

1764 2. ~~At the top of rubbish and linen chutes and in their terminal rooms. Chutes~~
1765 ~~extending through three or more floors shall have additional sprinkler heads installed~~
1766 ~~within such chutes at alternate floors. Sprinkler heads shall be accessible for servicing.~~

1767 3. ~~In rooms where nitrate film is stored or handled.~~

1768 4. ~~In protected combustible fiber storage vaults as defined in the International~~
1769 ~~Fire Code.~~

1770 5. ~~Throughout all buildings with a floor used for human occupancy that is located~~
1771 ~~55 feet (16.76 m) or more above the lowest level of fire department vehicle access.~~

1772 **EXCEPTION:**

1773 1. ~~Airport control towers.~~

1774 2. ~~Open parking structures.~~

1775 3. ~~Group F, Division 2 Occupancies.))~~ in locations in accordance with Sections
1776 903.2.10.1 through 903.2.10.1.3.

1777 ~~((6. In all other))~~ Sprinklers are also required in occupancies requiring 2,000
1778 gallons per minute or more fire flow, or where the total floor area included within the
1779 surrounding exterior walls on all floor levels including basements exceeds 10,000 square
1780 feet. ~~((Area))~~ Fire separation walls, as noted in Section ((504.6)) 705.1 of the
1781 ~~((Uniform))~~ International Building Code, shall not be considered to separate a building to
1782 enable deletion of the required automatic sprinkler system.

1783 NEW SECTION. SECTION 144. There is hereby added to K.C.C. chapter 16.04
1784 a new section to read as follows:

1785 **Automatic sprinkler systems – All occupancies – Buildings over 55 feet in**
1786 **height.** Section 903.2.10.3 of the International Building Code is not adopted and the
1787 following is substituted:

1788 **Buildings over 55 feet in height (IBC 903.2.10.3).** An automatic sprinkler
1789 system shall be installed throughout buildings with a floor used for human occupation
1790 that is located 55 feet (16,764 mm) or more above the lowest level of fire department
1791 vehicle access.

1792 **EXCEPTIONS:**

- 1793 1. Airport control towers.
1794 2. Open parking structures.

1795 SECTION 145. Ordinance 12560, Section 48, as amended, and K.C.C.
1796 16.04.05044 are each hereby repealed.

1797 SECTION 146. Ordinance 12560, Section 49, as amended, and K.C.C.
1798 16.04.05045 are each hereby repealed.

1799 SECTION 147. K.C.C. 16.04.050453, as amended by this ordinance, is hereby
1800 recodified as a section in K.C.C. chapter 16.04.

1801 SECTION 148. Ordinance 14111, Section 55, and K.C.C. 16.04.050453 are each
1802 hereby amended to read as follows:

1803 ~~((Fire-extinguishing))~~ **Automatic sprinkler systems - ((Group R, Division 3))**
1804 **All occupancies ((UBC 904.2.10)).** Section 903.2.10 of the International Building Code
1805 is supplemented with the following:

1806 **All occupancies (IBC 903.2.10.4).** An automatic sprinkler system shall be
1807 installed in ~~((Group R, Division 3 occupancies))~~ residential units and accessory structures
1808 built under the International Residential Code under these conditions:

- 1809 1. Exceeding 2,500 square feet gross floor area (including attached garages)
1810 without adequate fire flow except as cited in K.C.C. 17.08.030.
- 1811 2. Without approved fire department access as defined in the road standards of
1812 King County Ordinance 11187. ~~((Article 9, section 902))~~
- 1813 3. If 2,000 gallons per minute or more fire flow is required, or where the total
1814 floor area included within the surrounding exterior walls on all floor levels including
1815 basements exceeds 10,000 square feet. For townhouses each unit is considered a separate
1816 building.

1817 **EXCEPTIONS:** Attached decks, exterior porches and carports open on two
1818 sides.

- 1819 4. Where special hazards or unusual conditions exists in addition to the normal
1820 hazard of the space due to the design, size, volume or use of the space, the Fire Marshal
1821 is authorized to require additional safeguards suitable for the protection of the hazard or
1822 condition involved. Additional safeguards can consist of automatic fire alarm system,
1823 automatic sprinkler or water spray system, standpipe and hose, fixed or portable fire
1824 extinguishers, or other special fire-extinguishing systems. Where such systems are
1825 provided, they shall be designed and installed in accordance with the applicable Uniform
1826 Fire Code Standards. ~~((See Article 90 and section 101.3.))~~

1827 **SECTION 149.** Ordinance 13564, Section 2, as amended, and K.C.C.
1828 16.04.050455 are each hereby repealed.

1829 SECTION 150. Ordinance 14111, Section 57, and K.C.C. 16.04.050457 are each
1830 hereby repealed.

1831 NEW SECTION. SECTION 151. There is hereby added to K.C.C. chapter 16.04
1832 a new section to read as follows:

1833 **Fire alarm and detection systems – General.** Section 907.1 of the International
1834 Building Code is not adopted and the following is substituted:

1835 **General (IBC 907.1).** This section applies to the application, installation,
1836 performance and maintenance of fire alarm systems and their components in new and
1837 existing buildings and structures. Section 907.3 applies to existing buildings and
1838 structures.

1839 All occupancies exceeding 3,000 square feet gross floor area are required to
1840 provide an approved monitored automatic fire detection system. Fire separation walls as
1841 noted in Section 705.1 shall not be considered to separate a building to enable deletion of
1842 the required fire detection system.

1843 **EXCEPTIONS:**

- 1844 1. Group U occupancies.
- 1845 2. Residential units and accessory buildings built under the International
1846 Residential Code.
- 1847 3. Heat detectors are not required in occupancies protected throughout by an
1848 approved and monitored automatic sprinkler system.

1849 SECTION 152. K.C.C. 16.04.05048, as amended by this ordinance, is hereby
1850 recodified as a section in K.C.C. chapter 16.04.

1851 SECTION 153. Ordinance 14111, Section 58, and K.C.C. 16.04.050458 are each
1852 hereby amended to read as follows:

1853 **((Pressurized)) Vertical exit enclosures – smokeproof enclosure.** Section
1854 ~~((1005.3.3.7))~~ 1019.1.8 of the ~~((Uniform))~~ International Building Code is not adopted and
1855 following is substituted:

1856 **((Pressurized)) Smokeproof enclosures** ~~((UBC 1005.3.3.7))~~ **(IBC 1019.1.8.**
1857 In ((a)) buildings ((having a floor level used for human occupancy)) required to comply
1858 with section 403 or 405, each of the exits of a building that serves stories where the floor
1859 surface is located more than 65 feet (19.812 m) above the lowest level of fire department
1860 vehicle access((, all required exit enclosures)) or more than 30 feet (9,144 mm) below the
1861 level of exit discharge serving such floor levels shall be a smokeproof enclosure or
1862 pressurized stairway in accordance with Section ((905)) 909.20 ((and this section.
1863 Pressurization shall occur automatically upon activation of an approved fire alarm system

1864 **EXCEPTION:** ~~If the building is not equipped with a fire alarm system,~~
1865 ~~pressurization shall be upon activation of a spot-type smoke detector listed for releasing~~
1866 ~~service located within 5 feet (1524 mm) of each vestibule entry.~~

1867 ~~A controlled relief vent capable of discharging a minimum of 2,500 cubic feet per~~
1868 ~~minute (1180L/s) of air at the design pressure difference shall be located in the upper~~
1869 ~~portion of such pressurized exit enclosures)).~~

1870 SECTION 154. Ordinance 14111, Section 59, and K.C.C. 16.04.050459 are each
1871 hereby repealed.

1872 NEW SECTION. SECTION 155. There is hereby added to K.C.C. chapter 16.04
1873 a new section to read as follows:

1874 **Ventilation – Exceptions.** Section 1203.3.2 of the International Building Code is
1875 not adopted and the following is substituted:

1876 **Exceptions (IBC 1203.3.2).** The following are exceptions to section 1203.3 and
1877 1203.3.1:

1878 1. Where warranted by climatic conditions, ventilation openings to the outdoors
1879 are not required if ventilation openings to the interior are provided.

1880 2. The total area of ventilation openings is permitted to be reduced to 1/1500 of
1881 the under-floor area where the ground surface is treated with an approved vapor retarder
1882 material and the required openings are placed so as to provide cross ventilation of the
1883 space.

