet above grade as defined  
herein for more than 50 percent of the total perimeter or is  
more than 12 feet above grade for more than 25 feet of the  
perimeter plus required driveways up to 22 feet, such  
basement or unused under-floor space shall be considered a  
story; provided however that there is a 10-foot minimum width  
between the driveway and any portion of the 25-foot  
exemption.

1 **STORY, BASEMENT-LIKE** is a story which, because of  
2 topography, has exterior walls that are covered or partially  
3 covered by earth, where the building official determines that  
4 egress and emergency access are restricted and which is  
5 subject to special restrictions for occupancy, egress and  
6 sprinkler systems that apply to basements.

7 **STREET** is any thoroughfare or public way over 16 feet in  
8 width which has been dedicated or deeded to the public for  
9 public use.

10 **STRUCTURAL ENGINEER OF RECORD** is the Engineer who has been  
11 commissioned to design the primary structure of the building.  
12 The structural documents prepared by, or under the  
13 supervision of, this Engineer must contain his/her seal and  
14 are the structural contract documents used for the  
15 construction permit application.

16 **STRUCTURALLY QUALIFIED PRODUCTS** are products that have been  
17 pre-qualified by current acceptance and certification by an  
18 accepted authority such as International Conference of  
19 Building Officials (ICBO), American Society for Testing and  
20 Materials (ASTM), American Concrete Institute (ACI), American  
21 Institute of Steel Construction (AISC), or others widely  
22 accepted in the engineering field.

23 **STRUCTURAL OBSERVATION** means the visual observation of the  
24 structural system for general conformance to the approved  
25 plans and specifications. Structural observation does not  
26 include or waive the responsibility for the inspections  
27 required by Sections 305 and 306.

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

**SURGICAL AREA** is the preoperating, operating, recovery and  
similar rooms (~~housing-patients-incapable-of-unassisted~~  
~~self-preservation~~) within an outpatient health-care center  
where the patients are incapable of unassisted self-  
preservation.

Section 17. Section 423 of the Seattle Building Code,  
1991 Edition, is amended as follows:

V

**Sec. 423. VALUE or VALUATION** of a building shall be the  
estimated cost to replace the building and structure in kind,  
based on current replacement costs, as determined in the  
Permit Fee Ordinance.

**VENEER.** See Section 3002.

**VENTILATION EFFECTIVENESS** is the fraction of the outdoor  
air delivered to the space that reaches the occupied zone.

**VIRGIN POLYETHYLENE** is extruded polyethylene sheets made  
from nonreprocessed resins.

1           Section 18. Section 511 of the Seattle Building Code,  
2 1991 Edition, is amended as follows:

3 **ACCESSIBILITY TO TOILETS AND OTHER FEATURES**

4       **Sec. 511. (a) Access to Water Closets.** The water closet  
5 stool shall be located in a clear space not less than 30  
6 inches in width. The clear space in front of the water  
7 closet stool shall not be less than 24 inches.

8       See Washington State Building Code Chapter 31, 51-20-3100  
9 Washington Administrative Code and Appendix Chapter 31, 51-  
10 20-93100 ((Regulations-for-Barrier-Free-Facilities,-Chapter  
11 51-10)) Washington Administrative Code for requirements for  
12 water closets on floors required to be accessible.

13       **(b) Access to Other Features.** Accessibility to other  
14 building features shall be provided in accordance with  
15 Washington State Building Code Chapter 31, 51-20-3100  
16 Washington Administrative Code and Appendix Chapter 31, 51-  
17 20-93100 ((Regulations-for-Barrier-Free-Facilities,-Chapter  
18 51-10)) Washington Administrative Code.

19           Section 19. Chapter 5 of the Seattle Building Code,  
20 1991 Edition, is amended by adding Section 514 as follows:

21 **HEAT SOURCE**

22       **Sec. 514.** No new or substantially remodeled building shall  
23 be dependent upon a woodstove for its primary source of heat.

24           Section 20. Chapter 5 of the Seattle Building Code,  
25 1991 Edition, is amended by adding Section 515 as follows:

26 **SOLID FUEL BURNING DEVICES**

27       **Sec. 515.** No used solid fuel burning device shall be  
28 installed in a new or existing building unless the device is  
certified by Oregon Department of Environmental Quality Phase  
II or the United States Environmental Protection Agency.  
Pellet stoves may be installed if they either carry such  
certification or have been exempted from certification by the  
United States Environmental Protection Agency.

Section 21. Table 5-A of the Seattle Building Code, 1991 Edition, is amended as follows:

TABLE 5-A  
Wall and Opening Protection Based on Location on Property for All Construction Types<sup>1,2,3</sup>

OCCUPANCY GROUP <sup>4</sup>	CONSTRUCTION TYPES <sup>5</sup>	FIRE DISTRICT	EXTERIOR WALLS		OPENINGS <sup>6</sup>
			BEARING	NON BEARING	
			DISTANCES ARE TO PROPERTY LINES		
A-1	I FR	All	4 HR N/C	4 HR N/C less than 5'	Not permitted less than 5' Protected less than 16'
	II FR			2 HR N/C less than 16' 1 HR N/C less than 40' NR N/C 40' or more	
	II 1 HR II N III 1 HR III N IV HT V 1 HR V N				
				ALL -- A-1 Occupancy is not allowed in these construction types.	
A-2 A-2.17 A-3 A-4	I FR	All	4 HR N/C	4 HR N/C less than 5'	Not permitted less than 5' Protected less than 16'
	II FR			2 HR N/C less than 16'	
	III 1 HR			1 HR N/C less than 40'	
	IV HT			NR N/C Elsewhere	
A-2 A-2.17	II 1 HR	All	2 HR N/C less than 10' 1 HR N/C Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 10'
	II N				
	III N V N				
	V 1 HR	All	2 HR less than 10' 1 HR Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 10'
				All -- A-2, and 2.1 Occupancies are not allowed in these construction type.	

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OCCUPANCY GROUP <sup>4</sup>	CONSTRUCTION TYPES <sup>5</sup>	FIRE DISTRICT	EXTERIOR WALLS		OPENINGS <sup>6</sup>
			BEARING	NON BEARING	
			DISTANCES ARE TO PROPERTY LINES		
A-3	II 1 HR	All	2 HR N/C less than 5' 1 HR N/C Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 10'
	II N	All	2 HR N/C less than 5' 1 HR N/C less than 16' NR N/C Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 10'
	III N	All	4 HR N/C	4 HR N/C less than 5' 2 HR N/C less than 16' 1 HR N/C less than 40' NR N/C Elsewhere	Not permitted less than 5' Protected less than 16'
	V 1 HR	All	2 HR less than 5' 1 HR Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 10'
A-4	V N	All <sup>5</sup>	2 HR less than 5' 1 HR less than 16' NR Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 10'
	II 1 HR	All	1 HR N/C	Same as Bearing except NR N/C 40' or more	Protected less than 10'
	II N	All	1 HR N/C less than 10' NR N/C Elsewhere	Same as Bearing	Protected less than 10'
	III N	All	4 HR N/C	4 HR N/C less than 5' 2 HR N/C less than 16' 1 HR N/C less than 40' NR N/C 40' or more	Not permitted less than 5' Protected less than 16'
	V 1 HR	All	1 HR	Same as Bearing	Protected less than 10'
	V N	All <sup>5</sup>	1 HR less than 10' NR Elsewhere	Same as Bearing	Protected less than 10'

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OCCUPANCY GROUP <sup>4</sup>	CONSTRUCTION TYPES <sup>5</sup>	FIRE DISTRICT	EXTERIOR WALLS		OPENINGS <sup>6</sup>
			BEARING	NON BEARING	
			DISTANCES ARE TO PROPERTY LINES		
B-1 <sup>1d</sup> B-2 B-3 <sup>8</sup> except open parking garages B-1 <sup>9</sup> B-2	I FR	All	4 HR N/C less than 5'	4 HR N/C less than 5'	Not permitted less than 5' Protected less than 16'
	II FR		2 HR N/C less than 16'	2 HR N/C less than 16'	
	III 1 HR		1 HR N/C less than 40'	1 HR N/C less than 40'	
	III N		NR N/C Elsewhere	NR N/C Elsewhere	
	IV HT				
	II 1 HR	All	1 HR N/C	Same as Bearing except NR, N/C 40' or more	Not permitted less than 5' Protected less than 10'
	II N	All	1 HR N/C less than 16' NR N/C Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 10'
	V 1 HR	All	1 HR	Same as Bearing	Not permitted less than 5' Protected less than 10'
	V N <sup>4</sup>	All	1 HR less than 16' NR Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 10'
	II 1 HR	All	1 HR N/C	Same as Bearing except NR, N/C 40' or more	Not permitted less than 5' Protected less than 16'
B-3 <sup>8,9</sup> except open parking garages	II N	All	1 HR N/C less than 16' NR N/C Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 16'
	V 1 HR	All	1 HR	Same as Bearing	Not permitted less than 5' Protected less than 16'
	V N	All <sup>5</sup>	1 HR less than 16' NR Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 16'

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OCCUPANCY GROUP <sup>4</sup>	CONSTRUCTION TYPES <sup>5</sup>	FIRE DISTRICT	EXTERIOR WALLS		OPENINGS <sup>6</sup>
			BEARING	NON BEARING	
			DISTANCES ARE TO PROPERTY LINES		
B-4 <sup>9</sup>	I FR	All	4 HR N/C less than 3' 2 HR N/C Elsewhere	4 HR N/C less than 3' 2 HR N/C less than 16' 1 HR N/C less than 40' NR N/C Elsewhere	Not permitted less than 3' Protected less than 16'
	II FR				
	III 1 HR				
	III N				
	IV HT				
	II 1 HR				
	II N				
	V 1 HR				
	V N				
	V N				
E-1 <sup>10</sup> E-2 E-3	I FR	All	4 HR N/C	4 HR N/C less than 5' 2 HR N/C less than 16' 1 HR N/C less than 40' NR N/C Elsewhere	Not permitted less than 5' Protected less than 16'
	II FR				
	III 1 HR				
	III N				
	IV HT				
	II 1 HR				
	II N				
	V 1 HR				
	V N				
	V N				
	I FR	All	2 HR N/C less than 5' 1 HR N/C Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 10'
	II FR				
	III 1 HR				
	III N				
	IV HT				
	II 1 HR				
	II N				
	V 1 HR				
	V N				
	V N				
	I FR	All	2 HR less than 5' 1 HR Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 10'
	II FR				
	III 1 HR				
	III N				
	IV HT				
	II 1 HR				
	II N				
	V 1 HR				
	V N				
	V N				
	I FR	All <sup>5</sup>	2 HR less than 5' 1 HR less than 10' NR Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 10'
	II FR				
	III 1 HR				
	III N				
	IV HT				
	II 1 HR				
	II N				
	V 1 HR				
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OCCUPANCY GROUP <sup>4</sup>	CONSTRUCTION TYPES <sup>5</sup>	FIRE DISTRICT	EXTERIOR WALLS		OPENINGS <sup>6</sup>
			BEARING	NON BEARING	
			DISTANCES ARE TO PROPERTY LINES		
H-1 H-2 H-5 H-1 <sup>10</sup>	All  I FR II FR II 1 HR II N III 1 HR III N IV HT V 1 HR V N	Downtown - These occupancies are not permitted in the Downtown Fire District, See Section 1602(c).  Outside  Outside Outside	4 HR N/C  1 HR N/C NR N/C	NR N/C  NR N/C Same as Bearing	Not restricted <sup>11</sup>  Not restricted <sup>11</sup> Not restricted <sup>11</sup>
H-2 <sup>5,11,12</sup> H-3 <sup>11,12</sup> H-4 <sup>13</sup> H-6 H-7	I FR II FR III 1 HR III N IV HT II 1 HR	All -- H-1 occupancy is not allowed in buildings of these construction types.  All <sup>5</sup>  All <sup>5</sup>  All <sup>5</sup>	4 HR N/C  4 HR N/C less than 5' 2 HR N/C less than 10' 1 HR N/C less than 40' NR N/C Elsewhere	4 HR N/C less than 5' 2 HR N/C less than 10' 1 HR N/C less than 40' NR N/C Elsewhere	Not permitted less than 5' Protected less than 16'  Not permitted less than 5' Protected less than 16'
	II N		4 HR N/C less than 5' 2 HR N/C less than 10' 1 HR N/C Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 16'

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OCCUPANCY GROUP <sup>4</sup>	CONSTRUCTION TYPES <sup>5</sup>	FIRE DISTRICT	EXTERIOR WALLS		OPENINGS <sup>6</sup>
			BEARING	NON BEARING	
			DISTANCES ARE TO PROPERTY LINES		
H-2 <sup>5,11,12</sup> H-3 <sup>11,12</sup> H-4 <sup>13</sup> H-6 H-7 (continued)	V 1 HR	A1P	4 HR less than 5' 2 HR less than 10' 1 HR Elsewhere	4 HR less than 5' 2 HR less than 10' 1 HR less than 16' NR Elsewhere	Not permitted less than 5' Protected less than 16'
	V N	A1P	4 HR less than 5' 2 HR less than 10' 1 HR less than 16' NR Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 16'
H-5 <sup>11</sup>	I FR	Outside	4 HR N/C	4 HR N/C less than 40' 1 HR N/C less than 60' NR N/C Elsewhere	Protected less than 60'
	II FR				
	III 1 HR				
	III N				
	IV HT				
	II 1 HR				
II N	Outside	1 HR N/C less than 60' NR N/C Elsewhere	Same as Bearing	Protected less than 60'	
V 1 HR	Outside	1 HR	Same as Bearing	Protected less than 60'	
V N	Outside	1 HR less than 60' NR Elsewhere	Same as Bearing	Protected less than 60'	

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OCCUPANCY GROUP <sup>4</sup>	CONSTRUCTION TYPES <sup>5</sup>	FIRE DISTRICT	EXTERIOR WALLS		OPENINGS <sup>6</sup>
			BEARING	NON BEARING	
			DISTANCES ARE TO PROPERTY LINES		
I-1.1 I-1.2 I-2 I-3	I FR II FR	All	4 HR N/C	4 HR N/C less than 5' 2 HR N/C less than 16' 1 HR N/C less than 40' NR N/C Elsewhere	Not permitted less than 5' Protected less than 16'
I-1.1 I-1.2 I-3 <sup>14</sup>	II 1 HR	All	2 HR N/C less than 5' 1 HR N/C Elsewhere	Same as Bearing except NR, N/C 40' or more	Not permitted less than 5' Protected less than 10'
	V 1 HR	All	2 HR less than 5' 1 HR Elsewhere	Same as Bearing	Not permitted less than 5' Protected less than 10'
I-1.1 I-1.2 I-2 I-3	II N III N VN II N III N IV HT VN	All -- These occupancies are not allowed in buildings of these construction types.			
		All -- This occupancy is not allowed in buildings of these construction types.			
I-1.1 I-1.2 I-2 I-3 <sup>14</sup>	III 1 HR	All	4 HR N/C	Same as Bearing except NR, N/C 40' or more	Not permitted less than 5' Protected less than 16'
I-1.1 I-1.2 I-2	IV HT	All	4 HR N/C	Same as Bearing except NR, N/C 40' or more	Not permitted less than 5' Protected less than 16'

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OCCUPANCY GROUP <sup>4</sup>	CONSTRUCTION TYPES <sup>5</sup>	FIRE DISTRICT	EXTERIOR WALLS		OPENINGS <sup>6</sup>
			BEARING	NON BEARING	
			DISTANCES ARE TO PROPERTY LINES		
I-2	II 1 HR	All	1 HR N/C	Same as Bearing except NR, N/C 40' or more	Not permitted less than 5' Protected less than 10'
	V 1 HR	All	1 HR	Same as Bearing	Not permitted less than 5' Protected less than 10'
M-1	I FR	All	4 HR N/C	4 HR N/C less than 3'	Not permitted less than 3' Protected less than 16'
	II FR			2 HR N/C less than 16'	
	III 1 HR			1 HR N/C less than 40'	
	III N			NR N/C Elsewhere	
	IV HT				
	II 1 HR	All	1 HR N/C	Same as Bearing except NR, N/C 40' or more	Not permitted less than 3'
M-2	V 1 HR	All	1 HR	Same as Bearing	Not permitted less than 3'
	II N <sup>9</sup>	All	1 HR less than 3' <sup>15</sup> NR N/C Elsewhere	Same as Bearing	Not permitted less than 3'
	V N	All <sup>9</sup>	1 HR less than 3' <sup>15</sup> NR Elsewhere	Same as Bearing	Not permitted less than 3'
	All	All	Not regulated		

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OCCUPANCY GROUP <sup>4</sup>	CONSTRUCTION TYPES <sup>5</sup>	FIRE DISTRICT	EXTERIOR WALLS		OPENINGS <sup>6</sup>							
			BEARING	NON BEARING								
			DISTANCES ARE TO PROPERTY LINES									
R-1	I FR	All	4 HR N/C less than 3' 2 HR N/C Elsewhere	4 HR N/C less than 3' 2 HR N/C less than 16' 1 HR N/C less than 40' NR N/C Elsewhere	Not permitted less than 3' Protected less than 16'							
	II FR											
	III 1 HR											
	III N											
	IV HT											
	II 1 HR					All	1 HR N/C	Same as Bearing except NR N/C 40' or more	Not permitted less than 5'			
	II N											
	V 1 HR									All	1 HR N/C less than 5' NR N/C Elsewhere	Not permitted less than 5'
	V N											
	I FR											
II FR												
III 1 HR												
III N												
IV HT												
II 1 HR	All	1 HR N/C	Same as Bearing except NR N/C 40' or more	Not permitted less than 3'								
II N												
V 1 HR					All	1 HR N/C less than 3' NR N/C Elsewhere	Not permitted less than 3'					
V N <sup>4</sup>												
								All <sup>5</sup>	1 HR less than 3' NR Elsewhere	Not permitted less than 3' Not permitted less than 3'		

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FOOTNOTES TO TABLE 5-A

- 1 See Section 504 for types of walls affected and requirements covering percentage of openings permitted in exterior walls. For walls facing streets, yards and public ways, see also Section 1705.
- 2 For additional restrictions, see chapters under Occupancy, Fire District and Types of Construction, particularly the "03" Sections of Chapter 18 through 22.
- 3 See Sections 1801, 1901, 2003 and 2103 for allowances of fire-retardant treated wood in walls which otherwise are required to be noncombustible.
- 4 See Table 5-A-1 for detailed description of each Occupancy Group.
- 5 See Section 1602(a) for additional requirements for Types II-N, III, IV and V construction in the Downtown Fire District. Type V-N construction is prohibited in the Downtown Fire District [See Sec. 1602(b)]. Group H, Divisions 1 and 5 occupancies are prohibited in the Downtown Fire District [See Sec. 1602(c)].
- 6 Openings in exterior walls shall be protected by a fire assembly having a 3/4 hour fire protection rating.
- 7 See Section 602(c) for limitations on Group A-2.1 assembly occupancies with an occupant load in excess of 1000.
- 8 See Section 709 for limitations on Group B-3 open parking garages.
- 9 See Section 1903(a) for exceptions for Type II-N construction.
- 10 See Section 803(c) for exception for Types II-one hour, II-N and V construction.
- 11 For special provisions for Group H occupancies, see Table No. 9-C and Sections 902, 903 and 911. When a detached building is required for Group H-1, 2 or 3 occupancies, there are no requirements for wall and opening protection based on location.
- 12 No Group H-2 occupancy having a floor area exceeding 500 sq. ft. shall be permitted in the Downtown Fire District. No Group H-3 occupancy having a floor area exceeding 1,500 sq.ft. shall be permitted in the Downtown Fire District. [See Section 1602(c)].

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13 Group H-4 occupancies having a floor area not exceeding 2,500 sq.ft. may have exterior bearing walls of not less than 2 hour fire-resistive construction when less than 5 feet from a property line and not less than 1 hour when not less than 16 feet to a property line.

14 See Section 1002(b) for limitations on Group I-3 occupancies.

15 The requirement for one hour fire-resistive construction may be limited to the installation of materials approved for such on the outside only [See Section 503 and 504].

16 For B-1 Occupancies see Section 702(b)1E

1 Section 22. Table No. 5-A-1 of the Seattle Building  
2 Code, 1991 Edition, is amended as follows:

3 **TABLE NO. 5-A-1**

4

GROUP	DESCRIPTION OF OCCUPANCY
A-1	Any assembly building or portion of a building with a legitimate stage and an occupant load of 1,000 or more.
A-2	Any building or portion of a building having an assembly room with an occupant load of less than 1,000 and a legitimate stage.
A-2.1	Any building or portion of a building having an assembly room with an occupant load of 300 or more without a legitimate stage, including such buildings used for educational purposes and not classed as a group E or Group B, Division 2 Occupancy.
A-3	Any building or portion of a building having an assembly room with an occupant load of less than 300 without a legitimate stage, including such buildings used for educational purposes and not classed as Group E or Group B, Division 2 Occupancy.
A-4	Stadiums, reviewing stands and amusement park structures not included within other Group A Occupancies.
B-1	Repair garages where work is limited to exchange of parts and maintenance requiring no open flame, welding or the use of Class I, II or III-a liquids, motor vehicle fuel-dispensing stations and parking garages not classified as Group B, Division 3 open parking garages or Group M, Division 1 private garages.
B-2	Drinking and dining establishments having an occupant load of less than 50, wholesale and retail stores including liquor stores, office buildings, printing plants, police and fire stations, factories and workshops using materials not highly flammable or combustible, woodworking establishments no grater than 3,000 square feet in area, storage and sales rooms for combustible goods including liquor warehouses, paint stores without bulk handling, buildings or portions of buildings having rooms used for educational purposes beyond the 12 grade with less than 50 occupants in any room.

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TABLE NO. 5-A-1 (cont.)

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GROUP	DESCRIPTION OF OCCUPANCY
B-3	Aircraft hangars where no repair work is done except exchange of parts and maintenance requiring no open flame, welding or the use of Class II or II liquids; boat moorage, open parking garages, helistops.
B-4	Ice plants; power plants; pumping plants; cold storage; creameries; factories, workshops and shipyard structures using noncombustible and nonexplosive materials; storage and sales rooms containing only noncombustible and nonexplosive materials that are not only packages or crated in or supported by combustible material.
E-1	Any building used for educational purposes through the 12 grade or less than 50 persons for more than 12 hours per week or four hours in any one day.
E-2	Any building used for educational purposes through the 12th grade or less than 50 persons for more than 12 hours per week or four hours in any one day.
E-3	Day care centers, ( <del>mini-day-care-centers-not-in-a-family-abode</del> ) preschools, and day treatment centers.
H-1	Occupancies with a quantity of material in the building in excess of those listed in Table No. 9-A which present a high explosion hazard as listed in Sec. 901(a)
H-2	Occupancies with a quantity of material in the building in excess of those listed in Table No. 9-A which present a moderate explosion hazard from accelerated burning as listed in Sec. 901(a)
H-3	Occupancies with a quantity of material in the building in excess of those listed in Table 9-A which present a high fire or physical hazard as listed in Sec. 901(a).
H-4	Repair garages and body shops not classified as Group B, Division 1, warehouses where highly combustible materials are stored.
H-5	Aircraft repair hangars and heliports not classified as Group B, Division 3.
H-6	Semiconductor fabrication facilities and comparable research and development areas in which hazardous production materials are used and the aggregate quantity of materials are in excess of those listed in Table No. 9-A or 9-B.

TABLE NO. 5-A-1 (cont.)

