

GG322-14

A101.1, A102, A102.1, A103, A103.1, A102.2, A103, Table A103.2, A104, A104.1, A105, A105.2, A106, A106.1, A106.2, A107, A108

Proponent: Brenda Thompson, Clark County Development Services, Las Vegas, NV,
Chair, ICC Sustainability, Energy & High Performance Building Code Action Committee (SEHPCAC)

Revise as follows:

A101.1 Scope. The provisions of this appendix are designed to ~~offer encourage and recognize the implementation of environmentally beneficial conservation~~ practices that achieve greater benefit than the minimum requirements of the *International Green Construction Code*.

SECTION ~~A102~~ A103 DEFINITIONS

PROJECT ELECTIVE. A provision that becomes mandatory and enforceable only where selected by the owner by indication in Table A103.2. ~~The minimum total number of project electives that must be selected and complied with as indicated in Section A102.2 and Tables A104, A105, A106, A107 and A108.~~

SECTION ~~A103~~ A102 APPLICABILITY AND CONFORMANCE

~~A103.1~~ A102.1 General. Project electives shall be applicable to buildings, structures and building sites constructed under the provisions of this code.

~~A103.2~~ A102.2 Required number of and selection of project electives. The jurisdiction shall indicate the number of *project electives* required in the blank provided in the row that references Section A102.2 in Tables A104, A105, A106, A107 and A108. ~~Each project constructed in the jurisdiction shall be required to comply with this number of project electives.~~ A total of not less than 3 ~~this number of project electives~~ shall be selected by the owner from Table A103.2 ~~each table~~. Selected *project electives* shall be applied as mandatory requirements for the project. Selected *project electives* shall be communicated to the code official by means of checking the appropriate boxes in the table and providing a copy of the tables, or by inclusion of a list of selected *project electives*, with the construction documents. A completed copy of Table A103.2 shall be provided to the owner by the jurisdiction at the time of the issuance of the Certificate of Occupancy.

Add new table as follows:

**TABLE A103.2
PROJECT ELECTIVES**

<u>Section</u>	<u>Description</u>	<u>Owner Selections</u>
<u>A104.1.1</u> <u>A101.1.2</u> <u>A101.1.3</u>	<u>Flood hazard area preservation</u> <u>Flood hazard area minimization</u> <u>Flood hazard area, existing building</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<u>A104.2</u>	<u>Wildlife corridor</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<u>A104.3</u>	<u>Infill site</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<u>A104.4</u>	<u>Brownfield site</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<u>A104.5</u>	<u>Site restoration</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No

<u>A104.6</u>	<u>Mixed use development</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<u>A104.7</u>	<u>Changing and shower facilities</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<u>A104.8</u>	<u>Long term bicycle parking and storage</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<u>A104.9</u> <u>A104.9.1</u> <u>A104.9.2</u> <u>A104.9.3</u> <u>A104.9.4</u>	<u>Heat island</u> <u>Site hardscape project elective 1</u> <u>Site hardscape project elective 2</u> <u>Site hardscape project elective 3</u> <u>Roof covering project elective</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A105.1	<u>Waste management</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A105.2	<u>Construction waste landfill maximum</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A105.3(1)	<u>Reused, recycled content, recyclable, bio-based and indigenous materials (70%)</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A105.3(2)	<u>Reused, recycled content, recyclable, bio-based and indigenous materials (85%)</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A105.4	<u>Service life plan</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A105.5	<u>Design for deconstruction and building reuse</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A105.6	<u>Existing building reuse</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A105.7	<u>Historic building reuse</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A106.1	<u>Project zEPI is at least 5 points lower than required by Table 302.1</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<u>Project zEPI is at least 10 points lower than required by Table 302.1</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<u>Project zEPI is at least 15 points lower than required by Table 302.1</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<u>Project zEPI is at least 20 points lower than required by Table 302.1</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<u>Project zEPI is at least 25 points lower than required by Table 302.1</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<u>Project zEPI is at least 30 points lower than required by Table 302.1</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<u>Project zEPI is at least 35 points lower than required by Table 302.1</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<u>Project zEPI is at least 40 points lower than required by Table 302.1</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<u>Project zEPI is at least 45 points lower than required by Table 302.1</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<u>Project zEPI is at least 51 points lower than required by Table 302.1</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A106.2	<u>Mechanical systems project elective</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A106.3	<u>Service Water Heating</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A106.4	<u>Lighting Systems</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No

A106.5	<u>Passive Design</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A106.6	<u>Renewable Energy Systems - 5 Percent</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A106.6	<u>Renewable Energy Systems - 10 Percent</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A106.6	<u>Renewable Energy Systems - 20 Percent</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A107.2	<u>On-site wastewater treatment</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A107.3	<u>Alternate on-site non-potable water for outdoor hose connections</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A107.4	<u>Alternate on-site non-potable water for plumbing fixture flushing</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A107.5	<u>Automatic fire sprinkler system</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A107.6	<u>Alternate on-site non-potable water to fire pumps</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A107.7	<u>Alternate on-site non-potable water for industrial process makeup water</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A107.8	<u>Alternate on-site non-potable water for cooling tower makeup water</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A107.9	<u>Graywater collection</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A108.2	<u>VOC emissions - flooring</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A108.3	<u>VOC emissions – ceiling systems</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A108.4	<u>VOC emissions- wall systems</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A108.5	<u>Total VOC limit</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No
A108.6	<u>Views to building exterior</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No

Delete the following without substitution:

**TABLE A104
SITE PROJECT ELECTIVES**

Revise as follows:

A104.1 Flood hazard area project elective. Where Section 402.2.1 is not listed in Table 302.1 as a mandatory requirement, and in specific flood hazard areas if Section 402.2.2 is not a mandatory requirement, projects seeking *flood hazard area project electives* in accordance with Section A102.2 shall comply with one of the *project electives* identified in Sections A104.1.1 through A104.1.3.