1884 3. Ventilation openings are not required where continuously operated mechanical
1885 ventilation is provided at a rate of one cubic foot per minute for each fifty square feet of
1886 crawl-space floor area and the ground surface is covered with an approved vapor retarder.

1887 Ventilation openings are not required when the ground surface is covered with an
1888 approved vapor retarder, the perimeter walls are insulated and the space is conditioned in
1889 accordance with the Washington state Energy Code, chapter 51-11 WAC.

1890 **NEW SECTION. SECTION 156.** There is hereby added to K.C.C. chapter 16.04
1891 a new section to read as follows:

1892 **Sound transmission – Sea-Tac sound reduction standards.** Section 1207 of
1893 the International Building Code is supplemented with the following:

1894 **Sea-Tac sound reduction standards (IBC 1207.4).** All buildings or structures
1895 constructed or placed in use for human occupancy on sites in the vicinity of Sea-Tac
1896 International Airport which have been included within or enclosed by the Port of Seattle

1897 Noise Remedy Program boundaries shall comply with the provisions in supplemental
1898 Appendix K as adopted by King County.

1899 NEW SECTION. SECTION 157. There is hereby added to K.C.C. chapter 16.04
1900 a new section to read as follows:

1901 **Performance requirements – Flood resistance.** Section 1403.6 of the
1902 International Building Code is not adopted and the following is substituted:

1903 **Performance requirements – Flood resistance (IBC 1403.6).** For buildings in
1904 flood hazard areas as established in K.C.C. chapter 21A.24, exterior walls extending
1905 below the base flood elevation shall comply with K.C.C. chapter 21A.24.

1906 NEW SECTION. SECTION 158. There is hereby added to K.C.C. chapter 16.04
1907 a new section to read as follows:

1908 **Performance requirements – Flood resistance for high-velocity wave action**
1909 **areas.** Section 1403.7 of the International Building Code is not adopted.

1910 NEW SECTION. SECTION 159. There is hereby added to K.C.C. chapter 16.04
1911 a new section to read as follows:

1912 **Construction documents - Flood load.** Section 1603.1.6 of the International
1913 Building Code is not adopted.

1914 SECTION 160. K.C.C. 16.04.05046, as amended by this ordinance, is hereby
1915 recodified as a section in K.C.C. chapter 16.04.

1916 SECTION 161. Ordinance 12560, Section 50, as amended, and K.C.C.
1917 16.04.05046 are each hereby amended to read as follows:

1918 **~~((Roof design--))~~ Snow loads.** Section ~~((1605.4))~~ 1608 of the ~~((Uniform))~~
1919 International Building Code is not adopted and the following is substituted:

1920 **Snow loads (~~((UBC 1605.4))~~) (IBC 1608).** The "Snow Load Analysis for
1921 Washington" Second Edition (1995), published by the Structural Engineers Association
1922 of Washington shall be used in determining snow load(~~((:))~~) except where the department
1923 determines by public rule that a different standard is necessary to protect the public health
1924 and safety. The ~~((M))~~minimum Snow Load shall be 25 pounds per square feet.

1925 NEW SECTION. SECTION 162. There is hereby added to K.C.C. chapter 16.04
1926 a new section to read as follows:

1927 **Flood loads - Establishment of flood hazard areas.** Section 1612.3 of the
1928 International Building Code is not adopted.

1929 NEW SECTION. SECTION 163. There is hereby added to K.C.C. chapter 16.04
1930 a new section to read as follows:

1931 **Flood loads - Design and construction.** Section 1612.4 of the International
1932 Building Code is not adopted.

1933 NEW SECTION. SECTION 164. There is hereby added to K.C.C. chapter 16.04
1934 a new section to read as follows:

1935 **Flood loads - Flood hazard documentation.** Section 1612.5 of the International
1936 Building Code is not adopted and the following is substituted:

1937 **Flood hazard documentation (IBC 1612.5).** For construction in flood hazard
1938 areas the applicant shall provide actual as-built elevation certification by a professional
1939 civil engineer or land surveyor licensed by the state of Washington.

1940 NEW SECTION. SECTION 165. There is hereby added to K.C.C. chapter 16.04
1941 a new section to read as follows:

1942 **Excavation, grading and fill - Grading and fill in floodways.** Section 1803.4
1943 of the International Building Code is not adopted and the following is substituted:

1944 **Grading and fill in floodways (IBC 1803.4).** Excavation, grading and fill in
1945 floodways shall be in accordance with K.C.C. chapter 21A.24.

1946 NEW SECTION. SECTION 166. There is hereby added to K.C.C. chapter 16.04
1947 a new section to read as follows:

1948 **Foundations walls - Alternative foundation wall reinforcement.** Section
1949 1805.5.3 of the International Building Code is not adopted and the following is
1950 substituted:

1951 **Alternative foundation wall reinforcement (IBC1805.5.3).** In lieu of the
1952 reinforcement provisions in Table 1805.5(2), 1805.5(3) or 1805.5(4), alternative
1953 reinforcing bar sizes and spacings having an equivalent cross-sectional area of
1954 reinforcement per lineal foot (mm) of wall are permitted to be used, provided the spacing
1955 of reinforcement does not exceed 72 inches and reinforcing bar sizes do not exceed
1956 No.11. Concrete foundation walls for Group R, Division 3 and Group U occupancies
1957 only, may comply with Table 1805.5(5) International Building Code in section 167 of
1958 this ordinance, which provides a prescriptive concrete foundation wall reinforcement
1959 method as an alternative to requiring a special design for every application.

1960 NEW SECTION. SECTION 167. There is hereby added to K.C.C. chapter 16.04
1961 a new section to read as follows:

1962 **Footings and foundation – foundation walls - Table 1805.5(5) Seismic Zone D**
1963 **- Concrete and Masonry² Foundation Walls^{1,4} For Single Family And Duplex**

1964 **Residences.** Section 1805.5 of the International Building Code is supplemented by the
 1965 following table:

1966 **Table 1805.5(5) Seismic Zone D - Concrete and Masonry⁴ Foundation**

1967 **Walls^{1,2} For Single Family And Duplex Residences.** Table 1805.5(5) Foundation wall
 1968 reinforcement requirements for Single Family and Duplex Residential Occupancies and
 1969 Private Garage occupancies only^{8,9}

Minimum Wall Thickness	Maximum Wall Height (ft.) ⁵	Maximum Unbalanced Backfill (ft.) ^{1,2}	Minimum Vertical Reinforcement ³	Minimum Horizontal Reinforcement ⁶
6"	4' 6"	4'	#4 @ 48" O.C.	---
8"	9'	5'	#4 @ 48" O.C.	#4 @ 48" O.C.
8"	9'	8'	#4 @ 16" O.C. ⁷	#4 @ 48" O.C.
8"	9'	9'	#4 @ 12" O.C. ⁷	#4 @ 48" O.C.

1970 Footnotes:

1971 1. A design in accordance with accepted engineering practice shall be provided
 1972 when any of the following exist:

- 1973 a. Walls are subject to hydrostatic pressure from groundwater.

1974 b. Walls supporting more than 48" of unbalanced backfill that do not have
1975 permanent lateral support at the top and bottom. Unbalanced backfill height is the
1976 difference in height of the exterior and interior finish ground levels.

1977 2. The floor diaphragm shall be completed before backfilling or the foundation
1978 wall sufficiently braced to prevent damage by the backfill.

1979 3. This table is not intended to prevent temperature and shrinkage cracks.
1980 Reinforcing steel shall be placed on tension side of the wall and provided not less than $\frac{3}{4}$
1981 cover from the face of the wall. In concrete cast against earth reinforcing shall be placed
1982 a minimum of 3 inches from the soil.

1983 4. Mortar shall be type M or S and masonry shall be laid in running bond.

1984 5. Wall height is measured as the vertical distance from the top of the wall to the
1985 top of the footing.

1986 6. All foundations shall include (2) #4 rebar at the top of the wall and (2) #4 in
1987 the bottom of the footing, continuous horizontal reinforcing.

1988 7. The distance from the face of the soil side of the wall to the center of vertical
1989 reinforcement shall be at least 5 inches in an 8-inch wall.