GROUP	DESCRIPTION OF OCCUPANCY
H-7	Occupancies having quantities of materials in excess of those listed in Table No. 9-B that are health hazards as listed in Sec. 901(a).
I-1.1	Nurseries for the full-time care of children under the age of six (each accommodating more than 5 persons), ( <del>residential-treatment facilities-for-psychiatrically-impaired children, alcohol-detoxification-services, hospitals, psychiatric-hospitals</del> ) nursing homes with nonambulatory or mobile nonambulatory patients and similar buildings.
I-1.2	Health-care centers for ambulatory patients receiving outpatient medical care which may render the patient incapable of unassisted self-preservation (each tenant space accommodating more than 5 such patients).
I-2	Nursing homes for ambulatory patients.
I-3	Psychiatric hospitals, jails, prisons, reformatories and buildings where personal liberties of inmates or patients are similarly restrained.
M-1	Private garages, carports, sheds and agricultural buildings.
M-2	Fences over 6 feet high, tanks and towers.
R-1	Hotels and apartment houses, congregate residences (each accommodating more than 10 persons), one or two dwelling units located in a mixed occupancy building( <del>(7-alcoholism intensive-inpatient-treatment-services, alcoholism-recovery-house-services, alcoholism long-term-treatment-services, adult-residential treatment-facilities, group-care-facilities-and semi-secure-facilities, boarding-homes, maternity-homes-and-buildings-or-portions thereof-which-provide-a-maternity-service)</del> )).
R-3	Lodging houses, detached one- and two-family dwellings, congregate residences (each accommodating 10 persons or less), ( <del>foster family-homes-including-and-limited-to-family homes-for-adults, foster-family-homes-for children-or-expectant-mothers,</del> ) family child day care homes( <del>(7-and-private-adult-treatment homes)</del> )).
R-4	<u>Residential group care facilities for ambulatory, nonrestrained persons who may have a mental or physical impairment (each accommodating more than five and not more than 16 clients or residents, excluding staff).</u>

TABLE NO. 5-A-1 (cont.)

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**GROUP                      DESCRIPTION OF OCCUPANCY**

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R-5                      Residential group care facilities for semi-ambulatory and non-ambulatory nonrestrained persons who have a mental or physical impairment (each accommodating more than five and not more than 16 clients or residents, excluding staff).

Section 23. Table No. 5-B of the Seattle Building Code, 1991 Edition, is amended as follows:

TABLE NO. 5-B—REQUIRED SEPARATION IN BUILDINGS OF MIXED OCCUPANCY<sup>1</sup>  
(in Hours)

	A-1	A-2	A-2.1	A-3	A-4	B-1	B-2	B-3 <sup>(2)</sup>	B-4	E	H-1	H-2	H-3	H-4-5	H-6-7 <sup>3</sup>	M <sup>(4)</sup>	R-1	R-3	
A-1		N	N	N	N	4	3	3	3	N		4	4	4	4	1	1	1	
A-2	N		N	N	N	3	1	1	1	N		4	4	4	4	1	1	1	
A-2.1	N	N		N	N	3	1	1	1	N		4	4	4	4	1	1	1	
A-3	N	N	N		N	3	N	1	1	N		4	4	4	3	1	1	1	
A-4	N	N	N	N		3	1	1	1	N		4	4	4	4	1	1	1	
B-1	4	3	3	3	3		1	1	1	3		2	1	1	1	4	3	1	
B-2	3	1	1	N	1	1		1	1	1		2	1	1	1	2	1	1	
B-3 <sup>(4)</sup>	3	1	1	1	1	1	1		1	1		2	1	1	1	3	1	1	
B-4	3	1	1	1	1	1	1	1		1		2	1	1	1	4	N	1	
E	N	N	N	N	N	3	1	1	1			4	4	4	3	1	1	1	
H-1	Not Permitted in Mixed Occupancies. See Chapter 9.																		
H-2	4	4	4	4	4	2	2	2	2	4			1	1	2	4	1	4	4
H-3	4	4	4	4	4	1	1	1	1	4		1		1	1	4	1	3	3
H-4-5	4	4	4	4	4	1	1	1	1	4		1	1		1	4	1	3	3
H-6-7 <sup>2</sup>	4	4	4	3	4	1	1	1	1	3		2	1	1	4	3	4	4	4
I	3	3	3	2	3	4	2	3	4	1		4	4	4	4	1	1	1	1
M <sup>3</sup>	1	1	1	1	1	1	1	1	N	1		1	1	1	3	1		1	1
R-1	1	1	1	1	1	3	1	1	1	1		4	3	3	4	1	1	N	N
R-3	1	1	1	1	1	1	1	1	1	1		4	3	3	4	1	1	N	N

<sup>1</sup>For detailed requirements and exceptions, see Section 503.

<sup>2</sup>Not Permitted in Mixed Occupancies. See Chapter 9.

<sup>3</sup>For special provisions on highly toxic materials, see Fire Code.

<sup>4</sup>For agricultural buildings, see also Appendix Chapter 11.

1 Section 24. Table No. 5-E of the Seattle Building Code,  
 2 1991 Edition, is amended as follows:

3 TABLE NO. 5-E - RATING OF OCCUPANCIES BY DEGREE OF HAZARD

4 CLASSIFICATION OF HAZARDS

5 A. Life Hazard Based on Possible Mortality  
 Due to Occupancy, if Fire Occurs:

Minimum Hazard	-1
Minor Hazard	-2
Average Hazard	-3
Serious Hazard	-4
Maximum Hazard	-5

6 B. Fire Hazard Based on Possible Generating Fire  
 Due to Occupancy

Noncombustible	-1
Slow Burning	-2
Moderate Burning	-3
Free Burning	-4
Quick Burning	-5
Intense Burning	-6
Flash Burning or Explosive	-7

Occupancy	Occupancy Classification	Life Hazard Rating	Fire Hazard Rating	Combined Rating
Occupancies with a quantity of material in the building in excess of those listed in Table No. 9-A which present a high explosion hazard. See Sec. 901(a).	H-1	5	7	35
Occupancies with a quantity of material in the building in excess of those listed in Table No. 9-A which present a moderate explosion hazard or a hazard from accelerated burning. See Sec. 901(a).	H-2	4	7	28
Occupancies with a quantity of material in the building in excess of those listed in Table No. 9-A which present a high fire or physical hazard. See Sec. 901(a).	H-3	4	5	20
Any assembly building or portion of a building with a legitimate stage and an occupant load of 1,000 or more	A-1	4	4	16
Any building or portion of a building having an assembly room with an occupant load of less than 1,000 and a legit. stage	A-2	4	4	16
Any building or portion of a building having an assembly room with an occupant load of 300 or more without a legitimate stage, including such buildings used for educational purposes and not classed as Group E or B-2	A-2.1	4	4	16
Psychiatric hospitals where personal liberties of patients are restrained	I-3	5	3	15
Boarding homes, maternity homes and buildings or portions thereof which provide a maternity service	R-1	5	3	15
Alcohol detoxification services	I-1.1	5	3	15

16 TABLE NO. 5-E - RATING OF OCCUPANCIES BY DEGREE OF HAZARD (continued)

Occupancy	Occupancy Classification	Life Hazard Rating	Fire Hazard Rating	Combined Rating
Nurseries for the full time care of children under the age of six (each accommodating more than five persons), hospitals, psychiatric hospitals, nursing homes with non-ambulatory or mobile nonambulatory patients	I-1.1	5	3	15
Woodworking establishments in excess of 3,000 square feet	H-3	3	5	15
Semiconductor fabrication facilities and comparable research and development areas in which hazardous production materials are used and the aggregate quantity of materials are in excess of those listed in Table No. 9-A or 9-B. See Sec. 901(a)	H-6	2	7	14
Warehouses where highly combustible materials are stored	H-4	2	7	14
Any building used for educational purposes through the 12th grade by 50 or more persons for more than 12 hours per week or four hours in any one day	E-1	4	3	12
Any building used for educational purposes through the 12th grade by less than 50 persons for more than 12 hours per week or 4 hours in any one day	E-2	4	3	12
Day care centers, ( <del>mini-day care centers not in a family-abode</del> ), preschools and day care treatment centers	E-3	4	3	12
Any building or portion of a building having an assembly room with an occupant load of less than 300 without a legitimate stage, including such buildings used for educational purposes and not classed as Group E or Group B, Division 2 Occupancy	A-3	3	4	12
Adult residential treatment facilities, group care facilities and semisecure facilities	R-1	4	3	12
Residential treatment facilities for psychiatrically impaired children	I-1.1	4	3	12
Nursing homes for ambulatory patients	I-2	4	3	12
Health-care centers for ambulatory patients receiving out-patient medical care which may render the patient incapable of unassisted self-preservation.	I-1.2	4	3	12
Wholesale and retail stores	B-2	3	4	12
Aircraft repair hangars	H-5	2	5	10

TABLE NO. 5-E - RATING OF OCCUPANCIES BY DEGREE OF HAZARD (continued)

Occupancy	Occupancy Classification	Life Hazard Rating	Fire Hazard Rating	Combined Rating
Drinking and dining establishments with an occupant load of less than 50; printing plants, factories and workshops using materials not highly flammable or combustible; wood-working establishments no greater than 3000 square feet	B-2	3	3	9
Hotels, congregate residences (each accommodating more than 10 persons) alcoholism intensive inpatient treatment services, alcoholism recovery house services, alcoholism long-term treatment services	R-1	3	3	9
Boatyard structures	H-3	2	4	8
Repair garages and body shops not classified as Group B, Division 1	H-4	2	4	8
Motor vehicle fuel-dispensing stations, garages where no repair work is done except exchange of parts and maintenance requiring no open flame, welding or the use of Class I, II or III-A liquids	B-1	2	4	8
Stadiums, reviewing stands and amusement park structures not included within other Group A occupancies	A-4	2	3	6
Occupancies having quantities of materials in excess of those listed in Table No. 9-B that are health hazards. See Sec. 901(a).	H-7	2	3	6
Jails, prisons, reformatories and buildings where personal liberties of inmates are similarly restrained	I-3	3	2	6
Aircraft hangars where no repair work is done except exchange of parts and maintenance requiring no open flame, welding or use of Class I or II liquids; open parking garages; helistops; boat moorages	B-3	2	3	6

TABLE NO. 5-E - RATING OF OCCUPANCIES BY DEGREE OF HAZARD (continued)

Occupancy	Occupancy Classification	Life Hazard Rating	Fire Hazard Rating	Combined Rating
Apartment houses, one or two dwelling units located in a mixed occupancy building	R-1	3	2	6
Lodging houses, detached one- and two-family dwellings, congregate residences (each accommodating 10 or fewer persons), foster family homes, private adult treatment homes, family child day care home	R-3	3	2	6
Storage and sales rooms for combustible goods, paint stores without bulk handling, liquor stores and warehouses	B-2	1	5	5
Power plants, pumping plants, ice plants	B-4	1	5	5
Factories and workshops using noncombustible and nonexplosive materials, shipyard structures	B-4	1	4	4
Fire and police stations, office buildings	B-2	2	2	4
Buildings, or portions of buildings, having rooms used for educational purposes beyond 12th grade with less than 50 occupants in any room	B-2	2	2	4
Private garages, carports, sheds and agricultural buildings	M-1	1	4	4
Cold storage, creameries, storage and sales rooms for non-combustible and nonexplosive materials	B-4	1	3	3
Fences over six feet high, tanks and towers	M-2	1	1	1

1 Section 25. Subsection 604(a) of the Seattle Building  
2 Code, 1991 Edition, is amended as follows:

3 **Sec 604. (a) General.** Exits shall be provided as specified  
4 in Chapter 33. (For special existing requirements, see also  
5 Section 3317.) Access to, and egress from, buildings  
6 required to be accessible shall be provided as specified in  
7 the Washington State Building Code Chapter 31, 51-20-3100  
8 Washington Administrative Code and Appendix Chapter 31, 51-  
9 20-93100 ((Regulations-for-Barrier-Free-Facilities,-Chapter  
10 51-10)) Washington Administrative Code

11 Section 26. Subsection 702(b) of the Seattle Building  
12 Code, 1991 Edition is amended as follows:

13 (b) **Special Provisions.** 1. **Group B, Division 1 with**  
14 **Group A, Division 3; Group B, Division 2; or Group R,**  
15 **Division 1 Occupancy above.** Other provisions of this code  
16 notwithstanding, a basement or first story of a building may  
17 be considered as a separate and distinct building for the  
18 purposes of area limitations, limitation of number of stories  
19 and type of construction, when all of the following  
20 conditions are met:

21 A. The basement or first story is of Type I construction  
22 and is separated from the building above with a three-hour  
23 occupancy separation.

24 B. The building above the three-hour occupancy separation  
25 contains only Group A, Division 3; Group B, Division 2; or  
26 Group R, Division 1 Occupancies.

27 C. The building below the three-hour occupancy separation  
28 is used exclusively for the storage of private or pleasure-  
type motor vehicles.

**EXCEPTIONS:** 1. Entry lobbies, laundry rooms,  
mechanical rooms and similar uses incidental to the  
operation of the building.

2. Group A, Division 3 and Group B, Division 2 office  
and retail occupancies in addition to those incidental  
to the operation of the building (including storage  
areas) provided that the entire structure below the  
three-hour occupancy separation is protected  
throughout by an automatic sprinkler system.

D. The maximum building height in feet shall not exceed  
the limits set forth in Table No. 5-D for the least type of  
construction involved.

**EXCEPTION:** When the upper building is of Type V-One  
hour construction, the height may be measured from the  
three hour occupancy separation provided the building,  
above and below the separation, is protected  
throughout by an automatic sprinkler system designed  
to U.B.C. Standard No. 38-1 (NFPA 13).

E. Exterior walls on floors in the Type I building may  
have opening protection as required for the building above

1 the three-hour occupancy separation, provided the following  
2 criteria are met:

3 1. The floor contains a Group B, Division 1 parking  
4 garage;

5 and

6 2. The floor is protected by an automatic sprinkler system  
7 conforming to U.B.C. Standard No. 38-1.

8 **2. Group B, Division 1 with Group B, Division 3 Occupancy**  
9 **above.** Other provisions of this code notwithstanding, a  
10 Group B, Division 1 Occupancy, located in the basement or  
11 first story below a Group B, Division 3 open parking garage,  
12 as defined in Section 709, may be classified as a separate  
13 and distinct building for the purpose of determining the type  
14 of construction when all of the following conditions are met:

15 A. The allowable area of the structure shall be such that  
16 the sum of the ratios of the actual area divided by the  
17 allowable area for each separate occupancy shall not exceed  
18 1.

19 B. The Group B, Division 1 Occupancy is of Type I or II  
20 construction and is at least equal to the fire resistance of  
21 the Group B, Division 3 Occupancy.

22 C. The height and the number of the tiers above the  
23 basement shall be limited as specified in Table No. 7-A or  
24 Section 709(e).

25 D. The floor-ceiling assembly separating the Group B,  
26 Division 1 and Group B, Division 3 Occupancies shall be  
27 protected as required for the floor-ceiling assembly of the  
28 Group B, Division 3 Occupancies, except exit openings, need  
not be protected.

E. The Group B, Division 1 Occupancy is used exclusively  
for the parking or storage for private or pleasure-type motor  
vehicles but may contain (a) mechanical equipment rooms  
incidental to the operation of the building and (b) an  
office, and waiting and toilet rooms having a total area of  
not more than 1,000 square feet.

Section 27. Section 704 of the Seattle Building Code,  
1991 Edition, is amended as follows:

#### ACCESS AND EXIT FACILITIES

**Sec. 704.** Exits shall be provided as specified in Chapter  
33. [For special requirements see Section 3317. See also  
Section 702(b) for exits from laboratories.]

Access to, and egress from, buildings required to be  
accessible shall be provided as specified in the Washington  
State Building Code Chapter 31, 51-20-3100 Washington  
Administrative Code and Appendix Chapter 31, 51-20-93100  
((Regulations-for-Barrier-Free-Facilities,-Chapter-51-10))  
Washington Administrative Code.

1 Section 28. Section 801 of the Seattle Building Code,  
2 1991 Edition, is amended as follows:

3 **GROUP E OCCUPANCIES DEFINED**

4 **Sec. 801.** Group E Occupancies shall be:

5 **Division 1.** Any building used for educational purposes  
6 through the 12th grade by 50 or more persons for more than 12  
7 hours per week or four hours in any one day.

8 **Division 2.** Any building used for educational purposes  
9 through the 12th grade by less than 50 persons for more than  
10 12 hours per week or four hours in any one day.

11 **Division 3.** Child day care centers, (~~mini-day-care~~  
12 ~~centers-not-in-a-family-abode~~) preschools, and day  
13 treatment centers.

14 **EXCEPTION:** Family child day-care homes shall be  
15 considered Group R, Division 3 Occupancies.

16 For occupancy separations, see Table No. 5-B.

17 Section 29. Section 804 of the Seattle Building Code,  
18 1991 Edition, is amended as follows:

19 **ACCESS AND EXIT FACILITIES**

20 **Sec. 804.** Exits shall be provided as specified in Chapter  
21 33. [For special provisions see Sections 3317 and 3318. See  
22 Section 802(d) for exits from laboratories.]

23 Access to, and egress from, buildings required to be  
24 accessible shall be provided as specified in the Washington  
25 State Building Code Chapter 31, 51-20-3100 Washington  
26 Administrative Code and Appendix Chapter 31, 51-20-93100  
27 ((Regulations-for-Barrier-Free-Facilities,-Chapter-51-10))  
28 Washington Administrative Code.

Section 30. Subsection 901(a) of the Seattle Building  
Code, 1991 Edition, is amended as follows:

**GROUP H OCCUPANCIES DEFINED**

**Sec. 901.** (a) **General.** For definitions, identification and  
control of hazardous materials, display of nonflammable solid  
and nonflammable or noncombustible liquid hazardous materials  
in Group B, Division 2 Occupancies see the Fire Code. For  
restrictions of H Group Occupancies in the Downtown Fire  
District, see Chapter 16.

**Division 1.** Occupancies with a quantity of material in the  
building in excess of those listed in Table No. 9-A, which  
present a high explosion hazard, including but not limited  
to:

1. Explosives, blasting agents, fireworks and black powder.

1           **EXCEPTION:** Storage and the use of pyrotechnic special  
2 effect materials in motion picture, television,  
3 theatrical and group entertainment production when under  
4 permit as required in the Fire Code. The time period  
5 for storage shall not exceed 90 days.

- 6
- 7           2. Unclassified detonatable organic peroxides.
  - 8           3. Class 4 oxidizers.
  - 9           4. Class 4 or Class 3 detonatable unstable (reactive)  
10 materials.

11           **Division 2.** Occupancies with a quantity of material in the  
12 building in excess of those listed in Table No. 9-A, which  
13 present a moderate explosion hazard or a hazard from  
14 accelerated burning, including, but not limited to:

- 15           1. Class I organic peroxides.
- 16           2. Class 3 nondetonatable unstable (reactive) materials.
- 17           3. Pyrophoric gases.
- 18           4. Flammable or oxidizing gases.
- 19           5. Class I, II or III-A flammable or combustible liquids  
20 which are used in normally open containers or systems or  
21 in closed containers pressurized at more than 15-pounds-  
22 per-square-inch gauge.

23           **EXCEPTION:** Aerosols.

- 24           6. Combustible dusts in suspension or capable of being put  
25 into suspension in the atmosphere of the room or area.

26           **EXCEPTIONS:** 1. Rooms or areas used for woodworking,  
27 which are not greater than 3,000 square feet in area may  
28 be classified as a Group B, Division 2 Occupancy.

          2. Lumberyards and similar retail stores utilizing  
only power saws may be classified as Group B, Division 2  
Occupancies.

          The building official may revoke the use of these  
exceptions for due cause.

7. Class 3 oxidizers.
8. Class 3 water-reactives.

**Division 3.** Occupancies with a quantity of material in the  
building in excess of those listed in Table No. 9-A, which  
present a high fire or physical hazard, including, but not  
limited to:

1. Class II, III or IV organic peroxides.
2. Class 1 or 2 oxidizers.
3. Class I, II or III-A flammable liquids or combustible  
liquids which are utilized or stored in normally closed  
containers or systems and containers pressurized at 15-  
pounds-per-square-inch gauge or less and aerosols.

- 1 4. Class III-B combustible liquids.
- 2 5. Pyrophoric liquids or solids.
- 3 6. Class 1 and 2 ((W)) water reactives.
- 4 7. Flammable solids, including combustible fibers or dusts,  
except for dusts included in Division 2 Occupancies.
- 5 8. Flammable or oxidizing cryogenic fluids (other than  
inert).
- 6 9. Class 1 unstable (reactive) gas or Class 2 unstable  
7 (reactive) materials.
- 8 10. Boatyard structures.

9 **Division 4.** Repair garages and body shops not classified  
as Group B, Division 1 Occupancies.

10 Warehouses where highly combustible materials are stored.

11 **Division 5.** Aircraft repair hangars and heliports not  
classified as Group B, Division 3 Occupancies.

12 **Division 6.** Semiconductor fabrication facilities and  
13 comparable research and development areas in which hazardous  
14 production materials (HPM) are used and the aggregate  
15 quantity of materials are in excess of those listed in Table  
No. 9-A or 9-B. Such facilities and areas shall be designed  
and constructed in accordance with Section 911.

16 **Division 7.** Occupancies having quantities of materials in  
excess of those listed in Table No. 9-B that are health  
hazards, including:

- 17 1. Corrosives.
- 18 2. Toxic and highly toxic materials.

19 ~~((3--Irritants--))~~

20 **Section 31.** Subsection 902(g) of the Seattle Building  
Code, 1991 Edition, is amended as follows:

21 **Sec 902. (g) Standby Power.** A ((S)) standby power system  
22 shall be provided for required mechanical exhaust  
23 ventilation, treatment, temperature control, liquid-level  
limit control, pressure control, alarm, and detection or  
24 other required electrically operated systems in Group H,  
Division 1, ((and)) 2, and 3 Occupancies and in Group H,  
25 Division ((3)) 7 Occupancies in which ~~((Class I7-II7-er-III~~  
~~organic-peroxides-are-stored-))~~ there is use or storage of  
corrosives, highly toxic solids and liquids. For required  
26 systems, see the Fire Code. The standby power system shall  
be designed and installed in accordance with Article 701-11  
27 (a), (b), (c) or (f) of the Electrical Code to automatically  
supply power to the electrically operated systems listed  
28 above ((all-electrical-equipment)) when the normal electrical  
supply system is interrupted. If the building official  
approves at the predesign conference, the standby power

1 accordance with Article 701-11 (d),(e) of the Electrical  
2 Code.

3 Section 32. Subsection 902(h) of the Seattle Building  
4 Code, 1991 Edition, is amended as follows:

5 **Sec. 902. (h) Emergency Power.** An emergency power system  
6 shall be provided for required mechanical exhaust  
7 ventilation, treatment, temperature control, liquid-level  
8 limit control, pressure control, alarm and detection or other  
9 required electrically operated systems in Group H, Division  
10 ((s) 6 ((and-7)) Occupancies, and in Group H, Division 7  
11 Occupancies in which highly toxic or toxic gasses are stored  
12 or used. For required systems, see the Fire Code. The  
13 emergency power system shall be designed and installed in  
14 accordance with Article 700-12 (a), (b), (c) or (f) of the  
15 Electrical Code to automatically supply power to the  
16 electrically operated systems listed above ((all-required  
17 electrical-equipment)) when the normal electrical supply  
18 system is interrupted. If the building official approves at  
19 the predesign conference, the emergency power system may be  
20 designed and installed in accordance with Article 700-12 (d),  
21 (e) of the Electrical Code.

22 ~~((The-exhaust-system-may-be-designed-to-operate-at-not-less~~  
23 ~~than-one-half-the-normal-fan-speed-on-the-emergency-power~~  
24 ~~system-when-it-is-demonstrated-that-the-level-of-exhaust-will~~  
25 ~~maintain-a-safe-atmosphere-))~~

26 Section 33. Section 904 of the Seattle Building Code,  
27 1991 Edition, is amended as follows:

#### 28 ACCESS AND EXIT FACILITIES

**Sec. 904.** Exits shall be provided as specified in Chapter  
33. (For special provisions see Section 3317 and 3319.)

Access to, and egress from, buildings required to be  
accessible shall be provided as specified in the Washington  
State Building Code Chapter 31, 51-20-3100 Washington  
Administrative Code and Appendix Chapter 31-51-20-93100  
((Regulations-for-Barrier-Free-Facilities,-Chapter-51-10))  
Washington Administrative Code.

Section 34. Table 9-B of the Seattle Building Code, 1991 Edition, is amended as follows:

TABLE NO. 9-B—EXEMPT AMOUNTS OF HAZARDOUS MATERIALS, LIQUIDS AND CHEMICALS PRESENTING A HEALTH HAZARD

MAXIMUM QUANTITIES PER CONTROL AREA<sup>1,2</sup>  
When two units are given, values within parentheses are in pounds (Lbs.)

