516 Third Avenue, Council Chambers, 10th Floor, Seattle, WA 98104

King County

Meeting Agenda

Local Services and Land Use Committee

Councilmembers:
Reagan Dunn, Chair;
Rhonda Lewis, Vice Chair;
Teresa Mosqueda, Sarah Perry

Lead Staff: Jenny Ngo (206-263-2115)
Committee Clerk: Gabbi Williams (206-477-7470)

9:30 AM | **Wednesday, September 16, 2026** | **Hybrid Meeting**

Hybrid Meetings: Attend King County Council committee meetings in person in Council Chambers (Room 1001), 516 3rd Avenue in Seattle, or through remote access. Details on how to attend remotely and/or provide comment are listed below.

Pursuant to K.C.C. 1.24.035 A. and F., this meeting is also noticed as a meeting of the Metropolitan King County Council, whose agenda is limited to the committee business. In this meeting only the rules and procedures applicable to committees apply and not those applicable to full council meetings.

HOW TO PROVIDE PUBLIC COMMENT: The Local Services and Land Use Committee values community input and looks forward to hearing from you on agenda items.

There are three ways to provide public comment:
1. In person: You may attend the meeting and provide comment in the Council Chambers.
2. By email: You may comment in writing on current agenda items by submitting your email comments to committees@kingcounty.gov. If your email is received before 8:00 a.m. on the day of the meeting, your email comments will be distributed to the committee members and appropriate staff prior to the meeting.
3. Remote attendance at the meeting by phone or computer (see "Connecting to the Webinar" below).

You are not required to sign up in advance. Comments are limited to current agenda items.

Sign language and interpreter services can be arranged given sufficient notice (206-848-0355).
TTY Number - TTY 711.
Council Chambers is equipped with a hearing loop, which provides a wireless signal that is picked up by a hearing aid when it is set to 'T' (Telecoil) setting.

You have the right to language access services at no cost to you. To request these services, please contact Language Access Coordinator, Tera Chea at 206-477-9259 or email tera.chea2@kingcounty.gov by 8:00 a.m. three business days prior to the meeting.

CONNECTING TO THE WEBINAR
Webinar ID: 840 9948 4774

By computer using the Zoom application at https://zoom.us/join and the webinar ID above.

Via phone by calling 1-253-215-8782 and using the webinar ID above.

HOW TO WATCH/LISTEN TO THE MEETING REMOTELY: There are several ways to watch or listen in to the meeting:
1) Stream online via this link: http://www.kingcounty.gov/kctv, or input the link web address into your web browser.
2) Watch King County TV on Comcast Channel 22 and 322(HD) and Astound Broadband Channels 22 and 711(HD)
3) Listen to the meeting by telephone – See "Connecting to the Webinar" above.

1. **Call to Order**

2. **Roll Call**

To show a PDF of the written materials for an agenda item, click on the agenda item below.

3. **Approval of Minutes** p. 8

June 17, 2026 meeting minutes

4. **Public Comment**

Briefing

5. Briefing No. 2026-B0108 p. 14

KCD Annual report

Rosa Méndez-Perez, Executive Director, King Conservation District (KCD)

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Consent

6. Proposed Ordinance No. 2026-0224 **p. 33**

AN ORDINANCE approving the city of Kirkland's proposal to exchange 16,274 square feet of Mark Twain park for an equal amount of square footage.

Sponsors: Balducci

Sherrie Hsu, Council staff

Discussion Only

7. Proposed Ordinance No. 2026-0234 **p. 42**

AN ORDINANCE adopting and ratifying amendments to the 2021 King County Countywide Planning Policies.

Sponsors: Dunn

Jake Tracy, Council staff

8. Proposed Ordinance No. 2026-0235 **p. 56**

AN ORDINANCE related to comprehensive planning and development regulations; amending Ordinance 13147, Section 12, and K.C.C. 20.08.170, Ordinance 17486, Section 3, and K.C.C. 20.10.015, Ordinance 13147, Section 20, as amended, and K.C.C. 20.18.040, Ordinance 14047, Section 4, as amended, and K.C.C. 20.18.055, and Ordinance 12196, Section 9, as amended, and K.C.C. 20.20.020, and adding a section to K.C.C. chapter 20.08.

Sponsors: Dunn

Jake Tracy, Council staff



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9. Proposed Ordinance No. 2025-0321 **p. 94**

AN ORDINANCE relating to building and construction standards; amending Ordinance 14111, Section 4, as amended, and K.C.C. 16.02.110, Ordinance 14914, Section 9, as amended, and K.C.C. 16.02.150, Ordinance 15802, Section 5, as amended, and K.C.C. 16.02.152, Ordinance 12560, Section 6, as amended, and K.C.C. 16.02.190, Ordinance 12560, Section 10, as amended, and K.C.C. 16.02.240, Ordinance 12560, Section 17, as amended, and K.C.C. 16.02.280, Ordinance 12560, Section 18, as amended, and K.C.C. 16.02.290, Ordinance 12560, Section 22, as amended, and K.C.C. 16.02.340, Ordinance 14914, Section 57, as amended, and K.C.C. 16.02.440, Ordinance 12560, Section 30, as amended, and K.C.C. 16.02.470, Ordinance 12560, Section 36, as amended, and K.C.C. 16.02.540, Ordinance 14914, Section 90, as amended, and K.C.C. 16.03.020, Ordinance 19485, Section 31, and K.C.C. 16.03.280, Ordinance 12560, Section 72, as amended, and K.C.C. 16.04.440, Ordinance 19485, Section 48, as amended, and K.C.C. 16.04.600, Ordinance 12560, Section 72, as amended, and K.C.C. 16.04.620, Ordinance 12560, Section 75, as amended, and K.C.C. 16.04.630, Ordinance 12560, Section 84, as amended, and K.C.C. 16.04.720, Ordinance 12560, Section 85, as amended, and K.C.C. 16.04.730, Ordinance 12560, Section 86, as amended, and K.C.C. 16.04.740, Ordinance 12560, Section 87, as amended, and K.C.C. 16.04.750, Ordinance 12560, Section 88, as amended, and K.C.C. 16.04.760, Ordinance 12560, Section 86, as amended, and K.C.C. 16.04.770, Ordinance 12560, Section 90, as amended, and K.C.C. 16.04.780, Ordinance 12560, Section 92, as amended, and K.C.C. 16.04.800, Ordinance 12560, Section 94, as amended, and K.C.C. 16.04.820, Ordinance 12560, Section 95, as amended, and K.C.C. 16.04.830, Ordinance 12560, Section 96, as amended, and K.C.C. 16.04.840, Ordinance 12560, Section 97, as amended, and K.C.C. 16.04.850, Ordinance 12560, Section 98, as amended, and K.C.C. 16.04.860, Ordinance 14914, Section 272, as amended, and K.C.C. 16.05.040, Ordinance 15802, Section 78, as amended, and K.C.C. 16.05.065, Ordinance 19485, Section 72, and K.C.C. 16.07.040, Ordinance 19485, Section 74, and K.C.C. 16.07.060, Ordinance 19485, Section 78, and K.C.C. 16.07.100, Ordinance 19485, Section 79, and K.C.C. 16.07.110, Ordinance 19485, Section 81, and K.C.C. 16.07.130, Ordinance 19485, Section 82, and K.C.C. 16.07.140, Ordinance 19485, Section 86, and K.C.C.16.07.180, Ordinance 19485, Section 90, and K.C.C. 16.07.220, Ordinance 19485, Section 99, and K.C.C. 16.07.310, Ordinance 19485, Section 100, and K.C.C. 16.07.320, Ordinance 19485, Section 117, and K.C.C. 16.07.490, Ordinance 8766, Section 6, as amended, and K.C.C. 16.08.050, Ordinance 12560, Section 109, as amended, and K.C.C. 16.14.090, Ordinance 12560, Section 112, as amended, and K.C.C. 16.14.100, Ordinance 12560, Section 110, as amended and K.C.C. 16.14.110, Ordinance 14914, Section 359, as amended, and K.C.C. 16.14.200, Ordinance 14914, Section 360, and K.C.C. 16.14.210, Ordinance 12560, Section 120, and K.C.C. 16.14.220, Ordinance 14914, Section 370, and K.C.C. 16.14.280, Ordinance 14914, Section 370, and K.C.C. 16.14.290, Ordinance 12560, Section 121, as amended, and K.C.C. 16.14.430, Ordinance 14111, Section 131, as amended, and K.C.C. 16.14.450, Ordinance 14111, Section 131, as amended, and K.C.C. 16.14.460, Ordinance 14914, Section 408, and K.C.C. 16.14.490, Ordinance 12560, Section 115, as amended, and K.C.C. 16.14.540, Ordinance 14914, Section 416, and K.C.C. 16.14.550, Ordinance 6746, Section 5, as amended, and K.C.C. 16.32.030, Ordinance 6746, Section 7, as amended, and K.C.C. 16.32.050, Ordinance 6746, Section 10, as amended, and K.C.C. 16.32.080, Ordinance 15802, Section 122, as amended, and K.C.C. 16.32.195, Ordinance 15802, Section 124, as amended, and K.C.C. 16.32.215, Ordinance 15802, Section 126, as amended, and K.C.C. 16.32.235, Ordinance 15802, Section 131, as amended, and K.C.C. 16.32.285, Ordinance 19485, Section 146, and K.C.C. 16.32.292, Ordinance



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15802, Section 132, as amended, and K.C.C. 16.32.295, Ordinance 15802, Section 133, as amended, and K.C.C. 16.32.306, Ordinance 19485, Section 151, and K.C.C. 16.32.338, Ordinance 19485, Section 153, and K.C.C. 16.32.340, Ordinance 19485, Section 136, and K.C.C. 16.32.341, Ordinance 19485, Section 154, and K.C.C. 16.32.342, Ordinance 19485, Section 155, and K.C.C. 16.32.343, Ordinance 19485, Section 156, and K.C.C. 16.32.344, Ordinance 15802, Section 137, as amended, and K.C.C. 16.32.345, Ordinance 1488, Section 5, as amended, and K.C.C. 16.82.130, Ordinance 9614, Section 103, and K.C.C. 17.04.010, Ordinance 12560, Section 148, as amended, and K.C.C. 17.04.200, Ordinance 2910, Section 6, as amended, and K.C.C. 17.04.210, Ordinance 12560, Section 153, as amended, and K.C.C. 17.04.220, Ordinance 12560, Section 149, as amended, and K.C.C. 17.04.280, Ordinance 12560, Section 156, as amended, and K.C.C. 17.04.290, Ordinance 17837, Section 75, as amended, and K.C.C. 17.04.295, Ordinance 14915, Section 25, as amended, and K.C.C. 17.04.310, Ordinance 14915, Section 26, and K.C.C. 17.04.320, Ordinance 19485, Section 166, as amended, and K.C.C. 17.04.330, Ordinance 19485, Section 178, and K.C.C. 17.04.341, Ordinance 19485, Section 169, and K.C.C. 17.04.375, Ordinance 19485, Section 170, and K.C.C. 17.04.377, Ordinance 12560, Section 165, and K.C.C. 17.04.380, Ordinance 12560, Section 166, as amended, and K.C.C. 17.04.390, Ordinance 14915, Section 45, as amended, and K.C.C. 17.04.400, Ordinance 7980, Section 1, as amended, and K.C.C. 17.04.420, Ordinance 19485, Section 173, and K.C.C. 17.04.425, Ordinance 19485, Section 174, and K.C.C. 17.04.445, Ordinance 19485, Section 175, as amended, and K.C.C. 17.04.447, Ordinance 19485, Section 178, and K.C.C. 17.04.462, Ordinance 19485, Section 180, and K.C.C. 17.04.467, Ordinance 19485, Section 184, and K.C.C. 17.04.476, Ordinance 19485, Section 192, and K.C.C. 17.04.489, Ordinance 12560, Section 171, and K.C.C. 17.04.520, Ordinance 12560, Section 174, as amended, and K.C.C. 17.04.560, Ordinance 19485, Section 196, as amended, and K.C.C. 17.04.563, Ordinance 19485, Section 7, and K.C.C. 17.04.572, Ordinance 19485, Section 198, as amended, and K.C.C. 17.04.574, Ordinance 19485, Section 200, as amended, and K.C.C. 17.04.582, Ordinance 19485, Section 201, as amended, and K.C.C. 17.04.590, Ordinance 5828, Section 4, as amended, and K.C.C. 17.08.030, Ordinance 5828, Section 10, as amended, and K.C.C. 17.08.090, Ordinance 3316, Section 4, as amended, and K.C.C. 17.08.100, Ordinance 14915, Section 125, as amended, and K.C.C. 17.08.140, Ordinance 19276, Section 7, and K.C.C. 17.11.040, Ordinance 19276, Section 9, and K.C.C. 17.11.060, adding new sections to K.C.C. chapter 16.04, adding a new section to K.C.C. chapter 16.05, adding new sections to K.C.C. chapter 16.07, adding new sections to K.C.C. chapter 16.32, adding new sections to K.C.C. chapter 17.04, adding a new chapter to K.C.C. Title 17, repealing Ordinance 14914, Section 10, as amended, and K.C.C. 16.02.160, Ordinance 12560, Section 55, as amended, and K.C.C. 16.02.170, Ordinance 14914, Section 20, and K.C.C. 16.02.230, Ordinance 12560, Section 15, as amended, and K.C.C. 16.02.310, Ordinance 17837, Section 13, and K.C.C. 16.02.316, Ordinance 12560, Section 13, as amended, and K.C.C. 16.02.370, Ordinance 12560, Section 26, as amended, and K.C.C. 16.02.410, Ordinance 12560, Section 30, as amended, and K.C.C. 16.02.470, Ordinance 12560, Section 31, as amended, and K.C.C. 16.02.480, Ordinance 12560, Section 32, as amended, and K.C.C. 16.02.490, Ordinance 12560, Section 33, as amended, and K.C.C. 16.02.500, Ordinance 12560, Section 34, as amended, and K.C.C. 16.02.510, Ordinance 12560, Section 35, as amended, and K.C.C. 16.02.520, Ordinance 12560, Section 37, as amended, and K.C.C. 16.02.530, Ordinance 14914, Section 78, as amended, and K.C.C. 16.02.550, Ordinance 19414, Section 85, as amended, and K.C.C. 16.02.600, Ordinance 19485; Section 29, and K.C.C. 16.03.057, Ordinance 14914, Section 133, as amended, and K.C.C. 16.04.260, Ordinance 12560, Section 44, as amended, and K.C.C. 16.04.270, Ordinance 14914, Section 141, as amended, and K.C.C. 16.04.290, Ordinance 12560, Section 47, as amended, and K.C.C. 16.04.310, Ordinance 14111, Section 55, as amended, and



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K.C.C. 16.04.330, Ordinance 15802, Section 23, as amended, and K.C.C. 16.04.344, Ordinance 15802, Section 24, and K.C.C. 16.04.346, Ordinance 15802, Section 25, and K.C.C. 16.04.348, Ordinance 14914, Section 155, as amended, and K.C.C. 16.04.360, Ordinance 15802, Section 34, and K.C.C. 16.04.475, Ordinance 12560, Section 54, as amended, and K.C.C. 16.04.490, Ordinance 11923, Section 2, as amended, and K.C.C. 16.04.890, Ordinance 11923, Section 3, as amended, and K.C.C. 16.04.900, Ordinance 19485, Section 5, and K.C.C. 16.04.930, Ordinance 12380, Section 2, as amended, and K.C.C. 16.04.940, Ordinance 12380, Section 3, as amended, and K.C.C. 16.04.950, Ordinance 12380, Section 4, as amended, and K.C.C. 16.04.960, Ordinance 12380, Section 5, as amended, and K.C.C. 16.04.970, Ordinance 7853, Section 1, as amended, and K.C.C. 16.04.980, Ordinance 14914, Section 276, as amended, and K.C.C. 16.05.080, Ordinance 19485, Section 73, and K.C.C. 16.07.050, Ordinance 19485, Section 75, and K.C.C. 16.07.070, Ordinance 19485, Section 76, and K.C.C 16.07.080, Ordinance 19485, Section 76, and K.C.C 16.07.090, Ordinance 19485, Section 80, and K.C.C 16.07.120, Ordinance 19485, Section 81, and K.C.C 16.07.130, Ordinance 19485 Section 83, and K.C.C 16.07.150, Ordinance 19485, Section 84, and K.C.C. 16.07.160, Ordinance 19485, Section 85, and K.C.C 16.07.170, Ordinance 19485, Section 86, and K.C.C 16.07.180, Ordinance 19485, Section 87, and K.C.C 16.07.190, Ordinance 19485, Section 88, and K.C.C 16.07.200, Ordinance 19485, Section 89, and K.C.C. 16.07.210, Ordinance 19485, Section 91, and K.C.C 16.07.230, Ordinance 19485, Section 92, and K.C.C 16.07.240, Ordinance 19485, Section 93, and K.C.C 16.07.250, Ordinance 19485, Section 94, and K.C.C 16.07.260, Ordinance 19485, Section 95, and K.C.C 16.07.270, Ordinance 19485, Section 96, and K.C.C 16.07.280, Ordinance 19485, Section 98, and K.C.C. 16.07.300, Ordinance 19485, Section 101, and K.C.C. 16.07.330, Ordinance 19485, Section 102, and K.C.C 16.07.340, Ordinance 19485, Section 103, and K.C.C 16.07.350, Ordinance 19485, Section 104, and K.C.C 16.07.360, Ordinance 19485, Section 105, and K.C.C 16.07.370, Ordinance 19485, Section 106, and K.C.C 16.07.380, Ordinance 19485, Section 108, and K.C.C 16.07.400, Ordinance 19485, Section 109, and K.C.C 16.07.410, Ordinance 19485, Section 110, and K.C.C 16.07.420, Ordinance 19485, Section 111, and K.C.C 16.07.430, Ordinance 19485, Section 112, and K.C.C 16.07.440, Ordinance 19485, Section 113, and K.C.C 16.07.450, Ordinance 19485, Section 115, and K.C.C 16.07.470, Ordinance 19485, Section 116, and K.C.C. 16.07.480, Ordinance 19485, Section 118, and K.C.C 16.07.500, Ordinance 19485, Section 119, and K.C.C 16.07.510, Ordinance 19485, Section 120, and K.C.C. 16.07.520, Ordinance 19485, Section 121, and K.C.C. 16.07.530, Ordinance 19485, Section 122, and K.C.C. 16.07.540, Ordinance 19485, Section 123, and K.C.C. 16.07.550, Ordinance 14111, Section 73, and K.C.C. 16.10.010, Ordinance 12560, Section 58, as amended, and K.C.C. 16.10.020, Ordinance 12560, Section 59, as amended, and K.C.C. 16.10.030, Ordinance 12560, Section 60, and as amended, K.C.C. 16.10.040, Ordinance 12560, Section 61, as amended, and K.C.C. 16.10.050, Ordinance 12560, Section 62, as amended, and K.C.C. 16.10.060, Ordinance 12560, Section 63, as amended, and K.C.C. 16.10.070, Ordinance 12560, Section 64, as amended, and K.C.C. 16.10.080, Ordinance 15802, Section 99, and K.C.C. 16.10.100, Ordinance 15802, Section 100, and K.C.C. 16.10.110, Ordinance 15802, Section 101, as amended, and K.C.C. 16.10.120, Ordinance 12560, Section 127, as amended, and K.C.C. 16.14.020, Ordinance 14914, Section 337, and K.C.C. 16.14.040, Ordinance 14914, Section 338, and K.C.C. 16.14.050, Ordinance 14914, Section 339, and K.C.C. 16.14.060, Ordinance 14914, Section 352, and K.C.C. 16.14.140, Ordinance 14914, Section 353, and K.C.C. 16.14.150, Ordinance 14914, Section 367, as amended, and K.C.C. 16.14.250, Ordinance 14914, Section 407, and K.C.C. 16.14.480, Ordinance 14914, Section 410, and K.C.C. 16.14.510, Ordinance 14914, Section 413, and K.C.C. 16.14.530, Ordinance 14914, Section 418, and K.C.C. 16.14.570, Ordinance 14914, Section 419, and K.C.C. 16.14.580, Ordinance 14914, Section 420, and K.C.C. 16.14.590, Ordinance 19485, Section



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149, and K.C.C. 16.32.336, Ordinance 19485, Section 150, and K.C.C. 163.32.337, Ordinance 19485, Section 152, and K.C.C. 16.32.339, Ordinance 1283, Section 1, as amended, and K.C.C. 16.78.010, Ordinance 1283, Section 2, and K.C.C. 16.78.020, Ordinance 1283, Section 3, and K.C.C. 16.78.030, Ordinance 1283, Section 4, and K.C.C. 16.78.040, Ordinance 1283, Section 5, and K.C.C. 16.78.050, Ordinance 1283 (part) and K.C.C. 16.78.060, Ordinance 19485, Section 174, and K.C.C. 17.04.445, Ordinance 19485, Section 175, and K.C.C. 17.04.447, Ordinance 19485, Section 179, and K.C.C. 17.04.466, Ordinance 19485, Section 181, and K.C.C. 17.04.468, Ordinance 19485, Section 182, and K.C.C. 17.04.471, Ordinance 19485, Section 183, and K.C.C. 17.04.472, Ordinance 19485, Section 185, and K.C.C. 17.04.477, Ordinance 19485, Section 186, and K.C.C. 17.04.478, Ordinance 19485, Section 187, and K.C.C. 17.04.479, Ordinance 19485, Section 188, and K.C.C. 17.04.481, Ordinance 19485, Section 189, and K.C.C. 17.04.486, Ordinance 19485, Section 190, and K.C.C. 17.04.487, Ordinance 19485, Section 191, and K.C.C. 17.04.488, Ordinance 14111, Section 215, and K.C.C. 17.04.540.

Sponsors: Perry

Jake Tracy and Jenny Ngo, Council staff

Other Business

Adjournment



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King County

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Meeting Minutes

Local Services and Land Use Committee

Councilmembers:
Reagan Dunn, Chair;
Rhonda Lewis, Vice Chair;
Teresa Mosqueda, Sarah Perry

Lead Staff: Jenny Ngo (206-263-2115)
Committee Clerk: Ryleigh Brimhall (206-263-2152)

9:30 AM | **Wednesday, June 17, 2026** | **Hybrid Meeting**

DRAFT MINUTES

1. Call to Order

Chair Dunn called the meeting to order at 9:32 a.m.

2. Roll Call

Present: 4 - Dunn, Lewis, Mosqueda and Perry

3. Approval of Minutes

Vice Chair Lewis moved approval of the April 22, 2026, meeting minutes. There being no objections, the minutes were approved.

4. Public Comment

The following individuals provided public comment:
1. Dirk Wassink
2. Kellen Hoard.

Consent

5. Proposed Ordinance No. 2026-0113

AN ORDINANCE relating to the withdrawal of approximately 67 acres of land from the Vashon sewer district.

A motion was made by Lewis that this Ordinance be Recommended Do Pass Consent. The motion carried by the following vote:

Yes: 4 - Dunn, Lewis, Mosqueda and Perry

6. **Proposed Ordinance No. 2026-0016**

AN ORDINANCE approving the City of Auburn Water System Plan dated July 2025.

A motion was made by Lewis that this Ordinance be Recommended Do Pass Consent. The motion carried by the following vote:

Yes: 4 - Dunn, Lewis, Mosqueda and Perry

7. **Proposed Ordinance No. 2026-0050**

AN ORDINANCE approving the City of Black Diamond Water System Plan dated Summer 2025.

A motion was made by Lewis that this Ordinance be Recommended Do Pass Consent. The motion carried by the following vote:

Yes: 4 - Dunn, Lewis, Mosqueda and Perry

8. **Proposed Ordinance No. 2026-0047**

AN ORDINANCE correcting the legal description in Ordinance 19723, which authorized the vacation of a portion of 152nd Ave SE, File V-2745; Petitioners: Micah and Florine Palmer; amending Ordinance 19723, Section 1, and repealing Ordinance 19723, Section 2.

A motion was made by Lewis that this Ordinance be Recommended Do Pass Consent. The motion carried by the following vote:

Yes: 4 - Dunn, Lewis, Mosqueda and Perry

Discussion Only

9. **Proposed Ordinance No. 2025-0321**

AN ORDINANCE relating to building and construction standards; amending Ordinance 14111, Section 4, as amended, and K.C.C. 16.02.110, Ordinance 14914, Section 9, as amended, and K.C.C. 16.02.150, Ordinance 15802, Section 5, as amended, and K.C.C. 16.02.152, Ordinance 12560, Section 6, as amended, and K.C.C. 16.02.190, Ordinance 12560, Section 10, as amended, and K.C.C. 16.02.240, Ordinance 12560, Section 17, as amended, and K.C.C. 16.02.280, Ordinance 12560, Section 18, as amended, and K.C.C. 16.02.290, Ordinance 12560, Section 22, as amended, and K.C.C. 16.02.340, Ordinance 14914, Section 57, as amended, and K.C.C. 16.02.440, Ordinance 12560, Section 30, as amended, and K.C.C. 16.02.470, Ordinance 12560, Section 36, as amended, and K.C.C. 16.02.540, Ordinance 14914, Section 90, as amended, and K.C.C. 16.03.020, Ordinance 19485, Section 31, and K.C.C. 16.03.280, Ordinance 12560, Section 72, as amended, and K.C.C. 16.04.440, Ordinance 19485, Section 48, as amended, and K.C.C. 16.04.600, Ordinance 12560, Section 72, as amended, and K.C.C. 16.04.620, Ordinance 12560, Section 75, as amended, and K.C.C. 16.04.630, Ordinance 12560, Section 84, as amended, and K.C.C. 16.04.720, Ordinance 12560, Section 85, as amended, and K.C.C. 16.04.730, Ordinance 12560, Section 86, as amended, and K.C.C. 16.04.740, Ordinance 12560, Section 87, as amended, and K.C.C. 16.04.750, Ordinance 12560, Section 88, as amended, and K.C.C. 16.04.760, Ordinance 12560, Section 86, as amended, and K.C.C. 16.04.770, Ordinance 12560, Section 90, as amended, and K.C.C. 16.04.780, Ordinance 12560, Section 92, as amended, and K.C.C. 16.04.800, Ordinance 12560, Section 94, as amended, and K.C.C. 16.04.820, Ordinance 12560, Section 95, as amended, and K.C.C. 16.04.830, Ordinance 12560, Section 96, as amended, and K.C.C. 16.04.840, Ordinance 12560, Section 97, as amended, and K.C.C. 16.04.850, Ordinance 12560, Section

98, as amended, and K.C.C. 16.04.860, Ordinance 14914, Section 272, as amended, and K.C.C. 16.05.040, Ordinance 15802, Section 78, as amended, and K.C.C. 16.05.065, Ordinance 19485, Section 72, and K.C.C. 16.07.040, Ordinance 19485, Section 74, and K.C.C. 16.07.060, Ordinance 19485, Section 78, and K.C.C. 16.07.100, Ordinance 19485, Section 79, and K.C.C. 16.07.110, Ordinance 19485, Section 81, and K.C.C. 16.07.130, Ordinance 19485, Section 82, and K.C.C. 16.07.140, Ordinance 19485, Section 86, and K.C.C.16.07.180, Ordinance 19485, Section 90, and K.C.C. 16.07.220, Ordinance 19485, Section 99, and K.C.C. 16.07.310, Ordinance 19485, Section 100, and K.C.C. 16.07.320, Ordinance 19485, Section 117, and K.C.C. 16.07.490, Ordinance 8766, Section 6, as amended, and K.C.C. 16.08.050, Ordinance 12560, Section 109, as amended, and K.C.C. 16.14.090, Ordinance 12560, Section 112, as amended, and K.C.C. 16.14.100, Ordinance 12560, Section 110, as amended and K.C.C. 16.14.110, Ordinance 14914, Section 359, as amended, and K.C.C. 16.14.200, Ordinance 14914, Section 360, and K.C.C. 16.14.210, Ordinance 12560, Section 120, and K.C.C. 16.14.220, Ordinance 14914, Section 370, and K.C.C. 16.14.280, Ordinance 14914, Section 370, and K.C.C. 16.14.290, Ordinance 12560, Section 121, as amended, and K.C.C. 16.14.430, Ordinance 14111, Section 131, as amended, and K.C.C. 16.14.450, Ordinance 14111, Section 131, as amended, and K.C.C. 16.14.460, Ordinance 14914, Section 408, and K.C.C. 16.14.490, Ordinance 12560, Section 115, as amended, and K.C.C. 16.14.540, Ordinance 14914, Section 416, and K.C.C. 16.14.550, Ordinance 6746, Section 5, as amended, and K.C.C. 16.32.030, Ordinance 6746, Section 7, as amended, and K.C.C. 16.32.050, Ordinance 6746, Section 10, as amended, and K.C.C. 16.32.080, Ordinance 15802, Section 122, as amended, and K.C.C. 16.32.195, Ordinance 15802, Section 124, as amended, and K.C.C. 16.32.215, Ordinance 15802, Section 126, as amended, and K.C.C. 16.32.235, Ordinance 15802, Section 131, as amended, and K.C.C. 16.32.285, Ordinance 19485, Section 146, and K.C.C. 16.32.292, Ordinance 15802, Section 132, as amended, and K.C.C. 16.32.295, Ordinance 15802, Section 133, as amended, and K.C.C. 16.32.306, Ordinance 19485, Section 151, and K.C.C. 16.32.338, Ordinance 19485, Section 153, and K.C.C. 16.32.340, Ordinance 19485, Section 136, and K.C.C. 16.32.341, Ordinance 19485, Section 154, and K.C.C. 16.32.342, Ordinance 19485, Section 155, and K.C.C. 16.32.343, Ordinance 19485, Section 156, and K.C.C. 16.32.344, Ordinance 15802, Section 137, as amended, and K.C.C. 16.32.345, Ordinance 1488, Section 5, as amended, and K.C.C. 16.82.130, Ordinance 9614, Section 103, and K.C.C. 17.04.010, Ordinance 12560, Section 148, as amended, and K.C.C. 17.04.200, Ordinance 2910, Section 6, as amended, and K.C.C. 17.04.210, Ordinance 12560, Section 153, as amended, and K.C.C. 17.04.220, Ordinance 12560, Section 149, as amended, and K.C.C. 17.04.280, Ordinance 12560, Section 156, as amended, and K.C.C. 17.04.290, Ordinance 17837, Section 75, as amended, and K.C.C. 17.04.295, Ordinance 14915, Section 25, as amended, and K.C.C. 17.04.310, Ordinance 14915, Section 26, and K.C.C. 17.04.320, Ordinance 19485, Section 166, as amended, and K.C.C. 17.04.330, Ordinance 19485, Section 178, and K.C.C. 17.04.341, Ordinance 19485, Section 169, and K.C.C. 17.04.375, Ordinance 19485, Section 170, and K.C.C. 17.04.377, Ordinance 12560, Section 165, and K.C.C. 17.04.380, Ordinance 12560, Section 166, as amended, and K.C.C. 17.04.390, Ordinance 14915, Section 45, as amended, and K.C.C. 17.04.400, Ordinance 7980, Section 1, as amended, and K.C.C. 17.04.420, Ordinance 19485, Section 173, and K.C.C. 17.04.425, Ordinance 19485, Section 174, and K.C.C. 17.04.445, Ordinance 19485, Section 175, as amended, and K.C.C. 17.04.447, Ordinance 19485, Section 178, and K.C.C. 17.04.462, Ordinance 19485, Section 180, and K.C.C. 17.04.467, Ordinance 19485, Section 184, and K.C.C. 17.04.476, Ordinance 19485, Section 192, and K.C.C. 17.04.489, Ordinance 12560, Section 171, and K.C.C. 17.04.520, Ordinance 12560, Section 174, as amended, and K.C.C. 17.04.560, Ordinance 19485, Section 196, as amended, and K.C.C. 17.04.563, Ordinance 19485, Section 7, and K.C.C. 17.04.572, Ordinance 19485, Section 198, as amended, and K.C.C. 17.04.574, Ordinance 19485, Section 200, as amended, and K.C.C. 17.04.582, Ordinance 19485, Section 201, as amended, and K.C.C. 17.04.590, Ordinance 5828, Section 4, as amended, and K.C.C. 17.08.030, Ordinance 5828, Section 10, as amended, and K.C.C. 17.08.090, Ordinance 3316, Section 4, as amended, and K.C.C. 17.08.100, Ordinance 14915, Section 125, as amended, and K.C.C. 17.08.140, Ordinance 19276, Section 7, and K.C.C. 17.11.040, Ordinance 19276, Section 9, and K.C.C. 17.11.060, adding new sections to K.C.C. chapter 16.04, adding a new section to K.C.C. chapter 16.05, adding new sections to K.C.C. chapter 16.07, adding new sections to K.C.C. chapter 16.32, adding new sections to K.C.C. chapter 17.04,

adding a new chapter to K.C.C. Title 17, repealing Ordinance 14914, Section 10, as amended, and K.C.C. 16.02.160, Ordinance 12560, Section 55, as amended, and K.C.C. 16.02.170, Ordinance 14914, Section 20, and K.C.C. 16.02.230, Ordinance 12560, Section 15, as amended, and K.C.C. 16.02.310, Ordinance 17837, Section 13, and K.C.C. 16.02.316, Ordinance 12560, Section 13, as amended, and K.C.C. 16.02.370, Ordinance 12560, Section 26, as amended, and K.C.C. 16.02.410, Ordinance 12560, Section 30, as amended, and K.C.C. 16.02.470, Ordinance 12560, Section 31, as amended, and K.C.C. 16.02.480, Ordinance 12560, Section 32, as amended, and K.C.C. 16.02.490, Ordinance 12560, Section 33, as amended, and K.C.C. 16.02.500, Ordinance 12560, Section 34, as amended, and K.C.C. 16.02.510, Ordinance 12560, Section 35, as amended, and K.C.C. 16.02.520, Ordinance 12560, Section 37, as amended, and K.C.C. 16.02.530, Ordinance 14914, Section 78, as amended, and K.C.C. 16.02.550, Ordinance 19414, Section 85, as amended, and K.C.C. 16.02.600, Ordinance 19485; Section 29, and K.C.C. 16.03.057, Ordinance 14914, Section 133, as amended, and K.C.C. 16.04.260, Ordinance 12560, Section 44, as amended, and K.C.C. 16.04.270, Ordinance 14914, Section 141, as amended, and K.C.C. 16.04.290, Ordinance 12560, Section 47, as amended, and K.C.C. 16.04.310, Ordinance 14111, Section 55, as amended, and K.C.C. 16.04.330, Ordinance 15802, Section 23, as amended, and K.C.C. 16.04.344, Ordinance 15802, Section 24, and K.C.C. 16.04.346, Ordinance 15802, Section 25, and K.C.C. 16.04.348, Ordinance 14914, Section 155, as amended, and K.C.C. 16.04.360, Ordinance 15802, Section 34, and K.C.C. 16.04.475, Ordinance 12560, Section 54, as amended, and K.C.C. 16.04.490, Ordinance 11923, Section 2, as amended, and K.C.C. 16.04.890, Ordinance 11923, Section 3, as amended, and K.C.C. 16.04.900, Ordinance 19485, Section 5, and K.C.C. 16.04.930, Ordinance 12380, Section 2, as amended, and K.C.C. 16.04.940, Ordinance 12380, Section 3, as amended, and K.C.C. 16.04.950, Ordinance 12380, Section 4, as amended, and K.C.C. 16.04.960, Ordinance 12380, Section 5, as amended, and K.C.C. 16.04.970, Ordinance 7853, Section 1, as amended, and K.C.C. 16.04.980, Ordinance 14914, Section 276, as amended, and K.C.C. 16.05.080, Ordinance 19485, Section 73, and K.C.C. 16.07.050, Ordinance 19485, Section 75, and K.C.C. 16.07.070, Ordinance 19485, Section 76, and K.C.C 16.07.080, Ordinance 19485, Section 76, and K.C.C 16.07.090, Ordinance 19485, Section 80, and K.C.C 16.07.120, Ordinance 19485, Section 81, and K.C.C 16.07.130, Ordinance 19485 Section 83, and K.C.C 16.07.150, Ordinance 19485, Section 84, and K.C.C. 16.07.160, Ordinance 19485, Section 85, and K.C.C 16.07.170, Ordinance 19485, Section 86, and K.C.C 16.07.180, Ordinance 19485, Section 87, and K.C.C 16.07.190, Ordinance 19485, Section 88, and K.C.C 16.07.200, Ordinance 19485, Section 89, and K.C.C. 16.07.210, Ordinance 19485, Section 91, and K.C.C 16.07.230, Ordinance 19485, Section 92, and K.C.C 16.07.240, Ordinance 19485, Section 93, and K.C.C 16.07.250, Ordinance 19485, Section 94, and K.C.C 16.07.260, Ordinance 19485, Section 95, and K.C.C 16.07.270, Ordinance 19485, Section 96, and K.C.C 16.07.280, Ordinance 19485, Section 98, and K.C.C. 16.07.300, Ordinance 19485, Section 101, and K.C.C. 16.07.330, Ordinance 19485, Section 102, and K.C.C 16.07.340, Ordinance 19485, Section 103, and K.C.C 16.07.350, Ordinance 19485, Section 104, and K.C.C 16.07.360, Ordinance 19485, Section 105, and K.C.C 16.07.370, Ordinance 19485, Section 106, and K.C.C 16.07.380, Ordinance 19485, Section 108, and K.C.C 16.07.400, Ordinance 19485, Section 109, and K.C.C 16.07.410, Ordinance 19485, Section 110, and K.C.C 16.07.420, Ordinance 19485, Section 111, and K.C.C 16.07.430, Ordinance 19485, Section 112, and K.C.C 16.07.440, Ordinance 19485, Section 113, and K.C.C 16.07.450, Ordinance 19485, Section 115, and K.C.C 16.07.470, Ordinance 19485, Section 116, and K.C.C. 16.07.480, Ordinance 19485, Section 118, and K.C.C 16.07.500, Ordinance 19485, Section 119, and K.C.C 16.07.510, Ordinance 19485, Section 120, and K.C.C. 16.07.520, Ordinance 19485, Section 121, and K.C.C. 16.07.530, Ordinance 19485, Section 122, and K.C.C. 16.07.540, Ordinance 19485, Section 123, and K.C.C. 16.07.550, Ordinance 14111, Section 73, and K.C.C. 16.10.010, Ordinance 12560, Section 58, as amended, and K.C.C. 16.10.020, Ordinance 12560, Section 59, as amended, and K.C.C. 16.10.030, Ordinance 12560, Section 60, and as amended, K.C.C. 16.10.040, Ordinance 12560, Section 61, as amended, and K.C.C. 16.10.050, Ordinance 12560, Section 62, as amended, and K.C.C. 16.10.060, Ordinance 12560, Section 63, as amended, and K.C.C. 16.10.070, Ordinance 12560, Section 64, as amended, and K.C.C. 16.10.080, Ordinance 15802, Section 99, and K.C.C. 16.10.100, Ordinance 15802, Section 100, and K.C.C. 16.10.110, Ordinance 15802, Section 101, as amended, and K.C.C. 16.10.120, Ordinance 12560, Section 127, as amended, and K.C.C. 16.14.020,

Ordinance 14914, Section 337, and K.C.C. 16.14.040, Ordinance 14914, Section 338, and K.C.C. 16.14.050, Ordinance 14914, Section 339, and K.C.C. 16.14.060, Ordinance 14914, Section 352, and K.C.C. 16.14.140, Ordinance 14914, Section 353, and K.C.C. 16.14.150, Ordinance 14914, Section 367, as amended, and K.C.C. 16.14.250, Ordinance 14914, Section 407, and K.C.C. 16.14.480, Ordinance 14914, Section 410, and K.C.C. 16.14.510, Ordinance 14914, Section 413, and K.C.C. 16.14.530, Ordinance 14914, Section 418, and K.C.C. 16.14.570, Ordinance 14914, Section 419, and K.C.C. 16.14.580, Ordinance 14914, Section 420, and K.C.C. 16.14.590, Ordinance 19485, Section 149, and K.C.C. 16.32.336, Ordinance 19485, Section 150, and K.C.C. 163.32.337, Ordinance 19485, Section 152, and K.C.C. 16.32.339, Ordinance 1283, Section 1, as amended, and K.C.C. 16.78.010, Ordinance 1283, Section 2, and K.C.C. 16.78.020, Ordinance 1283, Section 3, and K.C.C. 16.78.030, Ordinance 1283, Section 4, and K.C.C. 16.78.040, Ordinance 1283, Section 5, and K.C.C. 16.78.050, Ordinance 1283 (part) and K.C.C. 16.78.060, Ordinance 19485, Section 174, and K.C.C. 17.04.445, Ordinance 19485, Section 175, and K.C.C. 17.04.447, Ordinance 19485, Section 179, and K.C.C. 17.04.466, Ordinance 19485, Section 181, and K.C.C. 17.04.468, Ordinance 19485, Section 182, and K.C.C. 17.04.471, Ordinance 19485, Section 183, and K.C.C. 17.04.472, Ordinance 19485, Section 185, and K.C.C. 17.04.477, Ordinance 19485, Section 186, and K.C.C. 17.04.478, Ordinance 19485, Section 187, and K.C.C. 17.04.479, Ordinance 19485, Section 188, and K.C.C. 17.04.481, Ordinance 19485, Section 189, and K.C.C. 17.04.486, Ordinance 19485, Section 190, and K.C.C. 17.04.487, Ordinance 19485, Section 191, and K.C.C. 17.04.488, Ordinance 14111, Section 215, and K.C.C. 17.04.540.

Jake Tracy, Jenny Ngo, and Terra Rose, Council staff, briefed the committee and answered questions from the members.

This matter was Deferred

Discussion and Possible Action

10. **Proposed Ordinance No. 2026-0023**

AN ORDINANCE adopting and ratifying amendments to the 2021 King County Countywide Planning Policies.

Jake Tracy, Council staff, briefed the committee and answered questions from the members. Erin Auzins, Regional Planning Lead, King County Executive's Office, answered questions from the members.

A motion was made by Lewis that this Ordinance be Recommended Do Pass Consent. The motion carried by the following vote:

Yes: 4 - Dunn, Lewis, Mosqueda and Perry

11. **Proposed Ordinance No. 2026-0090**

AN ORDINANCE renaming parcel 7812801985 of Skyway Park as Black Panther Park to honor the legacy of the local Black Panther Party chapter.

Jenny Ngo, Council staff, briefed the committee and answered questions from the members.

A motion was made by Lewis that this Ordinance be Recommended Do Pass. The motion carried by the following vote:

Yes: 4 - Dunn, Lewis, Mosqueda and Perry

Other Business

There was no other business to come before the Committee.

Adjournment

The meeting was adjourned at 10:21 a.m.

Approved this _____ day of _____

Clerk's Signature

King Conservation District

2026 Report to King County Council







King Conservation District

2025 Annual Report

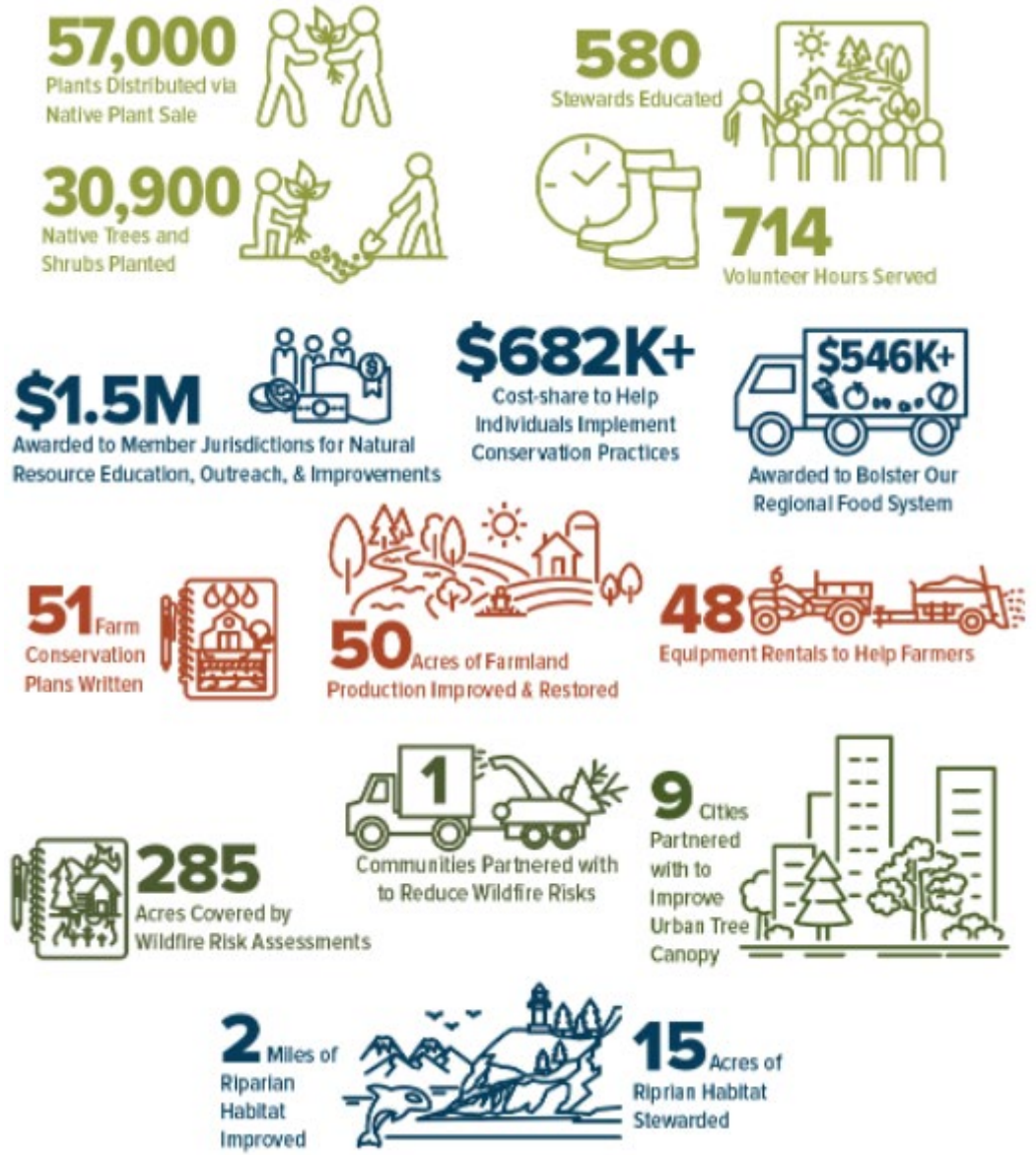
Local Food • Healthy Forests • Clean Water • Better Ground

King Conservation District is a nonregulatory, special purpose district, funded by rates and charges, with a mission to promote the sustainable use of natural resources through voluntary stewardship in King County.

We provide education, technical assistance, and cost-sharing to private residents in forest management, farm conservation planning, wildfire preparedness, and streamside and shoreline enhancement.

We also provide grants, and work with cities and other organizations to support community gardens, urban forest canopy, and local food systems.

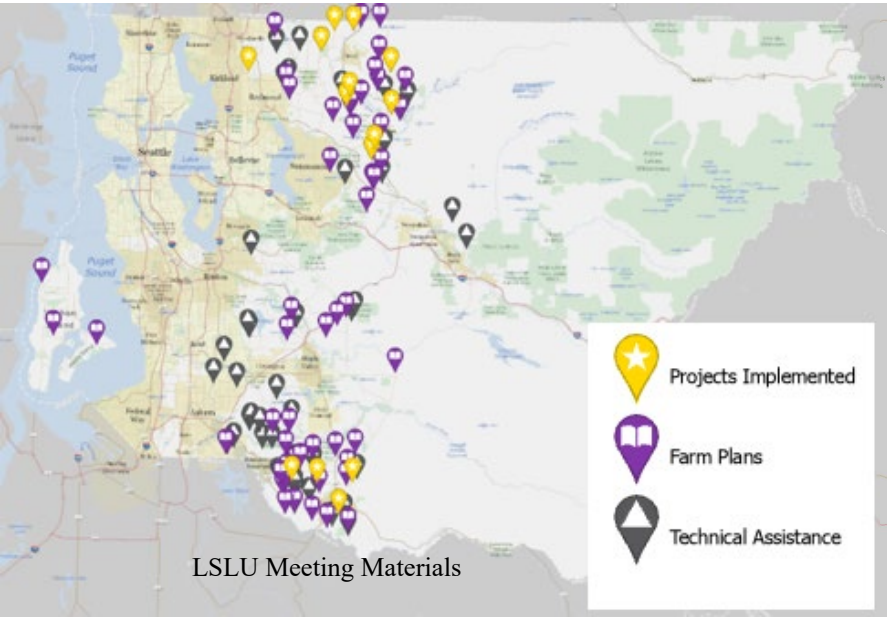
2025 Impacts and Accomplishments



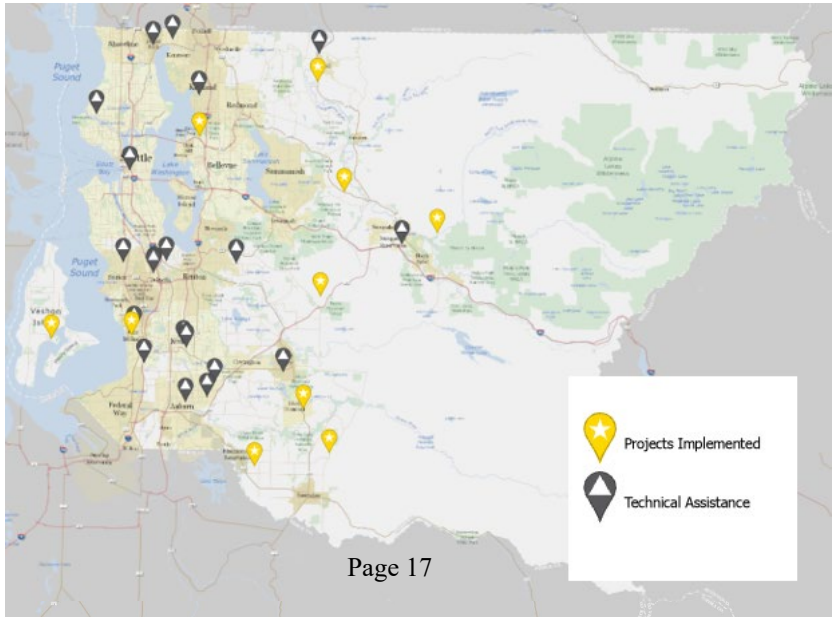
King Conservation District

KCD Project Maps For 2025

Farm Assistance



Riparian Improvement



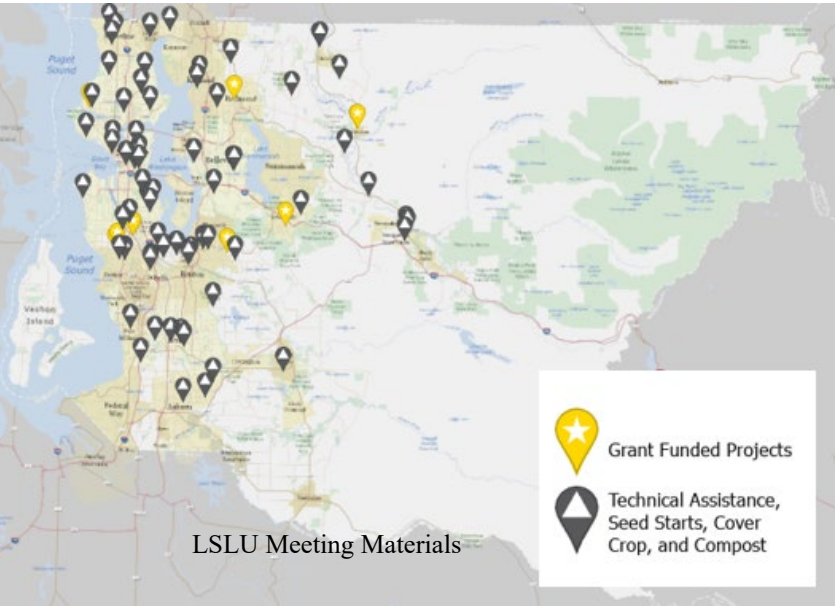
Forest Health



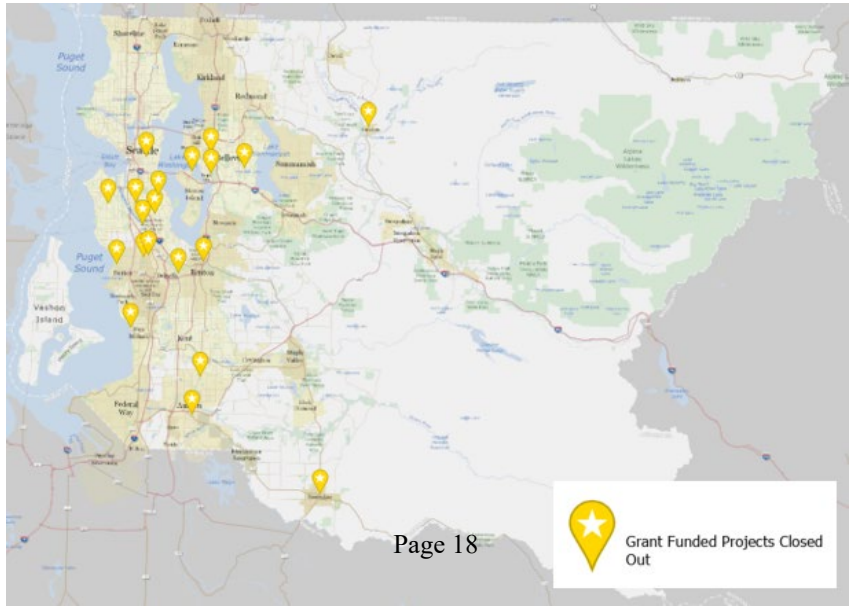
King Conservation District

KCD Project Maps For 2025

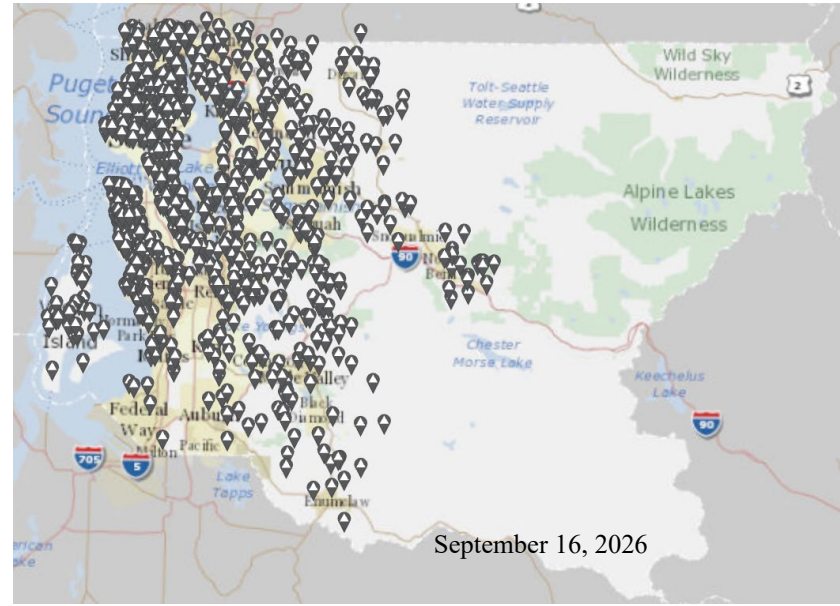
Community Agriculture



Member Jurisdiction Grants



Native Plant Sale Customers



KCD Partnerships

King County

WRIAs

Puget Sound CD Caucus

Cities

Natural Resource Conservation Service

Tribes

Sound Transit

And more!



King County Local Food Initiative Refresh

- 10-year roadmap
- 18-month inclusive process
- King County and KCD partnership
- KCD Regional Food System Grants fund projects that meet goals of the LFI



2025 Flood Response

- Flood Response Resources Page launched by December 16
- Provided support and assistance to farm cooperators navigating post flood
- $500,000 contributed to Snoqualmie Valley Preservation Alliance's Farmer Flood Relief Fund
- As of April - 57 farms in King County provided $1,000-$10,000

King Conservation District

Trees for Rail Restoring Tree Canopy in Shoreline (District 1)

- Partnership with City of Shoreline and Sound Transit
- Planted trees on private property along the light rail extension
- 351 trees, 732 shrubs, and 1,651 groundcovers planted at 203 households



King Conservation District



Hip Hop is Green Cherry Street Farm (District 2)

- 10-week Youth Excellence Program
- Paid internship for underserved BIPOC Youth
- Ecology, climate change, health equity, food security taught while learning hydroponic urban farming

King Conservation District

Ag Drainage (District 3)

- 120 acre hay farm
- 30 years since drainage ditches properly cleared
- KCD cleared 3500 feet of sediment and noxious weeds
- Returned early spring access and later fall access to fields improving farm productivity



King Conservation District

Ballard Eagleson VFW Post 3063 – Community Garden (District 4)

- KCD Community Agriculture Seed Money Grant
- Established 15 raised beds at the VFW
- Partnership with Spatula Farms which identifies unused urban space for gardens



King Conservation District

KCD Native Plant Coop (District 5)

- Volunteer and Learning Space
- Volunteers Earn Native Plants
- Propagates thousands of plants for conservation plantings





King Conservation District

Eastside Prep Student-Led Riparian Restoration (District 6)

- 900 Native Trees and Shrubs Planted
- Led by school's student Green Club
- Restores riparian area along salmon-bearing Cochran Springs Creek





King Conservation District

Mary Olsen Farm - Invasive Species Removal and Monitoring (District 7)

- KCD Member Jurisdiction Grant funded
- Funded habitat restoration work on the farm
- Also covered field trips for youth



King Conservation District

Danny Woo Compost Improvements and Pest Management (District 8)

- Community Ag Grant
- Purchased fruit catching nets
- Reduced food waste and pest issues
- More fruit goes to elderly garden stewards

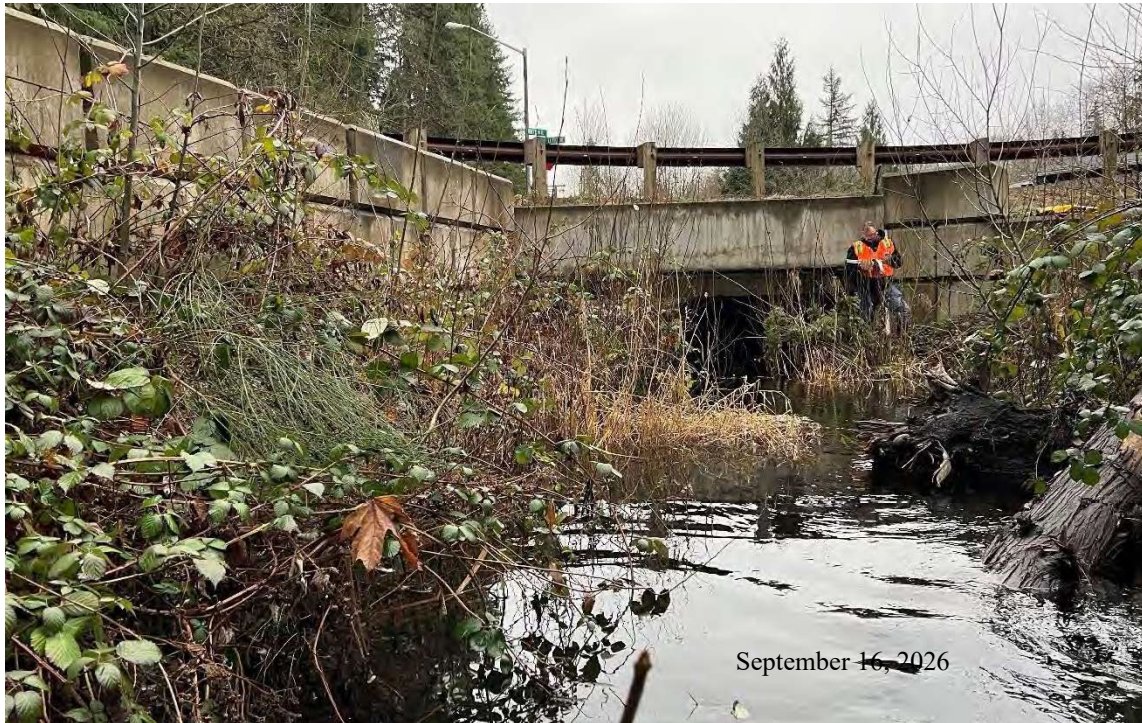


King Conservation District

Maple Valley Fish Passage (District 9)

- KCD funds helped city conduct five-year monitoring of three fish passage improvements
- Findings will guide future restoration





King Conservation District

Looking Forward

- Systems Improvement
- Database Updates
- Improved Surveying

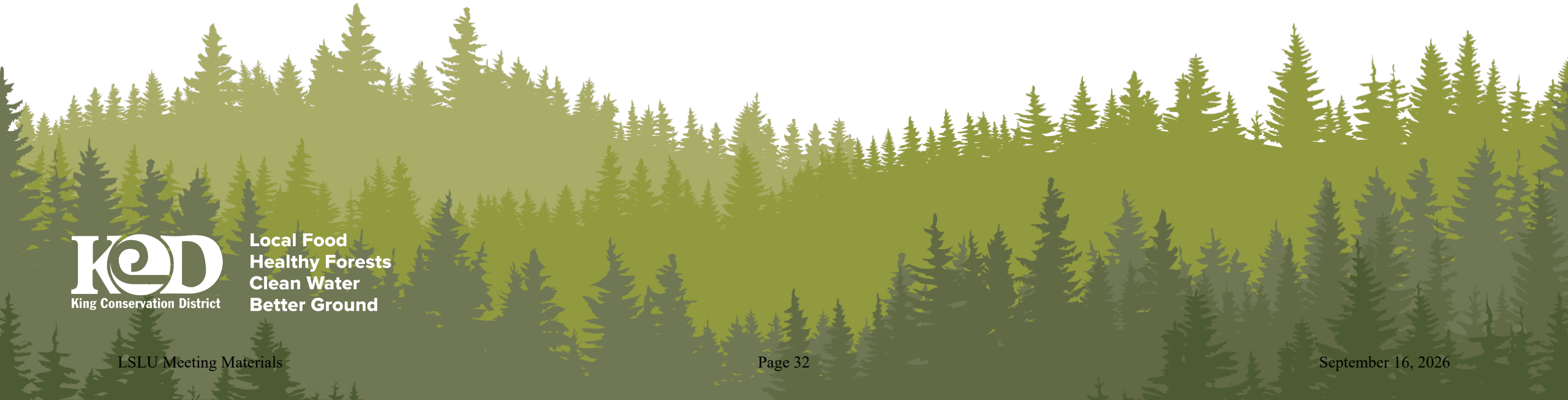






Questions?

KCD Executive Director
Rosa Mendez-Perez



King Conservation District

Local Food
Healthy Forests
Clean Water
Better Ground

King County

Metropolitan King County Council
Staff Report

Committee:	Local Services and Land Use Committee		
Agenda Item:	6	**Analyst:**	Sherrie Hsu
Proposed No.:	2026-0224	**Meeting Date:**	September 16, 2026

OVERVIEW

TOPIC: An ordinance approving the City of Kirkland's proposed land swap of a portion of Mark Twain Park for an equal amount of square footage.

LEGISLATION SUMMARY

In 1990, the Council approved the transfer of Mark Twain Park to the City of Kirkland. Ordinance 9311 requires the City of Kirkland to obtain "prior written approval from the King County Council for the sale, transfer, or trade of all or any portion" of the park. The City of Kirkland has requested the County's approval to trade a 16,279 sq. ft. portion of Mark Twain Park for 13,274 sq. ft. of the adjacent property owner's property and the dedication of 3,005 sf of an adjoining parcel contiguous to the park.

Because the City of Kirkland does not currently own the adjacent parcel, Proposed Ordinance 2026-0224 would approve the City of Kirkland's proposal, contingent on the City of Kirkland taking ownership of the adjoining parcel, dedicating the portion of the parcel to the park, and completing the lot line adjustment.

KEY ISSUES FROM THE ANALYSIS

No key issues have been identified. Although the City of Kirkland does not currently own the adjacent parcel, PO 2026-0224 includes contingencies for the transfer that include the City of Kirkland taking ownership of the adjoining parcel, dedicating the portion of the parcel to the park, completing the lot line adjustment, and recording with the King County Recorder's Office that the property added by the lot line adjustment and the dedication contain the same restrictions as the 1990 deed conveying the park to the City of Kirkland.

BACKGROUND & TIMING CONSIDERATIONS

↑ BACK TO TOP

Mark Twain Park. King County acquired the land that would later become Mark Twain Park using Forward Thrust Bonds (Resolution 34571), which requires that the property be retained as public park in perpetuity or equivalent replacement property must be provided.

In 1990, after the North Rose Hill area was annexed, the County Council approved the transfer of Mark Twain Park to the City of Kirkland by Ordinance 9311. This ordinance requires the City of Kirkland to obtain "prior written approval from the County Council for the sale, transfer, or trade of all or any portion" of Mark Twain Park. The ordinance also requires the property to be used for park or recreational purposes and that all user fees are the same for unincorporated residents as for city residents. These restrictions are included in the 1990 deed conveying the park to the City of Kirkland.[1]

2006 Land swap proposal. In 2005, adjacent property owner Jag Basra approached the City of Kirkland about a proposed land swap of 13,274 sq. ft. of their property with Mark Twain Park and dedicating 3,005 sq. ft. of Mark Twain Park. The Kirkland City Council approved this land swap, and the City of Kirkland requested County approval of the land swap. In 2006, by Ordinance 15620, the County Council approved the exchange of 13,274 sq. ft. of Mark Twain Park for an equal amount of Mr. Basra's property.[2]

The City of Kirkland and Mr. Basra did not complete the lot line adjustment to effectuate the approved trade of property.

Current proposal. In 2024, the successor in interest to the Basra property, Artemis Homes, applied for a lot line adjustment that would involve a trade of the same 13,274 sq. ft. of its property for 16,279 sq. ft. of the Mark Twain Park property.

To make up for the 3,005 sq. ft. difference, the City of Kirkland proposes dedicating a portion from a parcel adjoining Mark Twain Park. The portion from the adjoining parcel (tax parcel no. 3326059055) would abut the current property lines with the park.

The City of Kirkland has requested the County's approval to trade 16,279 sq. ft. of Mark Twain Park for 13,274 sq. ft of the adjacent property owner's property (Basra property, tax parcel no. 3326059178) and the dedication of 3,005 sq. ft. of an adjoining parcel, contiguous to the park (tax parcel no. 3326059055).[3] The City of Kirkland does not currently own this adjoining parcel; it is currently in negotiations to purchase the adjoining parcel and has filed a condemnation action for this parcel.

A memo provided by City of Kirkland staff includes the following rationale regarding the 13,274 sq. ft land swap with the adjacent property owner (Basra property):

[1] King County Recording No. 9104230196
[2] The 3,005 sq. ft. dedication was not part of Ordinance 15620.
[3] 10633 132nd Ave NE

- "The trade would make both properties more useable; Mr. Basra would have a more rectangular property that would provide for a better subdivision layout and the city would eliminate the unused panhandle portion of the park.

- The proposed subdivision would dedicate and improve the entire street extension (to the east property line of the adjacent southern parcel); the city would be relieved of having to dedicate or improve the street extension at this time or in the future.

- The city would [net seven] additional significant trees into the park property…the trade would transfer nine significant trees to Mr. Basra's property and 16 significant trees to the city."

The memo includes the following rationale regarding the 3,005 sq. ft. dedication of the adjacent property:[4]

- "The city is presently in negotiations with the current property owner to purchase this 26,570 sq. ft. (.61 acre) parcel adjacent to the NE corner of Mark Twain Park. The lot contains an existing cellular facility within a fenced compound, associated gravel driveway, with the remaining areas consisting of mowed lawn and other vegetation. The city intends to purchase this lot for the purpose of providing access facilities to Mark Twain Park.

- Presently, Mark Twain Park is constrained from serving the broader community due to its access constraints as the park is not accessible by vehicle and there is no on-street parking along the park's frontage. This limits the number and kinds of park users and creates operational challenges for maintenance and future improvements.

- By purchasing this parcel and adding expanded access facilities such as parking, Mark Twain Park can serve the broader community, create more equitable access for those who cannot walk or bike to the park, and improve the city's ability to maintain and invest in the park over time."

ANALYSIS

↑ BACK TO TOP

PO 2026-0224 would approve the City of Kirkland's proposal to exchange 16,279 sq. ft. of Mark Twain Park with 13,274 sq. ft of the adjacent property owner's property (Basra property, tax parcel no. 3326059178) and the dedication of 3,005 sq. ft. of an adjoining

[4] 10633 132nd Ave NE

parcel[5] (tax parcel no. 3326059055), contingent on all of the following occurring within one year of the effective date of the ordinance:

1. The City of Kirkland taking ownership of the adjoining parcel (tax parcel no. 3326059055);
2. The City of Kirkland dedicating to Mark Twain Park a 3,005 sq. ft. portion from the adjoining parcel (tax parcel no. 3326059055) where the portion shall abut the park;
3. Completion of the lot line adjustment filed under LLA24-00658 or successor application involving the Basra property (tax parcel no. 3326059178) and Mark Twain Park for the exchange of 13,274 sq. ft. of property; and
4. The City of Kirkland recording with the King County Recorder's Office documentation that the property added to the Mark Twain Park from both the lot line adjustment (with tax parcel no. 3326059178) and the dedication of 3,005 sq. ft. (from tax parcel no. 3326059055) shall be encumbered with the same restrictions contained in the 1990 deed[6] transferring the Mark Twain Park from the County to the City of Kirkland.

That means requiring that the City of Kirkland receive written approval from the County Council approval of any transfer of the property, requiring that the property shall be used for park or recreational purposes, and requiring that all user fees shall be the same for unincorporated residents as for city residents.

ATTACHMENTS

5. Proposed Ordinance 2026-0224

[5] 10633 132nd Ave NE
[6] King County Recording No. 9104230196

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

KING COUNTY

Signature Report

Ordinance

Proposed No. 2026-0224.1 **Sponsors** Balducci

AN ORDINANCE approving the city of Kirkland's proposal to exchange 16,274 square feet of Mark Twain park for an equal amount of square footage.

STATEMENT OF FACTS:

1. King County authorized the transfer of Mark Twain park to the city of Kirkland by Ordinance 9311.

2. Ordinance 9311 provides that the city of Kirkland must obtain written approval of the King County council for the sale, transfer, or trade of all or any portion of the park.

3. In 2006, the city of Kirkland requested King County council approval of a trade of a 13,274-square-foot portion of the Mark Twain park to an adjacent property owner ("Basra") in exchange for an equal amount of Basra's adjacent property.

4. By Ordinance 15620, the trade was approved.

5. However, the city and Basra did not complete the lot line adjustment to effectuate the approved trade of property.

6. In 2024, the successor in interest to Basra, Artemis Homes, applied for a lot line adjustment that would involve a trade of the same 13,274 square feet of its property, which is tax parcel no. 3326059178, for 16,279 square feet of Mark Twain park property.

7. To make up for the 3,005 square feet difference, the city proposes to dedicate a portion from a parcel adjoining the Mark Twain park. The portion from the adjoining parcel, which is tax parcel no. 3326059055, to be dedicated would abut the current property lines with the park. The city is currently in negotiations to purchase the adjoining parcel, and for which the city has filed a condemnation action.

8. By Resolution 5739, the Kirkland city council authorized the city manager and parks and community services director to seek King County's written approval to trade a portion of Mark Twain park for a portion of the adjacent property owner’s property and the dedication of a portion of the adjoining parcel, contiguous to the Mark Twain park, the total square footage of which would equal the 16,279 square feet proposed by Kirkland to be transferred to the Artemis Homes property.

9. The exchange of the square footage between the park and Artemis Homes will eliminate a panhandle in the park, protect seven significant trees, fund the planting of fifteen trees within the park, and create a straightened property boundary to the benefit of the park and the Artemis Homes property.

10. The addition of the 3,005 square feet portion from the adjoining parcel to the Mark Twain park will add much-needed vehicular access to the park and contribute to parking for the park, both of which it currently does not have.

11. In the 1990 deed transferring Mark Twain park from King County to the city of Kirkland, pursuant to King County Ordinance 9311 and King County Resolution 34571, the deed encumbered the park property with certain restrictions, including that the Mark Twain park will continue to be used for the purposes contemplated by Resolution 34571, that park property shall not be transferred or conveyed except as approved by the King County council, and the park property shall not be converted to a different use unless other equivalent lands and facilities with the county or city shall be received in exchange therefor.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. A. The city of Kirkland's proposal to exchange a 16,279 square feet portion of Mark Twain park for a 13,274 square feet portion of tax parcel no. 3326059178, and to dedicate to Mark Twain park an additional 3,005 square feet from tax parcel no. 3326059055 is approved, contingent on all the following occurring within one year of the effective date of this ordinance:

1. The city of Kirkland taking ownership of tax parcel no. 3326059055;

2. The city of Kirkland dedicating to the Mark Twain park a 3,005 square feet portion from tax parcel no. 3326059055 and such portion shall abut the park;

3. Completion of the lot line adjustment filed under LLA24-00658 or successor application involving tax parcel no. 3326059178 and Mark Twain park for the exchange of property described in Section 1.A; and

4. The city of Kirkland causing to be recorded with the King County recorder's office documentation evidencing that the property added to the Mark Twain park from

both the lot line adjustment with tax parcel no. 3326059178 and the dedication of 3,005 square feet from tax parcel no. 3326059055 shall be encumbered with the same restriction contained in the 1990 Deed, with recording no. 9104230196, transferring the Mark Twain park from the county to the city, which generally prohibits the transfer of the property without the King County council's approval and the property shall be used for park or recreational purposes, and all user fees shall be the same for unincorporated residents as for city residents.

B. The city of Kirkland shall transmit to the clerk of the King County council

copies of the documents required by subsection A.4. of this section within ninety days of their recording.

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

_____

Sarah Perry, Chair

ATTEST:

_____

Melani Pedroza, Clerk of the Council

APPROVED this _____ day of _____, _____.

_____

Girmay Zahilay, County Executive

Attachments: None

Metropolitan King County Council
Staff Report

Committee:	Local Services and Land Use		
Agenda Item:	7	**Analyst(s):**	Jake Tracy
Proposed No.:	2026-0234	**Meeting Date:**	September 16, 2026

OVERVIEW

TOPIC: Proposed Ordinance (PO) 2026-0234 would adopt and ratify amendments to the Countywide Planning Policies (CPPs) to establish criteria and a process for making technical amendments to the urban growth area (UGA) boundary.

LEGISLATION SUMMARY

PO 2026-0234 would adopt and ratify amendments to the Countywide Planning Policies (CPPs) to establish criteria and a process for making technical amendments to the Urban Growth Area (UGA) boundary. The amendments would add a new Policy DP-18C, which would allow technical amendments that are not inconsistent with the Growth Management Act and that correct mapping errors or discrepancies; resolve situations where buildings or parcels are split by the UGA boundary; align the boundary with either edge of a right-of-way or similar linear feature it currently touches; encompass within the UGA boundary urban-serving infrastructure existing prior to January 1, 2027; or address similar technical issues. Technical amendments could not be made for the purpose of increasing housing or employment growth; such amendments would continue to be processed as they are today.

Under the proposed process, technical amendments to the UGA would continue to require enactment of an ordinance by the King County Council but would not require Growth Management Planning Council (GMPC) review and recommendation or ratification by the cities and towns. The CPP amendments in PO 2026-0234 would themselves remain subject to GMPC recommendation and the existing 90-day city ratification process. GMPC is anticipated to consider Motion 26-3, which includes the changes in Attachment A to the proposed ordinance, on September 16, 2026. An updated version distributed to GMPC members would also require the County to notify GMPC members when a technical amendment is included in a proposed King County Comprehensive Plan update. PO 2026-0235 has been introduced to make corresponding changes to the King County Comprehensive Plan and King County Code.

KEY ISSUES FROM THE ANALYSIS

A. **Criteria for Technical UGA Amendments.** The proposed ordinance would allow technical amendments to the UGA when certain criteria are met. Specifically, technical amendments could *not* be for the purpose of housing or employment growth, and would need to do one of the following:

- Correct mapping errors or discrepancies;
- Resolve situations where buildings or parcels are split by the Urban Growth Area boundary;
- Align the Urban Growth Area boundary with either edge of a right-of-way or similar linear feature it currently touches;
- Encompass within the Urban Growth Area boundary urban-serving infrastructure existing prior to January 1, 2027, or
- Address similar technical issues.

B. **Process for Technical UGA Amendments.** Generally, amendments to the UGA boundary require a recommendation from the GMPC prior to Council action, and ratification by the cities following Council action. The proposed ordinance would establish a separate process for technical amendments, which would still require action by the King County Council, but would not require GMPC recommendation prior to action or city ratification after action.

AMENDMENTS

No amendments are currently proposed as the item is listed for discussion only; however, the proposed ordinance includes a placeholder finding for discussion of GMPC's recommendation on the proposed CPP changes. GMPC is anticipated to make such a recommendation at its September 16 meeting. This could be incorporated via amendment in an upcoming Local Services and Land Use (LSLU) meeting, along with any changes made by GMPC to the recommended CPP language, if aligned with Council priorities.

Between the time PO 2026-0234 was introduced and the September 16 LSLU meeting, an updated version of the CPP amendment was distributed to GMPC members for recommendation. The updated version would provide that the County notify the GMPC when a technical amendment is included in a proposed King County Comprehensive Plan update. GMPC recommendation would not be required, though GMPC could choose to make a recommendation if it was the will of the body.

BACKGROUND & TIMING CONSIDERATIONS

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Countywide Planning Policies.[1] The CPPs create a shared framework for growth management planning for all jurisdictions in King County in accordance with RCW 36.70A.210, which requires the legislative authority of a county to adopt a countywide planning policy in cooperation with cities located in the county. The King County Comprehensive Plan (KCCP) and the comprehensive plans for cities and towns in King County are developed from the framework that the CPPs establish. The 2021 Countywide Planning Policies were adopted on December 14, 2021[2] and have been amended six times since, including one amendment that is currently undergoing ratification.[3]

Amendments to the Countywide Planning Policies. Policy FW-1 of the CPPs sets forth the process for CPP amendments:

> ***"FW-1*** *Maintain the currency of the Countywide Planning Policies through periodic review and amendment. Initiate and review all amendments at the Growth Management Planning Council through the process described below:*
>
> a) *Only the Growth Management Planning Council may propose amendments to the Countywide Planning Policies except for amendments to the Urban Growth Area that may also be proposed by King County in accordance with policies DP-16 through DP-18B;*
>
> b) *Growth Management Planning Council recommends amendments to the King County Council for consideration, possible revision, and approval; proposed revisions by the King County Council that are of a substantive nature may be sent to the Growth Management Planning Council for their consideration and revised recommendation based on the proposed revision;*
>
> c) *A majority vote of the King County Council both constitutes approval of the amendments and ratification on behalf of the residents of Unincorporated King County;*
>
> d) *After approval and ratification by the King County Council, amendments are forwarded to each city and town for ratification. Amendments cannot be modified during the city ratification process; and*

[1] The current text of the Countywide Planning Policies can be found at this link.
[2] Ordinance 19384
[3] Ordinances 19553, 19660, 19871, 19880, 19946, and 20096

e) *Amendments must be ratified within 90 days of King County approval and require affirmation by the county and cities and towns representing at least 70 percent of the county population and 30 percent of those jurisdictions. Ratification is either by an affirmative vote of the city's or town's council* or *by no action being taken within the ratification period*."

Amendments to the Urban Growth Area boundary. The UGA boundary may be amended through the process described above, but only when meeting the criteria of policies DP-15 through DP-19. These allow UGA boundary amendments in the following situations.

UGA Expansions. Expansions of the UGA are allowed in the following circumstances:

- When a countywide analysis determines that the current Urban Growth Area is insufficient in size and additional land is needed to accommodate the housing and employment growth targets, including institutional and other non-residential uses, and there are no other reasonable measures, such as increasing density or rezoning existing urban land, that would avoid the need to expand the Urban Growth Area;
- Through the Four-to-One Program, where a proposed expansion of the Urban Growth Area is accompanied by dedication of permanent natural area that is at least four times the size of the proposed expansion to the King County Open Space System.
- If the area is currently a King County park being transferred to a city to be maintained as a park in perpetuity.

Policy DP-18A provides additional criteria for expansions for the purpose of housing and employment growth, and Policy DP-18B provides additional criteria for expansions through the four-to-one program.

UGA Contractions. The UGA may be contracted (i.e., urban land redesignated to rural) when the land is not needed to accommodate projected urban growth, is not served by public sewers, is adjacent to the Rural Area, and does not have urban development, cannot be redeveloped at urban density, or is constrained by critical areas.

Timing and Other Approvals Needed. As discussed above, CPP FW-1 requires that GMPC recommend amendments to the CPPs for King County Council consideration, possible revision, and approval. For the proposed changes in PO 2026-0234, GMPC's September 16 agenda includes a possible vote on GMPC Motion 26-3, which would recommend the proposed changes. As that vote would occur after the September 16 LSLU meeting, no action will be taken in the September LSLU meeting.

Upon recommendation from GMPC, the LSLU committee could act in its October meeting. If the changes are subsequently adopted by the King County Council, the 90-day city ratification period would begin. The KCCP and King County Code Title 20 would also need to be amended to conform with the changes made to the CPPs; a 2026 Annual KCCP Update, which is PO 2026-0235, has been introduced for this purpose. The 2026 Annual KCCP update would also approve a technical UGA boundary amendment in conformance with the proposed CPP changes. Analysis of PO 2026-0235 is included in the staff report for that ordinance.

SEPA. The proposed ordinance requires review under the State Environmental Policy Act (SEPA). A SEPA Determination of Nonsignificance was issued on September 2nd, and the SEPA public comment period runs through September 16th. SEPA will need to be finalized prior to final action on this proposed ordinance.

ANALYSIS

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PO 2026-0234 would adopt and ratify amendments to the CPPs to establish criteria and a process for making technical amendments to the urban growth area (UGA) boundary.

Key Issue A. Criteria for Technical UGA Amendments. The proposed CPP amendment would allow technical amendments to the UGA when certain criteria are met. These criteria would be added to the CPPs as a new policy, DP-18C, the full text of which can be found in Attachment A to the proposed ordinance. To be considered "technical," a UGA amendment would need to do one of the following:

- Correct mapping errors or discrepancies;
- Resolve situations where buildings or parcels are split by the Urban Growth Area boundary;
- Align the Urban Growth Area boundary with either edge of a right-of-way or similar linear feature it currently touches;
- Encompass within the Urban Growth Area boundary urban-serving infrastructure existing prior to January 1, 2027, or
- Address similar technical issues.

Policy DP-18C would also specify that technical amendments cannot be inconsistent with the Growth Management Act, and cannot be made for the purpose of increasing housing or employment growth. UGA amendments relating to housing or employment growth would continue to be subject to the criteria set forth by DP-17 and DP-18A.

The allowance and criteria for technical amendments to the UGA are policy choices for Councilmembers.

In addition to the new Policy DP-18C, polices DP-17 and DP-19 would be amended to expressly allow technical amendments under DP-18C to either expand or contract the UGA.

Key Issue B. Process for Technical UGA Amendments. The proposed ordinance would amend the CPPs to establish a process for technical UGA amendments separate from the standard UGA amendment process set forth by Policy FW-1. Whereas other UGA amendments must be transmitted to the GMPC for review and recommendation prior to the Council taking action, the proposed language would exempt technical amendments from this requirement. Additionally, whereas UGA amendments currently require ratification by the cities prior to being effective, the proposed ordinance would state that technical UGA amendments are approved by enactment of an ordinance by the King County Council, with ratification not being required.

Between the time PO 2026-0234 was introduced and the September 16 LSLU meeting, an updated version of the CPP amendment was distributed to GMPC members for recommendation. The updated version would provide that the County notify the GMPC when a technical amendment is included in a proposed King County Comprehensive Plan update. GMPC recommendation would not be required, though GMPC could choose to make a recommendation if it was the will of the body.

If Motion 26-3 is recommended by GMPC in its September 16 meeting, GMPC would be recommending a framework under which future UGA amendment meeting the criteria in Policy D-18C could proceed without requiring GMPC review and recommendation or city ratification. GMPC and the cities would retain their existing roles with regards to all other UGA amendments. Whether to create this separate process for technical UGA amendments is a policy choice for Councilmembers.

Technical and Clarifying Changes. The proposed CPP amendments would also make corrections to cross references and process language within the policies it touches.

AMENDMENTS

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No amendments are currently proposed as the item is listed for discussion only; however, the proposed ordinance includes a placeholder finding for discussion of GMPC's recommendation on the proposed CPP changes. GMPC is anticipated to make such a recommendation at its September 16 meeting. This could be incorporated via amendment in an upcoming LSLU meeting, along with any changes made by GMPC to the recommended CPP language, if aligned with Council priorities. Between the time PO 2026-

0234 was introduced and the September 16 LSLU meeting, an updated version of the CPP amendment was distributed to GMPC members for recommendation. The updated version would provide that the County notify the GMPC when a technical amendment is included in a proposed King County Comprehensive Plan update. GMPC recommendation would not be required, though GMPC could choose to make a recommendation if it was the will of the body.

INVITED

- Erin Auzins, Regional Planning Lead, Executive's Office

ATTACHMENTS

1. Proposed Ordinance 2026-0234 (and its attachment)

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

KING COUNTY

Signature Report

Ordinance

Proposed No. 2026-0234.1 **Sponsors** Dunn

AN ORDINANCE adopting and ratifying amendments to the 2021 King County Countywide Planning Policies.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. **Findings:**

A. The 2021 King County Countywide Planning Policies were adopted by King County via Ordinance 19384 and establish a countywide framework for growth management planning, including procedures and criteria for amendments to the Urban Growth Area.

B. ***placeholder for discussion of GMPC recommendation***

SECTION 2. The amendments to the 2021 King County Countywide Planning Policies, as shown in Attachment A to this ordinance, are hereby adopted by King County and ratified on behalf of the population of unincorporated King County.

SECTION 3. **Severability.** If any provision of this ordinance or its application to

any person or circumstance is held invalid, the remainder of the ordinance or the application of the provision to persons or circumstances is not affected.

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

_____

Sarah Perry, Chair

ATTEST:

_____

Melani Pedroza, Clerk of the Council

APPROVED this _____ day of _____, _____.

_____

Girmay Zahilay, County Executive

Attachments: A. GMPC Motion 26-3

Sponsored By: Dunn

GMPC MOTION 26-3

A MOTION recommending amendments to the King County Countywide Planning Policies to the King County Council.

WHEREAS, the Washington State Growth Management Act, Revised Code of Washington 36.70A.110, requires counties to designate an urban growth area within which urban growth shall be encouraged and outside of which growth can occur only if it is not urban in nature;

WHEREAS, the King County Countywide Planning Policies establish a countywide framework for growth management planning by King County and the cities within King County;

WHEREAS, the King County Countywide Planning Policies include procedures and criteria for amendments to the Urban Growth Area;

WHEREAS, existing procedures require proposed amendments to the Urban Growth Area to be submitted to the Growth Management Planning Council for review and recommendation to the King County Council;

WHEREAS, from time to time, minor technical amendments to the Urban Growth Area boundary may be needed to correct mapping discrepancies, resolve parcel splits, align the boundary with rights-of-way or other mapped features, encompass existing urban-serving infrastructure within the Urban Growth Area boundary, or address similar technical issues;

WHEREAS, these technical amendments are distinct from policy amendments that expand the Urban Growth Area to accommodate growth, implement the Four-to-One Program, or redesignate urban land to rural land based on growth needs or other policy considerations; and

WHEREAS, establishing a King County process for technical changes to the Urban Growth Area boundary will allow minor technical issues to be resolved efficiently while retaining the Growth Management Planning Council's role in reviewing substantive amendments to the Urban Growth Area;

NOW, THEREFORE, BE IT RESOLVED that the Growth Management Planning Council hereby recommends approval of amendments to the King County Countywide Planning Policies

DRAFT

establishing a process for technical amendments to the Urban Growth Area boundary, included with this motion as Attachment A.

_____

Girmay Zahilay, Chair, Growth Management Planning Council

Attachments

A. Amendments to 2021 Countywide Planning Policies – UGA Technical Amendments

Attachment A: Amendments to 2021 Countywide Planning Policies – UGA Technical Amendments

Amendments:

In the Vision and Framework Chapter, amend Policy FW-1 as follows:

FW-1 Maintain the currency of the Countywide Planning Policies through periodic review and amendment. Initiate and review ((~~all~~)) amendments at the Growth Management Planning Council through the process described below((~~:~~)).

a) Only the Growth Management Planning Council may propose amendments to the Countywide Planning Policies except for amendments to the Urban Growth Area that may also be proposed by King County in accordance with policies DP-16 through DP-((~~18B;~~))19.

b) Growth Management Planning Council recommends amendments to the King County Council for consideration, possible revision, and approval; proposed revisions by the King County Council that are of a substantive nature may be sent to the Growth Management Planning Council for their consideration and revised recommendation based on the proposed revision((~~;~~)).

c) A majority vote of the King County Council both constitutes approval of the amendments and ratification on behalf of the residents of Unincorporated King County((~~;~~)).

d) After approval and ratification by the King County Council, amendments are forwarded to each city and town for ratification. Amendments cannot be modified during the city ratification process((~~; and~~)).

e) Amendments must be ratified within 90 days of King County approval and require affirmation by the county and cities and towns representing at least 70 percent of the county population and 30 percent of those jurisdictions. Ratification is either by an affirmative vote of the city's or town's council or by no action being taken within the ratification period.

f) Subsections b), d), and e) of this policy do not apply to technical amendments to the Urban Growth Area consistent with Policy DP-18C. A technical amendment to the Urban Growth Area consistent with Policy DP-18C may be approved by enactment of an ordinance by the King County Council and does not require Growth Management Planning Council review or recommendation or ratification by cities and towns.

In the Development Patterns Chapter, amend Policy DP-16 as follows:

DP-16 Allow amendment of the Urban Growth Area only when the following steps have been satisfied:

a) The proposed amendment is under review by the County as part of an amendment process of the King County Comprehensive Plan;

b) Except for technical amendments to the Urban Growth Area consistent with Policy DP-18C, King County submits the proposal to the Growth Management Planning Council for the purposes of review and

recommendation to the King County Council on the proposed amendment to the Urban Growth Area;

c) The King County Council approves ((~~or denies~~)) the proposed amendment; and

d) Except for technical amendments to the Urban Growth Area boundary consistent with Policy DP-18C, ((~~I~~))if approved by the King County Council, the proposed amendment is ratified by the cities following the procedures set forth in policy FW-1.

In the Development Patterns Chapter, amend Policy DP-17 as follows:

DP-17 Allow expansion of the Urban Growth Area as follows:

a) A countywide analysis determines that the current Urban Growth Area is insufficient in size and additional land is needed to accommodate the housing and employment growth targets, including institutional and other non-residential uses, and there are no other reasonable measures, such as increasing density or rezoning existing urban land, that would avoid the need to expand the Urban Growth Area. Expansions under this subsection shall also be consistent with the criteria in DP-18A;

b) Through the Four-to-One Program, where a proposed expansion of the Urban Growth Area is accompanied by dedication of permanent natural area that is at least four times the size of the proposed expansion to the King County Open Space System. Expansions under the Four-to-One Program shall also be consistent with the criteria in DP-18B; ((~~or~~))

c) The area is currently a King County park being transferred to a city to be maintained as a park in perpetuity((~~.~~)); or

d) The proposed expansion is a technical amendment to the Urban Growth Area, consistent with the criteria in DP-18C.

In the Development Patterns Chapter, after Policy DP-18B, add a new policy as follows:

DP-18C Technical amendments to the Urban Growth Area are allowed if not inconsistent with the Growth Management Act and made in order to correct mapping errors or discrepancies, resolve situations where buildings or parcels are split by the Urban Growth Area boundary, align the Urban Growth Area boundary with either edge of a right-of-way or similar linear feature it currently touches, encompass within the Urban Growth Area boundary urban-serving infrastructure existing prior to January 1, 2027, or address similar technical issues. Technical amendments shall not be made for the purpose of increasing housing or employment growth.

In the Development Patterns Chapter, amend Policy DP-19 as follows:

DP-19 Allow redesignation of Urban land currently within the Urban Growth Area to Rural land outside of the Urban Growth Area if the redesignation is a technical amendment consistent with the criteria in DP-18C, or if the land is not needed to accommodate projected urban growth, is not served by public sewers, is adjacent to the Rural Area, and:

a) Is not characterized by urban development;
b) Is currently developed with a low-density lot pattern that cannot be realistically redeveloped at an urban density; or
c) Is characterized by critical areas making it inappropriate for higher density development.

King County

Metropolitan King County Council
Staff Report

Committee:	Local Services and Land Use		
Agenda Item:	8	**Analyst(s):**	Jake Tracy
Proposed No.:	2026-0235	**Meeting Date:**	September 16, 2026

OVERVIEW

TOPIC: Proposed Ordinance (PO) 2026-0235 is the 2026 Annual Update to the King County Comprehensive Plan (KCCP). It would adopt changes to the KCCP and King County Code to establish criteria and a process for making technical amendments to the urban growth area (UGA) boundary in conformance with proposed changes to the Countywide Planning Policies (CPPs) and would adopt a technical UGA amendment involving portions of an unopened King County right-of-way near the city of Black Diamond.

LEGISLATION SUMMARY

PO 2026-0235 would adopt amendments to the KCCP and King County Code establishing criteria and procedures for technical land use map amendments in conformance with proposed changes to the CPPs in a companion ordinance, PO 2026-0234 ("the CPP Ordinance").

Congruent with the CPP Ordinance, the proposed ordinance would define a technical land use map amendment as an amendment that corrects mapping errors or discrepancies; resolves situations in which buildings or parcels are split by the UGA boundary; aligns the UGA boundary with either edge of a right-of-way or similar linear feature that it currently touches; encompasses urban-serving infrastructure existing before January 1, 2027; or addresses similar technical issues. Technical amendments could not be made for the purpose of increasing housing or employment growth; such amendments would continue to be processed as they are today.

The proposed ordinance would distinguish technical land use map amendments from site-specific land use map amendments and would allow technical amendments to be considered during an annual, midpoint, or ten-year KCCP update when initiated by the Executive or Council.

The proposed ordinance would also adopt a technical land use map amendment near the City of Black Diamond ("the Black Diamond technical map amendment," Attachment B to

the proposed ordinance). The amendment would move the UGA boundary to the southern and western boundaries of portions of an unopened, undesignated King County right-of-way that is currently bisected by the boundary. The amendment would add approximately 1.64 acres to the UGA. The amendment appears to comply with the proposed criteria for technical UGA amendments in the CPP Ordinance and this proposed ordinance.

KEY ISSUES FROM THE ANALYSIS

A. **Implementation of Technical UGA Amendment Process.** The proposed ordinance would implement the technical UGA amendment framework proposed in the CPP Ordinance through amendments to the KCCP and King County Code. While the criteria for technical UGA amendments must conform with those in the CPP Ordinance, the proposed ordinance contains additional policy choices relating to implementation. The proposed process would allow technical amendments during an annual, midpoint, or ten-year KCCP update, would allow technical amendments to be initiated by the Executive or by the Council, would prohibit technical amendments from being inconsistent with existing plans and the Growth Management Act (GMA), and would separate the technical amendment process from the site-specific land use map amendment process, which is subject to hearing examiner review, and from the area zoning and subarea planning processes, which typically involve larger areas.

B. **Black Diamond Technical Map Amendment.** The proposed map amendment would move the UGA boundary so that approximately 1.64 acres of unopened King County right-of-way adjacent to the southern boundary of the City of Black Diamond would be located within the UGA. The UGA currently bisects the unopened right-of-way, so that it is inside the UGA, then outside the UGA, then inside, then outside again. The amendment appears to align with the technical amendment criteria in the CPP Ordinance, which allow technical amendments to "[align] the UGA boundary with either edge of a right-of-way or similar linear feature that it currently touches." A letter submitted to the Local Services and Land Use Committee Chair from the Mayor of Black Diamond states that the amendment "will not result in any additional residential units to be constructed…within the City." The Mayor's letter further states the intention to annex the right-of-way into Black Diamond city limits if the technical UGA amendment is approved. Approval of the UGA amendment and any subsequent annexation by Black Diamond would be separate actions.

The proposed technical UGA amendment appears to conform with the proposed requirements in the CPP Ordinance and is not inconsistent with existing plans or the GMA, as would be required by this proposed ordinance. Whether to adopt the proposed technical UGA amendment is a policy choice for Councilmembers.

AMENDMENTS

No amendments are currently proposed. Amendments may be needed if the criteria in the CPP Ordinance are amended in committee or at full Council.

BACKGROUND & TIMING CONSIDERATIONS

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King County Comprehensive Plan.[1] The KCCP is the County's main planning document, which guides how to plan for and accommodate growth and development in Unincorporated King County. The GMA requires counties and cities planning under the act to adopt comprehensive plans and development regulations and to periodically review and update them.[2] The KCCP provides for annual, midpoint, and ten-year updates. King County completed its most recent ten-year update in December 2024 through Ordinance 19881. The KCCP was subsequently amended with an annual update in 2025 by Ordinance 20024.

Annual Updates. Annual updates are limited to certain changes allowed by KCCP Policy I-104. This policy prohibits annual amendments that require substantive changes to KCCP policies or that alter the UGA boundary, except when meeting one of the below categories:

"a. Changes required by existing Comprehensive Plan policies;

b. Changes to technical appendices and any amendments required thereby;

c. Adoption of subarea plans;

d. Changes required by amendments to the Countywide Planning Policies or state or federal law;

e. Amendments resulting from the comprehensive plan implementation progress report required by Revised Code of Washington 36.70A.130;

f. Land Use Map or shoreline master program map amendments resulting from a site-specific application or an area zoning and land use zoning study, provided that the amendments do not require substantive change to policy language or alter the Urban Growth Area boundary, except to correct mapping errors;

g. Amendments to add or remove lands from the Agricultural Production District under policy R-761 and/or R-762 for King County safety, preservation, and/or fish passage road projects that are in the adopted six-year Capital Improvement Program;

h. Four-to-One proposals;

i. Amendments necessary for the conservation, protection, and recovery of threatened and endangered species;

[1] The current text of the King County Comprehensive Plan can be found at this link.
[2] RCW 36.70A.040

j. Amendments to the Comprehensive Plan Work Plan to change deadlines

k. Amendments related to the next long-term solid waste disposal option; or

l. Amendments to update critical area policies in 2025."

Notably, changes required by amendments to the CPPs, such as those proposed in the CPP Ordinance, are allowed during an annual amendment. The UGA boundary is only allowed to be moved to correct mapping errors, through either a site-specific land use amendment application or through an area zoning and land use study. Other land use map amendments that do not alter the UGA boundary are allowed as part of an annual update.

Land use map amendments. King County Code Title 20 allows the land use map, including the UGA, to be amended through site-specific comprehensive plan land use map amendments ("site-specific map amendments"), area zoning and land use studies (AZLUS), or subarea plans.

Site-specific map amendments. Site-specific map amendments are regulated under K.C.C. Chapter 20.18. As the name suggests, they are limited to a specific site, and may be initiated by the Executive, Council, or a property owner. In all three cases, the proposal must be referred to the Department of Local Services, Permitting Division, which makes a recommendation to the hearing examiner. The hearing examiner then makes a recommendation to the Council for consideration in the next KCCP update. If the proposal involves the UGA, it is at this point that the proposal would be forwarded to the GMPC to begin the process described in the Countywide Planning Policies section of this staff report.

Area zoning and land use study and Subarea Plan. In addition to site-specific map amendments, the land use map may be amended through an AZLUS under K.C.C. 20.08.037. Such studies generally look at a specific set of properties for possible zoning and land use changes, but do not look at the full range of issues that would be included in a subarea plan.

Subarea Plans, on the other hand, look at the zoning and land use across a larger area, in addition to other issues such as transportation, open space, and economic development. They are subject to the *Subarea Planning* chapter of the KCCP.

Land use map amendments through either process may be initiated by the Council or Executive and are subject to Council approval. If movement of the UGA boundary is involved, those amendments are subject to the GMPC process described in the Countywide Planning Policies section of this staff report.

Countywide Planning Policies. The CPPs create a shared framework for growth management planning for all jurisdictions in King County in accordance with RCW 36.70A.210, which requires the legislative authority of a county to adopt a countywide planning policy in cooperation with cities located in the county. The KCCP and the comprehensive plans for cities and towns in King County are developed from the framework that the CPPs establish. The 2021 Countywide Planning Policies were adopted December 14, 2021[3] and have been amended six times since, including one amendment that is currently undergoing ratification.[4]

Existing CPPs for UGA Amendments. The CPPs establish procedures and criteria for amendments to the UGA boundary. UGA amendments are allowed (1) to accommodate housing and employment growth targets (or remove land from the UGA when not needed for those purposes), (2) through the 4:1 Program, or (3) to transfer park land to a city. Such amendments are reviewed by the Growth Management Planning Council (GMPC), which provides a recommendation to the King County Council. The King County Council then could approve an ordinance making the change. The map amendment is effective after ratification by cities that represent at least 70% of the county population and 30% of those jurisdictions. Ratification is either by an affirmative vote of the city's or town's council or by no action being taken within the ratification period.

Proposed CPPs for UGA Amendments. The CPP Ordinance would establish a separate process and set of criteria for technical amendments to the UGA boundary. Under the proposal, technical amendments could *not* be for the purpose of housing or employment growth, and would need to do one of the following:

- Correct mapping errors or discrepancies;
- Resolve situations where buildings or parcels are split by the Urban Growth Area boundary;
- Align the Urban Growth Area boundary with either edge of a right-of-way or similar linear feature it currently touches;
- Encompass within the Urban Growth Area boundary urban-serving infrastructure existing prior to January 1, 2027, or
- Address similar technical issues.

Technical amendments would still require action by the King County Council, but would not require GMPC recommendation prior to action or city ratification after action.

[3] Ordinance 19384
[4] Ordinances 19553, 19660, 19871, 19880, 19946, and 20096

King County Right-of-way near Black Diamond. The existing UGA boundary near Black Diamond bisects portions of an unopened King County right-of-way. This right-of-way is the subject of the proposed technical land use map amendment in Attachment B to the proposed ordinance. Figure 1 below shows the location of the right-of-way in question. Figure 2 shows a closer view of the right-of-way as it moves back and forth between rural King County and urban Black Diamond. Figure 3 shows an aerial view of the same area.

Figure 1. Unopened Right-of-Way Near Black Diamond – Location Map

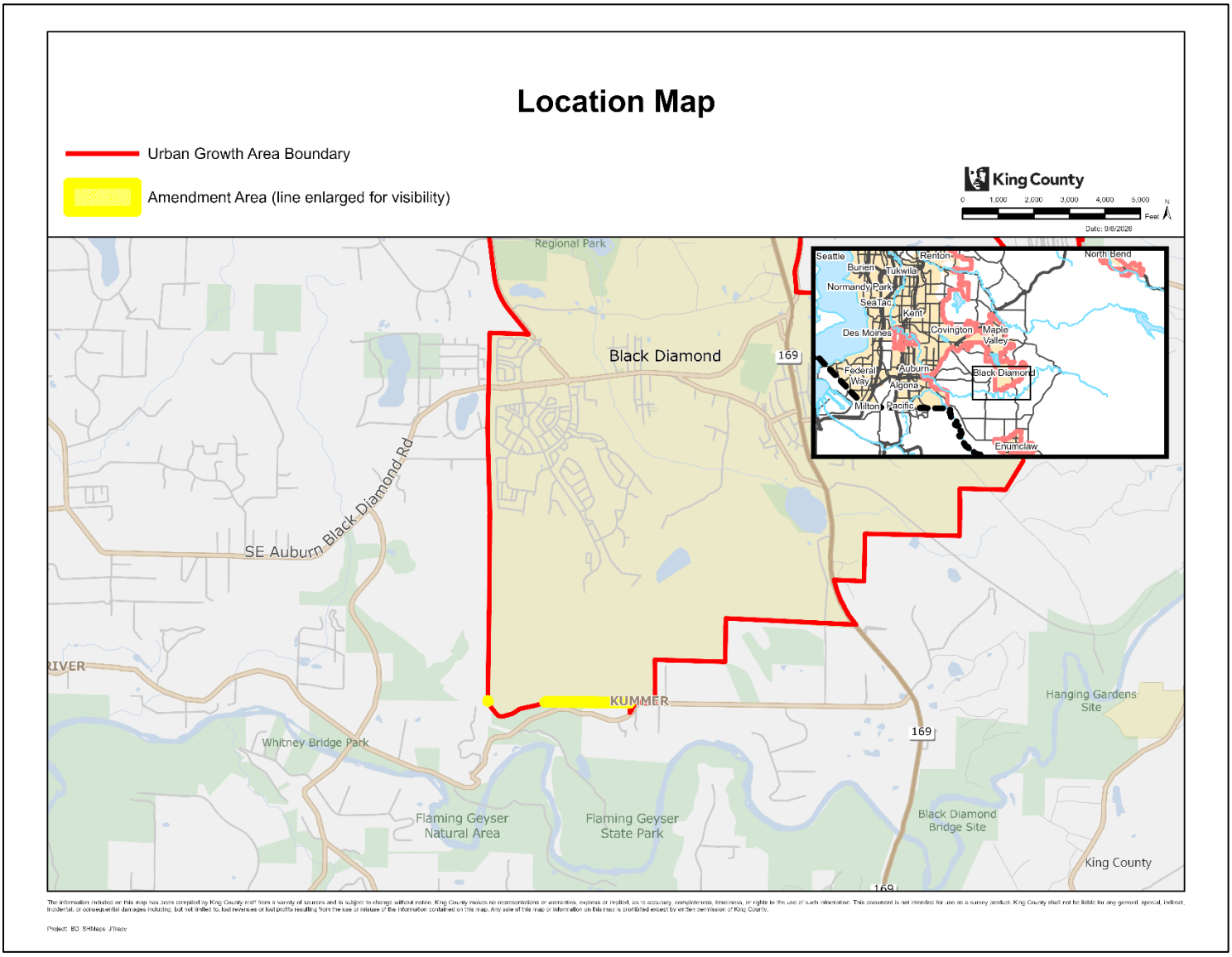


Figure 2. Unopened Right-of-Way Near Black Diamond – Jurisdiction Map

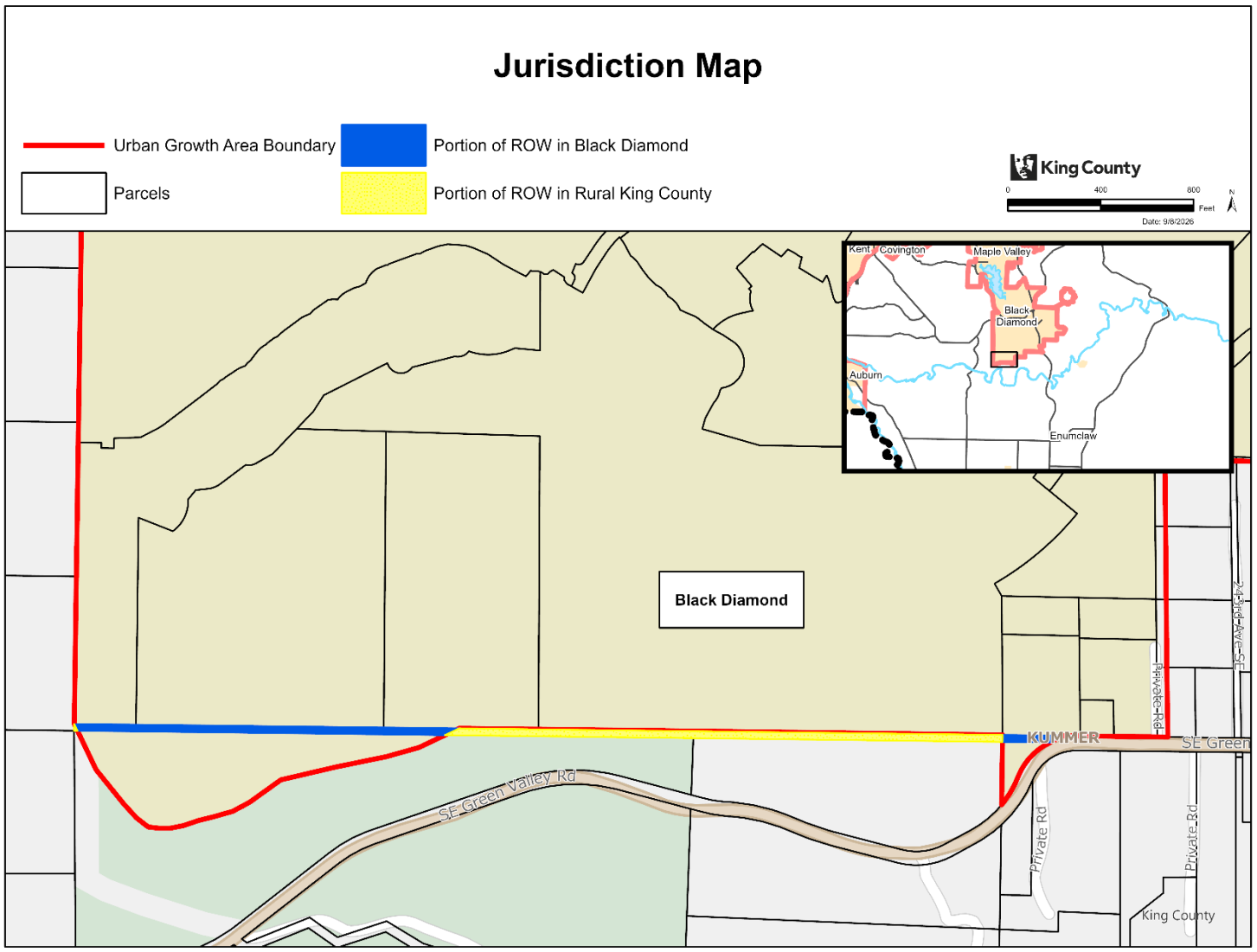
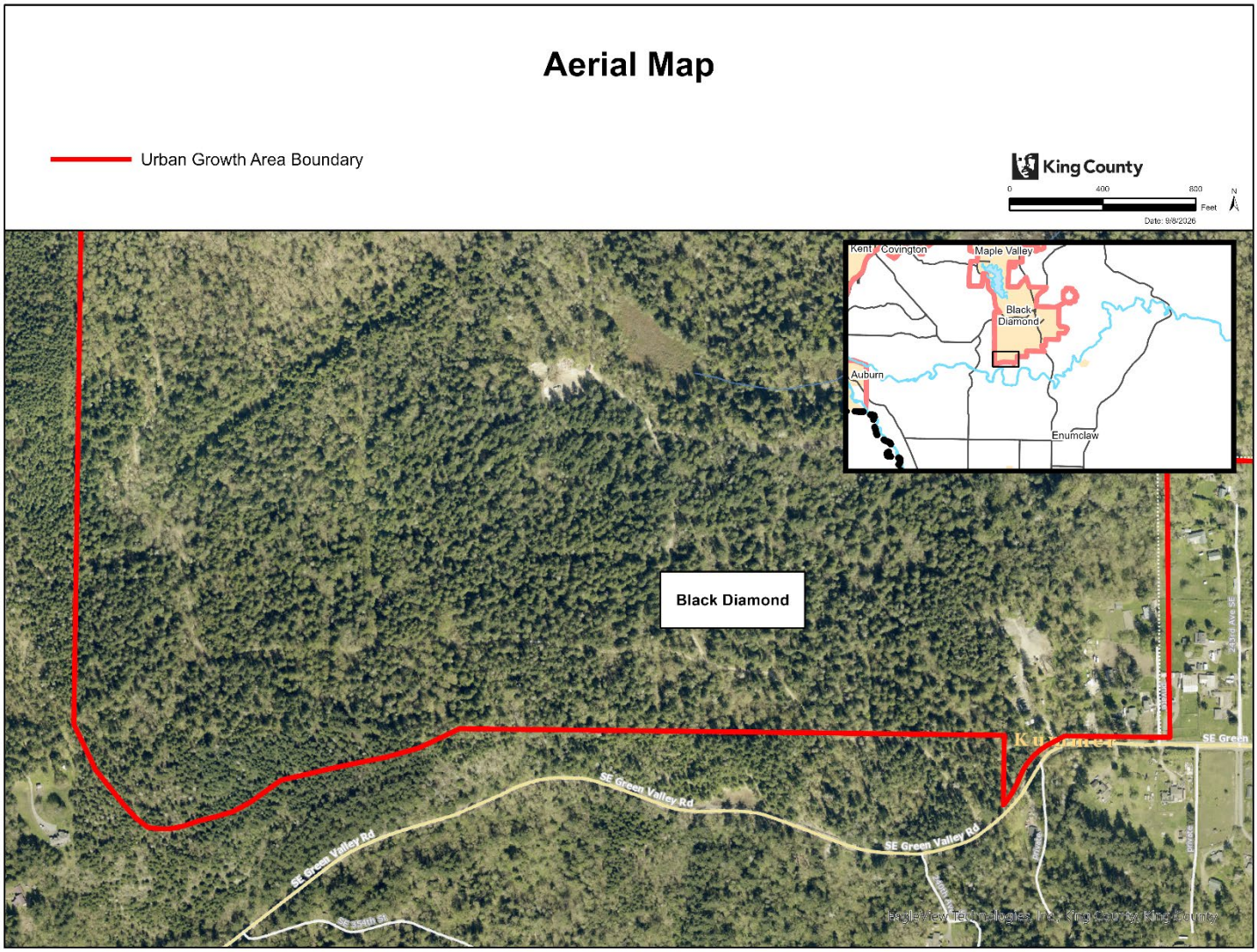


Figure 3. Unopened Right-of-Way Near Black Diamond – Aerial Map



As the figures show, the UGA currently bisects a section of 30-foot-wide, unopened right-of-way in multiple places. As the existing, improved SE Green Valley Road turns south, the unopened right-of-way continues directly west. After approximately 300 feet in the urban area under Black Diamond jurisdiction, the UGA boundary switches to the opposite side of the right-of-way and it enters the rural area and King County jurisdiction. It continues for approximately 2,340 feet before the UGA boundary again moves to the opposite side of the right-of-way, putting the right-of-way back into the urban area and Black Diamond jurisdiction for approximately 1,600 feet. The UGA boundary then moves at an angle,

leaving a triangle-shaped piece of the right-of-way's western terminus, approximately 222 square feet in size, outside of the UGA boundary. In total, the area of the right-of-way that is outside of the UGA boundary is 71,362 square feet or approximately 1.64 acres, according to the legal description.

Rights-of-way in unincorporated King County do not have zoning classifications or land use designations.

Timing and related legislation. Attachment 2 to the staff report contains the Local Services and Land Use chair's proposed schedule for this legislation.

The proposed ordinance implements changes proposed in the CPP Ordinance. The CPP Ordinance would therefore need to be adopted prior to adoption of the proposed ordinance. GMPC is anticipated to provide a recommendation on the CPP changes at its September 16, 2026 meeting.

The KCCP can generally only be updated once per year under KCCP Policy I-102.[5] The proposed ordinance represents the 2026 Annual Update. If passage did not occur until 2027, that would preclude another annual update occurring in 2027.

The proposed map amendment (Attachment B to the proposed ordinance) would move portions of King County right-of-way into the UGA. Another separate proposed ordinance would be needed to transfer the right-of-way to the city of Black Diamond's jurisdiction. Such an ordinance could only be adopted by the Council after adoption of this proposed ordinance. The Mayor of Black Diamond has submitted a letter to the Local Services and Land Use chair, indicating the city's intent to annex the right-of-way if the UGA amendment is approved. This is Attachment 3 to this staff report.

SEPA. The proposed ordinance requires review under the State Environmental Policy Act (SEPA). A SEPA checklist has been submitted to the responsible official, but a determination has not yet been issued. SEPA will need to be finalized prior to final action on this proposed ordinance.

ANALYSIS

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PO 2026-0235 would amend the KCCP and King County Code to establish a process for technical land use map amendments and would adopt a technical UGA amendment near Black Diamond.

[5] Policy I-103 does give limited circumstances in which the KCCP can be updated more than once per year, such as emergency amendments, amendments to the Shoreline Master Program, and initial adoption of subarea plans.

The proposed ordinance would make several changes to the KCCP and code that would be necessary to align with the CPP Ordinance, including allowing technical UGA amendments generally, defining them and setting the criteria for what qualifies as technical, and establishing the role of GMPC and the cities and towns in the process. As the proposed ordinance would need to conform with decisions made in the CPP Ordinance in these regards, those decisions are key issues for the CPP Ordinance and are not discussed as key issues here.

Key Issue A. Implementation of Technical UGA Amendment Process. The proposed ordinance would make changes to both the KCCP (Attachment A to the proposed ordinance) and King County code to implement the technical UGA amendment process proposed in the CPP Ordinance.

Allowance for Technical Amendments in Annual Updates. In the *Implementation, Amendments, & Evaluation* chapter of the KCCP, Policy I-104 would be amended to allow technical UGA amendments consistent with the CPPs during an annual update. Existing King County code clarifies that things allowed during an annual update can also occur during a midpoint, or ten-year update; therefore, technical UGA amendments could occur in an annual, midpoint, or ten-year update.

As noted above, amendments to the UGA to correct mapping errors are currently allowed during the annual update, but only through a site-specific land use amendment or area zoning process. Other types of technical amendments to the UGA that would be allowed under the proposed CPP Ordinance are not currently allowed as part of an annual update but could be made as part of a midpoint or ten-year update. Amendments to the land use map that do *not* require amending the UGA are currently allowed during any KCCP update; the proposed ordinance would allow technical amendments not involving the UGA to be allowed in any update as well.

Allowance of technical amendments during annual, midpoint, and ten-year KCCP updates is a policy choice.

Distinction from other types of land use amendments. Current King County Code allows for land use map amendments through the site-specific, area zoning and land use study, or subarea planning process. When a proposed amendment would alter the UGA boundary, the existing CPP process generally requires a GMPC recommendation before Council action and city and town ratification after Council approval. The CPP Ordinance would set the GMPC/city process for technical amendments (not requiring GMPC recommendation or city ratification), but would not address how technical amendments were reviewed prior to that point.

Technical amendments could potentially involve a single site, as the Black Diamond technical map amendment does, or they may involve several sites (e.g., multiple urban-serving stormwater tracts existing prior to January 1, 2027 being added to the UGA boundary). Therefore, without additional guidance, a given technical amendment might be subject to the site-specific or AZLUS process.

The proposed ordinance would establish a "technical land use map amendment" category in King County Code, separate from the site-specific land use map amendment and AZLUS categories, and establish a process for review. Technical amendments could be initiated by the Executive or Council, and would not be required to go through the hearing examiner process. Though a technical amendment could not be initiated by a property owner in the way a site-specific map amendment could be, a property owner could still request a technical amendment through the docket process established in K.C.C. 20.18.140 and the Executive or Council could propose it as part of an upcoming KCCP update.

They would be required to not be inconsistent with the KCCP, applicable subarea plans, the CPPs, and GMA. They would not be required to analyze surrounding land use, zoning, and infrastructure as an AZLUS amendment does, or undergo the review of compatibility with adjacent existing and permitted land uses and development patterns, as is the case for site-specific land use amendments.

The proposed differences in initiation, review standards, and process reflect the distinction between technical amendments and substantive site-specific or area-wide changes that may involve broader land use effects. Whether these distinctions provide sufficient review while allowing technical mapping issues to be addressed efficiently is a policy choice for Councilmembers.

Key Issue B. Black Diamond Technical Map Amendment. Attachment B to the proposed ordinance would amend the UGA boundary near the southern border of the city of Black Diamond, so that the entirety of the unopened right-of-way is inside of the UGA boundary. Figures 4 and 5 below show the exact amendment area, as included in Attachment B.

Figure 4. Black Diamond Technical Map Amendment Area One

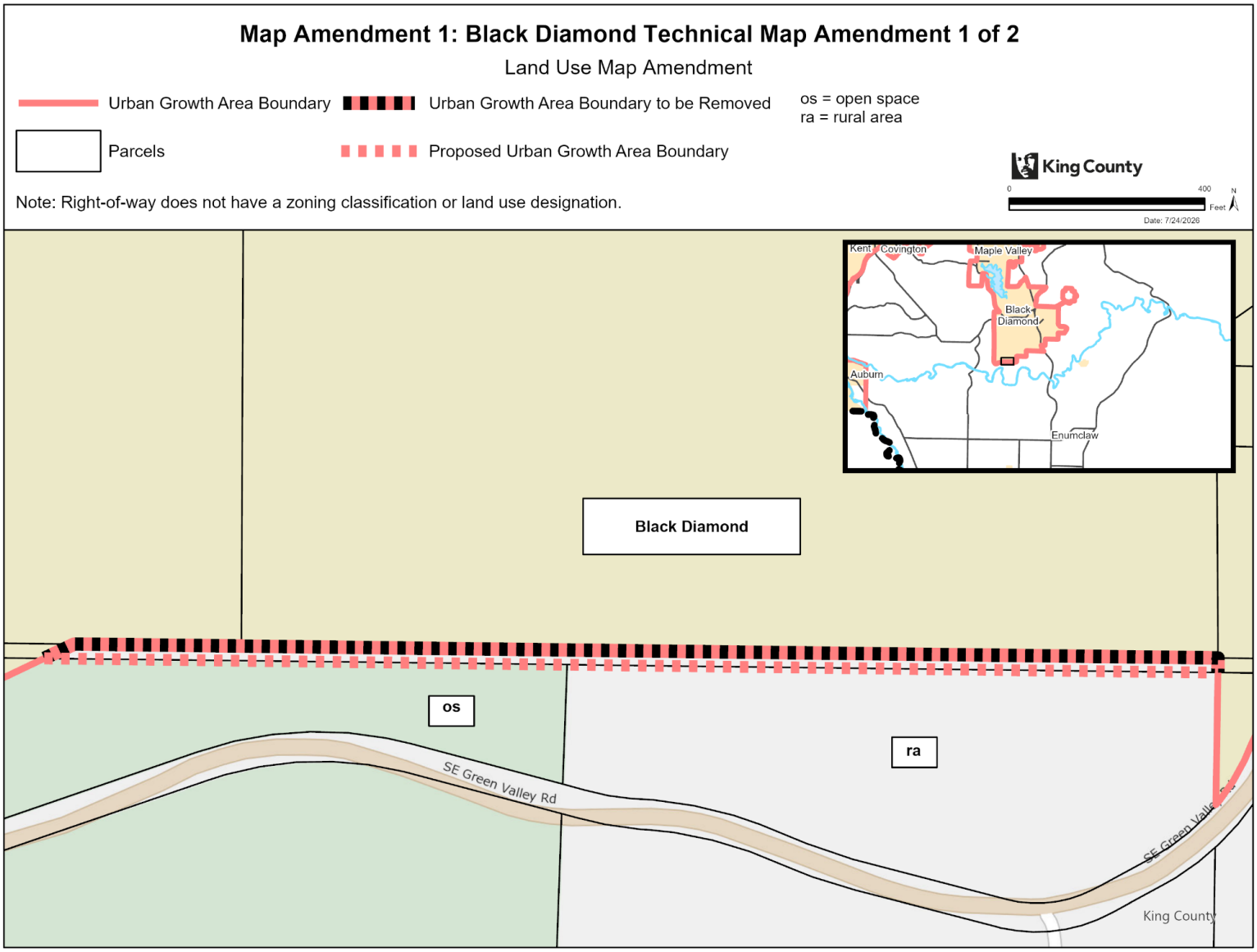
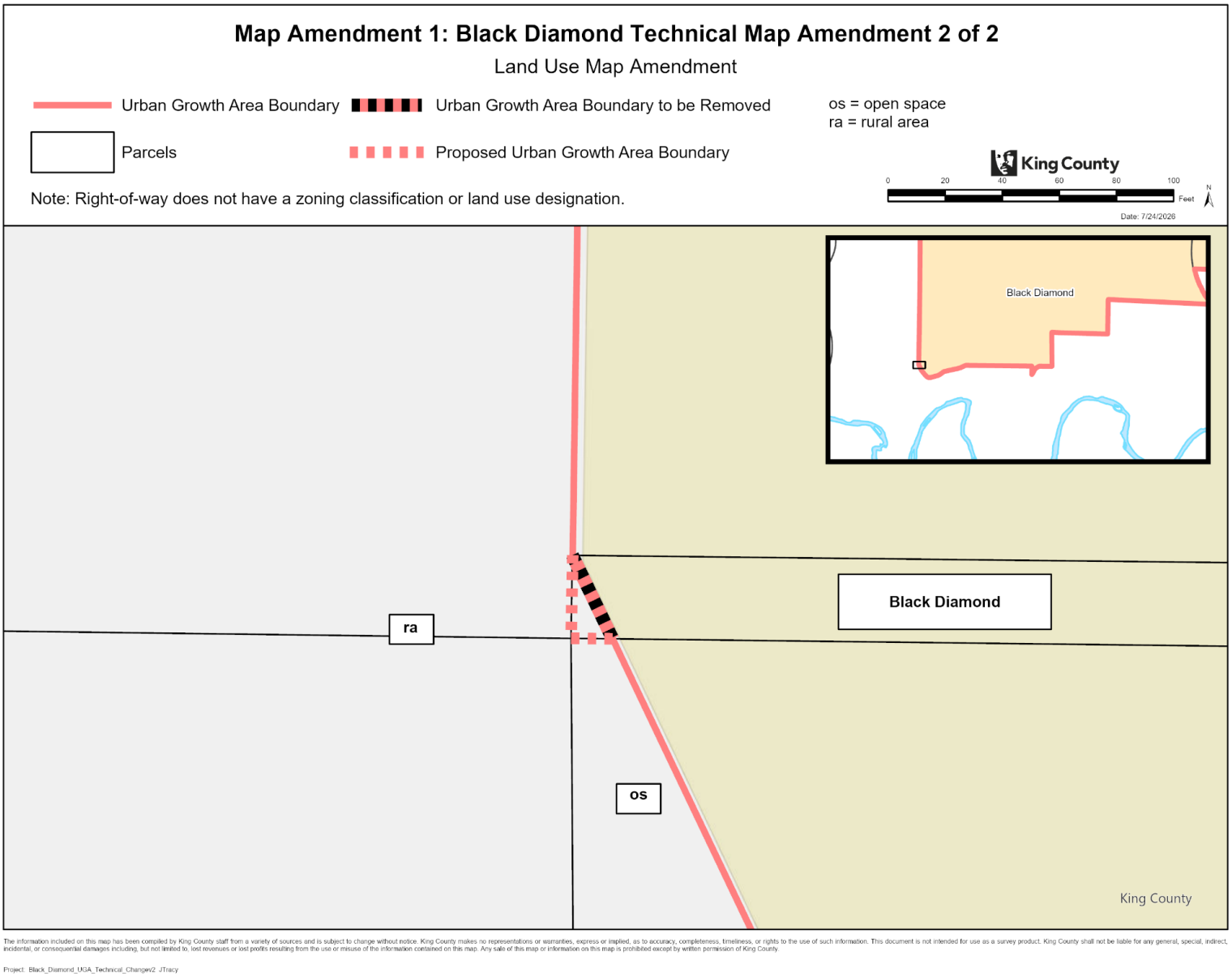


Figure 5. Black Diamond Technical Map Amendment Area Two



Alignment with proposed CPP, KCCP, and code requirements. The proposed CPP Ordinance lists "align the Urban Growth Area boundary with either edge of a right-of-way or similar linear feature it currently touches" as an allowed type of technical amendment; this language is also reflected in this proposed ordinance. The Black Diamond Technical Map Amendment would conform with that criterion.

The proposed CPP Ordinance and this ordinance also require that technical map amendments not be made for the purpose of increasing housing or employment growth. A letter submitted to the Local Services and Land Use Committee Chair from the Mayor of Black Diamond, and cited in the ordinance's findings, states that the amendment "will not

result in any additional residential units to be constructed...within the City." Low- and medium-density residential development is currently allowed in the city of Black Diamond immediately north of the amendment area, according to a Master Planned Development agreement.[6] A plat proposal[7] relating to the master planned development was submitted to the City by a developer in January 2026, and, if approved by the City in the proposed configuration, the amendment area would be at the rear end of proposed units' backyards. The amendment area does not appear capable of adding additional potential housing or employment given its narrow width and placement relative to the configuration of proposed lots.

Staff did not identify any inconsistencies between the proposed amendment and the GMA, the proposed CPPs, the proposed KCCP, or the Tahoma/Raven Heights Community Plan (last updated in 1991).

Therefore, as currently proposed, and with passage of the CPP Ordinance and this ordinance in their current forms, the proposed Black Diamond technical map amendment appears consistent with the criteria for approval. If the CPP Ordinance is not adopted, or if changes are made to the CPP Ordinance or criteria in this proposed ordinance prior to passage, this analysis could change.

Whether to adopt the proposed Black Diamond technical amendment is a policy choice for Councilmembers.

Technical and Clarifying Changes. In addition to the changes discussed above, the proposed ordinance would make technical and clarifying changes to the KCCP and code. These include:

- In the *Implementation, Amendments, & Evaluation* chapter of the KCCP, adding a reference to technical UGA amendments in nonpolicy lead-in text that discusses the relationship between zoning and land use designations.

- Updating the code to specify that GMPC-recommended CPP changes are referred to the Local Services and Land Use committee, as is current practice.

- Amending K.C.C. 20.18.055 to specify that the standards of KCCP Policy I-108 only apply to Executive proposals. This change was made to Policy I-108 and elsewhere in the code during the 2024 KCCP Update, but this section of code was missed and is therefore out of conformance with the KCCP.

[6] See Exhibit U at this link.
[7] Plat proposal at this link.

- Adding a clarifying cross reference relating to site-specific zoning amendments.
- Other minor changes to wording for clarity.

AMENDMENTS

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No amendments are currently proposed. Amendments may be needed if the criteria in the CPP Ordinance are amended in committee or at full Council.

INVITED

- Erin Auzins, Regional Planning Lead, Executive's Office

ATTACHMENTS

1. Proposed Ordinance 2026-0235 (and its attachments)
2. Council Review Schedule
3. July 23, 2026, Letter from Black Diamond Mayor John Adler

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

KING COUNTY

Signature Report

Ordinance

Proposed No. 2026-0235.1 **Sponsors** Dunn

AN ORDINANCE related to comprehensive planning and development regulations; amending Ordinance 13147, Section 12, and K.C.C. 20.08.170, Ordinance 17486, Section 3, and K.C.C. 20.10.015, Ordinance 13147, Section 20, as amended, and K.C.C. 20.18.040, Ordinance 14047, Section 4, as amended, and K.C.C. 20.18.055, and Ordinance 12196, Section 9, as amended, and K.C.C. 20.20.020, and adding a section to K.C.C. chapter 20.08.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. **Findings:**

A. The Washington state Growth Management Act ("the GMA") requires counties to take action to review, and if needed, revise their comprehensive plans and development regulations to ensure compliance with the requirements of the GMA by December 31, 2024. King County completed its statutorily required comprehensive plan update in December 2024 via Ordinance 19881.

B. The King County Countywide Planning Policies establish procedures and criteria for amendments to the Urban Growth Area boundary and provide a countywide framework for growth management planning by King County and the cities within King County.

C. From time to time, minor technical amendments to the Urban Growth Area boundary may be needed to correct mapping errors or discrepancies, resolve situations where buildings or parcels are split by the boundary, align the boundary with either edge of a right-of-way or similar linear feature it currently touches, encompass existing urban-serving infrastructure within the boundary, or address similar technical issues.

D. Technical amendments to the Urban Growth Area boundary are distinct from substantive amendments made to accommodate housing or employment growth, implement the Four-to-One Program, or redesignate land based on growth needs or other policy considerations.

E. The amendments adopted by this ordinance establish Comprehensive Plan and development regulation procedures for considering technical amendments to the Urban Growth Area boundary consistent with the Countywide Planning Policies and the GMA.

F. The amendments adopted by this ordinance distinguish technical land use map amendments from site-specific land use map amendments and allow technical land use map amendments to be considered during an annual, midpoint, or ten-year update to the King County Comprehensive Plan when initiated by the executive or council.

G. The Urban Growth Area boundary near the city of Black Diamond currently bisects portions of an unopened, undesignated King County right-of-way. The land use map amendment in Attachment B to this ordinance adjusts the boundary to coincide with the southern and western boundaries of the right-of-way, so that the unopened right-of-way is within the Urban Growth Area.

H. The Black Diamond land use map amendment is limited to portions of the existing right-of-way and is not made for the purpose of increasing housing or employment growth.

I. On July 23, 2026, John Adler, Mayor of Black Diamond, provided a letter of support for the technical map amendment to the chair of the King County local services and land use committee. The letter states that the amendment will not result in additional residential units and that the mayor will pursue annexation of the portions of unopened right-of-way into the city of Black Diamond if the amendment is approved.

SECTION 2.

A. Attachment A to this ordinance is adopted as amendments to the 2024 King County Comprehensive Plan, as adopted in Ordinance 19881 and amended by Ordinance 20024.

B. The land use map amendment in Attachment B to this ordinance is hereby adopted as the official land use control for those portions of unincorporated King County defined in the attachment.

SECTION 3. Ordinance 13147, Section 12, and K.C.C. 20.08.170 are hereby amended as follows:

"Site-specific ((~~comprehensive plan~~)) land use map amendment" means an amendment to the comprehensive plan land use map ((~~which~~)) that includes one property or a small group of specific properties. "Site-specific land use map amendment" does not include amendments meeting the definition of "technical land use map amendment."

NEW SECTION. SECTION 4. There is hereby added to K.C.C. chapter 20.08 a new section to read as follows:

"Technical land use map amendment" means an amendment to the comprehensive plan land use map that includes one or more properties, rights-of-way, or other mapped features, and is made in order to correct mapping errors or discrepancies, resolve situations where buildings or parcels are split by the Urban Growth Area boundary, align the Urban Growth Area boundary with either edge of a right-of-way or similar linear feature it currently touches, encompass within the Urban Growth Area boundary urban-serving infrastructure existing before January 1, 2027, or address similar technical issues. Technical land use map amendments are not made for the purpose of increasing housing or employment growth.

SECTION 5. Ordinance 17486, Section 3, and K.C.C. 20.10.015 are hereby amended as follows:

A. After the Growth Management Planning Council approves or amends the Countywide Planning Policies, the executive, as its chair, shall timely transmit to the King County council an ordinance adopting the Countywide Planning Policies or amendments thereto.

B. The King County council shall refer the proposed ordinance transmitted by the executive under subsection A. of this section to the ((~~committee on transportation, economy and environment~~)) local services and land use committee or its successor for review and consideration. If the King County council recommends substantive revisions to the Countywide Planning Policies or amendments approved by the Growth Management Planning Council, the King County council may refer the proposed revisions to the Growth Management Planning Council for its consideration and response.

C. Within ten days after the ordinance transmitted by the executive under subsection A. of this section, as amended by the council, is effective, the clerk of the King County council shall send the notice of enactment and the Countywide Planning Policies and amendments to each city and town in King County for ratification as provided for in the Countywide Planning Policies. Each city and town must take action to ratify or reject the proposed Countywide Planning Policies or amendments as approved by the King County council within ninety days after the date the ordinance approving the Countywide Planning Policies or amendments was enacted. Failure of a city or town to take action and notify the clerk of the King County council within ninety days shall be deemed to be approval by that city or town. The notice shall include the date by which each city or town must respond with its response to ratify or reject the proposed Countywide Planning Policies or amendments and where the response should be directed.

D. Countywide Planning Policies or amendments are ratified if approved by the county, cities and towns representing at least seventy percent of the county's population and thirty percent of the jurisdictions. For ratification purposes, King County is the jurisdiction representing the population in the unincorporated areas of the county.

E. Within ten days after the date for response established by the clerk of the King County council under subsection C. of this section, the clerk of the King County council shall notify the executive, as chair of the Growth Management Planning Council, of the decision to ratify or not to ratify the Countywide Planning Policies or amendments.

SECTION 6. Ordinance 13147, Section 20, as amended, and K.C.C. 20.18.040 are hereby amended as follows:

A.1. Site-specific land use map amendments may be considered during the annual, midpoint, or ten-year update, depending on the degree of change proposed.

((~~B.~~)) 2. Site-specific land use map amendments that do not require substantive change to Comprehensive Plan or subarea plan language and that do not alter the Urban Growth Area boundary, except to correct mapping errors, may be initiated by either the county or a property owner for consideration in the annual update.

((~~C.~~)) 3. The following categories of site-specific land use map amendments may be initiated by either the county or a property owner for consideration in the ten-year update or midpoint update:

((~~1.~~)) a. Amendments that could be considered in the annual update;

((~~2.~~)) b. Amendments that require substantive change to comprehensive plan policy language; and

((~~3.~~)) c. Amendments to the Urban Growth Area boundary.

B. Technical land use map amendments may be considered during the annual, midpoint, or ten-year update, and may be initiated by the executive or council.

SECTION 7. Ordinance 14047, Section 4, as amended, and K.C.C. 20.18.055 are hereby amended as follows:

A. All site-specific land use map amendments((~~, whether~~)) initiated by ((~~property owner application, by council motion, or by~~)) the executive ((~~proposal,~~)) shall be reviewed based upon the requirements of Comprehensive Plan policy ((~~I-207~~)) I-108, and must meet the following additional review standards:

1. Consistency with the policies, objectives and goals of the Comprehensive Plan, including any applicable subarea plans, the countywide planning policies and the state Growth Management Act;

2. Compatibility with adjacent and nearby existing and permitted land uses; and

3. Compatibility with the surrounding development pattern.

B. Site-specific land use map amendments for which recommendations have been issued by the hearing examiner by January 15 shall be submitted to the executive and the council by the hearing examiner by January 15. The department will provide for a cumulative analysis of these recommendations and such analysis will be included in the annual March transmittal.

C. Technical land use map amendments shall not be inconsistent with the policies, objectives, and goals of the Comprehensive Plan, including any applicable subarea plans; the countywide planning policies; and the state Growth Management Act.

D. All ((~~such~~)) land use map amendments will be considered concurrently by the council committee charged with the review of the Comprehensive Plan. Following this review, ((~~site-specific~~)) land use map amendments ((~~which~~)) that are recommended by this committee will be incorporated as an attachment to the adopting ordinance transmitted by the executive for consideration by the full council. Final action by the council on these amendments will occur concurrently with the annual update to the Comprehensive Plan.

SECTION 8. Ordinance 12196, Section 9, as amended, and K.C.C. 20.20.020 are hereby amended as follows:

A. Land use decisions are classified into four types, based on who makes the decision, whether public notice is required, whether a public hearing is required before a decision is made, and whether administrative appeals are provided. The types of land use decisions are listed in subsection D. of this section.

1. Type 1 decisions are made by the manager of the department of local services, permitting division ("the division"). Type 1 decisions are administrative decisions. An administrative appeal is not provided.

2. Type 2 decisions require public notice and are made by the manager. Type 2 decisions are discretionary decisions that are subject to administrative appeal to the hearing examiner.

3. Type 3 decisions require public notice and are quasi-judicial decisions made by the hearing examiner following an open record hearing. An administrative appeal is not provided.

4. Type 4 decisions require public notice and are site-specific quasi-judicial decisions made by the council based on the record established by the hearing examiner, after a recommendation by the division.

B. Except as provided in K.C.C. 20.44.120.A.7., or unless otherwise agreed to by the applicant, all Type 2, 3, and 4 decisions included in consolidated permit applications that would require more than one type of land use decision process may be processed and decided together, including any administrative appeals, using the highest-numbered land use decision type applicable to the project application.

C. Certain development proposals are subject to additional procedural requirements beyond the standard procedures established in this chapter.

D. Land use decision types are classified as follows:

TYPE 1		Temporary use permit for a homeless encampment or temporary microshelter village under K.C.C. chapter 21A.45, except as required by K.C.C. 21A.45.100 Building permit, commercial site development permit, or clearing and grading permit that is not subject to SEPA, that is categorically exempt from SEPA as provided in K.C.C. 20.20.040, or for which the division has issued a determination of nonsignificance or mitigated determination of nonsignificance Boundary line adjustment Right-of-way permit Variance from K.C.C. chapter 9.04 Shoreline exemption Decisions to require studies or to approve, condition or deny a development proposal based on K.C.C. chapter 21A.24, except for decisions to approve, condition, or deny alteration exceptions Decisions to approve, condition, or deny nonresidential elevation and dry floodproofing variances for agricultural buildings that do not equal

		or exceed a maximum assessed value of sixty-five thousand dollars under K.C.C. chapter 21A.24 Approval of a conversion-option harvest plan Binding site plan for a condominium that is based on a building permit, an as-built site plan for developed sites, a commercial site development permit for the entire site Approvals for agricultural activities and agricultural support services authorized under K.C.C. 21A.42.300 In the urban area: microsubdivision, microsubdivision revision, microsubdivision alteration, or microsubdivision vacation Final short plat Final plat Critical area determination
TYPE 2[1,2]		Except those classified as microsubdivisions in the urban area, short subdivision short subdivision revision, short subdivision alteration, or short subdivision vacation Zoning variance Conditional use permit

		Temporary use permit under K.C.C. chapter 21A.32 Temporary use permit for a homeless encampment or temporary microshelter village under K.C.C. 21A.45.100 Shoreline substantial development permit[3] Building permit, commercial site development permit, or clearing and grading permit for which the division has issued a determination of significance Reuse of public schools Reasonable use exceptions under K.C.C. 21A.24.070.B Decisions to approve, condition, or deny alteration exceptions or variances to floodplain development regulations under K.C.C. chapter 21A.24 Extractive operations under K.C.C. 21A.22.050 Binding site plan Waivers from the moratorium provisions of K.C.C. 16.82.140 based upon a finding of special circumstances Sea level rise risk area variance adopted in K.C.C. chapter 21A.23
TYPE		Preliminary subdivision

3[1]		Plat alterations Preliminary subdivision revisions Plat vacations; special use
TYPE 4[1,4]		Site-specific zone reclassifications under K.C.C. 20.22.150 Site-specific shoreline environment redesignation Site-specific amendment or deletion of P suffix conditions Site-specific deletion of special district overlay

[1] See K.C.C. 20.44.120.C. for provisions governing procedural and substantive SEPA appeals and appeals of Type 2, 3, and 4 decisions.

[2] When an application for a Type 2 decision is combined with other permits requiring Type 3 or 4 land use decisions under this chapter, the examiner, not the manager, makes the decision.

[3] A shoreline permit, including a shoreline variance or conditional use, is appealable to the state Shorelines Hearings Board and not to the hearing examiner.

[4] Approvals that are consistent with the Comprehensive Plan may be considered by the council at any time. Zone reclassifications that are not consistent with the Comprehensive Plan require a site-specific land use map amendment and the council's hearing and consideration shall be scheduled with the amendment to the Comprehensive Plan under K.C.C. 20.18.040 and 20.18.060.

E. The definitions in K.C.C. 21A.45.020 apply to this section.

SECTION 9. **Severability.** If any provision of this ordinance or its application to any person or circumstance is held invalid, the remainder of the ordinance or the application of the provision to persons or circumstances is not affected.

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

_____

Sarah Perry, Chair

ATTEST:

_____

Melani Pedroza, Clerk of the Council

APPROVED this _____ day of _____, _____.

_____

Girmay Zahilay, County Executive

Attachments: A. King County 2026 Update to the 2024 Comprehensive Plan, B. Land Use Map Amendment

King County

2026 Update to 2024 King County Comprehensive Plan

August 2026

In Chapter 1, Regional Growth Management Planning, on page 1-5, amend policy RP-109 as follows:

RP-109 **Except for technical amendments to the Urban Growth Area consistent with the King County Countywide Planning Policies, King County shall not amend the Urban Growth Area prior to the Growth Management Planning Council making a recommendation on the proposed amendment to the Urban Growth Area.**

In Chapter 12, Implementation, Amendments, & Evaluation, on page 12-2, amend policy I-104 as follows:

I-104 **Except as otherwise provided in this policy, the annual update shall not consider proposed amendments to the Comprehensive Plan that require substantive changes to Comprehensive Plan policies or that alter the Urban Growth Area boundary. Substantive policy amendments and substantive or technical amendments to the Urban Growth Area boundary may be considered in the annual update only ((~~to consider~~)) for the following:**

a. Changes required by existing Comprehensive Plan policies;

b. Changes to technical appendices and any amendments required thereby;

c. Adoption of subarea plans;

d. Changes required by amendments to the Countywide Planning Policies or state or federal law;

e. Amendments resulting from the comprehensive plan implementation progress report required by Revised Code of Washington 36.70A.130;

f. Land Use Map or shoreline master program map amendments resulting from a site-specific application or an area zoning and land use ((~~zoning~~)) study, provided that the amendments do not require substantive change to policy language or alter the Urban Growth Area boundary, except to correct mapping errors;

g. Amendments to add or remove lands from the Agricultural Production District under policy R-761 and/or R-762 for King County safety, preservation, and/or fish passage road projects that are in the adopted six-year Capital Improvement Program;

h. Four-to-One proposals;

i. Amendments necessary for the conservation, protection, and recovery of threatened and endangered species;

j. Amendments to the Comprehensive Plan Work Plan to change deadlines;

k. Amendments related to the next long-term solid waste disposal option; or

l. ((~~Amendments to update critical area policies in 2025~~)) Technical amendments consistent with the King County Countywide Planning Policies.

In Chapter 12, Implementation, Amendments, & Evaluation, on page 12-6, after the first table, amend text as follows:

* This is the range of zoning that may be allowed within each comprehensive plan land use designation subject to Comprehensive Plan and subarea plan policies. Actual zoning on a specific property is determined through the area zoning process, ((~~or through~~)) a site-specific rezone application, or a zoning map amendment adopted concurrently with, and necessary to implement, a technical amendment to the Urban Growth Area consistent with the King County Countywide Planning Policies.

Land Use Map Amendment

King County
August 2026

Map Amendment 1: Black Diamond Technical Map Amendment

AMENDMENT TO THE KING COUNTY COMPREHENSIVE PLAN LAND USE MAP

Amend Sections, Townships, and Ranges, as follows:

Section 22	Township 21	Range 6

URBAN GROWTH AREA BOUNDARY

1. Amend the Urban Growth Area boundary to include within the Urban Growth Area two portions of undesignated King County right-of-way.

Effect: Amends the Urban Growth Area boundary in two areas to coincide with the southern and western boundaries of an unopened, undesignated King County right-of-way. This would fully encompass the unopened right-of-way within the Urban Growth Area, whereas currently the boundary bisects the right-of-way in several places.