1990 8. When braced wall panels are supported directly on continuous foundations, the
1991 wall sill plate shall be anchored to the foundation as follows: The wood sole plate and
1992 wood sill plate shall be anchored to the foundation with anchor bolts spaced a maximum
1993 of 6 feet on center where the height of the unbalanced fill does not exceed 5 feet. The
1994 anchor bolts shall be spaced a maximum of 2 feet on center where the height of the
1995 unbalanced backfill exceeds 5 feet. There shall be a minimum of two bolts per plate
1996 section. Bolts shall be at least $\frac{1}{2}$ inch in diameter and shall extend a minimum of 7

1997 inches into masonry or concrete. A nut and 3/16" x 2"x 2" washer shall be tightened on
1998 each bolt to the plate (Section 2308.3 IBC; R403.1.6 International Residential Code.)

1999 9. The provisions of this table may be applied to Group R-3 and Group U
2000 occupancies, and townhouses as defined in Section 202 International Residential Code.

2001 NEW SECTION. SECTION 168. There is hereby added to K.C.C. chapter 16.04
2002 a new section to read as follows:

2003 **Damproofing and waterproofing – Under floor space - Flood hazard areas.**

2004 Section 1807.1.2.1 of the International Building Code is not adopted and the following is
2005 substituted:

2006 **Flood hazard areas (IBC 1807.1.2.1).** For buildings and structures in flood
2007 hazard areas as established in K.C.C. chapter 21A.24, the finished ground level of an
2008 under-floor space such as a crawl space shall be equal to or higher than the outside
2009 finished grade level.

2010 SECTION 169. Ordinance 14111, Section 61, and K.C.C. 16.04.050465 are each
2011 hereby repealed.

2012 SECTION 170. Ordinance 12560, Section 51, as amended, and K.C.C.
2013 16.04.05047 are each hereby repealed.

2014 SECTION 171. Ordinance 12560, Section 52, as amended, and K.C.C.
2015 16.04.05048 are each hereby repealed.

2016 SECTION 172. Ordinance 12560, Section 53, as amended, and K.C.C.
2017 16.04.05049 are each hereby repealed.

2018 SECTION 173. K.C.C. 16.04.05050, as amended by this ordinance, is hereby
2019 recodified as a section in K.C.C. chapter 16.04.

2020 SECTION 174. Ordinance 12560, Section 54, as amended, and K.C.C.

2021 16.04.05050 are each hereby amended to read as follows:

2022 **Plumbing systems – Minimum plumbing facilities – Minimum ((N))number**
2023 **of fixtures(~~–General~~)**. Section 2902.1 of the (~~Uniform~~) International Building
2024 Code, as amended by chapter 51-50 WAC, is not adopted and the following is
2025 substituted:

2026 **~~((General))~~ Minimum number of fixtures ((UBC))IBC 2902.1**. The number
2027 of plumbing fixtures within a building shall not be less than set forth in Section 2902.
2028 Fixtures located within unisex toilet and bathing rooms shall be included in determining
2029 the number of fixtures provided in an occupancy. The director of public health is
2030 authorized to enforce this section.

2031 SECTION 175. K.C.C. 16.04.05052, as amended by this ordinance, is hereby
2032 recodified as a section in K.C.C. chapter 16.04.

2033 SECTION 176. Ordinance 12560, Section 56, as amended, and K.C.C.
2034 16.04.05052 are each hereby amended to read as follows:

2035 **~~((Appendix Chapter 4, Division I –))~~ Swimming pool enclosures and safety**
2036 **devices - General**. Section (~~(419 of Appendix Chapter 4, Division I,))~~ 3109.1 of the
2037 (~~Uniform~~) International Building Code is not adopted and the following is substituted:

2038 **~~((Scope (UBC 419)))~~ General (IBC 3109.1)**. (~~The provisions of this section~~
2039 ~~apply to the design and construction of barriers for swimming pools located on the~~
2040 ~~premises of detached one family dwelling units only)) Swimming pools, spas and hot
2041 tubs installed in or on the lot of a one-family, two-family or for the use of an individual
2042 townhouse shall comply with the requirements of Appendix G of the International~~

2043 Residential Code as amended by K.C.C. 16.04.05053, as recodified by this ordinance,
2044 and 16.70.035, as recodified by this ordinance. For other pools, protection shall comply
2045 with the requirements of K.C.C. chapter 16.78.

2046 ((The)) For all other swimming pools the director of the Seattle-King County
2047 department of public health shall enforce regulations for pools meeting the definition of a
2048 "general use pool" or "limited use pool" as defined in chapter 246-260 WAC, and
2049 "recreational water contact facility" or "RWCF" as defined in chapter 246-262, and
2050 chapter 248-98 WAC which contains the design and construction of barriers for
2051 swimming pools, spas, wading pools, spray pools, and other water recreation facilities
2052 located in other occupancies.

2053 NEW SECTION. SECTION 177. There is hereby added to K.C.C. chapter 16.04
2054 a new section to read as follows:

2055 **Swimming pool enclosures and safety devices.** Section 3109.3 through 3109.5
2056 of the International Building Code is not adopted.

2057 NEW SECTION. SECTION 178. There is hereby added to K.C.C. chapter 16.04
2058 a new section to read as follows:

2059 **Additions, alterations or repairs - Existing buildings or structures.** Section
2060 3403.1 of the International Building Code is not adopted and the following is substituted:

2061 **Existing buildings or structures (IBC 3403.1).** Additions or alterations to any
2062 building or structure shall conform with the requirements of the code for new
2063 construction. Additions or alterations shall not be made to an existing building or
2064 structure which will cause the existing building or structure to be in violation of any
2065 provisions of this code. An existing building plus additions shall comply with the height

2066 and area provisions of Chapter 5. Portions of the structure not altered and not affected by
2067 the alteration are not required to comply with the code requirements for a new structure.

2068 **EXCEPTION:** Repair of buildings and structures in flood hazard areas shall
2069 comply with K.C.C. chapter 21A.24.

2070 NEW SECTION. SECTION 179. There is hereby added to K.C.C. chapter 16.04
2071 a new section to read as follows:

2072 **Historic buildings - Flood hazard areas.** Section 3407.2 of the International
2073 Building Code is not adopted and the following is substituted:

2074 **Flood hazard areas (IBC 3407.2).** Historic buildings within flood hazard areas
2075 shall comply with K.C.C. chapter 21A.24.

2076 SECTION 180. Ordinance 14111, Section 69, and K.C.C. 16.04.050535 are each
2077 hereby repealed.

2078 SECTION 181. Ordinance 14111, Section 70, and K.C.C. 16.04.050536 are each
2079 hereby repealed.

2080 SECTION 182. Ordinance 14111, Section 71, and K.C.C. 16.04.050537 are each
2081 hereby repealed.

2082 SECTION 183. Ordinance 12560, Section 66 (part), as amended, and K.C.C.
2083 16.04.05062 are each hereby repealed.

2084 SECTION 184. Ordinance 12560, Section 66 (part), and K.C.C. 16.04.05063 are
2085 each hereby repealed.

2086 NEW SECTION. SECTION 185. There is hereby added to K.C.C. chapter 16.04
2087 a new section to read as follows:

2088 **Existing structures - Compliance alternatives - Applicability.** Section 3410.2
2089 of the International Building Code is not adopted and the following is substituted:

2090 **Applicability (IBC 3410.2).** Structures existing prior to October 22, 1971, in
2091 which there is work involving additions, alterations or changes of occupancy shall be
2092 made to conform to the requirements of this section or Sections 3403 through 3407.
2093 Sections 3410.2.1 through 3410.2.5 apply to existing occupancies that will continue to
2094 be, or are proposed to be, in Groups A, B, F, M, R, S and U. These sections shall not
2095 apply to buildings with occupancies in Group H or I.

2096 SECTION 186. K.C.C. 16.04.05064, as amended by this ordinance, is hereby
2097 recodified as a section in K.C.C. chapter 16.04.

2098 SECTION 187. Ordinance 12560, Section 67, as amended, and K.C.C.
2099 16.04.05064 are each hereby amended to read as follows:

2100 **Appendix (~~Chapter 12 Division II~~) K, Sound (~~(F)~~)transmission (~~(E)~~)control**
2101 **- Sea-Tac sound reduction standards - Purpose (~~(UBC 1210)~~).** The International
2102 Building Code is supplemented by the following appendix:

2103 Purpose (IBC AK 101). The purpose of these sections is to safeguard life,
2104 health, property and public welfare by establishing minimum requirements regulating the
2105 design, construction, and/or setting on site of buildings for human occupancy in the
2106 vicinity of Sea-Tac International Airport as identified on the maps referenced in the April
2107 24, 1985 Federal Register, Volume 50, No. 79. These sections are not intended to
2108 abridge any safety or health requirements required under any other applicable codes or
2109 ordinances.