Delete the following without substitution:

**TABLE A105
MATERIAL RESOURCE CONSERVATION AND EFFICIENCY**

Revise as follows:

A105.2 Construction waste landfill maximum project elective. Projects seeking a construction waste landfill maximum *project elective* in accordance with ~~Table A105 and Section A102.2~~ shall comply with Section 503.1 except that not more than 4 pounds of construction waste, excluding *hardscape*, per square foot of building area shall be disposed of in a landfill. Building construction waste and *hardscape* waste shall be measured separately.

Delete the following without substitution:

~~TABLE A106
ENERGY CONSERVATION AND EFFICIENCY~~

Revise as follows:

A106.1 zEPI reduction project electives. *Project electives for buildings* pursuing performance-based compliance in accordance with Section 601.3.1 shall be in accordance with the portions of Table ~~A103.2~~ A106.4 that reference Section A106.1, Equation 6-1 and the calculation procedures specified in Section 602.1.2.1.

A106.2 Mechanical systems project elective. *Buildings* seeking a mechanical systems project elective in accordance with ~~Sections A102.2 and A106~~ shall comply with Sections A106.2.1 through A106.2.5.

Delete the following without substitution:

~~TABLE A107
WATER RESOURCE CONSERVATION AND EFFICIENCY~~

~~TABLE A108
INDOOR ENVIRONMENTAL QUALITY AND COMFORT~~

Reason: Many of the tables in Appendix A allow jurisdictions to choose to require compliance with a relatively large number of project electives that may be unrealistic and pose hardships for owner and designers.

Where jurisdictions adopt the provisions of Appendix A, they are required to select a minimum number of project electives that must be satisfied on each project from each of the following Tables: A104, A105, A106, A107 and A108. However, the high end of the range of recommended values in many cases is extremely difficult for most projects to comply with. For example, requiring that 10 of the 17 energy related project electives from Table A106 be satisfied would come close to requiring that all buildings in a jurisdiction be net-zero energy buildings. Though that may be an admirable long term goal, it may pose a significant hardship for most projects and create a negative market reaction to the code. This proposal remedies that situation by combining all project electives back into one table, as they were in IgCC Public Versions 1 and 2. The proposal no longer requires jurisdictions to select a value as the number of project electives that must be satisfied on each project. It sets that number at 3 for all projects. This is a relatively minimal value that will not pose a hardship for owners, yet will encourage them to explore and become familiar with the environmentally beneficial practices that project electives encourage. Furthermore, the new table has been structured to show all project electives that have not only been selected by the owner, but also that they have been verified and approved by the code official. This recognizes building performance that exceeds the minimum requirements in the body of the IgCC, and simultaneously encourages the implementation of these practices. The jurisdiction is required to indicate all project electives it has verified and approved in the far right column of the table. The jurisdiction is also required to attach a copy of Table A102 to the Certificate of Occupancy. Thus building owners can advertise the verified high performance attributes of their building, use these attributes to possibly reduce insurance premiums. This further encourages the implementation of project electives, while avoiding the pitfalls inherent in rating systems, virtually all of which are, in reality, poor indicators of building performance.

The following are a few examples of how the current recommended values in the current tables are difficult to comply with:

Section and Table A104 contains 13 project electives related to site development and land use. Table A104 requires that the jurisdiction indicate a number between 0 and 6 as the minimum total number of site related project electives that must be satisfied on each project. Jurisdictions should note that, although the first impulse may be that 6 is not an aggressive number of site related project electives given that 13 are available, few of these electives will actually be available to most projects.

Section A105 contains 7 project electives related to material resource conservation and efficiency. Table A105 requires that the jurisdiction indicate a number between 0 and 4 as the minimum total number of material resource conservation and efficiency related project electives that must be satisfied on each project. Jurisdictions should note that, as 2 of the Section A105 project electives are available only for existing and historic buildings, 4 may be an overly aggressive number of material resource conservation related project electives to expect most buildings to comply with.

Section A106 contains 17 project electives related to material resource conservation and efficiency. Table A106 requires that the jurisdictions indicate a number between 0 and 10 as the minimum total number of material resource conservation and efficiency related project electives that must be satisfied on each project. Jurisdictions should note that 10 electives from this table may be very challenging to implement for most projects.

The definitions were moved forward from Section A103 to Section A102 because the definition of "Project elective" is critical to the understanding of the provisions of this appendix.

Cost Impact: Will not increase the cost of construction.

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