Map Amendment 1: Black Diamond Technical Map Amendment 1 of 2

Land Use Map Amendment

Urban Growth Area Boundary

Urban Growth Area Boundary to be Removed

os = open space
ra = rural area

Parcels

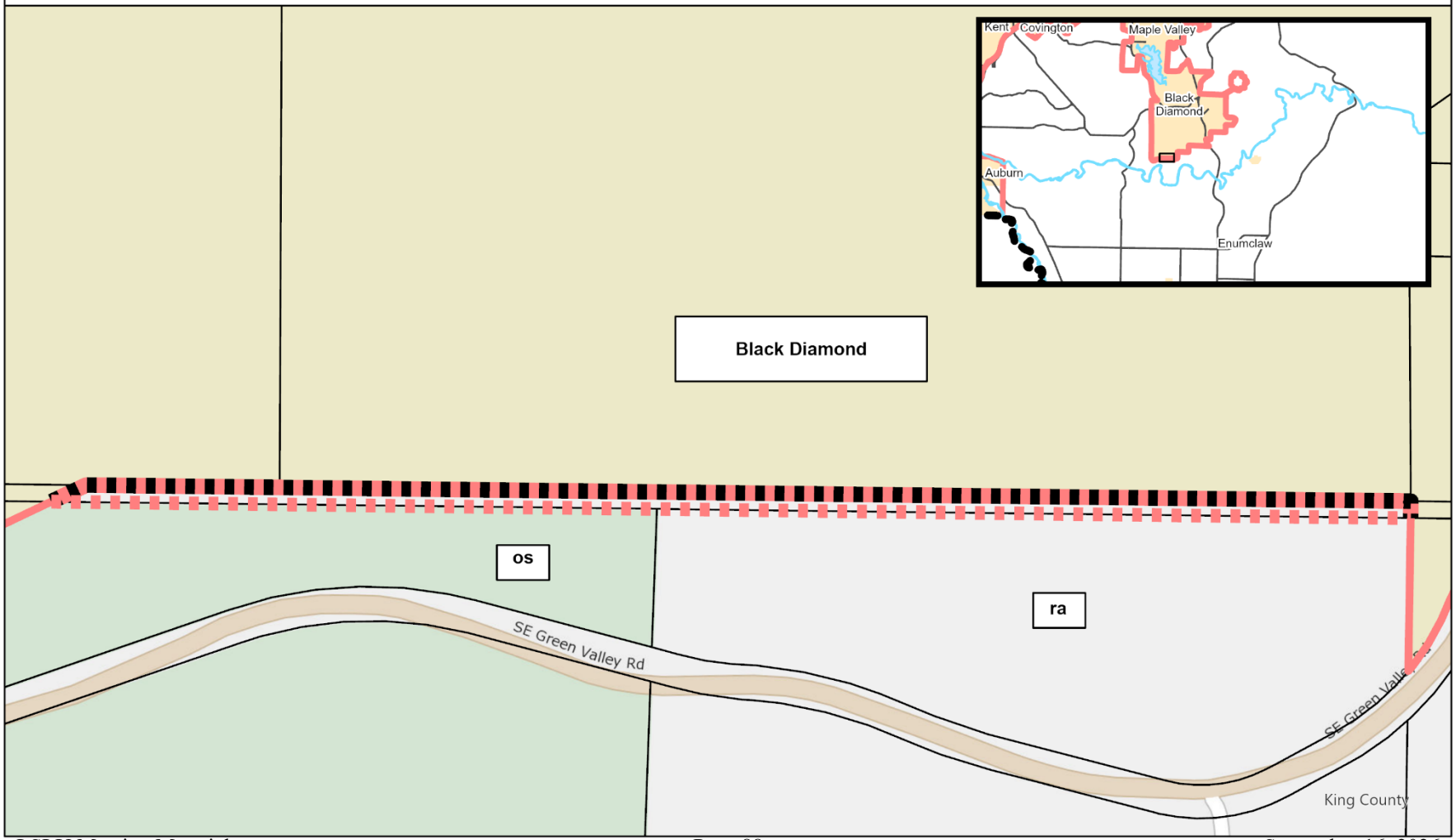
Proposed Urban Growth Area Boundary

Note: Right-of-way does not have a zoning classification or land use designation.

King County

0 400 N
Feet

Date: 7/24/2026



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Project: Black_Diamond_UGA_Technical_Changev2 JTracy

4

Map Amendment 1: Black Diamond Technical Map Amendment 2 of 2

Land Use Map Amendment

Urban Growth Area Boundary

Urban Growth Area Boundary to be Removed

Parcels

Proposed Urban Growth Area Boundary

os = open space
ra = rural area

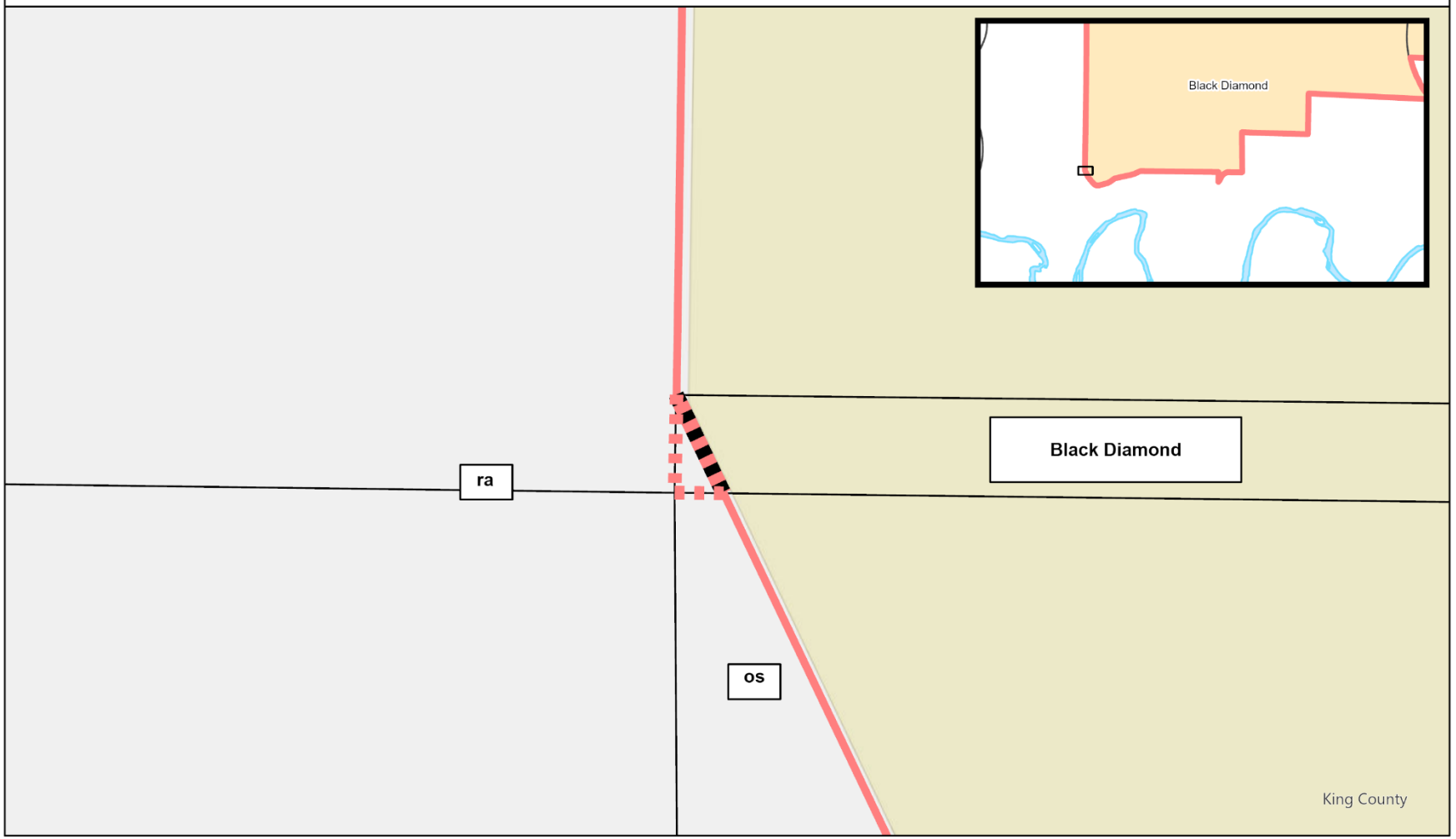
Note: Right-of-way does not have a zoning classification or land use designation.

King County

0 20 40 60 80 100 Feet

N

Date: 7/24/2026



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Project: Black_Diamond_UGA_Technical_Changev2 JTracy

2026 Update to the 2024 Comprehensive Plan

Proposed Ordinance 2026-0235

King County Council Review and Adoption Schedule

As of August 20, 2026 – subject to change

Date	Event
Aug. 20	Local Services and Land Use (LSLU) Chair's Recommended Plan submitted for introduction
Aug. 25	Referral to Local Services and Land Use Committee
Sept. 16 **9:30am** **Council Chambers**	**LSLU Committee – Briefing 1** - Council staff brief analysis - Council staff review schedule and process *Opportunity for Public Comment – Remote and In-Person*
Oct. 14 End of day	Substantive direction deadline on Striking Amendment
Oct. 16 End of day	Striking Amendment released (if any)
Oct. 19 End of day	Line amendment direction due
Oct. 20 End of day	Public line amendments released
Oct. 21 **9:30am** **Council Chambers**	**LSLU Committee** • Review and consideration of striking and line amendments (if any) • **Vote** on striking amendment, line amendments, and Committee recommendation *Opportunity for Public Comment – Remote and In-Person*

Date	Event
Oct. 23 End of day	**Council amendment concept deadline for SEPA and public hearing notice** Councilmember amendment requests for Striking Amendment due
Oct. 27	Public Hearing Notice Issued
Nov. 16 End of day	Substantive direction deadline on Striking Amendment
Nov. 18 End of day	Striking Amendment distributed to Councilmembers
Nov. 25 End of day	Line amendment direction due
Nov. 30 End of day	Public line amendments released
Dec. 1 **1:30pm** **Council Chambers**	**Public Hearing and Vote at Full Council** • Consideration of amendments • **Vote** on final adoption of proposed 2026 Comprehensive Plan Update *Opportunity for Public Testimony – Remote and In-Person*
Dec. 8 **1:30pm**	**Back up vote if there is a 1-week courtesy delay**

For more information on the Council's Review of the 2026 Comprehensive Plan update, please visit the website: https://kingcounty.gov/en/dept/council/governance-leadership/county-council/useful-links/comprehensive-plan/2026.

CITY OF BLACK DIAMOND

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Mailing Address: PO Box 599
Black Diamond, WA 98010

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Fax: (360) 851-4501
www.ci.blackdiamond.wa.us

July 23, 2026

Councilmember Reagan Dunn
c/o Carson Coates (Carson.Coates@kingcounty.gov)
King County Council
516 Third Ave., Room 1200
Seattle, WA 98014

RE: Technical Amendment of Black Diamond UGA Boundary

Dear Councilmember Dunn:

I write in support of the proposal now pending before the King County Council to adjust the Urban Growth Area (UGA) boundary at the southern edge of the City of Black Diamond by 30 feet. This proposal would allow a 30-foot unopened right-of-way that is currently outside the UGA and Black Diamond's city limits to be moved inside the UGA, which I understand was the original intention at the time of annexation of the adjacent land but was inadvertently excluded from the legal description when the annexation was approved and the current UGA boundary was established. Approving this technical amendment to the UGA will correct the apparent scrivener's error in the legal description and allow the right-of-way to be brought into the Black Diamond city limits as originally planned.

Approving this amendment will not result in any additional residential units to be constructed within the Ten Trails Master Planned Development (MPD) or within the City. Rather, it will allow the MPD boundaries, the city limits, and the UGA boundary to be brought into proper alignment. If this technical amendment to the UGA is approved by the King County Council, this "orphan" strip of unopened right-of-way can be moved into the Black Diamond city limits by agreement with King County (pursuant to RCW 35A.21.240)—an agreement which I support and which I will bring to the City Council for legislative approval via ordinance in due course.

Thank you for your consideration, and please reach out if you need additional information from the City.

Sincerely,

John Adler
Mayor

Metropolitan King County Council
Staff Report

Committee:	Local Services and Land Use Committee		
Agenda Item:	9	**Analyst(s):**	Jenny Ngo Jake Tracy
Proposed No.:	2025-0321	**Meeting Date:**	September 15, 2026

OVERVIEW

TOPIC: A proposed ordinance adopting the state's 2021 building, energy, and fire codes and making locally specific changes in K.C.C. Titles 16 and 17 for unincorporated King County.

LEGISLATION SUMMARY

King County regulates building and construction activities in unincorporated areas through building, energy, and fire codes in K.C.C. Titles 16 and 17. Proposed Ordinance (PO) 2025-0321 would adopt the 2021 Washington State building codes and make locally specific changes that exceed, differ from, or clarify state requirements. Those locally specific standards are policy choices for councilmembers.

The proposal would revise building-code requirements related to permit timelines, pre-issuance construction authorization, exemptions, construction and demolition waste, and electric vehicle (EV) charging infrastructure; make extensive changes to the energy code for commercial and larger multifamily buildings, generally to increase energy efficiency and provide flexibility; and revise fire-code requirements related to special events, lithium battery signage, automatic sprinklers, fire flow and hydrants, and fire apparatus access roads. A striking amendment, S1, would modify several of these provisions, including EV infrastructure, energy-code standards, renewable energy requirements, construction and demolition waste, and technical and clarifying provisions.

Previous briefings on the legislation occurred in the Local Services and Land Use Committee in March and June of 2026.

KEY ISSUES FROM THE ANALYSIS

A. **Increased EV-charging requirements and conflict with existing code.** The proposal would change EV infrastructure requirements by occupancy and parking supply, in most cases going above the state minimum and current County code.

K.C.C. 21A.18.150 currently contains a separate set of requirements for EV infrastructure that conflict with the proposal.

B. **Increased energy code requirements.** The proposed ordinance would increase energy-efficiency requirements for commercial and larger multifamily buildings in several areas, including fenestration, HVAC, water heating, lighting, performance factors, and renewable energy systems, and required energy credits. Executive staff stated that a reliable construction cost estimate for these additional standards cannot be provided without a defined building prototype and scope.

C. **Optional construction and demolition waste appendices adoption and conflict with existing code.** The proposed ordinance would adopt optional appendices provided by the state that are intended to increase recycling of construction and demolition waste. These require on-site containers for recycling and a salvage assessment and waste diversion report. King County Title 10 already contains standards for construction and demolition waste sorting that conflict with the optional appendices.

D. **Mechanical permit expiration.** Under the existing code, mechanical permits expire one year after issuance. The proposed ordinance would reduce the expiration period for mechanical permits to six months.

E. **Fire apparatus access road standards adoption and conflict with existing code.** The proposal would adopt optional International Fire Code (IFC) Appendix D relating to fire access and turnaround requirements, but would not remove other turnaround standards in code. As a result, multiple dimensions may apply to some roads over 150 feet, creating uncertainty about which standard applies.

AMENDMENTS

- **Striking Amendment S2** would retain the existing mechanical-permit expiration period; revise EV infrastructure requirements to reduce the levels required in the Executive proposal and integrate the existing requirements from the zoning code; reduce several proposed energy-code standards to the state minimum or a point between the state minimum and the Executive's proposal; require tracking of renewable energy installation and exemptions; not adopt optional construction and demolition waste appendices; and make technical and clarifying changes. More detail is provided in the Amendment section.

BACKGROUND & TIMING CONSIDERATIONS

↑ BACK TO TOP

Under state law,[1] King County is responsible for enacting and enforcing regulations for all building and construction-related activities in unincorporated King County. Jurisdictions may choose to adopt their own building, energy, and fire codes, provided they are not in conflict with state law, or adopt by reference Washington state statutes known collectively as the Washington State Building Code.[2] The most current Washington State Building Code is comprised of the following components:

- 2021 International Building Code (IBC)
- 2021 International Existing Building Code (IEBC)
- 2021 International Residential Code (IRC)
- 2021 International Fire Code (IFC)
- 2021 Washington State Energy Code
- 2021 International Mechanical Code (IMPC)
- 2021 Uniform Plumbing Code (UPC)
- 2021 Washington Wildland Urban Interface Code

The Washington State Building Code includes model codes developed by the International Code Council (ICC) and amended by the State Building Code Council to address regionally specific priorities or circumstances. Local jurisdictions, including King County, may further amend these codes to address locally specific priorities or circumstances. Local amendments that apply to single-detached or multiunit residential buildings require approval by the State Building Code Council.

Updates to these model code occur on a regular basis, with adoption cycles occurring every three years. The most current updates are on the 2021 codes, which became effective in March 2024.

The County's current building codes adopt the 2018 version of the Washington State Building Code and are located in Titles 16 and 17.

Public Outreach and Engagement. Executive staff provided a summary of the outreach and engagement that occurred during the development of the proposed ordinance. This summary is Attachment 7 to this staff report.

[1] RCW 36.32.120
[2] The Washington State Building Code can be found in Title 51 WAC.

State Environmental Policy Act Review. The proposed ordinance is subject to the State Environmental Policy Act (SEPA). SEPA review occurred and a determination of nonsignificance was issued on March 24, 2025. If additional amendments are proposed in committee or at full Council, the SEPA official will need to review the changes to confirm that they do not affect the determination prior to final passage.

Hearing Notice. A thirty-day hearing notice is required before action at full Council.

ANALYSIS

↑ BACK TO TOP

PO 2025-0321 would amend K.C.C. Titles 16 and 17 to adopt Washington State's 2021 versions of the International Building Code (IBC), the International Residential Code (IRC), the Washington State Energy Code (WSEC), the International Mechanical Code (IMC), the International Existing Building Code (IEBC), the International Fire Code (IFC), and the Uniform Plumbing Code (UPC). It would also adopt the 2021 International Property Maintenance Code (IPMC), which is an international code not mandated by the state. This staff report will refer to these as "the State Code(s)."[3]

Attachment 6 prepared by the Permitting Division includes a table summarizing proposed revisions in the proposed ordinance. Each case where the proposed ordinance goes beyond the requirements of state law represents a policy choice for Councilmembers. The Council could choose to adopt the state requirement, adopt the Executive's proposed locally specific change, or adopt a different standard as long as it is no less stringent than state law.

Key Issue A. Increased EV-charging requirements and conflict with existing code. The proposed ordinance would adopt and modify Washington State's EV charging infrastructure requirements, including what percentage of EV charging stations, EV-ready parking spaces, and EV-capable parking spaces are required. Table 1 summarizes Washington State requirements and the proposed County changes in the proposed ordinance. Bolded text shows areas of difference between the state code and the proposed ordinance.[4]

[3] The state also initially adopted the 2021 Washington Wildland Urban Interface code, but this was repealed by emergency rule until new mapping is completed, and the Executive's proposal does not include its adoption.

[4] EV charging stations refer to parking spaces with an installed EV charger, EV-ready parking space refer to parking spaces with wiring and receptacle outlet but does not include the charger itself, and EV-capable parking spaces refer to parking spaces where conduit (such as metal, PVC, or flexible tubing), electrical panel, and load capacity is provided to support future EV installation.

Table 1. EV Charging Infrastructure Requirements

	WA State			King County		
	EV charging stations	**EV-ready parking spaces**	**EV-capable parking**	**EV charging stations**	**EV-ready parking spaces**	**EV-capable parking**
Group A, E, and M occupancies						
Sites with fewer than 10 parking spaces	[5]	[4]	[4]	**0%**	**0%**	**0%**
Sites with more than 10 parking spaces	[4]	[4]	[4]	**10%**	**10%**	**10%**
Group B, F, H, I, and S occupancies						
Sites with fewer than 10 parking spaces	0%	0%	0%	0%	0%	0%
Sites with more than 10 parking spaces	10%	10%	10%	10%	10%	10%
	WA State			**King County**		
	EV charging stations	**EV-ready parking spaces**	**EV-capable parking**	**EV charging stations**	**EV-ready parking spaces**	**EV-capable parking**
Group R occupancies						
Sites with fewer than 10 parking spaces	0%	0%	0%	0%	0%	0%
Sites with more than 10 spaces - 1 or 2 dwelling unit buildings	0%	1 per unit	0%	0%	1 per unit	0%
Sites with more than 10 spaces - dwelling units with private garages	0%	1 per unit	0%	0%	1 per unit	0%
Sites with more than 10 spaces, for all other Group R occupancies	10%	**25%**	**10%**	10%	**40%**	**25%**

Under the proposed ordinance, all sites with fewer than 10 parking spaces, regardless of occupancy type, would be exempt from providing EV infrastructure.

Group A (Assembly), E (Educational), and M (Mercantile): The State Code requires sites to provide the greater of: 1) EV charging stations, EV-ready, and EV-capable spaces each need

[5] Group A, E, and M occupancies are required to provide the greater of: 1) 10% of designated employee parking spaces, or 2) one EV charging station per 200 parking spaces and one EV-ready space per 200 parking spaces.

to be 10% of employee parking spaces, or 2) one EV charging station per 200 parking spaces and one EV-ready space per 200 parking spaces, regardless of the number of parking spaces on the site.

For sites with fewer than 10 parking spaces, the proposed ordinance would require fewer spaces to have EV charging infrastructure compared to the State Code. However, for sites with more than 10 parking spaces, it would require significantly more EV charging infrastructure, as EV charging stations, EV-ready, and EV-capable would each need to be 10% of total parking spaces, rather than 10% of employee parking spaces or one EV-ready and one EV charging station per 200 total spaces.

Group B (Business), F (Factory and Industrial), H (High Hazard), I (Institutional), and S (Storage) occupancies: the proposed ordinance would require EV charging infrastructure at the rate required by the State Code.

Group R (Residential) occupancies: the proposed ordinance would require EV-ready parking spaces to be provided for 40% of all parking spaces, compared to 25% required in the State Code, and EV-capable parking spaces to be provided at 25% of all parking spaces, compared to 10% required in the State Code. This represents an additional 60% and 150% increase respectively. The State Code would require 45% of total parking spaces to provide some kind of EV charging infrastructure, whereas the Executive's proposal would require a total of 75%.

K.C.C. 21A.18.150 has an entirely different set of electric vehicle requirements and exemptions that conflict with the proposed requirements in PO 2025-0321. For instance, proposed ordinance requires fewer EV spaces than K.C.C. 21A.18.150 for apartment buildings with fewer than ten parking spaces, but more EV spaces for apartment buildings with more than ten parking spaces. K.C.C. 21A.18.150 also has a different set of exemptions than the proposed ordinance. It is a policy choice whether to repeal K.C.C 21A.18.150 or to bring the two sections into alignment.

The proposed ordinance would also add a requirement that EV charging infrastructure is required when alterations to an existing building result in a work area that covers 50% or more of the building area, regardless of the valuation of the alteration. The EV charging infrastructure requirements for existing buildings would be the same as that required for new construction (see Section 13 of the proposed ordinance, which is discussed immediately above).

Key Issue B. Increased Energy Code Requirements. As part of the 2018 code updates adopted under Ordinance 19485, King County amended the State Code to require more stringent energy conservation requirements than required by the state for commercial and

multiunit buildings. The 2021 State Code is generally more stringent than the 2018 version, in some cases matching or surpassing the requirements the County adopted with Ordinance 19485. This PO would make further changes that would make energy conservation requirements more stringent than the 2021 State Code.

In the March LSLU meeting, Councilmembers asked about how the energy code changes would impact housing construction costs. Executive staff stated that "no credible cost estimate can be provided without a defined building prototype and scope, and without funding for a consultant to generate cost estimate…overall, the delta between the State code and the County's proposed changes is not large. The County's energy amendments generally aim to achieve approximately 10% greater efficiency than the state baseline. Without a defined prototype, however, this relative increase cannot be translated into a reliable dollar estimate."

In general, it is likely that improvements to energy efficiency will increase construction costs by some amount, but will also lower ongoing utility and operating costs during the life of the building.

The proposed ordinance includes the following requirements that exceed or differ from the State Code for commercial and larger multifamily buildings:[6]

Vesting of Initial Tenant Improvements (Section 35). The proposed ordinance would allow an initial tenant improvement to vest to the code used for the underlying base building permit if an application is submitted within 18 months of the final inspection of the base building.

Definitions (Section 36). In addition to definitions in the State Code, the proposed ordinance would add definitions for AFUE, best efficiency point, Btu/h, clean water pump, EER, high-end trim, IEER, IPLV, occupied-standby mode, REC, renewable energy investment fund, SEER, semi-heated space, metal building wall, steel-framed wall, and wood-framed and other wall. It would remove definitions for automatic control device, conditioned space, continuous insulation, controlled receptacle, DOAS, mass transfer deck slab, multi-pass, solar zone, and temperature maintenance. The proposed ordinance would also make some clarifications to other existing definitions.

Fenestration (Section 40-43). The state code establishes prescriptive performance requirements for fenestration, which refers to the windows, glazed doors, skylights, and other glass elements installed in a building envelope. These materials typically insulate

[6] These requirements do not apply to detached one- and two-family dwellings, townhouses, Group R-3 buildings three stories or less in height above grade plane, and Group R-2 occupancy areas in buildings three stories or less in height above grade plane whose dwelling units are accessed directly from the exterior.

less effectively than opaque walls, and so are regulated to limit energy loss and solar heat gain.

The performance of these materials is measured by a "U-factor," which is a measure of how readily heat flows through the component, and a solar heat gain coefficient (SHGC), which is the amount of solar radiation passing through the component. Lower U-factor value and SHGC values indicate better insulation and improved energy performance.

The proposed ordinance would require a minimum of 20% of all fenestration in buildings or additions of 5,000 square feet or more to have a lower U-factor (i.e., be higher-performance) than what is required by the state code. Depending on the type of fenestration and the compliance path chosen, this portion of fenestration would have a U-factor 4% to 35% lower than the state baseline. Skylights and entrance doors would be exempt from providing higher-performance fenestration. Whereas the code generally allows flexibility in U-factor requirements where other building components are made more efficient to compensate (called the "component performance alternative,") the Executive's proposal would not allow this flexibility for the 20% high-efficiency fenestration.

In addition to the performance of the fenestration itself, the state code regulates the maximum percentage of a building that can be covered with vertical fenestration. The state code sets a maximum of 30% regardless of occupancy type. The proposed ordinance would instead set different maximum percentages for different occupancy types. Some occupancy types would have higher allowed percentages, up to 35% for large offices and 8+ story multiunit buildings, and others would have lower allowed percentages, as low as 6% for nonrefrigerated warehouses. Percentages could be increased by between 10% and 15% by using a performance-based, rather than prescriptive, path to compliance.

Heating, Ventilation, and Air Conditioning (HVAC) (Section 44-64, 136, 138). The proposed ordinance would make several substantive changes to state requirements for HVAC systems.

The state code prohibits use of electric resistance[7] or fossil fuel-fired HVAC heating equipment with several exceptions. The proposed ordinance would largely adopt these exceptions, but would:

- Add greater flexibility for dwelling units with multiple habitable spaces;
- Increase the minimum heating output for ground-source heat pumps using electric resistance from 70% to 75%;

[7] Electric resistance heating generates heat by converting incoming electricity to heat in an internal heating element.

- Require new hydronic systems or replacements in existing district energy systems utilizing fossil fuels to be designed for future heat pump conversion;
- Allow research labs to use fossil fuel-based backup generators on loss of power, and allow all uses to use fossil fuel-based emergency generators and standby HVAC heating equipment;
- Allow electric resistance to be used for wastewater heat recovery heat pumps;
- Allow addition or replacement of existing fossil fuel or electric resistance HVAC with the same equipment/fuel type as existing equipment in a several instances beyond state law, including:
- Affordable housing,[8] institutional occupancies, buildings occupied more than 50% by nonprofits, and buildings of 20,000 square feet or less;
- 50% of total heating capacity in buildings not included in the bullet above, to be used only in high-load situations; and
- Emergency replacement of boilers;
- Prohibit addition or replacement of existing fossil fuel or electric resistance HVAC with the same equipment/fuel type as existing equipment for several instances allowed under state law, including:
- Terminal unit equipment including, but not limited to, hydronic VAV boxes, electric resistance VAV boxes, electric duct heaters, water source heat pumps, fan coils, or VRF indoor units that are served by an unaltered central system;
- Replacement of oil-fired boilers; and
- Replacements of any heating equipment where the rated capacity of the new equipment doesn't exceed the capacity of the existing equipment.

The proposed ordinance would also require a future decarbonization plan for buildings over 20,000 square feet that are proposing addition or replacement of existing fossil fuel-fired HVAC. The decarbonization plan would be a schematic level design of a heat pump system to replace the existing system. Though this design would be required, it would not be required to be implemented.

For dedicated outdoor air systems (DOAS)[9]:

[8] Defined as buildings that restrict at least 51% of units affordable at 80% area median income, or government- or nonprofit-operated day or warming shelters.
[9] A type of HVAC system that pulls in and dehumidifies 100% outside air rather than recirculating air within the room.

- Explicitly state that these are required for residential occupancies (this is already required by the mechanical code but not explicitly stated in the building code);
- Require DOAS to use 20% less power than mandated by the state; and
- Require additional controls for large DOAS systems.

Other proposed changes include:

- 67% efficiency for energy recovery ventilation systems as opposed to 60% in the state code;
- Requiring HVAC systems as small as 300 cubic feet per minute (cfm) to provide air leakage dampers, as opposed to a 5,000 cfm floor in state code;
- Requirements around testing, insulation for ducts, and standby controls; and
- Changes intended to increase design flexibility for builders.

Water Systems (Section 65-73, 137). The proposed ordinance has several changes relating to water systems; the changes primarily focus on enhancing energy efficiency and providing more precise design criteria. Proposed changes compared to the state code include:

- Prohibit fossil fuels from being used for supplemental water heating;
- As exceptions to the general requirement that water heating be provided by heat pump water heaters, allow ground source heat pumps, point of use electric water heaters in certain situations, and electric resistance standby service water heating;
- Set minimum efficiency standards for clean water pumps in line with the 2024 IECC (which the County will eventually be required to comply with, unless altered by state amendment when the state adopts the 2024 IECC);
- Include additional efficiency standards as well as additional design flexibility for water piping.
- Add several exception situations in which replacement of existing water systems do not have to switch to heat pump water heaters, including:
- When the change would require a utility service upgrade;
- When the system size is below a certain threshold;
- Replacement of existing steam boilers with steam distribution piping to terminal units and replacement of the existing associated boiler feed equipment;
- Affordable housing, institutional occupancies, buildings occupied more than 50% by nonprofits, and buildings of 20,000 square feet or less;

- 50% of total heating capacity in buildings not included in the bullet above; and
- Temporary replacement of failing equipment.
- Remove the exception situation in which replacement of service water heating appliances with equipment that is the same type and has the same or higher efficiency and the same or lower capacity does not have to convert to heat pump water heaters.

Lighting (Section 74-87). The proposed ordinance would make several changes to State Code that are intended to make lighting more energy efficient. These include:

- Additional requirements for lighting controls (e.g., timers, dimmers, daylight responsive lighting) that provide greater specificity and broader applicability than the state code; and
- Decreasing the lighting power density (LPD) allowed for most occupancy types compared to the allowance in State Code. While LPD for some occupancies are proposed to match State Code, most are proposed to be reduced by 10%-20%. LPD is a measure of the watts of energy used for lighting per square foot of floor area, and indicates decreased power to provide lighting, not a decrease in the amount of illumination.

Electric Outlets for Gas Appliances (Section 90). King County Code currently requires dwelling units subject to the Commercial WSEC to provide electric receptacles next to gas appliances to facilitate later conversion to electric appliances. The proposed ordinance would similarly require commercial kitchens to provide an electric panel sized to accommodate future electric cooking appliances where gas appliances are installed.

Building & Site Performance Factors (Sections 106-107). The proposed ordinance would establish more stringent targets for building performance factors and site performance factors for energy code compliance. These performance factors are a ratio that compares annual energy use of a proposed design with the energy use of a 2004 baseline design. A lower number indicates a more energy efficient building. For instance, a factor of 0.43 indicates that a proposed design could consume no more than 43% of the energy that a 2004 baseline building would consume.

Table 2. Building Performance Factors[10]

Building Area Type	WSEC	King County	Percent Change
Multifamily	0.51	0.50	2%

[10] Building performance factor is used for "regulated uses", such as lighting, heating, ventilation and cooling, and commercial refrigeration.

Building Area Type	WSEC	King County	Percent Change
Healthcare/hospital	0.7	0.64	9%
Hotel/motel	0.51	0.48	6%
Office	0.44	0.40	9%
Restaurant	0.33	0.32	3%
Retail	0.41	0.37	10%
School	0.35	0.32	9%
Warehouse	0.18	0.17	6%
All others	0.43	0.40	7%

Table 3. Site Performance Factors[11]

Building Area Type	WSEC	King County	Percent Change
Multifamily	0.59	0.53	10%
Healthcare/hospital	0.72	0.65	10%
Hotel/motel	0.62	0.56	10%
Office	0.58	0.52	10%
Restaurant	0.59	0.53	10%
Retail	0.46	0.42	9%
School	0.52	0.47	10%
Warehouse	0.29	0.26	10%
All others	0.55	0.50	9%

The proposed ordinance would require a reduction in building performance factors and site performance factors between 2% and 10% below the State Code, with an average of 8.3%.

Renewable Energy Systems (Section 125, 128-131). King County Code currently requires all new buildings and all additions over 5,000 square feet to provide a renewable energy system. The proposed ordinance would maintain this requirement, which covers more buildings than the State Code (which requires renewable energy systems only for additions over 10,000 square feet), and would increase the watts per square foot of gross conditioned floor space to 0.75, a 33% increase compared to the requirement in State Code. Executive staff state that such a renewable energy system would, on average, supply 15% of building energy. Existing exceptions in King County Code to the requirement, including one for affordable housing, would be maintained.

Executive staff state that the amount of solar installed under the existing code is not tracked systematically, nor is the number of buildings applying for or receiving exceptions. Councilmembers could choose to direct the Executive to track these metrics.

[11] Site performance factor is used for "unregulated uses", such as computers, servers, or appliances, and includes credit for energy production from renewable sources.

The proposed ordinance would also make other minor changes specific to design and installation requirements for solar panels.

Energy Credits (Section 91, 94-102, 126-127). In addition to the other requirements of the energy code, certain development activities are required to achieve additional energy efficiency credits. The code provides a list of actions and associates credits awarded for each action, and applicants for certain development activities must choose from among the list to achieve a certain number of credits. Actions include more efficient HVAC performance, reduced lighting power, high performance water heating, and on-site renewable energy. The following development activities are subject to the energy credits requirement:

- New building construction;
- Changes in space conditioning (i.e. converting a low-energy space to a heated or semi-heated space);
- Change of occupancy;
- Building additions; and
- Initial tenant Improvements.

The proposed ordinance would increase the number of credits required for new buildings and building additions by roughly 10%. It would also remove credit options that would be required by the new base code if the proposed ordinance is adopted, and disallows use of some credits in systems that have fossil fuel-fired HVAC equipment or district energy systems.

Additionally, the proposed ordinance would allow a heat pump water heating credit only when the system uses low global warming potential refrigerants. Executive staff state that the threshold for being considered "low global warming potential" was chosen to align with Seattle's energy code.

Commissioning and Metering. The proposed ordinance would also add requirements different from state code for system commissioning and energy metering. The commissioning process is a mandatory quality-assurance process that verifies and documents that building systems – primarily HVAC, lighting controls, and water heating – are installed, programmed, and functioning according to the design intent, construction documents, and efficiency standards. Metering and submetering then measure and continuously monitor system operation and efficiency after the system is commissioned.

The proposed ordinance would reduce the commissioning requirement from 25,000 sf spaces to 20,000 sf spaces, and would make changes and clarifications to the

commissioning process and timeline that are intended to provide greater flexibility for builders. It would also require commissioning of high-end trim (a type of lighting control), which may be required in the next round of state code updates.

It would require metering and submetering in some situations where it is not required in the state code, but would also provide exceptions for certain fire-rated or smoke-rated spaces from being metered.

Key Issue C. Optional construction and demolition waste appendices adoption and conflict with existing code (Section 1). The proposed ordinance would adopt optional appendices provided by the state that are intended to increase recycling of construction and demolition waste. For new building construction, alterations to existing buildings, and the demolition of existing buildings having a work area greater than 750 square feet or a project value greater than $75,000, whichever is more restrictive, containers would need to be present on-site to separate reusables/recyclables from waste bound for the landfill. A salvage assessment would be required prior to permit issuance (for projects that involve demolition) and a waste diversion report would be required prior to issuance of a certificate of occupancy.

Currently, K.C.C. chapter 10.30 stipulates the designation and sorting of construction and demolition waste in King County by generators, handlers, and collectors. Generally speaking, construction and demolition waste is required to be delivered to a designated construction and demolition waste receiving facility, with provisions in place for waste diversion plans, waste diversion reports, operating agreements with specified facilities, and enforcement. Executive staff have requested that the optional appendices not be adopted at this time, so that more work can occur to integrate the appendices with the existing regulations. This is expected to occur as part of the next building code update, anticipated to be transmitted in 2027.

Key Issue D. Mechanical Permit Expiration. Under existing code, building permits expire within two years of issuance, and building permits to correct code violations and mechanical permits are limited to one year. The proposed ordinance would reduce the expiration period for mechanical permits issued independent of a building permit to six months. Executive staff state that the reason for the shortened expiration period is that mechanical permits typically have a small scope and are done quickly, and that a year-long period of validity leads to contractors and owners losing track of the permit.

Other Changes to the Building Code. Other proposed changes to the building code are discussed below.

Exemptions (Section 5). The proposed ordinance would make the following changes to the types of work exempt from requiring a building permit:

- State that detached buildings must be unconditioned to be exempt from building permit.
- State that swimming pool barriers require a building permit even if less than six feet in height
- Add "agricultural wildlife exclusion fencing" up to eight feet tall to list of work exempt from permit.

Pre-issuance construction authorization (PICA) – Permission to proceed (Section 7). In some circumstances, an applicant may be allowed to begin work prior to obtaining a permit or authorization. The proposed ordinance would prohibit work that includes alterations or site development regulated under K.C.C. Title 9, which regulates surface water management.

Changes to the Fire Code. The proposed ordinance would additionally make several locally specific changes to the State Code.

Special event structure and assembly area (Section 198). The proposed ordinance requires applications to be submitted at least 30 days prior to the event and identifies Executive agencies that may further review applications.

Definitions (Section 202). Removes a definition for "critical fire service areas" and revises the definition "fire detection system" to "automatic fire detection system".

Lithium Batteries – Signage (Section 203). A major change in the 2021 edition of the IFC concerns new standards around lithium batteries, powered micromobility devices, and energy storage systems. The proposed ordinance would add requirements for signage and markings at locations where lithium batteries are installed.

Automatic Fire Sprinklers - Habitable space of structures built under the IRC (Section 217). Under existing County code, an automatic sprinkler system is required in habitable spaces of some residential structures when fire access, fire flow, or hydrants are not sufficient, or the total floor area exceeds 10,000 sf. The proposed ordinance would remove a provision that exempts lots that are 35,000 sf or larger, are outside the urban growth area (UGA), and have residential as the primary land use from installing automatic sprinkler systems.

Fire Flow and Fire Hydrant Exemptions (Section 222). The fire code establishes minimum fire flow and fire hydrants based on a number of site-specific factors. Under existing County code, some developments are exempt from fire flow and fire hydrant requirements.

The proposed ordinance would remove provisions that exempt: 1) subdivisions, short subdivisions, or buildings with one or two dwelling units, provided they are located outside the UGA and lots over 35,000 sf, 2) structures less than 2,500 sf in floor area, excluding garages, that are served by a Group B water system, and are located outside the UGA; and 3) structures greater than 2,500 sf in floor area, excluding garages, served by a Group B water system, located outside the UGA, and the fire marshal determines there will be no substantial fire hazard.

Key Issue E. Fire apparatus access road standards adoption and conflict with existing code (Section 227-223). IFC Appendix D is an optional appendix that provides additional detail and standards for fire access and turnaround requirements in IFC Section 503. Some provisions in Appendix D have already been adopted in existing County code. Existing County code also references King County Administrative Rule 17-04,[12] which includes information on acceptable turnaround options, including dimensions such as widths and radiuses.

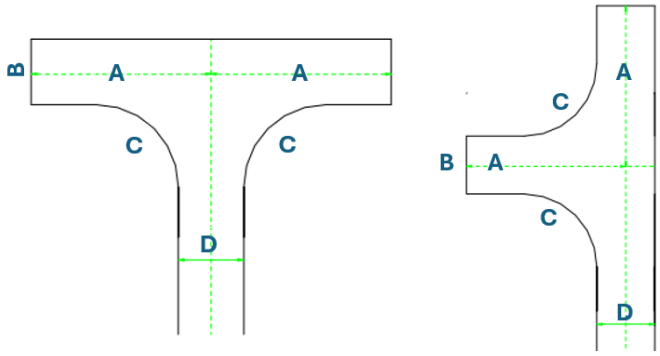
The proposed ordinance would adopt optional appendix and maintain existing references to Rule 17-04. As transmitted, the proposed ordinance provides multiple acceptable dimensions for turnarounds on roads in excess of 150 feet, and it is unclear what standards would apply.

Table 4. Acceptable Turnarounds for Fire Apparatus Access Roads In Excess of 150 Feet

Turnaround Type	Dimension	IFC 503.2.5 or Rule 17-04 (Existing)	Appendix D (Proposed)
Cul-de-sac	Diameter	**80 feet**	**96 feet**
Hammerhead	Leg Length (A)	**55 feet**	**60 feet**
	Leg Width (B)	20 feet	20 feet
	Inside Radius (C)	**20 feet**	**28 feet**
	Approach Width (D)	**20 feet**	**26 feet**
Alternative Hammerhead	Leg Length (A)	**55 feet**	**70 feet**
	Leg Width (B)	20 feet	20 feet
	Inside Radius (C)	**20 feet**	**28 feet**
	Approach Width (D)	20 feet	20 feet

[12] King County Administrative Rule 17-04 and Attachment A

Figure 1. Hammerhead and Alternative Hammerhead Dimensions



The proposed ordinance would also establish a minimum width of 26 feet for access roads with a hydrant and limit the maximum grade of a fire apparatus access road to 15% (compared to 10% in Appendix D). The proposed ordinance would also adopt specific access standards for larger commercial and industrial buildings (including those over 30 feet high or 62,000 sf in floor area), multi-unit residential developments with more than 100 units, or single-detached or duplex residential developments with more than 30 units.

Plumbing Code. The proposed ordinance adopts the state's adopted Uniform Plumbing Code with a small number of local amendments, most of which are technical or clarifying in nature. In addition to these, the proposed ordinance would specify application requirements (Section 165), additional situations in which a reinspection fee would be charged (Section 168), and changes around specifications for stormwater and wastewater drainage systems (Section 182-187).

Technical and Clarifying Changes. In addition to substantive changes discussed above, the PO includes a number of technical and clarifying changes throughout K.C.C. Titles 16 and 17 to align the Washington State Building Code with the K.C.C. and to remove incorrect, outdated, and duplicative language. The proposed ordinance would repeal 126 sections in Titles 16 and 17, principally for these reasons.

AMENDMENTS

↑ BACK TO TOP

The following amendments are publicly available as of September 11, 2026 and attached to this staff report. Additional amendments may be released prior to the committee meeting.

Amendment	Sponsor	Effect Statement
S2 Striking amendment	Perry	**Permit Timelines** - Retain existing one-year expiration date for mechanical permits (lowered to 6 months in Executive transmittal).

<table>
<tr><th>Amendment</th><th>Sponsor</th><th>Effect Statement</th></tr>
<tr><td></td><td></td><td>

<u>Electric Vehicles</u>

- Update EV parking requirements for the following uses as shown here:

<table>
<tr><th>Use</th><th>Executive Proposal (EV charging/EV ready/EV capable, percentage of total spaces)</th><th>Striking Amendment (EV charging/EV ready/EV capable, percentage of total spaces)</th></tr>
<tr><td>Assembly, Education, and Mercantile occupancies</td><td>10% / 10% / 10%</td><td>5% / 10% / 10%</td></tr>
<tr><td>Multifamily</td><td>10% / 40% / 25%</td><td>10% / 25% / 20%</td></tr>
<tr><td>Hotels / motels</td><td>10% / 40% / 25%</td><td>10% / 30% / 25%</td></tr>
<tr><td>Supportive / emergency housing /Congregate housing uses except those below</td><td>10% / 40% / 25%</td><td>10% / 10% / 10%</td></tr>
<tr><td>Safe Parking, Microshelter Villages, Emergency Shelter</td><td>10% / 40% / 25%</td><td>Not Required</td></tr>
</table>

- Retain current allowance for townhouses to reduce required EV-ready spaces when meeting the requirements would require an on-site transformer.
- For townhouses built under the International Building Code, require EV-readiness for attached garages and carports (matches requirement in the International Residential Code).

</td></tr>
</table>

Amendment	Sponsor	Effect Statement
		- In multifamily, allow electrical equipment serving the additional 10% of EV-capable spaces beyond state-required minimums to be reduced to that needed to support 120 V circuits if the added capacity for that final 10% would require a service capacity upgrade but the base 10% would not. - When only one accessible space is required, state law requires it to be an EV charging space. The striker would require an additional accessible space on top of the accessible EV space when only one accessible space would otherwise be required. - Require uncovered standalone parking lots (commuter parking lots, pay parking lots, etc.) to meet the same requirements as covered parking garages. - Remove proposed additional requirement that existing buildings meet the new EV standards when 50% or more of the building is being worked on; maintain existing requirement that existing buildings comply with EV standards when undergoing substantial improvement (construction is 50% or more of the value of the building). - Repeal the County's previous EV regulations and associated definitions in 21A. **Energy Code** *(applies to commercial and multifamily only)* - *Fenestration*. Allow builders to use the component performance alternative with high-efficiency fenestration (e.g. windows). The component performance alternative allows builders flexibility in meeting the exact code requirements; the Executive's proposal is to not allow this flexibility for required high-efficiency fenestration. - *Performance Factors.* Reduce proposed building and site performance factors for multifamily construction to the state's requirement. Performance factors are measures of overall efficiency in a project.

Amendment	Sponsor	Effect Statement
		- *Renewable Energy Installation.* Reduce required renewable energy installation for 5,000+ square foot buildings from the Executive proposed 0.75 watts per square foot to the state's 0.5 square foot requirement.[13] - *Renewable Energy Tracking.* Require the Permitting Division to track the amount of solar being installed under this code, as well as the exemptions applied for and received. - *Lighting.* Add updated 2024 IECC language on dimming control function. - *Energy Credits.* Require 5% more energy credits than mandated by state law; Executive's proposal was a 10% increase over state law. - *Commissioning and Metering.* Reduce the commissioning requirement to only apply to 25,000 sq ft or larger buildings, aligning with state law, and remove additional metering requirements beyond state law. **Solid Waste** - Not adopt optional state appendices relating to construction and demolition waste (IBC Appendix P and IRC Appendices Y and Z). **Other** - Make changes to match Executive intent and technical and clarifying changes, including updating cross references and reorganizing sections.
T1 Title Amendment	Perry	Conforms the Title to S2

[13] For a 5,000 square foot building, this would require 6 to 7 solar panels, as opposed to 9 to 10 under the Executive's proposal.

INVITED

- Joan Hermle, General Inspector II, Permitting Division, Department of Local Services
- Mark Rowe, Deputy Division Director, Permitting Division, Department of Local Services

ATTACHMENTS

1. Proposed Ordinance 2025-0321
2. Striking Amendment S2
3. Title Amendment T1
4. Transmittal Letter
5. Fiscal Note
6. Executive's Plain Language Summary

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

KING COUNTY

Signature Report

Ordinance

Proposed No. 2025-0321.1 **Sponsors** Perry

AN ORDINANCE relating to building and construction standards; amending Ordinance 14111, Section 4, as amended, and K.C.C. 16.02.110, Ordinance 14914, Section 9, as amended, and K.C.C. 16.02.150, Ordinance 15802, Section 5, as amended, and K.C.C. 16.02.152, Ordinance 12560, Section 6, as amended, and K.C.C. 16.02.190, Ordinance 12560, Section 10, as amended, and K.C.C. 16.02.240, Ordinance 12560, Section 17, as amended, and K.C.C. 16.02.280, Ordinance 12560, Section 18, as amended, and K.C.C. 16.02.290, Ordinance 12560, Section 22, as amended, and K.C.C. 16.02.340, Ordinance 14914, Section 57, as amended, and K.C.C. 16.02.440, Ordinance 12560, Section 30, as amended, and K.C.C. 16.02.470, Ordinance 12560, Section 36, as amended, and K.C.C. 16.02.540, Ordinance 14914, Section 90, as amended, and K.C.C. 16.03.020, Ordinance 19485, Section 31, and K.C.C. 16.03.280, Ordinance 12560, Section 72, as amended, and K.C.C. 16.04.440, Ordinance 19485, Section 48, as amended, and K.C.C. 16.04.600, Ordinance 12560, Section 72, as amended, and K.C.C. 16.04.620, Ordinance

12560, Section 75, as amended, and K.C.C. 16.04.630, Ordinance 12560, Section 84, as amended, and K.C.C. 16.04.720, Ordinance 12560, Section 85, as amended, and K.C.C. 16.04.730, Ordinance 12560, Section 86, as amended, and K.C.C. 16.04.740, Ordinance 12560, Section 87, as amended, and K.C.C. 16.04.750, Ordinance 12560, Section 88, as amended, and K.C.C. 16.04.760, Ordinance 12560, Section 86, as amended, and K.C.C. 16.04.770, Ordinance 12560, Section 90, as amended, and K.C.C. 16.04.780, Ordinance 12560, Section 92, as amended, and K.C.C. 16.04.800, Ordinance 12560, Section 94, as amended, and K.C.C. 16.04.820, Ordinance 12560, Section 95, as amended, and K.C.C. 16.04.830, Ordinance 12560, Section 96, as amended, and K.C.C. 16.04.840, Ordinance 12560, Section 97, as amended, and K.C.C. 16.04.850, Ordinance 12560, Section 98, as amended, and K.C.C. 16.04.860, Ordinance 14914, Section 272, as amended, and K.C.C. 16.05.040, Ordinance 15802, Section 78, as amended, and K.C.C. 16.05.065, Ordinance 19485, Section 72, and K.C.C. 16.07.040, Ordinance 19485, Section 74, and K.C.C. 16.07.060, Ordinance 19485, Section 78, and K.C.C. 16.07.100, Ordinance 19485, Section 79, and K.C.C. 16.07.110, Ordinance 19485, Section 81, and

K.C.C. 16.07.130, Ordinance 19485, Section 82, and K.C.C. 16.07.140, Ordinance 19485, Section 86, and K.C.C.16.07.180, Ordinance 19485, Section 90, and K.C.C. 16.07.220, Ordinance 19485, Section 99, and K.C.C. 16.07.310, Ordinance 19485, Section 100, and K.C.C. 16.07.320, Ordinance 19485, Section 117, and K.C.C. 16.07.490, Ordinance 8766, Section 6, as amended, and K.C.C. 16.08.050, Ordinance 12560, Section 109, as amended, and K.C.C. 16.14.090, Ordinance 12560, Section 112, as amended, and K.C.C. 16.14.100, Ordinance 12560, Section 110, as amended and K.C.C. 16.14.110, Ordinance 14914, Section 359, as amended, and K.C.C. 16.14.200, Ordinance 14914, Section 360, and K.C.C. 16.14.210, Ordinance 12560, Section 120, and K.C.C. 16.14.220, Ordinance 14914, Section 370, and K.C.C. 16.14.280, Ordinance 14914, Section 370, and K.C.C. 16.14.290, Ordinance 12560, Section 121, as amended, and K.C.C. 16.14.430, Ordinance 14111, Section 131, as amended, and K.C.C. 16.14.450, Ordinance 14111, Section 131, as amended, and K.C.C. 16.14.460, Ordinance 14914, Section 408, and K.C.C. 16.14.490, Ordinance 12560, Section 115, as amended, and K.C.C. 16.14.540, Ordinance 14914, Section 416, and K.C.C. 16.14.550, Ordinance 6746,

Section 5, as amended, and K.C.C. 16.32.030, Ordinance 6746, Section 7, as amended, and K.C.C. 16.32.050, Ordinance 6746, Section 10, as amended, and K.C.C. 16.32.080, Ordinance 15802, Section 122, as amended, and K.C.C. 16.32.195, Ordinance 15802, Section 124, as amended, and K.C.C. 16.32.215, Ordinance 15802, Section 126, as amended, and K.C.C. 16.32.235, Ordinance 15802, Section 131, as amended, and K.C.C. 16.32.285, Ordinance 19485, Section 146, and K.C.C. 16.32.292, Ordinance 15802, Section 132, as amended, and K.C.C. 16.32.295, Ordinance 15802, Section 133, as amended, and K.C.C. 16.32.306, Ordinance 19485, Section 151, and K.C.C. 16.32.338, Ordinance 19485, Section 153, and K.C.C. 16.32.340, Ordinance 19485, Section 136, and K.C.C. 16.32.341, Ordinance 19485, Section 154, and K.C.C. 16.32.342, Ordinance 19485, Section 155, and K.C.C. 16.32.343, Ordinance 19485, Section 156, and K.C.C. 16.32.344, Ordinance 15802, Section 137, as amended, and K.C.C. 16.32.345, Ordinance 1488, Section 5, as amended, and K.C.C. 16.82.130, Ordinance 9614, Section 103, and K.C.C. 17.04.010, Ordinance 12560, Section 148, as amended, and K.C.C. 17.04.200, Ordinance 2910, Section 6, as amended, and K.C.C. 17.04.210, Ordinance 12560,

Section 153, as amended, and K.C.C. 17.04.220, Ordinance 12560, Section 149, as amended, and K.C.C. 17.04.280, Ordinance 12560, Section 156, as amended, and K.C.C. 17.04.290, Ordinance 17837, Section 75, as amended, and K.C.C. 17.04.295, Ordinance 14915, Section 25, as amended, and K.C.C. 17.04.310, Ordinance 14915, Section 26, and K.C.C. 17.04.320, Ordinance 19485, Section 166, as amended, and K.C.C. 17.04.330, Ordinance 19485, Section 178, and K.C.C. 17.04.341, Ordinance 19485, Section 169, and K.C.C. 17.04.375, Ordinance 19485, Section 170, and K.C.C. 17.04.377, Ordinance 12560, Section 165, and K.C.C. 17.04.380, Ordinance 12560, Section 166, as amended, and K.C.C. 17.04.390, Ordinance 14915, Section 45, as amended, and K.C.C. 17.04.400, Ordinance 7980, Section 1, as amended, and K.C.C. 17.04.420, Ordinance 19485, Section 173, and K.C.C. 17.04.425, Ordinance 19485, Section 174, and K.C.C. 17.04.445, Ordinance 19485, Section 175, as amended, and K.C.C. 17.04.447, Ordinance 19485, Section 178, and K.C.C. 17.04.462, Ordinance 19485, Section 180, and K.C.C. 17.04.467, Ordinance 19485, Section 184, and K.C.C. 17.04.476, Ordinance 19485, Section 192, and K.C.C. 17.04.489, Ordinance 12560, Section 171, and

K.C.C. 17.04.520, Ordinance 12560, Section 174, as amended, and K.C.C. 17.04.560, Ordinance 19485, Section 196, as amended, and K.C.C. 17.04.563, Ordinance 19485, Section 7, and K.C.C. 17.04.572, Ordinance 19485, Section 198, as amended, and K.C.C. 17.04.574, Ordinance 19485, Section 200, as amended, and K.C.C. 17.04.582, Ordinance 19485, Section 201, as amended, and K.C.C. 17.04.590, Ordinance 5828, Section 4, as amended, and K.C.C. 17.08.030, Ordinance 5828, Section 10, as amended, and K.C.C. 17.08.090, Ordinance 3316, Section 4, as amended, and K.C.C. 17.08.100, Ordinance 14915, Section 125, as amended, and K.C.C. 17.08.140, Ordinance 19276, Section 7, and K.C.C. 17.11.040, Ordinance 19276, Section 9, and K.C.C. 17.11.060, adding new sections to K.C.C. chapter 16.04, adding a new section to K.C.C. chapter 16.05, adding new sections to K.C.C. chapter 16.07, adding new sections to K.C.C. chapter 16.32, adding new sections to K.C.C. chapter 17.04, adding a new chapter to K.C.C. Title 17, repealing Ordinance 14914, Section 10, as amended, and K.C.C. 16.02.160, Ordinance 12560, Section 55, as amended, and K.C.C. 16.02.170, Ordinance 14914, Section 20, and K.C.C. 16.02.230, Ordinance 12560, Section 15, as amended, and K.C.C. 16.02.310, Ordinance 17837, Section

13, and K.C.C. 16.02.316, Ordinance 12560, Section 13, as amended, and K.C.C. 16.02.370, Ordinance 12560, Section 26, as amended, and K.C.C. 16.02.410, Ordinance 12560, Section 30, as amended, and K.C.C. 16.02.470, Ordinance 12560, Section 31, as amended, and K.C.C. 16.02.480, Ordinance 12560, Section 32, as amended, and K.C.C. 16.02.490, Ordinance 12560, Section 33, as amended, and K.C.C. 16.02.500, Ordinance 12560, Section 34, as amended, and K.C.C. 16.02.510, Ordinance 12560, Section 35, as amended, and K.C.C. 16.02.520, Ordinance 12560, Section 37, as amended, and K.C.C. 16.02.530, Ordinance 14914, Section 78, as amended, and K.C.C. 16.02.550, Ordinance 19414, Section 85, as amended, and K.C.C. 16.02.600, Ordinance 19485; Section 29, and K.C.C. 16.03.057, Ordinance 14914, Section 133, as amended, and K.C.C. 16.04.260, Ordinance 12560, Section 44, as amended, and K.C.C. 16.04.270, Ordinance 14914, Section 141, as amended, and K.C.C. 16.04.290, Ordinance 12560, Section 47, as amended, and K.C.C. 16.04.310, Ordinance 14111, Section 55, as amended, and K.C.C. 16.04.330, Ordinance 15802, Section 23, as amended, and K.C.C. 16.04.344, Ordinance 15802, Section 24, and K.C.C. 16.04.346, Ordinance 15802, Section 25, and K.C.C.

16.04.348, Ordinance 14914, Section 155, as amended, and K.C.C. 16.04.360, Ordinance 15802, Section 34, and K.C.C. 16.04.475, Ordinance 12560, Section 54, as amended, and K.C.C. 16.04.490, Ordinance 11923, Section 2, as amended, and K.C.C. 16.04.890, Ordinance 11923, Section 3, as amended, and K.C.C. 16.04.900, Ordinance 19485, Section 5, and K.C.C. 16.04.930, Ordinance 12380, Section 2, as amended, and K.C.C. 16.04.940, Ordinance 12380, Section 3, as amended, and K.C.C. 16.04.950, Ordinance 12380, Section 4, as amended, and K.C.C. 16.04.960, Ordinance 12380, Section 5, as amended, and K.C.C. 16.04.970, Ordinance 7853, Section 1, as amended, and K.C.C. 16.04.980, Ordinance 14914, Section 276, as amended, and K.C.C. 16.05.080, Ordinance 19485, Section 73, and K.C.C. 16.07.050, Ordinance 19485, Section 75, and K.C.C. 16.07.070, Ordinance 19485, Section 76, and K.C.C 16.07.080, Ordinance 19485, Section 76, and K.C.C 16.07.090, Ordinance 19485, Section 80, and K.C.C 16.07.120, Ordinance 19485, Section 81, and K.C.C 16.07.130, Ordinance 19485 Section 83, and K.C.C 16.07.150, Ordinance 19485, Section 84, and K.C.C. 16.07.160, Ordinance 19485, Section 85, and K.C.C 16.07.170, Ordinance 19485, Section 86, and K.C.C

16.07.180, Ordinance 19485, Section 87, and K.C.C

16.07.190, Ordinance 19485, Section 88, and K.C.C

16.07.200, Ordinance 19485, Section 89, and K.C.C.

16.07.210, Ordinance 19485, Section 91, and K.C.C

16.07.230, Ordinance 19485, Section 92, and K.C.C

16.07.240, Ordinance 19485, Section 93, and K.C.C

16.07.250, Ordinance 19485, Section 94, and K.C.C

16.07.260, Ordinance 19485, Section 95, and K.C.C

16.07.270, Ordinance 19485, Section 96, and K.C.C

16.07.280, Ordinance 19485, Section 98, and K.C.C.

16.07.300, Ordinance 19485, Section 101, and K.C.C.

16.07.330, Ordinance 19485, Section 102, and K.C.C

16.07.340, Ordinance 19485, Section 103, and K.C.C

16.07.350, Ordinance 19485, Section 104, and K.C.C

16.07.360, Ordinance 19485, Section 105, and K.C.C

16.07.370, Ordinance 19485, Section 106, and K.C.C

16.07.380, Ordinance 19485, Section 108, and K.C.C

16.07.400, Ordinance 19485, Section 109, and K.C.C

16.07.410, Ordinance 19485, Section 110, and K.C.C

16.07.420, Ordinance 19485, Section 111, and K.C.C

16.07.430, Ordinance 19485, Section 112, and K.C.C

16.07.440, Ordinance 19485, Section 113, and K.C.C

16.07.450, Ordinance 19485, Section 115, and K.C.C

16.07.470, Ordinance 19485, Section 116, and K.C.C.
16.07.480, Ordinance 19485, Section 118, and K.C.C
16.07.500, Ordinance 19485, Section 119, and K.C.C
16.07.510, Ordinance 19485, Section 120, and K.C.C.
16.07.520, Ordinance 19485, Section 121, and K.C.C.
16.07.530, Ordinance 19485, Section 122, and K.C.C.
16.07.540, Ordinance 19485, Section 123, and K.C.C.
16.07.550, Ordinance 14111, Section 73, and K.C.C.
16.10.010, Ordinance 12560, Section 58, as amended, and K.C.C. 16.10.020, Ordinance 12560, Section 59, as amended, and K.C.C. 16.10.030, Ordinance 12560, Section 60, and as amended, K.C.C. 16.10.040, Ordinance 12560, Section 61, as amended, and K.C.C. 16.10.050, Ordinance 12560, Section 62, as amended, and K.C.C. 16.10.060, Ordinance 12560, Section 63, as amended, and K.C.C. 16.10.070, Ordinance 12560, Section 64, as amended, and K.C.C. 16.10.080, Ordinance 15802, Section 99, and K.C.C. 16.10.100, Ordinance 15802, Section 100, and K.C.C. 16.10.110, Ordinance 15802, Section 101, as amended, and K.C.C. 16.10.120, Ordinance 12560, Section 127, as amended, and K.C.C. 16.14.020, Ordinance 14914, Section 337, and K.C.C. 16.14.040, Ordinance 14914, Section 338, and K.C.C. 16.14.050, Ordinance 14914,

Section 339, and K.C.C. 16.14.060, Ordinance 14914,
Section 352, and K.C.C. 16.14.140, Ordinance 14914,
Section 353, and K.C.C. 16.14.150, Ordinance 14914,
Section 367, as amended, and K.C.C. 16.14.250, Ordinance 14914, Section 407, and K.C.C. 16.14.480, Ordinance 14914, Section 410, and K.C.C. 16.14.510, Ordinance 14914, Section 413, and K.C.C. 16.14.530, Ordinance 14914, Section 418, and K.C.C. 16.14.570, Ordinance 14914, Section 419, and K.C.C. 16.14.580, Ordinance 14914, Section 420, and K.C.C. 16.14.590, Ordinance 19485, Section 149, and K.C.C. 16.32.336, Ordinance 19485, Section 150, and K.C.C. 163.32.337, Ordinance 19485, Section 152, and K.C.C. 16.32.339, Ordinance 1283, Section 1, as amended, and K.C.C. 16.78.010,
Ordinance 1283, Section 2, and K.C.C. 16.78.020,
Ordinance 1283, Section 3, and K.C.C. 16.78.030,
Ordinance 1283, Section 4, and K.C.C. 16.78.040,
Ordinance 1283, Section 5, and K.C.C. 16.78.050,
Ordinance 1283 (part) and K.C.C. 16.78.060, Ordinance 19485, Section 174, and K.C.C. 17.04.445, Ordinance 19485, Section 175, and K.C.C. 17.04.447, Ordinance 19485, Section 179, and K.C.C. 17.04.466, Ordinance 19485, Section 181, and K.C.C. 17.04.468, Ordinance

19485, Section 182, and K.C.C. 17.04.471, Ordinance
19485, Section 183, and K.C.C. 17.04.472, Ordinance
19485, Section 185, and K.C.C. 17.04.477, Ordinance
19485, Section 186, and K.C.C. 17.04.478, Ordinance
19485, Section 187, and K.C.C. 17.04.479, Ordinance
19485, Section 188, and K.C.C. 17.04.481, Ordinance
19485, Section 189, and K.C.C. 17.04.486, Ordinance
19485, Section 190, and K.C.C. 17.04.487, Ordinance
19485, Section 191, and K.C.C. 17.04.488, Ordinance
14111, Section 215, and K.C.C. 17.04.540.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. Ordinance 14111, Section 4, as amended, and K.C.C. 16.02.110 are hereby amended to read as follows:

A. The following codes, published by or jointly with the International Code Council, Inc., together with amendments, additions, exceptions, and deletions adopted in this title by reference, together with the State Building Code Act, chapter 19.27 RCW, which are referred to in this title as "the International codes," and with King County modifications that are adopted and codified in this chapter, are adopted as the King County building codes and may be cited as such and are referred to in this chapter as "this code":

1. The International Building Code, ((~~2018 Edition~~)) 2021 edition, effective ((~~February 1, 2021~~)) March 15, 2024, together with ((~~Appendix~~)) Appendices C (Group U – Agricultural buildings), D (Fire Districts), E (Supplementary Accessibility

Requirements), and P (Construction and demolition material management), as amended in chapter 51-50 WAC, and Appendix Z (Seattle-Tacoma sound reduction standards), as adopted by this title, and referred to in this title as "the International Building Code", or, when used in a citation, "IBC";

2. The International Residential Code, ((~~2018~~)) 2021 edition, effective ((~~February 1, 2021~~)) March 15, 2024, except for Chapter 11 and Chapters 25 through 43, together with Appendices AF (Radon control methods), AH (Patio covers), AK (Sound transmission), AQ (Tiny homes), ((~~and~~)) AT ((~~[RE]~~)) (Solar-ready provisions-detached one- and two-family dwellings and townhouses), AU (Dwelling unit fire sprinkler systems), AY (Construction and demolition material management), and AZ (Building deconstruction), as amended in chapter 51-51 WAC, and referred to in this title as the "International Residential Code" or, when used in a citation, "IRC";

3. The ((~~International Energy Conservation Code, Commercial,~~) Washington State Energy Code - Commercial Provisions, ((~~2018~~)) 2021 edition, effective ((~~February 1, 2021~~)) March 15, 2024, together with Appendices A (Default heat loss coefficients), B (Default internal load values and schedules), C (Exterior design conditions), and D (Calculation of HVAC total system performance ratio), as amended in chapter 51-11C WAC; and the ((~~International Energy Conservation Code~~)) Washington State Energy Code – Residential Provisions, ((~~Residential, 2018~~)) 2021 edition, effective ((~~February 1, 2021~~)) March 15, 2024, together with Appendices ((~~A (Default heat loss coefficients),~~)) RA/RB (Optional energy efficiency measures), and RC (Exterior design conditions), as amended in chapter 51-11R WAC, and referred to in this title as the "((~~International~~

~~Energy Conservation Code~~)) Washington State Energy Code" or, when used in a citation, "((~~IECC~~)) WSEC";

4. The International Mechanical Code, ((~~2018 Edition~~)) 2021 edition, effective ((~~February 1, 2021~~)) March 15, 2024, together with Appendix A (Chimney connector pass-throughs), as amended in chapter 51-52 WAC, and hereinafter referred to as the "International Mechanical Code" or, when used in a citation, "IMC";

5. The International Existing Building Code, ((~~2018 Edition~~)) 2021 edition, effective ((~~February 1, 2021~~)) March 15, 2024, with Appendix A (Guidelines for the ((~~Seismic Retrofit of Existing Buildings~~)) seismic retrofit of existing buildings), as amended in chapter WAC 51-50, and referred to in this title as the "International Existing Building Code" or, when used in a citation, "IEBC"; ((~~and~~))

6. The International Property Maintenance Code, ((~~2018~~)) 2021 ((~~E~~))edition, effective ((~~February 1, 2021~~)) October 29, 2023, and referred to in this title as the "International Property Maintenance Code" or, when used in a citation, "IPMC((~~.~~))," and

7. The Uniform Plumbing Code, 2021 edition, effective March 15, 2024, as amended in chapter WAC 51-56, and referred to in this title as the "Uniform Plumbing Code" or, when used in a citation, "UPC."

B. This code also may be further clarified and implemented with administrative rules adopted in accordance with K.C.C. chapter 2.98.

SECTION 2. Ordinance 14914, Section 9, as amended, and K.C.C. 16.02.150 are hereby amended to read as follows:

Section 101.1 of the International Building Code is not adopted and the following is substituted:

Title (IBC 101.1). These regulations shall be known as the Building Codes of King County. These codes ((~~are~~)) include the International Building Code (IBC), the International Residential Code (IRC), the ((~~International Energy Conservation Code (IECC)~~)) Washington State Energy Code (WSEC), the International Mechanical Code (IMC), the International Existing Building Code (IEBC), the International Property Maintenance Code (IPMC), the Uniform Plumbing Code, all as adopted in K.C.C. Title 16 ((~~ the King County Building Security Code (K.C.C. chapter 16.10)~~)), and the International Fire Code (IFC)((~~,~~)) as adopted in K.C.C. Title 17.

SECTION 3. Ordinance 15802, Section 5, as amended, and K.C.C. 16.02.152 are hereby amended to read as follows:

Section 101.2 of the International Building Code is not adopted and the following is substituted:

Scope (IBC 101.2). The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

EXCEPTIONS:

1. The provisions of the International Residential Code apply to the following:

1.1. The construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal, and demolition of detached one- and two-family dwellings and townhouses~~,~~ not more than three stories in height above grade plane with a separate means of egress, and their accessory structures ((~~, including adult family homes, foster family care homes, and family day care homes licensed by the~~

~~Washington state Department of Social and Health Services~~)) not more than three stories in height above grade plane.

1.2. Detached residential accessory structures that are used for home occupations or home industries that include offices, mercantile, food preparation for off-site consumption, personal care salons, and similar uses, if the home occupation or home industry is subordinate to the primary residential use ((~~of the~~)) on site and the total cumulative floor area devoted to the home occupation or home industry in each detached accessory structure on-site is less than or equal to 500 square feet (46.5 ((~~m2~~)) square meters).

1.3. Live/work units located in townhouses and complying with the requirements of ((~~IBC 419. Fire suppression~~)) 508.5 of the IBC. An automatic sprinkler system required by ((~~IBC 419.5 when~~) 508.5.7 of the IBC where constructed under the ((~~International Residential Code~~)) IRC shall conform to Appendix U ((~~Dwelling unit fire sprinkler systems, as adopted in chapter 51-51 WAC~~)).

1.4. Owner-occupied lodging houses with one or two guestrooms.

1.5. Owner-occupied lodging houses with three to five guestrooms ((~~where~~)) equipped with an automatic fire sprinkler system in accordance with Appendix U ((~~Dwelling unit fire sprinkler systems, as adopted in chapter 51-51 WAC~~)).

1.6. A care facility with five or fewer persons receiving custodial care within a dwelling unit equipped with a fire sprinkler system in accordance with Appendix U.

1.7. A care facility with five or fewer persons receiving medical care within a dwelling unit equipped with a fire sprinkler system in accordance with Appendix U.

1.8. A care facility with five or fewer persons receiving care within a single-family dwelling equipped with a fire sprinkler system in accordance with Appendix U.

2. The provisions of the ((~~International Mechanical Code~~)) (IMC) shall regulate the design, installation, maintenance, alteration, and inspection of mechanical systems that are permanently installed and ((~~used~~)) utilized to provide control of the environmental conditions and related processes within buildings. This code shall also regulate those mechanical systems, system components, equipment, and appliances specifically addressed in ((~~this section~~)) the IMC. The installation of fuel gas ((~~distribution~~)) piping ((~~and equipment, fuel gas-fired appliances, and fuel gas-fired appliance venting systems~~)) systems, fuel gas utilization equipment, gaseous hydrogen systems, and regulated accessories shall be regulated by the International Fuel Gas Code and WAC 51-52 ((~~-0101~~)). References in this code to Group R shall include Group I-1, Condition 2 assisted living facilities licensed by Washington state under chapter 388-78A WAC and Group I-1, Condition 2 residential treatment facilities licensed by Washington state under chapter 246-337 WAC.

2.1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures shall comply with the IRC.

2.2. The standards for liquefied petroleum gas installations shall be the 2020 edition of NFPA 58 (Liquefied Petroleum Gas Code) and the 2021 edition of ANSI Z223.1/NFPA 54 (National Fuel Gas Code).

SECTION 4. Ordinance 12560, Section 6, as amended, and K.C.C. 16.02.190 are hereby amended to read as follows:

Section 104.1 of the International Building Code is not adopted and the following is substituted:

General (IBC 104.1).

A. The building official is hereby authorized and directed to enforce all the provisions of this code, with the exception of ((~~International Building Code Chapter 29,~~)) the fuel gas piping requirements contained in the International Fuel Gas Code and Chapter 24 of the International Residential Code.

B. The director of public health is authorized to enforce ((~~the provisions of Chapter 29 of the International Building Code,~~)) the fuel gas piping requirements contained in the International Fuel Gas Code and Chapter 24 of the International Residential Code. For such purposes, the building official and the director of public health shall have the powers of a law enforcement officer.

C. The building official shall have the ((~~power~~)) authority to render interpretations of this code and to adopt ((~~and enforce rules and supplemental regulations in order~~)) policies and procedures to clarify the application of its provisions. Such interpretations, ((~~rules and regulations~~)) policies, and procedures shall be in ((~~conformance~~)) compliance with the intent and purpose of this code. Such policies and procedures shall not have the effect of waiving requirements specifically provided for in this code.

SECTION 5. Ordinance 12560, Section 10, as amended, and K.C.C. 16.02.240 are hereby amended to read as follows:

Section 105.2 of the International Building Code is not adopted and the following is substituted:

Work exempt from permit (IBC 105.2). Exemptions from the permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. ((~~A building p~~))Permits shall not be required for the following:

Building:

1. One-story detached one- and two-family residential accessory buildings used as tool and storage sheds, playhouses, tree-supported structures used for play, and similar uses, not including garages or other buildings used for vehicular storage, if:

1.1. The floor area does not exceed 200 square feet (18.6 ((~~m2~~)) square meters);

1.2. The roof eave does not project closer than ((~~three~~)) 3 feet (914 millimeters) to any portion of an adjacent building and does not exceed ((~~twenty-four~~)) 24 inches (152 millimeters) measured horizontally from the exterior wall; ((~~and~~))

1.3. The building is separated a minimum of ((~~five~~)) 5 feet (1,524 millimeters) from all other buildings; and

1.4. The building is unconditioned.

2. One-story detached commercial agricultural and forestry accessory buildings used as animal shelters or for the storage of tools, animal feed, animal bedding, seeds, seedlings, or similar materials or products, not including office, sleeping or resting quarters for human occupation, or garages, if:

2.1. The floor area does not exceed 400 square feet (37.2 ((~~m2~~)) square meters);

2.2. The roof eave does not project closer than ((~~three~~)) 3 feet (914 millimeters) to any portion of an adjacent building and does not exceed ((~~twenty-four~~)) 24 inches (610 millimeters) measured horizontally from the exterior wall;

2.3. The building is separated a minimum of ((~~five~~)) 5 feet (1,524 millimeters) from other buildings; and

2.4. The building does not have an installed heating system and is not connected to water, sanitary sewer, or septic service.

3. Fences, other than swimming pool barriers, not over 6 feet ((~~(1.8 m)~~)) (1,829 millimeters) high. Agricultural wildlife exclusion fencing consistent with Washington Department of Fish and Wildlife criteria and located in the Agricultural (A) zone not over 8 feet (2,438 millimeters high).

4. Retaining walls ((~~that are~~)) not over 4 feet ((~~(1.2 m)~~)) (1,219 millimeters) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II, or IIIA liquids.

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

6. Sidewalks, decks, and driveways not more than 30 inches (762 ((~~mm~~)) millimeters) above adjacent grade and not over any basement or story below and that are not part of an accessible route.

7. Painting, papering, tiling, carpeting, cabinets, counter tops, and similar finish work.

8. Temporary motion picture, television, and theater stage sets and scenery.

9. Prefabricated swimming pools accessory to a ((~~detached one- or two-family dwelling as applicable in IBC 101.2,~~)) Group R-3 occupancy that are installed entirely above ground and:

9.1. ((~~a~~)) Are ((~~either~~)) less than 24 inches (610 ((~~mm~~)) millimeters) deep and do not exceed 5,000 gallons (((~~18,925 l~~))) (18,927 liters); or

9.2. are installed for temporary use of less than ((~~three~~)) 3 months in a ((~~twelve~~)) 12-month period.

10. Temporary growing structures and temporary worker housing as exempted by WAC 51-50-007.

11. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.

12. Swings and other playground equipment, other than play structures installed inside all occupancies covered by the IBC that exceed 10 feet (3048 millimeters) in height or 150 square feet (13.9 square meters) in area.

((~~12.~~)) 13. Window awnings for detached one- and two-family dwellings supported by an exterior wall that do not project more than 54 inches (1,372 ((~~mm~~)) millimeters) from the exterior wall and do not require additional support.

((~~13.~~)) 14. Nonfixed and ((~~M~~))moveable fixtures, cases, racks, counters, and partitions not over 5 feet 9 inches (((~~1.75 m) high~~)) 1,753 millimeters in height).

((~~14.~~)) 15. Reroofing of existing one- and two-family residential buildings.

EXCEPTION: When replacement roofing adds more than 5 pounds per square foot (24 kilograms per square meter) cumulative dead load to the weight of the original roofing a permit shall be required.

((~~15.~~)) 16. Submerged, freestanding mechanical boat lifts associated with single-family residential piers and recreational watercraft not exceeding 25 feet (((~~7.6 m~~)) 7,620 millimeters) in length or 15 feet (4,572 millimeters) in width with no portion exceeding a height of 10 feet (3,048 millimeters) above the ordinary high water mark as defined in K.C.C. 21A.06.825.

((~~16.~~)) 17. Work located primarily in a public way, public utility towers, and poles.

((~~17.~~)) 18. Mechanical equipment not specifically regulated in this code. ((~~18.~~)) 19. Antenna and dishes that fall under FCC Antenna Rule 47 C.F.R. including masts under ((~~twelve~~)) 12 feet (3,658 millimeters) above the roof line and dishes up to 3 feet and 3 3/8 inches ((~~one meter~~)) (1,000 millimeters) in diameter.

((~~19.~~)) 20. Roof-mounted photovoltaic solar panels for one- and two-family dwellings that have a total dead load not exceeding ((~~four~~)) 4 pounds per square foot (20 kilograms per square meter) and are no more than 18 inches (457 ((~~mm~~)) millimeters) above the roof or highest roof point on which they are mounted.

((~~20.~~)) 21. Ground-mounted wind turbines for one- and two-family dwellings for which any portion of the unit does not exceed ((~~twelve~~)) 12 feet (((~~3.7 m~~)) 3,658 millimeters) in height.

Gas:

1. Portable heating or cooking appliances.

2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

Mechanical:

1. Portable heating or clothes drying appliances.

2. Portable ventilation appliances and equipment.

3. Portable cooling unit.

4. Steam, hot, or chilled water piping within any heating or cooling equipment regulated by this code.

5. Replacement of any part that does not alter its approval or make it unsafe.

6. Portable evaporative cooler.

7. Self-contained refrigeration system containing 10 pounds (((~~4.54 kg~~)) 5 kilograms) or less of refrigerant and actuated by motors of ((~~one~~)) 1 horsepower (((~~746 W~~)) 1 metric horsepower or 746 watts) or less.

8. Portable fuel cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

((~~Exempted items shall still be subject to separate plumbing, electrical and mechanical permits.~~

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

SECTION 6. Ordinance 12560, Section 18, as amended, and K.C.C. 16.02.290 are hereby amended to read as follows:

Section 105.5 of the International Building Code is not adopted and the following is substituted:

Expiration (IBC 105.5). ((~~Every permit approved by the building official under the code shall expire by limitation and become null and void two years from the date of its issue.~~

~~**EXCEPTION:** Building permits issued by the building official to correct a code violation, or mechanical permits issued independent of a building permit, shall expire by limitation and become null and void one year from the date of its issue.~~)) Permit expiration dates are as follows:

A. Mechanical permits issued independent of a building permit shall expire six months from the date of issuance.

B. Building permits issued to correct a code violation shall expire one year from the date of issuance.

C. All other permits not listed above shall expire two years from the date of issuance.

D. Issued permits may be extended for one-year periods subject to the following conditions:

1. An application for a permit extension together with the applicable fee is submitted to the department ((~~at least 7,~~)) prior to, but no more than 60((~~,~~)) calendar days before the date the original permit ((~~becomes null and void~~)) expires. Once the permit extension application is submitted and if that extension is not denied, work may continue past the expiration date of the original permit. If the extension application is denied, all work must stop until a valid permit is obtained.

2. ((~~The permit shall not be extended if:~~

~~2.1. Construction of a building or structure has not substantially begun, as determined by the building official, within two years from the date of the first issued permit; and~~

~~2.2. The building or the structure, or its intended use, is no longer authorized by the zoning code or other applicable law.~~

~~3. An applicant may request a total of two permit extensions if there are no substantial changes in the approved plans and specifications.~~

~~4.~~)) The building official may approve up to two one-year extensions if there are no substantial changes in the approved plans and specifications. The building official may extend a building or mechanical permit beyond the second extension only to allow completion of ((~~a building, structure or mechanical system~~)) work authorized by the original permit ((~~and~~)) which has been substantially constructed. If ((~~substantial~~)) the building official determines that work((~~, as determined by the building official, has not begun~~)) on a building, structure, or mechanical system authorized in the original permit has not been substantially constructed, then a new permit shall be required for construction to proceed.

((~~5.~~)) 3. The ((~~staff of the~~)) department may revise a permit at the permittee's request but such a revision does not ((~~constitute a renewal or otherwise extend the life of~~)) extend the permit expiration date.

E. Issued permits for which only the final building inspection is remaining, and all other work has been approved, may be extended for one 60-day period subject to the following conditions:

1. An application for a permit extension is submitted to the department prior to the expiration date.

2. If work required under a final building inspection is not completed within the 60-day extension period, the permit shall expire, and a new permit shall be required for construction to proceed.

F. The permit shall not be extended if:

1. Construction of a building or structure has not substantially begun, as determined by the building official, within two years from the date the permit was first issued; and

2. The building or the structure, or its intended use, is no longer authorized by the zoning code or other applicable law.

SECTION 7. Ordinance 12560, Section 22, as amended, and K.C.C. 16.02.340 are hereby amended to read as follows:

Section 107.3.3 of the International Building Code is not adopted and the following is substituted:

Pre-issuance construction authorization (PICA) – Permission to proceed (IBC 107.3.3.). If the applicant for a permit or approval required by this code ((~~desires~~)) seeks authorization to begin work before obtaining the required permit or approval, the building official may allow the applicant to proceed if it is determined:

1. The ((~~building official determines that the~~)) work would not endanger or harm the property;

2. ((~~The building official determines that a~~))Allowing the work to proceed would not violate the requirements of the state environmental policy act; ((~~and~~))

3. The scope of work does not include alterations or site development regulated under K.C.C. Title 9; and

4. The applicant first deposits cash or its equivalent with the building official, or in an irrevocable escrow approved by the building official, in an amount determined by the building official to be sufficient to restore the building and site, and to perform the corrective work described in K.C.C. 16.02.350.

SECTION 8. Ordinance 14914, Section 57, as amended, and K.C.C. 16.02.440 are hereby amended to read as follows:

Section ((~~110.3.8~~)) 110.3.9 of the International Building Code is not adopted and the following is substituted:

Energy efficiency inspections (IBC ((~~110.3.8~~)) 110.3.9). Energy efficiency inspections shall be in accordance with the ((~~International Energy Conservation~~)) Washington State Energy Code, as adopted and amended by chapters 51-11C and 51-11R WAC, and as amended in this title.

SECTION 9. Ordinance 12560, Section 30, as amended, and K.C.C. 16.02.470 are hereby amended to read as follows:

Section 111.2 of the International Building Code is not adopted and the following is substituted:

Certificate((s)) issued (IBC 111.2). After ((~~T~~))the building official inspects the building or structure and does not find violations of the provisions of this code or other laws that are enforced by the department, the building official shall ((~~may~~)) issue ((~~either~~)) a certificate of occupancy ((~~or a certificate of shell completion.~~)) that contains the following:

1. The permit number.

2. The address of the structure.

3. The name and address of the owner or the owner's authorized agent.

4. A description of that portion of the structure for which the certificate is issued.

5. A statement that the described portion of the structure has been inspected for compliance with the requirements of this code.

6. The name of the building official.

7. The edition of the code under which the permit was issued.

8. The use and occupancy, in accordance with the provisions of IBC Chapter 3.

9. The type of construction as defined in IBC Chapter 6.

10. The design occupant load.

11. Where an automatic sprinkler system is provided, whether the sprinkler system is required.

12. Any special stipulations and conditions of the building permit.

13. An explanation that the responsibility for compliance with King County codes and building maintenance rests exclusively with the permit applicants and their agents and the building's owners.

EXCEPTION: The inspection record card specified in K.C.C. 16.02.410 shall serve as the certificate of occupancy for structures built under the International Residential Code.

SECTION 10. Ordinance 12560, Section 36, as amended, and K.C.C. 16.02.540 are hereby amended to read as follows:

Section 111 of the International Building Code is supplemented with the following:

Posting (IBC 111.5). The certificate of occupancy ((~~and/or the certificate of shell completion~~)) shall be posted in a conspicuous place on the premises and shall not be removed except by the building official.

SECTION 11. Ordinance 14914 Section 90, as amended, and K.C.C. 16.03.020 are hereby amended to read as follows:

The following definitions in Section 202 of the International Building Code are not adopted:

A. Base flood;

B. Base flood elevation;

C. Coastal high-hazard area;

D. Design flood;

E. Dry floodproofing;

F. Flood hazard area;

G. Flood insurance rate map (FIRM);

H. Flood insurance study;

I. Floodway;

J. ((~~Historic buildings;~~

~~K.~~)) Special flood hazard area; and

((~~L.~~)) K. Substantial improvement.

SECTION 12. Ordinance 19485, Section 31, and K.C.C. 16.03.280 are hereby amended to read as follows:

Water heater: any listed heating appliance or equipment that((~~:~~

~~A. H~~))heats potable water and supplies such water to the potable hot water distribution system((~~; and~~)) excluding any appliance or equipment that exceeds any of the following:

A. An operating temperature of 210° Fahrenheit (99° Celsius);

B. ((~~Does not exceed a~~)) A maximum allowable working pressure of 160 pounds per square inch (1,103 ((~~kPa~~)) kilopascals)((~~,~~) ;

C. ((~~a~~)) A volume of 120 gallons (454 ((~~L~~))liters) ((~~and a~~)); or

D. A heat input of 200,000 Btu/h ((~~per hour (58 kW)~~)) (211,011 kilojoules/h or 59 kilowatts per hour). Any appliances and equipment that exceed any one of these values are classified as boilers.

NEW SECTION. SECTION 13. There is hereby added to K.C.C. chapter 16.04 a new section to read as follows:

Section 429.2 of the International Building Code is not adopted and is substituted with the following:

Electric Vehicle (EV) Charging Infrastructure (IBC 429.2). Buildings and accessory structures shall be provided with EV charging stations, EV-ready parking spaces, and EV-capable parking spaces in accordance with IBC Table 429.2. Calculations shall be rounded up to the nearest whole number. Where a building contains more than one occupancy, the electric vehicle charging infrastructure percentages of IBC Table 429.2 shall be applied to the number of spaces required for each occupancy.

EXCEPTION: On-site parking with less than 10 parking spaces shall not be required to comply with Section 429.2.

Table 429.2

Electric Vehicle Charging Infrastructure

Occupancy	Number of EV charging stations	Number of EV-ready parking spaces	Number of EV-capable parking spaces
Group A, B, E, F, H, I, M, and S occupancies	10% of total parking spaces	10% of total parking spaces	10% of total parking spaces
Group R occupancies			
Buildings that do not contain more than two dwelling units	Not required	One for each dwelling unit	Not required
Dwelling units with private garages	Not required	One for each dwelling unit	Not required
All other Group R occupancies	10% of total parking spaces	40% of total parking spaces	25% of total parking spaces

SECTION 14. Ordinance 19485, Section 48, as amended, and K.C.C. 16.04.440 are hereby amended to read as follows:

Section 1612.4 of the International Building Code is not adopted and the following is substituted:

Flood hazard documentation (IBC 1612.4). For construction in flood hazard areas the applicant shall provide actual as-built elevation certificate by a professional ((~~civil engineer or~~)) land surveyor licensed by the state of Washington in accordance with K.C.C. 21A.24.270.

SECTION 15. Ordinance 12560, Section 72, as amended, and K.C.C. 16.04.600 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Definitions (IBC AZ 106).

((~~**NOISE REDUCTION COEFFICIENT (NRC): is**~~)) A. Noise Reduction Coefficient (NRC): ((~~t~~))The arithmetic average of the sound absorption coefficients of a material at 250, 500, 1,000, and 2,000 ((~~Hz~~)) hertz.

((~~**SOUND TRANSMISSION CLASS (STC): is**~~)) B. Sound Transmission Class (STC): The single-number rating for describing sound transmission loss of a wall, roof, floor, window, door, partition, or other individual building components or assemblies.

SECTION 16. Ordinance 12560, Section 72, as amended, and K.C.C. 16.04.620 are hereby amended to read as follows:

The International Building Code is supplemented with the following appendix:

Seattle-Tacoma noise program area (IBC AZ 108). Noise-determined construction requirements detailed in this chapter shall be applied to new construction and additions within the designated areas of the Port of Seattle's Noise Remedy Boundary, except for not-normally-inhabited portions of warehouses, storage buildings, and similar structures as determined by the director. Specific construction requirements are:

((~~1.~~)) A. Bedrooms shall comply with IBC AZ 125 which is designed to achieve a noise reduction of 35 ((~~dB~~)) decibels.

((~~2.~~)) B. All other living and working areas shall comply with IBC AZ 117 which is designed to achieve a noise reduction level of 30 ((~~dB~~)) decibels.

SECTION 17. Ordinance 12560, Section 75, as amended, and K.C.C. 16.04.630 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Air leakage for all buildings (IBC AZ 109).

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

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

1(((~~)~~))). Exterior joints around window and door frames between the window or door frame and the framing.

2(((~~)~~))). Openings between walls and foundations.

3(((~~)~~))). Between the wall sole plate and the rough flooring.

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

5(((~~)~~))). Between wall panels at corners.

6(((~~)~~))). All other openings in the building envelope.

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

SECTION 18. Ordinance 12560, Section 84, as amended, and K.C.C. 16.04.720 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Exterior walls 30 dB compliance (IBC AZ 118).

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

(((~~b~~))) B. Masonry walls having a weight of at least 40 pounds per square foot (195 kilograms per square meter) do not require a furred (stud) interior wall. At least one surface of concrete block walls shall be plastered.

(((~~c~~))) C. Stud walls shall be at least 4 ((~~"~~)) inches (102 millimeters) in nominal depth and shall be finished on the outside with solid sheathing under an approved exterior wall finish.

1. Interior surface of the exterior walls shall be of gypsum board or plaster at least 1/2 inch (13 millimeters) thick, installed on the studs. The gypsum board or plaster may be fastened rigidly to the studs if the exterior is brick veneer or stucco. If the exterior is siding, the interior gypsum board or plaster must be fastened resiliently to the studs.

2. Continuous composition board, plywood, or gypsum board sheathing at least 3/4 ((~~"~~)) inch (19 millimeters) thick shall cover the exterior side of the wall studs. 3. Sheathing panels shall be covered on the exterior with overlapping building paper.

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

SECTION 19. Ordinance 12560, Section 85, as amended, and K.C.C. 16.04.730 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Exterior window 30 dB compliance (IBC AZ 119).

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

(((~~b~~))) B. Windows shall be double glazed with panes at least 1/8((")) inch (3 millimeters) thick. Panes of glass shall be separated by a minimum 1/2 ((")) inch (13 millimeters) airspace.

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

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

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

SECTION 20. Ordinance 12560, Section 86, as amended, and K.C.C. 16.04.740 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Exterior doors 30 dB compliance (IBC AZ 120).

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

(((~~b~~))) B. Double door construction is required for all door openings to the exterior. Openings fitted with side-hinged doors shall have one solid core of wood or be

an insulated hollow metal door at least 1-3/4 ((")) inches (44 millimeters) thick separated by an airspace of at least 3 ((")) inches (76 millimeters) from another door, which can be a storm door. Both doors shall be tightly fitted and weather-stripped.

(((~~c~~))) C. The glass of double-glazed sliding doors shall be separated by a minimum 1/2 ((")) inch (13 millimeters) airspace. Each sliding frame shall be provided with an efficiently airtight weather-stripping material ((~~as~~)) that conforms to an air infiltration test not to exceed 0.2 cubic ((~~feet~~)) foot per minute per foot of crack length in accordance with ASTM E-283-65-T.

(((~~d~~))) D. Glass ((~~(~~))over ((~~two~~)) 2 square feet (0.2 square meter) in area((~~)~~)) of all doors shall be at least 3/16 ((")) inch (5 millimeters) thick. Glass of double sliding doors shall not be equal in thickness.

(((~~e~~))) E. The perimeter of door frames shall be sealed airtight to the exterior wall construction (framing) with a sealant conforming to one of the following Federal specifications: TT-S-0227, TT-S-00230, or TT-S-00153.

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

SECTION 21. Ordinance 12560, Section 87, as amended, and K.C.C. 16.04.750 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Roofs 30 dB compliance (IBC AZ 121).

(((~~a~~))) A. Combined roof and ceiling construction other than described in this section and AZ 122 shall have a laboratory sound transmission class rating of at least STC-44; or

(((~~b~~))) B. With an attic or rafter space at least 6 (("~~"~~)) inches (152 millimeters) deep, and with a ceiling below, the roof shall consist of 3/4 (("~~"~~)) inch (19 millimeters) composition board, plywood, or gypsum board sheathing topped by roofing as required.

(((~~c~~))) C. Open beam roof construction shall follow the energy insulation standard method for batt insulation, except use 1 (("~~"~~)) inch or (25 millimeters) plywood decking with shakes or other suitable roofing material.

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

SECTION 22. Ordinance 12560, Section 88, as amended, and K.C.C. 16.04.760 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Ceilings 30 dB compliance (IBC AZ 122).

(((~~a~~))) A. Gypsum board or plaster ceilings at least 5/8 (("~~"~~)) inch (16 millimeters) thick shall be provided where required by AZ 121(b) above. Ceilings shall be substantially airtight with a minimum of penetrations.

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

SECTION 23. Ordinance 12560, Section 86, as amended, and K.C.C. 16.04.770 are hereby amended to read as follows:

The International Building Code is supplemented with the following appendix:

Floors 30 dB compliance (IBC AZ 123). The floor of the lowest occupied rooms shall be slab on fill, below grade, or over a fully enclosed basement or crawl

space. All door and window openings in the fully enclosed basement shall be tightly fitted.

EXCEPTION: Floors over fully enclosed garages or ((~~over~~)) carports shall have a laboratory sound transmission class rating of at least STC-35. The floor over the garage or carport shall be insulated to not less than R-19, ((~~but not less than that~~)) or as specified by the ((~~International Energy Conservation~~)) Washington State Energy Code, whichever is the higher rating, and enclosed with one layer of 5/8 ((")) inch (16 millimeters) type ((⅝))X((⅝)) GWB on the garage or carport side or any equivalent approved garage or dwelling separation assembly in conformance with International Residential Code Section R302.6.

SECTION 24. Ordinance 12560, Section 90, as amended, and K.C.C. 16.04.780 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Ventilation 30 dB compliance (IBC AZ 124).

(((~~a~~))) A. A ventilation system shall be installed that would provide the minimum air circulation and fresh air supply requirements for various uses in occupied rooms without the need to open any windows, doors, or other openings to the exterior. The inlet and discharge openings shall be fitted with sheet metal transfer ducts of at least 26-gauge steel, which shall be lined with 1 ((")) inch (25 millimeters) thick coated glass fiber or insulated with R-11 sound-absorbing duct insulation, and shall be at least 5 feet (1,524 millimeters) long with one 90-degree bend.

(((~~b~~))) B. Gravity vent openings in attics or crawlspaces shall be as close to minimum code in number and size, as practical. The openings shall be fitted with

transfer ducts at least 3 feet (914 millimeters) in length containing internal 1 ((")) inch (25 millimeters) thick coated fiberglass sound-absorbing duct lining or insulated with R-11 sound-absorbing duct insulation. Each duct shall have a lined 90-degree bend in the duct such that there is no direct line-of-sight from the exterior through the duct into the attic.

(((~~c~~))) C. Bathroom, laundry, and similar exhaust ducts connecting the interior space to the outdoors, shall contain at least 10-foot (3,048 millimeters) length of internal sound-absorbing duct lining. Exhaust ducts less than 10 feet (3,048 millimeters) in length shall be fully lined and shall also ((~~be~~)) meet the provisions of AZ 109(c). Each duct shall be provided with a lined 90-degree bend in the duct such that there is no direct line-of-sight through the duct from the venting cross-section to the room opening cross-section. Duct lining shall be coated glass fiber duct liner at least 1 ((")) inch (25 millimeters) thick or insulated with R-11 sound-absorbing duct insulation. In areas that produce moisture such as (((~~i.e.~~)) shower rooms((~~) which produce moisture~~)), duct lining shall be made of non-absorbent material. Commercial kitchen exhaust systems and product conveying duct systems (Chapter 5 U.M.C.) shall be exempt.

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

SECTION 25. Ordinance 12560, Section 92, as amended, and K.C.C. 16.04.800 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Exterior walls 35 dB compliance (IBC AZ 126).

(((~~a~~))) A. Exterior walls, other than as described in this section shall have a laboratory sound transmission class rating of at least STC-40; or

(((~~b~~))) B. Masonry walls having a weight of at least 75 pounds per square ((~~feet~~)) foot (366 kilograms per square meter) do not require a furred (stud) interior wall. At least one surface of concrete block walls shall be plastered.

(((~~c~~))) C. Stud walls shall be at least 4 ((")) inches (101 millimeters) in nominal depth and shall be finished on the outside with solid sheathing under an approved exterior wall finish.

1. Interior surface of the exterior walls shall be of gypsum board or plaster at least 5/8 (")) inch (16 millimeters) thick installed on the studs. The gypsum board or plaster may be fastened rigidly to the studs if the exterior is brick veneer or stucco. If the exterior is stucco or siding, the interior gypsum board or plaster must be fastened resiliently to the studs or double thickness must be used.

2. Continuous composition board, plywood, or gypsum board sheathing, or any combination of these materials of unequal thickness, that is at least 1 (")) inch (25 millimeters) thick shall cover the exterior side of the wall studs.

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

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

SECTION 26. Ordinance 12560, Section 94, as amended, and K.C.C. 16.04.820 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Exterior doors 35 dB compliance (IBC AZ 128).

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

(((~~b~~))) B. Double door construction is required for all door openings to the exterior. The doors shall be side-hinged and shall be solid core wood or insulated hollow metal door at least 1-3/4 ((")) inch (44 millimeters) thick, separated by a vestibule or enclosed porch at least 3 feet (914 millimeters) in length. Both doors shall be tightly fitted and weather-stripped.

(((~~c~~))) C. The glass or double-glazed sliding doors shall be separated by a minimum 1/2 ((")) inch (13 millimeters) airspace. Each sliding door frame shall be provided with an efficiently airtight weather-stripping material that conforms to an air infiltration test not to exceed 0.5 cubic ((~~feet~~)) foot per minute per foot of crack length in accordance with ASTM E-283-65-T.

(((~~d~~))) D. Glass of all doors shall be at least 3/16 ((")) inch (5 millimeters) thick. Glass of double sliding doors shall not be equal in thickness.

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

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

SECTION 27. Ordinance 12560, Section 95, as amended, and K.C.C. 16.04.830 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Roofs 35 dB compliance (IBC AZ 129).

(((~~a~~))) A. Combined roof and ceiling construction other than as described in this section and AZ 130 shall have a laboratory sound transmission class rating of at least STC-49; or

(((~~b~~))) B. With an attic or rafter space at least 6 ((")) inches (152 millimeters) deep, and with a ceiling below, the roof shall consist of composition board, plywood, or gypsum board sheathing, or any combination of these materials of unequal thickness, that is at least 1 ((")) inch (25 millimeters) thick and topped by roofing as required. (((~~c~~))) C. Open beam roof construction shall follow the energy insulation standard method for batt insulation, except use 1 ((")) inch (25 millimeters) plywood decking with concrete or clay tiles as roofing material.

SECTION 28. Ordinance 12560, Section 96, as amended, and K.C.C. 16.04.840 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Ceiling 35 dB compliance (IBC AZ 130).

(((~~a~~))) A. Gypsum board or plaster ceiling at least 5/8 ((")) inch (16 millimeters) thick shall be provided where required by AZ 129, above. Ceiling shall be substantially airtight with a minimum of penetrations. The ceiling panels shall be mounted on resilient clips or channels.

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

SECTION 29. Ordinance 12560, Section 97, as amended, and K.C.C. 16.04.850 are hereby amended to read as follows:

The International Building Code is supplemented with the following appendix:

Floors 35 dB compliance (IBC AZ 131). The floor of the lowest occupied rooms shall be slab on fill or below grade or over a fully enclosed basement or crawl space. All door and window openings in the fully enclosed basement shall be tightly fitted.

EXCEPTION: Floors over fully enclosed garages or ((~~over~~)) carports shall have a laboratory sound transmission class rating of at least STC-40. The floor over the garage or carport shall be insulated to not less than R-19, ((~~but not less than that~~)) or as specified by the ((~~International Energy Conservation~~)) Washington State Energy Code, whichever is the higher rating, and enclosed with two layers of 5/8 ((")) inch (16 millimeters) type ((')) X((')) GWB on the garage or carport side or any equivalent approved garage/dwelling separation assembly in conformance with International Residential Code Section R302.6.

SECTION 30. Ordinance 12560, Section 98, as amended, and K.C.C. 16.04.860 are hereby amended to read as follows:

The International Code is supplemented by the following appendix:

Ventilation 35 dB compliance (IBC AZ 132).

(((~~a~~))) A. A ventilation system shall be installed that will provide the minimum air circulation and fresh air supply requirements for various uses in occupied rooms without the need to open any windows, doors, or other openings to the exterior. The inlet and discharge openings shall be fitted with sheet metal transfer ducts of at least 26-gauge steel, which shall be lined with 1 ((")) inch (25 millimeters) thick coated glass fiber or

insulated with R-11 sound-absorbing duct insulation, and shall be at least 10 feet (3,048 millimeters) long with one 90-degree bend.

((~~(b)~~)) B. Gravity vent openings in attics shall be as close to minimum code in number and size, as practical. The openings shall be fitted with transfer ducts at least 6 feet (1,829 millimeters) in length containing internal 1 ((")) inch (25 millimeters) thick coated fiberglass sound-absorbing duct lining or insulated with R-11 sound-absorbing duct insulation. Each duct shall have a lined 90-degree bend in the duct such that there is no direct line-of-sight from the exterior through the duct into the attic.

((~~(c)~~)) C. Bathroom, laundry, and similar exhaust ducts connecting the interior space to the outdoors, shall contain at least a 10-foot (3,048 millimeters) length of internal sound-absorbing duct lining or insulated with R-11 sound-absorbing duct insulation. Exhaust ducts less than 10 feet (3,048 millimeters) in length shall be fully lined and shall also meet the provisions of AZ 109(c). Each duct shall be provided with a lined 90-degree bend in the duct such that there is no direct line-of-sight through the duct from the venting cross-section to the room-opening cross-section. Duct lining shall be coated glass fiber duct liner at least 1 ((")) inch (25 millimeters) thick or R-11 sound-absorbing duct insulation. In areas such as shower rooms which produce moisture, duct lining shall be made of non-absorbent material. Commercial kitchen exhaust systems and product conveying duct systems (Chapter 51) shall be exempt.

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

NEW SECTION. SECTION 31. There is hereby added to K.C.C. chapter 16.04 a

new section to read as follows:

Chapter 9 Alterations - Level 3 of the International Existing Building Code is supplemented with the following:

Section 908 Electric Vehicle Charging Infrastructure.

908.1 Electric vehicle charging infrastructure. Electric vehicle charging infrastructure shall be provided in accordance with Section 429 of the International Building Code as required for new construction.

SECTION 32. Ordinance 14914, Section 272, as amended, and K.C.C. 16.05.040 are hereby amended to read as follows:

Table R301.2(1) of the International Residential Code is not adopted and the following is substituted:

Table R301.2(1)

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA FOR KING COUNTY

Subject to damage from											
Ground snow load	Wind speed (mph)	Seismic design category	Weathering	Frost line depth	Termite	Decay	Winter design temp.	Ice-shield required	Flood hazards	Air freezing index	Mean annual temp.
Varies[1]	110	D1 or	Moderate	12" <	Slight to	Slight to	25	No	Varies[4]	100 to	50

		D2[2]		1,000 ft elev.[3]	Mod.	Mod.				250	

Footnotes:

1. Snow loads shall be determined in accordance with King County public rules. The minimum roof design snow load shall be 25 pounds per square ((~~feet~~)) foot (122 kilograms per square meter).

2. Seismic design category shall be D1 for areas of unincorporated King County to the east of the Snoqualmie River as it traverses from the King County-Snohomish County line to the city limits of Snoqualmie, east of the city of Snoqualmie, east of the Snoqualmie Parkway and the Echo Lake-Snoqualmie Cut-off SE as they run from the city limits of the city of Snoqualmie to State Route 18 and to the south or east of State Route 18. All other portions of unincorporated King County shall be seismic design category D2.

3. The frost line depth shall be considered to be 12 inches (305 millimeters) for sites up to an elevation of 1,000 feet (304,800 millimeters) above sea level, 18 inches (457 millimeters) for sites more than 1,000 feet (304,800 millimeters) and up to an elevation of 2,000 feet (609,600 millimeters) above sea level or 24 inches (610 millimeters) for sites more than 2,000 feet (609,600 millimeters) above sea level. Frost depth may be otherwise determined by specific site analysis, but shall not be less than 12 inches (305 millimeters).

4. Flood hazard within King County varies. See the flood hazard areas code provisions of K.C.C. chapter 21A.24.

SECTION 33. Ordinance 15802, Section 78, as amended, and K.C.C. 16.05.065 are hereby amended to read as follows:

Section R310.2.4 of the International Residential Code is not adopted and the following is substituted:

Emergency escape ((~~windows~~)) and rescue openings under decks ((~~and~~)), porches, and cantilevers (IRC R310.2.4). Emergency escape ((~~windows are allowed to be~~)) and rescue openings installed under decks, porches, ((~~roof overhangs, awnings or similar projections if the location allows the emergency escape window to be~~)) and cantilevers shall be fully ((~~opened~~)) openable and ((~~provides a path~~)) provided with an unobstructed pathway of not less than 36 inches (914 ((~~mm~~)) millimeters) in height, ((~~and not less than~~)) 36 inches (914 ((~~mm~~)) millimeters) in width, and no greater than ((~~with a maximum unobstructed travel length directly to a yard or court~~)) 60 inches (1,524 millimeters in length) ((~~based on 3:1, length to height ratio or as approved by the building official~~)) that opens to a yard or court. ((T~~his distance~~)) The pathway shall be measured from the ((~~edge~~)) exterior face of the ((~~window~~)) glazed opening, or if ((~~served by~~)) the glazed opening is in a window well ((~~from the edge of that~~)),at the window well wall furthest from the exterior face of the glazed opening.

EXCEPTION: When the vertical height is 6 feet 8 inches (2,032 ((~~mm~~)) millimeters) or more, the travel distance or length is unlimited.

NEW SECTION. SECTION 34. There is hereby added to K.C.C. chapter 16.05 a new section to read as follows:

Table R311.2 of the International Residential Code is not adopted and the following is substituted:

Egress Door (IRC 311.2). Not less than one egress door shall be provided for each dwelling unit, including from all habitable rooms and spaces within or above garages. The egress door shall be side-hinged and shall provide a clear width of not less than 32 inches (813 millimeters) where measured between the face of the door and the stop, with the door open 90 degrees. The clear height of the door opening shall be not less than 78 inches (1,981 millimeters) in height measured from the top of the threshold to the bottom of the stop. Other doors shall not be required to comply with these minimum dimensions. Egress doors shall be readily openable from inside the dwelling without the use of a key or special knowledge or effort.

NEW SECTION. SECTION 35. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C101 of the Washington State Energy Code – Commercial Provisions is supplemented with the following:

Vesting of initial tenant improvements (WSEC C101.7). The initial tenant improvements of spaces within a building are permitted to comply with the codes applicable to the base building if permit applications are submitted within 18 months of the final inspection approval date for the building.

SECTION 36. Ordinance 19485, Section 72, and K.C.C. 16.07.040 are hereby amended to read as follows:

The definitions in this section apply to this chapter and supplement the definitions contained in the ((~~IECC~~)) WSEC as adopted, amended, and supplemented by this title.

Where definitions in this section differ from the definitions in the International codes as amended and supplemented by K.C.C. chapter 16.03, the definitions in this section shall control.

A. AAMA: the American Architectural Manufacturers Association.

B. Affordable housing: buildings that:

1. Are owned by a public housing authority for the purpose of providing housing ((~~the~~)) that restricts at least 51 percent of the units to be occupied by and made affordable to households with incomes no more than 80 percent of area median income;

2. Are owned by a government agency or nonprofit organization and operated as a shelter, including temporary and emergency shelter facilities providing day and warming centers that do not provide overnight accommodation, for people receiving support services from county-recognized assistance programs for homelessness; or

3. Are subject to a regulatory agreement, covenant, or other legal instrument recorded on the property title for a minimum of 40 years that:

a. Restricts at least 51 percent of the units to be occupied by and made affordable to households with incomes no more than 80 percent of area median income; or

b. Restricts initial and subsequent sales of at least 51 percent of the residential units to households with incomes no more than 80 percent of area median income.

C. AFUE: annual fuel utilization efficiency.

D. ASHRAE: the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

((~~D~~)) E. ASTM: the American Society for Testing and Materials.

((~~E.~~) ((~~Automatic control device: a device capable of automatically turning electrical loads off and on without manual intervention~~)) F. Best efficiency point (BEP): The pump hydraulic power operating point, consisting of both flow and head conditions, that results in the maximum efficiency.

((~~F.~~)) G. Btu: British thermal units.

((~~G.~~)) ((~~Conditioned space: an area, room or space enclosed within the building thermal envelope and that is directly or indirectly heated or cooled. Spaces are indirectly heated or cooled where they communicate through openings with conditioned spaces, where they are separated from conditioned spaces by uninsulated walls, floors or ceilings, or where they contain uninsulated ducts, piping or other sources of heating or cooling. Elevator shafts, stair enclosures, enclosed corridors connecting conditioned spaces and enclosed spaces through which conditioned air is transferred at a rate exceeding three air changes per hour are considered conditioned spaces for the purposes of the building thermal envelope requirement~~s.

((~~H. Continuous insulation: insulating material that is continuous across all structural members without metal thermal bridges other than fasteners that have a total cross-sectional area not more than 0.04 percent (0.12 percent where all metal thermal bridges are stainless steel) of the envelope surface through which they penetrate, and service openings. It is installed on the interior or exterior or is integral to any opaque surface of the building envelope.~~

((~~I. Controlled receptacle: an electrical receptacle that is controlled by an automatic control device.~~)) H. Btu/h: British thermal units per hour.

I. Clean water pump: A device designed for use in pumping water with a

maximum nonabsorbent free solid content of 0.016 pounds per cubic foot (0.256 kilograms per cubic meter) and with a maximum dissolved solid content of 3.1 pounds per cubic foot (49.66 kilograms per cubic meter), provided that the total gas content of the water does not exceed the saturation volume, and disregarding any additives necessary to prevent the water from freezing at a minimum of 14° Fahrenheit (-10° Celsius).

J. CSA: the ((~~CSA~~)) Canadian Standards Association group.

K. ((~~DOAS: dedicated outdoor air system.~~

~~L.~~)) EER: energy efficiency ratio.

L. Fossil fuel: a substance used to generate energy as defined in K.C.C. 21A.06.532C.

M. High-end trim: a lighting control setting which limits the maximum power to individual luminaires or groups of luminaires in a space.

N. HPWH: heat pump water heater.

((~~N.~~)) O. HVAC: heating, ventilation, and air conditioning.

((~~O.~~)) P. IEER: integrated energy efficiency ratio.

Q. IPLV: integrated part-load value.

R. LLLC: luminaire-level lighting control((~~s~~)).

((~~P~~)) S. LPD: lighting power density.

((~~Q. Mass transfer deck slab: a concrete slab designed to transfer structural load from the building perimeter wall or column line above, laterally to an offset wall or column line below, and which has conditioned or semi-heated space on the inside of the upper wall and exterior or unconditioned space on the outside of the upper wall, such as~~

~~the transition from an above-grade structure to a below-grade structure or the transition from a tower to a podium. The area of the slab edge shall be defined as the thickness of the slab multiplied by the length of the edge condition. A cantilevered concrete balcony does not constitute a mass transfer deck slab.~~

~~R. Multi-pass: a heat pump water heater control strategy requiring multiple passes of water through the heat pump to reach the final target storage water temperature.~~

~~S.~~)) T. NAECA: the National Appliance Energy Conservation Act of 1987.

((~~T.~~)) U. NFRC: the National Fenestration Rating Council, Inc.

((~~U.~~)) V. Occupied-standby mode: mode of operation when an HVAC zone is scheduled to be occupied and an occupant sensor indicates no occupants are within the zone.

W. REC: renewable energy certificate.

X. Renewable energy investment fund (REIF): a fund established by the local government or other entity to accept payment from building owners to construct or acquire qualifying renewable energy (along with the associated RECs) on their behalf.

Y. SEER: seasonal energy efficiency ratio.

Z. Semi-heated space: an enclosed space within a building, including adjacent connected spaces separated by an uninsulated component such as basements, utility rooms, garages, or corridors, which:

1. Is heated but not cooled, and has an installed heating system output capacity greater than or equal to 3.4 Btu/h per square foot (38.612 kilojoule/h per square meter) but not greater than 8 Btu/h per square foot (90.852 kilojoule/h per square meter).

Heating is permitted to be provided by heat pumps complying with the exception to WSEC Section C402.1.1.2; and

2. Is not a walk-in cooler, walk-in freezer, refrigerated warehouse cooler, or refrigerated warehouse freezer space.

AA. Single-pass heat pump water heater: a heat pump water heater control strategy using variable flow or variable capacity to deliver water from the heat pump at the final target storage water temperature in a single pass through the heat exchanger with variable incoming water temperatures.

((~~V. Solar zone: a clear area or areas reserved solely for current or future installation of photovoltaic or solar hot water systems.~~

~~W. Temperature maintenance: the system used to maintain the temperature of the building domestic hot water delivery system, typically by circulation and reheating or by a heat trace system.~~))

((~~X.~~)) BB. TSPR: total system performance ratio.

((~~Y.~~)) CC. VAV: variable air volume.

DD. Wall, metal building: a wall whose structure consists of metal spanning members supported by steel structural members and does not include spandrel glass or metal panels in curtain wall systems.

EE. Wall, steel-framed: a wall with a cavity, insulated or otherwise, whose exterior surfaces are separated by steel framing members or typical steel stud walls and curtain wall systems.

FF. Wall, wood-framed and other: all other wall types, including wood stud walls.

NEW SECTION. SECTION 37. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C402.1.3 of the Washington State Energy Code is not adopted and is substituted with the following:

Insulation component R-value based method (WSEC C402.1.3). Building thermal envelope opaque assemblies shall comply with the requirements of WSEC C402.2 based on the climate zone specified in Chapter 3. For opaque portions of the building thermal envelope intended to comply on an insulation component R-value basis, the R-values for cavity insulation and continuous insulation shall not be less than that specified in WSEC Table C402.1.3. Where cavity insulation is installed in multiple layers, the cavity insulation R-values shall be summed to determine compliance with the cavity insulation R-value requirements.

Where continuous insulation is installed in multiple layers, the continuous insulation R-values shall be summed to determine compliance with the continuous insulation R-value requirements. Cavity insulation R-values shall not be used to determine compliance with the continuous insulation R-value requirements in WSEC Table C402.1.3. Commercial buildings or portions of commercial buildings enclosing Group R occupancies shall use the R-values from the "Group R" column of WSEC Table C402.1.3. Commercial buildings or portions of commercial buildings enclosing occupancies other than Group R shall use the R-values from the "All other" column of WSEC Table C402.1.3.

EXCEPTION: For stair and elevator shafts that do not comply with WSEC C402.1.2.1 and that are located within enclosed garages or other enclosed non-

conditioned spaces and without conditioned supply air or cooling or heating appliances rated higher than 2 kilowatts in any shaft, walls enclosing the shafts are permitted to be:

1. Concrete or masonry with minimum R-5 continuous insulation;
2. Metal studs with R-15 cavity insulation and without continuous insulation; or
3. Other assemblies with a maximum U-value of 0.120.

Slab floors, intermediate mass floor edges, and elevator pits within shafts using this exception are excluded from envelope insulation requirements. Shaft surfaces using this exception shall not be included in the gross exterior wall area for purposes of maximum fenestration area calculations in WSEC C402.4.1 component performance calculations in WSEC C402.1.5, or for the total building performance calculation of WSEC C407.

Table C402.1.3

Opaque Thermal Envelope Insulation Component

Minimum Requirements, R-value Method[a, j]

CLIMATE ZONE	**5 AND MARINE 4**	
	All Other	**Group R**
Roofs		
Insulation entirely above deck	R-38ci	R-38ci
Metal buildings[b]	R-25 + R-22 LS	R-25 + R-22 LS

Attic and other	R-49	R-49
Walls, Above Grade[i]		
Mass[h]	Exterior: R-16 ci Interior: R-13+R-6 ci wood stud, or R-13 + R-10 ci metal stud	Exterior: R-16 ci Interior: R-13+R-6 ci wood stud, or R-13 + R-10 ci metal stud
Mass transfer deck slab edge[g]		
Metal buildings	R-13 + R-14ci	R-13 + R-14ci
Steel framed	R-13 + R-10ci	R-19 + R-8.5ci
Wood framed and other	R-13 + R-7.5ci std or R-20 + R-3.8ci std	R-13 + R-7.5ci std or R-20 + R-3.8ci std or R-25 std
Walls, Below Grade		
Below-grade wall[d, h]	Exterior: R-10 ci Interior: R-19 wood stud, or R-13 + R-6 metal stud	Exterior: R-10 ci Interior: R-19 wood stud, or R-13 + R-6 metal stud
Floors		
Mass[f]	R-30ci	R-30ci

Joist/framing	R-30e	R-30e
Slab-on-Grade Floors		
Unheated slabs	R-10 for 24" below	R-10 for 24" below
Heated slabs	R-10 perimeter & under entire slab	R-10 perimeter & under entire slab

For SI: 1 inch = 25.4 mm. ci = Continuous insulation. NR = No requirement.

LS = Liner system—A continuous membrane installed below the purlins and uninterrupted by framing members. Uncompressed, unfaced insulation rests on top of the membrane between the purlins.

Footnotes:

a. Assembly descriptions can be found in chapter 2 and Appendix A.

b. Where using R-value compliance method, a thermal spacer block with minimum thickness of 1/2-inch (13 millimeters) and minimum R-value of R-3.5 shall be provided, otherwise use the U-factor compliance method in WSEC Table C402.1.4.

c. Reserved.

d. Where heated slabs are below grade, they shall comply with the insulation requirements for heated slabs.

e. Reserved.

f. "Mass floors" shall include floors weighing not less than:

1. 35 pounds per square foot (171 kilograms per square meter) of floor surface area; or

2. 25 pounds per square foot (122 kilograms per square meter) of floor surface area where the material weight is not more than 120 pounds per cubic foot (586 kilograms per square meter).

g. Component performance in accordance with WSEC C402.1.5 shall be required for buildings with a mass transfer deck slab.

h. Peripheral edges of intermediate concrete floors are included in the above-grade mass wall category and therefore must be insulated as above-grade mass walls unless they meet the definition of Mass Transfer Deck Slab Edge. The area of the peripheral edges of concrete floors shall be defined as the thickness of the slab multiplied by the perimeter length of the edge condition. See WSEC Table A103.3.7.2 for typical default U-factors for above-grade slab edges and foot-note c for typical conditions of above-grade slab edges.

i. Where the total area of through-wall mechanical equipment is greater than 1 percent of the opaque above-grade wall area, use of the R-value method is not permitted. See WSEC C402.1.4.3.

j. For roof, wall, or floor assemblies where the proposed assembly would not be continuous insulation, alternate nominal R-value compliance options for assemblies with isolated metal fasteners that penetrate otherwise continuous insulation are as shown in columns B and C of WSEC Table C402.1.3(i):

Table C402.1.3(i)

Continuous Insulation Equivalents

Column A	**Column B**	**Column C**

Assemblies with continuous insulation (see definition)	**Alternate option for assemblies with metal penetrations, greater than 0.04% but less than 0.08%**	**Alternate option for assemblies with metal penetrations, greater than or equal to 0.08% but less than 0.12%**
R-9.5ci	R-11.9ci	R-13ci
R-11.4ci	R-14.3ci	R-15.7ci
R-13.3ci	R-16.6ci	R-18.3ci
R-15.2ci	R-19ci	R-21ci
R-30ci	R-38ci	R-42ci
R-38ci	R-48ci	R-53ci
R-13 + R-7.5ci	R-13 + R-9.4ci	R-13 + R-10.3ci
R-13 + R-10ci	R-13 + R-12.5ci	R-13 + R-13.8ci
R-13 + R-12.5ci	R-13 + R-15.6ci	R-13 + R-17.2ci
R-13 + R-13ci	R-13 + R-16.3ci	R-13 + R-17.9ci
R-19 + R-8.5ci	R-19 + R-10.6ci	R-19 + R-11.7ci
R-19 + R-14ci	R-19 + R-17.5ci	R-19 + R-19.2ci
R-19 + R-16ci	R-19 + R-20ci	R-19 + R-22ci
R-20 + R-3.8ci	R-20 + R-4.8ci	R-20 + R-5.3ci
R-21 + R-5ci	R-21 + R-6.3ci	R-21 + R-6.9ci

Notes for Table C402.1.3(i):

1. These alternate nominal R-value compliance options are allowed for projects complying with all of the following:

1.a The ratio of the cross-sectional area, as measured in the plane of the surface, of metal penetrations of otherwise continuous insulation to the opaque surface area of the assembly is greater than 0.0004 (0.04 percent), but less than 0.0008 (0.08) percent for use of Column B equivalents, and greater than or equal to 0.008 (0.08) percent, but less than 0.0012 (0.12) percent, for use of Column C equivalents.

1.b. Where all metal penetrations are stainless steel, Column B is permitted to be used for penetrations greater than 0.12 percent, but less than 0.24 percent of opaque surface area, and Column C is permitted to be used for penetrations greater than or equal to 0.24 percent, but less than 0.48 percent of opaque surface area.

2. The metal penetrations of otherwise continuous insulation are isolated or discontinuous (e.g., brick ties or other discontinuous metal attachments, offset brackets supporting shelf angles that allow insulation to go between the shelf angle and the primary portions of the wall structure). No continuous metal elements (e.g., metal studs, z-girts, z-channels, shelf angles) penetrate the otherwise continuous portion of the insulation.

3. Building permit drawings shall contain details showing the locations and dimensions of all the metal penetrations (e.g., brick ties or other discontinuous metal attachments, offset brackets, etc.) of otherwise continuous insulation. In addition, calculations shall be provided showing the ratio of the cross- sectional area of metal penetrations of otherwise continuous insulation to the overall opaque wall area.

For other cases where the proposed assembly is not continuous insulation, see WSEC C402.1.4 for determination of U-factors for assemblies that include metal other than screws and nails.

SECTION 38. Ordinance 19485, Section 74, and K.C.C. 16.07.060 are hereby amended to read as follows:

Table C402.1.4 of the ((~~International Energy Conservation~~)) Washington State Energy Code is not adopted and the following is substituted:

TABLE C402.1.4

OPAQUE THERMAL ENVELOPE ASSEMBLY MAXIMUM REQUIREMENTS, U-FACTOR METHOD ((~~a,f~~))[a, f]

	CLIMATE ZONE 5 AND MARINE 4	
	All Other	**Group R**
Roofs		
Insulation entirely above deck	U-0.027	U-0.027
Metal buildings	U-0.027	U-0.027
Attic and other	U-0.021	U-0.021
Joist or single rafter	U-0.027	U-0.027
Walls, Above Grade[k]		
Mass((~~g,b~~))[g]	U-0.057	U-0.057
Mass transfer deck slab edge((~~d~~))[j]	U-0.20	U-0.20
Slab penetrating thermal envelope wall((~~h~~))	U-0.10	U-0.10
Metal building((~~b~~))	((~~U-0.052~~)) U-0.050	((~~U-0.052~~)) U-0.050
Steel framed((~~b~~))	U-0.055	U-0.055
Wood framed and other((~~b~~))	U-0.051	U-0.051
Walls, Below Grade		

Below-grade wall((~~g~~))[g]	U-0.070	U-0.070
Floors		
Mass((~~e~~))[e]	U-0.031	U-0.031
Joist/framing	U-0.029 steel joist U-0.025 wood joist	U-0.029 steel joist U-0.025 wood joist
Concrete column or wall penetrating thermal envelope floor((~~i~~))[i]	U-0.55	U-0.55
Concrete slab floor directly above an electrical utility vault	N.R.	N.R.
Slab-on-Grade Floors		
Unheated slabs	F-0.54	F-0.54
Heated slabs((~~c~~))[c]	F-0.55	F-0.55
Opaque Doors		
((~~Swinging door~~))	((~~U-0.37~~))	((~~U-0.37~~))
Nonswinging door	((~~U-0.34~~)) U-0.31	((~~U-0.34~~)) U-0.31
Swinging door	U-0.37	U-0.37
Garage door <14% glazing	U-0.31	U-0.31
Garage door ≥14% glazing and <50% glazing[i]	U-0.34	U-0.34

Footnotes:

a. Use of opaque assembly U-factors, C-factors, and F-factors from ((~~IECC~~)) WSEC Appendix A is required unless otherwise allowed by ((~~IECC~~)) WSEC C402.1.4.

b. ((~~Through-wall mechanical equipment subject to IECC C402.1.4.2 shall be calculated at the U-factor defined in IECC C402.1.4.2. The area-weighted U-value of the wall, including through-wall mechanical equipment, shall not exceed the value in the table.~~)) Reserved.

c. Heated slab F-factors shall be determined specifically for heated slabs. Unheated slab factors shall not be used.

d. ((~~A mass transfer deck, due to its configuration, is not insulated. The table value (U-0.20) shall be used as the baseline value for component performance or total building performance path calculations. For the proposed value, the appropriate value from the top line of IECC Table A104.3.7.2 shall be used.~~)) Reserved.

e. "Mass floors" shall include floors weighing not less than:

(((~~1~~))). 35 pounds per square foot (171 kilograms per square meter) of floor surface area; or

(((~~ 2~~))). 25 pounds per square foot (122 kilograms per square meter) of floor surface area where the material weight is not more than 120 pounds per cubic foot (586 kilograms per square meter).

f. Opaque assembly U-factors based on designs tested in accordance with ASTM C1363 ((~~is allowed~~)) shall be permitted. The R-value of continuous insulation ((~~is allowed~~)) shall be permitted to be added or subtracted from the original test design.

g. Peripheral edges of intermediate concrete floors are included in the above grade mass wall category and therefore must be insulated as above grade mass walls unless they meet the definition of a ((~~m~~))Mass ((~~t~~))Transfer ((~~d~~))Deck ((~~s~~))Slab ((~~edge~~)). The area of the peripheral edges of concrete floors shall be defined as the thickness of the

slab multiplied by the perimeter length of the edge condition. See ((~~IECC~~)) WSEC Table A103.3.7.2 for typical default U-factors for above-grade slab edges and footnote c for typical conditions of above grade slab edges.

h. ((~~Intermediate concrete floor slabs penetrating the building thermal envelope shall comply with IECC C402.2.9. The area of such penetrating concrete floor slabs shall be defined as the thickness of the slab multiplied by the length of the penetration. The "exposed concrete" row in IECC Table A103.3.7.2 shall be used for typical default U-factors for the penetrating concrete slab.~~)) Swinging door U-factors shall be determined in accordance with NFRC-100.

i. ((~~Value applies to concrete columns and concrete walls that interrupt mass floor insulation, but not to perimeter walls or columns separating interior conditioned space from exterior space.~~)) Garage doors having a single row of fenestration shall have an assembly U-factor less than or equal to 0.44, provided that the fenestration area is not less than 14 percent and not more than 50 percent of the total door area.

j. Component performance in accordance with WSEC C402.1.5 shall be required for buildings with a mass transfer deck slab. A mass transfer deck, due to its configuration, is not insulation. The table value (U-0.20) shall be used as the baseline value for component performance or total building performance path calculations. For the proposed value, the appropriate value from WSEC Table A103.3.7.2 shall be used.

k. Through-wall mechanical equipment subject to WSEC C402.1.4.3 shall be calculated at the U-factor defined in WSEC C402.1.4.3. The area-weighted U-factor of the wall, including through-wall mechanical equipment, shall not exceed the value in the table.

l. Value applies to concrete columns and concrete walls that interrupt mass floor insulation, but not to perimeter walls or columns separating interior conditioned space from exterior space.

NEW SECTION. SECTION 39. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Component performance alternative (WSEC C402.1.5). Building envelope values and fenestration areas determined in accordance with Equation 4-2 shall be permitted in lieu of compliance with the U-factors and F-factors in WSEC Table C402.1.4 and WSEC C402.4 and the maximum allowable fenestration areas in WSEC C402.4.1.

For buildings with more than one space conditioning category, component performance compliance shall be demonstrated separately for each space conditioning category. Interior partition ceilings, walls, fenestration, and floors that separate space conditioning areas shall be applied to the component performance calculations for the space conditioning category with the highest level of space conditioning.

High-performance vertical fenestration types required by Column B of WSEC Table C402.4 shall be calculated separately from other vertical fenestration types in Equation 4-2. The maximum U-factors permitted in Column B of WSEC Table C402.4 shall not be exceeded for the required Column B vertical fenestration area.

EXCEPTION: The maximum U-factor permitted for operable vertical fenestration in Column B of WSEC Table C402.4 may be exceeded when the Proposed Column B vertical fenestration area weighted UA is less than or equal to the Allowable

Column B vertical fenestration area weighted UA for all types of Column B vertical fenestration.

Equation 4-2:

Proposed Total UA ≤ Allowable Total UA

Where:

Proposed Total UA = UA-glaz-prop + UA sky-prop + UA-opaque-prop + FL-slab-prop.

Allowable Total UA = UA-glaz-allow + UA-glaz-excess + UA sky-allow + UA-sky-excess + UA-opaque-allow + FL-slab-allow UA-glaz-prop = Sum of (proposed U-value × proposed area) for each distinct vertical fenestration type, up to code maximum area.

UA-sky-prop = Sum of (proposed U-value × proposed area) for each distinct skylight type, up to the code maximum area UA-opaque-prop = Sum of (proposed U-value × proposed area) for each distinct opaque thermal envelope type.

FL-slab-prop = Sum of (proposed F-value × proposed length) for each distinct slab on grade perimeter assembly.

UA-glaz-allow = Sum of (code maximum vertical fenestration U-value from WSEC Table C402.4, or WSEC C402.4.1.1.2 if applicable, × proposed area) for each distinct vertical fenestration type, not to exceed the code maximum area[1].

UA-glaz-excess = U-value for the proposed wall type from WSEC Table C402.4[2] × vertical fenestration area in excess of the code maximum area.

UA-sky-allow = Sum of (code maximum skylight U-value from WSEC Table C402.4 × proposed area) for each distinct skylight type proposed, not to exceed the code maximum area.

UA-sky-excess = U-value for the proposed roof type from WSEC Table C402.4[3] × skylight area in excess of the code maximum area.

UA-opaque-allow = Code maximum opaque envelope U-value from WSEC Table C402.1.4 for each opaque door, wall, roof, and floor assembly × proposed area.

FL-slab-allow = Code maximum F-value for each slab-on-grade perimeter assembly × proposed length.

Footnotes:

1. Where multiple vertical fenestration types are proposed and the code maximum area is exceeded, the U-value shall be the average WSEC Table C402.1.4 U-value weighted by the proposed vertical fenestration area of each type.

2. Where multiple wall types are proposed the U-value shall be the average WSEC Table C402.1.4 U-value weighted by the proposed above grade wall area of each type.

3. Where multiple roof types are proposed the U-value shall be the average WSEC Table C402.1.4 U-value weighted by the proposed roof area of each type.

SECTION 40. Ordinance 19485, Section 78, and K.C.C. 16.07.100 are hereby amended to read as follows:

Section C402.4 of the ((~~International Energy Conservation~~)) Washington State Energy Code is not adopted and the following is substituted:

Fenestration – prescriptive (((~~IECC~~)) WSEC C402.4). Fenestration shall comply with ((~~IECC~~)) WSEC C402.4 through C402.4.4 and IECC Table C402.4. Column A values in WSEC Table C402.4 apply to a maximum of 80 percent of the total building vertical fenestration area, or 65 percent to comply with Exception 1 to WSEC C402.4.1. The minimum 20 percent of fenestration required to meet the Column B high-performance U-factors, or 35 percent to comply with Exception 1 to WSEC C402.4.1, is permitted to be met using any combination of vertical fenestration types with Column B values listed, and those maximum U-factors must be maintained when using the component performance alternative in WSEC C402.1.5. An area-weighted average of Column B U-factors is permitted, in compliance with the exception to WSEC C402.1.5. Daylight responsive controls shall comply with this section and ((~~IECC C405.2.4~~)) WSEC C405.2.5.

EXCEPTIONS:

1. Buildings or additions with less than 5,000 square feet (464.5 square meters) of conditioned floor area are not required to provide the Column B high performance fenestration.

2. For prescriptive envelope compliance, single-pane glazing is allowed for security purposes and for revolving doors, not to exceed ((~~one~~)) 1 percent of the gross exterior wall area. Where ((~~IECC~~)) WSEC C402.1.5, component performance alternative, is used, the single-pane glazing shall be included in the percentage of the total glazing area, U-factor, and SHGC requirements.

Table C402.4

Building Envelope Fenestration Maximum U-factor and SHGC Requirements

((~~CLIMATE ZONEs 5 AND MARINE 4~~)) **Column A** **Standard performance portion, applicable to no more than 80 percent of vertical fenestration area, or 65 percent for compliance with Exception 1 to WSEC Section C402.4.1**		**Column B** **High performance portion, applicable to no less than 20 percent of vertical fenestration area, or 35 percent for compliance with Exception 1 to WSEC Section C402.4.1**
U-factor for Class AW windows rated in accordance with AAMA/CSA101/I.S.2/A440, vertical curtain walls and site-built fenestration products[a]		
Fixed[b] U-factor	U-0.34	U-0.22
Operable[c] U-factor	U-0.36	U-0.26
Entrance doors[d]		
U-factor	U-0.60	n/a
U-factor for all other vertical fenestration		
Fixed U-factor	U-0.26	U-0.20
Operable[c] U-factor	U-0.28	U-0.20

SHGC for all vertical fenestration			
Orientation[e, f]	**((~~SEW~~)) Fixed**	**((~~N~~)) Operable**	
PF < 0.2	0.38	((~~0.51~~)) 0.33	n/a
0.2 ≤ PF < 0.5	0.46	((~~0.56~~)) 0.40	n/a
PF ≥ 0.5	0.61	((~~0.61~~)) 0.53	n/a
All Skylights			
U-factor	U-0.45		n/a
SHGC	0.32		n/a

Footnotes:

a. U-factor and SHGC shall be rated in accordance with NFRC 100. This category includes curtain wall, storefront, ribbon wall, window wall, and similar site-assembled systems. This category does not include punched-opening manufactured windows except for "Class AW" windows as designated by AAMA.

b. "Fixed" includes curtain wall, storefront, picture windows, and other fixed windows.

c. "Operable" includes openable fenestration products other than "entrance doors((~~,~~))," and includes only the operable portions of multi-pane assemblies.

d. "Entrance door" includes glazed swinging entrance doors and glazed automatic sliding entrance doors. Other doors which are not entrance doors, including manually operated sliding glass doors, are considered "operable."

e. ((~~"N" indicates vertical fenestration oriented within 30 degrees of true north. "SEW" indicates orientations other than "N."~~)) Reserved.

f. Fenestration that is entirely within the conditioned space or is between conditioned and other enclosed space is exempt from solar heat gain coefficient requirements and not included in the SHGC calculation.

NEW SECTION. SECTION 41. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C402.4.1 of the Washington State Energy Code is not adopted and the following is substituted:

Fenestration – Maximum area (WSEC C402.4.1). The total building vertical fenestration area (not including opaque doors and opaque spandrel panels) shall not exceed the percentage of above-grade wall area permitted by WSEC Table C402.4.1. The skylight area shall not exceed 5 percent of the total building gross roof area (skylight-to-roof ratio).

For buildings with more than one space conditioning category, compliance with the maximum allowed window-to-wall ratio and skylight-to-roof ratio shall be demonstrated separately for each space conditioning category. Interior partition ceiling, wall, fenestration, and floor areas that separate space conditioning areas shall not be applied to the window-to-wall ratio and skylight-to-roof ratio calculations.

EXCEPTIONS:

1. The allowable total building vertical fenestration area in WSEC Table C402.4.1 is permitted to be increased by 5 percent where a minimum of 35 percent of all

vertical fenestration complies with the high-performance fenestration required in Column B of WSEC Table C402.4.

2. For vertical fenestration at street level retail, the vertical fenestration area shall not exceed 75 percent of the area of the street-level wall that faces the street or that adjoins other pedestrian areas used for retail access. For the purposes of this exception, the street-level wall shall be measured from the street-level floor to the interior ceiling level or to 20 feet (6,096 millimeters) above floor level, whichever is lowest. When this exception is used, separate calculations shall be performed for these sections of the building envelope, and these values shall not be averaged with any others for compliance purposes. On the street level the 75 percent vertical fenestration area is permitted to be exceeded if the additional fenestration area is deducted from fenestration allowances from other areas of the building.

3. Accessory occupancy areas that comprise less than 10 percent of the conditioned floor area of any floor are permitted to be included in the primary occupancy of that floor for determination of the allowable fenestration area for that floor.

Table C402.4.1

Allowable Vertical Glazing Area Percentages

Occupancy	**Building Area Type**	**Maximum prescriptive vertical fenestration percentage**
Group A-2 or B	Restaurant (quick service)	34
Group A-2 or B	Restaurant (full service)	24

Group B	Healthcare (outpatient)	21
Group B	Office (5,000 ft^2/464.52m^2 or smaller)	19
Group B	Office (5,000 to 50,000 ft^2)	31
Group B	Office (larger than 50,000 ft^2)	35
Group B	University or college	30
Group E	School (primary and secondary)	26
Group I-2	Hospital	27
Group M	Grocery Store	15
Group M	Retail (standalone)	20
Group M	Retail (strip mall)	20
Group R-1	Hotel/motel (75 or fewer rooms)	24
Group R-1	Hotel/motel (more than 75 rooms)	34
Group R-2	Multifamily 7 stories or less	30
Group R-2	Multifamily 8 stories or taller	35
Group S-2	Warehouse (non-refrigerated)	6
	All other	30

NEW SECTION. SECTION 42. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C402.4.1.1 of the Washington State Energy Code is not adopted and the following is substituted:

Vertical fenestration maximum area with high performance alternates (WSEC C402.4.1.1). For buildings that comply with Section C402.4.1.1.1 or Section C402.4.1.1.2, the total building vertical fenestration area is permitted to exceed the

percentage of the total building gross above grade wall area allowed in Table C402.4.1 by 15 percent for Group R-2 multifamily building area types and 10 percent for all other building area types for the purpose of prescriptive compliance with Section C402.1.4. Not less than 20 percent of all vertical fenestration must comply with the Column B values of WSEC Table C402.4.

When determining compliance using the component performance alternative in accordance with WSEC C402.1.5, the total building vertical fenestration area allowed in Equation 4-2 (UA-glaze-allow) is allowed to exceed the value in WSEC Table C402.4.1 for Group R-2 multifamily building area types by 15 percent and for all other building area types by 10 percent of the above grade wall area for buildings that comply with the vertical fenestration alternates described in this section. Not less than 20 percent of all vertical fenestration must comply with the Column B values of WSEC Table C 402.4.

SECTION 43. Ordinance 19485, Section 79, and K.C.C. 16.07.110 are hereby amended to read as follows:

Section C402.4.1.1.2 of the ((~~International Energy Conservation~~)) Washington State Energy Code is not adopted and the following is substituted:

High-performance fenestration ((~~IECC~~)) WSEC C402.4.1.1.2). The following requirements shall be met:

1. All vertical fenestration in the building shall comply with the ((~~following maximum~~)) U-factors ((~~:~~

~~1.1. U-factor for Class AW windows rated in accordance with AAMA/CSA101/I.S.2/A440, vertical curtain walls and site-built fenestration products (fixed) = 0.30.~~

~~1.2. U-factor for Class AW windows rated in accordance with AAMA/CSA101/I.S.2/A440, vertical curtain walls and site-built fenestration products (operable) = 0.36.~~

~~1.3. Entrance doors = 0.60.~~

~~1.4. U-factor for all other vertical fenestration, fixed = 0.22.~~

~~1.5. U-factor for all other vertical fenestration, operable = 0.24~~)) in WSEC Table C402.4.1.1.2.

2. The SHGC of the vertical fenestration shall be no more than 0.90 times the maximum SHGC values listed in ((~~IECC~~)) WSEC Table C402.4.

An area-weighted average may satisfy the U-factor requirement for each fenestration product category listed in subsection 1 of this section. Individual fenestration products from different fenestration product categories shall not be combined in calculating the area-weighted average U-factor, except that fenestration from the same column in lines a. and b. are permitted to be combined, and the fenestration from the same column in lines d. and e. are permitted to be combined. Maximum U-factors for skylights, and the maximum SHGC values for all fenestration, shall comply with WSEC C402.4.

Table C402.4.1.1.2

Building Envelope High Performance

Fenestration Maximum U-Factor

		Column C **Standard performance portion, applicable to no more than 80 percent of vertical fenestration area, or 65 percent for compliance with Exception 1 to WSEC C402.4.1**	**Column D** **High performance portion applicable to no less than 20 percent of vertical fenestration area, or 35 percent for compliance with Exception 1 to WSEC C402.4.1**
		U-factor for Class AW windows rated in accordance with AAMA/CSA101/I.S.2/A440, vertical curtain walls and site-built fenestration products[1]	
a.	Fixed[2] U-factor	U-0.26	U-0.22
b.	Operable[3] U-factor	U-0.30	U-0.26
	Entrance doors[4]		
c.	U-factor	U-0.60	N/A
		U-factor for all other vertical fenestration	
d.	Fixed U-factor	U-0.22	U-0.20
e.	Operable or mulled windows with fixed and operable sections	U-0.23	U-0.22

		Column C **Standard performance portion, applicable to no more than 80 percent of vertical fenestration area, or 65 percent for compliance with Exception 1 to WSEC C402.4.1**	**Column D** **High performance portion applicable to no less than 20 percent of vertical fenestration area, or 35 percent for compliance with Exception 1 to WSEC C402.4.1**
	U-factor		

Footnotes:

1. U-factor and SHGC shall be rated in accordance with NFRC 100. This category includes curtain wall, storefront, ribbon wall, window wall, and similar site-assembled systems. This category does not include punched-opening manufactured windows except for "Class AW" windows as designated by AAMA.

2. "Fixed" includes curtain wall, storefront, picture windows, and other fixed windows.

3. "Operable" includes openable fenestration products other than "entrance doors," and includes only the operable portions of multi-pane assemblies.

4. "Entrance door" includes glazed swinging entrance doors and automatic glazed sliding entrance doors. Other doors which are not entrance doors, including manually operated sliding glass doors, are considered "operable."

SECTION 44. Ordinance 19485, Section 81, and K.C.C. 16.07.130 are hereby amended to read as follows:

Section C403.1.1 of the ((~~International Energy Conservation~~)) Washington State Energy Code is supplemented with the following:

HVAC Total System Performance Ratio (HVAC TSPR) ((~~- medical office and residential applications~~)) (WSEC C403.1.1.1). ((~~Systems serving medical offices, and the dwelling units and residential common areas within R-2 multifamily, shall comply with 403.1.1.~~)) For systems serving occupancy areas included in WSEC Table C403.1.1, the HVAC total system performance ratio (HVAC TSPR) of the proposed design HVAC system shall be greater than or equal to the HVAC TSPR of the standard reference design as calculated according to Appendix D, Calculation of HVAC Total System Performance Ratio.

Table C403.1.1

Occupancy Classifications Requiring TSPR

Occupancy Classification	**Inclusions**	**Excluded**
A	Library	All other Group A uses
B	Office, medical office	All other Group B uses
E	All occupancies included	
M	All occupancies included	
R	Dwelling units and common	Groups R-1 and R-3 occupancies.

Occupancy Classification	**Inclusions**	**Excluded**
	areas within Group R-2 areas of buildings	Sleeping units and associated residential common areas in Group R-2
F, H, I, S, U		All occupancies

EXCEPTIONS TO SECTION C403.1.1: ((~~Buildings or areas of medical office buildings that comply fully with ASHRAE Standard 170, including but not limited to surgical centers, or that are required by other applicable codes or standards to provide air handling units that operate 24 hours per day, 7 days per week.~~))

1. Buildings where the sum of the conditioned floor area of occupancies included in the Inclusions column of WSEC Table C403.1.1 is less than 5,000 square feet (464.5 square meters). Areas that are eligible for any of the exceptions below do not count towards the 5,000 square feet (464.5 square meters).