MATERIAL	STORAGE <sup>3</sup>				USE <sup>3</sup> —CLOSED SYSTEMS			USE <sup>3</sup> —OPEN SYSTEMS	
	Solid Lbs. <sup>4,5,6</sup>	Liquid Gallons <sup>4,5,6</sup> (Lbs.)	Gas Cu. Ft. <sup>5</sup>	Solid Lbs. <sup>4,5</sup>	Liquid Gallons <sup>4,5</sup> (Lbs.)	Gas Cu. Ft.	Solid Lbs. <sup>4,5</sup>	Liquid Gallons <sup>4,5</sup> (Lbs.)	
1. Corrosives	5,000	500	650 <sup>6</sup>	5,000	500	650 <sup>5,6</sup>	1,000	100	
2. Highly Toxics <sup>8</sup>	1	(1)	20 <sup>7</sup>	1	(1)	20 <sup>7</sup>	1/4	(1/4)	
3. Irritants	5,000	500	650 <sup>6</sup>	5,000	500	650 <sup>5,6</sup>	1,000	100	
4. Sensitizers	5,000	500	650 <sup>6</sup>	5,000	500	650 <sup>5,6</sup>	1,000	100	
5. Other Health Hazards	5,000	500	650 <sup>6</sup>	5,000	500	650 <sup>5,6</sup>	1,000	100	
6. Toxics	500	(500)	650 <sup>6</sup>	500	(500)	20 <sup>5,7</sup>	125	(125)	

<sup>1</sup>Control area is a space bounded by not less than one-hour fire-resistive occupancy separation within which the exempted amounts of hazardous materials may be stored, dispensed, handled or used. The number of control areas within retail and wholesale stores shall not exceed two and the number of control areas in other uses shall not exceed four.

<sup>2</sup>The quantities of medicines, foodstuffs and cosmetics, containing not more than 50 percent by volume of water-miscible liquids and with the remainder of the solutions not being flammable, in retail sales uses are unlimited when packaged in individual containers not exceeding 4 liters.

<sup>3</sup>The aggregate quantity in use and storage shall not exceed the quantity listed for storage.

<sup>4</sup>The aggregate quantity of nonflammable solid and nonflammable or noncombustible liquid health hazard materials within a single control area of Group B, Division 2 Occupancies used for retail sales may exceed the exempt amounts when such areas are in compliance with the Fire Code.

<sup>5</sup>Quantities may be increased 100 percent in sprinklered buildings. When Footnote No. 6 also applies, the increase for both footnotes may be applied.

<sup>6</sup>Quantities may be increased 100 percent when stored in approved storage cabinets, gas cabinets, fume hoods, exhausted enclosures or safety cans as specified in the Fire Code. When Footnote No. 5 also applies, the increase for both footnotes may be applied.

<sup>7</sup>Permitted only when stored in approved exhausted gas cabinets, exhausted enclosures or fume hoods.

<sup>8</sup>For special provisions, see the Fire Code.

1           Section 35. Section 1001 of the Seattle Building Code,  
2 1991 Edition, is amended as follows:

3 **GROUP I OCCUPANCIES DEFINED**

4       **Sec. 1001.** Group I Occupancies shall be:

5       **Division 1.1:** Nurseries for the full-time care of children  
6 under the age of six (each accommodating more than five  
7 persons). Residential treatment facilities for  
8 psychiatrically impaired children.

9       Hospitals, psychiatric hospitals, nursing homes with  
10 nonambulatory or mobile nonambulatory patients and similar  
11 buildings.

12       ~~((Alcoholism-treatment-facilities-providing-alcohol  
13 detoxification-services-(for-the-purposes-of-this-code-these  
14 facilities-shall-be-regulated-the-same-as-hospitals)-))~~

15       **Division 1.2:** Health-care centers for ambulatory patients  
16 receiving outpatient medical care which may render the  
17 patient incapable of unassisted self-preservation. (Each  
18 tenant space accommodating more than five such patients.)

19       **Division 2:** Nursing homes for ambulatory patients.

20       **Division 3:** Psychiatric hospitals, jails, prisons,  
21 reformatories and buildings where personal liberties of  
22 inmates or patients are similarly restrained.

23       For occupancy separations see Table No. 5-B.

24       **EXCEPTIONS:** 1. Group I Occupancies shall not include  
25 buildings used only for private residential purposes for  
26 a family group.

27       2. One-story nursing homes accommodating 15 or fewer  
28 ambulatory or mobile ambulatory developmentally disabled  
persons shall be classified as a Group R, Division 1  
Occupancy.

Section 36. Section 1004 of the Seattle Building Code,  
1991 Edition, is amended as follows:

**ACCESS AND EXIT FACILITIES**

**Sec. 1004.** Exits shall be provided as specified in Chapter  
33. (For special provisions see Sections 3317 and 3320.)

Access to, and egress from, buildings required to be  
accessible shall be provided as specified in the Washington  
State Building Code Chapter 31, 51-20-3100 Washington  
Administrative Code and Appendix Chapter 31, 51-20-93100  
~~((Regulations-for-Barrier-Free-Facilities,-Chapter-51-10))~~  
Washington Administrative Code.

1 Section 37. Section 1201 of the Seattle Building Code,  
2 1991 Edition, is amended as follows:

3 **PART I**

4 **GROUP R OCCUPANCIES DEFINED**

5 **Sec. 1201.** Group R Occupancies shall be:

6 **Division 1.** Hotels and apartment houses.

7 Congregate residences (each accommodating more than 10  
8 persons).

9 One or two dwelling units located in a mixed occupancy  
10 building except where the only other occupancy is Group M,  
11 Division 1. (For the purposes of this code, these dwellings  
12 shall be regulated the same as apartment houses.)

13 ~~((Alcoholism-treatment-facilities-which-provide-intensive  
14 inpatient-services,-recovery-house-services,-or-long-term  
15 treatment-services---(For-the-purposes-of-this-code,-these  
16 facilities-shall-be-regulated-the-same-as-hotels-)))~~

17 ~~((Boarding-homes,-adult-residential-treatment-facilities,  
18 group-care-facilities-and-semisecure-facilities-))~~

19 ~~((Maternity-homes-and-buildings-or-portions-thereof-which  
20 provide-a-maternity-service-))~~

21 **Division 2.** Not used.

22 **Division 3.** Lodging houses, detached one- and two-family  
23 dwellings.

24 Congregate residences (each accommodating 10 persons or  
25 less).

26 ~~((Foster-family-homes-including-and-limited-to-family-homes  
27 for-adults,-foster-family-homes-for-children-or-expectant  
28 mothers-))~~

Family child day care homes.

29 ~~((Private-adult-treatment-homes-))~~

For occupancy separations, see Table No. 5-B.

30 **Division 4.** Residential group care facilities for  
31 ambulatory, nonrestrained persons who may have a mental or  
32 physical impairment (each accommodating more than five and  
33 not more than 16 clients or residents, excluding staff).

34 **Division 5.** Residential group care facilities for semi-  
35 ambulatory and non-ambulatory nonrestrained persons who have  
36 a mental or physical impairment (each accommodating more than  
37 five and not more than 16 clients or residents, excluding  
38 staff).

For Division 4 and Division 5 Occupancies, see Part II of  
this chapter.

1 Section 38. Section 1204 of the Seattle Building Code,  
2 1991 Edition, is amended as follows:

3 **ACCESS AND EXIT FACILITIES AND EMERGENCY ESCAPES**

4 **Sec. 1204.** Exits shall be provided as specified in Chapter  
5 33. (See also Section 3317 for special requirements and  
6 Section 3314 for exit markings.)

7 **EXCEPTION:** Only one exit door from a family child day  
8 care home need comply with the requirements of Section  
9 3304 (b).

10 ~~((Exit-requirements-for-boarding-homes-shall-be-as  
11 specified-for-a-Group-I,-Division-2-Occupancy-))~~

12 Access to, and egress from, buildings required to be  
13 accessible shall be provided as specified in the Washington  
14 State Building Code Chapter 31, 51-20-3100 Washington  
15 Administrative Code and Appendix Chapter 31, 51-20-93100  
16 ~~((Regulations-for-Barrier-Free-Facilities,-Chapter-51-10))~~  
17 Washington Administrative Code.

18 Basements in dwelling units and every sleeping room below  
19 the fourth story shall have at least one operable window or  
20 door approved for emergency escape or rescue which shall open  
21 directly into a public street, public alley, yard or exit  
22 court. The window or door shall be operable from the inside  
23 to provide a full clear opening without the use of separate  
24 tools.

25 All escape or rescue windows shall have a minimum net clear  
26 openable area of 5.7 square feet. The minimum net clear  
27 openable height dimension shall be 24 inches. The minimum  
28 net clear openable width dimension shall be 20 inches. When  
windows are provided as a means of escape or rescue they  
shall have a finished sill height not more than 44 inches  
above the floor.

Bars, grilles, grates or similar devices may be installed  
on emergency escape or rescue windows or doors, provided:

1. The devices are equipped with approved release  
mechanisms which are operable from the inside without the use  
of a key or special knowledge or effort; and

2. The building is equipped with smoke detectors installed  
in accordance with Section 1210.

23 Section 39. Section 1214 of the Seattle Building Code,  
24 1991 Edition, is amended as follows:

25 **FAMILY CHILD DAY CARE HOMES**

26 **Sec. 1214.** For family child day care homes with more than  
27 six children, each floor level used for family child day care  
28 purposes shall be served by two remote exits. Outside exit  
doors shall be operable from the inside without the use of  
keys or any special knowledge or effort.

1 Basements (~~with-exit-discharge~~) located more than four  
2 feet below grade level shall not be used for family child day  
3 care homes unless one of the following conditions exist:

4 A. Exit stairways from the basement open directly to the  
5 exterior of the building without entering the first floor; or

6 B. One of the two required exits discharges directly to the  
7 exterior from the basement level, and a self-closing door is  
8 installed at the top or bottom of the interior stair leading  
9 to the floor above; or

10 C. One of the two required exits is an operable window or  
11 door, approved for emergency escape or rescue, that opens  
12 directly to a public street, public alley, yard or exit court  
13 is provided; or

14 D. A residential sprinkler system is provided throughout  
15 the entire building in accordance with National Fire  
16 Protection Association Standard 13D.

17 Floors (~~with-exit-discharge~~) located more than four feet  
18 above grade level shall not be occupied by children in family  
19 child day care homes.

20 **EXCEPTIONS:** 1. Use of toilet facilities while under  
21 supervision of an adult staff person.

22 2. Family child day care homes may be allowed on the  
23 second story if one of the following conditions exist:

24 A. Exit stairways from the second story open directly  
25 to the exterior of the building without entering  
26 the first floor; or

27 B. One of the two required exits discharges directly  
28 to the exterior from the second story level, and a  
self-closing door is installed at the top or  
bottom of the interior stair leading to the floor  
below; or

C. A residential sprinkler system is provided  
throughout the entire building in accordance with  
National Fire Protection Association Standard 13D.

Every sleeping or napping room in a family child day care  
home shall have at least one operable window for emergency  
rescue.

**EXCEPTION:** Sleeping or napping rooms having doors  
leading to two separate exit ways, or a door leading  
directly to the exterior of the building.

Rooms or spaces containing a commercial-type cooking  
kitchen, boiler, maintenance shop, janitor closet, laundry,  
woodworking shop, flammable or combustible storage, or  
painting operation shall be separated from the family child  
day care area by at least one-hour fire-resistive  
construction.

**EXCEPTION:** A fire-resistive separation shall not be  
required where the food preparation kitchen contains  
only a domestic cooking range, and the preparation of

1 food does not result in the production of smoke or  
grease laden vapors.

2 For restrictions on the installation of warm-air furnaces  
3 in bedrooms, bathrooms or closets, see Section 704 of the  
Mechanical Code.

4 Section 40. The Seattle Building Code, 1991 Edition, is  
5 amended by adding Part II to Chapter 12 as follows:

6 **PART II**

7 **REQUIREMENTS FOR GROUP R, DIVISION 4 AND DIVISION 5  
8 OCCUPANCIES -- LONG TERM RESIDENTIAL CARE**

8 **GENERAL**

9 **Sec. 1217. (a) Purpose.** The purpose of Part II is to  
10 provide minimum standards of safety for group care facilities  
licensed by the State.

11 **(b) Scope. 1. General.** The provisions of Part II shall  
12 apply to buildings or portions thereof that are to be used  
for Group R, Division 4 and Division 5 Occupancies.

13 **2. Applicability of other provisions.** Except as  
14 specifically required by this division, Group R, Division 4  
and Division 5 Occupancies shall meet all applicable  
15 provisions of Part II. Group R, Division 4 and Division 5  
Occupancies need not be accessible to people with  
disabilities.

16 **(c) Definitions.** For the purpose of Part II, certain  
terms are defined as follows:

17 **AMBULATORY PERSONS** means persons physically and mentally  
18 capable of walking or traversing a normal path to safety,  
including the ascent and descent of stairs, and capable of  
self-preservation, without the physical assistance of another  
19 person.

20 **NON-AMBULATORY PERSONS** means persons physically or mentally  
unable to walk or traverse a normal path to safety without  
the physical assistance of another person.

21 **SEMI-AMBULATORY PERSONS** means persons physically and  
22 mentally capable of traversing a normal path to safety with  
the use of mobility aids, but unable to ascend or descend  
23 stairs without the physical assistance of another person.

24 **SEPARATE EXIT SYSTEM** is a path of exit travel separated in  
such a manner from other required exits as to provide an  
atmospheric separation which precludes contamination of both  
25 paths by the same fire.

26 **CONSTRUCTION, HEIGHT AND ALLOWABLE AREA**

27 **Sec. 1218. (a) General.** Buildings or portions of  
buildings classified as Group R, Division 4 or Division 5  
shall meet the same construction, height and allowable area  
28 requirements as required for a Group R, Division 1 Occupancy.

1 (b) **Special Provisions.** 1. Residential or quick response  
2 standard sprinkler heads shall be used in all sprinkler  
3 systems installed in Group R, Division 4 and Division 5  
4 Occupancies.

5 2. Group R, Division 4 Occupancies shall have installed an  
6 approved fully automatic fire-extinguishing system conforming  
7 to U.B.C. Standard No. 38-3.

8 **EXCEPTION:** In areas where adequate water supply is  
9 not available, on the approval of the building official,  
10 a fully automatic fire-extinguishing system conforming  
11 to N.F.P.A Standard 13-D may be used.

12 3. All buildings classed as Group R, Division 5 shall:

13 A. Have installed an approved fully automatic fire-  
14 extinguishing system conforming to U.B.C. Standard No. 38-1;  
15 and

16 B. In buildings with individual floor areas over 6,000  
17 square feet, have an approved smoke barrier dividing the  
18 floor into at least two compartments, provided that each  
19 compartment shall provide no less than 30 square feet per  
20 occupant; and

21 C. Be a minimum Type V, one-hour construction.

22 **EXCEPTION:** Buildings classified as Group R, Division  
23 5 may be of Type V-N construction provided:

24 (i) The entire building has an interior wall and  
25 ceiling covering consisting of 1/2 inch gypsum wall  
26 board or an approved equal installed in accordance with  
27 Section 4711; and

28 (ii) An approved smoke-detection system, supervised  
by an approved central, proprietary or remote station  
service, is installed throughout the entire structure  
and interconnected to the sprinkler system.

D. Be equipped with an approved smoke detector and  
automatic shutoff in each single system providing heating and  
cooling air. Automatic shutoffs shall shut down the air-  
moving equipment when smoke is detected in a circulating  
airstream or as an alternate, when smoke is detected in rooms  
served by the system.

Where required, smoke detectors shall be installed in the  
main circulating-air duct ahead of any fresh air inlet, or  
installed in each room or space served by the return-air  
duct. Activation of any detector shall cause the air-moving  
equipment to automatically shut down.

(c) **Mixed Occupancies.** Group R, Division 4 and Division 5  
Occupancies shall be separated from Group H Occupancies by a  
four-hour fire-resistive occupancy separation and shall be  
separated from all other occupancies by a one-hour fire-  
resistive occupancy separation.

**EXCEPTIONS:** 1. An occupancy separation need not be  
provided between a Group R, Division 4 or Division 5  
Occupancy and a carport having no enclosed uses above,

1 provided the carport is entirely open on two or more  
2 sides.

3 2. In the one-hour occupancy separation between a  
4 Group R, Division 4 or Division 5 Occupancy and a Group  
5 M, Division 1 Occupancy, the separation may be limited  
6 to the installation of materials approved for one-hour  
7 fire-resistive construction on the garage side and a  
8 self-closing, tight-fitting solid-wood door 1 3/8 inch  
9 in thickness, or a self-closing tight-fitting door  
10 having a fire-protection rating of not less than 20  
11 minutes when tested in accordance with Part II of U.B.C.  
12 Standard No. 43-2, which is a part of this code, is  
13 permitted in lieu of a one-hour fire assembly. Fire  
14 dampers need not be installed in air ducts passing  
15 through the wall, floor or ceiling separating a Group R,  
16 Division 4 or Division 5 Occupancy from a Group M,  
17 Division 1 Occupancy, provided such ducts within the  
18 Group M Occupancy are constructed of steel having a  
19 thickness of not less than 0.019 inch (No. 26 galvanized  
20 sheet gauge) and have no openings into the Group M  
21 Occupancy.

#### 22 LOCATION ON PROPERTY

23 **Sec. 1219.** Exterior walls located less than 3 feet from  
24 property lines shall be of one-hour fire-resistive  
25 construction. Openings shall not be permitted in exterior  
26 walls located less than 3 feet from property lines. For  
27 other requirements, see Section 504 and Part IV.

#### 28 EXITS AND EMERGENCY ESCAPES

**Sec. 1220. (a) General.** 1. Group R, Division 4 and  
Division 5 Occupancies shall be provided with exits as  
required by this section and Chapter 33 of this code.

2. All Group R, Division 5 Occupancies located above the  
first floor shall have at least two exits directly to the  
exterior of the building, or into separate exit systems in  
accordance with Section 3309(a) and this chapter.

(b) **Exits Required.** 1. **Number of exits.** Every story,  
basement or portion thereof housing a Group R, Division 4 or  
Division 5 Occupancy shall have not less than two exits.

**EXCEPTIONS:** 1. Basements used exclusively for the  
service of the building may have one exit. For the  
purpose of this exception, storage rooms, laundry rooms,  
maintenance offices and similar uses shall not be  
considered as providing service to the building.

2. Storage rooms, laundry rooms and maintenance  
offices not exceeding 300 square feet in floor area may  
be provided with only one exit.

2. **Distance to exits.** The maximum travel distance specified  
in Chapter 33 shall be reduced by 50 percent.

(c) **Corridor Width.** Corridors shall be not less than 36  
inches in width.

(d) **Stairways.** Stairways shall be constructed as required  
by Section 3306 of this code.

1           **EXCEPTION:** In buildings that are converted to a Group  
2 R, Division 4 or Division 5 Occupancy, existing  
3 stairways may have an 8-inch maximum rise and 9-inch  
4 minimum run. Existing stairways may be 30 inches in  
5 width in Group R, Division 4 Occupancies, and 36 inches  
6 in width in Group R, Division 5 Occupancies.

7           (e) **Emergency Exit Illumination.** In the event of power  
8 failure, exit illumination shall be automatically provided  
9 from an emergency system. Emergency systems shall be  
10 supplied from storage batteries or an on-site generator set  
11 and the system shall be installed in accordance with the  
12 requirements of the Electrical Code.

13           (f) **Emergency Escape.** Every sleeping room shall be  
14 provided with emergency escape or rescue facilities as  
15 required by Section 1204 of this code.

16           (g) **Exit Doors.** Exit doors shall be openable from the  
17 inside with one motion and without the use of a key or any  
18 special knowledge or effort.

#### 19 **LIGHT, VENTILATION AND SANITATION**

20           **Sec. 1221.** Light, ventilation and sanitation shall be as  
21 specified in Section 1205.

#### 22 **YARDS AND COURTS**

23           **Sec. 1222.** Yards and courts shall be as specified in  
24 Section 1206.

#### 25 **ROOM DIMENSIONS**

26           **Sec. 1223.** Room dimensions shall be as specified in  
27 Section 1207.

28           **Sec. 1224.** No requirements.

#### 29 **SHAFT ENCLOSURES**

30           **Sec. 1225.** Exits shall be enclosed as specified in Chapter  
31 33.

32           Elevator shafts, vent shafts, dumbwaiter shafts, clothes  
33 chutes and other vertical openings shall be enclosed and the  
34 enclosure shall be as specified in Section 1706.

#### 35 **FIRE ALARM SYSTEMS**

36           **Sec. 1226.** An approved automatic and manual fire alarm  
37 system, supervised by an approved central, proprietary, or  
38 remote station service, shall be provided in Group R,  
39 Division 4 and Division 5 Occupancies in accordance with  
40 Article 14 of the Fire Code.

41           **EXCEPTION:** Heat detectors need not be provided where  
42 an approved automatic sprinkler system that is  
43 interconnected to the fire alarm system is provided  
44 throughout the building.

1 **HEATING**

2 **Sec. 1227.** All habitable rooms shall be provided with  
3 heating facilities capable of maintaining a room temperature  
4 of 70° F. at a point 3 feet above the floor.

5 **SPECIAL HAZARDS**

6 **Sec. 1228. (a) Heating Equipment.** All heating equipment  
7 shall be permanently installed. Chimneys and heating  
8 apparatus shall conform to the requirements of Chapter 37 of  
9 this code and the Mechanical Code.

10 **(b) Flammable Liquids.** The storage and handling of  
11 gasoline, fuel oil or other flammable liquids shall be in  
12 accordance with the Fire Code.

13 Section 41. Subsection 1716(c) of the Seattle Building  
14 Code, 1991 Edition, is amended as follows:

15 **(c) Enclosure of Atria.** Atria shall be separated from  
16 adjacent spaces by not less than one-hour fire-resistive  
17 construction.

18 **EXCEPTIONS:** 1. The separation between the atrium and  
19 tenant spaces that are not guest rooms, congregate  
20 residences or dwelling units may be omitted at the two  
21 lowest floor levels.

22 2. Open exit balconies are permitted within atria at  
23 the second floor level to gain access to all ((of  
24 600,000-cubic-feet-or-more,--for-one-of-the)) required  
25 exits. Open exit balconies are permitted within the  
26 atrium at the third level and above and to gain access  
27 to only one of the required exit stairways.

28 3. The separation between the atrium and tenant  
spaces that are not guest rooms, congregate residences,  
or dwelling units may be omitted on three floors when:

A. The perimeter of the opening is protected by draft  
curtains and a row of automatic sprinkler heads not  
more than six feet on center as required for  
escalator protection;

B. All spaces of the building separated from the  
atrium by less than one-hour fire-resistive  
construction are equipped with an automatic smoke  
detection system;

C. Tenant spaces open to the atrium have access to two  
enclosed exits separated by one-half the building  
diagonal with one exit located so that occupants  
can exit in a direction away from the atrium. For  
the purpose of this requirement "away from the  
atrium" means not being forced to exit parallel and  
adjacent to the atrium opening.

4. The separation between the atrium and tenant  
spaces that are not guest rooms, congregate residences,  
or dwelling units may be omitted on four floors when:

1           A. The conditions of Exceptions 3A, 3B and 3C above  
2           are met; and

3           B. The building is of one-hour fire-resistive or two-  
4           hour fire-resistive construction.

5           Openings in the atrium enclosure other than fixed glazing  
6           shall be protected by smoke- and draft-control assemblies  
7           conforming to Section 3305(h).

8           **EXCEPTION:** Other tight-fitting doors which are  
9           maintained automatic closing, in accordance with Section  
10          4306(b), by actuation of a smoke detector, or self-  
11          closing may be used when protected as required for  
12          glazed openings in Exception 2 below.

13          Fixed glazed openings in the atrium enclosure shall be  
14          equipped with fire windows having a fire-resistive rating of  
15          not less than three-fourths hour, and the total area of such  
16          openings shall not exceed 25 percent of the area of the  
17          common wall between the atrium and the room into which the  
18          opening is provided.