2110 SECTION 188. K.C.C. 16.04.05065, as amended by this ordinance, is hereby
2111 recodified as a section in K.C.C. chapter 16.04.

2112 SECTION 189. Ordinance 12560, Section 68, as amended, and K.C.C.
2113 16.04.05065 are each hereby amended to read as follows:

2114 **Appendix (~~(Chapter 12 Division II)~~) K, Sound (~~(F)~~)transmission (~~(G)~~)control**
2115 **- Scope (~~(UBC 1211)~~).** The International Building Code is supplemented by the
2116 following appendix:

2117 **Scope (IBC AK 102).** The provisions of this chapter shall apply to all buildings
2118 or structures constructed or placed in use for human occupancy on sites within the
2119 vicinity of Seattle-Tacoma International Airport which have been included within or
2120 enclosed by the Port of Seattle Noise Remedy Program boundaries;

- 2121 1. Structures relocated shall comply with all requirements of this chapter and,
2122 2. Mobile homes located in mobile home parks shall be exempt from these
2123 requirements.

2124 This chapter is intended to supplement the provisions of the (~~Uniform~~)
2125 International Residential Code, the International Mechanical Code, the (~~adopted~~)
2126 Washington state Energy Code, and (~~the remainder of~~) the (~~Uniform~~) International
2127 Building Code. In the case of conflict between the chapter and any other applicable
2128 codes the more restrictive requirements shall be met.

2129 SECTION 190. K.C.C. 16.04.05066, as amended by this ordinance, is hereby
2130 recodified as a section in K.C.C. chapter 16.04.

2131 SECTION 191. Ordinance 12560, Section 69, as amended, and K.C.C.
2132 16.04.05066 are each hereby amended to read as follows:

2133 **Appendix ((Chapter 12 Division II)) K, Sound ((F))transmission ((C))control**
2134 **- Application to existing buildings ((UBC 1212))**). The International Building Code is
2135 supplemented by the following appendix:

2136 **Application to existing buildings (IBC AK 103)**. Additions may be made to
2137 existing buildings or structures without making the entire building structure comply with
2138 all the requirements of this chapter for new construction. Additions shall be made to
2139 comply in the areas being added to the extent that it is deemed practical and effective by
2140 the director of the department of development and environmental services in meeting the
2141 intent of this chapter.

2142 Any change of use in the occupancy or use of a building previously unapproved
2143 for human occupancy to human occupancy use or one previously unused for sleeping
2144 purposes to sleeping use shall not be permitted unless the building, structure or portion of
2145 the building complies with this chapter.

2146 SECTION 192. K.C.C. 16.04.05067, as amended by this ordinance, is hereby
2147 recodified as a section in K.C.C. chapter 16.04.

2148 SECTION 193. Ordinance 12560, Section 70, as amended, and K.C.C.
2149 16.04.05067 are each hereby amended to read as follows:

2150 **Appendix ((Chapter 12 Division II)) K, Sound ((F))transmission ((C))control**
2151 **- Details ((UBC 1213))**). The International Building Code is supplemented by the
2152 following appendix:

2153 **Details (IBC AK 104)**. The plans and specifications shall show in sufficient
2154 detail all pertinent data and features of the building, equipment and systems, as herein
2155 governed, including, but not limited to: exterior envelope component materials; STC

2156 rating of applicable component assemblies; R-values of applicable insulation materials;
2157 size and type of apparatus and equipment; equipment and system controls and other
2158 pertinent data to indicate conformance with the requirements herein.

2159 SECTION 194. K.C.C. 16.04.05068, as amended by this ordinance, is hereby
2160 recodified as a section in K.C.C. chapter 16.04.

2161 SECTION 195. Ordinance 12560, Section 71, as amended, and K.C.C.
2162 16.04.05068 are each hereby amended to read as follows:

2163 **Appendix ((Chapter 12 Division H)) K, Sound ((F))transmission ((C))control**
2164 **- Fees ((UBC 1214)).** The International Building Code is supplemented by the
2165 following appendix:

2166 **Fees (IBC AK 105).** The director, department of development and environmental
2167 services, is authorized to collect fees for administration, plan checking and inspection.
2168 This fee shall be known as the Sea-Tac Noise Fee. The fee shall be calculated as the sum
2169 of the fees for special plan review and supplemental inspection.

2170 SECTION 196. K.C.C. 16.04.05069, as amended by this ordinance, is hereby
2171 recodified as a section in K.C.C. chapter 16.04.

2172 SECTION 197. Ordinance 12560, Section 72, as amended, and K.C.C.
2173 16.04.05069 are each hereby amended to read as follows:

2174 **Appendix ((Chapter 12 Division H)) K, Sound Transmission ((Control)) -**
2175 **Definitions ((UBC 1215)).** The International Building Code is supplemented by the
2176 following appendix:

2177 **Definitions (IBC AK 106).**

2178 **NOISE REDUCTION COEFFICIENT (NRC)** is the arithmetic average of the
2179 sound absorption coefficients of a material at 250, 500, 1000, and 2000 Hz.

2180 **SOUND TRANSMISSION CLASS (STC)** is single-number rating for
2181 describing sound transmission loss of a wall, roof, floor, window, door, partition or other
2182 individual building components or assemblies.

2183 SECTION 198. K.C.C. 16.04.05070, as amended by this ordinance, is hereby
2184 recodified as a section in K.C.C. chapter 16.04.

2185 SECTION 199. Ordinance 12560, Section 73, as amended, and K.C.C.
2186 16.04.05070 are each hereby amended to read as follows:

2187 **Appendix ((Chapter 12 Division II)) K, Sound ((F))transmission ((C))control**
2188 **- Design requirements ((UBC 1216)).** The International Building Code is
2189 supplemented by the following appendix:

2190 **Design requirements (IBC AK 107).** The criteria of these sections establish the
2191 minimum requirements for acoustic design of the exterior envelope of buildings and for
2192 HVAC systems and its parts. These requirements shall apply to all buildings for human
2193 occupancy within the Sea-Tac Noise Program Areas.

2194 SECTION 200. K.C.C. 16.04.05071, as amended by this ordinance, is hereby
2195 recodified as a section in K.C.C. chapter 16.04.

2196 SECTION 201. Ordinance 12560, Section 74, as amended, and K.C.C.
2197 16.04.05071 are each hereby amended to read as follows:

2198 **Appendix ((Chapter 12 Division II)) K, Sound ((F))transmission ((C))control**
2199 **- Sea-Tac noise program area ((UBC 1217)).** The International Building Code is
2200 supplemented by the following appendix:

2201 **Sea-Tac noise program area (IBC AK 108).** Noise determined construction
2202 requirements detailed in this chapter shall be applied to new construction and additions of
2203 all structures, except for not normally inhabited portions of warehouses, storage buildings
2204 and similar structures as determined by the director, within the designated program areas
2205 of the Port of Seattle's Noise Remedy Program. The applicable program areas are the
2206 Neighborhood Reinforcement Area and the Cost Share Insulation Area. Specific
2207 ~~((C))~~ construction requirements for these two areas are:

2208 (a) Neighborhood Reinforcement Area:

2209 1) Bedrooms must comply with ~~((Section 1234))~~ AK 125 which is designed to
2210 achieve a noise reduction of 35 db.

2211 2) All other living and working areas must comply with ~~((Section 1226))~~ AK
2212 117 which is designed to achieve a noise reduction level of 30 dB.

2213 (b) Cost Share Insulations Area:

2214 1) Bedrooms must comply with Section ~~((Section 1226))~~ AK 117 which is
2215 designed to achieve a noise reduction of 30 DB.

2216 2) All other living and working areas must comply with ~~((Section 1219))~~ AK
2217 110 which is designed to achieve a noise reduction level of 25 dB.

2218 SECTION 202. K.C.C. 16.04.05072, as amended by this ordinance, is hereby
2219 recodified as a section in K.C.C. chapter 16.04.