2. HVAC systems using district heating water, chilled water, or steam.

3. HVAC systems connected to a low-carbon district energy exchange system.

4. HVAC systems not included in Table D601.10.1.

5. HVAC systems with chilled water supplied by absorption chillers, heat recovery chillers, water to water heat pumps, air to water heat pumps, or a combination of air and water cooled chillers on the same chilled water loop.

6. HVAC systems included in WSEC Table D601.10.1 with parameters in WSEC Table D601.10.2 not identified as applicable to that HVAC system type.

7. HVAC systems served by heating water plants that include air-to-water or water-to-water heat pumps.

8. Underfloor air distribution and displacement ventilation HVAC systems.

9. Space conditioning systems that do not include mechanical cooling.

10. Alterations to existing buildings that do not substantially replace the entire HVAC system and are not serving initial build-out construction.

11. HVAC systems meeting all the requirements of the standard reference design HVAC system in WSEC Table D602.11, Standard Reference Design HVAC Systems.

12. Buildings or areas of medical office buildings that comply fully with ASHRAE Standard 170 including, but not limited to, surgical centers, or that are required by other applicable codes or standards to provide 24/7 air handling unit operation.

13. HVAC systems serving the following areas and spaces:

13.1. Laundry rooms;

13.2. Elevator machine rooms;

13.3. Mechanical and electrical rooms;

13.4. Data centers and computer rooms;

13.5. Laboratories with fume hoods;

13.6. Locker rooms with more than 2 showers;

13.7. Natatoriums and rooms with saunas;

13.8. Restaurants and commercial kitchens with total cooking capacity greater than 100,000 Btu/h (105,506 kilojoules/h) ;

13.9. Areas of buildings with commercial refrigeration equipment exceeding 100 kW of power input; and

13.10. Cafeterias and dining rooms.

SECTION 45. Ordinance 19485, Section 82, and K.C.C. 16.07.140 are hereby amended to read as follows:

Section C403.1.4 of the ((~~International Energy Conservation~~)) Washington State Energy Code is ((~~supplemented with~~)) not adopted and the following is substituted:

Use of electric resistance and fossil fuel-fired HVAC heating equipment (((~~IECC~~)) WSEC C403.1.4). HVAC heating energy shall not be provided by electric resistance or fossil fuel combustion appliances. For the purposes of this section, electric resistance HVAC heating appliances include, but are not limited to, electric baseboard, electric resistance fan coil,((~~and~~)) VAV electric resistance terminal reheat units, and electric resistance boilers. For the purposes of this section, fossil fuel combustion HVAC heating appliances include but are not limited to appliances burning natural gas, heating oil, propane, or other fossil fuels.

EXCEPTIONS:

1. ((~~Pasteurization. Electric resistance heat controls are allowed to reset the supply water temperature of hydronic heating systems that serve service water heating heat exchangers during pasteurization cycles of the service hot water storage volume. The hydronic heating system supply water temperature shall be configured to be 145° F or lower during the pasteurization cycle.~~

~~2.~~)) Low heating capacity. Buildings or areas of buildings, other than dwelling units or sleeping units, that meet the interior temperature requirements of the ((~~International Building Code~~)) IBC Chapter 12 with a total installed HVAC heating capacity no more than 8.5 Btu/h (9 kilojoules/h or 2.5 ((~~W~~)) watts) per square foot (per

0.1 square meter) of conditioned space may be heated using electric resistance appliances. ((~~For the purposes of this exception, overhead or wall-mounted radiant heating panels installed in an unheated or semi-heated space, insulated in compliance with IECC C402.2.8 and controlled by occupancy-sensing devices in compliance with IECC C403.11.1 shall not be part of the HVAC heating energy calculation.~~))

((~~3.~~)) 2. Dwelling or sleeping units. Dwelling or sleeping units ((~~having an installed HVAC heating capacity no more than~~)) may be heated using electric resistance appliances as long as the installed HVAC heating capacity in any separate space is not greater than specified in 2.1 through 2.3. Where a single dwelling unit includes multiple habitable spaces that are all heated with electric resistance heat, individual spaces are permitted have more electric resistance heating capacity than specified in 2.1 through 2.3, where the total electric resistance heating capacity for the dwelling unit is less than or equal to the total allowed.

2.1 750 ((~~W~~)) watts in ((~~any separate~~)) each habitable room with exterior fenestration ((~~may be heated using electric resistance appliances~~)).

((~~3.1 Corner rooms. A room within a dwelling or sleeping unit~~)) 2.2. 1,000 watts for each habitable space that has two primary walls facing different cardinal directions, each with exterior fenestration((~~, is permitted to have an installed HVAC heating capacity no more than 1000 watts~~)). Bay windows and other minor offsets are not considered primary walls.

((~~4.~~))2.3. 250 watts in spaces adjoining the building thermal envelope but without exterior fenestration.

For the purposes of this section habitable space is as defined in the IBC.

3. Small buildings. Buildings with less than 2,500 square feet (464.5 square meters) of conditioned floor area may be heated using electric resistance appliances.

((~~5.~~)) 4. Defrost. Heat pumps may use electric resistance as the first stage of heating when a defrost cycle is required and is in operation.

((~~6.~~)) 5. Air-to-air heat pumps. Buildings ((~~may use~~)) are permitted to utilize electric resistance ((~~auxiliary heating to~~)) supplemental ((~~heat pump~~)) heating for air-to-air heat pumps ((~~with~~)) that meet all of the following conditions:

((~~6.1.~~)) 5.1. Internal electric resistance heaters have controls that prevent supplemental heater operation when the heating load can be met by the heat pump alone during both steady-state operation and setback recovery.

((~~6.2.~~)) 5.2. The heat pump controls are configured to use the compressor to provide heating down to an outdoor air temperature of 17° ((~~F~~)) Fahrenheit (-8° Celsius) or lower((~~,~~)).

EXCEPTIONS TO 5.2:

1. Packaged terminal heat pumps (PTHPs) that comply with the minimum heating efficiency requirements in Table C403.3.2(4) are exempt from heating pump controls capable of operating the compressor as the first stage of heating down to an outdoor air temperature of 17° Fahrenheit (-8° Celsius) or lower.

2. Heat pumps whose minimum efficiency is regulated by NAECA and whose ratings meet the requirements shown in WSEC Table C403.3.2(2) and include all usage of internal electric resistance heating are exempt from heat pump controls capable of operating the compressor as the first state of heating down to an outdoor air temperature of 17° Fahrenheit (-8° Celsius) or lower, except that thermostats that are not integral to

the heat pump equipment shall be configured to use the compressor as the first stage of heating down to an outdoor air temperature of 17° Fahrenheit (-8° Celsius) or lower except when in defrost.

((~~6.3.~~)) 5.3. The heat pump complies with all of the following:

((~~a.~~)) 5.3.1. Controlled ((~~bya~~)) by a digital or electronic thermostat designed for heat pump use that energizes the supplemental heat only when the heat pump has insufficient capacity to maintain set point or to warm up the space at a sufficient rate;

((~~b.~~)) 5.3.2. Controlled by a multistage space thermostat and an outdoor air thermostat wired to energize supplemental heat only on the last stage of the space thermostat and when outdoor air temperature is less than 32° ((~~F~~)) Fahrenheit (0° Celsius); or

((~~c.~~)) 5.3.3. The minimum efficiency of the heat pump is regulated by NAECA, its rating meets the requirements shown in ((~~IECC~~)) WSEC Table C403.3.2(2), and its rating includes all usage of internal electric resistance heating.

((~~6.4~~)) 5.4. The heat pump rated heating capacity is sized to meet the heating load at an outdoor air temperature of 32° ((~~F~~))) Fahrenheit (0° Celsius) or lower and has a rated heating capacity at 47° ((~~F~~)) Fahrenheit (8° Celsius) no less than 2 times more than supplemental electric resistance heating capacity, or uses the smallest available factory-available internal electric resistance heater.

((~~7.~~)) 6. Air-to-water heat pumps ((~~, up to 2,000 MBH~~)). Buildings ((~~may use~~))are permitted to utilize electric resistance (for Climate Zone 4 or 5) or fossil fuel-fired (for Climate Zone 5) auxiliary heating to supplement heat pump heating for

hydronic heating systems that ((~~have air-to-water heat pump heating capacity no more than 2,000 kBtu/h at 47° F, and that~~)) meet all of the following conditions:

((~~7.1.~~)) 6.1. Controls for the auxiliary electric resistance heating are configured to lock out the supplemental heat when the outside air temperature is above 3((~~2~~)) 6° ((~~F~~)) Fahrenheit (2° Celsius), unless the hot water supply temperature setpoint to the building heat coils cannot be maintained for 20 minutes;

((~~7.2.~~)) 6.2. The heat pump controls are configured to use the compressor as the first stage of heating down to ((~~an outdoor temperature of 17° F or lower~~)) the lowest exterior design temperature for which the equipment is rated except during startup or defrost operation; and

((~~7.3.~~)) 6.3. The heat pump rated heating capacity at 47°((~~F~~)) Fahrenheit (8° Celsius) is no less than ((~~2 times more than supplemental electric resistance heating capacity~~)) 75 percent of the design heating load at 29° Fahrenheit (-2° Celsius).

((~~8. Air-to-water heat pumps, up to 3,000 MBH. Buildings may use electric resistance auxiliary heating to supplement heat pump heating for hydronic heating systems that have air-to-water heat pump heating capacity more than 2,000 kBtu/hr and no more than 3,000 kBtu/hr at 47° F, and that meet the following conditions:~~

~~8.1. Controls for the auxiliary electric resistance heating are configured to lock out the supplemental heat when the outside air temperature is above 36° F, unless the hot water supply temperature setpoint to the building heat coils cannot be maintained for 20 minutes;~~

~~8.2. The heat pump controls are configured to use the compressor as the first stage of heating down to an outdoor temperature of 17° F or lower except during startup or defrost operation; and~~

~~8.3. The heat pump rated heating capacity at 47° F is no less than 1.75 times more than supplemental electric resistance heating capacity.~~

~~9. Air-to-water heat pumps, over 3,000 MBH. Buildings may use electric resistance auxiliary heating to supplement heat pump heating for hydronic heating systems that have air-to-water heat pump heating capacity more than 3,000 kBtu/h at 47° F, and that meet the following conditions:~~

~~9.1. Controls for the auxiliary electric resistance heating are configured to lock out the supplemental heat when the outside air temperature is above 40° F, unless the hot water supply temperature setpoint to the building heat coils cannot be maintained for 20 minutes;~~

~~9.2. The heat pump controls are configured to use the compressor as the first stage of heating down to an outdoor temperature of 17° F or lower except during startup or defrost operation; and~~

~~9.3. The heat pump rated heating capacity at 47° F is no less than 2 times more than supplemental electric resistance heating capacity.~~

~~10.~~)) 7. Ground source heat pumps. Buildings may use electric resistance auxiliary heating to supplement heat pump heating for hydronic heating systems with ground source heat pump equipment that meets the following conditions:

((~~10.1.~~)) 7.1. Controls for the auxiliary resistance heating are configured to lock out the supplemental heat when the outdoor air temperature is above ((~~32° F~~)) 42°

Fahrenheit (6° Celsius), unless the hot water supply temperature setpoint to the building heat coils cannot be maintained for 20 minutes;

((~~10.2.~~)) 7.2. The heat pump controls are configured to use the compressor as the first stage of heating ((~~down to an outdoor temperature of 17° F or lower~~)); and

((~~10.3.~~)) 7.3. The ((~~heat pump rated heating capacity at 32° F entering water conditions is no less than 2 times more than supplemental electric resistance heating capacity~~)) ground source heat exchanger shall be sized so that the heat pump annual heating output is no less than 75 percent of the total annual heating output in the final year of a 30-year simulation using International Ground Source Heat Pump Association (IGSHPA) listed simulation software.

((~~11.~~)) 8. Small systems. Buildings in which electric resistance or fossil fuel appliances, including decorative appliances, in total either provide less than 5 percent of the total building HVAC system heating capacity or serve less than 5 percent of the conditioned floor area.

((~~12.~~)) 9. Specific conditions. Portions of buildings that require fossil fuel or electric resistance space heating for specific conditions approved by the code official for research, health care, process, or other specific needs that cannot practicably be served by heat pump or other space heating systems. This does not constitute a blanket exception for any occupancy type.

((~~13.~~)) 10. Kitchen ((~~exhaust~~)) make-up air. Make-up air for commercial kitchen exhaust systems required to be tempered by ((~~International Mechanical Code Section~~)) IMC 508.1.1 may be heated using electric resistance ((~~appliances~~)).

((~~14.~~)) 11. District energy. Steam or hot water district energy systems that ((~~use~~)) utilize fossil fuels as their primary source of heat energy, that serve multiple buildings, and that were already in existence ((~~before January 1, 2023~~)) prior to the effective date of the 2021 WSEC, which is March 15,2024, including more energy-efficient upgrades to such existing systems, ((~~may~~)) are permitted to serve as the primary heating energy source. Any new hydronic system or new or replacement hydronic heating coil in an existing system, that is served by fossil fuel-fired district energy shall be sized to provide all required space heating at local design winter outdoor temperature with maximum entering water temperature of 118° Fahrenheit (48° Celsius) at design conditions, to permit future conversion to heat pump heating.

((~~15.~~)) 12. Heat tape. Heat tape is allowed where it protects water-filled equipment and piping located outside of the building thermal envelope, ((~~if~~)) provided that it is configured and controlled to be automatically turned off when the outside air temperature is above 40° ((~~F~~)) Fahrenheit (4° Celsius).

((~~16.~~)) 13. Temporary systems. Temporary electric resistance heating systems are allowed where serving future tenant spaces that are unfinished and unoccupied if the heating equipment is sized and controlled to achieve interior space temperatures no higher than 40° ((~~F~~)) Fahrenheit (4° Celsius).

((~~17.~~)) 14. Pasteurization. Electric resistance heat controls are allowed to reset the supply water temperature of hydronic heating systems that serve service water heating heat exchangers during pasteurization cycles of the service hot water storage volume. The hydronic heating system supply water temperature shall be configured to be 145° Fahrenheit (63° Celsius) or lower during the pasteurization cycle.

15. Freeze protection. Heating systems sized for spaces with indoor design conditions of 45° Fahrenheit (7° Celsius) and intended for freeze protection are permitted to use electric resistance. The building envelope of any such space shall be insulated in compliance with WSEC C402.1.

16. DOAS ERV auxiliary heat. Dedicated outdoor air systems with energy recovery ventilation are permitted to utilize electric resistance for auxiliary heating to preheat outdoor air for defrost or as auxiliary supplemental heat to temper supply air to 55° Fahrenheit (13° Celsius) or lower for buildings or portions of buildings that do not have hydronic heating systems.

17. Low-carbon district energy systems. Low-carbon district energy systems that meet the definitions of low-carbon district energy exchange system or low-carbon district heating and cooling or heating only systems.

18. Essential facilities. Groups I-2 and I-3 occupancies that by regulation are required to have in place redundant emergency backup systems, and research laboratories, are permitted to utilize fossil fuels for emergency generators and for redundant emergency space heating and water heating appliances, provided that such systems are sized and controlled to operate only upon loss of electrical power.

19. Standby HVAC heating equipment. Standby HVAC heating equipment provided in addition to the primary heating system, and controlled such that it will only be used when the primary heating equipment is not available, is permitted to utilize electric resistance.

20. Emergency generators. ((~~Emergency generators~~)) Generators serving emergency power, legally required standby power, or optional standby power are permitted to ((~~use~~)) utilize fossil fuels.

21. Wastewater heat recovery heat pumps. Buildings are permitted to utilize electric resistance auxiliary heating to supplement heat pump heating for hydronic heating systems with wastewater heat recovery or other approved waste heat recovery systems provided the heat pump equipment meets all of the following conditions:

21.1. Controls for the auxiliary resistance heating are configured to lock out the supplemental heat when the equipment source-side entering water temperature is above 42° Fahrenheit (6° Celsius), unless the hot water supply temperature setpoint to the building heat coils cannot be maintained for 20 minutes.

21.2. The heat pump controls are configured to use the compressor as the first stage of heating.

21.3. The wastewater heat exchanger and heat pumps or other heat pump supplemental systems shall be sized so that the heat pump rated heating capacity at heat pump design entering water temperature conditions or other heat pump heating systems are no less than 75 percent of the design heating load at 29° Fahrenheit (-2° Celsius). Wastewater heat exchanger source side shall be sized for a design wastewater entering temperature of 55° Fahrenheit (13° Celsius) or lower.

NEW SECTION. SECTION 46. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.3.2 of the Washington State Energy Code is not adopted and the following is substituted:

HVAC equipment performance requirements (WSEC C403.3.2). Equipment shall meet the minimum efficiency requirements of Tables C403.3.2(1) through C403.3.2(16) when tested and rated in accordance with the applicable test procedure. After new equipment efficiency values including HSPF2, EER2, and SEER2 have been published by the US Department of Energy, equipment is permitted to meet those values in lieu of the table values. Plate-type liquid-to-liquid heat exchangers shall meet the minimum requirement of AHRI 400. The efficiency shall be verified through certification and listed under an approved certification program or, if no certification program exists, the equipment efficiency ratings shall be supported by data furnished by the manufacturer. Where multiple rating conditions or performance requirements are provided, the equipment shall satisfy all stated requirements. Where components, such as indoor or outdoor coils, from different manufacturers are used, calculations and supporting data shall be furnished by the designer that demonstrates that the combined efficiency of the specified components meets the requirements herein.

Air-to-water heat pump manufactures shall report the hourly heating output or heating efficiency with and without defrost operation at 32° Fahrenheit or (0° Celsius), in addition to meeting the efficiency requirements of Table C403.3.2(15) at the AHRI 550/590 applicable leaving water temperatures. The hourly heating output or heating efficiency with and without defrost operation shall be documented on the mechanical permit application documents.

EXCEPTION: Heat recovery chillers and air-to-water heat pumps covered under Table C403.3.2(15) are not required to be listed in the AHRI certification program for AHRI 550/590. The equipment heating and cooling efficiency ratings shall be supported

by data furnished by the manufacturer at AHRI 550/590 conditions. Where multiple rating conditions or performance requirements are provided, the equipment shall satisfy all stated requirements.

NEW SECTION. SECTION 47. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Table C403.3.5 of the Washington State Energy Code is not adopted and the following is substituted:

Table C403.3.5

Occupancy Classifications Requiring DOAS

Occupancy Classification[a]	**Inclusions**	**Exempted**
A-1	All occupancies not specifically exempted	Television and radio studios
A-2	Casinos (gaming area)	All other A-2 occupancies
A-3	Lecture halls, community halls, exhibition halls, gymnasiums, courtrooms, libraries, places of religious worship	All other A-3 occupancies
A-4, A-5		All occupancies excluded
B	All occupancies not specifically exempted	Food processing establishments including commercial kitchens, restaurants,

Occupancy Classification[a]	**Inclusions**	**Exempted**
		cafeterias; laboratories for testing and research; data processing facilities and telephone exchanges; air traffic control towers; animal hospitals, kennels, pounds; ambulatory care facilities
F, H, I, S, U		All occupancies excluded
R	Group R dwelling and sleeping units served by energy recovery ventilation systems that each serve two or more dwelling or sleeping units for which energy recovery ventilation is required in accordance with Section C403.7.6. Group R spaces other than dwelling and sleeping units, including corridors and other common use areas.	Groups R-1 and R-3 dwelling or sleeping units for which energy recovery ventilation is not required in accordance with WSEC C403.7.6. Group R dwelling and sleeping units served by energy recovery ventilation systems that each serve only one dwelling or sleeping unit.
E, M	All occupancies included	

Footnote:

a. Occupancy classification from the IBC Chapter 3.

NEW SECTION. SECTION 48. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.3.5.2 of the Washington State Energy Code is not adopted and the following is substituted:

DOAS fan power (WSEC C403.3.5.2). For a DOAS that does not have at least one fan or fan array with fan electrical input power greater than or equal to 1 kilowatt, the total combined fan power shall not exceed 0.8 watts per cubic feet (0.03 cubic meters) per minute of outdoor air as calculated in accordance with Equation 4-10 using design maximum airflows and external static pressures. For a DOAS with at least one fan or fan array with fan electrical input power less than or equal to 1 kilowatt, the DOAS shall comply with the fan power limitations of WSEC C403.8.1. DOAS total combined fan power shall include all supply, exhaust, and other fans utilized for the purpose of ventilation. This fan power restriction applies to each DOAS in the permitted project but does not include the fan power associated with the zonal heating and cooling equipment.

(Equation 4-10)

DOAS Total Combined Fan Power

$$\left(\frac{Watts}{CFM}\right) = \sum \left(\frac{Fan\ bhp}{\eta_m}\right) \times \frac{746}{CFM_{supply}}$$

Where:			
	Fan bhp	=	Brake horsepower for each supply, exhaust, and other fan in the system at design maximum airflow rate.
	η_m	=	Fan motor efficiency including all motor, drive, and

			other losses for each fan in the system.
	CFM_{supply}	=	Design maximum airflow rate of outdoor (supply) air.

NEW SECTION. SECTION 49. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.3.5.5 of the Washington State Energy Code is not adopted and the following is substituted:

Supplemental heating and cooling (WSEC C403.3.5.5). Supply air stream heating in the DOAS system shall comply with WSEC C403.7.3. Cooling is permitted for dehumidification only. Cooling coil shall be sized to meet peak dehumidification requirement at design outdoor temperatures, and no larger. Cooling coil shall be controlled to maintain supply air relative humidity or zone relative humidity.

EXCEPTIONS:

1. Heating permitted for defrost control shall be locked out when outside air temperatures are above 35° Fahrenheit (2° Celsius). Supplemental heating for defrost shall modulate to 10 percent of the peak capacity, and shall be sized to prevent frost damage to the unit at design temperatures and provide supply air less than or equal to 55° Fahrenheit (13° Celsius).

2. A DOAS serving Group R-1 or R-2 occupancy spaces that are served by zonal heating systems, but not by zonal heat pumps, air conditioners, or other zonal mechanical cooling systems, is permitted to be provided with a supplemental heating and cooling system in compliance with WSEC C403.1.4.

NEW SECTION. SECTION 50. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.3.5.6 of the Washington State Energy Code is not adopted and the following is substituted:

DOAS Energy Recovery Ventilator Temperature Control (WSEC C403.3.5.6). Where DOAS includes energy or heat recovery and the design outdoor airflow is greater than 500 cubic feet per minute (250 liters per second), the DOAS shall be equipped with an air economizer bypass damper, energy recovery media bypass damper, or energy recovery wheel speed control that is controlled to prevent overheating of the supply air between the outdoor air temperatures of 55° Fahrenheit (13° Celsius) and 75° Fahrenheit (24° Celsius). Controls must be configured to minimize energy recovery operation or maintain an appropriate DOAS leaving air temperature to prevent zonal heating when the building is in cooling, based either on outdoor air temperature, return air temperature, or a DDC zone-based cooling system demand status reset, based on one of the following:

1. Outdoor air temperature;

2. Return air temperature; or

3. A DDC zone-based cooling system demand status reset.

NEW SECTION. SECTION 51. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.3.5 of the Washington State Energy Code is supplemented with the following:

Impracticality (WSEC C403.3.5.7). Where the code official determines that full compliance with one or more of the requirements in WSEC C403.3.5.1 through C403.3.5.6 is impractical, it is permissible to provide an approved alternate means of

compliance that achieves a comparable level of energy efficiency as the requirement(s) deemed impractical. For the purposes of this section, impractical means that an HVAC system complying with all requirements in WSEC C403.3.5 cannot effectively be utilized due to an unusual use or configuration of the building.

NEW SECTION. SECTION 52. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.3.6 of the Washington State Energy Code is not adopted and the following is substituted.

Ventilation for Group R-2 Occupancy (WSEC C403.3.6). See Section C403.7.6.1 for Ventilation for Group R-2 occupancies.

NEW SECTION. SECTION 53. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.4.1.7 of the Washington State Energy Code is not adopted and the following is substituted:

Demand responsive controls (WSEC C403.4.1.7). Thermostatic controls for heating or cooling systems shall be provided with demand responsive controls capable of increasing the cooling setpoint and decreasing the heating setpoint by no less than 4° Fahrenheit (-16° Celsius). The thermostatic controls shall be capable of performing all other functions provided by the control when the demand responsive controls are not available. Systems with direct digital control of individual zones reporting to a central control panel shall be capable of remotely increasing the cooling setpoint and decreasing the heating setpoint for each zone by no less than 4° Fahrenheit (-16° Celsius).

EXCEPTIONS:

1. Health care and assisted living facilities.

2. R-2 occupancy dwelling units.

NEW SECTION. SECTION 54. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.4.2 of the Washington State Energy Code is not adopted and the following is substituted:

Off-hour controls (WSEC C403.4.2). For all occupancies other than Group R, and for conditioned spaces other than dwelling units and sleeping units within Group R occupancies, each zone shall be provided with thermostatic setback controls that are controlled by either an automatic time clock or programmable control system.

EXCEPTIONS:

1. Zones that will be operated continuously.

2. Zones with a full HVAC load demand not exceeding 6,800 Btu/h (7,174 kilojoules/h or 2 kilowatts) and having a manual shutoff switch located with ready access.

NEW SECTION. SECTION 55. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.5 of the Washington State Energy Code is not adopted and the following is substituted.

Economizers (WSEC C403.5). Air economizers shall be provided on all new cooling systems including those serving computer server rooms, electronic equipment, radio equipment, and telephone switchgear. Economizers shall comply with WSEC C403.5.1 through C403.5.5.

EXCEPTIONS:

1.a For other than Group R-2 occupancies, cooling system where the supply fan is not installed outside the building thermal envelope nor in a mechanical room adjacent to outdoors, and is installed in conjunction with DOAS complying with WSEC C403.3.5 and serving only spaces with year-round cooling loads from lights and equipment of less than 5 watts per square foot (per 0.1 square meter).

1.b. For Group R-2 occupancies, cooling system where the supply fan is not installed outside the building thermal envelope nor in a mechanical room adjacent to outdoors, and is installed in conjunction with DOAS complying with WSEC C403.3.5, where the ERV/HRV has a minimum 68 percent sensible recovery or 60 percent enthalpy recovery heating effectiveness, and serving only spaces with year-round cooling loads from lights and equipment of less than 5 watts per square foot (per 0.1 square meter).

2. Unitary or packaged systems serving one zone with dehumidification where an economizer would increase the overall building energy consumption. New humidification equipment shall comply with WSEC C403.3.2.7.

3. Unitary or packaged systems serving one zone where the cooling efficiency meets or exceeds the efficiency requirements in WSEC Table C403.5(3).

4. Equipment serving chilled beams and chilled ceiling space cooling systems which are provided only with a water economizer meeting the requirements of WSEC C403.5.4.

5. For Group R occupancies, cooling unit where the supply fan is not installed outside the building thermal envelope or in a mechanical room adjacent to outdoors with a total cooling capacity less than 20,000 Btu/h (21,101 kilojoules/h) and other cooling units with a total cooling capacity less than 54,000 Btu/h (56,973 kilojoules/h) provided

that these are high-efficiency cooling equipment with IEER, CEER, SEER, and EER values more than 15 percent higher than minimum efficiencies listed in WSEC Tables C403.3.2(1), C403.3.2(2), C403.3.2(4), C403.3.2(8), and C403.3.2(9), or an IPLV kilowatts per ton that is at least 15 percent lower than the minimum efficiencies listed in WSEC Table C403.3.2(3) or C403.3.2(15), in the appropriate size category, using the same test procedures. Equipment shall be listed in the appropriate certification program to qualify for this exception. For split systems, compliance is based on the cooling capacity of individual fan coil units.

6. Equipment used to cool Controlled Plant Growth Environments provided these are high-efficiency cooling equipment with SEER, EER, and IEER values a minimum of 20 percent greater than the values listed in WSEC Tables C403.3.2 (1), (3), (4), and (15).

7. Equipment serving a space with year-round cooling loads from lights and equipment of 5 watts per square foot (53.82 watts per square meter) or greater complying with the following criteria:

7.1. Equipment serving the space utilizes chilled water as the cooling source; and

7.2. The chilled water plant includes a condenser heat recovery system that meets the requirements of WSEC C403.9.5 or the building and water-cooled system meets the following requirements:

7.2.1. A minimum of 90 percent (capacity-weighted) of the building space heat is provided by hydronic heating water.

7.2.2. Chilled water plant includes a heat recovery chiller or water-to-water heat pump capable of rejecting heat from the chilled water system to the hydronic heating equipment capacity.

7.2.3. Heat recovery chillers shall have a minimum COP of 7.0 when providing heating and cooling water simultaneously.

8. Water-cooled equipment served by systems meeting the requirements of WSEC C403.9.2.4 Condenser heat recovery.

9. Dedicated outdoor air systems that include energy recovery as required by WSEC C403.7.6 but that do not include mechanical cooling.

11. Dedicated outdoor air systems not required by WSEC C403.7.6 to include energy recovery that modulate the supply airflow to provide only the minimum outdoor air required by WSEC C403.2.2.1 for ventilation, exhaust air make-up, or other process air delivery.

12. Equipment used to cool any dedicated server room, electronic equipment room, elevator machine room or telecom switch room provided the system complies with Option a, b, c, d, or e in WSEC Table C403.5(9) below. The total cooling capacity of all fan systems qualifying under this exception without economizers shall not exceed 240,000 Btu/h (253,213 kilojoules/h) per building or 10 percent of its air economizer capacity, whichever is greater. This exception shall not be used for Total Building Performance or Target Performance Path compliance.

13. Medical and laboratory equipment that is directly water-cooled and is not dependent upon space air temperature.

Table C403.5(9)

Server room, electronic equipment room, or telecom room cooling equipment

	Equipment Type	Higher Equipment Efficiency	Part-Load Control	Economizer
Option a	Tables C403.3.2(1), C403.3.2(2) and C403.3.2(14)[a]	+15%[b]	Required over 85,000 Btu/h[c]	None Required
Option b	Tables C403.3.2(1), C403.3.2(2) and C403.3.2(14)[a]	+5%[d]	Required over 85,000 Btu/h[c]	Waterside Economizer[5]
Option c	ASHRAE Standard 127[f]	+0%[g]	Required over 85,000 Btu/h[c]	Waterside Economizer[e]
Option d	Table C403.3.2(7)[h]	+ 25%[i]	Required for all chillers[j]	None Required
Option e	Table C403.3.2(7)[h]	+ 10/15%[k]	Required over 85,000 Btu/h[c]	Dedicated waterside Economizer[e]

Footnotes:

a. For a system where all of the cooling equipment is subject to the AHRI standards listed in WSEC Tables C403.3.2(1), C403.3.2(2), and C403.3.2 (14), the system shall comply with the higher equipment efficiency, part-load control and economizer requirements of the row in which this footnote is located, including the associated footnotes (note that if the system contains any cooling equipment that exceeds

the capacity limits in WSEC Table C403.3.2(1), C403.3.2(2), or C403.3.2 (14), or if the system contains any cooling equipment that is not included in WSEC Table C403.3.2(1), C403.3.2(2), or C403.3.2 (14), then the system is not allowed to use this option).

b. The cooling equipment shall have a SEER/EER value and an IEER/IPLV value that each is a minimum of 15 percent greater than the value listed in WSEC Tables C403.3.2(1), C403.3.2(2), and C403.3.2 (14).

c. For units with a total cooling capacity over 85,000 Btu/h (89,680 kilojoules/h), the system shall utilize part-load capacity control schemes that are able to modulate to a part-load capacity of 50 percent of the load or less that results in the compressor operating at the same or higher EER at part loads than at full load (e.g., minimum of 2-stages of compressor unloading such as cylinder unloading, two-stage scrolls, dual tandem scrolls, but hot gas bypass is not credited as a compressor unloading system).

d. The cooling equipment shall have a SEER/EER value and an IEER/IPLV value that each is a minimum of 5 percent greater than the value listed in WSEC Tables C403.3.2(1), C403.3.2(2), and C403.3.2 (14).

e. The system shall include a water economizer in lieu of air economizer. Water economizers shall meet the requirements of WSEC C403.5.1 and C403.5.2 and be capable of providing the total concurrent cooling load served by the connected terminal equipment lacking airside economizer, at outside air temperatures of 50° Fahrenheit (10° Celsius) dry-bulb/45°Fahrenheit (7° Celsius) wet-bulb and below. For this calculation, all factors including solar and internal load shall be the same as those used for peak load calculations, except for the outside temperatures. The equipment shall be served by a dedicated condenser water system unless a nondedicated condenser water system exists

that can provide appropriate water temperatures during hours when waterside economizer cooling is available.

f. For a system where all cooling equipment is subject to ASHRAE Standard 127, the system shall comply with the higher equipment efficiency, part-load control, and economizer requirements of the row in which this footnote is located, including the associated footnotes.

g. The cooling equipment subject to the ASHRAE Standard 127 shall have an SCOP value that is a minimum of 10 percent greater than the value listed in WSEC Tables C403.3.2(1), C403.3.2(2), and C403.3.2 (14) (1.10 × values in these tables) when determined in accordance with the rating conditions ASHRAE Standard 127 (i.e., not the rating conditions in AHRI Standard 210/240 or 340/360). This information shall be provided by an independent third party.

h. For a system with chillers subject to the AHRI standards listed in WSEC Table C403.3.2(7) (as an example, a chilled water system with fan coil units), the system shall comply with the higher equipment efficiency, part-load control, and economizer requirements of the row in which this footnote is located, including the associated footnotes.

i. The cooling equipment shall have an full-load EER value and an IPLV value that is a minimum of 25 percent greater than the value listed in WSEC Table C403.3.2(7) (1.25 × value in Table C403.3.2(7) or a full-load and IPLV kilowatts per ton that is at least 25 percent lower than the value listed in WSEC Table C403.3.2(7) (0.75 × value in Table C403.3.2(7)).

j. For all chillers, the system shall utilize part-load capacity control schemes that are able to modulate to a part-load capacity of 50 percent of the load or less and that result in the compressor operating at the same or higher EER at part loads than at full load (e.g., minimum of two-stages of compressor unloading such as cylinder unloading, two-stage scrolls, or dual tandem scrolls, but hot gas bypass is not a qualifying compressor unloading system).

k. For air-cooled chillers, the cooling equipment shall have an IPLV EER value that is a minimum of 10 percent greater than the IPLV EER value listed in WSEC Table C403.3.2(7) (1.10 × values in Table C403.3.2(7). For water-cooled chillers, the cooling equipment shall have an IPLV kilowatts per ton that is at least 15 percent lower than the IPLV kilowatts per ton value listed in WSEC Table C403.3.2(7) (0.85 × values in Table C403.3.2(7)).

Table C403.5(3)

Equipment Efficiency Performance

Climate Zones	Efficiency Improvement[a]
4C	64%
5B	59%

Footnote:

a. If a unit is rated with an IPLV, IEER, or SEER then to eliminate the required air or water economizer, the minimum cooling efficiency of the HVAC unit must be increased by the percentage shown. If the HVAC unit is only rated with a full load metric like EER or COP cooling, then these must be increased by the percentage shown.

NEW SECTION. SECTION 56. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.7 of the Washington State Energy Code is not adopted.

Ventilation and exhaust systems (WSEC C403.7). In addition to other requirements of WSEC C403 applicable to the provisions of ventilation air or the exhaust of air, ventilation, and exhaust systems shall be in accordance with WSEC C403.7.1 through C403.7.8 and WSEC C403.8.7.

SECTION 57. Ordinance 19485, Section 86, and K.C.C. 16.07.180 are hereby amended to read as follows:

Section C403.7.6 of the ((~~International Energy Conservation~~)) Washington State Energy Code is not adopted and the following is substituted:

Energy recovery ventilation systems (((~~IECC~~)) WSEC C403.7.6). ((~~Any system with minimum outside air requirements at design conditions more than 5,000 cfm or any system where the system's supply airflow rate exceeds the value listed in IECC Tables C403.7.6(1) and C403.7.6(2), based on the climate zone and percentage of outdoor airflow rate at design conditions, shall include an energy recovery system. IECC Table C403.7.6(1) shall be used for all ventilation systems that operate less than 8,000 hours per year, and IECC Table C403.7.6(2) shall be used for all ventilation systems that operate 8,000 hours or more per year. The energy recovery system shall have the capability to provide a change in the enthalpy of the outdoor air supply of not less than 60 percent of the difference between the outdoor air and return air enthalpies, at design conditions. Where an air economizer is required, the energy recovery system shall include a bypass of the energy recovery media for both the outdoor air and exhaust air or~~

~~return air dampers and controls which permit operation of the air economizer as required by IECC C403.5. Where a single room or space is supplied by multiple units, the aggregate ventilation (cfm) of those units shall be used in applying this requirement. The return/exhaust air stream temperature for heat recovery device selection shall be 70° F (21° C) at 30 percent relative humidity, or as calculated by the registered design professional.~~

~~EXCEPTIONS:~~

~~1. The energy recovery systems for occupancy type I-2 hospitals, medical office buildings and buildings that primarily consist of technical laboratory spaces may provide a change of enthalpy of the outdoor air and return air of not less than 50 percent of the difference between the outdoor air and return air enthalpies, at design conditions. These occupancies may also use exception 3.~~

~~2. The energy recovery systems for R-1 and R-2 occupancies shall have a 60 percent minimum sensible heat recovery effectiveness, in lieu of 60 percent enthalpy recovery effectiveness. The return/exhaust air stream temperature for heat recovery device selection shall be 70° F (21° C), or as calculated by the registered design professional.~~

~~3. An energy recovery ventilation system shall not be required under the following conditions:~~

~~3.1. Where energy recovery systems are restricted by International Mechanical Code Section 514 to sensible energy, recovery shall comply with the following:~~

~~a. Kitchen exhaust systems where they comply with IECC C403.7.7.1;~~

~~b. Laboratory fume hood systems where they comply with Exception 2 of IECC C403.7.6; or~~

~~c. Other sensible energy recovery systems with the capability to provide a change in dry bulb temperature of the outdoor air supply of not less than 50 percent of the difference between the outdoor air and the return air dry bulb temperatures, at design conditions.~~

~~3.2. Laboratory fume hood systems that include at least one of the following features and also comply with IECC C403.7.7.2:~~

~~a. Variable-air-volume hood exhaust and room supply systems capable of reducing exhaust and makeup air volume to 50 percent or less of design values; or~~

~~b. Direct makeup (auxiliary) air supply equal to at least 75 percent of the exhaust rate, heated no warmer than 2° F (1.1° C) above room set point, cooled to no cooler than 3° F (1.7° C) below room set point, no humidification added and no simultaneous heating and cooling used for dehumidification control.~~

~~3.3. Systems serving spaces that are heated to less than 60° F (15.5° C) and are not cooled.~~

~~3.4. Where more than 60 percent of the outdoor air heating energy is provided from site-recovered energy.~~

~~3.5. Systems exhausting toxic, flammable, paint or corrosive fumes or dust.~~

~~3.6. Cooling energy recovery in Climate Zones 3C, 4C, 5B, 5C, 6B, 7 and 8.~~

~~3.7. Systems requiring dehumidification that use energy recovery in series with the cooling coil.~~

~~3.8. Multi-zone systems where the supply airflow rate is less than the values specified in IECC Tables C403.7.6(1) and C403.7.6(2) for the corresponding percent of outdoor air. Where a value of NR is listed, energy recovery shall not be required.~~

~~3.9. Equipment which meets the requirements of IECC C403.9.2.4.~~

~~3.10. Systems serving Group R-1 and R-3 dwelling or sleeping units where the largest source of air exhausted at a single location at the building exterior is less than 25 percent of the design outdoor air flow rate.~~)) Energy recovery ventilation systems shall be provided as specified in WSEC C403.7.6.1 and C403.7.6.2.

C403.7.6.1 Ventilation for Group R-2 occupancy. For all Group R-2 dwelling and sleeping units, a balanced ventilation system with heat recovery system with minimum 67 percent sensible recovery effectiveness shall provide outdoor air directly to each habitable space in accordance with the IMC. The ventilation system shall allow for the design flow rates to be tested and verified at each habitable space as part of the commissioning process in accordance with WSEC C408.2.2. The return/exhaust air stream temperature for heat recovery device selection shall be 70° Fahrenheit (21° Celsius), or as calculated by the registered design professional.

EXCEPTION: Heat recovery and energy recovery ventilators (H/ERVs) that are rated and listed in accordance with HVI 920 can demonstrate compliance with the sensible recovery effectiveness requirement using the sensible recovery effectiveness (ASRE) rating of the equipment at 32° Fahrenheit (0° Celsius) test conditions. Applied flow rate for ASRE rating shall be no less than the design flow rate or the closest value interpolated between two listed flow rates.

C403.7.6.2. Spaces other than Group R-2 dwelling or sleeping units. Any system serving a space other than a Group R-2 dwelling or sleeping unit with minimum outside air requirements at design conditions greater than 5,000 cubic feet per minute (2,360 liters per second) or any system where the system's supply airflow rate exceeds the value listed in WSEC Tables C403.7.6(1) and C403.7.6(2), based on the climate zone and percentage of outdoor airflow rate at design conditions, shall include an energy recovery system. WSEC Table C403.7.6(1) shall be used for all ventilation systems that operate less than 8,000 hours per year, and WSEC Table C403.7.6(2) shall be used for all ventilation systems that operate 8,000 hours or more per year. The energy recovery system shall provide a 67 percent minimum sensible recovery effectiveness or have an enthalpy recovery ratio of not less than 60 percent at design conditions. Where an air economizer is required, the energy recovery system shall include a bypass of the energy recovery media for both the outdoor air and exhaust air, bypass of the energy recovery media for only the outdoor air controlled in accordance with WSEC C403.3.5.6, or return air dampers and controls which permit operation of the air economizer as required by WSEC C403.5. Where a single room or space is supplied by multiple units, the aggregate ventilation (cubic feet per minute or liters per second) of those units shall be used in applying this requirement. The return/exhaust air stream temperature for heat recovery device selection shall be 70° Fahrenheit (21° Celsius) at 30 percent relative humidity, or as calculated by the registered design professional.

EXCEPTION: An energy recovery ventilation system shall not be required in any of the following conditions:

1. Where energy recovery systems are restricted in accordance with Section 514 of the IMC to sensible energy recovery, the system shall comply with one of the following:

1.1. Kitchen exhaust systems where they comply with WSEC C403.7.7.1.

1.2. Laboratory fume exhaust systems where they comply with WSEC C403.7.7.2.

1.3. Other sensible energy recovery systems with the capability to provide a change in dry-bulb temperature of the outdoor air supply of not less than 50 percent of the difference between the outdoor air and the return air dry-bulb temperatures, at design conditions. Where an air economizer is required, the energy recovery system shall include a bypass of the energy recovery media for both the outdoor air and exhaust air or bypass of the energy recovery media for only the outdoor air controlled in accordance with WSEC C403.3.5.6.

2. Buildings with laboratory fume exhaust systems having a total exhaust rate less than or equal to 5,000 cubic feet per minute (2,360 liters per second) shall include at least one of the following features or shall comply with WSEC C403.7.7.2:

2.1 Variable-air-volume hood exhaust and room supply systems configured to reduce exhaust and makeup air volume to 50 percent or less of design values.

2.2. Direct makeup (auxiliary) air supply equal to at least 75 percent of the exhaust rate, heated no warmer than 2° Fahrenheit (-17° Celsius) above room setpoint, cooled to no cooler than 3° Fahrenheit (-16° Celsius) below room setpoint, no humidification added, and no simultaneous heating and cooling used for dehumidification control.

3. Systems serving spaces that are heated to less than 60° Fahrenheit (16° Celsius) and are not cooled.

4. Where more than 60 percent of the outdoor air heating energy is provided from site-recovered energy.

5. Systems exhausting hazardous, toxic, flammable, paint or corrosive fumes, or dust. This exception may not be used for laboratory fume exhaust systems required to comply with Exception 2 of WSEC C403.7.6 or C403.7.7.2 without approval of the code official.

6. Cooling energy recovery.

7. Systems requiring dehumidification that employ energy recovery in series with the cooling coil.

8. Multiple-zone systems where the supply airflow rate is less than the values specified in WSEC Tables C403.7.6 (1) and (2), for the corresponding percent of outdoor air. Where a value of NR is listed, energy recovery shall not be required.

9. Equipment which meets the requirements of WSEC C403.9.2.4.

10. Systems serving Group R-1 dwelling or sleeping units where the largest source of air exhausted at a single location at the building exterior is less than 25 percent of the design outdoor air flow rate.

11. Systems serving Ambulatory Care Facilities and Group I-2 Occupancies ventilated in accordance with IMC 407, systems exhausting environmental exhaust air in research or education laboratory spaces complying with the Seattle Director's Rule alternate of IMC 510, and systems exhausting environmental exhaust air in spaces that have Hazardous Exhaust Systems complying with IMC 510, are permitted to provide a 60

percent minimum sensible heat recovery effectiveness or have an enthalpy heat recovery ratio of not less than 50 percent at design conditions. Where an air economizer is required, the energy or heat recovery system shall include a bypass of the energy or heat recovery media for both the outdoor air and exhaust air or bypass of the energy recovery media for only the outdoor air controlled in accordance with WSEC C403.3.5.6.

Table C403.7.6(1)

Energy Recovery Requirement

Percent (%) Outdoor Air at Full Design Airflow Rate								
Climate zone	≥ 10% and < 20%	≥ 20% and < 30%	≥ 30% and < 40%	≥ 40% and < 50%	≥ 50% and < 60%	≥ 60% and < 70%	≥ 70% and < 80%	≥ 80%
Design Supply Fan Airflow Rate (cfm)								
4C, 5B	NR	NR	NR	NR	NR	NR	≥ 5,000	≥ 5,000

NR = Not required.

Table C403.7.6(2)

Energy Recovery Requirement

Percent (%) Outdoor Air at Full Design Airflow Rate								
Climate zone	≥ 10% and < 20%	≥ 20% and < 30%	≥ 30% and < 40%	≥ 40% and < 50%	≥ 50% and < 60%	≥ 60% and < 70%	≥ 70% and < 80%	≥ 80%
Design Supply Fan Airflow Rate (cfm)								
4C	NR	≥ 19,500	≥ 9,000	≥ 5,000	≥ 4,000	≥ 3,000	≥ 1,500	≥ 120
5B	≥ 2,500	≥ 2,000	≥ 1,000	≥ 500	≥ 140	≥ 120	≥ 100	≥ 80

NR = Not required.

NEW SECTION. SECTION 58. There is hereby added to K.C.C. chapter 16.07

a new section to read as follows:

Section C403.7.8.1 of the Washington State Energy Code is not adopted and the following is substituted:

Shutoff dampers for building isolation (WSEC C403.7.8.1). Outdoor air supply, exhaust openings and relief outlets, and stairway and elevator hoistway shaft vents shall be provided with Class I motorized dampers. See WSEC C403.10.1 and C403.10.2 for ductwork insulation requirements upstream and downstream of the shutoff damper.

EXCEPTIONS:

1. Gravity (nonmotorized) dampers shall be permitted in lieu of motorized dampers as follows:

1.1. Relief dampers serving systems less than 300 cubic feet per minute (142 liters per second) total supply shall be permitted.

1.2. Gravity (nonmotorized) dampers where the design outdoor air intake or exhaust capacity does not exceed 300 cubic feet per minute (142 liters per second).

1.3. Systems serving areas which require continuous operation for continuous occupancy schedules.

2. Shutoff dampers are not required in:

2.1. Combustion air intakes.

2.2. Systems serving areas which require continuous operation in animal hospitals, kennels and pounds, laboratories, and Group H, I and R occupancies.

2.3. Subduct exhaust systems or other systems that are required to operate continuously by the IMC.

2.4. Type I grease exhaust systems or other systems where dampers are prohibited by the IMC to be in the airstream.

2.5. Unconditioned stairwells or unconditioned elevator hoistway shafts that are only connected to unconditioned spaces.

NEW SECTION. SECTION 59. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.8.4 of the Washington State Energy Code is not adopted and the following is substituted:

Low capacity fans (WSEC C403.8.4). Mechanical ventilation system types listed in WSEC Table C403.8.4 with an input power less than 746 watts or one horsepower shall meet the efficacy requirements of WSEC Table C403.8.4. Airflow shall be tested in accordance with the test procedure referenced in WSEC Table C403.8.4 and listed. The efficacy, airflow divided by power, shall be reported in the product listing or shall be derived from the input power and airflow values reported in the product listing or on the label. The efficacy shall be determined using the input power at a listed airflow that is not less than the design airflow or shall be determined by interpolating between the input power at the two nearest listed airflow rates. Design airflow, power, and efficacy shall be reported on the mechanical equipment schedule submitted in the permit documents.

EXCEPTIONS:

1. Where ventilation fans are a component of a listed heating or cooling appliance.

2. Dryer exhaust duct power ventilators and domestic range booster fans that operate intermittently.

3. Fans in radon mitigation systems.

4. Fans not covered within the scope of the test methods referenced in WSEC Table C403.8.5.

5. Ceiling fans regulated under 10 CFR 430 Appendix U.

6. Mechanical ventilation system types with an input power greater than 62 watts having electronically commutated motors or motors with a minimum efficiency of 70 percent when rated in accordance with DOE 10 CFR 431. Such systems shall also have the means to adjust motor speed for either balancing or remote control. Belt-driven fans may use sheave adjustment for airflow balancing in lieu of a varying motor speed. The efficiency shall be verified through certification under an approved certification program, or, where no certification program exists, the equipment efficiency rating shall be supported by data furnished by the motor manufacturer.

The efficacy shall be determined at a listed airflow that is not less than the design airflow or shall be determined by interpolating between the efficacies determined at the two nearest listed airflow rates.

Table C403.8.4

Low-Capacity Ventilation Fan Efficacy[a]

System Type	Airflow Rate (cfm)	Minimum Efficacy (cfm/watt)	Minimum Static Pressure for Testing	Test Procedure

Balanced ventilation system without heat or energy recovery	Any	1.2[a]	0.2 inch w.c.	ASHRAE Standard 51 (ANSI/AMCA Standard 210)
HRV or ERV	Any	1.7[a]	0.2 inch w.c.[b]	CAN/CSA 439-18
Range hood	Any	2.8	0.1 inch w.c.	ASHRAE 51 (ANSI/AMCA Standard 210)
In-line supply or exhaust fan	Any	3.8	0.2 inch w.c.	
Other exhaust fan	<90	2.8	0.1 inch w.c.	
	>90 and <200	3.5	0.1 inch w.c.	
	>200	4.0	0.1 inch w.c.	

w.c. = inches of water column

For SI: 1 cubic foot per minute = 47.82 watts.

Footnotes:

a. For balanced systems, HRVs, and ERVs, the efficacy shall be determined as the outdoor airflow divided by the total fan power of the system.

b. The minimum static pressure for determining HRV or ERV fan efficacy shall be 0.4 inch w.c. for airflows greater than or equal to 100 liters per second.

NEW SECTION. SECTION 60. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.8 of the Washington State Energy Code is supplemented with the following:

Occupied standby controls (WSEC C403.8.7). Occupied standby controls in compliance with WSEC C403.8.7.1 and C403.8.7.2 are required for zones and systems serving zones where no less than 90 percent of the floor area of the zone consists of use types including those listed below and other space types with similar functions, and none of the spaces within the zone are required by the IMC to have ventilation airflow greater than zero when unoccupied:

1. Classroom/lecture/training rooms.
2. Conference/meeting/multipurpose rooms.
3. Lounges and breakrooms.
4. Enclosed offices/open office areas/reception areas/lobbies.
5. Assembly areas.
6. Library stacks.

C403.8.7.1 Occupied standby zone controls. For zones meeting the occupied-standby control criteria, within 5 minutes of all rooms in that zone entering occupied-standby mode, the zone control shall operate as follows:

1. Active heating set point shall be setback at least 1° Fahrenheit (-17° Celsius).
2. Active cooling set point shall be setup at least 1° Fahrenheit (-17° Celsius).
3. Airflow supplied to the zone shall be controlled as follows, depending on system type:

3.1. Spaces that are required to have occupancy sensors in accordance with WSEC C403.7.2 are required to shut off the outdoor airflow in accordance with that section.

3.2. DOAS that serve multiple heating and cooling system zones without automatic zone control dampers are not required to shut off the DOAS supply airflow by zone. A system is considered a small DOAS when:

a. The area served is no greater than 25,000 square feet (2,323.6 square meters) of conditioned floor area; and

b. The DOAS does not serve more than one floor.

3.3. Other DOAS that serve multiple heating and cooling system zones without automatic zone control dampers are required to shut off the DOAS supply airflow when all the zones on any one floor or in any one area up to 25,000 square feet (2,323.6 square meters) enter occupied-standby mode. The maximum zone sizes for DOAS supply airflow shutoff are as follows:

a. 25,000 square feet (2,323.6 square meters) of conditioned floor area; or

b. not more than one floor.

3.4. For systems other than those identified in subsections 3.2. and 3.3., all airflow (outdoor airflow and supply airflow) supplied to the zone shall be shut off whenever the space temperature is between the active heating and cooling set points.

EXCEPTION: Airflow (outdoor airflow and supply airflow) for replacement air or makeup air is permitted to be supplied during occupied-standby mode for any of the space types identified in 3.1 through 3.4 above.

C403.8.7.2. Occupied standby system controls. Multiple zone systems that are capable of automatically resetting or that are required in accordance with WSEC C403.6.10 to reset the effective minimum outdoor air setpoint and that serve zones with occupied-standby zone controls shall reset the effective minimum outdoor air setpoint

based on a zone outdoor air requirement of zero for all zones in occupied-standby mode. Sequences of operation for system outside air reset shall comply with an approved method.

EXCEPTION: Airflow (outdoor airflow and supply airflow) for replacement air or makeup air is permitted to be supplied during occupied-standby mode.

NEW SECTION. SECTION 61. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.10.1.2 of the Washington State Energy Code is not adopted and is substituted with the following:

Other supply and return ducts (WSEC C403.10.1.2). All other supply and return air ducts and plenums shall be insulated with a minimum of R-6 insulation where located in unconditioned spaces, and with a minimum of R-8 insulation where located outside the building in Climate Zone 4. Ducts located underground beneath buildings shall be insulated as required in this section or have an equivalent thermal distribution efficiency. Underground ducts utilizing the thermal distribution efficiency method shall be listed and labeled to indicate the R-value equivalency. Where located within a building envelope assembly, the duct or plenum shall be separated from the building exterior or unconditioned or exempt spaces by minimum insulation value as required for exterior walls by WSEC C402.1.3.

EXCEPTIONS:

1. Where located within equipment.

2. Supply and return ductwork located in unconditioned spaces where the design temperature difference between the interior and exterior of the duct or plenum does not

exceed 15° Fahrenheit (-9° Celsius) and are insulated in accordance with WSEC Table C403.10.1.2.

Where located within conditioned space, ducts that convey air from outside the conditioned space shall be insulated with a minimum insulation R-value in accordance with WSEC Table C403.10.1.2.

Where located within conditioned space, ducts that convey ambient air to and from outside for the condenser section of HVAC heat pumps, service hot water heat pumps, or air conditioning units shall be insulated with a minimum insulation R-value in accordance with WSEC Table C403.10.1.2.

All ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply with IMC 603.9.

Table C403.10.1.2

Supply, Return, Exhaust, and Relief Air Ductwork Insulation

Duct System	Duct Location and Use	Climate Zone	Minimum Installed Duct Insulation R-value[a, b]	Notes
Supply air or return air	Outside the building (outdoors and exposed to weather)[c]	4C	R-8	See WSEC C403.10.1.2 for details

Supply air or return air	Unconditioned space (enclosed but not in the building conditioned envelope)	4C and 5B	R-6	See WSEC C403.10.1.2 for details
Supply air or return air	Unconditioned space where the duct conveys air that is within 15°F of the air temperature of the surrounding unconditioned space	4C and 5B	R-3.3	See IMC Section 603.12 for additional requirements for condensation control at ductwork
Supply air or return air	Where located in a building envelope assembly	4C and 5B	R-16	Duct or plenum is separated from building envelope assembly with the minimum insulation value
Supply air	Within	4C and 5B	R-3.3	See WSEC

	conditioned space where the supply duct conveys air that is less than 55°F or greater than 105°F			C403.10.1.2 for details
Supply air	Within conditioned space that the duct directly serves where the supply duct conveys air that is less than 55°F or greater than 105°F	4C and 5B	None	See WSEC C403.10.1.2 for details
Supply air	Within conditioned space where the supply duct conveys air that is 55°F or greater and 105°F or less	4C and 5B	None	

Return or exhaust air	Within conditioned space, downstream of an energy recovery media, upstream of an automatic shutoff damper	4C	R-8	
Relief or exhaust air	Conditioned space and downstream of an automatic shutoff damper	4C and 5B	R-16	
Exhaust or other air duct	Duct conveying air from unconditioned space through conditioned space	4C and 5B	R-16	
Condenser air intake and outlet	Conditioned space and conveys ambient air to or from the	4C and 5B	< 2,800 CFM = R-8 ≥ 2,800 CFM = R-16	

	outdoors to heat pump or AC unit condenser			

Footnotes:

a. Insulation R-values, measured in h•ft2•°F/Btu, are for the insulation as installed and do not include film resistance. The required minimum thicknesses do not consider water vapor transmission and possible surface condensation. Insulation resistance measured on a horizontal plane in accordance with ASTM C518 at a mean temperature of 75° Fahrenheit (24° Celsius) at the installed thickness.

b. See IMC 603.12 and 604 for further details on duct insulation requirements.

c. Includes attics above insulated ceilings, parking garages, and crawl spaces.

NEW SECTION. SECTION 62. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.10.2 of the Washington State Energy Code is not adopted and is substituted with the following:

Duct construction (WSEC 403.10.2). Ductwork shall be constructed and erected in accordance with the IMC. For the purposes of this section, longitudinal seams are joints oriented in the direction of airflow. Transverse joints are connections of two duct sections oriented perpendicular to airflow. Duct wall penetrations are openings made by any screw, fastener, pipe, rod, or wire. All other connections are considered transverse joints including, but not limited to, spin- ins, taps, and other branch connections, access door frames and jambs, and duct connections to equipment. Ducts shall be leak-tested where required by WSEC C403.10.2.4.

NEW SECTION. SECTION 63. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.10.2 of the Washington State Energy Code is supplemented with the following:

Duct leak testing (WSEC C403.10.2.4). Ducts and plenums designed to operate at static pressures equal to or greater than 3 inches water gauge (w.g.) (750 pascals) and all supply and return ductwork that is located outside the building thermal envelope and that serves conditioned space, regardless of the Design Construction Pressure Class level, shall be leak-tested in accordance with the SMACNA HVAC Air Duct Leakage Test Manual and shown to have a rate of air leakage (CL) less than or equal to 4, as determined in accordance with Equation 4-12. Ducts shall be tested using a pressure equal to the average operating pressure or the design Duct Construction Pressure Class level in accordance with the SMACNA HVAC Air Duct Leakage Test Manual.

Equation 4-12:

$CL = F/P^{0.65}$

Where:

F = The measured leakage rate in cubic feet per minute per 100 square feet of duct surface.

P = The static pressure of the test.

Documentation shall be furnished demonstrating that representative sections totaling at least 25 percent of the duct area have been tested and that all tested sections meet the requirements of this section.

NEW SECTION. SECTION 64. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.11.1 of the Washington State Energy Code is not adopted and is substituted with the following:

Heating outside a building or in unheated spaces (WSEC C403.11.1). Systems installed to provide heat outside a building or in unheated spaces shall be radiant systems.

Such heating systems shall be controlled by an occupancy sensing device or a timer switch, so that the system is automatically deenergized when no occupants are present in the area heated by each individual device for a period not to exceed 20 minutes.

NEW SECTION. SECTION 65. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403 of the Washington State Energy Code is supplemented with the following:

Clean water pumps (WSEC C403.15). Clean water pumps meeting all the following criteria shall achieve a PEI rating not greater than 1.0 and a Hydraulic Institute Energy Rating (ER) greater than zero:

1. Shaft input power is greater than or equal to 1 horsepower (1 metric horsepower or 3/4 kilowatts) and less than or equal to 200 horsepower (203 metric horsepower or 149.1 kilowatt) at its best efficiency point (BEP).

2. Designated as either an End Suction Close-coupled, End Suction Frame Mounted, In-line, Radially Split Vertical, or Submersible Turbine pump.

3. A flow rate of 25 gallons per minute (2 liters per second) or greater at its BEP at full impeller diameter.

4. Maximum head of 459 feet (139,903 millimeters) at its BEP at full impeller diameter and the number of stages required for testing.

5. Design temperature range from 14° Fahrenheit (-10° Celsius) to 248° Fahrenheit (120° Celsius).

6. Designed to operate with either:

6.1. A 2- or 4-pole induction motor; or

6.2. A non-induction motor with a speed of rotation operating range that includes speeds of rotation between 2,880 and 4,320 rpm or 1,440 and 2,160 rpm; and

6.3. In either (1) or (2), the driver and impeller must rotate at the same speed.

7. For submersible turbine pumps, a 6 inch (152 millimeter) or smaller bowl diameter.

8. For end-suction close-coupled pumps and end-suction frame-mounted/own bearings pumps, specific speed less than or equal to 5,000 rpm when calculated using U.S. customary units.

EXCEPTIONS: The following pumps are exempt from these requirements:

1. Fire pumps;

2. Self-priming pumps;

3. Prime-assisted pumps;

4. Magnet-driven pumps;

5. Pumps designed to be used in a nuclear facility subject to 10 CFR 50, "Domestic Licensing of Production and Utilization Facilities"; and

6. Pumps meeting the design and construction requirements set forth in U.S. Military Specification MIL-P-17639F, "Pumps, Centrifugal, Miscellaneous Service, Naval Shipboard Use" (as amended); MIL-P-17881D, "Pumps, Centrifugal, Boiler Feed, (Multi-Stage)" (as amended); MIL-P-17840C, "Pumps, Centrifugal, Close-Coupled, Navy Standard (For Surface Ship Application)" (as amended); MIL-P-18682D, "Pump, Centrifugal, Main Condenser Circulating, Naval Shipboard" (as amended); MIL-P-18472G, "Pumps, Centrifugal, Condensate, Feed Booster, Waste Heat Boiler, and Distilling Plant" (as amended).

NEW SECTION. SECTION 66. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C404.1 of the Washington State Energy Code is not adopted and the following is substituted:

General (WSEC C404.1). This section covers the minimum efficiency of, and controls for, service water-heating equipment and insulation of service hot water piping.

EXCEPTION: Energy using equipment used by a manufacturing, industrial, or commercial process other than maintaining comfort and amenities for the occupants are exempt from all WSEC C404 subsections except WSEC C404.2, C404.6, and C404.13. Laboratory sinks are considered to be process equipment for the purposes of this exception.

NEW SECTION. SECTION 67. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Table C404.2 of the Washington State Energy Code is not adopted and the following is substituted:

Table C404.2

Minimum Performance of Water-Heating Equipment

Equipment Type	Size Category (input)	Subcategory or Rating Condition	Draw Pattern	Performance Required[a, j]	Test Procedure[b]
Electric table-top water heaters[11]	≤ 12 kWc	≥ 20 gal ≤ 120 gal	Very small Low Medium High	UEF ≥ 0.6323 - (0.0058 × Vr) UEF ≥ 0.9188 - (0.0031 × Vr) UEF ≥ 0.9577 - (0.0023 × Vr) UEF ≥ 0.9884 - (0.0016 × Vr)	DOE 10 C.F.R. Part 430 App. E
Electric storage water heaters[g,i] resistance and heat	12 kW[c]	≥ 20 gal ≤ 55 gal	Very small Low Medium High	UEF ≥ 0.8808 - (0.0008 × Vr) UEF ≥ 0.9254 -	DOE 10 C.F.R. Part 430 App. E

pump				(0.0003 × Vr) UEF ≥ 0.9307 - (0.0002 × Vr) UEF ≥ 0.9349 - (0.0001 × Vr)	
	≤ 12 kW	> 55 gal ≤ 120 gal	Very small Low Medium High	UEF ≥ 1.9236 - (0.0011 × Vr) UEF ≥ 2.0440 - (0.0011 × Vr) UEF ≥ 2.1171 - (0.0011 × Vr) UEF ≥ 2.2418 - (0.0011 × Vr)	DOE 10 C.F.R. Part 430 App.
Electric storage water heaters[g]	> 12 kW			(0.3 + 27/Vm), %[h]	DOE 10 C.F.R. 431.106

					App B.
Grid-enabled water heaters[g, l]		> 75 gal	Very small Low Medium High	UEF ≥ 1.0136 - (0.0028 × Vr) UEF ≥ 0.9984 - (0.0014 × Vr) UEF ≥ 0.9853 - (0.0010 × Vr) UEF ≥ 0.9720 - (0.0007 × Vr)	10 C.F.R. 430 Appendix E
Electric instantaneous water heaters[h]	≤ 12 kW	< 2 gal	Very small Low Medium High	UEF ≥ 0.91 UEF ≥ 0.91 UEF ≥ 0.91 UEF ≥ 0.92	DOE 10 C.F.R. Part 430
	> 12 kW & ≤ 58.6 kW[c]	≤ 2 gal ≤ 180°F	All	UEF ≥ 0.80	DOE 10 C.F.R. Part 430
Gas storage water	≤ 75,000Btu/h	≥ 20 gal & ≤ 55 gal[f]	Very small Low	UEF ≥ 0.3456 -	DOE 10 C.F.R.

heaters[g]			Medium High	(0.0020 × Vr) UEF ≥ 0.5982 - (0.0019 × Vr) UEF ≥ 0.6483 - (0.0017 × Vr) UEF ≥ 0.6920 - (0.0013 × Vr)	Part 430 App. E
	≤ 75,000 Btu/h	> 55 gal & ≤ 100 gal[e]	Very small Low Medium High	UEF ≥ 0.6470 - (0.0006 × Vr) UEF ≥ 0.7689 - (0.0005 × Vr) UEF ≥ 0.7897 - (0.0004 × Vr) UEF ≥ 0.8072 - (0.0003 × Vr)	DOE 10 C.F.R. Part 430 App. E

	> 75,000 Btu/h and ≤ 105,000 Btu/h[d]	≤ 120 gal	Very small Low Medium High	UEF ≥ 0.2674-0.0009 x Vr UEF ≥ 0.5362-0.0012 x Vr UEF ≥ 0.6002-0.0011 x Vr UEF ≥ 0.6597-0.0009 x Vr	DOE 10 C.F.R. Part 430 App. E
	> 105,000 Btu/h[d, f]			80% Et SL ≤ (Q/800 +110√V), Btu/h	DOE 10 C.F.R. 431.106
Gas instantaneous water heaters[h]	> 50,000 Btu/h and < 200,000 Btu/h	< 2 gal	Very small Low Medium High	UEF ≥ 0.80 UEF ≥ 0.81 UEF ≥ 0.81 UEF ≥ 0.81	DOE 10 C.F.R. Part 430 App. E
	≥ 200,000 Btu/h[d, f]	< 10 gal		80% Et	DOE 10 C.F.R.

	≥ 200,000 Btu/h[f]	≥ 10 gal		80% Et SL ≤ (Q/800 +110√V), Btu/h	431.106
Oil storage water heaters[f]	≤ 105,000 Btu/h	≤ 50 gal	Very small Low Medium High	UEF = 0.2509 - (0.0012 × Vr) UEF = 0.5330 - (0.0016 × Vr) UEF = 0.6078 - (0.0016 × Vr) UEF = 0.6815 - (0.0014 × Vr)	DOE 10 C.F.R. Part 430
	> 105,000 Btu/h and ≤ 140,000 Btu/h[e]	≤ 120 gal ≤ 180°F	Very small Low Medium High	UEF ≥ 0.2932- 0.0015 x Vr UEF ≥ 0.5596- 0.0018 x Vr	DOE 10 C.F.R. Part 430 App. E

				UEF ≥ 0.6194- 0.0016 x Vr UEF ≥ 0.6740- 0.0013 x Vr	
	> 140,000 Btu/h			80% E_t SL ≤ (Q/800 +110√V), Btu/h	DOE 10 C.F.R. 431.106
	≤ 210,000 Btu/h	< 2 gal		80% E_t EF ≥ 0.59 - 0.0005 x V	DOE 10 C.F.R. Part 430 App. E
	> 210,000 Btu/h	< 10 gal		80% E_t	DOE 10 C.F.R. 431.106
	> 210,000 Btu/h	≥ 10 gal		78% E_t SL ≤ (Q/800 +110√V), Btu/h	DOE 10 C.F.R. 431.106
Hot water	≥ 300,000	< 10 gal		80% E_t	DOE 10

supply boilers, gas and oil[h]	Btu/h and < 12,500,000 Btu/h				C.F.R. 431.106
Hot water supply boilers, gas[h]	≥ 300,000 Btu/h and < 12,500,000 Btu/h	≥ 10 gal		80% E_t	DOE 10 C.F.R. 431.106
Hot water supply boilers, oil[h]	≥ 300,000 Btu/h and < 12,500,000 Btu/h	≥ 10 gal		80% E_t SL ≤ (Q/800 +110√V), Btu/h	DOE 10 C.F.R. 431.106
Pool heaters, gas	All			78% E_t SL ≤ (Q/800 +110√V), Btu/h	DOE 10 C.F.
Heat pump pool heaters	All	50°F db 44.2°F wb outdoor air 80.0°F		4.0 COP	DOE 10 C.F.R. Part 430 App. P

		entering water			
Unfired storage tanks[m]	All			Minimum insulation requirement R-12.5 (h-ft2-°F)/Btu	(none)

Footnotes:

a. Thermal efficiency (E_t) is a minimum requirement, while standby loss is a maximum requirement. In the standby loss equation, V is the rated volume in gallons and Q is the nameplate input rate in Btu/h. Vm is the measured volume in the tank in gallons. Standby loss for electric water heaters is in terms of %/h and denoted by the term "S," and standby loss for gas and oil water heaters is in terms of Btu/h and denoted by the term "SL" Draw pattern (DP) refers to the water draw profile in the Uniform Energy.

b. The 2021 WSEC-C Chapter 6, Reference Standards, contains a complete specification, including the year version, of the referenced test procedure.

c. Electric instantaneous water heaters with input capacity greater than 12 kilowatts and less than or equal to 58.6 kilowatts that have either (1) a storage volume greater than 2 gallons (6 liters); or (2) is designed to provide outlet hot water at temperatures greater than 180° Fahrenheit (82° Celsius); or (3) uses three-phase power.

d. Gas storage water heaters with input capacity greater than 75,000 Btu/h (79,129 kilojoules/h) and less than or equal to 105,000 Btu/h (110,781 kilojoules/h) if the water heater either (1) has a storage volume greater than 120 gallons (454 liters); (2) is

designed to provide outlet hot water at temperatures greater than 180° Fahrenheit (82° Celsius); or (3) uses three-phase power.

e. Oil storage water heaters with input capacity greater than 105,000 Btu/h (110,781 kilojoules/h) and less than or equal to 140,000 Btu/h (147,708 kilojoules/h) must comply with the requirements for the greater than 140,000 Btu/h (147,708 kilojoules/h) if the water heater either (1) has a storage volume greater than 120 gallons (454 liters); (2) is designed to provide outlet hot water at temperatures greater than 180° Fahrenheit (82° Celsius); or (3) uses three-phase power.

f. Water heaters or gas pool heaters in this category are regulated as consumer products by the USDOE as defined in 10 C.F.R. Part 430.

g. Storage water heaters have a ratio of input capacity (Btu/h) to tank volume (gallons) less than 4,000 (or (liters) less than 15,142).

h. Instantaneous water heaters and hot water supply boilers have an input capacity (Btu/h) divided by storage volume (gallons) greater than or equal to 4,000 Btu/h (4,220 kilojoules/h) per gallon.

i. There are no minimum efficiency requirements for electric heat pump water heaters greater than 12 kilowatts or for gas heat pump water heaters.

j. Refer to WSEC C404.2.1 for additional requirements for service water heat system equipment.

k. A tabletop water heater is a storage water heater that is enclosed in a rectangular cabinet with a flat top surface not more than 3 feet (914 millimeters) in height and have a ratio of input capacity (Btu/h) to tank volume (gallons) less than 4,000 (or (liters) less than 15,142).

l. A grid-enabled water heater is an electric resistance water heater that meets all of the following:

1. Has a rated storage tank volume of more than 75 gallons (284 liters);

2. Is manufactured on or after April 16, 2015;

3. Is equipped at the point of manufacture with an activation lock; and

4. Bears a permanent label applied by the manufacturer that complies with all of the following:

4.1. Is made of material not adversely affected by water;

4.2. Is attached by means of non-water soluble adhesive; and

4.3. Advises purchasers and end-users of the intended and appropriate use of the product with the following notice printed in 16.5 point Arial Narrow Bold font: "IMPORTANT INFORMATION: This water heater is intended only for use as a part of an electric thermal storage or demand response program. It will not provide adequate hot water unless enrolled in such a program and activated by your utility company or another program operator. Confirm the availability of a program in your local area before purchasing or installing this product."

m. Unfired storage tanks shall be insulated with additional insulation beyond the minimum insulation required by WSEC Table C404.2, in accordance with Section C404.6.1.

SECTION 68. Ordinance 19485, Section 90, and K.C.C. 16.07.220 are hereby amended to read as follows:

Section((~~s~~)) C404.2.1 ((~~and C404.2.2~~)) of the ((~~International Energy Conservation Code are~~)) Washington State Energy Code is not adopted and the following is substituted:

Service water heating system type (WSEC C404.2.1 ((~~and C404.2.2~~))). ((~~In buildings with central service water heating systems serving four or more Group R-1 or R-2 dwelling or sleeping units, and in any other building that has a heated water circulation system or a combined water heating capacity greater than 15 kW (51,195 Btu/h) under a single permit, the primary service water heating equipment shall not use fossil fuel combustion or electric resistance.~~)) Service hot water shall be provided by an electric air-source HPWH system ((~~meeting the requirements of this section)~~), or a ground-source HPWH system, meeting the requirements of this section. Supplemental service water heating equipment is permitted to use electric resistance in compliance with ((~~IECC C404.2.1.2 and C404.2.2.2~~)) WSEC Section C404.2.1.4.

EXCEPTIONS:

1. ((~~Unitary heat pump water heaters located in conditioned space are permitted where they are sized to meet all calculated service water heating demand using the heat pump compressor, and not supplementary heat~~)) 24 kilowatts plus 0.1 watt per square foot (per 0.1 square meter) of building area electric resistance service water heating capacity is allowed per building.

2. ((~~A service water heating system in a tenant space under a separate permit with a total heating capacity no greater than 15 kW (51,195 Btu/h) is permitted to be electric resistance.~~

~~3. Point of use instantaneous electric water heaters serving fixtures no more than 8 feet of developed pipe length from the water heater are permitted and do not contribute to the building combined water heating capacity calculation.~~

~~4.~~)) Solar thermal, wastewater heat recovery, other approved waste heat recovery, ground-source heat pumps, water-source heat pump system utilizing waste heat, or combinations thereof, are permitted to offset all or any portion of the required HPWH capacity where such systems comply with this code and the ((~~Plumbing Code~~)) UPC, and are not claimed in WSEC Section C406.2.5, C407, or C411.

((~~5.~~)) 3. Systems ((~~meeting the requirements of~~)) that comply with the Northwest Energy Efficiency Alliance (NEEA) Commercial Electric Advanced Water Heater Specification((~~s for central service water heating systems~~)).

4. Service hot water systems served by a district energy system that serves multiple buildings and that was in service before the effective date of this code, including more energy-efficient upgrades to such existing systems, are permitted to serve as the primary heating energy source.

5. Commercial dishwashers, commercial food service equipment, and other approved process equipment are permitted to utilize electric booster heaters for supply water temperatures 120° Fahrenheit (49° Celsius) or higher.

6. Systems connected to a low-carbon district energy exchange system or a low-carbon district heating and cooling or heating only system.

7. Essential facilities. Groups I-2 and I-3 occupancies that by regulation are required to have in place redundant emergency backup systems are permitted to use electric resistance or fossil fuel combustion equipment for those emergency backup systems.

8. Point of use instantaneous electric water heaters serving fixtures no more than 8 feet (2,438 millimeters) of developed pipe length from the water heater are permitted and do not contribute to the building combined water heating capacity calculation.

9. For occupancies other than Group R and Group I, unitary electric air-source heat pump water heaters are permitted to extract heat from the conditioned space where the primary source of space heating is electric heat pump or where heat recovery waste heat is available, and where they are sized to meet all calculated service water heating demand using the heat pump compressor, and not supplementary heat.

10. Standby service water heating equipment provided in addition to the primary heating system, and controlled such that it will only be used when the primary heating equipment is not available, is permitted to be electric resistance.

NEW SECTION. SECTION 69. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Table C404.3.1 of the Washington State Energy Code is supplemented with the following:

Table C404.3.1

Piping Volume and Maximum Piping Lengths

Nominal Pipe Size (inches)	Volume (liquid ounces per foot length)	Maximum Piping Length (feet)	
		Public lavatory faucets[a]	Other fixtures and appliances
1/4	0.33	6	50

Nominal Pipe Size (inches)	Volume (liquid ounces per foot length)	Maximum Piping Length (feet)	
		Public lavatory faucets[a]	Other fixtures and appliances
5/16	0.5	4	50
3/8	0.75	8	50
1/2	1.5	8	43
5/8	2	8	32
3/4	3	0.5	21
7/8	4	0.5	16
1	5	0.5	13
1 1/4	8	0.5	8
1 1/2	11	0.5	6
2 or larger	18	0.5	4

Footnote:

a. Includes hand sinks in foodservice establishments, hand washing sinks in labs and exam room sinks in hospitals.

NEW SECTION. SECTION 70. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C404.3 of the Washington State Energy Code is supplemented with the following:

Demand load for R-2 occupancies (WSEC C404.3.3). Demand load for water supply serving dwelling units within R-2 occupancies shall be determined using Uniform Plumbing Code Appendix M. Piping shall be no more than one pipe size larger than the minimum size permitted when sized for maximum allowable velocity based upon the specified piping material in conjunction with the Uniform Plumbing Code Appendix M demand load flow rate at any specific node within the water distribution system.

EXCEPTION: Existing buildings are not required to comply with this section if the existing plumbing fixtures have higher flow rates than those listed in UPC Table M102.1.

NEW SECTION. SECTION 71. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C404.6 of the Washington State Energy Code is not adopted and the following is substituted:

Insulation of piping (WSEC C404.6). Piping from a water heater to the termination of the heated water fixture supply pipe shall be insulated in accordance with WSEC Table C404.6. On both the inlet and outlet piping of a storage water heater or heated water storage tank, the piping to a heat trap or the first 8 feet (2,438 millimeters) of piping, whichever is less, shall be insulated. Piping that is heat traced shall be insulated in accordance with WSEC Table C404.6 or the heat trace manufacturer's instructions. Tubular pipe insulation shall be installed in accordance with the insulation manufacturer's instructions, or WSEC Table C404.6, whichever results in thicker insulation. Pipe insulation shall be continuous, including through hangers and supports, such that thermal bridging is prevented, except where the piping passes through a framing

member. The minimum insulation thickness requirements of this section shall not supersede any greater insulation thickness requirements necessary for the protection of piping from freezing temperatures or the protection of personnel against external surface temperatures on the insulation.

EXCEPTION: Tubular pipe insulation shall not be required on the following:

1. The tubing from the connection at the termination of the fixture supply piping to a plumbing fixture or plumbing appliance.

2. Valves, pumps, strainers, and threaded unions in piping that is 1 inch (25 millimeters) or less in nominal diameter.

3. Piping from user-controlled shower and bath mixing valves to the water outlets.

4. Reserved.

5. Tubing from a hot drinking-water heating unit to the water outlet.

6. Vertical pipe riser locations where a vertical support of the piping is installed.

7. Reserved.

8. Hot water piping that is part of the final pipe run to the plumbing fixture and is not part of the heated-water circulation system circulation path is not required to meet the minimum insulation requirements of WSEC C404.6.

Table C404.6

Required Pipe Insulation Thickness for Service Water Heating

		Nominal Pipe or Tube Size					**Insulation Conductivity**	
Location	**Water Temp**	**< 1"**	**1 to < 1-**	**1-1/2 to < 4**	**4 to < 8**	**8 or larger**	**Conductivity Btu • in. /**	**Mean Rating**

			1/2				**(h • ft^2 • F)[b]**	**Temp, °F**
Circulation Loop Piping not in-partition	105 – 140°F or 40.56°C – 60 C°	2.0	2.0	2.5	2.5	2.5	0.21 - 0.28	100
	141 – 200°F or 60.56 C° – 93 C°	2.5	2.5	3.0	3.0	3.0	0.25 - 0.29	125
All other piping not in-partition	105 – 140°F or 40.56°C – 60 C°	1.0	1.0	1.5	1.5	1.5	0.21 - 0.28	100
	141 – 200°F or 60.56 C° – 93 C°	1.5	1.5	2.0	2.0	2.0	0.25 - 0.29	125
In-partition[a] Circulation Loop Piping	105 – 140°F or 40.56°C – 60 C°	1.0	1.0	2.5	2.5	2.5	0.21 - 0.28	100
	141 – 200°F or 60.56 C° – 93 C°	1.5	1.5	3.0	3.0	3.0	0.25 - 0.29	125
In-partition[a] All other piping	105 – 140°F or	1.0	1.0	1.5	1.5	1.5	0.21 - 0.28	100

	40.56°C – 60 C°							
	141 – 200°F or 60.56 C° – 93 C°	1.0	1.0	2.0	2.0	2.0	0.25 - 0.29	125

Footnotes:

a. In a partition within a conditioned space.

b. For insulation outside the stated conductivity range, conform to requirements of WSEC Table C403.10.3.

NEW SECTION. SECTION 72. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C404.7.1.2 of the Washington State Energy Code is not adopted and the following is substituted:

Multiple riser systems (WSEC C404.7.1.2). Where the circulation system serves multiple domestic hot water risers or piping zones, the following equipment and controls shall be provided:

1. Controls shall be configured to automatically turn off the circulation pump during periods of time exceeding 4 hours when hot water is not required. Pump circulation may be automatically started a maximum of 4 hours before scheduled occupancy time to warm up the system or may be automatically started and stopped to run a maximum of 50 percent of each hour to maintain water circulation to reduce legionella or other biological growth in circulated water.

2. Reserved.

3. At the end of each riser or piping zone before heated-water is returned to the circulation pump, a thermostatic balancing valve that automatically controls the flow through the riser or piping zone to maintain the domestic hot water supply temperature in the riser at a maximum of 10° Fahrenheit (-12° Celsius) lower than the design supply water temperature.

4. A variable speed circulation pump that automatically adjusts speed to reduce flow to maintain a constant pressure.

EXECPTION: Multiple riser systems serving Group R and Group I occupancies are not required to have controls that automatically turn off the circulation pump.

NEW SECTION. SECTION 73. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C404.11.4 of the Washington State Energy Code is not adopted and the following is substituted:

Heat recovery (WSEC C404.11.4). Heated indoor swimming pools, spas, or hot tubs with water surface area greater than 200 square feet (18.6 square meters) shall provide for energy conservation by an exhaust air heat recovery system that heats ventilation air, pool water, or domestic hot water. The heat recovery system shall be configured to decrease the exhaust air temperature at design heating conditions of 80° Fahrenheit (27° Celsius) indoors by 36° Fahrenheit (2° Celsius).

EXCEPTION: Pools, spas, or hot tubs that include system(s) that provide equivalent recovered energy on an annual basis through one of the following methods:

1. Solar water heating systems not claimed in WSEC C406.2.5, C407, or C411;

2. Dehumidification heat recovery;

3. Waste heat recovery; or

4. A combination of these system sources capable of and configured to provide at least 70 percent of the heating energy required over an operating season.

NEW SECTION. SECTION 74. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.1 of the Washington State Energy Code is not adopted and the following is substituted:

General (WSEC C405.1). Lighting system controls, the maximum lighting power for interior and exterior applications, electrical energy consumption, vertical and horizontal transportation systems, and minimum efficiencies for motors and transformers shall comply with this section. Receptacles shall be controlled according to Section C405.10. Controlled receptacles and lighting systems shall be commissioned according to Section C405.12. Solar readiness shall be provided according to Section C411 and renewable energy shall be provided according to Section C412.

Dwelling units shall comply with Sections C405.1.1 and C405.7.

Sleeping units shall comply with WSEC C405.2.6, item 2, and WSEC C405.1.1, or C405.4.

General lighting shall consist of all lighting included when calculating the total connected interior lighting power in accordance with WSEC C405.4.1 and which does not require specific application controls in accordance with WSEC C405.2.5.

Lighting installed in walk-in coolers, walk-in freezers, refrigerated warehouse coolers, and refrigerated warehouse freezers shall comply with the lighting requirements of WSEC C410.2.

Transformers, uninterruptable power supplies, motors, and electrical power processing equipment in data center systems shall comply with Section 8 of ASHRAE Standard 90.4 in addition to this code.

EXCEPTION: Energy using equipment used by a manufacturing, industrial, or commercial process other than maintaining comfort and amenities for the occupants are exempt from all Section C405 subsections except Section C405.8. Data center and computer room HVAC equipment is not covered by this exemption.

C405.1.1 Lighting for dwelling and sleeping units. No less than 90 percent of the permanently installed lighting serving dwelling units or sleeping units, excluding kitchen appliance lighting, shall be provided by lamps with a minimum efficacy of 65 lumens per watt or luminaires with an efficacy of not less than 45 lumens per watt.

NEW SECTION. SECTION 75. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Table C405.2.1 of the Washington State Energy Code is not adopted and the following is substituted:

Table C405.2.1

Occupant Sensor Compliance Requirements for Space Types

Space type[1]	**Comply with Section**
Classrooms/lecture/training rooms	C405.2.1.1
Conference/meeting/multipurpose rooms	C405.2.1.1
Copy/print rooms	C405.2.1.1

Space type[1]	**Comply with Section**
Lounge/breakrooms	C405.2.1.1
Enclosed offices	C405.2.1.1
Open plan office areas	C405.2.1.3
Restrooms	C405.2.1.1
Storage rooms	C405.2.1.1
Locker rooms	C405.2.1.1
Other spaces 300 square feet (28 m^2) or less that are enclosed by floor-to-ceiling height partitions	C405.2.1.1
Warehouse storage areas	C405.2.1.2
Library stacks	C405.2.1.2
Enclosed fire rated stairways	C405.2.1.4
Corridors	C405.2.1.5
Covered parking	C405.2.10

Footnote:

1. The space types listed include other spaces with substantially similar uses.

NEW SECTION. SECTION 76. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.2.1.2 of the Washington State Energy Code is not adopted and the following is substituted:

Occupant sensor control function in warehouse storage areas and library stacks (WSEC C405.2.1.2). Lighting in library stacks and warehouse storage areas shall be controlled as follows:

1. Lighting in each aisleway shall be controlled independently of lighting in all other aisleways and open areas.

2. Occupant sensors shall automatically reduce lighting power within each controlled area to an unoccupied setpoint of not more than 50 percent of full power within 20 minutes after all occupants have left the controlled area.

3. Lights which are not turned off by occupant sensors shall comply with Section C405.2.2 to turn lighting off when the building is vacant.

4. Restore lighting to full power or target light level when occupants enter the space.

5. A manual control shall be provided to allow occupants to turn off lights in the space.

NEW SECTION. SECTION 77. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.2.2 of the Washington State Energy Code is not adopted and the following is substituted:

Time switch controls (WSEC 405.2.2). Each area of the building that is not provided with occupant sensor controls complying with WSEC C405.2.1.1 through C405.2.1.5 shall be provided with time switch controls complying with WSEC C405.2.2.1.

EXCEPTIONS:

1. Luminaires that are required to have specific application controls in accordance with WSEC C405.2.6 unless specifically required to comply with this section by WSEC C405.2.6.

2. Spaces where patient care is directly provided.

3. Spaces where an automatic shutoff would endanger occupant safety or security.

4. Lighting intended for continuous operation.

5. Shop and laboratory classrooms.

C405.2.2.1 Time switch control function. Time switch controls shall provide programmed shutoff for lighting when building areas are unoccupied and shall comply with the following:

1. Have a minimum 7-day clock.

2. Be capable of being set for 7 different day types per week.

3. Incorporate an automatic holiday "shut-off" feature, which turns off all controlled lighting loads for at least 24 hours and then resumes normally scheduled operations.

4. Have program back-up capabilities, which prevent the loss of program and time settings for at least 10 hours, if power is interrupted.

5. Include an override switching device that complies with the following:

5.1. The override switch shall be a manual control;

5.2. The override switch, when initiated, shall permit the controlled lighting to remain on for not more than 2 hours; and

5.3. Any individual override switch shall control the lighting for an area not larger than 2,500 square feet (232.3 square meters).

6. Time switch controls are allowed to automatically turn on lighting to full power in corridors, lobbies, restrooms, storage rooms less than 50 square feet (4.7 square meters), and medical areas of health care facilities. In all other spaces, time switch controls are allowed to automatically turn on the lighting to not more than 50 percent power.

EXCEPTION: Within mall concourses, auditoriums, sales areas, manufacturing facilities, pools, gymnasiums, skating rinks, and sports arenas:

1. The time limit shall be permitted to be greater than 2 hours, provided the switch is a captive key device.

2. The area controlled by the override switch shall not be limited to 5,000 square feet (464.5 square meters), provided that such area is less than 20,000 square feet (1,858.1 square meters).

NEW SECTION. SECTION 78. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.2.3 of the Washington State Energy Code is not adopted and the following is substituted:

Manual controls (WSEC C405.2.3). Stairwells and parking garages are not permitted to use manual switches. All other lighting shall have manual controls complying with the following:

1. They shall be in a location with ready access to occupants;

2. They shall be located where the controlled lights are visible or shall identify the area served by the lights and indicate their status; and

3. Each control device shall control an area no larger than a single room, or 2,500 square feet (232.3 square meters), whichever is less, if the room area is less than or equal to 10,000 square feet (929 square meters); or one-quarter of the room area, whichever is less, if the room area is greater than 10,000 square feet (929 square meters).

EXCEPTIONS:

1. A manual control may be installed in a remote location for the purpose of safety or security provided that each remote control device has an indicator pilot light as part of or next to the control device and the light is clearly labeled to identify the controlled lighting.

2. Restrooms.

NEW SECTION. SECTION 79. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.2.4 of the Washington State Energy Code is not adopted and the following is substituted:

Dimming controls (WSEC C405.2.4). Dimming controls complying with WSEC C405.2.4.1 are required for general lighting in the following space types. The space types listed include other spaces with substantially similar uses.

1. Classroom/lecture hall/training room.

2. Conference/multipurpose/meeting room.

3. In a dining area for bar/lounge or leisure, family dining.

4. Laboratory.

5. Lobby.

6. Lounge/break room.

7. Offices.

8. Gymnasium/fitness center.

9. Library reading room.

10. In a health care facility for imaging rooms, exam rooms, nursery, and nurses' stations.

11. Spaces not provided with occupant sensor controls complying with WSEC C405.2.1.1.

EXCEPTIONS:

1. Luminaires controlled by daylight responsive controls complying with WSEC C405.2.5.

2. Luminaires controlled by special application controls complying with WSEC C405.2.6.

3. Where provided with manual control, the following areas are not required to have light reduction control:

3.1. Spaces that have only one luminaire with a rated power of less than 60 watts.

3.2. Spaces that use less than 0.45 watts per square foot (4.9 watts per square meter).

3.3. Corridors, lobbies, electrical rooms, and mechanical rooms.

L. Spaces required to have dimming control shall be provided with manual controls that allow lights to be dimmed from full output to 10 percent of full power or

lower with continuous dimming, as well as turning lights off. Manual control shall be provided within each space to dim lights.

NEW SECTION. SECTION 80. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.2.4.1 of the Washing State Commercial Energy Code is not adopted and the following is substituted:

Dimming control function (WSEC C405.2.4.1). Spaces required to have dimming control shall be provided with manual controls that allow lights to be dimmed from full output to 10 percent of full power or lower with continuous dimming, as well as turning lights off. Manual control shall be provided within each space to dim lights.

NEW SECTION. SECTION 81. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.2.5.1 of the Washington State Energy Code is not adopted and the following is substituted:

Daylight responsive controls function (WSEC C405.2.5.1). Where required, daylight responsive controls shall be provided within each space for control of lights in that space and shall comply with all of the following:

1. Lights in primary sidelit daylight zones shall be controlled independently of lights in secondary sidelit daylight zones in accordance with WSEC C405.2.5.2;

2. Lights in toplit daylight zones in accordance with WSEC C405.2.5.3 shall be controlled independently of lights in sidelit daylight zones in accordance with WSEC C405.2.5.2;

3. Daylight responsive controls within each space shall be configured so that they can be calibrated from within that space by authorized personnel;

4. Calibration mechanisms shall be in a location with ready access;

5. Daylight responsive controls shall dim lights continuously from full light output to 15 percent of full light output or lower;

6. Daylight responsive controls shall be configured to completely shut off all controlled lights in that zone;

7. When occupant sensor controls have reduced the lighting power to an unoccupied setpoint in accordance with WSEC C405.2.1.2 through C405.2.1.5, daylight responsive controls shall continue to adjust electric light levels in response to available daylight but shall be configured to not increase the lighting power above the specified unoccupied setpoint;

8. Lights in sidelit daylight zones in accordance with WSEC C405.2.5.2 facing different cardinal orientations (i.e., within forty-five degrees of due north, east, south, and west) shall be controlled independently of each other.

EXCEPTION: Up to 75 watts of general lighting are permitted to be controlled together with lighting in a daylight zone facing a different cardinal orientation.

9. Incorporate time-delay circuits to prevent cycling of light level changes of less than 3 minutes;

10. The maximum area a single daylight responsive control device serves shall not exceed 2,500 square feet (232.3 square meters) and no more than 60 lineal feet (18.3 lineal meters) of façade;

11. Occupant override capability of daylight dimming controls is not permitted, other than a reduction of light output from the level established by the daylighting controls; and

12. Daylight responsive controls shall be set initially to activate at 30 footcandles (323 lux) or not more than 110 percent of the illuminance level specified on the construction documents.

NEW SECTION. SECTION 82. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.2.5.1.1 of the Washington State Energy Code is not adopted and the following is substituted:

Dimming (WSEC C405.2.5.1.1). Daylight responsive controls shall be configured to automatically reduce the power of general lighting in the daylight zone in response to available daylight, while maintaining uniform illumination in the space through continuous dimming using dimming ballasts, dimming drivers, and daylight-sensing automatic controls. The system shall reduce lighting power continuously to less than 10 percent of rated power at maximum light output.

NEW SECTION. SECTION 83. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.2.6 of the Washington State Energy Code is not adopted and the following is substituted:

Additional lighting controls (WSEC C405.2.6). Specific application lighting shall be provided with controls, in addition to controls required by other sections, for the following:

1. The following lighting shall be controlled by an occupant sensor complying with WSEC C405.2.1.1 or a time switch control complying with WSEC C405.2.2.1. In addition, a manual control shall be provided to control such lighting separately from the general lighting in the space:

1.1. Luminaires for which additional lighting power is claimed in accordance with WSEC C405.4.2.2.1.

1.2. Display and accent.

1.3. Lighting in display cases.

1.4. Supplemental task lighting, including permanently installed under-shelf, or under-cabinet lighting.

1.5. Lighting equipment that is for sale or demonstration in lighting education.

1.6. Display lighting for exhibits in galleries, museums, and monuments that is in addition to general lighting.

2. Sleeping units shall have control devices or systems configured to automatically switch off all permanently installed luminaires and switched receptacles, including those installed within furniture, within 20 minutes after all occupants have left the unit.

EXCEPTIONS:

1. Lighting and switched receptacles controlled by card key controls.

2. Spaces where patient care is directly provided.

3. Lighting for life support of plants and animals and food warming, shall be controlled by a dedicated control that is independent of the controls for other lighting within the room or space.

4. Task lighting for medical and dental purposes that is in addition to general lighting shall be provided with a manual control.

5. Luminaires serving the exit access and providing means of egress illumination required by Section 1008.2 of the IBC, including luminaires that function as both normal and emergency means of egress illumination shall be controlled by a combination of listed emergency relay and occupancy sensors, or signal from another building control system, that automatically shuts off the lighting when the areas served by that illumination are unoccupied.

EXCEPTION: Means of egress illumination serving the exit access that does not exceed 0.01 watts per square foot (0.11 watts per square meter) of building area is exempt from this requirement.

SECTION 84. Ordinance 19485, Section 99, and K.C.C. 16.07.310 are hereby amended to read as follows:

Table C405.4.2(1) of the ((~~International Energy Conservation~~)) Washington State Energy Code is not adopted and the following is substituted:

Table C405.4.2(1)

Interior Lighting Power Allowances—Building Area Method

Building Area Type	**LPD (w/ft^2)**
Automotive facility	0.58
Convention center	0.58
Court house	((~~0.71~~)) 0.68

Dining: Bar lounge/leisure	((~~0.71~~)) 0.68
Dining: Cafeteria/fast food	((~~0.65~~)) 0.63
Dining: Family	((~~0.64~~)) 0.59
Dormitory((~~a,b~~))	((~~0.41~~)) 0.46
Exercise center	((~~0.60~~)) 0.54
Fire station((~~a~~))	((~~0.49~~)) 0.51
Gymnasium	0.68
Health care clinic	((~~0.63~~)) 0.69
Hospital((~~a~~))	((~~0.84~~)) 0.83
Hotel/motel((~~a,b~~))	((~~0.50~~)) 0.48
Library	0.75
Manufacturing facility	0.74
Motion picture theater	((~~0.40~~)) 0.39
Multifamily((~~c~~))	((~~0.37~~)) 0.41
Museum	((~~0.50~~)) 0.51
Office	((~~0.58~~)) 0.56
Parking garage	((~~0.13~~)) 0.14
Penitentiary	0.65

Performing arts theater	((~~0.76~~)) 0.74
Police station	((~~0.60~~)) 0.56
Post office	((~~0.59~~)) 0.58
Religious building	0.60
Retail	((~~0.76~~)) 0.70
School/university	0.63
Sports arena	((~~0.54~~)) 0.62
Town hall	((~~0.62~~)) 0.60
Transportation	((~~0.45~~)) 0.50
Warehouse	((~~0.36~~)) 0.40
Workshop	((~~0.82~~)) 0.78

((~~Footnotes:~~

~~a. Where sleeping units are excluded from lighting power calculations by application of IECC R404.1, neither the area of the sleeping units nor the wattage of lighting in the sleeping units shall be counted.~~

~~b. Where dwelling units are excluded from lighting power calculations by application of IECC R404.1, neither the area of the dwelling units nor the wattage of lighting in the dwelling units shall be counted.~~

~~c. Dwelling units are excluded. Neither the area of the dwelling units nor the wattage of lighting in the dwelling units shall be counted.~~))

SECTION 85. Ordinance 19485, Section 100, and K.C.C. 16.07.320 are hereby amended to read as follows:

Table C405.4.2(2) of the ((~~International Energy Conservation~~)) Washington State Energy Code is not adopted and the following is substituted:

Table C405.4.2(2)

Interior Lighting Power Allowances—Space-by-Space Method

Common Space-by-Space Types[a]	**LPD (w/ft^2)**
Atrium - Less than 20 feet or 6,096 millimeters in height	0.35
Atrium - 20 to 40 feet or 6,096 to 12,192 millimeters in height	((~~0.43~~)) 0.39
Atrium - Above 40 feet or 12,192 millimeters in height	((~~0.54~~)) 0.46
Audience/seating area – Permanent [d]	
In an auditorium	((~~0.55~~)) 0.52
In a gymnasium	0.21
In a motion picture theater	0.24
In a penitentiary	((~~0.67~~)) 0.56
In a performing arts theater	((~~1.04~~)) 0.98
In a religious building	0.65

In a sports arena	((~~0.30~~)) 0.24
Otherwise	((~~0.21~~)) 0.23
Banking activity area[i]	((~~0.55~~)) 0.51
Breakroom (see Lounge/breakroom)	
Classroom/lecture hall/training room	
In a penitentiary	((~~0.89~~)) 0.74
Otherwise[((~~m~~)) g]	((~~0.64~~)) 0.65
Computer room, data center	((~~0.85~~)) 0.68
Conference/meeting/multipurpose	((~~0.87~~)) 0.79
Confinement cell	0.63
Copy/print room	((~~0.28~~)) 0.31
Corridor	
In a facility for the visually impaired (and not used primarily by the staff)[b]	0.71
In a hospital	((~~0.71~~)) 0.61
In a manufacturing facility	0.37
Otherwise[c, ((~~f~~)) i]	((~~0.37~~)) 0.40
Courtroom[c]	((~~1.08~~)) 0.97
Dining area	

In a penitentiary	((~~0.42~~)) 0.35
In a facility for the visually impaired (and not used primarily by the staff)[b]	((~~1.27~~)) 1.22
In a bar/lounge or leisure dining[((~~h~~)) i]	((~~0.77~~)) 0.69
In cafeteria or fast food dining	((~~0.36~~)) 0.33
In a family dining area[((~~h~~)) i]	((~~0.54~~)) 0.47
Otherwise	((~~0.39~~)) 0.38
Electrical/mechanical	((~~0.39~~)) 0.43
Emergency vehicle garage	((~~0.47~~)) 0.46
Food preparation	((~~0.98~~)) 1.07
Guest room[a,b]	0.37
Laboratory	
In or as a classroom	((~~1.00~~)) 0.95
Otherwise	((~~1.20~~)) 1.09
Laundry/washing area	((~~0.48~~)) 0.46
Loading dock, interior	0.79
Lobby[c]	
In a facility for the visually impaired (and not used primarily by the staff)[b]	((~~1.69~~)) 1.44

For an elevator	((~~0.59~~)) 0.58
In a hotel	((~~0.46~~)) 0.43
In a motion picture theater	((~~0.21~~)) 0.18
In a performing arts theater	((~~1.13~~)) 1.09
Otherwise	((~~0.76~~)) 0.72
Locker room	((~~0.47~~)) 0.39
Lounge /breakroom[((~~n~~)) i]	
In a health care facility[c,i]	0.42
Otherwise[i]	((~~0.53~~)) 0.50
Office	
Enclosed ≤ 250	0.67
Enclosed ≥ 250	0.59
Open plan	((~~0.55~~)) 0.51
Parking area, interior	((~~0.14~~)) 0.10
Pharmacy area	((~~1.66~~)) 1.43
Restroom	
In a facility for the visually impaired (and not used primarily by the staff)[b]	((~~1.26~~)) 0.96
Otherwise[((~~n~~)) i]	((~~0.57~~)) 0.67

Sales area	((~~0.95~~)) 0.87
Seating area, general	((~~0.21~~)) 0.19
Security screening general area	0.64
Security screening in transportation facilities	0.93
Security screening transportation waiting area	0.56
Stairwell((~~n~~)) c,i	((~~0.44~~)) 0.43
Storage room ((~~< 50 ft²~~ ~~50-100 ft²~~)) All ((~~of the~~)) storage[b]	 ((~~0.46~~)) ((~~0.34~~)) ((0.~~34~~)) 0.32
Vehicular maintenance	((~~0.54~~)) 0.53
Workshop	((~~1.13~~)) 1.05

3020 **Building Specific Space-by-Space Types[a]**

Building Specific Space-by-Space Types[a]	**LPD[d] (w/ft²)**
Automotive - (See Vehicular maintenance, above)	

Convention center - Exhibit space[i]	((~~0.55~~)) 0.45
Dormitory living quarters[a,b]	0.45
Facility for the visually impaired[b] In a chapel (and not used primarily by the staff)[b] In a recreation room (and not used primarily by the staff)[b]	 ((~~0.70~~)) 0.58 ((~~1.77~~)) 1.20
Fire stations – Sleeping quarters((g))	0.21
Gaming establishments High limits game Slots Sportsbook Table games	 1.51 0.49 0.74 0.98
Gymnasium/fitness center In an exercise area In a playing area	 ((~~0.83~~)) 0.74 ((~~0.77~~)) 0.74
Health care facility[c,i] In an exam/treatment room In an imaging room In a medical supply room	 ((~~1.40~~)) 1.33 0.94 ((~~0.62~~)) 0.56

In a nursery	((~~0.92~~)) 0.87
In a nurse's station	((~~1.17~~)) 1.07
In an operating room	2.26
In a patient room((~~g~~))	0.68
In a physical therapy room	((~~0.91~~)) 0.82
In a recovery room	((~~1.25~~)) 1.18
In a telemedic room	1.44
Library((~~f~~))	
In a reading area((~~a~~)) i	((~~0.86~~)) 0.78
In the stacks	((~~0.99~~)) 1.06
Manufacturing facility	
In a detailed manufacturing area	((~~0.72~~)) 0.68
In an equipment room	((~~0.68~~)) 0.66
In an extra high bay area (more than 50-foot or 15,240-millimeter floor-to-ceiling height)	((~~1.28~~)) 1.22
In a high bay area (25 - 50-foot or 7,620 - 15,240-millimeter floor-to-ceiling height)	1.12
In a low bay area (< 25-foot or 7,620-millimeter floor-to-ceiling height)	((~~0.77~~)) 0.78

Museum	
In a general exhibition area[i]	((~~0.28~~)) 0.28
In a restoration room	((~~0.99~~)) 1.10
Performing arts theater dressing/fitting room	((~~0.37~~)) 0.35
Post office - Sorting area	((~~0.69~~)) 0.64
Religious building	
In a fellowship hall((~~h~~)) [i]	((~~0.49~~)) 0.45
In a worship pulpit/choir area((~~h~~)) [i]	((~~0.77~~)) 0.68
Retail	
In a dressing/fitting room	((~~0.46~~)) 0.41
Hair salon	0.59
Nail salon	0.68
In a mall concourse	((~~0.74~~)) 0.52
Massage space	0.73
Sports arena—Playing area	
For a Class 1 facility((~~i~~)) [d]	((~~2.94~~)) 2.63
For a Class 2 facility((~~j~~)) [e]	((~~2.01~~)) 1.78
For a Class 3 facility((~~k~~)) [f]	((~~1.30~~)) 1.16
For a Class 4 facility((~~l~~)) [g]	((~~0.86~~)) 0.78

Sports arena—Pools	
For a Class 1 facility[d]	1.98
For a Class 2 facility[e]	1.32
For a Class 3 facility[f]	0.89
For a Class 4 facility[g]	0.53
Transportation	
Airport hangar	1.22
In a baggage/carousel area	((~~0.35~~)) 0.25
In an airport concourse	((~~0.23~~)) 0.44
At a terminal ticket counter[((~~h~~))] [i]	((~~0.46~~)) 0.36
Passenger loading area	0.64
Warehouse—Storage area	
For medium to bulky palletized items	0.30
For smaller, hand-carried items	((~~0.62~~)) 0.63

For SI: 1 foot = 304.8 mm, 1 watt per square foot = ((~~11~~)) 10.76 W/m^2.

Footnotes:

a. ((~~If~~)) Where both a common space type and a building area specific space type are listed, the building area specific space type shall be appl((~~y~~)) ied.

b. A facility for the visually impaired is a facility that is licensed or will be licensed by local or state authorities for senior long-term care, adult daycare, senior support, or people with special visual needs.

c. ((~~For spaces in which lighting is specified to be installed in addition to, and controlled separately from, the general lighting for the purpose of highlighting art or exhibits if the additional lighting power shall not exceed 0.5 W/ft^2 of such spaces.~~

~~d. For scientific laboratories, additional lighting power allowance of 0.35 W/ft^2 for specialized task work - lighting that provides for small-scale, cognitive or fast performance visual tasks, lighting required for operating specialized equipment associated with pharmaceutical or laboratorial activities or both.~~

~~e. For offices, additional lighting power allowance of 0.20 W/ft^2 for portable lighting, which includes under shelf or furniture-mounted supplemental task lighting qualifies when controlled by a time clock or an occupancy sensor.~~

~~f. For corridors, additional lighting power allowance of 0.25 W/ft^2 display lighting and decorative lighting where provided for aesthetic purposes. Decorative lighting fixtures in corridors may also provide general lighting. This additional allowance is not permitted to be used together with the allowance in footnote c for highlighting art or exhibits.~~

~~g. Where sleeping units are excluded from lighting power calculations by application of IECC R404.1, neither the area of the sleeping units nor the wattage of lighting in the sleeping units shall be counted.~~

~~h. Where dwelling units are excluded from lighting power calculations by application of IECC R404.1, neither the area of the dwelling units nor the wattage of lighting in the dwelling units shall be counted.~~

~~i.~~)) Additional lighting power allowance of 0.2 watts per square foot (0.1 of a square meter) for the purpose of highlighting art or exhibits. This additional power shall be permitted only where the specified lighting is installed in addition to and controlled separately from general lighting in accordance with WSEC C405.2.6. This additional power shall be used only for the specified luminaires and shall not be used for any other purpose and it shall not be added to any other space or the interior power allowance.

d. Class I facilities consist of professional facilities; and semiprofessional, collegiate, or club facilities with seating for 5,000 or more spectators.

((~~j.~~)) e. Class II facilities consist of collegiate and semiprofessional facilities with seating for fewer than 5,000 spectators; club facilities with seating between 2,000 and 5,000 spectators; and amateur league and high school facilities with seating for more than 2,000 spectators.

((~~k.~~)) f. Class III facilities consist of club, amateur league, and high school facilities with seating for 2,000 or fewer spectators.

((~~l.~~)) g. Class IV facilities consist of elementary school and recreational facilities; and amateur league and high school facilities without provisions for spectators.

((~~m.~~)) h. For classrooms, additional lighting power allowance of 4.50 ((~~W/~~)) watts per lineal foot (0.3 lineal meter) of white or chalk boards for directional lighting dedicated to white or chalk boards.

((~~n.~~)) i. Additional lighting power allowance of ((~~0.30 W/ft^2~~)) 0.15 watts per square foot (0.1 of a square meter) for ornamental lighting. Qualifying ornamental lighting includes luminaires ((~~such as chandeliers, sconces, lanterns, neon and cold cathode, light emitting diodes, theatrical projectors, moving lights and light color panels when any of those lights~~)) that are specifically used in a decorative manner ((~~that does not serve as display lighting or general lighting. Ornamental lighting shall be controlled separately from general lighting~~)). This additional power shall be permitted only where the specified lighting is installed in addition to and controlled separately from display or general lighting in accordance with WSEC C405.2.6. This additional power shall be used only for the specified luminaires and it shall not be added to any other space or the interior power allowance.

j. Where a space is designated as unfinished, neither the area nor the lighting power in the space shall be calculated as part of the Lighting Power Alliance.

k. For corridors, additional lighting power allowance of 0.25 watts per square foot (0.1 of a square meter) for display lighting and decorative lighting is permitted where provided for aesthetic purposes. Decorative lighting fixtures in corridors are also permitted to provide general lighting.

NEW SECTION. SECTION 86. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.4.2.2.1 of the Washington State Energy Code is not adopted and the following is substituted:

Additional interior lighting power (WSEC C405.4.2.2.1). Where using the Space-by-Space Method, an increase in the interior lighting power allowance is permitted

for specific lighting functions. Additional power shall be permitted only where the specified lighting is installed in addition to and automatically controlled separately from general lighting, in accordance with WSEC C405.2.6. This additional power shall be used only for the specified luminaires and shall not be used for any other purpose.

An increase in the interior lighting power allowance is permitted for lighting equipment to be installed in sales areas specifically to highlight merchandise. The additional lighting power shall be determined in accordance with Equation 4-14.

Equation 4-14:

Additional Interior Lighting Power Allowance = 500 watts + (Retail Area 1 × ((0.45)) 0.40 watts/square foot) + (Retail Area 2 × ((0.45)) 0.40 watts/square foot) + (Retail Area 3 × ((1.05)) 0.70 watts/square foot) + (Retail Area 4 × ((1.87)) 1.00 watts/square foot)

Where:

Retail Area 1 = The floor area for all products not listed in Retail Area 2, 3 or 4.

Retail Area 2 = The floor area used for the sale of vehicles, sporting goods, and small electronics.

Retail Area 3 = The floor area used for the sale of furniture, clothing, cosmetics, and artwork.

Retail Area 4 = The floor area used for the sale of jewelry, crystal, and china.

EXCEPTION: Other merchandise categories are permitted to be included in Retail Areas 2 through 4, provided that justification documenting the need for additional lighting power based on visual inspection, contrast, or other critical display requirement is approved by the code official.

NEW SECTION. SECTION 87. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.5 of the Washington State Energy Code is supplemented with the following:

Full cutoff luminaires (WSEC C405.5.5). For open parking and outdoor areas and roadways, luminaires mounted more than 15 feet (4,572 millimeters) above the ground shall have a luminaire light distribution in which zero candela intensity occurs at angles equal to or greater than 90 degrees above nadir.

NEW SECTION. SECTION 88. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.8 of the Washington State Energy Code is not adopted and the following is substituted:

Electric motor efficiency (WSEC C405.8). All electric motors, fractional or otherwise, shall meet the minimum efficiency requirements of WSEC Tables C405.8(1) through C405.8(4) when tested and rated in accordance with DOE 10 C.F.R 431. The efficiency shall be verified through certification under an approved certification program. Where no certification program exists, the equipment efficiency rating shall be supported by data furnished by the motor manufacturer.

EXCEPTION: The standards in this section shall not apply to the following exempt electric motors.

1. Air-over electric motors.
2. Component sets of an electric motor.
3. Liquid-cooled electric motors.

4. Submersible electric motors.

5. Inverter-only electric motors.

6. Mechanical ventilation system types with an input power less than 746 watts that comply with the requirements of WSEC C403.8.4.

Fractional horsepower fan motors that are 1/12 horsepower (0.1 metric horsepower) or greater and less than 1 horsepower (1 metric horsepower) (based on output power) which are not covered by WSEC Tables C405.8(3) and C405.8(4) shall be electronically commutated motors or shall have a minimum motor efficiency of 70 percent when rated in accordance with DOE 10 C.F.R. 431. These motors shall also have the means to adjust motor speed for either balancing or remote control. Belt-driven fans may use sheave adjustment for airflow balancing in lieu of a varying motor speed.

EXCEPTIONS:

1. Motors that are an integral part of specialized process equipment.

2. Where the motor is integral to a listed piece of equipment for which no complying motor has been approved.

3. Motors used as a component of the equipment meeting the minimum efficiency requirements of WSEC C403.3.2 and WSEC Tables C403.3.2(1) through C403.3.2(16), provided that the motor input is included when determining the equipment efficiency.

4. Motors in the airstream within fan coils and terminal units that operate only when providing heating to the space served.

5. Mechanical ventilation system types with an input power less than 746 watts that comply with the requirements of WSEC C403.8.4.

6. Domestic use of clothes dryer booster fans, range hood exhaust fans, and range booster fans that operate intermittently.

7. Radon and contaminated soil exhaust fans.

NEW SECTION. SECTION 89. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405 of the Washington State Energy Code is supplemented with the following:

Commercial food service (WSEC C405.14). The following types of equipment within the scope of the applicable Energy Star program shall comply with the energy-efficiency and water-efficiency criteria required to achieve the Energy Star label:

A. Commercial fryers: Energy Star Program Requirements for Commercial Fryers.

B. Commercial hot food holding cabinets: Energy Star Program Requirements for Hot Food Holding Cabinets.

C. Commercial steam cookers: Energy Star Program Requirements for Commercial Steam Cookers.

D. Commercial dishwashers: Energy Star Program Requirements for Commercial Dishwashers.

NEW SECTION. SECTION 90. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405 of the Washington State Energy Code is supplemented with the following:

Electric power at gas-fired commercial cooking appliances (WSEC

C405.14.1). Where gas-fired commercial cooking appliances in commercial kitchens are provided, an electrical panel shall be provided within or adjacent to each space in which commercial cooking appliances are located, sized to serve future electric appliances to replace all gas-fired appliances in the space with a minimum capacity of 293 volt-amperes (VA) per Btu/h of gas appliance input capacity. The main electric service panel for the building shall be wired and sized to accommodate all such commercial cooking appliance panels. Permit documents shall include a table listing each gas-fired commercial cooking appliance as well as an equivalent electric appliance providing the same or greater cooking capacity, and the total amperage required for the commercial kitchen electrical panel. This information shall be provided in both the mechanical and the electrical permit documents.

EXCEPTION: This requirement does not apply to gas-fired cooking appliances installed in buildings originally permitted in compliance with an earlier edition of the Energy Code, if the building's main service panel lacks sufficient capacity to provide power for equivalent electric versions of all the gas-fired equipment identified in the permit application.

NEW SECTION. SECTION 91. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Table C406.1 of the Washington State Energy Code is not adopted and the following is substituted:

Table C406.1

Energy Measure Credit Requirements

Required Credits for Projects		Occupancy Group					
	WSEC Section	Group R-1	Group R-2	Group B	Group E	Group M	All Other
New building energy efficiency credit requirement	C406.2	59	45	46	53	61	54
Building additions energy efficiency credit requirement	C406.2	30	22	23	25	30	23
New building load management credit requirement	C406.3	12	15	27	15	13	26

NEW SECTION. SECTION 92. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.1.1.1 of the Washington State Energy Code is not adopted and the following is substituted:

Applicable envelope, renewable, and elevator energy credits (WSEC C406.1.1.1). Where an entire building or building addition complies with WSEC C406.2.5, C406.2.12, C406.2.13, or C406.2.18, under an initial tenant improvement permit, tenant spaces within the building qualify for the number of credits assigned to the occupancy group of the tenant space in accordance with WSEC Table C406.2(1). Where

prior energy credits were achieved under the 2018 Washington State Energy Code, they shall be multiplied by 6 for applicability to this code.

NEW SECTION. SECTION 93. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.1.1.2 of the Washington State Energy Code is not adopted and the following is substituted:

Applicable HVAC and service water heating credits (WSEC C406.1.1.2). Where HVAC and service water heating systems and services are installed and comply with WSEC C406.2.2, C406.2.8, or C406.2.9, under an initial tenant improvement permit, those systems and services shall be considered a part of the tenant space. Tenant spaces qualify for the credits assigned to the occupancy group of the tenant space in accordance with WSEC Table C406.2(1) if the tenant space includes the distribution system and equipment that the central HVAC systems or service water heating systems were designed to support.

NEW SECTION. SECTION 94. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Table C406.2(1) of the Washington State Energy Code is not adopted and the following is substituted:

Table C406.2(1)

Efficiency Measure Credits

Measure Title	Applicable WSEC Section	Prorating Flag	Occupancy Group

			Group R-1	**Group R-2**	**Group B**	**Group E**	**Group M**	**All Other**
1. Dwelling Unit HVAC control	C406.2.1	Heat	NA	7	NA	NA	NA	NA
2. Improved HVAC TSPR	C406.2.2.1	Heat	NA	8	11	17	22	NA
3. Improved cooling and fan efficiency	C406.2.2.2	Heat	8	5	10	10	8	8
4. Improved heating efficiency	C406.2.2.3	Heat	1	1	1	1	2	1
5. Improved low-carbon district energy system (100% better)	C406.2.2.4		3	3	4	11	17	8
6. Improved low-carbon district energy system (20% better)	C406.2.25		9	10	12	33	52	24
7. High	C406.2.2.6	Heat	31	31	21	39	40	21/

Measure Title	Applicable WSEC Section	Prorating Flag	Occupancy Group					
			Group R-1	Group R-2	Group B	Group E	Group M	All Other
performance DOAS								(Group A:40)[c]
8. Fault detection & diagnostics (FDD)	C406.2.2.7	Heat	2	2	2	6	9	4
9. 10% reduced lighting power	C406.2.3.1	Heat	7	4	18	16	36	16
10. 20% reduced lighting power[d]	C406.2.3.2	Heat	13	8	36	32	72	32
11. Lamp efficacy improvement	C406.2.3.3	Heat	5	6	NA	NA	NA	NA
12. Residential lighting	C406.2.4.1	Heat	NA	8	NA	NA	NA	NA

Measure Title	Applicable WSEC Section	Prorating Flag	Occupancy Group					
			Group R-1	Group R-2	Group B	Group E	Group M	All Other
control								
13. Enhanced lighting control	C406.2.4.2	Heat	1	1	6	6	11	5
14. Renewable energy	C406.2.5		7	12	13	13	10	11
15. Shower drain heat recovery	C406.2.6.1	SWH	9	30	NA	3	NA	NA
16. Service water heat recovery	C406.2.6.2	SWH	35	111	13	14	(Grocery) 41[e]	NA
17. Reserved								
18. High efficiency service water heating, gas-fired	C406.2.6.4	SWH	NA	NA	NA	NA	NA	NA

Measure Title	Applicable WSEC Section	Prorating Flag	Occupancy Group					
			Group R-1	Group R-2	Group B	Group E	Group M	All Other
19. Heat trace system	C406.2.7.1	SWH	6	13	4	1	NA	6
20. Point of use water heater	C406.2.7.2	SWH	NA	NA	19	5	NA	NA
21. Service hot water distribution right sizing	C406.2.8		13	10	NA	NA	NA	NA
22. High performance service hot water temperature maintenance system	C406.2.9		6	13	4	1	NA	6
23. Reserved								
24. Low flow residential	C406.2.11	SWH	3	3	NA	NA	NA	NA

Measure Title	Applicable WSEC Section	Prorating Flag	Occupancy Group					
			Group R-1	Group R-2	Group B	Group E	Group M	All Other
showerhead								
25. Enhanced envelope performance[g]	C406.2.12	Heat	24	20	13	5	19	16
26. Base reduced air leakage[g]	C406.2.13.1		29	24	6	3	9	14
27. Enhanced reduced air leakage[g]	C406.2.13.2	Heat	53	44	11	5	16	26
28. Reserved								
29. Enhanced residential kitchen equipment	C406.2.15	Heat	12	19	NA	NA	NA	NA
30. Enhanced residential laundry equipment	C406.2.16	Heat	NA	6	NA	NA	NA	NA

Measure Title	Applicable WSEC Section	Prorating Flag	Occupancy Group					
			Group R-1	Group R-2	Group B	Group E	Group M	All Other
31. Heat pump clothes dryers	C406.2.17	Heat	6	6	NA	NA	NA	NA
32. Efficient elevator equipment	C406.2.18	Heat	3	5	5	5	4	4

Footnotes:

a. Projects using Item 2 shall not use Items 3, 4, or 7.

b. Projects using WSEC C406.2.2.5 shall not use WSEC C406.2.2.4.

c. For WSEC C406.2.2.6, Group A occupancies achieve 40 credits. Other occupancy groups within the "all other" category achieve 21 credits.

d. Projects using WSEC C406.2.3.2 shall not use WSEC C406.2.3.1.

e. Service water heat recovery and heat pump water heating are available in Group M occupancies only for grocery stores larger than 10,000 square feet (929.0 square meters). Large mixed retail uses with full grocery and butcher sections shall achieve half the credits. This credit is not available where refrigeration recovery to heat service hot water is used to meet the requirements of WSEC C403.9.2.3.

f. Reserved.

g. Buildings or building areas that are exempt from the thermal envelope

requirements in accordance with WSEC C402.1.1 and C402.1.2 do not qualify for this package.

NEW SECTION. SECTION 95. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Table C406.2(2) of the Washington State Energy Code is not adopted and the following is substituted:

Table C406.2(2)

Efficiency Measure Credits for use with Fossil Fuel Compliance Path

Measure Title	Applicable WSEC Section	Prorating Flag	Occupancy Group					
			Group R-1	Group R-2	Group B	Group E	Group M	All Other
1. Dwelling unit HVAC control	C406.2.1	Heat	NA	8	NA	NA	NA	NA
2. Improved HVAC TSPR[a]	C406.2.2.1	Heat	NA	9	12	19	24	NA
3. Improved cooling and fan efficiency	C406.2.2.2	Heat	12	8	14	8	10	10
4. Improved heating efficiency	C406.2.2.3	Heat	2	3	3	11	18	8
5. Improved low-carbon district energy system (10% better)	C406.2.2.4		3	3	4	12	19	9
6. Improved low-carbon district energy system (20% better)[b]	C406.2.2.5		10	11	13	36	57	26

7. High performance DOAS	C406.2.2.6	Heat	34	34	23	43	44	23/(A) 40[c]
8. Fault detection & diagnostics (FDD)	C406.2.2.7	Heat	2	2	2	6	9	4
9. 10% reduced lighting power	C406.2.3.1	Heat	7	4	18	16	20	15
10. 20% reduced lighting power[d]	C406.2.3.2	Heat	13	8	36	32	40	29
11. Lamp efficacy improvement	C406.2.3.3	Heat	5	6	NA	NA	NA	NA
12. Residential lighting control	C406.2.4.1	Heat	NA	8	NA	NA	NA	NA
13. Enhanced lighting control	C405.2.4.2	Heat	1	1	6	6	11	6
14. Renewable energy	C406.2.5		7	12	13	13	10	11
15. Shower drain heat recovery	C406.2.6.1	SWH	10	33	NA	3	NA	NA
16. Service water heat recovery	C406.2.6.2	SWH	35	111	13	14	(Grocery) 41[e]	NA
17. Heat pump water heating	C406.2.3	SWH	135	163	17	33	(Grocery) 95[e]	(A-2) 95[f]
18. High efficiency service water heating, gas-fired	C406.2.4	SWH	59	65	6	11	18	32
19. Heat trace system	C406.2.7.1	SWH	6	13	4	1	NA	6
20. Point of use water heater	C406.2.7.2	SWH	NA	NA	19	5	NA	NA

21. Service hot water distribution right sizing	C406.2.8		13	10	NA	NA	NA	NA
22. High performance service hot water temperature maintenance system	C406.2.9		6	13	4	1	NA	6
23. Reserved								
24. Low flow residential showerheads	C406.2.11	SWH	3	3	NA	NA	NA	NA
25. Enhanced envelope performance[g]	C406.2.12	Heat	24	20	13	5	19	14
26. Base reduced air leakage[g]	C406.2.13.1		29	24	6	3	9	11
27. Enhanced reduced air leakage[g]	C406.2.13.2	Heat	53	44	11	5	16	20
28. Reserved								
29. Enhanced residential kitchen equipment	C406.2.15	Heat	12	19	NA	NA	NA	NA
30. Enhanced residential laundry equipment	C406.2.16	Heat	NA	6	NA	NA	NA	NA
31. Heat pump clothes dryers	C406.2.17	Heat	6	6	NA	NA	NA	NA
32. Efficient elevator equipment	C406.2.18	Heat	3	5	5	5	4	4

Footnotes:

a. Projects using Item 2 shall not use Items 3, 4, or 7.

b. Projects using WSEC C406.2.2.5 shall not use WSEC C406.2.2.4.

c. For WSEC C406.2.2.6, Group A occupancies achieve 40 credits. Other occupancy groups within the "all other" category achieve 21 credits.

d. Projects using WSEC C406.2.3.2 shall not use WSEC C406.2.3.1.

e. Service water heat recovery and heat pump water heating are available in Group M occupancies only for grocery stores larger than 10,000 square feet (929.0 square meters). Large mixed retail uses with full grocery and butcher sections shall achieve half the credits. This credit is not available where refrigeration recovery to heat service hot water is used to meet the requirements of WSEC C403.9.2.3.

f. Reserved.

g. Buildings or building areas that are exempt from the thermal envelope requirements in accordance with WSEC C402.1.1 and C402.1.2, do not qualify for this package.

NEW SECTION. SECTION 96. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.2.1 of the Washington State Energy Code is not adopted and the following is substituted:

Dwelling unit and Group R-1 sleeping unit HVAC controls (WSEC C406.2.1). HVAC systems serving dwelling units or Group R-1 sleeping units shall be controlled with a programmable thermostat that is configured to automatically activate a setback condition of at least 5° Fahrenheit (-15° Celsius) for both heating and cooling. The programmable thermostat shall be configured to provide setback during occupied

sleep periods. The unoccupied setback mode shall be configured to operate in conjunction with one of the following:

1. A manual main control device by each dwelling unit or Group R-1 sleeping unit main entrance that initiates setback for all HVAC units in the dwelling unit and is clearly identified as "Heating/Cooling Master Setback."

2. Occupancy sensors in each room of the dwelling unit or Group R-1 sleeping unit combined with a door switch to initiate setback for all HVAC units in the dwelling within 20 minutes of all spaces being vacant immediately following a door switch operation. Where separate room HVAC units are used, an individual occupancy sensor on each unit that is configured to provide setback shall meet this requirement.

3. An advanced learning thermostat that senses occupant presence and automatically creates a schedule for occupancy and provides a dynamic setback schedule based on when the spaces are generally unoccupied.

4. An automated control and sensing system that uses geographic sensing connected to the dwelling unit occupants' cell phones and initiates the setback condition when all occupants are away from the building.

NEW SECTION. SECTION 97. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.2.2 of the Washington State Energy Code is not adopted and the following is substituted:

More efficient HVAC system performance (WSEC C406.2.2). All heating and cooling systems shall meet the minimum requirements of WSEC C403 and efficiency improvements shall be referenced to the minimum efficiency requirements listed in the

tables in WSEC C403.3.2. Where multiple efficiency requirements are listed, equipment shall meet the seasonal efficiencies including SEER, EER/IEER, IPLV, or AFUE. Equipment that is larger than the maximum capacity range indicated in the tables in WSEC C403.3.2 shall utilize the values listed for the largest capacity equipment for the associated equipment type shown in the table. Where multiple individual heating or cooling systems serve the project, the improvement shall be the weighted average improvement based on individual system capacity. This credit shall not be utilized for low energy or semi-heated space conditioning categories. No HVAC systems incorporating fossil fuel-fired equipment, or heat from district energy systems that are primarily heated by fossil fuel combustion, are permitted to utilize this credit.

For occupancies and systems required to comply with WSEC C403.1.1, credits are permitted to be achieved by meeting the requirements of WSEC C406.2.2.1. Other systems are permitted to achieve credits by meeting the requirements of either:

1. WSEC C406.2.2.2, More efficient HVAC equipment cooling and fan performance;

2. WSEC C406.2.2.3, More efficient HVAC equipment heating performance;

3. WSEC C406.2.2.4, High performance dedicated outdoor air system (DOAS); or

4. Any combination of WSEC C406.2.2.2, C406.2.2.3, and C406.2.2.4.

In addition, energy credits are permitted to be achieved for WSEC C406.2.2.7, Fault detection and diagnostics, where not otherwise required by WSEC C403.2.3 or C403.6.10(15).

NEW SECTION. SECTION 98. There is hereby added to K.C.C. chapter 16.07

a new section to read as follows:

Section C406.2.2.3 of the Washington State Energy Code is not adopted and the following is substituted:

More efficient HVAC equipment heating performance (WSEC C406.2.2.3). No less than 90 percent of the total HVAC capacity serving the total conditioned floor area of the entire building, building addition, or tenant space in accordance with WSEC C406.1.1 shall comply with the following:

C.406.2.2.3.1. HVAC system selection. Equipment installed shall be types that are listed in the tables in WSEC C403.3.2. Electrical resistance heating shall be limited to 20 percent of system capacity with the exception of heat pump supplemental heating. No HVAC systems incorporating fossil fuel-fired equipment, or heat from district energy systems that are primarily heated by fossil fuel combustion, are permitted to utilize this credit.

C.406.2.2.3.2. Heating equipment efficiency. Equipment shall exceed the minimum heating efficiency requirements of the tables in WSEC C403.3.2 by at least 5 percent. Where equipment exceeds the minimum annual heating efficiency requirements by more than 5 percent, energy efficiency credits for heating shall be determined using Equation 4-16, rounded to the nearest whole number.

Equation 4-16:

$$EEC_{HEH} = EEC_5 \times \left[1 + \frac{HEI - 0.05}{0.05}\right]$$

Where:

EEC_{HEH} = Energy efficiency credits for heating efficiency improvement.

EEC_5 = WSEC C406.2.2.2 credits from WSEC Table C406.2(1).

HEI = The lesser of the improvement above minimum heating efficiency requirements or 20 percent or 0.2. Where heating efficiency varies by system, use the capacity weighted average percentage for all heating equipment combined. For metrics that increase as efficiency increases, HEI shall be calculated as follows:

$$HEI = \frac{HM_{DES}}{HM_{MIN}} - 1$$

Where:

HM_{DES} = Design heating efficiency metric, part-load, or annualized where available.

HM_{MIN} = Minimum required heating efficiency metric, part-load, or annualized where available from WSEC C403.3.2.

EXCEPTION: In low energy spaces complying with WSEC C402.1.1 and semi-heated spaces complying with WSEC C402.1.1.2, no less than 90 percent of the installed heating capacity is provided by electric infrared or gas-fired radiant heating equipment for localized heating applications. Such spaces shall achieve credits for EEC_5.

NEW SECTION. SECTION 99. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.2.2.6 of the Washington State Energy Code is not adopted and the following is substituted:

High performance dedicated outdoor air system (DOAS) (WSEC C406.2.2.6).

No less than 90 percent of the total conditioned floor area of the whole project, excluding floor area of unoccupied spaces that do not require ventilation as specified by

the IMC, shall be served by DOAS installed in accordance with WSEC C403.3.5 with the following adjustments:

1. Minimum heat recovery sensible effectiveness of 80 percent, calculated in accordance with WSEC C403.3.5.1, or C403.7.6.1 for R-2 occupancies.

2. Where design outdoor airflow is greater than 500 cubic feet per minute (250 liters per second), the DOAS shall be equipped with an economizer bypass, damper control, or wheel speed control that is active between 50° Fahrenheit (10° Celsius) and 75° Fahrenheit (24° Celsius) outdoor air temperature and minimizes energy recovery or maintains an appropriate DOAS leaving air temperature when the building is generally in cooling, based either on outdoor air temperature or a DDC zone-based cooling system reset.

3. DOAS total combined fan power shall comply with the fan power limits in WSEC Table C403.8.4 where applicable and shall be less than either:

3.1. 0.769 watts per cubic feet per minute (1.55 watts per liter per second) when calculated in accordance with WSEC C403.3.5.2; or

3.2. 80 percent of fan power allowance for a constant volume system when calculated in accordance with WSEC C403.8.1.

This option (High performance DOAS per C406.2.2.6) is not available to areas served by systems utilizing WSEC C403.2.2.1, exception 5. No HVAC systems incorporating fossil fuel-fired equipment, or heat from district energy systems that are primarily heated by fossil fuel combustion, are permitted to utilize this credit.

NEW SECTION. SECTION 100. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.2.4.2 of the Washington State Energy Code is not adopted and the following is substituted:

Enhanced digital lighting controls (WSEC C406.2.4.2). Measure credits shall be achieved where no less than 50 percent of the gross floor area within the project has luminaires and lighting controls that include high end trim in compliance with WSEC C405.2.8.3 and either luminaire-level lighting controls in compliance with WSEC C405.2.8.1 or networked lighting controls in accordance with WSEC C405.2.8.2. Open office areas subject to the requirements of WSEC C405.2.8 are not permitted to take credit for this option. Where general lighting in more than 50 percent of the gross floor area complies, the base credits from WSEC Table C406.2(1) shall be prorated as follows:

[Floor area with high end trim, %] × [Base energy credits for WSEC C406.2.4.2] / 50%

NEW SECTION. SECTION 101. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.2.6 of the Washington State Energy Code is not adopted and the following is substituted:

Reduced energy use in service water heating (WSEC C406.2.6). Buildings with service hot water heating equipment that serves the whole building, building addition, or tenant space shall achieve credits through compliance with:

1. WSEC C406.2.6.1, C406.2.6.2, or C406.2.6.3.
2. WSEC C406.2.6.1 and C406.2.6.2.
3. WSEC C406.2.6.1 and C406.2.6.3.

No service water heating systems incorporating fossil fuel-fired equipment, or heat from district energy systems that are primarily heated by fossil fuel combustion, are permitted to utilize this credit.

NEW SECTION. SECTION 102. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.2.6.3.1 of the Washington State Energy Code is not adopted and the following is substituted:

Heat pump water heater (WSEC C406.2.6.3.1). Credit shall be achieved where the primary heat pump service water heating system is sized to deliver no less than 100 percent of the net calculated demand for the service water production during the peak demand period with entering dry bulb or wet bulb outdoor air temperature at 40° Fahrenheit (4°Celsius) for air-source heat pumps, or 44° Fahrenheit (7° Celsius) ground temperature for ground-source heat pumps, as calculated using the equipment manufacturer's selection criteria or another approved methodology. For this credit, the net calculated demand shall be the gross building demand less any portion of the demand complying with the exceptions to Section C404.2.1. Supplemental heating is permitted in accordance with Section C404.2.1, but cannot use fossil fuels. The refrigerant used in the heat pump system must have a global warming potential (GWP) no greater than 680. Heat pump water heaters shall comply with one of the following:

1. The COP rating shall be a minimum COP of three reported at the design leaving heat pump water temperature with an entering air temperature of 60° Fahrenheit (16° Celsius) or lower. For water-source equipment, the COP rating will be reported at the design leaving load water temperature with an entering load water temperature of 74°

Fahrenheit (23° Celsius) or lower.

2. The uniform energy factor (UEF) shall be a minimum of 3.4 rated based on U.S. Department of Energy requirements.

NEW SECTION. SECTION 103. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.2.10 of the Washington State Energy Code is not adopted.

NEW SECTION. SECTION 104. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.2.14 of the Washington State Energy Code is not adopted.

NEW SECTION. SECTION 105. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C407.2 of the Washington State Energy Code is not adopted and the following is substituted:

Mandatory requirements (WSEC C407.2). Compliance with WSEC C407 also requires compliance with those sections shown in WSEC Table C407.2. The building permit application for projects utilizing this method shall include in one submittal all building and mechanical drawings and all information necessary to verify that the building envelope and mechanical design for the project corresponds with the annual energy analysis. If credit is proposed to be taken for lighting energy savings, then an electrical permit application shall also be submitted and approved prior to the start of building construction. If credit is proposed to be taken for energy savings from other components, then the corresponding permit application (e.g., plumbing, boiler, etc.) shall also be submitted and approved prior to the building permit issuance. Otherwise,

components of the project that would not be approved as part of a building permit application shall be modeled in the baseline in accordance with ANSI/ASHRAE/IESNA 90.1 Appendix G and in the proposed model in accordance with the requirements of the Washington State Energy Code.

Table C407.2

Mandatory Compliance Measures for Total Building Performance Method

Section[a]	Title	Comments
Envelope		
C401	Thermal envelope certificate	
C402.2.7	Airspaces	
C402.5	Air leakage	
Mechanical		
C403.1.2	Calculation of heating and cooling loads	
C403.1.3	Data centers	
C403.2	System design	
C403.3.1	Equipment and system sizing	
C403.3.2	HVAC equipment performance requirements	
C403.3.3	Hot gas bypass limitation	
C403.3.4.4	Boiler turndown	
C403.4.1	Thermostatic controls	
C403.4.2	Off-hour controls	
C403.4.7	Combustion heating equipment controls	

C403.4.8	Group R-1 hotel/motel guestrooms	See Section C403.7.4
C403.4.9	Group R-2 and R-3 dwelling units	
C403.4.10	Group R-2 sleeping units	
C403.4.11	Direct digital control systems	
C403.5.5	Economizer fault detection and diagnostics (FDD)	
C403.7	Ventilation and exhaust systems	Except for C403.7.6.2
C403.8	Fan and fan controls	
C403.9.1.1	Variable flow controls	For cooling tower fans ≥ 7.5 hp
C403.9.1.3	Limitation on centrifugal fan cooling towers	For open cooling towers
C403.10	Construction of HVAC elements	
C403.11	Mechanical systems located outside of the building thermal envelope	
C403.14	Commissioning	
Service Water Heating		
C404	Service water heating	Except for C404.2.1
Lighting and Electrical		
C405	Electrical power and lighting systems	
Other Requirements		
C407	Total building performance	
C408	System commissioning	

C409	Energy metering	
C410	Refrigeration requirements	
C411[b]	Renewable energy	
C412	Compressed air systems	

Footnotes:

a. Reference to a code section includes all the relative subsections except as indicated in the table.

b. Compliance with any of these sections includes compliance with any exception to that section.

SECTION 106. Ordinance 19485, Section 117, and K.C.C. 16.07.490 are hereby amended to read as follows:

Table C407.3(2) of the ((~~International Energy Conservation~~)) Washington State Energy Code is not adopted and the following is substituted:

Table C407.3(2)

Performance Factors (BPF) to be used for Compliance with Section C407.3

Building Area Type	**Building Performance Factor**
Multifamily	((~~0.52~~)) 0.50
Healthcare/hospital	((~~0.49~~)) 0.64
Hotel/motel	((~~0.58~~)) 0.48
Office	((~~0.51~~)) 0.41

Building Area Type	Building Performance Factor
Restaurant	((~~0.63~~)) 0.32
Retail	((~~0.43~~)) 0.37
School	0.32
Warehouse	((~~0.43~~)) 0.17
All others	((~~0.49~~)) 0.40

NEW SECTION. SECTION 107. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Table C407.3(3) of the Washington State Energy Code is not adopted and the following is substituted:

Table C407.3(3)

Site Energy Performance Targets to be used for Compliance with Section C407.3

Building Area Type	Site Energy Performance Targets
Multifamily	0.53
Health care/hospital	0.65
Hotel/motel	0.56
Office	0.52
Restaurant	0.53

Building Area Type	Site Energy Performance Targets
Retail	0.42
School	0.47
Warehouse	0.26
All others	0.50

NEW SECTION. SECTION 108. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C407.3.1 of Washington State Energy Code is not adopted and the following is substituted:

Limits on substandard building envelopes (WSEC C407.3.1). The Proposed Total UA of the proposed building shall be no more than 10 percent higher than the Allowed Total UA as defined in WSEC C402.1.5. The requirement in WSEC C402.4 for 20 percent of fenestration to be high-performance, or 35 percent for compliance with exception 1 to WSEC C402.4.1, shall be maintained and that fenestration is not permitted to have a U-factor higher than permitted by WSEC C402.4.

NEW SECTION. SECTION 109. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C407.3.4 of the Washington State Energy Code is supplemented with the following:

Approved unregulated load types (WSEC C407.3.4.1). Unregulated load types for which reductions of energy use or carbon emissions are claimed shall be one of those listed in WSEC Table C407.3.4.1 or shall be approved and publicly listed by the code official. Requests for approval of such load types shall identify predicted energy use and carbon emissions of the baseline case in addition to identifying predicted energy use and carbon emissions of the proposed alternate. Listings for specific load types may be withdrawn and made unavailable for subsequent permit applications in cases by the code official where it is considered that the unregulated load type listed has become accepted conventional practice. Unregulated load savings shall follow the methodology outlined in this section, and not use the language from ASHRAE Appendix G Table G3.1 - No. 12 Receptacle and Other Load Baseline Building Performance Exception.

Table C407.3.4.1

Approved Unregulated Load Types

In compliance with the requirements of section	Predicted energy and carbon emission reductions (%)	
	Group R-1	Group R-2
WSEC C406.2.15, Enhanced residential kitchen equipment	1.2	1.9
WSEC C406.2.16, Enhanced residential laundry equipment	N/A	0.6
WSEC C406.2.17, Heat pump clothes dryers	0.6	0.6

NEW SECTION. SECTION 110. There is hereby added to K.C.C. chapter 16.07

a new section to read as follows:

Section C408.1.1 of Washington State Energy Code is not adopted and substituted with the following:

C408.1.1 Commissioning in construction documents. Construction documents shall clearly indicate provisions for commissioning process. Electrical permit documents shall indicate required commissioning work for lighting and metering systems, and mechanical permit documents shall indicate required commissioning work for mechanical and water heating systems. The construction documents shall minimally include the following:

1. A narrative description of the activities that will be accomplished during the commissioning process. At a minimum, the commissioning process is required to include:

1.1 Development and execution of the commissioning plan, including all subsections of Section C408.1.2;

1.2 The certified commissioning professional's review of the building documentation and close out submittals in accordance with Section C103.6; and

1.3 The commissioning report in accordance with Section C408.13.

2. Roles, responsibilities, and required qualifications of the certified commissioning professional.

3. A listing of the specific equipment, appliances, or systems to be tested.

NEW SECTION. SECTION 111. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C408.1.2 of Washington State Energy Code is supplemented with the following:

Commissioning plan (WSEC C408.1.2.5) When a commissioning plan is required, it shall be submitted to the department before the first mechanical inspection.

NEW SECTION. SECTION 112. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C408.1.3 of Washington State Energy Code is supplemented with the following:

Commissioning plan (WSEC C408.1.3.1) When a commissioning report is required, it shall be submitted to the department before the final inspection.

NEW SECTION. SECTION 113. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C408.1.4.1 of the Washington State Energy Code is not adopted and the following is substituted:

C408.1.4.1 Commissioning compliance. The mechanical and water heating portions of the commissioning report, in compliance with Sections C408.2, C408.3, and C408.7, shall be submitted to the department before mechanical permit final inspection is complete and approved. The controlled receptacle, lighting, and metering portions of the commissioning report, in compliance with Sections C408.4 and C408.6, shall be submitted to the department before building permit final inspection is completed and approved. To demonstrate compliance, the following items shall be submitted to the department before building permit final inspection is completed and approved:

1. Full commissioning report, in compliance with Section C408.1.3 that includes:

a. A list of all unresolved deficiencies and any incomplete commissioning work required by Section C408, with description and anticipated date of completion for each, or a statement signed by the certified commissioning professional attesting to successful commissioning of the entire project with no unresolved deficiencies or incomplete tests.

b. Where tenant spaces will be built out under separate permits, a description of the certified commissioning professional's scope of work required to complete commissioning of the central building HVAC systems and lighting control systems as the tenant spaces are completed.

2. Commissioning checklist, from Figure C408.1.4.1, signed by the certified commissioning professional.

3. Statement that the owner has received a copy of the commissioning report, signed by the owner or owner's authorized agent.

C408.1.4.1.1 Post-occupancy commissioning completion. Where there are unresolved deficiencies or other incomplete commissioning tasks that conflict with requirements of this code, the applicant shall comply with one of the following:

1. In addition to the Temporary Certificate of Occupancy requirements of IBC 111.3, the department may issue a temporary certificate of occupancy (TCO) to remain in effect pending resolution of commissioning issues. Applicant must complete all outstanding commissioning work and complete a revised commissioning report before the department will issue a final Certificate of Occupancy.

2. Applicant must obtain separate mechanical permit(s) as required to incorporate all remaining mechanical work, including required commissioning of those systems. Applicant must complete all outstanding mechanical commissioning work and complete a

revised commissioning report prior to completion and approval of final inspection for those permits.

NEW SECTION. SECTION 114. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C408.4 of the Washington State Energy Code is supplemented with the following:

High-end trim (WSEC C408.4.2). Where lighting controls are configured for high-end trims, verify the following:

1. High-end trim has been set.

2. Lighting controls with ready access for users cannot increase the lighting power above the maximum level established by the high-end trim controls.