19          **EXCEPTION(S):** 1. Guest rooms, dwelling units,  
20          congregate residences and tenant spaces may be separated  
21          from the atrium by approved fixed wired glass set in  
22          steel frames. In lieu thereof, tempered or laminated  
23          glass or listed glass block may be used, subject to the  
24          following:

- 25           A. The glass shall be protected by a sprinkler system  
26           equipped with listed quick-response sprinklers.  
27           The sprinkler system shall completely wet the  
28           entire surface of the glass wall when actuated.  
29           Where there are walking surfaces on both sides of  
30           the glass, both sides of the glass shall be so  
31           protected.
- 32           B. The tempered or laminated glass shall be in a  
33           gasketed frame so installed that the glazing system  
34           may deflect without breaking (loading) the glass  
35           before the sprinkler system operates.
- 36           C. The glass block wall assembly shall be installed in  
37           accordance with its listing for three-fourths-hour  
38           fire-resistive rating and Section 2407(j)5.
- 39           D. Obstructions such as curtain rods, drapery traverse  
40           rods, curtains, drapes or similar materials shall  
41           not be installed between the sprinkler and the  
42           glass.
- 43           E. The building is equipped with automatic smoke  
44           detection on all floors served by the atrium except  
45           for tenant spaces separated from the atrium by one-  
46           hour fire-resistive construction.

47          ~~((2--The-separation-between-an-atrium-and-Group-A,~~  
48          ~~Division-3-or-Group-B,-Division-2-tenant-spaces-may-be~~  
49          ~~omitted-on-a-maximum-of-three-floors-when:~~

50          ~~A---The-perimeter-of-the-opening-is-protected-by-draft~~  
51          ~~curtains-and-a-row-of-automatic-sprinkler-heads-not~~

1 more-than-six-feet-on-center-as-required-for  
2 escalator-protection;

3 B.---The-building-is-equipped-with-automatic-smoke  
4 detection-on-all-floors-served-by-the-atrium-except  
5 for-tenant-spaces-separated-from-the-atrium-by-one-  
6 hour-fire-resistive-construction;-and

7 C.---Tenant-spaces-have-access-to-two-enclosed-exits  
8 separated-by-one-half-the-building-diagonal-with  
9 one-exit-located-so-that-occupants-can-exit-in-a  
10 direction-away-from-the-atrium

11 3.---The-separation-between-an-atrium-and-Group-A,  
12 Division-3-or-Group-B,-Division-2-tenant-spaces-may  
13 be-omitted-on-four-floors-when:

14 A.---The-conditions-of-Exception-2-above-are-met;-and

15 B.---The-building-must-be-of-Types-I-or-II-F-R-  
16 construction-and-all-occupied-areas-on-the-floors  
17 open-to-the-atrium-must-have-all-required-exits  
18 from-these-areas-located-so-that-the-occupants-can  
19 exit-in-a-direction-away-from-the-atrium.))

20 Section 42. Section 1720 of the Seattle Building Code,  
21 1991 Edition, is amended as follows:

#### 22 RADON RESISTIVE CONSTRUCTION STANDARDS

23 **Sec 1720 (a) General.** The criteria of this section  
24 establish minimum radon resistive construction requirements  
25 for all Group R Occupancies.

26 (b) **Radon Monitoring.** The building official shall deliver  
27 the following to each new Group R, Division 3 Occupancy and  
28 to all ground floor dwelling units in new Group R, Division 1  
apartment houses, at the time of final inspection, through  
June 30, 1995.

1. A three month etched track radon ((monitor,  
installation-instructions,-and-radon-information-sheets-shall  
be-provided-by-the-builder-at-the-final-inspection-to-all  
single-family-residences-and-to-all-first-floor-dwelling  
units-in-multi-unit-residential-structures.--It-is-not-the  
responsibility-of-the-builder-to-administer-the-radon-tests))  
device that is listed on a current federal EPA radon  
measurement proficiency list, and includes prepaid fees for  
postage, test analysis and notification of the test results  
to the owner; and

2. Manufacturer's instructions for the device; and

3. Instructions prepared by the state building code  
council, posted in a conspicuous place.

The building official is not responsible for returning the  
radon measurement device to the testing laboratory. The  
owner of a new Group R, Division 3 Occupancy or Group R,  
Division 1 apartment houses shall be responsible for  
returning the radon measurement device left by the building  
inspector to the appropriate testing laboratory in accordance  
with the instructions provided.

1 (c) **Crawl Spaces.** All crawl spaces shall be ventilated as  
2 specified in Section 2516 (c).

3 If the ventilation openings in a crawl space are less than  
4 1 square foot for each 300 square feet of crawlspace area, or  
5 if the crawl space vents are equipped with operable louvers,  
6 a radon vent shall be installed to originate from a point  
7 between the ground cover and soil. The radon vent shall be  
8 installed in accordance with Section 1720(d)5.

9 (d) **Crawl Space Plenum Systems.** 1. **General.** In  
10 crawlspace plenum systems used for providing supply ((or  
11 return)) air for an HVAC system, aggregate, ((sealings)) a  
12 permanently sealed soil gas retarder membrane and a radon  
13 vent pipe shall be installed in accordance with this section.  
14 Crawlspaces shall not be used for return air plenums.

15 In addition, ((a)) an operable radon vent fan shall be  
16 installed ((and activated)). The fan shall be located as  
17 specified in this section. The fan shall be capable of  
18 providing at least 100 CFM at one-inch water column static  
19 pressure. The fan shall be controlled by a readily  
20 accessible manual switch. The switch shall be labeled "RADON  
21 VENT FAN."

22 2. **Aggregate.** A layer of aggregate of 4-inch-minimum  
23 thickness shall be placed beneath the concrete slab. The  
24 aggregate shall be continuous to the extent practical.  
25 Aggregate shall:

26 A. Comply with ((U-B-E)) ASTM Standard No. ((26-2)) C-  
27 33 Standard Specification for Concrete Aggregate and shall be  
28 size No. 67 or larger size aggregate as listed in Table No.  
((26-2-A)) 2, Grading Requirements for ((Concrete)) Coarse  
Aggregate((s)); or

29 B. Meet the 1988 Washington State Department of  
30 Transportation specification 9-03.1 (3) "Coarse Aggregate for  
31 Portland Cement Concrete", or any equivalent standards  
32 approved by the building official. Aggregate size shall be  
33 of Grade 5 or larger as listed in section 9-03.1 (3) C,  
34 "Grading", or

35 C. Be screened, washed and free of deleterious  
36 substances in a manner consistent with ((U-B-E)) ASTM  
37 Standard No. ((26-2)) C-33 with 100 percent of the gravel  
38 passing a one inch sieve and less than 2 percent passing a 4-  
39 inch sieve. Sieve characteristics shall conform to those  
40 acceptable under ((U-B-E)) ASTM Standard No. ((25-2)) C-33.

41 **EXCEPTION:** Aggregate shall not be required if a  
42 substitute material or system, with sufficient load  
43 bearing characteristics, and having approved capability  
44 to provide equal or superior air flow, is installed.

45 3. **Soil-Gas Retarder Membrane.** A soil-gas retarder  
46 membrane, consisting of at least one layer of virgin  
47 polyethylene with a thickness of at least 6 mil, or  
48 equivalent flexible sheet material, shall be placed  
49 directly under the concrete slab so that the slab is in  
50 direct contact with the membrane. The flexible sheet  
51 shall extend to the foundation wall or to the outside

1 edge of the monolithic slab. Seams shall overlap at  
2 least 12 inches.

3 **EXCEPTION:** If the membrane is not in direct contact  
4 with the bottom of the concrete slab, all overlapping  
5 seams shall be sealed with an approved tape or sealant,  
6 and the material shall be sealed to the foundation wall  
7 in a permanent manner. The membrane shall also be  
8 fitted tightly to all pipes, wire, and other  
9 penetrations of the membrane and sealed with an approved  
10 sealant or tape. All punctures or tears shall be  
11 repaired with the same or approved material and  
12 similarly lapped and sealed. In no case shall the  
13 membrane be installed below the aggregate.

- 14 4. **Sealing of Penetrations and Joints.** All penetrations  
15 and joints in concrete slabs or other floor systems and  
16 walls below grade (~~that will not be accessible at the~~  
17 ~~time the Certificate of Occupancy is granted~~) shall be  
18 sealed by an approved sealant to create an air barrier  
19 to limit the movement of soil gas into the indoor air.

20 Sealants shall be approved by the manufacturer for the  
21 intended purpose. Sealant joints shall conform to  
22 manufacturer's specifications. There shall be no gaps or  
23 voids after the sealant has cured.

24 Concrete block walls connected to below grade areas shall  
25 be considered unsealed surfaces. All openings in concrete  
26 block walls that will not remain accessible upon completion  
27 of the building shall be sealed at both vertical and  
28 horizontal surfaces, in order to create a continuous air  
barrier to limit the transport of soil gas into the indoor  
air.

- 1 5. **Radon Vent.** One continuous sealed pipe shall run from  
2 a point within the aggregate under each concrete slab to a  
3 point outside the building. Joints and connections shall be  
4 permanently gas tight.

5 The continuous sealed pipe shall interface with the  
6 aggregate in the following manner, or by other approved equal  
7 method: The pipe shall be permanently connected to a "T" lie  
8 within the aggregate area. A minimum of five feet of  
9 perforated drain pipe of three inches minimum diameter shall  
10 join to and extend from the "t". The perforated pipe shall  
11 remain in the aggregate area and shall no be capped at the  
12 ends. The "T" and its perforated pipe extensions shall be  
13 located at least five feet horizontally from the exterior  
14 perimeter of the aggregate area.

15 The continuous sealed pipe shall terminate no less than 12  
16 inches above the eave, and more than 10 horizontal feet from  
17 a woodstove or fireplace chimney, or operable window. The  
18 continuous sealed pipe shall be labeled "Radon Vent:.". The  
19 label shall be placed so as to remain visible to an occupant.

20 The minimum pipe diameter shall be 3 inches unless  
21 otherwise approved. Acceptable sealed plastic pipe shall be  
22 smooth walled, and may include either PVC schedule 40 or ABS  
23 schedule of equivalent wall thickness.

1 The entire sealed pipe system shall be sloped to drain to  
2 the sub-slab aggregate. (~~The exterior pipe opening shall be~~  
3 ~~protected from blockage by snow accumulation.~~)

4 The sealed pipe system may pass through an unconditioned  
5 attic before exiting the building; but to the extent  
6 practicable, the sealed pipe shall be located inside the  
7 thermal envelope of the building in order to enhance passive  
8 stack venting.

9 **EXCEPTION:** A radon vent shall not be required if a  
10 fan-forced sub-slab depressurization system is  
11 installed. A fan-forced sub-slab depressurization  
12 system includes:

- 13 1. Soil-gas retarder membrane as specified in Section  
14 (d) 3;
- 15 2. Sealing of penetrations and joints as specified in  
16 Section (d) 4;
- 17 3. A 3 inch continuous sealed radon pipe which shall  
18 run from a point within the aggregate under each  
19 concrete slab to a point outside the building;
- 20 4. Joints and connections (~~which shall~~) may be gas  
21 tight, and may be of either PVC schedule 40 or ABS  
22 schedule for equivalent wall thickness;
- 23 5. A label of "Radon Vent" (~~which~~) shall be placed on  
24 the pipe so as to remain visible to the occupant; and
- 25 6. Fan circuit and wiring as specified in Section (d) 6  
26 and a fan.

27 If the sub-slab depressurization system is exhausted  
28 through the concrete foundation wall or rim joist, the  
exhaust terminus shall be a minimum of six feet from  
operable windows and outdoor air intake vents and shall  
be directed away from operable windows and outdoor air  
intake vents to prevent radon re-entrainment.

6. **Fan Circuit and Wiring and Location.** An area for  
location of an in-line fan shall be provided. The  
location shall be as close as practicable to the radon  
vent pipe's point of exit from the building, or shall be  
outside the building shell. It shall be located so that  
the fan and all downstream piping is isolated from the  
indoor air.

Provisions shall be made to allow future activation of  
an in-line fan on the radon vent pipe without the need  
to place new wiring. A 110 volt power supply shall be  
provided at a junction box near the fan location.

7. **Separate Aggregate Areas.** If the 4 inch aggregate area  
underneath the concrete slab is not continuous, but is  
separated into distinct isolated aggregate areas by a  
footing or other barrier, a minimum of one radon vent  
pipe shall be installed into each separate aggregate  
area.

**EXCEPTION:** Separate aggregate areas may be considered  
a single area if a minimum 3 inch diameter connection

1 joining the separate areas is provided for every 30 feet  
2 of barrier separating those areas.

3 Section 43. Section 1721 of the Seattle Building Code,  
4 1991 Edition, is amended as follows:

5 **FORMALDEHYDE REDUCTION MEASURES**

6 **Sec. 1721.** In all Group R Occupancies all structural panel  
7 components (~~of-the-structure~~) within the conditioned space  
8 such as (~~softwood~~) plywood, particle board, wafer board,  
9 and oriented strand board shall be identified as "EXPOSURE  
10 1", "EXTERIOR" or "HUD APPROVED".

11 Section 44. Chapter 17 of the Seattle Building Code,  
12 1991 Edition, is amended by adding Section 1722 as follows:

13 **Sec. 1722. Methane Reduction Measures. (a) Applicability.**

14 This section applies to all construction activities on or  
15 within 1,000 feet of an active, closed or abandoned landfill  
16 that has been identified by the building official to be  
17 generating levels of methane gas on-site at the lower  
18 explosive limits or greater levels. The distance shall be  
19 calculated from the location of the proposed structure to the  
20 nearest property line of the active or former landfill site.  
21 The building official may waive these requirements if  
22 technical studies demonstrate that dangerous amounts of  
23 methane are not present on the site.

24 (b) **Protection of Structures.** All enclosed structures to  
25 be built within the 1,000 foot landfill zone must be  
26 protected from potential methane migration. The method for  
27 insuring a structure's protection from methane shall be  
28 addressed in a report prepared by a licensed civil engineer  
and submitted by the applicant to the department for  
approval. The report shall contain a description of the  
investigation and recommendations for preventing the  
accumulation of explosive concentrations of methane gas  
within or under enclosed portions of the building or  
structure. At the time of final inspection, the civil  
engineer shall furnish a signed statement attesting that the  
building or structure has been constructed in accordance with  
the recommendations for addressing methane gas migration.

29 Section 45. Chapter 17 of Seattle Building Code, 1991  
30 Edition, is amended by adding Section 1723 as follows:

31 **RECYCLABLE MATERIALS.**

32 **Sec. 1723. (a) Definition.** Recyclable materials are  
33 those solid wastes that are separated for recycling or reuse,  
34 such as papers, metals and glass.

35 (b) **Storage Space for Recyclable Materials.** All  
36 occupancies shall be provided with space for the storage of  
37 recyclable materials and solid waste.

38 **EXCEPTION:** Group R, Division 3 and Group M  
Occupancies.

1 The storage area shall be designed to meet the needs of the  
2 occupancy, efficiency of pick-up, and shall be available to  
3 occupants and haulers.

4 Section 46. Section 2004 of the Seattle Building Code,  
5 1991 Edition, is amended as follows:

6 **STAIRWAY CONSTRUCTION**

7 **Sec. 2004. (a) General.** Stairways shall comply with the  
8 requirements of Chapter 33.

9 (b) **Interior.** Interior stairways (~~(serving-buildings-not  
10 exceeding-three-stories-in-height)~~) may be constructed of any  
11 material permitted by this code.

12 ~~In-buildings-more-than-three-stories-in-height,-interior  
13 stairways-shall-be-constructed-as-required-for-Type-I  
14 buildings-)~~

15 (c) **Exterior.** Exterior stairways (~~(shall-be-of  
16 noncombustible-material-except-that-on-buildings-not  
17 exceeding-two-stories-in-height,-they)~~) may be constructed of  
18 any material permitted by this code. Wood exterior stairways  
19 shall be not less than 2 inches in nominal thickness.

20 Section 47. Section 2104 of the Seattle Building Code,  
21 1991 Edition, is amended as follows:

22 **STAIRWAY CONSTRUCTION**

23 **Sec. 2104. (a) General.** Stairways shall comply with the  
24 requirements of Chapter 33.

25 (b) **Interior.** Interior stairways (~~(serving-buildings-not  
26 exceeding-three-stories-in-height)~~) may be constructed of  
27 (~~(wood-or-as-required-for-Type-I-buildings)~~) any material  
28 permitted by this code. (~~(If-constructed-of-wood,-treads-and  
risers-shall-not-be-less-than-2-inches-in-thickness,-except  
where-built-on-laminated-or-plank-inclines-as-required-for  
floors,-where-they-may-be-of-1-inch-thickness,-Wood-stair  
stringers-shall-be-a-minimum-of-3-inches-in-thickness-and-not  
less-than-10-inches-in-depth-~~

~~In-buildings-more-than-three-stories-in-height,-interior  
stairways-shall-be-constructed-as-required-for-Type-I  
buildings-)~~

(c) **Exterior.** Exterior stairways (~~(shall-be-of  
noncombustible-material-except-that-on-buildings-not  
exceeding-two-stories-in-height-they)~~) may be constructed of  
any material permitted by this code. Wood exterior stairways  
shall be not less than 2 inches in nominal thickness.

Section 48. Subsection 2605(e) of the Seattle Building  
Code, 1991 Edition, is amended as follows:

(e) **Proportioning by Minimum Cement Content.** If data  
required by Section 260((4))5(d) are not available, concrete  
proportions may be based upon the values in Table No. 26-A-7.

1 Table No. 26-A-7 shall be used only for concrete to be made  
2 with cements meeting strength requirements for Type I, II, or  
3 III of U.B.C. Standard No. 26-1, and shall not be applied to  
4 concrete containing lightweight aggregates. When approved by  
5 the building official, Table No. 26-A-7 may be used with air-  
6 entraining admixtures (conforming to ASTM C260) and/or  
7 normal-range water-reducing admixtures (conforming to ASTM  
8 C494, Types A, D or E).

9 Concrete proportioned by minimum cement content limits  
10 prescribed in Table No. 26-A-7 shall also conform to special  
11 exposure requirements of Section 2604((f)) and to compressive  
12 strength test criteria of Section ((2604(h))) 2605(g).

13 Section 49. Subsection 2621(j) of the Seattle Building  
14 Code, 1991 Edition, is amended as follows:

15 (j) **Strength Test.** Strength test for shotcrete shall be  
16 made by an approved agency on specimens which are  
17 representative of work and which have been water soaked for  
18 at least 24 hours prior to testing. When the maximum size  
19 aggregate is larger than 3/8 inch, specimens shall consist of  
20 not less than three 3-inch-diameter cores or 3-inch cubes.  
21 When the maximum size aggregate is 3/8 inch or smaller,  
22 specimens shall consist of not less than three 2-inch-  
23 diameter cores or 2-inch cubes. Specimens shall be taken in  
24 accordance with one of the following:

25 1. From the in-place work: taken at least once each shift  
26 or less than one for each 50 cubic yards of shotcrete; or

27 2. From test panels: made not less than once each shift  
28 or not less than one for each 50 cubic yards of shotcrete  
placed. When the maximum size aggregate is larger than 3/8  
inch, the test panels shall have a minimum dimension of 18 by  
18 by 7 inches. When the maximum size aggregate is 3/8 inch  
or smaller, the test panels shall have a minimum dimension of  
12 by 12 by 5 inches. Panels shall be gunned in the same  
position as the work, during the course of the work and by  
nozzlemen doing the work. The condition under which the  
panels are cured shall be the same as the work.

The average of three cores from a single panel shall be  
equal to or exceed  $0.85f'_c$  with no single core less than  
 $0.75f'_c$ . The average of three cubes taken from a single  
panel must equal or exceed  $f'_c$  with no individual cube less  
than  $0.88f'_c$ . To check testing accuracy, locations  
represented by erratic core strengths may be retested.

Section 50. Subsection 2710(g) of the Seattle Building  
Code, 1991 Edition, is amended as follows:

(g) **Special Moment-resisting Frame (SMRF) Requirements.** 1.  
**Girder-to-column connection.** A. **Required strength.** The  
girder-to-column connection shall be adequate to develop the  
lesser of the following:

(i) The strength of the girder in flexure.

(ii) The moment corresponding to development of the panel  
zone shear strength as determined from Formula (10-1).

1           **EXCEPTION:** Where a connection is not designed to  
2           contribute flexural resistance at the joint, it need not  
3           develop the required strength if it can be shown to meet  
4           the deformation compatibility requirements of Section  
5           2337(4)4.

6           **B. Connection strength.** The girder-to-column connection  
7           may be considered to be adequate to develop the flexural  
8           strength of the girder if it conforms to the following:

9           (i) The flanges have full-penetration butt welds to the  
10           columns.

11           (ii) The girder web-to-column connection shall be capable  
12           of resisting the girder shear determined for the combination  
13           of gravity loads and the seismic shear forces which result  
14           from compliance with Section 2710(g)2A. This connection  
15           strength need not exceed that required to develop gravity  
16           loads plus 3 ( $R_w/8$ ) times the girder shear resulting from the  
17           prescribed seismic forces.

18           Where the flexural strength of the girder flanges is  
19           greater than 70 percent of the flexural strength of the  
20           entire section (i.e.,  $bt_f(d-t_f)F_y > 0.7Z_x F_y$ ) the web connection  
21           may be made by means of welding or high-strength bolting.

22           For girders not meeting the criteria in the paragraph  
23           above, the girder web-to-column connection shall be made by  
24           means of welding the web directly or through shear tabs to  
25           the column. That welding shall have a strength capable of  
26           developing at least 20 percent of the flexural strength of  
27           the girder web. The girder shear shall be resisted by means  
28           of additional welds or friction-type slip-critical high-  
            strength bolts or both.

**C. Alternate connection.** Connection configurations  
            utilizing welds or high-strength bolts not conforming with  
            paragraph B above may be used if they are shown by test or  
            calculation to meet the criteria in paragraph A above. Where  
            conformance is shown by calculation, 125 percent of the  
            strengths of the connecting elements may be used.

**D. Flange detail limitations.** For steel whose specified  
            ultimate strength is less than 1.5 times the specified yield  
            strength, plastic hinges shall not form at locations in which  
            the beam flange area has been reduced, such as for bolt  
            holes. Bolted connections of flange plates of beam-column  
            joints shall have the net-to-gross area ratio  $A_e/A_g$  equal to  
            or greater than  $1.2F_y/F_u$ .

**2. Panel zone. A. Strength.** The panel zone of the joint  
            shall be capable of resisting the shear induced by beam  
            bending moments due to gravity loads plus 1.85 times the  
            prescribed seismic forces, but the shear strength need not  
            exceed that required to develop  $0.8\Sigma M_r$  of the girders  
            framing into the column flanges at the joint. The joint  
            panel zone shear strength may be obtained from the following  
            formula:

$$V = 0.55 F_y d_c t \left[ 1 + \frac{3b_c t_c^2}{d_b d_c t} \right] \quad (10-1)$$

**WHERE:**

- t = the total thickness of the joint panel zone including doubler plates.
- d<sub>b</sub> = the depth of the beam.
- d<sub>c</sub> = the column depth.
- b<sub>c</sub> = is the width of the column flange.
- t<sub>c</sub>f = is the thickness of the column flange.

**B. Thickness.** The panel zone thickness, t<sub>z</sub>, shall conform to the following formula:

$$t_z \geq (d_z + w_z)/90 \quad (10-2)$$

**WHERE:**

- d<sub>z</sub> = the panel zone depth between continuity plates.
- w<sub>z</sub> = the panel zone width between column flanges.

For this purpose, t<sub>z</sub>, shall not include any double plate thickness unless the doubler plate is connected to the column web with plug welds adequate to prevent local buckling of the plate.

**C. Doubler plates.** Doubler plates provided to reduce panel zone shear stress or to reduce the web depth thickness ratio shall be placed not more than 1/16 inch from the column web and shall be welded across the plate width top and bottom with at least a 3/16-inch fillet weld. They shall be either butt or fillet welded to the column flanges to develop the shear strength of the doubler plate. Weld strength shall be as given in Section 2710(d)2.

**3. Flange width-thickness ratio.** Girders shall comply with U.B.C. Standard No. 27-15, except that the flange width-thickness ratio, b<sub>f</sub>/2t<sub>f</sub>, shall not exceed 52/√F<sub>y</sub>.

**4. Continuity plates.** When determining the need for girder tension flange continuity plates, the value of P<sub>bf</sub> in U.B.C. Standard No. 27-15 shall be taken as 1.8 (bt<sub>f</sub>)F<sub>y</sub>b.