2220 SECTION 203. Ordinance 12560, Section 75, as amended, and K.C.C.
2221 16.04.05072 are each hereby amended to read as follows:

2222 **Appendix (~~Chapter 12 Division II~~) K, Sound (~~(F)~~)transmission (~~(C)~~)control**
2223 **- Air leakage for all buildings (~~(UBC 1218)~~)**. The International Building Code is
2224 supplemented by the following appendix:

2225 **Air leakage for all buildings (IBC AK 109).**

2226 (a) The requirements of this section shall apply to the design of the exterior
2227 envelope of all buildings in the Sea-Tac Noise Program Area designed for human
2228 occupancy. The requirements of this section are not applicable to the separation of
2229 interior spaces from each other.

2230 (b) The following limitations shall be sealed, caulked, gasketed, or weather-
2231 stripped to limit or eliminate air leakage:

2232 1) Exterior joints around window and door frames between the window or door
2233 frame and the framing.

2234 2) Openings between walls and foundations.

2235 3) Between the wall sole plate and the rough flooring.

2236 4) Opening at penetrations of utility services through walls, floor, and roofs.

2237 5) Between wall panels at corners.

2238 6) All other openings in the building envelope.

2239 (c) Through the wall, floor, or roof/ceiling penetrations not specifically addressed
2240 in these sections shall be designed to limit sound transmission and shall have the same
2241 average laboratory sound transmission classification as required for doors.

2242 SECTION 204. K.C.C. 16.04.05073, as amended by this ordinance, is hereby
2243 recodified as a section in K.C.C. chapter 16.04.

2244 SECTION 205. Ordinance 12560, Section 76, as amended, and K.C.C.

2245 16.04.05073 are each hereby amended to read as follows:

2246 **Appendix (~~(Chapter 12 Division H)~~) K, Sound (~~(F)~~)transmission (~~(C)~~)control**
2247 **- Building requirements for a noise level reduction of 25dB compliance (~~(UBC~~**
2248 **1219)).** The International Building Code is supplemented by the following appendix:

2249 **Building requirements for a noise level reduction of 25dB compliance (IBC**
2250 **AK 110).** Compliance with (~~(Section 1220)~~) AK 111 through (~~(Section 1225)~~) AK 116
2251 shall be deemed to meet requirements for a minimum noise level reduction (NLR) of 25
2252 decibels.

2253 SECTION 206. K.C.C. 16.04.05074, as amended by this ordinance, is hereby
2254 recodified as a section in K.C.C. chapter 16.04.

2255 SECTION 207. Ordinance 12560, Section 77, as amended, and K.C.C.
2256 16.04.05074 are each hereby amended to read as follows:

2257 **Appendix (~~(Chapter 12 Division H)~~) K, Sound (~~(F)~~)transmission (~~(C)~~)control**
2258 **- Exterior walls (~~(UBC 1220)~~) 25 dB compliance.** The International Building Code is
2259 supplemented by the following appendix:

2260 **Exterior walls 25 dB compliance(IBC AK 111).**

2261 (a) Exterior walls, other than as described in this section, shall have a laboratory
2262 sound transmission class rating of at least STC-30; or

2263 (b) Masonry walls having a weight of at least 25 pounds per square feet do not
2264 require a furred (stud) interior wall. At least one surface of concrete block walls shall be
2265 plastered.

2266 (c) Stud walls shall be at least 4 inches in nominal depth and shall be finished on
2267 the outside with solid sheathing under an approved exterior wall finish.

2268 1. Interior surface of the exterior walls shall be of gypsum board or plaster at
2269 least 1/2 inch thick, installed on the studs.

2270 2. Continuous composition board, plywood or gypsum board sheathing at least
2271 1/2 inch thick shall cover the exterior side of the wall studs.

2272 3. Sheathing panels shall be covered on the exterior with overlapping building
2273 paper.

2274 4. Insulation material at least R-11 shall be installed continuously throughout
2275 the cavity space behind the exterior sheathing and between wall studs. Insulations shall
2276 be glass fiber or mineral wool.

2277 SECTION 208. K.C.C. 16.04.05075, as amended by this ordinance, is hereby
2278 recodified as a section in K.C.C. chapter 16.04.

2279 SECTION 209. Ordinance 12560, Section 78, as amended, and K.C.C.
2280 16.04.05075 are each hereby amended to read as follows:

2281 **Appendix (~~Chapter 12 Division H~~) K, Sound (~~(F)~~)transmission (~~(C)~~)control**
2282 **- Exterior windows (~~((UBC 1221)))~~ 25 dB compliance. The International Building**
2283 **Code is supplemented by the following appendix:**

2284 **Exterior windows 25 dB compliance (IBC AK 112).**

2285 (a) Windows other than as described in this section shall have a laboratory sound
2286 transmission class rating at least STC-28; or

2287 (b) Glass shall be at least 3/16" thick.

2288 (c) All windows that open shall be weather-stripped and airtight when closed so
2289 as to conform to an air infiltration test not to exceed 0.5 cubic feet per minute per foot of
2290 crack length in accordance with ASTM E-283-65-T.

2291 (d) Glass shall be sealed in an airtight manner with a nonhardening sealant or a
2292 soft elastomer gasket or gasket tape.

2293 (e) The perimeter of window frames shall be sealed airtight to the exterior wall
2294 construction with a sealant conforming to one of the following Federal specifications:
2295 TT-S-00227, TT-S-00230 or TT-S-00153.

2296 SECTION 210. K.C.C. 16.04.05076, as amended by this ordinance, is hereby
2297 recodified as a section in K.C.C. chapter 16.04.

2298 SECTION 211. Ordinance 12560, Section 79, as amended, and K.C.C.
2299 16.04.05076 are each hereby amended to read as follows:

2300 **Appendix (~~Chapter 12 Division H~~) K, Sound (~~F~~)transmission (~~G~~)control**
2301 **- Exterior doors (~~UBC 1222~~) 25 dB compliance. The International Building Code is
2302 supplemented by the following appendix:**

2303 **Exterior doors 25 dB compliance (IBC AK 113).**

2304 (a) Doors other than as described in this section shall have a laboratory sound
2305 transmission class rating of at least STC-26; or

2306 (b) All exterior side-hinged doors shall be solid-core wood or insulated hollow
2307 metal at least 1-3/4" thick and shall be fully weather-stripped.

2308 (c) Exterior sliding doors shall be weather-stripped with an efficient airtight
2309 gasket system with performance (~~as specified in Section 1221(e)~~) that conforms to an
2310 air infiltration test not to exceed 0.5 cubic feet per minute per foot of crack length in

2311 accordance with ASTM E-283-65-T. The glass in the sliding doors shall be at least 3/16"
2312 thick.

2313 (d) Glass in doors, over two square feet in area, shall be sealed in an airtight
2314 nonhardening sealant or in a soft elastomer gasket or glazing tape.

2315 (e) The perimeter of door frames shall be sealed airtight to the exterior wall
2316 construction ~~((as described in Section 1221(e)))~~ with a sealant conforming to one of the
2317 following Federal specifications: TT-S-00227, TT-S-00230 or TT-S-00153.

2318 SECTION 212. K.C.C. 16.04.05077, as amended by this ordinance, is hereby
2319 recodified as a section in K.C.C. chapter 16.04.

2320 SECTION 213. Ordinance 12560, Section 80, as amended, and K.C.C.
2321 16.04.05077 are each hereby amended to read as follows:

2322 **Appendix ~~((Chapter 12 Division II)) K, Sound ~~((F))~~transmission ~~((E))~~control~~**
2323 **– Roofs ~~((UBC 1223)) 25 dB compliance.~~** The International Building Code is
2324 supplemented by the following appendix:

2325 **Roofs 25 dB compliance (IBC AK 114)**

2326 (a) Combined roof and ceiling construction other than as described in this section
2327 and ~~((Section 1224))~~ AK 115 shall have a laboratory sound transmission class rating of at
2328 least STC-39; or

2329 (b) With an attic or rafter space at least 6" deep, and with a ceiling below, the
2330 roof shall consist of 1/2" composition board, plywood or gypsum board sheathing topped
2331 by roofing as required.

2332 (c) Open beam roof construction shall follow the energy insulation standard
2333 method for batt insulation.

2334 (d) Skylights shall conform to the window standard of ~~((Section 1221))~~ AK 112.

