**15-038**

**1. State Building Code to be Amended:**

X International Building Code  State Energy Code

ICC ANSI A117.1 Accessibility Code  International Mechanical Code

International Existing Building Code  International Fuel Gas Code

International Residential Code  NFPA 54 National Fuel Gas Code

International Fire Code  NFPA 58 Liquefied Petroleum Gas Code

Uniform Plumbing Code  Wildland Urban Interface Code

**Section(s): 406.5**

**Title: Open parking garages.**

**2. Proponent Name (Specific local government, organization or individual):**

**Proponent: Washington Association of Building Officials**

**Title:**

**Date: February 25, 2015**

**3. Designated Contact Person:**

**Name: Maureen Traxler**

**Title: Code development manager**

**Address: 700 5th Ave, #2000**

**PO Box 34019**

Seattle, WA 98124-4019

**Office Phone: 206-233-3892**

**Cell:**

**E-Mail address: maureen.traxler@seattle.gov**

**4. Proposed Code Amendment**.

**Code(s)** International Building Code **Section(s)** 406.5

Amend section to read as follows:

**406.5.1 Construction.** *Open parking garages* shall be of Type I, II or IV construction. *Open parking garages* shall meet the design requirements of Chapter 16. For *vehicle barriers*, see Section 406.4.3.

**Exception**: Open parking garages are permitted to be of Type III or V construction if they comply with the allowable heights and areas specified in Sections 504 and 506 as modified by Section 507.

1. **Briefly explain your proposed amendment, including the purpose, benefits and problems addressed.** Specifically note any impacts or benefits to business, and specify construction types, industries and services that would be affected. Finally, please note any potential impact on enforcement such as special reporting requirements or additional inspections required.

As the code is currently written, all open parking garages are required to comply with Section 406.6, which prohibits Types III and V construction. There are two major differences in the way open and enclosed garages are treated--open parking garages are allowed increased height and area; and open parking garages are not required to provide mechanical ventilation. This proposal allows open parking garages that meet the height and area limitations of Chapter 5 to be of Type III or V construction. These garages are allowed to substitute the openness required by Section 406.5.2 for the mechanical ventilation that would otherwise be required. Section 406.6.1 tells us that parking garages that don't meet the openness requirements for open parking garages are limited to chapter 5's height and area provisions. This proposal addresses garages that meet both the openness requirements and the Chapter 5 provisions.

Open parking garage is defined in Chapter 2: “OPEN PARKING GARAGE. A structure or portion of a structure with the openings as described in Section 406.5.2 on two or more sides that is used for the parking or storage of private motor vehicles as described in Section 406.5.3.”

1. **Specify what criteria this proposal meets.** You may select more than one.

The amendment is needed to address a critical life/safety need.

The amendment is needed to address a specific state policy or statute.

The amendment is needed for consistency with state or federal regulations.

The amendment is needed to address a unique character of the state.

X The amendment corrects errors and omissions.

1. **Is there an economic impact: X** Yes      No

Explain: There would be a reduction in the cost of construction for open parking garages where the owner chooses to use the lower type of construction. We derived data for the cost of construction from the August 2014 Building Valuation Data published by the International Code Council. <http://www.iccsafe.org/cs/Pages/BVD.aspx>. The Building Valuation Data is used as the basis for building permit fees nationally by many jurisdictions. The following excerpt from the Building Valuation Data table lists estimated per-square-cost for parking garages of different construction types. Parking garages are classified as S-2 storage occupancies.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | IA | IB | IIA | IIB | IIIA | IIIB | IV | VA | VB |
| S-2 Storage, low hazard | 99.01 | 94.07 | 88.96 | 84.35 | 75.83 | 71.07 | 80.38 | 61.11 | 56.10 |

The lowest type of construction allowed by the current code is Type IV; the lowest type allowed by this proposal is Type VB. The difference in cost for an S-2 occupancy of Type IV construction and the same building of Type VB construction is $24.28 per square foot. The amount of estimated cost reduction would vary depending on the type of construction chosen for a particular building, but the estimated cost for the construction types added by this proposal are all lower than the costs for the types of construction required by the current code.

If there is an economic impact, use the Table below to estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. If preferred, you may submit an alternate cost benefit analysis.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Building Type | Construction[[1]](#footnote-1) | | Enforcement[[2]](#footnote-2) | | Operations & Maintenance[[3]](#footnote-3) | |
| Costs | Benefits[[4]](#footnote-4) | Costs | Benefits4 | Costs | Benefits4 |
| Residential |  |  |  |  |  |  |
| Single family |  |  |  |  |  |  |
| Multi-family |  |  |  |  |  |  |
| Commercial/Retail |  | $24.28 | no change | no change | no change | no change |
| Industrial |  |  |  |  |  |  |
| Institutional |  |  |  |  |  |  |

Please send your completed proposal to: [sbcc@ga.wa.gov](mailto:sbcc@ga.wa.gov)

All questions must be answered to be considered complete. Incomplete proposals will not be accepted.

1. $ / square foot of floor area or other cost. Attach data. **Construction** costs are costs prior to occupancy, and include both design and direct construction costs

   that impact the total cost of the construction to the owner/consumer. [↑](#footnote-ref-1)
2. Cost per project plan. Attach data. **Enforcement** costs include governmental review of plans, field inspection, and other action required for enforcement. [↑](#footnote-ref-2)
3. Cost to building owner/tenants over the life of the project. [↑](#footnote-ref-3)
4. Measurable benefit. [↑](#footnote-ref-4)