**5. Strength ratio.** At any moment frame joint, the following relationships shall be satisfied:

$$\Sigma Z_c (F_{yc} - f_a) / \Sigma Z_b F_{yb} > 1.0 \quad (10-3a)$$

or

$$\Sigma Z_c (F_{yc} - f_a) / 1.25 \Sigma M_{pz} > 1.0 \quad (10-3b)$$

**WHERE:**

1  $f_a > 0 M_{pz}$  = the sum of beam moments when panel zone shear  
2 strength reaches the value specified in Formula (10-1).

3 **EXCEPTION:** Columns meeting the compactness limitations  
4 for beams given in Section 2710(g)3 need not comply with  
5 this requirement provided they conform to one of the  
6 following conditions:

7 A. Columns with  $f_a$  less than  $0.4F_y$  for all load  
8 combinations other than loads specified in Section  
9 2710(e)1; and (~~such columns shall have allowable  
10 stresses reduced 25 percent when one end frames into a  
11 joint not complying with Formula 10-3a, and 50 percent  
12 when both ends frame into joints not complying with  
13 Formula 10-3a, and~~)

14 (i) Which are used in the top story of a multistory  
15 building with building period greater than 0.7 second;  
16 or

17 (~~(ii) -- Which are used in single-story buildings; or~~)

18 (~~(iii)~~) (ii) Where the sum of their resistance is  
19 less than 20 percent of the shear in a story, and is  
20 less than 33 percent of the shear on each of the column  
21 lines within that story. A column line is defined for  
22 the purpose of this exception as a single line of  
23 columns, or parallel lines of columns located within 10  
24 percent of the plan dimension perpendicular to the line  
25 of columns; or

26 (~~(iv)~~) (iii) When the design for combined axial  
27 compression and bending is proportioned to satisfy  
28 U.B.C. Standard No. 27-15 without the one-third  
permissible stress increase.

B. Columns in any story which have lateral shear  
strength 50 percent greater than that of the story  
above.

C. Columns which lateral shear strength are not  
included in the design to resist code-required shears.

6. **Trusses in SMRF.** Trusses may be used as horizontal  
members in SMRF if the sum of the truss seismic force  
flexural strength exceeds the sum of the column seismic force  
flexural strength immediately above and below the truss by a  
factor of at least 1.25. For this determination the  
strengths of the members shall be reduced by the gravity load  
effects. In buildings of more than one story, the column  
axial stress shall not exceed  $0.4F_y$  and the ratio of the  
unbraced column height to the least radius of gyration shall  
not exceed 60. Columns shall have allowable stresses reduced  
25 percent when one end frames into a truss, and 50 percent  
when both ends frame into trusses. The connection of the  
truss chords to the column shall develop the lesser of the  
following:

A. The strength of the truss chord.

B. The chord force necessary to develop 125 percent of the  
flexural strength of the column.

1       7. **Girder-column joint restraint.** A. **Restrained joint.**  
2       Where it can be shown that the columns of SMRF remain  
3       elastic, the flanges of the columns need be laterally  
4       supported only at the level of the girder top flange.

5       Columns may be assumed to remain elastic if one of the  
6       following conditions is satisfied:

7       (i) The ratio in Formula (10-3a) or (10-3b) is greater  
8       than 1.25

9       (ii) The flexural strength of the column is at least 1.25  
10       times the moment that corresponds to the panel zone shear  
11       strength.

12       (iii) Girder flexural strength or panel zone strength will  
13       limit column stress ( $f_a + f_{bx} + f_{by}$ ) to  $F_y$  of the column.

14       (iv) The column will remain elastic under gravity loads  
15       plus  $3(R_w/8)$  times the prescribed seismic forces.

16       Where the column cannot be shown to remain elastic, the  
17       column flanges shall be laterally supported at the levels of  
18       the girder top and bottom flanges. The column flange lateral  
19       support shall be capable of resisting a force equal to one  
20       percent of the girder flange capacity at allowable stresses  
21       and at a limiting displacement perpendicular to the frame of  
22       0.2 inch. Required bracing members may brace the column  
23       flanges directly or indirectly through the column web or the  
24       girder flanges.

25       B. **Unrestrained joint.** Columns without lateral support  
26       transverse to a joint shall conform to the requirements of  
27       U.B.C. Standard No. 27-15, with the column considered as pin  
28       ended and the length taken as the distance between lateral  
29       supports conforming with A above. The column stress,  $f_a$ ,  
30       shall be determined from gravity loads plus the lesser of the  
31       following:

32       (i)  $3(R_w/8)$  times the prescribed seismic forces.

33       (ii) The forces corresponding to either 125 percent of the  
34       girder flexural strength or the panel zone shear strength or  
35       the panel zone shear strength.

36       The stress  $f_{by}$ , shall include the effects of the bracing  
37       force specified in Section 2710(g) 7A and P Δ .

38        $l/r$  for such columns shall not exceed 60.

39       At truss frames the column shall be braced at each truss  
40       chord for a lateral force equal to one percent of the  
41       compression yield strength of the chord.

42       8. **Beam bracing.** Both flanges of beams shall be braced  
43       directly or indirectly. The beam bracing between column  
44       center lines shall not exceed  $96r_y$ . In addition, braces  
45       shall be placed at concentrated loads where a hinge may form.

46       9. **Changes in beam flange area.** Abrupt changes in beam  
47       flange area are not permitted within possible plastic hinge  
48       regions of special moment-resistant frames.

1        10. **Moment frame drift calculations.** Moment frame drift  
2 calculations shall include bending and shear contributions  
3 from the clear girder and column spans, column axial  
4 deformation and the rotation and distortion of the panel  
5 zone.

6                **EXCEPTIONS:** 1. Drift calculations may be based on  
7 column and girder center lines where either of the  
8 following conditions is met:

9                A. It can be demonstrated that the drift so computed  
10 for frames of similar configuration is typically within  
11 15 percent of that determined above.

12                B. The column panel zone strength can develop 0.8  $SM_s$   
13 of girders framing to the column flanges at the joint.

14                2. Column axial deformations may be neglected if they  
15 contribute less than 10 percent to the total drift.

16                Section 51. Subsection 2905 (b) of the Seattle Building  
17 Code, 1991 Edition, is amended as follows:

18                (b) **Investigation.** The classification shall be based on  
19 observation and any necessary tests of the materials  
20 disclosed by borings or excavations made in appropriate  
21 locations. Additional studies may be necessary to evaluate  
22 soil strength, the effect of moisture variation on soil-  
23 bearing capacity, compressibility and expansiveness. When  
24 required by the building official or when recommended by the  
25 geotechnical engineer, the potential for seismically-induced  
26 soil liquefaction or other forms of soil strength loss shall  
27 be evaluated as described in Section 2905(e).

28                Section 52. Subsection 2905(c) of the Seattle Building  
Code, 1991 Edition, is amended as follows:

(c) **Reports.** The soil classification and design bearing  
capacity shall be shown on the plans, unless the foundation  
conforms to Table No. 29-A. The building official may  
require submission of a written report of the investigation  
which shall include, but need not be limited to, the  
following information:

1. A plot showing the location of all test borings and/or  
excavations.

2. Descriptions and classifications of the materials  
encountered.

3. Elevation of the water table, if encountered.

4. Recommendations for foundation type and design  
criteria, including bearing capacity, provisions to  
((~~minimize~~)) mitigate the effects of expansive soils,  
provisions to mitigate the effects of liquefaction and soil  
strength loss when considered necessary by the building  
official, and the effects of adjacent loads.

5. Expected total and differential settlement.

1           Section 53. A new Subsection 2905(e) is added to the  
2 Seattle Building Code, 1991 Edition as follows:

3           (e) **Liquefaction Potential and Soil Strength Loss.** When  
4 required by Section 2905(b), the potential for soil  
5 liquefaction and other forms of soil strength loss during  
6 earthquakes shall be evaluated using the geotechnical  
7 investigation. The geotechnical report shall assess  
8 potential consequences of any liquefaction and soil strength  
9 loss, including estimation of differential settlement,  
10 lateral movement, or reduction in foundation soil-bearing  
11 capacity and discuss mitigating measures. Such measures  
12 shall be given special consideration in the design of the  
13 building and may include, but are not limited to, ground  
14 stabilization, selections of appropriate structural systems  
15 to accommodate anticipated displacements, or any combination  
16 of these measures.

17           The potential for liquefaction and soil strength loss shall  
18 be evaluated for an earthquake ground motion that, as a  
19 minimum, has a 40% probability of exceedance in 50 years.  
20 This is achieved by assuming a near crustal event of  
21 magnitude 6.5 directly below the site. Peak ground  
22 acceleration may be determined based on a site-specific study  
23 taking into account soil amplification effects. In the  
24 absence of such a study, peak ground acceleration may be  
25 assumed equal to .2g for the purpose of determining  
26 liquefaction and soil strength loss.

27           Section 54. Subsection 2905(e) of the Seattle Building  
28 Code, 1991 Edition, is amended as follows:

          ((e))(f) **Adjacent Loads.** Where footings are placed at  
varying elevations the effect of adjacent loads shall be  
included in the foundation design.

          Section 55. Subsection 2905(f) of the Seattle Building  
Code, 1991 Edition, is amended as follows:

          ((f))(g) **Drainage.** Provisions shall be made for the  
control and drainage of surface water around buildings. [See  
also Section 2907(d)5.]

          Section 56. Section 3301 of the Seattle Building Code,  
1991 Edition, is amended by adding subsection (e).

          (e) **Yards, Patios and Courts.** Yards, patios, courts and  
similar outdoor areas accessible to and usable by the  
building occupants shall be provided with exits as required  
by this chapter. The occupant load of such outdoor areas  
shall be assigned by the building official in accordance with  
their anticipated use. When outdoor areas are to be used by  
persons in addition to the occupants of the building, and  
exits from the outdoor areas pass through the building, exit  
requirements for the building shall be based on the sum of  
the occupant loads of the building plus the outdoor areas.

**EXCEPTIONS:** 1. Outdoor areas used exclusively for  
service of the building may have only one exit.

1           2. Outdoor areas associated with Group R, Division 3  
2 Occupancies.

3           Section 57. Subsection 3301(f) of the Seattle Building  
4 Code, 1991 Edition, is amended as follows:

5           (f) **Building Accessibility.** In addition to provisions of  
6 this chapter, exits which provide access to, or egress from,  
7 buildings for persons with disabilities shall also comply  
8 with the Washington State Building Code Chapter 31, 51-20-  
9 3100 Washington Administrative Code and Appendix Chapter 31,  
10 51-20-93100 ((Regulations-for-Barrier-Free-Facilities,  
11 Chapter-51-10)), Washington Administrative Code

12           Section 58. Subsection 3303(a) of the Seattle Building  
13 Code, 1991 Edition, is amended as follows:

14 **EXITS REQUIRED**

15           **Sec. 3303. (a) Number of Exits.** Every building or usable  
16 portion thereof shall have at least one exit, not less than  
17 two exits where required by Table No. 33-A and additional  
18 exits as required by this subsection.

19           For purposes of this section, basements and occupied roofs  
20 shall be provided with exits as required for stories.

21           Floors complying with the provisions for mezzanines as  
22 specified in Section 1717 shall be provided with exits as  
23 specified therein.

24           The second story shall be provided with not less than two  
25 exits when the occupant load is 10 or more. Occupants on  
26 floors above the second story and in basements and floors at  
27 basement-like stories shall have access to not less than two  
28 separate exits from the floor or basement.

**EXCEPTIONS:** 1. Two or more dwelling units on the  
second story or in a basement may have access to only  
one common exit when the total occupant load served by  
that exit does not exceed ten.

          2. Except as provided in Table No. 33-A, only one  
exit need be provided within and from an individual  
dwelling unit or a Group R, Division 3 congregate  
residence.

          3((4)). Floors and basements used exclusively for  
service of the building may have one exit. For the  
purposes of this exception, storage rooms, laundry  
rooms, maintenance offices and similar uses shall not be  
considered as providing service to the building.

          4((5)). Storage rooms, laundry rooms and maintenance  
offices in basements not exceeding 900 square feet in  
floor area and a travel distance of less than 50 feet  
may be provided with only one exit.

          5((6)). Elevator lobbies may have one exit provided  
the use of such exit does not require keys, tools,  
special knowledge or effort.

1           6((7)). Any dwelling unit which has an exit directly  
2 to the street or yard at ground level or by way of an  
3 exterior stairway or an enclosed stairway with fire-  
4 resistance rating of one hour or more serving that  
5 dwelling unit only and not communicating with any floor  
6 below the floor of exit discharge or other area not a  
7 part of the dwelling unit served may have a single exit.

8           7((8)). Any Group R Occupancy building having not  
9 more than four stories of residential use may have a  
10 single exit under the following conditions:

- 11           A. There are no more than four dwelling units on any  
12 floor.
- 13           B. The building shall be of not less than one-hour  
14 fire-resistive construction and shall also be  
15 protected throughout by an automatic sprinkler  
16 system. The sprinkler system shall conform to  
17 U.B.C. Standard No. 38-1. In addition to other  
18 sprinkler heads, one head shall be located within  
19 each dwelling unit immediately adjacent to the  
20 unit entry/exit door. Residential type sprinkler  
21 heads shall be used in all habitable spaces in  
22 each dwelling unit.
- 23           C. There shall be no more than two single exit  
24 conditions on the same property.
- 25           D. A smokeproof stairway enclosure, a stairway  
26 pressurized in accordance with Section 1706(g) 3,  
27 or an exterior stairway shall be provided. Stairway enclosures deemed smokeproof by  
28 mechanical pressurization [Section 1706(g) 3]  
shall have approved doors. Stairway doors shall  
swing into the stairway regardless of the  
occupant load served provided that the door from  
the stairway to the building exterior may swing  
in the direction of exit travel.
- E. A corridor shall separate each dwelling unit  
entry/exit door from the ((stairway)) door to an  
enclosed stairway on each floor. Dwelling unit  
doors shall not open directly into ((the)) an  
enclosed stairway. Dwelling unit doors may open  
directly into an exterior stairway.
- F. There shall be no more than 20 feet of travel  
distance to the exit stairway from the entry/exit  
door of any dwelling unit.
- G. The exit shall not terminate in an exit court  
where the court depth exceeds the court width  
unless it is possible to exit in either direction  
to the public way.
- H. Elevators shall be pressurized in accordance with  
Section 1706(g) or shall open into elevator  
lobbies. Elevator lobbies shall be separated  
from the remainder of the building and from the  
exit stairway with construction as required for  
corridors in Section 3305(g). Doors shall be  
automatic closing actuated by a smoke detector.

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Where approved by the building official, natural ventilation may be substituted for pressurization where the ventilation would prevent the accumulation of smoke or toxic gases.

I. Other occupancies may be permitted in the same building provided they comply with all the requirements of this code. Except for parking garages accessory to the Group R Occupancy, other occupancies shall not communicate with the Group R Occupancy portion of the building.

8((9)). Group B, Division 2 Occupancy office buildings not exceeding two stories in height and not exceeding 3,500 square feet per floor.

9((10)). Where a floor or areas thereof has grade or exit conditions similar to those of a ground floor, egress may be based on the requirements of the first floor. For this condition only, a floor at the exit level shall not be more than 4 feet above or below finished grade.

10((11)). Occupied roofs with a occupant load of 10 or less may have one exit.

For special requirements see the following sections: Group A, Section 3317; Group E, Section 3318; Group H, Section 3319; Group I, Section 3320; Rooms Containing Fuel-fired Equipment and Cellulose Nitrate Handling Rooms, Section 3321; Reviewing Stands, Grandstands and Bleachers, Section 3322; Laboratories, Sections 702(c) and 802(d); and Open Parking Garages, Section 709(g). For stage exits, see Section 3903(f).

Every story or portion thereof having an occupant load of 501 to 1,000 shall not have less than three exits.

Every story or portion thereof having an occupant load of 1,001 or more shall not have less than four exits.

The number of exits required from any story or floor of a building shall be determined by using the occupant load of that story or floor plus the percentages of the occupant loads of floors which exit into the level under consideration as follows:

1. Fifty percent of the occupant load in the first adjacent story or floor above and the first adjacent story or floor below, when a story below exits through the level under consideration.

2. Twenty-five percent of the occupant load in the story or floor immediately beyond the first adjacent story or floor.

The maximum number of exits required for any story or floor shall be maintained until egress is provided from the structure (See Section 3311).

1 Section 59. Subsection 3303(e) of the Seattle Building  
2 Code, 1991 Edition, is amended as follows:

3 (e) **Exits Through Enclosures or Adjoining Rooms.** Rooms may  
4 have one exit through an adjoining or intervening room which  
5 provides a direct, obvious and unobstructed means of travel  
6 to an exit corridor, exit enclosure or until egress is  
7 provided from the building, provided the total distance of  
8 travel does not exceed that permitted by other provisions of  
9 this code. In other than dwelling units, exits shall not  
10 pass through kitchens, store rooms, rest rooms, closets or  
11 spaces used for similar purposes.

12 **EXCEPTIONS:** 1. Rooms within dwelling units may exit  
13 through more than one intervening room.

14 2. Rooms with a cumulative occupant load of 10 or  
15 less may exit through more than one intervening rooms.

16 Foyers, lobbies and reception rooms constructed as required  
17 for corridors shall not be construed as intervening rooms.

18 Where two or more exits are required, in Group R, Division  
19 1 hotels and apartment houses, exit travel shall not ((be  
20 required-to)) pass through one exit enclosure in order to  
21 reach a required second exit.

22 Section 60. Subsection 3304(a) of the Seattle Building  
23 Code, 1991 Edition, is amended as follows:

#### 24 DOORS

25 **Sec. 3304. (a) General.** This section shall apply to  
26 every exit door serving an area having an occupant load of 10  
27 or more, or serving hazardous rooms or areas, except that  
28 Subsections (c), (i), (j) and (k) shall apply to all exit  
doors regardless of occupant load. Buildings or structures  
used for human occupancy shall have at least one exterior  
exit door that meets the requirements of Subsection (f).  
Doors and landings at doors which are located within an  
accessible route of travel shall also comply with Washington  
State Building Code Chapter 31, 51-20-3100 Washington  
Administrative Code and Appendix Chapter 31, 51-20-93100  
((Regulations-for-Barrier-Free-Facilities,-Chapter-51-10))  
Washington Administrative Code.

Section 61. Subsection 3304(b) of the Seattle Building  
Code, 1991 Edition, is amended as follows:

(b) **Swing and Opening Force.** Exit doors shall be of the  
pivoted or side-hinged swinging type. Exit doors shall swing  
in the direction of exit travel when serving any hazardous  
area or when serving an occupant load of 50 or more. The  
door latch shall release when subjected to a 15-pound force,  
and the door shall be set in motion when subjected to a 30-  
pound force. The door shall swing to full-open position when  
subjected to a 15-pound force. Forces shall be applied to the  
latch side. Except that at exit doors within the accessible  
route of travel such force shall not exceed 8.5 pounds, and  
at sliding and folding doors, and interior swinging doors

1 such force shall not exceed 5 pounds. At exterior doors  
2 where environmental conditions require greater closing  
3 pressure, power-operated doors shall be used within the  
4 accessible route of travel.

5 **EXCEPTIONS:** 1. Group I, Division 3 Occupancy used as a  
6 place of detention.

7 2. In other than accessible dwelling units, doors  
8 within or serving an individual dwelling unit.

9 3. Special door conforming with Subsection (h).

10 Double-acting doors shall not be used as exits when any of  
11 the following conditions exist:

12 1. The occupant load served by the door is 100 or more.

13 2. The door is part of a fire assembly.

14 3. The door is part of a smoke- and draft-control assembly.

15 4. Panic hardware is required or provided on the door.

16 A double-acting door shall be provided with a view panel of  
17 not less than 200 square inches.

18 Section 62. Subsection 3304(h) of the Seattle Building  
19 Code, 1991 Edition, is amended as follows:

20 (h) **Special Doors.** Revolving, sliding and overhead doors  
21 shall not be used as required exits. Where a turnstile is  
22 used, a gate or door to accommodate persons with disabilities  
23 shall be installed.

24 **EXCEPTION:** Horizontal sliding doors complying with  
25 U.B.C. Standard No. 43-13 may be used in:

26 A. Elevator lobbies.

27 B. Smoke barriers of Group I, Division 1.1 Occupancies.

28 ((~~E--In-uses-serving-an-occupant-load-of-less-than~~  
50+))

Power-operated doors complying with U.B.C. Standard No. 33-  
1 may be used for exit purposes. Such doors when swinging  
shall have two guide rails installed on the swing side  
projecting out from the face of the door jambs for a distance  
not less than the widest door leaf. Guide rails shall not be  
less than 30 inches in height with solid or mesh panels to  
prevent penetration into door swing and shall be capable of  
resisting a horizontal load at top of rail of not less than  
50 pounds per lineal foot.

**EXCEPTIONS:** 1. Walls or other type separators may be  
used in lieu of the above guide rail, provided all the  
criteria are met.

2. Guide rails in industrial or commercial  
occupancies not accessible to the public may conform  
with the exception to the third paragraph of Section  
1712.

1           3. Doors swinging toward flow of traffic shall not be  
2 permitted for use by untrained pedestrian traffic unless  
3 actuating devices start to function at least 8 feet 11  
4 inches beyond the door in an open position and guide  
5 rails extend 6 feet 5 inches beyond the door in an open  
6 position.

7           Clearances for guide rails shall be as follows:

8           1. Six inches maximum between rails and leading edge of  
9 door at the closest point in its arc of travel.

10          2. Six inches maximum between rails and the door in an open  
11 position.

12          3. Two inches minimum between rail at hinge side and door  
13 in an open position.

14          4. Two inches maximum between freestanding rails and jamb  
15 or other adjacent surface.

16                 Section 63. Subsection 3304(i) of the Seattle Building  
17 Code, 1991 Edition, is amended as follows:

18           (i) **Floor Level at Doors.** Regardless of the occupant  
19 load, there shall be a floor or landing on each side of a  
20 door. When access for persons with disabilities is required  
21 by the Washington State Building Code Chapter 31, 51-20-3100  
22 Washington Administrative Code and Appendix Chapter 31, 51-  
23 20-93100 ((Regulations-fer-Barrier-Free-Facilities,--Chapter  
24 51-40)) Washington Administrative Code, the floor or landing  
25 shall not be more than 1/2 inch lower than the threshold of  
26 the doorway. When such access is not required, such  
27 dimension shall not exceed one inch. Landings shall be level  
28 except for exterior landings, which may have a slope not to  
exceed 1/4 inch per foot.

**EXCEPTIONS:** 1. In Group R, Division 3 and Group M  
Occupancies and within individual units of Group R,  
Division 1 Occupancies:

A. A door may open at the top step of an interior  
flight of stairs, provided the door does not swing over  
the top step.

B. A door may open at a landing that is not more than  
8 inches lower than the floor level, provided the door  
does not swing over the landing.

C. Screen doors and storm doors may swing over  
stairs, steps or landings.

2. Doors serving building equipment rooms which are  
not normally occupied.

              Section 64. Subsection 3305(a) of the Seattle Building  
Code, 1991 Edition, is amended as follows:

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**CORRIDORS AND EXTERIOR EXIT BALCONIES**

**Sec. 3305. (a) General.** This section shall apply to every corridor serving as a required exit for an occupant load of 10 or more except that Subsection (b) shall apply to all corridors and except as provided in Subsection (g) for Group R, Division 1. For the purposes of the section, the term "corridor" shall include "exterior exit balconies" and any covered or enclosed exit passageway, including walkways, tunnels and malls. Partitions, rails, counters and similar space dividers not over 5 feet 9 inches in height above the floor shall not be construed to form corridors.

Exit corridors shall not be interrupted by intervening rooms.

**EXCEPTION:** Foyers, lobbies or reception rooms constructed as required for corridors shall not be construed as intervening rooms.

Corridors which are located within an accessible route of travel shall also comply with the Washington State Building Code Chapter 31, 51-20-93100 (~~Regulations for Barrier-Free Facilities, Chapter 51-10~~), Washington Administrative Code.

For Group I Occupancies see Section 3320(c)

Section 65. Subsection 3306(g) of the Seattle Building Code, 1991 Edition, is amended as follows:

(g) **Landings.** Stairways shall have landings at the top and bottom. Every landing shall have a dimension measured in the direction of travel not less than the width of the stairway. Such dimension need not exceed 44 inches when the stair has a straight run. There shall not be more than 12 feet vertically between landings. For landings with adjoining doors (~~which open over landings~~), see Section 3304(j).