2335 SECTION 214. K.C.C. 16.04.05078, as amended by this ordinance, is hereby
2336 recodified as a section in K.C.C. chapter 16.04.

2337 SECTION 215. Ordinance 12560, Section 81, as amended, and K.C.C.
2338 16.04.05078 are each hereby amended to read as follows:

2339 **Appendix ~~((Chapter 12 Division H))~~ K, Sound ~~((F))~~transmission ~~((E))~~control**
2340 **- ~~((UBC 1224))~~ 25 dB compliance. The International Building Code is
2341 supplemented by the following appendix:**

2342 **Ceilings 25 dB compliance (IBC AK 115).**

2343 (a) Gypsum board for plaster ceilings at least 1/2 inch thick shall be provided
2344 where required by ~~((Section 1223))~~ AK 114(b), above. Ceilings shall be substantially
2345 airtight with a minimum of penetrations.

2346 (b) Glass fiber or mineral wool insulation at least R-19 shall be provided above
2347 the ceiling between joists.

2348 SECTION 216. K.C.C. 16.04.05079, as amended by this ordinance, is hereby
2349 recodified as a section in K.C.C. chapter 16.04.

2350 SECTION 217. Ordinance 12560, Section 82, as amended, and K.C.C.
2351 16.04.05079 are each hereby amended to read as follows:

2352 **Appendix ~~((Chapter 12 Division H))~~ K, Sound ~~((F))~~transmission ~~((E))~~control**
2353 **- ~~((UBC 1225))~~ 25 dB compliance. The International Building Code is
2354 supplemented by the following appendix:**

2355 **Ventilation 25 dB compliance (IBC AK 116).**

2356 (a) Ventilation systems shall be installed that will provide the minimum air
2357 circulation and fresh air supply requirements for various uses in occupied rooms without
2358 the need to open any windows, doors or other openings to the exterior. The inlet and
2359 discharge openings shall be fitted with sheet metal transfer ducts of at least 20 gauge
2360 steel, which shall be lined with 1 inch thick coated glass fiber, and shall be at least 5 feet
2361 long with a 90 degree bend.

2362 (b) Gravity vent openings in attics shall be as close to minimum code in number
2363 and size as practical.

2364 (c) Bathroom, laundry and similar exhaust ducts connecting the interior space to
2365 the outdoors, shall contain at least a 5-foot length of internal sound-absorbing duct lining.
2366 Exhaust ducts less than 5 feet in length shall be fully lined and shall also meet the
2367 provisions of (~~Section 1218~~) AK 109(c). Each duct shall be provided with a bend in the
2368 duct such that there is no direct line-of-sight through the duct from the venting cross-
2369 section to the room-opening cross-section. Duct lining shall be coated glass fiber duct
2370 liner at least 1 inch thick. In areas (i.e. shower rooms) which produce moisture, duct
2371 lining shall be made of non-absorbent material. Commercial kitchen exhaust systems and
2372 product conveying duct systems (Chapter 5 (~~U.M.C.~~) IMC) shall be exempt.

2373 (d) Fireplaces shall be provided with well fitted dampers.

2374 SECTION 218. K.C.C. 16.04.05080, as amended by this ordinance, is hereby
2375 recodified as a section in K.C.C. chapter 16.04.

2376 SECTION 219. Ordinance 12560, Section 83, as amended, and K.C.C.
2377 16.04.05080 are each hereby amended to read as follows:

2378 **Appendix ((Chapter 12 Division H)) K, Sound ((F))transmission ((C))control**
2379 **- Building requirements for a noise level reduction of 30 dB compliance ((UBC**
2380 **1226)). The International Building Code is supplemented by the following appendix:**

2381 **Building requirements for a noise level reduction of 30 dB compliance (IBC**
2382 **AK 117).** Compliance with ((Section 1227)) AK 118 through ((Section 1233)) AK 124
2383 shall be deemed to meet requirements for a minimum noise level reduction (NLR) of 30
2384 decibels.

2385 SECTION 220. K.C.C. 16.04.05081, as amended by this ordinance, is hereby
2386 recodified as a section in K.C.C. chapter 16.04.

2387 SECTION 221. Ordinance 12560, Section 84, as amended, and K.C.C.
2388 16.04.05081 are each hereby amended to read as follows:

2389 **Appendix ((Chapter 12 Division H)) K, Sound ((F))transmission ((C))control**
2390 **- Exterior walls ((UBC 1227)) 30 dB compliance. The International Building Code is**
2391 **supplemented by the following appendix:**

2392 **Exterior walls 30 dB compliance (IBC AK 118).**

2393 (a) Exterior walls, other than as described in this section, shall have a laboratory
2394 sound transmission class rating of at least STC-35; or

2395 (b) Masonry walls having a weight of at least 40 pounds per square foot do not
2396 require a furred (stud) interior wall. At least one surface of concrete block walls shall be
2397 plastered.

2398 (c) Stud walls shall be at least 4" in nominal depth and shall be finished on the
2399 outside with solid sheathing under an approved exterior wall finish.

2400 1. Interior surface of the exterior walls shall be of gypsum board or plaster at
2401 least 1/2 inch thick, installed on the studs. The gypsum board or plaster may be fastened
2402 rigidly to the studs if the exterior is brick veneer or stucco. If the exterior is siding, the
2403 interior gypsum board or plaster must be fastened resiliently to the studs.

2404 2. Continuous composition board, plywood, or gypsum board sheathing at least
2405 3/4" thick shall cover the exterior side of the wall studs.

2406 3. Sheathing panels shall be covered on the exterior with overlapping building
2407 paper.

2408 4. Insulation material at least R-11 shall be installed continuously throughout
2409 the cavity space behind the exterior sheathing and between wall studs. Insulation shall be
2410 glass fiber or mineral wool.

2411 SECTION 222. K.C.C. 16.04.05082, as amended by this ordinance, is hereby
2412 recodified as a section in K.C.C. chapter 16.04.

2413 SECTION 223. Ordinance 12560, Section 85, as amended, and K.C.C.
2414 16.04.05082 are each hereby amended to read as follows:

2415 **Appendix ((Chapter 12 Division H)) K, Sound ((F))transmission ((E))control**
2416 **- Exterior windows (((UBC 1228))) 30 dB compliance.** The International Building
2417 Code is supplemented by the following appendix:

2418 **Exterior windows 30 dB compliance (IBC AK 119).**

2419 (a) Windows other than as described in this section shall have a laboratory sound
2420 transmission class rating of at least STC-33; or

2421 (b) Windows shall be double glazed with panes at least 1/8" thick. Panes of glass
2422 shall be separated by a minimum 1/2" airspace.

2423 (c) Double-glazed windows shall employ fixed sash or efficiently weather-
2424 stripped, operable sash. The sash shall be rigid and weather-stripped with material that is
2425 compressed airtight when the window is closed so as to conform to an air infiltration test
2426 not to exceed 0.5 cubic foot per minute per foot of crack length in accordance with
2427 ASTM E-283-65-T.T.

2428 (d) Glass shall be sealed in an airtight manner with a nonhardening sealant or a
2429 soft elastomer gasket or gasket tape.

2430 (e) The perimeter of window frames shall be sealed airtight to the exterior wall
2431 construction with a sealant conforming to one of the following Federal specifications:
2432 TT-S-0027, TT-S-00230 or TT-S-00153.

2433 SECTION 224. K.C.C. 16.04.05083, as amended by this ordinance, is hereby
2434 recodified as a section in K.C.C. chapter 16.04.

2435 SECTION 225. Ordinance 12560, Section 86, as amended, and K.C.C.
2436 16.04.05083 are each hereby amended to read as follows:

2437 **Appendix (~~(Chapter 12 Division II)~~) K, Sound (~~(F)~~)transmission (~~(E)~~)control**
2438 **- Exterior doors (~~((UBC 1229))~~) 30 dB compliance. The International Building Code is**
2439 **supplemented by the following appendix:**

2440 **Exterior doors 30 dB compliance (IBC AK 120).**

2441 (a) Doors other than as described in this section shall have a laboratory sound
2442 transmission class rating of at least STC-33; or

2443 (b) Double door construction is required for all door openings to the exterior.
2444 Openings fitted with side-hinged doors shall have one solid core of wood or be an
2445 insulated hollow metal door at least 1-3/4" thick separated by an airspace of at least 3"

2446 from another door, which can be a storm door. Both doors shall be tightly fitted and
2447 weather-stripped.