NEW SECTION. SECTION 115. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C409.1 of the Washington State Energy Code is not adopted and the following is substituted:

General (WSEC C409.1). All new buildings and additions shall have the capability of metering all source energy usage in accordance with WSEC C409.2 in addition to the source energy for on-site renewable energy production in accordance with WSEC C409.2.4 and the end-use energy usage for electric vehicle charging in accordance with WSEC C409.3.4. New buildings and additions with a gross conditioned floor area over 20,000 square feet (1,858.1 square meters) shall comply with WSEC C409.2, C409.3, and C409.4. New buildings and additions shall be equipped to measure, monitor, record and display energy consumption data for each energy source and end use

category per the provisions of this section, to enable effective energy management. Existing buildings shall comply with the energy metering provisions of WSEC C506.1. For Group R-2 occupancy buildings, the floor area of dwelling units and sleeping units shall be excluded from the total conditioned floor area for the purposes of determining the 20,000 square foot (1,858.1 square meter) threshold. Alterations and additions to existing buildings shall conform to WSEC C506.

EXCEPTIONS:

1. Tenant spaces smaller than 20,000 square feet (1,858.1 square meters) within buildings served by its own utility services and utility meters complying with WSEC C409.2, and are exempt from the end-use metering, measurement devices, data acquisition system, and energy display requirements of WSEC C409.3 and C409.4.

2. Buildings without gross conditioned floor area over 10,000 square feet (929.0 square meters), including building common areas, served by its own utility services and utility meters complying with WSEC C409.2, and are exempt from the end-use metering, measurement devices, data acquisition system and energy display requirements of WSEC C409.3 and C409.4.

NEW SECTION. SECTION 116. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C409.2.1 of the Washington State Energy Code is not adopted and the following is substituted:

Electrical energy (WSEC C409.2.1). This category shall include all electrical energy supplied to the building and its associated site, including site lighting, parking, recreational facilities, and other areas that serve the building and its occupants.

EXCEPTION: Where site lighting and other exterior non-building electrical loads are served by an electrical service and meter that are separate from the building service and meter, the metering data from those loads is permitted to be either combined with the building's electrical service load data or delivered to a separate data acquisition system.

NEW SECTION. SECTION 117. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C409.2.4 of the Washington State Energy Code is not adopted and the following is substituted:

Site-generated renewable energy (WSEC C409.2.4). This category shall include all net energy generated from on-site solar, wind, geothermal, tidal, or other natural sources, and waste heat reclaimed from sewers or other off-site sources. For buildings exempt from data collection systems, the data from these meters is permitted to either be stored locally using a manual totalizing meter or other means at the meter or fed into a central data collection system.

NEW SECTION. SECTION 118. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C409.3 of the Washington State Energy Code is supplemented with the following:

Parking garage fan energy (WSEC C409.3.1.1). Ventilation fan energy and any other HVAC energy use within enclosed parking garages larger than 3,000 square feet (278.7 square meters) shall be submetered separately.

EXCEPTION: Where the total maximum circuit amps (MCA) of equipment

served equates to less than ten kilovolt-amperes (kVA).

NEW SECTION. SECTION 119. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C409.3.3 of the Washington State Energy Code is not adopted and the following is substituted:

Parking garage lighting energy. (WSEC C409.3.3.1). Lighting energy use within parking facilities larger than 3,000 square feet (278.7 square meters) shall be submetered separately.

NEW SECTION. SECTION 120. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C409.3.5 of the Washington State Energy Code is not adopted and the following is substituted:

Plug load system energy use (WSEC C409.3.5). This category shall include all energy used by appliances, computers, plug-in task lighting, and other equipment or equipment covered by other end-use metering categories listed in WSEC C409.3. In a building where the main service is 480/277 volt, each 208/120 volt panel is permitted to be assumed to serve only plug load for the purpose of WSEC C409, unless it serves nonresidential refrigeration or cooking equipment.

EXCEPTIONS:

1. Where the total connected load of all plug load circuits is less than 50 kVA, end-use metering is not required.

2. Electric receptacles located in fire-rated or smoke-rated corridors, enclosed stairwells, or egress passageways are not required to be submetered.

NEW SECTION. SECTION 121. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C409.4.1 of the Washington State Energy Code is not adopted and the following is substituted:

Meters (WSEC C409.4.1). Meters and other measurement devices required by this section shall be configured to automatically communicate energy data to a data acquisition system and energy display. Source meters may be any digital-type meters. Current sensors or flow meters are allowed for end use metering, provided that they have an accuracy of +/- 5 percent. All required metering systems and equipment shall provide data that is fully integrated into the data acquisition and display system per the requirements of WSEC C409. Electrical meters shall be configured to communicate data to the data acquisition system and energy display for both consumption (e.g., kilowatt hours) and consumption rate (e.g., kilowatts). Other meters and measurement devices shall be configured to communicate data to the data acquisition system for consumption.

EXCEPTION: Where site lighting and other exterior non-building electrical loads are served by an electrical service and meter that are separate from the building service and meter, the metering data from those loads is permitted to be either combined with the building's electrical service load data or delivered to a separate data acquisition system.

NEW SECTION. SECTION 122. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C410.1 of the Washington State Energy Code is not adopted and the following is substituted:

General (WSEC C410.1). Walk-in coolers, walk-in freezers, refrigerated warehouse coolers, refrigerated warehouse freezers, and refrigerated display cases shall comply with this Section. Where they comprise any portion of the thermal envelope of the building, they shall also comply with the requirements of WSEC C402, using the R-values or U-values listed in WSEC C410. WSEC C402.1.5 component performance alternative is permitted to be used for the thermal envelope of the refrigerated space where approved by the code official.

NEW SECTION. SECTION 123. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C410.3 of the Washington State Energy Code is not adopted and the following is substituted:

Walk-in coolers, walk-in freezers, refrigerated warehouse coolers and refrigerated warehouse freezers (WSEC C410.3). Site- assembled and site-constructed walk-in coolers and walk-in freezers and refrigerated warehouse coolers and refrigerated warehouse freezers shall comply with the following:

1. Automatic door-closers shall be provided that fully close walk-in doors that have been closed to within 1 inch (25 millimeters) of full closure.

EXCEPTION: Automatic closers are not required for doors more than 45 inches (1,143 millimeters) in width or more than 7 feet (2,134 millimeters) in height.

2. Doorways shall be provided with strip doors, curtains, spring-hinged doors, or other method of minimizing infiltration when doors are open.

3. Walk-in coolers and refrigerated warehouse coolers shall be provided with wall, ceiling, and door insulation of not less than R-25 or have wall, ceiling, and door

assembly U-factors no greater than U-0.039. Walk-in freezers and refrigerated warehouse freezers shall be provided with wall, ceiling and door insulation of not less than R-32 or have wall, ceiling, and door assembly U-factors no greater than U-0.030.

EXCEPTION: Insulation is not required for glazed portions of doors or at structural members associated with the walls, ceiling, or door frame.

4. The floor of walk-in coolers shall be provided with floor insulation of not less than R-25 or have a floor assembly U- factor no greater than U-0.40. The floor of walk-in freezers shall be provided with floor insulation of not less than R-28 or have a floor assembly U-factor no greater than U-0.035.

EXCEPTION: Insulation is not required in the floor of a walk-in cooler that is mounted directly on a slab on grade.

5. Transparent fixed window and reach-in doors for walk-in freezers and windows in walk-in freezer doors shall be provided with triple-pane glass, with the interstitial spaces filled with inert gas or be provided with heat-reflective treated glass.

6. Transparent fixed window and reach-in doors for walk-in coolers and windows for walk-in coolers doors shall be provided with double-pane or triple-pane glass, with interstitial space filled with inert gas, or be provided with heat- reflective treated glass.

7. Evaporator fan motors that are less than 1 horsepower (746 kilowatts) and less than 460 volts shall be provided with electronically commutated motors, brushless direct-current motors, or three-phase motors.

8. Condenser fan motors that are less than 1 horsepower (746 kilowatts) shall use electronically commutated motors, permanent split capacitor-type motors or 3-phase motors.

9. Antisweat heaters that are not provided with antisweat heater controls shall have a total door rail, glass, and frame heater power draw of not greater than 7.1 watts per square foot (76 watts per square meter) of door opening for walk-in freezers and not greater than 3 watts per square foot (32 watts per square meter) of door opening for walk-in coolers.

10. Where antisweat heater controls are provided, they shall be capable of reducing the energy use of the antisweat heater as a function of the relative humidity in the air outside the door or to the condensation on the inner glass pane.

11. Lights in walk-in coolers, walk-in freezers, refrigerated warehouse coolers, and refrigerated warehouse freezers shall either be provided with light sources with an efficacy of not less than 40 lumens per watt, including ballast losses, or shall be provided with a device that automatically turns off the lights within 15 minutes of when the walk-in cooler or walk-in freezer space is not occupied.

12. Evaporator fans in refrigerated warehouses shall be variable speed, and the speed shall be controlled in response to space conditions.

EXCEPTION: Evaporators served by a single compressor without unloading capability.

13. Where they comprise any portion of the thermal envelope of the building, the floor, wall, and ceiling components shall also comply with the requirements of WSEC C402, using the R-values or U-values listed in this WSEC C410.2. WSEC C402.1.5 component performance alternative is permitted to be used where approved by the code official.

NEW SECTION. SECTION 124. There is hereby added to K.C.C. chapter 16.07

a new section to read as follows:

Section C410.5.2 of the Washington State Energy Code is not adopted and the following is substituted:

Compressor systems (WSEC C410.5.2). Refrigeration compressor systems shall comply with the following:

1. Compressors and multiple-compressor system suction groups shall include control systems that use floating suction pressure control logic to reset the target suction pressure temperature based on the temperature requirements of the attached refrigeration display cases or walk-ins.

EXCEPTION: Controls are not required for the following:

1. Single-compressor systems that do not have variable capacity capability.

2. Suction groups that have a design saturated suction temperature of 30° Fahrenheit (-1° Celsius) or higher, suction groups that comprise the high stage of a two-stage or cascade system, or suction groups that primarily serve chillers for secondary cooling fluids.

2. Liquid subcooling shall be provided for all low-temperature compressor systems with a design cooling capacity equal to or greater than 1,000 Btu/h (1,055 kilojoules/h or 29.3 kilowatts) with a design-saturated suction temperature of -10° Fahrenheit (-23° Celsius) or lower. The subcooled liquid temperature shall be controlled at a maximum temperature setpoint of 50° Fahrenheit (10° Celsius) at the exit of the subcooler using either compressor economizer (interstage) ports or a separate compressor suction group operating at a saturated suction temperature of 18° Fahrenheit (-8° Celsius) or higher.

2.1. Insulation for liquid lines with a fluid operating temperature less than 60° Fahrenheit (16° Celsius) shall comply with WSEC Table C403.2.10.

3. Compressors that incorporate internal or external crankcase heaters shall provide a means to cycle the heaters off during compressor operation.

4. Compressor systems utilized in refrigerated warehouses shall conform to the following:

4.1. Compressors shall be designed to operate at a minimum condensing temperature of 70° Fahrenheit (21° Celsius) or less.

4.2. The compressor speed of a screw compressor greater than 50 horsepower (50.7 metric horsepower) shall be controllable in response to the refrigeration load, or the input power to the compressor shall be controlled to use no more than 60 percent of full load input power when operated at 50 percent of full refrigeration capacity.

EXCEPTION: Refrigeration plants with more than one dedicated compressor per suction group.

NEW SECTION. SECTION 125. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C411.1 of the Washington State Energy Code is not adopted and the following is substituted:

On-site renewable energy (WSEC C411.1). Each new building or addition larger than 5,000 square feet (464.5 square meters) of gross conditioned floor area shall include a renewable energy generation system consisting of not less than 0.75 watts per square foot (8.07 watts per square meter) or 2.6 Btu/h per square foot (30 kilojoules/h per square meter) multiplied by the sum of the gross conditioned floor area.

EXCEPTIONS:

1. Where a building's net roof area is not large enough to accommodate the entire on-site renewable energy generation system required by this section, the portion of the system that cannot be accommodated within the net roof area is permitted to be provided by:

1.1. Additional efficiency credits in accordance with WSEC C411.1.1; or

1.2. Off-site renewable energy in accordance with WSEC C411.2.1, including the requirements of WSEC C411.2 and C411.2.2.

For the purposes of this exception, the net roof area excludes the following:

a. Areas shaded by existing natural or built objects in accordance with exception 1 of WSEC C C411.3.

b. Areas occupied by mechanical equipment, including adjacent equipment service areas required by the manufacturer or by applicable code.

c. Areas required by applicable codes to remain clear for egress, fire department access, or equipment access.

d. Areas with slopes greater than 2 to 12.

e. Planted or vegetated areas.

f. Skylights.

g. Occupied roof decks.

2. Reduced Building Performance Factor. For projects utilizing the WSEC C407 Total Building Performance compliance path, the on-site renewable energy generation system is not required where the building performance factor (BPF) is at least 3 percent below the maximum BPF permitted cumulatively by all other sections of this code.

2.1. Where the BPF is at least 1 percent below the BPF required cumulatively by other sections of this code, the on-site renewable energy generation system size is permitted to be reduced by 1/3.

2.2. Where the BPF is not less than 2 percent lower than the BPF required cumulatively by other sections of this code, the size of the on-site renewable energy generation system is permitted to be reduced by 2/3.

3. Transfer to an affordable housing project. Where approved by the code official, all or part of the required on-site renewable energy generation system is permitted to be replaced by a system that is at least 50 percent of the required system size when located on an existing affordable housing project within unincorporated King County, or at least 75 percent of the required system size when located on a new construction affordable housing project within unincorporated King County. Documentation demonstrating that the renewable energy generation system has been installed on the affordable housing project site, the system is fully operational, and ownership has been transferred to the affordable housing project owner, must be submitted prior to issuance of the certificate of occupancy.

4. Transfer to a Washington State agency program. Where approved by the code official, all or part of the required renewable energy generation system is permitted to be replaced by a contribution of two dollars and fifty cents for each required watt of installed capacity, to a solar energy fund managed by a Washington State agency that will provide solar energy installations for affordable housing projects. Documentation demonstrating that the contribution has been received by the state agency must be submitted prior to issuance of the certificate of occupancy.

5. Affordable housing. The on-site renewable energy generation system is not required for affordable housing projects.

NEW SECTION. SECTION 126. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C411.1.1 of the Washington State Energy Code is not adopted and the following is substituted:

Additional efficiency credits (WSEC C411.1.1). Buildings that qualify for exception 1 in WSEC C411.1 to omit installation of on-site renewable energy are allowed to achieve an additional 27 efficiency package credits from WSEC Table C406.2 instead of installing the on-site renewable energy system. The additional 27 credits can be reduced based on a prorated fraction of renewable capacity that is installed on-site.

On-site renewable energy installations of lower than required capacity can be counted proportionally toward achievement of required or additional efficiency credits in WSEC C411.1.1 based on the capacity of renewable energy installed compared to the requirements of WSEC C411.1.

NEW SECTION. SECTION 127. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C411.2 of the Washington State Energy Code is not adopted and the following is substituted:

On-site and off-site renewable energy accounting (WSEC C411.2). Qualifying on-site and off-site renewable energy delivered or credited to the building project to comply with this code shall meet the requirements of this section. Renewable energy certificates for an on-site or off-site renewable energy system shall be retired on

behalf of the building owner for a period of not less than 15 years and tracked in accordance with WSEC C411.2.3 and submitted to the code official before the final inspection. Renewable energy certificates (RECs) themselves are not a qualifying type of off-site renewable energy system.

C411.2.1 Qualifying types of off-site renewable energy systems. The following are considered qualifying off-site renewable energy systems:

1. Self-generation (an off-site renewable energy system owned by the building project owner) systems complying with WSEC C411.2.2.

2. Community renewable energy facility systems complying with Section C411.2.2.

3. Renewable power purchase agreement (PPA) contracts complying with WSEC C411.2.2 and, where applicable, WSEC C411.2.3.

4. Each source of renewable energy delivered to or credited to the building project shall be connected to the Western Interconnection and energy or capacity multiplied by the factors in WSEC Table C411.2.1.

Table C411.2.1

Multipliers for Renewable Energy Procurement Methods

Location	**Renewable Energy Source**	**Renewable Energy Factor**		
		In the State of Washington	**Western Interconnected**	**In the States of Oregon or Idaho**
On-site	On-site	1	NA	NA

	renewable energy system			
Off-site	Directly owned off-site renewable energy system that begins operation after submission of the initial permit application	0.95	0.75	0.85
Off-site	Community renewable energy facility that begins operation after submission of the initial permit application	0.95	0.75	0.85
Off-site	Directly owned	0.75	0.55	0.65

	off-site renewable energy system that begins operation before submission of the initial permit application			
Off-site	Community renewable energy facility that begins operation before submission of the initial permit application	0.75	0.55	0.65
Off-site	Renewable Power Purchase	0.75	0.55	0.65

	Agreement (PPA)			

NEW SECTION. SECTION 128. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C411.2.2 of the Washington State Energy Code is not adopted and the following is substituted:

Documentation requirements for off-site renewable energy systems (WSEC C411.2.2). Off-site renewable energy delivered or credited to the building project to comply with WSEC C407.3 item 2.2, or other requirements of this code, shall be subject to a legally binding contract to procure qualifying off-site renewable energy. Qualifying off-site renewable energy shall meet the following requirements:

1. Documentation of off-site renewable energy procurement shall be submitted to the code official before the final inspection;

2. The purchase contract shall have a duration of not less than 15 years. The contract shall be structured to survive a partial or full transfer of ownership of the building property;

3. Records on renewable power purchased by the building owner from the off-site renewable energy generator that specifically assign the RECs to the building owner shall be retained or retired by the building owner on behalf of the entity demonstrating financial or operational control over the building seeking compliance to this standard and made available for inspection by the code official upon request; and

4. Where multiple buildings in a building project are allocated energy procured by a contract subject to this section, the owner shall allocate for not less than 15 years the

energy procured by the contract to the buildings in the building project. A plan on operation shall be developed which shall indicate how renewable energy produced from on-site or off-site systems that is not allocated before issuance of the certificate of occupancy will be allocated to new or existing buildings included in the building project.

NEW SECTION. SECTION 129. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C411.3.1 of the Washington State Energy Code is not adopted and the following is substituted:

Minimum area (WSEC C411.3.1). The minimum area of the solar zone shall be determined by one of the following methods, whichever results in the smaller area:

1. 40 percent of roof area. The roof area shall be calculated as the horizontally projected gross roof area less the area covered by skylights, occupied roof decks, mechanical equipment, mechanical equipment service clearances required by equipment manufacturer or by code, and planted areas.

2. 20 percent of electrical service size. The electrical service size is the rated capacity of the total of all electrical services to the building, and the required solar zone size shall be based upon 10 peak watts of photovoltaic per square foot (107.64 peak watts of photovoltaic per square meter).

EXCEPTION: Subject to the code official's approval, buildings with extensive rooftop equipment that would make full compliance with this section impractical shall be permitted to reduce the size of the solar zone required by WSEC C411.3 to the maximum practicable area.

NEW SECTION. SECTION 130. There is hereby added to K.C.C. chapter 16.07

a new section to read as follows:

Section C411.3.3 of the Washington State Energy Code is not adopted and the following is substituted:

Obstructions (WSEC C411.3.3). The solar zone shall be free of pipes, vents, ducts, HVAC equipment, skylights, and other obstructions, except those serving photovoltaic systems within the solar zone. The solar zone is permitted to be located above any such obstructions, provided that the racking of the future system support is installed at the time of construction, the elevated solar zone does not shade other portions of the solar zone, and its height is permitted by the IBC and the K.C.C. Photovoltaic or solar water heating systems are permitted to be installed within the solar zone.

NEW SECTION. SECTION 131. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C411.3.7 of the Washington State Energy Code is not adopted and the following is substituted:

Photovoltaic interconnection (WSEC C411.3.7). A minimum 2-inch (51 millimeters) diameter roof penetration conduit shall be provided, with threaded caps above and below the roof deck and minimum R-10 insulation wrapping the lower portion, within each 2,500 square foot (232.3 square meters) section of the required solar zone area. Interconnection of the future photovoltaic system shall be provided for at the main service panel, either ahead of the service disconnecting means or at the end of the bus opposite the service disconnecting means, in one of the following forms:

1. A space for the mounting of a future overcurrent device, sized to accommodate the largest standard rated overcurrent device that is less than 20 percent of the bus rating.

2. Lugs sized to accommodate conductors with an ampacity of at least 20 percent of the bus rating, to enable the mounting of an external overcurrent device for interconnection.

The electrical construction documents shall include the following:

a. Solar zone boundaries and access pathways;

b. Location for future inverters and metering equipment; and

c. Route for future wiring between the photovoltaic panels and the inverter, and between the inverter and the main service panel.

NEW SECTION. SECTION 132. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C502.3 of the Washington State Energy Code is not adopted and the following is substituted:

Building envelope (WSEC C502.3). Additions shall comply with WSEC C402.1 through C402.5, C502.3.1, and C502.3.2.

EXCEPTION: Air leakage testing is not required for additions smaller than 500 square feet (46.5 square meters).

NEW SECTION. SECTION 133. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C503.3 of the Washington State Energy Code is not adopted and the following is substituted:

Building envelope (WSEC C503.3). New building envelope assemblies that are part of the alteration shall comply with WSEC C402.1 through C402.5 and WSEC C503.3.1 through C503.3.3. Where an opaque envelope assembly is altered or replaced,

the new assembly shall have an equal or lower overall U-value than the existing assembly.

EXCEPTION: Air leakage testing is not required for alterations and repairs, unless the project includes a change in space conditioning according to WSEC C505.2 or a change of occupancy or use according to WSEC C505.3.

NEW SECTION. SECTION 134. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C503.3.2 of the Washington State Energy Code is not adopted and the following is substituted:

Vertical fenestration (WSEC 503.3.2). Alterations that include the addition of new vertical fenestration area shall comply with the following:

1. Where the addition of new vertical fenestration area results in a total building vertical fenestration area less than or equal to the maximum allowed by WSEC C402.4.1, the alteration shall comply with WSEC C402.4.

2. Where the addition of new vertical fenestration area results in a total building vertical fenestration area greater than the maximum allowed by WSEC C402.4.1 (regardless of the ratio prior to the addition), the alteration shall comply with one of the following:

2.1. Vertical fenestration alternate in accordance with WSEC C402.4.1.1 for the new vertical fenestration added, where the calculation of vertical fenestration area and gross above-grade wall area shall include either the entire building or, where approved, only those areas of the building involved in the alteration.

2.2. Reserved.

2.3. Existing building and alteration areas are combined to demonstrate compliance with the component performance alternate in accordance with WSEC C402.1.5 for the whole building. U-factors applied to existing envelope assemblies in the UA calculation shall comply with WSEC C501.2.1. The Proposed Total UA is allowed to be up to 110 percent of the Allowed Total UA.

2.4. Total building performance in accordance with WSEC C407 for the whole building. The total annual carbon emissions from energy consumption of the proposed design is allowed to be up to 110 percent of the annual carbon emissions from energy consumption allowed in accordance with WSEC C407.3.

2.5. The alteration does not increase the existing fenestration area.

EXCEPTION: Where approved by the code official additional fenestration is permitted where sufficient envelope upgrades beyond those required by other sections of this code are included in the project so that the addition of the new vertical fenestration does not cause an increase in the overall energy use of the building.

NEW SECTION. SECTION 135. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C503.3.2.1 of the Washington State Energy Code is not adopted and the following is substituted:

Replacement fenestration products (WSEC C503.3.2.1). Where some or all of an existing fenestration unit is replaced with a new fenestration product, including sash and glazing, the replacement fenestration unit shall meet the applicable requirements for U-factor and SHGC in WSEC Table C402.4. In addition, the area-weighted U-value of

the new fenestration shall be equal to or lower than the U-value of the existing fenestration.

EXCEPTION: An area-weighted average of the U-factor of replacement fenestration products being installed in the building for each fenestration product category listed in WSEC Table C402.4 shall be permitted to satisfy the U-factor requirements for each fenestration product category listed in WSEC Table C402.4. Individual fenestration products from different product categories listed in WSEC Table C402.4 shall not be combined in calculating the area-weighted average U-factor.

NEW SECTION. SECTION 136. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Sections C503.4.2, C503.4.3, and C503.4.6 of the Washington State Energy Code are not adopted and the following is substituted:

Addition of cooling capacity (WSEC C503.4.2). Where mechanical cooling is added to a space that was not previously cooled, the mechanical system shall comply with either WSEC C403.3.5 or C403.5.

EXCEPTIONS:

1. Qualifying small equipment: Economizers are not required for cooling units and split systems serving one zone with a total cooling capacity rated in accordance with WSEC C403.3.2 of less than 33,000 Btu/h (34,817 kilojoules/h) (hereafter referred to as qualifying small systems) provided that these are high-efficiency cooling equipment with SEER and EER values more than 15 percent higher than minimum efficiencies listed in WSEC Tables C403.3.2(1), C403.3.2 (2), C403.3.2 (4), C403.3.2 (8), C403.3.2 (9), and C403.3.2 (14), in the appropriate size category, using the same test procedures.

Equipment shall be listed in the appropriate certification program to qualify for this exception. The total capacity of all qualifying small equipment without economizers shall not exceed 72,000 Btu/h (75,964 kilojoules/h) per building, or 5 percent of the building total air economizer capacity, whichever is greater.

1.1. The portion of the equipment serving Group R occupancies is not included in determining the total capacity of all units without economizers in a building.

1.2. Redundant units are not counted in the capacity limitations.

1.3. This exception shall not be used for the initial tenant improvement of a shell-and-core building or space, or for Total Building Performance in accordance with WSEC C407.

1.4. This exception shall not be used for unitary cooling equipment installed outdoors or in a mechanical room adjacent to the outdoors.

2. Chilled water terminal units connected to systems with chilled water generation equipment with IPLV values more than 25 percent higher than minimum part load equipment efficiencies listed in WSEC Table C403.3.2 (3), in the appropriate size category, using the same test procedures. Equipment shall be listed in the appropriate certification program to qualify for this exception. The total capacity of all systems without economizers shall not exceed 72,000 Btu/h (75,964 kilojoules/h or 141 kilowatts) per building, or 20 percent of the building total air economizer capacity, whichever is greater.

2.1. The portion of the equipment serving Group R occupancy is not included in determining the total capacity of all units without economizers in a building.

2.2. This exception shall not be used for the initial tenant improvement of a shell-and-core building or space, or for total building performance in accordance with WSEC C407.

Alterations or replacement of existing cooling systems (WSEC C503.4.3). Alterations to, or replacement of, existing mechanical cooling systems shall not decrease the building total economizer capacity unless the system complies with either WSEC C403.3.5 or C403.5. System alterations or replacement shall comply with WSEC Table C503.4.3 when either the individual cooling unit capacity or the building total capacity of all cooling equipment without economizer does not comply with the exceptions in WSEC C403.5. Equipment replacements that include space heating shall also comply with WSEC C503.4.6. Replacement of air-cooled chillers shall also comply with WSEC C503.4.3.1.

Table C503.4.3

Economizer Compliance Options for Mechanical Alterations

Unit Type	Option A	Option B (alternate to A)	Option C (alternate to A)	Option D (alternate to A)
	Any alteration with new or replacement equipment	**Replacement unit of the same type with the same or smaller output capacity**	**Replacement unit of the same type with a larger output capacity**	**New equipment added to existing system or replacement unit of a different type**
1. Packaged units	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: min.[a] Economizer: C403.5[b]

2. Split systems	Efficiency: min.[a] Economizer: C403.5[b]	For units ≤ 60,000 Btuh, comply with both of two measures: 1. Efficiency: +10%[e] 2. Economizer: shall not decrease existing economizer capability	For units ≤ 60,000 Btuh replacing unit installed prior to 1991 comply with at least one of two measures: 1. Efficiency: +10%[e] 2. Economizer: 50%[f]	Efficiency: min.[a] Economizer: C403.5[b]
		For all other capacities: Efficiency: min.[a] Economizer: C403.5[b]	For all other capacities: Efficiency: min.[a] Economizer: C403.5[b]	
3. Water source heat pump	Efficiency: min.[a] Economizer: C403.5[b]	For units ≤ 72,000 Btuh, comply with at least two of three measures: 1. Efficiency: +10%[e] 2. Flow control valve[g] 3. Economizer: 50%[f]	For units ≤ 72,000 Btuh, comply with all three measures: 1. Efficiency: +10%[e] 2. Flow control valve[g] 3. Economizer: 50%[f] (except for certain pre-1991 systems[h])	Efficiency: min.[a] Economizer: C403.5[b] (except for certain pre-1991 systems[q])
		For all other capacities: Efficiency: min.[a] Economizer: C403.5[b]	For all other capacities: Efficiency: min.[a] Economizer: C403.5[b]	
4. Water economizer using air-cooled heat rejection equipment (dry cooler)	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: +5%[d] Economizer: shall not decrease existing economizer capability	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: min.[a] Economizer: C403.5[b]
5. Air-handling unit	Efficiency: min.[a]	Economizer: shall not	Efficiency: min.[a]	Efficiency: min.[a]

(including fan coil units) where the system has an air-cooled chiller	Economizer: C403.5[b]	decrease existing economizer capacity	Economizer: C403.5[b] (except for certain pre-1991 systems[q])	Economizer: C403.5[b] (except for certain pre-1991 systems[q])
6. Air-handling unit (including fan coil units) and water-cooled process equipment, where the system has a water-cooled chiller[j]	Efficiency: min.[a] Economizer: C403.5[b]	Economizer: shall not decrease existing economizer capacity	Efficiency: min.[a] Economizer: C403.5[b] (except for certain pre-1991 systems[h] and certain 1991-2017 systems[i])	Efficiency: min.[a] Economizer: C403.5[b] (except for certain pre-1991 systems[h] and certain 1991-2017 systems[i])
7. Cooling tower	Efficiency: min.[a] Economizer: C403.5[b]	No requirements	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: min.[a] Economizer: C403.5[b]
8. Air-cooled chiller	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: +10%[k] Economizer: shall not decrease existing economizer capability	Efficiency: comply with both measures: 1. +10%[k, l]; and 2. Multistage compressor(s) Economizer: shall not decrease existing economizer capacity	Efficiency: min.[a] Economizer: C403.5[b]
9. Water-cooled chiller	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: comply with at least one of two measures: 1. Part load IPLV + 15%[n]; or	Efficiency: comply with at least one of two measures: 1. Part load IPLV + 15%[n]; or	Efficiency: min.[a] Economizer: C403.5[b]

		2. Plate frame heat exchanger[o] Economizer: shall not decrease existing economizer capacity	2. Plate frame heat exchanger[o] Economizer: shall not decrease existing economizer capacity	
10. Package terminal air conditioner	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: +5%[a] Economizer: shall not decrease existing economizer capability	Efficiency: +5%[a] Economizer: shall not decrease existing economizer capability	Efficiency: min.[a] Economizer: C403.5[b]
11. Package terminal heat pump	Efficiency: min.[a] Economizer: C403.5[b]	Cooling efficiency: +5%[d] Heating efficiency: +10%[e] Shall not decrease existing economizer capacity	Cooling efficiency: +5%[d] Heating efficiency: +10%[e] Shall not decrease existing economizer capacity	Efficiency: min.[a] Economizer: C403.5[b]

Footnotes:

a. Minimum equipment efficiency shall comply with WSEC C403.3.2 and the tables in WSEC C403.3.2.

b. All separate new equipment and replacement equipment shall have air economizer complying with WSEC C403.5 including both the individual unit size limits and the total building capacity limits on units without economizer. It is acceptable to comply using one of the exceptions to WSEC C403.5.

c. Reserved.

d. Equipment shall have a capacity-weighted average cooling system efficiency that is 5% better than the requirements in the tables in WSEC C403.3.2 (1.05 × values in the tables).

e. Equipment shall have a capacity-weighted average cooling system efficiency that is 10% better than the requirements in the tables in WSEC C403.3.2 (1.10 × values in the tables).

f. Minimum of 50 percent air economizer that is ducted in a fully enclosed path directly to every heat pump unit in each zone, except that ducts may terminate within 12 inches (305 millimeters) of the intake to an HVAC unit provided that they are physically fastened so that the outside air duct is directed into the unit intake. If this is an increase in the amount of outside air supplied to this unit, the outside air supply system shall be configured to provide this additional outside air and be equipped with economizer control.

g. Water-source heat pump systems shall have a flow control valve to eliminate flow through the heat pumps that are not in operation and variable speed pumping control complying with WSEC C403.4.3 for that heat pump.

1. When the total capacity of all units with flow control valves exceeds 15 percent of the total system capacity, a variable frequency drive shall be installed on the main loop pump.

2. As an alternate to this requirement, the capacity-weighted average cooling system efficiency shall be 5 percent better than the requirements in footnote e for water-source heat pumps (i.e., a minimum of 15 percent greater than the requirements in WSEC Table C403.3.2 (14)).

h. Water economizer equipment shall have a capacity-weighted average cooling system efficiency that is 10 percent better than the requirements in WSEC Tables C403.3.2 (7), C403.3.2(10), and C403.3.2 (16) (1.10 × values in WSEC Tables C403.3.2 (7), C403.3.2(10), and C403.3.2 (16)).

i. Air economizer is not required for systems installed with water economizer plate and frame heat exchanger complying with previous codes between 1991 and June 2016, provided that the total fan coil load does not exceed the existing or added capacity of the heat exchangers.

j. For water-cooled process equipment where the manufacturers specifications require colder temperatures than available with waterside economizer, that portion of the load is exempt from the economizer requirements.

k. The air-cooled chiller shall have an IPLV efficiency that is a minimum of 10 percent greater than the IPLV requirements in EER in WSEC Table C403.3.2 (3) (1.10 × IPLV values in EER in WSEC Table C403.3.2 (3)).

l. The air-cooled chiller shall be multistage with a minimum of two compressors.

m. Reserved

n. The water-cooled chiller shall have an IPLV value that is a minimum of 15 percent lower than the IPLV requirements in WSEC Table C403.3.2(3) (0.85 × IPLV values in WSEC Table C403.3.2(3)). Water-cooled centrifugal chillers designed for nonstandard conditions shall have an NPLV value that is at least 15 lower than the adjusted maximum NPLV rating in kW per ton defined in WSEC C403.3.2.3 (0.85 × NPLV).

o. Economizer cooling shall be provided by adding a plate-frame heat exchanger on the waterside with a capacity that is a minimum of 20 percent of the chiller capacity at standard AHRI rating conditions.

p. Reserved.

q. Systems installed prior to 1991 without fully utilized capacity are allowed to comply with Option B, provided that the individual unit cooling capacity does not exceed 90,000 Btu/h (94,955 kilojoules/h).

Addition or replacement of HVAC heating appliances (WSEC C503.4.6).

New HVAC heating systems shall comply with WSEC C403.1.4. Where one or more HVAC mechanical heating appliances are added or replaced, the added or replaced appliances shall comply with WSEC C401.3 and C403.1.4 or with an alternate compliance option in WSEC Table C503.4.6. When complying with the alternate compliance option in WSEC Table C503.4.6, added or replaced HVAC heating appliances must select HVAC heating appliances from one of the Proposed Heating Type Options and the applicable Heating Efficiency Tables. Additions, alterations, or replacements shall not be made to an existing HVAC heating system that will cause the existing system to become out of compliance. Where use of heat pump equipment for space heating is required by this section, it is permissible to utilize the Fossil Fuel Compliance Path in WSEC C401.3 to attain the credits required for building additions shown in WSEC Table C401.3.3.

1. Exempt buildings and occupancies. Replacement heating equipment serving any of the following building categories is permitted to use the same fuel type as the existing equipment, provided the replacement equipment complies with the minimum

efficiency in WSEC Table C503.4.6 and the same or lower capacity than the existing, and that the requirements of WSEC C503.4.6.2 are met.

a. Affordable housing.

b. Group I-1, I-2, and I-3 occupancies.

c. Buildings with more than 50 percent of conditioned floor area occupied by organizations recognized as nonprofit by the State of Washington or by federal tax law.

d. Buildings with no more than 20,000 square feet (1,858.1 square meters) of conditioned floor area.

2. Retention of portion of existing system capacity. For buildings not exempted by Exception 1 above, a maximum of 50 percent of the existing fossil fuel or electric resistance heating capacity is permitted to be retained or replaced to serve as supplemental heat for the new heat pump heating system, provided that the supplemental heat is controlled to be used only when the heat pump system capacity is insufficient to meet the load, in compliance with the applicable exception 5, 6, or 7 to WSEC C403.1.4, and that the requirements of WSEC C503.4.6.2 are met. Where an alteration replaces less than 50 percent of the existing fossil fuel or electric resistance heating capacity, the remaining heating appliances are permitted to be retained. Where the alteration project decreases the peak heating load, the fossil fuel or electric resistance heating capacity shall be limited to 50 percent of the calculated peak heating load. The replacement equipment shall comply with the minimum efficiency in WSEC Table C503.4.6.

3. Temporary replacement of failing equipment. Temporary like-for-like replacement of one or more heating appliances, in excess of the 50 percent capacity permitted by exception 2 above, is permitted where those appliances require immediate

replacement, and where no other work on the HVAC system is planned. When using this exception, it is acceptable to replace a single appliance with two or more smaller appliances, provided the total capacity is not greater than that of the original appliance. In addition, the requirements of WSEC C503.4.6.2 shall be met, and the applicant shall ensure completion of the required heat pump system in compliance with one of the following options.

a. The code official issuing a temporary certificate of occupancy (TCO), which will remain in force until the heat pump heating system is installed and the final inspection of the system has been completed; or

b. Posting a performance bond for the full estimated cost of the required heat pump system installation, to ensure the heat pump system installation completion within 48 months.

4. Utility service upgrade. Compliance with WSEC C403.1.4 is not required where the requirements of WSEC C503.4.6.2 are met, and where such compliance would trigger an unplanned utility electrical service upgrade, based on the 2023 Edition of the National Electrical Code Section 220.87 method for determining existing loads, where one or more of the following is required:

a. A new utility transformer vault located in the existing building or on the site, or an enlargement of the floor area of such a vault.

b. Trenching across the vehicle lanes of a public way.

c. The estimated construction cost for the required electrical service enlargement exceeds 50 percent of the project valuation for the remainder of the work, as determined in accordance with the fee subtitle. Construction cost shall be documented by

an Association for the Advancement of Cost Engineering (AACE) Level 3 or equivalent cost estimate, including required demolition, construction, site work, and utility fees.

The replacement equipment shall comply with the minimum efficiency in WSEC Table C503.4.6.

5. Exempt equipment. Alterations to the following equipment types are not required to comply with this section.

a. Terminal unit equipment including but not limited to hydronic VAV terminal units, electric resistance VAV boxes, electric duct heaters, water source heat pumps, fan coils, or VRF indoor units, except such modifications to terminal equipment with hydronic heating coils as are required to accommodate lower-temperature fluids circulated from new central heat pump systems in accordance with WSEC C403.3.8.2.

b. Air handling equipment with hydronic heating coils, except such modifications to the air handling equipment as are required to accommodate lower-temperature fluids circulated from central heat pump systems in accordance with WSEC C403.3.8.2.

c. Replacement of existing steam boilers with steam distribution piping to terminal units and replacement of the existing associated boiler feed equipment.

D. Hydronic system alteration supply water temperature (WSEC C503.4.6.1). Hydronic heating coils and appliances subject to WSEC C503.4.5 or C503.4.6 shall comply with WSEC C403.3.8.2.

E. Future decarbonization plan (WSEC C503.4.6.2). For buildings with more than 20,000 square feet (1,858.1 square meters) of conditioned space, a schematic-level design of a heat pump system to replace the existing system shall be prepared by a

professional engineer and submitted to the code official. The professional engineer must be identified on the schematic design documents, but the engineer's signature and date are not required, and no party is obligated to provide any further development of the schematic design. Documents submitted with the schematic design must include:

1. Completed decarbonization planning form, available on the King County permitting website.

2. Mechanical and electrical one-line system diagrams, showing only the impacted portions of systems.

3. Equipment sized and laid out to scale on plans of the existing facility. Only the impacted areas need be depicted, at a simple schematic level of detail.

4. Required louvers, ducts, and air handling equipment.

5. Required structural modifications.

6. Required partitions, doors, and other architectural modifications.

7. Required electrical infrastructure, including any electrical service upgrade and vault.

8. Schematic-level cost estimate, AACE Class 5, or equivalent, including separate line items for structural, mechanical, electrical, architectural, and utility costs.

9. Applicable compliance dates for Washington State Clean Buildings Performance Standards with maximum allowable energy use index (EUI) and carbon emissions.

Table C503.4.6

Compliance Options for HVAC Heating Equipment Alterations

	Proposed Heating Equipment Type[a]	**Heating Efficiency WSEC Table Reference**	**Alternate Compliance Options to WSEC C403.1.4**
1	Air-cooled unitary heat pumps	Table C403.3.2(2)	1. Compliance with WSEC C403.1.4, except heat pump rated capacity in accordance with WSEC C403.1.4 Exception 5d is permitted to be sized equal to the supplemental internal resistance heating capacity in Climate Zone 4 or 5[c]. 2. Compliance with WSEC C403.1.4, except electric resistance mixed air preheat is permissible[c].
2	Packaged terminal, single-package vertical, and room air-conditioner heat pumps	Table C403.3.2(4)	Compliance with WSEC C403.1.4, except heat pump rated capacity in accordance with WSEC C403.1.4 Exception 5d is permitted to be sized equal to the supplemental internal resistance heating capacity in Climate Zone 4 or 5
3	Furnaces, duct furnaces, and unit heaters	Table C403.3.2(5)	1. Permitted only when qualifying for and complying with WSEC C503.4.6 Exceptions 1, 2, 3, or 4

	Proposed Heating Equipment Type[a]	**Heating Efficiency WSEC Table Reference**	**Alternate Compliance Options to WSEC C403.1.4**
			2. Efficiency: +10%[b]
4	Gas-fired hot water boilers	Table C403.3.2(6)	1. Permitted only when qualifying for and complying with WSEC C503.4.6 Exceptions 1, 2, 3, or 4 2. Efficiency: +10%[b]
5	Variable refrigerant flow air-to-air and applied heat pumps	Table C403.3.2(9)	No alternate compliance option
6	DX-DOAS equipment	Table C403.3.2(12) and Table C403.3.2(13)	DX-DOAS is provided with heat recovery if not required by WSEC C403.3.5.1.
7	Water-source heat pumps	Table C403.3.2(14)	No alternate compliance option

Footnotes:

a. Includes replacement of equipment with a unit that is the same type or higher efficiency and the same or lower capacity, or a replacement of one equipment type with a different equipment type.

b. Equipment shall have a capacity-weighted average heating system efficiency that is 10 percent better than that shown in the reference table (1.1 times the values in reference table).

c. Option 1 and Option 2 can be combined.

NEW SECTION. SECTION 137. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C503.5 of the Washington State Energy Code is not adopted and the following is substituted:

Service water heating systems (WSEC C503.5). All new service water heating systems shall comply with WSEC C404.

C503.5.1. Addition or replacement of service water heating equipment. All existing service hot water systems, equipment, and components of existing systems that are altered or replaced shall comply with WSEC C407 or WSEC C404, C408.3, C506.1, and C501.6. Additions or alterations shall not be made to an existing service water heating system that will cause the existing system to become out of compliance. Where use of heat pump equipment for space heating is required by this section, it is permissible to utilize the Fossil Fuel Compliance Path in WSEC C401.3 to attain the credits required for building additions shown in WSEC Table C401.3.3.

EXCEPTIONS:

1. Utility service upgrade. Compliance with WSEC C403.1.4 is not required where the requirements of WSEC C503.4.6.2 are met, and where such compliance would trigger an unplanned utility electrical service upgrade, based on the National Electrical Code Section 220.87 method for determining existing loads, that requires one or more of the following:

1.1. A new utility transformer vault located in the existing building or on the site, or an enlargement of the floor area of such a vault.

1.2. Trenching across the vehicle lanes of a public way.

1.3. The estimated construction cost for the required electrical service enlargement exceeds 50 percent of the project valuation for the remainder of the work, as determined in accordance with the fee subtitle. Construction cost shall be documented by an AACE Level 3 or equivalent cost estimate, including required demolition, construction, site work, and utility fees.

The replacement equipment shall comply with the minimum efficiency in Table C503.4.6.

2. Exempt Systems. Replacement of any of the following water heater appliances is not required to comply with this section or with WSEC C404.2.1:

2.1. Electric water heaters with an input of 24 kilowatts or less.

2.2. Gas storage water heaters with an input of 75,000 Btu/h (79,129 kilojoules/h) or less.

2.3. Gas instantaneous water heaters with an input of 200,000 Btu/h (211,011 kilojoules/h) or less and 2 gallons (8 liters) or less of storage.

2.4. Replacement of existing steam boilers with steam distribution piping to terminal units and replacement of the existing associated boiler feed equipment.

3. Reserved.

4. Exempt buildings. Replacement service water heating equipment for the following buildings is permitted to use the same fuel type as the existing equipment, provided the new equipment has no lower efficiency and no higher capacity than the existing, and the requirements of WSEC C503.4.6.2 are met.

a. Affordable housing.

b. Group I-1, I-2, or I-3 occupancies.

c. Buildings with more than 50 percent of conditioned floor area occupied by organizations recognized as nonprofit by the State of Washington or by federal tax law.

d. Buildings smaller than 20,000 square feet (1,858.1 square meters).

5. Retention of portion of existing system capacity. A maximum of 50 percent of the existing central fossil fuel or electric resistance water heating capacity is permitted to be provided as supplemental heat for the new heat pump water heating system, provided that the supplemental heat is controlled to be used only when the heat pump system capacity is insufficient to meet the load, in compliance with WSEC C404.2.1.4, and that the requirements of WSEC C503.4.6.2 are met. Where an alteration replaces less than 50 percent of the existing fossil fuel or electric resistance service water heating capacity, the remaining service water heating appliances are permitted to be retained. Where the alteration project decreases the peak service water heating load, the fossil fuel or electric resistance heating capacity shall be limited to 50 percent of the calculated peak heating load.

6. Temporary replacement of failing equipment. Temporary like-for-like replacement of one or more service water heating appliances, in excess of the 50 percent capacity permitted by exception 5 above, is permitted where those appliances require immediate replacement, and where no other work on the service water heating system is planned. When using this exception, it is acceptable to replace a single appliance with two or more smaller appliances, provided the total capacity is not greater than that of the original appliance. In addition, the requirements of WSEC C503.4.6.2 shall be met, and the applicant shall ensure completion of the required heat pump water heating system in compliance with one of the following options;

a. The code official issuing a temporary certificate of occupancy (TCO), which will remain in force until the heat pump water heating system is installed and the final inspection of the system has been completed; or

b. Posting a performance bond for the full estimated cost of the required heat pump water heating system installation, to ensure the system installation completion within 48 months.

NEW SECTION. SECTION 138. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C505.2 of the Washington State Energy Code is not adopted and the following is substituted:

Change in space conditioning (WSEC 505.2). For the purposes of this section, space conditioning area categories include: low energy space in accordance with WSEC C402.1.1.1, semi-heated space, and conditioned space. Spaces undergoing a change in

space conditioning shall be brought up to full compliance with this code, other than WSEC C502, C503, and C504, for all disciplines in the following cases:

1. Any low energy space in accordance with WSEC C402.1.1.1 that is altered to become conditioned space or semi-heated space.

2. Any semi-heated space in accordance with WSEC C402.1.1.2 that is altered to become conditioned space, or any heated but not cooled space that is altered to become both heated and cooled.

Interior walls, ceilings, floors, and fenestration that separate conditioned spaces from low energy or semi-heated spaces shall comply with the thermal envelope requirements for conditioned space. Interior walls, ceilings, floors, and fenestration that separate semi-heated spaces from low energy spaces shall comply with the thermal envelope requirements for semi-heated space.

A change in space conditioning is permitted to demonstrate by the alteration area alone or combining the alteration area with all existing spaces of the same space conditioning area category that complies. This applies to either prescriptive compliance in accordance with WSEC C505.4 or total building performance in accordance with WSEC C407.

EXCEPTIONS:

1. A change in space conditioning does not require full compliance with this code if both of the following conditions are met:

1.1. The existing heated but not cooled space is altered to become both heated and cooled solely by replacement of the existing heating-only HVAC system with an electric heat pump HVAC system, provided that there is no change in the use or

occupancy classification of the area served by the HVAC system that would increase the cooling load.

1.2 The new system includes a DOAS with energy recovery in compliance with WSEC C403.3.5.

2. The addition of cooling equipment to already-conditioned rooms or spaces less than 2,000 square feet (185.8 square meters) in floor area does not trigger the requirement to comply with this Section, WSEC 505.2.

NEW SECTION. SECTION 139. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C506 of the Washington State Energy Code is supplemented with the following:

Metering for the addition or replacement of HVAC equipment in existing buildings (WSEC C506.2). Where HVAC equipment is added or replaced, metering shall be provided according to WSEC C506.2.1 or C506.2.2, as applicable.

C506.2.1. Addition or replacement of individual HVAC equipment pieces. Where HVAC equipment is added or replaced, but compliance with WSEC C506.2.2 is not required, metering shall be provided as follows. The data from these meters is permitted to be stored locally using a manual totalizing meter or other means at the meter or fed into a central data collection system.

1. Electrical metering shall be provided for all of the following:

a. Each new or existing branch circuit serving a new piece of HVAC equipment with minimum circuit ampacity (MCA) that equates to 50 kilovolt-amps or more. A

single meter is permitted to serve multiple circuits of the same sub-metering category from WSEC C409.3.

b. Each new or existing branch circuit supplied by a new electrical panel that is dedicated to serving HVAC equipment. Circuits may be metered individually or in aggregate.

c. Each new HVAC fan or pump on a variable speed drive, where the fan, pump, or variable speed drive is new, unless the variable speed drive is integral to a packaged HVAC unit or the existing variable speed drive lacks the capability to provide electric metering output.

2. Natural gas metering shall be provided for each new natural gas connection that is rated at 1,000 kBtu (1,055,056 kilojoules) or higher. A single meter is permitted to serve multiple equipment pieces of the same sub-metering category from WSEC C409.3; HVAC, water heating, or process.

C506.2.2. Addition or replacement of the majority of HVAC equipment in a building. Within any 12-month period, where permits are issued for new or replacement HVAC equipment that has a total heating and cooling capacity greater than 1,200 kBtu/h (1,266,067 kilojoules/h) and greater than 50 percent of the building's existing HVAC heating and cooling capacity, the following shall be provided for the building:

1. Energy source metering required by WSEC C409.2;

2. HVAC system end-use metering required by WSEC C409.3.1; and

3. Data acquisition and display system per the requirements of WSEC C409.4.

Each of the building's existing HVAC chillers, boilers, cooling towers, air handlers, packaged units, and heat pumps with a capacity exceeding 5 tons or that

represents more than 10 percent of the building's total heating and cooling capacity shall be included in the calculation of the existing heating and cooling capacity of the building. Where heat pumps are configured to deliver both heating and cooling, the heating and cooling capacities shall both be included in the calculation of the total capacity.

Each of the building's existing and new HVAC chillers, boilers, cooling towers, air handlers, packaged units, and heat pumps with a heating or cooling capacity exceeding 5 tons or that represents more than 10 percent of the total heating and cooling capacity of the building shall be included in the HVAC system end-use metering.

Construction documents for new or replacement heating and cooling equipment projects shall indicate the total heating and cooling capacity of the building's existing HVAC equipment and the total heating and cooling capacity of the new or replacement equipment. Where permits have been issued for new or replacement heating and cooling equipment within the 12-month period prior to the permit application date, the heating and cooling equipment's capacity shall also be indicated. All heating and cooling equipment capacities shall be expressed in thousand-Btu/h.

NEW SECTION. SECTION 140. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C506 of the Washington State Energy Code is supplemented with the following:

Addition or replacement of service water heating equipment (WSEC C506.3). Where service water heating equipment is added or replaced, metering shall be provided as follows. The data from these meters is permitted to be stored locally and

shall be stored for a minimum of 36 months using a manual totalizing meter or other means at the meter, or fed into a central data collection system.

A. Electrical metering shall be provided for each new or existing branch circuit that is primarily dedicated to serving service water heating equipment. Circuits may be metered individually or in aggregate.

B. Natural gas metering shall be provided for each new natural gas service water heating appliance that is rated at 100,000 Btu/h (105,506 kilojoules/h) or higher. A single meter is permitted to serve multiple service water heating appliances.

NEW SECTION. SECTION 141. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C506 of the Washington State Energy Code is supplemented with the following:

Tenant space electrical sub-metering for existing buildings (WSEC C506.4). For tenant improvements in which a single tenant will occupy a full floor or multiple floors of a building, the electrical consumption for the tenant space on that floor shall be separately metered, and the metering data provided to the tenant with a display system per the requirements of WSEC C409.4.3. For the purposes of this section, separate end use categories need not be segregated.

EXCEPTION: Where an existing branch circuit electrical panel serves tenant spaces on multiple full floors of a building the floors served by that panel are not required to comply with this section.

NEW SECTION. SECTION 142. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C506 of the Washington State Energy Code is supplemented with the following:

Metering for complete electrical system replacement (WSEC C506.5). If all, or substantially all, of the existing electrical system is replaced within a 12-month period or under a single electrical permit, all the provisions of WSEC C409 shall be met.

SECTION 143. Ordinance 8766, Section 6, as amended, and K.C.C. 16.08.050 are each hereby amended to read as follows:

Approved numbers or addresses shall be provided for all new and existing buildings in ((~~such~~)) a position ((~~as to be~~)) that is plainly visible and legible from the road fronting the property and in conformance with this section.

A. The owner, occupant, or renter of any addressed building or other structure shall maintain the address numbers in a conspicuous place over or near the principal entrance or entrances. If the entrance cannot be easily seen from the nearest adjoining road, the address numbers shall be placed in ((~~such other~~)) another conspicuous place on the building or structure ((~~as is necessary for visually locating such~~)) so the address numbers can be easily seen from the nearest adjoining road.

B. If the addressed building or structure cannot be easily seen from the nearest adjoining road, the address numbers shall be placed on a portion of the site that is clearly visible from the nearest adjoining road.

C. The address numbers shall:

1. Be ((~~easily legible figures;~~)) Arabic numbers or alphabetical letters. Numbers shall not be spelled out; and

2. ((C)) comply with the following size requirements, unless otherwise stipulated in this section:

Distance from ((~~Right of Way~~)) the street or road fronting the property	**Minimum Letter Size**
((~~0-25 feet~~))	((~~3 inches~~))
((~~26~~)) 0-50 feet (0 millimeters – 15,240 millimeters)	4 inches (102 millimeters)
51-100 feet (15,545 millimeters – 30,480 millimeters)	6 inches (152 millimeters)
101-150 feet (30,785 millimeters – 45,720 millimeters)	8 inches (203 millimeters)
151-200 feet (46,025 millimeters – 60,960 millimeters)	10 inches (254 millimeters)
Over 200 feet (60,960 millimeters)	12 inches (305 millimeters)

3. Be not less than ((~~five~~)) four inches (127 millimeters) high ((~~for a commercial use~~)) with a minimum stroke width of 0.5 inch (13 millimeters);

4. Contrast with the color of the structure ((~~upon which~~)) they are placed on;

5. ((~~Either b~~)) Be illuminated ((~~during periods of darkness~~)) or ((~~be~~)) reflective, so they are easily seen ((~~at night~~)) during periods of darkness.

SECTION 144. Ordinance 12560, Section 109, as amended, and K.C.C. 16.14.090 are hereby amended to read as follows:

Section ((~~104.3~~)) 105.3 of the International Property Maintenance Code is not adopted and the following is substituted:

Right of entry (IPMC ((~~104.3~~)) 105.3). The right of entry shall be in accordance with the procedures specified in K.C.C. Title 23.

SECTION 145. Ordinance 12560, Section 112, as amended, and K.C.C. 16.14.100 are hereby amended to read as follows:

Section ((~~106.1~~)) 109.1 of the International Property Maintenance Code is not adopted and the following is substituted:

Unlawful acts (IPMC ((~~106.1~~)) 109.1). It shall be unlawful for any person, firm or corporation whether as owner, lessee, sublessee, or occupant, to erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish, equip, use, occupy, or maintain any building or structure or cause or permit the same to be done, contrary to or in violation of this code or any order issued by the code official ((~~hereunder~~)). This section shall be enforced in accordance with the procedures specified in K.C.C. Title 23.

SECTION 146. Ordinance 12560, Section 110, as amended and K.C.C. 16.14.110 are hereby amended to read as follows:

Section ((~~107~~)) 110 of the International Property Maintenance Code is ((~~not adopted and the following is substituted~~)) supplemented with the following:

((~~**Notices and Orders (IPMC 107)**~~)) **Stop work orders (IPMC 110.5).** All buildings, portions thereof, or premises ((~~which are determined by~~)) that the code official determines ((~~not to be in~~)) out of compliance with this ((~~C~~)) code are hereby declared to be a public nuisance and shall be abated by repair, rehabilitation, demolition, or removal in accordance with ((~~the procedures specified in~~)) K.C.C. ((~~Title 23~~)) chapter 23.28.

SECTION 147. Ordinance 14914, Section 359, as amended, and K.C.C. 16.14.200 are hereby amended to read as follows:

Section ((~~108.2~~)) 111.2 of the International Property Maintenance Code is not adopted and the following is substituted:

Closing of vacant structures (IPMC ((~~108.2~~)) 111.2). ((~~If the~~)) Where a structure is vacant and unfit for human habitation and occupancy((~~,~~)) and ((~~is~~)) not in danger of structural collapse, the code official is authorized to post a ((~~placard of~~)) condemnation placard on the premises and order the structure ((~~closed up~~)) secured so ((~~as not to be~~)) it does not become an attractive nuisance. Upon failure of the owner or the owner's agent to ((~~close up~~)) secure the ((~~premises~~)) structure within the time specified, enforcement action may be taken ((~~using the procedures of~~)) through K.C.C. Title 23.

SECTION 148. Ordinance 14914, Section 360, and K.C.C. 16.14.210 are hereby amended to read as follows:

Section ((~~108.3~~)) 111.4 of the International Property Maintenance Code is not adopted and the following is substituted:

Notice (IPMC ((~~108.3~~)) 111.4). Whenever the director has determined a structure, premises, or equipment ((~~are~~)) is unsafe under ((~~the provisions of~~)) this section, notice shall be provided in ((~~the procures contained in~~)) accordance with K.C.C. Title 23.

SECTION 149. Ordinance 12560, Section 120, and K.C.C. 16.14.220 are hereby amended to read as follows:

Section ((~~108.4~~)) 111.7 of the International Property Maintenance Code is not adopted and the following is substituted:

((~~Placard to vacate (IPMC 108.4)~~)) Placarding to vacate (IPMC 111.7). Whenever ((~~such notice~~)) a placard restricting occupancy of a building is posted, the code

official shall include a notification ((~~thereof~~)) in the notice and order issued under K.C.C. Title 23, ((~~reciting~~)) specifying the emergency and ((~~specifying~~)) the conditions ((~~which necessitate~~)) necessitating the posting. No person shall remain in or enter any building which has been so posted, except ((~~that entry may be made~~)) to repair, demolish, or remove such building under permit. No person shall remove or deface any such notice after it is posted until the required repairs, demolition, or removal have been completed and a certificate of occupancy is issued pursuant to ((~~the provisions of the Building Code~~)) this title. Any ((~~person violating this section shall be guilty of a misdemeanor~~)) violation may be enforced through K.C.C. Title 23.

SECTION 150. Ordinance 14914, Section 370, and K.C.C. 16.14.280 are hereby amended to read as follows:

Section ((~~109.4~~)) 112.4 of the International Property Maintenance Code is not adopted and the following is substituted:

Emergency repairs (IPMC ((~~109.4~~)) 112.4). For the purposes of this section, the code official shall employ the necessary labor and materials to perform the required work as expeditiously as possible as authorized in K.C.C. Title 23.

SECTION 151. Ordinance 14914, Section 370, and K.C.C. 16.14.290 are hereby amended to read as follows:

Sections ((~~109.5 and 109.6~~)) 112.5 and 112.6 of the International Property Maintenance Code are not adopted.

SECTION 152. Ordinance 12560, Section 121, as amended, and K.C.C. 16.14.430 are hereby amended to read as follows:

Section ((~~111~~)) 107 of the International Property Maintenance Code is not adopted and is substituted with the following:

Means of appeal (IPMC ((~~111~~)) 107). Appeals shall be in accordance with K.C.C. Titles 20 and 23.

SECTION 153. Ordinance 14111, Section 131, as amended, and K.C.C. 16.14.450 are hereby amended to read as follows:

Section 301.2 of the International Property Maintenance Code is not adopted and the following is substituted:

Responsibilities defined (IPMC 301.2). Owners ((~~remain~~)) may be liable for ((~~violations of duties imposed by~~)) violating this code ((~~even though an obligation is also imposed on~~)) where the building's occupants ((~~of the building~~)) are also responsible for code compliance, and ((~~even though~~)) where the owner ((~~has,~~)) imposes by agreement, ((~~imposed on the occupant~~)) the duty of furnishing required equipment or ((~~of complying~~)) compliance with this code on the occupants.

Buildings and structures and parts thereof shall be maintained in a safe and sanitary condition. The owner or the owner's designated agent shall be responsible for such maintenance. Buildings may be inspected ((~~T~~))to determine compliance ((~~with this subsection, the building may be reinspected~~)).

Owners, in addition to being responsible for maintaining buildings in a sound structural condition, shall be responsible for keeping that part of the building or premises which the owner occupies or controls in a clean, sanitary, and safe condition, including the building's shared or public areas ((~~in a building containing~~)) with two or more dwelling units.

((~~Owners shall, w~~))When required by this code or the code official or the ((~~health ordinance~~)) King County Board of Health Code or the health officer, owners shall furnish and maintain such approved sanitary facilities as required, and shall furnish and maintain approved devices, equipment, or facilities ((~~for the prevention of~~)) to prevent insect and rodent infestation, and when infestation ((~~has taken place~~)) occurs, shall be responsible for ((~~the extermination of~~)) exterminating any insects, rodents, or other pests ((~~when~~)) unless such extermination is ((~~not~~)) specifically made the occupant's responsibility ((~~of the occupant~~)) by law or ((~~ruling~~)) rule.

Occupants of a dwelling unit, in addition to being responsible for keeping in a clean, sanitary, and safe condition that part of the ((~~dwelling or~~)) dwelling unit or premises which they occupy and control, shall dispose of their rubbish, garbage, and other organic waste in a manner required by the ((~~health ordinance~~)) King County Board of Health Code and approved by the health officer or the code official.

((~~Occupants shall, w~~))When required by this code or the code official, the ((~~health ordinance~~)) King County Board of Health Code, or the health officer, occupants shall furnish and maintain approved devices, equipment, or facilities necessary to keep their premises safe and sanitary.

SECTION 154. Ordinance 14111, Section 131, as amended, and K.C.C. 16.14.460 are hereby amended to read as follows:

Section 302.4 of the International Property Maintenance Code is not adopted and the following is substituted:

((~~Fire hazard~~)) Weeds (IPMC 302.4). ((~~Any building or portion thereof, device, apparatus, equipment, combustible waste, or vegetation that, in the opinion Fire Marshal~~

~~or the Code Official, is in such a condition as to cause a fire or explosion or provide a ready fuel to augment the spread and intensity of fire or explosion arising from any cause shall be considered substandard. Upon failure of the owner or agent having charge of a property to cut and destroy weeds after notice violation, they shall be subject to prosecution in accordance with the provisions of K.C.C. Title 23.~~)) The exterior of premises and property shall be maintained free from noxious weeds. Noxious weeds are defined as any plant or vegetation included on the King County Noxious Weeds list. Noxious weeds shall be prohibited in accordance with chapter 17.10.RCW. The exterior of premises and property shall be maintained free of excessive growth of dry or dead vegetation that constitutes a potential fire hazard in the opinion of the fire marshal or code official.

SECTION 155. Ordinance 14914, Section 408, and K.C.C. 16.14.490 are hereby amended to read as follows:

Section 304.3 of the International Property Maintenance Code is not adopted and the following is substituted:

Premises identification. (IPMC 304.3). ((~~Approved numbers or addresses shall be provided for all new buildings~~)) Buildings shall have approved address numbers placed in ((~~such~~)) a position ((~~as to be~~)) that is plainly visible and legible from the street or road fronting the property ((~~as specified by the department~~)).

SECTION 156. Ordinance 12560, Section 115, as amended, and K.C.C. 16.14.540 are hereby amended to read as follows:

Section 602.3 of the International Property Maintenance Code is not adopted and the following is substituted:

Heating facilities - Heat supply (IPMC 602.3). ((~~Dwellings units and guest rooms shall be provided with heating facilities capable of maintaining a room temperature of 70° F. (21.1° C), bathrooms and toilet rooms. Cooking appliances shall not be used to provide space heating to meet the requirements of this section~~)) Every owner and operator of any building who rents, leases, or lets one or more dwelling units or sleeping units on terms, either expressed or implied, to furnish heat to the occupants shall supply heat to maintain a minimum temperature of 68° Fahrenheit (20° Celsius) in all habitable rooms, bathrooms, and other toilet rooms.

EXCEPTIONS:

1. When the outdoor temperature is below the winter outdoor design temperature for the locality, maintenance of the minimum room temperature shall not be required provided that the heating system is operating at its full design capacity. The winter outdoor design temperature for the locality shall be as indicated in Appendix C of the Washington State Energy Code.

2. In areas where the average monthly temperature is above 30° Fahrenheit (-1° Celsius), a minimum temperature of 65° Fahrenheit (18° Celsius) shall be maintained.

SECTION 157. Ordinance 14914, Section 416, and K.C.C. 16.14.550 are hereby amended to read as follows:

Section 602.4 of the International Property Maintenance Code is not adopted((~~,~~)) and the following is substituted:

Occupiable work spaces (IPMC 602.4). Indoor occupiable work spaces shall be supplied with heat to maintain a minimum temperature of 65° Fahrenheit (18° Celsius) when the spaces are occupied.

EXCEPTIONS:

1. Processing, storage, and operation areas that require cooling or special temperature conditions.

2. Areas in which persons are primarily engaged in vigorous physical activities.

SECTION 158. Ordinance 6746, Section 5, as amended, and K.C.C. 16.32.030 are each hereby amended to read as follows:

A. Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 15, 16, and 17 and Appendices A (Recommended Rules for Sizing the Water Supply System), B (Explanatory Notes on Combination Waste and Vent Systems), I (Installation Standard for PEX Tubing Systems for Hot- and Cold-Water Distribution), and M (Peak Water Demand Calculator) of the 2021 edition of the Uniform Plumbing Code as adopted by the state, ((~~2018 Edition,~~)) as published by or jointly with the International Association of Plumbing and Mechanical Officials and as amended in chapter 51-56 WAC and the gas piping provisions of the 2021 edition of the International Fuel Gas Code as adopted by the state, ((~~2018 Edition~~)), the 2021 edition of the National Fuel Gas Code as adopted by the state, ((~~2018 Edition~~)) (((~~(2018 ANSI Z223.1/NFPA 54),~~)) the 2021 edition of the Liquefied Petroleum Gas Code as adopted by the state, ((~~2017 Edition~~)) (((~~(2017 NFPA 58)~~))) as amended in chapter 51-52 WAC, and the 2021edition of the International Residential Code as adopted by the state, ((~~2018 Edition,~~)) as amended in chapter 51-51 WAC, are hereby adopted and together with King County amendments, additions, exceptions, and deletions adopted in this chapter are adopted as the King County Plumbing Code and may be cited as such and referred to in this chapter as "this code." This code shall have precedence over documents adopted by reference.

B. This code also may be further clarified and implemented by administrative rules adopted in accordance with K.C.C. chapter 2.98.

SECTION 159. Ordinance 6746, Section 7, as amended, and K.C.C. 16.32.050 are each hereby amended to read as follows:

The authority having jurisdiction is authorized to enforce this code in accordance with K.C.C. Title 23 except as specifically otherwise provided in this code.

SECTION 160. Ordinance 6746, Section 10, as amended, and K.C.C. 16.32.080 are each hereby amended to read as follows:

Section 104.5 of the Uniform Plumbing Code is not adopted and the following is substituted:

Fees. A. An applicant for a permit to do work under this chapter shall pay at the time of permit issuance, the following fees according to the fee schedule:

FEE SCHEDULE

Fee Type	**Cost**
Note: The fees in this table may be adjusted annually in accordance with subsection D. of this section. Contact public health – Seattle & King County for the most current fee schedule.	
Base permit fee, which is for a plumbing, gas, or backflow permit	$132.00
Fixture fee, which is assessed per each plumbing, medical or dental gas, fuel gas, laboratory gas, or repipe fixture, or	$26.00

backflow assembly, or any combination thereof, in addition to the base permit fee	
Administrative fee, which is the fee assessed to modify a permit or issue a refund	$40.00
Permit renewal fee, which is the fee assessed to renew a permit	$66.00
Repipe permit fee, which is a project specific fee, and which is the base permit fee plus repipe fixture fee or fees plus the total number of anticipated inspections times the hourly operating rate, unless the number of actual inspections exceed the number of anticipated inspections, in which case the applicant will be charged the hourly operating rate for each additional inspection. Contact public health– Seattle & King County for fee estimate	(Base permit fee + repipe fixture fee or fees) + (the number of anticipated inspections + additional inspections x hourly operating rate)
Plan review fee, which applies to plan reviewed project only, and is invoiced at hourly operating rate based on actual time spent reviewing project	$264.00/hr.
Hourly operating rate, which is used to determine fees for plan review, off-hour inspections and repipe projects	$264.00/hr.

B. The following definitions apply to this section unless the context clearly requires otherwise:

1. "Backflow assembly" means any approved device or assembly installed within a water supply system to prevent health hazards associated with backflow or back-siphonage conditions;

2. "Fuel gas fixture" means an outlet point in a piped fuel gas supply system or connection to a piece of fuel gas using equipment;

3. "Laboratory gas fixture" means an inlet point in a piped nonsurgical vacuum collection system, or an outlet point in a nonmedical laboratory gas distribution system that connects to a piece of equipment, or that facilitates connections and disconnections to be made by a system operator for nonmedical research or process purposes;

4. "Medical or dental gas fixture" means an inlet point in a piped medical, surgical, or dental vacuum collection system or an outlet point in a medical or dental gas distribution system that connects to a piece of equipment, or that facilitates connections and disconnections to be made by a system operator;

5. "Plumbing fixture" means an approved type of installed receptacle, device, or appliance that is connected to a water supply or that receives liquid or liquid-borne wastes and discharges such wastes into a building drainage system directly or indirectly; and

6. "Repipe fixture" represents the water supply, drainage, or venting portion of a plumbing system within a building that is to be replaced or repaired. A repipe fixture represents the piping system only and does not include any specific device or fixture as defined elsewhere in this section.

C.1. Laboratory fixture fees may be collected for any appliance, equipment, appurtenance, alarm, or gas system inlet or outlet connected to or affiliated with a

nonmedical vacuum collection system or nonmedical gas piping system that does not include fuel gas and is not required to be designed in accordance with NFPA 99.

2. Medical or dental gas fixture fees may be collected for any appliance, equipment, appurtenance, alarm, or gas system inlet or outlet connected to or affiliated with a medical, surgical, or dental vacuum collection system or medical or dental gas piping system designed in accordance with NFPA 99.

3. Plumbing fixture fees may be collected for any plumbing fixture, appliance, equipment, or appurtenance that is either regulated by the applicable plumbing or gas codes or impacts the design or operation of a plumbing or gas system within a building, or both. This includes industrial or commercial tanks, vats, and similar processing equipment which might or might not be connected to or discharged into approved traps or plumbing fixtures.

D. The fee schedule referenced within this section may be reviewed and adjusted periodically in accordance with the following:

1. The director of public health - Seattle & King County shall annually review whether the fee schedule needs to be adjusted to reflect the projected subsequent year costs of providing services, taking into account the budget adopted by ordinance for the agency charged with providing such services; and

2. The director may annually ((~~adjust~~)) increase or decrease <u>any or all</u> fees to reflect actual costs up to an amount that represents the most recent Seattle-Tacoma-Bellevue Area Consumer Price Index for Urban Wage Earners and Clerical Workers, CPI-W, inflation forecast for the subsequent year prepared by the office of economic and financial analysis and adopted by the forecast council plus one percentage point, up to a

maximum of five percent over the current fee((~~. Actual costs may include~~)) , plus the cost of ((~~increasing~~)) building rate reserves in accordance with any applicable county fund reserve policies.

SECTION 161. Ordinance 19845, Section 135, as amended, and K.C.C. 16.32.195 are each hereby amended to read as follows:

Section 103.1 of the Uniform Plumbing Code is supplemented with the following:

Authority Having Jurisdiction (((~~(UPC 103.1.1)~~))). The authority having jurisdiction is ((~~the director of~~)) public health - Seattle & King County or the ((~~director's~~)) authorized representative or representatives, who shall administer and enforce the provisions of this code, render interpretations of this code and make and enforce such rules and regulations, in accordance with K.C.C. chapters 2.98 and 2.100.

SECTION 162. Ordinance 15802, Section 124, as amended, and K.C.C. 16.32.215 are each hereby amended to read as follows:

Section 106.4 of the Uniform Plumbing Code is not adopted and the following is substituted:

Stop Work Order and Correction Order (((~~(UPC 106.4)~~))).

A. Whenever any work is being done contrary to the provisions of this code, the authority having jurisdiction may order the work stopped by notice in writing served on any persons engaged in the doing or causing such work to be done, and any such persons shall immediately stop work until authorized by the authority having jurisdiction to proceed with the work. Service of a stop work order shall be made by one or more of the following methods:

1. Personal service: Personal service of a stop work order may be made on the property owner or on any person doing or causing the work to be done, or by leaving the stop work order at the house of usual abode of the person being served if the stop work order is left with a person of suitable age and discretion who resides there.

2. Service by posting on the property: Service directed to the property owner or person engaged in doing or causing such work to be done may be made by posting the stop work order in a conspicuous place on the property where the work is occurring, and concurrently mailing notice as required by this subsection, if a mailing address is available.

3. Service by mail: Service by mail may be made for a stop work order by mailing two copies, postage prepaid, one by ordinary first class mail and the other by certified mail, to the property owner and to any person engaged in doing or causing such work to be done, at their last known addresses, at the address of the location of the work being done, or at the address of the place of business of the person being served. The taxpayer's address as shown on the tax records of the county shall be deemed to be the proper address for the purpose of mailing such notice to the person being served. Service by mail shall be presumed effective upon the third business day following the day upon which the stop work order was placed in the mail.

B. Whenever any work is being done contrary to the provisions of this code, the authority having jurisdiction may order the violations corrected without ordering all work stopped by issuing a correction notice that identifies the violation. The correction notice may require an inspection before further construction or at the time of the next required

inspection. The correction notice shall be served or posted in the same manner as a stop work order.

C. The remedies in this section are in addition to those authorized elsewhere in this code.

SECTION 163. Ordinance 15802, Section 126, as amended, and K.C.C. 16.32.235 are each hereby amended to read as follows:

Section 103.2 of the Uniform Plumbing Code is not adopted and the following is substituted:

Liability (((~~UPC 103.2~~))). This code is enacted as an exercise ((~~of the police power~~)) of King County's police power to protect and preserve the public peace, health, safety, and welfare, and its provisions shall be liberally construed ((~~for the accomplishment of~~)) to accomplish these purposes. It is expressly the purpose of this code to provide for and promote the health, safety, and welfare of the general public, and not to create or otherwise establish or designate any particular class or group of persons who would or should be especially protected or benefited by ((~~the terms of~~)) this code.

((~~It is t~~)) The code's specific intent ((~~of this code~~)) is to place the obligation of complying with its requirements upon the owner or occupier of premises within this code's scope, and no provision ((~~n~~))or term used in this code is intended to impose any duty upon the authority having jurisdiction or any of the authority having jurisdiction's officers or employees, for whom ((~~the~~)) code implementation or enforcement ((~~of this code~~)) shall be discretionary and not mandatory.

Nothing in this code creates or forms the basis for any liability on the part of the authority having jurisdiction, or the authority having jurisdiction's officers, employees, or

agents, for any injury or damage resulting from the failure of the owner or occupier of premises to comply with ((~~the provisions of~~)) this code, or by reason or in consequence of any act or omission in connection with ((~~the~~)) code implementation or enforcement ((~~of this code~~)) on the part of the authority having jurisdiction or by the authority having jurisdiction's officers, employees, or agents.

Any claim or litigation arising from any conduct, acts, or omissions of the authority having jurisdiction, or any of the authority having jurisdiction's officers, employees, or agents, shall be subject to the provisions of K.C.C. chapter 2.21.

NEW SECTION. SECTION 164. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

The authority having jurisdiction shall issue a permit to the applicant if the authority having jurisdiction verifies all of the following:

A. The work described in the construction documents conforms to this code's requirements and applicable laws and ordinances;

B. Construction documents for projects requiring plan review have been reviewed and approved;

C. The fees specified in K.C.C. 16.32.080 have been paid;

D. The applicant has complied with all requirements to be performed prior to permit issuance under applicable laws, ordinances, and regulations otherwise imposed by the authority having jurisdiction; and

E. The applicant, or the applicant's authorized agent, becomes the permit holder when the permit is issued.

NEW SECTION. SECTION 165. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 104.1 of the Uniform Plumbing Code is supplemented with the following:

Complete plumbing permit applications. A plumbing permit application is complete if the authority having jurisdiction determines it meets the requirements of sections 104.1 and the following:

Application for Permit. To obtain a permit, the applicant shall first file an application in a format determined by the authority having jurisdiction. Every such application shall:

1. Identify and describe the work to be covered by the permit.

2. Describe the proposed work site by parcel number, property address, or similar description that will readily identify and clearly locate the proposed building or project.

3. Provide unit, space suite, floor level, or other information that will clearly identify the location of the project.

4. Provide the property owner's name, address, and phone number.

5. Provide the contractor's business name, address, email, and phone number.

6. Be accompanied by plans, diagrams, computations and specifications, equipment schedules, and other data as required by the authority having jurisdiction.

7. Be signed by the owner of the property or building, or the owner's authorized agent, who may be required to submit evidence to indicate such authority.

8. Provide other data and information as may be required by the authority having jurisdiction.

Plumbing Design Documents. Plumbing design documents shall be submitted with each application for a permit, in electronic format to the authority having jurisdiction. Diagrams, schedules, and other data sufficient to show the adequacy of the plans shall be submitted when required by the authority having jurisdiction.

EXCEPTION: The authority having jurisdiction may waive the submission of plumbing design documents where the authority having jurisdiction finds that the nature of the work applied for is such that reviewing plumbing documents is not necessary to obtain compliance with this code.

Preparation by Registered Design Professionals. Plumbing design documents for all plumbing work shall be prepared and designed by or under the direct supervision of a mechanical engineer licensed to practice under the laws of the State of Washington. Each sheet of plumbing documents shall bear the seal and the signature of the registered design professional before the permit is issued.

EXCEPTIONS:

1. Detached one- and two-family dwellings, and townhouses.

2. Design documents that do not include systems specifically required to be designed by a registered design professional shall be permitted to be submitted without a PE stamp by any individual holding an active Certified in Plumbing Design (CPD) designation issued by the American Society of Plumbing Engineers (ASPE) or by a Washington State Certified Journeyman Plumber (PL01).

3. Design documents provided for reference only.

4. Other work as specified by the authority having jurisdiction.

Registered Design Professional in Responsible Charge. The authority having jurisdiction is authorized to require the owner to engage and designate on the plumbing permit application a Registered Design Professional who shall act as the Registered Design Professional in Responsible Charge. If the circumstances require, the owner shall designate a substitute Registered Design Professional in Responsible Charge who shall perform the duties required of the original Registered Design Professional in Responsible Charge. The authority having jurisdiction shall be notified in writing by the owner if the Registered Design Professional in Responsible Charge is changed or is unable to continue to perform their duties. The Registered Design Professional in Responsible Charge is responsible for reviewing and coordinating submittal documents prepared by others, including phased and deferred submittal items, for compatibility with the design and scope of the project.

Information Required on Plumbing Design Documents. The documents shall include the following, as applicable:

Cover Sheet. The cover sheet shall include the project address, parcel number, scope of work narrative, legends, abbreviations, general notes, applicable code cycles, and other information as required by the authority having jurisdiction.

Calculations and Notes. Calculations and load summaries shall be provided to determine system loading for each plumbing system included in the project scope of work. A separate calculation for each separate utility point of connection is required. Domestic water pressure loss calculations shall be provided for each independent domestic water system or pressure zone. Notes shall include proposed material types and

joining methods, insulation requirements, disinfection procedures, and similar information as required by the authority having jurisdiction.

Schedules. Schedules shall be provided for all fixtures and equipment associated with the plumbing system design. Schedules shall include all information required to verify compliance with this code and the Washington State Energy Code as amended by King County. Such information may include operating weight, equipment make/model, applicable standards, connection sizes, flow rates, input/output ratings, and similar information as required by the authority having jurisdiction.

Energy Code Compliance. Equipment required to comply with the Washington State Energy Code as amended by King County shall include make and model and any other design or listing information required to determine compliance.

Plan Sheets. Plan sheets shall include building information, plumbing system design information, scale, key plan, north arrow, and similar information as required by the authority having jurisdiction.

Building Information. Building information shown on plan sheets shall be screened (semi-opaque) and include information such as room names, walls, corridors, fixtures, footings, floor elevations, and other building elements relevant to the installation of the plumbing system(s).

Plumbing System Design Information. Plumbing system design information shown on plan sheets shall be easily identifiable and include all horizontal piping, all vertical risers, sizing, loading, notes, fixture and equipment tags, and similar information as required by the authority having jurisdiction.

Riser Diagrams. Riser diagrams shall be provided for each distinct plumbing system type including sanitary waste and vent, domestic water, stormwater and roof drainage, natural gas, non-potable water, graywater, and any other system type referenced within the plumbing design documents. Riser diagrams shall include all piping from the utility or tenant point of connection to the furthest fixture or roof termination. Piping shown on riser diagrams shall be clearly sized and labeled and include loading at each pipe segment.

Construction Details. Construction details shall be provided for the installation of certain fixtures or equipment where determining code compliance may not be readily achievable through review of Plans, Schedules, Notes, or Riser Diagrams. Construction details may be required for the installation of water heaters, interceptors, pumps, backflow devices, and similar items. The authority having jurisdiction may request additional construction details as deemed necessary.

Deferred Submittals. Deferral of any submittal items shall have the prior approval of the authority having jurisdiction. The Registered Design Professional in Responsible Charge shall list deferred submittals on the plans for review by the authority having jurisdiction. Documents for deferred submittal items shall be submitted to the Registered Design Professional in Responsible Charge who shall review them and forward them to the authority having jurisdiction with a notation indicating that the deferred submittal documents have been reviewed and been found to be in general conformance to the plumbing design. The deferred submittal items shall not be installed until the deferred submittal documents have been approved by the authority having jurisdiction.

Application Review. The plumbing design documents shall be reviewed by the authority having jurisdiction. Such plumbing design documents may be reviewed by other county departments for compliance with the laws and ordinances under their jurisdiction.

Determination of Completeness. Within 28 days after an application is filed, the authority having jurisdiction shall notify the applicant in writing that the application is complete or incomplete, and if the application is incomplete, the additional information required to make it complete shall be provided. Within 14 days after receiving the additional information, the authority having jurisdiction shall notify the applicant in writing whether the application is now complete or specify the additional information required to make it complete. An application shall be deemed to be complete if the authority having jurisdiction does not notify the applicant in writing by the deadlines in this section that the application is incomplete.

Decision on Application. The authority having jurisdiction shall approve, condition, or deny the application within 120 days after notifying the applicant that the application is complete.

To determine the number of days that have elapsed after the notification that the application is complete, the following periods shall be excluded:

1. All periods of time during which the applicant has been requested by the authority having jurisdiction to correct plans, perform required studies, or provide additional required information, until the determination that the request has been satisfied. The period shall be calculated from the date the authority having jurisdiction notifies the applicant of the need for additional information until the earlier of the date

the authority having jurisdiction determines whether the additional information satisfies the request for information or 14 days after the date the information has been provided to the authority having jurisdiction.

2. If the authority having jurisdiction determines that the information submitted by the applicant under item 1 of this subsection is insufficient, the authority having jurisdiction shall notify the applicant of the deficiencies, and the procedures under item 1 of this subsection shall apply as if a new request for information has been made;

3. All extensions of time mutually agreed upon by the applicant and the authority having jurisdiction. If a plumbing permit application is substantially revised by the applicant, the time period shall start from the date at which the revised application is determined to be complete under the Determination of Completeness subsection above.

EXCEPTIONS:

1. When changes to the approved work (plumbing design documents) are made during installation, approval of the authority having jurisdiction shall be obtained prior to execution. The authority having jurisdiction may approve minor changes to the plumbing design documents for work without revisions to the approved plumbing design documents when it is determined that the changes conform to the requirements of this code and other pertinent laws, ordinances, and other issued permits.

2. When the authority having jurisdiction allows a plumbing permit application to be submitted in phases for portions of the building, each phased portion submittal shall meet the requirements applicable to the scope of the allowed phased portion, and the plumbing permit application shall be considered complete for the purpose of Section 104.1 on the date the phased portion submittal is submitted.

SECTION 166. Ordinance 15802, Section 131, as amended, and K.C.C. 16.32.285 are each hereby amended to read as follows:

Section 104.4.2 of the Uniform Plumbing Code is not adopted and the following is substituted:

Validity of Permit (((~~UPC 104.4.2~~))). The issuance of a permit or approval of plans and specifications shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of any other ordinance of the jurisdiction. No permit presuming to give authority to violate or cancel the provisions of this code shall be valid.

The issuance of a permit based upon plans, specifications, or other data shall not prevent the authority having jurisdiction from thereafter requiring the correction of errors contained in the plans, specifications, and other data or from ((~~preventing~~)) halting building operations ((~~being carried on thereunder~~)) when in violation of this code or of other ordinances of this jurisdiction.

Every plumbing permit shall be kept on the site where the work permitted is being performed and shall not be removed until the work has obtained final approval ((~~been finally approved~~)) by the authority having jurisdiction.

Plumbing work authorized by a permit in effect on or after January 1, 2023, shall be performed in accordance with the laws and ordinances in effect when the permit was issued, except when:

1. The authority having jurisdiction determines such work to be ((~~in fact~~)) dangerous, unsafe, insanitary, or a nuisance or a menace to life, health, or property; or

2. A building permit has been approved before January 1, 2023.

SECTION 167. Ordinance 15802, Section 132, as amended, and K.C.C. 16.32.295 are each hereby amended to read as follows:

Section 104.4.5 of the Uniform Plumbing Code is not adopted and the following is substituted:

Suspension, Revocation, or Limitation of Permits (((~~(UPC 104.4.5)~~))).

1. In addition to other remedies provided by law, the authority having jurisdiction may(((~~,~~))) in writing(((~~,~~))) suspend, revoke, or limit a permit issued under this code if:

1.1. The permit holder committed a violation of this code, other ordinances, or any rules and regulations adopted by the authority having jurisdiction, in the course of performing activities subject to that permit;

1.2 The permit holder interfered with the authority having jurisdiction in the performance of the authority having jurisdiction's duties relating to the permit;

1.3. The permit was issued in error or on the basis of materially incorrect information supplied to the authority having jurisdiction; or

1.4. Permit fees or costs were paid to the county by check and returned from a financial institution marked nonsufficient funds or canceled.

2. The suspension, revocation, or limitation shall be carried out through the notice and order provisions of K.C.C. Title 23(((~~, is effective on the date established by the notice and order and may be appealed to the King County hearing examiner in accordance with the appeal provisions of K.C.C. Title 23~~))).

3. Notwithstanding any other provision of this code, the administrative authority may immediately suspend operations under a permit by issuing a stop work order in accordance with this code.

SECTION 168. Ordinance 15802, Section 133, as amended, and K.C.C. 16.32.306 are each hereby amended to read as follows:

Section 105.2.6 of the Uniform Plumbing Code is not adopted and the following is substituted:

Reinspections (((~~UPC 105.2.6~~))). A reinspection fee may be assessed after the initial inspection for each subsequent inspection ((~~or reinspection~~)) when part or all of the work for which an inspection is called is found by the inspector to be in one or more of the following conditions:

1. Work is not complete ((~~or when required corrections have not been made.~~));

2. Work is not ready for inspection, and/or not under test;

3. Corrections from previous inspection have not been completed;

4. Access to inspection area(s) is denied or not provided;

5. Permit is not properly posted at the work site; and

6. Where applicable, work installed does not conform to approved drawings.

((~~This provision is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before the job is ready for inspection or reinspection.~~

~~Reinspection fees may be assessed when the approved plans are not readily available to the inspector, for failure to provide access on the date for which the inspection is requested, or for deviating from plans when such deviation requires but has not received the approval of the authority having jurisdiction.~~

~~To obtain reinspection, the applicant shall file an application therefor in writing upon a form furnished for that purpose and pay the reinspection fee in accordance with K.C.C. 16.32.095.~~)) This subsection does not allow a reinspection fee to be applied at initial plumbing or gas inspection when the inspection fails due to plumbing or gas installation not complying with this code.

In instances where a reinspection fee((~~s have~~)) has been assessed, no additional inspections ((~~of the work~~)) shall be performed until the required reinspection fees have been paid.

NEW SECTION. SECTION 169. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 308 of the Uniform Plumbing Code is supplemented with the following:

Exterior installations. Unless required to meet other provisions of this code, or where first approved by the authority having jurisdiction, no plumbing or piping system or part thereof shall be installed exterior to a building.

EXCEPTIONS:

1. Rainwater conductors, leaders, gutters, or downspouts.

2. Natural gas, fuel oil, or condensate piping serving exterior equipment.

3. Non-potable water serving irrigation systems, mechanical fill stations, or similar exterior uses.

NEW SECTION. SECTION 170. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 418.3 of the Uniform Plumbing Code is not adopted and the following is substituted:

Floor drains. Floor drains shall be installed in the following areas:

A. Any restroom, toilet facility, or similar area within a building containing two or more water closets or a combination of one water closet and one urinal, except within a dwelling unit. The floor shall slope in accordance with the requirements of UPC 418.5. Any enclosed space containing a water closet or urinal and constructed in such a way as to prevent fixture overflow spillage from reaching a floor drain located outside of the enclosed space shall be provided with a dedicated floor drain within the space.

B. Laundry rooms in commercial buildings and common laundry facilities in multi-family dwelling buildings.

NEW SECTION. SECTION 171. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 418.5 of the Uniform Plumbing Code is supplemented with the following:

Floor slope. Floors shall be sloped to floor drains.

EXCEPTIONS:

1. Floors of parking garages.

2. Where existing floors are constructed such that creating a slope by recess or topping slab is not feasible, a threshold of a minimum 1/4 inch (6 millimeters), but not exceeding 1/2 inch (13 millimeters) in height shall be provided at each entry to the room or area to prevent spillage from entering adjacent spaces.

SECTION 172. Ordinance 19485, Section 151, and K.C.C. 16.32.338 are each hereby amended to read as follows:

Section 501 of the Uniform Plumbing Code is supplemented with the following:

Supplemental Water-Heating Devices (((~~UPC 501.3~~))). Potable water heating devices that use refrigerant-to-water heat exchangers shall be approved and installed in accordance with this code and the manufacturer's instructions.

SECTION 173. Ordinance 19485, Section 153, and K.C.C. 16.32.340 are each hereby amended to read as follows:

Section 709.1 of the Uniform Plumbing Code is not adopted and the following is substituted:

709.1 General (((~~UPC 709.1~~))). Plumbing fixtures shall be drained to the sanitary waste system by gravity flow and are permitted to be pumped or ejected as allowed in accordance with Section 710.2 or when approved by the authority having jurisdiction.

((~~**EXCEPTION:** Plumbing fixtures are permitted to be pumped or ejected as allowed by UPC 710.2 or approved by the authority having jurisdiction.~~))

SECTION 174. Ordinance 19485, Section 136, and K.C.C. 16.32.341 are each hereby amended to read as follows:

Section 104.3.2 of the Uniform Plumbing Code is not adopted and the following is substituted:

Plan Review Fees (((~~UPC 104.3.2~~))). ((~~Where~~)) When a plan or other data is required to be submitted in accordance with UPC 104.3.1, a plan review fee shall be charged at a rate equal to the cost of performing the service in addition to the permit fees specified in K.C.C. 16.32.080.

The authority having jurisdiction may rescind prior approval of reviewed construction documents and deny permit issuance if any of the following conditions develop:

1. Permit applicant has not responded to a plan review invoice notice or request for plan corrections from the assigned plans examiner within 90 days of request.

2. Permit fees have not been paid within 90 days of notification to applicant that plans have been approved and an invoice generated.

EXCEPTION: The authority having jurisdiction may grant an extension to the above time periods upon finding good cause for an extension, such as unforeseen circumstances impeding timely action by the applicant. Any request for an extension must be initiated by the permit applicant. The authority having jurisdiction shall maintain a written record of any extension granted and the reason or reasons for the extension.

SECTION 175. Ordinance 19485, Section 154, and K.C.C. 16.32.342 are each hereby amended to read as follows:

Chapter 9 of the Uniform Plumbing Code is supplemented with the following:

Air Admittance Valves (((~~(UPC 913.0)~~))). ((~~Individual fixtures, a branch vent, a vertical wet vent and a horizontal wet vent may terminate with a connection to an air admittance valve as follows:~~

~~1. Fixtures connected to an air admittance valve shall be located on the same floor level.~~

~~2. Air admittance valves shall conform to ASSE 1051 for single fixtures, or ASSE 1050 for multiple fixtures, and shall be installed as required in this section and the manufacturer installation guidelines.~~

~~3. Air admittance valves shall be accessible and located:~~

~~3.1. In an area that allows air to enter the valve.~~

~~3.2. A minimum of 4 inches above the trap arm.~~

~~3.3. A minimum of 6 inches above the flood level rim of the highest fixture being vented, when the air admittance valve serves as a vent termination for a branch vent, or vertical and horizontal wet vent.~~

~~3.4. Not less than 6 inches above insulation materials.~~

~~3.5. Within the maximum developed length permitted for the vent as shown in UPC Table 703.2.~~

~~4. The air admittance valve shall be rated in accordance with the standard for the vent size as determined in UPC Table 703.2.~~

~~5. Not less than one plumbing vent sized as required by UPC 904.1 shall extend to the exterior of the building as required in UPC 906.1.~~

~~6. When a horizontal branch drain uses an individual or branch type air admittance valve, a relief vent shall be installed when the horizontal branch drain is located more than 4 branch intervals from the top of the building drain or waste stack. Installations that require a relief vent shall be:~~

~~6.1. Submitted for an installation design review before approval.~~

~~6.2. Sized in accordance with UPC 904.1~~

~~6.3. Installed in accordance with UPC 905.0.~~

~~6.4. Extended to the outdoors or connect to a vent stack.~~

~~6.5. Permitted to serve as the vent for other fixtures.~~

~~7. Air admittance valve installations are prohibited for:~~

~~7.1. Venting sumps or tanks.~~

~~7.2. Non-neutralized chemical waste systems without a design review and approval by the authority having jurisdiction.~~

~~7.3. Any fixtures connected to a grease or fats, oils or grease (FOG) disposal system.~~

~~7.4. Location in spaces used as supply or return air plenums.~~))

1. General. Vent systems utilizing air admittance valves shall comply with this section.

2. Where Permitted. Individual fixtures, a branch vent, a vertical wet vent, and a horizontal wet vent shall be permitted to terminate with a connection to an air admittance valve. Fixtures connected to an air admittance valve shall be located on the same floor level.

3. Installation. Air admittance valves shall conform to ASSE 1051 for single fixtures, and ASSE 1050 for multiple fixtures, and shall be installed as required in this section and the manufacturer's installations guidelines.

4. Location.

4.1. Air admittance valves shall be accessible and located in an area that allows air to enter the valve.

4.2. The air admittance valve shall be located a minimum of 4 inches (102 millimeters) above the trap arm.

4.3. The air admittance valve that serves as a vent termination for a branch vent, or vertical and horizontal wet vent, shall be located a minimum of 6 inches (152 millimeters) above the flood level rim of the highest fixture being vented.

4.4. The air admittance valve shall be located with the maximum developed length permitted for the vent as shown in Table 703.2.

4.5. The air admittance valve shall be installed at least 6 inches (152 millimeters) above insulation materials.

5. Size. The air admittance valve shall be rated in accordance with the standard for the vent size as determined in Table 703.2.

6. Vent Required. Not less than one plumbing vent sized as required by Section 904.1, shall extend to the exterior of the building as required in Section 906.1

7. Relief Vent. When a horizontal branch drain utilizes an individual or branch type air admittance valve, a relief vent shall be installed when the horizontal branch drain is located more than 4 branch intervals from the top of the building drain (waste stack), and the relief vent shall extend to the outdoors or connect to a vent stack.

The relief vent shall be sized in accordance with Section 904.1, installed in accordance with Section 905.0, and shall be permitted to serve as the vent for other fixtures.

8. Prior Approval. Installations that require a relief vent shall be submitted for an installation design review.

9. Prohibited Installations.

9.1 Sumps. Air admittance valves shall not be utilized to vent sumps or tanks of any type.

9.2 Chemical Waste Systems. Air admittance valves shall not be installed in non-neutralized chemical waste systems without a design review and approval by the authority having jurisdiction.

9.3 FOG Disposal Systems. Air admittance valves shall not be installed on any fixtures that are connected to a fats, oils, and grease (FOG) disposal system.

9.4 Plenums. Air admittance valves shall not be located in spaces utilized as supply or return air plenums.

SECTION 176. Ordinance 19485, Section 155, and K.C.C. 16.32.343 are each hereby amended to read as follows:

Section 1014.1 of the Uniform Plumbing Code is ((~~not adopted and~~)) supplemented with the following ((~~is substituted~~)):

((**~~General (UPC 1014.1).~~** ~~Where it is determined by the authority having jurisdiction that waste pretreatment is required, an approved type of grease interceptor(s) that complies with ASME A112.14.3, ASME A112.14.4, CSA B481, PDI G-101 or PDI G-102, and sized in accordance with UPC 1014.2.1 or 1014.3.6, shall be installed in accordance with the manufacturer's installation instructions to receive the drainage from fixtures or equipment that produce grease laden waste located in areas of establishments where food is prepared or other establishments where grease is introduced into the drainage or sewage system in quantities that can effect line stoppage or hinder sewage treatment or private sewage disposal systems. A combination of hydromechanical, gravity grease interceptors and engineered systems are allowed to meet this code and other applicable requirements of the authority having jurisdictions where space or existing physical constraints of existing buildings require such installations. Grease interceptors are not required for individual dwelling units or private living quarters. Water closets, urinals and other plumbing fixtures conveying human waste shall not drain~~

~~into or through the grease interceptor. Grease interceptors shall comply with UPC 1014.1.1 through 1014.1.3.~~))

EXCEPTION: A one-family or two-family home that has an approved commercial kitchen or prepares food for public sale shall install a grease interceptor that complies ((~~to~~)) with Section 1014.0 for all fixtures that produce ((~~fats, oils and grease~~)) (((~~(~~))FOG((~~)~~))) waste.

NEW SECTION. SECTION 177. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 608.1 of the Uniform Plumbing Code not adopted and the following is substituted:

Inadequate water pressure. Where the water pressure in the main or other source of supply will not provide a minimum residual water pressure of 15 pounds per square inch (PSI) (103 kilopascals), after allowing for friction and other pressure losses, a tank and a pump or other means that will provide said 15 pounds PSI (103 kilopascals) pressure shall be installed. Where fixtures, fixture fittings, or both are installed that, require residual pressure exceeding 15 PSI (103 kilopascals), such minimum residual pressure shall be provided. ASSE listed temperature or pressure compensating valves, or both, shall be provided with a minimum residual pressure equal to or greater than the minimum test pressure of the applicable standard, or 20 PSI (138 kilopascals), whichever is greater.

NEW SECTION. SECTION 178. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 609.12 of the Uniform Plumbing Code not adopted and the following is substituted:

Pipe insulation. Domestic water piping within commercial buildings shall be insulated in accordance with the Washington State Energy Code as amended by King County.

NEW SECTION. SECTION 179. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Table 610.3 of the Uniform Plumbing Code is replaced with the following:

Table 610.3

Water supply fixture units (WSFU) and minimum fixture branch pipe sizes[3]

Appliances, appurtenances, or fixtures[2]	**Minimum fixture branch pipe size (inches)[1,4]**	**Private**	**Public**	**Assembly[6]**
Bathtub or combination bath/shower (fill)	0.5	4.0	4.0	
0.75 inch bathtub fill valve	0.75	10.0	10.0	
Bidet	0.5	1.0		
Clothes washer	0.5	4.0	4.0	
Dental unit, cuspidor	0.5		1.0	
Dishwasher, domestic	0.5	1.5	1.5	
Drinking fountain or water cooler	0.5	0.5	0.5	0.75

Hose bibb	0.5	2.5	2.5	
Hose bibb, each additional[8]	0.5	1.0	1.0	
Lavatory[9]	0.5	1.0	1.0	1.0
Lawn sprinkler, each head[5]		1.0	1.0	
Mobile home, each (minimum)		12.0		
Sinks				
Bar	0.5	1.0	2.0	
Clinical faucet	0.5		3.0	
Clinical flushometer valve with or without faucet	1		8.0	
Kitchen, domestic with or without dishwasher	0.5	1.5	1.5	
Laundry	0.5	1.5	1.5	
Service or mop basin	0.5	1.5	3.0	
Washup, each set of faucets	0.5		2.0	
Shower, per head	0.5	2.0	2.0	
Urinal, 1.0 GPF flushometer valve	0.75	See footnote [7]		
Urinal, greater than 1.0 GPF flushometer valve	0.75	See footnote [7]		
Urinal, flush tank	0.5	2.0	2.0	3.0

Urinal, hybrid	0.5	1.0	1.0	1.0
Wash fountain, circular spray	0.75		4.0	
Water closet, 1.6 GPF gravity tank	0.5	2.5	2.5	3.5
Water closet, 1.6 GPF flushometer tank	0.5	2.5	2.5	3.5
Water closet, 1.6 GPF flushometer valve	1	See footnote [7]		
Water closet, greater than 1.6 GPF gravity tank	0.5	3.0	5.5	7.0
Water closet, greater than 1.6 GPF flushometer valve	1	See footnote [7]		

For SI units: 1 inch = 25mm

Footnotes:

1. Size of the cold branch pipe, or both the hot and cold branch pipes.

2. Appliances, appurtenances, or fixtures not referenced in this table shall be permitted to be sized by reference to fixtures having a similar flow rate and frequency of use.

3. The listed fixture unit values represent their load on the cold water building supply. The separate cold water and hot water fixture unit value for fixtures having both hot and cold water connections shall be permitted to be each taken as three-quarter of the listed total value of the fixture.

4. The listed minimum supply branch pipe sizes for individual fixtures are the nominal (I.D.) pipe size.

5. For fixtures or supply connections likely to impose continuous flow demands, determine the required flow in gallons per minute (liters per second), and add it separately to the demand in gallons per minute (liters per second) for the distribution system or portions.

6. Assembly, Public Use (See UPC Table 422.1).

7. Where sizing flushometer systems, see UPC 610.10.

8. Reduced fixture unit loading for additional hose bibbs is to be used where sizing total building demand and for pipe sizing where more than one hose bibb is supplied by a segment of water distribution pipe. The fixture branch to each hose bibb shall be sized based on 2.5 fixture units.

9. The minimum fixture branch size may be reduced to 3/8 inch (10 millimeters) when serving a single lavatory.

NEW SECTION. SECTION 180. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Table 702.2(2) of the Uniform Plumbing Code is replaced with the following:

Table 702.2(2)

Discharge capacity in gallons per minute for intermittent flow only[a]

Gallons per minute (gpm)	Fixture units
Up to 7.5	Equals 1 fixture unit
Greater than 7.5 to 15	Equals 2 fixture units

Greater than 15 to 30	Equals 4 fixture units
Greater than 30 to 50	Equals 6 fixture units
Greater than 50 to 100	Equals 12 fixture units
Greater than 100 to 200	Equals 18 fixture units
Greater than 200 to 350	Equals 24 fixture units

For SI units 1 gallon per minute = 0.06 L/s

Footnote:

a. Discharge capacity exceeding 350 gallons per minute (3.15 liters per second) shall be determined by the authority having jurisdiction.

NEW SECTION. SECTION 181. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 704.3 of the Uniform Plumbing Code not adopted and the following is substituted:

Commercial sinks. Except where specifically required to be connected indirectly to the drainage system, or when first approved by the authority having jurisdiction, all plumbing fixtures, drains, appurtenances, and appliances, including 3-compartment sinks, shall be directly connected to the drainage system of the building or premises.

NEW SECTION. SECTION 182. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 710.4 of the Uniform Plumbing Code not adopted and the following is substituted:

Discharge line. The discharge line from such ejector, pump, or another mechanical device shall be of approved pressure rated material and be provided with an

accessible backwater or swing check valve and gate or ball valve. Where the gravity drainage line to which such discharge line connects is horizontal, the method of connection shall be from the top through a wye branch fitting. The gate or ball valve shall be located on the discharge side of the backwater or check valve. Gate or ball valves, where installed in drainage piping, shall be fullway type with working parts of corrosion-resistant metal. Sizes 4 inches (102 millimeters) or more in diameter shall have cast-iron bodies and sizes less than 4 inches (102 millimeters), cast-iron or copper alloy bodies. Discharge lines from elevator hoistway pumps shall be provided with a check valve and lockable gate or ball valve locked in the open position and located outside of the hoistway.

EXCEPTION: The discharge line of a pump serving an elevator hoistway shall be routed through an air break to an approved indirect receptor. The indirect receptor shall be provided with an outlet, tailpiece, and trap (if applicable) large enough to accommodate the design flow rate of the largest pump discharging to the indirect receptor. The trap seal of such receptor (if applicable) shall be maintained by a trap primer in accordance with UPC 1007.0.

NEW SECTION. SECTION 183. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 710.5 of the Uniform Plumbing Code not adopted and the following is substituted:

Size of building drains and sewers. Building drains or building sewers receiving a discharge from a pump or ejector shall be adequately sized to prevent

overloading. Two fixture units shall be allowed for each gallon per minute (4 liters per minute) of flow.

EXCEPTION: Where first approved by the authority having jurisdiction, the discharge from pumps or ejectors provided for periodic testing or emergency use only may be assigned fixture unit loading in accordance with Table 702.2(2). All gravity drainage piping and/or pretreatment devices downstream of such pumps shall be adequately sized for continuous full flow of the pumped discharge under emergency or test conditions.

NEW SECTION. SECTION 184. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 803.3 of the Uniform Plumbing Code is not adopted and the following is substituted:

Pipe size and length. The size of indirect waste piping shall comply with other sections of this code applicable to drainage and vent piping. No vent from indirect waste piping shall combine with a sewer-connected vent but shall extend separately to the outside air. Indirect waste pipes exceeding 5 feet (1,524 millimeters), but less than 15 feet (4,572 millimeters) in length shall be directly trapped, but such traps need not be vented.

Indirect waste pipes less than 15 feet (4,572 millimeters) in length shall be at least the diameter of the drain outlet or tailpiece of the fixture, appliance, or equipment served, and in no case less than 1/2 inch (15 millimeters). Angles and changes of direction in such indirect waste pipes shall be provided with cleanouts to permit flushing and cleaning.

EXCEPTIONS:

1. Gravity indirect waste pipes connected to elevator hoistway drains shall be provided with a normally closed backwater valve or a vented running trap installed in accordance with UPC 1008.1. Where a trap is provided, the trap seal shall be maintained by an automatic electronic trap primer.

2. Unless required by the authority having jurisdiction, traps and vents shall not be required in indirect waste piping from backflow or pressure relief devices or other similar applications intended for emergency use only.

SECTION 185. Ordinance 19485, Section 156, and K.C.C. 16.32.344 are each hereby amended to read as follows:

The Exception to Section 1014.1.3 of the Uniform Plumbing Code is not adopted and the following is substituted:

((**~~Food Waste Disposers and Dishwashers (UPC 1014.1.3).~~** ~~No food waste disposer or dishwasher shall be connected to or discharge into a grease interceptor. Commercial food waste disposers may discharge directly into the buildings drainage system.~~))

EXCEPTION: Food waste disposers may discharge to grease interceptors that are designed to receive ((~~the discharge of~~)) food waste discharge or a listed food solids interceptor shall be installed at the ((~~discharge point of the~~)) food waste disposer discharge point.

SECTION 186. Ordinance 15802, Section 137, as amended, and K.C.C. 16.32.345 are each hereby amended to read as follows:

Chapter 10 of the Uniform Plumbing Code is supplemented with the following:

((~~**Parking Garage Drainage Systems (UPC 1018.1).** All garage floor drainage under the roof of a parking garage shall be connected to the sanitary drainage system, through the use of a sand interceptor. When the top floor of the building is used as a roof as well as a parking area, the drainage from the roof shall be connected to the storm drainage system. Drainage from plumbing fixtures shall not be inter-connected with the garage drainage system; however, drainage lines from car or truck washing equipment may be connected to the approved garage drainage system. Garage drains shall comply with the following:~~

~~1. Garage drain piping shall be a minimum of three inches in size.~~

~~2. A trap shall not be installed at the garage drains. All plans for parking garage drainage systems shall be submitted to the authority having jurisdiction before installation for approval.~~

~~**EXCEPTION:** This section shall not apply to one family or two family dwellings.~~))

Parking Garage Drainage Systems. Parking garage drainage systems shall comply with sections A and B as follows. All plans for parking garage floor drainage systems shall be submitted to the authority having jurisdiction and approved prior to installation.

A. Parking Garage Drains. Drains connected to the parking garage drainage system shall comply with the following:

1. Unless otherwise approved by the authority having jurisdiction, drains serving parking or loading dock areas exposed to precipitation and larger than 200 square feet (18.6 square meters) shall be connected to the building storm drainage system. All

other parking garage and/or loading dock drainage shall be connected to the sanitary drainage system using a sand interceptor or oil/water separator.

2. Parking garage drain outlets and connected drainage waste lines shall be a minimum of 3 inches (76 millimeters) in diameter. Drainage piping serving parking garage drains shall be sized in accordance with Table 703.2.

3. Drains of any type connected to the parking garage drainage system shall be equipped with approved strainers and need not be trapped or vented when connected to the building drain though a properly trapped and vented sand interceptor or oil/water separator. Drains at floor level and subject to vehicular traffic shall be equipped with strainers with a load rating appropriate to the use of the parking area served.

4. Traps shall not be used when drains are located in areas exposed to freezing temperatures.

5. The waste line from drains entering a sand interceptor or oil/water separator shall be at an elevation equal to or above the waste line discharging from the sand interceptor or oil/water separator.

6. The sand interceptor or oil/water separator receiving the discharge from parking garage floor drains shall have a water seal of not less than 6 inches (152 millimeters). Sand interceptors shall meet the requirements of Section 1016.0. Oil/water separators shall meet the requirements of Section 1009.0. Submittal information shall be provided to the authority having jurisdiction prior to installation. The water seal of the sand interceptor or oil/water separator shall be maintained by an automatic electronic trap primer discharging not less than 1/2 gallon (2 liters) per day.

B. Drainage from Other Plumbing Fixtures. Drainage from any plumbing fixture other than a parking garage floor drain shall not be interconnected with the parking garage drainage system.

EXCEPTION: Where first approved by the authority having jurisdiction, the following types of drains may be connected to the parking garage drainage system upstream of the sand interceptor or oil/water separator and need not be individually trapped or vented, provided that all drainage piping downstream of such drains, including the sand interceptor or oil/water separator, is sized to accommodate the largest flow of effluent anticipated from any single connected drain under worst case or emergency conditions:

1. Drains within car or truck washing area and drainage lines from car or truck washing equipment.

2. Approved indirect receptors located within the parking garage and accepting drainage from fire/sprinkler standpipes, fire water storage tanks, mechanical condensate, relief valves, or other similar clear water waste only.

3. Approved indirect receptors located within the parking garage and accepting drainage from hoistway pumps or drains required by ASME A17.1, provided the discharge from the sand interceptor or oil/water separator connects to the building drain by gravity and not to a sanitary lift station.

4. Where the sand interceptor or oil/water separator discharges to a sanitary lift station, an approved indirect receptor located within the parking garage and accepting drainage from a pump serving a hoistway containing a fire service access or occupant evacuation operation elevator that is required to be on emergency or standby power per

the IBC as adopted by the state of Washington Section 403.4.8.4 or 403.4.8.3 may only be connected to the parking garage drainage system when the floor of the hoistway enclosure is protected from water intrusion in accordance with the IBC as adopted by the state of Washington Section 3007.3. Sanitary lift station pumps shall not be connected to emergency power.

5. Floor drains and indirect receptors within mechanical rooms, water entry rooms, fire pump rooms, and similar spaces where no graywater or blackwater producing fixtures are located, provided such rooms have a door or doors that open directly into the parking garage and are directly and continuously exhausted by mechanical means or provided with permanent fixed openings into the parking garage.

Note: For the purposes of this section, a mop sink, utility sink, or similar fixture shall not be considered an approved indirect receptor.

NEW SECTION. SECTION 187. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 1101.12.2.2.2 of the Uniform Plumbing Code is not adopted and the following is substituted:

Combined system. The secondary roof drains shall connect to the vertical piping of the primary storm drainage conductor downstream of the last horizontal offset located below the roof. The primary storm drainage system shall connect to the building storm water that connects to an underground public storm sewer. The combined secondary and primary roof drain systems shall be sized in accordance with UPC 1103.0 based on double the rainfall rate for the local area. A relief drain shall be connected to the combined vertical drainage piping, within 20 feet (6,096 millimeters) of grade, using a

wye-type fitting piped to daylight on the exterior of the building. The piping shall be sized as required for a secondary drain with a 4 inch (102 millimeter) maximum diameter.

SECTION 188. Ordinance 1488 (part), as amended, and K.C.C. 16.82.130 are each hereby amended to read as follows:

A. If clearing or grading has occurred on any site that is inconsistent with the purposes and requirements of this chapter in effect at the time of the ((~~action has occurred on a site~~)) clearing or grading, the department shall not accept or grant any other development permit or approval for the site, except any permit or approval necessary ((~~for the correction of~~)) to correct code violations or as may be determined otherwise by the director, until the applicant:

1. Completes site restoration ((~~of the site~~)) or the ((~~appropriate~~)) corrective actions to bring the site into compliance; or

2. Obtains department approval of a permit for the ((~~appropriate~~)) site restoration or corrective action and posts any required financial guarantee.

B. The department shall require ((~~appropriate~~)) site restoration ((~~of the site~~)) or corrective work under an approved ((~~restoration or corrective work~~)) plan that includes a time schedule for compliance. If restoration or corrective work has not been completed within the time established ((~~by the department~~)) in the plan, the director may order restoration or corrective work using ((~~funds from~~)) the department's contingency account((~~s~~)) funds and seek restitution from the property owner through liens or other available legal methods.

C. This section does not limit corrective action requirements or other remedies or penalties ((~~applicable to~~)) under K.C.C. Title 23.

SECTION 189. Ordinance 2097, Section 1, as amended, and K.C.C. 17.04.010 are each hereby amended to read as follows:

The International Fire Code ((~~2018 Edition~~)) 2021 edition, together with Appendices B (Fire-flow requirements for buildings) ((~~and~~)), C (Fire hydrants location and distribution), and D (Fire apparatus access roads) as published by the International Code Council, as amended in chapter 51-54A WAC, effective ((~~February 1, 2021~~)) March 15, 2024, and referred to in this title as the International Fire Code ("IFC"), together with amendments, additions, and deletions adopted in this chapter by reference, and together with King County modifications are adopted as the King County Fire Code, and referred to in this chapter as "this code." Administrative rules may be adopted in accordance with K.C.C. chapter 2.98 to further clarify and implement these code requirements. The King County modifications shall be codified in this chapter.

SECTION 190. Ordinance 12560, Section 148, as amended, and K.C.C. 17.04.200 are each hereby amended to read as follows:

Section 104.1 of the International Fire Code is not adopted and the following is substituted:

General (IFC 104.1). The fire marshal is authorized to render interpretations of this code and make and enforce such rules and regulations, in accordance with K.C.C. chapters 2.98 and 2.100, for the prevention and control of fires and fire hazards as necessary to execute the application and the intent of this code, including but not limited to:

((~~1~~)) A. Procedures to ensure that building permits for structures shall conform to the requirements of this code.

((~~2~~)) B. Procedures to ensure that applicable standards of this code shall be reviewed as part of the subdivision, short subdivision, rezone, conditional use, special use, site development permit, binding site plan, and building permit processes.

((~~3~~)) C. Procedures to ((~~assure~~)) ensure that the standard known as ((~~NFPA~~)) National Fire Protection Association 13R shall be applied as a minimum standard to all R occupancies.

((4)) D. Procedures to allow for relaxation of the hydrant spacing requirements by as much as 50 percent, except when such allowances would unreasonably reduce fire protection to the areas or structures served.

SECTION 191. Ordinance 2910, Section 6, as amended, and K.C.C. 17.04.210 are each hereby amended to read as follows:

Section 104.1 of the International Fire Code is supplemented with the following:

Enforcement (IFC 104.1.1).

((~~1~~)) A. The fire marshal is authorized to enforce the provisions of this title, the ordinances codified in it, and any adopted rules and regulations in accordance with the enforcement and penalty provisions of K.C.C. Title 23.

((~~2~~)) B. The fire marshal, any officer of the department of public safety, and the chief of the fire district or designee, is authorized to take such lawful action, including ((~~the writing and issuance of~~)) issuing citations for civil infractions, as may be required to enforce the provisions of the fire lane ordinance codified in this title.

SECTION 192. Ordinance 12560, Section 153, as amended, and K.C.C. 17.04.220 are each hereby amended to read as follows:

Section 104.1 of the International Fire ((~~e~~))Code is supplemented with the following:

Additional conditions (IFC 104.1.2). The fire marshal or designee retains the authority to impose additional conditions, including but not limited to increased setbacks, use of fire-retardant materials, installation of fire sprinkler systems, automatic fire suppression systems, automatic fire detection systems, or standpipes where determined necessary to mitigate identified fire protection impacts.

SECTION 193. Ordinance 12560, Section 149, as amended, and K.C.C. 17.04.280 are each hereby amended to read as follows:

Section 104 of the International Fire Code is supplemented with the following:

Notice to fire districts (IFC ((~~104.12~~)) 104.13).

A. Before submitting an application for a commercial building permit, site development permit, binding site plan, a preliminary subdivision or short subdivision approval, final plat or short plat approval, zoning reclassification, conditional use permit, and special use permit to the department:

1. ((~~t~~))The applicant shall submit a copy of the application to the fire district providing fire protection services to the proposed development;

2. For subdivisions and short subdivisions applied for and((~~/ or~~)) recorded before February 1, 1989, the first building permit applicant shall ((~~be submitted once~~)) submit a copy of the application to the ((~~applicable~~)) fire district providing fire protection

services to the development ((~~for review at the time of the first building permit by the applicant for that building permit~~));

3. ((~~i~~))It shall be the responsibility of the fire district to issue a receipt to the applicant the same day it receives a copy of a permit application. The receipt shall constitute proof ((~~to the director~~)) of ((~~the~~)) notification that the district has received a request to complete a fire district receipt;

4. ((~~t~~))The applicant shall include the fire district receipt with the permit application to the department;

5. ((~~i~~))It shall be the responsibility of the fire district to ((~~notify~~)) provide any comments to the fire marshal ((~~of any comments~~)) within seven days of ((~~the receipt of an applied for~~)) receiving a copy of the permit application.

NEW SECTION. SECTION 194. There is hereby added to K.C.C. chapter 17.04 a new section to read as follows:

Section 105.3.1 of the International Fire Code is not adopted and the following is substituted:

Expiration (IFC 105.3.1). Expiration of permits under Title 17 shall be in accordance with Section K.C.C. 16.02.290 Permits-Expiration.

SECTION 195. Ordinance 12560, Section 156, as amended, and K.C.C. 17.04.290 are each hereby amended to read as follows:

Section 105.3.6 of the International Fire Code is supplemented with the following:

Penalties (IFC 105.3.6.1). When installation of a fire protection system, ((~~which requires approval of~~)) requiring the ((~~F~~))fire ((~~M~~))marshal's approval, ((~~is started or~~

~~proceeded with prior to~~)) occurs before obtaining ((~~said~~)) approval, the ((~~ordinary~~)) fees specified in K.C.C. Title 27 shall be doubled. The payment of such double fee shall not relieve any persons from fully complying with ((~~the~~)) this code's requirements ((~~of this code~~)) in the execution of the work ((~~n~~))or from any other penalties prescribed herein.

NEW SECTION. SECTION 196. There is hereby added to K.C.C. chapter 17.04 a new section to read as follows:

Section 105.5.38 of the International Fire Code is not adopted and the following is substituted:

Outdoor assembly event (IFC 105.5.38). An operational permit is required to conduct an outdoor assembly event where planned attendance exceeds 50 persons.

SECTION 197. Ordinance 17837, Section 75, as amended, and K.C.C. 17.04.295 are each hereby amended to read as follows:

Section ((~~105.7.21~~)) 105.6.20 of the International Fire Code is not adopted and the following is substituted:

Solar photovoltaic power systems (IFC ((~~105.7.21~~)) 105.6.20). A construction permit ((~~shall be~~)) is required to install or modify solar photovoltaic power systems. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

EXCEPTION: Roof-mounted photovoltaic solar panels on one- and two-family dwellings that have a total dead load not exceeding ((f~~our~~)) 4 pounds per square foot (20 kilograms per square meter) and are mounted no more than ((~~eighteen~~)) 18 inches (457 millimeters) above the roof or highest roof point on which they are mounted.

NEW SECTION. SECTION 198. There is hereby added to K.C.C. chapter 17.04 a new section to read as follows:

Section 105.6.21 of the International Fire Code is not adopted and the following is substituted:

Special event structure and assembly area (IFC 105.6.21). A single special event permit is required to erect and take down a temporary special event structure. An application for a special event structure or special event shall be made at least 30 days before the event: Applications submitted less than 30 business days before the event may be accepted if the department finds that there is adequate time to properly process the request. All applications may require further review by the following:

A. King County permitting division;

B. King County roads division;

C. King County sheriff's office;

D. public health - Seattle & King County; or

E. Washington state Department of Labor and Industries.

SECTION 199. Ordinance 14915, Section 25, as amended, and K.C.C. 17.04.310 are each hereby amended to read as follows:

Section ((~~s 109~~)) 111 of the International Fire Code is not adopted.

SECTION 200. Ordinance 14915, Section 26, and K.C.C. 17.04.320 are each hereby amended to read as follows:

Sections ((~~112.1 and 112.2~~)) 113.1 and 113.2 of the International Fire Code are not adopted and the following is substituted:

((~~Order and Issuance (IFC 112.1 and 112.2~~))) **Authority (IFC 113.1).**

((~~Whenever~~)) Where any work is being done contrary to the provisions of this code, the fire marshal may order the work stopped in accordance with K.C.C. Title 23 ((~~ by notice in writing served on any persons engaged in the doing or causing such work to be done, or by posting such notice in a conspicuous place on the premises where the violation is occurring, and any such persons shall immediately stop such work until authorized by the fire marshal to proceed with the work~~)).

((~~Whenever~~)) Where any work is being done contrary to the provisions of this code, the fire marshal may order the violations corrected without ordering all work stopped by issuing a correction notice which identifies the violation. The correction notice may require reinspection before ((~~further construction~~)) work can resume or at the time of the next required inspection. The correction notice shall be served or posted in the same manner as a stop work order.

These remedies are in addition to those authorized elsewhere in the code.

SECTION 201. Ordinance 19485, Section 166, as amended, and K.C.C. 17.04.330 are each hereby amended to read as follows:

Stop Work Order – Failure to Comply. Section ((~~112.4~~)) 113.4 of the International Fire Code is not adopted ((~~.~~)) and the following is substituted:

Failure to comply (IFC 113.4). The enforcement of a stop work order violation shall be in accordance with K.C.C. Title 23.

SECTION 202. Ordinance 19485, Section 178, and K.C.C. 17.04.341 are each hereby amended to read as follows:

Section 202 of the International Fire Code is supplemented with the following:

Definitions (IFC 202.1). Definitions. The definitions in this section apply throughout this title unless the context clearly requires otherwise.

A. Applicant: a property owner or a public agency or public or private utility which owns a right-of-way or associated easement or has been adjudicated the right to such an easement pursuant to RCW 8.12.090, or any person or entity designated or named in writing by the property or easement owner to be the applicant, in an application for a permit.

B. ((~~Critical fire service areas: Areas that provide vital services for the coordination or implementation of fire suppression services, such as fire command centers, fire pump rooms, interior exit stairways, exit passageways, elevator lobbies, standpipe cabinets and sprinkler sectional valve locations, and other areas required by the fire marshal.~~

~~C.~~)) Automatic ((~~F~~))fire detection system: a heat and/or smoke detection system monitored by a central and/or remote station conforming to the current edition of the International Fire Code as adopted by the Washington State Building Code Council ((~~and/~~)) or the fire marshal or designee.

((~~D.~~)) C. Fire marshal: ((~~T~~))the King County fire marshal as designated in K.C.C. 2.16.055, or designee.

((~~E~~)) D. Life safety/rescue access: an unobstructed access to all floor levels and each roof level of a building on not less than ((~~twenty~~)) 20 percent of the building perimeter by utilizing a ((~~thirty-five~~)) 35 foot (10,668 millimeter) ladder. An alternate method would be at least one stairway enclosure with exit doorways from each floor level

and with a door opening onto each roof level which conforms to the requirements of the International Building Code.

((~~F.~~)) E. NFPA: ((~~T~~))the National Fire Protection Association.

((~~G.~~)) F. Water main: piping used to deliver water to any fire hydrants or to one or more individual service connections.

NEW SECTION. SECTION 203. There is hereby added to K.C.C. chapter 17.04 a new section to read as follows:

Section 322.4 of the International Fire Code is supplemented with the following:

Lithium Batteries – Signage (IFC 322.4.4). The following signs or equivalent markings shall be durably posted at the locations indicated for each lithium-ion and lithium metal battery installation subject to IFC 322.2:

A. Warning signs. The following warning signs shall be posted on the exterior of battery system enclosures:

1. "Danger: High Voltage," or equivalent complying with Electrical Code requirements; and

2. Hazard identification sign complying with NFPA Standard 704.

B. Identification, emergency contact, and emergency shut-down signs. The following signs shall be posted at the fire department connection, if any, utility connection or other approved, conspicuous outdoor location on the premises that is accessible to emergency response personnel and that is a reasonable distance, but not less than 10 feet (3,048 millimeters), from the stationary storage battery system installation. If the location of the signage would not be readily apparent to emergency response personnel, a sign with lettering not less than 3 inches (76 millimeters) high shall be

posted on or adjacent to the battery installation indicating the location of the following signage:

1. Permit. The permit for the installation, laminated, or weatherproofed.

2. Equipment specifications. The manufacturer and model number of the battery system and electrical rating, including voltage and current.

3. Monitoring facility contact information. The telephone number of the battery management system remote monitoring facility, if any.

4. Installation identification. The number or other unique identifier used by the battery management system remote monitoring facility, if any, to identify the installation.

5. Emergency shutdown procedures. Emergency shutdown procedures for the battery energy storage system posted at the battery system emergency shut down control and at any attended on-site location. Emergency shutdown instructions should indicate "GRID SUPPORT SYSTEM" in letters not less than 2 inches (51 millimeters) high if immediate shut down of the battery system could disrupt public utility operations.

SECTION 204. Ordinance 19485, Section 169, and K.C.C. 17.04.375 are each hereby amended to read as follows:

Section 503.2 of the International Fire Code is not adopted and the following is substituted:

Specifications (IFC 503.2). Fire apparatus access roads shall be installed and arranged in accordance with IFC 503.2.1 ((~~and~~)) IFC ((~~503.2.2~~)) through 503.2.7, and K.C.C. chapter 17.09.

SECTION 205. Ordinance 19485, Section 170, and K.C.C. 17.04.377 are each hereby amended to read as follows:

Section 503.2 of the International Fire Code is not adopted and the following is substituted:

Dimensions (IFC 503.2.1). An approved fire apparatus access road shall be a minimum of 20 feet (6,096 millimeters) wide and provide a minimum unobstructed height of ((~~13 feet 6 inches~~)) 13.5 feet (4,115 millimeters).

SECTION 206. Ordinance 12560, Section 165, and K.C.C. 17.04.380 are each hereby amended to read as follows:

Section 503.2.3 of the International Fire Code is not adopted and the following is substituted:

Surface (IFC 503.2.3). Fire apparatus access roads shall be designed and maintained to be accessible with an asphalt, concrete, or other approved driving surface suitable for all-weather driving and capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds (34,019 kilograms), or other weight as required by the fire marshal, and shall comply with K.C.C. chapter 14.42 and the provisions of this chapter.

SECTION 207. Ordinance 12560, Section 166, as amended, and K.C.C. 17.04.390 are each hereby amended to read as follows:

Section 503.2.4 of the International Fire Code is not adopted and the following is substituted:

Turning radius (IFC 503.2.4). The turning radius of a fire apparatus access road shall have a 20 foot (6,096 millimeters) inside and 40 foot (12,192 millimeters) outside turning radius((~~, or shall be~~)) or as otherwise approved by the ((~~F~~))fire ((~~M~~))marshal.

SECTION 208. Ordinance 14915, Section 45, as amended, and K.C.C. 17.04.400 are each hereby amended to read as follows:

Section 503.2.5 of the International Fire Code is not adopted and the following is substituted:

Dead ends (IFC 503.2.5). Dead-end fire apparatus access roads in excess of 150 feet (((~~45.72 m~~))) (45,720 millimeters) in length shall be provided with an approved cul-de-sac having a 40 foot (12,192 millimeters) outside turning radius, or a "hammerhead-like" turnaround designed as described in King County Administrative Rule for Chapter 17-04 or other designs approved by the ((~~F~~))fire ((~~M~~))marshal.

SECTION 209. Ordinance 7980, Section 1, as amended, and K.C.C. 17.04.420 are each hereby amended to read as follows:

Sections 503.3 and 503.4 of the International Fire Code ((~~is~~)) are not adopted and the following is substituted:

Marking, establishment, and obstruction of fire ((~~lanes~~)) apparatus access roads (IFC 503.3 and 503.4).

((~~1.~~)) A. Establishment of fire ((~~lanes~~)) apparatus access roads. Fire ((~~lanes~~)) apparatus access roads in conformance with this code shall be established by the fire marshal, and shall be referred to as "designated fire lanes" in this section.

((~~2.~~)) B. Definition of fire lanes. ((~~The area within any public right-of-way, easement or on private property designated for the purpose of allowing fire trucks and other firefighting or emergency equipment to use, travel upon and park~~)) A road or other passageway developed to allow the passage of fire apparatus. A fire lane is not necessarily intended for vehicular traffic other than fire apparatus.

((~~3.~~)) C. Marking of fire lanes. All designated fire lanes shall be clearly marked as follows:

((~~3.~~))1. Vertical curbs shall be painted red on the top and side, extending the length of the designated fire lane. The pavement adjacent to the painted curbs shall be marked with minimum 18 inch (457 millimeters) in height block lettering with a minimum 3((-)) inch (76 millimeters) brush stroke reading: "NO PARKING - FIRE LANE." Lettering shall be white and spaced at 50 foot (15,240 millimeters) intervals or portion thereof ((~~intervals~~));

((~~3.~~))2. Rolled curbs or surface without curbs shall have a red 6((-)) inch-wide (152 millimeters) stripe painted extending the length of the designated fire lane. The surface adjacent to the stripe shall be marked with minimum 18 inch (457 millimeters) in height block lettering with a minimum 3((-)) inch (76 millimeters) brush stroke reading: "NO PARKING - FIRE LANE." Lettering shall be in white and spaced at 50 ((~~ft.~~)) feet (15,240 millimeters) intervals or portion thereof ((~~intervals~~)); or

((~~3.~~))3. Fire lane signs shall be installed as follows:

a. Signs shall be a type "R8-31" reflective sign or of an equivalent reflectivity.

b. Red letters on white background with the wording: "NO PARKING - FIRE LANE".

c. Signs shall be no less than 12 inches (305 millimeters) by 18 inches (457 millimeters) in size and shall be placed at a maximum center-to-center spacing of 150 feet (45.7 meters) on both sides of the fire lane, or an additional sign may be ((~~put~~)) placed beneath the fire lane sign lettered as: "BOTH SIDES".

d. Signs shall be posted at a minimum height of 7 feet (2,134 millimeters) measured from the road or sidewalk to the bottom of the sign, unless required otherwise by this section.

e. Signs may be placed on a fence or building when approved by the fire marshal. When signs are wall or fence mounted, they shall be posted at a minimum height of 5 feet (1,524 millimeters) measured from the road or sidewalk to the top of the sign.

f. When posts are required, they shall meet current road standards in K.C.C. chapter 14.42. Signs shall be placed so they face the direction of the vehicular travel.

g. Sign numbers and spacing may be modified by the King County fire marshal.

((~~4.~~)) D. Obstruction of Fire Lanes Prohibited. Unless required otherwise by this chapter, the obstruction of a designated fire lane by a parked vehicle or any other object is prohibited, shall constitute a traffic hazard as defined in state law and an immediate hazard to life and property.

((~~5.~~)) E. Alternate materials and methods. The fire marshal may modify any of the provisions of this section where practical difficulties exist. ((~~The particulars of a~~)) Any modifications ((~~that are~~)) approved by the fire marshal shall be entered into the final records for the project permit.

((~~6.~~)) F. Existing fire lane signs and markings.

((~~6.1.~~)) 1. Signs that are a minimum 9 inches by 16 inches (229 millimeters by 406 millimeters) may be allowed to remain until there is a need for replacement and at that time a 12 inch (305 millimeters) by 18 inch (457 millimeters) sign shall be installed.

((~~6.2.~~)) 2. Markings may be allowed to remain until there is a need for repainting. When markings are repainted, they shall comply with subsection ((~~3.~~)) C. of this section.

((~~7.~~)) G. Maintenance. Fire lane markings shall be maintained at the property owner's expense ((~~of the property owner~~)) as often as needed to clearly identify the ((~~designated~~)) area as ((~~being~~)) a designated fire lane.

((~~8.~~)) H. Towing notification. At each entrance to property ((~~where~~)) with designated fire lanes ((~~have been designated~~)), signs shall be posted in a clearly conspicuous location and shall clearly state that vehicles parked in fire lanes may be impounded, and the name, telephone number, and address of the towing firm where the vehicle may be collected.

((~~9.~~)) I. Property owner responsible. The owner, manager, or person in charge of any property upon which designated fire lanes have been established shall prevent the parking of vehicles or placement of other obstructions in such fire lanes.

((~~10.~~)) J. Violation - Civil infraction. Any person who fails to mark or maintain the marking of a designated fire lane as prescribed in this chapter, or who parks a vehicle in, allows the parking of a vehicle in, obstructs, or allows the obstruction of a designated fire lane commits a civil infraction to which the provisions of chapter 7.80 RCW shall apply. The penalty for failing to mark or maintain the marking of a designated fire lane shall be one hundred and fifty dollars. The penalty for parking a vehicle in, allowing the parking of a vehicle in, obstructing, or allowing the obstruction of a designated fire lane shall be fifty dollars.

((~~11.~~)) K. Violation - Civil penalty. In addition to, or as an alternative to, the provisions of subsection ((~~10.~~)) J. of this section, any person who fails to meet the provisions of the fire lane requirements codified in this title ((~~shall~~)) may be subject to civil penalties ((~~in conformance with~~)) under K.C.C. Title 23.

((~~12.~~)) L. Impoundment. Any vehicle or object obstructing a designated fire lane is hereby declared a traffic hazard and may be abated without prior notification to its owner by impoundment in accordance with the applicable state law.

SECTION 210. Ordinance 19485, Section 173, and K.C.C. 17.04.425 are each hereby amended to read as follows:

Section 503.6 of the International Fire Code is not adopted and the following is substituted.

Security gates, bollards, or other obstructions (IFC 503.6).

((~~1.~~)) A. The installation of security gates, bollards, or other obstructions across a fire apparatus access road shall not be allowed unless approved by the fire marshal. The use of directional-limiting devices, such as tire spikes, is prohibited. Where security gates, bollards, or other obstructions are installed, they shall have an approved means of emergency operation. The security gates, bollards, or other obstructions and the emergency operation shall be maintained so that they are operational at all times.

((~~2.~~)) B. Electric gate operators, where provided, shall be listed in accordance with Underwriter Laboratories (UL) 325. Gates intended for automatic operation shall be designed, constructed, and installed to comply with the requirements of American Society for Testing and Materials (ASTM) F 2200 and shall be equipped with equipment

approved by the fire marshal that allows for operation of the gate by fire and police personnel from their vehicle.

((~~3.~~)) C. Gates shall be at a minimum as wide as the required fire apparatus access road width. Gates, bollards, or other obstructions on commercial properties shall be set back at least 30 feet (9,144 millimeters) from roadway edge of pavement. Where a fence is provided on each side of a gate for a commercial property, an access door shall be provided at an approved location with a secure key box that is approved by the fire marshal.

EXCEPTION: Automated gates with equipment approved by the fire marshal that allow for operation of the gate by fire and police personnel from their vehicle are not required to be set back 30 feet (9,144 millimeters) from the roadway edge of pavement if the roadway is not a principal or collector arterial or a road with lane markers.

SECTION 211. Ordinance 19485, Section 175, as amended, and K.C.C. 17.04.447 are each hereby amended to read as follows:

Section 504 of the International Fire Code is supplemented with the following:

Buildings with enclosed interior courtyards (IFC 504.5). New buildings with enclosed interior courtyards shall have a straight, direct access corridor or stairway or both from the exterior to the courtyard at a location acceptable to the fire marshal. Stairways shall comply with IFC 1011 and corridors shall comply with IFC 1020. The access shall have a minimum width of 4 feet (1,219 millimeters), or an alternative width as ((~~directed~~)) approved by the fire marshal((~~,~~)) and be large enough to carry a 35-foot-long (10,668-millimeter-long) sectional ladder, with a minimum folded length of 20 feet

(6,096 millimeters), directly from the exterior to the courtyard without obstructions. The access door shall be marked at the road as "Direct access to courtyard."

SECTION 212. Ordinance 19485, Section 178, and K.C.C. 17.04.462 are each hereby amended to read as follows:

Section 510.1 of the International Fire Code is not adopted and the following is substituted:

Emergency responder ((~~radio~~)) communication coverage in new buildings (IFC 510.1). ((~~New buildings meeting the conditions of this section shall have an approved radio coverage system for emergency responders installed in accordance with IFC 510.4 through 510.5.5 and NFPA 1221. Radio coverage is based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This section shall not require improvements of the existing public safety communication system.~~)) Approved in-building, emergency responder communications enhancement system (ERCES) for emergency responders shall be provided in new buildings, as defined by this section. In-building ERCES within the building shall be based on the existing coverage levels of the public safety communication systems utilized by the jurisdiction, measured at the exterior of the building. Where required, the two-way emergency responder communications coverage system, shall be of a type determined by the fire code official and the frequency license holder(s). This section shall not require improvement of the existing public safety communication systems. An approved ((~~radio coverage~~)) communication enhancement system shall be provided within new buildings meeting any of the following conditions:

((~~1.~~)) A. High-rise buildings;

((~~2. The~~)) B. Buildings with total building area ((~~is~~)) of 50,000 square feet (4,645.2 square meters) or more;

((~~3. The~~)) C. Buildings with total basement area ((~~is~~)) of 10,000 square feet (929 square meters) or more;

((~~4. There are~~)) D. Buildings with floors used for human occupancy more than 30 feet (9,144 millimeters) below the finished floor of the lowest level of exit discharge; or

((~~5.~~)) E. Buildings or structures where the fire marshal determines, in consultation with the fire chief, that in-building radio coverage is critical because of its unique design, location, use, or occupancy.

EXCEPTIONS:

1. Buildings and areas of buildings that have minimum radio coverage signal strength levels of the public safety radio operator within the building in accordance with IFC 510.4.1 without the use of a radio coverage system.

2. In facilities where emergency responder radio coverage is required and such systems, components or equipment required could have a negative impact on the normal operations of that facility, the fire marshal shall have the authority to accept an automatically activated emergency responder radio coverage system.

3. One- and two-family dwellings and townhouses.

4. Where ((~~it is determined by~~)) the fire marshal determines that the radio coverage system is not needed.

5. Where approved by the building official and the fire marshal, a wired communication system in accordance with Section 907.2.13.2 IFC shall be permitted to be installed or maintained instead of an approved communication coverage system.

SECTION 213. Ordinance 19485, Section 180, and K.C.C. 17.04.467 are each hereby amended to read as follows:

Section 510.4.1.2 of the International Fire Code is not adopted and the following is substituted:

Minimum signal strength out of the building (IFC 510.4.1.2). The minimum outbound signal strength shall be sufficient to provide usable voice communications throughout the coverage area as specified by the fire marshal. The outbound signal level shall be sufficient to provide not less than a DAQ of 3((.4)) or an equivalent SINR applicable to the technology for either analog or digital signals. A minimum signal strength of -100 dBm shall be received by the public safety radio operator when transmitted from within the building.

SECTION 214. Ordinance 19485, Section 184, and K.C.C. 17.04.476 are each hereby amended to read as follows:

Section ((~~510.5.1~~)) 510.5.2 of the International Fire Code is not adopted and the following is substituted:

Approval prior to installation (IFC ((~~510.5.1~~)) 510.5.2). Amplification systems capable of operating on frequencies licensed to any public safety agency by the FCC or other radio licensing authority shall not be activated to rebroadcast without prior coordination and approval of the fire marshal and public safety radio system operator.

SECTION 215. Ordinance 19485, Section 192, and K.C.C. 17.04.489 are each hereby amended to read as follows:

Section 901.1 of the International Fire Code is not adopted and the following is substituted:

Scope (IFC 901.1). This chapter specifies where fire protection and life safety systems are required and applies to the design, installation, inspection, operation, testing, and maintenance of fire protection systems.

((~~1. ADDITIONAL REQUIREMENTS.~~)) A. Additional requirements:

((~~1.~~))1. The fire marshal retains the authority under the IFC to impose additional conditions, including but not limited to increased setbacks, use of fire-retardant materials, or standpipes where determined necessary to mitigate identified fire protection impacts.

((~~1.~~))2. This chapter applies to all buildings or structures undergoing a substantial improvement as defined in K.C.C. chapter 21A.06.

((~~1.~~))3. Any additions to an existing building or structure shall be considered new construction and subject the entire structure to the provisions of this chapter.

((~~1.~~))4. All condominiums shall have the following wording in the recorded Declaration of Covenants and a copy of the document shall be provided to the fire marshal:

((~~1.4.1.~~)) a. If any unit is equipped with a sprinkler system, nothing shall be hung from the sprinklers comprising a part of the system nor shall any such sprinklers be painted, covered, or otherwise changed, tampered with, or altered ((~~-~~)) ; and

((~~1.4.2.~~)) b. Before any alteration, amendment, modification, or change ((~~thereof~~)) to any part of the sprinkler system, the owners or their agents shall submit

such alteration, amendment, modification, or change to the fire marshal for approval and agree to comply with all applicable sprinkler requirements.

SECTION 216. Ordinance 12560, Section 171, and K.C.C. 17.04.520 are each hereby amended to read as follows:

Section 903.1 of the International Fire Code is not adopted and the following is substituted:

General (IFC 903.1).

((~~1.~~)) A. An automatic fire ((~~-extinguishing~~)) sprinkler system shall be installed in the occupancies and locations in accordance with IFC ((~~903.2~~)) 904.

For provisions on special hazards and hazardous materials, see IFC 901.4.4.

((~~2.~~)) B. The provisions of this section shall apply to all buildings undergoing a substantial improvement as defined in K.C.C. chapter 21A.06.

((~~3.~~)) C. Any additions to an existing structure shall be considered new construction and subject the entire structure to the provisions of this section.

EXCEPTION: A one-time exemption for buildings regulated by the International Residential Code (IRC) shall be allowed for a single addition not to exceed 500 square feet (46.5 square meters), unless sprinklers or other fire protection systems are required by other statutes.

((~~4. All condominiums shall have the following wording in the recorded Declaration of Covenants and a copy of the document shall be provided to the fire marshal:~~

~~4.1. If any unit is equipped with a sprinkler system, nothing shall be hung from the sprinklers comprising a part of the system nor shall any such sprinklers be painted, covered or otherwise changed, tampered with or altered.~~

~~4.2. Before any alteration, amendment, modification or change thereof, the owners or their agents shall submit such alteration, amendment, modification or change to the fire marshal for approval and agrees to comply with all applicable sprinkler requirements.~~))

SECTION 217. Ordinance 12560, Section 174, as amended, and K.C.C. 17.04.560 are each hereby amended to read as follows:

Section 903.2.11 of the International Fire Code is supplemented with the following:

Habitable space of structures built under the IRC (IFC 903.2.11.8). An automatic sprinkler system shall be installed in the habitable space of structures built under the ((~~International Residential Code (~~))IRC((~~)~~)) when:

((~~1.~~)) A. There is no approved fire access as defined in K.C.C. Title 14 and IFC 503; or

((~~2.~~)) B. The structure has a total floor area, including basements, that exceed 10,000 square feet (929 square meters); or((~~:~~))

((~~3.~~)) C. There is not:

((~~3.~~))1. A minimum fire flow of 1,000 gallons per minute (63.1 liters per second) as defined in IFC Appendix B; or

((~~3.~~))2. A fire hydrant within ((~~400 feet or~~)) 600 feet (182,880 millimeters) of the property line for R-3 and U occupancies, and 400 feet (121,920 millimeters) for all other occupancies, ((~~of the property line~~)) as outlined in IFC 507.5.1.

((~~**EXCEPTIONS:** Structures are located on lots that:~~

~~1. Are sized 35,000 square feet or larger;~~

~~2. Are outside the Urban Growth Area; and~~

~~3. Have a residential use as the primary land use.~~))

SECTION 218. Ordinance 19485, Section 196, as amended, and K.C.C. 17.04.563 are each hereby amended to read as follows:

Section 903.2 of the International Fire Code is supplemented with the following:

Specific buildings areas and hazards – Buildings exceeding 10,000 square feet (929 square meters) (IFC 903.2.13). An automatic sprinkler system, installed in accordance with IFC 903.2, 901.4.3, and 901.4.4 shall be provided throughout all buildings where the total floor area, including basements, exceeds 10,000 square feet (929 square meters). For the purposes of this section, portions of buildings separated by one or more fire walls shall not be considered a separate building.