**EXCEPTION:** Stairs serving an unoccupied roof are exempt from these provisions.

~~((The width of a landing is the dimension of the landing measured parallel to the stair width. The length of a landing is the dimension measured perpendicular to the required width of the stairway. Required width of a landing for a stairway shall be a radius equal to the stair width inscribed as an arc across the landing.~~

~~See Figure No. 33-1 for illustration of the requirements in this Section.)~~

Section 66. Subsection 3306(i) of the Seattle Building Code, 1991 Edition, is amended as follows:

(i) **Handrails.** Stairways shall have handrails on each side, and every stairway required to be more than 88 inches in width shall be provided with not less than one intermediate handrail for each 88 inches of required width. Intermediate handrails shall be spaced approximately equally across with the entire width of the stairway.

1           **EXCEPTIONS:** 1. Stairways less than 44 inches in width  
2 or stairways serving one individual dwelling unit in  
Group R, Division 1 or 3 Occupancies or a Group R,  
Division 3 congregate residence may have one handrail.

3           2. Private stairways 30 inches or less in height may have  
handrails on one side only.

4           3. Stairways having less than four risers and serving one  
5 individual dwelling unit in Group R, Division 1 or 3, or  
6 a Group R, Division 3 congregate residence or serving  
Group M Occupancies need not have handrails.

7           ~~((4--Stairways-in-stadiums-and-similar-occupancies-may  
8 use-segmented-center-handrails-when-approved-by-the  
9 building-official--))~~

10           The top of handrails and handrail extensions shall be  
11 placed not less than 34 inches or more than 38 inches above  
12 the nosing of treads and landings. Handrails shall be  
13 continuous the full length of the stairs and, except for  
14 private stairways, at least one handrail shall extend in the  
15 direction of the stair run not less than 12 inches beyond the  
16 top riser or less than ~~((12))~~23 inches beyond the bottom  
17 riser. Ends shall be returned or shall terminate in newel  
18 posts or safety terminals.

19           The handgrip portion of handrails shall be ~~((of-such-design  
20 as-to-be-easily-grasped-by-the-hand-and-shall))~~ not ~~((be))~~  
21 less than 1-1/2 inches or more than 2 inches in cross-  
22 sectional dimension or the shape shall provide an equivalent  
23 gripping surface. The handgrip portion of handrails shall  
24 have a smooth surface with no sharp corners.

25           Handrails projecting from a wall shall have a space of not  
26 less than 1-1/2 inches between the wall and the handrail.  
27 Any recess containing a handrail shall allow a clearance of  
28 not less than 18 inches above the top of the rail, and shall  
be not more than 3 inches in horizontal depth.

Handrails shall not rotate within their fittings.

~~((See-Table-No--23-B-for-required-lateral-loading-for  
handrails--~~

~~Handrails-in-buildings-required-to-be-accessible-for  
persons-with-disabilities-shall-comply-with-the-Washington  
State-Regulations-for-Barrier-Free-Facilities, Chapter 51-107  
Washington-Administrative-Code--))~~

23           Section 67. Section 3306(k) of the Seattle Building  
24 Code, 1991 Edition, is amended as follows:

25           (k) **Exterior Stairway Protection.** Except in Group R,  
26 Division 3 Occupancies, all openings in the exterior wall  
27 below and within 10 feet, measured horizontally, of an  
28 exterior exit stairway serving a building or a floor level  
having such openings in two or more floors below shall be  
protected by a self-closing fire assembly having a three-  
fourths-hour fire-protection rating. Exterior stairways  
enclosed on three or more sides shall comply with the flame-  
spread requirements for interior stairways.

1           **EXCEPTIONS:** 1. Openings may be unprotected when two  
2 separated exterior stairways serve an exterior exit  
3 balcony.

4           2. Protection of openings is not required for open  
5 parking garages conforming to Section 709.

6           Buildings using an exterior stairway as the single means of  
7 egress under the provisions of Section 3303(a), Exceptions  
8 ((7-or-8)) 6 or 7 shall have no openings within 10 feet of  
9 the stairway other than required exit doors having a one-hour  
10 fire-resistive rating. The maximum flame-spread  
11 classification of finish materials, as specified in Chapter  
12 42, shall not be reduced in exterior stairways as a result of  
13 the provision of sprinklers.

14           Section 67. Subsection 3307(a) of the Seattle Building  
15 Code, 1991 Edition, is amended as follows:

16 **RAMPS**

17           **Sec. 3307. (a) General.** Except for ramped aisles in  
18 assembly rooms, ramps used as exits shall conform to the  
19 provisions of this section. Ramped aisles within assembly  
20 rooms shall conform with the provisions in Section 3315.  
21 Ramps which are located within an accessible route of travel  
22 shall also comply with the Washington State Building Code  
23 Chapter 31, 51-20-3100 Washington Administrative Code and  
24 Appendix Chapter 31, 51-20-93100 ((Regulations-for-Barrier-  
25 Free-Facilities, chapter-51-10)), Washington Administrative  
26 Code.

27           Section 69. Subsection 3307(c) of the Seattle Building  
28 Code, 1991 Edition, is amended as follows:

          (c) **Slope.** The slope of ramps required by the Washington  
State Building Code Chapter 31, 51-20-3100 Washington  
Administrative Code and Appendix Chapter 31, 51-20-93100  
((Regulations-for-Barrier-Free-Facilities, Chapter-51-10,))  
Washington Administrative Code which are located within an  
accessible route of travel shall not be steeper than 1  
vertical to 12 horizontal. The slope of other ramps shall  
not be steeper than 1 vertical to 8 horizontal.

          Section 70. Subsection 3307(d) of the Seattle Building  
Code, 1991 Edition, is amended as follows:

          (d) **Landings.** Ramps having slopes steeper than 1 vertical  
to 15 horizontal shall have landings at the top and bottom,  
and at least one intermediate landing shall be provided for  
each 5 feet of rise. Top landings and intermediate landings  
shall have a dimension measured in the direction of ramp run  
of not less than 5 feet. Landings at the bottom of ramps  
shall have a dimension in the direction of ramp run of not  
less than 6 feet.

          Doors in any position shall not reduce the minimum  
dimension of the landing to less than 42 inches and shall not  
reduce the required width by more than 3-1/2 inches when  
fully open.

1 When ramp access is provided to comply with the Washington  
2 State Building Code Chapter 31, 51-20-3100 Washington  
3 Administrative Code and Appendix Chapter 31, 51-20-93100  
4 ((Regulations-for-Barrier-Free-Facilities,-Chapter-51-107))  
5 Washington Administrative Code and a door swings over a  
6 landing, the landing shall extend at least 24 inches beyond  
7 the latch edge of the door, measured parallel to the door in  
8 the closed position, and shall have a length parallel to the  
9 direction of travel through the doorway of not less than 5  
10 feet.

11 Section 71. Subsection 3314(a) of the Seattle Building  
12 Code, 1991 Edition, is amended as follows:

#### 13 **EXIT SIGNS**

14 **Sec. 3314. (a) Where Required.** When two or more exits from  
15 a story are required by Section 3303, and where a building is  
16 designed with a single exit stairway per Exception ((8)) 7 to  
17 Section 3303(a) exit signs shall be installed at stair  
18 enclosure doors, horizontal exits and other required exits  
19 from the story. When two or more exits are required from a  
20 room or area, exit signs shall be installed at the required  
21 exits from the room or area and where otherwise necessary to  
22 clearly indicate the direction of egress. Exit placards may  
23 be used to identify exits in other occupancies where  
24 illuminated exit signs are not required.

25 **EXCEPTIONS:** 1. Main exterior exit doors which  
26 obviously and clearly are identifiable as exits need not  
27 be signed when approved by the building official.

28 2. Group R, Division 3, and individual units of Group  
R, Division 1 Occupancies.

3. Exits from rooms or areas with an occupant load of  
less than 50 when located within a Group I, Division  
1.1, 1.2 or 2 Occupancy or a Group E, Division 3 day-  
care occupancy.

4. Exit signs shall not be required on exterior  
stairways serving exterior exit balconies.

5. Directional exit signs are not required within an  
individual tenant space of a Group B, Division 2 office  
building.

Either exit signs or exit placards shall be required at any  
other location determined by the building official to be  
necessary to clearly indicate the direction of egress.

Section 72. Subsection 3315(a) of the Seattle Building  
Code, 1991 Edition, is amended as follows:

#### 25 **AISLES**

26 **Sec. 3315. (a) General.** Aisles leading to required exits  
27 shall be provided from all portions of buildings. Those  
28 portions of every building in which seats, tables,  
merchandise, book stacks, work benches or other equipment or  
similar materials are installed shall be provided with aisles  
leading to an exit. Aisles located within an accessible route

1 of travel shall also comply with the Washington State  
2 Building Code Chapter 31, 51-20-3100 Washington  
3 Administrative Code and Appendix Chapter 31, 51-20-93100  
4 ((Regulations-for-Barrier-Free-Facilities, Chapter 51-107))  
5 Washington Administrative Code.

6  
7 Section 73. Subsection 3315(e) of the Seattle Building  
8 Code, 1991 Edition, is amended as follows:

9 (e) **Ramp Slope.** The slope of ramped aisles shall not be  
10 more than 1 vertical in 8 horizontal. Ramped aisles shall  
11 have a slip-resistant surface.

12 **EXCEPTION:** When provided with fixed seating, theaters  
13 and similar assembly rooms ((the-main-floor-of-the  
14 assembly-room-of-a-Group-A, Division 1, 2, 2.1, or 3  
15 occupancy)) may have a slope not steeper than 1 vertical  
16 to 5 horizontal.

1 Section 74. Table 33-A of the Seattle Building Code,  
 2 1991 Edition, is amended as follows:

3 TABLE NO. 33-A - MINIMUM EGRESS ((AND ACCESS)) REQUIREMENTS<sup>1</sup>

4	5	6	7	8
USE <sup>2</sup>	MINIMUM OF TWO EXITS OTHER THAN ELEVATORS ARE REQUIRED WHERE NUMBER OF OCCUPANTS IS AT LEAST	OCCUPANT LOAD FACTOR <sup>3</sup> (SQ. FT.)	((ACCESS BY MEANS OF A RAMP OR AN ELEVATOR SHALL BE PROVIDED FOR PERSONS WITH DISABILITIES AS INDICATED <sup>4</sup>	
1. Aircraft Hangars (no repair)	10	500	YES	
2. Auction Rooms	50	7	YES	
3. Assembly Areas, Con- centrated Use (with- out fixed seats) Auditoriums Churches, Chapels Dance Floors Lobby Accessory to Assembly Occupancy Lodge Rooms Reviewing Stands Stadiums	50	7	YES <sup>5</sup>	
3a. Waiting Areas	50	3	YES	
4. Assembly Areas, Less- concentrated Use Conference Rooms Dining Rooms Drinking Establishments Exhibit Rooms Gymnasiums Lounges Stages	50	((12))15	YES <sup>6</sup>	
5. Bowling Alley (assume no occupant load for bowling lanes)	50	-- <sup>4</sup>	YES	
((6. Boarding Homes, Group Care Facilities))	((6))	((80))	YES	
6 ((7)) Classrooms	50	25	YES <sup>7</sup>	
7 ((8)) Congregate Residences (accommodating 10 or less persons and having an area of 3,000 square feet or less)	10	300	NO	
Congregate Residences (accommodating more than 10 persons or having an area of more than 3,000 square feet	10	200	YES	
8 ((9)) Courtrooms	50	40	YES	
9 ((10)) Dormitories	10	50	YES	
10 ((11)) Dwellings	10	300	NO	
11 ((12)) Exercising Rooms	50	50	Yes	
12 ((13)) Garage, Parking	30	200	Yes <sup>8</sup> )	

TABLE NO. 33-A - MINIMUM EGRESS ((AND ACCESS)) REQUIREMENTS<sup>1</sup>  
(continued)

USE <sup>2</sup>	MINIMUM OF TWO EXITS OTHER THAN ELEVATORS ARE REQUIRED WHERE NUMBER OF OCCUPANTS IS AT LEAST	OCCUPANT LOAD FACTOR <sup>3</sup> (SQ. FT.)	((ACCESS BY MEANS OF A RAMP OR AN ELEVATOR SHALL BE PROVIDED FOR PERSONS WITH DISABILITIES AS INDICATED <sup>4</sup>
13 ((14)) Hospitals, Nursing Homes, Psychiatric Hospitals, ((Alcoholism Detoxification Facilities and Residential Treatment Facilities, and Maternity Homes)): Sleeping Rooms, Treatment Rooms, Health-care centers	6 10 10	80 80 80	Yes Yes Yes
14 ((15)) Hotels, Apartments ((all Group R Alcoholism Treatment Facilities))	10	200	Yes
15 ((16)) Kitchen - Commercial	30	200	Yes
16 ((16a)) Laboratories (B-2) Instructional and Teaching Laboratories at Colleges All other B-2 Labs Group E Laboratories	10 10 See Sec. 804	50 100 "	Yes Yes
17. Library Reading Room	50	50	Yes
18. Locker Rooms	30	50	Yes
19. Malls - (See Chapter 56)	--	--	---
20. Manufacturing Areas	30	200	Yes
21. Mechanical Equipment Room (For electrical equipment areas, see also Sections 110-16 and 110-33 of the Seattle Electrical Code)	30	300	No
22. Nurseries for Children, Day Care Centers, Day Treatment Centers and ((Mini-day Care Centers,)) Preschools	7	35	Yes
23. Offices without sprinkler protection Offices on floors protected by an automatic sprinkler system	50 50	100 130((9))	Yes Yes <sup>9</sup>
24. School Shops and Vocational Rooms	50	50	Yes
25. Skating Rinks	50	50 on the skating area, 15 on the deck	Yes))

TABLE NO. 33-A - MINIMUM EGRESS ((AND ACCESS)) REQUIREMENTS<sup>1</sup>  
(continued)

USE <sup>2</sup>	MINIMUM OF TWO EXITS OTHER THAN ELEVATORS ARE REQUIRED WHERE NUMBER OF OCCUPANTS IS AT LEAST	OCCUPANT LOAD FACTOR <sup>3</sup> (SQ. FT.)	((ACCESS BY MEANS OF A RAMP OR AN ELEVATOR SHALL BE PROVIDED FOR PERSONS WITH DISABILITIES AS INDICATED <sup>4</sup>
26. Storage and Stock Rooms	30	300	No
27. Stores - Retail Sales Rooms	50	30	Yes
28. Swimming Pools	50	50 for the pool area, 15 on the deck	Yes
29. Warehouses	30	500	No
30. All Others	50	100	Yes))

<sup>1</sup> Access to and egress from buildings for persons with disabilities shall be provided as specified in the Washington State Building Code Chapter 31, 51-20-3100 Washington Administrative Code and Appendix Chapter 31, 51-20-93100 ((Regulations for Barrier-Free Facilities, Chapter 51-10)) Washington Administrative Code

<sup>2</sup> For additional provisions on number of exits from Group H and I Occupancies and from rooms containing fuel-fired equipment or cellulose nitrate, see Sections 3319, 3320 and 3321, respectively.

<sup>3</sup> This table shall not be used to determine working space requirements per person.

<sup>4</sup> Occupant load based upon five persons for each alley, including 15 feet of runway.

~~((5) Reviewing stands, grandstands, bleachers and folding and telescoping bleachers need not comply.~~

~~6 Access requirements for conference rooms, dining rooms, lounges and exhibit rooms that are part of an office use shall be the same as required for the office use.~~

~~7 When the floor closest to the grade offers the same programs and activities available on other floors, access to the other floors may be by stairs only, except when the only available toilet facilities are on other levels.~~

~~8 An elevator is not required where an accessible route of travel is provided from accessible parking spaces on levels with accessible horizontal connections to the primary building served.~~

~~9 For the purposes of compliance with the Washington State Regulations for Barrier-Free Facilities, an occupant load factor of 100 shall be used.)~~

1           Section 75. Subsection 3802(e) of the Seattle Building  
2 Code, 1991 Edition, is amended as follows:

3           (e) **Group E Occupancies.** 1. **Basements.** An automatic  
4 sprinkler system shall be installed in basements or basement-  
5 like stories classified as a Group E Occupancy when the  
6 basement or basement-like story is larger than 1,500 square  
7 feet in floor area.

8           2. **Stairs.** An automatic sprinkler system shall be  
9 installed in enclosed usable space below or over a stairway  
10 in Group E Occupancies. See Section 3309(f).

11           3. **Boiler Rooms.** In every boiler room or room containing  
12 a central heating plant below usable space unless separated  
13 by a three-hour fire-resistive occupancy separation.

14           4. Group E-1 Occupancies. An approved automatic fire-  
15 extinguishing system shall be installed in all E-1  
16 occupancies constructed after July 1, 1992.

17           EXCEPTION: Portable school classrooms, provided:

18           A. Aggregate area of clusters of portable school  
19 classrooms does not exceed 5,000 square feet; and

20           B. Clusters of portable school classrooms are separated  
21 as required in Chapter 5.

22           When not required by other provisions of this chapter, a  
23 fire-extinguishing system installed in accordance with U.B.C.  
24 Standard No. 38-1 may be used for area and height increases  
25 and substitution for one-hour construction allowed by the  
26 Building Code.

Section 76. Table 38-A of the Seattle Building Code, 1991 Edition, is amended as follows:

TABLE NO. 38-A -- STANDPIPE REQUIREMENTS

OCUPANCY	NONSPRINKLERED BUILDING <sup>1</sup> Standpipe Class	Hose Requirements	SPRINKLERED BUILDING <sup>2,3</sup> Standpipe Class	Hose Requirement
1. Occupancies exceeding 75 ft. in height <sup>10</sup>	III <sup>8,9</sup>	Yes <sup>5</sup>	I <sup>8,9</sup>	No
2. Occupancies 4 stories or more but less than 75 ft. in height, except Group R, Div. 3	[I <sup>7,9</sup> & II <sup>4</sup> ] (or III <sup>8,9</sup> )	Yes <sup>5</sup>	I <sup>7,9</sup> (or III <sup>8,9</sup> )	No
3. Group A Occupancies with occupant load exceeding 1,000 <sup>6</sup>	II	Yes	No Requirements <sup>12</sup>	No <sup>12</sup>
4. Group A, Div. 2.1 Occupancies over 5,000 square feet in area used for exhibition	II	Yes	II	Yes
5. Groups I, H, B, Div. 1, 2 or 3 Occupancies less than 4 stories in height but greater than 20,000 square feet per floor	II <sup>4</sup>	Yes	No Requirement <sup>11</sup>	No <sup>11</sup>

1. Except as otherwise specified in Item 4 of this table, Class II standpipes need not be provided in basements having an automatic fire-extinguishing system throughout.
2. The standpipe system may be combined with the automatic sprinkler system.

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3. Portions of otherwise sprinklered buildings which are not protected by automatic sprinklers shall have Class II standpipes installed as required for the unsprinklered portions.
4. In open structures where Class II standpipes may be damaged by freezing, the building official may authorize the use of Class I standpipes which are located as required for Class II standpipes.
5. Hose is required for Class II standpipes only.
6. Class II standpipes need not be provided in assembly areas used solely for worship.
7. The Class I standpipe may be omitted in Group B, Division 2 and Group R, Division 1 Occupancies when primary fire department vehicle access is provided on at least one side within 3 stories of the roof (not over 35 feet total height).
8. Fire department outlets on Class I and III standpipes need not be provided at grade level or floors below grade when all portions of such floor are within 150 feet hose travel distance of grade level exterior doors fronting on streets or yards usable by fire department apparatus.
9. Class I and III standpipes shall have two 2-1/2 inch roof outlets. The outlets shall be a minimum of 10 feet from the roof edge, skylight, light well or other opening; unless protected by a 42 inch high guardrail or equivalent.
10. For additional requirements, see Section 1807.
11. Exception - See Article 81 of the Seattle Fire Code for special requirements.
12. Class II standpipe is required for legitimate stages: see Section 3805(d).

1           Section 77. Section 3901(b) of the Seattle Building  
2 Code, 1991 Edition, is amended as follows:

3           (b) **Definitions.** For the purpose of this chapter, certain  
4 terms are defined as follows:

5           **BATTEN** is a flown metal pipe or shape on which lights or  
6 scenery are fastened.

7           **DROP** is a large piece of scenic canvas or cloth which hangs  
8 vertically, usually across the stage area.

9           **FLY** is the space over the stage of a theater where scenery  
10 and equipment can be hung out of view. Also called lofts and  
11 rigging lofts.

12           **FLY GALLERY** is a narrow raised platform at the side of  
13 legitimate stage from which the lines for flying scenery are  
14 manipulated.

15           **GRIDIRON** is the arrangement of beams over a legitimate  
16 stage supporting the equipment for flying scenery and hanging  
17 battens from which curtains, scenery and lighting are hung.

18           **LEG DROP** is a long narrow strip of fabric used for masking.  
19 When used on either or both sides of the acting area, it is  
20 provided to designate an entry onto the stage by the actors.  
21 It is also used to mask the side stage area. They may also  
22 be called "wings."

23           **PINRAIL** is a beam at one side of a legitimate stage through  
24 which wooden or metal pins are driven and to which lines from  
25 the flies are fastened.

26           **PLATFORM** is that raised area within a building used for the  
27 presentation of music, plays or other entertainment; the head  
28 table for special guests; the raised area for lectures and  
speakers; boxing and wrestling rings; theater in the round;  
and similar purposes wherein there are not overhead hanging  
curtains, drops, scenery or stage effects other than  
lighting.

**PLATFORM, PERMANENT,** is a platform used within an area for  
more than 30 days.

**PLATFORM, TEMPORARY,** is a platform used within an area for  
not more than 30 days.

**PROSCENIUM WALL** is the wall that separates the stage from  
the auditorium or house.

**STAGE** is a partially enclosed area within a building used  
for the purpose of entertainment and shall be classified as  
either:

**Stage, Legitimate,** is a stage wherein curtains, drops, leg  
drops, scenery, lighting devices or other stage effects are  
retractable horizontally or vertically or suspended overhead.

**Stage, Regular,** is a stage wherein curtains, fixed leg  
drops, valances, scenery and other stage effects are hung and  
are not retractable, with the exception of a valance, a light

1 trough, the main (house) curtain, a bank of lights and a  
2 single back drop, which may be retractable without the stage  
3 being considered a legitimate stage.

4 **Stage, Thrust,** is a platform extending beyond the  
5 proscenium arch and into the audience.

6 **THEATER-IN-THE-ROUND** is an acting area in the middle of a  
7 room with the audience sitting all around it.

8 Section 78. Subsection 3903(e) of the Seattle Building  
9 Code, 1991 Edition, is amended as follows:

10 **Sec. 3903(e) Gridirons, Fly Galleries and Pinrails.**  
11 Gridirons, fly galleries and pinrails shall be constructed of  
12 noncombustible material. Gridirons are not to be considered  
13 a floor when measuring height above a floor for Section 1806,  
14 omitting of fireproofing.

15 Section 79. Subsection 4206(a) of the Seattle Building  
16 Code, 1991 Edition, is amended as follows:

#### 17 **INTERIOR FLOOR FINISHES**

18 **Sec. 4206 (a) Classification.** Interior floor finish  
19 materials (~~in-an-exit-enclosure, passageway-or-corridor~~)  
20 shall be tested and classified on the basis of tests  
21 conducted in accordance with Appendix IV-A of the Seattle  
22 Fire Code as follows:

23 1. **Class 1 Interior Floor Finish.** Materials having a  
24 minimum critical radiant flux of 0.45 watt per square  
25 centimeter.

26 2. **Class 2 Interior Floor Finish.** Materials having a  
27 minimum critical radiant flux of 0.22 watt per square  
28 centimeter.

Section 80. Subsection 4206(b) of the Seattle Building  
Code, 1991 Edition, is amended as follows:

(b) **Interior Floor Materials.** The maximum radiant flux  
value classification of interior floor finish materials which  
are to be installed in an exit enclosure, passageway or  
corridor shall not exceed that set forth in Table No. 42-C  
for the occupancies specified.

**EXCEPTIONS:** 1. Interior floor finish materials of a  
traditional type, such as wood, vinyl, linoleum,  
(~~terrazzo~~) and other resilient floor covering  
materials.

