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## Guidelines for Alternate Materials, Methods & Design Review

In order to formalize a more predictable approach for developing and reviewing alternate materials, designs, and methods of construction solutions proposed under the provision of the 2018 International Building Code Section 104.11; the following guidelines have been developed:

### The applicant / design professional shall:

1. Identify those elements of the code provision for which equivalence is required, and to determine measure of equivalency in terms of structural strength, suitability, effectiveness, fire resistance, safety and health.
2. Compare the suggested alternative approach to code requirements under all situations in which the code-based solution is expected to function.
3. Demonstrate that the requested alternative method or material is compatible with the balance of code requirements.

### The applicant / design professional shall prepare a written report that:

1. Specifies code provisions for which alternative is requested and why request is being submitted.
2. Defines the measure of equivalency for the proposed alternative in terms of structural strength, suitability, effectiveness, fire resistance, safety, and/or health, and impacts affecting the building and occupants.
3. Compares the proposed alternative versus the code requirements in terms of structural strength, suitability, effectiveness, fire resistance, safety and/or health, and impacts affecting the building or users of the building.
4. Demonstrates that proposed alternative is compatible with balance of code requirements.

And if applicable:

5. Provides documentation of evaluation methods utilized. This includes intended use, input data, anticipated outputs, and limitations of computer models and other analytical tools or methods.
6. Specifies when and where special inspection and testing are required and the standards of acceptance for demonstrating compliance. Shows how the proposed alternate, if accepted, will be identified on the job site.

7. Coordinates construction documents to reflect the alternative proposal. The design professional shall ensure compatibility between all construction documents.

Any engineering reports and design documents shall be dated, signed and stamped by a Colorado design professional.

The Chief Building Official and/or Fire Marshal shall review design submittals for compliance to the adopted codes and procedures. If the Chief Building Official does not have the expertise on staff to make a thorough and competent review, a third party or peer review process may be appropriate. Cost of any such review shall be borne by the applicant.

Reviews shall consist of the following:

1. Verification that evaluation and design methods used by designer are appropriate to the alternative proposed.
2. Verification that materials and/or equipment are being used in accordance with their listing conditions as required by recognized listing agencies. If not available, documentation and/or testing may be required to demonstrate compliance with intent of code and intended use.
3. Evaluation of performance of material and possible flaws that could affect performance of material in its installed state.

The Chief Building Official and/or Fire Marshal will notify the applicant / design professional of the acceptance or denial of requests for alternate materials and methods in writing.