Existing buildings shall comply with this section when an addition is made to the building and the new total floor area, including basements, exceeds 10,000 square feet (929 square meters), or an existing building exceeding 10,000 square feet (929 square meters) is substantially improved as defined in K.C.C. chapter 21A.06.

SECTION 219. Ordinance 19485, Section 7, and K.C.C. 17.04.572 are each hereby amended to read as follows:

Section 903.3.1 of the International Fire Code is not adopted and the following is substituted:

Installation requirements – standards (IFC 903.3.1). Sprinkler systems shall be designed and installed in accordance with IFC 903.3.1.1, unless otherwise permitted by IFC 903.3.1.2, 903.3.1.3, and other chapters of this code, as applicable. In addition, sprinkler systems shall be designed with a buffer to account for water system fluctuations to include a low reservoir condition. Such buffer shall be ((~~five~~)) 5 pounds per square inch (PSI) (34,474 kilopascals) for static pressures less than 50 PSI (344,738 kilopascals) and 10 PSI (68,948 kilopascals) for static pressures above 50 PSI (344,738 kilopascals). Permit applicants shall independently verify site specific static pressure at the following intervals:

1. Before initiating sprinkler system;
2. Before installing sprinkler piping, including the underground supply; and
3. Before requesting a cover inspection.

SECTION 220. Ordinance 19485, Section 198, as amended, and K.C.C. 17.04.574 are each hereby amended to read as follows:

Section 903.4.3 of the International Fire Code is not adopted and the following is substituted:

Floor control valves (IFC 903.4.3). Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor. The floor control valves shall be located within stair enclosures and within ((~~six~~)) 6 feet (1,829 millimeters) of floors or landings unless chains or other approved devices are readily available.

EXCEPTION: In buildings without stair enclosures, the location of the floor control valves shall be determined by the fire marshal.

SECTION 221. Ordinance 19485, Section 200, as amended, and K.C.C. 17.04.582 are each hereby amended to read as follows:

Section 905.3.1 of the International Fire Code is not adopted and the following is substituted:

Height (IFC 905.3.1). Class I standpipe systems shall be installed throughout buildings where any of the following conditions exist:

1. Four or more stories are above or below grade plane((.)) ;

2. The floor level of the highest story is located more than 30 feet (9,144 ((~~mm~~)) millimeters) above the lowest level of the fire apparatus access((.)) ; or

3. The floor level of the lowest story is located more than 30 feet (9,144 ((~~mm~~)) millimeters) below the highest level of fire apparatus access.

EXCEPTIONS:

1. Class II standpipes may be used for hose connections in open parking garages in accordance with IFC 905.5.

2. In determining the lowest level of fire apparatus access, the following does not apply:

2.1. Recessed loading docks for four vehicles or less.

2.2. Conditions where topography makes access from the fire apparatus to the building impractical or impossible.

SECTION 222. Ordinance 19485, Section 201, as amended, and K.C.C. 17.04.590 are each hereby amended to read as follows:

Section 912.2 of the International Fire Code is supplemented with the following:

Distance (IFC 912.2.3). Fire apparatus connections shall not be located on a building unless approved by the fire marshal, and shall be located within 50 feet (15,240 millimeters) of a required fire hydrant.

SECTION 223. Ordinance 5828, Section 4, as amended, and K.C.C. 17.08.030 are each hereby amended to read as follows:

A. The following permits and approvals are exempt from the fire flow and fire hydrant requirements of this title. These exemptions do not exempt any development from compliance with the requirements of state law.

1. ((~~Subdivisions and short subdivisions located outside the Urban Growth Area and that do not contain a lot less than thirty-five thousand square feet in size.~~

~~2. Building permits for buildings with one or two dwelling units located outside the Urban Growth Area, only if the lot is at least thirty-five thousand square feet in size.~~

~~3.~~)) Building permits for structures classified as Group U occupancies under the ((~~International Building Code~~)) IBC that conform to the definition of agricultural buildings in Appendix C of the ((~~International Building Code)~~)) IBC only if the structures are located outside the Urban Growth Area.

((~~4. Building permits for structures that are:~~

~~a. two-thousand-five hundred square feet in floor area, excluding garage or less;~~

~~b. served by a Group B water system; and~~

~~c. located outside the Urban Growth Area.~~

~~5. Building permits for structures that are more than two-thousand-five hundred square feet in floor area (excluding garages) and comply with subsection A.4.b. and c. of this section, shall be exempt if the fire marshal determines that the project will not create a substantial fire hazard.~~))

B. The fire marshal shall have the authority to impose conditions including, but not limited to, increased setbacks, use of fire-retardant materials, or sprinkler system requirements on permits exempt under subsection A. of this section where necessary to mitigate identified fire ((~~hazards~~)) protection impacts.

((~~C. Building permits and subdivisions and short subdivisions exempt under subsection A. of this section shall as a condition of approval, record a covenant running with the land which acknowledges the absence of fire hydrants and by which owners of the property and their successors are deemed to have agreed to participate in and not oppose or protest annexation to a public water district or the formation of a utility local improvement district for installation of water mains and fire hydrants consistent with applicable county standards. However, this condition shall not apply when the lot is five acres or larger, or the proposed subdivision, short subdivision or structure is located outside the Urban Growth Area.~~))

SECTION 224. Ordinance 5828, Section 10, as amended, and K.C.C. 17.08.090 are each hereby amended to read as follows:

A. The fire marshal shall have the authority to approve deviations from the standards established under this chapter when it is shown that:

1. Strict compliance would require unreasonable fire hydrant locations, fire flow requirements, or water main sizes; and

2. The variance would not unreasonably affect adequate fire protection to the area or structures served.

B. The fire marshal may approve variances, except as provided in subsection C. of this section for connections to single family residences served by an existing water system that have fire hydrants and fire flow of at least ((~~five hundred~~)) 500 gallons (1,893 liters) per minute if the variance would not unreasonably affect fire protection and only if the purveyor's approved comprehensive plan includes a method for increasing fire flow to current standards.

C. The fire marshal shall not approve any variance which would result in a violation of chapters 246-290 and 246-293 WAC without prior approval of the Washington state Department of Social and Health Services.

SECTION 225. Ordinance 3316, Section 4, as amended, and K.C.C. 17.08.100 are each hereby amended to read as follows:

A. Water authorities shall not be required to exercise police or regulatory powers ((~~toward the~~)) for enforcement of this chapter. The only role of water authorities shall be to provide information, such as:

1. The county may request the water authority ((~~may be requested by the county~~)) to indicate in writing its capability to provide water service, consistent with the standards contained in this chapter, to any building permit, subdivision, or short subdivision applicant, or to the county; and

2. The fire marshal may require the water authority ((~~may be required by the fire marshal~~)) to notify the fire department in writing when a water system installed pursuant to this chapter is available for use.

B. King County is solely responsible for ((E))enforcement ((~~responsibility, for~~)) and determining whether ((~~or not~~)) to approve a building permit, subdivision, or short subdivision application, based on information provided by the water authority((~~, shall belong solely to King County~~)).

SECTION 226. Ordinance 14915, Section 125, as amended, and K.C.C. 17.08.140 are each hereby amended to read as follows:

No more than ((~~sixty~~)) 60 feet (18,288 millimeters) of piping that connects the customer's plumbing system to the purveyor's water main or water meter shall be located in any public road right-of-way unless approved in accordance with K.C.C. chapter 14.28.

SECTION 227. Sections 228 through 233 of this ordinance should constitute a new chapter in K.C.C. Title 17 to follow K.C.C. chapter 17.08.

NEW SECTION. SECTION 228. There is hereby added to the new K.C.C. chapter established in section 227 a new section to read as follows:

Adoption of Appendix D of the 2021 IFC is to provide for additional measures concerning the minimum design criteria for fire apparatus access roads within unincorporated King County. The criteria within Appendix D are approved by the fire marshal and sections have been amended to align with current KCC Titles such as, section 17.04.390 Fire apparatus access roads – Specifications – Turning radius; section 17.04.400 Fire apparatus access roads – Specifications – Dead ends; section 17.04.410 Fire apparatus access roads – Specifications – Grade; section 17.04.420 Fire apparatus access roads – Marking establishment, and obstruction of fire apparatus access roads; 17.04.425 Fire apparatus access roads – Security gates, bollards, or other obstructions.

NEW SECTION. SECTION 229. There is hereby added to the new K.C.C. chapter established in section 227 a new section to read as follows:

Section D103.2 of the International Fire Code is not adopted and the following is substituted:

Grade (IFC D103.2). The gradient for a fire apparatus access road((~~s~~)) shall not exceed 15 percent at any point.

NEW SECTION. SECTION 230. There is hereby added to the new K.C.C. chapter established in section 227 a new section to read as follows:

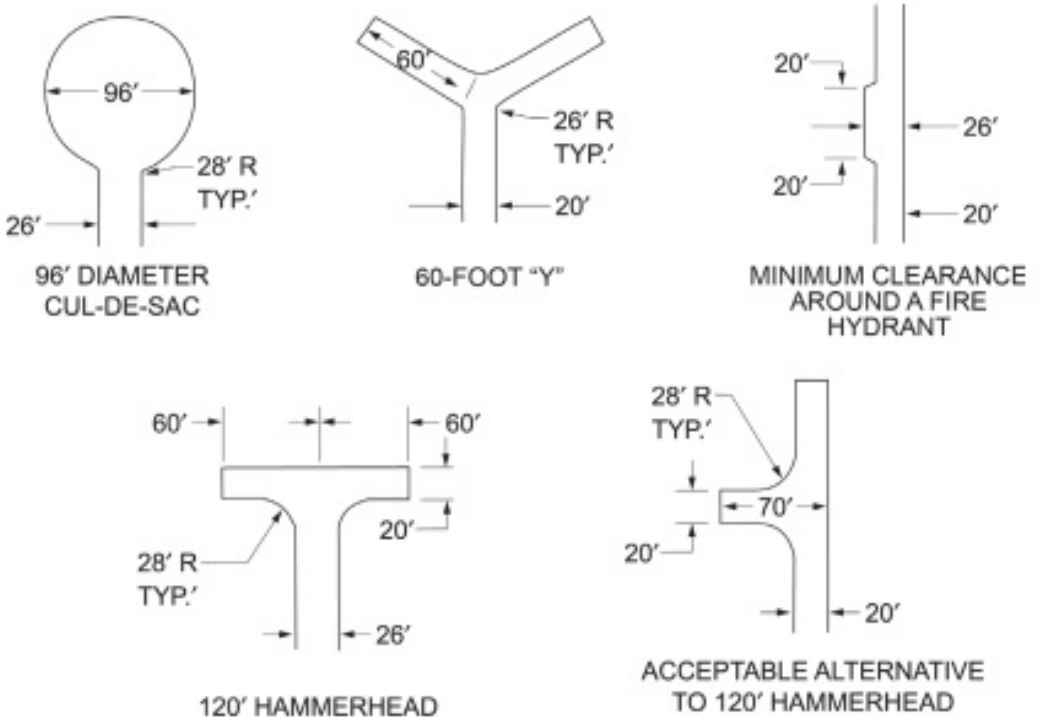
Section D103.3 of the International Fire Code is not adopted and the following is substituted:

Turning radius (IFC D103.3). The turning radius of a fire apparatus access road shall have a 20 foot (6,096 millimeters) inside and 40 foot (12,192 millimeters) outside turning radius or as otherwise approved by the fire marshal.

NEW SECTION. SECTION 231. There is hereby added to the new K.C.C. chapter established in section 227 a new section to read as follows:

Section D103.4 of the International Fire Code is not adopted and the following is substituted:

Dead ends (IFC D103.4). Dead-end fire apparatus access roads in excess of 150 feet (45,720 millimeters) in length shall be provided with an approved cul-de-sac having a 40 foot (12,192 millimeters) turning radius, or "hammerhead-like" turnaround designed as described in King County Administrative Rule for Chapter 17.04 or other designs approved by the fire marshal. See figure D103.4.1 for examples of approved designs.



For SI: 1 foot = 305 millimeters

D103.4.1 Examples of approved designs.

NEW SECTION. SECTION 232. There is hereby added to the new K.C.C. chapter established in section 227 a new section to read as follows:

Section D103.5 of the International Fire Code is not adopted and the following is substituted:

Fire apparatus access road gates (IFC D103.5).

A. The installation of security gates, bollards, or other obstructions across a fire apparatus access road shall not be allowed unless approved by the fire marshal. The use of directional-limiting devices, such as tire spikes, is prohibited. Where security gates, bollards, or other obstructions are installed, they shall have an approved means of

emergency operation. The security gates, bollards, or other obstructions and the emergency operation shall be maintained so that they are operational at all times.

B. Electric gate operators, where provided, shall be listed in accordance with Underwriter Laboratories (UL) 325. Gates intended for automatic operation shall be designed, constructed, and installed to comply with the requirements of American Society for Testing and Materials (ASTM) F 2200 and shall be equipped with equipment approved by the fire marshal that allows for operation of the gate by fire and police personnel from their vehicle.

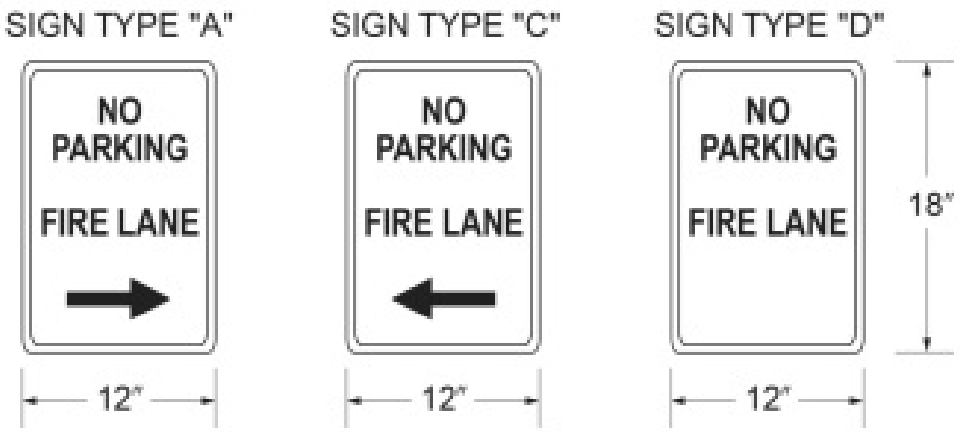
C. Gates shall be at a minimum as wide as the required fire apparatus access road width. Gates, bollards, or other obstructions on commercial properties shall be set back at least 30 feet (9,144 millimeters) from roadway edge of pavement. Where a fence is provided on each side of a gate for a commercial property, an access door shall be provided at an approved location with a secure key box that is approved by the fire marshal.

EXCEPTION: Automated gates with equipment approved by the fire marshal that allow for operation of the gate by fire and police personnel from their vehicle are not required to be set back 30 feet (9,144 millimeters) from the roadway edge of pavement if the roadway is not a principal or collector arterial or road with lane markers.

NEW SECTION. SECTION 233. There is hereby added to the new K.C.C. chapter established in section 227 a new section to read as follows:

Section D103.6 of the International Fire Code is not adopted and the following is substituted:

Signs (IFC D103.6). Signs shall comply with 17.04.420 Fire apparatus access roads – Marking, establishment, and obstruction of fire apparatus access roads. See figure D103.6.1 as examples of approved signage. Refer to section 503.3 for size requirements.



D103.6.1 Examples of approved designs.

SECTION 234. Ordinance 19276, Section 7, and K.C.C. 17.11.040 are each hereby amended to read as follows:

A. The retail sale of fireworks in unincorporated King County is prohibited.

B. The use, discharge, or display of fireworks in unincorporated King County is prohibited absent a permit issued by the county pursuant to RCW 70.77.260(2) and this section.

C. Any person ((~~desiring~~)) seeking to ((~~give~~)) provide a public display of fireworks shall submit to the fire marshal a((~~n~~)) permit application ((~~for a permit to operate~~)) for the public display. This is in addition to any permits required by Section 105 of the International Fire Code for pyrotechnic special effects material and use of hazardous materials. Public displays of fireworks shall not be permitted more than two

days per calendar year on any site as defined in K.C.C. 21A.06.1170.

D. A complete permit application for a public display of fireworks shall be made at least twenty days ((~~in advance of~~)) before the date set for the public display. ((~~Applications received after that date~~)) Untimely or incomplete applications shall be denied.

E. The fee for the permit shall be as established in K.C.C. Title 27. The permit required by this section shall be in addition to any license required by the state fire marshal under chapter 70.77 RCW. Permits for displays of fireworks for religious purposes shall not be subject to a fee, in accordance with RCW 70.77.311(2).

F.1. For any scheduled public display, applicants shall submit such information as ((~~deemed appropriate~~)) required by the department of local services and the sheriff's office to ensure that adequate traffic control and crowd protection ((~~policing~~)) services has either been arranged through private security agencies or ((~~has been~~)) contracted for with the sheriff.

2. A written notice that the applicant has complied with this requirement shall be issued by the sheriff to the fire marshal before a public display permit is issued.

3. If the applicant contracts for traffic control and crowd protection ((~~policing~~)) services with King County, the ((~~sum~~)) agreed upon ((~~in~~)) payment ((~~for the policing~~)) shall not be less than the actual expense incurred by the county in providing that service. The compensation for a traffic control contract ((~~for traffic control~~)) and crowd protection ((~~policing~~)) services with King County shall be calculated ((~~for~~)) as personnel resources ((~~in~~)) by the hourly rate for overtime under the current collective bargaining agreement, plus the percentage being paid for fringe benefits, and all sums paid under the contract

shall be paid in accordance with procedures specified by the county treasurer.

G. Every public display of fireworks shall be conducted with a pyrotechnic operator licensed by the state of Washington under RCW 70.77.255 supervising the handling and discharge of the fireworks.

H. A bond or certificate of insurance must be furnished to the department of local services before a permit is issued. The bond shall be in the amount of one million dollars and shall be conditioned upon the applicant's payment of all damages to persons and property resulting from or caused by the public display of fireworks, or by any negligence on the part of the applicant or its agents, servants, employees, or subcontractors in the ((~~presentation of the~~)) public display of fireworks. The certificate of insurance shall evidence a comprehensive general liability insurance policy providing limits of one million dollars combined single limit, per occurrence and annual aggregate, and naming King County as an additional insured. ((~~Any s~~))Such a bond or insurance policy must be approved by the fire marshal.

I. A cash deposit in the amount of one hundred fifty dollars to provide for costs of site cleanup must be posted with the department of local services at least twenty days ((~~in advance of~~)) before the public display date ((~~ to provide for costs of site cleanup~~)). The deposit shall be forfeited to King County if the operator fails to perform such cleanup within six days after the public display. If the operator properly performs the cleanup, the deposit shall be returned to the operator.

SECTION 235. Ordinance 19276, Section 9, and K.C.C. 17.11.060 are each hereby amended to read as follows:

A. A violation of this chapter is a misdemeanor and is punishable as prescribed

by law.

B. Notwithstanding any criminal penalty provided in this chapter, a person who violates this chapter or chapter 70.77 RCW is subject to the maximum civil penalty in an amount not to exceed two hundred fifty thousand dollars per violation. In addition, a person ((~~in violation of~~)) who violates this chapter is responsible for any costs incurred to enforce this chapter, including bringing a civil action, court costs, and reasonable attorneys' fees. All civil penalties assessed shall be enforced under K.C.C. Title 23.

C. A person commits a separate offense for each day during which the person commits, continues, or permits a violation of this chapter.

((~~D. The civil and criminal penalties described in subsections A. through C. of this section shall not be enforced for violations of K.C.C. 17.11.040.B. as it pertains to the use or discharge of consumer fireworks, as defined in RCW 70.77.136, until one year after Ordinance 19276 takes effect under RCW 70.77.250. During the period in which these penalties are not being enforced, the King County sheriff's office and the fire marshal shall only issue warnings to violators of K.C.C. 17.11.040.B. and shall provide information to violators on the county's laws governing fireworks.~~))

SECTION 236. The following are each hereby repealed:

A. Ordinance 14914, Section 10, as amended, and K.C.C. 16.02.160;

B. Ordinance 12560, Section 55, as amended, and K.C.C. 16.02.170;

C. Ordinance 14914, Section 20, and K.C.C. 16.02.230;

D. Ordinance 12560, Section 15, as amended, and K.C.C. 16.02.310;

E. Ordinance 17837, Section 13, and K.C.C. 16.02.316;

F. Ordinance 12560, Section 13, as amended, and K.C.C. 16.02.370;

G. Ordinance 12560, Section 26, as amended, and K.C.C. 16.02.410;

H. Ordinance 12560, Section 30, as amended, and K.C.C. 16.02.470

I. Ordinance 12560, Section 31, as amended, and K.C.C. 16.02.480;

J. Ordinance 12560, Section 32, as amended, and K.C.C. 16.02.490;

K. Ordinance 12560, Section 33, as amended, and K.C.C. 16.02.500;

L. Ordinance 12560, Section 34, as amended, and K.C.C. 16.02.510;

M. Ordinance 12560, Section 35, as amended, and K.C.C. 16.02.520;

N. Ordinance 12560, Section 37, as amended, and K.C.C. 16.02.530;

O. Ordinance 14914, Section 78, as amended, and K.C.C. 16.02.550;

P. Ordinance 19414, Section 85, as amended, and K.C.C. 16.02.600;

Q. Ordinance 19485; Section 29, and K.C.C. 16.03.057;

R. Ordinance 14914, Section 133, as amended, and K.C.C. 16.04.260;

S. Ordinance 12560, Section 44, as amended, and K.C.C. 16.04.270;

T. Ordinance 14914, Section 141, as amended, and K.C.C. 16.04.290;

U. Ordinance 12560, Section 47, as amended, and K.C.C. 16.04.310;

V. Ordinance 14111, Section 55, as amended, and K.C.C. 16.04.330;

W. Ordinance 15802, Section 23, as amended, and K.C.C. 16.04.344;

X. Ordinance 15802, Section 24, and K.C.C. 16.04.346;

Y. Ordinance 15802, Section 25, and K.C.C. 16.04.348;

Z. Ordinance 14914, Section 155, as amended, and K.C.C. 16.04.360;

AA. Ordinance 15802, Section 34, and K.C.C. 16.04.475;

BB. Ordinance 12560, Section 54, as amended, and K.C.C. 16.04.490;

CC. Ordinance 11923, Section 2, as amended, and K.C.C. 16.04.890;

DD. Ordinance 11923, Section 3, as amended, and K.C.C. 16.04.900;

EE. Ordinance 19485, Section 5, and K.C.C. 16.04.930;

FF. Ordinance 12380, Section 2, as amended, and K.C.C. 16.04.940;

GG. Ordinance 12380, Section 3, as amended, and K.C.C. 16.04.950;

HH. Ordinance 12380, Section 4, as amended, and K.C.C. 16.04.960;

II. Ordinance 12380, Section 5, as amended, and K.C.C. 16.04.970;

JJ. Ordinance 7853, Section 1, as amended, and K.C.C. 16.04.980;

KK. Ordinance 14914, Section 276, as amended, and K.C.C. 16.05.080;

LL. Ordinance 19485, Section 73, and K.C.C. 16.07.050;

MM. Ordinance 19485, Section 75, and K.C.C. 16.07.070;

NN. Ordinance 19485, Section 76, and K.C.C. 16.07.080;

OO. Ordinance 19485, Section 76, and K.C.C. 16.07.090;

PP. Ordinance 19485, Section 80, and K.C.C. 16.07.120;

QQ. Ordinance 19485, Section 81, and K.C.C. 16.07.130;

RR. Ordinance 19485 Section 83, and K.C.C. 16.07.150;

SS. Ordinance 19485, Section 84, and K.C.C. 16.07.160;

TT. Ordinance 19485, Section 85, and K.C.C. 16.07.170;

UU. Ordinance 19485, Section 86, and K.C.C. 16.07.180;

VV. Ordinance 19485, Section 87, and K.C.C. 16.07.190;

WW. Ordinance 19485, Section 88, and K.C.C. 16.07.200;

XX. Ordinance 19485, Section 89, and K.C.C. 16.07.210;

YY. Ordinance 19485, Section 91, and K.C.C. 16.07.230;

ZZ. Ordinance 19485, Section 92, and K.C.C. 16.07.240;

AAA. Ordinance 19485, Section 93, and K.C.C. 16.07.250;

BBB. Ordinance 19485, Section 94, and K.C.C. 16.07.260;

CCC. Ordinance 19485, Section 95, and K.C.C. 16.07.270;

DDD. Ordinance 19485, Section 96, and K.C.C. 16.07.280;

EEE. Ordinance 19485, Section 98, and K.C.C. 16.07.300

FFF. Ordinance 19485, Section 101, and K.C.C. 16.07.330;

GGG. Ordinance 19485, Section 102, and K.C.C. 16.07.340;

HHH. Ordinance 19485, Section 103, and K.C.C. 16.07.350;

III. Ordinance 19485, Section 104, and K.C.C. 16.07.360;

JJJ. Ordinance 19485, Section 105, and K.C.C. 16.07.370;

KKK. Ordinance 19485, Section 106, and K.C.C. 16.07.380;

LLL. Ordinance 19485, Section 108, and K.C.C. 16.07.400;

MMM. Ordinance 19485, Section 109, and K.C.C. 16.07.410;

NNN. Ordinance 19485, Section 110, and K.C.C. 16.07.420;

OOO. Ordinance 19485, Section 111, and K.C.C. 16.07.430;

PPP. Ordinance 19485, Section 112, and K.C.C. 16.07.440;

QQQ. Ordinance 19485, Section 113, and K.C.C. 16.07.450;

RRR. Ordinance 19485, Section 115, and K.C.C. 16.07.470;

SSS. Ordinance 19485, Section 116, and K.C.C. 16.07.480;

TTT. Ordinance 19485, Section 118, and K.C.C. 16.07.500;

UUU. Ordinance 19485, Section 119, and K.C.C. 16.07.510;

VVV. Ordinance 19485, Section 120, and K.C.C. 16.07.520;

WWW. Ordinance 19485, Section 121, and K.C.C. 16.07.530;

XXX. Ordinance 19485, Section 122, and K.C.C. 16.07.540;

YYY. Ordinance 19485, Section 123, and K.C.C. 16.07.550;

ZZZ. Ordinance 14111, Section 73, and K.C.C. 16.10.010;

AAAA. Ordinance 12560, Section 58, as amended, and K.C.C. 16.10.020;

BBBB. Ordinance 12560, Section 59, as amended, and K.C.C. 16.10.030;

CCCC. Ordinance 12560, Section 60, and as amended, K.C.C. 16.10.040;

DDDD. Ordinance 12560, Section 61, as amended, and K.C.C. 16.10.050;

EEEE. Ordinance 12560, Section 62, as amended, and K.C.C. 16.10.060;

FFFF. Ordinance 12560, Section 63, as amended, and K.C.C. 16.10.070;

GGGG. Ordinance 12560, Section 64, as amended, and K.C.C. 16.10.080;

HHHH. Ordinance 15802, Section 99, and K.C.C. 16.10.100;

IIII. Ordinance 15802, Section 100, and K.C.C. 16.10.110;

JJJJ. Ordinance 15802, Section 101, as amended, and K.C.C. 16.10.120;

KKKK. Ordinance 12560, Section 127, as amended, and K.C.C. 16.14.020;

LLLL. Ordinance 14914, Section 337, and K.C.C. 16.14.040;

MMMM. Ordinance 14914, Section 338, and K.C.C. 16.14.050;

NNNN. Ordinance 14914, Section 339, and K.C.C. 16.14.060;

OOOO. Ordinance 14914, Section 352, and K.C.C. 16.14.140;

PPPP. Ordinance 14914, Section 353, and K.C.C. 16.14.150;

QQQQ. Ordinance 14914, Section 367, as amended, and K.C.C. 16.14.250;

RRRR. Ordinance 14914, Section 407, and K.C.C. 16.14.480;

SSSS. Ordinance 14914, Section 410, and K.C.C. 16.14.510;

TTTT. Ordinance 14914, Section 413, and K.C.C. 16.14.530;

UUUU. Ordinance 14914, Section 418, and K.C.C. 16.14.570;

VVVV. Ordinance 14914, Section 419, and K.C.C. 16.14.580;

WWWW. Ordinance 14914, Section 420, and K.C.C. 16.14.590;

XXXX. Ordinance 19485, Section 149, and K.C.C. 16.32.336

YYYY. Ordinance 19485, Section 150, and K.C.C. 163.32.337

ZZZZ. Ordinance 19485, Section 152, and K.C.C. 16.32.339

AAAAA. Ordinance 1283, Section 1, as amended, and K.C.C. 16.78.010;

BBBBB. Ordinance 1283, Section 2, and K.C.C. 16.78.020;

CCCCC. Ordinance 1283, Section 3, and K.C.C. 16.78.030;

DDDDD. Ordinance 1283, Section 4, and K.C.C. 16.78.040;

EEEEE. Ordinance 1283, Section 5, and K.C.C. 16.78.050;

FFFFF. Ordinance 1283 (part) and K.C.C. 16.78.060;

GGGGG. Ordinance 19485, Section 174, and K.C.C. 17.04.445;

HHHHH. Ordinance 19485, Section 175, and K.C.C. 17.04.447;

IIIII. Ordinance 19485, Section 179, and K.C.C. 17.04.466;

JJJJJ. Ordinance 19485, Section 181, and K.C.C. 17.04.468;

KKKKK. Ordinance 19485, Section 182, and K.C.C. 17.04.471;

LLLLL. Ordinance 19485, Section 183, and K.C.C. 17.04.472;

MMMMM. Ordinance 19485, Section 185, and K.C.C. 17.04.477;

NNNNN. Ordinance 19485, Section 186, and K.C.C. 17.04.478;

OOOOO. Ordinance 19485, Section 187, and K.C.C. 17.04.479;

PPPPP. Ordinance 19485, Section 188, and K.C.C. 17.04.481;

QQQQQ. Ordinance 19485, Section 189, and K.C.C. 17.04.486;

RRRRR. Ordinance 19485, Section 190, and K.C.C. 17.04.487;

SSSSS. Ordinance 19485, Section 191, and K.C.C. 17.04.488; and

TTTTT. Ordinance 14111, Section 215, and K.C.C. 17.04.540.

SECTION 237. **Severability.** If any provision of this ordinance or its application

to any person or circumstance is held invalid, the remainder of the ordinance or the application of the provision to other persons or circumstances is not affected.

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

_____

Sarah Perry, Chair

ATTEST:

_____

Melani Pedroza, Clerk of the Council

APPROVED this _____ day of _____, _____.

_____

Girmay Zahilay, County Executive

Attachments: None

S2

8-17-26
Chair's Striker

Sponsor: Perry

[J. Ngo/J. Tracy]

Proposed No.: 2025-0321

STRIKING AMENDMENT TO PROPOSED ORDINANCE 2025-0321, VERSION 1

On page 12, beginning on line 261, strike everything through page 350, line 6421, and insert:

"STATEMENT OF FACTS:

1. There is a growing gap between energy demand and energy generation capacity in Washington state, with the resource gap projected to grow to nine gigawatts by 2030. Electricity demand has increased as a result of population growth and new building construction, and the continued shift from fossil fuels to electricity, as well as the increased frequency and severity of extreme weather events, are expected to further strain electricity resources.

2. Increasing energy efficiency and on-site renewable energy in multifamily and commercial buildings plays an important role in reducing the load on the region's power grid. It also reduces greenhouse gas emissions from buildings, which accounted for forty-one percent of countywide emissions in 2023.

3. This update to the county's building and energy codes is an important part of the county's efforts to transition to clean energy and make progress on the county's planned actions in the 2025 Strategic Climate Action Plan's Building Energy and Green Building chapter.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. Ordinance 14111, Section 4, as amended, and K.C.C. 16.02.110 are hereby amended to read as follows:

A. The following codes ((~~published by or jointly with the International Code Council, Inc., together with amendments, additions, exceptions, and deletions adopted in this title by reference, together with the State Building Code Act,~~)) as adopted and amended by the state building code council in accordance with chapter 19.27 RCW, ((~~which are referred to in this title as "the International codes"~~)) and together with King County additions, exceptions, deletions, and modifications ((~~that are adopted and codified~~)) in this ((~~chapter~~)) title, are adopted as the King County ((~~b~~))Building ((~~c~~))Codes and may be cited as such and are referred to in this chapter as "this code":

1. The International Building Code ("IBC"), ((~~2018 Edition~~)) 2021 edition, ((~~effective February 1, 2021,~~)) together with ((~~Appendix~~)) Appendices C (Group U – Agricultural buildings), D (Fire Districts), and E (Supplementary Accessibility Requirements), as adopted and amended in chapter 51-50 WAC, and Appendix Z (Seattle-Tacoma sound reduction standards)((~~, as adopted by this title, and referred to in this title as "the International Building Code" or, when used in a citation, "IBC"~~));

2. The International Residential Code ("IRC"), ((~~2018~~)) 2021 edition, ((~~effective February 1, 2021,~~)) except for Chapter 11 and Chapters 25 through 43, together with

Appendices AF (Radon control methods), AH (Patio covers), AK (Sound transmission), AQ (Tiny houses), ((~~and~~)) AT ((~~[RE]~~)) (Solar-ready provisions-detached one- and two-family dwellings and townhouses), and AWU (Dwelling unit fire sprinkler systems), as adopted and amended in chapter 51-51 WAC((~~, and referred to in this title as the "International Residential Code" or, when used in a citation, "IRC"~~));

3. The ((~~International Energy Conservation Code, Commercial,~~) Washington State Energy Code ("WSEC") - Commercial Provisions, ((~~2018~~)) 2021 edition, ((~~effective February 1, 2021,~~)) together with Appendices A (Default heat loss coefficients), B (Default internal load values and schedules), C (Exterior design conditions), and D (Calculation of HVAC total system performance ratio), as adopted and amended in chapter 51-11C WAC; and the ((~~International Energy Conservation Code~~)) Washington State Energy Code ("WSEC") – Residential Provisions, ((~~Residential, 2018~~)) 2021 edition, ((~~effective February 1, 2021,~~)) together with Appendices ((~~A (Default heat loss coefficients),~~)) RA/RB (Optional energy efficiency measures), and RC (Exterior design conditions), as amended in chapter 51-11R WAC((~~, and referred to in this title as the "International Energy Conservation Code" or, when used in a citation, "IECC"~~));

4. The International Mechanical Code ("IMC"), ((~~2018 Edition~~)) 2021 edition, ((~~effective February 1, 2021,~~)) together with Appendix A (Chimney connector pass-throughs), as adopted and amended in chapter 51-52 WAC((~~, and hereinafter referred to as the "International Mechanical Code" or, when used in a citation, "IMC"~~));

5. The International Existing Building Code ("IEBC"), ((~~2018 Edition~~)) 2021 edition, ((~~effective February 1, 2021,~~)) with Appendix A (Guidelines for the ((~~Seismic Retrofit of Existing Buildings~~)) seismic retrofit of existing buildings), as adopted and

amended in chapter 51-50 WAC ((~~51-50, and referred to in this title as the "International Existing Building Code" or, when used in a citation, "IEBC"~~)); ((~~and~~))

6. The International Property Maintenance Code, ((~~2018~~)) 2021 ((~~E~~))edition, ((~~effective February 1, 2021, and referred to in this title as the "International Property Maintenance Code" or, when used in a citation, "IPMC."~~));

7. The Uniform Plumbing Code ("UPC"), as adopted by K.C.C. 16.32.030; and

8. The International Fire Code ("IFC"), as adopted by K.C.C. 17.04.010.

B. This code also may be further clarified and implemented with administrative rules adopted in accordance with K.C.C. chapter 2.98.

SECTION 2. Ordinance 19485, Section 4, and K.C.C. 16.02.145 are hereby amended to read as follows:

Chapter 1 of the ((~~International~~)) Washington State Energy ((~~Conservation~~)) Code is not adopted and Chapter 1 of the International Building Code as amended and supplemented in this chapter is substituted.

EXCEPTIONS:

A. Mixed residential and commercial buildings (IECC C101.4.1);

B. Compliance (IECC C101.5);

C. Building documentation and close-out submittal requirements (IECC C103.6);

D. Record documents (IECC C103.6.1);

E. Building operations and maintenance information (IECC C103.6.2);

F. Manuals (IECC C103.6.2.1);

G. Compliance documentation (IECC C103.6.3);

H. Systems operation training (IECC C103.6.4); and

I. ((~~International~~)) Washington State Energy ((~~Conservation~~)) Code Sections as amended and supplemented in this title.

SECTION 3. Ordinance 14914, Section 9, as amended, and K.C.C. 16.02.150 are hereby amended to read as follows:

Section 101.1 of the International Building Code is not adopted and the following is substituted:

Title (IBC 101.1). These regulations shall be known as the King County Building Codes ((~~of King County~~)). These codes ((~~are~~)) include the International Building Code (IBC), the International Residential Code (IRC), the ((~~International Energy Conservation Code (IECC)~~)) Washington State Energy Code (WSEC), the International Mechanical Code (IMC), the International Existing Building Code (IEBC), the International Property Maintenance Code (IPMC), the Uniform Plumbing Code ((~~the King County Building Security Code (K.C.C. chapter 16.10)~~)), all as adopted in K.C.C. Title 16, and the International Fire Code (IFC)((~~,~~)) as adopted in K.C.C. Title 17.

SECTION 4. Ordinance 15802, Section 5, as amended, and K.C.C. 16.02.152 are hereby amended to read as follows:

Section 101.2 of the International Building Code is not adopted and the following is substituted:

Scope (IBC 101.2). The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

EXCEPTIONS:

1. The provisions of the International Residential Code apply to the following:

1.1. The construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal, and demolition of detached one- and two-family dwellings and townhouses~~,~~ not more than three stories in height above grade plane with a separate means of egress, and their accessory structures ((~~, including adult family homes, foster family care homes, and family day care homes licensed by the Washington state Department of Social and Health Services~~)) not more than three stories in height above grade plane.

1.2. Detached residential accessory structures that are used for home occupations or home industries that include offices, mercantile, food preparation for off-site consumption, personal care salons, and similar uses, if the home occupation or home industry is subordinate to the primary residential use ((~~of the~~)) on site and the ((~~total~~)) cumulative floor area devoted to the home occupation or home industry in each detached accessory structure ((~~on-site~~)) is less than or equal to 500 square feet (46.5 ((~~m2~~)) square meters).

1.3. Live/work units located in townhouses and complying with the requirements of ((~~IBC 419. Fire suppression~~)) 508.5 of the IBC. An automatic sprinkler system required by ((~~IBC 419.5 when~~)) 508.5.7 of the IBC where constructed under the ((~~International Residential Code~~)) IRC shall conform to Appendix AWU ((~~- Dwelling unit fire sprinkler systems, as adopted in chapter 51-51 WAC~~)).

1.4. Owner-occupied lodging houses with one or two guestrooms.

1.5. Owner-occupied lodging houses with three to five guestrooms ((~~where~~)) equipped with an automatic fire sprinkler system in accordance with Appendix AWU ((~~Dwelling unit fire sprinkler systems, as adopted in chapter 51-51 WAC~~)).

1.6. A care facility with five or fewer persons receiving custodial care within a dwelling unit equipped with a fire sprinkler system in accordance with Appendix AWU.

1.7. A care facility with five or fewer persons receiving medical care within a dwelling unit equipped with a fire sprinkler system in accordance with Appendix AWU.

1.8. A care facility with five or fewer persons receiving care within a single-family dwelling equipped with a fire sprinkler system in accordance with Appendix AWU.

2. The provisions of the ((~~International Mechanical Code~~)) IMC shall regulate the design, installation, maintenance, alteration, and inspection of mechanical systems that are permanently installed and ((~~used~~)) utilized to provide control of the environmental conditions and related processes within buildings. This code shall also regulate those mechanical systems, system components, equipment, and appliances specifically addressed in ((~~this section~~)) the IMC. The installation of fuel gas ((~~distribution~~)) piping ((~~and equipment, fuel gas-fired appliances, and fuel gas-fired appliance venting systems~~)) systems, fuel gas utilization equipment, gaseous hydrogen systems, and regulated accessories shall be regulated by the International Fuel Gas Code and WAC 51-52 ((~~-0101~~)). References in this code to Group R shall include Group I-1, Condition 2 assisted living facilities licensed by the state of Washington under chapter 388-78A WAC and Group I-1, Condition 2 residential treatment facilities licensed by the state of Washington under chapter 246-337 WAC.

2.1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures shall comply with the IRC.

2.2. The standards for liquefied petroleum gas installations shall be the 2020 edition of NFPA 58 (Liquefied Petroleum Gas Code) and the 2021 edition of ANSI Z223.1/NFPA 54 (National Fuel Gas Code).

SECTION 5. Ordinance 12560, Section 6, as amended, and K.C.C. 16.02.190 are hereby amended to read as follows:

Section 104.1 of the International Building Code is not adopted and the following is substituted:

General (IBC 104.1).

A. The building official is hereby authorized and directed to enforce all the provisions of this code, with the exception of ((~~International Building Code Chapter 29,~~)) the fuel gas piping requirements contained in the International Fuel Gas Code and Chapter 24 of the International Residential Code.

B. The director of public health is authorized to enforce ((~~the provisions of Chapter 29 of the International Building Code,~~)) the fuel gas piping requirements contained in the International Fuel Gas Code and Chapter 24 of the International Residential Code. For such purposes, the building official and the director of public health shall have the powers of a law enforcement officer.

C. The building official shall have the ((~~power~~)) authority to render interpretations of this code and to adopt ((~~and enforce rules and supplemental regulations in order~~)) policies and procedures to clarify the application of its provisions. Such

interpretations, ((~~rules and regulations~~)) policies, and procedures shall be in ((~~conformance~~)) compliance with the intent and purpose of this code. Such policies and procedures shall not have the effect of waiving requirements specifically provided for in this code.

SECTION 6. Ordinance 12560, Section 10, as amended, and K.C.C. 16.02.240 are hereby amended to read as follows:

Section 105.2 of the International Building Code is not adopted and the following is substituted:

Work exempt from permit (IBC 105.2). Exemptions from the permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of King County. ((~~A building p~~))Permits shall not be required for the following:

Building:

1. One-story detached ((~~one- and two-family residential~~)) accessory ((~~buildings~~)) structures used as tool and storage sheds, playhouses, tree-supported structures used for play, and similar uses, not including garages or other buildings used for vehicular storage, if:

1.1. The floor area does not exceed 200 square feet (18.6 ((~~m2~~)) square meters);

1.2. The roof eave does not project closer than ((~~three~~)) 3 feet (914 millimeters) to any portion of an adjacent building and does not exceed ((~~twenty-four~~)) 24 inches (610 millimeters) measured horizontally from the exterior wall; ((~~and~~))

1.3. The building is separated a minimum of ((~~five~~)) 5 feet (1,524 millimeters) from all other buildings; and

1.4. The building is unconditioned and is not connected to water, sanitary sewer, or septic service.

2. One-story detached commercial agricultural and forestry accessory buildings used as animal shelters or for the storage of tools, animal feed, animal bedding, seeds, seedlings, or similar materials or products, not including office, sleeping or resting quarters for human occupation, or garages, if:

2.1. The floor area does not exceed 400 square feet (37.2 ((~~m2~~)) square meters);

2.2. The roof eave does not project closer than ((~~three~~)) 3 feet (914 millimeters) to any portion of an adjacent building and does not exceed ((~~twenty-four~~)) 24 inches (610 millimeters) measured horizontally from the exterior wall;

2.3. The building is separated a minimum of ((~~five~~)) 5 feet (1,524 millimeters) from other buildings; and

2.4. The building ((~~does not have an installed heating system~~)) is unconditioned and is not connected to water, sanitary sewer, or septic service.

3.1 Fences, other than swimming pool barriers, not over 6 feet (((~~1.8 m~~))) (1,829 millimeters) high.

3.2 Agricultural wildlife exclusion fencing consistent with Washington Department of Fish and Wildlife criteria and located in the Agricultural (A) zone not over 8 feet (2,438 millimeters) high.

4. Retaining walls ((~~that are~~)) not over 4 feet ((~~(1.2 m)~~)) (1,219 millimeters) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II, or IIIA liquids.

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

6. Sidewalks, decks, and driveways not more than 30 inches (762 ((~~mm~~)) millimeters) above adjacent grade and not over any basement or story below and that are not part of an accessible route.

7. Painting, papering, tiling, carpeting, cabinets, counter tops, and similar finish work.

8. Temporary motion picture, television, and theater stage sets and scenery.

9. Prefabricated swimming pools accessory to a ((~~detached one- or two-family dwelling as applicable in IBC 101.2,~~)) Group R-3 occupancy that are installed entirely above ground and:

9.1. ((~~a~~)) Are ((~~either~~)) less than 24 inches (610 ((~~mm~~)) millimeters) deep and do not exceed 5,000 gallons ((~~(18,925 l)~~)) (18,927 liters); or

9.2. are installed for temporary use of less than ((~~three~~)) 3 months in a ((~~twelve~~)) 12-month period.

10. Temporary growing structures and temporary worker housing as exempted by WAC 51-50-007.

11. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.

12. Swings and other playground equipment, other than play structures installed inside all occupancies covered by the IBC that exceed 10 feet (3,048 millimeters) in height or 150 square feet (13.9 square meters) in area.

((~~12.~~)) 13. Window awnings for detached one- and two-family dwellings supported by an exterior wall that do not project more than 54 inches (1,372 ((~~mm~~)) millimeters) from the exterior wall and do not require additional support.

((~~13.~~)) 14. Nonfixed and ((~~M~~))moveable fixtures, cases, racks, counters, and partitions not over 5 feet 9 inches (((~~1.75 m~~))) 1,753 millimeters high).

((~~14.~~)) 15. Reroofing of existing one- and two-family residential buildings.

EXCEPTION: When replacement roofing adds more than 5 pounds per square foot (24 kilograms per square meter) cumulative dead load to the weight of the original roofing a permit shall be required.

((~~15.~~)) 16. Submerged, freestanding mechanical boat lifts associated with single-family residential piers and recreational watercraft not exceeding 25 feet ((~~(7.6 m)~~) 7,620 millimeters) in length or 15 feet (4,572 millimeters) in width with no portion exceeding a height of 10 feet (3,048 millimeters) above the ordinary high water mark as defined in K.C.C. 21A.06.825.

((~~16.~~)) 17. Work located primarily in a public right-of-way, public utility towers, and poles.

((~~17.~~)) 18. Mechanical equipment not specifically regulated in this code.

((~~18.~~)) 19. Antenna and dishes that fall under FCC ((~~Antenna~~)) Over-the-Air Reception Devices Rule 47 C.F.R. Section 1.4000 including masts under ((~~twelve~~)) 12

feet (3,658 millimeters) above the roof line and dishes up to 39.4 inches ((~~one meter~~)) (1,000 millimeters) in diameter.

((~~19.~~)) 20. Roof-mounted photovoltaic ((~~solar~~)) panels for one- and two-family dwellings that have a total dead load not exceeding ((~~four~~)) 4 pounds per square foot (20 kilograms per square meter) and are no more than 18 inches (457 ((~~mm~~)) millimeters) above the roof or highest roof point on which they are mounted.

((~~20.~~)) 21. Ground-mounted wind turbines for one- and two-family dwellings for which any portion of the unit does not exceed ((~~twelve~~)) 12 feet (((~~3.7 m~~)) 3,658 millimeters) in height.

Gas:

1. Portable heating or cooking appliances.

2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

Mechanical:

1. Portable heating or clothes drying appliances.

2. Portable ventilation appliances and equipment.

3. Portable cooling unit.

4. Steam, hot, or chilled water piping within any heating or cooling equipment regulated by this code.

5. Replacement of any part that does not alter its approval or make it unsafe.

6. Portable evaporative cooler.

7. Self-contained refrigeration system containing 10 pounds (4.54 ((~~kg~~)) kilograms) or less of refrigerant and actuated by motors of ((~~one~~)) 1 horsepower (746 ((~~W~~)) watts) or less.

8. Portable fuel cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

((~~Exempted items shall still be subject to separate plumbing, electrical and mechanical permits.~~

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

SECTION 7. Ordinance 12560, Section 18, as amended, and K.C.C. 16.02.290 are hereby amended to read as follows:

Section 105.5 of the International Building Code is not adopted and the following is substituted:

Expiration (IBC 105.5). ((~~Every permit approved by the building official under the code shall expire by limitation and become null and void two years from the date of its issue.~~

~~**EXCEPTION:** Building permits issued by the building official to correct a code violation, or mechanical permits issued independent of a building permit, shall expire by limitation and become null and void one year from the date of its issue.~~)) Permit expiration dates are as follows:

A. Mechanical permits issued independent of a building permit shall expire one year from the date of issuance.

B. Building permits issued to correct a code violation shall expire one year from the date of issuance.

C. All other permits not listed above shall expire two years from the date of issuance.

D. Issued permits may be extended for one-year periods subject to the following conditions:

1. An application for a permit extension together with the applicable fee is submitted to the department ((~~at least 7,~~)) prior to, but no more than 60((~~,~~)) calendar days before the date the original permit ((~~becomes null and void~~)) expires. Once the permit extension application is submitted and if that extension is not denied, work may continue past the expiration date of the original permit. If the extension application is denied, all work must stop until a valid permit is obtained.

2. ((~~The permit shall not be extended if:~~

~~2.1. Construction of a building or structure has not substantially begun, as determined by the building official, within two years from the date of the first issued permit; and~~

~~2.2. The building or the structure, or its intended use, is no longer authorized by the zoning code or other applicable law.~~

~~3. An applicant may request a total of two permit extensions if there are no substantial changes in the approved plans and specifications.~~

~~4.~~)) The building official may approve up to two one-year extensions if there are no substantial changes in the approved plans and specifications. The building official may extend a building or mechanical permit beyond the second extension only to allow

completion of ((~~a building, structure or mechanical system~~)) work authorized by the original permit ((~~and~~)) that has already been substantially constructed. If ((~~substantial~~)) the building official determines that work((~~, as determined by the building official, has not begun~~)) on a building, structure, or mechanical system authorized in the original permit has not been substantially constructed, then a new permit shall be required for construction to proceed.

((~~5.~~)) 3. The ((~~staff of the~~)) department may revise a permit at the permittee's request but such a revision does not ((~~constitute a renewal or otherwise extend the life of~~)) extend the permit expiration date.

E. Issued permits for which only the final building inspection is remaining, and all other work has been approved, may be extended for one 60-day period subject to the following conditions:

1. An application for a permit extension is submitted to the department prior to the expiration date.

2. If work required under a final building inspection is not completed within the 60-day extension period, the permit shall expire, and a new permit shall be required for construction to proceed.

F. The permit shall not be extended if:

1. Construction of a building or structure has not substantially begun, as determined by the building official, within two years from the date the permit was first issued; and

2. The building or the structure, or its intended use, is no longer authorized by the zoning code or other applicable law.

SECTION 8. Ordinance 12560, Section 20, as amended, and K.C.C. 16.02.340 are hereby amended to read as follows:

Section 107.3((.3)) of the International Building Code is ((~~not adopted and~~)) supplemented with the following ((~~is substituted~~)):

Pre-issuance construction authorization (PICA) – Permission to proceed (IBC ((~~107.3.3~~)) 107.3.5). If the applicant for a permit or approval required by this code ((~~desires~~)) seeks authorization to begin work before obtaining the required permit or approval, the building official may allow the applicant to proceed if it is determined that:

1. The ((~~building official determines that the~~)) work would not endanger or harm the property;

2. ((~~The building official determines that a~~))Allowing the work to proceed would not violate the requirements of the state environmental policy act; ((~~and~~))

3. The work does not include alterations or site development regulated under K.C.C. Title 9; and

4. The applicant first deposits cash or its equivalent with ((~~the building official~~)) King County, or in an irrevocable escrow approved by the building official, in an amount determined by the building official to be sufficient to restore the building and site, and to perform the corrective work described in K.C.C. 16.02.350.

SECTION 9. Ordinance 12560, Section 21, as amended, and K.C.C. 16.02.350 are hereby amended to read as follows:

Section 107.3((.3)) of the International Building Code is supplemented with the following:

Pre-issuance construction authorization (PICA) - Removal of work not permitted and restoration (IBC ((~~107.3.3.1~~))107.3.5.1). An applicant who commences work pursuant to Section ((~~107.3.3.1~~)) 107.3.5 must, within the time specified by the building official, remove all work which does not receive the required permit or approval or which does not comply with the terms of a permit or approval which is obtained. The applicant must also restore the building and site to a condition satisfactory to the building official and perform whatever additional correction work is deemed necessary by the building official.

SECTION 10. Ordinance 12560, Section 22, as amended, and K.C.C. 16.02.360 are hereby amended to read as follows:

Section 107.3((~~.3~~)) of the International Building Code is supplemented with the following:

Pre-issuance construction authorization (PICA) - Enforcement (IBC ((~~107.3.3.2~~)) 107.3.5.2). If an applicant fails to comply with the requirements of Section ((~~107.3.3.2~~)) 107.3.5.1, the building official may employ the code enforcement procedures set forth in K.C.C. Title 23 and may, in addition, obtain the funds on deposit and apply them towards removal of the unpermitted work, restoration of the building and site, and performance of whatever additional corrective work is deemed necessary by the building official. In the event the applicant obtains the necessary permits or approvals or performs the corrective work to the satisfaction of the building official, the funds or deposit shall be released to the applicant.

SECTION 11. Ordinance 14914, Section 57, as amended, and K.C.C. 16.02.440 are hereby amended to read as follows:

Section ((~~110.3.8~~)) 110.3.9 of the International Building Code is not adopted and the following is substituted:

Energy efficiency inspections (IBC ((~~110.3.8~~)) 110.3.9). Energy efficiency inspections shall be in accordance with the ((~~International Energy Conservation, as adopted and amended by chapters 51-11C and 51-11R WAC,~~)) Washington State Energy Code and as amended in this title.

SECTION 12. Ordinance 12560, Section 30, as amended, and K.C.C. 16.02.470 are hereby amended to read as follows:

Section 111.2 of the International Building Code is not adopted and the following is substituted:

Certificate((~~s~~)) issued (IBC 111.2). After ((~~T~~))the building official inspects the building or structure and does not find violations of the provisions of this code or other laws that are enforced by the department, the building official shall ((~~may~~)) issue ((~~either~~)) a certificate of occupancy ((~~or a certificate of shell completion.~~)) that contains the following:

1. The permit number;

2. The address of the structure;

3. The name and address of the owner or the owner's authorized agent;

4. A description of that portion of the structure for which the certificate is issued;

5. A statement that the described portion of the structure has been inspected for compliance with the requirements of this code;

6. The name of the building official;

7. The edition of the code under which the permit was issued;

8. The use and occupancy, in accordance with IBC Chapter 3;

9. The type of construction as defined in IBC Chapter 6;

10. The design occupant load;

11. Where an automatic sprinkler system is provided, whether the sprinkler system is required;

12. Any special stipulations and conditions of the building permit; and

13. An explanation that the responsibility for compliance with King County codes and building maintenance rests exclusively with the permit applicants and their agents and the building's owners.

EXCEPTION: The inspection record card specified in K.C.C. 16.02.410 shall serve as the certificate of occupancy for structures built under the International Residential Code.

SECTION 13. Ordinance 12560, Section 36, as amended, and K.C.C. 16.02.540 are hereby amended to read as follows:

Section 111 of the International Building Code is supplemented with the following:

Posting (IBC 111.5). The certificate of occupancy ((~~and/or the certificate of shell completion~~)) shall be posted in a conspicuous place on the premises and shall not be removed except by the building official.

SECTION 14. Ordinance 14914, Section 90, as amended, and K.C.C. 16.03.020 are hereby amended to read as follows:

The following definitions in Section 202 of the International Building Code are not adopted:

A. Base flood;

B. Base flood elevation;

C. Coastal high-hazard area;

D. Design flood;

E. Dry floodproofing;

F. Flood hazard area;

G. Flood insurance rate map (FIRM);

H. Flood insurance study;

I. Floodway;

J. ((~~Historic buildings;~~

~~K.~~)) Special flood hazard area; and

((~~L.~~)) K. Substantial improvement.

SECTION 15. Ordinance 3647, Section 3, as amended, and K.C.C. 16.03.040 are hereby amended to read as follows:

Whenever the following words appear in ((~~the~~)) this code, they are to be changed as follows:

A. Building official or code official to the department of local services permitting division manager or designee;

B. Name of jurisdiction to unincorporated King County;

C. The department of building and safety to King County department of local services, permitting division; and

D. Design flood elevation to base flood elevation.

SECTION 16. Ordinance 19485, Section 31, and K.C.C. 16.03.280 are hereby amended to read as follows:

Water heater:

A. ((~~a~~))Any listed heating appliance or equipment that ((~~:~~

~~A. H~~))heats potable water and supplies such water to the potable hot water distribution system((~~; and~~)) excluding any appliance or equipment that exceeds any of the following:

1. An operating temperature of 210° Fahrenheit (99° Celsius);

((~~B. Does not exceed a~~)) 2. A maximum allowable working pressure of 160 pounds per square inch (1,103 ((~~kPa~~)) kilopascals)((~~, a~~));

3. A volume of 120 gallons (454 ((~~L~~))liters) ((~~and a~~)); or

4. A heat input of 200,000 Btu/h ((~~per hour (58 kW)~~)) (59 kilowatts).

B. Any appliances and equipment that exceed any one of these values are classified as boilers.

NEW SECTION. SECTION 17. There is hereby added to K.C.C. chapter 16.04 a new section to read as follows:

Section 429.2 of the International Building Code is not adopted and the following is substituted:

Electric Vehicle (EV) Charging Infrastructure (IBC 429.2). Buildings and accessory structures shall be provided with EV charging stations, EV-ready parking spaces, and EV-capable parking spaces in accordance with IBC Table 429.2. Calculations shall be rounded up to the nearest whole number. Where a building contains

more than one occupancy, the electric vehicle charging infrastructure percentages of IBC Table 429.2 shall be applied to the number of spaces required for each occupancy.

EXCEPTIONS:

1. On-site parking with less than 10 parking spaces shall not be required to comply with Section 429.2.

2. For townhouse developments containing nine or fewer dwelling units, the director may reduce the requirements of Table 429.2. where the applicant can prove that the added electrical load to meet the requirements will require an on-site transformer that is pole-mounted, on a slab, or in an underground vault. The reductions shall occur as follows:

a. The maximum quantity of EV charging infrastructure required to be installed shall be reduced to the maximum service size that would not require the changes to transformation or electrical service; and

b. The director may first reduce the number of required EV-ready parking spaces. If this is not sufficient, the director may also then reduce the required level of EV infrastructure at EV-ready parking spaces from 208/240 volt to 120-volt circuits.

3.a. For developments categorized as "All other Group R occupancies" in Table 429.2, if providing the electrical capacity to meet the standards of Section 429.3 for the required EV-capable spaces would require a service-capacity upgrade, but providing the capacity to serve 10 percent of total spaces as EV-capable would not, the director may reduce the requirements for EV-capable spaces as follows:

1) The electrical rooms and equipment required under Section 429.3 may be sized to support 120-volt circuits for required EV-capable parking spaces in excess of 10 percent of total parking spaces.

2) Raceways serving EV-capable parking spaces for which a reduction is allowed under this subsection shall be sized to accommodate a minimum 40-ampere dedicated 208/240-volt branch circuit.

b. For the purposes of this exception, "service-capacity upgrade" means the installation, replacement, or increase in capacity of a transformer, utility services conductors, service equipment, main switchboard or switchgear, or equivalent upstream electrical distribution equipment beyond what is otherwise required for the development.

Table 429.2

Electric Vehicle Charging Infrastructure

Occupancy/Use	**Number of EV charging stations**	**Number of EV-ready parking spaces**	**Number of EV-capable parking spaces**
Group A, E, and M occupancies	5% of total parking spaces	10% of total parking spaces	10% of total parking spaces
Group B, F, H, I, and S occupancies, and standalone surface parking lots	10% of total parking spaces	10% of total parking spaces	10% of total parking spaces
Group R occupancies			
Buildings that do not contain more than two dwelling units	Not required	One for each dwelling unit	Not required

Dwelling units with attached private garages or attached private carports	Not required	One for each dwelling unit	Not required
Permanent supportive housing, recuperative housing, emergency supportive housing, and congregate housing, as defined in K.C.C. Title 21A	10% of total parking spaces	10% of total parking spaces	10% of total parking spaces
Emergency shelter, microshelter villages, safe parking, as defined in K.C.C. Title 21A	Not required	Not required	Not required
Temporary lodging uses in K.C.C. 21A.08.050	10% of total parking spaces	30% of total parking spaces	25% of total parking spaces
All other Group R occupancies	10% of total parking spaces	25% of total parking spaces	20% of total parking spaces

NEW SECTION. SECTION 18. There is hereby added to K.C.C. chapter 16.04 a new section to read as follows:

Section 429.2.1 of the International Building Code is not adopted and the following is substituted:

EV Charging Stations and EV-Ready Parking Spaces (IBC 429.2.1). A minimum of 40-ampere dedicated 208/240-volt branch circuit shall be installed for each EV-Ready parking space and each EV Charging Station. The branch circuits shall

terminate at a receptacle outlet or EV charger in close proximity to the proposed location of the EV-Ready parking space or the EV Charging Station.

For EV-Ready parking spaces, the branch circuit shall be identified as "Electric-Vehicle Ready" in the service panel or subpanel directory, and the termination location shall be marked as "Electric-Vehicle Ready."

NEW SECTION. SECTION 19. There is hereby added to K.C.C. chapter 16.04 a new section to read as follows:

Section 429.4 of the International Building Code is not adopted and the following is substituted:

Electric vehicle charging infrastructure for accessible parking spaces (IBC 429.4). 10 percent of the accessible parking spaces, rounded to the next whole number, shall be EV Charging Stations. An additional 10 percent of the accessible parking spaces, rounded to the next whole number, shall be EV Ready. Not fewer than one for each type of EV charging system shall be accessible.

Where only one accessible parking space is required by Section 1106 of the IBC, the accessible EV charging space shall be provided in addition to the required accessible parking space.

The electric vehicle charging infrastructure may also serve adjacent parking spaces not designated as accessible parking. A maximum of ten percent of the accessible parking spaces, rounded to the next whole number, are allowed to be included in the total number of electric vehicle parking spaces required under Section 429.2.

NEW SECTION. SECTION 20. There is hereby added to K.C.C. chapter 16.04 a new section to read as follows:

Section 429 of the International Building Code is supplemented with the following:

Signage (IBC 429.5) All electric vehicle charging parking spaces shall have designated signage and pavement markings as required under RCW 46.08.185.

SECTION 21. Ordinance 14914, Section 164, as amended, and K.C.C. 16.04.440 are hereby amended to read as follows:

Section 1612.4 of the International Building Code is not adopted and the following is substituted:

Flood hazard documentation (IBC 1612.4). For construction in flood hazard areas the applicant shall provide actual as-built elevation certificate by a professional ((~~civil engineer or~~)) land surveyor licensed by the state of Washington in accordance with K.C.C. 21A.24.270.

SECTION 22. Ordinance 12560, Section 72, as amended, and K.C.C. 16.04.600 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Definitions (IBC AZ 106).

((~~**NOISE REDUCTION COEFFICIENT (NRC): is**~~)) A. Noise Reduction Coefficient (NRC): ((~~t~~))The arithmetic average of the sound absorption coefficients of a material at 250, 500, 1,000, and 2,000 ((~~Hz~~)) hertz.

((~~**SOUND TRANSMISSION CLASS (STC): is**~~)) B. Sound Transmission Class (STC): The single-number rating for describing sound transmission loss of a wall, roof, floor, window, door, partition, or other individual building components or assemblies.

SECTION 23. Ordinance 12560, Section 72, as amended, and K.C.C. 16.04.620 are hereby amended to read as follows:

The International Building Code is supplemented with the following appendix:

Seattle-Tacoma noise program area (IBC AZ 108). Noise-determined construction requirements detailed in this chapter shall be applied to new construction and additions within the designated areas of the Port of Seattle's Noise Remedy Boundary, except for not-normally-inhabited portions of warehouses, storage buildings, and similar structures as determined by the director. Specific construction requirements are:

((~~1.~~)) A. Bedrooms shall comply with IBC AZ 125 which is designed to achieve a noise reduction of 35 ((~~dB~~)) decibels.

((~~2.~~)) B. All other living and working areas shall comply with IBC AZ 117 which is designed to achieve a noise reduction level of 30 ((~~dB~~)) decibels.

SECTION 24. Ordinance 12560, Section 75, as amended, and K.C.C. 16.04.630 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Air leakage for all buildings (IBC AZ 109).

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

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

1((~~)~~)). Exterior joints around window and door frames between the window or door frame and the framing.

2((~~)~~)). Openings between walls and foundations.

3((~~)~~)). Between the wall sole plate and the rough flooring.

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

5((~~)~~)). Between wall panels at corners.

6((~~)~~)). All other openings in the building envelope.

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

SECTION 25. Ordinance 12560, Section 84, as amended, and K.C.C. 16.04.720 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Exterior walls 30 dB compliance (IBC AZ 118).

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

(((~~b~~))) B. Masonry walls having a weight of at least 40 pounds per square foot (195 kilograms per square meter) do not require a furred (stud) interior wall. At least one surface of concrete block walls shall be plastered.

(((~~c~~))) C. Stud walls shall be at least 4 ((~~"~~)) inches (102 millimeters) in nominal depth and shall be finished on the outside with solid sheathing under an approved exterior wall finish.

1. Interior surface of the exterior walls shall be of gypsum board or plaster at least 1/2 inch (13 millimeters) thick, installed on the studs. The gypsum board or plaster may be fastened rigidly to the studs if the exterior is brick veneer or stucco. If the exterior is siding, the interior gypsum board or plaster must be fastened resiliently to the studs.

2. Continuous composition board, plywood, or gypsum board sheathing at least 3/4 (("~~-~~")) inch (19 millimeters) thick shall cover the exterior side of the wall studs.

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

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

SECTION 26. Ordinance 12560, Section 85, as amended, and K.C.C. 16.04.730 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Exterior window 30 dB compliance (IBC AZ 119).

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

(((~~b~~))) B. Windows shall be double glazed with panes at least 1/8(("~~-~~")) inch (3 millimeters) thick. Panes of glass shall be separated by a minimum 1/2 (("~~-~~")) inch (13 millimeters) airspace.

(((~~c~~))) C. Double-glazed windows shall employ fixed sash or efficiently weather-stripped, operable sash. The sash shall be rigid and weather-stripped with material that is

compressed airtight when the window is closed so as to conform to an air infiltration test not to exceed 0.5 cubic foot per minute per foot of crack length in accordance with ASTM ((~~E 283-65 T.T~~)) E283.

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

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

SECTION 27. Ordinance 12560, Section 86, as amended, and K.C.C. 16.04.740 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Exterior doors 30 dB compliance (IBC AZ 120).

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

(((~~b~~))) B. Double door construction is required for all door openings to the exterior. Openings fitted with side-hinged doors shall have one solid core of wood or be an insulated hollow metal door at least 1-3/4 ((")) inches (44 millimeters) thick separated by an airspace of at least 3 ((")) inches (76 millimeters) from another door, which can be a storm door. Both doors shall be tightly fitted and weather-stripped.

(((~~c~~))) C. The glass of double-glazed sliding doors shall be separated by a minimum 1/2 ((")) inch (13 millimeters) airspace. Each sliding frame shall be provided with an efficiently airtight weather-stripping material ((~~as~~)) that conforms to an air

infiltration test not to exceed 0.2 cubic ((~~feet~~)) foot per minute per foot of crack length in accordance with ASTM ((~~E 283-65 T.T~~)) E283.

(((~~d~~))) D. Glass ((~~(~~))over ((~~two~~)) 2 square feet (0.19 square meter) in area((~~)~~)) of all doors shall be at least 3/16 ((~~"~~)) inch (5 millimeters) thick. Glass of double sliding doors shall not be equal in thickness.

(((~~e~~))) E. The perimeter of door frames shall be sealed airtight to the exterior wall construction (framing) with a sealant conforming to one of the following Federal specifications: TT-S-0227, TT-S-00230, or TT-S-00153.

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

SECTION 28. Ordinance 12560, Section 87, as amended, and K.C.C. 16.04.750 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Roofs 30 dB compliance (IBC AZ 121).

(((~~a~~))) A. Combined roof and ceiling construction other than described in this section and AZ 122 shall have a laboratory sound transmission class rating of at least STC-44; or

(((~~b~~))) B. With an attic or rafter space at least 6 ((~~"~~)) inches (152 millimeters) deep, and with a ceiling below, the roof shall consist of 3/4 ((~~"~~)) inch (19 millimeters) composition board, plywood, or gypsum board sheathing topped by roofing as required.

(((~~c~~))) C. Open beam roof construction shall follow the energy insulation standard method for batt insulation, except use 1 ((~~"~~)) inch or (25 millimeters) plywood decking with shakes or other suitable roofing material.

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

SECTION 29. Ordinance 12560, Section 88, as amended, and K.C.C. 16.04.760 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Ceilings 30 dB compliance (IBC AZ 122).

((~~a~~)) A. Gypsum board or plaster ceilings at least 5/8 ((~~"~~)) inch (16 millimeters) thick shall be provided where required by AZ 121(b) above. Ceilings shall be substantially airtight with a minimum of penetrations.

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

SECTION 30. Ordinance 12560, Section 86, as amended, and K.C.C. 16.04.770 are hereby amended to read as follows:

The International Building Code is supplemented with the following appendix:

Floors 30 dB compliance (IBC AZ 123). The floor of the lowest occupied rooms shall be slab on fill, below grade, or over a fully enclosed basement or crawl space. All door and window openings in the fully enclosed basement shall be tightly fitted.

EXCEPTION: Floors over fully enclosed garages or ((~~over~~)) carports shall have a laboratory sound transmission class rating of at least STC-35. The floor over the garage or carport shall be insulated to not less than R-19, ((~~but not less than that~~)) or as specified by the ((~~International Energy Conservation~~)) Washington State Energy Code, whichever is the higher rating, and enclosed with one layer of 5/8 ((~~"~~)) inch (16 millimeters) type

((⅛))X((⅛)) GWB on the garage or carport side or any equivalent approved garage or dwelling separation assembly in conformance with International Residential Code Section R302.6.

SECTION 31. Ordinance 12560, Section 90, as amended, and K.C.C. 16.04.780 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Ventilation 30 dB compliance (IBC AZ 124).

(((~~a~~))) A. A ventilation system shall be installed that would provide the minimum air circulation and fresh air supply requirements for various uses in occupied rooms without the need to open any windows, doors, or other openings to the exterior. The inlet and discharge openings shall be fitted with sheet metal transfer ducts of at least 26-gauge steel, which shall be lined with 1 ((")) inch (25 millimeters) thick coated glass fiber or insulated with R-11 sound-absorbing duct insulation, and shall be at least 5 feet (1,524 millimeters) long with one 90-degree bend.

(((~~b~~))) B. Gravity vent openings in attics or crawlspaces shall be as close to minimum code in number and size, as practical. The openings shall be fitted with transfer ducts at least 3 feet (914 millimeters) in length containing internal 1 ((")) inch (25 millimeters) thick coated fiberglass sound-absorbing duct lining or insulated with R-11 sound-absorbing duct insulation. Each duct shall have a lined 90-degree bend in the duct such that there is no direct line-of-sight from the exterior through the duct into the attic.

(((~~c~~))) C. Bathroom, laundry, and similar exhaust ducts connecting the interior space to the outdoors, shall contain at least 10-foot (3,048 millimeters) length of internal

sound-absorbing duct lining. Exhaust ducts less than 10 feet (3,048 millimeters) in length shall be fully lined and shall also ((~~be~~)) meet the provisions of AZ 109(c). Each duct shall be provided with a lined 90-degree bend in the duct such that there is no direct line-of-sight through the duct from the venting cross-section to the room opening cross-section. Duct lining shall be coated glass fiber duct liner at least 1 ((")) inch (25 millimeters) thick or insulated with R-11 sound-absorbing duct insulation. In areas that produce moisture such as (((~~i.e.~~)) shower rooms((~~) which produce moisture~~)), duct lining shall be made of non-absorbent material. Commercial kitchen exhaust systems and product conveying duct systems (Chapter 5 U.M.C.) shall be exempt.

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

SECTION 32. Ordinance 12560, Section 92, as amended, and K.C.C. 16.04.800 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Exterior walls 35 dB compliance (IBC AZ 126).

(((~~a~~))) A. Exterior walls, other than as described in this section shall have a laboratory sound transmission class rating of at least STC-40; or

(((~~b~~))) B. Masonry walls having a weight of at least 75 pounds per square ((~~feet~~)) foot (366 kilograms per square meter) do not require a furred (stud) interior wall. At least one surface of concrete block walls shall be plastered.

((~~(c)~~)) C. Stud walls shall be at least 4 ((~~"~~)) inches (102 millimeters) in nominal depth and shall be finished on the outside with solid sheathing under an approved exterior wall finish.

1. Interior surface of the exterior walls shall be of gypsum board or plaster at least 5/8 ((~~"~~)) inch (16 millimeters) thick installed on the studs. The gypsum board or plaster may be fastened rigidly to the studs if the exterior is brick veneer or stucco. If the exterior is stucco or siding, the interior gypsum board or plaster must be fastened resiliently to the studs or double thickness must be used.

2. Continuous composition board, plywood, or gypsum board sheathing, or any combination of these materials of unequal thickness, that is at least 1 ((~~"~~)) inch (25 millimeters) thick shall cover the exterior side of the wall studs.

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

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

SECTION 33. Ordinance 12560, Section 94, as amended, and K.C.C. 16.04.820 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Exterior doors 35 dB compliance (IBC AZ 128).

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

((~~(b)~~)) B. Double door construction is required for all door openings to the exterior. The doors shall be side-hinged and shall be solid core wood or insulated hollow metal door at least 1-3/4 ((~~"~~)) inch (44 millimeters) thick, separated by a vestibule or enclosed porch at least 3 feet (914 millimeters) in length. Both doors shall be tightly fitted and weather-stripped.

((~~(c)~~)) C. The glass or double-glazed sliding doors shall be separated by a minimum 1/2 ((~~"~~)) inch (13 millimeters) airspace. Each sliding door frame shall be provided with an efficiently airtight weather-stripping material that conforms to an air infiltration test not to exceed 0.5 cubic feet per minute per foot of crack length in accordance with ASTM ((~~E 283-65 T.T~~)) E283.

((~~(d)~~)) D. Glass of all doors shall be at least 3/16 ((~~"~~)) inch (5 millimeters) thick. Glass of double sliding doors shall not be equal in thickness.

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

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

SECTION 34. Ordinance 12560, Section 95, as amended, and K.C.C. 16.04.830 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Roofs 35 dB compliance (IBC AZ 129).

((~~(a)~~)) A. Combined roof and ceiling construction other than as described in this section and AZ 130 shall have a laboratory sound transmission class rating of at least STC-49; or

((~~(b)~~)) B. With an attic or rafter space at least 6 ((~~"~~)) inches (152 millimeters) deep, and with a ceiling below, the roof shall consist of composition board, plywood, or gypsum board sheathing, or any combination of these materials of unequal thickness, that is at least 1 ((~~"~~)) inch (25 millimeters) thick and topped by roofing as required.

((~~(c)~~)) C. Open beam roof construction shall follow the energy insulation standard method for batt insulation, except use 1 ((~~"~~)) inch (25 millimeters) plywood decking with concrete or clay tiles as roofing material.

SECTION 35. Ordinance 12560, Section 96, as amended, and K.C.C. 16.04.840 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Ceiling 35 dB compliance (IBC AZ 130).

((~~(a)~~)) A. Gypsum board or plaster ceiling at least 5/8 ((~~"~~)) inch (16 millimeters) thick shall be provided where required by IBC AZ 129((~~, above~~)). Ceiling shall be substantially airtight with a minimum of penetrations. The ceiling panels shall be mounted on resilient clips or channels.

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

SECTION 36. Ordinance 12560, Section 97, as amended, and K.C.C. 16.04.850 are hereby amended to read as follows:

The International Building Code is supplemented with the following appendix:

Floors 35 dB compliance (IBC AZ 131). The floor of the lowest occupied rooms shall be slab on fill or below grade or over a fully enclosed basement or crawl space. All door and window openings in the fully enclosed basement shall be tightly fitted.

EXCEPTION: Floors over ((~~fully enclosed~~)) garages or ((~~over~~)) carports shall have a laboratory sound transmission class rating of at least STC-40. The floor over the garage or carport shall be insulated to not less than R-19, ((~~but not less than that~~)) or as specified by the ((~~International Energy Conservation~~)) Washington State Energy Code, whichever rating is higher, and enclosed with two layers of 5/8 (("~~-~~)) inch (16 millimeters) type ((~~-~~))X((~~-~~)) GWB on the garage or carport side or any equivalent approved garage/dwelling separation assembly in conformance with International Residential Code Section R302.6.

SECTION 37. Ordinance 12560, Section 98, as amended, and K.C.C. 16.04.860 are hereby amended to read as follows:

The International Building Code is supplemented by the following appendix:

Ventilation 35 dB compliance (IBC AZ 132).

(((~~a~~))) A. A ventilation system shall be installed that will provide the minimum air circulation and fresh air supply requirements for various uses in occupied rooms without the need to open any windows, doors, or other openings to the exterior. The inlet and discharge openings shall be fitted with sheet metal transfer ducts of at least 26-gauge steel, which shall be lined with 1 (("~~-~~)) inch (25 millimeters) thick coated glass fiber or insulated with R-11 sound-absorbing duct insulation, and shall be at least 10 feet (3,048 millimeters) long with one 90-degree bend.

((~~(b)~~)) B. Gravity vent openings in attics shall be as close to minimum code in number and size, as practical. The openings shall be fitted with transfer ducts at least 6 feet (1,829 millimeters) in length containing internal 1 ((")) inch (25 millimeters) thick coated fiberglass sound-absorbing duct lining or insulated with R-11 sound-absorbing duct insulation. Each duct shall have a lined 90-degree bend in the duct such that there is no direct line-of-sight from the exterior through the duct into the attic.

((~~(c)~~)) C. Bathroom, laundry, and similar exhaust ducts connecting the interior space to the outdoors, shall contain at least a 10-foot (3,048 millimeters) length of internal sound-absorbing duct lining or insulated with R-11 sound-absorbing duct insulation. Exhaust ducts less than 10 feet (3,048 millimeters) in length shall be fully lined and shall also meet the provisions of AZ 109((~~(c)~~)).C. Each duct shall be provided with a lined 90-degree bend in the duct such that there is no direct line-of-sight through the duct from the venting cross-section to the room-opening cross-section. Duct lining shall be coated glass fiber duct liner at least 1 ((")) inch (25 millimeters) thick or R-11 sound-absorbing duct insulation. In areas such as shower rooms which produce moisture, duct lining shall be made of non-absorbent material. Commercial kitchen exhaust systems and product conveying duct systems (((~~Chapter 51~~))) shall be exempt.

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

NEW SECTION. SECTION 38. There is hereby added to K.C.C. chapter 16.04 a new section to read as follows:

Chapter 9 of the International Existing Building Code is supplemented with the following:

Electric vehicle charging infrastructure (IEBC 908.1). Only when the work meets or exceeds the threshold of either substantial improvement or substantial damage, electric vehicle charging infrastructure shall be provided in accordance with IBC Section 429 as required for new construction.

SECTION 39. Ordinance 14914, Section 272, as amended, and K.C.C. 16.05.040 are hereby amended to read as follows:

Table R301.2(1) of the International Residential Code is not adopted and the following is substituted:

Table R301.2(1)

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA FOR KING COUNTY

Subject to damage from											
Ground snow load	Wind speed (mph)	Seismic design category	Weathering	Frost line depth	Termite	Decay	Winter design temp.	Ice-shield required	Flood hazards	Air freezing index	Mean annual temp.
Varies1	110	D0, D1 ((~~or~~)	Moderate	12" < 1,000 ft	Slight to Mod.	Slight to Mod.	25	No	Varies[4]	100 to 250	50

		) D2, or E[2]		elev. [3]							

Footnotes:

1. Snow loads shall be determined in accordance with King County public rules. The minimum roof design snow load shall be 25 pounds per square ((~~feet~~)) foot.

2. ((~~Seismic design category shall be D1 for areas of unincorporated King County to the east of the Snoqualmie River as it traverses from the King County-Snohomish County line to the city limits of Snoqualmie, east of the city of Snoqualmie, east of the Snoqualmie Parkway and the Echo Lake-Snoqualmie Cut-off SE as they run from the city limits of the city of Snoqualmie to State Route 18 and to the south or east of State Route 18. All other portions of unincorporated King County shall be~~)) Buildings shall be assigned a seismic design category ((~~D2~~)) in accordance with 2021 IRC Figures R301.2.2.1(1) through R301.2.2.1(6).

3. The frost line depth shall be considered to be 12 inches for sites up to an elevation of 1,000 feet above sea level, 18 inches) for sites more than 1,000 feet and up to an elevation of 2,000 feet above sea level or 24 inches for sites more than 2,000 feet above sea level. Frost depth may be otherwise determined by specific site analysis, but shall not be less than 12 inches.

4. Flood hazard within King County varies. See the flood hazard areas code provisions of K.C.C. chapter 21A.24.

SECTION 40. Ordinance 14914, Section 274, as amended, and K.C.C. 16.05.060 are hereby amended to read as follows:

Section R309.3 of the International Residential Code is not adopted and the following is substituted:

Flood hazard areas (IRC R309.3). Garage floors in buildings located in flood hazard areas shall comply with the flood hazard standards in K.C.C. chapter 21A.24.

NEW SECTION. SECTION 41. There is hereby added to K.C.C. chapter 16.05 a new section to read as follows:

Section R309.6.2 of the International Residential Code is not adopted and the following is substituted:

Dedicated circuit for electric vehicle charging (IRC R309.6.2). A minimum of one 40-ampere dedicated 208/240-volt branch circuit shall be installed in the electrical panel for each dwelling unit. The branch circuit shall terminate at a junction box, receptacle outlet, or electric vehicle charging equipment.

EXCEPTION: Except for those qualifying as multifamily residential buildings as defined in RCW 19.27.015, for townhouse developments containing nine or fewer dwelling units, the director may reduce the requirements of this section where the applicant can prove that the added electrical load to meet the requirements will require an on-site transformer that is pole-mounted, on a slab or in an underground vault. The reductions shall occur as follows:

1. The maximum quantity of EV charging infrastructure required to be installed shall be reduced to the maximum service size that would not require the changes to transformation or electrical service; and

2. The director may first reduce the number of required electric-vehicle-ready parking spaces. If this is not sufficient, the director may also then reduce the required

level of EV infrastructure at EV Ready parking spaces from 208/240 volt to 120-volt circuits.

SECTION 42. Ordinance 15802, Section 78, as amended, and K.C.C. 16.05.065 are hereby amended to read as follows:

Section R310.2.4 of the International Residential Code is not adopted and the following is substituted:

Emergency escape ((~~windows~~)) and rescue openings under decks ((~~and~~)), porches, and cantilevers (IRC R310.2.4). Emergency escape ((~~windows are allowed to be~~)) and rescue openings installed under decks, porches, ((~~roof overhangs, awnings or similar projections if the location allows the emergency escape window to be~~)) and cantilevers shall be fully ((~~opened~~)) openable and ((~~provides a path~~)) provided with an unobstructed pathway of not less than 36 inches (914 ((~~mm~~)) millimeters) in height, ((~~and not less than~~)) 36 inches (914 ((~~mm~~)) millimeters) in width ((~~with a maximum unobstructed travel length directly to a yard or court based on 3:1, length to height ratio or as approved by the building official~~)), and no greater than 60 inches (1,524 millimeters in length) that opens to a yard or court. ((T~~his distance~~)) The pathway shall be measured from the ((~~edge~~)) exterior face of the ((~~window~~)) glazed opening, or if ((~~served by~~)) the glazed opening is in a window well ((~~from the edge of that~~)), at the window well wall furthest from the exterior face of the glazed opening.

EXCEPTION: When the vertical height is 6 feet 8 inches (2,032 ((~~mm~~)) millimeters) or more, the travel distance or length is unlimited.

NEW SECTION. SECTION 43. There is hereby added to K.C.C. chapter 16.05 a new section to read as follows:

Table R311.2 of the International Residential Code is not adopted and the following is substituted:

Egress door (IRC 311.2). Not less than one egress door shall be provided for each dwelling unit, including from all habitable rooms and spaces within or above garages. The egress door shall be side-hinged and shall provide a clear width of not less than 32 inches (813 millimeters) where measured between the face of the door and the stop, with the door open 90 degrees. The clear height of the door opening shall be not less than 78 inches (1,981 millimeters) in height measured from the top of the threshold to the bottom of the stop. Other doors shall not be required to comply with these minimum dimensions. Egress doors shall be readily openable from inside the dwelling without the use of a key or special knowledge or effort.

NEW SECTION. SECTION 44. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C101 of the Washington State Energy Code – Commercial Provisions is supplemented with the following:

Vesting of initial tenant improvements (WSEC C101.7). If permit applications are submitted within 18 months of the final inspection approval date of a building, initial tenant improvements within the building are permitted to comply with the edition of King County Building Code applicable to the building.

SECTION 45. Ordinance 19485, Section 72, and K.C.C. 16.07.040 are hereby amended to read as follows:

The definitions in this section apply to this chapter and supplement the definitions contained in the ((~~IECC~~)) WSEC as adopted, amended, and supplemented by this title.

Where definitions in this section differ from the definitions in the International codes as amended and supplemented by K.C.C. chapter 16.03, the definitions in this section shall control.

A. AAMA: the American Architectural Manufacturers Association.

B. Affordable housing: buildings that:

1. Are owned by a public housing authority for the purpose of providing housing ((~~the~~)) that restricts at least 51 percent of the units to be occupied by and made affordable to households with incomes no more than 80 percent of area median income;

2. Are owned by a government agency or nonprofit organization and operated as a shelter, including temporary and emergency shelter facilities providing day and warming centers that do not provide overnight accommodation, for people receiving support services from county-recognized assistance programs for homelessness; or

3. Are subject to a regulatory agreement, covenant, or other legal instrument recorded on the property title for a minimum of 40 years that:

a. Restricts at least 51 percent of the units to be occupied by and made affordable to households with incomes no more than 80 percent of area median income; or

b. Restricts initial and subsequent sales of at least 51 percent of the residential units to households with incomes no more than 80 percent of area median income.

C. AFUE: annual fuel utilization efficiency.

D. ASHRAE: the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

((~~D~~)) E. ASTM: the American Society for Testing and Materials.

((~~E.~~) ((~~Automatic control device: a device capable of automatically turning electrical loads off and on without manual intervention~~)) F. Best efficiency point (BEP): The pump hydraulic power operating point, consisting of both flow and head conditions, that results in the maximum efficiency.

((~~F.~~)) G. Btu: British thermal units.

((~~G.~~)) ((~~Conditioned space: an area, room or space enclosed within the building thermal envelope and that is directly or indirectly heated or cooled. Spaces are indirectly heated or cooled where they communicate through openings with conditioned spaces, where they are separated from conditioned spaces by uninsulated walls, floors or ceilings, or where they contain uninsulated ducts, piping or other sources of heating or cooling. Elevator shafts, stair enclosures, enclosed corridors connecting conditioned spaces and enclosed spaces through which conditioned air is transferred at a rate exceeding three air changes per hour are considered conditioned spaces for the purposes of the building thermal envelope requirement~~s.

((~~H. Continuous insulation: insulating material that is continuous across all structural members without metal thermal bridges other than fasteners that have a total cross-sectional area not more than 0.04 percent (0.12 percent where all metal thermal bridges are stainless steel) of the envelope surface through which they penetrate, and service openings. It is installed on the interior or exterior or is integral to any opaque surface of the building envelope.~~

((~~I. Controlled receptacle: an electrical receptacle that is controlled by an automatic control device.~~)) H. Btu/h: British thermal units per hour.

I. Clean water pump: A device designed for use in pumping water with a

maximum nonabsorbent free solid content of 0.016 pounds per cubic foot (0.256 kilograms per cubic meter) and with a maximum dissolved solid content of 3.1 pounds per cubic foot (49.66 kilograms per cubic meter), provided that the total gas content of the water does not exceed the saturation volume, and disregarding any additives necessary to prevent the water from freezing at a minimum of 14° Fahrenheit (-10° Celsius).

J. CSA: the ((~~CSA~~)) Canadian Standards Association group.

K. ((~~DOAS: dedicated outdoor air system.~~

~~L.~~)) EER: energy efficiency ratio.

L. Fossil fuel: a substance used to generate energy as defined in K.C.C. 21A.06.532C.

M. High-end trim: a lighting control setting which limits the maximum power to individual luminaires or groups of luminaires in a space.

N. HPWH: heat pump water heater.

((~~N.~~)) O. HVAC: heating, ventilation, and air conditioning.

((~~O.~~)) P. IEER: integrated energy efficiency ratio.

Q. IPLV: integrated part-load value.

R. LLLC: luminaire-level lighting control((~~s~~)).

((~~P~~)) S. LPD: lighting power density.

((~~Q. Mass transfer deck slab: a concrete slab designed to transfer structural load from the building perimeter wall or column line above, laterally to an offset wall or column line below, and which has conditioned or semi-heated space on the inside of the upper wall and exterior or unconditioned space on the outside of the upper wall, such as~~

~~the transition from an above-grade structure to a below-grade structure or the transition from a tower to a podium. The area of the slab edge shall be defined as the thickness of the slab multiplied by the length of the edge condition. A cantilevered concrete balcony does not constitute a mass transfer deck slab.~~

~~R. Multi-pass: a heat pump water heater control strategy requiring multiple passes of water through the heat pump to reach the final target storage water temperature.~~

~~S.~~)) T. NAECA: the National Appliance Energy Conservation Act of 1987.

((~~T.~~)) U. NFRC: the National Fenestration Rating Council, Inc.

((~~U.~~)) V. Occupied-standby mode: mode of operation when an HVAC zone is scheduled to be occupied and an occupant sensor indicates no occupants are within the zone.

W. REC: renewable energy certificate.

X. Renewable energy investment fund (REIF): a fund established by the local government or other entity to accept payment from building owners to construct or acquire qualifying renewable energy (along with the associated RECs) on their behalf.

Y. SEER: seasonal energy efficiency ratio.

Z. Semi-heated space: an enclosed space within a building, including adjacent connected spaces separated by an uninsulated component such as basements, utility rooms, garages, or corridors, which:

1. Is heated but not cooled, and has an installed heating system output capacity greater than or equal to 3.4 Btu/h per square foot (38.612 kilojoule/h per square meter) but not greater than 8 Btu/h per square foot (90.852 kilojoule/h per square meter).

Heating is permitted to be provided by heat pumps complying with the exception to WSEC Section C402.1.1.2; and

2. Is not a walk-in cooler, walk-in freezer, refrigerated warehouse cooler, or refrigerated warehouse freezer space.

AA. Single-pass heat pump water heater: a heat pump water heater control strategy using variable flow or variable capacity to deliver water from the heat pump at the final target storage water temperature in a single pass through the heat exchanger with variable incoming water temperatures.

((~~V. Solar zone: a clear area or areas reserved solely for current or future installation of photovoltaic or solar hot water systems.~~

~~W. Temperature maintenance: the system used to maintain the temperature of the building domestic hot water delivery system, typically by circulation and reheating or by a heat trace system.~~))

((~~X.~~)) BB. TSPR: total system performance ratio.

((~~Y.~~)) CC. VAV: variable air volume.

DD. Wall, metal building: a wall whose structure consists of metal spanning members supported by steel structural members and does not include spandrel glass or metal panels in curtain wall systems.

EE. Wall, steel-framed: a wall with a cavity, insulated or otherwise, whose exterior surfaces are separated by steel framing members or typical steel stud walls and curtain wall systems.

FF. Wall, wood-framed and other: all other wall types, including wood stud walls.

NEW SECTION. SECTION 46. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C402.1.3 of the Washington State Energy Code is not adopted and the following is substituted:

Insulation component R-value based method (WSEC C402.1.3). Building thermal envelope opaque assemblies shall comply with the requirements of WSEC C402.2 based on the climate zone specified in Chapter 3. For opaque portions of the building thermal envelope intended to comply on an insulation component R-value basis, the R-values for cavity insulation and continuous insulation shall not be less than that specified in WSEC Table C402.1.3. Where cavity insulation is installed in multiple layers, the cavity insulation R-values shall be summed to determine compliance with the cavity insulation R-value requirements.

Where continuous insulation is installed in multiple layers, the continuous insulation R-values shall be summed to determine compliance with the continuous insulation R-value requirements. Cavity insulation R-values shall not be used to determine compliance with the continuous insulation R-value requirements in WSEC Table C402.1.3. Commercial buildings or portions of commercial buildings enclosing Group R occupancies shall use the R-values from the "Group R" column of WSEC Table C402.1.3. Commercial buildings or portions of commercial buildings enclosing occupancies other than Group R shall use the R-values from the "All other" column of WSEC Table C402.1.3.

EXCEPTION: For stair and elevator shafts that do not comply with WSEC C402.1.2.1 and that are located within enclosed garages or other enclosed non-

conditioned spaces and without conditioned supply air or cooling or heating appliances rated higher than 2 kilowatts in any shaft, walls enclosing the shafts are permitted to be:

1. Concrete or masonry with minimum R-5 continuous insulation;
2. Metal studs with R-15 cavity insulation and without continuous insulation; or
3. Other assemblies with a maximum U-value of 0.120.

Slab floors, intermediate mass floor edges, and elevator pits within shafts using this exception are excluded from envelope insulation requirements. Shaft surfaces using this exception shall not be included in the gross exterior wall area for purposes of maximum fenestration area calculations in WSEC C402.4.1 component performance calculations in WSEC C402.1.5, or for the total building performance calculation of WSEC C407.

Table C402.1.3

Opaque Thermal Envelope Insulation Component

Minimum Requirements, R-value Method[a, j]

CLIMATE ZONE	**5 AND MARINE 4**	
	All Other	**Group R**
Roofs		
Insulation entirely above deck	R-38ci	R-38ci
Metal buildings[b]	R-25 + R-22 LS	R-25 + R-22 LS
Attic and other	R-49	R-49

Walls, Above Grade[i]		
Mass[h]	Exterior: R-16ci Interior: R-13+R-6ci wood stud, or R-13 + R-10ci metal stud	Exterior: R-16ci Interior: R-13+R-6ci wood stud, or R-13 + R-10ci metal stud
Mass transfer deck slab edge[g]	See Table C402.1.4	See Table C402.1.4
Metal buildings	R-13 + R-14ci	R-13 + R-14ci
Steel framed	R-13 + R-10ci	R-19 + R-8.5ci
Wood framed and other	R-13 + R-7.5ci std or R-20 + R-3.8ci std	R-13 + R-7.5ci std or R-20 + R-3.8ci std or R-25 std
Walls, Below Grade		
Below-grade wall[d, h]	Exterior: R-10ci Interior: R-19 wood stud, or R-13 + R-6 metal stud	Exterior: R-10ci Interior: R-19 wood stud, or R-13 + R-6 metal stud
Floors		
Mass[f]	R-30ci	R-30ci
Joist/framing	R-30[e]	R-30[e]
Slab-on-Grade Floors		

Unheated slabs	R-10 for 24" below	R-10 for 24" below
Heated slabs	R-10 perimeter & under entire slab	R-10 perimeter & under entire slab

For SI: 1 inch = 25.4 mm. ci = Continuous insulation. NR = No requirement.

LS = Liner system—A continuous membrane installed below the purlins and uninterrupted by framing members. Uncompressed, unfaced insulation rests on top of the membrane between the purlins.

Footnotes:

a. Assembly descriptions can be found in Chapter 2 and Appendix A.

b. Where using R-value compliance method, a thermal spacer block with minimum thickness of 1/2-inch and minimum R-value of R-3.5 shall be provided, otherwise use the U-factor compliance method in WSEC Table C402.1.4.

c. Reserved.

d. Where heated slabs are below grade, they shall comply with the insulation requirements for heated slabs.

e. Steel floor joist systems shall be insulated to R-38 + R-10ci.

f. "Mass floors" shall include floors weighing not less than:

1. 35 pounds per square foot of floor surface area; or

2. 25 pounds per square foot of floor surface area where the material weight is not more than 120 pounds per cubic foot .

g. Component performance in accordance with WSEC C402.1.5 shall be required for buildings with a mass transfer deck slab.

h. Peripheral edges of intermediate concrete floors are included in the above-grade mass wall category and therefore must be insulated as above-grade mass walls unless they meet the definition of Mass Transfer Deck Slab Edge. The area of the peripheral edges of concrete floors is defined as the thickness of the slab multiplied by the perimeter length of the edge condition. See WSEC Table A103.3.7.2 for typical default U-factors for above-grade slab edges and foot-note c for typical conditions of above-grade slab edges.

i. Where the total area of through-wall mechanical equipment is greater than 1 percent of the opaque above-grade wall area, use of the R-value method is not permitted. See WSEC C402.1.4.3.

j. For roof, wall, or floor assemblies where the proposed assembly would not be continuous insulation, alternate nominal R-value compliance options for assemblies with isolated metal fasteners that penetrate otherwise continuous insulation are as shown in columns B and C of WSEC Table C402.1.3(j):

Table C402.1.3(j)

Continuous Insulation Equivalents

Column A	**Column B**	**Column C**
Assemblies with continuous insulation (see definition)	**Alternate option for assemblies with metal penetrations, greater than 0.04% but less than 0.08%**	**Alternate option for assemblies with metal penetrations, greater than or equal to 0.08% but less than 0.12%**
R-9.5ci	R-11.9ci	R-13ci

R-11.4ci	R-14.3ci	R-15.7ci
R-13.3ci	R-16.6ci	R-18.3ci
R-15.2ci	R-19ci	R-21ci
R-30ci	R-38ci	R-42ci
R-38ci	R-48ci	R-53ci
R-13 + R-7.5ci	R-13 + R-9.4ci	R-13 + R-10.3ci
R-13 + R-10ci	R-13 + R-12.5ci	R-13 + R-13.8ci
R-13 + R-12.5ci	R-13 + R-15.6ci	R-13 + R-17.2ci
R-13 + R-13ci	R-13 + R-16.3ci	R-13 + R-17.9ci
R-19 + R-8.5ci	R-19 + R-10.6ci	R-19 + R-11.7ci
R-19 + R-14ci	R-19 + R-17.5ci	R-19 + R-19.2ci
R-19 + R-16ci	R-19 + R-20ci	R-19 + R-22ci
R-20 + R-3.8ci	R-20 + R-4.8ci	R-20 + R-5.3ci
R-21 + R-5ci	R-21 + R-6.3ci	R-21 + R-6.9ci

Notes for Table C402.1.3(j):

1. These alternate nominal R-value compliance options are allowed for projects complying with all of the following:

a. The ratio of the cross-sectional area, as measured in the plane of the surface, of metal penetrations of otherwise continuous insulation to the opaque surface area of the assembly is greater than 0.0004 (0.04 percent), but less than 0.0008 (0.08 percent) for use of Column B equivalents, and greater than or equal to 0.008 (0.08) percent, but less than 0.0012 (0.12 percent), for use of Column C equivalents.

b. Where all metal penetrations are stainless steel, Column B is permitted to be used for penetrations greater than 0.12 percent, but less than 0.24 percent of opaque surface area, and Column C is permitted to be used for penetrations greater than or equal to 0.24 percent, but less than 0.48 percent of opaque surface area.

2. The metal penetrations of otherwise continuous insulation are isolated or discontinuous (e.g., brick ties or other discontinuous metal attachments, offset brackets supporting shelf angles that allow insulation to go between the shelf angle and the primary portions of the wall structure). No continuous metal elements (e.g., metal studs, z-girts, z-channels, shelf angles) penetrate the otherwise continuous portion of the insulation.

3. Building permit drawings shall contain details showing the locations and dimensions of all the metal penetrations (e.g., brick ties or other discontinuous metal attachments, offset brackets, etc.) of otherwise continuous insulation. In addition, calculations shall be provided showing the ratio of the cross- sectional area of metal penetrations of otherwise continuous insulation to the overall opaque wall area.

4. For other cases where the proposed assembly is not continuous insulation, see WSEC C402.1.4 for determination of U-factors for assemblies that include metal other than screws and nails.

SECTION 47. Ordinance 19485, Section 74, and K.C.C. 16.07.060 are hereby amended to read as follows:

Table C402.1.4 of the ((~~International Energy Conservation~~)) Washington State Energy Code is not adopted and the following is substituted:

TABLE C402.1.4

OPAQUE THERMAL ENVELOPE ASSEMBLY MAXIMUM REQUIREMENTS, U-FACTOR METHOD ((~~a,f~~))[a, f]

	CLIMATE ZONE 5 AND MARINE 4	
	All Other	**Group R**
Roofs		
Insulation entirely above deck	U-0.027	U-0.027
Metal buildings	U-0.027	U-0.027
Attic and other	U-0.021	U-0.021
Joist or single rafter	U-0.027	U-0.027
Walls, Above Grade[k]		
Mass((~~g,b~~))[g]	U-0.057	U-0.057
Mass transfer deck slab edge((~~d~~))[i]	U-0.20	U-0.20
Slab penetrating thermal envelope wall((~~h~~))	U-0.10	U-0.10
Metal building((~~b~~))	~~((U-0.052))~~ U-0.050	~~((U-0.052))~~ U-0.050
Steel framed((~~b~~))	U-0.055	U-0.055
Wood framed and other((~~b~~))	U-0.051	U-0.051
Walls, Below Grade		
Below-grade wall((~~g~~))[g]	U-0.070	U-0.070
Floors		
Mass((~~e~~))[e]	U-0.031	U-0.031
Joist/framing	U-0.029 steel joist U-0.025 wood joist	U-0.029 steel joist U-0.025 wood joist

Concrete column or wall penetrating thermal envelope floor((~~i~~))[l]	U-0.55	U-0.55
Concrete slab floor directly above an electrical utility vault	N.R.	N.R.
Slab-on-Grade Floors		
Unheated slabs	F-0.54	F-0.54
Heated slabs((~~e~~))[c]	F-0.55	F-0.55
Opaque Doors		
((~~Swinging door~~))	((~~U-0.37~~))	((~~U-0.37~~))
Nonswinging door	((~~U-0.34~~)) U-0.31	((~~U-0.34~~)) U-0.31
Swinging door[h]	U-0.37	U-0.37
Garage door <14% glazing	U-0.31	U-0.31
Garage door ≥14% glazing and <50% glazing[i]	U-0.34	U-0.34

Footnotes:

a. Use of opaque assembly U-factors, C-factors, and F-factors from ((~~IECC~~)) WSEC Appendix A is required unless otherwise allowed by ((~~IECC~~)) WSEC C402.1.4.

b. ((~~Through-wall mechanical equipment subject to IECC C402.1.4.2 shall be calculated at the U-factor defined in IECC C402.1.4.2. The area-weighted U-value of the wall, including through-wall mechanical equipment, shall not exceed the value in the table~~)) Where heated slabs are below grade, they shall comply with the F-factor requirements for heated slabs.

c. Heated slab F-factors shall be determined specifically for heated slabs. Unheated slab factors shall not be used.

d. ((~~A mass transfer deck, due to its configuration, is not insulated. The table value (U-0.20) shall be used as the baseline value for component performance or total building performance path calculations. For the proposed value, the appropriate value from the top line of IECC Table A104.3.7.2 shall be used~~)) Exception: Integral insulated concrete block walls complying with ASTM C90 with all cores filled and meeting both of the following:

(1) At least 50 percent of cores must be filled with vermiculite or equivalent fill insulation; and

(2) The building thermal envelope encloses one or more of the following uses: Warehouse (storage and retail), gymnasium, auditorium, church chapel, arena, kennel, manufacturing plant, indoor swimming pool, pump station, water and waste water treatment facility, storage facility, storage area, motor vehicle service facility. Where additional uses not listed (such as office, retail, etc.) are contained within the building, the exterior walls that enclose these areas may not utilize this exception and must comply with the appropriate mass wall R-value from Table C402.1.3/U-factor from Table C402.1.4.

e. "Mass floors" shall include floors weighing not less than:

(((~~1~~))). 35 pounds per square foot of floor surface area; or

(((~~2~~))). 25 pounds per square foot of floor surface area where the material weight is not more than 120 pounds per cubic foot .

f. Opaque assembly U-factors based on designs tested in accordance with ASTM C1363 is allowed. The R-value of continuous insulation is allowed to be added or subtracted from the original test design.

g. Peripheral edges of intermediate concrete floors are included in the above grade mass wall category and therefore must be insulated as above grade mass walls unless they meet the definition of a ((~~m~~))Mass ((~~t~~))Transfer ((~~d~~))Deck ((~~s~~))Slab ((~~edge~~)). The area of the peripheral edges of concrete floors shall be defined as the thickness of the slab multiplied by the perimeter length of the edge condition. See ((~~IECC~~)) WSEC Table A103.3.7.2 for typical default U-factors for above-grade slab edges and footnote c for typical conditions of above grade slab edges.

h. ((~~Intermediate concrete floor slabs penetrating the building thermal envelope shall comply with IECC C402.2.9. The area of such penetrating concrete floor slabs shall be defined as the thickness of the slab multiplied by the length of the penetration. The "exposed concrete" row in IECC Table A103.3.7.2 shall be used for typical default U-factors for the penetrating concrete slab~~)) Swinging door U-factors shall be determined in accordance with NFRC-100.

((~~Value applies to concrete columns and concrete walls that interrupt mass floor insulation, but not to perimeter walls or columns separating interior conditioned space from exterior space.~~)) i. Garage doors having a single row of fenestration shall have an assembly U-factor less than or equal to 0.44, provided that the fenestration area is not less than 14 percent and not more than 50 percent of the total door area.

j. Component performance in accordance with WSEC C402.1.5 shall be required for buildings with a mass transfer deck slab. A mass transfer deck, due to its configuration, is not insulation. The table value (U-0.20) shall be used as the baseline value for component performance or total building performance path calculations. For the proposed value, the appropriate value from WSEC Table A103.3.7.2 shall be used.

k. Through-wall mechanical equipment subject to WSEC C402.1.4.3 shall be calculated at the U-factor defined in WSEC C402.1.4.3. The area-weighted U-factor of the wall, including through-wall mechanical equipment, shall not exceed the value in the table.

l. Value applies to concrete columns and concrete walls that interrupt mass floor insulation, but not to perimeter walls or columns separating interior conditioned space from exterior space.

NEW SECTION. SECTION 48. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section 402.1.5 of the Washington State Energy Code is not adopted and the following is substituted:

Component performance alternative (WSEC C402.1.5). Building envelope values and fenestration areas determined in accordance with Equation 4-2 shall be permitted in lieu of compliance with the U-factors and F-factors in WSEC Table C402.1.4 and WSEC C402.4 and the maximum allowable fenestration areas in WSEC C402.4.1.

For buildings with more than one space conditioning category, component performance compliance shall be demonstrated separately for each space conditioning category. Interior partition ceilings, walls, fenestration, and floors that separate space conditioning areas shall be applied to the component performance calculations for the space conditioning category with the highest level of space conditioning.

High-performance vertical fenestration types required by Column B of WSEC Table C402.4 shall be calculated separately from other vertical fenestration types in Equation 4-2.

Equation 4-2:

Proposed Total UA ≤ Allowable Total UA

Where:

Proposed Total UA = UA-glaz-prop + UA sky-prop + UA-opaque-prop + FL-slab-prop.

Allowable Total UA = UA-glaz-allow + UA-glaz-excess + UA sky-allow + UA-sky-excess + UA-opaque-allow + FL-slab-allow.

UA-glaz-prop = Sum of (proposed U-value × proposed area) for each distinct vertical fenestration type, up to code maximum area.

UA-sky-prop = Sum of (proposed U-value × proposed area) for each distinct skylight type, up to the code maximum area.

UA-opaque-prop = Sum of (proposed U-value × proposed area) for each distinct opaque thermal envelope type.

FL-slab-prop = Sum of (proposed F-value × proposed length) for each distinct slab on grade perimeter assembly.

UA-glaz-allow = Sum of (code maximum vertical fenestration U-value from WSEC Table C402.4, or WSEC C402.4.1.1.2 if applicable, × proposed area) for each distinct vertical fenestration type, not to exceed the code maximum area.[1]

UA-glaz-excess = U-value for the proposed wall type from WSEC Table C402.4[2] × vertical fenestration area in excess of the code maximum area.

UA-sky-allow = Sum of (code maximum skylight U-value from WSEC Table C402.4 × proposed area) for each distinct skylight type proposed, not to exceed the code maximum area.

UA-sky-excess = U-value for the proposed roof type from WSEC Table C402.4[3] × skylight area in excess of the code maximum area.

UA-opaque-allow = Code maximum opaque envelope U-value from WSEC Table C402.1.4 for each opaque door, wall, roof, and floor assembly × proposed area.

FL-slab-allow = Code maximum F-value for each slab-on-grade perimeter assembly × proposed length.

Footnotes:

1. Where multiple vertical fenestration types are proposed and the code maximum area is exceeded, the U-value shall be the average WSEC Table C402.1.4 U-value weighted by the proposed vertical fenestration area of each type.

2. Where multiple wall types are proposed the U-value shall be the average WSEC Table C402.1.4 U-value weighted by the proposed above grade wall area of each type.

3. Where multiple roof types are proposed the U-value shall be the average WSEC Table C402.1.4 U-value weighted by the proposed roof area of each type.

SECTION 49. Ordinance 19485, Section 78, and K.C.C. 16.07.100 are hereby amended to read as follows:

Section C402.4 of the ((~~International Energy Conservation~~)) Washington State Energy Code is not adopted and the following is substituted:

Fenestration – prescriptive (((~~IECC~~)) WSEC C402.4). Fenestration shall comply with ((~~IECC~~)) WSEC C402.4 through C402.4.4 and IECC Table C402.4. Column A values in WSEC Table C402.4 apply to a maximum of 80 percent of the total building vertical fenestration area, or 65 percent to comply with Exception 1 to WSEC C402.4.1. The minimum 20 percent of fenestration required to meet the Column B high-performance U-factors, or 35 percent to comply with Exception 1 to WSEC C402.4.1, is permitted to be met using any combination of vertical fenestration types with Column B values listed, and those maximum U-factors must be maintained when using the component performance alternative in WSEC C402.1.5. An area-weighted average of Column B U-factors is permitted, in compliance with the exception to WSEC C402.1.5. Daylight responsive controls shall comply with this section and ((~~IECC C405.2.4~~)) WSEC C405.2.5.

EXCEPTIONS:

1. Buildings or additions with less than 5,000 square feet (464.5 square meters) of conditioned floor area are not required to provide the Column B high performance fenestration.

2. For prescriptive envelope compliance, single-pane glazing is allowed for security purposes and for revolving doors, not to exceed ((~~one~~)) 1 percent of the gross exterior wall area. Where ((~~IECC~~)) WSEC C402.1.5, component performance alternative, is used, the single-pane glazing shall be included in the percentage of the total glazing area, U-factor, and SHGC requirements.

Table C402.4

Building Envelope Fenestration Maximum U-factor and SHGC Requirements

((~~CLIMATE ZONEs 5 AND MARINE 4~~))	**Column A** **Standard performance portion, applicable to no more than 80 percent of vertical fenestration area, or 65 percent for compliance with Exception 1 to WSEC Section C402.4.1**	**Column B** **High performance portion, applicable to no less than 20 percent of vertical fenestration area, or 35 percent for compliance with Exception 1 to WSEC Section C402.4.1**
U-factor for Class AW windows rated in accordance with AAMA/CSA101/I.S.2/A440, vertical curtain walls and site-built fenestration products[a]		
Fixed[b] U-factor	U-0.34	U-0.22
Operable[c] U-factor	U-0.36	U-0.26
U-factor for ((~~E~~))entrance doors[d]		
U-factor	U-0.60	n/a
U-factor for all other vertical fenestration		
Fixed U-factor	U-0.26	U-0.20
Operable[c] U-factor	U-0.28	U-0.20
SHGC for all vertical fenestration		
Orientation[((e,)) f]	**((~~SEW~~)) Fixed**	**((~~N~~)) Operable**

PF < 0.2	0.38	((~~0.51~~)) 0.33	n/a
0.2 ≤ PF < 0.5	0.46	((~~0.56~~)) 0.40	n/a
PF ≥ 0.5	0.61	((~~0.61~~)) 0.53	n/a
All Skylights			
U-factor	U-0.45		n/a
SHGC	0.32		n/a

Footnotes:

a. U-factor and SHGC shall be rated in accordance with NFRC 100. This category includes curtain wall, storefront, ribbon wall, window wall, and similar site-assembled systems. This category does not include punched-opening manufactured windows except for "Class AW" windows as designated by AAMA.

b. "Fixed" includes curtain wall, storefront, picture windows, and other fixed windows.

c. "Operable" includes openable fenestration products other than "entrance doors((~~.~~))," and includes only the operable portions of multi-pane assemblies.

d. "Entrance door" includes glazed swinging entrance doors and glazed automatic sliding entrance doors. Other doors which are not entrance doors, including manually operated sliding glass doors, are considered "operable."

e. ((~~"N" indicates vertical fenestration oriented within 30 degrees of true north. "SEW" indicates orientations other than "N."~~)) Reserved.

f. Fenestration that is entirely within the conditioned space or is between conditioned and other enclosed space is exempt from solar heat gain coefficient requirements and not included in the SHGC calculation.

NEW SECTION. SECTION 50. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C402.4.1 of the Washington State Energy Code is not adopted and the following is substituted:

Fenestration – Maximum area (WSEC C402.4.1). The total building vertical fenestration area (not including opaque doors and opaque spandrel panels) shall not exceed the percentage of above-grade wall area permitted by WSEC Table C402.4.1. The skylight area shall not exceed 5 percent of the total building gross roof area (skylight-to-roof ratio).

For buildings with more than one space conditioning category, compliance with the maximum allowed window-to-wall ratio and skylight-to-roof ratio shall be demonstrated separately for each space conditioning category. Interior partition ceiling, wall, fenestration, and floor areas that separate space conditioning areas shall not be applied to the window-to-wall ratio and skylight-to-roof ratio calculations.

EXCEPTIONS:

1. The allowable total building vertical fenestration area in WSEC Table C402.4.1 is permitted to be increased by 5 percent where a minimum of 35 percent of all vertical fenestration complies with the high-performance fenestration required in Column B of WSEC Table C402.4.

2. For vertical fenestration at street level retail, the vertical fenestration area shall not exceed 75 percent of the area of the street-level wall that faces the street or that adjoins other pedestrian areas used for retail access. For the purposes of this exception, the street-level wall shall be measured from the street-level floor to the interior ceiling

level or to 20 feet (6,096 millimeters) above floor level, whichever is lowest. When this exception is used, separate calculations shall be performed for these sections of the building envelope, and these values shall not be averaged with any others for compliance purposes. On the street level the 75 percent vertical fenestration area is permitted to be exceeded if the additional fenestration area is deducted from fenestration allowances from other areas of the building.

3. Accessory occupancy areas that comprise less than 10 percent of the conditioned floor area of any floor are permitted to be included in the primary occupancy of that floor for determination of the allowable fenestration area for that floor.

Table C402.4.1

Allowable Vertical Glazing Area Percentages

Occupancy	**Building Area Type**	**Maximum prescriptive vertical fenestration percentage**
Group A-2 or B	Restaurant (quick service)	34
Group A-2 or B	Restaurant (full service)	24
Group B	Healthcare (outpatient)	21
Group B	Office (5,000 ft^2 or smaller)	19
Group B	Office (5,000 to 50,000 ft^2)	31
Group B	Office (larger than 50,000 ft^2)	35
Group B	University or college	30
Group E	School (primary and secondary)	26
Group I-2	Hospital	27

Group M	Grocery Store	15
Group M	Retail (standalone)	20
Group M	Retail (strip mall)	20
Group R-1	Hotel/motel (75 or fewer rooms)	24
Group R-1	Hotel/motel (more than 75 rooms)	34
Group R-2	Multifamily 7 stories or less	30
Group R-2	Multifamily 8 stories or taller	35
Group S-2	Warehouse (non-refrigerated)	6
	All other	30

NEW SECTION. SECTION 51. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C402.4.1.1 of the Washington State Energy Code is not adopted and the following is substituted:

Vertical fenestration maximum area with high performance alternates (WSEC C402.4.1.1). For buildings that comply with Section C402.4.1.1.1 or Section C402.4.1.1.2, the total building vertical fenestration area is permitted to exceed the percentage of the total building gross above grade wall area allowed in Table C402.4.1 by 15 percent for Group R-2 multifamily building area types and 10 percent for all other building area types for the purpose of prescriptive compliance with Section C402.1.4. Not less than 20 percent of all vertical fenestration must comply with the Column B values of WSEC Table C402.4.

When determining compliance using the component performance alternative in accordance with WSEC C402.1.5, the total building vertical fenestration area allowed in

Equation 4-2 (UA-glaze-allow) is allowed to exceed the value in WSEC Table C402.4.1 for Group R-2 multifamily building area types by 15 percent and for all other building area types by 10 percent of the above grade wall area for buildings that comply with the vertical fenestration alternates described in this section.

SECTION 52. Ordinance 19485, Section 79, and K.C.C. 16.07.110 are hereby amended to read as follows:

Section C402.4.1.1.2 of the ((~~International Energy Conservation~~)) Washington State Energy Code is not adopted and the following is substituted:

High-performance fenestration ((~~IECC~~)) (WSEC C402.4.1.1.2). The following requirements shall be met:

1. All vertical fenestration in the building shall comply with the ((~~following maximum~~)) U-factors ((~~:~~

~~1.1. U-factor for Class AW windows rated in accordance with AAMA/CSA101/I.S.2/A440, vertical curtain walls and site-built fenestration products (fixed) = 0.30.~~

~~1.2. U-factor for Class AW windows rated in accordance with AAMA/CSA101/I.S.2/A440, vertical curtain walls and site-built fenestration products (operable) = 0.36.~~

~~1.3. Entrance doors = 0.60.~~

~~1.4. U-factor for all other vertical fenestration, fixed = 0.22.~~

~~1.5. U-factor for all other vertical fenestration, operable = 0.24~~)) in WSEC Table C402.4.1.1.2.

2. The SHGC of the vertical fenestration shall be no more than 0.90 times the maximum SHGC values listed in ((~~IECC~~)) WSEC Table C402.4.

3. An area-weighted average may satisfy the U-factor requirement for each fenestration product category listed in ((~~subsection 1 of this section~~)) WSEC Table C402.1.1.2. Individual fenestration products from different fenestration product categories shall not be combined in calculating the area-weighted average U-factor, except that fenestration from the same column in lines a. and b. are permitted to be combined, and the fenestration from the same column in lines d. and e. are permitted to be combined. Maximum U-factors for skylights, and the maximum SHGC values for all fenestration, shall comply with WSEC C402.4.

Table C402.4.1.1.2

Building Envelope High Performance Fenestration Maximum U-Factor

		Column C **Standard performance portion, applicable to no more than 80 percent of vertical fenestration area, or 65 percent for compliance with Exception 1 to WSEC C402.4.1**	**Column D** **High performance portion applicable to no less than 20 percent of vertical fenestration area, or 35 percent for compliance with Exception 1 to WSEC C402.4.1**
U-factor for Class AW windows rated in accordance with AAMA/CSA101/I.S.2/A440, vertical curtain walls and site-built fenestration products[1]			
a.	Fixed[2] U-factor	U-0.26	U-0.22
b.	Operable[3] U-factor	U-0.30	U-0.26
U-factor for entrance doors[4]			
c.	U-factor	U-0.60	n/a
U-factor for all other vertical fenestration			
d.	Fixed U-factor	U-0.22	U-0.20
e.	Operable or mulled windows with fixed and operable sections U-factor	U-0.23	U-0.22

Footnotes:

1. U-factor and SHGC shall be rated in accordance with NFRC 100. This category includes curtain wall, storefront, ribbon wall, window wall, and similar site-assembled systems. This category does not include punched-opening manufactured windows except for "Class AW" windows as designated by AAMA.

2. "Fixed" includes curtain wall, storefront, picture windows, and other fixed windows.

3. "Operable" includes openable fenestration products other than "entrance doors," and includes only the operable portions of multi-pane assemblies.

4. "Entrance door" includes glazed swinging entrance doors and automatic glazed sliding entrance doors. Other doors which are not entrance doors, including manually operated sliding glass doors, are considered "operable."

SECTION 53. Ordinance 19485, Section 81, and K.C.C. 16.07.130 are hereby amended to read as follows:

Section C403.1.1 of the ((~~International Energy Conservation~~)) Washington State Energy Code is supplemented with the following:

HVAC Total System Performance Ratio (HVAC TSPR) ((~~- medical office and residential applications~~)) (WSEC C403.1.1.1). ((~~Systems serving medical offices, and the dwelling units and residential common areas within R-2 multifamily, shall comply with 403.1.1.~~)) For systems serving occupancy areas included in WSEC Table C403.1.1, the HVAC total system performance ratio (HVAC TSPR) of the proposed design HVAC system shall be greater than or equal to the HVAC TSPR of the standard

reference design as calculated according to Appendix D, Calculation of HVAC Total System Performance Ratio.

Table C403.1.1

Occupancy Classifications Requiring TSPR

Occupancy Classification	**Inclusions**	**Excluded**
A	Library	All other Group A uses
B	Office, medical office	All other Group B uses
E	All occupancies included	
M	All occupancies included	
R	Dwelling units and common areas within Group R-2 areas of buildings	Groups R-1 and R-3 occupancies. Sleeping units and associated residential common areas in Group R-2
F, H, I, S, U		All occupancies

EXCEPTIONS TO SECTION C403.1.1: ((~~Buildings or areas of medical office buildings that comply fully with ASHRAE Standard 170, including but not limited to surgical centers, or that are required by other applicable codes or standards to provide air handling units that operate 24 hours per day, 7 days per week.~~))

1. Buildings where the sum of the conditioned floor area of occupancies included in the Inclusions column of WSEC Table C403.1.1 is less than 5,000 square feet (464.5 square meters). Areas that are eligible for any of the exceptions below do not count towards the 5,000 square feet (464.5 square meters).

2. HVAC systems using district heating water, chilled water, or steam.

3. HVAC systems connected to a low-carbon district energy exchange system.

4. HVAC systems not included in Table D601.10.1.

5. HVAC systems with chilled water supplied by absorption chillers, heat recovery chillers, water to water heat pumps, air to water heat pumps, or a combination of air and water cooled chillers on the same chilled water loop.

6. HVAC systems included in WSEC Table D601.10.1 with parameters in WSEC Table D601.10.2 not identified as applicable to that HVAC system type.

7. HVAC systems served by heating water plants that include air-to-water or water-to-water heat pumps.

8. Underfloor air distribution and displacement ventilation HVAC systems.

9. Space conditioning systems that do not include mechanical cooling.

10. Alterations to existing buildings that do not substantially replace the entire HVAC system and are not serving initial build-out construction.

11. HVAC systems meeting all the requirements of the standard reference design HVAC system in WSEC Table D602.11, Standard Reference Design HVAC Systems.

12. Buildings or areas of medical office buildings that comply fully with ASHRAE Standard 170 including, but not limited to, surgical centers, or that are required by other applicable codes or standards to provide 24/7 air handling unit operation.

13. HVAC systems serving the following areas and spaces:

13.1. Laundry rooms;

13.2. Elevator machine rooms;

13.3. Mechanical and electrical rooms;

13.4. Data centers and computer rooms;

13.5. Laboratories with fume hoods;

13.6. Locker rooms with more than 2 showers;

13.7. Natatoriums and rooms with saunas;

13.8. Restaurants and commercial kitchens with total cooking capacity greater than 100,000 Btu/h (29.3 kilowatts);

13.9. Areas of buildings with commercial refrigeration equipment exceeding 100 kW of power input; and

13.10. Cafeterias and dining rooms.

SECTION 54. Ordinance 19485, Section 82, and K.C.C. 16.07.140 are hereby amended to read as follows:

Section C403.1.4 of the ((~~International Energy Conservation~~)) Washington State Energy Code is ((~~supplemented with~~)) not adopted and the following is substituted:

Use of electric resistance and fossil fuel-fired HVAC heating equipment (((I~~ECC~~)) WSEC C403.1.4). HVAC heating energy shall not be provided by electric resistance or fossil fuel combustion appliances. For the purposes of this section, electric resistance HVAC heating appliances include, but are not limited to, electric baseboard, electric resistance fan coil,((~~and~~)) VAV electric resistance terminal reheat units, and electric resistance boilers. For the purposes of this section, fossil fuel combustion HVAC heating appliances include but are not limited to appliances burning natural gas, heating oil, propane, or other fossil fuels.

EXCEPTIONS:

1. ((~~Pasteurization. Electric resistance heat controls are allowed to reset the supply water temperature of hydronic heating systems that serve service water heating heat exchangers during pasteurization cycles of the service hot water storage volume. The hydronic heating system supply water temperature shall be configured to be 145° F or lower during the pasteurization cycle.~~

~~2.~~)) Low heating capacity. Buildings or areas of buildings, other than dwelling units or sleeping units, that meet the interior temperature requirements of ((~~International Building Code~~)) IBC Chapter 12 with a total installed HVAC heating capacity no more than 8.5 Btu/h (2.5 ((~~W~~)) watts) per square foot (per 0.1 square meter) of conditioned space may be heated using electric resistance appliances. ((~~For the purposes of this exception, overhead or wall-mounted radiant heating panels installed in an unheated or semi-heated space, insulated in compliance with IECC C402.2.8 and controlled by occupancy sensing devices in compliance with IECC C403.11.1 shall not be part of the HVAC heating energy calculation.~~))

((~~3.~~)) 2. Dwelling or sleeping units. Dwelling or sleeping units ((~~having an installed HVAC heating capacity no more than~~)) may be heated using electric resistance appliances as long as the installed HVAC heating capacity in any separate space is not greater than specified in 2.1 through 2.3. Where a single dwelling unit includes multiple habitable spaces that are all heated with electric resistance heat, individual spaces are permitted to have more electric resistance heating capacity than specified in 2.1 through 2.3, where the total electric resistance heating capacity for the dwelling unit is less than or equal to the total allowed.

2.1 750 ((~~W~~)) watts in ((~~any separate~~)) each habitable room with exterior fenestration ((~~may be heated using electric resistance appliances~~)).

((~~3.1 Corner rooms. A room within a dwelling or sleeping unit~~)) 2.2. 1,000 watts for each habitable space that has two primary walls facing different cardinal directions, each with exterior fenestration((~~, is permitted to have an installed HVAC heating capacity no more than 1000 watts~~)). Bay windows and other minor offsets are not considered primary walls.

((~~4.~~))2.3. 250 watts in spaces adjoining the building thermal envelope but without exterior fenestration.

For the purposes of this section habitable space is as defined in the IBC.

3. Small buildings. Buildings with less than 2,500 square feet (232 square meters) of conditioned floor area may be heated using electric resistance appliances.

((~~5.~~)) 4. Defrost. Heat pumps may use electric resistance as the first stage of heating when a defrost cycle is required and is in operation.

((~~6.~~)) 5. Air-to-air heat pumps. Buildings ((~~may use~~)) are permitted to utilize electric resistance ((~~auxiliary heating to~~)) supplemental ((~~heat pump~~)) heating for air-to-air heat pumps ((~~with~~)) that meet all of the following conditions:

((~~6.1.~~)) 5.1. Internal electric resistance heaters have controls that prevent supplemental heater operation when the heating load can be met by the heat pump alone during both steady-state operation and setback recovery.

((~~6.2.~~)) 5.2. The heat pump controls are configured to use the compressor to provide heating down to an outdoor air temperature of 17° ((~~F~~)) Fahrenheit (-8° Celsius) or lower((~~;~~)).

EXCEPTIONS TO 5.2:

1. Packaged terminal heat pumps (PTHPs) that comply with the minimum heating efficiency requirements in Table C403.3.2(4) are exempt from heat pump controls capable of operating the compressor as the first stage of heating down to an outdoor air temperature of 17° Fahrenheit (-8° Celsius) or lower.

2. Heat pumps whose minimum efficiency is regulated by NAECA and whose ratings meet the requirements shown in WSEC Table C403.3.2(2) and include all usage of internal electric resistance heating are exempt from heat pump controls capable of operating the compressor as the first state of heating down to an outdoor air temperature of 17° Fahrenheit (-8° Celsius) or lower, except that thermostats that are not integral to the heat pump equipment shall be configured to use the compressor as the first stage of heating down to an outdoor air temperature of 17° Fahrenheit (-8° Celsius) or lower except when in defrost.

((~~6.3.~~)) 5.3. The heat pump complies with all of the following:

((~~a.~~)) 5.3.1. Controlled ((~~bya~~)) by a digital or electronic thermostat designed for heat pump use that energizes the supplemental heat only when the heat pump has insufficient capacity to maintain set point or to warm up the space at a sufficient rate;

((~~b.~~)) 5.3.2. Controlled by a multistage space thermostat and an outdoor air thermostat wired to energize supplemental heat only on the last stage of the space thermostat and when outdoor air temperature is less than 32° ((~~F~~)) Fahrenheit (0° Celsius); or

((~~e.~~)) 5.3.3. The minimum efficiency of the heat pump is regulated by NAECA, its rating meets the requirements shown in ((~~IECC~~)) WSEC Table C403.3.2(2), and its rating includes all usage of internal electric resistance heating.

((~~6.4~~)) 5.4. The heat pump rated heating capacity is sized to meet the heating load at an outdoor air temperature of 32° ((~~F~~))) Fahrenheit (0° Celsius) or lower and has a rated heating capacity at 47° ((~~F~~)) Fahrenheit (8° Celsius) no less than 2 times more than supplemental electric resistance heating capacity, or uses the smallest available factory-available internal electric resistance heater.

((~~7.~~)) 6. Air-to-water heat pumps ((~~, up to 2,000 MBH~~)). Buildings ((~~may use~~))are permitted to utilize electric resistance (for Climate Zone 4) auxiliary heating to supplement heat pump heating for hydronic heating systems that ((~~have air-to-water heat pump heating capacity no more than 2,000 kBtu/h at 47° F, and that~~)) meet all of the following conditions:

((~~7.1.~~)) 6.1. Controls for the auxiliary electric resistance heating are configured to lock out the supplemental heat when the outside air temperature is above ((~~32°F~~)) 36° Fahrenheit (2° Celsius), unless the hot water supply temperature setpoint to the building heat coils cannot be maintained for 20 minutes;

((~~7.2.~~)) 6.2. The heat pump controls are configured to use the compressor as the first stage of heating down to ((~~an outdoor temperature of 17° F or lower~~)) the lowest exterior design temperature for which the equipment is rated except during startup or defrost operation; and

((~~7.3.~~)) 6.3. The heat pump rated heating capacity at 47°((~~F~~)) Fahrenheit (8° Celsius) is no less than ((~~2 times more than supplemental electric resistance heating capacity~~)) 75 percent of the design heating load at 29° Fahrenheit (-2° Celsius).

((~~8. Air-to-water heat pumps, up to 3,000 MBH. Buildings may use electric resistance auxiliary heating to supplement heat pump heating for hydronic heating systems that have air-to-water heat pump heating capacity more than 2,000 kBtu/hr and no more than 3,000 kBtu/hr at 47° F, and that meet the following conditions:~~

~~8.1. Controls for the auxiliary electric resistance heating are configured to lock out the supplemental heat when the outside air temperature is above 36° F, unless the hot water supply temperature setpoint to the building heat coils cannot be maintained for 20 minutes;~~

~~8.2. The heat pump controls are configured to use the compressor as the first stage of heating down to an outdoor temperature of 17° F or lower except during startup or defrost operation; and~~

~~8.3. The heat pump rated heating capacity at 47° F is no less than 1.75 times more than supplemental electric resistance heating capacity.~~

~~9. Air-to-water heat pumps, over 3,000 MBH. Buildings may use electric resistance auxiliary heating to supplement heat pump heating for hydronic heating systems that have air-to-water heat pump heating capacity more than 3,000 kBtu/h at 47° F, and that meet the following conditions:~~

~~9.1. Controls for the auxiliary electric resistance heating are configured to lock out the supplemental heat when the outside air temperature is above 40° F, unless the hot~~

~~water supply temperature setpoint to the building heat coils cannot be maintained for 20 minutes;~~

~~9.2. The heat pump controls are configured to use the compressor as the first stage of heating down to an outdoor temperature of 17° F or lower except during startup or defrost operation; and~~

~~9.3. The heat pump rated heating capacity at 47° F is no less than 2 times more than supplemental electric resistance heating capacity.~~

~~10.~~)) 7. Ground source heat pumps. Buildings may use electric resistance auxiliary heating to supplement heat pump heating for hydronic heating systems with ground source heat pump equipment that meets the following conditions:

((~~10.1.~~)) 7.1. Controls for the auxiliary resistance heating are configured to lock out the supplemental heat when the outdoor air temperature is above ((~~32° F~~)) 42° Fahrenheit (6° Celsius), unless the hot water supply temperature setpoint to the building heat coils cannot be maintained for 20 minutes;

((~~10.2.~~)) 7.2. The heat pump controls are configured to use the compressor as the first stage of heating ((~~down to an outdoor temperature of 17° F or lower~~)); and

((~~10.3.~~)) 7.3. The ((~~heat pump rated heating capacity at 32° F entering water conditions is no less than 2 times more than supplemental electric resistance heating capacity~~)) ground source heat exchanger shall be sized so that the heat pump annual heating output is no less than 75 percent of the total annual heating output in the final year of a 30-year simulation using International Ground Source Heat Pump Association (IGSHPA) listed simulation software.

((~~11.~~)) 8. Small systems. Buildings in which electric resistance or fossil fuel appliances, including decorative appliances, in total either provide less than 5 percent of the total building HVAC system heating capacity or serve less than 5 percent of the conditioned floor area.

((~~12.~~)) 9. Specific conditions. Portions of buildings that require fossil fuel or electric resistance space heating for specific conditions approved by the code official for research, health care, process, or other specific needs that cannot practicably be served by heat pump or other space heating systems. This does not constitute a blanket exception for any occupancy type.

((~~13.~~)) 10. Kitchen ((~~exhaust~~)) make-up air. Make-up air for commercial kitchen exhaust systems required to be tempered by ((~~International Mechanical Code Section~~)) IMC 508.1.1 may be heated using electric resistance ((~~appliances~~)).

((~~14.~~)) 11. District energy. Steam or hot water district energy systems that ((~~use~~)) utilize fossil fuels as their primary source of heat energy, that serve multiple buildings, and that were already in existence ((~~before January 1, 2023~~)) prior to March 15, 2024, including more energy-efficient upgrades to such existing systems, ((~~may~~)) are permitted to serve as the primary heating energy source. Any new hydronic system or new or replacement hydronic heating coil in an existing system, that is served by fossil fuel-fired district energy shall be sized to provide all required space heating at local design winter outdoor temperature with maximum entering water temperature of 118° Fahrenheit (48° Celsius) at design conditions, to permit future conversion to heat pump heating.

((~~15.~~)) 12. Heat tape. Heat tape is allowed where it protects water-filled equipment and piping located outside of the building thermal envelope, ((~~if~~)) provided

that it is configured and controlled to be automatically turned off when the outside air temperature is above 40° ((~~F~~)) Fahrenheit (4° Celsius).

((~~16.~~)) 13. Temporary systems. Temporary electric resistance heating systems are allowed where serving future tenant spaces that are unfinished and unoccupied if the heating equipment is sized and controlled to achieve interior space temperatures no higher than 40° ((~~F~~)) Fahrenheit (4° Celsius).

((~~17.~~)) 14. Pasteurization. Electric resistance heat controls are allowed to reset the supply water temperature of hydronic heating systems that serve service water heating heat exchangers during pasteurization cycles of the service hot water storage volume. The hydronic heating system supply water temperature shall be configured to be 145° Fahrenheit (63° Celsius) or lower during the pasteurization cycle.

15. Freeze protection. Heating systems sized for spaces with indoor design conditions of 45° Fahrenheit (7° Celsius) and intended for freeze protection are permitted to use electric resistance. The building envelope of any such space shall be insulated in compliance with WSEC C402.1.

16. DOAS ERV auxiliary heat. Dedicated outdoor air systems with energy recovery ventilation are permitted to utilize electric resistance for auxiliary heating to preheat outdoor air for defrost or as auxiliary supplemental heat to temper supply air to 55° Fahrenheit (13° Celsius) or lower for buildings or portions of buildings that do not have hydronic heating systems.

17. Low-carbon district energy systems. Low-carbon district energy systems that meet the definitions of low-carbon district energy exchange system or low-carbon district heating and cooling or heating only systems.

18. Essential facilities. Groups I-2 and I-3 occupancies that by regulation are required to have in place redundant emergency backup systems, and research laboratories, are permitted to utilize fossil fuels for emergency generators and for redundant emergency space heating and water heating appliances, provided that such systems are sized and controlled to operate only upon loss of electrical power.

19. Standby HVAC heating equipment. Standby HVAC heating equipment provided in addition to the primary heating system, and controlled such that it will only be used when the primary heating equipment is not available, is permitted to utilize electric resistance.

20. Emergency generators. ((~~Emergency generators~~)) Generators serving emergency power, legally required standby power, or optional standby power are permitted to ((~~use~~)) utilize fossil fuels.

21. Wastewater heat recovery heat pumps. Buildings are permitted to utilize electric resistance auxiliary heating to supplement heat pump heating for hydronic heating systems with wastewater heat recovery or other approved waste heat recovery systems provided the heat pump equipment meets all of the following conditions:

21.1. Controls for the auxiliary resistance heating are configured to lock out the supplemental heat when the equipment source-side entering water temperature is above 42° Fahrenheit (6° Celsius), unless the hot water supply temperature setpoint to the building heat coils cannot be maintained for 20 minutes.

21.2. The heat pump controls are configured to use the compressor as the first stage of heating.

21.3. The wastewater heat exchanger and heat pumps or other heat pump supplemental systems shall be sized so that the heat pump rated heating capacity at heat pump design entering water temperature conditions or other heat pump heating systems are no less than 75 percent of the design heating load at 29° Fahrenheit (-2° Celsius). Wastewater heat exchanger source side shall be sized for a design wastewater entering temperature of 55° Fahrenheit (13° Celsius) or lower.

NEW SECTION. SECTION 55. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.3.2 of the Washington State Energy Code is not adopted and the following is substituted:

HVAC equipment performance requirements (WSEC C403.3.2). Equipment shall meet the minimum efficiency requirements of Tables C403.3.2(1) through C403.3.2(16) when tested and rated in accordance with the applicable test procedure. After new equipment efficiency values including HSPF2, EER2, and SEER2 have been published by the US Department of Energy, equipment is permitted to meet those values in lieu of the table values. Plate-type liquid-to-liquid heat exchangers shall meet the minimum requirement of AHRI 400. The efficiency shall be verified through certification and listed under an approved certification program or, if no certification program exists, the equipment efficiency ratings shall be supported by data furnished by the manufacturer. Where multiple rating conditions or performance requirements are provided, the equipment shall satisfy all stated requirements. Where components, such as indoor or outdoor coils, from different manufacturers are used, calculations and

supporting data shall be furnished by the designer that demonstrates that the combined efficiency of the specified components meets the requirements herein.

Air-to-water heat pump manufactures shall report the hourly heating output or heating efficiency with and without defrost operation at 32° Fahrenheit or (0° Celsius), in addition to meeting the efficiency requirements of Table C403.3.2(15) at the AHRI 550/590 applicable leaving water temperatures. The hourly heating output or heating efficiency with and without defrost operation shall be documented on the mechanical permit application documents.

EXCEPTION: Heat recovery chillers and air-to-water heat pumps covered under Table C403.3.2(15) are not required to be listed in the AHRI certification program for AHRI 550/590. The equipment heating and cooling efficiency ratings shall be supported by data furnished by the manufacturer at AHRI 550/590 conditions. Where multiple rating conditions or performance requirements are provided, the equipment shall satisfy all stated requirements.

NEW SECTION. SECTION 56. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Table C403.3.5 of the Washington State Energy Code is not adopted and the following is substituted:

Table C403.3.5

Occupancy Classifications Requiring DOAS

Occupancy Classification[a]	Inclusions	Exempted
A-1	All occupancies not specifically exempted	Television and radio studios
A-2	Casinos (gaming area)	All other A-2 occupancies
A-3	Lecture halls, community halls, exhibition halls, gymnasiums, courtrooms, libraries, places of religious worship	All other A-3 occupancies
A-4, A-5		All occupancies excluded
B	All occupancies not specifically exempted	Food processing establishments including commercial kitchens, restaurants, cafeterias; laboratories for testing and research; data processing facilities and telephone exchanges; air traffic control towers; animal hospitals, kennels, pounds; ambulatory care facilities
F, H, I, S, U		All occupancies excluded
R	Group R dwelling and sleeping units served by energy recovery ventilation systems that each serve two or more dwelling or	Groups R-1 and R-3 dwelling or sleeping units for which energy recovery ventilation is not required in accordance with WSEC C403.7.6.

Occupancy Classification[a]	Inclusions	Exempted
	sleeping units for which energy recovery ventilation is required in accordance with Section C403.7.6. Group R spaces other than dwelling and sleeping units, including corridors and other common use areas.	Group R dwelling and sleeping units served by energy recovery ventilation systems that each serve only one dwelling or sleeping unit.
E, M	All occupancies included	

Footnote:

a. Occupancy classification from the IBC Chapter 3.

NEW SECTION. SECTION 57. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.3.5.2 of the Washington State Energy Code is not adopted and the following is substituted:

DOAS fan power (WSEC C403.3.5.2). For a DOAS that does not have at least one fan or fan array with fan electrical input power greater than or equal to 1 kilowatt, the total combined fan power shall not exceed 0.8 watts per cubic feet (0.03 cubic meters) per minute of outdoor air as calculated in accordance with Equation 4-10 using design maximum airflows and external static pressures. For a DOAS with at least one fan or fan array with fan electrical input power less than or equal to 1 kilowatt, the DOAS shall

comply with the fan power limitations of WSEC C403.8.1. DOAS total combined fan power shall include all supply, exhaust, and other fans utilized for the purpose of ventilation. This fan power restriction applies to each DOAS in the permitted project but does not include the fan power associated with the zonal heating and cooling equipment.

(Equation 4-10)

DOAS Total Combined Fan Power

$$\left(\frac{Watts}{CFM}\right) = \sum\left(\frac{Fan\ bhp}{\eta_m}\right) \times \frac{746}{CFM_{supply}}$$

Where:			
	Fan bhp	=	Brake horsepower for each supply, exhaust, and other fan in the system at design maximum airflow rate.
	η_m	=	Fan motor efficiency including all motor, drive, and other losses for each fan in the system.
	CFM_{supply}	=	Design maximum airflow rate of outdoor (supply) air.

NEW SECTION. SECTION 58. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.3.5.5 of the Washington State Energy Code is not adopted and the following is substituted:

Supplemental heating and cooling (WSEC C403.3.5.5). Supply air stream heating in the DOAS system shall comply with WSEC C403.7.3. Cooling is permitted for dehumidification only. Cooling coil shall be sized to meet peak dehumidification requirement at design outdoor temperatures, and no larger. Cooling coil shall be controlled to maintain supply air relative humidity or zone relative humidity.

EXCEPTIONS:

1. Heating permitted for defrost control shall be locked out when outside air temperatures are above 35° Fahrenheit (2° Celsius). Supplemental heating for defrost shall modulate to 10 percent of the peak capacity, and shall be sized to prevent frost damage to the unit at design temperatures and provide supply air less than or equal to 55° Fahrenheit (13° Celsius).

2. A DOAS serving Group R-1 or R-2 occupancy spaces that are served by zonal heating systems, but not by zonal heat pumps, air conditioners, or other zonal mechanical cooling systems, is permitted to be provided with a supplemental heating and cooling system in compliance with WSEC C403.1.4.

NEW SECTION. SECTION 59. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.3.5.6 of the Washington State Energy Code is not adopted and the following is substituted:

DOAS Energy Recovery Ventilator Temperature Control (WSEC C403.3.5.6). Where DOAS includes energy or heat recovery and the design outdoor airflow is greater than 500 cubic feet per minute 236 liters per second), the DOAS shall be equipped with an air economizer bypass damper, energy recovery media bypass damper, or energy recovery wheel speed control that is controlled to prevent overheating of the supply air between the outdoor air temperatures of 55° Fahrenheit (13° Celsius) and 75° Fahrenheit (24° Celsius). Controls must be configured to minimize energy recovery operation or maintain an appropriate DOAS leaving air temperature to prevent zonal heating when the building is in cooling, based either on outdoor air temperature,

return air temperature, or a DDC zone-based cooling system demand status reset, based on one of the following:

1. Outdoor air temperature;

2. Return air temperature; or

3. A DDC zone-based cooling system demand status reset.

NEW SECTION. SECTION 60. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.3.5 of the Washington State Energy Code is supplemented with the following:

Impracticality (WSEC C403.3.5.7). Where the code official determines that full compliance with one or more of the requirements in WSEC C403.3.5.1 through C403.3.5.6 is impractical, it is permissible to provide an approved alternate means of compliance that achieves a comparable level of energy efficiency as the requirement(s) deemed impractical. For the purposes of this section, impractical means that an HVAC system complying with all requirements in WSEC C403.3.5 cannot effectively be utilized due to an unusual use or configuration of the building.

NEW SECTION. SECTION 61. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.3.6 of the Washington State Energy Code is not adopted and the following is substituted.

Ventilation for Group R-2 Occupancy (WSEC C403.3.6). See Section C403.7.6.1 for Ventilation for Group R-2 occupancies.

NEW SECTION. SECTION 62. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.4.1.7 of the Washington State Energy Code is not adopted and the following is substituted:

Demand responsive controls (WSEC C403.4.1.7). Thermostatic controls for heating or cooling systems shall be provided with demand responsive controls capable of increasing the cooling setpoint and decreasing the heating setpoint by no less than 4° Fahrenheit (2.2 Celsius). The thermostatic controls shall be capable of performing all other functions provided by the control when the demand responsive controls are not available. Systems with direct digital control of individual zones reporting to a central control panel shall be capable of remotely increasing the cooling setpoint and decreasing the heating setpoint for each zone by no less than 4° Fahrenheit (2.2° Celsius).