2. In other than enclosed exitways, when an approved  
automatic sprinkler system is installed, Class 2  
materials may be used in any area where Class 1  
materials are required and the materials need not be  
classified in areas where Class 2 materials are  
permitted.

When used as floor finish in exit enclosures, carpeting and  
similar materials having a napped, tufted, looped or similar

1 surface shall have a Class 1 radiant flux value  
 2 classification. Carpeting shall not be used in stairways  
 3 required to be of noncombustible construction as specified  
 4 for Type I or Type II buildings in Sections 1805 and 1905.

5 All carpeting in schools, nursing homes, day care centers,  
 6 places of public assembly and in corridors in high rise  
 7 buildings shall have a Class 2 radiant flux value  
 8 classification. Interior floor finish materials in hospitals  
 9 shall have a Class 1 radiant flux value classification.  
 10 Combustible floor finish is not permitted in rooms occupied  
 11 by inmates or patients whose personal liberties are forcibly  
 12 restrained.

13 Section 81. Table 42-C of the Seattle Building Code,  
 14 1991 Edition, is amended as follows:

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TABLE NO. 42-C Maximum Radiant Flux Class		
Occupancies	Enclosed Vertical Exitways <sup>1,2</sup>	Other Exitways <sup>1,2</sup>
A	2	2
B	2	2
E	2	2
H-1-6	1	1
H-7	2	2
I(( <sup>3</sup> ))	1	1
M	No restrictions	No restrictions
R-1	2(( <sup>4</sup> )) <sup>3</sup>	2(( <sup>4</sup> )) <sup>3</sup>
R-3	No restrictions	No restrictions

21 <sup>1</sup> ((In other than Group R, Division 1 Occupancies,  
 22 e)) Combustible floor finish is not permitted for stairs  
 23 in Types I and II construction except for stairs of  
 24 combustible construction which are permitted by either  
 25 Section 1805 or 1905, where finishes are not restricted.

26 <sup>2</sup> "Enclosed vertical exitways" are enclosures as regulated  
 27 in Section 3309 including horizontal extensions of the  
 28 enclosure to the exterior of the building. "Other  
 exitways" are exitways other than those required by  
 Section 3309.

((<sup>3</sup>--Combustible floor finish is not permitted in rooms  
 occupied by inmates or patients whose personal liberties  
 are restrained--))

1 34 The finish materials on stairs within a dwelling unit  
2 are not restricted regardless of the construction of the  
3 building.

4 Section 82. Section 5103 of the Seattle Building Code,  
5 1991 Edition, is amended as follows:

6 **CODES ADOPTED BY REFERENCE**

7 **Sec. 5103** The following codes are hereby adopted by  
8 reference and together with the provisions of this chapter  
9 shall constitute the Elevator Code of the City of Seattle. A  
10 copy of each is filed in the Office of the City Comptroller.

11 (a) Safety Code for Elevators and Escalators, ANSI/ASME  
12 A17.1-((1987))1990 with ASME A17.1a-1991 Addenda.

13 **EXCEPTION:** Part XIX of ANSI A17.1, Elevators used for  
14 Construction, is not adopted.

15 (b) The building official may adopt by administrative  
16 rule, in accordance with Section 207 of this code, addenda to  
17 the Safety Code for Elevators and Escalators, ANSI/ASME  
18 A17.1-((1987))1990 which further the intent and purpose of  
19 this code, which encourage the use of state of the art  
20 technology, materials or methods of construction, and which  
21 provide standards which are equal or better than those  
22 contained in this code.

23 (c) Safety rules governing ((existing)) elevators,  
24 dumbwaiters, escalators and other lifting devices - moving  
25 walks, Washington Administrative Code Chapter 296-81,  
26 Sections .005 through .370, inclusive, ((1986-edition))  
27 effective January 1, 1993.

28 (d) Safety regulations for casket lifts in mortuaries,  
Washington Administrative Code Chapter 296-91, 1986 edition.

(e) Chapter 296-93 Washington Administrative Code for  
Material Lifts, 1986 edition.

(f) Chapter 296-95 Washington Administrative Code  
establishes minimum standards for all existing conveyances.

Section 83. Section 5104 of the Seattle Building Code,  
1991 Edition, is amended as follows:

**DEFINITIONS**

**Sec. 5104.** The following definitions are in addition to  
Section 3 of ANSI A17.1, RCW 70.87, Laws Governing Elevators  
and Other Lifting Devices, and Chapter 4 of this code.

**ALTERATIONS, REPAIRS AND REPLACEMENTS** - See Part XII, ANSI  
A17.1.

**ANSI CODE** shall mean the American National Standard Safety  
Code for Elevators and Escalators with Appendices A through  
H, published by the American Society of mechanical Engineers,  
designated ANSI A17.1 ((1987)) 1990 with ASME A17.1a-1991  
Addenda.

1       **AUTOMATIC ELEVATOR** shall mean a type of elevator which does  
2 not require an attendant. All calls are registered by the  
3 passengers.

4       **AUTOMOBILE PARKING ELEVATOR** shall mean an elevator located  
5 in either a stationary or horizontally moving hoistway and  
6 used exclusively for parking automobiles where, during the  
7 parking process, each automobile is moved under its own power  
8 onto and off the elevator directly into parking spaces or  
9 cubicles in line with the elevator and where no persons are  
10 normally stationed on any level except the receiving level.

11       **CONVEYANCE** shall mean an elevator, escalator, dumbwaiter,  
12 material lift, automobile parking elevator or moving walk.

13       **CONVEYANCES IN SERVICE** shall mean that the units are in  
14 operation, are inspected and certified for operation by the  
15 building official.

16       **CONVEYANCES OUT OF SERVICE** shall mean the use of the unit  
17 has been prohibited either temporarily or permanently in  
18 accordance with Section 5105 below.

19       **ENFORCING AUTHORITY** as used in the ANSI Code means the  
20 building official.

21       **EXISTING INSTALLATIONS** means all conveyances which have  
22 been tested and approved for use by the building official.

23       **INSPECTOR** means inspectors employed by the City of Seattle  
24 and working under order from the building official.

25       **MATERIAL LIFT** means a fixed, stationary conveyance that:

- 26       (1) Has a car or platform that moves in guides;
- 27       (2) Serves two or more floors or landings of a building or  
28 structure;
- 29       (3) Has a vertical rise of at least five feet and no more  
30 than sixty feet;
- 31       (4) Has a maximum speed of fifty feet per minute;
- 32       (5) Is an isolated, self-contained lift and is not a part  
33 of a conveying system;
- 34       (6) Travels in an inclined or vertical, but not  
35 horizontal, direction;
- 36       (7) Is operated only by, or under the direct supervision  
37 of, an individual designated by the employer; and
- 38       (8) Is installed in a commercial or industrial area, and  
39 not in an area that is open to access by the general public.

40       **OTHER LIFTING DEVICES** as regulated by WAC 296-81 shall  
41 include the equipment listed under Section 1 of ANSI A17.1.  
42 The building official shall have the responsibility for  
43 making a decision as to whether the proposed installation and  
44 use of the device is subject to the requirements of this  
45 chapter.

1 **SUPERVISOR OF SAFETY** as referred to in the Washington State  
Safety Rules (WAC-296-81) shall mean the building official.

2 Section 84. Section 5116(e) of the Seattle Building  
3 Code, 1991 Edition, is amended as follows:

4 **Sec. 5116 (e) Requirements to Accommodate People with**  
**Disabilities.** All new elevators shall comply with Washington  
5 State Building Code Chapter 31, 51-20-3100 Washington  
6 Administrative Code and Appendix Chapter 31, 51-20-93100  
Washington Administrative Code ((Washington-Administrative  
Code-Chapter-51-10.)) In addition, WAC 296-81-315 and -335  
shall apply.

7 Section 85. Section 5130 of the Seattle Building Code,  
8 1991 Edition, is amended as follows:

9 **SAFETY AND INSPECTION TEST REQUIREMENTS (ANSI A17.1, RULES**  
**1002.2b and 1002.3)**

10 **Sec. 5130. (a) ANSI A17.1, Rule 1002.3.** Elevators shall  
11 be subject to five-year inspection test requirements in  
accordance with ANSI A17.1, Rule 1002.3, Five-Year Inspection  
12 Test Requirements, as amended below:

13 **Rule 1002.3 Five-Year Inspection Test Requirements**

14 **1002.3a Safety and Governor Systems.** Type A, B, and C car  
15 safeties, and their governors, shall be tested with rated  
load in the car. Counterweight safety tests shall be made  
with no load in the car. Tests shall be made by tripping the  
governor by hand at the rated speed.

16 **EXCEPTION:** Safety and governor system of cars  
17 operating on wood guide rails shall be tested by  
tripping the governor by hand with rated load in the  
car, and the car at rest.

18 The following operational conditions shall be checked  
19 (Division 113):

20 (1) Type B safeties shall stop the car with the rated load  
21 within the required range of stopping distances for  
which the governor is tripped [Item 113.4, Tables  
113.4(a) and 113.4(b)(1) through (3)].

22 (2) For Type A safeties and Type A safety parts of Type C  
23 safeties, there shall be sufficient travel of the safety  
rollers or dogs remaining after the test to bring the  
24 car and its rated load to rest on safety application at  
governor tripping speed.

25 A metal tag shall be attached to the safety-releasing  
carrier in a permanent manner, giving the date of the safety  
26 test together with the name of the person or firm who  
performed the test.

27 (3) See ANSI A17.2, Appendix C, Inspector's Manual, for  
28 definitions of Gradual Wedge Clamp and Drum Operated Flexible  
Guide Clamp Safeties.

1 (b) **ANSI A17.1, Rule 1002.2b.** The tests required by ANSI  
2 A17.1, Rule 1002.2b paragraphs 2(b) and 2(c) ~~((3) and (4))~~  
shall be performed at ~~((one))~~ five-year intervals with rated  
load in the car.

3 Section 86. Chapter 55 of the Seattle Building Code,  
4 1991 Edition, is amended as follows:

5 **CHAPTER 55**

6 **TRANSFORMER VAULTS**

7 **GENERAL**

8 **Sec. 5501. (a) Scope.** Vaults housing private  
9 transformers shall comply with the provisions of this chapter  
10 and Article 450 of the Seattle Electrical Code. The  
11 provisions of this chapter are minimum standards for private  
transformer vaults. Vaults containing utility transformers  
or equipment ~~((shall-also))~~ will be required to comply with  
additional requirements of Seattle City Light.

12 **(b) Definitions. 1. UTILITY TRANSFORMER VAULT.** Utility  
13 transformer vaults are those which contain transformer  
equipment owned by Seattle City Light or other electric power  
utility.

14 **2. PRIVATE TRANSFORMER VAULT.** Private transformer vaults  
15 are those which contain transformer equipment that is not  
owned by Seattle City Light or other electric power utility.

16 **WHEN REQUIRED**

17 **Sec. 5502. (a) Utility Transformers.** Transformer vaults  
18 shall be required for all utility transformers located inside  
a building. Seattle City Light shall approve the size,  
location, and layout of all utility vaults. See Appendix  
Chapter 55 for requirements.

19 **(b) ~~((When-Required-))~~ Private Transformers.** Transformer  
20 vaults shall be required for all oil-insulated private  
transformers. ~~((and-all-other))~~ Vaults shall be required for  
21 other private transformers rated over 35,000 volts which are  
~~((when))~~ located inside ~~((within))~~ a building.

22 **EXCEPTION:** Vaults need not be provided for certain  
23 oil-insulated private transformers in accordance with  
Article 450 of the Seattle Electrical Code.

24 ~~((Required-transformer-vaults-shall-comply-with-the~~  
~~provisions-of-this-chapter-and-Article-450-of-the-Seattle~~  
25 ~~Electrical-Code-))~~

26 **ACCESS TO PRIVATE TRANSFORMER VAULTS**

27 **Sec. 5503. (a) General.** At least one accessible opening,  
which may be a door or ventilation opening, shall be provided  
28 to every vault. The opening shall be adequate in size to  
permit the installation and removal of the equipment located  
in the vault, and shall be kept unobstructed at all times.  
An unobstructed level area shall be provided at the entrance

1 to all vaults. The level area shall be large enough to allow  
2 for removal of the transformer.

3 **LOCATION**

4 **Sec. 550((2))4.** Private transformer ((V)) vaults shall be  
5 located where they can be ventilated to the outside air  
6 without using flues or ducts wherever such an arrangement is  
7 practicable.

8 **CONSTRUCTION**

9 **Sec. 550((3))5.** All private transformer ((V)) vaults shall  
10 ((not)) be ((less-than)) of at least three-hour fire-  
11 resistive construction. The floors of private transformer  
12 vaults in contact with the earth shall be of concrete not  
13 less than four inches thick.

14 **EXCEPTIONS:** 1. Subject to the approval of the  
15 building official, where the total capacity of  
16 ((an)) private oil-insulated transformers does not  
17 exceed 112-1/2 kVA, ((the)) vaults may be  
18 constructed of reinforced concrete not less than 4  
19 inches thick.

20 2. Subject to the approval of the building  
21 official, private transformer vaults may be  
22 constructed of one-hour fire-resistive construction  
23 where the transformer((s-are)) is protected with an  
24 automatic sprinkler, water spray, carbon dioxide,  
25 or halon fire extinguishing system. ((  
26 construction-of-one-hour-fire-resistance-rating-may  
27 be-used-))

28 **((DOORWAYS)) OPENINGS INTO PRIVATE TRANSFORMER VAULTS**

**Sec. 550((4))6.** Vault-doorways shall be protected as  
follows:

1 1.---Type-of-Door-)) (a) Protection of Openings. All  
2 ((Each)) doorways ((leading)) opening into a transformer vault  
3 from the building interior shall be protected by a ((self  
4 closing)) fire assembly having a fire-protection rating equal  
5 to that required for the vault. ((All-e)) Exterior openings,  
6 ((in-a-vault)) other than doors and ventilation openings,  
7 ((if-located-below-openings-in-another-story-or-if-less-than  
8 10-feet-from-other-doors-or-windows-of-the-same-building-))  
9 shall be protected by ((a)) fire assembl((y))ies having a  
10 three-fourths-hour fire-protection rating((r)) when located  
11 below openings in another story or when located less than 10  
12 feet from other doors or windows of the same buildings. ((No  
13 door-shall-swing-into-the-transformer-room-))

14 **EXCEPTION:--** Subject to the approval of the  
15 building official, interior doors may have a one  
16 hour fire-resistance rating where transformers are  
17 protected with automatic sprinkler, water spray,  
18 carbon dioxide or halon.

19 **2.---Sills.---** A doorsill or curb of sufficient height to  
20 confine within the vault the oil from the largest transformer  
21 shall be provided, but in no case shall the height be less  
22 than 4 inches.)

1 ((3)) (b) Locks. (~~Entrance doors shall be equipped with~~  
2 ~~self-closing and self-locking devices. Locks and latches~~  
3 ~~shall be so arranged that the door may be readily and quickly~~  
4 ~~opened from the inside.~~) All doors shall be equipped with  
5 locks and shall be kept locked. Personnel doors shall be  
6 equipped with panic bars, pressure plates, or other devices  
7 that are normally latched but open under simple pressure.

8 (c) Doorways. A removable curb 4 inches high, or as high  
9 as necessary to contain oil, shall be installed below each  
10 door. All doors shall be made of steel and shall swing out  
11 of the vault 180 degrees. Equipment access doorways to  
12 vaults containing single-phase transformers shall have clear  
13 openings of at least 42 inches wide and 6 feet 8 inches high.  
14 Doorways for personnel access shall have clear openings of at  
15 least 36 inches wide and 6 feet 8 inches high.

#### 16 VENTILATION SYSTEMS FOR PRIVATE TRANSFORMER VAULTS

17 Sec. 550((5))7 (a) ((Openings)) General. Ventilation  
18 ((openings)) systems shall be provided to dispose of ((the))  
19 heat from transformer ((full-load)) total losses without  
20 creating a temperature rise which is in excess of the  
21 transformer rating. ((and shall be in accordance with the  
22 following:

23 1. Location. Exhaust ventilation shall be to the outside  
24 of the building. Exhaust and intake ventilation openings  
25 shall be located not less than 10 feet from fire escapes,  
26 required exits, combustible materials and unprotected  
27 openings.

28 2. Covering. Ventilation openings shall be covered with  
29 durable metal gratings, screens or louvers.

30 3. Opening Protection. Ventilation openings to the  
31 interior of the building shall be protected by automatic  
32 closing fire dampers having a fire resistance rating equal to  
33 that required for the vault. The actuating device on the  
34 fire damper should be made to function at a temperature of  
35 165°F.

36 4. Ventilation Ducts. Exhaust ventilation ducts, if used,  
37 shall be enclosed in construction having a fire resistive  
38 rating equal to that of the vault. Exhaust ducts shall  
39 extend from the vault to the outside of the building. An  
40 exhaust duct for a mechanically ventilated vault shall be  
41 used exclusively for ventilating the vault.)

42 (b) ((Circulation)) Method of Ventilation. Ventilation  
43 shall be provided by either ((by)) natural circulation or  
44 mechanical circulation.

45 ((1.)) A. ((Ventilation by)) Natural Circulation. ((A  
46 vault ventilated by natural circulation of air shall be  
47 permitted to have roughly half of the total area of openings  
48 required for ventilation in one or more openings in the lower  
49 half of the vault walls and the remainder in one or more  
50 openings in the roof of the vault or in the upper half of the  
51 exterior sidewalls.))

52 The combined minimum net intake and exhaust area, exclusive  
53 of area occupied by screens, grating or louvers, shall not be  
54 less than 3 square inches per kVA of transformer capacity.

1 ((An-area-equal-to-at-least-one-half-of-t)) The total  
2 required area shall be ((provided-each-for)) divided roughly  
equally between intake and exhaust. In no case shall either  
the intake or exhaust area be less than 72 square inches.

3 ((2-)) B.((Ventilation-by)) Mechanical Circulation.  
4 ((The)) Positive or negative pressure ventilation systems  
5 shall supply a minimum of 1.6 cfm of air per kVA of  
6 transformer capacity. The fans shall be installed ((external  
7 to)) outside of the vault((=)) and shall be controlled by a  
8 thermostat located inside the vault. The intake shall be  
9 located in the lower one-half of an exterior walls of the  
10 vault and the exhaust shall be in the roof or ceiling of the  
11 vault or in the upper one-half of the sidewalls of the vault.  
12 The ventilation system shall cause air to flow longitudinally  
13 across the transformers.

14 (c) Ventilation Openings and Duct Terminations.  
15 Ventilation openings and duct terminations shall comply with  
16 the following:

17 1. Location of exhaust ventilation openings and exhaust  
18 duct terminations. Unless otherwise approved by the building  
19 official, exhaust ventilation openings and duct terminations  
20 shall be located not less than 10 feet from fire escapes,  
21 required exits, combustible materials and unprotected  
22 openings. Exhaust outlets shall be located on the exterior  
23 of the building.

24 2. Covering. Ventilation openings shall be covered with  
25 durable metal gratings, screens or louvers.

26 3. Opening protection. Intake ventilation openings in the  
27 vault walls on the interior of the building shall be  
28 protected by automatic closing fire dampers having a fire-  
resistance rating at least equal to that required for the  
vault. The actuating device on the fire damper should be  
made to function at a temperature of 165 degrees F.

29 4. Ventilation ducts. Exhaust ventilation ducts, if used,  
30 shall be enclosed in construction having a fire-resistance  
31 rating at least equal to that required for the vault.  
32 Exhaust ducts shall extend from the vault to the outside of  
33 the building. An exhaust duct for a mechanically ventilated  
34 vault shall be used exclusively for ventilating the vault.  
35 No fire dampers shall be installed in exhaust ventilation  
36 ducts.

#### 37 DRAINAGE FOR PRIVATE TRANSFORMER VAULTS

38 Sec. 550((6))8 (a) General. Drains shall be prohibited  
39 ((unless-specifically-approved-by-the-fire-chief)) in all  
40 transformer vaults.

41 (b) ((Storage)) Sumps. ((A-storage-sump-with-metal-grate  
42 cover-shall-be-installed-in-the-vault-and-the-floor-pitched  
43 to-drain-into-it.--The-sump-shall-not-be-less-than-8-cubic  
44 feet,-with-a-depth-and-width-not-less-than-12-inches,-and  
45 designed-with-a-bottom-to-hold-an-accumulation-of-water-or  
46 oil--))

47 1. General. Vaults shall have a dry sump. All sumps shall  
48 have an opening of at least 12 inches diameter with a  
removable metal grate that is flush with the floor. The sump

1 shall be located near the personnel door, out of the entry  
2 path. The vault floor shall slope at least one inch in ten  
3 feet toward the sump.

4 2. Vaults. Sumps in private vaults shall have at least 8  
5 cubic foot capacity.

6 ((WATER)) PIPES AND ((ACCESSORIES)) DUCTS IN PRIVATE  
7 TRANSFORMER VAULTS

8 Sec. 550((7))9. ((Any)) No pipes or ducts ((systems))  
9 foreign to the electrical installation shall ((not)) enter or  
10 pass through any transformer vault. Piping or other  
11 facilities provided for fire protection inside the vault or  
12 for ((water-cooled)) transformer((s)) cooling are ((not))  
13 deemed not to be foreign to the electrical installation.

14 ((EQUIPMENT-TO-BE-ACCESSIBLE

15 Sec.---5508,---An-accessible-vault-opening,---which-may-be-a  
16 door-or-suitable-ventilation-opening,---adequate-in-size-to  
17 permit-the-installation-and/or-removal-of-equipment-to-be  
18 located-in-the-vault,---shall-be-provided-and-kept-free-of  
19 obstruction-at-all-times-))

20 STORAGE IN PRIVATE TRANSFORMER VAULTS

21 Sec. 550((9))10 No Material((s)) ((shall-not)) may be  
22 stored in any transformer vault((s)).

23 ((LOCATION-OF-PAD-MOUNT-TRANSFORMERS

24 Sec.---5510,---Pad-mount-transformers-shall-not-be-located  
25 closer-than-10-feet-to-a-property-line-as-defined-in  
26 Subsection-504(a),---nor-closer-than-10-feet-to-a-building  
27 unless,---within-the-10-foot-distance,---the-building-wall-is-not  
28 less-than-three-hour-fire-resistive-construction-and-openings  
to-the-interior-are-protected-by-fire-assemblies-having-a  
three-hour-fire-protection-rating-))

1           Section 87.     The Seattle Building Code, 1991 Edition,  
2 is amended by adding Appendix Chapter 55 as follows:

3  
4                                   **APPENDIX CHAPTER 55**

5                                   **UTILITY TRANSFORMER VAULTS**

6  
7           **GENERAL**

8           **Section 5511. (a) Scope.** Vaults containing utility  
transformers or equipment will be required to comply with  
this appendix chapter and requirements of Seattle City Light.

9           **(b) Definition.** Utility transformer vaults are those  
10 which contain transformer equipment owned by Seattle City  
Light or other electric power utility.

11           **WHEN REQUIRED**

12           **Section 5512.** Transformer vaults shall be required for all  
utility transformers located inside a building. Seattle City  
13 Light shall approve the size, location, and layout of all  
utility vaults.

14           **ACCESS**

15           **Section 5513. (a) General.** At least one accessible  
opening, which may be a door or hatch, shall be provided to  
every vault. The opening shall be adequate in size to permit  
16 the installation and removal of the equipment located in the  
vault, and shall be kept unobstructed at all times. An  
17 unobstructed level area shall be provided at the entrance to  
all vaults. The level area shall be large enough to allow  
18 for removal of the transformer.

19           **(b) Access.** Vaults shall be accessible to Seattle City  
Light personnel at all times. If it is necessary to pass  
20 through locked doors to reach a vault, keys to those doors  
shall be kept in a key box which can be opened with the key  
to the transformer vault. Persons other than Seattle City  
21 Light personnel shall not have access to utility transformer  
vaults.

22           **LOCATION**

23           **Section 5514.** Vaults shall be located so that there is an  
equipment access path between the vault and the building  
24 exterior. The floor along the path shall be designed to  
support the weight of the transformer and other equipment.  
25 If a path is not provided, the building owner shall agree to  
remove the equipment to the right of way whenever the  
26 Superintendent of Seattle City Light determines it is  
necessary, and the owner shall pay all costs for removal and  
27 replacement. All doors between the vault and the building  
exterior shall be large enough for removal of transformers.  
28 See Section 5507(c) for doorway requirements.