2448 (c) The glass of double glazed sliding doors shall be separated by a minimum
2449 1/2" airspace. Each sliding frame shall be provided with an efficiently airtight weather-
2450 stripping material as ~~((specified in Section 1228(e)))~~ that conforms to an air infiltration
2451 test not to exceed 0.2 cubic feet per minute per foot of crack length in accordance with
2452 ASTM E-283-65-T.

2453 (d) Glass (over two square feet in area) of all doors shall be at least 3/16" thick.
2454 Glass of double sliding doors shall not be equal in thickness.

2455 (e) The perimeter of door frames shall be sealed airtight to the exterior wall
2456 construction (framing) ~~((as indicated in Section 1228 (e)))~~ with a sealant conforming to
2457 one of the following Federal specifications: TT-S-00227, TT-S-00230 or TT-S-00153.

2458 (f) Glass in doors shall be sealed in an airtight nonhardening sealant or in a soft
2459 elastomer gasket or glazing tape.

2460 SECTION 226. K.C.C. 16.04.05084, as amended by this ordinance, is hereby
2461 recodified as a section in K.C.C. chapter 16.04.

2462 SECTION 227. Ordinance 12560, Section 87, as amended, and K.C.C.
2463 16.04.05084 are each hereby amended to read as follows:

2464 **Appendix ~~((Chapter 12 Division H))~~ K, Sound ~~((F))~~transmission ~~((C))~~control**
2465 **– Roofs ~~((UBC 1230))~~ 30 dB compliance.** The International Building Code is
2466 supplemented by the following appendix:

2467 **Roofs 30 dB compliance (IBC AK 121).**

2468 (a) Combined roof and ceiling construction other than described in this section
2469 and (~~Section 1231~~) AK 122 shall have a laboratory sound transmission class rating of at
2470 least STC-44; or

2471 (b) With an attic or rafter space at least 6" deep, and with a ceiling below, the
2472 roof shall consist of 3/4" composition board, plywood or gypsum board sheathing topped
2473 by roofing as required.

2474 (c) Open beam roof construction shall follow the energy insulation standard
2475 method for batt insulation, except use 1" plywood decking with shakes or other suitable
2476 roofing material.

2477 (d) Window or dome skylights shall have a laboratory sound transmission class
2478 rating of at least STC-33.

2479 SECTION 228. K.C.C. 16.04.05085, as amended by this ordinance, is hereby
2480 recodified as a section in K.C.C. chapter 16.04.

2481 SECTION 229. Ordinance 12560, Section 88, as amended, and K.C.C.
2482 16.04.05085 are each hereby amended to read as follows:

2483 **Appendix (~~Chapter 12 Division H~~) K, Sound (~~(F)~~)transmission (~~(C)~~)control**
2484 **– Ceilings (~~(UBC 1231)~~) 30 dB compliance.** The International Building Code is
2485 supplemented by the following appendix:

2486 **Ceilings 30 dB compliance (IBC AK 122).**

2487 (a) Gypsum board or plaster ceilings at least 5/8" thick shall be provided where
2488 required by (~~Section 1230~~) AK 121(b) above. Ceilings shall be substantially airtight
2489 with a minimum of penetrations.

2490 (b) Glass fiber or mineral wool insulation of least R-19 shall be provided above
2491 the ceiling between joists.

2492 SECTION 230. K.C.C. 16.04.05086, as amended by this ordinance, is hereby
2493 recodified as a section in K.C.C. chapter 16.04.

2494 SECTION 231. Ordinance 12560, Section 89, as amended, and K.C.C.
2495 16.04.05086 are each hereby amended to read as follows:

2496 **Appendix ((Chapter 12 Division II)) K, Sound ((F))transmission ((E))control**
2497 **- Floors (((UBC 1232))) 30 dB compliance. The International Building Code is**
2498 **supplemented by the following appendix:**

2499 **Floors 30 dB compliance (IBC AK 123).**

2500 The floor of the lowest occupied rooms shall be slab on fill, below grade, or over
2501 a fully enclosed basement or crawl space. All door and window openings in the fully
2502 enclosed basement shall be tightly fitted.

2503 SECTION 232. K.C.C. 16.04.05087, as amended by this ordinance, is hereby
2504 recodified as a section in K.C.C. chapter 16.04.

2505 SECTION 233. Ordinance 12560, Section 90, as amended and K.C.C.
2506 16.04.05087 are each hereby amended to read as follows:

2507 **Appendix ((Chapter 12 Division II)) K, Sound ((F))transmission ((E))control**
2508 **- Ventilation (((UBC 1233))) 30 dB compliance. The International Building Code is**
2509 **supplemented by the following appendix:**

2510 **Ventilation 30 dB compliance (IBC AK 124).**

2511 (a) A ventilation system shall be installed that would provide the minimum air
2512 circulation and fresh air supply requirements for various uses in occupied rooms without

2513 the need to open any windows, doors or other openings to the exterior. The inlet and
2514 discharge openings shall be fitted with sheet metal transfer ducts of at least 20 gauge
2515 steel, which shall be lined with 1" thick coated glass fiber, and shall be at least 5 feet long
2516 with one 90 degree bend.

2517 (b) Gravity vent openings in attic shall be as close to minimum code in number
2518 and size, as practical. The openings shall be fitted with transfer ducts at least 3 feet in
2519 length containing internal 1" thick coated fiberglass sound-absorbing duct lining. Each
2520 duct shall have a lined 90 degree bend in the duct such that there is no direct line-of-sight
2521 from the exterior through the duct into the attic.

2522 (c) Bathroom, laundry, and similar exhaust ducts connecting the interior space to
2523 the outdoors, shall contain at least 10-foot length of internal sound-absorbing duct lining.
2524 Exhaust ducts less than 10 feet in length shall be fully lined and shall also be the
2525 provisions of ~~((Section 1218))~~ AK 109(c). Each duct shall be provided with a lined 90
2526 degree bend in the duct such that there is no direct line-of-sight through the duct from the
2527 venting cross-section to the room opening cross-section. Duct lining shall be coated glass
2528 fiber duct liner at least 1" thick. In areas (i.e. shower rooms) which produce moisture,
2529 duct lining shall be made of non-absorbent material. Commercial kitchen exhaust
2530 systems and product conveying duct systems (Chapter 5 U.M.C.) shall be exempt.

2531 (d) Domestic range exhaust ducts connecting the interior space to the outdoors
2532 shall contain a self-closing baffle plate across the exterior termination which allows
2533 proper ventilation. The duct shall be provided with a 90 degree bend.

2534 SECTION 234. K.C.C. 16.04.05088, as amended by this ordinance, is hereby
2535 recodified as a section in K.C.C. chapter 16.04.

2536 SECTION 235. Ordinance 12560, Section 91, as amended, and K.C.C.

2537 16.04.05088 are each hereby amended to read as follows:

2538 **Appendix ((Chapter 12 Division H)) K, Sound ((F))transmission ((E))control**
2539 **- Building requirements for a noise level reduction of 35 dB compliance ((UBC**
2540 **1234)). The International Building Code is supplemented by the following appendix:**

2541 **Building requirements for a noise level reduction of 35 dB compliance (IBC**
2542 **AK 125).**

2543 Compliance with ((Section 1235)) AK 126 through ((Section 1241)) AK 132 shall
2544 be deemed to meet requirements for a minimum noise level reduction (NLR) of 35
2545 decibels.

2546 SECTION 236. K.C.C. 16.04.05089, as amended by this ordinance, is hereby
2547 recodified as a section in K.C.C. chapter 16.04.

2548 SECTION 237. Ordinance 12560, Section 92, as amended, and K.C.C.
2549 16.04.05089 are each hereby amended to read as follows:

2550 **Appendix ((Chapter 12 Division H)) K, Sound ((F))transmission ((E))control**
2551 **- Exterior walls ((UBC 1235)) 35 dB compliance. The International Building Code is**
2552 **supplemented by the following appendix:**

2553 **Exterior walls 35 dB compliance (IBC AK 126).**

2554 (a) Exterior walls, other than s described in this section shall have a laboratory
2555 sound transmission class rating of at least STC-40; or

2556 (b) Masonry walls having a weight of at least 75 pounds per square feet do not
2557 require a furred (stud) interior wall. At least one surface of concrete block walls shall be
2558 plastered.