EXCEPTIONS:

1. Health care and assisted living facilities.

2. R-2 occupancy dwelling units.

NEW SECTION. SECTION 63. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.4.2 of the Washington State Energy Code is not adopted and the following is substituted:

Off-hour controls (WSEC C403.4.2). For all occupancies other than Group R, and for conditioned spaces other than dwelling units and sleeping units within Group R occupancies, each zone shall be provided with thermostatic setback controls that are controlled by either an automatic time clock or programmable control system.

EXCEPTIONS:

1. Zones that will be operated continuously.

2. Zones with a full HVAC load demand not exceeding 6,800 Btu/h (or 2 kilowatts) and having a manual shutoff switch located with ready access.

NEW SECTION. SECTION 64. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.5 of the Washington State Energy Code is not adopted and the following is substituted.

Economizers (WSEC C403.5). Air economizers shall be provided on all new cooling systems including those serving computer server rooms, electronic equipment, radio equipment, and telephone switchgear. Economizers shall comply with WSEC C403.5.1 through C403.5.5.

EXCEPTIONS:

1.a For other than Group R-2 occupancies, cooling system where the supply fan is not installed outside the building thermal envelope nor in a mechanical room adjacent to outdoors, and is installed in conjunction with DOAS complying with WSEC C403.3.5 and serving only spaces with year-round cooling loads from lights and equipment of less than 5 watts per square foot (per 0.1 square meter).

1.b. For Group R-2 occupancies, cooling system where the supply fan is not installed outside the building thermal envelope nor in a mechanical room adjacent to outdoors, and is installed in conjunction with DOAS complying with WSEC C403.3.5, where the ERV/HRV has a minimum 68 percent sensible recovery or 60 percent enthalpy

recovery heating effectiveness, and serving only spaces with year-round cooling loads from lights and equipment of less than 5 watts per square foot (per 0.1 square meter).

2. Unitary or packaged systems serving one zone with dehumidification where an economizer would increase the overall building energy consumption. New humidification equipment shall comply with WSEC C403.3.2.7.

3. Unitary or packaged systems serving one zone where the cooling efficiency meets or exceeds the efficiency requirements in WSEC Table C403.5(3).

4. Equipment serving chilled beams and chilled ceiling space cooling systems which are provided only with a water economizer meeting the requirements of WSEC C403.5.4.

5. For Group R occupancies, cooling unit where the supply fan is not installed outside the building thermal envelope or in a mechanical room adjacent to outdoors with a total cooling capacity less than 20,000 Btu/h (5.9 kilowatts) and other cooling units with a total cooling capacity less than 54,000 Btu/h (15.8 kilowatts) provided that these are high-efficiency cooling equipment with IEER, CEER, SEER, and EER values more than 15 percent higher than minimum efficiencies listed in WSEC Tables C403.3.2(1), C403.3.2(2), C403.3.2(4), C403.3.2(8), and C403.3.2(9), or an IPLV kilowatts per ton that is at least 15 percent lower than the minimum efficiencies listed in WSEC Table C403.3.2(3) or C403.3.2(15), in the appropriate size category, using the same test procedures. Equipment shall be listed in the appropriate certification program to qualify for this exception. For split systems, compliance is based on the cooling capacity of individual fan coil units.

6. Equipment used to cool Controlled Plant Growth Environments provided these are high-efficiency cooling equipment with SEER, EER, and IEER values a minimum of 20 percent greater than the values listed in WSEC Tables C403.3.2 (1), (3), (4), and (15).

7. Equipment serving a space with year-round cooling loads from lights and equipment of 5 watts per square foot (53.82 watts per square meter) or greater complying with the following criteria:

7.1. Equipment serving the space utilizes chilled water as the cooling source; and

7.2. The chilled water plant includes a condenser heat recovery system that meets the requirements of WSEC C403.9.5 or the building and water-cooled system meets the following requirements:

7.2.1. A minimum of 90 percent (capacity-weighted) of the building space heat is provided by hydronic heating water.

7.2.2. Chilled water plant includes a heat recovery chiller or water-to-water heat pump capable of rejecting heat from the chilled water system to the hydronic heating equipment capacity.

7.2.3. Heat recovery chillers shall have a minimum COP of 7.0 when providing heating and cooling water simultaneously.

8. Water-cooled equipment served by systems meeting the requirements of WSEC C403.9.2.4 Condenser heat recovery.

9. Dedicated outdoor air systems that include energy recovery as required by WSEC C403.7.6 but that do not include mechanical cooling.

11. Dedicated outdoor air systems not required by WSEC C403.7.6 to include energy recovery that modulate the supply airflow to provide only the minimum outdoor air required by WSEC C403.2.2.1 for ventilation, exhaust air make-up, or other process air delivery.

12. Equipment used to cool any dedicated server room, electronic equipment room, elevator machine room or telecom switch room provided the system complies with Option a, b, c, d, or e in WSEC Table C403.5(9) below. The total cooling capacity of all fan systems qualifying under this exception without economizers shall not exceed 240,000 Btu/h (70.3 kilowatts) per building or 10 percent of its air economizer capacity, whichever is greater. This exception shall not be used for Total Building Performance or Target Performance Path compliance.

13. Medical and laboratory equipment that is directly water cooled and is not dependent upon space air temperature.

Table C403.5(9)

Server room, electronic equipment room, or telecom room cooling equipment

	Equipment Type	**Higher Equipment Efficiency**	**Part-Load Control**	**Economizer**
Option a	Tables C403.3.2(1), C403.3.2(2) and C403.3.2(14)[a]	+15%[b]	Required over 85,000 Btu/h[c]	None Required

Option b	Tables C403.3.2(1), C403.3.2(2) and C403.3.2(14)[a]	+5%[d]	Required over 85,000 Btu/h[c]	Waterside Economizer[5]
Option c	ASHRAE Standard 127[f]	+0%[g]	Required over 85,000 Btu/h[c]	Waterside Economizer[e]
Option d	Table C403.3.2(7)[h]	+ 25%[i]	Required for all chillers[j]	None Required
Option e	Table C403.3.2(7)[h]	+ 10/15%[k]	Required over 85,000 Btu/h[c]	Dedicated waterside Economizer[e]

Footnotes:

a. For a system where all of the cooling equipment is subject to the AHRI standards listed in WSEC Tables C403.3.2(1), C403.3.2(2), and C403.3.2 (14), the system shall comply with the higher equipment efficiency, part-load control and economizer requirements of the row in which this footnote is located, including the associated footnotes (note that if the system contains any cooling equipment that exceeds the capacity limits in WSEC Table C403.3.2(1), C403.3.2(2), or C403.3.2 (14), or if the system contains any cooling equipment that is not included in WSEC Table C403.3.2(1), C403.3.2(2), or C403.3.2 (14), then the system is not allowed to use this option).

b. The cooling equipment shall have a SEER/EER value and an IEER/IPLV value that each is a minimum of 15 percent greater than the value listed in WSEC Tables C403.3.2(1), C403.3.2(2), and C403.3.2 (14).

c. For units with a total cooling capacity over 85,000 Btu/h, the system shall utilize part-load capacity control schemes that are able to modulate to a part-load capacity

of 50 percent of the load or less that results in the compressor operating at the same or higher EER at part loads than at full load (e.g., minimum of 2-stages of compressor unloading such as cylinder unloading, two-stage scrolls, dual tandem scrolls, but hot gas bypass is not credited as a compressor unloading system).

d. The cooling equipment shall have a SEER/EER value and an IEER/IPLV value that each is a minimum of 5 percent greater than the value listed in WSEC Tables C403.3.2(1), C403.3.2(2), and C403.3.2 (14).

e. The system shall include a water economizer in lieu of air economizer. Water economizers shall meet the requirements of WSEC C403.5.1 and C403.5.2 and be capable of providing the total concurrent cooling load served by the connected terminal equipment lacking airside economizer, at outside air temperatures of 50° Fahrenheit dry-bulb/45°Fahrenheit wet-bulb and below. For this calculation, all factors including solar and internal load shall be the same as those used for peak load calculations, except for the outside temperatures. The equipment shall be served by a dedicated condenser water system unless a nondedicated condenser water system exists that can provide appropriate water temperatures during hours when waterside economizer cooling is available.

f. For a system where all cooling equipment is subject to ASHRAE Standard 127, the system shall comply with the higher equipment efficiency, part-load control, and economizer requirements of the row in which this footnote is located, including the associated footnotes.

g. The cooling equipment subject to the ASHRAE Standard 127 shall have an SCOP value that is a minimum of 10 percent greater than the value listed in WSEC Tables C403.3.2(1), C403.3.2(2), and C403.3.2 (14) (1.10 × values in these tables) when

determined in accordance with the rating conditions ASHRAE Standard 127 (i.e., not the rating conditions in AHRI Standard 210/240 or 340/360). This information shall be provided by an independent third party.

h. For a system with chillers subject to the AHRI standards listed in WSEC Table C403.3.2(7) (as an example, a chilled water system with fan coil units), the system shall comply with the higher equipment efficiency, part-load control, and economizer requirements of the row in which this footnote is located, including the associated footnotes.

i. The cooling equipment shall have an full-load EER value and an IPLV value that is a minimum of 25 percent greater than the value listed in WSEC Table C403.3.2(7) (1.25 × value in Table C403.3.2(7) or a full-load and IPLV kilowatts per ton that is at least 25 percent lower than the value listed in WSEC Table C403.3.2(7) (0.75 × value in Table C403.3.2(7)).

j. For all chillers, the system shall utilize part-load capacity control schemes that are able to modulate to a part-load capacity of 50 percent of the load or less and that result in the compressor operating at the same or higher EER at part loads than at full load (e.g., minimum of two-stages of compressor unloading such as cylinder unloading, two-stage scrolls, or dual tandem scrolls, but hot gas bypass is not a qualifying compressor unloading system).

k. For air-cooled chillers, the cooling equipment shall have an IPLV EER value that is a minimum of 10 percent greater than the IPLV EER value listed in WSEC Table C403.3.2(7) (1.10 × values in Table C403.3.2(7). For water-cooled chillers, the cooling equipment shall have an IPLV kilowatts per ton that is at least 15 percent lower than the

IPLV kilowatts per ton value listed in WSEC Table C403.3.2(7) (0.85 × values in Table C403.3.2(7)).

Table C403.5(3)

Equipment Efficiency Performance

Climate Zones	Efficiency Improvement[a]
4C	64%
5B	59%

Footnote:

a. If a unit is rated with an IPLV, IEER, or SEER then to eliminate the required air or water economizer, the minimum cooling efficiency of the HVAC unit must be increased by the percentage shown. If the HVAC unit is only rated with a full load metric like EER or COP cooling, then these must be increased by the percentage shown.

NEW SECTION. SECTION 65. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.7 of the Washington State Energy Code is not adopted.

Ventilation and exhaust systems (WSEC C403.7). In addition to other requirements of WSEC C403 applicable to the provisions of ventilation air or the exhaust of air, ventilation, and exhaust systems shall be in accordance with WSEC C403.7.1 through C403.7.8 and WSEC C403.8.7.

SECTION 66. Ordinance 19485, Section 86, and K.C.C. 16.07.180 are hereby amended to read as follows:

Section C403.7.6 of the ((~~International Energy Conservation~~)) Washington State Energy Code is not adopted and the following is substituted:

Energy recovery ventilation systems (((~~IECC~~)) WSEC C403.7.6). ((~~Any system with minimum outside air requirements at design conditions more than 5,000 cfm or any system where the system's supply airflow rate exceeds the value listed in IECC Tables C403.7.6(1) and C403.7.6(2), based on the climate zone and percentage of outdoor airflow rate at design conditions, shall include an energy recovery system. IECC Table C403.7.6(1) shall be used for all ventilation systems that operate less than 8,000 hours per year, and IECC Table C403.7.6(2) shall be used for all ventilation systems that operate 8,000 hours or more per year. The energy recovery system shall have the capability to provide a change in the enthalpy of the outdoor air supply of not less than 60 percent of the difference between the outdoor air and return air enthalpies, at design conditions. Where an air economizer is required, the energy recovery system shall include a bypass of the energy recovery media for both the outdoor air and exhaust air or return air dampers and controls which permit operation of the air economizer as required by IECC C403.5. Where a single room or space is supplied by multiple units, the aggregate ventilation (cfm) of those units shall be used in applying this requirement. The return/exhaust air stream temperature for heat recovery device selection shall be 70° F (21° C) at 30 percent relative humidity, or as calculated by the registered design professional.~~

~~EXCEPTIONS:~~

~~1. The energy recovery systems for occupancy type I-2 hospitals, medical office buildings and buildings that primarily consist of technical laboratory spaces may provide~~

~~a change of enthalpy of the outdoor air and return air of not less than 50 percent of the difference between the outdoor air and return air enthalpies, at design conditions. These occupancies may also use exception 3.~~

~~2. The energy recovery systems for R-1 and R-2 occupancies shall have a 60 percent minimum sensible heat recovery effectiveness, in lieu of 60 percent enthalpy recovery effectiveness. The return/exhaust air stream temperature for heat recovery device selection shall be 70° F (21° C), or as calculated by the registered design professional.~~

~~3. An energy recovery ventilation system shall not be required under the following conditions:~~

~~3.1. Where energy recovery systems are restricted by International Mechanical Code Section 514 to sensible energy, recovery shall comply with the following:~~

~~a. Kitchen exhaust systems where they comply with IECC C403.7.7.1;~~

~~b. Laboratory fume hood systems where they comply with Exception 2 of IECC C403.7.6; or~~

~~c. Other sensible energy recovery systems with the capability to provide a change in dry bulb temperature of the outdoor air supply of not less than 50 percent of the difference between the outdoor air and the return air dry bulb temperatures, at design conditions.~~

~~3.2. Laboratory fume hood systems that include at least one of the following features and also comply with IECC C403.7.7.2:~~

~~a. Variable-air-volume hood exhaust and room supply systems capable of reducing exhaust and makeup air volume to 50 percent or less of design values; or~~

~~b. Direct makeup (auxiliary) air supply equal to at least 75 percent of the exhaust rate, heated no warmer than 2° F (1.1° C) above room set point, cooled to no cooler than 3° F (1.7° C) below room set point, no humidification added and no simultaneous heating and cooling used for dehumidification control.~~

~~3.3. Systems serving spaces that are heated to less than 60° F (15.5° C) and are not cooled.~~

~~3.4. Where more than 60 percent of the outdoor air heating energy is provided from site-recovered energy.~~

~~3.5. Systems exhausting toxic, flammable, paint or corrosive fumes or dust.~~

~~3.6. Cooling energy recovery in Climate Zones 3C, 4C, 5B, 5C, 6B, 7 and 8.~~

~~3.7. Systems requiring dehumidification that use energy recovery in series with the cooling coil.~~

~~3.8. Multi-zone systems where the supply airflow rate is less than the values specified in IECC Tables C403.7.6(1) and C403.7.6(2) for the corresponding percent of outdoor air. Where a value of NR is listed, energy recovery shall not be required.~~

~~3.9. Equipment which meets the requirements of IECC C403.9.2.4.~~

~~3.10. Systems serving Group R-1 and R-3 dwelling or sleeping units where the largest source of air exhausted at a single location at the building exterior is less than 25 percent of the design outdoor air flow rate.~~)) Energy recovery ventilation systems shall be provided as specified in WSEC C403.7.6.1 and C403.7.6.2.

C403.7.6.1 Ventilation for Group R-2 occupancy. For all Group R-2 dwelling and sleeping units, a balanced ventilation system with heat recovery system with minimum 67 percent sensible recovery effectiveness shall provide outdoor air directly to

each habitable space in accordance with the IMC. The ventilation system shall allow for the design flow rates to be tested and verified at each habitable space as part of the commissioning process in accordance with WSEC C408.2.2. The return/exhaust air stream temperature for heat recovery device selection shall be 70° Fahrenheit (21° Celsius), or as calculated by the registered design professional.

EXCEPTION: Heat recovery and energy recovery ventilators (H/ERVs) that are rated and listed in accordance with HVI 920 can demonstrate compliance with the sensible recovery effectiveness requirement using the sensible recovery effectiveness (ASRE) rating of the equipment at 32° Fahrenheit (0° Celsius) test conditions. Applied flow rate for ASRE rating shall be no less than the design flow rate or the closest value interpolated between two listed flow rates.

C403.7.6.2. Spaces other than Group R-2 dwelling or sleeping units. Any system serving a space other than a Group R-2 dwelling or sleeping unit with minimum outside air requirements at design conditions greater than 5,000 cubic feet per minute (2,360 liters per second) or any system where the system's supply airflow rate exceeds the value listed in WSEC Tables C403.7.6(1) and C403.7.6(2), based on the climate zone and percentage of outdoor airflow rate at design conditions, shall include an energy recovery system. WSEC Table C403.7.6(1) shall be used for all ventilation systems that operate less than 8,000 hours per year, and WSEC Table C403.7.6(2) shall be used for all ventilation systems that operate 8,000 hours or more per year. The energy recovery system shall provide a 67 percent minimum sensible recovery effectiveness or have an enthalpy recovery ratio of not less than 60 percent at design conditions. Where an air economizer is required, the energy recovery system shall include a bypass of the energy

recovery media for both the outdoor air and exhaust air, bypass of the energy recovery media for only the outdoor air controlled in accordance with WSEC C403.3.5.6, or return air dampers and controls which permit operation of the air economizer as required by WSEC C403.5. Where a single room or space is supplied by multiple units, the aggregate ventilation (cubic feet per minute or liters per second) of those units shall be used in applying this requirement. The return/exhaust air stream temperature for heat recovery device selection shall be 70° Fahrenheit (21° Celsius) at 30 percent relative humidity, or as calculated by the registered design professional.

EXCEPTION: An energy recovery ventilation system shall not be required in any of the following conditions:

1. Where energy recovery systems are restricted in accordance with IMC 514 to sensible energy recovery, the system shall comply with one of the following:

1.1. Kitchen exhaust systems where they comply with WSEC C403.7.7.1.

1.2. Laboratory fume exhaust systems where they comply with WSEC C403.7.7.2.

1.3. Other sensible energy recovery systems with the capability to provide a change in dry-bulb temperature of the outdoor air supply of not less than 50 percent of the difference between the outdoor air and the return air dry-bulb temperatures, at design conditions. Where an air economizer is required, the energy recovery system shall include a bypass of the energy recovery media for both the outdoor air and exhaust air or bypass of the energy recovery media for only the outdoor air controlled in accordance with WSEC C403.3.5.6.

2. Buildings with laboratory fume exhaust systems having a total exhaust rate less than or equal to 5,000 cubic feet per minute (2,360 liters per second) shall include at least one of the following features or shall comply with WSEC C403.7.7.2:

2.1 Variable-air-volume hood exhaust and room supply systems configured to reduce exhaust and makeup air volume to 50 percent or less of design values.

2.2. Direct makeup (auxiliary) air supply equal to at least 75 percent of the exhaust rate, heated no warmer than 2° Fahrenheit (1.1° Celsius) above room setpoint, cooled to no cooler than 3° Fahrenheit (1.7° Celsius) below room setpoint, no humidification added, and no simultaneous heating and cooling used for dehumidification control.

3. Systems serving spaces that are heated to less than 60° Fahrenheit (16° Celsius) and are not cooled.

4. Where more than 60 percent of the outdoor air heating energy is provided from site-recovered energy.

5. Systems exhausting hazardous, toxic, flammable, paint, or corrosive fumes, or dust. This exception may not be used for laboratory fume exhaust systems required to comply with Exception 2 of WSEC C403.7.6 or C403.7.7.2 without approval of the code official.

6. Cooling energy recovery.

7. Systems requiring dehumidification that employ energy recovery in series with the cooling coil.

8. Multiple-zone systems where the supply airflow rate is less than the values specified in WSEC Tables C403.7.6 (1) and (2), for the corresponding percent of outdoor air. Where a value of NR is listed, energy recovery shall not be required.

9. Equipment which meets the requirements of WSEC C403.9.2.4.

10. Systems serving Group R-1 dwelling or sleeping units where the largest source of air exhausted at a single location at the building exterior is less than 25 percent of the design outdoor air flow rate.

11. Systems serving Ambulatory Care Facilities and Group I-2 Occupancies ventilated in accordance with IMC 407 and systems exhausting environmental exhaust air in spaces that have Hazardous Exhaust Systems complying with IMC 510, are permitted to provide a 60 percent minimum sensible heat recovery effectiveness or have an enthalpy heat recovery ratio of not less than 50 percent at design conditions. Where an air economizer is required, the energy or heat recovery system shall include a bypass of the energy or heat recovery media for both the outdoor air and exhaust air or bypass of the energy recovery media for only the outdoor air controlled in accordance with WSEC C403.3.5.6.

Table C403.7.6(1)

Energy Recovery Requirement

Percent (%) Outdoor Air at Full Design Airflow Rate								
Climate zone	≥ 10% and < 20%	≥ 20% and < 30%	≥ 30% and < 40%	≥ 40% and < 50%	≥ 50% and < 60%	≥ 60% and < 70%	≥ 70% and < 80%	≥ 80%
Design Supply Fan Airflow Rate (cfm)								
4C, 5B	NR	NR	NR	NR	NR	NR	≥ 5,000	≥ 5,000

NR = Not required.

Table C403.7.6(2)

Energy Recovery Requirement

Percent (%) Outdoor Air at Full Design Airflow Rate								
Climate zone	≥ 10% and < 20%	≥ 20% and < 30%	≥ 30% and < 40%	≥ 40% and < 50%	≥ 50% and < 60%	≥ 60% and < 70%	≥ 70% and < 80%	≥ 80%
Design Supply Fan Airflow Rate (cfm)								
4C	NR	≥ 19,500	≥ 9,000	≥ 5,000	≥ 4,000	≥ 3,000	≥ 1,500	≥ 120
5B	≥ 2,500	≥ 2,000	≥ 1,000	≥ 500	≥ 140	≥ 120	≥ 100	≥ 80

NR = Not required.

NEW SECTION. SECTION 67. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.7.8.1 of the Washington State Energy Code is not adopted and the following is substituted:

Shutoff dampers for building isolation (WSEC C403.7.8.1). Outdoor air supply, exhaust openings and relief outlets, and stairway and elevator hoistway shaft vents shall be provided with Class I motorized dampers. See WSEC C403.10.1 and C403.10.2 for ductwork insulation requirements upstream and downstream of the shutoff damper.

EXCEPTIONS:

1. Gravity (nonmotorized) dampers shall be permitted in lieu of motorized dampers as follows:

1.1. Relief dampers serving systems less than 300 cubic feet per minute (142 liters per second) total supply shall be permitted.

1.2. Gravity (nonmotorized) dampers where the design outdoor air intake or exhaust capacity does not exceed 300 cubic feet per minute (142 liters per second).

1.3. Systems serving areas which require continuous operation for continuous occupancy schedules.

2. Shutoff dampers are not required in:

2.1. Combustion air intakes.

2.2. Systems serving areas which require continuous operation in animal hospitals, kennels and pounds, laboratories, and Group H, I and R occupancies.

2.3. Subduct exhaust systems or other systems that are required to operate continuously by the IMC.

2.4. Type I grease exhaust systems or other systems where dampers are prohibited by the IMC to be in the airstream.

2.5. Unconditioned stairwells or unconditioned elevator hoistway shafts that are only connected to unconditioned spaces.

NEW SECTION. SECTION 68. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.8.4 of the Washington State Energy Code is not adopted and the following is substituted:

Low capacity fans (WSEC C403.8.4). Mechanical ventilation system types listed in WSEC Table C403.8.4 with an input power less than 746 watts or one horsepower shall meet the efficacy requirements of WSEC Table C403.8.4. Airflow shall be tested in accordance with the test procedure referenced in WSEC Table C403.8.4 and listed. The efficacy, airflow divided by power, shall be reported in the product listing

or shall be derived from the input power and airflow values reported in the product listing or on the label. The efficacy shall be determined using the input power at a listed airflow that is not less than the design airflow or shall be determined by interpolating between the input power at the two nearest listed airflow rates. Design airflow, power, and efficacy shall be reported on the mechanical equipment schedule submitted in the permit documents.

EXCEPTIONS:

1. Where ventilation fans are a component of a listed heating or cooling appliance.

2. Dryer exhaust duct power ventilators and domestic range booster fans that operate intermittently.

3. Fans in radon mitigation systems.

4. Fans not covered within the scope of the test methods referenced in WSEC Table C403.8.5.

5. Ceiling fans regulated under 10 CFR 430 Appendix U.

6. Mechanical ventilation system types with an input power greater than 62 watts having electronically commutated motors or motors with a minimum efficiency of 70 percent when rated in accordance with DOE 10 CFR 431. Such systems shall also have the means to adjust motor speed for either balancing or remote control. Belt-driven fans may use sheave adjustment for airflow balancing in lieu of a varying motor speed. The efficiency shall be verified through certification under an approved certification program, or, where no certification program exists, the equipment efficiency rating shall be supported by data furnished by the motor manufacturer.

The efficacy shall be determined at a listed airflow that is not less than the design airflow or shall be determined by interpolating between the efficacies determined at the two nearest listed airflow rates.

Table C403.8.4

Low-Capacity Ventilation Fan Efficacy[a]

System Type	Airflow Rate (cfm)	Minimum Efficacy (cfm/watt)	Minimum Static Pressure for Testing	Test Procedure
Balanced ventilation system without heat or energy recovery	Any	1.2[a]	0.2 inch w.c.	ASHRAE Standard 51 (ANSI/AMCA Standard 210)
HRV or ERV	Any	1.7[a]	0.2 inch w.c.[b]	CAN/CSA 439-18
Range hood	Any	2.8	0.1 inch w.c.	ASHRAE 51 (ANSI/AMCA Standard 210)
In-line supply or exhaust fan	Any	3.8	0.2 inch w.c.	
Other exhaust fan	<90	2.8	0.1 inch w.c.	
	>90 and <200	3.5	0.1 inch w.c.	
	>200	4.0	0.1 inch w.c.	

w.c. = inches of water column

For SI: 1 cubic foot per minute = 47.82 watts.

Footnotes:

a. For balanced systems, HRVs, and ERVs, the efficacy shall be determined as the outdoor airflow divided by the total fan power of the system.

b. The minimum static pressure for determining HRV or ERV fan efficacy shall be 0.4 inch w.c. for airflows greater than or equal to 100 liters per second.

NEW SECTION. SECTION 69. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.8 of the Washington State Energy Code is supplemented with the following:

Occupied standby controls (WSEC C403.8.7). Occupied standby controls in compliance with WSEC C403.8.7.1 and C403.8.7.2 are required for zones and systems serving zones where no less than 90 percent of the floor area of the zone consists of use types including those listed below and other space types with similar functions, and none of the spaces within the zone are required by the IMC to have ventilation airflow greater than zero when unoccupied:

1. Classroom/lecture/training rooms.
2. Conference/meeting/multipurpose rooms.
3. Lounges and breakrooms.
4. Enclosed offices/open office areas/reception areas/lobbies.
5. Assembly areas.
6. Library stacks.

C403.8.7.1 Occupied standby zone controls. For zones meeting the occupied-standby control criteria, within 5 minutes of all rooms in that zone entering occupied-standby mode, the zone control shall operate as follows:

1. Active heating set point shall be setback at least 1° Fahrenheit (0.6° Celsius).

2. Active cooling set point shall be setup at least 1° Fahrenheit (0.6° Celsius).

3. Airflow supplied to the zone shall be controlled as follows, depending on system type:

3.1. Spaces that are required to have occupancy sensors in accordance with WSEC C403.7.2 are required to shut off the outdoor airflow in accordance with that section.

3.2. DOAS that serve multiple heating and cooling system zones without automatic zone control dampers are not required to shut off the DOAS supply airflow by zone. A system is considered a small DOAS when:

a. The area served is no greater than 25,000 square feet (2,323 square meters) of conditioned floor area; and

b. The DOAS does not serve more than one floor.

3.3. Other DOAS that serve multiple heating and cooling system zones without automatic zone control dampers are required to shut off the DOAS supply airflow when all the zones on any one floor or in any one area up to 25,000 square feet (2,323 square meters) enter occupied-standby mode. The maximum zone sizes for DOAS supply airflow shutoff are as follows:

a. 25,000 square feet (2,323 square meters) of conditioned floor area; or

b. not more than one floor.

3.4. For systems other than those identified in subsections 3.2. and 3.3., all airflow (outdoor airflow and supply airflow) supplied to the zone shall be shut off whenever the space temperature is between the active heating and cooling set points.

EXCEPTION: Airflow (outdoor airflow and supply airflow) for replacement air or makeup air is permitted to be supplied during occupied-standby mode for any of the space types identified in 3.1 through 3.4 above.

C403.8.7.2. Occupied standby system controls. Multiple zone systems that are capable of automatically resetting or that are required in accordance with WSEC C403.6.10 to reset the effective minimum outdoor air setpoint and that serve zones with occupied-standby zone controls shall reset the effective minimum outdoor air setpoint based on a zone outdoor air requirement of zero for all zones in occupied-standby mode. Sequences of operation for system outside air reset shall comply with an approved method.

EXCEPTION: Airflow (outdoor airflow and supply airflow) for replacement air or makeup air is permitted to be supplied during occupied-standby mode.

NEW SECTION. SECTION 70. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.10.1.2 of the Washington State Energy Code is not adopted and the following is substituted:

Other supply and return ducts (WSEC C403.10.1.2). All other supply and return air ducts and plenums shall be insulated with a minimum of R-6 insulation where located in unconditioned spaces, and with a minimum of R-8 insulation where located outside the building in Climate Zone 4. Ducts located underground beneath buildings shall be insulated as required in this section or have an equivalent thermal distribution efficiency. Underground ducts utilizing the thermal distribution efficiency method shall be listed and labeled to indicate the R-value equivalency. Where located within a

building envelope assembly, the duct or plenum shall be separated from the building exterior or unconditioned or exempt spaces by minimum insulation value as required for exterior walls by WSEC C402.1.3.

EXCEPTIONS:

1. Where located within equipment.

2. Supply and return ductwork located in unconditioned spaces where the design temperature difference between the interior and exterior of the duct or plenum does not exceed 15° Fahrenheit (-9° Celsius) and are insulated in accordance with WSEC Table C403.10.1.2.

Where located within conditioned space, ducts that convey air from outside the conditioned space shall be insulated with a minimum insulation R-value in accordance with WSEC Table C403.10.1.2.

Where located within conditioned space, ducts that convey ambient air to and from outside for the condenser section of HVAC heat pumps, service hot water heat pumps, or air conditioning units shall be insulated with a minimum insulation R-value in accordance with WSEC Table C403.10.1.2.

All ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply with IMC 603.9.

Table C403.10.1.2

Supply, Return, Exhaust, and Relief Air Ductwork Insulation

Duct System	Duct Location and Use	Climate Zone	Minimum Installed Duct Insulation	Notes

			R-value[a, b]	
Supply air or return air	Outside the building (outdoors and exposed to weather)[c]	4C	R-8	See WSEC C403.10.1.2 for details
Supply air or return air	Unconditioned space (enclosed but not in the building conditioned envelope)	4C and 5B	R-6	See WSEC C403.10.1.2 for details
Supply air or return air	Unconditioned space where the duct conveys air that is within 15°F of the air temperature of the surrounding unconditioned space	4C and 5B	R-3.3	See IMC Section 603.12 for additional requirements for condensation control at ductwork
Supply air or return air	Where located in a building	4C and 5B	R-16	Duct or plenum is separated from

	envelope assembly			building envelope assembly with the minimum insulation value
Supply air	Within conditioned space where the supply duct conveys air that is less than 55°F or greater than 105°F	4C and 5B	R-3.3	See WSEC C403.10.1.2 for details
Supply air	Within conditioned space that the duct directly serves where the supply duct conveys air that is less than 55°F or greater than 105°F	4C and 5B	None	See WSEC C403.10.1.2 for details
Supply air	Within conditioned space where the supply	4C and 5B	None	

	duct conveys air that is 55°F or greater and 105°F or less			
Return or exhaust air	Within conditioned space, downstream of an energy recovery media, upstream of an automatic shutoff damper	4C	R-8	
Relief or exhaust air	Conditioned space and downstream of an automatic shutoff damper	4C and 5B	R-16	
Exhaust or other air duct	Duct conveying air from unconditioned space through conditioned space	4C and 5B	R-16	

Condenser air intake and outlet	Conditioned space and conveys ambient air to or from the outdoors to heat pump or AC unit condenser	4C and 5B	< 2,800 CFM = R-8 ≥ 2,800 CFM = R-16	

Footnotes:

a. Insulation R-values, measured in h•ft2•°F/Btu, are for the insulation as installed and do not include film resistance. The required minimum thicknesses do not consider water vapor transmission and possible surface condensation. Insulation resistance measured on a horizontal plane in accordance with ASTM C518 at a mean temperature of 75° Fahrenheit at the installed thickness.

b. See IMC 603.12 and 604 for further details on duct insulation requirements.

c. Includes attics above insulated ceilings, parking garages, and crawl spaces.

NEW SECTION. SECTION 71. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.10.2 of the Washington State Energy Code is not adopted and the following is substituted:

Duct construction (WSEC 403.10.2). Ductwork shall be constructed and erected in accordance with the IMC. For the purposes of this section, longitudinal seams are joints oriented in the direction of airflow. Transverse joints are connections of two duct sections oriented perpendicular to airflow. Duct wall penetrations are openings

made by any screw, fastener, pipe, rod, or wire. All other connections are considered transverse joints including, but not limited to, spin-ins, taps, and other branch connections, access door frames and jambs, and duct connections to equipment. Ducts shall be leak-tested where required by WSEC C403.10.2.4.

NEW SECTION. SECTION 72. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.10.2 of the Washington State Energy Code is supplemented with the following:

Duct leak testing (WSEC C403.10.2.4). Ducts and plenums designed to operate at static pressures equal to or greater than 3 inches water gauge (w.g.) (750 pascals) and all supply and return ductwork that is located outside the building thermal envelope and that serves conditioned space, regardless of the Design Construction Pressure Class level, shall be leak-tested in accordance with the SMACNA HVAC Air Duct Leakage Test Manual and shown to have a rate of air leakage (CL) less than or equal to 4, as determined in accordance with Equation 4-12. Ducts shall be tested using a pressure equal to the average operating pressure or the design Duct Construction Pressure Class level in accordance with the SMACNA HVAC Air Duct Leakage Test Manual.

Equation 4-12:

$CL = F/P^{0.65}$

Where:

F = The measured leakage rate in cubic feet per minute per 100 square feet of duct surface.

P = The static pressure of the test.

Documentation shall be furnished demonstrating that representative sections totaling at least 25 percent of the duct area have been tested and that all tested sections meet the requirements of this section.

NEW SECTION. SECTION 73. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403.11.1 of the Washington State Energy Code is not adopted and the following is substituted:

Heating outside a building or in unheated spaces (WSEC C403.11.1). Systems installed to provide heat outside a building or in unheated spaces shall be radiant systems.

Such heating systems shall be controlled by an occupancy sensing device or a timer switch, so that the system is automatically deenergized when no occupants are present in the area heated by each individual device for a period not to exceed 20 minutes.

NEW SECTION. SECTION 74. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C403 of the Washington State Energy Code is supplemented with the following:

Clean water pumps (WSEC C403.15). Clean water pumps meeting all the following criteria shall achieve a PEI rating not greater than 1.0 and a Hydraulic Institute Energy Rating (ER) greater than zero:

1. Shaft input power is greater than or equal to 1 horsepower (746 watts) and less than or equal to 200 horsepower (147 kilowatt) at its best efficiency point (BEP).

2. Designated as either an End Suction Close-coupled, End Suction Frame Mounted, In-line, Radially Split Vertical, or Submersible Turbine pump.

3. A flow rate of 25 gallons per minute (1.6 liters per second) or greater at its BEP at full impeller diameter.

4. Maximum head of 459 feet (139.9 meters) at its BEP at full impeller diameter and the number of stages required for testing.

5. Design temperature range from 14° Fahrenheit (-10° Celsius) to 248° Fahrenheit (120° Celsius).

6. Designed to operate with either:

6.1. A 2- or 4-pole induction motor; or

6.2. A non-induction motor with a speed of rotation operating range that includes speeds of rotation between 2,880 and 4,320 rpm or 1,440 and 2,160 rpm; and

6.3. In either 6.1 or 6.2, the driver and impeller must rotate at the same speed.

7. For submersible turbine pumps, a 6 inch (152 millimeter) or smaller bowl diameter.

8. For end-suction close-coupled pumps and end-suction frame-mounted/own bearings pumps, specific speed less than or equal to 5,000 rpm when calculated using U.S. customary units.

EXCEPTIONS: The following pumps are exempt from these requirements:

1. Fire pumps;

2. Self-priming pumps;

3. Prime-assisted pumps;

4. Magnet-driven pumps;

5. Pumps designed to be used in a nuclear facility subject to 10 CFR 50, "Domestic Licensing of Production and Utilization Facilities"; and

6. Pumps meeting the design and construction requirements set forth in U.S. Military Specification MIL-P-17639F, "Pumps, Centrifugal, Miscellaneous Service, Naval Shipboard Use" (as amended); MIL-P-17881D, "Pumps, Centrifugal, Boiler Feed, (Multi-Stage)" (as amended); MIL-P-17840C, "Pumps, Centrifugal, Close-Coupled, Navy Standard (For Surface Ship Application)" (as amended); MIL-P-18682D, "Pump, Centrifugal, Main Condenser Circulating, Naval Shipboard" (as amended); MIL-P-18472G, "Pumps, Centrifugal, Condensate, Feed Booster, Waste Heat Boiler, and Distilling Plant" (as amended).

NEW SECTION. SECTION 75. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C404.1 of the Washington State Energy Code is not adopted and the following is substituted:

General (WSEC C404.1). This section covers the minimum efficiency of, and controls for, service water-heating equipment and insulation of service hot water piping.

EXCEPTION: Energy using equipment used by a manufacturing, industrial, or commercial process other than maintaining comfort and amenities for the occupants are exempt from all WSEC C404 subsections except WSEC C404.2, C404.6, and C404.13. Laboratory sinks are considered to be process equipment for the purposes of this exception.

NEW SECTION. SECTION 76. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Table C404.2 of the Washington State Energy Code is not adopted and the following is substituted:

Table C404.2

Minimum Performance of Water-Heating Equipment

Equipment Type	**Size Category (input)**	**Subcategory or Rating Condition**	**Draw Pattern**	**Performance Required[a, j]**	**Test Procedure[b]**
Electric table-top water heaters[11]	≤ 12 kWc	≥ 20 gal ≤ 120 gal	Very small Low Medium High	UEF ≥ 0.6323 - (0.0058 × Vr) UEF ≥ 0.9188 - (0.0031 × Vr) UEF ≥ 0.9577 - (0.0023 × Vr) UEF ≥ 0.9884 - (0.0016 × Vr)	DOE 10 C.F.R. Part 430 App. E
Electric storage water heaters[g,i] resistance	12 kW[c]	≥ 20 gal ≤ 55 gal	Very small Low	UEF ≥ 0.8808 - (0.0008 × Vr)	DOE 10 C.F.R. Part 430 App. E

and heat pump			Medium High	UEF ≥ 0.9254 - (0.0003 × Vr) UEF ≥ 0.9307 - (0.0002 × Vr) UEF ≥ 0.9349 - (0.0001 × Vr)	
	≤ 12 kW	> 55 gal ≤ 120 gal	Very small Low Medium High	UEF ≥ 1.9236 - (0.0011 × Vr) UEF ≥ 2.0440 - (0.0011 × Vr) UEF ≥ 2.1171 - (0.0011 × Vr) UEF ≥ 2.2418 - (0.0011 × Vr)	DOE 10 C.F.R. Part 430 App.

Electric storage water heaters[g]	> 12 kW			(0.3 + 27/Vm), %[h]	DOE 10 C.F.R. 431.106 App B.
Grid-enabled water heaters[g, l]		> 75 gal	Very small Low Medium High	UEF ≥ 1.0136 - (0.0028 × Vr) UEF ≥ 0.9984 - (0.0014 × Vr) UEF ≥ 0.9853 - (0.0010 × Vr) UEF ≥ 0.9720 - (0.0007 × Vr)	10 C.F.R. 430 Appendix E
Electric instantaneous water heaters[h]	≤ 12 kW	< 2 gal	Very small Low Medium High	UEF ≥ 0.91 UEF ≥ 0.91 UEF ≥ 0.91 UEF ≥ 0.92	DOE 10 C.F.R. Part 430
	> 12 kW & ≤ 58.6 kW[c]	≤ 2 gal ≤ 180°F	All	UEF ≥ 0.80	DOE 10 C.F.R.

					Part 430
Gas storage water heaters[g]	≤ 75,000Btu/h	≥ 20 gal & ≤ 55 gal[f]	Very small Low Medium High	UEF ≥ 0.3456 - (0.0020 × Vr) UEF ≥ 0.5982 - (0.0019 × Vr) UEF ≥ 0.6483 - (0.0017 × Vr) UEF ≥ 0.6920 - (0.0013 × Vr)	DOE 10 C.F.R. Part 430 App. E
	≤ 75,000 Btu/h	> 55 gal & ≤ 100 gal[e]	Very small Low Medium High	UEF ≥ 0.6470 - (0.0006 × Vr) UEF ≥ 0.7689 - (0.0005 × Vr) UEF ≥ 0.7897 - (0.0004 × Vr) UEF ≥	DOE 10 C.F.R. Part 430 App. E

				0.8072 - (0.0003 × Vr)	
	> 75,000 Btu/h and ≤ 105,000 Btu/h[d]	≤ 120 gal ≤ 180°F	Very small Low Medium High	UEF ≥ 0.2674- 0.0009 x Vr UEF ≥ 0.5362- 0.0012 x Vr UEF ≥ 0.6002- 0.0011 x Vr UEF ≥ 0.6597- 0.0009 x Vr	DOE 10 C.F.R. Part 430 App. E
	> 105,000 Btu/h[d, f]			80% Et SL ≤ (Q/800 +110√V), Btu/h	DOE 10 C.F.R. 431.106
Gas instantaneous water heaters[h]	> 50,000 Btu/h and < 200,000 Btu/h	< 2 gal	Very small Low Medium High	UEF ≥ 0.80 UEF ≥ 0.81 UEF ≥ 0.81 UEF ≥ 0.81	DOE 10 C.F.R. Part 430 App. E

	≥ 200,000 Btu/h[d, f]	< 10 gal		80% Et	DOE 10 C.F.R. 431.106
	≥ 200,000 Btu/h[f]	≥ 10 gal		80% Et SL ≤ (Q/800 +110√V), Btu/h	
Oil storage water heaters[f]	≤ 105,000 Btu/h	≤ 50 gal	Very small Low Medium High	UEF = 0.2509 - (0.0012 × Vr) UEF = 0.5330 - (0.0016 × Vr) UEF = 0.6078 - (0.0016 × Vr) UEF = 0.6815 - (0.0014 × Vr)	DOE 10 C.F.R. Part 430
	> 105,000 Btu/h and ≤ 140,000 Btu/h[e]	≤ 120 gal ≤ 180°F	Very small Low Medium High	UEF ≥ 0.2932- 0.0015 x Vr UEF ≥ 0.5596-	DOE 10 C.F.R. Part 430 App. E

				0.0018 x Vr UEF ≥ 0.6194- 0.0016 x Vr UEF ≥ 0.6740- 0.0013 x Vr	
	> 140,000 Btu/h			80% E_t SL ≤ (Q/800 +110√V), Btu/h	DOE 10 C.F.R. 431.106
	≤ 210,000 Btu/h	< 2 gal		80% E_t EF ≥ 0.59 - 0.0005 x V	DOE 10 C.F.R. Part 430 App. E
	> 210,000 Btu/h	< 10 gal		80% E_t	DOE 10 C.F.R. 431.106
	> 210,000 Btu/h	≥ 10 gal		78% E_t SL ≤ (Q/800 +110√V), Btu/h	DOE 10 C.F.R. 431.106

Hot water supply boilers, gas and oil[h]	≥ 300,000 Btu/h and < 12,500,000 Btu/h	< 10 gal		80% E_t	DOE 10 C.F.R. 431.106
Hot water supply boilers, gas[h]	≥ 300,000 Btu/h and < 12,500,000 Btu/h	≥ 10 gal		80% E_t	DOE 10 C.F.R. 431.106
Hot water supply boilers, oil[h]	≥ 300,000 Btu/h and < 12,500,000 Btu/h	≥ 10 gal		80% E_t SL ≤ (Q/800 +110√V), Btu/h	DOE 10 C.F.R. 431.106
Pool heaters, gas	All			78% E_t SL ≤ (Q/800 +110√V), Btu/h	DOE 10 C.F.
Heat pump pool heaters	All	50°F db 44.2°F wb outdoor air 80.0°F		4.0 COP	DOE 10 C.F.R. Part 430 App. P

		entering water			
Unfired storage tanks[m]	All			Minimum insulation requirement R-12.5 (h-ft2-°F)/Btu	(none)

Footnotes:

a. Thermal efficiency (E_t) is a minimum requirement, while standby loss is a maximum requirement. In the standby loss equation, V is the rated volume in gallons and Q is the nameplate input rate in Btu/h. Vm is the measured volume in the tank in gallons. Standby loss for electric water heaters is in terms of %/h and denoted by the term "S," and standby loss for gas and oil water heaters is in terms of Btu/h and denoted by the term "SL" Draw pattern (DP) refers to the water draw profile in the Uniform Energy.

b. The 2021 WSEC-C Chapter 6, Reference Standards, contains a complete specification, including the year version, of the referenced test procedure.

c. Electric instantaneous water heaters with input capacity greater than 12 kilowatts and less than or equal to 58.6 kilowatts that (1) have a storage volume greater than 2 gallons; (2) are designed to provide outlet hot water at temperatures greater than 180° Fahrenheit; or (3) use three-phase power.

d. Gas storage water heaters with input capacity greater than 75,000 Btu/h and less than or equal to 105,000 Btu/h if the water heater either (1) has a storage volume

greater than 120 gallons; (2) is designed to provide outlet hot water at temperatures greater than 180° Fahrenheit; or (3) uses three-phase power.

e. Oil storage water heaters with input capacity greater than 105,000 Btu/h and less than or equal to 140,000 Btu/h must comply with the requirements for the greater than 140,000 Btu/h if the water heater either (1) has a storage volume greater than 120 gallons; (2) is designed to provide outlet hot water at temperatures greater than 180° Fahrenheit; or (3) uses three-phase power.

f. Water heaters or gas pool heaters in this category are regulated as consumer products by the USDOE as defined in 10 C.F.R. Part 430.

g. Storage water heaters have a ratio of input capacity (Btu/h) to tank volume (gallons) less than 4,000.

h. Instantaneous water heaters and hot water supply boilers have an input capacity (Btu/h) divided by storage volume (gallons) greater than or equal to 4,000.

i. There are no minimum efficiency requirements for electric heat pump water heaters greater than 12 kilowatts or for gas heat pump water heaters.

j. Refer to WSEC C404.2.1 for additional requirements for service water heat system equipment.

k. A tabletop water heater is a storage water heater that is enclosed in a rectangular cabinet with a flat top surface not more than 3 feet in height and have a ratio of input capacity (Btu/h) to tank volume (gallons) less than 4,000.

l. A grid-enabled water heater is an electric resistance water heater that meets all of the following:

1. Has a rated storage tank volume of more than 75 gallons;

2. Is manufactured on or after April 16, 2015;

3. Is equipped at the point of manufacture with an activation lock; and

4. Bears a permanent label applied by the manufacturer that complies with all of the following:

4.1. Is made of material not adversely affected by water;

4.2. Is attached by means of non-water soluble adhesive; and

4.3. Advises purchasers and end-users of the intended and appropriate use of the product with the following notice printed in 16.5 point Arial Narrow Bold font: "IMPORTANT INFORMATION: This water heater is intended only for use as a part of an electric thermal storage or demand response program. It will not provide adequate hot water unless enrolled in such a program and activated by your utility company or another program operator. Confirm the availability of a program in your local area before purchasing or installing this product."

m. Unfired storage tanks shall be insulated with additional insulation beyond the minimum insulation required by WSEC Table C404.2, in accordance with Section C404.6.1.

SECTION 77. Ordinance 19485, Section 90, and K.C.C. 16.07.220 are hereby amended to read as follows:

Section((~~s~~)) C404.2.1 ((~~and C404.2.2~~)) of the ((~~International Energy Conservation Code are~~)) Washington State Energy Code is not adopted and the following is substituted:

Service water heating system type (WSEC C404.2.1 ((~~and C404.2.2~~))). ((~~In buildings with central service water heating systems serving four or more Group R-1 or~~

~~R-2 dwelling or sleeping units, and in any other building that has a heated water circulation system or a combined water heating capacity greater than 15 kW (51,195 Btu/h) under a single permit, the primary service water heating equipment shall not use fossil fuel combustion or electric resistance.~~)) Service hot water shall be provided by an air-source HPWH system ((~~meeting the requirements of this section~~)), or a ground-source HPWH system, meeting the requirements of this section. Supplemental service water heating equipment is permitted to use electric resistance in compliance with ((~~IECC C404.2.1.2 and C404.2.2.2~~)) WSEC Section C404.2.1.4.

EXCEPTIONS:

1. ((~~Unitary heat pump water heaters located in conditioned space are permitted where they are sized to meet all calculated service water heating demand using the heat pump compressor, and not supplementary heat~~)) 24 kilowatts plus 0.1 watt per square foot (per 0.1 square meter) of building area electric resistance service water heating capacity is allowed per building.

2. ((~~A service water heating system in a tenant space under a separate permit with a total heating capacity no greater than 15 kW (51,195 Btu/h) is permitted to be electric resistance.~~

~~3. Point of use instantaneous electric water heaters serving fixtures no more than 8 feet of developed pipe length from the water heater are permitted and do not contribute to the building combined water heating capacity calculation.~~

~~4.~~)) Solar thermal, wastewater heat recovery, other approved waste heat recovery, ground-source heat pumps, water-source heat pump system utilizing waste heat, or combinations thereof, are permitted to offset all or any portion of the required HPWH

capacity where such systems comply with this code and the ((~~Plumbing Code~~)) UPC, and are not claimed in WSEC Section C406.2.5, C407, or C411.

((~~5.~~)) 3. Systems ((~~meeting the requirements of~~)) that comply with the Northwest Energy Efficiency Alliance (NEEA) Commercial Electric Advanced Water Heater Specification((~~s for central service water heating systems~~)).

4. Service hot water systems served by a district energy system that serves multiple buildings and that was in service before the effective date of this code, including more energy-efficient upgrades to such existing systems, are permitted to serve as the primary heating energy source.

5. Commercial dishwashers, commercial food service equipment, and other approved process equipment are permitted to utilize electric booster heaters for supply water temperatures 120° Fahrenheit (49° Celsius) or higher.

6. Systems connected to a low-carbon district energy exchange system or a low-carbon district heating and cooling or heating only system.

7. Essential facilities. Groups I-2 and I-3 occupancies that by regulation are required to have in place redundant emergency backup systems are permitted to use electric resistance or fossil fuel combustion equipment for those emergency backup systems.

8. Point of use instantaneous electric water heaters serving fixtures no more than 8 feet (2,438 millimeters) of developed pipe length from the water heater are allowed and do not contribute to the building combined water heating capacity calculation.

9. For occupancies other than Group R and Group I, unitary electric air-source heat pump water heaters are permitted to extract heat from the conditioned space where the primary source of space heating is electric heat pump or where heat recovery waste

heat is available, and where they are sized to meet all calculated service water heating demand using the heat pump compressor, and not supplementary heat.

10. Standby service water heating equipment provided in addition to the primary heating system, and controlled such that it will only be used when the primary heating equipment is not available, is permitted to be electric resistance.

NEW SECTION. SECTION 78. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Table C404.3.1 of the Washington State Energy Code is not adopted and the following is substituted:

Table C404.3.1

Piping Volume and Maximum Piping Lengths

Nominal Pipe Size (inches)	**Volume (liquid ounces per foot length)**	**Maximum Piping Length (feet)**	
		Public lavatory faucets[a]	**Other fixtures and appliances**
1/4	0.33	6	50
5/16	0.5	4	50
3/8	0.75	8	50
1/2	1.5	8	43
5/8	2	8	32
3/4	3	0.5	21

Nominal Pipe Size (inches)	Volume (liquid ounces per foot length)	Maximum Piping Length (feet)	
		Public lavatory faucets[a]	Other fixtures and appliances
7/8	4	0.5	16
1	5	0.5	13
1 1/4	8	0.5	8
1 1/2	11	0.5	6
2 or larger	18	0.5	4

Footnote:

a. Includes hand sinks in foodservice establishments, hand washing sinks in labs and exam room sinks in hospitals.

NEW SECTION. SECTION 79. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C404.3 of the Washington State Energy Code is supplemented with the following:

Demand load for R-2 occupancies (WSEC C404.3.3). Demand load for water supply serving dwelling units within R-2 occupancies shall be determined using UPC Appendix M. Piping shall be no more than one pipe size larger than the minimum size permitted when sized for maximum allowable velocity based upon the specified piping material in conjunction with UPC Appendix M demand load flow rate at any specific node within the water distribution system.

EXCEPTION: Existing buildings are not required to comply with this section if the existing plumbing fixtures have higher flow rates than those listed in UPC Table M102.1.

NEW SECTION. SECTION 80. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C404.6 of the Washington State Energy Code is not adopted and the following is substituted:

Insulation of piping (WSEC C404.6). Piping from a water heater to the termination of the heated water fixture supply pipe shall be insulated in accordance with WSEC Table C404.6. On both the inlet and outlet piping of a storage water heater or heated water storage tank, the piping to a heat trap or the first 8 feet (2,438 millimeters) of piping, whichever is less, shall be insulated. Piping that is heat traced shall be insulated in accordance with WSEC Table C404.6 or the heat trace manufacturer's instructions. Tubular pipe insulation shall be installed in accordance with the insulation manufacturer's instructions, or WSEC Table C404.6, whichever results in thicker insulation. Pipe insulation shall be continuous, including through hangers and supports, such that thermal bridging is prevented, except where the piping passes through a framing member. The minimum insulation thickness requirements of this section shall not supersede any greater insulation thickness requirements necessary for the protection of piping from freezing temperatures or the protection of personnel against external surface temperatures on the insulation.

EXCEPTION: Tubular pipe insulation shall not be required on the following:

1. The tubing from the connection at the termination of the fixture supply piping to a plumbing fixture or plumbing appliance.

2. Valves, pumps, strainers, and threaded unions in piping that is 1 inch (25 millimeters) or less in nominal diameter.

3. Piping from user-controlled shower and bath mixing valves to the water outlets.

4. Reserved.

5. Tubing from a hot drinking-water heating unit to the water outlet.

6. Vertical pipe riser locations where a vertical support of the piping is installed.

7. Reserved.

8. Hot water piping that is part of the final pipe run to the plumbing fixture and is not part of the heated-water circulation system circulation path is not required to meet the minimum insulation requirements of WSEC C404.6.

Table C404.6

Required Pipe Insulation Thickness for Service Water Heating

		Nominal Pipe or Tube Size					**Insulation Conductivity**	
Location	**Water Temp**	**< 1"**	**1 to < 1-1/2**	**1-1/2 to < 4**	**4 to < 8**	**8 or larger**	**Conductivity Btu • in. / (h • ft^2 • F)^b**	**Mean Rating Temp, °F**
Circulation Loop Piping not in-partition	105 – 140°F	2.0	2.0	2.5	2.5	2.5	0.21 - 0.28	100
	141 – 200°F	2.5	2.5	3.0	3.0	3.0	0.25 - 0.29	125
	105 – 140°F	1.0	1.0	1.5	1.5	1.5	0.21 - 0.28	100

All other piping not in-partition	141 – 200°F	1.5	1.5	2.0	2.0	2.0	0.25 - 0.29	125
In-partition[a] Circulation Loop Piping	105 – 140°F	1.0	1.0	2.5	2.5	2.5	0.21 - 0.28	100
	141 – 200°F	1.5	1.5	3.0	3.0	3.0	0.25 - 0.29	125
In-partition[a] All other piping	105 – 140°F	1.0	1.0	1.5	1.5	1.5	0.21 - 0.28	100
	141 – 200°F	1.0	1.0	2.0	2.0	2.0	0.25 - 0.29	125

Footnotes:

a. In a partition within a conditioned space.

b. For insulation outside the stated conductivity range, conform to requirements of WSEC Table C403.10.3.

NEW SECTION. SECTION 81. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C404.7.1.2 of the Washington State Energy Code is not adopted and the following is substituted:

Multiple riser systems (WSEC C404.7.1.2). Where the circulation system serves multiple domestic hot water risers or piping zones, the following equipment and controls shall be provided:

1. Controls shall be configured to automatically turn off the circulation pump during periods of time exceeding 4 hours when hot water is not required. Pump circulation may be automatically started a maximum of 4 hours before scheduled

occupancy time to warm up the system or may be automatically started and stopped to run a maximum of 50 percent of each hour to maintain water circulation to reduce legionella or other biological growth in circulated water.

2. Reserved.

3. At the end of each riser or piping zone before heated-water is returned to the circulation pump, a thermostatic balancing valve that automatically controls the flow through the riser or piping zone to maintain the domestic hot water supply temperature in the riser at a maximum of 10° Fahrenheit lower than the design supply water temperature.

4. A variable speed circulation pump that automatically adjusts speed to reduce flow to maintain a constant pressure.

EXECPTION: Multiple riser systems serving Group R and Group I occupancies are not required to have controls that automatically turn off the circulation pump.

NEW SECTION. SECTION 82. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C404.11.4 of the Washington State Energy Code is not adopted and the following is substituted:

Heat recovery (WSEC C404.11.4). Heated indoor swimming pools, spas, or hot tubs with water surface area greater than 200 square feet (18.6 square meters) shall provide for energy conservation by an exhaust air heat recovery system that heats ventilation air, pool water, or domestic hot water. The heat recovery system shall be configured to decrease the exhaust air temperature at design heating conditions of 80° Fahrenheit indoors by 36° Fahrenheit.

EXCEPTION: Pools, spas, or hot tubs that include system(s) that provide equivalent recovered energy on an annual basis through one of the following methods:

1. Solar water heating systems not claimed in WSEC C406.2.5, C407, or C411;

2. Dehumidification heat recovery;

3. Waste heat recovery; or

4. A combination of these system sources capable of and configured to provide at least 70 percent of the heating energy required over an operating season.

NEW SECTION. SECTION 83. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.1 of the Washington State Energy Code is not adopted and the following is substituted:

General (WSEC C405.1). Lighting system controls, the maximum lighting power for interior and exterior applications, electrical energy consumption, vertical and horizontal transportation systems, and minimum efficiencies for motors and transformers shall comply with this section. Receptacles shall be controlled according to Section C405.10. Controlled receptacles and lighting systems shall be commissioned according to Section C405.12. Solar readiness shall be provided according to Section C411 and renewable energy shall be provided according to Section C412.

Dwelling units shall comply with Sections C405.1.1 and C405.7.

Sleeping units shall comply with WSEC C405.2.6, item 2, and WSEC C405.1.1, or C405.4.

General lighting shall consist of all lighting included when calculating the total connected interior lighting power in accordance with WSEC C405.4.1 and which does not require specific application controls in accordance with WSEC C405.2.5.

Lighting installed in walk-in coolers, walk-in freezers, refrigerated warehouse coolers, and refrigerated warehouse freezers shall comply with the lighting requirements of WSEC C410.2.

Transformers, uninterruptable power supplies, motors, and electrical power processing equipment in data center systems shall comply with Section 8 of ASHRAE Standard 90.4 in addition to this code.

EXCEPTION: Energy using equipment used by a manufacturing, industrial, or commercial process other than maintaining comfort and amenities for the occupants are exempt from all Section C405 subsections except Section C405.8. Data center and computer room HVAC equipment is not covered by this exemption.

C405.1.1 Lighting for dwelling and sleeping units. No less than 90 percent of the permanently installed lighting serving dwelling units or sleeping units, excluding kitchen appliance lighting, shall be provided by lamps with a minimum efficacy of 65 lumens per watt or luminaires with an efficacy of not less than 45 lumens per watt.

NEW SECTION. SECTION 84. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Table C405.2.1 of the Washington State Energy Code is not adopted and the following is substituted:

Table C405.2.1

Occupant Sensor Compliance Requirements for Space Types

Space type[a]	**Comply with Section**
Classrooms/lecture/training rooms	C405.2.1.1
Conference/meeting/multipurpose rooms	C405.2.1.1
Copy/print rooms	C405.2.1.1
Lounge/breakrooms	C405.2.1.1
Enclosed offices	C405.2.1.1
Open plan office areas	C405.2.1.3
Restrooms	C405.2.1.1
Storage rooms	C405.2.1.1
Locker rooms	C405.2.1.1
Other spaces 300 square feet (28 m^2) or less that are enclosed by floor-to-ceiling height partitions	C405.2.1.1
Warehouse storage areas	C405.2.1.2
Library stacks	C405.2.1.2
Enclosed fire rated stairways	C405.2.1.4
Corridors	C405.2.1.5
Covered parking	C405.2.10

Footnote:

a. The space types listed include other spaces with substantially similar uses.

NEW SECTION. SECTION 85. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.2.1.2 of the Washington State Energy Code is not adopted and the following is substituted:

Occupant sensor control function in warehouse storage areas and library stacks (WSEC C405.2.1.2). Lighting in library stacks and warehouse storage areas shall be controlled as follows:

1. Lighting in each aisleway shall be controlled independently of lighting in all other aisleways and open areas.

2. Occupant sensors shall automatically reduce lighting power within each controlled area to an unoccupied setpoint of not more than 50 percent of full power within 20 minutes after all occupants have left the controlled area.

3. Lights which are not turned off by occupant sensors shall comply with Section C405.2.2 to turn lighting off when the building is vacant.

4. Restore lighting to full power or target light level when occupants enter the space.

5. A manual control shall be provided to allow occupants to turn off lights in the space.

NEW SECTION. SECTION 86. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.2.2 of the Washington State Energy Code is not adopted and the following is substituted:

Time switch controls (WSEC 405.2.2). Each area of the building that is not provided with occupant sensor controls complying with WSEC C405.2.1.1 through C405.2.1.5 shall be provided with time switch controls complying with WSEC C405.2.2.1.

EXCEPTIONS:

1. Luminaires that are required to have specific application controls in accordance with WSEC C405.2.6 unless specifically required to comply with this section by WSEC C405.2.6.
2. Spaces where patient care is directly provided.
3. Spaces where an automatic shutoff would endanger occupant safety or security.
4. Lighting intended for continuous operation.
5. Shop and laboratory classrooms.

C405.2.2.1 Time switch control function. Time switch controls shall provide programmed shutoff for lighting when building areas are unoccupied and shall comply with the following:

1. Have a minimum 7-day clock.
2. Be capable of being set for 7 different day types per week.
3. Incorporate an automatic holiday "shut-off" feature, which turns off all controlled lighting loads for at least 24 hours and then resumes normally scheduled operations.
4. Have program back-up capabilities, which prevent the loss of program and time settings for at least 10 hours, if power is interrupted.

5. Include an override switching device that complies with the following:

5.1. The override switch shall be a manual control;

5.2. The override switch, when initiated, shall permit the controlled lighting to remain on for not more than 2 hours; and

5.3. Any individual override switch shall control the lighting for an area not larger than 2,500 square feet (232.3 square meters).

6. Time switch controls are allowed to automatically turn on lighting to full power in corridors, lobbies, restrooms, storage rooms less than 50 square feet (4.7 square meters), and medical areas of health care facilities. In all other spaces, time switch controls are allowed to automatically turn on the lighting to not more than 50 percent power.

EXCEPTION: Within mall concourses, auditoriums, sales areas, manufacturing facilities, pools, gymnasiums, skating rinks, and sports arenas:

1. The time limit shall be permitted to be greater than 2 hours, provided the switch is a captive key device.

2. The area controlled by the override switch shall not be limited to 5,000 square feet (465 square meters), provided that such area is less than 20,000 square feet (1,858 square meters).

NEW SECTION. SECTION 87. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.2.3 of the Washington State Energy Code is not adopted and the following is substituted:

Manual controls (WSEC C405.2.3). Stairwells and parking garages are not permitted to use manual switches. All other lighting shall have manual controls complying with the following:

1. They shall be in a location with ready access to occupants;

2. They shall be located where the controlled lights are visible or shall identify the area served by the lights and indicate their status; and

3. Each control device shall control an area no larger than a single room, or 2,500 square feet (232.3 square meters), whichever is less, if the room area is less than or equal to 10,000 square feet (929 square meters); or one-quarter of the room area, whichever is less, if the room area is greater than 10,000 square feet (929 square meters).

EXCEPTIONS:

1. A manual control may be installed in a remote location, rather than in a location with ready access to occupants, for the purpose of safety or security provided that each remote control device has an indicator pilot light as part of or next to the control device and the light is clearly labeled to identify the controlled lighting.

2. Restrooms.

NEW SECTION. SECTION 88. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.2.4 of the Washington State Energy Code is not adopted and the following is substituted:

Dimming controls (WSEC C405.2.4). Dimming controls complying with WSEC C405.2.4.1 are required for general lighting in the following space types. The space types listed include other spaces with substantially similar uses.

1. Classroom/lecture hall/training room.

2. Conference/multipurpose/meeting room.

3. In a dining area for bar/lounge or leisure, family dining.

4. Laboratory.

5. Lobby.

6. Lounge/break room.

7. Offices.

8. Gymnasium/fitness center.

9. Library reading room.

10. In a health care facility for imaging rooms, exam rooms, nursery, and nurses' stations.

11. Spaces not provided with occupant sensor controls complying with WSEC C405.2.1.1.

EXCEPTIONS:

1. Luminaires controlled by daylight responsive controls complying with WSEC C405.2.5.

2. Luminaires controlled by special application controls complying with WSEC C405.2.6.

3. Where provided with manual control, the following areas are not required to have light reduction control:

3.1. Spaces that have only one luminaire with a rated power of less than 60 watts.

3.2. Spaces that use less than 0.45 watts per square foot (4.9 watts per square meter).

3.3. Corridors, lobbies, electrical rooms, and mechanical rooms.

L. Spaces required to have dimming control shall be provided with manual controls that allow lights to be dimmed from full output to 10 percent of full power or lower with continuous dimming, as well as turning lights off. Manual control shall be provided within each space to dim lights.

NEW SECTION. SECTION 89. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.2.4.1 of the Washing State Commercial Energy Code is not adopted and the following is substituted:

Dimming control function (WSEC C405.2.4.1). Manual controls shall be configured to provide dimming controls that allow lights to be dimmed from full output to 10 percent of full power or lower with continuous dimming while maintaining uniform illumination in the space, as well as turning off lights. Manual control shall be provided within each room to dim lights.

EXCEPTION: Manual dimming control is not required in spaces where high-end trim lighting controls are provided that comply with the following:

1. The calibration adjustment equipment is located for ready access only by authorized personnel.

2. Lighting controls with ready access for users cannot increase the lighting power above the maximum level established by the high-end trim controls.

NEW SECTION. SECTION 90. There is hereby added to K.C.C. chapter 16.07

a new section to read as follows:

Section C405.2.5.1 of the Washington State Energy Code is not adopted and the following is substituted:

Daylight responsive controls function (WSEC C405.2.5.1). Where required, daylight responsive controls shall be provided within each space for control of lights in that space and shall comply with all of the following:

1. Lights in primary sidelit daylight zones shall be controlled independently of lights in secondary sidelit daylight zones in accordance with WSEC C405.2.5.2;

2. Lights in toplit daylight zones in accordance with WSEC C405.2.5.3 shall be controlled independently of lights in sidelit daylight zones in accordance with WSEC C405.2.5.2;

3. Daylight responsive controls within each space shall be configured so that they can be calibrated from within that space by authorized personnel;

4. Calibration mechanisms shall be in a location with ready access;

5. Daylight responsive controls shall dim lights continuously from full light output to 15 percent of full light output or lower;

6. Daylight responsive controls shall be configured to completely shut off all controlled lights in that zone;

7. When occupant sensor controls have reduced the lighting power to an unoccupied setpoint in accordance with WSEC C405.2.1.2 through C405.2.1.5, daylight responsive controls shall continue to adjust electric light levels in response to available daylight but shall be configured to not increase the lighting power above the specified unoccupied setpoint;

8. Lights in sidelit daylight zones in accordance with WSEC C405.2.5.2 facing different cardinal orientations (i.e., within forty-five degrees of due north, east, south, and west) shall be controlled independently of each other.

EXCEPTION: Up to 75 watts of general lighting are permitted to be controlled together with lighting in a daylight zone facing a different cardinal orientation.

9. Incorporate time-delay circuits to prevent cycling of light level changes of less than 3 minutes;

10. The maximum area a single daylight responsive control device serves shall not exceed 2,500 square feet (232.3 square meters) and no more than 60 lineal feet (18.3 lineal meters) of façade;

11. Occupant override capability of daylight dimming controls is not permitted, other than a reduction of light output from the level established by the daylighting controls; and

12. Daylight responsive controls shall be set initially to activate at 30 footcandles (323 lux) or not more than 110 percent of the illuminance level specified on the construction documents.

NEW SECTION. SECTION 91. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.2.5.1.1 of the Washington State Energy Code is not adopted and the following is substituted:

Dimming (WSEC C405.2.5.1.1). Daylight responsive controls shall be configured to automatically reduce the power of general lighting in the daylight zone in response to available daylight, while maintaining uniform illumination in the space

through continuous dimming using dimming ballasts, dimming drivers, and daylight-sensing automatic controls. The system shall reduce lighting power continuously to less than 10 percent of rated power at maximum light output.

NEW SECTION. SECTION 92. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.2.6 of the Washington State Energy Code is not adopted and the following is substituted:

Additional lighting controls (WSEC C405.2.6). Specific application lighting shall be provided with controls, in addition to controls required by other sections, for the following:

1. The following lighting shall be controlled by an occupant sensor complying with WSEC C405.2.1.1 or a time switch control complying with WSEC C405.2.2.1. In addition, a manual control shall be provided to control such lighting separately from the general lighting in the space:

1.1. Luminaires for which additional lighting power is claimed in accordance with WSEC C405.4.2.2.1.

1.2. Display and accent.

1.3. Lighting in display cases.

1.4. Supplemental task lighting, including permanently installed under-shelf, or under-cabinet lighting.

1.5. Lighting equipment that is for sale or demonstration in lighting education.

1.6. Display lighting for exhibits in galleries, museums, and monuments that is in addition to general lighting.

2. Sleeping units shall have control devices or systems configured to automatically switch off all permanently installed luminaires and switched receptacles, including those installed within furniture, within 20 minutes after all occupants have left the unit.

EXCEPTIONS:

1. Lighting and switched receptacles controlled by card key controls.

2. Spaces where patient care is directly provided.

3. Lighting for life support of plants and animals and food warming shall be controlled by a dedicated control that is independent of the controls for other lighting within the room or space.

4. Task lighting for medical and dental purposes that is in addition to general lighting shall be provided with a manual control.

5. Luminaires serving the exit access and providing means of egress illumination required by IBC Section 1008.2, including luminaires that function as both normal and emergency means of egress illumination shall be controlled by a combination of listed emergency relay and occupancy sensors, or signal from another building control system, that automatically shuts off the lighting when the areas served by that illumination are unoccupied.

EXCEPTION: Means of egress illumination serving the exit access that does not exceed 0.01 watts per square foot (0.11 watts per square meter) of building area is exempt from this requirement.

SECTION 93. Ordinance 19485, Section 99, and K.C.C. 16.07.310 are hereby amended to read as follows:

Table C405.4.2(1) of the ((~~International Energy Conservation~~)) Washington State Energy Code is not adopted and the following is substituted:

Table C405.4.2(1)

Interior Lighting Power Allowances—Building Area Method

Building Area Type	**LPD (w/ft^2)**
Automotive facility	0.58
Convention center	0.58
Court house	((~~0.71~~)) 0.68
Dining: Bar lounge/leisure	((~~0.71~~)) 0.68
Dining: Cafeteria/fast food	((~~0.65~~)) 0.63
Dining: Family	((~~0.64~~)) 0.59
Dormitory[((~~a,b~~))]	((~~0.41~~)) 0.46
Exercise center	((~~0.60~~)) 0.54
Fire station[((~~a~~))]	((~~0.49~~)) 0.51
Gymnasium	0.68
Health care clinic	((~~0.63~~)) 0.69
Hospital[((~~a~~))]	((~~0.84~~)) 0.83
Hotel/motel[((~~a,b~~))]	((~~0.50~~)) 0.48
Library	0.75
Manufacturing facility	0.74
Motion picture theater	((~~0.40~~)) 0.39
Multifamily[((~~c~~))]	((~~0.37~~)) 0.41
Museum	((~~0.50~~)) 0.51

Office	((~~0.58~~)) 0.56
Parking garage	((~~0.13~~)) 0.14
Penitentiary	0.65
Performing arts theater	((~~0.76~~)) 0.74
Police station	((~~0.60~~)) 0.56
Post office	((~~0.59~~)) 0.58
Religious building	0.60
Retail	((~~0.76~~)) 0.70
School/university	0.63
Sports arena	((~~0.54~~)) 0.62
Town hall	((~~0.62~~)) 0.60
Transportation	((~~0.45~~)) 0.50
Warehouse	((~~0.36~~)) 0.40
Workshop	((~~0.82~~)) 0.78

((~~Footnotes:~~

~~a. Where sleeping units are excluded from lighting power calculations by application of IECC R404.1, neither the area of the sleeping units nor the wattage of lighting in the sleeping units shall be counted.~~

~~b. Where dwelling units are excluded from lighting power calculations by application of IECC R404.1, neither the area of the dwelling units nor the wattage of lighting in the dwelling units shall be counted.~~

~~c. Dwelling units are excluded. Neither the area of the dwelling units nor the wattage of lighting in the dwelling units shall be counted.~~))

SECTION 94. Ordinance 19485, Section 100, and K.C.C. 16.07.320 are hereby amended to read as follows:

Table C405.4.2(2) of the ((~~International Energy Conservation~~)) Washington State Energy Code is not adopted and the following is substituted:

Table C405.4.2(2)

Interior Lighting Power Allowances—Space-by-Space Method

Common Space-by-Space Types[a]	**LPD (w/ft^2)**
Atrium - Less than 20 feet in height	0.35
Atrium - 20 to 40 feet in height	((~~0.43~~)) 0.39
Atrium - Above 40 feet in height	((~~0.54~~)) 0.46
Audience/seating area – Permanent[i]	
In an auditorium	((~~0.55~~)) 0.52
In a gymnasium	0.21
In a motion picture theater	0.24
In a penitentiary	((~~0.67~~)) 0.56
In a performing arts theater	((~~1.04~~)) 0.98
In a religious building	0.65
In a sports arena	((~~0.30~~)) 0.24
Otherwise	((~~0.21~~)) 0.23
Banking activity area[i]	((~~0.55~~)) 0.51
Breakroom (see Lounge/breakroom)	
Classroom/lecture hall/training room	
In a penitentiary	((~~0.89~~)) 0.74

Otherwise((~~m~~)) g	((~~0.64~~)) 0.65
Computer room, data center	((~~0.85~~)) 0.68
Conference/meeting/multipurpose	((~~0.87~~)) 0.79
Confinement cell	0.63
Copy/print room	((~~0.28~~)) 0.31
Corridor	
In a facility for the visually impaired (and not used primarily by the staff)[b]	0.71
In a hospital	((~~0.71~~)) 0.61
In a manufacturing facility	0.37
Otherwise[c, ((~~f~~))] i	((~~0.37~~)) 0.40
Courtroom[c]	((~~1.08~~)) 0.97
Dining area	
In a penitentiary	((~~0.42~~)) 0.35
In a facility for the visually impaired (and not used primarily by the staff)[b]	((~~1.27~~)) 1.22
In a bar/lounge or leisure dining((~~n~~)) i	((~~0.77~~)) 0.69
In cafeteria or fast food dining	((~~0.36~~)) 0.33
In a family dining area((~~n~~)) i	((~~0.54~~)) 0.47
Otherwise	((~~0.39~~)) 0.38
Electrical/mechanical	((~~0.39~~)) 0.43
Emergency vehicle garage	((~~0.47~~)) 0.46
Food preparation	((~~0.98~~)) 1.07

Guest room((~~a~~))[b]	0.37
Laboratory	
In or as a classroom	((~~1.00~~)) 0.95
Otherwise	((~~1.20~~)) 1.09
Laundry/washing area	((~~0.48~~)) 0.46
Loading dock, interior	0.79
Lobby[c]	
In a facility for the visually impaired (and not used primarily by the staff)[b]	((~~1.69~~)) 1.44
For an elevator	((~~0.59~~)) 0.58
In a hotel	((~~0.46~~)) 0.43
In a motion picture theater	((~~0.21~~)) 0.18
In a performing arts theater	((~~1.13~~)) 1.09
Otherwise	((~~0.76~~)) 0.72
Locker room	((~~0.47~~)) 0.39
Lounge /breakroom((~~a~~)) [i]	
In a health care facility[c,i]	0.42
Otherwise[i]	((~~0.53~~)) 0.50
Office	
Enclosed ≤ 250	0.67
Enclosed ≥ 250	0.59
Open plan	((~~0.55~~)) 0.51
Parking area, interior	((~~0.14~~)) 0.10

Pharmacy area	((~~1.66~~)) 1.43
Restroom In a facility for the visually impaired (and not used primarily by the staff)[b] Otherwise((~~[h]~~)) i	 ((~~1.26~~)) 0.96 ((~~0.57~~)) 0.67
Sales area	((~~0.95~~)) 0.87
Seating area, general	((~~0.21~~)) 0.19
Security screening general area	0.64
Security screening in transportation facilities	0.93
Security screening transportation waiting area	0.56
Stairwell((~~[h]~~)) c,i	((~~0.44~~)) 0.43
Storage room ((~~< 50 ft^2~~ ~~50-100 ft^2~~)) All ((~~of the~~)) storage[b]	 ((~~0.46~~)) ((~~0.34~~)) ((0.~~34~~)) 0.32
Vehicular maintenance	((~~0.54~~)) 0.53
Workshop	((~~1.13~~)) 1.05

Building Specific Space-by-Space Types[a]

Building Specific Space-by-Space Types[a]	**LPD((~~d~~)) (w/ft^2)**

Automotive - (See Vehicular maintenance, above)	
Convention center - Exhibit space[i]	((~~0.55~~)) 0.45
Dormitory living quarters[((a,))b]	0.45
Facility for the visually impaired[b]	
In a chapel (and not used primarily by the staff)[b]	((~~0.70~~)) 0.58
In a recreation room (and not used primarily by the staff)[b]	((~~1.77~~)) 1.20
Fire stations – Sleeping quarters[((g))]	0.21
Gaming establishments	
High limits game	1.51
Slots	0.49
Sportsbook	0.74
Table games	0.98
Gymnasium/fitness center	
In an exercise area	((~~0.83~~)) 0.74
In a playing area	((~~0.77~~)) 0.74
Health care facility[c,i]	
In an exam/treatment room	((~~1.40~~)) 1.33
In an imaging room	0.94
In a medical supply room	((~~0.62~~)) 0.56
In a nursery	((~~0.92~~)) 0.87

In a nurse's station	((~~1.17~~)) 1.07
In an operating room	2.26
In a patient room((~~g~~))	0.68
In a physical therapy room	((~~0.91~~)) 0.82
In a recovery room	((~~1.25~~)) 1.18
In a telemedic room	1.44
Library((~~f~~))	
In a reading area((~~a~~)) i	((~~0.86~~)) 0.78
In the stacks	((~~0.99~~)) 1.06
Manufacturing facility	
In a detailed manufacturing area	((~~0.72~~)) 0.68
In an equipment room	((~~0.68~~)) 0.66
In an extra high bay area (more than 50-foot floor-to-ceiling height)	((~~1.28~~)) 1.22
In a high bay area (25 - 50-foot floor-to-ceiling height)	1.12
In a low bay area (< 25-foot floor-to-ceiling height)	((~~0.77~~)) 0.78
Museum	
In a general exhibition area i	((~~0.28~~)) 0.28
In a restoration room	((~~0.99~~)) 1.10
Performing arts theater dressing/fitting room	((~~0.37~~)) 0.35

Post office - Sorting area	((~~0.69~~)) 0.64
Religious building	
In a fellowship hall((~~h~~)) i	((~~0.49~~)) 0.45
In a worship pulpit/choir area((~~h~~)) i	((~~0.77~~)) 0.68
Retail	
In a dressing/fitting room	((~~0.46~~)) 0.41
Hair salon	0.59
Nail salon	0.68
In a mall concourse	((~~0.74~~)) 0.52
Massage space	0.73
Sports arena—Playing area	
For a Class 1 facility((~~i~~)) d	((~~2.94~~)) 2.63
For a Class 2 facility((~~j~~)) e	((~~2.01~~)) 1.78
For a Class 3 facility((~~k~~)) f	((~~1.30~~)) 1.16
For a Class 4 facility((~~l~~)) g	((~~0.86~~)) 0.78
Sports arena—Pools	
For a Class 1 facility[d]	1.98
For a Class 2 facility[e]	1.32
For a Class 3 facility[f]	0.89
For a Class 4 facility[g]	0.53
Transportation	
Airport hangar	1.22
In a baggage/carousel area	((~~0.35~~)) 0.25

In an airport concourse	((~~0.23~~)) 0.44
At a terminal ticket counter((~~n~~)) i	((~~0.46~~)) 0.36
Passenger loading area	0.64
Warehouse—Storage area	
For medium to bulky palletized items	0.30
For smaller, hand-carried items	((~~0.62~~)) 0.63

For SI: 1 foot = 304.8 mm, 1 watt per square foot = ((~~11~~)) 10.76 W/m^2.

Footnotes:

a. ((~~If~~)) Where both a common space type and a building area specific space type are listed, the building area specific space type shall be appl((~~y~~))ied.

b. A facility for the visually impaired is a facility that is licensed or will be licensed by local or state authorities for senior long-term care, adult daycare, senior support, or people with special visual needs.

c. ((~~For spaces in which lighting is specified to be installed in addition to, and controlled separately from, the general lighting for the purpose of highlighting art or exhibits if the additional lighting power shall not exceed 0.5 W/ft^2 of such spaces.~~

~~d. For scientific laboratories, additional lighting power allowance of 0.35 W/ft^2 for specialized task work - lighting that provides for small-scale, cognitive or fast performance visual tasks, lighting required for operating specialized equipment associated with pharmaceutical or laboratorial activities or both.~~

~~e. For offices, additional lighting power allowance of 0.20 W/ft^2 for portable lighting, which includes under shelf or furniture-mounted supplemental task lighting qualifies when controlled by a time clock or an occupancy sensor.~~

~~f. For corridors, additional lighting power allowance of 0.25 W/ft^2 display lighting and decorative lighting where provided for aesthetic purposes. Decorative lighting fixtures in corridors may also provide general lighting. This additional allowance is not permitted to be used together with the allowance in footnote c for highlighting art or exhibits.~~

~~g. Where sleeping units are excluded from lighting power calculations by application of IECC R404.1, neither the area of the sleeping units nor the wattage of lighting in the sleeping units shall be counted.~~

~~h. Where dwelling units are excluded from lighting power calculations by application of IECC R404.1, neither the area of the dwelling units nor the wattage of lighting in the dwelling units shall be counted.~~

~~i.~~)) Additional lighting power allowance of 0.2 watts per square foot for the purpose of highlighting art or exhibits. This additional power shall be permitted only where the specified lighting is installed in addition to and controlled separately from general lighting in accordance with WSEC C405.2.6. This additional power shall be used only for the specified luminaires and shall not be used for any other purpose and it shall not be added to any other space or the interior power allowance.

d. Class I facilities consist of professional facilities; and semiprofessional, collegiate, or club facilities with seating for 5,000 or more spectators.

((~~j.~~)) e. Class II facilities consist of collegiate and semiprofessional facilities with seating for fewer than 5,000 spectators; club facilities with seating between 2,000 and 5,000 spectators; and amateur league and high school facilities with seating for more than 2,000 spectators.

((~~k.~~)) f. Class III facilities consist of club, amateur league, and high school facilities with seating for 2,000 or fewer spectators.

((~~l.~~)) g. Class IV facilities consist of elementary school and recreational facilities; and amateur league and high school facilities without provisions for spectators.

((~~m.~~)) h. For classrooms, additional lighting power allowance of 4.50 ((~~W/~~)) watts per lineal foot of white or chalk boards for directional lighting dedicated to white or chalk boards.

((~~n.~~)) i. Additional lighting power allowance of ((~~0.30 W/ft^2~~)) 0.15 watts per square foot for ornamental lighting. Qualifying ornamental lighting includes luminaires ((~~such as chandeliers, sconces, lanterns, neon and cold cathode, light emitting diodes, theatrical projectors, moving lights and light color panels when any of those lights~~)) that are specifically used in a decorative manner ((~~that does not serve as display lighting or general lighting. Ornamental lighting shall be controlled separately from general lighting~~)). This additional power shall be permitted only where the specified lighting is installed in addition to and controlled separately from display or general lighting in accordance with WSEC C405.2.6. This additional power shall be used only for the specified luminaires and shall not be added to any other space or the interior power allowance.

j. Where a space is designated as unfinished, neither the area nor the lighting power in the space shall be calculated as part of the Lighting Power Alliance.

k. For corridors, additional lighting power allowance of 0.25 watts per square foot for display lighting and decorative lighting is permitted where provided for aesthetic purposes. Decorative lighting fixtures in corridors are also permitted to provide general lighting.

NEW SECTION. SECTION 95. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.4.2.2.1 of the Washington State Energy Code is not adopted and the following is substituted:

Additional interior lighting power (WSEC C405.4.2.2.1). Where using the Space-by-Space Method, an increase in the interior lighting power allowance is permitted for specific lighting functions. Additional power shall be permitted only where the specified lighting is installed in addition to and automatically controlled separately from general lighting, in accordance with WSEC C405.2.6. This additional power shall be used only for the specified luminaires and shall not be used for any other purpose.

An increase in the interior lighting power allowance is permitted for lighting equipment to be installed in sales areas specifically to highlight merchandise. The additional lighting power shall be determined in accordance with Equation 4-14.

Equation 4-14:

Additional Interior Lighting Power Allowance = 500 watts + (Retail Area 1 × 0.40 watts/square foot) + (Retail Area 2 × 0.40 watts/square foot) + (Retail Area 3 × 0.70 watts/square foot) + (Retail Area 4 × 1.00 watts/square foot)

Where:

Retail Area 1 = The floor area for all products not listed in Retail Area 2, 3, or 4.

Retail Area 2 = The floor area used for the sale of vehicles, sporting goods, and small electronics.

Retail Area 3 = The floor area used for the sale of furniture, clothing, cosmetics, and artwork.

Retail Area 4 = The floor area used for the sale of jewelry, crystal, and china.

EXCEPTION: Other merchandise categories are permitted to be included in Retail Areas 2 through 4, provided that justification documenting the need for additional lighting power based on visual inspection, contrast, or other critical display requirement is approved by the code official.

NEW SECTION. SECTION 96. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.5 of the Washington State Energy Code is supplemented with the following:

Full cutoff luminaires (WSEC C405.5.5). For open parking and outdoor areas and roadways, luminaires mounted more than 15 feet (4.6 meters) above the ground shall have a luminaire light distribution in which zero candela intensity occurs at angles equal to or greater than 90 degrees above nadir.

NEW SECTION. SECTION 97. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405.8 of the Washington State Energy Code is not adopted and the following is substituted:

Electric motor efficiency (WSEC C405.8). All electric motors, fractional or otherwise, shall meet the minimum efficiency requirements of WSEC Tables C405.8(1) through C405.8(4) when tested and rated in accordance with DOE 10 C.F.R 431. The efficiency shall be verified through certification under an approved certification program. Where no certification program exists, the equipment efficiency rating shall be supported by data furnished by the motor manufacturer.

EXCEPTION: The standards in this section shall not apply to the following exempt electric motors.

1. Air-over electric motors.
2. Component sets of an electric motor.
3. Liquid-cooled electric motors.
4. Submersible electric motors.
5. Inverter-only electric motors.
6. Mechanical ventilation system types with an input power less than 746 watts that comply with the requirements of WSEC C403.8.4.

Fractional horsepower fan motors that are 1/12 horsepower (61 watts) or greater and less than 1 horsepower (745 watts) (based on output power) which are not covered by WSEC Tables C405.8(3) and C405.8(4) shall be electronically commutated motors or shall have a minimum motor efficiency of 70 percent when rated in accordance with DOE 10 C.F.R. 431. These motors shall also have the means to adjust motor speed for either balancing or remote control. Belt-driven fans may use sheave adjustment for airflow balancing in lieu of a varying motor speed.

EXCEPTIONS:

1. Motors that are an integral part of specialized process equipment.

2. Where the motor is integral to a listed piece of equipment for which no complying motor has been approved.

3. Motors used as a component of the equipment meeting the minimum efficiency requirements of WSEC C403.3.2 and WSEC Tables C403.3.2(1) through C403.3.2(16), provided that the motor input is included when determining the equipment efficiency.

4. Motors in the airstream within fan coils and terminal units that operate only when providing heating to the space served.

5. Mechanical ventilation system types with an input power less than 746 watts that comply with the requirements of WSEC C403.8.4.

6. Domestic use of clothes dryer booster fans, range hood exhaust fans, and range booster fans that operate intermittently.

7. Radon and contaminated soil exhaust fans.

NEW SECTION. SECTION 98. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405 of the Washington State Energy Code is supplemented with the following:

Commercial food service (WSEC C405.14). The following types of equipment within the scope of the applicable Energy Star program shall comply with the energy-efficiency and water-efficiency criteria required to achieve the Energy Star label:

A. Commercial fryers: Energy Star Program Requirements for Commercial Fryers.

B. Commercial hot food holding cabinets: Energy Star Program Requirements for Hot Food Holding Cabinets.

C. Commercial steam cookers: Energy Star Program Requirements for Commercial Steam Cookers.

D. Commercial dishwashers: Energy Star Program Requirements for Commercial Dishwashers.

NEW SECTION. SECTION 99. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C405 of the Washington State Energy Code is supplemented with the following:

Electric power at gas-fired commercial cooking appliances (WSEC C405.14.1). Where gas-fired commercial cooking appliances in commercial kitchens are provided, an electrical panel shall be provided within or adjacent to each space in which commercial cooking appliances are located, sized to serve future electric appliances to replace all gas-fired appliances in the space with a minimum capacity of 293 volt-amperes (VA) per kBtu/h of gas appliance input capacity. The main electric service panel for the building shall be wired and sized to accommodate all such commercial cooking appliance panels. Permit documents shall include a table listing each gas-fired commercial cooking appliance as well as an equivalent electric appliance providing the same or greater cooking capacity, and the total amperage required for the commercial kitchen electrical panel. This information shall be provided in both the mechanical and the electrical permit documents.

EXCEPTION: This requirement does not apply to gas-fired cooking appliances

installed in buildings originally permitted in compliance with an earlier edition of the WSEC, if the building's main service panel lacks sufficient capacity to provide power for equivalent electric versions of all the gas-fired equipment identified in the permit application.

NEW SECTION. SECTION 100. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Table C406.1 of the Washington State Energy Code is not adopted and the following is substituted:

Table C406.1

Energy Measure Credit Requirements

Required Credits for Projects		**Occupancy Group**					
	WSEC Section	**Group R-1**	**Group R-2**	**Group B**	**Group E**	**Group M**	**All Other**
New building energy efficiency credit requirement	C406.2	57	43	44	50	61	51
Building additions energy efficiency credit requirement	C406.2	28	21	22	24	30	22
New building load management credit requirement	C406.3	12	15	27	15	13	26

NEW SECTION. SECTION 101. There is hereby added to K.C.C. chapter 16.07

a new section to read as follows:

Section C406.1.1.1 of the Washington State Energy Code is not adopted and the following is substituted:

Applicable envelope, renewable, and elevator energy credits (WSEC C406.1.1.1). Where an entire building or building addition complies with WSEC C406.2.5, C406.2.12, C406.2.13, or C406.2.18, under an initial tenant improvement permit, tenant spaces within the building qualify for the number of credits assigned to the occupancy group of the tenant space in accordance with WSEC Table C406.2(1). Where prior energy credits were achieved under the 2018 Washington State Energy Code, they shall be multiplied by 6 for applicability to this code.

NEW SECTION. SECTION 102. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.1.1.2 of the Washington State Energy Code is not adopted and the following is substituted:

Applicable HVAC and service water heating credits (WSEC C406.1.1.2). Where HVAC and service water heating systems and services are installed and comply with WSEC C406.2.2, C406.2.8, or C406.2.9, under an initial tenant improvement permit, those systems and services shall be considered a part of the tenant space. Tenant spaces qualify for the credits assigned to the occupancy group of the tenant space in accordance with WSEC Table C406.2(1) if the tenant space includes the distribution system and equipment that the central HVAC systems or service water heating systems were designed to support.

NEW SECTION. SECTION 103. There is hereby added to K.C.C. chapter 16.07

a new section to read as follows:

Table C406.2(1) of the Washington State Energy Code is not adopted and the following is substituted:

Table C406.2(1)

Efficiency Measure Credits

Measure Title	Applicable WSEC Section	Prorating Flag	Occupancy Group					
			Group R-1	Group R-2	Group B	Group E	Group M	All Other
1. Dwelling Unit HVAC control	C406.2.1	Heat	NA	7	NA	NA	NA	NA
2. Improved HVAC TSPR	C406.2.2.1	Heat	NA	8	11	17	22	NA
3. Improved cooling and fan efficiency	C406.2.2.2	Heat	8	5	10	10	8	8
4. Improved heating efficiency	C406.2.2.3	Heat	1	1	1	1	2	1
5. Improved low-carbon district energy	C406.2.2.4		3	3	4	11	17	8

Measure Title	Applicable WSEC Section	Prorating Flag	Occupancy Group					
			Group R-1	**Group R-2**	**Group B**	**Group E**	**Group M**	**All Other**
system (10% better)								
6. Improved low-carbon district energy system (20% better)	C406.2.2.5		9	10	12	33	52	24
7. High performance DOAS	C406.2.2.6	Heat	31	31	21	39	40	21/ (Group A:40)[c]
8. Fault detection & diagnostics (FDD)	C406.2.2.7	Heat	2	2	2	6	9	4
9. 10% reduced lighting power	C406.2.3.1	Heat	7	4	18	16	36	16
10. 20% reduced	C406.2.3.2	Heat	13	8	36	32	72	32

Measure Title	Applicable WSEC Section	Prorating Flag	Occupancy Group					
			Group R-1	**Group R-2**	**Group B**	**Group E**	**Group M**	**All Other**
lighting power[d]								
11. Lamp efficacy improvement	C406.2.3.3	Heat	5	6	NA	NA	NA	NA
12. Residential lighting control	C406.2.4.1	Heat	NA	8	NA	NA	NA	NA
13. Enhanced lighting control	C406.2.4.2	Heat	1	1	6	6	11	5
14. Renewable energy	C406.2.5		7	12	13	13	10	11
15. Shower drain heat recovery	C406.2.6.1	SWH	9	30	NA	3	NA	NA

Measure Title	Applicable WSEC Section	Prorating Flag	Occupancy Group					
			Group R-1	**Group R-2**	**Group B**	**Group E**	**Group M**	**All Other**
16. Service water heat recovery	C406.2.6.2	SWH	35	111	13	14	(Grocery) 41[e]	NA
17. Reserved								
18. High efficiency service water heating, gas-fired	C406.2.6.4	SWH	NA	NA	NA	NA	NA	NA
19. Heat trace system	C406.2.7.1	SWH	6	13	4	1	NA	6
20. Point of use water heater	C406.2.7.2	SWH	NA	NA	19	5	NA	NA
21. Service hot water distribution right sizing	C406.2.8		13	10	NA	NA	NA	NA
22. High performance	C406.2.9		6	13	4	1	NA	6

Measure Title	Applicable WSEC Section	Prorating Flag	Occupancy Group					
			Group R-1	Group R-2	Group B	Group E	Group M	All Other
service hot water temperature maintenance system								
23. Reserved								
24. Low flow residential showerhead	C406.2.11	SWH	3	3	NA	NA	NA	NA
25. Enhanced envelope performance[g]	C406.2.12	Heat	24	20	13	5	19	16
26. Base reduced air leakage[g]	C406.2.13.1		29	24	6	3	9	14
27. Enhanced reduced air leakage[g]	C406.2.13.2	Heat	53	44	11	5	16	26
28. Reserved								

Measure Title	Applicable WSEC Section	Prorating Flag	Occupancy Group					
			Group R-1	**Group R-2**	**Group B**	**Group E**	**Group M**	**All Other**
29. Enhanced residential kitchen equipment	C406.2.15	Heat	12	19	NA	NA	NA	NA
30. Enhanced residential laundry equipment	C406.2.16	Heat	NA	6	NA	NA	NA	NA
31. Heat pump clothes dryers	C406.2.17	Heat	6	6	NA	NA	NA	NA
32. Efficient elevator equipment	C406.2.18	Heat	3	5	5	5	4	4

Footnotes:

a. Projects using Item 2 shall not use Items 3, 4, or 7.

b. Projects using WSEC C406.2.2.5 shall not use WSEC C406.2.2.4.

c. For WSEC C406.2.2.6, Group A occupancies achieve 40 credits. Other occupancy groups within the "all other" category achieve 21 credits.

d. Projects using WSEC C406.2.3.2 shall not use WSEC C406.2.3.1.

e. Service water heat recovery and heat pump water heating are available in Group M occupancies only for grocery stores larger than 10,000 square feet. Large mixed retail uses with full grocery and butcher sections shall achieve half the credits. This credit is not available where refrigeration recovery to heat service hot water is used to meet the requirements of WSEC C403.9.2.3.

f. Heat pump water heating efficiency credits are available in the "all other" category only for Group A-2.

g. Buildings or building areas that are exempt from the thermal envelope requirements in accordance with WSEC C402.1.1 and C402.1.2 do not qualify for this package.

NEW SECTION. SECTION 104. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Table C406.2(2) of the Washington State Energy Code is not adopted and the following is substituted:

Table C406.2(2)

Efficiency Measure Credits for use with Fossil Fuel Compliance Path

Measure Title	Applicable WSEC Section	Prorating Flag	Occupancy Group					
			Group R-1	Group R-2	Group B	Group E	Group M	All Other
1. Dwelling unit HVAC control	C406.2.1	Heat	NA	8	NA	NA	NA	NA
2. Improved HVAC TSPR[a]	C406.2.2.1	Heat	NA	9	12	19	24	NA

3. Improved cooling and fan efficiency	C406.2.2.2	Heat	12	8	14	8	10	10
4. Improved heating efficiency	C406.2.2.3	Heat	2	3	3	11	18	8
5. Improved low-carbon district energy system (10% better)	C406.2.2.4		3	3	4	12	19	9
6. Improved low-carbon district energy system (20% better)[b]	C406.2.2.5		10	11	13	36	57	26
7. High performance DOAS	C406.2.2.6	Heat	34	34	23	43	44	23/(A) 40[c]
8. Fault detection & diagnostics (FDD)	C406.2.2.7	Heat	2	2	2	6	9	4
9. 10% reduced lighting power	C406.2.3.1	Heat	7	4	18	16	20	15
10. 20% reduced lighting power[d]	C406.2.3.2	Heat	13	8	36	32	40	29
11. Lamp efficacy improvement	C406.2.3.3	Heat	5	6	NA	NA	NA	NA
12. Residential lighting control	C406.2.4.1	Heat	NA	8	NA	NA	NA	NA
13. Enhanced lighting control	C406.2.4.2	Heat	1	1	6	6	11	6
14. Renewable energy	C406.2.5		7	12	13	13	10	11
15. Shower drain heat recovery	C406.2.6.1	SWH	10	33	NA	3	NA	NA

16. Service water heat recovery	C406.2.6.2	SWH	35	111	13	14	(Grocery) 41[e]	NA
17. Heat pump water heating	C406.2.3	SWH	135	163	17	33	(Grocery) 95[e]	(A-2) 95[f]
18. High efficiency service water heating, gas-fired	C406.2.6.4	SWH	59	65	6	11	18	32
19. Heat trace system	C406.2.7.1	SWH	6	13	4	1	NA	6
20. Point of use water heater	C406.2.7.2	SWH	NA	NA	19	5	NA	NA
21. Service hot water distribution right sizing	C406.2.8		13	10	NA	NA	NA	NA
22. High performance service hot water temperature maintenance system	C406.2.9		6	13	4	1	NA	6
23. Reserved								
24. Low flow residential showerheads	C406.2.11	SWH	3	3	NA	NA	NA	NA
25. Enhanced envelope performance[g]	C406.2.12	Heat	24	20	13	5	19	14
26. Base reduced air leakage[g]	C406.2.13.1		29	24	6	3	9	11
27. Enhanced reduced air leakage[g]	C406.2.13.2	Heat	53	44	11	5	16	20
28. Reserved								

29. Enhanced residential kitchen equipment	C406.2.15	Heat	12	19	NA	NA	NA	NA
30. Enhanced residential laundry equipment	C406.2.16	Heat	NA	6	NA	NA	NA	NA
31. Heat pump clothes dryers	C406.2.17	Heat	6	6	NA	NA	NA	NA
32. Efficient elevator equipment	C406.2.18	Heat	3	5	5	5	4	4

Footnotes:

a. Projects using Item 2 shall not use Items 3, 4, or 7.

b. Projects using WSEC C406.2.2.5 shall not use WSEC C406.2.2.4.

c. For WSEC C406.2.2.6, Group A occupancies achieve 40 credits. Other occupancy groups within the "all other" category achieve 21 credits.

d. Projects using WSEC C406.2.3.2 shall not use WSEC C406.2.3.1.

e. Service water heat recovery and heat pump water heating are available in Group M occupancies only for grocery stores larger than 10,000 square feet. Large mixed retail uses with full grocery and butcher sections shall achieve half the credits. This credit is not available where refrigeration recovery to heat service hot water is used to meet the requirements of WSEC C403.9.2.3.

f. Heat pump water heating efficiency credits are available in the "all other" category only for Group A-2.

g. Buildings or building areas that are exempt from the thermal envelope requirements in accordance with WSEC C402.1.1 and C402.1.2, do not qualify for this package.

NEW SECTION. SECTION 105. There is hereby added to K.C.C. chapter 16.07

a new section to read as follows:

Section C406.2.1 of the Washington State Energy Code is not adopted and the following is substituted:

Dwelling unit and Group R-1 sleeping unit HVAC controls (WSEC C406.2.1). HVAC systems serving dwelling units or Group R-1 sleeping units shall be controlled with a programmable thermostat that is configured to automatically activate a setback condition of at least 5° Fahrenheit for both heating and cooling. The programmable thermostat shall be configured to provide setback during occupied sleep periods. The unoccupied setback mode shall be configured to operate in conjunction with one of the following:

1. A manual main control device by each dwelling unit or Group R-1 sleeping unit main entrance that initiates setback for all HVAC units in the dwelling unit and is clearly identified as "Heating/Cooling Master Setback."

2. Occupancy sensors in each room of the dwelling unit or Group R-1 sleeping unit combined with a door switch to initiate setback for all HVAC units in the dwelling within 20 minutes of all spaces being vacant immediately following a door switch operation. Where separate room HVAC units are used, an individual occupancy sensor on each unit that is configured to provide setback shall meet this requirement.

3. An advanced learning thermostat that senses occupant presence and automatically creates a schedule for occupancy and provides a dynamic setback schedule based on when the spaces are generally unoccupied.

4. An automated control and sensing system that uses geographic sensing connected to the dwelling unit occupants' cell phones and initiates the setback condition when all occupants are away from the building.

NEW SECTION. SECTION 106. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.2.2 of the Washington State Energy Code is not adopted and the following is substituted:

More efficient HVAC system performance (WSEC C406.2.2). All heating and cooling systems shall meet the minimum requirements of WSEC C403 and efficiency improvements shall be referenced to the minimum efficiency requirements listed in the tables in WSEC C403.3.2. Where multiple efficiency requirements are listed, equipment shall meet the seasonal efficiencies including SEER, EER/IEER, IPLV, or AFUE. Equipment that is larger than the maximum capacity range indicated in the tables in WSEC C403.3.2 shall utilize the values listed for the largest capacity equipment for the associated equipment type shown in the table. Where multiple individual heating or cooling systems serve the project, the improvement shall be the weighted average improvement based on individual system capacity. This credit shall not be utilized for low energy or semi-heated space conditioning categories. No HVAC systems incorporating fossil fuel-fired equipment, or heat from district energy systems that are primarily heated by fossil fuel combustion, are permitted to utilize this credit.

For occupancies and systems required to comply with WSEC C403.1.1, credits are permitted to be achieved by meeting the requirements of WSEC C406.2.2.1. Other systems are permitted to achieve credits by meeting the requirements of either:

1. WSEC C406.2.2.2, More efficient HVAC equipment cooling and fan performance;

2. WSEC C406.2.2.3, More efficient HVAC equipment heating performance;

3. WSEC C406.2.2.6, High performance dedicated outdoor air system (DOAS); or

4. Any combination of WSEC C406.2.2.2, C406.2.2.3, and C406.2.2.6.

In addition, energy credits are permitted to be achieved for WSEC C406.2.2.7, Fault detection and diagnostics, where not otherwise required by WSEC C403.2.3 or C403.6.10(15).

NEW SECTION. SECTION 107. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.2.2.3 of the Washington State Energy Code is not adopted and the following is substituted:

More efficient HVAC equipment heating performance (WSEC C406.2.2.3). No less than 90 percent of the total HVAC capacity serving the total conditioned floor area of the entire building, building addition, or tenant space in accordance with WSEC C406.1.1 shall comply with the following:

C.406.2.2.3.1. HVAC system selection. Equipment installed shall be types that are listed in the tables in WSEC C403.3.2. Electrical resistance heating shall be limited to 20 percent of system capacity with the exception of heat pump supplemental heating. No HVAC systems incorporating fossil fuel-fired equipment, or heat from district energy systems that are primarily heated by fossil fuel combustion, are permitted to utilize this credit.

C.406.2.2.3.2. Heating equipment efficiency. Equipment shall exceed the minimum heating efficiency requirements of the tables in WSEC C403.3.2 by at least 5 percent. Where equipment exceeds the minimum annual heating efficiency requirements by more than 5 percent, energy efficiency credits for heating shall be determined using Equation 4-16, rounded to the nearest whole number.

Equation 4-16:

$EEC_{HEH} = EEC_5 \times [1 + (HEI - 0.05) / 0.05]$

Where:

EEC_{HEH} = Energy efficiency credits for heating efficiency improvement.

EEC_5 = WSEC C406.2.2.2 credits from WSEC Table C406.2(1).

HEI = The lesser of the improvement above minimum heating efficiency requirements or 20 percent or 0.2. Where heating efficiency varies by system, use the capacity weighted average percentage for all heating equipment combined. For metrics that increase as efficiency increases, HEI shall be calculated as follows:

$HEI = (HM_{DES} / HM_{MIN}) - 1$

Where:

HM_{DES} = Design heating efficiency metric, part-load, or annualized where available.

HM_{MIN} = Minimum required heating efficiency metric, part-load, or annualized where available from WSEC C403.3.2.

EXCEPTION: In low energy spaces complying with WSEC C402.1.1 and semi-heated spaces complying with WSEC C402.1.1.2, no less than 90 percent of the installed

heating capacity is provided by electric infrared or gas-fired radiant heating equipment for localized heating applications. Such spaces shall achieve credits for EEC_5.

NEW SECTION. SECTION 108. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.2.2.6 of the Washington State Energy Code is not adopted and the following is substituted:

High performance dedicated outdoor air system (DOAS) (WSEC C406.2.2.6).

No less than 90 percent of the total conditioned floor area of the whole project, excluding floor area of unoccupied spaces that do not require ventilation as specified by the IMC, shall be served by DOAS installed in accordance with WSEC C403.3.5 with the following adjustments:

1. Minimum heat recovery sensible effectiveness of 80 percent, calculated in accordance with WSEC C403.3.5.1, or C403.7.6.1 for R-2 occupancies.

2. Where design outdoor airflow is greater than 500 cubic feet per minute (236 liters per second), the DOAS shall be equipped with an economizer bypass, damper control, or wheel speed control that is active between 50° Fahrenheit (10° Celsius) and 75° Fahrenheit (24° Celsius) outdoor air temperature and minimizes energy recovery or maintains an appropriate DOAS leaving air temperature when the building is generally in cooling, based either on outdoor air temperature or a DDC zone-based cooling system reset.

3. DOAS total combined fan power shall comply with the fan power limits in WSEC Table C403.8.4 where applicable and shall be less than either:

3.1. 0.769 watts per cubic feet per minute (1.55 watts per liter per second) when calculated in accordance with WSEC C403.3.5.2; or

3.2. 80 percent of fan power allowance for a constant volume system when calculated in accordance with WSEC C403.8.1.

This option (High performance DOAS per C406.2.2.6) is not available to areas served by systems utilizing WSEC C403.2.2.1, exception 5. No HVAC systems incorporating fossil fuel-fired equipment, or heat from district energy systems that are primarily heated by fossil fuel combustion, are permitted to utilize this credit.

NEW SECTION. SECTION 109. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.2.4.2 of the Washington State Energy Code is not adopted and the following is substituted:

Enhanced digital lighting controls (WSEC C406.2.4.2). Measure credits shall be achieved where no less than 50 percent of the gross floor area within the project has luminaires and lighting controls that include high end trim in compliance with WSEC C405.2.8.3 and either luminaire-level lighting controls in compliance with WSEC C405.2.8.1 or networked lighting controls in accordance with WSEC C405.2.8.2. Open office areas subject to the requirements of WSEC C405.2.8 are not permitted to take credit for this option. Where general lighting in more than 50 percent of the gross floor area complies, the base credits from WSEC Table C406.2(1) shall be prorated as follows:

[Floor area with high end trim, %] × [Base energy credits for WSEC C406.2.4.2] / 50%

NEW SECTION. SECTION 110. There is hereby added to K.C.C. chapter 16.07

a new section to read as follows:

Section C406.2.6 of the Washington State Energy Code is not adopted and the following is substituted:

Reduced energy use in service water heating (WSEC C406.2.6). Buildings with service hot water heating equipment that serves the whole building, building addition, or tenant space shall achieve credits through compliance with:

1. WSEC C406.2.6.1, C406.2.6.2, or C406.2.6.3.

2. WSEC C406.2.6.1 and C406.2.6.2.

3. WSEC C406.2.6.1 and C406.2.6.3.

No service water heating systems incorporating fossil fuel-fired equipment, or heat from district energy systems that are primarily heated by fossil fuel combustion, are permitted to utilize this credit.

NEW SECTION. SECTION 111. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.2.6.3.1 of the Washington State Energy Code is not adopted and the following is substituted:

Heat pump water heater (WSEC C406.2.6.3.1). Credit shall be achieved where the primary heat pump service water heating system is sized to deliver no less than 100 percent of the net calculated demand for the service water production during the peak demand period with entering dry bulb or wet bulb outdoor air temperature at 40° Fahrenheit (4°Celsius) for air-source heat pumps, or 44° Fahrenheit (7° Celsius) ground temperature for ground-source heat pumps, as calculated using the equipment manufacturer's selection criteria or another approved methodology. For this credit, the

net calculated demand shall be the gross building demand less any portion of the demand complying with the exceptions to Section C404.2.1. Supplemental heating is permitted in accordance with Section C404.2.1, but cannot use fossil fuels. The refrigerant used in the heat pump system must have a global warming potential (GWP) no greater than 680. Heat pump water heaters shall comply with one of the following:

1. The COP rating shall be a minimum COP of three reported at the design leaving heat pump water temperature with an entering air temperature of 60° Fahrenheit (16° Celsius) or lower. For water-source equipment, the COP rating will be reported at the design leaving load water temperature with an entering load water temperature of 74° Fahrenheit (23° Celsius) or lower.

2. The uniform energy factor (UEF) shall be a minimum of 3.4 rated based on U.S. Department of Energy requirements.

NEW SECTION. SECTION 112. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.2.10 of the Washington State Energy Code is not adopted.

NEW SECTION. SECTION 113. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C406.2.14 of the Washington State Energy Code is not adopted.

NEW SECTION. SECTION 114. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C407.2 of the Washington State Energy Code is not adopted and the following is substituted:

Mandatory requirements (WSEC C407.2). Compliance with WSEC C407 also requires compliance with those sections shown in WSEC Table C407.2. The building permit application for projects utilizing this method shall include in one submittal all building and mechanical drawings and all information necessary to verify that the building envelope and mechanical design for the project corresponds with the annual energy analysis. If credit is proposed to be taken for lighting energy savings, then an electrical permit application shall also be submitted and approved prior to the start of building construction. If credit is proposed to be taken for energy savings from other components, then the corresponding permit application (e.g., plumbing, boiler, etc.) shall also be submitted and approved prior to the building permit issuance. Otherwise, components of the project that would not be approved as part of a building permit application shall be modeled in the baseline in accordance with ANSI/ASHRAE/IESNA 90.1 Appendix G and in the proposed model in accordance with the requirements of the Washington State Energy Code.

Table C407.2

Mandatory Compliance Measures for Total Building Performance Method

Section[a]	Title	Comments
Envelope		
C401.4	Thermal envelope certificate	
C402.2.7	Airspaces	
C402.5	Air leakage	
Mechanical		
C403.1.2	Calculation of heating and cooling loads	

C403.1.3	Data centers	
C403.2	System design	
C403.3.1	Equipment and system sizing	
C403.3.2	HVAC equipment performance requirements	
C403.3.3	Hot gas bypass limitation	
C403.3.4.4	Boiler turndown	
C403.4.1	Thermostatic controls	
C403.4.2	Off-hour controls	
C403.4.7	Combustion heating equipment controls	
C403.4.8	Group R-1 hotel/motel guestrooms	See Section C403.7.4
C403.4.9	Group R-2 and R-3 dwelling units	
C403.4.10	Group R-2 sleeping units	
C403.4.11	Direct digital control systems	
C403.5.5	Economizer fault detection and diagnostics (FDD)	
C403.7	Ventilation and exhaust systems	Except for C403.7.6.2
C403.8	Fan and fan controls	
C403.9.1.1	Variable flow controls	For cooling tower fans ≥ 7.5 hp
C403.9.1.3	Limitation on centrifugal fan cooling towers	For open cooling towers
C403.10	Construction of HVAC elements	
C403.11	Mechanical systems located outside of the building thermal envelope	

C403.14	Commissioning	
Service Water Heating		
C404	Service water heating	Except for C404.2.1
Lighting and Electrical		
C405	Electrical power and lighting systems	
Other Requirements		
C407	Total building performance	
C408	System commissioning	
C409	Energy metering	
C410	Refrigeration requirements	
C411[b]	Renewable energy	
C412	Compressed air systems	

Footnotes:

a. Reference to a code section includes all the relative subsections except as indicated in the table.

b. Compliance with any of these sections includes compliance with any exception to that section.

SECTION 115. Ordinance 19485, Section 117, and K.C.C. 16.07.490 are hereby amended to read as follows:

Table C407.3(2) of the ((~~International Energy Conservation~~)) Washington State Energy Code is not adopted and the following is substituted:

Table C407.3(2)

Building Performance Factors (BPF) to be used for Compliance with Section C407.3

Building Area Type	Building Performance Factor
Multifamily	((~~0.52~~)) 0.51
Healthcare/hospital	((~~0.49~~)) 0.64
Hotel/motel	((~~0.58~~)) 0.48
Office	((~~0.51~~)) 0.41
Restaurant	((~~0.63~~)) 0.32
Retail	((~~0.43~~)) 0.37
School	0.32
Warehouse	((~~0.43~~)) 0.17
All others	((~~0.49~~)) 0.40

NEW SECTION. SECTION 116. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Table C407.3(3) of the Washington State Energy Code is not adopted and the following is substituted:

Table C407.3(3)

Site Energy Performance Targets to be used for Compliance with Section C407.3

Building Area Type	Site Energy Performance Targets
Multifamily	0.59

Building Area Type	Site Energy Performance Targets
Health care/hospital	0.65
Hotel/motel	0.56
Office	0.52
Restaurant	0.53
Retail	0.42
School	0.47
Warehouse	0.26
All others	0.50

NEW SECTION. SECTION 117. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C407.3.1 of Washington State Energy Code is not adopted and the following is substituted:

Limits on substandard building envelopes (WSEC C407.3.1). The Proposed Total UA of the proposed building shall be no more than 10 percent higher than the Allowed Total UA as defined in WSEC C402.1.5.

NEW SECTION. SECTION 118. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C407.3.4 of the Washington State Energy Code is supplemented with the following:

Approved unregulated load types (WSEC C407.3.4.1). Unregulated load types for which reductions of energy use or carbon emissions are claimed shall be one of those listed in WSEC Table C407.3.4.1 or shall be approved and publicly listed by the code official. Requests for approval of such load types shall identify predicted energy use and carbon emissions of the baseline case in addition to identifying predicted energy use and carbon emissions of the proposed alternate. Listings for specific load types may be withdrawn and made unavailable for subsequent permit applications in cases by the code official where it is considered that the unregulated load type listed has become accepted conventional practice. Unregulated load savings shall follow the methodology outlined in this section, and not use the language from ASHRAE Appendix G Table G3.1 - No. 12 Receptacle and Other Load Baseline Building Performance Exception.

Table C407.3.4.1

Approved Unregulated Load Types

In compliance with the requirements of section	Predicted energy and carbon emission reductions (%)	
	Group R-1	Group R-2
WSEC C406.2.15, Enhanced residential kitchen equipment	1.2	1.9
WSEC C406.2.16, Enhanced residential laundry equipment	N/A	0.6
WSEC C406.2.17, Heat pump clothes dryers	0.6	0.6

NEW SECTION. SECTION 119. There is hereby added to K.C.C. chapter 16.07

a new section to read as follows:

Section C408.1.1 of Washington State Energy Code is not adopted and the following is substituted:

C408.1.1 Commissioning in construction documents. Construction documents shall clearly indicate provisions for commissioning process. Electrical permit documents shall indicate required commissioning work for lighting and metering systems, and mechanical permit documents shall indicate required commissioning work for mechanical and water heating systems. The construction documents shall minimally include the following:

1. A narrative description of the activities that will be accomplished during the commissioning process. At a minimum, the commissioning process is required to include:

1.1 Development and execution of the commissioning plan, including all subsections of Section C408.1.2;

1.2 The certified commissioning professional's review of the building documentation and close out submittals in accordance with Section C103.6; and

1.3 The commissioning report in accordance with Section C408.13.

2. Roles, responsibilities, and required qualifications of the certified commissioning professional.

3. A listing of the specific equipment, appliances, or systems to be tested.

NEW SECTION. SECTION 120. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C408.1.2 of Washington State Energy Code is supplemented with the following:

Commissioning plan (WSEC C408.1.2.5) When a commissioning plan is required, it shall be submitted to the department before the first mechanical inspection.

NEW SECTION. SECTION 121. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C408.1.3 of Washington State Energy Code is supplemented with the following:

Commissioning plan (WSEC C408.1.3.1) When a commissioning report is required, it shall be submitted to the department before the final inspection.

NEW SECTION. SECTION 122. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C408.1.4.1 of the Washington State Energy Code is not adopted and the following is substituted:

C408.1.4.1 Commissioning compliance. The mechanical and water heating portions of the commissioning report, in compliance with Sections C408.2, C408.3, and C408.7, shall be submitted to the department before mechanical permit final inspection is complete and approved. The controlled receptacle, lighting, and metering portions of the commissioning report, in compliance with Sections C408.4 and C408.6, shall be submitted to the department before building permit final inspection is completed and approved. To demonstrate compliance, the following items shall be submitted to the department before building permit final inspection is completed and approved:

1. Full commissioning report, in compliance with Section C408.1.3 that includes:

a. A list of all unresolved deficiencies and any incomplete commissioning work required by Section C408, with description and anticipated date of completion for each, or a statement signed by the certified commissioning professional attesting to successful commissioning of the entire project with no unresolved deficiencies or incomplete tests.

b. Where tenant spaces will be built out under separate permits, a description of the certified commissioning professional's scope of work required to complete commissioning of the central building HVAC systems and lighting control systems as the tenant spaces are completed.

2. Commissioning checklist, from Figure C408.1.4.1, signed by the certified commissioning professional.

3. Statement that the owner has received a copy of the commissioning report, signed by the owner or owner's authorized agent.

C408.1.4.1.1 Post-occupancy commissioning completion. Where there are unresolved deficiencies or other incomplete commissioning tasks that conflict with requirements of this code, the applicant shall comply with one of the following:

1. In addition to the Temporary Certificate of Occupancy requirements of IBC 111.3, the department may issue a temporary certificate of occupancy (TCO) to remain in effect pending resolution of commissioning issues. Applicant must complete all outstanding commissioning work and complete a revised commissioning report before the department will issue a final Certificate of Occupancy.

2. Applicant must obtain separate mechanical permit(s) as required to incorporate all remaining mechanical work, including required commissioning of those systems. Applicant must complete all outstanding mechanical commissioning work and complete a

revised commissioning report prior to completion and approval of final inspection for those permits.

NEW SECTION. SECTION 123. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C408.4 of the Washington State Energy Code is supplemented with the following:

High-end trim (WSEC C408.4.2). Where lighting controls are configured for high-end trims, verify the following:

1. High-end trim has been set.

2. Lighting controls with ready access for users cannot increase the lighting power above the maximum level established by the high-end trim controls.

NEW SECTION. SECTION 124. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C409.1 of the Washington State Energy Code is not adopted and the following is substituted:

General (WSEC C409.1). All new buildings and additions shall have the capability of metering all source energy usage in accordance with WSEC C409.2 in addition to the source energy for on-site renewable energy production in accordance with WSEC C409.2.4 and the end-use energy usage for electric vehicle charging in accordance with WSEC C409.3.4. New buildings and additions with a gross conditioned floor area over 25,000 square feet (2,323 square meters) shall comply with WSEC C409.2, C409.3, and C409.4. New buildings and additions shall be equipped to measure, monitor, record and display energy consumption data for each energy source and end use category per the

provisions of this section, to enable effective energy management. Existing buildings shall comply with the energy metering provisions of WSEC C506.1. For Group R-2 occupancy buildings, the floor area of dwelling units and sleeping units shall be excluded from the total conditioned floor area for the purposes of determining the 25,000 square foot (2,323 square meter) threshold. Alterations and additions to existing buildings shall conform to WSEC C506.

EXCEPTIONS:

1. Tenant spaces smaller than 25,000 square feet (2,323 square meters) within buildings served by its own utility services and utility meters complying with WSEC C409.2, and are exempt from the end-use metering, measurement devices, data acquisition system, and energy display requirements of WSEC C409.3 and C409.4.

2. Buildings without gross conditioned floor area over 25,000 square feet (2,323 square meters), including building common areas, served by its own utility services and utility meters complying with WSEC C409.2, and are exempt from the end-use metering, measurement devices, data acquisition system and energy display requirements of WSEC C409.3 and C409.4.

NEW SECTION. SECTION 125. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C409.2.1 of the Washington State Energy Code is not adopted and the following is substituted:

Electrical energy (WSEC C409.2.1). This category shall include all electrical energy supplied to the building and its associated site, including site lighting, parking, recreational facilities, and other areas that serve the building and its occupants.

EXCEPTION: Where site lighting and other exterior non-building electrical loads are served by an electrical service and meter that are separate from the building service and meter, the metering data from those loads is permitted to be either combined with the building's electrical service load data or delivered to a separate data acquisition system.

NEW SECTION. SECTION 126. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C409.3.5 of the Washington State Energy Code is not adopted and the following is substituted:

Plug load system energy use (WSEC C409.3.5). This category shall include all energy used by appliances, computers, plug-in task lighting, and other equipment or equipment covered by other end-use metering categories listed in WSEC C409.3. In a building where the main service is 480/277 volt, each 208/120 volt panel is permitted to be assumed to serve only plug load for the purpose of WSEC C409, unless it serves nonresidential refrigeration or cooking equipment.

EXCEPTIONS:

1. Where the total connected load of all plug load circuits is less than 50 kVA, end-use metering is not required.

2. Electric receptacles located in fire-rated or smoke-rated corridors, enclosed stairwells, or egress passageways are not required to be submetered.

NEW SECTION. SECTION 127. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C409.4.1 of the Washington State Energy Code is not adopted and the following is substituted:

Meters (WSEC C409.4.1). Meters and other measurement devices required by this section shall be configured to automatically communicate energy data to a data acquisition system and energy display. Source meters may be any digital-type meters. Current sensors or flow meters are allowed for end use metering, provided that they have an accuracy of +/- 5 percent. All required metering systems and equipment shall provide data that is fully integrated into the data acquisition and display system per the requirements of WSEC C409. Electrical meters shall be configured to communicate data to the data acquisition system and energy display for both consumption (e.g., kilowatt hours) and consumption rate (e.g., kilowatts). Other meters and measurement devices shall be configured to communicate data to the data acquisition system for consumption.

EXCEPTION: Where site lighting and other exterior non-building electrical loads are served by an electrical service and meter that are separate from the building service and meter, the metering data from those loads is permitted to be either combined with the building's electrical service load data or delivered to a separate data acquisition system.

NEW SECTION. SECTION 128. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C410.1 of the Washington State Energy Code is not adopted and the following is substituted:

General (WSEC C410.1). Walk-in coolers, walk-in freezers, refrigerated warehouse coolers, refrigerated warehouse freezers, and refrigerated display cases shall

comply with this Section. Where they comprise any portion of the thermal envelope of the building, they shall also comply with the requirements of WSEC C402, using the R-values or U-values listed in WSEC C410. WSEC C402.1.5 component performance alternative is permitted to be used for the thermal envelope of the refrigerated space where approved by the code official.

NEW SECTION. SECTION 129. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C410.3 of the Washington State Energy Code is not adopted and the following is substituted:

Walk-in coolers, walk-in freezers, refrigerated warehouse coolers and refrigerated warehouse freezers (WSEC C410.3). Site-assembled and site-constructed walk-in coolers and walk-in freezers and refrigerated warehouse coolers and refrigerated warehouse freezers shall comply with the following:

1. Automatic door-closers shall be provided that fully close walk-in doors that have been closed to within 1 inch (25 millimeters) of full closure.

EXCEPTION: Automatic closers are not required for doors more than 45 inches (1,143 millimeters) in width or more than 7 feet (2,134 millimeters) in height.

2. Doorways shall be provided with strip doors, curtains, spring-hinged doors, or other method of minimizing infiltration when doors are open.

3. Walk-in coolers and refrigerated warehouse coolers shall be provided with wall, ceiling, and door insulation of not less than R-25 or have wall, ceiling, and door assembly U-factors no greater than U-0.039. Walk-in freezers and refrigerated

warehouse freezers shall be provided with wall, ceiling and door insulation of not less than R-32 or have wall, ceiling, and door assembly U-factors no greater than U-0.030.

EXCEPTION: Insulation is not required for glazed portions of doors or at structural members associated with the walls, ceiling, or door frame.

4. The floor of walk-in coolers shall be provided with floor insulation of not less than R-25 or have a floor assembly U-factor no greater than U-0.40. The floor of walk-in freezers shall be provided with floor insulation of not less than R-28 or have a floor assembly U-factor no greater than U-0.035.

EXCEPTION: Insulation is not required in the floor of a walk-in cooler that is mounted directly on a slab on grade.

5. Transparent fixed window and reach-in doors for walk-in freezers and windows in walk-in freezer doors shall be provided with triple-pane glass, with the interstitial spaces filled with inert gas or be provided with heat-reflective treated glass.

6. Transparent fixed window and reach-in doors for walk-in coolers and windows for walk-in cooler doors shall be provided with double-pane or triple-pane glass, with interstitial space filled with inert gas, or be provided with heat- reflective treated glass.

7. Evaporator fan motors that are less than 1 horsepower (746 watts) and less than 460 volts shall be provided with electronically commutated motors, brushless direct-current motors, or three-phase motors.

8. Condenser fan motors that are less than 1 horsepower (746 watts) shall use electronically commutated motors, permanent split capacitor-type motors or 3-phase motors.

9. Antisweat heaters that are not provided with antisweat heater controls shall have a total door rail, glass, and frame heater power draw of not greater than 7.1 watts per square foot (76 watts per square meter) of door opening for walk-in freezers and not greater than 3 watts per square foot (32 watts per square meter) of door opening for walk-in coolers.

10. Where antisweat heater controls are provided, they shall be capable of reducing the energy use of the antisweat heater as a function of the relative humidity in the air outside the door or to the condensation on the inner glass pane.

11. Lights in walk-in coolers, walk-in freezers, refrigerated warehouse coolers, and refrigerated warehouse freezers shall either be provided with light sources with an efficacy of not less than 40 lumens per watt, including ballast losses, or shall be provided with a device that automatically turns off the lights within 15 minutes of when the walk-in cooler or walk-in freezer space is not occupied.

12. Evaporator fans in refrigerated warehouses shall be variable speed, and the speed shall be controlled in response to space conditions.

EXCEPTION: Evaporators served by a single compressor without unloading capability.

13. Where they comprise any portion of the thermal envelope of the building, the floor, wall, and ceiling components shall also comply with the requirements of WSEC C402, using the R-values or U-values listed in this WSEC C410.2. WSEC C402.1.5 component performance alternative is permitted to be used where approved by the code official.

NEW SECTION. SECTION 130. There is hereby added to K.C.C. chapter 16.07

a new section to read as follows:

Section C410.5.2 of the Washington State Energy Code is not adopted and the following is substituted:

Compressor systems (WSEC C410.5.2). Refrigeration compressor systems shall comply with the following:

1. Compressors and multiple-compressor system suction groups shall include control systems that use floating suction pressure control logic to reset the target suction pressure temperature based on the temperature requirements of the attached refrigeration display cases or walk-ins.

EXCEPTION: Controls are not required for the following:

1. Single-compressor systems that do not have variable capacity capability.

2. Suction groups that have a design saturated suction temperature of 30° Fahrenheit (-1° Celsius) or higher, suction groups that comprise the high stage of a two-stage or cascade system, or suction groups that primarily serve chillers for secondary cooling fluids.

2. Liquid subcooling shall be provided for all low-temperature compressor systems with a design cooling capacity equal to or greater than 100,000 Btu/h (29.3 kilowatts) with a design-saturated suction temperature of -10° Fahrenheit (-23° Celsius) or lower. The subcooled liquid temperature shall be controlled at a maximum temperature setpoint of 50° Fahrenheit (10° Celsius) at the exit of the subcooler using either compressor economizer (interstage) ports or a separate compressor suction group operating at a saturated suction temperature of 18° Fahrenheit (-8° Celsius) or higher.

2.1. Insulation for liquid lines with a fluid operating temperature less than 60° Fahrenheit (16° Celsius) shall comply with WSEC Table C403.2.10.

3. Compressors that incorporate internal or external crankcase heaters shall provide a means to cycle the heaters off during compressor operation.

4. Compressor systems utilized in refrigerated warehouses shall conform to the following:

4.1. Compressors shall be designed to operate at a minimum condensing temperature of 70° Fahrenheit (21° Celsius) or less.

4.2. The compressor speed of a screw compressor greater than 50 horsepower shall be controllable in response to the refrigeration load, or the input power to the compressor shall be controlled to use no more than 60 percent of full load input power when operated at 50 percent of full refrigeration capacity.

EXCEPTION: Refrigeration plants with more than one dedicated compressor per suction group.

NEW SECTION. SECTION 131. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C411.1 of the Washington State Energy Code is not adopted and the following is substituted:

On-site renewable energy (WSEC C411.1). Each new building or addition larger than 5,000 square feet (464.5 square meters) of gross conditioned floor area shall include a renewable energy generation system consisting of not less than 0.5 watts per square foot (5.38 watts per square meter) or 1.7 Btu/h per square foot (19.3 kilojoules/h per square meter) multiplied by the sum of the gross conditioned floor area.

EXCEPTIONS:

1. Where a building's net roof area is not large enough to accommodate the entire on-site renewable energy generation system required by this section, the portion of the system that cannot be accommodated within the net roof area is permitted to be provided by:

1.1. Additional efficiency credits in accordance with WSEC C411.1.1; or

1.2. Off-site renewable energy in accordance with WSEC C411.2.1, including the requirements of WSEC C411.2 and C411.2.2.

For the purposes of this exception, the net roof area excludes the following:

a. Areas shaded by existing natural or built objects in accordance with exception 1 of WSEC C C411.3.

b. Areas occupied by mechanical equipment, including adjacent equipment service areas required by the manufacturer or by applicable code.

c. Areas required by applicable codes to remain clear for egress, fire department access, or equipment access.

d. Areas with slopes greater than 2 to 12.

e. Planted or vegetated areas.

f. Skylights.

g. Occupied roof decks.

2. Reduced Building Performance Factor. For projects utilizing the WSEC C407 Total Building Performance compliance path, the on-site renewable energy generation system is not required where the building performance factor (BPF) is at least 3 percent below the maximum BPF permitted cumulatively by all other sections of this code.

2.1. Where the BPF is at least 1 percent below the BPF required cumulatively by other sections of this code, the on-site renewable energy generation system size is permitted to be reduced by 1/3.

2.2. Where the BPF is not less than 2 percent lower than the BPF required cumulatively by other sections of this code, the size of the on-site renewable energy generation system is permitted to be reduced by 2/3.

3. Transfer to an affordable housing project. Where approved by the code official, all or part of the required on-site renewable energy generation system is permitted to be replaced by a system that is at least 50 percent of the required system size when located on an existing affordable housing project within unincorporated King County, or at least 75 percent of the required system size when located on a new construction affordable housing project within unincorporated King County. Documentation demonstrating that the renewable energy generation system has been installed on the affordable housing project site, the system is fully operational, and ownership has been transferred to the affordable housing project owner, must be submitted prior to issuance of the certificate of occupancy.

4. Transfer to a Washington State agency program. Where approved by the code official, all or part of the required renewable energy generation system is permitted to be replaced by a contribution of two dollars and fifty cents for each required watt of installed capacity, to a solar energy fund managed by a Washington State agency that will provide solar energy installations for affordable housing projects. Documentation demonstrating that the contribution has been received by the state agency must be submitted prior to issuance of the certificate of occupancy.

5. Affordable housing. The on-site renewable energy generation system is not required for affordable housing projects.

NEW SECTION. SECTION 132. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C411.1.1 of the Washington State Energy Code is not adopted and the following is substituted:

Additional efficiency credits (WSEC C411.1.1). Buildings that qualify for exception 1 in WSEC C411.1 to omit installation of on-site renewable energy are allowed to achieve an additional 27 efficiency package credits from WSEC Table C406.2 instead of installing the on-site renewable energy system. The additional 27 credits can be reduced based on a prorated fraction of renewable capacity that is installed on-site.

On-site renewable energy installations of lower than required capacity can be counted proportionally toward achievement of required or additional efficiency credits in WSEC C411.1.1 based on the capacity of renewable energy installed compared to the requirements of WSEC C411.1.

NEW SECTION. SECTION 133. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C411.2 of the Washington State Energy Code is not adopted and the following is substituted:

On-site and off-site renewable energy accounting (WSEC C411.2). Qualifying on-site and off-site renewable energy delivered or credited to the building project to comply with this code shall meet the requirements of this section. Renewable energy certificates for an on-site or off-site renewable energy system shall be retired on

behalf of the building owner for a period of not less than 15 years and tracked in accordance with WSEC C411.2.3 and submitted to the code official before the final inspection. Renewable energy certificates (RECs) themselves are not a qualifying type of off-site renewable energy system.

C411.2.1 Qualifying types of off-site renewable energy systems. The following are considered qualifying off-site renewable energy systems:

1. Self-generation (an off-site renewable energy system owned by the building project owner) systems complying with WSEC C411.2.2.

2. Community renewable energy facility systems complying with Section C411.2.2.

3. Renewable power purchase agreement (PPA) contracts complying with WSEC C411.2.2 and, where applicable, WSEC C411.2.3.

4. Each source of renewable energy delivered to or credited to the building project shall be connected to the Western Interconnection and energy or capacity multiplied by the factors in WSEC Table C411.2.1.

Table C411.2.1

Multipliers for Renewable Energy Procurement Methods

Location	**Renewable Energy Source**	**Renewable Energy Factor**		
		In the State of Washington	**Western Interconnected**	**In the States of Oregon or Idaho**

On-site	On-site renewable energy system	1	NA	NA
Off-site	Directly owned off-site renewable energy system that begins operation after submission of the initial permit application	0.95	0.75	0.85
Off-site	Community renewable energy facility that begins operation after submission of the initial permit application	0.95	0.75	0.85

Off-site	Directly owned off-site renewable energy system that begins operation before submission of the initial permit application	0.75	0.55	0.65
Off-site	Community renewable energy facility that begins operation before submission of the initial permit application	0.75	0.55	0.65
Off-site	Renewable Power	0.75	0.55	0.65

	Purchase Agreement (PPA)			

NEW SECTION. SECTION 134. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C411.2.2 of the Washington State Energy Code is not adopted and the following is substituted:

Documentation requirements for off-site renewable energy systems (WSEC C411.2.2). Off-site renewable energy delivered or credited to the building project to comply with WSEC C407.3 item 2.2, or other requirements of this code, shall be subject to a legally binding contract to procure qualifying off-site renewable energy. Qualifying off-site renewable energy shall meet the following requirements:

1. Documentation of off-site renewable energy procurement shall be submitted to the code official before the final inspection;

2. The purchase contract shall have a duration of not less than 15 years. The contract shall be structured to survive a partial or full transfer of ownership of the building property;

3. Records on renewable power purchased by the building owner from the off-site renewable energy generator that specifically assign the RECs to the building owner shall be retained or retired by the building owner on behalf of the entity demonstrating financial or operational control over the building seeking compliance to this standard and made available for inspection by the code official upon request; and

4. Where multiple buildings in a building project are allocated energy procured

by a contract subject to this section, the owner shall allocate for not less than 15 years the energy procured by the contract to the buildings in the building project. A plan on operation shall be developed which shall indicate how renewable energy produced from on-site or off-site systems that is not allocated before issuance of the certificate of occupancy will be allocated to new or existing buildings included in the building project.

NEW SECTION. SECTION 135. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C411.3.1 of the Washington State Energy Code is not adopted and the following is substituted:

Minimum area (WSEC C411.3.1). The minimum area of the solar zone shall be determined by one of the following methods, whichever results in the smaller area:

1. 40 percent of roof area. The roof area shall be calculated as the horizontally projected gross roof area less the area covered by skylights, occupied roof decks, mechanical equipment, mechanical equipment service clearances required by equipment manufacturer or by code, and planted areas.

2. 20 percent of electrical service size. The electrical service size is the rated capacity of the total of all electrical services to the building, and the required solar zone size shall be based upon 10 peak watts of photovoltaic per square foot (107.64 peak watts of photovoltaic per square meter).

EXCEPTION: Subject to the code official's approval, buildings with extensive rooftop equipment that would make full compliance with this section impractical shall be permitted to reduce the size of the solar zone required by WSEC C411.3 to the maximum practicable area.

NEW SECTION. SECTION 136. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C411.3.3 of the Washington State Energy Code is not adopted and the following is substituted:

Obstructions (WSEC C411.3.3). The solar zone shall be free of pipes, vents, ducts, HVAC equipment, skylights, and other obstructions, except those serving photovoltaic systems within the solar zone. The solar zone is permitted to be located above any such obstructions, provided that the racking of the future system support is installed at the time of construction, the elevated solar zone does not shade other portions of the solar zone, and its height is permitted by the IBC and the K.C.C. Photovoltaic or solar water heating systems are permitted to be installed within the solar zone.

NEW SECTION. SECTION 137. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C411.3.7 of the Washington State Energy Code is not adopted and the following is substituted:

Photovoltaic interconnection (WSEC C411.3.7). A minimum 2-inch (51 millimeters) diameter roof penetration conduit shall be provided, with threaded caps above and below the roof deck and minimum R-10 insulation wrapping the lower portion, within each 2,500 square foot (232.3 square meters) section of the required solar zone area. Interconnection of the future photovoltaic system shall be provided for at the main service panel, either ahead of the service disconnecting means or at the end of the bus opposite the service disconnecting means, in one of the following forms:

1. A space for the mounting of a future overcurrent device, sized to accommodate the largest standard rated overcurrent device that is less than 20 percent of the bus rating.

2. Lugs sized to accommodate conductors with an ampacity of at least 20 percent of the bus rating, to enable the mounting of an external overcurrent device for interconnection.

The electrical construction documents shall include the following:

a. Solar zone boundaries and access pathways;

b. Location for future inverters and metering equipment; and

c. Route for future wiring between the photovoltaic panels and the inverter, and between the inverter and the main service panel.

NEW SECTION. SECTION 138. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C502.3 of the Washington State Energy Code is not adopted and the following is substituted:

Building envelope (WSEC C502.3). Additions shall comply with WSEC C402.1 through C402.5, C502.3.1, and C502.3.2.

EXCEPTION: Air leakage testing is not required for additions smaller than 500 square feet (46.5 square meters).

NEW SECTION. SECTION 139. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C503.3 of the Washington State Energy Code is not adopted and the following is substituted:

Building envelope (WSEC C503.3). New building envelope assemblies that are part of the alteration shall comply with WSEC C402.1 through C402.5 and WSEC C503.3.1 through C503.3.3. Where an opaque envelope assembly is altered or replaced, the new assembly shall have an equal or lower overall U-value than the existing assembly.

EXCEPTION: Air leakage testing is not required for alterations and repairs, unless the project includes a change in space conditioning according to WSEC C505.2 or a change of occupancy or use according to WSEC C505.3.

NEW SECTION. SECTION 140. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C503.3.2 of the Washington State Energy Code is not adopted and the following is substituted:

Vertical fenestration (WSEC 503.3.2). Alterations that include the addition of new vertical fenestration area shall comply with the following:

1. Where the addition of new vertical fenestration area results in a total building vertical fenestration area less than or equal to the maximum allowed by WSEC C402.4.1, the alteration shall comply with WSEC C402.4.

2. Where the addition of new vertical fenestration area results in a total building vertical fenestration area greater than the maximum allowed by WSEC C402.4.1 (regardless of the ratio prior to the addition), the alteration shall comply with one of the following:

2.1. Vertical fenestration alternate in accordance with WSEC C402.4.1.1 for the new vertical fenestration added, where the calculation of vertical fenestration area and

gross above-grade wall area shall include either the entire building or, where approved, only those areas of the building involved in the alteration.

2.2. Reserved.

2.3. Existing building and alteration areas are combined to demonstrate compliance with the component performance alternate in accordance with WSEC C402.1.5 for the whole building. U-factors applied to existing envelope assemblies in the UA calculation shall comply with WSEC C501.2.1. The Proposed Total UA is allowed to be up to 110 percent of the Allowed Total UA.

2.4. Total building performance in accordance with WSEC C407 for the whole building. The total annual carbon emissions from energy consumption of the proposed design is allowed to be up to 110 percent of the annual carbon emissions from energy consumption allowed in accordance with WSEC C407.3.

2.5. The alteration does not increase the existing fenestration area.

EXCEPTION: Where approved by the code official additional fenestration is permitted where sufficient envelope upgrades beyond those required by other sections of this code are included in the project so that the addition of the new vertical fenestration does not cause an increase in the overall energy use of the building.

NEW SECTION. SECTION 141. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C503.3.2.1 of the Washington State Energy Code is not adopted and the following is substituted:

Replacement fenestration products (WSEC C503.3.2.1). Where some or all of an existing fenestration unit is replaced with a new fenestration product, including sash

and glazing, the replacement fenestration unit shall meet the applicable requirements for U-factor and SHGC in WSEC Table C402.4. In addition, the area-weighted U-value of the new fenestration shall be equal to or lower than the U-value of the existing fenestration.

EXCEPTION: An area-weighted average of the U-factor of replacement fenestration products being installed in the building for each fenestration product category listed in WSEC Table C402.4 shall be permitted to satisfy the U-factor requirements for each fenestration product category listed in WSEC Table C402.4. Individual fenestration products from different product categories listed in WSEC Table C402.4 shall not be combined in calculating the area-weighted average U-factor.

NEW SECTION. SECTION 142. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C503.4.2 of the Washington State Energy Code is not adopted and the following is substituted:

Addition of cooling capacity (WSEC C503.4.2). Where mechanical cooling is added to a space that was not previously cooled, the mechanical system shall comply with either WSEC C403.3.5 or C403.5.

EXCEPTIONS:

1. Qualifying small equipment: Economizers are not required for cooling units and split systems serving one zone with a total cooling capacity rated in accordance with WSEC C403.3.2 of less than 33,000 Btu/h (9.7 kilowatts) (hereafter referred to as qualifying small systems) provided that these are high-efficiency cooling equipment with SEER and EER values more than 15 percent higher than minimum efficiencies listed in

WSEC Tables C403.3.2(1), C403.3.2 (2), C403.3.2 (4), C403.3.2 (8), C403.3.2 (9), and C403.3.2 (14), in the appropriate size category, using the same test procedures. Equipment shall be listed in the appropriate certification program to qualify for this exception. The total capacity of all qualifying small equipment without economizers shall not exceed 72,000 Btu/h (21 kilowatts) per building, or 5 percent of the building total air economizer capacity, whichever is greater.

1.1. The portion of the equipment serving Group R occupancies is not included in determining the total capacity of all units without economizers in a building.

1.2. Redundant units are not counted in the capacity limitations.

1.3. This exception shall not be used for the initial tenant improvement of a shell-and-core building or space, or for Total Building Performance in accordance with WSEC C407.

1.4. This exception shall not be used for unitary cooling equipment installed outdoors or in a mechanical room adjacent to the outdoors.

2. Chilled water terminal units connected to systems with chilled water generation equipment with IPLV values more than 25 percent higher than minimum part load equipment efficiencies listed in WSEC Table C403.3.2 (3), in the appropriate size category, using the same test procedures. Equipment shall be listed in the appropriate certification program to qualify for this exception. The total capacity of all systems without economizers shall not exceed 72,000 Btu/h (21 kilowatts) per building, or 20 percent of the building total air economizer capacity, whichever is greater.

2.1. The portion of the equipment serving Group R occupancy is not included in determining the total capacity of all units without economizers in a building.

2.2. This exception shall not be used for the initial tenant improvement of a shell-and-core building or space, or for total building performance in accordance with WSEC C407.