1 **SIZE**

2 **Section 5515.** The size of vaults shall be as determined by  
3 the Superintendent of Seattle City Light.

4 **CONSTRUCTION**

5 **Section 5516.** Floors, walls and ceilings of vaults shall  
6 have at least a three-hour fire-resistive rating and shall be  
7 constructed of solid concrete or concrete-filled concrete  
8 masonry units at least 6 inches thick. Vault floors shall be  
9 smooth with no pads and shall slope toward the vault sump.  
10 Seismic anchor inserts shall be embedded in the floor when  
11 required by the Superintendent of Seattle City Light.

12 **OPENINGS INTO TRANSFORMER VAULTS**

13 **Section 5517. (a) Protection of Openings.** All doorways  
14 opening into a transformer vault from the building interior  
15 shall be protected by a fire assembly having a fire-  
16 protection rating equal to the fire-resistive rating required  
17 for the vault. Exterior openings, other than doors and  
18 ventilation openings, shall be protected by fire assemblies  
19 having a three-fourths-hour fire-protection rating when  
20 located below openings in another story or when located less  
21 than 10 feet from other doors or windows of the same  
22 building.

23 **(b) Locks.** All doors shall be equipped with locks and  
24 shall be kept locked. Doors to vaults shall be equipped with  
25 locks provided by the utility. Personnel doors shall be  
26 equipped with panic bars, pressure plates, or other devices  
27 that are normally latched but open under simple pressure.

28 **(c) Doorways.** A removable curb 4 inches high, or as high  
as necessary to contain oil, shall be installed below each  
door. All doors shall be made of steel and shall swing out  
of the vault 180 degrees. Equipment access doorways to  
vaults containing single-phase transformers shall have clear  
openings at least 42 inches wide and 6 feet 8 inches high.  
Equipment access doorways for all other transformers shall be  
as specified by Seattle City Light. Doorways for personnel  
access shall have clear openings of at least 36 inches wide  
and 6 feet 8 inches high.

**VENTILATION SYSTEMS**

**Sec. 5518. (a) General.** Ventilation systems shall be  
provided to dispose of heat from transformer total losses  
without creating a temperature rise which is in excess of the  
transformer rating.

**(b) Method of Ventilation.** Ventilation for transformer  
vaults shall be provided by either natural circulation or  
mechanical circulation.

**1. Natural circulation.** All vaults containing up to three  
transformers of no more than 75 kVA each may be ventilated by  
natural circulation. The combined minimum net intake and  
exhaust area, exclusive of area occupied by screen, grating  
or louvers, shall not be less than 3 square inches per kVA of  
transformer capacity. The total required area shall be  
divided roughly equally between intake and exhaust. In no

1 case shall either intake or exhaust be less than 72 square  
2 inches.

3 Roughly one-half the total area of required ventilation  
4 openings shall be in one or more openings in the lower one-  
5 half of the vault walls and roughly one-half shall be in one  
6 or more openings in the upper one-half of the exterior  
7 sidewalls or roof of the vault. Intake openings shall be  
8 located on the opposite side of the vault from exhaust  
9 openings. Intake openings shall not be located in the  
10 ceiling of the vault.

11 **2. Mechanical circulation.** Positive or negative pressure  
12 ventilation systems shall supply a minimum of 1.6 cfm of air  
13 per kVA of transformer capacity. The fans shall be installed  
14 outside of the vault and shall be controlled by a thermostat  
15 located inside the vault. The intake shall be located in the  
16 lower one-half of an exterior wall of the vault and the  
17 exhaust shall be in the roof or ceiling or in the upper one-  
18 half of the sidewalls of the vault. The ventilation system  
19 shall cause air to flow longitudinally across the  
20 transformers.

21 Forced air ventilation systems shall be designed by the  
22 applicant. The capacity and location of the ventilation  
23 system shall be approved by the Superintendent of Seattle  
24 City Light.

25 Power for the ventilation system shall be provided by the  
26 building owner.

27 **(c) Ventilation Openings and Duct Terminations.**

28 Ventilation openings and duct terminations shall comply with  
the following:

1. **Location of exhaust ventilation openings and exhaust  
duct terminations.** Unless otherwise approved by the building  
official, exhaust ventilation openings and duct terminations  
shall be located not less than 10 feet from fire escapes,  
required exits, combustible materials and unprotected  
openings. Exhaust outlets shall be located on the exterior  
of the building.

2. **Covering.** Ventilation openings shall be covered with  
durable metal gratings, screens or louvers.

3. **Opening protection.** Intake ventilation openings in the  
vault walls on the interior of the building shall be  
protected by automatic closing fire dampers having a fire-  
resistance rating at least equal to that required for the  
vault. The actuating device on the fire damper should be  
made to function at a temperature of 165 degrees F.

4. **Ventilation ducts.** Exhaust ventilation ducts, if used,  
shall be enclosed in construction having a fire-resistance  
rating at least equal to that required for the vault.  
Exhaust ducts shall extend from the vault to the outside of  
the building. An exhaust duct for a mechanically ventilated  
vault shall be used exclusively for ventilating the vault.

**(d) Mechanical Circulation Temperature Control.** A remote  
temperature controller shall be installed in the vault. The  
controller shall activate the fan when the temperature in the

1 vault exceeds 70 degrees F., and shall turn the fan off when  
the temperature reaches 140 degrees.

2 A visible or audible alarm shall be installed outside each  
3 vault that will be activated if the fan does not operate when  
4 the temperature controller calls for ventilation, or if the  
5 fan becomes inoperable. A sign shall be mounted near the  
alarm stating CALL SEATTLE CITY LIGHT WHEN ALARM SOUNDS or  
CALL SEATTLE CITY LIGHT WHEN LIGHT IS ON.

#### 6 DRAINAGE

7 **Sec. 5519. (a) General.** Drains shall be prohibited in  
8 all transformer vaults.

9 (b) **Sumps.** All transformer vaults shall have a dry sump.  
10 All sumps shall have an opening of at least 12 inches  
11 diameter with a removable metal grate that is flush with the  
12 floor. The sump shall be located near the personnel door,  
13 out of the entry path. The vault floor shall slope at least  
one inch in ten feet toward the sump.

14 Sumps shall have a capacity of at least 8 cubic feet or as  
15 specified by the utility. Sumps shall have minimum  
16 dimensions of 12 inches diameter and 12 inches depth. The  
17 sump shall have a grouted bottom. It shall be located within  
reach of the personnel door and shall not be located in the  
path for moving transformers in and out of the vault.

#### 18 PIPES AND DUCTS

19 **Sec. 5520.** No pipes or ducts foreign to the electrical  
20 installation shall enter or pass through any transformer  
21 vault. Piping or other facilities provided for fire  
22 protection inside the vault or for transformer cooling are  
23 deemed not to be foreign to the electrical installation.

#### 24 STORAGE IN TRANSFORMER VAULTS

25 **Sec. 5521.** No material may be stored in any transformer  
26 vault.  
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Section 88. This ordinance shall take effect and be in force on July 1, 1993; otherwise it shall take effect at the time it shall have become a law under the provisions of the city charter.

Passed by the City Council the 26th day of April, 1993 and signed by me in open session in authentication of its passage this 26th day of April 1993.

Margaret Carter  
President of the City Council  
Pro Tem

Approved by me this 29th day of April, 1993.

Norman B. Rice  
Mayor

Filed by me this 29th day of April, 1993.

BY  
Margaret Carter  
Deputy

(SEAL)  
Published \_\_\_\_\_

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MAR 11 1993



# Seattle Department of Construction and Land Use

R. F. Krochalis, Director  
Norman B. Rice, Mayor

## AMENDMENTS TO SEATTLE BUILDING CODE, 1991 EDITION

### LIST OF CHANGES

March 1993

The items listed below are proposed amendments to the 1991 Seattle Building Code.

KEY:       SBC     = Seattle Building Code, 1991 Edition  
           WSBC    = Washington State Building Code, 1991 Edition  
           UBC     = Uniform Building Code, 1991 Edition  
           SFC     = Seattle Fire Code, 1991 Edition  
           VIAQ    = Washington State Ventilation and  
                   Indoor Air Quality Code, 1993 Edition

1991 SBC Chap/Sec/ Ord Page	Source	Change
103(a)/1	staff	new paragraph 3
103(c,d)/2	WSBC	conflicts with ventilation, barrier-free
401(a)/2	staff	delete state definitions [also 402, 403, 407, 408, 409, 414, 415, 417, 419, Table 5-A-1, Table 5-E, 801, 1001, 1201, Table 33-A]
404/7	WSBC	adopt WSBC definitions [also 409, 417, 420]
423/17	VIAQ	adopt definition
511(a,b)/18	WSBC	change barrier free reference [also 604, 704, 804, 904, 1004, 1204, 3301(f), 3304(a,i), 3305(a), 3307(a,c,d), 3315(a), Table 33-A, 5116(e)]
514/18	WSBC	woodstove [also 515]
Table 5-A/19	WSBC	add FN 16 [see 702(b)1E]
Table 5-A-1/30	WSBC	add R-4, R-5 [also 1201 (4,5)]
Table 5-B/34	WSBC	delete & change FNs
702(b)1E/	staff	add B-1 Div 1 opening protection

An equal employment opportunity - affirmative action employer.

Seattle Department of Construction and Land Use, 710 - 2nd Avenue, Ste 700, Seattle, WA 98104-1703  
 DCU complies with the Americans with Disabilities Act. Accommodations for people with disabilities provided on request.

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SBC Changes  
March 1993  
Page 2 of 3

1991 SBC  
Chap/Sec/  
Ord Page  
-----

Source  
-----

Change  
-----

901(a) Div 2(8)/40	staff	match SFC [also Div 3(6), Table 9-B]
902(g,h)/41	WSBC	reword
1214/46	WSBC	adopt WSBC
1217-1228/48	WSBC	add Part II
1716(c)/52	staff	reword
1720(b)/54	VIAQ	reword
1720(c)/55	VIAQ	add two words
1720(d)/55	VIAQ	reword, change standard from UBC to ASTM
1721/58	VIAQ	reword
1722(a,b)/58	staff	add methane (critical areas)
1723(a,b)/58	WSBC	add recyclable
2004(b,c)/59	staff	reword stairway construction
2104(b,c)/59	staff	reword stairway construction
2605(e)/59	UBC	change section reference (ICBO) revision)
2621(j)/60	staff	add shotcrete test panel dimension
2710(g)5/62	WSBC	delete SBC language
2905(b,c,e)/65	staff	use SEAW ICBO code change proposal
3301(e)/66	WSBC	adopt UBC
3303(a)8E/68	staff	reword [see 3306(K), 3314(a)]
3303(e)/70	staff	reword
3304(b,h)/70	WSBC	adopt WSBC barrier free language

SBC Changes  
March 1993  
Page 3 of 3

1991 SBC Chap/Sec/ Ord Page -----	Source -----	Change -----
3306(g,i)/73	WSBC	adopt WSBC barrier free language
3306(k)/74	staff	change exception references [also 3314(a)]
3315(e)/77	WSBC	adopt WSBC
Table 33-A/78	WSBC	delete barrier free column, change occupant load #4 from 12 to 15, delete FNs 5-9
3802(e)4/81	WSBC	add new #4
Table 38-A/82	staff	match SFC, add FN 12
3901(b)/84	WSBC	change legitimate stage definition
3903(e)85	WSBC	adopt WSBC
4206(a,b)/85	staff	match SFC
Table 42-C/86	staff	match SFC, delete FN 3
5103/87	staff	references to new 1990 ANSI
5130/89	staff	add exception, change ANSI references
55/90	staff	reword for private vaults only
Apx 55/95	staff	add new chapter for utility vaults

Additional Information for Legislative Request

Request for approval to amend the 1991 Seattle Building Code.

1. Statement of Proposal/Objectives: An ordinance amending the 1991 Seattle Building Code to incorporate changes in requirements of the Washington State Ventilation and Indoor Air Quality Code and requirements of the Washington State Building Code regulating fire sprinklers in portable school classrooms, regulating the use of solid-fuel-burning devices, regulating emergency and standby power for hazardous occupancies, regulating residential group care facilities, and requiring space for recyclable material in new buildings; and adding local provisions for code alternates, for methane reduction measures for sites near methane-producing landfills; for mitigation of liquefaction potential, and revising construction standards for transformer vaults.
2. Dollar Amount Requested: N/A
3. Funding Source: N/A
4. Commitment: N/A
5. New Positions: N/A
6. Facilities/Equipment: N/A
7. Criteria Used in Program/Project Evaluation: N/A
8. Alternative Methods of Funding the Program: N/A

ESTIMATES OF COST IMPACTS FOR AMENDMENTS TO THE  
1991 SEATTLE BUILDING CODE

FEBRUARY 1993

The cost estimates which follow include publishing the new code, training staff and writing new director's rules and public information documents. Staff time is converted to cost at the rate of \$119.90/hour. The overall estimate is \$28,098.00. Detailed notes follow the table.

<u>Task</u>	<u>Hours</u>	<u>Cost</u>
1. <u>Training</u>		
a. Prepare materials	4	\$ 480
b. Give training	6	719
c. Receive training	76.5	9,172
2. <u>Copying</u>		
a. Cost for ordinance	--	400
3. <u>Publishing</u>		
a. Cost for code insert pages	--	400
b. Costs for purchasing State codes	--	356
4. <u>Map Changes</u>		
None required	--	--
5. <u>Revise Director's Rules</u>		
a. New or revised rule(s)	60	7,194
b. Rescind rule(s)	--	--
c. Process rule(s)	15	1,799
d. Copy costs	--	144
6. <u>Public Information</u>		
a. New bulletin preparation	60	7,194
b. Revised bulletin preparation	--	--
c. Copy costs	--	240
d. More information for public (phones)	--	--
7. <u>Procedural Changes</u>		
None required	--	--
8. <u>Plan Review Time</u>		
No changes	--	--

<u>Task</u>	<u>Hours</u>	<u>Costs</u>
9. <u>Automation</u> No Changes	--	--
10. <u>New forms</u> None required	--	--
11. <u>Enforcement</u> No changes	--	--
12. <u>Code Committee</u> No increase in time	--	--
13. <u>Inspection Impacts</u> None	--	--
14. <u>Records Management/Microfilm</u> No changes	--	--
15. <u>New Types of Permits</u> None	--	--
16. <u>Space and Equipment Costs</u> No changes	--	--
-----		
17. <u>Total for Amendment</u>		\$ 28,098

Notes on Estimates of Cost Impacts for  
Amendments to the 1991 Seattle Building Code  
February 1993

<u>Task</u>	<u>Hours</u>	<u>Costs</u>
1. <u>Training</u>		
a. Prepare materials 4 staff	4.0	\$ 480
b. Give training 3 staff	6.0	719
c. Receive training (most during regular staff meetings)		
Building plan examiners (24 x 2 hours)	48.0	
Intake staff (15 x .5 hour)	7.5	
Building inspectors (13 x 1 hour)	13.0	
Elevator inspectors (7 x .5 hour)	3.5	
Quality Control Staff (5 x .5 hours)	2.5	
Plan Routing (4 x .25 hour)	2.0	
	76.5	9,172
2. <u>Copying</u>		
Cost for ordinance 100 pages x \$0.04/page x 100 copies	--	400
3. <u>Publishing</u>		
Cost for code insert pages 100 pages x \$0.04/page x 100 copies	--	400
4. <u>Map Changes</u>		
None required	--	--
5. <u>Revise Director's Rules</u>		
a. New		
Plans & Specifications	20.0	2,398
Suite Concept	20.0	2,398
Wind Design	20.0	2,398
b. Process Rules 3 rules x 5 hours/rule	15.0	1,799
c. Copy Costs 12 pages x \$0.04/page x 300 copies		144
6. <u>Public Information</u>		
a. New client assistance memo preparation		
Membrane Penetrations	20.0	2,398
Wire Glass	20.0	2,398
Methane	20.0	2,398

**Task**

**Hours**

**Costs**

b.	Copy costs 12 pages x \$0.04/page x 500 copies	--	\$ 240
c.	More information for public (phones) No changes	--	--

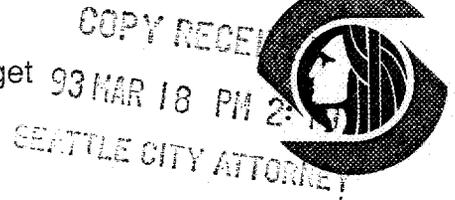
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93-78

# City of Seattle

Executive Department—Office of Management and Budget

Diana Gale, Director  
Norman B. Rice, Mayor



*Approved as to form  
NR 4/1/93*

March 19, 1993

The Honorable Mark Sidran  
City Attorney  
City of Seattle

Attention: Margaret Klockars

Dear Mr. Sidran:

The Mayor is proposing to the City Council that the enclosed legislation be adopted.

REQUESTING DEPARTMENT      Construction and Land Use

SUBJECT:      AN ORDINANCE amending the Seattle Mechanical Code and Seattle Building Code to incorporate changes in requirements of the Washington State Ventilation and Indoor Air Quality Code, the Washington State Building Code, and the Washington State Mechanical Code.

Pursuant to the City Council's S.O.P. 100-014, the Executive Department is forwarding this request for legislation to your office for review and drafting.

After reviewing this request and any necessary redrafting of the enclosed legislation, return the legislation to OMB. Any specific questions regarding the legislation can be directed to Daniel Becker at 684-8073.

Sincerely,  
  
Norman B. Rice  
Mayor

by  
*Diana Gale*  
DIANA GALE  
Budget Director

DG/db/rs

Enclosure

cc: Director, DCLU

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CITY CLERK

STATE OF WASHINGTON - KING COUNTY

29974  
City of Seattle

—ss.

No. ORD IN FULL

**Affidavit of Publication**

The undersigned, on oath states that he is an authorized representative of The Daily Journal of Commerce, a daily newspaper, which newspaper is a legal newspaper of general circulation and it is now and has been for more than six months prior to the date of publication hereinafter referred to, published in the English language continuously as a daily newspaper in Seattle, King County, Washington, and it is now and during all of said time was printed in an office maintained at the aforesaid place of publication of this newspaper. The Daily Journal of Commerce was on the 12th day of June, 1941, approved as a legal newspaper by the Superior Court of King County.

The notice in the exact form annexed, was published in regular issues of The Daily Journal of Commerce, which was regularly distributed to its subscribers during the below stated period. The annexed notice, a

ORD:116655

was published on

05/13/93

The amount of the fee charged for the foregoing publication is the sum of \$ \_\_\_\_\_ which amount has been paid in full.

*A. Gardner*

Subscribed and sworn to before me on

05/13/93

*J. R. O'S*

Notary Public for the State of Washington,  
residing in Seattle

# City of Seattle Ordinances

## City of Seattle

ORDINANCE 118635

AN ORDINANCE amending the Seattle Building Code, Chapter 22.100 of the Seattle Municipal Code, as adopted by Ordinance 116012, to incorporate changes in requirements of the Washington State Ventilation and Indoor Air Quality Code and requirements of the Washington State Building Code regulating fire sprinklers in portable school classrooms, regulating the use of solid-fuel-burning devices, regulating emergency and standby power for hazardous occupancies, regulating residential group care facilities, and requiring space for recyclable material in new buildings; and adding local provisions for code alternates, for methane reduction measures for sites near methane-producing landfills; for mitigation of liquefaction potential, and revising construction standards for transformer vaults.

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. Subsection 103(a) of the Seattle Building Code, 1991 Edition, is amended as follows:

### SCOPE OF THIS BUILDING CODE

Sec. 103. (a) Applicability. The provisions of this building code shall apply to the construction, alteration, moving, demolition, repair and occupancy of any building or structure within the City, except work located primarily in a public way, public utility towers and poles, mechanical equipment not specifically regulated in this building code, and hydraulic flood control structures.

Additions, alterations, repairs and changes of occupancy or character of occupancy in all buildings and structures shall comply with the provisions for new buildings and structures, except as otherwise provided in Sections 104, 308 and 502 of this building code.

A building which fully complies with the State of Washington Building Code may be permitted for construction and occupancy without meeting all requirements of this Seattle Building Code, provided the building complies with the following Seattle Building Code provisions, when applicable:

1. Sections 702(c)2b and Section 1105(c)3 special provisions for mini-storage facilities;
2. Section 201(a) and 2333(a)2 special requirements for pre-application meetings for hazardous occupancies and building with unusual load resisting structural designs;
3. Section 1202(b) and 2303(a) special requirements for one-hour construction and corridor construction for certain residential occupancies;
4. Chapter 16 fire district;
5. Section 1716 special provisions for atriums;
6. Section 1807 special provisions for high rise buildings;
7. Section 1802(b), (d), (e) and (h) special sprinkler requirements for certain basement-like stories and certain storage and R-1 occupancies;
8. Chapter 37 address signs provisions;
9. Chapter 58 special provisions for floating homes; and
10. Chapter 59 special provisions for waterfront docks.

Section 3. Section 103 of the Seattle Building Code, 1991 Edition, is amended by adding Subsection (c) as follows:

Sec. 103 (c) Conflict with Ventilation Code. In the case of conflict between the ventilation requirements of Section 605, Section 705, Section 905 and Section 1205 of this code and the ventilation requirements of Chapter 10.1 of the Mechanical Code, the provisions of Chapter 10.1 shall govern.

Section 3. Section 103 of the Seattle Building Code, 1991 Edition, is amended by adding Subsection (d) as follows:

Sec. 103. (d) Conflict with Barrier-free Requirements. In case of conflicts with other provisions of this code, Washington State Building Code Chapter 31, 51-20-3100

client follow through program after discharge.))

Alcoholism long-term treatment services is long-term (ninety days or more) provision of a residential care setting with personal care services for alcoholics with impaired self-maintenance capabilities who need personal guidance and assistance to maintain sobriety and optimum health status.

((Alcoholism recovery house services is the provision of an alcohol-free residential setting which provides social and recreational activities for detoxified alcoholics to aid their adjustment to normal patterns of living and their engagement in occupational training, gainful employment or other types of normal community activities.))

ALLEY is any public space or thoroughfare 16 feet or less but not less than 10 feet in width which has been dedicated or deeded to the public for public use.

ALTER OR ALTERATION is any change, addition or modification in construction or occupancy.

AMUSEMENT BUILDING is a building or portion thereof, used for entertainment or educational purposes and which contains a system which transports passengers or provides a walkway through a course so arranged that the required exits are not apparent due to theatrical distractions, are disguised or not readily available due to the method of transportation through the building or structure.

Permanent amusement building is any amusement building not otherwise classified as portable or temporary.

Portable amusement structure is an amusement building designed and constructed to be portable to be erected and used on a short term basis at each location.

Temporary amusement building is an amusement building used for that purpose for a period of 6 weeks or less in any given twelve months.

ANSI is the American National Standards Institute, 1430 Broadway, New York, New York 10018.

APARTMENT HOUSE is any building or portion thereof which contains three or more dwelling units and, for the purpose of this code, includes residential condominiums.

APPROVED, as to materials and types of construction, refers to approval by the building official as the result of investigation and tests conducted by the building official, or by reason of accepted principles or test by recognized authorities, technical or scientific organizations.

APPROVED AGENCY is an established and recognized agency regularly engaged in conducting tests or furnishing inspection services, when such agency has been approved.

APPROVED FABRICATOR is an established and qualified person, firm, or corporation approved by the building official pursuant to Section 306 (f) of this code.

ARCHITECT. See "Project Architect or Engineer."

AREA See "Floor Area."

ASSEMBLY BUILDING is a building or a portion of a building used for the gathering together of 50 or more persons for such purposes as deliberation, education, instruction, worship, entertainment, amusement, drinking or dining or awaiting transportation.

ASTM is the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

ATRIUM is an opening through two or more floor levels other than enclosed stairways, elevators, hoistways, escalators, plumbing, electrical, air conditioning or other equipment, which is closed at the top and not defined as a wall. Floor levels, as used in this definition, do not include balconies within assembly occupancies or mezzanines which comply with Section 1716.

AUTOMATIC, as applied to fire-protection devices, is a device or system providing an emergency function without the necessity of human intervention and activated as a result of a predetermined temperature rise, rate of rise of temperature or increase in the level of combustion products.

AWNING. See Section 4602.

AWNING SIGN. See Section 4602.