2559 (c) Stud walls shall be at least 4" in nominal depth and shall be finished on the
2560 outside with solid sheathing under an approved exterior wall finish.

2561 1. Interior surface of the exterior walls shall be of gypsum board or plaster at
2562 least 5/8" thick installed on the studs. The gypsum board or plaster may be fastened
2563 rigidly to the studs if the exterior is brick veneer or stucco. If the exterior is stucco or
2564 siding, the interior gypsum board or plaster must be fastened resiliently to the studs or
2565 double thickness must be used.

2566 2. Continuous composition board, plywood, or gypsum board sheathing at least
2567 1" thick shall cover the exterior side of the wall studs.

2568 3. Sheathing panels shall be butted tightly and covered on the exterior with
2569 overlapping building paper.

2570 4. Insulation material at least R-19 shall be installed continuously throughout
2571 the cavity space behind the exterior sheathing and between wall studs. Insulation shall be
2572 glass fiber or mineral wool.

2573 SECTION 238. K.C.C. 16.04.05090, as amended by this ordinance, is hereby
2574 recodified as a section in K.C.C. chapter 16.04.

2575 SECTION 239. Ordinance 12560, Section 93, as amended, and K.C.C.
2576 16.04.05090 are each hereby amended to read as follows:

2577 **Appendix (~~(Chapter 12 Division II)~~) K, Sound (~~(F)~~)transmission (~~(E)~~)control**
2578 **- Exterior windows (~~((UBC 1236))~~) 35 dB compliance. The International Building**
2579 **Code is supplemented by the following appendix:**

2580 **Exterior windows 35 dB compliance (IBC AK 127).**

2581 (a) Windows other than as described in this section shall have a laboratory sound
2582 transmission class rating of at least STC-38; or

2583 (b) Windows shall be double glazed with panes at least 3/16" thick. Panes of
2584 glass shall be separated by a minimum 1/2" airspace and shall not be equal in thickness.

2585 (c) Double-glazed windows shall employ fixed sash or efficiently weather-
2586 stripped, operable sash. The sash shall be rigid and weather-stripped with material that is
2587 compressed airtight when the window is closed so as to conform to an air infiltration test
2588 not to exceed 0.5 cubic foot per minute per foot of crack length in accordance with
2589 ASTM-E-283-65-T.

2590 (d) Glass shall be sealed in an airtight manner with a nonhardening sealant of soft
2591 elastomer gasket or gasket tape.

2592 (e) The perimeter of window frames shall be sealed airtight to the exterior wall
2593 construction with a sealant conforming to one of the following Federal specifications:
2594 TT-S-00227, TT-S-00230 or TT-S-00153.

2595 SECTION 240. K.C.C. 16.04.05091, as amended by this ordinance, is hereby
2596 recodified as a section in K.C.C. chapter 16.04.

2597 SECTION 241. Ordinance 12560, Section 94, as amended, and K.C.C.
2598 16.04.05091 are each hereby amended to read as follows:

2599 **Appendix (~~Chapter 12 Division H~~) K, Sound (~~F~~)transmission (~~C~~)control**
2600 **- Exterior doors (~~UBC 1237~~) 35 dB compliance. The International Building Code is**
2601 **supplemented by the following appendix:**

2602 **Exterior doors 35 dB compliance (IBC AK 128).**

2603 (a) Doors other than as described in this section shall have a laboratory sound
2604 transmission class rating of a least STC 33; or

2605 (b) Double door construction is required for all door openings to the exterior.
2606 The doors shall be side-hinged and shall be solid core wood or insulated hollow metal
2607 door at least 1-3/4" thick, separated by a vestibule or enclosed porch at least 3 feet in
2608 length. Both doors shall be tightly fitted and weather-stripped.

2609 (c) The glass or double glazed sliding doors shall be separated by a minimum
2610 1/2" airspace. Each sliding door frame shall be provided with an efficiently airtight
2611 weather-stripping material (~~(specified in Section 1236(e))~~) that conforms to an air
2612 infiltration test not to exceed 0.5 cubic feet per minute per foot of crack length in
2613 accordance with ASTM E-283-65-T.

2614 (d) Glass of all doors shall be at least 3/16" thick. Glass of double sliding doors
2615 shall not be equal in thickness.

2616 (e) The perimeter of door frames shall be sealed airtight to the exterior wall
2617 construction (framing) (~~(as indicated in Section 1236(e))~~) with a sealant conforming to
2618 one of the following Federal specifications: TT-S-00227, TT-S-00230 or TT-S-00153.

2619 (f) Glass in doors shall be sealed in an airtight nonhardening sealant or in a soft
2620 elastomer gasket of glazing tape.

2621 SECTION 242. K.C.C. 16.04.05092, as amended by this ordinance, is hereby
2622 recodified as a section in K.C.C. chapter 16.04.

2623 SECTION 243. Ordinance 12560, Section 95, as amended, and K.C.C.
2624 16.04.05092 are each hereby amended to read as follows:

2625 **Appendix ((Chapter 12 Division H)) K, Sound ((F))transmission ((C))control**
2626 **- Roofs ((UBC 1238)) 35 dB compliance.** The International Building Code is
2627 supplemented by the following appendix:

2628 **Roofs 35 dB compliance (IBC AK 129).**

2629 (a) Combined roof and ceiling construction other than as described in this section
2630 and ((Section 1239)) AK 130 shall have a laboratory sound transmission class rating of at
2631 least STC-49; or

2632 (b) With an attic or rafter space at least 6" deep, and with a ceiling below, the
2633 roof shall consist of 1" composition board, plywood or gypsum board sheathing topped
2634 by roofing as required.

2635 (c) Open beam roof construction shall follow the energy insulation standard
2636 method for batt insulation, except use 1" plywood decking with concrete or clay tiles as
2637 roofing material.

2638 SECTION 244. K.C.C. 16.04.05093, as amended by this ordinance, is hereby
2639 recodified as a section in K.C.C. chapter 16.04.

2640 SECTION 245. Ordinance 12560, Section 96, as amended, and K.C.C.
2641 16.04.05093 are each hereby amended to read as follows:

2642 **Appendix ((Chapter 12 Division H)) K, Sound ((F))transmission ((C))control**
2643 **- Ceiling ((UBC 1239)) 35 dB compliance.** The International Building Code is
2644 supplemented by the following appendix:

2645 **Ceiling 35 dB compliance (IBC AK 130)**

2646 (a) Gypsum board or plaster ceiling at least 5/8" shall be provided where required
2647 by ((Section 1238)) AK 129, above. Ceiling shall be substantially airtight with a

2648 minimum of penetrations. The ceiling panels shall be mounted on resilient clips or
2649 channels.

2650 (b) Glass fiber or mineral wool insulation at least R-30 shall be provided above
2651 the ceiling between joists.

2652 SECTION 246. K.C.C. 16.04.05094, as amended by this ordinance, is hereby
2653 recodified as a section in K.C.C. chapter 16.04.

2654 SECTION 247. Ordinance 12560, Section 97, as amended, and K.C.C.
2655 16.04.05094 are each hereby amended to read as follows:

2656 **Appendix ((Chapter 12 Division H)) K, Sound ((F))transmission ((C))control**
2657 **– Floors (((UBC 1240))) 35 dB compliance. The International Building Code is**
2658 **supplemented by the following appendix:**

2659 **Floors 35 dB compliance (IBC AK 131).** The floor of the lowest occupied
2660 rooms shall be slab on fill or below grade.

2661 SECTION 248. K.C.C. 16.04.05095, as amended by this ordinance, is hereby
2662 recodified as a section in K.C.C. chapter 16.04.

2663 SECTION 249. Ordinance 12560, Section 98, as amended, and K.C.C.
2664 16.04.05095 are each hereby amended to read as follows:

2665 **Appendix ((Chapter 12 Division H)) K, Sound ((F))transmission ((C))control**
2666 **– Ventilation (((UBC 1241))) 35 dB compliance. The International Building Code is**
2667 **supplemented by the following appendix:**

2668 **Ventilation 35 dB compliance (IBC AK 132).**

2669 (a) A ventilation system shall be installed that will provide the minimum air
2670 circulation and fresh air supply requirements for various uses in occupied rooms without