NEW SECTION. SECTION 143. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C503.4.3 of the Washington State Energy Code is not adopted and the following is substituted:

Alterations or replacement of existing cooling systems (WSEC C503.4.3). Alterations to, or replacement of, existing mechanical cooling systems shall not decrease the building total economizer capacity unless the system complies with either WSEC C403.3.5 or C403.5. System alterations or replacement shall comply with WSEC Table C503.4.3 when either the individual cooling unit capacity or the building total capacity of all cooling equipment without economizer does not comply with the exceptions in WSEC C403.5. Equipment replacements that include space heating shall also comply with WSEC C503.4.6. Replacement of air-cooled chillers shall also comply with WSEC C503.4.3.1.

Table C503.4.3

Economizer Compliance Options for Mechanical Alterations

Unit Type	Option A	Option B (alternate to A)	Option C (alternate to A)	Option D (alternate to A)
	Any alteration with new or	Replacement unit of the same type with the same or	Replacement unit of the same type	New equipment added to existing system or

	replacement equipment	smaller output capacity	with a larger output capacity	replacement unit of a different type
1. Packaged units	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: min.[a] Economizer: C403.5[b]
2. Split systems	Efficiency: min.[a] Economizer: C403.5[b]	For units ≤ 60,000 Btuh, comply with both of two measures: 1. Efficiency: +10%[e] 2. Economizer: shall not decrease existing economizer capability	For units ≤ 60,000 Btuh replacing unit installed prior to 1991 comply with at least one of two measures: 1. Efficiency: +10%[e] 2. Economizer: 50%[f]	Efficiency: min.[a] Economizer: C403.5[b]
		For all other capacities: Efficiency: min.[a] Economizer: C403.5[b]	For all other capacities: Efficiency: min.[a] Economizer: C403.5[b]	
3. Water source heat pump	Efficiency: min.[a] Economizer: C403.5[b]	For units ≤ 72,000 Btuh, comply with at least two of three measures: 1. Efficiency: +10%[e] 2. Flow control valve[g] 3. Economizer: 50%[f]	For units ≤ 72,000 Btuh, comply with all three measures: 1. Efficiency: +10%[e] 2. Flow control valve[g] 3. Economizer: 50%[f] (except for certain pre-1991 systems[h])	Efficiency: min.[a] Economizer: C403.5[b] (except for certain pre-1991 systems[q])
		For all other capacities: Efficiency: min.[a] Economizer: C403.5[b]	For all other capacities: Efficiency: min.[a] Economizer: C403.5[b]	
4. Water economizer using air-cooled	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: +5%[d]	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: min.[a] Economizer: C403.5[b]

heat rejection equipment (dry cooler)		Economizer: shall not decrease existing economizer capability		
5. Air-handling unit (including fan coil units) where the system has an air-cooled chiller	Efficiency: min.[a] Economizer: C403.5[b]	Economizer: shall not decrease existing economizer capacity	Efficiency: min.[a] Economizer: C403.5[b] (except for certain pre-1991 systems[q])	Efficiency: min.[a] Economizer: C403.5[b] (except for certain pre-1991 systems[q])
6. Air-handling unit (including fan coil units) and water-cooled process equipment, where the system has a water-cooled chiller[j]	Efficiency: min.[a] Economizer: C403.5[b]	Economizer: shall not decrease existing economizer capacity	Efficiency: min.[a] Economizer: C403.5[b] (except for certain pre-1991 systems[h] and certain 1991-2017 systems[i])	Efficiency: min.[a] Economizer: C403.5[b] (except for certain pre-1991 systems[h] and certain 1991-2017 systems[i])
7. Cooling tower	Efficiency: min.[a] Economizer: C403.5[b]	No requirements	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: min.[a] Economizer: C403.5[b]
8. Air-cooled chiller	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: +10%[k] Economizer: shall not decrease existing economizer capability	Efficiency: comply with both measures: 1. +10%[k, l]; and 2. Multistage compressor(s) Economizer: shall not decrease existing economizer capacity	Efficiency: min.[a] Economizer: C403.5[b]

9. Water-cooled chiller	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: comply with at least one of two measures: 1. Part load IPLV + 15%[n]; or 2. Plate frame heat exchanger[o] Economizer: shall not decrease existing economizer capacity	Efficiency: comply with at least one of two measures: 1. Part load IPLV + 15%[n]; or 2. Plate frame heat exchanger[o] Economizer: shall not decrease existing economizer capacity	Efficiency: min.[a] Economizer: C403.5[b]
10. Package terminal air conditioner	Efficiency: min.[a] Economizer: C403.5[b]	Efficiency: +5%[a] Economizer: shall not decrease existing economizer capability	Efficiency: +5%[a] Economizer: shall not decrease existing economizer capability	Efficiency: min.[a] Economizer: C403.5[b]
11. Package terminal heat pump	Efficiency: min.[a] Economizer: C403.5[b]	Cooling efficiency: +5%[d] Heating efficiency: +10%[e] Shall not decrease existing economizer capacity	Cooling efficiency: +5%[d] Heating efficiency: +10%[e] Shall not decrease existing economizer capacity	Efficiency: min.[a] Economizer: C403.5[b]

Footnotes:

a. Minimum equipment efficiency shall comply with WSEC C403.3.2 and the tables in WSEC C403.3.2.

b. All separate new equipment and replacement equipment shall have air economizer complying with WSEC C403.5 including both the individual unit size limits

and the total building capacity limits on units without economizer. It is acceptable to comply using one of the exceptions to WSEC C403.5.

c. Reserved.

d. Equipment shall have a capacity-weighted average cooling system efficiency that is 5% better than the requirements in the tables in WSEC C403.3.2 (1.05 × values in the tables).

e. Equipment shall have a capacity-weighted average cooling system efficiency that is 10% better than the requirements in the tables in WSEC C403.3.2 (1.10 × values in the tables).

f. Minimum of 50 percent air economizer that is ducted in a fully enclosed path directly to every heat pump unit in each zone, except that ducts may terminate within 12 inches (305 millimeters) of the intake to an HVAC unit provided that they are physically fastened so that the outside air duct is directed into the unit intake. If this is an increase in the amount of outside air supplied to this unit, the outside air supply system shall be configured to provide this additional outside air and be equipped with economizer control.

g. Water-source heat pump systems shall have a flow control valve to eliminate flow through the heat pumps that are not in operation and variable speed pumping control complying with WSEC C403.4.3 for that heat pump.

1. When the total capacity of all units with flow control valves exceeds 15 percent of the total system capacity, a variable frequency drive shall be installed on the main loop pump.

2. As an alternate to this requirement, the capacity-weighted average cooling system efficiency shall be 5 percent better than the requirements in footnote e for water-source heat pumps (i.e., a minimum of 15 percent greater than the requirements in WSEC Table C403.3.2 (14)).

h. Water economizer equipment shall have a capacity-weighted average cooling system efficiency that is 10 percent better than the requirements in WSEC Tables C403.3.2 (7), C403.3.2(10), and C403.3.2 (16) (1.10 × values in WSEC Tables C403.3.2 (7), C403.3.2(10), and C403.3.2 (16)).

i. Air economizer is not required for systems installed with water economizer plate and frame heat exchanger complying with previous codes between 1991 and June 2016, provided that the total fan coil load does not exceed the existing or added capacity of the heat exchangers.

j. For water-cooled process equipment where the manufacturers specifications require colder temperatures than available with waterside economizer, that portion of the load is exempt from the economizer requirements.

k. The air-cooled chiller shall have an IPLV efficiency that is a minimum of 10 percent greater than the IPLV requirements in EER in WSEC Table C403.3.2 (3) (1.10 × IPLV values in EER in WSEC Table C403.3.2 (3)).

l. The air-cooled chiller shall be multistage with a minimum of two compressors.

m. Reserved

n. The water-cooled chiller shall have an IPLV value that is a minimum of 15 percent lower than the IPLV requirements in WSEC Table C403.3.2(3) (0.85 × IPLV values in WSEC Table C403.3.2(3)). Water-cooled centrifugal chillers designed for

nonstandard conditions shall have an NPLV value that is at least 15 lower than the adjusted maximum NPLV rating in kW per ton defined in WSEC C403.3.2.3 (0.85 × NPLV).

o. Economizer cooling shall be provided by adding a plate-frame heat exchanger on the waterside with a capacity that is a minimum of 20 percent of the chiller capacity at standard AHRI rating conditions.

p. Reserved.

q. Systems installed prior to 1991 without fully utilized capacity are allowed to comply with Option B, provided that the individual unit cooling capacity does not exceed 90,000 Btu/h .

NEW SECTION. SECTION 144. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C503.4.6 of the Washington State Energy Code is not adopted and the following is substituted:

Addition or replacement of HVAC heating appliances (WSEC C503.4.6).

New HVAC heating systems shall comply with WSEC C403.1.4. Where one or more HVAC mechanical heating appliances are added or replaced, the added or replaced appliances shall comply with WSEC C401.3 and C403.1.4 or with an alternate compliance option in WSEC Table C503.4.6. When complying with the alternate compliance option in WSEC Table C503.4.6, added or replaced HVAC heating appliances must select HVAC heating appliances from one of the Proposed Heating Type Options and the applicable Heating Efficiency Tables. Additions, alterations, or replacements shall not be made to an existing HVAC heating system that will cause the

existing system to become out of compliance. Where use of heat pump equipment for space heating is required by this section, it is permissible to utilize the Fossil Fuel Compliance Path in WSEC C401.3 to attain the credits required for building additions shown in WSEC Table C401.3.3.

EXCEPTIONS:

1. Exempt buildings and occupancies. Replacement heating equipment serving any of the following building categories is permitted to use the same fuel type as the existing equipment, provided the replacement equipment complies with the minimum efficiency in WSEC Table C503.4.6 and the same or lower capacity than the existing, and that the requirements of WSEC C503.4.6.2 are met.

a. Affordable housing.

b. Group I-1, I-2, and I-3 occupancies.

c. Buildings with more than 50 percent of conditioned floor area occupied by organizations recognized as nonprofit by the State of Washington or by federal tax law.

d. Buildings with no more than 20,000 square feet (1,858 square meters) of conditioned floor area.

2. Retention of portion of existing system capacity. For buildings not exempted by Exception 1 above, a maximum of 50 percent of the existing fossil fuel or electric resistance heating capacity is permitted to be retained or replaced to serve as supplemental heat for the new heat pump heating system, provided that the supplemental heat is controlled to be used only when the heat pump system capacity is insufficient to meet the load, in compliance with the applicable exception 5, 6, or 7 to WSEC C403.1.4, and that the requirements of WSEC C503.4.6.2 are met. Where an alteration replaces

less than 50 percent of the existing fossil fuel or electric resistance heating capacity, the remaining heating appliances are permitted to be retained. Where the alteration project decreases the peak heating load, the fossil fuel or electric resistance heating capacity shall be limited to 50 percent of the calculated peak heating load. The replacement equipment shall comply with the minimum efficiency in WSEC Table C503.4.6.

3. Temporary replacement of failing equipment. Temporary like-for-like replacement of one or more heating appliances, in excess of the 50 percent capacity permitted by exception 2 above, is permitted where those appliances require immediate replacement, and where no other work on the HVAC system is planned. When using this exception, it is acceptable to replace a single appliance with two or more smaller appliances, provided the total capacity is not greater than that of the original appliance. In addition, the requirements of WSEC C503.4.6.2 shall be met, and the applicant shall ensure completion of the required heat pump system in compliance with one of the following options.

a. The code official issuing a temporary certificate of occupancy (TCO), which will remain in force until the heat pump heating system is installed and the final inspection of the system has been completed; or

b. Posting a performance bond for the full estimated cost of the required heat pump system installation, to ensure the heat pump system installation completion within 48 months.

4. Utility service upgrade. Compliance with WSEC C403.1.4 is not required where the requirements of WSEC C503.4.6.2 are met, and where such compliance would trigger an unplanned utility electrical service upgrade, based on the 2023 Edition of the

National Electrical Code Section 220.87 method for determining existing loads, where one or more of the following is required:

a. A new utility transformer vault located in the existing building or on the site, or an enlargement of the floor area of such a vault.

b. Trenching across the vehicle lanes of a public way.

c. The estimated construction cost for the required electrical service enlargement exceeds 50 percent of the project valuation for the remainder of the work, as determined in accordance with the fee subtitle. Construction cost shall be documented by an Association for the Advancement of Cost Engineering (AACE) Level 3 or equivalent cost estimate, including required demolition, construction, site work, and utility fees.

The replacement equipment shall comply with the minimum efficiency in WSEC Table C503.4.6.

5. Exempt equipment. Alterations to the following equipment types are not required to comply with this section.

a. Terminal unit equipment including but not limited to hydronic VAV terminal units, electric resistance VAV boxes, electric duct heaters, water source heat pumps, fan coils, or VRF indoor units, except such modifications to terminal equipment with hydronic heating coils as are required to accommodate lower-temperature fluids circulated from new central heat pump systems in accordance with WSEC C403.3.8.2.

b. Air handling equipment with hydronic heating coils, except such modifications to the air handling equipment as are required to accommodate lower-temperature fluids circulated from central heat pump systems in accordance with WSEC C403.3.8.2.

c. Replacement of existing steam boilers with steam distribution piping to terminal units and replacement of the existing associated boiler feed equipment.

Table C503.4.6

Compliance Options for HVAC Heating Equipment Alterations

	Proposed Heating Equipment Type[a]	**Heating Efficiency WSEC Table Reference**	**Alternate Compliance Options to WSEC C403.1.4**
1	Air-cooled unitary heat pumps	Table C403.3.2(2)	1. Compliance with WSEC C403.1.4, except heat pump rated capacity in accordance with WSEC C403.1.4 Exception 5d is permitted to be sized equal to the supplemental internal resistance heating capacity in Climate Zone 4 or 5[c]. 2. Compliance with WSEC C403.1.4, except electric resistance mixed air preheat is permissible [c].
2	Packaged terminal, single-package vertical, and room air-	Table C403.3.2(4)	Compliance with WSEC C403.1.4, except heat pump rated capacity in accordance with WSEC C403.1.4 Exception 5d is permitted to be sized

	Proposed Heating Equipment Type[a]	**Heating Efficiency WSEC Table Reference**	**Alternate Compliance Options to WSEC C403.1.4**
	conditioner heat pumps		equal to the supplemental internal resistance heating capacity in Climate Zone 4 or 5
3	Furnaces, duct furnaces, and unit heaters	Table C403.3.2(5)	1. Permitted only when qualifying for and complying with WSEC C503.4.6 Exceptions 1, 2, 3, or 4 2. Efficiency: +10%[b]
4	Gas-fired hot water boilers	Table C403.3.2(6)	1. Permitted only when qualifying for and complying with WSEC C503.4.6 Exceptions 1, 2, 3, or 4 2. Efficiency: +10%[b]
5	Variable refrigerant flow air-to-air and applied heat pumps	Table C403.3.2(9)	No alternate compliance option

	Proposed Heating Equipment Type[a]	**Heating Efficiency WSEC Table Reference**	**Alternate Compliance Options to WSEC C403.1.4**
6	DX-DOAS equipment	Table C403.3.2(12) and Table C403.3.2(13)	DX-DOAS is provided with heat recovery if not required by WSEC C403.3.5.1.
7	Water-source heat pumps	Table C403.3.2(14)	No alternate compliance option

Footnotes:

a. Includes replacement of equipment with a unit that is the same type or higher efficiency and the same or lower capacity, or a replacement of one equipment type with a different equipment type.

b. Equipment shall have a capacity-weighted average heating system efficiency that is 10 percent better than that shown in the reference table (1.1 times the values in reference table).

c. Option 1 and Option 2 can be combined.

Hydronic system alteration supply water temperature (WSEC C503.4.6.1).

Hydronic heating coils and appliances subject to WSEC C503.4.5 or C503.4.6 shall comply with WSEC C403.3.8.2.

Future decarbonization plan (WSEC C503.4.6.2).

For buildings with more than 20,000 square feet (1,858 square meters) of conditioned space, a schematic-level design of a heat pump system to replace the existing system shall be prepared by a professional engineer and submitted to the code official. The professional engineer must be identified on the schematic design documents, but the engineer's signature and date are not required, and no party is obligated to provide any further development of the schematic design. Documents submitted with the schematic design must include:

1. Completed decarbonization planning form, available on the King County permitting website.

2. Mechanical and electrical one-line system diagrams, showing only the impacted portions of systems.

3. Equipment sized and laid out to scale on plans of the existing facility. Only the impacted areas need be depicted, at a simple schematic level of detail.

4. Required louvers, ducts, and air handling equipment.

5. Required structural modifications.

6. Required partitions, doors, and other architectural modifications.

7. Required electrical infrastructure, including any electrical service upgrade and vault.

8. Schematic-level cost estimate, AACE Class 5, or equivalent, including separate line items for structural, mechanical, electrical, architectural, and utility costs.

9. Applicable compliance dates for Washington State Clean Buildings Performance Standards with maximum allowable energy use index (EUI) and carbon emissions.

NEW SECTION. SECTION 145. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C503.5 of the Washington State Energy Code is not adopted and the following is substituted:

Service water heating systems (WSEC C503.5). All new service water heating systems shall comply with WSEC C404.

C503.5.1. Addition or replacement of service water heating equipment. All existing service hot water systems, equipment, and components of existing systems that are altered or replaced shall comply with WSEC C407 or WSEC C404, C408.3, C506.1, and C501.6. Additions or alterations shall not be made to an existing service water heating system that will cause the existing system to become out of compliance. Where use of heat pump equipment for space heating is required by this section, it is permissible to utilize the Fossil Fuel Compliance Path in WSEC C401.3 to attain the credits required for building additions shown in WSEC Table C401.3.3.

EXCEPTIONS:

1. Utility service upgrade. Compliance with WSEC C403.1.4 is not required where the requirements of WSEC C503.4.6.2 are met, and where such compliance would trigger an unplanned utility electrical service upgrade, based on the National Electrical Code Section 220.87 method for determining existing loads, that requires one or more of the following:

1.1. A new utility transformer vault located in the existing building or on the site, or an enlargement of the floor area of such a vault.

1.2. Trenching across the vehicle lanes of a public way.

1.3. The estimated construction cost for the required electrical service enlargement exceeds 50 percent of the project valuation for the remainder of the work, as determined in accordance with the fee subtitle. Construction cost shall be documented by an AACE Level 3 or equivalent cost estimate, including required demolition, construction, site work, and utility fees.

The replacement equipment shall comply with the minimum efficiency in Table C503.4.6.

2. Exempt Systems. Replacement of any of the following water heater appliances is not required to comply with this section or with WSEC C404.2.1:

2.1. Electric water heaters with an input of 24 kilowatts or less.

2.2. Gas storage water heaters with an input of 75,000 Btu/h (22 kilowatts) or less.

2.3. Gas instantaneous water heaters with an input of 200,000 Btu/h (58.6 kilowatts) or less and 2 gallons (7.6 liters) or less of storage.

2.4. Replacement of existing steam boilers with steam distribution piping to terminal units and replacement of the existing associated boiler feed equipment.

3. Reserved.

4. Exempt buildings. Replacement service water heating equipment for the following buildings is permitted to use the same fuel type as the existing equipment, provided the new equipment has no lower efficiency and no higher capacity than the existing, and the requirements of WSEC C503.4.6.2 are met.

a. Affordable housing.

b. Group I-1, I-2, or I-3 occupancies.

c. Buildings with more than 50 percent of conditioned floor area occupied by organizations recognized as nonprofit by the State of Washington or by federal tax law.

d. Buildings smaller than 20,000 square feet (1,858 square meters).

5. Retention of portion of existing system capacity. A maximum of 50 percent of the existing central fossil fuel or electric resistance water heating capacity is permitted to be provided as supplemental heat for the new heat pump water heating system, provided that the supplemental heat is controlled to be used only when the heat pump system capacity is insufficient to meet the load, in compliance with WSEC C404.2.1.4, and that the requirements of WSEC C503.4.6.2 are met. Where an alteration replaces less than 50 percent of the existing fossil fuel or electric resistance service water heating capacity, the remaining service water heating appliances are permitted to be retained. Where the alteration project decreases the peak service water heating load, the fossil fuel or electric resistance heating capacity shall be limited to 50 percent of the calculated peak heating load.

6. Temporary replacement of failing equipment. Temporary like-for-like replacement of one or more service water heating appliances, in excess of the 50 percent capacity permitted by exception 5 above, is permitted where those appliances require immediate replacement, and where no other work on the service water heating system is planned. When using this exception, it is acceptable to replace a single appliance with two or more smaller appliances, provided the total capacity is not greater than that of the original appliance. In addition, the requirements of WSEC C503.4.6.2 shall be met, and the applicant shall ensure completion of the required heat pump water heating system in compliance with one of the following options;

a. The code official issuing a temporary certificate of occupancy (TCO), which will remain in force until the heat pump water heating system is installed and the final inspection of the system has been completed; or

b. Posting a performance bond for the full estimated cost of the required heat pump water heating system installation, to ensure the system installation completion within 48 months.

NEW SECTION. SECTION 146. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C505.2 of the Washington State Energy Code is not adopted and the following is substituted:

Change in space conditioning (WSEC 505.2). For the purposes of this section, space conditioning area categories include: low energy space in accordance with WSEC C402.1.1.1, semi-heated space, and conditioned space. Spaces undergoing a change in space conditioning shall be brought up to full compliance with this code, other than WSEC C502, C503, and C504, for all disciplines in the following cases:

1. Any low energy space in accordance with WSEC C402.1.1.1 that is altered to become conditioned space or semi-heated space.

2. Any semi-heated space in accordance with WSEC C402.1.1.2 that is altered to become conditioned space, or any heated but not cooled space that is altered to become both heated and cooled.

Interior walls, ceilings, floors, and fenestration that separate conditioned spaces from low energy or semi-heated spaces shall comply with the thermal envelope requirements for conditioned space. Interior walls, ceilings, floors, and fenestration that

separate semi-heated spaces from low energy spaces shall comply with the thermal envelope requirements for semi-heated space.

A change in space conditioning is permitted to demonstrate by the alteration area alone or combining the alteration area with all existing spaces of the same space conditioning area category that complies. This applies to either prescriptive compliance in accordance with WSEC C505.4 or total building performance in accordance with WSEC C407.

EXCEPTIONS:

1. A change in space conditioning does not require full compliance with this code if both of the following conditions are met:

1.1. The existing heated but not cooled space is altered to become both heated and cooled solely by replacement of the existing heating-only HVAC system with an electric heat pump HVAC system, provided that there is no change in the use or occupancy classification of the area served by the HVAC system that would increase the cooling load.

1.2 The new system includes a DOAS with energy recovery in compliance with WSEC C403.3.5.

2. The addition of cooling equipment to already-conditioned rooms or spaces less than 2,000 square feet (185.8 square meters) in floor area does not trigger the requirement to comply with this Section, WSEC 505.2.

NEW SECTION. SECTION 147. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C506 of the Washington State Energy Code is supplemented with the

following:

Metering for the addition or replacement of HVAC equipment in existing buildings (WSEC C506.2). Where HVAC equipment is added or replaced, metering shall be provided according to WSEC C506.2.1 or C506.2.2, as applicable.

C506.2.1. Addition or replacement of individual HVAC equipment pieces. Where HVAC equipment is added or replaced, but compliance with WSEC C506.2.2 is not required, metering shall be provided as follows. The data from these meters is permitted to be stored locally using a manual totalizing meter or other means at the meter or fed into a central data collection system.

1. Electrical metering shall be provided for all of the following:

a. Each new or existing branch circuit serving a new piece of HVAC equipment with minimum circuit ampacity (MCA) that equates to 50 kilovolt-amps or more. A single meter is permitted to serve multiple circuits of the same sub-metering category from WSEC C409.3.

b. Each new or existing branch circuit supplied by a new electrical panel that is dedicated to serving HVAC equipment. Circuits may be metered individually or in aggregate.

c. Each new HVAC fan or pump on a variable speed drive, where the fan, pump, or variable speed drive is new, unless the variable speed drive is integral to a packaged HVAC unit or the existing variable speed drive lacks the capability to provide electric metering output.

2. Natural gas metering shall be provided for each new natural gas connection that is rated at 1,000 kBtu (351.7 kilowatts) or higher. A single meter is permitted to

serve multiple equipment pieces of the same sub-metering category from WSEC C409.3; HVAC, water heating, or process.

C506.2.2. Addition or replacement of the majority of HVAC equipment in a building. Within any 12-month period, where permits are issued for new or replacement HVAC equipment that has a total heating and cooling capacity greater than 1,200 kBtu/h (351.7 kilowatts) and greater than 50 percent of the building's existing HVAC heating and cooling capacity, the following shall be provided for the building:

1. Energy source metering required by WSEC C409.2;
2. HVAC system end-use metering required by WSEC C409.3.1; and
3. Data acquisition and display system per the requirements of WSEC C409.4.

Each of the building's existing HVAC chillers, boilers, cooling towers, air handlers, packaged units, and heat pumps with a capacity exceeding 5 tons or that represents more than 10 percent of the building's total heating and cooling capacity shall be included in the calculation of the existing heating and cooling capacity of the building. Where heat pumps are configured to deliver both heating and cooling, the heating and cooling capacities shall both be included in the calculation of the total capacity.

Each of the building's existing and new HVAC chillers, boilers, cooling towers, air handlers, packaged units, and heat pumps with a heating or cooling capacity exceeding 5 tons or that represents more than 10 percent of the total heating and cooling capacity of the building shall be included in the HVAC system end-use metering.

Construction documents for new or replacement heating and cooling equipment projects shall indicate the total heating and cooling capacity of the building's existing HVAC equipment and the total heating and cooling capacity of the new or replacement

equipment. Where permits have been issued for new or replacement heating and cooling equipment within the 12-month period prior to the permit application date, the heating and cooling equipment's capacity shall also be indicated. All heating and cooling equipment capacities shall be expressed in thousand-Btu/h.

NEW SECTION. SECTION 148. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C506 of the Washington State Energy Code is supplemented with the following:

Addition or replacement of service water heating equipment (WSEC C506.3). Where service water heating equipment is added or replaced, metering shall be provided as follows. The data from these meters is permitted to be stored locally and shall be stored for a minimum of 36 months using a manual totalizing meter or other means at the meter, or fed into a central data collection system.

A. Electrical metering shall be provided for each new or existing branch circuit that is primarily dedicated to serving service water heating equipment. Circuits may be metered individually or in aggregate.

B. Natural gas metering shall be provided for each new natural gas service water heating appliance that is rated at 100,000 Btu/h (29.3 kilowatts) or higher. A single meter is permitted to serve multiple service water heating appliances.

NEW SECTION. SECTION 149. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C506 of the Washington State Energy Code is supplemented with the following:

Tenant space electrical sub-metering for existing buildings (WSEC C506.4). For tenant improvements in which a single tenant will occupy a full floor or multiple floors of a building, the electrical consumption for the tenant space on that floor shall be separately metered, and the metering data provided to the tenant with a display system per the requirements of WSEC C409.4.3. For the purposes of this section, separate end use categories need not be segregated.

EXCEPTION: Where an existing branch circuit electrical panel serves tenant spaces on multiple full floors of a building the floors served by that panel are not required to comply with this section.

NEW SECTION. SECTION 150. There is hereby added to K.C.C. chapter 16.07 a new section to read as follows:

Section C506 of the Washington State Energy Code is supplemented with the following:

Metering for complete electrical system replacement (WSEC C506.5). If all, or substantially all, of the existing electrical system is replaced within a 12-month period or under a single electrical permit, all the provisions of WSEC C409 shall be met.

SECTION 151. Ordinance 8766, Section 6, as amended, and K.C.C. 16.08.050 are each hereby amended to read as follows:

Approved numbers or addresses shall be provided for all new and existing buildings in ((~~such~~)) a position ((~~as to be~~)) that is plainly visible and legible from the road fronting the property and in conformance with this section.

A. The owner, occupant, or renter of any addressed building or other structure shall maintain the address numbers in a conspicuous place over or near the principal entrance or

entrances. If the entrance cannot be easily seen from the nearest adjoining road, the address numbers shall be placed in ((~~such other~~)) another conspicuous place on the building or structure ((~~as is necessary for visually locating such~~)) so the address numbers can be easily seen from the nearest adjoining road.

B. If the addressed building or structure cannot be easily seen from the nearest adjoining road, the address numbers shall be placed on a portion of the site that is clearly visible from the nearest adjoining road.

C. The address numbers shall:

1. Be ((~~easily legible figures;~~)) Arabic numbers or alphabetical letters. Numbers shall not be spelled out; and

2. ((~~C~~)) comply with the following size requirements, unless otherwise stipulated in this section:

Distance from ((~~Right of Way~~)) the street or road fronting the property	**Minimum Letter Size**
((~~0-25 feet~~))	((~~3 inches~~))
((~~26~~)) 0-50 feet	4 inches
51-100 feet	6 inches
101-150 feet	8 inches
151-200 feet	10 inches
Over 200 feet	12 inches

3. Be not less than ((~~five~~)) four inches high ((~~for a commercial use~~)) with a minimum stroke width of 0.5 inch ;

4. Contrast with the color of the structure ((~~upon which~~)) they are placed on;

5. ((~~Either b~~)) Be illuminated ((~~during periods of darkness~~)) or ((~~be~~)) reflective, so they are easily seen ((~~at night~~)) during periods of darkness.

SECTION 152. Ordinance 12560, Section 109, as amended, and K.C.C. 16.14.090 are hereby amended to read as follows:

Section ((~~104.3~~)) 105.3 of the International Property Maintenance Code is not adopted and the following is substituted:

Right of entry (IPMC ((~~104.3~~)) 105.3). The right of entry shall be in accordance with the procedures specified in K.C.C. Title 23.

SECTION 153. K.C.C. 16.14.430, as amended by this ordinance, is hereby recodified as a new section in K.C.C. chapter 16.14 to follow K.C.C. 16.14.090.

SECTION 154. Ordinance 12560, Section 121, as amended, and K.C.C. 16.14.430 are hereby amended to read as follows:

Section ((~~111~~)) 107 of the International Property Maintenance Code is not adopted and the following is substituted:

Means of appeal (IPMC ((~~111~~)) 107). Appeals shall be in accordance with K.C.C. Titles 20 and 23.

SECTION 155. Ordinance 12560, Section 112, as amended, and K.C.C. 16.14.100 are hereby amended to read as follows:

Section ((~~106.1~~)) 109.1 of the International Property Maintenance Code is not adopted and the following is substituted:

Unlawful acts (IPMC ((~~106.1~~)) 109.1). It shall be unlawful for any person, firm or corporation whether as owner, lessee, sublessee, or occupant, to erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish, equip, use, occupy, or

maintain any building or structure or cause or permit the same to be done, contrary to or in violation of this code or any order issued by the code official ((~~hereunder~~)). This section shall be enforced in accordance with the procedures specified in K.C.C. Title 23.

SECTION 156. Ordinance 12560, Section 110, as amended and K.C.C. 16.14.110 are hereby amended to read as follows:

Section ((~~107~~)) 110 of the International Property Maintenance Code is ((~~not adopted and the following is substituted~~)) supplemented with the following:

((**~~Notices and Orders (IPMC 107)~~**)) **Stop work orders (IPMC 110.5).** All buildings, portions thereof, or premises ((~~which are determined by~~)) that the code official determines ((~~not to be in~~)) out of compliance with this ((~~C~~)) code are hereby declared to be a public nuisance and shall be abated by repair, rehabilitation, demolition, or removal in accordance with ((~~the procedures specified in~~)) K.C.C. ((~~Title 23~~)) chapter 23.28.

SECTION 157. Ordinance 14914, Section 359, as amended, and K.C.C. 16.14.200 are hereby amended to read as follows:

Section ((~~108.2~~)) 111.2 of the International Property Maintenance Code is not adopted and the following is substituted:

Closing of vacant structures (IPMC ((~~108.2~~)) 111.2). ((~~If the~~)) Where a structure is vacant and unfit for human habitation and occupancy((~~,~~)) and ((~~is~~)) not in danger of structural collapse, the code official is authorized to post a ((~~placard of~~)) condemnation placard on the premises and order the structure ((~~closed up~~)) secured so ((~~as not to be~~)) it does not become an attractive nuisance. Upon failure of the owner or the owner's agent to ((~~close up~~)) secure the ((~~premises~~)) structure within the time

specified, enforcement action may be taken ((~~using the procedures of~~)) through K.C.C. Title 23.

SECTION 158. Ordinance 14914, Section 360, and K.C.C. 16.14.210 are hereby amended to read as follows:

Section ((~~108.3~~)) 111.4 of the International Property Maintenance Code is not adopted and the following is substituted:

Notice (IPMC ((~~108.3~~)) 111.4). Whenever the director has determined a structure, premises, or equipment ((~~are~~)) is unsafe under ((~~the provisions of~~)) this section, notice shall be provided in ((~~the procures contained in~~)) accordance with K.C.C. Title 23.

SECTION 159. Ordinance 12560, Section 120, and K.C.C. 16.14.220 are hereby amended to read as follows:

Section ((~~108.4~~)) 111.7 of the International Property Maintenance Code is not adopted and the following is substituted:

((~~Placard to vacate (IPMC 108.4)~~)) Placarding to vacate (IPMC 111.7). Whenever ((~~such notice~~)) a placard restricting occupancy of a building is posted, the code official shall include a notification ((~~thereof~~)) in the notice and order issued under K.C.C. Title 23, ((~~reciting~~)) specifying the emergency and ((~~specifying~~)) the conditions ((~~which necessitate~~)) necessitating the posting. No person shall remain in or enter any building which has been so posted, except ((~~that entry may be made~~)) to repair, demolish, or remove such building under permit. No person shall remove or deface any such notice after it is posted until the required repairs, demolition, or removal have been completed and a certificate of occupancy is issued pursuant to ((~~the provisions of the Building~~

~~Code~~)) this title. Any ((~~person violating this section shall be guilty of a misdemeanor~~)) violation may be enforced through K.C.C. Title 23.

SECTION 160. Ordinance 14914, Section 370, and K.C.C. 16.14.280 are hereby amended to read as follows:

Section ((~~109.4~~)) 112.4 of the International Property Maintenance Code is not adopted and the following is substituted:

Emergency repairs (IPMC ((~~109.4~~)) 112.4). For the purposes of this section, the code official shall employ the necessary labor and materials to perform the required work as expeditiously as possible as authorized in K.C.C. Title 23.

SECTION 161. Ordinance 14914, Section 370, and K.C.C. 16.14.290 are hereby amended to read as follows:

Sections ((~~109.5 and 109.6~~)) 112.5 and 112.6 of the International Property Maintenance Code are not adopted.

SECTION 162. Ordinance 14111, Section 131, as amended, and K.C.C. 16.14.450 are hereby amended to read as follows:

Section 301.2 of the International Property Maintenance Code is not adopted and the following is substituted:

Responsibilities defined (IPMC 301.2). Owners ((~~remain~~)) may be liable for ((~~violations of duties imposed by~~)) violating this code ((~~even though an obligation is also imposed on~~)) where the building's occupants ((~~of the building~~)) are also responsible for code compliance, and ((~~even though~~)) where the owner ((~~has,~~)) imposes by agreement, ((~~imposed on the occupant~~)) the duty of furnishing required equipment or ((~~of complying~~)) compliance with this code on the occupants.

Buildings and structures and parts thereof shall be maintained in a safe and sanitary condition. The owner or the owner's designated agent shall be responsible for such maintenance. Buildings may be inspected ((~~T~~))to determine compliance ((~~with this subsection, the building may be reinspected~~)).

Owners, in addition to being responsible for maintaining buildings in a sound structural condition, shall be responsible for keeping that part of the building or premises which the owner occupies or controls in a clean, sanitary, and safe condition, including the building's shared or public areas ((~~in a building containing~~)) with two or more dwelling units.

((~~Owners shall, w~~))When required by this code or the code official or the ((~~health ordinance~~)) King County Board of Health Code or the health officer, owners shall furnish and maintain such approved sanitary facilities as required, and shall furnish and maintain approved devices, equipment, or facilities ((~~for the prevention of~~)) to prevent insect and rodent infestation, and when infestation ((~~has taken place~~)) occurs, shall be responsible for ((~~the extermination of~~)) exterminating any insects, rodents, or other pests ((~~when~~)) unless such extermination is ((~~not~~)) specifically made the occupant's responsibility ((~~of the occupant~~)) by law or ((~~ruling~~)) rule.

Occupants of a dwelling unit, in addition to being responsible for keeping in a clean, sanitary, and safe condition that part of the ((~~dwelling or~~)) dwelling unit or premises which they occupy and control, shall dispose of their rubbish, garbage, and other organic waste in a manner required by the ((~~health ordinance~~)) King County Board of Health Code and approved by the health officer or the code official.

((~~Occupants shall, w~~))When required by this code or the code official, the ((~~health ordinance~~)) King County Board of Health Code, or the health officer, occupants shall furnish and maintain approved devices, equipment, or facilities necessary to keep their premises safe and sanitary.

SECTION 163. Ordinance 14111, Section 131, as amended, and K.C.C. 16.14.460 are hereby amended to read as follows:

Section 302.4 of the International Property Maintenance Code is not adopted and the following is substituted:

((~~Fire hazard~~)) Weeds (IPMC 302.4). ((~~Any building or portion thereof, device, apparatus, equipment, combustible waste, or vegetation that, in the opinion Fire Marshal or the Code Official, is in such a condition as to cause a fire or explosion or provide a ready fuel to augment the spread and intensity of fire or explosion arising from any cause shall be considered substandard. Upon failure of the owner or agent having charge of a property to cut and destroy weeds after notice violation, they shall be subject to prosecution in accordance with the provisions of K.C.C. Title 23.~~)) The exterior of premises and property shall be maintained free from any noxious weeds included on the King County Noxious Weeds list and any excessive growth of dry or dead vegetation that constitutes a potential fire hazard in the opinion of the fire marshal or code official.

SECTION 164. Ordinance 14914, Section 408, and K.C.C. 16.14.490 are hereby amended to read as follows:

Section 304.3 of the International Property Maintenance Code is not adopted and the following is substituted:

Premises identification. (IPMC 304.3). ((~~Approved numbers or addresses shall be provided for all new buildings~~)) Buildings shall have approved address numbers placed in ((~~such~~)) a position ((~~as to be~~)) that is plainly visible and legible from the street or road fronting the property ((~~as specified by the department~~)).

SECTION 165. Ordinance 12560, Section 115, as amended, and K.C.C. 16.14.540 are hereby amended to read as follows:

Section 602.3 of the International Property Maintenance Code is not adopted and the following is substituted:

Heating facilities - Heat supply (IPMC 602.3). ((~~Dwellings units and guest rooms shall be provided with heating facilities capable of maintaining a room temperature of 70° F. (21.1° C), bathrooms and toilet rooms. Cooking appliances shall not be used to provide space heating to meet the requirements of this section~~)) Every owner and operator of any building who rents, leases, or lets one or more dwelling units or sleeping units on terms, either expressed or implied, to furnish heat to the occupants shall supply heat to maintain a minimum temperature of 68° Fahrenheit (20° Celsius) in all habitable rooms, bathrooms, and other toilet rooms.

EXCEPTIONS:

1. When the outdoor temperature is below the winter outdoor design temperature for the locality, maintenance of the minimum room temperature shall not be required provided that the heating system is operating at its full design capacity. The winter outdoor design temperature for the locality shall be as indicated in Appendix C of the Washington State Energy Code.

2. In areas where the average monthly temperature is above 30° Fahrenheit (-1° Celsius), a minimum temperature of 65° Fahrenheit (18° Celsius) shall be maintained.

SECTION 166. Ordinance 14914, Section 416, and K.C.C. 16.14.550 are hereby amended to read as follows:

Section 602.4 of the International Property Maintenance Code is not adopted((.)) and the following is substituted:

Occupiable work spaces (IPMC 602.4). Indoor occupiable work spaces shall be supplied with heat to maintain a minimum temperature of 65° Fahrenheit (18° Celsius) when the spaces are occupied.

EXCEPTIONS:

1. Processing, storage, and operation areas that require cooling or special temperature conditions.

2. Areas in which persons are primarily engaged in vigorous physical activities.

SECTION 167. Ordinance 6746, Section 5, as amended, and K.C.C. 16.32.030 are each hereby amended to read as follows:

A. Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 15, 16, and 17 and Appendices A (Recommended Rules for Sizing the Water Supply System), B (Explanatory Notes on Combination Waste and Vent Systems), I (Installation Standard for PEX Tubing Systems for Hot- and Cold-Water Distribution), and M (Peak Water Demand Calculator) of the 2021 edition of the Uniform Plumbing Code ((~~, 2018 Edition, as published by or jointly with the International Association of Plumbing and Mechanical Officials~~)) as adopted and amended in chapter 51-56 WAC, and the gas piping provisions of the 2021 edition of the International Fuel Gas Code ((~~, 2018 Edition~~)), the 2021 edition of the National Fuel

Gas Code, ((~~2018 Edition (2018 ANSI Z223.1/NFPA 54),~~)) the 2021 edition of the Liquefied Petroleum Gas Code ((~~, 2017 Edition (2017 NFPA 58)~~)) as amended in chapter 51-52 WAC, and the International Residential Code as adopted by K.C.C. 16.02.110, ((~~2018 Edition, as amended in chapter 51-51 WAC,~~)) are hereby adopted and together with King County amendments, additions, exceptions, and deletions adopted in this chapter are adopted as the King County Plumbing Code and may be cited as such and referred to in this chapter as "this code." This code shall have precedence over documents adopted by reference.

B. This code also may be further clarified and implemented by administrative rules adopted in accordance with K.C.C. chapter 2.98.

SECTION 168. Ordinance 6746, Section 7, as amended, and K.C.C. 16.32.050 are each hereby amended to read as follows:

The authority having jurisdiction is authorized to enforce this code in accordance with K.C.C. Title 23 except as specifically otherwise provided in this code.

SECTION 169. Ordinance 6746, Section 10, as amended, and K.C.C. 16.32.080 are each hereby amended to read as follows:

Section 104.5 of the Uniform Plumbing Code is not adopted and the following is substituted:

Fees. A. An applicant for a permit to do work under this chapter shall pay at the time of permit issuance, the following fees according to the fee schedule:

FEE SCHEDULE

Fee Type	**Cost**

Note: The fees in this table may be adjusted annually in accordance with subsection D. of this section. Contact public health – Seattle & King County for the most current fee schedule.	
Base permit fee, which is for a plumbing, gas, or backflow permit	$((~~132.00~~)) 137.00
Fixture fee, which is assessed per each plumbing, medical or dental gas, fuel gas, laboratory gas, or repipe fixture, or backflow assembly, or any combination thereof, in addition to the base permit fee	$((~~26.00~~)) 27.00
Administrative fee, which is the fee assessed to modify a permit or issue a refund	$((~~40.00~~)) 41.00
Permit renewal fee, which is the fee assessed to renew a permit	$((~~66.00~~)) 68.00
Repipe permit fee, which is a project specific fee, and which is the base permit fee plus repipe fixture fee or fees plus the total number of anticipated inspections times the hourly operating rate, unless the number of actual inspections exceed the number of anticipated inspections, in which case the applicant will be charged the hourly operating rate for each additional inspection. Contact public health– Seattle & King County for fee estimate	(Base permit fee + repipe fixture fee or fees) + (the number of anticipated inspections + additional inspections x hourly operating rate)

Plan review fee, which applies to plan reviewed project only, and is invoiced at hourly operating rate based on actual time spent reviewing project	$((~~264.00~~)) 273.00/hr.
Hourly operating rate, which is used to determine fees for plan review, off-hour inspections and repipe projects	$((~~264.00~~)) 273.00/hr.

B. The following definitions apply to this section unless the context clearly requires otherwise:

1. "Backflow assembly" means any approved device or assembly installed within a water supply system to prevent health hazards associated with backflow or back-siphonage conditions;

2. "Fuel gas fixture" means an outlet point in a piped fuel gas supply system or connection to a piece of fuel gas using equipment;

3. "Laboratory gas fixture" means an inlet point in a piped nonsurgical vacuum collection system, or an outlet point in a nonmedical laboratory gas distribution system that connects to a piece of equipment, or that facilitates connections and disconnections to be made by a system operator for nonmedical research or process purposes;

4. "Medical or dental gas fixture" means an inlet point in a piped medical, surgical, or dental vacuum collection system or an outlet point in a medical or dental gas distribution system that connects to a piece of equipment, or that facilitates connections and disconnections to be made by a system operator;

5. "Plumbing fixture" means an approved type of installed receptacle, device, or appliance that is connected to a water supply or that receives liquid or liquid-borne

wastes and discharges such wastes into a building drainage system directly or indirectly; and

6. "Repipe fixture" represents the water supply, drainage, or venting portion of a plumbing system within a building that is to be replaced or repaired. A repipe fixture represents the piping system only and does not include any specific device or fixture as defined elsewhere in this section.

C.1. Laboratory fixture fees may be collected for any appliance, equipment, appurtenance, alarm, or gas system inlet or outlet connected to or affiliated with a nonmedical vacuum collection system or nonmedical gas piping system that does not include fuel gas and is not required to be designed in accordance with NFPA 99.

2. Medical or dental gas fixture fees may be collected for any appliance, equipment, appurtenance, alarm, or gas system inlet or outlet connected to or affiliated with a medical, surgical, or dental vacuum collection system or medical or dental gas piping system designed in accordance with NFPA 99.

3. Plumbing fixture fees may be collected for any plumbing fixture, appliance, equipment, or appurtenance that is either regulated by the applicable plumbing or gas codes or impacts the design or operation of a plumbing or gas system within a building, or both. This includes industrial or commercial tanks, vats, and similar processing equipment which might or might not be connected to or discharged into approved traps or plumbing fixtures.

D. The fee schedule referenced within this section may be reviewed and adjusted periodically in accordance with the following:

1. The director of public health - Seattle & King County shall annually review whether the fee schedule needs to be adjusted to reflect the projected subsequent year costs of providing services, taking into account the budget adopted by ordinance for the agency charged with providing such services; and

2. The director may annually ((~~adjust~~)) increase or decrease any or all fees to reflect actual costs up to an amount that represents the most recent Seattle-Tacoma-Bellevue Area Consumer Price Index for Urban Wage Earners and Clerical Workers, CPI-W, inflation forecast for the subsequent year prepared by the office of economic and financial analysis and adopted by the forecast council plus one percentage point, up to a maximum of five percent over the current fee((~~. Actual costs may include~~)) , plus the cost of ((~~increasing~~)) building rate reserves in accordance with any applicable county fund reserve policies.

SECTION 170. Ordinance 15802, Section 122, as amended, and K.C.C. 16.32.195 are each hereby amended to read as follows:

Section 103.1 of the Uniform Plumbing Code is supplemented with the following:

Authority Having Jurisdiction (((~~(UPC 103.1.1)~~))). The authority having jurisdiction is ((~~the director of~~)) public health - Seattle & King County or the ((~~director's~~)) authorized representative or representatives, who shall administer and enforce the provisions of this code, render interpretations of this code and make and enforce such rules and regulations, in accordance with K.C.C. chapters 2.98 and 2.100.

SECTION 171. Ordinance 15802, Section 124, as amended, and K.C.C. 16.32.215 are each hereby amended to read as follows:

Section 106.4 of the Uniform Plumbing Code is not adopted and the following is substituted:

Stop Work Order and Correction Order (((~~(UPC 106.4)~~))).

A. Whenever any work is being done contrary to the provisions of this code, the authority having jurisdiction may order the work stopped by notice in writing served on any persons engaged in the doing or causing such work to be done, and any such persons shall immediately stop work until authorized by the authority having jurisdiction to proceed with the work. Service of a stop work order shall be made by one or more of the following methods:

1. Personal service: Personal service of a stop work order may be made on the property owner or on any person doing or causing the work to be done, or by leaving the stop work order at the house of usual abode of the person being served if the stop work order is left with a person of suitable age and discretion who resides there.

2. Service by posting on the property: Service directed to the property owner or person engaged in doing or causing such work to be done may be made by posting the stop work order in a conspicuous place on the property where the work is occurring, and concurrently mailing notice as required by this subsection, if a mailing address is available.

3. Service by mail: Service by mail may be made for a stop work order by mailing two copies, postage prepaid, one by ordinary first class mail and the other by certified mail, to the property owner and to any person engaged in doing or causing such work to be done, at their last known addresses, at the address of the location of the work being done, or at the address of the place of business of the person being served. The

taxpayer's address as shown on the tax records of the county shall be deemed to be the proper address for the purpose of mailing such notice to the person being served. Service by mail shall be presumed effective upon the third business day following the day upon which the stop work order was placed in the mail.

B. Whenever any work is being done contrary to the provisions of this code, the authority having jurisdiction may order the violations corrected without ordering all work stopped by issuing a correction notice that identifies the violation. The correction notice may require an inspection before further construction or at the time of the next required inspection. The correction notice shall be served or posted in the same manner as a stop work order.

C. The remedies in this section are in addition to those authorized elsewhere in this code.

SECTION 172. Ordinance 15802, Section 126, as amended, and K.C.C. 16.32.235 are each hereby amended to read as follows:

Section 103.2 of the Uniform Plumbing Code is not adopted and the following is substituted:

Liability (((~~UPC 103.2~~))). This code is enacted as an exercise ((~~of the police power~~)) of King County's police power to protect and preserve the public peace, health, safety, and welfare, and its provisions shall be liberally construed ((~~for the accomplishment of~~)) to accomplish these purposes. It is expressly the purpose of this code to provide for and promote the health, safety, and welfare of the general public, and not to create or otherwise establish or designate any particular class or group of persons who would or should be especially protected or benefited by ((~~the terms of~~)) this code.

((~~It is t~~)) The code's specific intent ((~~of this code~~)) is to place the obligation of complying with its requirements upon the owner or occupier of premises within this code's scope, and no provision ((~~n~~))or term used in this code is intended to impose any duty upon the authority having jurisdiction or any of the authority having jurisdiction's officers or employees, for whom ((~~the~~)) code implementation or enforcement ((~~of this code~~)) shall be discretionary and not mandatory.

Nothing in this code creates or forms the basis for any liability on the part of the authority having jurisdiction, or the authority having jurisdiction's officers, employees, or agents, for any injury or damage resulting from the failure of the owner or occupier of premises to comply with ((~~the provisions of~~)) this code, or by reason or in consequence of any act or omission in connection with ((~~the~~)) code implementation or enforcement ((~~of this code~~)) on the part of the authority having jurisdiction or by the authority having jurisdiction's officers, employees, or agents.

Any claim or litigation arising from any conduct, acts, or omissions of the authority having jurisdiction, or any of the authority having jurisdiction's officers, employees, or agents, shall be subject to the provisions of K.C.C. chapter 2.21.

NEW SECTION. SECTION 173. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

The authority having jurisdiction shall issue a permit to the applicant if the authority having jurisdiction verifies all of the following:

A. The work described in the construction documents conforms to this code's requirements and applicable laws and ordinances;

B. Construction documents for projects requiring plan review have been reviewed and approved;

C. The fees specified in K.C.C. 16.32.080 have been paid;

D. The applicant has complied with all requirements to be performed prior to permit issuance under applicable laws, ordinances, and regulations otherwise imposed by the authority having jurisdiction; and

E. The applicant, or the applicant's authorized agent, becomes the permit holder when the permit is issued.

NEW SECTION. SECTION 174. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 104.1 of the Uniform Plumbing Code is supplemented with the following:

Complete plumbing permit applications. A plumbing permit application is complete if the authority having jurisdiction determines it meets the requirements of sections 104.1 and the following:

Application for Permit. To obtain a permit, the applicant shall first file an application in a format determined by the authority having jurisdiction. Every such application shall:

1. Identify and describe the work to be covered by the permit.

2. Describe the proposed work site by parcel number, property address, or similar description that will readily identify and clearly locate the proposed building or project.

3. Provide unit, space suite, floor level, or other information that will clearly identify the location of the project.

4. Provide the property owner's name, address, and phone number.

5. Provide the contractor's business name, address, email, and phone number.

6. Be accompanied by plans, diagrams, computations and specifications, equipment schedules, and other data as required by the authority having jurisdiction.

7. Be signed by the owner of the property or building, or the owner's authorized agent, who may be required to submit evidence to indicate such authority.

8. Provide other data and information as may be required by the authority having jurisdiction.

Plumbing Design Documents. Plumbing design documents shall be submitted with each application for a permit, in electronic format to the authority having jurisdiction. Diagrams, schedules, and other data sufficient to show the adequacy of the plans shall be submitted when required by the authority having jurisdiction.

EXCEPTION: The authority having jurisdiction may waive the submission of plumbing design documents where the authority having jurisdiction finds that the nature of the work applied for is such that reviewing plumbing documents is not necessary to obtain compliance with this code.

Preparation by Registered Design Professionals. Plumbing design documents for all plumbing work shall be prepared and designed by or under the direct supervision of a mechanical engineer licensed to practice under the laws of the State of Washington. Each sheet of plumbing documents shall bear the seal and the signature of the registered design professional before the permit is issued.

EXCEPTIONS:

1. Detached one- and two-family dwellings, and townhouses.

2. Design documents that do not include systems specifically required to be designed by a registered design professional shall be permitted to be submitted without a PE stamp by any individual holding an active Certified in Plumbing Design (CPD) designation issued by the American Society of Plumbing Engineers (ASPE) or by a Washington State Certified Journeyman Plumber (PL01).

3. Design documents provided for reference only.

4. Other work as specified by the authority having jurisdiction.

Registered Design Professional in Responsible Charge. The authority having jurisdiction is authorized to require the owner to engage and designate on the plumbing permit application a Registered Design Professional who shall act as the Registered Design Professional in Responsible Charge. If the circumstances require, the owner shall designate a substitute Registered Design Professional in Responsible Charge who shall perform the duties required of the original Registered Design Professional in Responsible Charge. The authority having jurisdiction shall be notified in writing by the owner if the Registered Design Professional in Responsible Charge is changed or is unable to continue to perform their duties. The Registered Design Professional in Responsible Charge is responsible for reviewing and coordinating submittal documents prepared by others, including phased and deferred submittal items, for compatibility with the design and scope of the project.

Information Required on Plumbing Design Documents. The documents shall include the following, as applicable:

Cover Sheet. The cover sheet shall include the project address, parcel number, scope of work narrative, legends, abbreviations, general notes, applicable code cycles, and other information as required by the authority having jurisdiction.

Calculations and Notes. Calculations and load summaries shall be provided to determine system loading for each plumbing system included in the project scope of work. A separate calculation for each separate utility point of connection is required. Domestic water pressure loss calculations shall be provided for each independent domestic water system or pressure zone. Notes shall include proposed material types and joining methods, insulation requirements, disinfection procedures, and similar information as required by the authority having jurisdiction.

Schedules. Schedules shall be provided for all fixtures and equipment associated with the plumbing system design. Schedules shall include all information required to verify compliance with this code and the Washington State Energy Code as amended by King County. Such information may include operating weight, equipment make/model, applicable standards, connection sizes, flow rates, input/output ratings, and similar information as required by the authority having jurisdiction.

Energy Code Compliance. Equipment required to comply with the Washington State Energy Code as amended by King County shall include make and model and any other design or listing information required to determine compliance.

Plan Sheets. Plan sheets shall include building information, plumbing system design information, scale, key plan, north arrow, and similar information as required by the authority having jurisdiction.

Building Information. Building information shown on plan sheets shall be screened (semi-opaque) and include information such as room names, walls, corridors, fixtures, footings, floor elevations, and other building elements relevant to the installation of the plumbing system(s).

Plumbing System Design Information. Plumbing system design information shown on plan sheets shall be easily identifiable and include all horizontal piping, all vertical risers, sizing, loading, notes, fixture and equipment tags, and similar information as required by the authority having jurisdiction.

Riser Diagrams. Riser diagrams shall be provided for each distinct plumbing system type including sanitary waste and vent, domestic water, stormwater and roof drainage, natural gas, non-potable water, graywater, and any other system type referenced within the plumbing design documents. Riser diagrams shall include all piping from the utility or tenant point of connection to the furthest fixture or roof termination. Piping shown on riser diagrams shall be clearly sized and labeled and include loading at each pipe segment.

Construction Details. Construction details shall be provided for the installation of certain fixtures or equipment where determining code compliance may not be readily achievable through review of Plans, Schedules, Notes, or Riser Diagrams. Construction details may be required for the installation of water heaters, interceptors, pumps, backflow devices, and similar items. The authority having jurisdiction may request additional construction details as deemed necessary.

Deferred Submittals. Deferral of any submittal items shall have the prior approval of the authority having jurisdiction. The Registered Design Professional in

Responsible Charge shall list deferred submittals on the plans for review by the authority having jurisdiction. Documents for deferred submittal items shall be submitted to the Registered Design Professional in Responsible Charge who shall review them and forward them to the authority having jurisdiction with a notation indicating that the deferred submittal documents have been reviewed and been found to be in general conformance to the plumbing design. The deferred submittal items shall not be installed until the deferred submittal documents have been approved by the authority having jurisdiction.

Application Review. The plumbing design documents shall be reviewed by the authority having jurisdiction. Such plumbing design documents may be reviewed by other county departments for compliance with the laws and ordinances under their jurisdiction.

Determination of Completeness. Within 28 days after an application is filed, the authority having jurisdiction shall notify the applicant in writing that the application is complete or incomplete, and if the application is incomplete, the additional information required to make it complete shall be provided. Within 14 days after receiving the additional information, the authority having jurisdiction shall notify the applicant in writing whether the application is now complete or specify the additional information required to make it complete. An application shall be deemed to be complete if the authority having jurisdiction does not notify the applicant in writing by the deadlines in this section that the application is incomplete.

Decision on Application. The authority having jurisdiction shall approve, condition, or deny the application within 120 days after notifying the applicant that the application is complete.

To determine the number of days that have elapsed after the notification that the application is complete, the following periods shall be excluded:

1. All periods of time during which the applicant has been requested by the authority having jurisdiction to correct plans, perform required studies, or provide additional required information, until the determination that the request has been satisfied. The period shall be calculated from the date the authority having jurisdiction notifies the applicant of the need for additional information until the earlier of the date the authority having jurisdiction determines whether the additional information satisfies the request for information or 14 days after the date the information has been provided to the authority having jurisdiction.

2. If the authority having jurisdiction determines that the information submitted by the applicant under item 1 of this subsection is insufficient, the authority having jurisdiction shall notify the applicant of the deficiencies, and the procedures under item 1 of this subsection shall apply as if a new request for information has been made;

3. All extensions of time mutually agreed upon by the applicant and the authority having jurisdiction. If a plumbing permit application is substantially revised by the applicant, the time period shall start from the date at which the revised application is determined to be complete under the Determination of Completeness subsection above.

EXCEPTIONS:

1. When changes to the approved work (plumbing design documents) are made during installation, approval of the authority having jurisdiction shall be obtained prior to execution. The authority having jurisdiction may approve minor changes to the plumbing design documents for work without revisions to the approved plumbing design documents when it is determined that the changes conform to the requirements of this code and other pertinent laws, ordinances, and other issued permits.

2. When the authority having jurisdiction allows a plumbing permit application to be submitted in phases for portions of the building, each phased portion submittal shall meet the requirements applicable to the scope of the allowed phased portion, and the plumbing permit application shall be considered complete for the purpose of Section 104.1 on the date the phased portion submittal is submitted.

NEW SECTION. SECTION 175. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 104.3.2 of the Uniform Plumbing Code is not adopted and the following is substituted:

Plan Review Fees. When a plan or other data is required to be submitted in accordance with UPC 104.3.1, a plan review fee shall be charged at a rate equal to the cost of performing the service in addition to the permit fees specified in K.C.C. 16.32.080.

The authority having jurisdiction may rescind prior approval of reviewed construction documents and deny permit issuance if any of the following conditions develop:

1. Permit applicant has not responded to a plan review invoice notice or request for plan corrections from the assigned plans examiner within 90 days of request.

2. Permit fees have not been paid within 90 days of notification to applicant that plans have been approved and an invoice generated.

EXCEPTION: The authority having jurisdiction may grant an extension to the above time periods upon finding good cause for an extension, such as unforeseen circumstances impeding timely action by the applicant. Any request for an extension must be initiated by the permit applicant. The authority having jurisdiction shall maintain a written record of any extension granted and the reason or reasons for the extension.

SECTION 176. Ordinance 15802, Section 131, as amended, and K.C.C. 16.32.285 are each hereby amended to read as follows:

Section 104.4.2 of the Uniform Plumbing Code is not adopted and the following is substituted:

Validity of Permit (((~~UPC 104.4.2~~))). The issuance of a permit or approval of plans and specifications shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of any other ordinance of the jurisdiction. No permit presuming to give authority to violate or cancel the provisions of this code shall be valid.

The issuance of a permit based upon plans, specifications, or other data shall not prevent the authority having jurisdiction from thereafter requiring the correction of errors contained in the plans, specifications, and other data or from ((~~preventing~~)) halting building operations ((~~being carried on thereunder~~)) when in violation of this code or of other ordinances of this jurisdiction.

Every plumbing permit shall be kept on the site where the work permitted is being performed and shall not be removed until the work has obtained final approval ((~~been finally approved~~)) by the authority having jurisdiction.

Plumbing work authorized by a permit in effect on or after January 1, 2023, shall be performed in accordance with the laws and ordinances in effect when the permit was issued, except when:

1. The authority having jurisdiction determines such work to be ((~~in fact~~)) dangerous, unsafe, insanitary, or a nuisance or a menace to life, health, or property; or

2. A building permit has been approved before January 1, 2023.

SECTION 177. Ordinance 15802, Section 132, as amended, and K.C.C. 16.32.295 are each hereby amended to read as follows:

Section 104.4.5 of the Uniform Plumbing Code is not adopted and the following is substituted:

Suspension, Revocation, or Limitation of Permits (((~~UPC 104.4.5~~))).

1. In addition to other remedies provided by law, the authority having jurisdiction may((~~,~~)) in writing((~~,~~)) suspend, revoke, or limit a permit issued under this code if:

1.1. The permit holder committed a violation of this code, other ordinances, or any rules and regulations adopted by the authority having jurisdiction, in the course of performing activities subject to that permit;

1.2 The permit holder interfered with the authority having jurisdiction in the performance of the authority having jurisdiction's duties relating to the permit;

1.3. The permit was issued in error or on the basis of materially incorrect information supplied to the authority having jurisdiction; or

1.4. Permit fees or costs were paid to the county by check and returned from a financial institution marked nonsufficient funds or canceled.

2. The suspension, revocation, or limitation shall be carried out through the notice and order provisions of K.C.C. Title 23((~~, is effective on the date established by the notice and order and may be appealed to the King County hearing examiner in accordance with the appeal provisions of K.C.C. Title 23~~)).

3. Notwithstanding any other provision of this code, the administrative authority may immediately suspend operations under a permit by issuing a stop work order in accordance with this code.

SECTION 178. Ordinance 15802, Section 133, as amended, and K.C.C. 16.32.306 are each hereby amended to read as follows:

Section 105.2.6 of the Uniform Plumbing Code is not adopted and the following is substituted:

Reinspections (((~~UPC 105.2.6~~))). A reinspection fee may be assessed after the initial inspection for each subsequent inspection ((~~or reinspection~~)) when part or all of the work for which an inspection is called is found by the inspector to be in one or more of the following conditions:

1. Work is not complete ((~~or when required corrections have not been made.~~));

2. Work is not ready for inspection, and/or not under test;

3. Corrections from previous inspection have not been completed;

4. Access to inspection area(s) is denied or not provided;

5. Permit is not properly posted at the work site; and

6. Where applicable, work installed does not conform to approved drawings.

((~~This provision is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before the job is ready for inspection or reinspection.~~

~~Reinspection fees may be assessed when the approved plans are not readily available to the inspector, for failure to provide access on the date for which the inspection is requested, or for deviating from plans when such deviation requires but has not received the approval of the authority having jurisdiction.~~

~~To obtain reinspection, the applicant shall file an application therefor in writing upon a form furnished for that purpose and pay the reinspection fee in accordance with K.C.C. 16.32.095.~~)) This subsection does not allow a reinspection fee to be applied at initial plumbing or gas inspection when the inspection fails due to plumbing or gas installation not complying with this code.

In instances where a reinspection fee((~~s have~~)) has been assessed, no additional inspections ((~~of the work~~)) shall be performed until the required reinspection fees have been paid.

NEW SECTION. SECTION 179. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 308 of the Uniform Plumbing Code is supplemented with the following:

Exterior installations. Unless required to meet other provisions of this code, or where first approved by the authority having jurisdiction, no plumbing or piping system or part thereof shall be installed exterior to a building.

EXCEPTIONS:

1. Rainwater conductors, leaders, gutters, or downspouts.

2. Natural gas, fuel oil, or condensate piping serving exterior equipment.

3. Non-potable water serving irrigation systems, mechanical fill stations, or similar exterior uses.

NEW SECTION. SECTION 180. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 418.3 of the Uniform Plumbing Code is not adopted and the following is substituted:

Floor drains. Floor drains shall be installed in the following areas:

A. Any restroom, toilet facility, or similar area within a building containing two or more water closets or a combination of one water closet and one urinal, except within a dwelling unit. The floor shall slope in accordance with the requirements of UPC 418.5. Any enclosed space containing a water closet or urinal and constructed in such a way as to prevent fixture overflow spillage from reaching a floor drain located outside of the enclosed space shall be provided with a dedicated floor drain within the space.

B. Laundry rooms in commercial buildings and common laundry facilities in multi-family dwelling buildings.

NEW SECTION. SECTION 181. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 418.5 of the Uniform Plumbing Code is supplemented with the following:

Floor slope. Floors shall be sloped to floor drains.

EXCEPTIONS:

1. Floors of parking garages.

2. Where existing floors are constructed such that creating a slope by recess or topping slab is not feasible, a threshold of a minimum 1/4 inch (6 millimeters), but not exceeding 1/2 inch (13 millimeters) in height shall be provided at each entry to the room or area to prevent spillage from entering adjacent spaces.

SECTION 182. Ordinance 19485, Section 151, and K.C.C. 16.32.338 are each hereby amended to read as follows:

Section 501 of the Uniform Plumbing Code is supplemented with the following:

Supplemental Water-Heating Devices (((~~(UPC 501.3)~~))). Potable water heating devices that use refrigerant-to-water heat exchangers shall be approved and installed in accordance with this code and the manufacturer's instructions.

NEW SECTION. SECTION 183. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 608.1 of the Uniform Plumbing Code not adopted and the following is substituted:

Inadequate water pressure. Where the water pressure in the main or other source of supply will not provide a minimum residual water pressure of 15 pounds per square inch (PSI) (103 kilopascals), after allowing for friction and other pressure losses, a tank and a pump or other means that will provide said 15 pounds PSI (103 kilopascals) pressure shall be installed. Where fixtures, fixture fittings, or both are installed that, require residual pressure exceeding 15 PSI (103 kilopascals), such minimum residual pressure shall be provided. ASSE listed temperature or pressure compensating valves, or both, shall be provided with a minimum residual pressure equal to or greater than the

minimum test pressure of the applicable standard, or 20 PSI (138 kilopascals), whichever is greater.

NEW SECTION. SECTION 184. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 609.12 of the Uniform Plumbing Code not adopted and the following is substituted:

Pipe insulation. Domestic water piping within commercial buildings shall be insulated in accordance with the Washington State Energy Code as amended by King County.

NEW SECTION. SECTION 185. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Table 610.3 of the Uniform Plumbing Code is replaced with the following:

Table 610.3

Water supply fixture units (WSFU) and minimum fixture branch pipe sizes[3]

Appliances, appurtenances, or fixtures[2]	**Minimum fixture branch pipe size (inches)[1,4]**	**Private**	**Public**	**Assembly[6]**
Bathtub or combination bath/shower (fill)	0.5	4.0	4.0	
0.75 inch bathtub fill valve	0.75	10.0	10.0	
Bidet	0.5	1.0		
Clothes washer	0.5	4.0	4.0	
Dental unit, cuspidor	0.5		1.0	

Dishwasher, domestic	0.5	1.5	1.5	
Drinking fountain or water cooler	0.5	0.5	0.5	0.75
Hose bibb	0.5	2.5	2.5	
Hose bibb, each additional[8]	0.5	1.0	1.0	
Lavatory[9]	0.5	1.0	1.0	1.0
Lawn sprinkler, each head[5]		1.0	1.0	
Mobile home, each (minimum)		12.0		
Sinks				
Bar	0.5	1.0	2.0	
Clinical faucet	0.5		3.0	
Clinical flushometer valve with or without faucet	1		8.0	
Kitchen, domestic with or without dishwasher	0.5	1.5	1.5	
Laundry	0.5	1.5	1.5	
Service or mop basin	0.5	1.5	3.0	
Washup, each set of faucets	0.5		2.0	
Shower, per head	0.5	2.0	2.0	
Urinal, 1.0 GPF flushometer valve	0.75	See footnote [7]		

Urinal, greater than 1.0 GPF flushometer valve	0.75	See footnote [7]		
Urinal, flush tank	0.5	2.0	2.0	3.0
Urinal, hybrid	0.5	1.0	1.0	1.0
Wash fountain, circular spray	0.75		4.0	
Water closet, 1.6 GPF gravity tank	0.5	2.5	2.5	3.5
Water closet, 1.6 GPF flushometer tank	0.5	2.5	2.5	3.5
Water closet, 1.6 GPF flushometer valve	1	See footnote [7]		
Water closet, greater than 1.6 GPF gravity tank	0.5	3.0	5.5	7.0
Water closet, greater than 1.6 GPF flushometer valve	1	See footnote [7]		

For SI units: 1 inch = 25mm

Footnotes:

1. Size of the cold branch pipe, or both the hot and cold branch pipes.

2. Appliances, appurtenances, or fixtures not referenced in this table shall be permitted to be sized by reference to fixtures having a similar flow rate and frequency of use.

3. The listed fixture unit values represent their load on the cold water building supply. The separate cold water and hot water fixture unit value for fixtures having both hot and cold water connections shall be permitted to be each taken as three-quarter of the listed total value of the fixture.

4. The listed minimum supply branch pipe sizes for individual fixtures are the nominal (I.D.) pipe size.

5. For fixtures or supply connections likely to impose continuous flow demands, determine the required flow in gallons per minute, and add it separately to the demand in gallons per minute for the distribution system or portions.

6. Assembly, Public Use (See UPC Table 422.1).

7. Where sizing flushometer systems, see UPC 610.10.

8. Reduced fixture unit loading for additional hose bibbs is to be used where sizing total building demand and for pipe sizing where more than one hose bibb is supplied by a segment of water distribution pipe. The fixture branch to each hose bibb shall be sized based on 2.5 fixture units.

9. The minimum fixture branch size may be reduced to 3/8 inch when serving a single lavatory.

NEW SECTION. SECTION 186. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Table 702.2(2) of the Uniform Plumbing Code is replaced with the following:

Table 702.2(2)

Discharge capacity in gallons per minute for intermittent flow only[a]

Gallons per minute (gpm)	Fixture units

Up to 7.5	Equals 1 fixture unit
Greater than 7.5 to 15	Equals 2 fixture units
Greater than 15 to 30	Equals 4 fixture units
Greater than 30 to 50	Equals 6 fixture units
Greater than 50 to 100	Equals 12 fixture units
Greater than 100 to 200	Equals 18 fixture units
Greater than 200 to 350	Equals 24 fixture units

For SI units 1 gallon per minute = 0.06 L/s

Footnote:

a. Discharge capacity exceeding 350 gallons per minute shall be determined by the authority having jurisdiction.

NEW SECTION. SECTION 187. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 704.3 of the Uniform Plumbing Code not adopted and the following is substituted:

Commercial sinks. Except where specifically required to be connected indirectly to the drainage system, or when first approved by the authority having jurisdiction, all plumbing fixtures, drains, appurtenances, and appliances, including 3-compartment sinks, shall be directly connected to the drainage system of the building or premises.

SECTION 188. Ordinance 19485, Section 153, and K.C.C. 16.32.340 are each hereby amended to read as follows:

Section 709.1 of the Uniform Plumbing Code is not adopted and the following is substituted:

709.1 General (((~~UPC 709.1~~))). Plumbing fixtures shall be drained to the sanitary waste system by gravity flow and are permitted to be pumped or ejected as allowed in accordance with Section 710.2 or when approved by the authority having jurisdiction.

((~~**EXCEPTION:** Plumbing fixtures are permitted to be pumped or ejected as allowed by UPC 710.2 or approved by the authority having jurisdiction.~~))

NEW SECTION. SECTION 189. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 710.4 of the Uniform Plumbing Code not adopted and the following is substituted:

Discharge line. The discharge line from such ejector, pump, or another mechanical device shall be of approved pressure rated material and be provided with an accessible backwater or swing check valve and gate or ball valve. Where the gravity drainage line to which such discharge line connects is horizontal, the method of connection shall be from the top through a wye branch fitting. The gate or ball valve shall be located on the discharge side of the backwater or check valve. Gate or ball valves, where installed in drainage piping, shall be fullway type with working parts of corrosion-resistant metal. Sizes 4 inches (102 millimeters) or more in diameter shall have cast-iron bodies and sizes less than 4 inches (102 millimeters), cast-iron or copper alloy bodies. Discharge lines from elevator hoistway pumps shall be provided with a check valve and lockable gate or ball valve locked in the open position and located outside of the hoistway.

EXCEPTION: The discharge line of a pump serving an elevator hoistway shall be routed through an air break to an approved indirect receptor. The indirect receptor shall be provided with an outlet, tailpiece, and trap (if applicable) large enough to accommodate the design flow rate of the largest pump discharging to the indirect receptor. The trap seal of such receptor (if applicable) shall be maintained by a trap primer in accordance with UPC 1007.0.

NEW SECTION. SECTION 190. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 710.5 of the Uniform Plumbing Code not adopted and the following is substituted:

Size of building drains and sewers. Building drains or building sewers receiving a discharge from a pump or ejector shall be adequately sized to prevent overloading. Two fixture units shall be allowed for each gallon per minute (4 liters per minute) of flow.

EXCEPTION: Where first approved by the authority having jurisdiction, the discharge from pumps or ejectors provided for periodic testing or emergency use only may be assigned fixture unit loading in accordance with Table 702.2(2). All gravity drainage piping and/or pretreatment devices downstream of such pumps shall be adequately sized for continuous full flow of the pumped discharge under emergency or test conditions.

NEW SECTION. SECTION 191. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 803.3 of the Uniform Plumbing Code is not adopted and the following is substituted:

Pipe size and length. The size of indirect waste piping shall comply with other sections of this code applicable to drainage and vent piping. No vent from indirect waste piping shall combine with a sewer-connected vent but shall extend separately to the outside air. Indirect waste pipes exceeding 5 feet (1,524 millimeters), but less than 15 feet (4,572 millimeters) in length shall be directly trapped, but such traps need not be vented.

Indirect waste pipes less than 15 feet (4,572 millimeters) in length shall be at least the diameter of the drain outlet or tailpiece of the fixture, appliance, or equipment served, and in no case less than 1/2 inch (13 millimeters). Angles and changes of direction in such indirect waste pipes shall be provided with cleanouts to permit flushing and cleaning.

EXCEPTIONS:

1. Gravity indirect waste pipes connected to elevator hoistway drains shall be provided with a normally closed backwater valve or a vented running trap installed in accordance with UPC 1008.1. Where a trap is provided, the trap seal shall be maintained by an automatic electronic trap primer.

2. Unless required by the authority having jurisdiction, traps and vents shall not be required in indirect waste piping from backflow or pressure relief devices or other similar applications intended for emergency use only.

SECTION 192. Ordinance 19485, Section 154, and K.C.C. 16.32.342 are each hereby amended to read as follows:

Chapter 9 of the Uniform Plumbing Code is supplemented with the following:

Air Admittance Valves (((~~UPC 913.0~~))). ((~~Individual fixtures, a branch vent, a vertical wet vent and a horizontal wet vent may terminate with a connection to an air admittance valve as follows:~~

~~1. Fixtures connected to an air admittance valve shall be located on the same floor level.~~

~~2. Air admittance valves shall conform to ASSE 1051 for single fixtures, or ASSE 1050 for multiple fixtures, and shall be installed as required in this section and the manufacturer installation guidelines.~~

~~3. Air admittance valves shall be accessible and located:~~

~~3.1. In an area that allows air to enter the valve.~~

~~3.2. A minimum of 4 inches above the trap arm.~~

~~3.3. A minimum of 6 inches above the flood level rim of the highest fixture being vented, when the air admittance valve serves as a vent termination for a branch vent, or vertical and horizontal wet vent.~~

~~3.4. Not less than 6 inches above insulation materials.~~

~~3.5. Within the maximum developed length permitted for the vent as shown in UPC Table 703.2.~~

~~4. The air admittance valve shall be rated in accordance with the standard for the vent size as determined in UPC Table 703.2.~~

~~5. Not less than one plumbing vent sized as required by UPC 904.1 shall extend to the exterior of the building as required in UPC 906.1.~~

~~6. When a horizontal branch drain uses an individual or branch type air admittance valve, a relief vent shall be installed when the horizontal branch drain is located more than 4 branch intervals from the top of the building drain or waste stack. Installations that require a relief vent shall be:~~

~~6.1. Submitted for an installation design review before approval.~~

~~6.2. Sized in accordance with UPC 904.1~~

~~6.3. Installed in accordance with UPC 905.0.~~

~~6.4. Extended to the outdoors or connect to a vent stack.~~

~~6.5. Permitted to serve as the vent for other fixtures.~~

~~7. Air admittance valve installations are prohibited for:~~

~~7.1. Venting sumps or tanks.~~

~~7.2. Non-neutralized chemical waste systems without a design review and approval by the authority having jurisdiction.~~

~~7.3. Any fixtures connected to a grease or fats, oils or grease (FOG) disposal system.~~

~~7.4. Location in spaces used as supply or return air plenums.~~))

1. General. Vent systems utilizing air admittance valves shall comply with this section.

2. Where Permitted. Individual fixtures, a branch vent, a vertical wet vent, and a horizontal wet vent shall be permitted to terminate with a connection to an air admittance valve. Fixtures connected to an air admittance valve shall be located on the same floor level.

3. Installation. Air admittance valves shall conform to ASSE 1051 for single fixtures, and ASSE 1050 for multiple fixtures, and shall be installed as required in this section and the manufacturer's installations guidelines.

4. Location.

4.1. Air admittance valves shall be accessible and located in an area that allows air to enter the valve.

4.2. The air admittance valve shall be located a minimum of 4 inches (102 millimeters) above the trap arm.

4.3. The air admittance valve that serves as a vent termination for a branch vent, or vertical and horizontal wet vent, shall be located a minimum of 6 inches (152 millimeters) above the flood level rim of the highest fixture being vented.

4.4. The air admittance valve shall be located with the maximum developed length permitted for the vent as shown in Table 703.2.

4.5. The air admittance valve shall be installed at least 6 inches (152 millimeters) above insulation materials.

5. Size. The air admittance valve shall be rated in accordance with the standard for the vent size as determined in Table 703.2.

6. Vent Required. Not less than one plumbing vent sized as required by Section 904.1, shall extend to the exterior of the building as required in Section 906.1

7. Relief Vent. When a horizontal branch drain utilizes an individual or branch type air admittance valve, a relief vent shall be installed when the horizontal branch drain is located more than 4 branch intervals from the top of the building drain (waste stack), and the relief vent shall extend to the outdoors or connect to a vent stack.

The relief vent shall be sized in accordance with Section 904.1, installed in accordance with Section 905.0, and shall be permitted to serve as the vent for other fixtures.

8. Prior Approval. Installations that require a relief vent shall be submitted for an installation design review.

9. Prohibited Installations.

9.1 Sumps. Air admittance valves shall not be utilized to vent sumps or tanks of any type.

9.2 Chemical Waste Systems. Air admittance valves shall not be installed in non-neutralized chemical waste systems without a design review and approval by the authority having jurisdiction.

9.3 FOG Disposal Systems. Air admittance valves shall not be installed on any fixtures that are connected to a fats, oils, and grease (FOG) disposal system.

9.4 Plenums. Air admittance valves shall not be located in spaces utilized as supply or return air plenums.

SECTION 193. Ordinance 19485, Section 155, and K.C.C. 16.32.343 are each hereby amended to read as follows:

Section 1014.1 of the Uniform Plumbing Code is ((~~not adopted and~~)) supplemented with the following ((~~is substituted~~)):

((~~**General (UPC 1014.1).** Where it is determined by the authority having jurisdiction that waste pretreatment is required, an approved type of grease interceptor(s) that complies with ASME A112.14.3, ASME A112.14.4, CSA B481, PDI G-101 or PDI G-102, and sized in accordance with UPC 1014.2.1 or 1014.3.6, shall be installed in~~

~~accordance with the manufacturer's installation instructions to receive the drainage from fixtures or equipment that produce grease laden waste located in areas of establishments where food is prepared or other establishments where grease is introduced into the drainage or sewage system in quantities that can effect line stoppage or hinder sewage treatment or private sewage disposal systems. A combination of hydromechanical, gravity grease interceptors and engineered systems are allowed to meet this code and other applicable requirements of the authority having jurisdictions where space or existing physical constraints of existing buildings require such installations. Grease interceptors are not required for individual dwelling units or private living quarters. Water closets, urinals and other plumbing fixtures conveying human waste shall not drain into or through the grease interceptor. Grease interceptors shall comply with UPC 1014.1.1 through 1014.1.3.~~))

EXCEPTION: A one-family or two-family home that has an approved commercial kitchen or prepares food for public sale shall install a grease interceptor that complies ((~~to~~)) with Section 1014.0 for all fixtures that produce ((~~fats, oils and grease~~)) (((~~(~~))FOG((~~)~~)) waste.

SECTION 194. Ordinance 19485, Section 156, and K.C.C. 16.32.344 are each hereby amended to read as follows:

The Exception to Section 1014.1.3 of the Uniform Plumbing Code is not adopted and the following is substituted:

((~~**Food Waste Disposers and Dishwashers (UPC 1014.1.3).** No food waste disposer or dishwasher shall be connected to or discharge into a grease interceptor.~~

~~Commercial food waste disposers may discharge directly into the buildings drainage system.~~))

EXCEPTION: Food waste disposers may discharge to grease interceptors that are designed to receive ((~~the discharge of~~)) food waste discharge or a listed food solids interceptor shall be installed at the ((~~discharge point of the~~)) food waste disposer discharge point.

SECTION 195. Ordinance 15802, Section 137, as amended, and K.C.C. 16.32.345 are each hereby amended to read as follows:

Chapter 10 of the Uniform Plumbing Code is supplemented with the following:

((~~**Parking Garage Drainage Systems (UPC 1018.1).** All garage floor drainage under the roof of a parking garage shall be connected to the sanitary drainage system, through the use of a sand interceptor. When the top floor of the building is used as a roof as well as a parking area, the drainage from the roof shall be connected to the storm drainage system. Drainage from plumbing fixtures shall not be inter-connected with the garage drainage system; however, drainage lines from car or truck washing equipment may be connected to the approved garage drainage system. Garage drains shall comply with the following:~~

~~1. Garage drain piping shall be a minimum of three inches in size.~~

~~2. A trap shall not be installed at the garage drains. All plans for parking garage drainage systems shall be submitted to the authority having jurisdiction before installation for approval.~~

~~**EXCEPTION:** This section shall not apply to one family or two family dwellings.~~))

Parking Garage Drainage Systems. Parking garage drainage systems shall comply with sections A and B as follows. All plans for parking garage floor drainage systems shall be submitted to the authority having jurisdiction and approved prior to installation.

A. Parking Garage Drains. Drains connected to the parking garage drainage system shall comply with the following:

1. Unless otherwise approved by the authority having jurisdiction, drains serving parking or loading dock areas exposed to precipitation and larger than 200 square feet (18.6 square meters) shall be connected to the building storm drainage system. All other parking garage and/or loading dock drainage shall be connected to the sanitary drainage system using a sand interceptor or oil/water separator.

2. Parking garage drain outlets and connected drainage waste lines shall be a minimum of 3 inches (76 millimeters) in diameter. Drainage piping serving parking garage drains shall be sized in accordance with Table 703.2.

3. Drains of any type connected to the parking garage drainage system shall be equipped with approved strainers and need not be trapped or vented when connected to the building drain though a properly trapped and vented sand interceptor or oil/water separator. Drains at floor level and subject to vehicular traffic shall be equipped with strainers with a load rating appropriate to the use of the parking area served.

4. Traps shall not be used when drains are located in areas exposed to freezing temperatures.

5. The waste line from drains entering a sand interceptor or oil/water separator shall be at an elevation equal to or above the waste line discharging from the sand interceptor or oil/water separator.

6. The sand interceptor or oil/water separator receiving the discharge from parking garage floor drains shall have a water seal of not less than 6 inches (152 millimeters). Sand interceptors shall meet the requirements of Section 1016.0. Oil/water separators shall meet the requirements of Section 1009.0. Submittal information shall be provided to the authority having jurisdiction prior to installation. The water seal of the sand interceptor or oil/water separator shall be maintained by an automatic electronic trap primer discharging not less than 1/2 gallon (2 liters) per day.

B. Drainage from Other Plumbing Fixtures. Drainage from any plumbing fixture other than a parking garage floor drain shall not be interconnected with the parking garage drainage system.

EXCEPTION: Where first approved by the authority having jurisdiction, the following types of drains may be connected to the parking garage drainage system upstream of the sand interceptor or oil/water separator and need not be individually trapped or vented, provided that all drainage piping downstream of such drains, including the sand interceptor or oil/water separator, is sized to accommodate the largest flow of effluent anticipated from any single connected drain under worst case or emergency conditions:

1. Drains within car or truck washing area and drainage lines from car or truck washing equipment.

2. Approved indirect receptors located within the parking garage and accepting drainage from fire/sprinkler standpipes, fire water storage tanks, mechanical condensate, relief valves, or other similar clear water waste only.

3. Approved indirect receptors located within the parking garage and accepting drainage from hoistway pumps or drains required by ASME A17.1, provided the discharge from the sand interceptor or oil/water separator connects to the building drain by gravity and not to a sanitary lift station.

4. Where the sand interceptor or oil/water separator discharges to a sanitary lift station, an approved indirect receptor located within the parking garage and accepting drainage from a pump serving a hoistway containing a fire service access or occupant evacuation operation elevator that is required to be on emergency or standby power per the IBC as adopted by the state of Washington Section 403.4.8.4 or 403.4.8.3 may only be connected to the parking garage drainage system when the floor of the hoistway enclosure is protected from water intrusion in accordance with the IBC as adopted by the state of Washington Section 3007.3. Sanitary lift station pumps shall not be connected to emergency power.

5. Floor drains and indirect receptors within mechanical rooms, water entry rooms, fire pump rooms, and similar spaces where no graywater or blackwater producing fixtures are located, provided such rooms have a door or doors that open directly into the parking garage and are directly and continuously exhausted by mechanical means or provided with permanent fixed openings into the parking garage.

Note: For the purposes of this section, a mop sink, utility sink, or similar fixture shall not be considered an approved indirect receptor.

NEW SECTION. SECTION 196. There is hereby added to K.C.C. chapter 16.32 a new section to read as follows:

Section 1101.12.2.2.2 of the Uniform Plumbing Code is not adopted and the following is substituted:

Combined system. The secondary roof drains shall connect to the vertical piping of the primary storm drainage conductor downstream of the last horizontal offset located below the roof. The primary storm drainage system shall connect to the building storm water that connects to an underground public storm sewer. The combined secondary and primary roof drain systems shall be sized in accordance with UPC 1103.0 based on double the rainfall rate for the local area. A relief drain shall be connected to the combined vertical drainage piping, within 20 feet (6,096 millimeters) of grade, using a wye-type fitting piped to daylight on the exterior of the building. The piping shall be sized as required for a secondary drain with a 4 inch (102 millimeter) maximum diameter.

SECTION 197. Ordinance 1488 (part), as amended, and K.C.C. 16.82.130 are each hereby amended to read as follows:

A. If clearing or grading has occurred on any site that is inconsistent with the purposes and requirements of this chapter in effect at the time of the ((~~action has occurred on a site~~)) clearing or grading, the department shall not accept or grant any other development permit or approval for the site, except any permit or approval necessary ((~~for the correction of~~)) to correct code violations or as may be determined otherwise by the director, until the applicant:

1. Completes site restoration ((~~of the site~~)) or the ((~~appropriate~~)) corrective actions to bring the site into compliance; or

2. Obtains department approval of a permit for the ((~~appropriate~~)) site restoration or corrective action and posts any required financial guarantee.

B. The department shall require ((~~appropriate~~)) site restoration ((~~of the site~~)) or corrective work under an approved ((~~restoration or corrective work~~)) plan that includes a time schedule for compliance. If restoration or corrective work has not been completed within the time established ((~~by the department~~)) in the plan, the director may order restoration or corrective work using ((~~funds from~~)) the department's contingency account((~~s~~)) funds and seek restitution from the property owner through liens or other available legal methods.

C. This section does not limit corrective action requirements or other remedies or penalties ((~~applicable to~~)) under K.C.C. Title 23.

SECTION 198. Ordinance 2097, Section 1, as amended, and K.C.C. 17.04.010 are each hereby amended to read as follows:

The International Fire Code ((~~2018 Edition~~)) ("IFC"), 2021 edition, together with Appendices B (Fire-flow requirements for buildings) ((~~and~~)), C (Fire hydrants location and distribution), and D (Fire apparatus access roads) as published by the International Code Council, as amended in chapter 51-54A WAC, ((~~effective February 1, 2021, and referred to in this title as the International Fire Code ("IFC"),~~)) together with ((~~amendments,~~)) additions, ((~~and~~)) exceptions, deletions, and modifications in this chapter, ((~~adopted in this chapter by reference, together with King County modifications~~)) are adopted as the King County Fire Code, and referred to in this chapter

as "this code." Administrative rules may be adopted in accordance with K.C.C. chapter 2.98 to further clarify and implement these code requirements. ((~~The King County modifications shall be codified in this chapter.~~))

SECTION 199. Ordinance 12560, Section 148, as amended, and K.C.C. 17.04.200 are each hereby amended to read as follows:

Section 104.1 of the International Fire Code is not adopted and the following is substituted:

General (IFC 104.1). The fire marshal is authorized to render interpretations of this code and make and enforce such rules and regulations, in accordance with K.C.C. chapters 2.98 and 2.100, for the prevention and control of fires and fire hazards as necessary to execute the application and the intent of this code, including but not limited to:

((~~1~~)) A. Procedures to ensure that building permits for structures shall conform to the requirements of this code.

((~~2~~)) B. Procedures to ensure that applicable standards of this code shall be reviewed as part of the subdivision, short subdivision, rezone, conditional use, special use, site development permit, binding site plan, and building permit processes.

((~~3~~)) C. Procedures to ((~~assure~~)) ensure that the standard known as ((~~NFPA~~)) National Fire Protection Association 13R shall be applied as a minimum standard to all R occupancies.

((4)) D. Procedures to allow for relaxation of the hydrant spacing requirements by as much as 50 percent, except when such allowances would unreasonably reduce fire protection to the areas or structures served.

SECTION 200. Ordinance 2910, Section 6, as amended, and K.C.C. 17.04.210 are each hereby amended to read as follows:

Section 104.1 of the International Fire Code is supplemented with the following:

Enforcement (IFC 104.1.1).

((~~1~~)) A. The fire marshal is authorized to enforce the provisions of this title, the ordinances codified in it, and any adopted rules and regulations in accordance with the enforcement and penalty provisions of K.C.C. Title 23.

((~~2~~)) B. The fire marshal, any officer of the department of public safety, and the chief of the fire district or designee, is authorized to take such lawful action, including ((~~the writing and issuance of~~)) issuing citations for civil infractions, as may be required to enforce the provisions of the fire lane ordinance codified in this title.

SECTION 201. Ordinance 12560, Section 153, as amended, and K.C.C. 17.04.220 are each hereby amended to read as follows:

Section 104.1 of the International Fire ((~~e~~))Code is supplemented with the following:

Additional conditions (IFC 104.1.2). The fire marshal or designee retains the authority to impose additional conditions, including but not limited to increased setbacks, use of fire-retardant materials, installation of fire sprinkler systems, automatic fire suppression systems, automatic fire detection systems, or standpipes where determined necessary to mitigate identified fire protection impacts.

SECTION 202. Ordinance 12560, Section 149, as amended, and K.C.C. 17.04.280 are each hereby amended to read as follows:

Section 104 of the International Fire Code is supplemented with the following:

Notice to fire districts (IFC ((~~104.12~~)) 104.13).

A. Before submitting an application for a commercial building permit, site development permit, binding site plan, a preliminary subdivision or short subdivision approval, final plat or short plat approval, zoning reclassification, conditional use permit, and special use permit to the department:

1. ((~~t~~))The applicant shall submit a copy of the application to the fire district providing fire protection services to the proposed development;

2. For subdivisions and short subdivisions applied for and((~~/ or~~)) recorded before February 1, 1989, the first building permit applicant shall ((~~be submitted once~~)) submit a copy of the application to the ((~~applicable~~)) fire district providing fire protection services to the development ((~~for review at the time of the first building permit by the applicant for that building permit~~));

3. ((~~i~~))It shall be the responsibility of the fire district to issue a receipt to the applicant the same day it receives a copy of a permit application. The receipt shall constitute proof ((~~to the director~~)) of ((~~the~~)) notification that the district has received a request to complete a fire district receipt;

4. ((~~t~~))The applicant shall include the fire district receipt with the permit application to the department;

5. ((~~i~~))It shall be the responsibility of the fire district to ((~~notify~~)) provide any comments to the fire marshal ((~~of any comments~~)) within seven days of ((~~the receipt of an applied for~~)) receiving a copy of the permit application.

NEW SECTION. SECTION 203. There is hereby added to K.C.C. chapter 17.04 a new section to read as follows:

Section 105.3.1 of the International Fire Code is not adopted and the following is substituted:

Expiration (IFC 105.3.1). Expiration of permits under Title 17 shall be in accordance with Section K.C.C. 16.02.290.

SECTION 204. Ordinance 12560, Section 156, as amended, and K.C.C. 17.04.290 are each hereby amended to read as follows:

Section 105.3.6 of the International Fire Code is supplemented with the following:

Penalties (IFC 105.3.6.1). When installation of a fire protection system, ((~~which requires approval of~~)) requiring the ((~~F~~))fire ((~~M~~))marshal's approval, ((~~is started or proceeded with prior to~~)) occurs before obtaining ((~~said~~)) approval, the ((~~ordinary~~)) fees specified in K.C.C. Title 27 shall be doubled. The payment of such double fee shall not relieve any persons from fully complying with ((~~the~~)) this code's requirements ((~~of this code~~)) in the execution of the work ((~~n~~))or from any other penalties prescribed herein.

NEW SECTION. SECTION 205. There is hereby added to K.C.C. chapter 17.04 a new section to read as follows:

Section 105.5.38 of the International Fire Code is not adopted and the following is substituted:

Outdoor assembly event (IFC 105.5.38). An operational permit is required to conduct an outdoor assembly event where planned attendance exceeds 50 persons.

SECTION 206. Ordinance 17837, Section 75, as amended, and K.C.C. 17.04.295 are each hereby amended to read as follows:

Section ((~~105.7.21~~)) 105.6.20 of the International Fire Code is not adopted and the following is substituted:

Solar photovoltaic power systems (IFC ((~~105.7.21~~)) 105.6.20). A construction permit ((~~shall be~~)) is required to install or modify solar photovoltaic power systems. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

EXCEPTION: Roof-mounted photovoltaic solar panels on one- and two-family dwellings that have a total dead load not exceeding ((f~~our~~)) 4 pounds per square foot (20 kilograms per square meter) and are mounted no more than ((~~eighteen~~)) 18 inches (457 millimeters) above the roof or highest roof point on which they are mounted.

NEW SECTION. SECTION 207. There is hereby added to K.C.C. chapter 17.04 a new section to read as follows:

Section 105.6.21 of the International Fire Code is not adopted and the following is substituted:

Special event structure and assembly area (IFC 105.6.21). A single special event permit is required to erect and take down a temporary special event structure. An application for a special event structure or special event shall be made at least 30 business days before the event: Applications submitted less than 30 business days before the event may be accepted if the department finds that there is adequate time to properly process the request. All applications may require further review by one or more of the following:

A. King County permitting division;

B. King County roads division;

C. King County sheriff's office;

D. Public health - Seattle & King County; and

E. Washington state Department of Labor and Industries.

SECTION 208. Ordinance 14915, Section 25, as amended, and K.C.C. 17.04.310 are each hereby amended to read as follows:

Section ((~~s 109~~)) 111 of the International Fire Code is not adopted.

SECTION 209. Ordinance 14915, Section 26, and K.C.C. 17.04.320 are each hereby amended to read as follows:

Sections ((~~112.1 and 112.2~~)) 113.1 and 113.2 of the International Fire Code are not adopted and the following is substituted:

((~~Order and Issuance (IFC 112.1 and 112.2)~~)) Authority (IFC 113.1).

((~~Whenever~~)) Where any work is being done contrary to the provisions of this code, the fire marshal may order the work stopped in accordance with K.C.C. Title 23 ((~~by notice in writing served on any persons engaged in the doing or causing such work to be done, or by posting such notice in a conspicuous place on the premises where the violation is occurring, and any such persons shall immediately stop such work until authorized by the fire marshal to proceed with the work~~)).

((~~Whenever~~)) Where any work is being done contrary to the provisions of this code, the fire marshal may order the violations corrected without ordering all work stopped by issuing a correction notice which identifies the violation. The correction notice may require reinspection before ((~~further construction~~)) work can resume or at the time of the next required inspection. The correction notice shall be served or posted in the same manner as a stop work order.

These remedies are in addition to those authorized elsewhere in the code.

SECTION 210. Ordinance 19485, Section 166, as amended, and K.C.C. 17.04.330 are each hereby amended to read as follows:

Stop Work Order – Failure to Comply. Section ((~~112.4~~)) 113.4 of the International Fire Code is not adopted ((~~.~~)) and the following is substituted:

Failure to comply (IFC 113.4). The enforcement of a stop work order violation shall be in accordance with K.C.C. Title 23.

SECTION 211. Ordinance 19485, Section 178, and K.C.C. 17.04.341 are each hereby amended to read as follows:

Section 202 of the International Fire Code is supplemented with the following:

Definitions (IFC 202.1). Definitions. The definitions in this section apply throughout this title unless the context clearly requires otherwise.

A. Applicant: a property owner, ((~~or~~)) a public agency, or a public or private utility ((~~which~~)) that owns a right-of-way or ((~~associated~~)) other easement or has been adjudicated the right to such an easement ((~~pursuant to RCW 8.12.090~~)) in accordance with RCW 8.08.040, or any person or entity designated or named in writing by the property or easement owner to be the applicant, in an application for a development proposal, permit, or approval.

B. ((~~Critical fire service areas: Areas that provide vital services for the coordination or implementation of fire suppression services, such as fire command centers, fire pump rooms, interior exit stairways, exit passageways, elevator lobbies, standpipe cabinets and sprinkler sectional valve locations, and other areas required by the fire marshal.~~

((~~C.~~)) Automatic ((~~F~~))fire detection system: a heat and/or smoke detection system monitored by a central and/or remote station conforming to the current edition of the International Fire Code as adopted by the Washington State Building Code Council ((~~and/~~)) or the fire marshal or designee.

((~~D.~~)) C. Fire marshal: ((~~T~~))the King County fire marshal as designated in K.C.C. 2.16.055, or designee.

((~~E~~)) D. Life safety/rescue access: ((~~an~~)) unobstructed access to all floor levels and each roof level of a building on not less than ((~~twenty~~)) 20 percent of the building perimeter by utilizing a ((~~thirty-five~~)) 35 foot (10.7 meter) ladder. An alternate method would be at least one stairway enclosure with exit doorways from each floor level and with a door opening onto each roof level which conforms to the requirements of the International Building Code.

((~~F.~~)) E. NFPA: ((~~T~~))the National Fire Protection Association.

((~~G.~~)) F. Water main: piping used to deliver water to any fire hydrants or to one or more individual service connections.

NEW SECTION. SECTION 212. There is hereby added to K.C.C. chapter 17.04 a new section to read as follows:

Section 322.4 of the International Fire Code is supplemented with the following:

Lithium Batteries – Signage (IFC 322.4.4). The following signs or equivalent markings shall be durably posted at the locations indicated for each lithium-ion and lithium metal battery installation subject to IFC 322.2:

A. Warning signs. The following warning signs shall be posted on the exterior of battery system enclosures:

1. "Danger: High Voltage," or equivalent complying with Electrical Code requirements; and

2. Hazard identification sign complying with NFPA Standard 704.

B. Identification, emergency contact, and emergency shut-down signs. The following signs shall be posted at the fire department connection, if any, utility connection or other approved, conspicuous outdoor location on the premises that is accessible to emergency response personnel and that is a reasonable distance, but not less than 10 feet (3,048 millimeters), from the stationary storage battery system installation. If the location of the signage would not be readily apparent to emergency response personnel, a sign with lettering not less than 3 inches (76 millimeters) high shall be posted on or adjacent to the battery installation indicating the location of the following signage:

1. Permit. The permit for the installation, laminated, or weatherproofed.

2. Equipment specifications. The manufacturer and model number of the battery system and electrical rating, including voltage and current.

3. Monitoring facility contact information. The telephone number of the battery management system remote monitoring facility, if any.

4. Installation identification. The number or other unique identifier used by the battery management system remote monitoring facility, if any, to identify the installation.

5. Emergency shutdown procedures. Emergency shutdown procedures for the battery energy storage system posted at the battery system emergency shut down control and at any attended on-site location. Emergency shutdown instructions should indicate

"GRID SUPPORT SYSTEM" in letters not less than 2 inches (51 millimeters) high if immediate shut down of the battery system could disrupt public utility operations.

SECTION 213. Ordinance 19485, Section 169, and K.C.C. 17.04.375 are each hereby amended to read as follows:

Section 503.2 of the International Fire Code is not adopted and the following is substituted:

Specifications (IFC 503.2). Fire apparatus access roads shall be installed and arranged in accordance with IFC 503.2.1 and IFC 503.2.2 through 503.2.5 and IFC Appendix D.

SECTION 214. Ordinance 19485, Section 170, and K.C.C. 17.04.377 are each hereby amended to read as follows:

Section 503.2.1 of the International Fire Code is not adopted and the following is substituted:

Dimensions (IFC 503.2.1). An approved fire apparatus access road shall be a minimum of 20 feet (6.1 meters) wide and provide a minimum unobstructed height of ((~~13 feet 6 inches~~)) 13.5 feet (4.1 meters).

SECTION 215. Ordinance 12560, Section 165, and K.C.C. 17.04.380 are each hereby amended to read as follows:

Section 503.2.3 of the International Fire Code is not adopted and the following is substituted:

Surface (IFC 503.2.3). Fire apparatus access roads shall be designed and maintained to be accessible with an asphalt, concrete, or other approved driving surface suitable for all-weather driving and capable of supporting the imposed load of fire

apparatus weighing at least 75,000 pounds (34,019 kilograms), or other weight as required by the fire marshal, and shall comply with K.C.C. chapter 14.42 and the provisions of this chapter.

SECTION 216. Ordinance 12560, Section 166, as amended, and K.C.C. 17.04.390 are each hereby amended to read as follows:

Section 503.2.4 of the International Fire Code is not adopted and the following is substituted:

Turning radius (IFC 503.2.4). The turning radius of a fire apparatus access road shall have a 20 foot (6.1 meters) inside and 40 foot (12.2 meters) outside turning radius((~~, or shall be~~)) or as otherwise approved by the ((~~F~~))fire ((~~M~~))marshal.

SECTION 217. Ordinance 14915, Section 45, as amended, and K.C.C. 17.04.400 are each hereby amended to read as follows:

Section 503.2.((4))5 of the International Fire Code is not adopted and the following is substituted:

Dead ends (IFC 503.2.((4))5). Dead-end fire apparatus access roads in excess of 150 feet (((~~(45.72 m)~~))) (45.7 meters) in length shall be provided with an approved cul-de-sac having a 40 foot (12.2 meters) outside turning radius, or a "hammerhead-like" turnaround designed as described ((~~in King County Administrative Rule for Chapter 17-04~~)) by Appendix D, or other designs approved by the ((~~F~~))fire ((~~M~~))marshal.

SECTION 218. Ordinance 7980, Section 1, as amended, and K.C.C. 17.04.420 are each hereby amended to read as follows:

Sections 503.3 and 503.4 of the International Fire Code ((~~is~~)) are not adopted and the following is substituted:

Marking, establishment, and obstruction of fire ((~~lanes~~)) apparatus access roads (IFC 503.3 and 503.4).

((~~1.~~)) A. Establishment of fire ((~~lanes~~)) apparatus access roads. Fire ((~~lanes~~)) apparatus access roads in conformance with this code shall be established by the fire marshal, and shall be referred to as "designated fire lanes" in this section.

((~~2.~~)) B. Definition of fire lanes. ((~~The area within any public right-of-way, easement or on private property designated for the purpose of allowing fire trucks and other firefighting or emergency equipment to use, travel upon and park~~)) A road or other passageway developed to allow the passage of fire apparatus. A fire lane is not necessarily intended for vehicular traffic other than fire apparatus.

((~~3.~~)) C. Marking of fire lanes. All designated fire lanes shall be clearly marked as follows:

((~~3.~~))1. Vertical curbs shall be painted red on the top and side, extending the length of the designated fire lane. The pavement adjacent to the painted curbs shall be marked with minimum 18 inch (457 millimeters) in height block lettering with a minimum 3((-)) inch (76 millimeters) brush stroke reading: "NO PARKING - FIRE LANE." Lettering shall be white and spaced at 50 foot (15.2 meters) intervals or portion thereof ((~~intervals~~));

((~~3.~~))2. Rolled curbs or surface without curbs shall have a red 6((-)) inch-wide (152 millimeters) stripe painted extending the length of the designated fire lane. The surface adjacent to the stripe shall be marked with minimum 18 inch (457 millimeters) in height block lettering with a minimum 3((-)) inch (76 millimeters) brush stroke reading:

"NO PARKING - FIRE LANE." Lettering shall be in white and spaced at 50 ((~~ft.~~)) feet (15.2 meters) intervals or portion thereof ((~~intervals~~)); or

((~~3.~~))3. Fire lane signs shall be installed as follows:

a. Signs shall be a type "R8-31" reflective sign or of an equivalent reflectivity.

b. Red letters on white background with the wording: "NO PARKING - FIRE LANE". See figure IFC 503.3.1 as examples of approved signage.

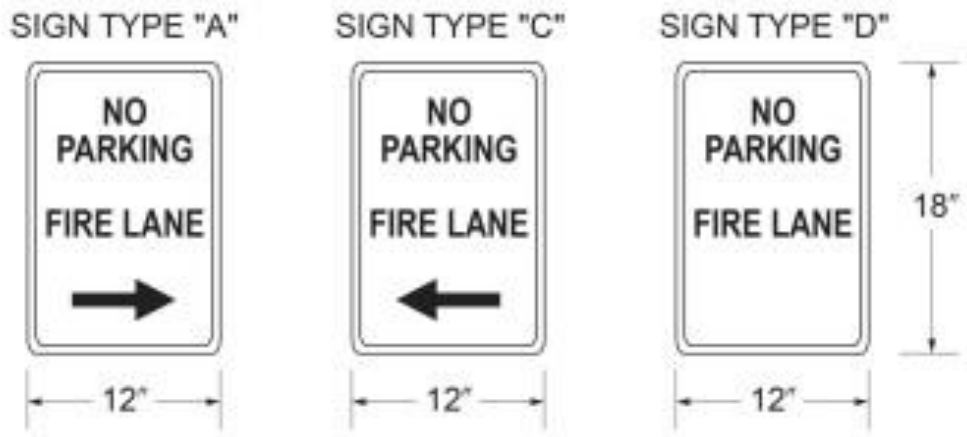


Figure 503.3.1 Examples of approved designs.

c. Signs shall be no less than 12 inches (305 millimeters) by 18 inches (457 millimeters) in size and shall be placed at a maximum center-to-center spacing of 150 feet (45.7 meters) on both sides of the fire lane, or an additional sign may be ((~~put~~)) placed beneath the fire lane sign lettered as: "BOTH SIDES".

d. Signs shall be posted at a minimum height of 7 feet (2,134 millimeters) measured from the road or sidewalk to the bottom of the sign, unless required otherwise by this section.

e. Signs may be placed on a fence or building when approved by the fire marshal. When signs are wall or fence mounted, they shall be posted at a minimum

height of 5 feet (1,524 millimeters) measured from the road or sidewalk to the top of the sign.

f. When posts are required, they shall meet current road standards in K.C.C. chapter 14.42. Signs shall be placed so they face the direction of the vehicular travel.

g. Sign numbers and spacing may be modified by the King County fire marshal.

((~~4.~~)) D. Obstruction of Fire Lanes Prohibited. Unless required otherwise by this chapter, the obstruction of a designated fire lane by a parked vehicle or any other object is prohibited, shall constitute a traffic hazard as defined in state law and an immediate hazard to life and property.

((~~5.~~)) E. Alternate materials and methods. The fire marshal may modify any of the provisions of this section where practical difficulties exist. ((~~The particulars of a~~)) Any modifications ((~~that are~~)) approved by the fire marshal shall be entered into the final records for the project permit.

((~~6.~~)) F. Existing fire lane signs and markings.

((~~6.1.~~)) 1. Signs that are a minimum 9 inches by 16 inches (229 millimeters by 406 millimeters) may be allowed to remain until there is a need for replacement and at that time a 12 inch (305 millimeters) by 18 inch (457 millimeters) sign shall be installed.

((~~6.2.~~)) 2. Markings may be allowed to remain until there is a need for repainting. When markings are repainted, they shall comply with subsection ((~~3.~~)) C. of this section.

((~~7.~~)) G. Maintenance. Fire lane markings shall be maintained at the property owner's expense ((~~of the property owner~~)) as often as needed to clearly identify the ((~~designated~~)) area as ((~~being~~)) a designated fire lane.

((~~8.~~)) H. Towing notification. At each entrance to property ((~~where~~)) with designated fire lanes ((~~have been designated~~)), signs shall be posted in a clearly conspicuous location and shall clearly state that vehicles parked in fire lanes may be impounded, and the name, telephone number, and address of the towing firm where the vehicle may be collected.

((~~9.~~)) I. Property owner responsible. The owner, manager, or person in charge of any property upon which designated fire lanes have been established shall prevent the parking of vehicles or placement of other obstructions in such fire lanes.

((~~10.~~)) J. Violation - Civil infraction. Any person who fails to mark or maintain the marking of a designated fire lane as prescribed in this chapter, or who parks a vehicle in, allows the parking of a vehicle in, obstructs, or allows the obstruction of a designated fire lane commits a civil infraction to which the provisions of chapter 7.80 RCW shall apply. The penalty for failing to mark or maintain the marking of a designated fire lane shall be one hundred and fifty dollars. The penalty for parking a vehicle in, allowing the parking of a vehicle in, obstructing, or allowing the obstruction of a designated fire lane shall be fifty dollars.

((~~11.~~)) K. Violation - Civil penalty. In addition to, or as an alternative to, the provisions of subsection ((~~10.~~)) J. of this section, any person who fails to meet the provisions of the fire lane requirements codified in this title ((~~shall~~)) may be subject to civil penalties ((~~in conformance with~~)) under K.C.C. Title 23.

((~~12.~~)) L. Impoundment. Any vehicle or object obstructing a designated fire lane is hereby declared a traffic hazard and may be abated without prior notification to its owner by impoundment in accordance with the applicable state law.

SECTION 219. Ordinance 19485, Section 173, and K.C.C. 17.04.425 are each hereby amended to read as follows:

Section 503.6 of the International Fire Code is not adopted and the following is substituted.

Security gates, bollards, or other obstructions (IFC 503.6).

((~~1.~~)) A. The installation of security gates, bollards, or other obstructions across a fire apparatus access road shall not be allowed unless approved by the fire marshal. The use of directional-limiting devices, such as tire spikes, is prohibited. Where security gates, bollards, or other obstructions are installed, they shall have an approved means of emergency operation. The security gates, bollards, or other obstructions and the emergency operation shall be maintained so that they are operational at all times.

((~~2.~~)) B. Electric gate operators, where provided, shall be listed in accordance with Underwriter Laboratories (UL) 325. Gates intended for automatic operation shall be designed, constructed, and installed to comply with the requirements of American Society for Testing and Materials (ASTM) F 2200 and shall be equipped with equipment approved by the fire marshal that allows for operation of the gate by fire and police personnel from their vehicle.

((~~3.~~)) C. Gates shall be at a minimum as wide as the required fire apparatus access road width. Gates, bollards, or other obstructions on commercial properties shall be set back at least 30 feet (9.1 meters) from roadway edge of pavement. Where a fence

is provided on each side of a gate for a commercial property, an access door shall be provided at an approved location with a secure key box that is approved by the fire marshal.

EXCEPTION: Automated gates with equipment approved by the fire marshal that allow for operation of the gate by fire and police personnel from their vehicle are not required to be set back 30 feet (9.1 meters) from the roadway edge of pavement if the roadway is not a principal or collector arterial or a road with lane markers.

SECTION 220. Ordinance 19485, Section 175, as amended, and K.C.C. 17.04.447 are each hereby amended to read as follows:

Section 504 of the International Fire Code is supplemented with the following:

Buildings with enclosed interior courtyards (IFC 504.5). New buildings with enclosed interior courtyards shall have a straight, direct access corridor or stairway or both from the exterior to the courtyard at a location acceptable to the fire marshal. Stairways shall comply with IFC 1011 and corridors shall comply with IFC 1020. The access shall have a minimum width of 4 feet (1,219 millimeters), or an alternative width as ((~~directed~~)) approved by the fire marshal((~~,~~)) and be large enough to carry a 35-foot((~~-long~~)) (10.7 meter) sectional ladder, with a minimum folded length of 20 feet (6.1 meters), directly from the exterior to the courtyard without obstructions. The access door shall be marked at the road as "Direct access to courtyard."

SECTION 221. Ordinance 19485, Section 178, and K.C.C. 17.04.462 are each hereby amended to read as follows:

Section 510.1 of the International Fire Code is not adopted and the following is substituted:

Emergency responder ((~~radio~~)) communication coverage in new buildings (IFC 510.1). ((~~New buildings meeting the conditions of this section shall have an approved radio coverage system for emergency responders installed in accordance with IFC 510.4 through 510.5.5 and NFPA 1221. Radio coverage is based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building.~~)) Approved in-building, emergency responder communications enhancement system (ERCES) for emergency responders shall be provided in new buildings, as defined by this section. In-building ERCES within the building shall be based on the existing coverage levels of the public safety communication systems utilized by the jurisdiction, measured at the exterior of the building. Where required, the two-way emergency responder communications coverage system, shall be of a type determined by the fire code official and the frequency license holder(s). This section shall not require improvement((~~s~~)) of the existing public safety communication system. An approved ((~~radio coverage~~)) communication enhancement system shall be provided within new buildings meeting any of the following conditions:

((~~1.~~) A. High-rise buildings;

((~~2. The~~)) B. Buildings with total building area ((~~is~~)) of 50,000 square feet (4,645.2 square meters) or more;

((~~3. The~~)) C. Buildings with total basement area ((~~is~~)) of 10,000 square feet (929 square meters) or more;

((~~4. There are~~)) D. Buildings with floors used for human occupancy more than 30 feet (9,144 millimeters) below the finished floor of the lowest level of exit discharge; or

((~~5.~~)) E. Buildings or structures where the fire marshal determines, in consultation with the fire chief, that in-building radio coverage is critical because of its unique design, location, use, or occupancy.

EXCEPTIONS:

1. Buildings and areas of buildings that have minimum radio coverage signal strength levels of the public safety radio operator within the building in accordance with IFC 510.4.1 without the use of a radio coverage system.

2. In facilities where emergency responder radio coverage is required and such systems, components, or equipment required could have a negative impact on the normal operations of that facility, the fire marshal shall have the authority to accept an automatically activated emergency responder radio coverage system.

3. One- and two-family dwellings and townhouses.

4. Where ((~~it is determined by~~)) the fire marshal determines that the radio coverage system is not needed.

5. Where approved by the building official and the fire marshal, a wired communication system in accordance with IFC Section 907.2.13.2 shall be permitted to be installed or maintained instead of an approved communication coverage system.

SECTION 222. Ordinance 19485, Section 180, and K.C.C. 17.04.467 are each hereby amended to read as follows:

Section 510.4.1.2 of the International Fire Code is not adopted and the following is substituted:

Minimum signal strength out of the building (IFC 510.4.1.2). The minimum outbound signal strength shall be sufficient to provide usable voice communications

throughout the coverage area as specified by the fire marshal. The outbound signal level shall be sufficient to provide not less than a DAQ of 3((.4)) or an equivalent SINR applicable to the technology for either analog or digital signals. A minimum signal strength of -100 dBm shall be received by the public safety radio operator when transmitted from within the building.

SECTION 223. Ordinance 19485, Section 184, and K.C.C. 17.04.476 are each hereby amended to read as follows:

Section ((~~510.5.1~~)) 510.5.2 of the International Fire Code is not adopted and the following is substituted:

Approval prior to installation (IFC ((~~510.5.1~~)) 510.5.2). Amplification systems capable of operating on frequencies licensed to any public safety agency by the FCC or other radio licensing authority shall not be activated to rebroadcast without prior coordination and approval of the fire marshal and public safety radio system operator.

SECTION 224. Ordinance 19485, Section 192, and K.C.C. 17.04.489 are each hereby amended to read as follows:

Section 901.1 of the International Fire Code is not adopted and the following is substituted:

Scope (IFC 901.1). This chapter specifies where fire protection and life safety systems are required and applies to the design, installation, inspection, operation, testing, and maintenance of fire protection and life safety systems.

((~~1. ADDITIONAL REQUIREMENTS.~~)) A. Additional requirements:

((~~1.~~))1. The fire marshal retains the authority under the IFC to impose additional conditions, including but not limited to increased setbacks, use of fire-retardant materials, or standpipes where determined necessary to mitigate identified fire protection impacts.

((~~1.~~))2. This chapter applies to all buildings or structures undergoing a substantial improvement as defined in K.C.C. chapter 21A.06.

((~~1.~~))3. Any additions to an existing building or structure shall be considered new construction and subject the entire structure to the provisions of this chapter.

((~~1.~~))4. All condominiums shall have the following wording in the recorded Declaration of Covenants and a copy of the document shall be provided to the fire marshal:

((~~1.4.1.~~)) a. If any unit is equipped with a sprinkler system, nothing shall be hung from the sprinklers comprising a part of the system nor shall any such sprinklers be painted, covered, or otherwise changed, tampered with, or altered ((~~.~~)) ; and

((~~1.4.2.~~)) b. Before any alteration, amendment, modification, or change ((~~thereof~~)) to any part of the sprinkler system, the owners or their agents shall submit such alteration, amendment, modification, or change to the fire marshal for approval and agree to comply with all applicable sprinkler requirements.

SECTION 225. Ordinance 12560, Section 171, and K.C.C. 17.04.520 are each hereby amended to read as follows:

Section 903.1 of the International Fire Code is not adopted and the following is substituted:

General (IFC 903.1).

((~~1.~~)) A. An automatic fire ((~~-extinguishing~~)) sprinkler system shall be installed in the occupancies and locations in accordance with IFC 903.2.

For provisions on special hazards and hazardous materials, see IFC 901.4.4.

((~~2.~~)) B. The provisions of this section shall apply to all buildings undergoing a substantial improvement as defined in K.C.C. chapter 21A.06.

((~~3.~~)) C. Any additions to an existing structure shall be considered new construction and subject the entire structure to the provisions of this section.

EXCEPTION: A one-time exemption for buildings regulated by the International Residential Code (IRC) shall be allowed for a single addition not to exceed 500 square feet (46.5 square meters), unless sprinklers or other fire protection systems are required by other statutes.

((~~4. All condominiums shall have the following wording in the recorded Declaration of Covenants and a copy of the document shall be provided to the fire marshal:~~

~~4.1. If any unit is equipped with a sprinkler system, nothing shall be hung from the sprinklers comprising a part of the system nor shall any such sprinklers be painted, covered or otherwise changed, tampered with or altered.~~

~~4.2. Before any alteration, amendment, modification or change thereof, the owners or their agents shall submit such alteration, amendment, modification or change to the fire marshal for approval and agrees to comply with all applicable sprinkler requirements.~~))

SECTION 226. Ordinance 12560, Section 174, as amended, and K.C.C. 17.04.560 are each hereby amended to read as follows:

Section 903.2.11 of the International Fire Code is supplemented with the following:

Habitable space of structures built under the IRC (IFC 903.2.11.8). An automatic sprinkler system shall be installed in the habitable space of structures built under the ((~~International Residential Code (~~))IRC((~~)~~)) when:

((~~1.~~)) A. There is no approved fire access ((~~as defined in K.C.C. Title 14 and~~)) in accordance with IFC 503; or

((~~2.~~)) B. The structure has a total floor area, including basements, that exceed 10,000 square feet (929 square meters); or((~~:~~))

((~~3.~~)) C. There is not:

((~~3.~~))1. A minimum fire flow of 1,000 gallons per minute (63.1 liters per second) as defined in IFC Appendix B; or

((~~3.~~))2. A fire hydrant within ((~~400 feet or~~)) 600 feet (182.8 meters) of the property line for R-3 and U occupancies, and 400 feet (121.9 meters) for all other occupancies, ((~~of the property line~~)) as outlined in IFC 507.5.1.

((~~**EXCEPTIONS:** Structures are located on lots that:~~

~~1. Are sized 35,000 square feet or larger;~~

~~2. Are outside the Urban Growth Area; and~~

~~3. Have a residential use as the primary land use.~~))

SECTION 227. Ordinance 19485, Section 196, as amended, and K.C.C. 17.04.563 are each hereby amended to read as follows:

Section 903.2 of the International Fire Code is supplemented with the following:

Specific buildings areas and hazards – Buildings exceeding 10,000 square feet

(929 square meters) (IFC 903.2.13). An automatic sprinkler system, installed in accordance with IFC 903.2((,)) and 901.4.3 ((~~and 901.4.4~~)) shall be provided throughout all buildings where the total floor area, including basements, exceeds 10,000 square feet (929 square meters). For the purposes of this section, portions of buildings separated by one or more fire walls shall not be considered a separate building.

Existing buildings shall comply with this section when an addition is made to the building and the new total floor area, including basements, exceeds 10,000 square feet (929 square meters), or an existing building exceeding 10,000 square feet (929 square meters) is substantially improved as defined in K.C.C. chapter 21A.06.

SECTION 228. Ordinance 19485, Section 7, and K.C.C. 17.04.572 are each hereby amended to read as follows:

Section 903.3.1 of the International Fire Code is not adopted and the following is substituted:

Installation requirements – standards (IFC 903.3.1). Sprinkler systems shall be designed and installed in accordance with IFC 903.3.1.1, unless otherwise permitted by IFC 903.3.1.2, 903.3.1.3, and other chapters of this code, as applicable. In addition, sprinkler systems shall be designed with a buffer to account for water system fluctuations to include a low reservoir condition. Such buffer shall be ((~~five~~)) 5 pounds per square inch (PSI) (34.5 kilopascals) for static pressures less than 50 PSI (344.7 kilopascals) and 10 PSI (69 kilopascals) for static pressures above 50 PSI (344.7 kilopascals). Permit applicants shall independently verify site specific static pressure at the following intervals:

1. Before initiating sprinkler system;

2. Before installing sprinkler piping, including the underground supply; and

3. Before requesting a cover inspection.

SECTION 229. Ordinance 19485, Section 198, as amended, and K.C.C. 17.04.574 are each hereby amended to read as follows:

Section 903.4.3 of the International Fire Code is not adopted and the following is substituted:

Floor control valves (IFC 903.4.3). Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor. The floor control valves shall be located within stair enclosures and within ((~~six~~)) 6 feet (1,829 millimeters) of floors or landings unless chains or other approved devices are readily available.

EXCEPTION: In buildings without stair enclosures, the location of the floor control valves shall be determined by the fire marshal.

SECTION 230. Ordinance 19485, Section 200, as amended, and K.C.C. 17.04.582 are each hereby amended to read as follows:

Section 905.3.1 of the International Fire Code is not adopted and the following is substituted:

Height (IFC 905.3.1). Class I standpipe systems shall be installed throughout buildings where any of the following conditions exist:

1. Four or more stories are above or below grade plane((~~.~~));

2. The floor level of the highest story is located more than 30 feet (((~~9144 mm~~)) 9.1 meters) above the lowest level of the fire apparatus access((~~.~~)); or

3. The floor level of the lowest story is located more than 30 feet (((~~9144 mm~~)) 9.1 meters) below the highest level of fire apparatus access.

EXCEPTIONS:

1. Class II standpipes may be used for hose connections in open parking garages in accordance with IFC 905.5.

2. In determining the lowest level of fire apparatus access, the following does not apply:

2.1. Recessed loading docks for four vehicles or less.

2.2. Conditions where topography makes access from the fire apparatus to the building impractical or impossible.

SECTION 231. Ordinance 19485, Section 201, as amended, and K.C.C. 17.04.590 are each hereby amended to read as follows:

Section 912.2 of the International Fire Code is supplemented with the following:

Distance (IFC 912.2.3). Fire apparatus connections shall not be located on a building unless approved by the fire marshal, and shall be located within 50 feet (15,240 millimeters) of a required fire hydrant.

NEW SECTION. SECTION 232. There is hereby added to K.C.C. chapter 17.04 a new section to read as follows:

Section D103.2 of the International Fire Code is not adopted and the following is substituted:

Grade (IFC D103.2). The gradient for a fire apparatus access road shall not exceed 15 percent at any point.

NEW SECTION. SECTION 233. There is hereby added to K.C.C. chapter 17.04 a new section to read as follows:

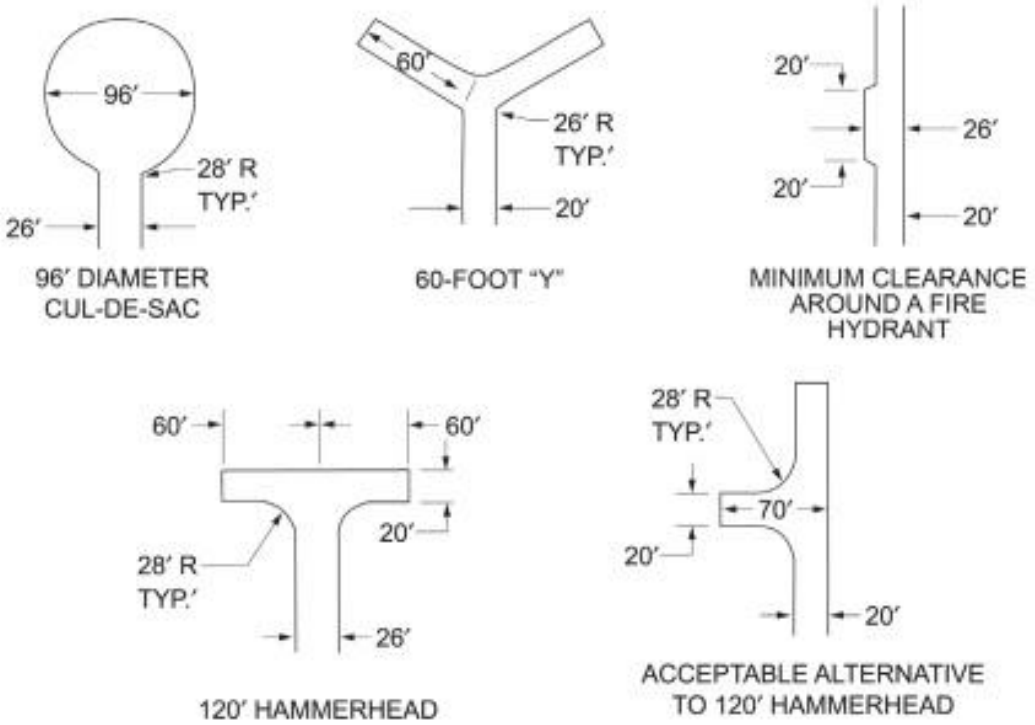
Section D103.3 of the International Fire Code is not adopted and the following is substituted:

Turning radius (IFC D103.3). The turning radius of a fire apparatus access road shall have a 20 foot (6.1 meters) inside and 40 foot (12.2 meters) outside turning radius or as otherwise approved by the fire marshal.

NEW SECTION. SECTION 234. There is hereby added to K.C.C. chapter 17.04 a new section to read as follows:

Section D103.4 of the International Fire Code is not adopted and the following is substituted:

Dead ends (IFC D103.4). Dead-end fire apparatus access roads in excess of 150 feet (45.7 meters) in length shall be provided with an approved cul-de-sac having a 40 foot (12.2 meters) turning radius, or "hammerhead-like" turnaround designed as described by this Appendix D or other designs approved by the fire marshal. See figure D103.4.1 for examples of approved designs.



For SI: 1 foot = 305 millimeters

D103.4.1 Examples of approved designs.

NEW SECTION. SECTION 235. There is hereby added to K.C.C. chapter 17.04 a new section to read as follows:

Section D103.5 of the International Fire Code is not adopted and the following is substituted:

Fire apparatus access road gates (IFC D103.5). Fire apparatus access road gates shall comply with IFC 503.6.

NEW SECTION. SECTION 236. There is hereby added to K.C.C. chapter 17.04 a new section to read as follows:

Section D103.6 of the International Fire Code is not adopted and the following is substituted:

Signs (IFC D103.6). Signs shall comply with IFC 503.3.

SECTION 237. Ordinance 5828, Section 3, as amended, and K.C.C. 17.08.020 are each hereby amended to read as follows:

A. Subdivisions and short subdivisions are required to be provided with water mains and fire hydrants meeting IFC Appendix C, consistent with county standards and state Department of Social and Health Services principles of water system design as a condition of final plat or short plat approval unless exempt under K.C.C. 17.08.030.

B. All structures or additions thereto erected under a building permit shall be served by operational water mains and fire hydrants consistent with county standards before:

1. the start or installation of combustible construction; or

2. construction of a second floor if the building is noncombustible, whichever occurs first, unless exempt under K.C.C. 17.08.030.

C. ((~~Mobile home parks~~)) Manufactured home communities and recreational vehicle parks shall be required to provide water mains and fire hydrants consistent with county standards as a condition of final site plan approval.

D. Permits or approvals for uses not involving a structure shall be served by water mains and fire hydrants consistent with county standards.

E. All new water mains and all additions and extensions to existing water mains shall mee the requirements of this chapter if water mains which serve only uses exempt under K.C.C. 17.08.030 are also exempt from the requirements of this chapter.

F. All water purveyor comprehensive plans approved under K.C.C. chapter 13.24 shall be consistent with this chapter.

G. All water mains and fire hydrants shall be served by a water district or water purveyor in accordance with a current water comprehensive plan approved under K.C.C. chapter 13.24, or by other adequate means providing service levels consistent with the provisions of this chapter.

SECTION 238. Ordinance 5828, Section 4, as amended, and K.C.C. 17.08.030 are each hereby amended to read as follows:

A. The following permits and approvals are exempt from the fire flow and fire hydrant requirements of this title. These exemptions do not exempt any development from compliance with the requirements of state law.

1. ((~~Subdivisions and short subdivisions located outside the Urban Growth Area and that do not contain a lot less than thirty-five thousand square feet in size.~~

~~2. Building permits for buildings with one or two dwelling units located outside the Urban Growth Area, only if the lot is at least thirty-five thousand square feet in size.~~

~~3.~~)) Building permits for structures classified as Group U occupancies under the ((~~International Building Code~~)) IBC that conform to the definition of agricultural buildings in Appendix C of the ((~~International Building Code~~)) IBC only if the structures are located outside the Urban Growth Area.

((~~4. Building permits for structures that are:~~

~~a. two-thousand-five hundred square feet in floor area, excluding garage or less;~~

~~b. served by a Group B water system; and~~

~~c. located outside the Urban Growth Area.~~

~~5. Building permits for structures that are more than two-thousand-five hundred square feet in floor area (excluding garages) and comply with subsection A.4.b. and c. of this section, shall be exempt if the fire marshal determines that the project will not create a substantial fire hazard.~~))

B. The fire marshal shall have the authority to impose conditions including, but not limited to, increased setbacks, use of fire-retardant materials, or sprinkler system requirements on permits exempt under subsection A. of this section where necessary to mitigate identified fire ((~~hazards~~)) protection impacts.

((~~C. Building permits and subdivisions and short subdivisions exempt under subsection A. of this section shall as a condition of approval, record a covenant running with the land which acknowledges the absence of fire hydrants and by which owners of the property and their successors are deemed to have agreed to participate in and not oppose or protest annexation to a public water district or the formation of a utility local improvement district for installation of water mains and fire hydrants consistent with applicable county standards. However, this condition shall not apply when the lot is five acres or larger, or the proposed subdivision, short subdivision or structure is located outside the Urban Growth Area.~~))

SECTION 239. Ordinance 5828, Section 10, as amended, and K.C.C. 17.08.090 are each hereby amended to read as follows:

A. The fire marshal shall have the authority to approve deviations from the standards established under this chapter when it is shown that:

1. Strict compliance would require unreasonable fire hydrant locations, fire flow requirements, or water main sizes; and

2. The variance would not unreasonably affect adequate fire protection to the area or structures served.

B. The fire marshal may approve variances, except as provided in subsection C. of this section for connections to single family residences served by an existing water system that have fire hydrants and fire flow of at least ((~~five hundred~~)) 500 gallons (1,893 liters) per minute if the variance would not unreasonably affect fire protection and only if the purveyor's approved comprehensive plan includes a method for increasing fire flow to current standards.

C. The fire marshal shall not approve any variance which would result in a violation of chapters 246-290 and 246-293 WAC without prior approval of the Washington state Department of Social and Health Services.

SECTION 240. Ordinance 3316, Section 4, as amended, and K.C.C. 17.08.100 are each hereby amended to read as follows:

A. Water authorities shall not be required to exercise police or regulatory powers ((~~toward the~~)) for enforcement of this chapter. The only role of water authorities shall be to provide information, such as:

1. The county may request the water authority ((~~may be requested by the county~~)) to indicate in writing its capability to provide water service, consistent with the standards contained in this chapter, to any building permit, subdivision, or short subdivision applicant, or to the county; and

2. The fire marshal may require the water authority ((~~may be required by the fire marshal~~)) to notify the fire department in writing when a water system installed pursuant to this chapter is available for use.

B. King County is solely responsible for ((E))enforcement ((~~responsibility, for~~)) and determining whether ((~~or not~~)) to approve a building permit, subdivision, or short subdivision application, based on information provided by the water authority((~~, shall belong solely to King County~~)).

SECTION 241. Ordinance 14915, Section 125, as amended, and K.C.C. 17.08.140 are each hereby amended to read as follows:

No more than ((~~sixty~~)) 60 feet (18.3 meters) of piping that connects the customer's plumbing system to the purveyor's water main or water meter shall be located in any public road right-of-way unless approved in accordance with K.C.C. chapter 14.28.

SECTION 242. Ordinance 19276, Section 7, and K.C.C. 17.11.040 are each hereby amended to read as follows:

A. The retail sale of fireworks in unincorporated King County is prohibited.

B. The use, discharge, or display of fireworks in unincorporated King County is prohibited absent a permit issued by the county pursuant to RCW 70.77.260(2) and this section.

C. Any person ((~~desiring~~)) seeking to ((~~give~~)) provide a public display of fireworks shall submit to the fire marshal a((~~n~~)) permit application ((~~for a permit to operate~~)) for the public display. This is in addition to any permits required by Section 105 of the International Fire Code for pyrotechnic special effects material and use of hazardous materials. Public displays of fireworks shall not be permitted more than two days per calendar year on any site as defined in K.C.C. 21A.06.1170.

D. A complete permit application for a public display of fireworks shall be made at least twenty days ((~~in advance of~~)) before the date set for the public display.

((~~Applications received after that date~~)) Untimely or incomplete applications shall be denied.

E. The fee for the permit shall be as established in K.C.C. Title 27. The permit required by this section shall be in addition to any license required by the state fire marshal under chapter 70.77 RCW. Permits for displays of fireworks for religious purposes shall not be subject to a fee, in accordance with RCW 70.77.311(2).

F.1. For any scheduled public display, applicants shall submit such information as ((~~deemed appropriate~~)) required by the department of local services and the sheriff's office to ensure that adequate traffic control and crowd protection ((~~policing~~)) services has either been arranged through private security agencies or ((~~has been~~)) contracted for with the sheriff.

2. A written notice that the applicant has complied with this requirement shall be issued by the sheriff to the fire marshal before a public display permit is issued.

3. If the applicant contracts for traffic control and crowd protection ((~~policing~~)) services with King County, the ((~~sum~~)) agreed upon ((~~in~~)) payment ((~~for the policing~~)) shall not be less than the actual expense incurred by the county in providing that service. The compensation for a traffic control contract ((~~for traffic control~~)) and crowd protection ((~~policing~~)) services with King County shall be calculated ((~~for~~)) as personnel resources ((~~in~~)) by the hourly rate for overtime under the current collective bargaining agreement, plus the percentage being paid for fringe benefits, and all sums paid under the contract shall be paid in accordance with procedures specified by the county treasurer.

G. Every public display of fireworks shall be conducted with a pyrotechnic operator licensed by the state of Washington under RCW 70.77.255 supervising the

handling and discharge of the fireworks.

H. A bond or certificate of insurance must be furnished to the department of local services before a permit is issued. The bond shall be in the amount of one million dollars and shall be conditioned upon the applicant's payment of all damages to persons and property resulting from or caused by the public display of fireworks, or by any negligence on the part of the applicant or its agents, servants, employees, or subcontractors in the ((~~presentation of the~~)) public display of fireworks. The certificate of insurance shall evidence a comprehensive general liability insurance policy providing limits of one million dollars combined single limit, per occurrence and annual aggregate, and naming King County as an additional insured. ((~~Any s~~))Such a bond or insurance policy must be approved by the fire marshal.

I. A cash deposit in the amount of one hundred fifty dollars to provide for costs of site cleanup must be posted with the department of local services at least twenty days ((~~in advance of~~)) before the public display date ((~~ to provide for costs of site cleanup~~)). The deposit shall be forfeited to King County if the operator fails to perform such cleanup within six days after the public display. If the operator properly performs the cleanup, the deposit shall be returned to the operator.

SECTION 243. Ordinance 19276, Section 9, and K.C.C. 17.11.060 are each hereby amended to read as follows:

A. A violation of this chapter is a misdemeanor and is punishable as prescribed by law.

B. Notwithstanding any criminal penalty provided in this chapter, a person who violates this chapter or chapter 70.77 RCW is subject to the maximum civil penalty in an

amount not to exceed two hundred fifty thousand dollars per violation. In addition, a person ((~~in violation of~~)) who violates this chapter is responsible for any costs incurred to enforce this chapter, including bringing a civil action, court costs, and reasonable attorneys' fees. All civil penalties assessed shall be enforced under K.C.C. Title 23.

C. A person commits a separate offense for each day during which the person commits, continues, or permits a violation of this chapter.

((~~D. The civil and criminal penalties described in subsections A. through C. of this section shall not be enforced for violations of K.C.C. 17.11.040.B. as it pertains to the use or discharge of consumer fireworks, as defined in RCW 70.77.136, until one year after Ordinance 19276 takes effect under RCW 70.77.250. During the period in which these penalties are not being enforced, the King County sheriff's office and the fire marshal shall only issue warnings to violators of K.C.C. 17.11.040.B. and shall provide information to violators on the county's laws governing fireworks.~~))

SECTION 244. Ordinance 19881, Section 162, as amended, and K.C.C. 21A.08.045, are hereby amended as follows:

A. Health care services and residential care services land uses.

SIC #	SPECIFIC LAND USE	A	F	M	RA (1)	UR	R-1	R-4 – R-8	R-12 – R-48	NB	CB	RB	O	I
	HEALTH CARE SERVICES													

801-04	Doctor's Office/Outpatient Clinic				C2	P2 C		P3 P4 C5 C6 C7	P4 P5 C6 C7	P	P	P	P	P
806	Hospital							C2	P8 C2		P	P	C	
807	Medical/Dental Lab										P	P	P	P
808-09	Miscellaneous Health										P	P	P	
*	Social Services				P2 C	P2 C	P2 C	P2 C	P	P	P	P	P	
*	Crisis Care Center				P2 C9	P2 C9	P3 C9	P3 C	P5	P5	P5	P5	P5	P10
	RESIDENTIAL CARE SERVICES													
805	Nursing and Personal Care Facilities							P3 C5	P5 C	P5	P	P	P5	

*	Adult Family Home	P	P11		P	P	P	P	P	P	P12	P12	P12	
*	Community Residential Facility I				C	C	P13.a C	P13.a C	P	P12	P12	P12	P12	
*	Community Residential Facility II						P13.b	P13.b	P	P12	P12	P12	P12	
*	Permanent Supportive Housing							C14	P15	P15	P15	P15	P15	
*	Recuperative Housing							C16	P16	P16	P16	P16	P16	
*	Emergency Supportive Housing							C16	P16	P16	P16	P16	P16	
*	Emergency Shelter							C16	P16	P16	P16	P16	P16	
*	Microshelter Villages							C17	P17	P17	P17	P17	P17	
*	Safe Parking							C18	P18	P18	P18	P18	P18	
836	Other Residential Care (19)							C	P4 P5	P	P	P	P	

									P20 C					

B. Development conditions.

1. Subject to review and approval of conditions to comply with trail corridor provisions of K.C.C. chapter 21A.14.

2. Only as a reuse of a public school facility or surplus nonresidential facility subject to K.C.C. chapter 21A.32.

3. Only in the urban area, as a reuse of a public school facility or surplus nonresidential facility subject to K.C.C. chapter 21A.32.

4. Outside the urban area:

a. Only as a reuse of a public school facility and subject to K.C.C. chapter 21A.32. Before filing an application with the department, the applicant shall hold a community meeting in accordance with K.C.C. 20.20.035; or

b. Only in the R-24 and R-48 zones, as a reuse of a surplus nonresidential facility, and if served by public sewer. For the allowance under this subsection B.4.b., K.C.C. 21A.12.250 shall not apply.

5. Only in the urban area.

6. Outside of the urban area, only as a reuse of a surplus nonresidential facility subject to K.C.C. chapter 21A.32.

7. Outside of the urban area, subject to the requirements in K.C.C. 21A.12.250.

8. Only in the R-24 and R-48 zones, and limited to SIC Industries 8063-Psychiatric Hospitals and 8069-Specialty Hospitals, Except Psychiatric.

9.a. Not allowed in the RA-2.5, RA-10, or RA-20 zone;

b. Only allowed on lots of at least four and one-half acres;

c. Located within one mile of an interstate highway; and

d. Limited to sixteen beds.

10. Only allowed in the Preston Industrial Area.

11. In the forest production district, the following conditions apply:

a. Site disturbance shall be limited to three acres. Site disturbance shall mean all land alterations including, but not limited to, grading, utility installation, landscaping, clearing for crops, on-site sewage disposal systems, and driveways. Additional site disturbance for agriculture, including raising livestock, up to the smaller of thirty-five percent of the lot or seven acres, may be approved only if a farm management plan is prepared in accordance with K.C.C. chapter 21A.30. Animal densities shall be based on the area devoted to animal care and not the total area of the lot;

b. A forest management plan shall be required in the forest production district, that shall be reviewed and approved by the King County department of natural resources and parks before building permit issuance; and

c. The forest management plan shall incorporate a fire protection element that includes fire safety best management practices developed by the department.

12. Only as part of a mixed-use development subject to the conditions of K.C.C. chapter 21A.14, except in the rural area outside of rural towns on historic properties listed in the National Register of Historic Places or designated as a King County landmark.

13.a. Limited to domestic violence shelter facilities.

b. Limited to domestic violence shelter facilities with no more than eighteen residents and staff.

14. Subject to the following standards:

a. Allowed only in the urban area;

b. Located on the same site as a religious facility, public agency, or social services use; and

c. Exempt from bicycle parking requirements in K.C.C. 21A.18.030.E. ((~~and electric vehicle parking infrastructure requirements in K.C.C. 21A.18.140~~)).

15. Subject to the following standards:

a. Allowed only in the urban area;

b. Only as part of a mixed-use development subject to the conditions of K.C.C. chapter 21A.14, except in the rural area outside of rural towns on historic properties listed in the National Register of Historic Places or designated as a King County landmark; and

c. Exempt from bicycle parking requirements in K.C.C. 21A.18.030.E. ((~~and electric vehicle parking infrastructure requirements in K.C.C. 21A.18.140~~)).

16. Subject to the following standards:

a. Allowed only in the urban area;

b. In the R-4 through R-8 zones, only when located on the same site as a religious facility, public agency, or social service use;

c. Exempt from bicycle parking requirements in K.C.C. 21A.18.030.E((~~, and electric vehicle parking infrastructure requirements in K.C.C. 21A.18.140~~)); and

d. The application shall include:

(1) A description of the staffing and operational characteristics, including sanitation and basic safety measures required for the facility;

(2) Occupancy policies, including a description of the population to be served and a code of conduct that includes, at a minimum, a prohibition of threatening or unsafe behavior;

(3) A plan for managing the exterior appearance of the site, including keeping the site litter free;

(4) A plan for addressing reported concerns and making this information publicly available, including a phone number, email, and point of contact at the site of the facility for the community to report concerns;

(5) A plan for outreach with surrounding property owners and residents addressing items such as noise, smoking areas, parking, security procedures, and litter; and

(6) Plans and narrative documenting compliance with all applicable codes, including:

(a) an elevation of the building or buildings to be occupied;

(b) a floor plan that describes the capacities of the buildings for the uses intended, room dimensions, and a designation of the rooms to be used for nonambulatory residents, if any; and

(c) a site plan showing property lines, buildings, driveways, parking, fences, storage areas, gardens, recreation areas, and site improvements.

17. Subject to the following standards:

a. Allowed in the urban area;

b. In the R-4 through R-8 zones, only when located on the same site as a religious facility, public agency, or social service use;

c. Exempt from landscaping requirements in K.C.C. chapter 21A.16 except as required by this section, bicycle parking requirements in K.C.C. 21A.18.030.E.((~~, and electric vehicle parking infrastructure requirements in K.C.C. 21A.18.140~~));

d. The application shall include:

(1) A description of the staffing and operational characteristics, including sanitation and basic safety measures required for the facility;

(2) Occupancy policies, including a description of the population to be served and a code of conduct that includes, at a minimum, a prohibition of threatening or unsafe behavior;

(3) A plan for managing the exterior appearance of the site, including keeping the site litter free;

(4) A plan for addressing reported concerns and making this information publicly available, including a phone number, email, and point of contact at the site of the facility for the community to report concerns;

(5) A plan for outreach with surrounding property owners and residents addressing items such as noise, smoking areas, parking, security procedures, and litter; and

(6) Plans and narrative documenting compliance with all applicable codes, including:

(a) an elevation of the building or buildings to be occupied;

(b) a floor plan that describes the capacities of the buildings for the uses intended, room dimensions, and a designation of the rooms to be used for nonambulatory residents, if any; and

(c) a site plan showing property lines, buildings, driveways, parking, fences, storage areas, gardens, recreation areas, and site improvements;

e. A setback of ten feet shall be along any property line adjoining a UR or R zone; and

f. The use shall be buffered with:

(1) ten feet of Type II landscaping consistent with K.C.C. 21A.16.040; or

(2) a six-foot high, view-obscuring fence.

18. Subject to the following standards:

a. Allowed in the urban area;

b. In the R-4 through R-8 zones, only when located on the same site as a religious facility, public agency, or social services use;

c. Exempt from landscaping requirements in K.C.C. chapter 21A.16 except as required by this section, bicycle parking requirements in K.C.C. 21A.18.030.E.((~~, and electric vehicle parking infrastructure requirements in K.C.C. 21A.18.140~~));

d. The application shall include:

(1) A description of the staffing and operational characteristics, including sanitation and basic safety measures required for the facility;

(2) Occupancy policies, including a description of the population to be served and a code of conduct that includes, at a minimum, a prohibition of threatening or unsafe behavior;

(3) A plan for managing the exterior appearance of the site, including keeping the site litter free;

(4) A plan for addressing reported concerns and making this information publicly available, including a phone number, email, and point of contact at the site of the facility for the community to report concerns;

(5) A plan for outreach with surrounding property owners and residents addressing items such as noise, smoking areas, parking, security procedures, and litter; and

(6) Plans and narrative documenting compliance with all applicable codes, including:

(a) an elevation of the building or buildings to be occupied;

(b) a floor plan that describes the capacities of the buildings for the uses intended, room dimensions, and a designation of the rooms to be used for nonambulatory residents, if any; and

(c) a site plan showing property lines, buildings, driveways, parking, fences, storage areas, gardens, recreation areas, and site improvements;

e. A setback of ten feet shall be along any property line adjoining a UR or R zone;

f. The use shall be buffered with:

(1) ten feet of Type II landscaping consistent with K.C.C. 21A.16.040; or

(2) a six-foot high, view-obscuring fence;

g. When safe parking is located on a site with an established primary use, the director may reduce the minimum number of on-site parking spaces consistent with K.C.C. chapter 21A.18;

h. A safe parking site shall provide restroom and potable water access within the buildings or portable facilities and handwashing stations on the property; and

i. If recreational vehicles are hosted at the safe parking site, provision shall be made for potable water and for proper disposal of grey water and black water waste from the vehicles.

19. Excluding residential care uses classified elsewhere in this chapter.

20. Only in a rural town, as a reuse of a surplus nonresidential facility and subject to K.C.C. chapter 21A.32. Before filing an application with the department, the applicant shall hold a community meeting in accordance with K.C.C. 20.20.035.

SECTION 245. The department of local services – permitting division shall keep a record of the renewable energy installed under WSEC C411. Tracked metrics shall include, but not be limited to, wattage of on-site renewable energy installed, number of buildings receiving affordable housing exceptions, number of buildings transferring renewable energy to off-site locations, and total wattage of off-site renewable energy installed.

SECTION 246. The following are each hereby repealed:

A. Ordinance 14914, Section 10, as amended, and K.C.C. 16.02.160;

B. Ordinance 12560, Section 55, as amended, and K.C.C. 16.02.170;

C. Ordinance 14914, Section 20, and K.C.C. 16.02.230;

D. Ordinance 12560, Section 15, as amended, and K.C.C. 16.02.310;

E. Ordinance 17837, Section 13, and K.C.C. 16.02.316;

F. Ordinance 12560, Section 13, as amended, and K.C.C. 16.02.370;

G. Ordinance 12560, Section 26, as amended, and K.C.C. 16.02.410;

H. Ordinance 12560, Section 31, as amended, and K.C.C. 16.02.480;

I. Ordinance 12560, Section 32, as amended, and K.C.C. 16.02.490;

J. Ordinance 12560, Section 33, as amended, and K.C.C. 16.02.500;

K. Ordinance 12560, Section 34, as amended, and K.C.C. 16.02.510;

L. Ordinance 12560, Section 35, as amended, and K.C.C. 16.02.520;

M. Ordinance 12560, Section 37, as amended, and K.C.C. 16.02.530;

N. Ordinance 14914, Section 78, as amended, and K.C.C. 16.02.550;

O. Ordinance 14914, Section 85, as amended, and K.C.C. 16.02.600;

P. Ordinance 19485, Section 29, and K.C.C. 16.03.057;

Q. Ordinance 14914, Section 133, as amended, and K.C.C. 16.04.260;

R. Ordinance 12560, Section 44, as amended, and K.C.C. 16.04.270;

S. Ordinance 14914, Section 141, as amended, and K.C.C. 16.04.290;

T. Ordinance 12560, Section 47, as amended, and K.C.C. 16.04.310;

U. Ordinance 14111, Section 55, as amended, and K.C.C. 16.04.330;

V. Ordinance 15802, Section 23, as amended, and K.C.C. 16.04.344;

W. Ordinance 15802, Section 24, and K.C.C. 16.04.346;

X. Ordinance 15802, Section 25, and K.C.C. 16.04.348;

Y. Ordinance 14914, Section 155, as amended, and K.C.C. 16.04.360;

Z. Ordinance 15802, Section 34, and K.C.C. 16.04.475;

AA. Ordinance 12560, Section 54, as amended, and K.C.C. 16.04.490;

BB. Ordinance 11923, Section 2, as amended, and K.C.C. 16.04.890;

CC. Ordinance 11923, Section 3, as amended, and K.C.C. 16.04.900;

DD. Ordinance 19485, Section 5, and K.C.C. 16.04.930;

EE. Ordinance 12380, Section 2, as amended, and K.C.C. 16.04.940;

FF. Ordinance 12380, Section 3, as amended, and K.C.C. 16.04.950;

GG. Ordinance 12380, Section 4, as amended, and K.C.C. 16.04.960;

HH. Ordinance 12380, Section 5, as amended, and K.C.C. 16.04.970;

II. Ordinance 7853, Section 1, as amended, and K.C.C. 16.04.980;

JJ. Ordinance 14914, Section 276, as amended, and K.C.C. 16.05.080;

KK. Ordinance 19485, Section 73, and K.C.C. 16.07.050;

LL. Ordinance 19485, Section 75, and K.C.C. 16.07.070;

MM. Ordinance 19485, Section 76, and K.C.C. 16.07.080;

NN. Ordinance 19485, Section 76, and K.C.C. 16.07.090;

OO. Ordinance 19485, Section 80, and K.C.C. 16.07.120;

PP. Ordinance 19485, Section 81, and K.C.C. 16.07.130;

QQ. Ordinance 19485 Section 83, and K.C.C. 16.07.150;

RR. Ordinance 19485, Section 84, and K.C.C. 16.07.160;

SS. Ordinance 19485, Section 85, and K.C.C. 16.07.170;

TT. Ordinance 19485, Section 87, and K.C.C. 16.07.190;

UU. Ordinance 19485, Section 88, and K.C.C. 16.07.200;

VV. Ordinance 19485, Section 89, and K.C.C. 16.07.210;

WW. Ordinance 19485, Section 91, and K.C.C. 16.07.230;

XX. Ordinance 19485, Section 92, and K.C.C. 16.07.240;

YY. Ordinance 19485, Section 93, and K.C.C. 16.07.250;

ZZ. Ordinance 19485, Section 94, and K.C.C. 16.07.260;

AAA. Ordinance 19485, Section 95, and K.C.C. 16.07.270;

BBB. Ordinance 19485, Section 96, and K.C.C. 16.07.280;

CCC. Ordinance 19485, Section 98, and K.C.C. 16.07.300

DDD. Ordinance 19485, Section 101, and K.C.C. 16.07.330;

EEE. Ordinance 19485, Section 102, and K.C.C. 16.07.340;

FFF. Ordinance 19485, Section 103, and K.C.C. 16.07.350;

GGG. Ordinance 19485, Section 104, and K.C.C. 16.07.360;

HHH. Ordinance 19485, Section 105, and K.C.C. 16.07.370;

III. Ordinance 19485, Section 106, and K.C.C. 16.07.380;

JJJ. Ordinance 19485, Section 107, and K.C.C. 16.07.390;

KKK. Ordinance 19485, Section 108, and K.C.C. 16.07.400;

LLL. Ordinance 19485, Section 109, and K.C.C. 16.07.410;

MM. Ordinance 19485, Section 110, and K.C.C. 16.07.420;

NNN. Ordinance 19485, Section 111, and K.C.C. 16.07.430;

OOO. Ordinance 19485, Section 112, and K.C.C. 16.07.440;

PPP. Ordinance 19485, Section 113, and K.C.C. 16.07.450;

QQQ. Ordinance 19485, Section 115, and K.C.C. 16.07.470;

RRR. Ordinance 19485, Section 116, and K.C.C. 16.07.480;

SSS. Ordinance 19485, Section 118, and K.C.C. 16.07.500;

TTT. Ordinance 19485, Section 119, and K.C.C. 16.07.510;

UUU. Ordinance 19485, Section 120, and K.C.C. 16.07.520;

VVV. Ordinance 19485, Section 121, and K.C.C. 16.07.530;

WWW. Ordinance 19485, Section 122, and K.C.C. 16.07.540;

XXX. Ordinance 19485, Section 123, and K.C.C. 16.07.550;

YYY. Ordinance 14111, Section 73, and K.C.C. 16.10.010;

ZZZ. Ordinance 12560, Section 58, as amended, and K.C.C. 16.10.020;

AAAA. Ordinance 12560, Section 59, as amended, and K.C.C. 16.10.030;

BBBB. Ordinance 12560, Section 60, and as amended, K.C.C. 16.10.040;

CCCC. Ordinance 12560, Section 61, as amended, and K.C.C. 16.10.050;

DDDD. Ordinance 12560, Section 62, as amended, and K.C.C. 16.10.060;

EEEE. Ordinance 12560, Section 63, as amended, and K.C.C. 16.10.070;

FFFF. Ordinance 12560, Section 64, as amended, and K.C.C. 16.10.080;

GGGG. Ordinance 15802, Section 99, and K.C.C. 16.10.100;

HHHH. Ordinance 15802, Section 100, and K.C.C. 16.10.110;

IIII. Ordinance 15802, Section 101, as amended, and K.C.C. 16.10.120;

JJJJ. Ordinance 12560, Section 127, as amended, and K.C.C. 16.14.020;

KKKK. Ordinance 14914, Section 337, and K.C.C. 16.14.040;

LLLL. Ordinance 14914, Section 338, and K.C.C. 16.14.050;

MMMM. Ordinance 14914, Section 339, and K.C.C. 16.14.060;

NNNN. Ordinance 14914, Section 352, and K.C.C. 16.14.140;

OOOO. Ordinance 14914, Section 353, and K.C.C. 16.14.150;

PPPP. Ordinance 14914, Section 367, as amended, and K.C.C. 16.14.250;

QQQQ. Ordinance 14914, Section 407, and K.C.C. 16.14.480;

RRRR. Ordinance 14914, Section 410, and K.C.C. 16.14.510;

SSSS. Ordinance 14914, Section 413, and K.C.C. 16.14.530;

TTTT. Ordinance 14914, Section 418, and K.C.C. 16.14.570;

UUUU. Ordinance 14914, Section 419, and K.C.C. 16.14.580;

VVVV. Ordinance 14914, Section 420, and K.C.C. 16.14.590;

WWWW. Ordinance 19485, Section 149, and K.C.C. 16.32.336;

XXXX. Ordinance 19485, Section 150, and K.C.C. 16.32.337;

YYYY. Ordinance 19485, Section 152, and K.C.C. 16.32.339;

ZZZZ. Ordinance 19485, Section 136, and K.C.C. 16.32.341;

AAAAA. Ordinance 1283, Section 1, as amended, and K.C.C. 16.78.010;

BBBBB. Ordinance 1283, Section 2, and K.C.C. 16.78.020;

CCCCC. Ordinance 1283, Section 3, and K.C.C. 16.78.030;

DDDDD. Ordinance 1283, Section 4, and K.C.C. 16.78.040;

EEEEE. Ordinance 1283, Section 5, and K.C.C. 16.78.050;

FFFFF. Ordinance 1283 (part) and K.C.C. 16.78.060;

GGGGG. Ordinance 19485, Section 174, and K.C.C. 17.04.445;

HHHH. Ordinance 19485, Section 175, and K.C.C. 17.04.447;

IIIII. Ordinance 19485, Section 179, and K.C.C. 17.04.466;

JJJJJ. Ordinance 19485, Section 181, and K.C.C. 17.04.468;

KKKKK. Ordinance 19485, Section 182, and K.C.C. 17.04.471;

LLLLL. Ordinance 19485, Section 183, and K.C.C. 17.04.472;

MMMMM. Ordinance 19485, Section 185, and K.C.C. 17.04.477;

NNNNN. Ordinance 19485, Section 186, and K.C.C. 17.04.478;

OOOOO. Ordinance 19485, Section 187, and K.C.C. 17.04.479;

PPPPP. Ordinance 19485, Section 188, and K.C.C. 17.04.481;

QQQQQ. Ordinance 19485, Section 189, and K.C.C. 17.04.486;

RRRRR. Ordinance 19485, Section 190, and K.C.C. 17.04.487;

SSSSS. Ordinance 19485, Section 191, and K.C.C. 17.04.488;

TTTTT. Ordinance 14111, Section 215, and K.C.C. 17.04.540;

UUUUU. Ordinance 19316, Section 2, and K.C.C. 21A.06.385;

VVVVV. Ordinance 19316, Section 3, and K.C.C. 21A.06.386;

WWWW. Ordinance 19316, Section 4, and K.C.C. 21A.06.387;

XXXXX. Ordinance 19316, Section 5, and K.C.C. 21A.06.388;

YYYYY. Ordinance 19316, Section 6, and K.C.C. 21A.06.389; and

ZZZZZ. Ordinance 19316, Section 7, and K.C.C. 21A.18.150.

SECTION 247. **Severability.** If any provision of this ordinance or its application to any person or circumstance is held invalid, the remainder of the ordinance or the application of the provision to other persons or circumstances is not affected."

EFFECT prepared by J. Tracy: Striking Amendment S2 would make the following changes:

Permit Timelines

- Retain existing one-year expiration date for mechanical permits (lowered to 6 months in Executive transmittal).

Electric Vehicles

- Update EV parking requirements for the following uses as shown here:

Use	Executive Proposal (EV charging/EV ready/EV capable,	Striking Amendment (EV charging/EV ready/EV capable,

	percentage of total spaces)	percentage of total spaces)
Assembly, Education, and Mercantile occupancies	**10%** / 10% / 10%	**5%** / 10% / 10%
Multifamily	10% / **40%** / **25%**	10% / **25%** / **20%**
Hotels / motels	10% / **40%** / 25%	10% / **30%** / 25%
Supportive / emergency housing /Congregate housing uses except those below	10% **/ 40% / 25%**	10% **/ 10% / 10%**
Safe Parking, Microshelter Villages, Emergency Shelter	**10% / 40% / 25%**	**Not Required**

- Retain current allowance for townhouses to reduce required EV-ready spaces when meeting the requirements would require an on-site transformer.

- For townhouses built under the International Building Code, require EV-readiness for attached garages and carports (matches requirement in the International Residential Code).
- In multifamily, allow electrical equipment serving the additional 10% of EV-capable spaces beyond state-required minimums to be reduced to that needed to support 120 V circuits if the added capacity for that final 10% would require a service capacity upgrade but the base 10% would not.
- When only one accessible space is required, state law requires it to be an EV charging space. The striker would require an additional accessible space on top of the accessible EV space when only one accessible space would otherwise be required.
- Require uncovered standalone parking lots (commuter parking lots, pay parking lots, etc.) to meet the same requirements as covered parking garages.
- Remove proposed additional requirement that existing buildings meet the new EV standards when 50% or more of the building is being worked on; maintain existing requirement that existing buildings comply with EV standards when undergoing substantial improvement (construction is 50% or more of the value of the building).
- Repeal the County's previous EV regulations and associated definitions in 21A.

Energy Code *(applies to commercial and multifamily only)*

- *Fenestration.* Allow builders to use the component performance alternative with high-efficiency fenestration (e.g. windows). The component performance alternative allows builders flexibility in meeting the exact code requirements; the

Executive's proposal is to not allow this flexibility for required high-efficiency fenestration.

- *Performance Factors.* Reduce proposed building and site performance factors for multifamily construction to the state's requirement. Performance factors are measures of overall efficiency in a project.
- *Renewable Energy Installation.* Reduce required renewable energy installation for 5,000+ square foot buildings from the Executive proposed 0.75 watts per square foot to the state's 0.5 square foot requirement.[1]
- *Renewable Energy Tracking.* Require the Permitting Division to track the amount of solar being installed under this code, as well as the exemptions applied for and received.
- *Lighting.* Add updated 2024 IECC language on dimming control function.
- *Energy Credits.* Require 5% more energy credits than mandated by state law; Executive's proposal was a 10% increase over state law.
- *Commissioning and Metering.* Reduce the commissioning requirement to only apply to 25,000 sq ft or larger buildings, aligning with state law, and remove additional metering requirements beyond state law.

Solid Waste

- Not adopt optional state appendices relating to construction and demolition waste (IBC Appendix P and IRC Appendices Y and Z).

Other

[1] For a 5,000 square foot building, this would require 6 to 7 solar panels, as opposed to 9 to 10 under the Executive's proposal.

- Make changes to match Executive intent and technical and clarifying changes, including updating cross references and reorganizing sections.

T1

6.8.2026
Title Amd for S1

[J. Tracy]

Sponsor: Perry

Proposed No.: 2025-0321

AMENDMENT TO PROPOSED ORDINANCE 2025-0321, VERSION 1

On page 1, beginning on line 1, strike lines 1 through 260, and insert:

"AN ORDINANCE relating to building and construction standards; amending Ordinance 14111, Section 4, as amended, and K.C.C. 16.02.110, Ordinance 19485, Section 4, and K.C.C. 16.02.145, Ordinance 14914, Section 9, as amended, and K.C.C. 16.02.150, Ordinance 15802, Section 5, as amended, and K.C.C. 16.02.152, Ordinance 12560, Section 6, as amended, and K.C.C. 16.02.190, Ordinance 12560, Section 10, as amended, and K.C.C. 16.02.240, Ordinance 12560, Section 18, as amended, and K.C.C. 16.02.290, Ordinance 12560, Section 20, as amended, and K.C.C. 16.02.340, Ordinance 12560, Section 21, as amended, and K.C.C. 16.02.350, Ordinance 12560, Section 22, as amended, and K.C.C. 16.02.360, Ordinance 14914, Section 57, as amended, and K.C.C. 16.02.440, Ordinance 12560, Section 30, as amended, and K.C.C. 16.02.470, Ordinance 12560, Section 36, as amended, and K.C.C.

16.02.540, Ordinance 14914, Section 90, as amended, and K.C.C. 16.03.020, Ordinance 3647, Section 3, as amended, and K.C.C. 16.03.040, Ordinance 19485, Section 31, and K.C.C. 16.03.280, Ordinance 14914, Section 164, as amended, and K.C.C. 16.04.440, Ordinance 12560, Section 72, as amended, and K.C.C. 16.04.600, Ordinance 12560, Section 72, as amended, and K.C.C. 16.04.620, Ordinance 12560, Section 75, as amended, and K.C.C. 16.04.630, Ordinance 12560, Section 84, as amended, and K.C.C. 16.04.720, Ordinance 12560, Section 85, as amended, and K.C.C. 16.04.730, Ordinance 12560, Section 86, as amended, and K.C.C. 16.04.740, Ordinance 12560, Section 87, as amended, and K.C.C. 16.04.750, Ordinance 12560, Section 88, as amended, and K.C.C. 16.04.760, Ordinance 12560, Section 86, as amended, and K.C.C. 16.04.770, Ordinance 12560, Section 90, as amended, and K.C.C. 16.04.780, Ordinance 12560, Section 92, as amended, and K.C.C. 16.04.800, Ordinance 12560, Section 94, as amended, and K.C.C. 16.04.820, Ordinance 12560, Section 95, as amended, and K.C.C. 16.04.830, Ordinance 12560, Section 96, as amended, and K.C.C. 16.04.840, Ordinance 12560, Section 97, as amended, and K.C.C. 16.04.850, Ordinance 12560, Section 98, as amended, and K.C.C.

16.04.860, Ordinance 14914, Section 272, as amended, and K.C.C. 16.05.040, Ordinance 14914, Section 274, as amended, and K.C.C. 16.05.060, Ordinance 15802, Section 78, as amended, and K.C.C. 16.05.065, Ordinance 19485, Section 72, and K.C.C. 16.07.040, Ordinance 19485, Section 74, and K.C.C. 16.07.060, Ordinance 19485, Section 78, and K.C.C. 16.07.100, Ordinance 19485, Section 79, and K.C.C. 16.07.110, Ordinance 19485, Section 81, and K.C.C. 16.07.130, Ordinance 19485, Section 82, and K.C.C. 16.07.140, Ordinance 19485, Section 86, and K.C.C. 16.07.180, Ordinance 19485, Section 90, and K.C.C. 16.07.220, Ordinance 19485, Section 99, and K.C.C. 16.07.310, Ordinance 19485, Section 100, and K.C.C. 16.07.320, Ordinance 19485, Section 117, and K.C.C. 16.07.490, Ordinance 8766, Section 6, as amended, and K.C.C. 16.08.050, Ordinance 12560, Section 109, as amended, and K.C.C. 16.14.090, Ordinance 12560, Section 121, as amended, and K.C.C. 16.14.430, Ordinance 12560, Section 112, as amended, and K.C.C. 16.14.100, Ordinance 12560, Section 110, as amended and K.C.C. 16.14.110, Ordinance 14914, Section 359, as amended, and K.C.C. 16.14.200, Ordinance 14914, Section 360, and K.C.C. 16.14.210, Ordinance 12560,

Section 120, and K.C.C. 16.14.220, Ordinance 14914, Section 370, and K.C.C. 16.14.280, Ordinance 14914, Section 370, and K.C.C. 16.14.290, Ordinance 14111, Section 131, as amended, and K.C.C. 16.14.450, Ordinance 14111, Section 131, as amended, and K.C.C. 16.14.460, Ordinance 14914, Section 408, and K.C.C. 16.14.490, Ordinance 12560, Section 115, as amended, and K.C.C. 16.14.540, Ordinance 14914, Section 416, and K.C.C. 16.14.550, Ordinance 6746, Section 5, as amended, and K.C.C. 16.32.030, Ordinance 6746, Section 7, as amended, and K.C.C. 16.32.050, Ordinance 6746, Section 10, as amended, and K.C.C. 16.32.080, Ordinance 15802, Section 122, as amended, and K.C.C. 16.32.195, Ordinance 15802, Section 124, as amended, and K.C.C. 16.32.215, Ordinance 15802, Section 126, as amended, and K.C.C. 16.32.235, Ordinance 15802, Section 131, as amended, and K.C.C. 16.32.285, Ordinance 15802, Section 132, as amended, and K.C.C. 16.32.295, Ordinance 15802, Section 133, as amended, and K.C.C. 16.32.306, Ordinance 19485, Section 151, and K.C.C. 16.32.338, Ordinance 19485, Section 153, and K.C.C. 16.32.340, Ordinance 19485, Section 154, and K.C.C. 16.32.342, Ordinance 19485, Section 155, and K.C.C. 16.32.343, Ordinance 19485, Section 156, and

K.C.C. 16.32.344, Ordinance 15802, Section 137, as amended, and K.C.C. 16.32.345, Ordinance 1488 (part), as amended, and K.C.C. 16.82.130, Ordinance 2097, Section 1, as amended, and K.C.C. 17.04.010, Ordinance 12560, Section 148, as amended, and K.C.C. 17.04.200, Ordinance 2910, Section 6, as amended, and K.C.C. 17.04.210, Ordinance 12560, Section 153, as amended, and K.C.C. 17.04.220, Ordinance 12560, Section 149, as amended, and K.C.C. 17.04.280, Ordinance 12560, Section 156, as amended, and K.C.C. 17.04.290, Ordinance 17837, Section 75, as amended, and K.C.C. 17.04.295, Ordinance 14915, Section 25, as amended, and K.C.C. 17.04.310, Ordinance 14915, Section 26, and K.C.C. 17.04.320, Ordinance 19485, Section 166, as amended, and K.C.C. 17.04.330, Ordinance 19485, Section 178, and K.C.C. 17.04.341, Ordinance 19485, Section 169, and K.C.C. 17.04.375, Ordinance 19485, Section 170, and K.C.C. 17.04.377, Ordinance 12560, Section 165, and K.C.C. 17.04.380, Ordinance 12560, Section 166, as amended, and K.C.C. 17.04.390, Ordinance 14915, Section 45, as amended, and K.C.C. 17.04.400, Ordinance 7980, Section 1, as amended, and K.C.C. 17.04.420, Ordinance 19485, Section 173, and K.C.C. 17.04.425, Ordinance 19485, Section 175, as

amended, and K.C.C. 17.04.447, Ordinance 19485, Section 178, and K.C.C. 17.04.462, Ordinance 19485, Section 180, and K.C.C. 17.04.467, Ordinance 19485, Section 184, and K.C.C. 17.04.476, Ordinance 19485, Section 192, and K.C.C. 17.04.489, Ordinance 12560, Section 171, and K.C.C. 17.04.520, Ordinance 12560, Section 174, as amended, and K.C.C. 17.04.560, Ordinance 19485, Section 196, as amended, and K.C.C. 17.04.563, Ordinance 19485, Section 7, and K.C.C. 17.04.572, Ordinance 19485, Section 198, as amended, and K.C.C. 17.04.574, Ordinance 19485, Section 200, as amended, and K.C.C. 17.04.582, Ordinance 19485, Section 201, as amended, and K.C.C. 17.04.590, Ordinance 5828, Section 3, as amended, and K.C.C. 17.08.020, Ordinance 5828, Section 4, as amended, and K.C.C. 17.08.030, Ordinance 5828, Section 10, as amended, and K.C.C. 17.08.090, Ordinance 3316, Section 4, as amended, and K.C.C. 17.08.100, Ordinance 14915, Section 125, as amended, and K.C.C. 17.08.140, Ordinance 19276, Section 7, and K.C.C. 17.11.040, Ordinance 19276, Section 9, and K.C.C. 17.11.060, and Ordinance 19881, Section 162, as amended, and K.C.C. 21A.08.045, adding new sections to K.C.C. chapter 16.04, adding new sections to K.C.C. chapter 16.05, adding new sections to K.C.C.

chapter 16.07, adding new sections to K.C.C. chapter 16.32, adding new sections to K.C.C. chapter 17.04, recodifying K.C.C. 16.14.430, and repealing Ordinance 14914, Section 10, as amended, and K.C.C. 16.02.160, Ordinance 12560, Section 55, as amended, and K.C.C. 16.02.170, Ordinance 14914, Section 20, and K.C.C. 16.02.230, Ordinance 12560, Section 15, as amended, and K.C.C. 16.02.310, Ordinance 17837, Section 13, and K.C.C. 16.02.316, Ordinance 12560, Section 13, as amended, and K.C.C. 16.02.370, Ordinance 12560, Section 26, as amended, and K.C.C. 16.02.410, Ordinance 12560, Section 31, as amended, and K.C.C. 16.02.480, Ordinance 12560, Section 32, as amended, and K.C.C. 16.02.490, Ordinance 12560, Section 33, as amended, and K.C.C. 16.02.500, Ordinance 12560, Section 34, as amended, and K.C.C. 16.02.510, Ordinance 12560, Section 35, as amended, and K.C.C. 16.02.520, Ordinance 12560, Section 37, as amended, and K.C.C. 16.02.530, Ordinance 14914, Section 78, as amended, and K.C.C. 16.02.550, Ordinance 14914, Section 85, as amended, and K.C.C. 16.02.600, Ordinance 19485, Section 29, and K.C.C. 16.03.057, Ordinance 14914, Section 133, as amended, and K.C.C. 16.04.260, Ordinance 12560, Section 44, as amended, and

K.C.C. 16.04.270, Ordinance 14914, Section 141, as amended, and K.C.C. 16.04.290, Ordinance 12560, Section 47, as amended, and K.C.C. 16.04.310, Ordinance 14111, Section 55, as amended, and K.C.C. 16.04.330, Ordinance 15802, Section 23, as amended, and K.C.C. 16.04.344, Ordinance 15802, Section 24, and K.C.C. 16.04.346, Ordinance 15802, Section 25, and K.C.C. 16.04.348, Ordinance 14914, Section 155, as amended, and K.C.C. 16.04.360, Ordinance 15802, Section 34, and K.C.C. 16.04.475, Ordinance 12560, Section 54, as amended, and K.C.C. 16.04.490, Ordinance 11923, Section 2, as amended, and K.C.C. 16.04.890, Ordinance 11923, Section 3, as amended, and K.C.C. 16.04.900, Ordinance 19485, Section 5, and K.C.C. 16.04.930, Ordinance 12380, Section 2, as amended, and K.C.C. 16.04.940, Ordinance 12380, Section 3, as amended, and K.C.C. 16.04.950, Ordinance 12380, Section 4, as amended, and K.C.C. 16.04.960, Ordinance 12380, Section 5, as amended, and K.C.C. 16.04.970, Ordinance 7853, Section 1, as amended, and K.C.C. 16.04.980, Ordinance 14914, Section 276, as amended, and K.C.C. 16.05.080, Ordinance 19485, Section 73, and K.C.C. 16.07.050, Ordinance 19485, Section 75, and K.C.C. 16.07.070, Ordinance 19485, Section 76, and

K.C.C. 16.07.080, Ordinance 19485, Section 76, and

K.C.C. 16.07.090, Ordinance 19485, Section 80, and

K.C.C. 16.07.120, Ordinance 19485, Section 81, and

K.C.C. 16.07.130, Ordinance 19485, Section 83, and

K.C.C. 16.07.150, Ordinance 19485, Section 84, and

K.C.C. 16.07.160, Ordinance 19485, Section 85, and

K.C.C. 16.07.170, Ordinance 19485, Section 87, and

K.C.C. 16.07.190, Ordinance 19485, Section 88, and

K.C.C. 16.07.200, Ordinance 19485, Section 89, and

K.C.C. 16.07.210, Ordinance 19485, Section 91, and

K.C.C. 16.07.230, Ordinance 19485, Section 92, and

K.C.C. 16.07.240, Ordinance 19485, Section 93, and

K.C.C. 16.07.250, Ordinance 19485, Section 94, and

K.C.C. 16.07.260, Ordinance 19485, Section 95, and

K.C.C. 16.07.270, Ordinance 19485, Section 96, and

K.C.C. 16.07.280, Ordinance 19485, Section 98, and

K.C.C. 16.07.300, Ordinance 19485, Section 101, and

K.C.C. 16.07.330, Ordinance 19485, Section 102, and

K.C.C. 16.07.340, Ordinance 19485, Section 103, and

K.C.C. 16.07.350, Ordinance 19485, Section 104, and

K.C.C. 16.07.360, Ordinance 19485, Section 105, and

K.C.C. 16.07.370, Ordinance 19485, Section 106, and

K.C.C. 16.07.380, Ordinance 19485, Section 107, and

K.C.C. 16.07.390, Ordinance 19485, Section 108, and
K.C.C. 16.07.400, Ordinance 19485, Section 109, and
K.C.C. 16.07.410, Ordinance 19485, Section 110, and
K.C.C. 16.07.420, Ordinance 19485, Section 111, and
K.C.C. 16.07.430, Ordinance 19485, Section 112, and
K.C.C. 16.07.440, Ordinance 19485, Section 113, and
K.C.C. 16.07.450, Ordinance 19485, Section 115, and
K.C.C. 16.07.470, Ordinance 19485, Section 116, and
K.C.C. 16.07.480, Ordinance 19485, Section 118, and
K.C.C. 16.07.500, Ordinance 19485, Section 119, and
K.C.C. 16.07.510, Ordinance 19485, Section 120, and
K.C.C. 16.07.520, Ordinance 19485, Section 121, and
K.C.C. 16.07.530, Ordinance 19485, Section 122, and
K.C.C. 16.07.540, Ordinance 19485, Section 123, and
K.C.C. 16.07.550, Ordinance 14111, Section 73, and
K.C.C. 16.10.010, Ordinance 12560, Section 58, as
amended, and K.C.C. 16.10.020, Ordinance 12560, Section
59, as amended, and K.C.C. 16.10.030, Ordinance 12560,
Section 60, as amended, K.C.C. 16.10.040, Ordinance
12560, Section 61, as amended, and K.C.C. 16.10.050,
Ordinance 12560, Section 62, as amended, and K.C.C.
16.10.060, Ordinance 12560, Section 63, as amended, and
K.C.C. 16.10.070, Ordinance 12560, Section 64, as

amended, and K.C.C. 16.10.080, Ordinance 15802, Section 99, and K.C.C. 16.10.100, Ordinance 15802, Section 100, and K.C.C. 16.10.110, Ordinance 15802, Section 101, as amended, and K.C.C. 16.10.120, Ordinance 12560, Section 127, as amended, and K.C.C. 16.14.020, Ordinance 14914, Section 337, and K.C.C. 16.14.040, Ordinance 14914, Section 338, and K.C.C. 16.14.050, Ordinance 14914, Section 339, and K.C.C. 16.14.060, Ordinance 14914, Section 352, and K.C.C. 16.14.140, Ordinance 14914, Section 353, and K.C.C. 16.14.150, Ordinance 14914, Section 367, as amended, and K.C.C. 16.14.250, Ordinance 14914, Section 407, and K.C.C. 16.14.480, Ordinance 14914, Section 410, and K.C.C. 16.14.510, Ordinance 14914, Section 413, and K.C.C. 16.14.530, Ordinance 14914, Section 418, and K.C.C. 16.14.570, Ordinance 14914, Section 419, and K.C.C. 16.14.580, Ordinance 14914, Section 420, and K.C.C. 16.14.590, Ordinance 19485, Section 149, and K.C.C. 16.32.336, Ordinance 19485, Section 150, and K.C.C. 16.32.337, Ordinance 19485, Section 152, and K.C.C. 16.32.339, Ordinance 19485, Section 136, and K.C.C. 16.32.341, Ordinance 1283, Section 1, as amended, and K.C.C. 16.78.010, Ordinance 1283, Section 2, and K.C.C. 16.78.020,

Ordinance 1283, Section 3, and K.C.C. 16.78.030,

Ordinance 1283, Section 4, and K.C.C. 16.78.040,

Ordinance 1283, Section 5, and K.C.C. 16.78.050,

Ordinance 1283 (part) and K.C.C. 16.78.060, Ordinance

19485, Section 174, and K.C.C. 17.04.445, Ordinance

19485, Section 175, and K.C.C. 17.04.447, Ordinance

19485, Section 179, and K.C.C. 17.04.466, Ordinance

19485, Section 181, and K.C.C. 17.04.468, Ordinance

19485, Section 182, and K.C.C. 17.04.471, Ordinance

19485, Section 183, and K.C.C. 17.04.472, Ordinance

19485, Section 185, and K.C.C. 17.04.477, Ordinance

19485, Section 186, and K.C.C. 17.04.478, Ordinance

19485, Section 187, and K.C.C. 17.04.479, Ordinance

19485, Section 188, and K.C.C. 17.04.481, Ordinance

19485, Section 189, and K.C.C. 17.04.486, Ordinance

19485, Section 190, and K.C.C. 17.04.487, Ordinance

19485, Section 191, and K.C.C. 17.04.488, Ordinance

14111, Section 215, and K.C.C. 17.04.540, Ordinance

19316, Section 2, and K.C.C. 21A.06.385, Ordinance

19316, Section 3, and K.C.C. 21A.06.386, Ordinance

19316, Section 4, and K.C.C. 21A.06.387, Ordinance

19316, Section 5, and K.C.C. 21A.06.388, Ordinance

19316, Section 6, and K.C.C. 21A.06.389, and Ordinance 19316, Section 7, and K.C.C. 21A.18.150.."

EFFECT prepared by *J. Tracy*: *Conforms title to Striking Amendment S1*

King County
Shannon Braddock
King County Executive
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TTY Relay: 711
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September 30, 2025

The Honorable Girmay Zahilay
Chair, King County Council
Room 1200
C O U R T H O U SE

Dear Councilmember Zahilay:

This letter transmits a proposed Ordinance that, if enacted, would amend the King County Code (KCC) building and fire regulations for development in unincorporated King County. Approval of this proposed Ordinance will align the County's building and fire Code regulations with current editions of the building and fire Code adopted by Washington State (Chapter 19.27 Revised Code of Washington (RCW)) that went into effect in March 2024. The proposed Ordinance will also remove outdated sections of KCC and adopt amendments to the Washington State Energy Code (Chapter 19.27A RCW) to implement the 2020 adopted and 2025 proposed King County Strategic Climate Action Plan (SCAP) priority actions, reducing greenhouse gas (GHG) emissions in unincorporated King County.

In 2021, the Department of Local Services (DLS) hired both a new Building Official and Fire Marshal. With these key positions filled, DLS used this KCC update cycle as an opportunity to comprehensively recommend changes to KCC Titles 16 and 17 for the first time in decades. Key amendments in the proposed Ordinance include:

- Adoption of the 2021 editions of the state building codes.
- Housekeeping revisions to align with updated state legislation, remove outdated code provisions, and improve readability.
- Modifications to permit expiration dates and allowable extensions, including revising standalone mechanical permits validity to six months and adding a one-time 60-day extension option for building permits where only a final inspection remains.
- Adoption of new appendices on construction and demolition material management and building deconstruction to reduce construction waste.
- Minor clarifications to work exempt from requiring a building permit.

- Updated regulations for parking garage and elevator hoistway drainage systems, domestic water piping, and deference to the Energy Code for minimum pipe insulation.
- Expanded criteria for plumbing permit applications, including comprehensive guidance regarding information required, plumbing permit issuance, and reinspection fee assessments.
- Clarifications for determining when a fire special event permit is required.
- Refinement of fire department access requirements.

The proposed Ordinance also includes amendments to the Washington State Energy Code for commercial buildings and multifamily buildings four stories and taller to facilitate the design and construction of buildings with consideration for the use and conservation of energy over the life of each building.

To accomplish this, the proposed Ordinance would, if enacted:

- Increase efficiency requirements for building materials including windows.
- Increase HVAC and water heating efficiency requirements.
- Reduce the allowed maximum lighting power density in most building space types.
- Modify the energy efficiency package credit section to reflect amendments to base code.
- Reduce the threshold to provide energy metering and energy consumption management.
- Reduce the threshold for providing a renewable energy generation system.

In developing the proposed Ordinance, the Permitting Division of the Department of Local Services sought input from the public and multiple stakeholders, including: the Regional Code Collaboration, the Master Builders Association of King and Snohomish Counties, Seattle King County Realtors, Seattle Building Trades, Puget Sound Energy, and the Housing Development Consortium of Seattle-King County.

Thank you for your consideration of this proposed Ordinance. This legislation advances the County's goals to reduce sources of GHG emissions in our built environment and will help to build a more resilient and sustainable King County.

If your staff have any questions, please contact Leon Richardson, Director, Department of Local Services, at 206-263-3332.

Sincerely,



for

Shannon Braddock
King County Executive

Enclosure

cc: King County Councilmembers
ATTN: Stephanie Cirkovich, Chief of Staff, King County Council
Melani Hay, Clerk of the Council
Karan Gill, Deputy Executive, Chief of Staff, Office of the Executive
Stephanie Pure, Council Relations Director, Office of the Executive
Leon Richardson, Director, Department of Local Services
Jim Chan, Permitting Division Director, Department of Local Services

2025 FISCAL NOTE

Ordinance/Motion: 2025-XXXX
Title: Building and Fire Code Update
Affected Agency and/or Agencies: Department of Local Services (DLS) - Permitting Division
Note Prepared By: Nicole Gaudette and Warren Cheney, DLS-Permitting
Date Prepared: 7/21/2025
Note Reviewed By: Bonnie L. Fluckinger, Office of Performance, Strategy, and Budget
Date Reviewed: 9/9/2025

Description of request:

A proposed ordinance to amend building code and fire code regulations in K.C.C. Titles 16 and 17 to adopt and align with current codes adopted by the state; remove outdated and unnecessary code sections; and to adopt amendments to the state energy codes to support greenhouse gas emission reductions.

Revenue to:

Agency	Fund Code	Revenue Source	2025	2026-2027	2028-2029
			0	0	0
TOTAL			**0**	**0**	**0**

Expenditures from:

Agency	Fund Code	Department	2025	2026-2027	2028-2029
			0	0	0
TOTAL			**0**	**0**	**0**

Expenditures by Categories

	2025	2026-2027	2028-2029
TOTAL	**0**	**0**	**0**

Does this legislation require a budget supplemental? Ye No

Notes and Assumptions:
Staff time will be required to learn new portions of this revised code and associated training costs are estimated to be $2,500 for 16 staff members. Estimates were based on typical costs of Washington Association of Building Officials (WABO)-sponsored code education. WABO is not providing training for the new construction and demolition appendices at this time, so DLS staff will internally train within existing budgeted resources. No impact on budget is anticipated. DNRP has subscribed to Green Halo, a web-based recycling tracking system that will be used for construciton & demolition tracking. This results in no cost to DLS, other than the added staff time to use the tracking system. The legislation could result in increased costs for capital projects subject to the new code requirements, when those projects are located in unincorporated King County.

Summary of Proposed Ordinance relating to King County Building and Fire Code Updates

The following is a summary of a proposed ordinance that would adopt building and fire codes for unincorporated King County in K.C.C. Titles 16 and 17. This summary fulfills Washington State Growth Management Act and King County Code (K.C.C.) 20.18.100 requirements for a "plain language summary."

King County reviews and adopts model building codes to ensure the construction, repair, and maintenance of safe, sustainable, and resilient structures. This includes adoption and, as appropriate, amendment of codes published by or jointly with the International Code Council, Inc (ICC), and the International Association of Plumbing and Mechanical Officials (IAPMO). The ICC and IAPMPO update these codes once every three years. The updated international codes are then adopted and amended by Washington State. Local jurisdictions, including King County, then adopt and amend the State building codes to meet local administrative needs and policy goals. With some exceptions, local jurisdictions cannot amend residential codes.

This proposed ordinance includes both substantive regulatory changes and technical clean-up. The proposed ordinance includes the most recent 2021 international codes, as adopted by the state, which became effective March 15, 2024. This is the first time King County is proposing Energy Conservation Code amendments, which provide the greatest local opportunity to implement the County's 2020 Strategic Climate Action Plan (SCAP) goals for the built environment. Energy code amendments only apply to commercial buildings, and multifamily buildings four stories or taller.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
Throughout	Throughout	n/a	Technical changes	Technical corrections are made throughout this proposed ordinance, including updating ICC code section numbers; K.C.C. references; code restructuring for clarification; and updated terminology to reflect current K.C.C. ordinance drafting guidance. Where these changes are the only amendments proposed for existing code sections, it is noted in the rationale below. For sections proposing substantiative changes, in addition to technical changes, only substantive changes are noted.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
1	16.02.110	Describes which International Code Council codes this K.C.C. chapter adopts and modifies, namely the: • International Building Code (IBC), • International Residential Code (IRC), • International Energy Conservation Code (IECC), Commercial, • International Mechanical Code (IMC), • International Existing Building Code, • International Property Maintenance Code (IPMC), • International Wildland Urban Interface Code, and • Uniform Plumbing Code.	Proposes technical corrections and changes, including the following: • IBC Appendix D and P are proposed to be adopted, • The International Fire Code (IFC) is proposed to be adopted and cited as described in K.C.C. 16.02.150, • Updates to the naming of IRC appendices, • IRC Appendices AQ, AU, AY, and AZ are adopted, • Updates to the naming of IECC appendices, • The Universal Plumbing code is adopted and cited as described in K.C.C. 16.02.150. • Proposed changes update code edition references from the 2018 edition to the 2021 edition of state codes.	Updates International Code Council (ICC) codes references to 2021 editions and associated appendices, and other references to be consistent with current naming conventions and K.C.C. 16.02.150, and incorporates these throughout the K.C.C. Adoption of IBC Appendix P and IRC Appendix AY—Construction and demolition material management is intended to increase the reuse and recycling of construction and demolition materials for scoped projects. Scope includes new building construction, alterations to existing buildings and the demolition of existing buildings having a work area greater than 750 square feet or a project value greater than $75,000, whichever is more restrictive. Adoption of IRC Appendix AQ allows for relaxation of various requirements in the body of the code as they apply to houses that are 400 square feet in area or less. Attention is specifically paid to features such as compact stairs, including stair handrails and headroom, ladders, reduced ceiling heights in lofts and guard and emergency escape and rescue opening requirements at lofts. Adoption of IRC Appendix AZ---Building deconstruction is intended to increase the amount of material salvaged for reuse through the act of deconstruction when a building or structure is demolished.
2	16.02.150	States which regulations shall be known as the "building codes" of King County. Current code lists the IBC, IRC, IECC, IMC, IEBC, IPMC, UPC, and IFC.	Proposes to remove the King County Building Security Code (K.C.C. chapter 16.10).	Proposed update matches current practice. Current building and residential codes address building security, superseding this 30-year-old code. Regulations are simplified by aligning with the state code.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
3	16.02.152	States that the IBC applies to buildings under this code, except for building types covered by the IRC, and provisions of the IMC and International Fuel Gas Code (IFGC).	Proposes to add the following limited uses to the IRC scope, when such buildings are equipped with an automatic fire sprinkler system: • Care facilities with five or fewer persons receiving custodial care within a dwelling unit, • Care facilities with five or fewer persons receiving medical care within a dwelling unit, • Care facilities with five or fewer persons receiving care within a single-family dwelling. Proposes to allow fuel systems to be regulated by the IFGC, and clarifies the type of fuel gas piping, structure types, and use types to which the IFGC will apply.	These three uses were added to the scope of the 2021 IRC by the state in WAC 51-51-01010, and this proposed update brings the County into alignment with the state building code. Minor edits related to fuel systems were added to align with revised State code language. The content and intent of code remains the same.
4	16.02.190	Outlines the authority for enforcement of the building code to the building official, authority to enforce the IFGC to the building official and the director of public health.	Proposes to remove (1) references to specific chapters of the IBC and IRC and (2) authority from the director of public health to enforce specified chapters of the IBC.	Clarifies the responsibilities of the building official and director of public health regarding enforcement of the fuel gas provisions of the IRC (Chapter 24), the plumbing provisions of the IBC (Chapter 29), and IFGC in its entirety.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
5	16.02.240	Lists projects exempt from permits, including the following: • Residential accessory buildings up to 200 square feet in size that meet certain design requirements, • Agricultural and forestry accessory buildings which meet certain design requirements, • Fences less than 6 feet high, • Retaining walls less than 4 feet high, • Water tanks not exceeding 5,000 gallons, • Sidewalks, decks, and driveways under 30 inches above grade, • Certain interior improvements, • Temporary theater installations, • Prefabricated swimming pools, • Temporary growing structures, • Swings, • Window awnings that meet certain design requirements, • Certain nonfixed interior features, • Reroofing a residential structure with exceptions, • Submerged, freestanding mechanical boat lifts which meet certain criteria, • Work in the public way and utility towers, • Mechanical equipment which meets certain criteria, • Antenna and satellite dishes which meet certain criteria, • Roof-mounted photovoltaic solar panels which meet certain criteria, • Ground-mounted wind turbines which meet certain criteria, • Portable heating or cooking appliances, • Replacement of minor parts of equipment which meet certain criteria, • Mechanical equipment which meets certain criteria.	Proposes language to clarify that an exemption does not grant authorization for any work. Modifies the following building permit exemptions: • Clarifies that prefabricated pools adjacent to a Group R-3 occupancy are exempt. • Swings and playground equipment that exceed 10 feet in height and 150 square feet in area and are installed inside all occupancies are not exempt. • Relocates and modifies the notes that the code does not grant authorization for any work and that separate plumbing, electrical, and mechanical permits are required. Adds or clarifies the following building permit exemptions: • Detached accessory structures must be unconditioned to be exempt, • Shade cloth structures for nursery or agricultural purposes. • Wildlife exclusion fencing up to 8 feet.	Clarifies the intent of the section which is to continue requiring compliance with the code even when permits are not required. Other proposed changes: • Clarify that to be exempt from permit, detached accessory structures may not be conditioned; code was previously silent on this issue. • Clarify that swimming pool barriers, regardless of height, require a permit; previously all fences not more than six feet in height were exempted. • Add agricultural wildlife exclusion fencing up to eight feet in height to exempt work as requested by commercial farmers in conjunction with Washington State Department of Fish & Wildlife (WDFW). WDFW will provide farmers with funding for such fencing if it is permit exempt, and these fences are typically located and constructed such that they do not pose an increased life safety risk.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
6	16.02.290	Requires approved permits to expire two years from the date of issuance, and permits issued to correct a code violation to expire one year from the date of issuance. Permits may be extended for one-year periods with the following conditions: • An application for a permit extension is submitted at least seven, but no more than 60 days before the expiration date. • Construction has substantially begun. • The applicant has not requested more than two prior permit extensions. • Extensions beyond the second extension are permitted to complete a structure or mechanical system which is substantially constructed. • A permit may be revised, but does not constitute an extension.	Proposes the following: • Specifies expiration dates for certain types of permits. • Modifies the requirement to have substantial construction underway to request an extension. • Adds conditions under which extensions will and will not be granted. • Adds an option for a 60-day extension when only a final inspection is remaining.	Restructures the section and simplifies the language to allow for better compliance and enforcement. Allows additional language flexibility for substantially completed projects.
7	16.02.340	An applicant may begin work prior to obtaining the required permit or approval if the applicant deposits cash or an equivalent in escrow, and the building official determines: • The work does not endanger or harm the property, • The work would not violate SEPA requirements.	Proposes to add a condition that the scope of work must not include alterations, site development, or approvals regulated under K.C.C. Title 9.	The intent of Pre-Issuance Construction Authorizations (PICAs) is to allow early construction to begin on a building before the full building permit has been reviewed and approved but not to permit site work prior to completion of drainage reviews. This change corrects the language to clarify that significant site work is not to be undertaken before there is sufficient knowledge that the site may be developed in compliance with stormwater regulations in K.C.C. Title 9. This proposed provision allows for review and enforcement of pre-construction stormwater mitigation measures.
8	16.02.440	Energy efficiency inspections are required to be in accordance with the IECC as adopted and amended by WAC 51-11C and 51-11R, and as amended in Title 16.	Updates the IBC reference.	The proposed change clarifies the section number that was updated in the 2021 IBC and corrects the reference from the IECC to the WSEC.
9	16.02.470	A building official may issue a certificate of occupancy (CO) or a certificate of shell completion.	Revised language to remove reference to certificate of shell completion.	Removed policy language from code which addressed how to issue certificate of occupancies for shell only (speculative use) buildings.
10	16.02.540	A CO and/or certificate of shell completion shall be posted on the premises.	Removes the reference to certificate of shell completion.	This removed a reference that is no longer used; see description for 16.02.470 above.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
11	16.03.020	The following definitions within IBC 202 are not adopted: • Base flood, • Base flood elevation, • Coastal high-hazard area, • Design flood, • Dry floodproofing, • Flood hazard area, • Flood insurance rate map (FIRM), • Flood insurance study, • Floodway, • Historic buildings, • Special flood hazard area, and • Substantial improvement.	Proposes to remove the definition of historic buildings from the list of definitions that are not adopted, thereby adopting the IBC definition of the term "historic buildings." This action aligns County code with the I codes.	This section is being revised to align the County code with the I-Codes.
12	16.03.280	Defines a water heater.	Technical corrections.	Updated water heater definition to align with Seattle's code for ease of enforcement by Seattle/King County Public Health. It is preferrable in plumbing code to be in alignment with Seattle codes where the County does not align with the State codes.
13	16.04.XXX New Section	n/a	Proposes to modify IBC 429.2. Adds requirements for electric vehicle (EV) charging infrastructure.	EV charging infrastructure is an essential part of the SCAP. Accommodating emerging technologies and reducing reliance on fossil fuel energy sources in the construction of new buildings is easier and less expensive than retrofits.
14	16.04.440	Supplements IBC to clarify who can complete a flood elevation certificate.	Corrects King County code language to clarify a surveyor is required to complete Federal Emergency Management Agency (FEMA) elevation certificate. Removes reference to engineer. Adds a reference to a K.C.C. code section for further information.	This revision brings K.C.C. into compliance with State law and provides reference to Title 21A to assist with navigating the K.C.C.
15	16.04.600	Supplements IBC appendix AZ 106 with requirements for noise reduction coefficient and sound transmission class.	Technical corrections.	Spelled out units of measurement and reformatted for consistency with K.C.C. and ease of reading.
16	16.04.620	Supplements IBC appendix AZ 108 with a definition of the Seattle-Tacoma noise program area.	Technical corrections.	Spelled out units of measurement and reformatted for consistency with K.C.C. and ease of reading.
17	16.04.630	Supplements IBC appendix AZ 109 with requirements for air leakage for all buildings.	Technical corrections.	Reformatted for consistency with K.C.C. and ease of reading.
18	16.04.720	Supplements IBC appendix AZ 118 with requirements for exterior walls, and stud walls.	Technical corrections.	Added metric measurements, spelled out units of measurement, and reformatted for consistency with K.C.C. and ease of reading.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
19	16.04.730	Supplements IBC appendix AZ 119 with requirements for exterior window 30 dB compliance	Technical corrections.	Added metric measurements, spelled out units of measurement, and reformatted for consistency with K.C.C. and ease of reading.
20	16.04.740	Supplements IBC appendix AZ 120 with requirements for exterior doors 30 dB compliance.	Technical corrections.	Added metric measurements, spelled out units of measurement, and reformatted for consistency with K.C.C. and ease of reading.
21	16.04.750	Supplements IBC appendix AZ 121 with requirements for roofs 30 dB compliance.	Technical corrections.	Added metric measurements, spelled out units of measurement, and reformatted for consistency with K.C.C. and ease of reading.
22	16.04.760	Supplements IBC appendix AZ 122 with requirements for ceilings 30 dB compliance.	Technical corrections.	Added metric measurements, spelled out units of measurement, and reformatted for consistency with K.C.C. and ease of reading.
23	16.04.770	Supplements IBC appendix AZ 123 with requirements for 30 dB compliance.	Technical corrections.	Corrected the code reference from International Energy Conservation Code (IECC) to the Washington State Energy Code (WSEC).
24	16.04.780	Supplements IBC appendix AZ 124 with requirements for ventilation 30 dB compliance.	Technical corrections.	Added metric measurements, spelled out units of measurement, and reformatted for consistency with K.C.C. and ease of reading.
25	16.04.800	Supplements IBC appendix AZ 126 with requirements for exterior walls 35 dB compliance.	Technical corrections.	Added metric measurements, spelled out units of measurement, and reformatted for consistency with K.C.C. and ease of reading.
26	16.04.820	Supplements IBC appendix AZ 128 with requirements for exterior doors 35 dB compliance.	Technical corrections.	Added metric measurements, spelled out units of measurement, and reformatted for consistency with K.C.C. and ease of reading.
27	16.04.830	Supplements IBC appendix AZ 129 with requirements for roofs 35 dB compliance.	Technical corrections.	Added metric measurements, spelled out units of measurement, and reformatted for consistency with K.C.C. and ease of reading.
28	16.04.840	Supplements IBC appendix AZ 130 with requirements for ceiling 35 dB compliance.	Technical corrections.	Added metric measurements, spelled out units of measurement, and reformatted for consistency with K.C.C. and ease of reading.
29	16.04.850	Supplements IBC appendix AZ 131 with requirements for floors 35 dB compliance.	Technical corrections.	Corrected the code reference from International Energy Conservation Code (IECC) to the Washington State Energy Code (WSEC).
30	16.04.860	Supplements IBC appendix AZ 132 with requirements for ventilation dB compliance.	Technical corrections.	Added metric measurements, spelled out units of measurement, and reformatted for consistency with K.C.C. and ease of reading.
31	16.04.xxx New Section	n/a	Propose to require EV charging infrastructure to be provided in accordance with a specific section of the building code.	To be consistent with other changes related to EV charging infrastructure.
32	16.05.040	Provides climate and geographical design criteria for building and planning in King County.	Technical corrections.	Added metric conversions. No substantive code change.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
33	16.05.065	Provides requirements for emergency escape windows under decks and porches.	Technical corrections.	Aligned code language with 2021 IBC.
34	16.05.xxx New Section	n/a	Modifies IRC Table R311.2.	Clarified which spaces above and within garages require egress doors.
35	16.07.XXX New Section	n/a	Supplements WSEC C101 with timelines for vesting of initial tenant improvements.	Clarified the vesting of tenant improvements and sets limits on the use of older energy efficiency codes.
36	16.07.040	Definitions to supplement the definitions within the IECC as adopted, amended, and supplemented by K.C.C. Title 16.	Proposes to remove the following definitions: • Automatic control device, • Conditioned space, • Continuous insulation, • Controlled receptacle, • DOAS, • Mass transfer deck slab, • Multi-pass, • Single-pass, • Solar zone, and • Temperature maintenance. Proposes to add the following definitions: • Best efficiency point • Clean water pump, • High-end trim, • Occupied standby mode, and • Pump energy index.	Identical or equivalent definitions for the terms being removed were integrated into the 2021 model codes. Best efficiency point, clean water pump, and pump energy index are added to support proposed code additions in IECC 403.15. Other definitions are added to support emerging technologies that meet the goals of the SCAP.
37	16.07.xxx New Section	n/a	WSEC C402.1.3 provides guidance on how to calculate insulation to meet energy code requirements.	This section simplifies the use of the code.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
38	16.07.060	Provides requirements for the U-factor of opaque thermal envelope assemblies.	Proposes technical corrections, including: • Reduce maximum allowed metal frame building assembly u-value (from U-0.052 to U-0.0050) to match state code change. • Reduce maximum allowed nonswinging door assembly u-value (from U-0.34 to U-0.31) to match state code change. • Added garage doors with more than 14 percent glazing to the table to match state code change. • Did not adopt state footnotes b, d • Updated footnote a to reflect WSEC rather than IECC • Updated footnotes h, i, j, k to match state • Added footnote l	Align with WSEC (State code changes) for greater thermal performance of building thermal envelope elements.
39	16.07.xxx New Section	n/a	Proposed modification to clarify how to address the high-performance fenestration requirements of the modified Table C402.4 in the component performance alternative calculation (WSEC C402.1.5).	Proposed changes to Table C402.4 (see description of 16.07.100 below) required that this section be updated to provide instructions on how to incorporate the requirements of the table into this equation.
40	16.07.100	Provides U-factor requirements for fenestration.	Modifies the fenestration table (WSEC C402.4) to require a minimum of 20 percent of all glazing in a building to be at “high-performance” fenestration. The remaining 80 percent of fenestration is permitted to meet standard (state code) thermal performance requirements.	Increased required thermal performance for a portion of the windows in new buildings will assist in transitioning the industry to triple-glazing as typical in the region. An increased demand for triple-glazing will eventually reduce cost and lead time and help support a market transition, possibly leading to a 100 percent requirement in future code cycles.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
41	16.07.XXX New Section	n/a	Modifies the allowable area of vertical glazing from a flat 30% for all building types, to a percentage based on building occupancy and use type.	Proposed change sets maximum allowable glazing area by occupancy and use type, rather than a standard 30 percent or 35 percent for every building type. Setting allowable areas by use type more closely aligns with typical designs for building use types and provides more equitable implementation of the provisions. Large office and multifamily will have a 35 percent baseline. Grocery and standalone retail percentages were doubled (from ASHRAE baseline) to allow for exceptional circumstances and schools were increased from 22 percent to 26 percent. Changes also required re-wording for Equation 4-3. Overall, the stringency of the code would increase even if some building types exceed the original maximum of 30 percent.
42	16.07.XXX New Section	n/a	Modifies code section WSEC C402.4.1 which outlines how to calculate high performance alternates. These changes were needed since Section 41 requires high-performance glazing as a baseline.	The base code limits the amount of glazing in new buildings. This alternative allows buildings to be designed with more glazing (including windows) if the glazing installed has a higher performance rating. Since amendments in other sections increase the stringency of the base code, this section had to be amended accordingly.
43	16.07.110	Provides requirements for high-performance fenestration.	Proposes to decrease the required U-factor for glazing to qualify as high-performance, making the standard essentially triple-glazing or equivalent. These changes were needed since Section 41 requires high-performance glazing as a baseline.	The base code limits the amount of glazing in new buildings. This alternative allows buildings to be designed with more glazing (including windows) if the glazing installed has a higher performance rating. Since amendments in other sections increase the stringency of the base code, this section had to be amended accordingly.
44	16.07.130	Provides a list of medical office and residential occupancy listings and whether the areas are included or excluded from HVAC TSPR.	Move code text into tabular form.	The proposed amendment puts the requirements in a table that is easier to read than a text version.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
45	16.07.140	Supplements WSEC C403.1.4 and restricts the types of electric resistance and fossil fuel HVAC heating equipment. Provides several dozen exceptions.	Modifications made to the exceptions to WSEC C403.1.4 Use of electric resistance and fossil fuel-fired HVAC heating equipment. Removes climate zones not applicable to the County. • Exception 2: Permits electric resistance wattage to be averaged over all the rooms in one apartment. • Exception 11: Requires hydronic systems using district heating coils to be sized large enough to work with 118°F water, to accommodate future change to heat pump. • Exception 16: Clarification for King County climate • Exception 18: Permits fossil fuel for essential facility emergency generators and emergency heating to be used during power outages • Exception 19: Clarification requested by staff that electric resistance “standby equipment” is permissible. • Exception 20: Clarifies that emergency generators for any building type are permitted to use fossil fuel. • Exception 21: Covers auxiliary electric resistance heating for wastewater heat pump systems.	Various clarifications for when electric resistance and/or fossil fuels may be used to promote design flexibility.
46	16.07.XXX New Section	n/a	WSEC C403.3.2 allows HVAC equipment to meet efficiency values including HSPF2, EER2, and SEER2 after they have been published by the US Department of Energy.	HSPF2, EER2, and SEER2 are newer metrics which more accurately represent real-world efficiency and performance of equipment. Adding this sentence clarifies that once equipment is rated to the new metrics, those can be used in lieu of the previous ones.
47	16.07.xxx New Section	n/a	Residential occupancies (dwelling and sleeping units) are required by the mechanical code to be provided with balanced ventilation with heat recovery, meaning that they are already designed with dedicated outdoor air systems (DOAS). This change proposes to apply the energy code DOAS rules to buildings that use central or rooftop systems.	This amendment ensures that DOAS is clearly required rather than being implied, and hence all DOAS rules apply. This also clarifies which conditions do or do not require it.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
48	16.07.xxx New Section	n/a	Modifies section WSEC C403.3.5.2 to reduced fan power allowance from 1 watt per cfm to 0.8 watts per cfm for DOAS systems.	Reduces fan power and increased required energy efficiency of installed DOAS systems. Requiring a more efficient fan for outdoor air delivery improves overall system energy efficiency, which is in line with SCAP goals, as well as the State's target to construct increasingly energy efficient homes and buildings by the year 2031 per RCW 19.27A.020.
49	16.07.xxx New Section	n/a	Added an exception 2 to Section C403.3.5.5 to allow for supplemental heating in DOAS systems in residential occupancies.	Allows supplemental heating to be used in residential occupancies with zonal systems for increased system design options while maintaining energy efficiency goals.
50	16.07.xxx New Section	n/a	Adds a new section C403.3.5.6 that, in some situations, requires that the DOAS be equipped with an air economizer bypass damper, energy recovery media bypass damper, or energy recovery wheel speed control. Controls must be configured to minimize energy recovery operation or maintain an appropriate DOAS.	Requires additional controls for larger air systems (over 500 cfm) to prevent overheating of supply air to maximize energy efficiency.
51	16.07.xxx New Section	n/a	Renumbering subsection due to new section added in Section 51 of the ordinance.	The code section references need to be updated to reflect new section numbering. No substantive changes.
52	16.07.xxx New Section	n/a	WSEC C403.3.6 is duplicated in State code by WSEC C403.7.6.1, so it does not need to be adopted.	Removes duplicative section and provides a reference to where the information can be found for readability and ease of use.
53	16.07.xxx New Section	n/a	Adds an exception to WSEC C403.4.1.7 for R-2 dwelling units (apartments) to be exempted from providing demand responsive controls.	Exempting apartments from demand responsive controls allows more flexibility in design and aligns with other proposed amendments regarding off-hours controls (found in Section 55).
54	16.07.xx New Section	n/a	The proposed change to WSEC C403.4.2 adds common areas in residential buildings to the use types which must be provided with off-hours controls be provided for heating setback.	Off-hours controls increase system efficiency and reduce waste for areas that are not always occupied. This energy efficiency measure aligns with SCAP goals by reducing heating and cooling energy use in spaces that are not always occupied.
55	16.07.xx New Section	n/a	Modifications to economizer exceptions found in WSEC C403.5. Adds options d and e to Table C403.5(9) for more design flexibility for equipment used to cool server rooms, etc.	Exception clean-up for code clarity. Allows more flexibility in design for medical and lab uses, and spaces provided with DOAS systems which either include, or are not required to be provided with, energy recovery.
56	16.07.xxx New Section	n/a	Adds code reference to clarify ventilation and exhaust systems must comply with newly proposed Section C403.8.7.	Provides necessary clarification to ensure applicability of proposed subsection C403.8.7.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
57	16.07.180	Requires and provides regulations for energy recovery ventilation systems.	Proposes to increase the minimum efficiency from 60 percent to 67 percent for R-2 occupancies. Also proposes to add an exception for certain listed H-ERVs.	Requiring a more efficient mechanical system installed up front in residential units improves overall system energy efficiency, which is in line with SCAP goals, as well as the State's target to construct increasingly energy efficient homes and buildings by the year 2031 per RCW 19.27A.020. Further, this will result in decreased energy bills for residents.
58	16.07.xxx New Section	n/a	Proposes to reduce the system airflow requirement which triggers low leakage relief dampers in systems from 5,000 cfm to 300 cfm.	Requiring low leakage motorized dampers in smaller systems to reduce air leakage from buildings results in better air quality and more precise temperature control. This also reduces energy usage from heating or cooling loads lost due to leakage from the building thermal envelope.
59	16.07.XXX New Section	n/a	Proposes to supplement WSEC C403.8.4 by clarifying efficiency requirements for low-capacity ventilation fans.	Provides more granular requirements for different fan types which more readily matches industry standards.
60	16.07.XXX New Section	n/a	Proposes to supplement WSEC C403.8.7 by requiring occupied standby controls in certain use types, and outlines the functionality requirements for these controls.	Occupied standby controls increase efficiency ventilation systems by pausing ventilation air and setting the temperature back 1-degree when the space is unoccupied. Requiring a more efficient mechanical system installed up front in residential units improves overall system energy efficiency, which is in line with SCAP goals, as well as the state's target to construct increasingly energy efficient homes and buildings by the year 2031 per RCW 19.27A.020. Further, this will result in decreased energy bills for residents.
61	16.07.XXX New Section	n/a	WSEC C403.10.1.2.insulation requirements for duct systems. The proposed changes add requirements for two scenarios not previously addressed.	Clarifies insulation requirements for ducts conveying unconditioned air by providing specific instructions for how to handle those instances with specific directions. This will reduce heat loss for greater energy efficiency, reduce wear and tear on HVAC systems, as well as increase air quality by preventing condensation which can lead to mold growth. Further, this will improve comfort for occupants with a more constant air temperature.
62	16.07.xxx New Section	n/a	Adds reference to duct testing requirements in proposed section C403.10.2.4.	Reference is needed to clarify applicability of added subsection for duct testing.
63	16.07.XXX New Section	n/a	Proposes to modify WSEC C403.10.2.4 to include duct leakage testing requirements for high pressure duct systems and clarifies testing procedures.	Duct leakage testing identifies leaks in HVAC ductwork, which waste energy by allowing conditioned air to escape, leading to higher utility bills, inconsistent temperatures, and potential indoor air quality issues. Duct testing ensures that the HVAC system is operating as designed and at peak efficiency.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
64	16.07.xxx New Section	n/a	WSEC C403.11.1 states that systems installed to provide heat outside a building or in unheated spaces shall be radiant systems. They must be controlled by an occupancy sensing device or timer.	Including unheated spaces in the scope of this section is in line with the code intent, and adding a 20-minute time limitation more clearly defines when a space is “not occupied.”
65	16.07.XXX New Section	n/a	Proposes add new section WSEC C403.15, which sets minimum efficiency standards for clean water pumps.	Increases hydronic pump systems efficiency for systems delivering heat through liquids. Does not apply to potable water pumps. The language mimics the 2024 IECC C403.17 model code. The methodology, requirements, and exceptions contained in this proposal mirror what is already included in ASHRAE 90.1-2019 and what is required by DOE to demonstrate compliance. Listing them in the IECC will provide designers with the necessary information on how to calculate PEI and which pumping systems are required to comply.
66	16.07.XXX New Section	n/a	Modifies exception to clarify that (1) lab sinks are considered process equipment and (2) exempt manufacturing, industrial or commercial process equipment is still required to comply with C404.6 (insulation of hot water piping).	Clarifies that laboratory sinks are classified as "process" equipment, for purposes of this code, and which C404 subsections apply to process and industrial equipment.
67	16.07.XXX New Section	n/a	Proposes to modify Table 404.2 by adding a new footnote, Footnote M.	Provides pointer to section on required storage tank insulation, to improve code readability.
68	16.07.220	Requires that buildings with more than four R-1 or R-2 dwelling or sleeping units and any other building with a heated water circulation system over a certain capacity cannot use fossil fuel combustion or electric resistance.	Aligns text to current WSEC language and adds allowance for ground-source heat pump water heaters systems. Removes allowance for fossil-fuel supplemental water heating. Adds exceptions 8-10 for certain point of use instantaneous electric water heaters, unitary air source heat pump water heaters, and standby water heating using electric resistance.	Transitioning to heat pump technology for water heating improves overall system energy efficiency, which is in line with SCAP goals, as well as the State’s target to construct increasingly energy efficient buildings by the year 2031 per RCW 19.27A.020. Further, this will result in decreased energy bills for owners and tenants.
69	16.07.XXX New Section	n/a	Increases allowable piping length between hot water source and fixture for supply pipe sizes between 3/8” to 5/8”.	Provides additional flexibility for installers and reduces development costs without reducing efficiency.
70	16.07.XXX New Section	n/a	Proposes to supplement WSEC C404.3.3 that determines piping size for dwelling units in R-2 occupancies.	This proposed amendment provides criteria for sizing hot water supply systems for residential uses, ensuring systems installed are not over-sized for the demand, which can result in higher energy usage than necessary and reduce equipment lifespan.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
71	16.07.XXX New Section	n/a	Proposes to modify WSEC C404.6 to add Table C404.6 rather than referring to Table C403.10.3 (in another section of the code).	This consolidates all hot water pipe insulation requirements together into one place for easier code use. Only two temperature ranges are displayed because domestic hot water is rarely heated outside the 105-degree to 200-degree range. The footnote re: "outside the stated range" addresses these exceptions. This edit removes irrelevant information, clarifies the "vertical support" exception, and states that tubular insulation is still subject to pipe insulation requirements even if a manufacturer recommends thinner insulation. New Table C404.6 makes requirements more readable, consolidating hot water pipe insulation thickness requirements in one place, instead of having to refer to a table in C403 and its footnotes. Compared to the State table, the proposed table integrates State footnote "a" into the table. Conductivity and mean rating temperature were moved to the right. Additionally, the fluid operating temperature ranges are simplified.
72	16.07.XXX New Section	n/a	Proposes to modify WSEC C404.7.1.2 for multiple riser systems. Item 1 is clarified to include 4-hour time period, Item 2 is deleted, Item 3 is modified for more precise balancing, Item 4 is added to require a variable speed circulation pump. Exception is added, which states Group I and Group R occupancies are not required to have controls to turn off circulation pumps.	Proposed change provides more precise design criteria for multiple riser systems – by replacing the term "extended periods when hot water is not required" to a 4-hour period, and further by defining what is required for balancing each riser and piping zone.
73	16.07.XXX New Section	n/a	State code requires heat recovery be provided for pools, spas, and hot tubs. Proposed change clarifies that solar water heating systems required by C406 credits or C411 are not permitted to be used for exemptions from this section.	Clarifies which solar water heating systems are exempt from heat recovery. Reduces “double-dipping” of systems that are now required in base code from other proposed changes.
74	16.07.XXX New Section	n/a	Adds code references for receptacles, controlled receptacles, solar readiness, and renewable energy. Added a minimum efficacy for luminaires in dwelling units.	Provide editorial changes for code usability. Clarifies which existing sections apply to different systems.
75	16.07.XXX New Section	n/a	Proposes to modify WSEC Table C405.2(1) to correct typos and add reference for covered parking to applicable subsection.	Editorial corrections for code usability.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
76	16.07.xxx New Section	n/a	Minor modifications related to lighting control functions within warehouse storage areas and library stacks (WSEC C405.2.1.2).	Text revision to clarify that the 50 percent required reduction must be a 50 percent reduction from full power. Requires time switch lighting controls in areas that do not have occupant sensor lighting controls. This will reduce energy usage of lighting systems in areas that are infrequently occupied, saving energy and reducing utility bills.
77	16.07.xxx New Section	n/a	Clarifies functionality of time switch controls. Reduced individual override switch controls to lighting for an area not larger than 2,500 square feet (reduced from 5,000 square feet).	Greater specificity of controls requirements reduces confusion for designers, installers, and inspectors. Reducing area covered by individual overrides maintains more precise control of energy usage.
78	16.07.xxx New Section	n/a	Proposes to modify WSEC C405.2.3 to prohibit stairwells and parking garages from using manual lighting control switches.	For safety and security of occupants in these spaces, manual lighting controls should not be easily accessible.
79	16.07.xxx New Section	n/a	Proposes to modify WSEC C405.2.4 to use term “dimming” versus “light-reduction” and provides a list of space types where dimming controls are required.	This proposed amendment draws from a proposal for the 2024 IECC codes, expanding locations where dimming controls are to be provided. Dimming controls allow occupants more precise lighting control for occupant comfort, while also saving electricity.
80	16.07.xxx New Section	n/a	Proposes to modify WSEC C405.2.4.1 to outline required functionality of dimming controls including manual controls readily available to occupants, and the ability to dim lighting to between 10 percent to 100 percent of full power (rather than 50 percent to 100 percent of full power).	Specific controls requirements are necessary for designers to select code compliant products and for inspectors to verify compliance. Controls which provide greater dimming capability allow occupants more precise lighting control for occupant comfort, while also saving electricity.
81	16.07.xxx New Section	n/a	Proposes to modify WSEC C405.2.5.1 for daylight responsive controls function. Updates reference to sections in item 7. Item 10 is updated to not more than 60 lineal feet, item 12 is added for initial illuminance level settings.	Specific controls requirements are necessary for designers to select code compliant products and for inspectors to verify compliance. Daylight responsive controls provide automatic reduction in lighting for areas near windows or skylights that receive natural lighting. These more specific control functions allow occupants more precise lighting control for occupant comfort, while also saving electricity.
82	16.07.xxx New Section	n/a	Proposes to modify WSEC C405.2.5.1.1 to require daylight responsive lighting controls be provided with continuous, rather than stepped dimming, and reduce lighting down to 10% of full power, versus 15 percent of full power.	Specific controls requirements are necessary for designers to select code compliant products and for inspectors to verify compliance. Controls which provide greater dimming capability allow occupants more precise lighting control for occupant comfort, while also saving electricity.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
83	16.07.xx New Section	n/a	Proposes to modify WSEC C405.2.6: 1: to add a requirement for automatic controls to turn off lighting installed within furniture in hotel rooms and sleeping units after 20 minutes of vacancy. 2: reference to "nonhuman life forms: edited to "plants and animals."	Adding lighting installed in furniture in hotel rooms is more specific to common installations for that use type. The other edit is for readability.
84	16.07.310	Provides interior lighting allowances for certain uses using the building area method.	Proposes changes to Table C405.4.2(1), in most cases decreasing the allowed watts per square foot allowed in most building types. Proposes to remove footnotes for easier compliance.	Reduce all the interior lighting power densities (LPDs) to 10% below 2024 IECC (about 5 percent below current WA LPDs) for more energy efficient installations. This will reduce energy usage of lighting systems in most building types and is a low upfront cost way to save energy and reduce long term utility bills. Following State code by striking all the footnotes to the table and the footnotes in the table entries.
85	16.07.320	Provides interior lighting allowances for certain uses using the space-by-space method.	Proposes changes to Table C405.4.2(2), in most cases decreasing the allowed watts per square foot allowed in most space types. Adds some use types for more specificity in the code application. Footnotes are updated to reflect changes made at the state level for energy efficiency. Eliminate a footnote about task lighting since the code does not regulate task lighting.	Reduce all the interior LPDs to 10 percent below 2024 IECC (about 5 percent below current WA LPDs) for more energy efficient installations. This will reduce energy usage of lighting systems in most building types and is a low upfront cost way to save energy and reduce long term utility bills. Following State code by striking all the footnotes to the table and the footnotes in the table entries.
86	16.07.XXX New Section	n/a	Proposes to modify WSEC C405.4.2.2.1. to reduce the additional lighting power allowed in certain retail uses to highlight merchandise.	This will reduce energy usage of lighting systems and is a low upfront cost way to save energy and reduce long term utility bills.
87	16.07.XXX New Section	n/a	Proposes to modify WSEC C405.5.5 to require full cutoff luminaires for open parking, outdoor areas, and roadways, and proposes criteria.	The proposed cutoff requirements for lights mounted above 15 feet are aimed at decreasing energy consumption for exterior lighting and reducing light pollution and light spillover onto adjacent properties.
88	16.07.XXX New Section	n/a	Proposes to add Exception 6 to WSEC C405.8, allowing small fans to be exempted from C405.8 when they meet the modified Section C403.8.4 for low-capacity fans.	The proposed exception is to coordinate with the proposed change in Section C403.8.4 "Low-Capacity Ventilation Fans".
89	16.07.XXX New Section	n/a	Current K.C.C. 16.07.210 requires Energy Star commercial kitchen equipment (fryers, hot food holding cabinets, steam cookers, and dishwashers). Current K.C.C. adds this to Section 403 of the WSEC, the proposed change corrects the location of this local amendment to end of Section 405 of the WSEC.	Correcting location of local amendment within the structure of the State code only.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
90	16.07.XXX New Section	n/a	Proposes to supplement WSEC C405 with a section on electrification readiness in new buildings where gas appliances are being installed in commercial kitchens. The change requires an electrical panel to be provided within or adjacent to each space with commercial cooking appliances, sized to serve future electric appliances to replace all fossil fuel-fired appliances in the space with a minimum voltage.	Allows the building owner and tenants to install electric commercial appliances instead of gas-fired appliances in the future. Conversion projects often encounter electrical service capacity issues which can be cost-prohibitive for remodels. This provision will prepare buildings to provide infrastructure for future electric appliance installations at a much lower cost.
91	16.07.XXX New Section	n/a	Proposes to modify WSEC Table C406.1 to require that projects in both new buildings and building additions achieve more energy credits. Load management credit requirements are unchanged.	This change will require new construction or building additions to be more energy efficient by 10 percent across the board, meeting the goals of the SCAP, as well as the State's target to construct increasingly energy efficient buildings by the year 2031 per RCW 19.27A.020. Further, this will result in decreased energy bills for owners and tenants.
92	16.07.XXX New Section	n/a	Corrects code references within WSEC C406.1.1.1.	Corrected the code references that were incorrect in the State code.
93	16.07.XXX New Section	n/a	Corrects code references within WSEC C406.1.1.2.	Corrected the code references that were incorrect in the State code.
94	16.07.XXX New Section	n/a	Proposes to modify WSEC Table C406.2(1): 1: removes credits that were added into the base code by other proposed changes. 2: amends points for certain credit options.	City of Seattle contracted with the Pacific Northwest National Laboratory (PNNL) to analyze the State credit system with the final amendments in the WA code. PNNL did high-level energy modeling of 17 proto-typical building types for analysis, and proposed the amended point values for the Seattle energy codes, which the County amendments are proposing to adopt. These are more accurate in terms of energy savings for each measure by building type. Also, the enhanced commercial kitchen equipment credit (#27) is eliminated since this is already required by code and other credits are adjusted to account for increased requirements throughout the code.
95	16.07.XXX New Section	n/a	Proposes to modify WSEC Table C406.2(2) to remove credits that were added into the base code by other proposed changes.	Removed two credit options that were added to the base code as required.
96	16.07.XXX New Section	n/a	Adds Group R-1 sleeping units (such as hotel rooms) to those that can achieve credit for installation of advanced HVAC controls.	Allows this credit to be applied to sleeping units in R-1 occupancies (hotels).

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
97	16.07.XXX New Section	n/a	Clarifies WSEC C406.2.2 (more efficient HVAC system performance) is not allowed to be used in low energy or semi-heating spaces, or in systems with fossil-fuel fired HVAC equipment or district energy systems.	Clarifies which projects are eligible to use this credit option.
98	16.07.xxx New Section	n/a	Clarifies WSEC C406.2.2.3 (more efficient HVAC equipment heating performance) is not allowed to be used in systems with fossil-fuel fired HVAC equipment or district energy systems.	Clarifies which projects are eligible to use this credit option.
99	16.07.xxx New Section	n/a	Clarifies WSEC C406.2.2.6 (high performance DOAS) is not allowed to be used in systems with fossil-fuel fired HVAC equipment or district energy systems. Further, provides reference to two other proposed local amendments (C403.7.6.1 and C403.8).	Clarifies the required efficiencies for DOAS systems for R-2 occupancies, and clarifies which projects are eligible to use this credit option.
100	16.07.xxx New Section	n/a	Clarifies which space types are eligible for WSEC C406.2.4.2 (enhanced digital lighting controls).	Clarifies that this credit cannot be used in larger open office areas where the base code already requires advanced lighting controls.
101	16.07.xxx New Section	n/a	Clarifies WSEC C406.2.6 (reduced energy use in service water heating) is not allowed to be used in systems with fossil-fuel fired equipment or district energy systems.	Clarifies which projects are eligible to use this credit option.
102	16.07.xxx New Section	n/a	Proposes to modify WSEC C406.2.6.3.1 (heat pump water heating) to require projects using this credit use refrigerants with low global warming potential.	Allows only the use of refrigerants with low global warming potential in alliance with SCAP goals.
103	16.07.xxx New Section	n/a	Proposes to not adopt WSEC C406.2.10.	Struck because it is now required in the base code based on amendments to C404.7.1.2.
104	16.07.xxx New Section	n/a	Proposes to not adopt WSEC C406.2.14.	Struck because it is now required in the base code based on amendments to C405.14.
105	16.07.xxx New Section	n/a	Proposes to modify WSEC C407.2 to allow and provide compliance measures for the "total building performance method."	Clarifies the requirements for construction drawings needed for permit issuance based on proposed project credits.
106	16.07.490	Provides a table of building performance factors for energy conservation	Proposes to modify the performance factors.	This sets values 10 percent below the 2021 State code, in recognition of the County's more stringent prescriptive code.
107	16.07.xxx New Section	n/a	Proposes to modify WSEC Table C407.3(3) that provides site energy performance target to be used for compliance with Section C407.3.	This proposed amendment sets value 10% below the 2021 State code, in recognition of the County's more stringent prescriptive code.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
108	16.07.xxx New Section	n/a	Proposes to modify WSEC C407.3.1 that limits substandard envelopes to not more than 10 percent higher than Allowed Total UA (versus 20 percent higher as allowed by state code).	Reduces the calculated UA of a proposed building to not more than 10 percent of allowed UA, rather than 20 percent as allowed by the state code. Aligns the requirements with the high-performance fenestration requirements added to Table C402.4.
109	16.07.xxx New Section	n/a	Proposes to modify WSEC C407.3.4 to include a table of approved unregulated load types. States what is proposed for inclusion in a request for such load types. Proposes that unregulated load savings must follow this section rather than ASHRAE Appendix G Table G.31 – No. 12 Receptable and Other Load Baseline Building Performance Exception.	Clarifies the predicted energy and carbon emission reductions for certain unregulated load types to be used in modeling.
110	16.07.xxx New Section	n/a	Proposes to modify WSEC C408.1.1 to include criteria for the commissioning process on electrical and mechanical permits.	Clarifies where commissioning provisions of different systems are required to be documented within permit plan sets, and at what point in the plan review and inspection process those are to be provided to the County.
111	16.07.xxx New Section	n/a	Proposes to modify WSEC C408.1.2 to state that a commissioning plan shall be submitted to the department prior to the first mechanical inspection.	Allows the commissioning plan to be submitted after permit issuance, but before first mechanical inspection. This timing supports earlier developer engagement in the process and could improve third party outcomes.
112	16.07.XXX New Section	n/a	Proposes to modify WSEC C408.1.3 to state that a commissioning report shall be submitted to the department prior to the final inspection.	Allows the commissioning report to be submitted after permit issuance, but before final inspection. This timing supports typical construction scheduling and commissioning process timing.
113	16.07.xxx New Section	n/a	Proposes to modify WSEC C408.1.4.1 to state which portions of a commissioning plan shall be submitted to the department prior to completion and approval of the mechanical permit and building permit final inspection. Also, proposes requirements for post-occupancy commissioning completion.	Clarifies when final commissioning documents must be submitted and outlines a process for commissioning completion post-occupancy. This is often an issue when buildings want to be granted occupancy by the County, but certain commissioning aspects are not able to be completed for various reasons. This allows developers and contractors more flexibility, while ensuring code requirements are enforceable.
114	16.07.xxx New Section	n/a	Proposes to add WSEC C408.4.2 requiring commissioning of high-end trim, where installed. This comes from the 2024 IECC code change at the national level.	High-end trim is a system that allows lighting to be initially set at about 90 percent output, and gradually ramps up over several years to accommodate degradation of the system. This avoids starting off with more lighting than is necessary.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
115	16.07.xxx New Section	n/a	Proposes to modify WSEC C409.1 to require commissioning of buildings greater than 20,000 square feet (versus 25,000 square feet).	Increases the threshold for commissioning from 20,000 square feet to 25,000 square feet. Clarifies that for group R-2 occupancies, the area within dwelling units may be excluded from that calculation. Requiring more buildings to be commissioned will ensure systems are installed and functioning as intended to provide the energy savings as designed.
116	16.07.xxx New Section	n/a	Proposed addition of an Exception to WSEC C409.2.1 to set guidelines for metering of site lighting and other exterior non-building electrical loads.	The exception allows electrical design and installation more flexibility by explicitly allowing these loads when served by an electrical service and meter separate from the building, to be metered independently, or be combined with the metering of the rest of the building electrical data.
117	16.07.xxx New Section	n/a	Proposes to modify WSEC C409.2.4 to require metering of waste heat reclaimed from sewers or other off-site sources.	Adds a requirement to meter waste heat reclaimed from sewers. Promotes waste heat recovery and building owner awareness to ensure the system functions as designed.
118	16.07.xxx New Section	n/a	Proposes to supplement WSEC C409.3.1 to require ventilation fan energy and other HVAC energy use within enclosed parking garages larger than 3,000 square feet be submetered separately.	This will help to delineate a system that is a potentially large component of garage energy use (a separate system with separate schedules compared to other garage systems). Submetering allows building managers to monitor each individual system, which is useful if/when one of the systems begins to fail and causes spikes in energy use.
119	16.07.xxx New Section	n/a	Proposes to supplement WSEC C409.3.3 to require lighting energy use in parking garages larger than 3,000 square feet to be submetered separately.	This will help to delineate a system that is a potentially large component of garage energy use (a separate system with separate schedules compared to other garage systems). Submetering allows building managers to monitor each individual system, which is useful if/when one of the systems begins to fail and causes spikes in energy use.
120	16.07.xxx New Section	n/a	Adds an Exception to WSEC C409.3.5 which permits exclusion of electric receptacles located in fire-rated or smoke-rated corridors, enclosed stairwells, or egress passageways from required metering.	Adds an exception to omit metering of receptacles in fire rated corridors to avoid conflicts with fire-resistance rated construction.
121	16.07.xxx New Section	n/a	Proposed addition of an Exception to WSEC C409.4.1 to set guidelines for metering of site lighting and other exterior non-building electrical loads.	The exception allows electrical design and installation more flexibility by explicitly allowing these loads, when served by an electrical service and meter separate from the building, to be metered independently, or be combined with the metering of the rest of the building electrical data.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
122	16.07.xxx New Section	n/a	Proposes to modify WSEC C410.1 to regulate walk-in coolers, walk-in freezers, refrigerated warehouse coolers, refrigerated warehouse freezers, and refrigerated display cases.	Clarifies that refrigerated warehouses must comply with either the building thermal envelope requirements of C402 or C410, whichever is more restrictive.
123	16.07.xxx New Section	n/a	Proposes to modify WSEC C410.3 to clarify that refrigerated warehouses must comply with either the building thermal envelope requirements of C402 or C410, whichever is more restrictive. Requires evaporator fans in refrigerated warehouses to be variable speed.	Provide clarification for application of code to refrigerated warehouses.
124	16.07.xxx New Section	n/a	Proposes to modify WSEC C410.5.2 to clarify the minimum efficiency requirements for compressor systems in refrigerated warehouses.	Provide clarification for application of code to refrigerated warehouses.
125	16.07.xxx New Section	n/a	Proposes to modify WSEC C411.1 to reduce building size threshold from 10,000 square feet to 5,000 square feet for purposes of C411 scoping. Further, requires energy generation of 0.75 watts per square foot (versus 0.5 watts per square foot) for scoped buildings. Modifies exceptions to address inadequate building roof sizes and affordable houses projects.	More buildings will be required to be provided with on-site energy, and the size of the required on-site renewable energy will supply, on average, 15 percent of building energy use.
126	16.07.xxx New Section	n/a	Proposes to modify WSEC C411.1.1 to clarify quantity of additional credits from WSEC Table C406.2 a project must achieve when qualifying for an exception to omit installation of on-site renewable energy generation systems.	The current code is increasing the amount of renewable energy required on-site, necessitating a corresponding increase in the number of credits required when solar is not pursued. This ensures actual solar capacity is being added, rather than the purchase of renewable energy certificates (RECs) for existing systems, a practice that could be discontinued following building permit completion.
127	16.07.xxx New Section	n/a	Proposes to modify WSEC C411.2 to include regulations for qualifying on-site and off-site renewable energy delivered or credited to the building project to comply with the code. Proposes to modify WSEC C411.2.1 to list qualifying off-site renewable energy systems.	Proposes additional time to secure this option. It also notes that RECs for a specific off-site project can be submitted, whereas RECs purchased on the open market would not qualify. Clarifies when power purchasing agreements are used, and that such contracts must comply primarily with 411.2.2.
128	16.07.xxx New Section	n/a	Proposes to modify WSEC C411.2.2 to include the requirements that qualifying off-site renewable energy shall meet.	Clarifies that renewable power systems installed to comply with other code requirements also have to comply with documentation requirements and clarifies the timing of submitting the documentation.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
129	16.07.xxx New Section	n/a	Proposes to modify WSEC C411.3.1 to clarify that mechanical equipment clearances must be required by code or the manufacturer to be considered excluded when calculating roof area for required solar readiness.	Provides necessary clarification for the calculation for code enforceability.
130	16.07.xxx New Section	n/a	Proposes to modify WSEC C411.3.3 to describe what appurtenances may be excluded from and located within the solar zone.	Clarifies that if racking for future solar is installed at time of construction, it must meet height limits of K.C.C. zoning code.
131	16.07.xxx New Section	n/a	Proposes to modify WSEC C411.3.7 to include criteria for roof penetration conduit for photovoltaic systems, and to state where interconnections of future photovoltaic systems may be provided in regard to the service panel, and the form the interconnection must be.	Adds specific requirements for the design and installation of roof penetration conduit for photovoltaic systems.
132	16.07.xxx New Section	n/a	Proposes to add an Exception to WSEC C502.3, exempting additions less than 500 square feet from providing air leakage testing.	Allowing small projects to omit this from the project scope would save time and money for contractors.
133	16.07.xxx New Section	n/a	Proposes to modify WSEC C503.3 to: 1: state that new building envelope assemblies that are part of an alteration shall comply with WSEC 402.1 through C402.5 and C503.3.1 through C503.3.3. 2: require altered or replaced opaque envelope assemblies to not have a higher overall U-value that the existing. 3: add an exception.	Clarifies alteration to the building envelope must be at least as thermally efficient as existing materials.
134	16.07.xxx New Section	n/a	Proposes to modify WSEC C503.3.2 to include criteria for alterations that include the addition of new vertical fenestration.	States that the calculation for adding windows may be based on only the addition or the existing building plus the addition. The proposed revision provides clarification in the application of the code.
135	16.07.xxx New Section	n/a	Proposes to modify WSEC C503.3.2.1 to include criteria for existing fenestration units that are replaced with new fenestration products and adds an exception.	Clarifies that replacement windows must be at least as thermally efficient as the existing windows.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
136	16.07.xxx New Section	n/a	Proposes to modify WSEC C503.4.2, C503.4.3, and C503.4.6. Proposes to state that when a mechanical cooling system is added to a space not previously cooled, the mechanical system shall comply with either WSEC 403.3.5 or C403.5, and adds exceptions.	Reorganizes section and makes several significant changes to the rules from moving from gas to heat pump heating: Exception 1 categorically exempts affordable housing, I occupancies (hospital, correctional, etc.), buildings housing nonprofits, and buildings sampler than 20,000; however, those buildings have to provide a "future decarbonization plan" per C503.4.6.1 below. Exception 2 permits buildings to retain half of their existing fossil fuel capacity, controlled to operate only during cold weather or other high-load situations. Exception 3 allows like-for-like temporary emergency replacement of one (or more) boilers beyond the 50 percent allowed by Exception 8. These projects also have to provide a "future decarbonization plan" per C503.4.6.1, and they have to ensure timely replacement of the temporary equipment with heat pumps via either a TCO or performance bond. Exception 4 of the new code is retained and modified, exempting buildings that would require a disproportionately expensive electric service upgrade. Exception 5 exempts several types of equipment, most from the original exceptions that have been struck.
137	16.07.xxx New Section	n/a	Proposes to modify WSEC C503.5 to add regulations for new service water heating systems and adds exceptions.	Adds multiple exceptions from full compliance with C404 (heat pump water installation) for replacement of water heating equipment when it would require a utility service upgrade, and in certain building types such as affordable housing, and in emergency equipment replacement situations.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
138	16.07.xxx New Section	n/a	Proposes to modify WSEC C505.2 to state that for the purposes of this section, space conditioning area categories include low energy space, semi-heated space, and conditioned space. Proposes the cases in which space undergoing a change in space conditioning shall be brought up to full compliance and adds exceptions. This proposed amendment generally requires that when a room or space that already has heating (in a building subject to this code) proposes to add cooling, that project or space must either: • Be brought up to code, or • The HVAC heating system for that area must be replaced with an electric heat pump, which also provides cooling.	This proposed update addresses requirements for existing gas heating systems and helps clarify existing code.
139	16.07.xxx New Section	n/a	Proposes to supplement WSEC C506, requiring metering where HVAC equipment is added or replaced.	Proposes to require electric and natural gas metering at the time of HVAC equipment replacement for building owner awareness and to ensure systems are functioning as designed.
140	16.07.xxx New Section	n/a	Proposes to supplement WSEC C506, requiring metering where service water heating equipment is added or replaced C506.3.	Proposes to require electric and natural gas metering at the time of water heating equipment replacement for building owner awareness and to ensure systems are functioning as designed.
141	16.07.xxx New Section	n/a	Proposes to supplement WSEC C506, requiring metering when a tenant improvement is permitted where a single tenant will occupy a full floor or multiple floors of a building. C506.4	Proposes to require electrical submetering at time of building permit when a tenant will occupy a full floor of a building for tenant and building owner awareness and to ensure systems are functioning as designed.
142	16.07.xxx New Section	n/a	Proposes to supplement WSEC C506, requiring all metering provisions of C409 to be met when all or substantially all of an existing electrical system is replaced under a single electrical permit or within a twelve-month period.	Proposes to require all the metering provisions of Section C409 to be met when a building's electrical system is substantially replaced for building owner awareness and to ensure systems are functioning as designed.
143	16.08.050	Sets out maintenance requirements for address numbers	Proposes to add language from IFC 2021 and added metric units.	Consistency with the IFC.
144	16.14.090	States that the right of entry is in accordance with procedures in K.C.C. Title 23	Proposes to update the IPMC reference section.	Consistency with the IPMC.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
145	16.14.100	States it is unlawful to build, repair, etc. in violation of the code	Proposes to update the IPMC reference section.	Consistency with the IPMC.
146	16.14.110	Requires public nuisances to abated in accordance with K.C.C. Title 23	Proposes to update the IPMC reference section.	Consistency with the IPMC.
147	16.14.200	Authorizes the code official to condemn a structure	Proposes to update the IPMC reference section.	Consistency with the IPMC.
148	16.14.210	Requires notice of unsafe structures pursuant to K.C.C. Title 23	Proposes to update the IPMC reference section, and minor verbiage revision.	Consistency with the IPMC.
149	16.14.220	Provides regulations associated with a placard to vacate	Proposes to update the IPMC reference section.	Consistency with the IPMC.
150	16.14.280	Authorizes the code official to perform emergency repairs	Proposes to update the IPMC reference section.	Consistency with the IPMC.
151	16.14.290	Does not adopt Sections 109.5 and 109.6 of the IPMC	Proposes to update the IPMC reference section.	Consistency with the IPMC.
152	16.14.430	State that appeals must be in accordance with K.C.C. Titles 20 and 23	Proposes to update the IPMC reference section.	Consistency with the IPMC.
153	16.14.450	Requires building owners to be responsible for safe sanitation and structural conditions.	Proposes to add language that grants authority to the Hearing Examiner to determine liability for violations. Proposes to change the term “health ordinance” to “King County Board of Health Code”.	Proposes to grant the Hearing Examiner authority to avoid doing substantial injustice to a non-culpable property owner and bring this code into alignment with K.C.C. 23.36.030.B. “Health ordinance” means “King County Board of Health Code” (KCBOH code). Stating "KCBOH code" more clearly incorporates KCBOH and directives into the K.C.C.
154	16.14.460	Authorizes the jurisdiction to prosecute if an owner fails to abate a premises to avoid fire or explosion.	Proposes more specific language for how a premises should be maintained and allows the jurisdiction to cut and destroy noxious weeds.	Clarifies existing intent by specifying that neither noxious weeds nor vegetation that creates a fire hazard can be present on a property.
155	16.14.490	Requires addresses to be provided and visible from the road.	Proposes a slight rewording.	Proposed rewording for clarity.
156	16.14.540	Requires dwelling units and guest rooms to have a heat supply.	Proposes a slight rewording.	Proposed rewording for clarity.
157	16.14.550	Does not adopt Section 602.4 of the IPMC.	Proposes substitute language for IPMC 602.4 and to require indoor occupiable workspaces to have heating and provides exceptions.	Consistency with the IPMC.
158	16.32.030	Adopts specific editions of various codes as part of the Uniform Plumbing Code.	Proposes to adopt the 2021 edition of the codes, which is the current edition for this update.	Proposes to specify which edition of the codes are being adopted and will be in effect.
159	16.32.050	Grants authority to enforce the plumbing code.	Proposes rewording.	Proposed to be reworded for clarity while maintaining the original intent.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
160	16.32.080	Provides a fee schedule for plumbing applications.	Proposes to amend language in 16.32.080 to align with Board of Health (BOH) code language that describes how to review and adjust fees.	The language in this code section differs from the fee adjustment authorization language in the BOH code. Because the code sections are not currently identical, they yield different outcomes.
161	16.32.195	Designates the "authority having jurisdiction".	Proposes to update the applicable adopted code section.	Proposes to correct the reference to the UPC, because the sections of the newest edition of the UPC have been renumbered.
162	16.32.215	Authorizes use of a stop work order and provides procedures	Proposes to revise numbering.	Proposed revision to improve code usability.
163	16.32.235	Clarifies that the code does not create or form the basis of liability of the county	Proposes to add some commas.	Proposed revisions for ease of reading, maintain consistency with King County drafting standards.
164	16.32.xxx New Section	n/a	Proposes to grant authority to the jurisdiction, and provides criteria for, issuance of plumbing permits.	This new section proposes to provide clarity of the authority granted to the jurisdiction and to provide clear criteria for the issuance of plumbing permits, including all applicable fees being paid and construction documents having been reviewed and approved when necessary.
165	16.32.xxx New Section	n/a	Proposes criteria for determination of complete pluming permit applications and provides exceptions.	Provides additional criteria for plumbing permit applications.
166	16.32.285	Provides a basis for the validity of plumbing permits	Proposes to revise numbering.	Consistency with chapter.
167	16.32.295	Provides criteria for the suspension or revocation of plumbing permits	Proposes to revise numbering.	Consistency with chapter.
168	16.32.306	Provides regulations for reinspection of plumbing projects.	Proposes to allow a reinspection fee to be assessed when an inspection is called but an inspection cannot take place for various reasons and restricts a reinspection fee from being applied after the first inspection that is rejected or does not comply with code.	Proposes a revision to include a comprehensive list of conditions that would prevent an inspector from being able to complete a field inspection and allows the County to conduct and charge for a reinspection. Proposes to set limits on when a reinspection fee may be required.
169	16.32.xxx New Section	n/a	Proposes to modify UPC 308 to not allow plumbing or piping to be installed exterior to a building, unless required or approved. Proposes exceptions.	Requested change by field inspectors to have an enforcement mechanism to prohibit unnecessary exterior plumbing installations.
170	16.32.xxx New Section	n/a	Proposes to modify UPC 418.3 to list the areas where floor drains need to be installed.	Proposes to address "toilet rooms" which are a new trend of gender neutral or "family" style framed rooms containing toilets. Also proposes to close a code loophole that allowed multiple toilet rooms without any sort of floor drainage.
171	16.32.xxx New Section	n/a	Proposes to supplement UPC 418.5 and to state that floor shall be sloped to floor drains and provides exceptions.	Resolves previous ambiguity regarding how to comply with standards for existing buildings with post tensioned concrete (PT) slabs.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
172	16.32.338	Provides regulations for potable water heating devices that use refrigerant-to-water heat exchangers.	Proposes to remove the UPC section reference number.	Proposes to remove the reference to the UPC, because the section is not located within the UPC.
173	16.32.340	Requires plumbing fixtures to be drained to the sanitary waste system by gravity flow and provides an exception to this requirement.	Proposes to update the section number and proposes to consolidate the exception into the main part of the regulation as a permitted action.	Language in this section is proposed to be brought into alignment with the Seattle Plumbing Code (SPC) which removes the ambiguous term “practicable” and defaults to approval of the authority having jurisdiction for systems draining by means other than gravity. Aligning K.C.C. and SPC code language will ensure enforcement and compliance is consistent across jurisdictions, as both jurisdictions are served by public health - Seattle & King County.
174	16.32.341	Provides regulatory authority for plan review fees.	Proposes to add language specifying when permit approval may be rescinded or when permit issuance may be denied and proposes to add an exception to these regulations.	Reflects standard operating procedures.
175	16.32.342	Provides air admittance valve regulations.	Proposes to update the section number, and to add new language to mimic the 2018 and 2021 Seattle Plumbing Code Section 913.	The code section number is not found in the Uniform Plumbing Code (UPC). This update is proposed to adopt language from the SPC Section 913.0. The SPC language mimics standard model code language and format where the current K.C.C. 16.32.342 language does not. Aligning K.C.C. and SPC code language will ensure enforcement and compliance is consistent across jurisdictions, as both jurisdictions are served by public health-Seattle & King County.
176	16.32.343	Provides grease interceptor regulations	The proposed amendment deletes the regulations about grease interceptors but maintains the existing exception.	Removes duplicate code language.
177	16.32.xxx New Section2	n/a	Proposes to modify UPC 608.1 to require water pressure to be at least 15 pounds per square inch.	AASE devices are tested at a pressure higher than 15 psi. There is no guarantee of performance outside of the tested pressure range.
178	16.32.xxx New Section	n/a	Proposes to modify UPC 609.12 to require water piping within commercial buildings to be insulated in accordance with the WSEC.	The model Plumbing Code conflicts with WSEC in this section of pipe insulation. The State Plumbing Code (UPC as amended by WA) amends section 609.12 to comply with WSEC. Because the County is proposing to amend sections of the WSEC, the State version of 609.12 is not adopted and compliance with the WSEC as adopted and amended by the County is required.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
179	16.32.xxx New Section	n/a	Proposes to replace Table 610.3 of the UPC. Proposes to provide the fixture branch pipe size for each type of appliance, appurtenance, or fixture.	3/8" tubing is increasingly popular due to Energy Code requirements. With 1.2 gallons per minute lavatories being required by State law for private use, the flow rate from a single lavatory will not exceed the velocity limit of 3/8" PEX tubing. Rather than making applicants submit an Alternate Means and Methods Request Form (AMMRF) to use 3/8" water supply branches for lavatories, the code will propose allowing 3/8" tubing.
180	16.32.xxx New Section	n/a	Proposes to replace Table 702.2(2) of the UPC. Proposes to provide equivalency of gallons per minute flow to number of fixture units.	Table 702.2(2) is used for uses like fire/sprinkler blowdown, reduced pressure backflow assembly relief, and other intermittent uses exceeding 50 gallons per minute, but it is not clear what drainage fixture unit value to assign without first asking the authority having jurisdiction. The proposed revision would extend the table to cover most uses.
181	16.32.xxx New Section	n/a	Proposes to modify UPC 704.3 to require plumbing fixtures, drains, 3-compartment sinks, etc., to be connected to the drainage system, except where required to be connected indirectly.	There has been confusion about how to connect a 3-compartment sink. The proposed amendment provides clarification.
182	16.32.xxx New Section	n/a	Proposes to modify UPC 710.4 to provide criteria for discharge lines for ejector pump or other mechanical device and provides an exception.	No official guidance has been provided in code since hoistway pumps or drains became an ASME A17.1 requirement. Adds clarity and provides the potential option for removing check valves in the future.
183	16.32.xxx New Section	n/a	Proposes to modify UPC 710.5 to require building drains and sewers receiving discharge forma pump ejector to be adequately sized and provides an exception.	The County has been allowing firms to submit an AMMRF to use Table 702.2(2) for pump discharge from elevator hoistway and similar pumps for emergency operation. Only certain engineering firms are aware of this allowance. This will let others know that this is an option.
184	16.32.xxx New Section	n/a	Proposes to modify UPC 803.3 to include regulations for indirect waste piping, along with an exception.	Hoistway drainage is required to be indirect, but from hoistway to indirect receptor may exceed 15 feet. This indirect drainage pipe will likely never be used, and if it is, it will dry out within hours of the emergency situation being resolved. A standard trap in the indirect waste line (required for indirect waste exceeding 15') could be siphoned through elevator car movement in the hoistway and the trap would act as a settlement area for any debris at the bottom of the hoistway as there is no regular scouring of the trap.
185	16.32.344	Prohibits food waste disposers and dishwasher from being connected to or discharging into a grease interceptor.	Proposes to eliminate this code section except for the exception.	All but the exception to UPC 1014.1.3 are contained with the UPC model code, so that duplicate language no longer needs to be in the County's code.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
186	16.32.345	Regulates parking garage drainage systems.	Proposes to delete the old UPC language and provides SPC language.	The UPC does not address parking garage drainage systems; therefore, this entire section is proposed to be revised to mirror the 2021 SPC to capture parking garages in unincorporated King County.
187	16.32.xxx New Section	n/a	Proposes to modify Section 1101.12.2.2.2 of the UPC to describe how to connect secondary roof drains to the storm drainage system.	This creates a relief path in case of main storm drain blockage so roof drainage does not back up onto a roof.
188	16.82.130	Provides procedures for abatement of a clearing and grading violation	Proposes new language for clarity and expands authority of the director to provide flexibility for abatement.	Strengthens the County's ability to enforce clearing and grading violations, while at the same time providing flexibility that can help applicants achieve compliance.
189	17.04.010	Adopts the IFC along with amendments, additions, deletions, and modifications as referenced or adopted in Title 17	Proposes to add Appendix D (Fire Apparatus Access and Roads), and updated dates.	For consistency with the International Fire Code (IFC).
190	17.04.200	Provides authorities and responsibilities of the fire marshal	Proposes a minor text revision.	For internal consistency within K.C.C.
191	17.04.210	Provides enforcement authorities and responsibilities of the fire marshal	Proposes minor text revisions.	Corrects spelling.
192	17.04.220	Describes the fire marshal's authority	Proposes a minor text revision.	For internal consistency within K.C.C.
193	17.04.280	Requires applicants to provide notice of permit applications to fire districts, and describes responsibilities of fire districts	Proposes to update an IFC reference number and minor text revisions.	For ease of reference with the IFC and consistency with K.C.C.
194	17.04.xxx New Section	n/a	Proposes to modify IFC 105.3.1. Proposes an expiration and renewal criteria for operational permits.	Provides clarity for applicants and staff.
195	17.04.290	Requires fees to be doubled when a fire protection system is started before obtaining approval	Proposes minor text revisions.	Proposed revision for consistency and clarity.
196	17.04.xxx New Section	n/a	Proposes to modify IFC 105.5.38. Proposes to require an operational permit for an outdoor assembly event that exceeds 50 persons.	Clearly defines when an outdoor assembly permit is required.
197	17.04.295	Requires a permit for the installation of solar photovoltaic systems, and provides an exception	Proposes to update the IFC reference section, clarifies that a permit is not required for maintenance, and adds metric measurements.	For consistency with the K.C.C., IFC, and clarity.
198	17.04.xxx New Section	n/a	Proposes to modify IFC 105.6.21 to include criteria for a special event structure.	Provide clarity for applications for a special event structure.
199	17.04.310	Does not adopt Section 109 of the IFC	Proposes to update the IFC section number.	Consistency with the IFC.
200	17.04.320	Grants the fire marshal authority to issue a stop work order and require corrections of violations	Proposes to update IFC section numbers and deletes some language about stop work orders.	Consistency with the IFC and proposes to move the deleted language to the new section below.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
201	17.04.330	Does not adopt Section 112.4 of the IFC	Proposes to add language stating that enforcement violations of a stop work order shall be in accordance with K.C.C. Title 23.	Proposes to refer to Title 23 concerning violations of a stop work order.
202	17.04.341	Provides definitions for the Fire Code	Proposes to eliminate a definition for “critical fire service areas” and proposes to revise the definition “fire detection system” to "automatic fire detection system," and proposes to add metric measurements and minor revisions.	The 2021 IFC covers the types of rooms known as "critical fire service areas" with the definitions, so this definition is no longer needed. The definition for "automatic fire detection system" and other changes are proposed for consistency with K.C.C.
203	17.04.xxx New Section	n/a	Proposes to modify Section 322.4 of the IFC to require signage for lithium-ion and lithium metal battery installations.	Builds on WA state amendments to the IFC addressing lithium-ion and lithium metal batteries; signage required for anything subject to IFC 322.2 (requiring permits, i.e., occupying more than15 cubic feet). Derived from New York City Fire Department Rule 30, item 6.
204	17.04.375	Requires fire apparatus roads to be installed and arranged in accordance with IFC 503.2.1 and 503.2.2	Proposes to update an IFC reference.	For consistency with the IFC.
205	17.04.377	Provides the minimum dimensions of a fire apparatus access road	Proposes to add metric measurements.	For internal consistency within K.C.C.
206	17.04.380	Provides the surfacing standards of a fire apparatus access road	Proposes to add metric measurements.	For internal consistency within K.C.C.
207	17.04.390	Provides the turning radius standards of a fire apparatus access road	Proposes to add metric measurements and makes one spelling revision.	For internal consistency within K.C.C.
208	17.04.400	Requires a cul-de-sac or hammerhead-like turnaround for certain dead-end roads.	Proposes to add metric measurements and makes one spelling revision.	For internal consistency within K.C.C.
209	17.04.420	Provides criteria for marking, establishment, and obstruction of fire lanes	Proposes to revise the definition of fire lanes and add metric measurements.	Proposed updates for consistency with the IFC and K.C.C. Inserted sentences are quoted directly from IFC 2021.
210	17.04.425	Provides criteria for security gates, bollards, and other obstructions across a fire access road	Proposes a minor text revision, writing out numbers, and adding metric measurements.	For consistency with the IFC and K.C.C.
211	17.04.447	Requires new buildings with enclosed interior courtyards to have direct access to the exterior.	Proposes to spell outnumbers and adds metric measurements.	For consistency with the IFC and K.C.C.
212	17.04.462	Requires and radio coverage systems for new buildings meeting listed conditions, and provides exceptions	Proposes wording revisions to bring the section into conformance with the IFC, and proposes to spell out numbers, and add metric measurements.	For consistency with the IFC.
213	17.04.467	Describes the minimum signal strength for emergency responder Rdio coverage outside of a building	Proposes to revise the outbound signal level and spells out a number.	For consistency with the IFC and K.C.C.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
214	17.04.476	Prohibits rebroadcasting of amplification systems capable of operating on frequencies licensed to any public safety agency without approval of the fire marshal and public safety radio system operator	Proposes to revise the IFC section number.	For consistency with the IFC.
215	17.04.489	Provides the scope of chapter 17.04, and lists additional requirements	Proposes minor text revisions.	For consistency with the K.C.C.
216	17.04.520	Requires an automatic fire-extinguishing system in new construction and those undergoing substantial improvement. An exception is provided	Proposes minor text revisions, adds a reference to another K.C.C. chapter, spells out numbers, and adds metric measurements.	For consistency with the K.C.C.
217	17.04.560	Provides conditions for when sprinkler systems shall be installed in habitable space for structures built under the IRC	Proposes to spell out numbers, add metric measurements, and delete exceptions.	For consistency with the K.C.C. No WACs provide for such exceptions. These exceptions were created “in house” over 40 years ago and should no longer be in place as lifting them will promote additional homes being sprinklered, promoting improved safety for residents.
218	17.04.563	Requires automatic sprinklers in buildings exceeding 10,000 square feet.	Proposes to add metric measurements.	For consistency with the K.C.C.
219	17.04.572	Provides fire sprinkler design requirements.	Proposes to spell out a number.	For consistency with the King County code drafting standards.
220	17.04.574	Requires supervised indicating control valves on each floor and provides an exception.	Proposes to add metric measurements.	For consistency with the K.C.C.
221	17.04.582	Provides the criteria for when Class I standpipe shall be installed and provides exceptions.	Proposed to add metric measurements.	For consistency with the K.C.C.
222	17.04.590	Does not allow fire apparatus connections on a building without the fire marshals approval and must be located within 50 feet of a hydrant.	Proposes to spell out a number and adds a metric measurement.	For consistency with the K.C.C.
223	17.08.030	Lists which permits and approvals are exempt from the fire flow and fire hydrant requirements of the chapter	Proposes to remove some types of permits and approvals from the list exempt for fire flow and fire hydrant requirements of the chapter.	The proposed strikeouts/removals in this section align with the strikeouts in section 17.04.560. Exemption C is proposed to be removed because it is no longer needed because of the requirements that are proposed to be removed from section 17.04.560.
224	17.08.090	Grants the fire marshal the authority to approve deviations from fire code standards.	Proposes to change the spelled-out number "five hundred" to "500" for consistency with the rest of the fire code.	Technical corrections.
225	17.08.100	Describes the role of water authorities in regard to the fire code.	Proposes to remove a semicolon at the end of a paragraph and replaces it with a period for grammatical accuracy.	Technical corrections.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
226	17.08.140	Does not allow more than 60 feet of piping that connects a customer's plumbing service to a purveyor's water main or meter in a public right-of-way unless in compliance with K.C.C. chapter 14.28.	Proposes to add a metric measurement.	For consistency with the K.C.C.
227	17.08.xxx New Section	n/a	This section introduces a series of new code sections, including sections 229 through 234.	Creates a new chapter in the K.C.C.
228	17.09.xxx New Section	n/a	Proposes to adopt IFC Appendix D.	For consistency with the IFC.
229	17.09.xxx New Section	n/a	Proposes to modify IFC D103.2. Does not allow the gradient of fire apparatus access roads to exceed 15 percent.	Ensures access of emergency response equipment to property and structures.
230	17.09.xxx New Section	n/a	Proposes to modify IFC 103.3 to provide criteria for the dimensions of fire apparatus roads.	Ensures access and maneuverability of emergency response equipment to property and structures.
231	17.09.xxx New Section	n/a	Proposed to modify IFC D103.4 to require a cul-de-sac or a hammerhead-like turn around for dead end roads exceeding a specified length.	Ensures access and maneuverability of emergency response equipment to property and structures.
232	17.09.xxx New Section	n/a	Proposes to modify IFC D103.5 to require approval for and provides criteria for gate, bollard, and other obstructions; these must be maintained and have an emergency means of operation. Proposes to prohibit the installation of tire spikes and provides an exception.	Ensures access of emergency response equipment to property and structures.
233	17.09.xxx New Section	n/a	Proposes to modify IFC D103.6 to include sign specifications for fire apparatus access roads.	Ensures adequate area for access of emergency response vehicles.
234	17.11.040	Provides fireworks regulations.	Proposes to revise numbering and minor text revisions.	Ensures clarity for staff and applicants and consistency with the K.C.C.
235	17.11.060	Provides the enforcement provisions specific to the Fireworks Code	Proposes to remove a paragraph that stated that enforcement of the Fireworks Code would not occur until one year after the ordinance adopting the code took effect.	The paragraph that is proposed for deletion is no longer needed as the one-year warning regarding enforcement has passed.
236	n/a	n/a	Lists the code sections proposed for repeal.	Multiple sections in the K.C.C. are outdated or no longer needed based on current and past State and ICC code changes and K.C.C. amendments. Each repeal is discussed further in the subsections below.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
236.A	16.02.160	Establishes that when differences occur between provisions of the county's adopted code and the referenced code and standards, the county's provisions of the code shall apply.	Repealed	No longer needed as it is provided in the model code.
236.B	16.02.170	States which codes shall apply for the permitting of moved buildings.	Repealed	This section is not necessary as it is covered by IEBC 1401.2
236.C	16.02.230	States that Sections 105.1.1 and 105.1.2 of the IBC are not adopted.	Repealed	This code section removes authorization for King County to issue annual permits (for institutional uses with licensed contractors). There is no reason to take this option away. In addition, the language references scopes that permitting does not cover. Those scopes, gas and plumbing, are regulated by public health - Seattle & King County in a different code section.
236.D	16.02.310	States who applicant's plans that need corrections may be returned to.	Repealed	Outdated reference to paper plans. Now that permit applications are submitted and reviewed digitally, this is no longer applicable.
236.E	16.02.316	Describes how live loads postings must occur.	Repealed	This is duplicative with the IBC.
236.F	16.02.370	Provides responsibilities of the design professional in charge.	Repealed	K.C.C. 16.02.370 through 16.02.530 are duplicative/irrelevant with the IBC.
236.G	16.02.410	Requires an inspection record card at construction sites.	Repealed	K.C.C. 16.02.370 through 16.02.530 are duplicative/irrelevant with the IBC.
236.H	16.02.470	Allows either a certificate of occupancy or a certificate of shell completion to be issued.	Repealed	K.C.C. 16.02.370 through 16.02.530 are duplicative/irrelevant with the IBC.
236.I	16.02.480	Provides required contents of a certificate of occupancy.	Repealed	K.C.C. 16.02.370 through 16.02.530 are duplicative/irrelevant with the IBC.
236.J	16.02.490	Provides required contents of a certificate of shell completion.	Repealed	K.C.C. 16.02.370 through 16.02.530 are duplicative/irrelevant with the IBC.
236.K	16.02.500	Allows either a temporary certificate of occupancy or a temporary certificate of shell completion to be issued.	Repealed	K.C.C. 16.02.370 through 16.02.530 are duplicative/irrelevant with the IBC.
236.L	16.02.510	Provides the conditions under which a temporary certificate of occupancy may be issued.	Repealed	K.C.C. 16.02.370 through 16.02.530 are duplicative/irrelevant with the IBC.
236.M	16.02.520	Provides the conditions under which a temporary certificate of shell completion may be issued.	Repealed	K.C.C. 16.02.370 through 16.02.530 are duplicative/irrelevant with the IBC.
236.N	16.02.530	Grants authority to revoke a certificate of occupancy.	Repealed	K.C.C. 16.02.370 through 16.02.530 are duplicative/irrelevant with the IBC.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
236.O	16.02.550	States where a certificate of occupancy must be posted.	Repealed	Current section says Section 112 of the IBC is not adopted, but this should be adopted, so this section is proposed to be repealed. This section allows the building official to regulate utility connections and disconnections.
236.P	16.02.600	States that the “Unsafe structures and equipment” section of the IBC is not adopted.	Repealed	The County wants to use IBC 116 rather than this code section.
236.Q	16.03.057	Definition of Boiler	Repealed	Based on the updated definition of water heater, a definition of boiler is no longer necessary.
236.R	16.04.260	Provides criteria for location of portable classrooms.	Repealed	This code section is not necessary as this regulation is covered by IFC chapter 9.
236.S	16.04.270	Provides criteria for location of portable classrooms.	Repealed	This code section is not necessary as this regulation is covered by IFC chapter 9.
236.T	16.04.290	Requires fire and life safety systems to comply with the IFC.	Repealed	This code section is not necessary as this regulation is covered by IFC chapter 9.
236.U	16.04.310	Requires sprinklers to comply with the IFC.	Repealed	This code section is not necessary as this regulation is covered by IFC chapter 9.
236.V	16.04.330	Requires sprinklers systems for buildings constructed under the IRC.	Repealed	This code section is not necessary as this regulation is covered by IFC chapter 9.
236.W	16.04.344	Requires special doors and security grilles to comply with IBC.	Repealed	References K.C.C. 16.04.346, which is proposed for deletion. This code section is no longer needed.
236.X	16.04.346	Requires access doors to storage rooms in mini-storage facilities to comply with IBC.	Repealed	By repealing this section, the code would revert to the State code requirements for egress from mini storage facilities. This action would align K.C.C. with the State.
236.Y	16.04.348	Exempts some stairways to mechanical rooms form the IBC.	Repealed	This code section is not necessary as this regulation is covered by the IBC.
236.Z	16.04.360	Provides an exception for under floor ventilation.	Repealed	This code section is not necessary as this regulation is covered by the IBC.
236.AA	16.04.475	Provides foundation wall standards.	Repealed	This was an amendment to the 2006 edition of the International Building Code (IBC). The current 2021 edition of the IBC provides foundation wall standards; this local amendment is no longer necessary.
236.BB	16.04.490	Determines the number of fixtures required in a building.	Repealed	This code section is not necessary as this regulation is covered by the IBC.
236.CC	16.04.890	Requires inspection of a building when being converted to a condominium.	Repealed	This code section is not in compliance with RCW 64.34.050 which prohibits any requirements that would not be imposed on any other form of ownership. This code section is no longer necessary as RCW 64.55 requires inspection of buildings that are being converted to condominiums.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
236.DD	16.04.900	Requires the county to maintain a fund for repairs to buildings that are being converted to a condominium.	Repealed	This code section is not in compliance with RCW 64.34.050 which prohibits any requirements that would not be imposed on any other form of ownership. This code section is no longer necessary as RCW 64.55 requires inspection of buildings that are being converted to condominiums.
236.EE	16.04.930	Standards for location, review, and installation of manufactured and mobile homes, and factory built commercial structures and coaches.	Repealed	Covered in WAC under Factory Assembled Structures.
236.FF	16.04.940	Standards for location, review, and installation of manufactured and mobile homes, and factory built commercial structures and coaches.	Repealed	Covered in WAC under Factory Assembled Structures.
236.GG	16.04.950	Standards for location, review, and installation of manufactured and mobile homes, and factory built commercial structures and coaches.	Repealed	Covered in WAC under Factory Assembled Structures.
236.HH	16.04.960	Standards for location, review, and installation of manufactured and mobile homes, and factory built commercial structures and coaches.	Repealed	Covered in WAC under Factory Assembled Structures.
236.II	16.04.970	Standards for location, review, and installation of manufactured and mobile homes, and factory built commercial structures and coaches.	Repealed	Covered in WAC under Factory Assembled Structures.
236.JJ	16.04.980	Standards for location, review, and installation of manufactured and mobile homes, and factory built commercial structures and coaches.	Repealed	Covered in WAC under Factory Assembled Structures.
236.KK	16.05.080	Fire sprinklers shall be required per the IRC.	Repealed	Removes an unnecessary pointer in the code. All construction must comply with K.C.C. Title 17, which regulates when fire sprinklers are required in IRC buildings.
236.LL	16.07.050	Describes the application of Table C402.13 for the insulation component R-value method.	Repealed	K.C.C. 16.07.050 “Insulation Component R-value Method – applications for Table C402.1.3” added a footnote to the table for when the total area of through-wall mechanical equipment is more than 1% of the opaque above-grade wall area. State code Table 402.1.3 now has integrated this footnote (see state-amended footnote i). As such, this code section is no longer required.
236.MM	16.07.070	This section addresses thermal resistance of mechanical equipment penetrations.	Repealed	This text is now integrated in the State code under 402.1.4.3

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
236.NN	16.07.080	Provides criteria for above-grade exterior concrete slabs.	Repealed	This item is now integrated in State code under C402.2.8.
236.OO	16.07.090	Provides criteria for vertical fenestration intersection with opaque walls.	Repealed	This item is now integrated in State code under C402.2.9.
236.PP	16.07.120	Regulates lighting controls in daylight zones under skylights.	Repealed	IECC 405.2.3.1 is no longer cited in this section, nullifying the need for citing a replacement section.
236.QQ	16.07.130	K.C.C. 16.07.130 amendments require HVAC TSPR for medical offices and dwelling units and common areas of R-2 multifamily, with an exception for buildings or medical office areas that comply with ASHRAE Standard 170.	Repealed	These amendments require HVAC TSPR for medical offices and dwelling units + common areas of R-2 multifamily, with an exception for buildings or medical office areas that comply with ASHRAE Standard 170. These amendments are now integrated in baseline state code IECC 405.2.3.1 so this K.C.C. section is no longer needed.
236.RR	16.07.150	Compared to the 2018 State codes, these amendments increased the enthalpy recovery effectiveness up to 60 percent, and limited exception 1 to spaces under 650 square feet, with a modified exception to R-1 and R-2 occupancies.	Repealed	The new 2021 state code requires an enthalpy recovery effectiveness higher than 60 percent; removes exception 1 entirely, nullifying the 650 square foot exception; and adds a similar R-2 occupancy exception. The local K.C.C. amendment is no longer necessary.
236.SS	16.07.160	Provides regulations and an exception for heat pump supplementary heat.	Repealed	Present in 2021 State code, so a local amendment is no longer needed.
236.TT	16.07.170	Compared to the 2018 State codes, these amendments required demand control ventilation at occupant loads of 15 people per 1,000 square feet (vs. 25 persons); amended an exception for makeup supply air to focus on supply air from adjacent commercial kitchens; and added an exception for dormitory sleeping areas.	Repealed	The new 2021 State code section 403.7.1 incorporates all of these provisions. The local K.C.C. amendment is no longer necessary.
236.UU	16.07.180	Compared to the 2018 State codes, these amendments required energy recovery ventilation systems to provide a change in outdoor air supply enthalpy at least 60 percent of the difference between outdoor and return air enthalpies (vs. 50 percent); added an exception for R-1 and R-2 ERVs to instead provide 60 percent sensible heat recovery; and added an exception for occupancy type-2 hospitals, medical office buildings, and lab spaces.	Repealed	Compared to the 2018 state codes, these amendments required energy recovery ventilation (ERV) to provide a change in outdoor air supply enthalpy at least 60 percent of the difference between outdoor and return air enthalpies (vs. 50 percent); added an exception for R-1 and R-2 ERVs to instead provide 60 percent sensible heat recovery; and added an exception for occupancy type-2 hospitals, medical office buildings and lab spaces. The new 2021 State code sections 403.7.6.1 and 403.7.6.2 incorporate all these provisions. The local K.C.C. amendments is no longer necessary.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
236.VV	16.07.190	Compared to the 2018 State codes, this added to the code sections that applied to construction of the HVAC system elements; applicable state code sections ended C403.10.3.1; whereas this included local amendment C403.10.4, the subsequent K.C.C. local code section.	Repealed	The local addition of section 403.10.4 is proposed for repeal, nullifying the need for this K.C.C. amendment.
236.WW	16.07.200	Provides criteria for insulation of refrigerant piping.	Repealed	The text under the “insulation of refrigerant piping” is now integrated into, and expanded upon, within State code section 403.10.4. This K.C.C. local amendment is no longer needed.
236.XX	16.07.210	Lists commercial food service equipment that must comply with energy-efficiency and water-efficiency criteria.	Repealed	This provision is proposed for repeal because the same code language has been relocated. It is now found in C405.14, rather than C403.14.
236.YY	16.07.230	Provides system design criteria for heat pumps, along with an exception.	Repealed	The text under K.C.C. “system design’ section is now integrated throughout the multiple state code sections including: 404.2.1.1 Primary heat pump sizing 404.2.1.2 Primary hot water storage sizing 404.2.1.3 System design 404.2.1.3.1 Mixing valve As such, this K.C.C. local amendment is no longer needed.
236.ZZ	16.07.240	Provides a list of uses for which supplemental electric resistance heating is allowed.	Repealed	The “supplemental water heating” section is now integrated in state code section 404.2.1.4, with some additional detail for ground source heat pumps, with minor reductions on when supplemental water heating is allowed. As this code has been integrated at the state level, this K.C.C. section is no longer needed.
236.AAA	16.07.250	Requires insulation for unfired storage tanks used to store service hot water.	Repealed	The text under the “storage tank insulation” section is now integrated in state code section 404.6.1. This K.C.C. local amendment is no longer needed.
236.BBB	16.07.260	Requires a thermostatic balancing valve for some heated water circulations systems.	Repealed	The text under the “Multiple riser systems – thermoplastic balancing valve” section is now integrated in state code section 404.7.1.2. This K.C.C. local amendment is no longer needed.
236.CCC	16.07.270	Provides a requirement for an electronic mixing valve for a heated water circulation system.	Repealed	The text under the “electronic thermostatic mixing valve” section is now integrated in state code section 404.7.1.3. This K.C.C. local amendment is no longer needed.
236.DDD	16.07.280	Provides a pipe insulation standard for heated water circulation systems.	Repealed	Insulation increases are being directly integrated to be building-wide in WSEC Section & Table C404.6. This K.C.C. local amendment is no longer needed.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
236.EEE	16.07.300	Provides standards for lighting controls.	Repealed	Proposed for repeal so that the state's standards for lighting controls will be used, without amendment by County standards.
236.FFF	16.07.330	States that covered parking garage lighting is not considered exterior lighting for the purposes of the calculation.	Repealed	The text of K.C.C. 16.07.330 "Exterior lighting power allowance – covered parking garages", is no incorporated into the state code (C405.5.3 #2), so a local amendment is no longer needed.
236.GGG	16.07.340	Provides criteria for electric receptacles at dwelling unit gas appliances.	Repealed	The text under the “Electric receptables at dwelling unit gas appliances” section is now integrated in state code section 405.7.1. This K.C.C. local amendment is no longer needed.
236.HHH	16.07.350	Provides additional energy efficiency credit requirements along with exceptions.	Repealed	Rather than articulating the credits available per measure, Table C406.1 now lists the number of credits needed for different project types (new buildings, building additions, and new load management requirements). As the content of this section has changed, this section is proposed for repeal.
236.III	16.07.360	Describes how tenant space energy credits may be achieved.	Repealed	The State code lays out a different approach to achieve energy efficiency measures. It also increases efficiency requirements overall. As such, local K.C.C. amendments for the “tenant spaces” section are no longer needed.
236.JJJ	16.07.370	Compared to the “More efficient HVAC equipment and fan performance” 2018 State code, this section was expanded to building additions or building areas; eliminated and exception for low energy and semi-heated spaces; and incorporated an HVAC TPSR requirement.	Repealed	The 2021 State code now incorporates building additions or building areas in its text; has removed the exception for low energy and semi-heated spaces; and now has as separated HVAC TSPR options (406.2.2.1). As such, local K.C.C. amendments for this section are no longer needed.
236.KKK	16.07.380	Compared to “HVAC system selection” 2018 State code, this section disallowed electric resistance and fossil-fuel fired equipment.	Repealed	The current 2021 State code 406.2.2 requires all heating and cooling systems to the meet the minimum requirements of Section C403. C403.1.4 prohibits the use of electric resistance or fossil-fueled HVAC systems. As such, local K.C.C. amendments for this section are no longer needed.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
236.LLL	16.07.400	Compared to the "On-site renewable energy" 2018 State code, this section required 0.25 watts on top of renewable energy required elsewhere in the code.	Repealed	The 2021 IECC equivalent section of 406.2.5 requires 0.1 watts on top of requirements elsewhere in the code, but the requirements elsewhere in the code have increased (compare K.C.C. 16.07.530 modifying 2018 IEC 412.1 (which set a 0.25W baseline requirement) to 2021 411.1, which this ordinance proposes amending from a 0.5W to a 0.75W baseline requirement. As such, previous code would have required 0.5W to achieve this credit, whereas the proposed code amendments in this ordinance and the state code would require 0.85W to achieve this credit. A such, local K.C.C. amendments for this section are no longer needed.
236.MMM	16.07.410	Prohibits fossil fuel-fired HVAC from using a credit found in section C406.6 of the IECC.	Repealed	This 2018 credit "Dedicated outdoor air system" is no longer an option in the 2021 code. Proposing for repeal accordingly.
236.NNN	16.07.420	Prohibits fossil fuel-fired HVAC from using a credit found in section C406.7 of the IECC.	Repealed	This is based on the current code before the SBCC lawsuit. Currently 406.2.2 (parent section to 406.2.2.6) requires all systems to comply with Section 403, and 403.1.4. has been proposed for modification in this ordinance to disallow fossil fuel systems. Therefore, this code section is no longer needed.
236.OOO	16.07.430	Provides regulations for buildings with service hot water heating equipment. Prohibits fossil fuel-fired service hot water heating equipment from using a credit found in section C406.8.1 and C406.8.2 of the IECC.	Repealed	The credit for "reduced energy use in service water heating" was not carried forward in current State code.
236.PPP	16.07.440	Provides standards for high performance service water heaters in hotel and multifamily buildings.	Repealed	The State code approach to heat pump hot water systems has changed; previous State code (406.9) only applied to multifamily buildings, though the equivalent current code section (406.2.6.3) has expanded its application to multiple building types. The existing K.C.C. amendment limiting the amount of electric resistance heat used in these systems is now included in this new State code section. The other K.C.C. amendment, stipulating the global warming potential of the refrigerant uses, is included as a new proposed amendment to the current state section 406.2.3 in this proposed ordinance.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
236.QQQ	16.07.450	Provides a standard for enhanced envelop performance.	Repealed	The Performance-based compliance “mandatory requirements” 2021 State code section now meets or exceeds K.C.C. amendments. Compared to the 2018 State code, local amendments: • Require schedule, plug, and process load modeling. • Replace some document requirements with a list of IECC Table C407.2 compliance. • Require references to undesigned future building components to refer to specific table subsections on design, lighting, service water heating, and receptables. • Require HVAC systems to meet specific requirements and adds additional details on building lighting evaluation and Energy modeler requirements. As such, this K.C.C. amendment is no longer needed.
236.RRR	16.07.470	Sets standards for performance-based compliance.	Repealed	Compared to the “Enhanced envelope performance” code section, local amendments applied the credit option to building area and occupancy type. State code now incorporates this language in its new corresponding section of 406.2.12. As such, local K.C.C. amendments are no longer needed.
236.SSS	16.07.480	Provides limits on substandard envelopes.	Repealed	This WESC section, WSEC C407.3.1, has been moved into a new code section.
236.TTT	16.07.500	Requires solar zones to be provided on buildings that are 20 stories or less and provides an exception.	Repealed	Compared to the “Solar readiness – general” 2018 code, this amendment struck a reference that did not apply to code sections for residential buildings. The 2021 code section 411.3 now integrates this provision. As such, local K.C.C. amendments are no longer needed.
236.UUU	16.07.510	Describes how to account for mechanical equipment when measuring a solar zone.	Repealed	Local code language under the “Minimum area – mechanical equipment” section on the solar zone is now integrated in state code section 411.3.1. As such, local K.C.C. amendments are no longer needed.
236.VVV	16.07.520	Requires and provides criteria for roof penetration sleeves for solar.	Repealed	The requirements from 16.07.520 "Photovoltaic interconnection – roof penetration" are in the new amendment, WSEC C411.3.7. As such, local K.C.C. amendments are no longer needed.
236.WWW	16.07.530	Requires any new building or addition larger than 5,000 square feet of conditioned floor area to have an on-site renewable energy generation system. Provides exceptions.	Repealed	This section was amended to the extent that this section is proposed for repeal and a new section has been written and proposed for adoption. This amends State code C411.1.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
236.XXX	16.07.540	Requires augmented or replaced HVAC heating systems to comply with IECC C403.14, and provides an exception	Repealed	This section was amended to the extent that this section is proposed for repeal and a new section has been written and proposed for adoption. This amends State code C503.4.6.
236.YYY	16.07.550	Does not require building envelope improvements for bakeries, commercial kitchens, or commercial laundries if electric Energy star-rated equipment is used.	Repealed	Proposed to add the language from this section to K.C.C. base code for section C405.14.
236.ZZZ	16.10.010	Established minimum standards to make dwelling units resistant to unlawful entry.	Repealed	Part of the proposed repeal of Chapter 16.10. This is an outdated code chapter that has largely been made unnecessary by updates to the IBC and IRC over the code cycles. Code was first adopted by KC in 1996. The removal of this chapter is consistent with current division practices. Further, this section implies an inspection would be required by Permitting for conversion of owner-occupied dwelling to a leased or rented dwelling. Removal of this chapter removes the inspection requirement for and streamlines the ability of property owners to make housing units available for rent.
236.AAAA	16.10.020	This is the “Scope” section of Chapter 16.10, King County Building Security Code.	Repealed	Part of the proposed repeal of Chapter 16.10.
236.BBBB	16.10.030	Requires dwelling unit exterior doors on leased or rented units to have a view of the area outside the door without opening the door.	Repealed	Part of the proposed repeal of Chapter 16.10.
236.CCCC	16.10.040	Provides criteria for strike plate installation.	Repealed	Part of the proposed repeal of Chapter 16.10.
236.DDDD	16.10.050	Provides criteria for locking hardware.	Repealed	Part of the proposed repeal of Chapter 16.10.
236.EEEE	16.10.060	Provides lock requirements for dwelling unit sliding doors.	Repealed	Part of the proposed repeal of Chapter 16.10.
236.FFFF	16.10.070	Requires latching devices for windows.	Repealed	Part of the proposed repeal of Chapter 16.10.
236.GGGG	16.10.080	Grants building official to approve alternative security devices.	Repealed	Part of the proposed repeal of Chapter 16.10.
236.HHHH	16.10.100	States that security methods shall not obstruct any means of emergency egress or opening.	Repealed	Part of the proposed repeal of Chapter 16.10.
236.IIII	16.10.110	Provides criteria for bars, grilles, grates, etc.	Repealed	Part of the proposed repeal of Chapter 16.10.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
236.JJJJ	16.10.120	Provides criteria for hinges.	Repealed	Part of the proposed repeal of Chapter 16.10.
236.KKKK	16.14.020	Provides the scope for Chapter 16.14 International Property Maintenance Code.	Repealed	Part of the proposed repeal of specific sections of Chapter 16.14. The proposed repeal of multiple sections of Chapter 16.14 is due to the incorporation or replacement of many of the repealed requirements into the IBC and the IRC, which have been specifically adopted by the County. Repealing the sections proposed for repeal avoids duplication and potential confusion.
236.LLLL	16.14.040	States that repairs, additions, or alterations to a structure, or changes of occupancy, may be done in accordance with the International Existing Building Code.	Repealed	Part of the proposed repeal of specific sections of Chapter 16.14.
236.MMMM	16.14.050	Does not adopt Section 102.7 of the IPMC.	Repealed	Part of the proposed repeal of specific sections of Chapter 16.14.
236.NNNN	16.14.060	Does not adopt Section 103 of the IPMC.	Repealed	Part of the proposed repeal of Chapter 16.14.
236.OOOO	16.14.140	Allows the code official to condemn a structure, equipment, or premises when found to be unsafe, unfit for occupancy, or unlawful.	Repealed	Part of the proposed repeal of specific sections of Chapter 16.14.
236.PPPP	16.14.150	Describes an unsafe structure or premises.	Repealed	Part of the proposed repeal of specific sections of Chapter 16.14.
236.QQQQ	16.14.250	Provides the code official authority to require occupants to vacate premises and lists the circumstances under which the code official could do so.	Repealed	Part of the proposed repeal of specific sections of Chapter 16.14.
236.RRRR	16.14.480	Requires pools, hot tubs, and spas to be surrounded by a fence or barrier. Provides criteria for those fences and barriers.	Repealed	Part of the proposed repeal of specific sections of Chapter 16.14.
236.SSSS	16.14.510	Does not adopt Section 304.18, and all of its subsections, of the IPMC.	Repealed	Part of the proposed repeal of specific sections of Chapter 16.14.
236.TTTT	16.14.530	Does not adopt Section 602.2 of the IPMC.	Repealed	Part of the proposed repeal of specific sections of Chapter 16.14.
236.UUUU	16.14.570	Does not adopt Section 602.4 of the IPMC.	Repealed	Part of the proposed repeal of specific sections of Chapter 16.14.
236.VVVV	16.14.580	Does not adopt Section 605.2 of the IPMC.	Repealed	Part of the proposed repeal of Chapter specific sections of 16.14.
236.WWWW	16.14.590	Does not adopt Section 606 of the IPMC.	Repealed	Part of the proposed repeal of specific sections of Chapter 16.14.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
236.XXXX	16.32.336	Does not adopt Section 107 of the UPC.	Repealed	This code section as adopted by the County refers to water heaters, but Section 107 is incorrectly cited because it is not related to water heaters.
236.YYYY	16.32.337	Provides regulations for potable water-heating and space heating water heaters.	Repealed	The applicable requirements are now within the State adopted code. As such, this code section is no longer needed.
236.ZZZZ	16.32.339	Regulates termination and connections for plastic water service piping within a building.	Repealed	This section is now in the State adopted code. No deviations are required. As such, this code section is no longer needed.
236.AAAAA	16.78.010	Regulates ornamental pools.	Repealed	The entire Chapter 16.78 regarding "ornamental pools" is being removed. This chapter covered a limited scope of "koi ponds" and similar structures which do not have a nexus to enforce the barrier provisions.
236.BBBBB	16.78.020	Regulates ornamental pools.	Repealed	The entire Chapter 16.78 regarding "ornamental pools" is being removed. This chapter covered a limited scope of "koi ponds" and similar structures which do not have a nexus to enforce the barrier provisions.
236.CCCCC	16.78.030	Regulates ornamental pools.	Repealed	The entire Chapter 16.78 regarding "ornamental pools" is being removed. This chapter covered a limited scope of "koi ponds" and similar structures which do not have a nexus to enforce the barrier provisions.
236.DDDDD	16.78.040	Regulates ornamental pools.	Repealed	The entire Chapter 16.78 regarding "ornamental pools" is being removed. This chapter covered a limited scope of "koi ponds" and similar structures which do not have a nexus to enforce the barrier provisions.
236.EEEEE	16.78.050	Regulates ornamental pools.	Repealed	The entire Chapter 16.78 regarding "ornamental pools" is being removed. This chapter covered a limited scope of "koi ponds" and similar structures which do not have a nexus to enforce the barrier provisions.
236.FFFFF	16.78.060(part)	Regulates ornamental pools.	Repealed	The entire Chapter 16.78 regarding "ornamental pools" is being removed. This chapter covered a limited scope of "koi ponds" and similar structures which do not have a nexus to enforce the barrier provisions.
236.GGGGG	17.04.445	Provides criteria for roof hatches.	Repealed	This K.C.C. section is addressed in the IFC. As such, this code section is no longer needed.
236.HHHHH	17.04.447	Provides criteria of enclosed interior courtyards.	Repealed	This K.C.C. section is not part of the IFC and is no longer needed.
236.IIIII	17.04.466	Provides signal strength technical requirements for emergency responder radio coverage.	Repealed	No longer needed as it mirrors language with the IFC.
236.JJJJJ	17.04.468	Provides amplification and components technical requirements for emergency responder radio coverage	Repealed	No longer needed as it mirrors language within the IFC.

Ordinance Section	King County Code Section	Current Code	Proposed Change	Intent/Rationale
236.KKKKK	17.04.471	Provides signal booster technical requirements for emergency responder radio coverage.	Repealed	No longer needed. IFC 2021 addresses issues and is easier to understand, same for 17.04.471 through 540.
236.LLLLL	17.04.472	Provides system monitoring technical requirements for emergency responder radio coverage.	Repealed	This section is no longer needed. IFC 2021 covers this and is much easier to understand.
236.MMMMM	17.04.477	Provides minimum qualifications of personnel for installation requirements for emergency responder radio coverage.	Repealed	This section is no longer needed. IFC 2021 covers this and is much easier to understand.
236.NNNNN	17.04.478	Provides acceptance test procedures for installation requirements for emergency responder radio coverage.	Repealed	This section is no longer needed. IFC 2021 covers this and is much easier to understand.
236.OOOOO	17.04.479	Provides wiring installation requirements for emergency responder radio coverage.	Repealed	This section is no longer needed. IFC 2021 covers this and is much easier to understand.
236.PPPPP	17.04.481	Provides identification sign installation requirements for emergency responder radio coverage.	Repealed	This section is no longer needed. IFC 2021 covers this and is much easier to understand.
236.QQQQQ	17.04.486	Provides testing and proof of compliance of maintenance for emergency responder radio coverage.	Repealed	This section is no longer needed. IFC 2021 covers this and is much easier to understand.
236.RRRRR	17.04.487	Provides an alternative test procedure for testing and proof of compliance of maintenance for emergency responder radio coverage.	Repealed	This section is no longer needed. IFC 2021 covers this and is much easier to understand.
236.SSSSS	17.04.488	Provides field testing and proof of compliance of maintenance for emergency responder radio coverage.	Repealed	This section is no longer needed. IFC 2021 covers this and is much easier to understand.
236.TTTTT	17.04.540	Provides criteria for where sprinklers are required.	Repealed	This section no longer needed as the IFC 2021 addresses this language.