



Code Amendment Proposal Application **OSSC 22-13**

Department of Consumer & Business Services
Building Codes Division
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APPLICANT INFORMATION

Name:	Tom Young
Representing:	Northwest Concrete Masonry Association
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PROPOSAL INFORMATION

Specialty code:	Oregon Structural Specialty Code (OSSC)
Code section(s):	2103.2.4

Briefly explain the subject of your proposal:	This proposal modifies the requirements for the cementitious bond coat mortar for adhered masonry veneer wall assemblies. It is intended to increase the shear bond capacity and improve wall safety and performance.
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Code Review Committee Outcomes

Nov. 17, 2021 – Approved.

PART I - CODE AMENDMENT LANGUAGE

Code(s): IBC Section(s): 2103.2.4

2103.2.4 Mortar for adhered masonry veneer. Mortar for use with adhered masonry veneer shall conform to ASTM C270 for Type N or S, or shall comply with ANSI A118.4 **or A118.15** for latex-modified ~~Portland~~ **dry-set** cement mortar. **The cementitious bond coat shall comply with ANSI A118.4 or A118.15.**

PART III - CODE AMENDMENT PROPOSAL CRITERIA

Proposal

1. Describe the concept and purpose of this proposal.

This proposal modifies the requirements for the cementitious bond coat mortar for adhered masonry veneer wall assemblies. It is intended to increase the shear bond capacity and improve wall safety and performance.

2. What problem in the existing Oregon code or national model code is this proposal solving? How does this amendment address the issue? If you have evidence demonstrating the problem, submit that information.

A common mode of failure of adhered veneer is the debonding of the units from the wall. This can result in a life safety matter depending upon the application (e.g. unit size, wall height, etc.). Requiring a modified dry-set bond coat mortar capable of developing higher bond strength is warranted. ANSI A118.15, for example, requires a 28-day shear bond strength near 400 psi for an improved-modified dry-set mortar, which is significantly higher than the current IBC referenced standard TMS 402 requirement of 50 psi. Additionally, the method of installation prescribed in the TMS specification was developed in the 1950s but is not used today for the installation of adhered veneer.

It requires a bond coat mortar of higher shear bond strength and removes the Type N or S mortar option for the cementitious adhesive bond coat portion of the wall assembly.

3. Has this been proposed at the national model code level. If so, explain when it was proposed, what happened, and why it was not adopted. Provide all associated national model code hearing information and background.

Yes. The latest draft for the next TMS reference code edition contains a similar amendment. Approving this proposed amendment would permit early adoption of this beneficial code provision in Oregon.

Implementation and fiscal impact

1. Explain how the proposed provisions would be enforced? Are additional inspections or permits required? Describe any necessary equipment, training, tests or special certifications.

Enforcement would occur as it does currently through product submittals and field inspection. No additional inspections would be required.

2. What is the fiscal impact of this proposal? Provide a cost benefit analysis and include the resources or methods you used to determine the fiscal impact.

The material cost difference between standard ASTM C270 mortar and ANSI A118.4/A118.15 mortar is approximately five cents per square foot more for the ANSI mortar. However, there are labor savings associated with its use that typically result in a cost reduction for the constructed wall assembly.

ANSI mortar improves workability, pot-life, and coverage along with increasing shear bond strength. It also helps to mitigate failures and saves potential replacement costs.

Cost estimated on a square foot of wall basis considering material and labor costs.

Impacted stakeholders and other specialty codes

1. It is important that proposals be shared with stakeholders that will be impacted by them. Was this proposal developed with people or organizations likely to be affected by it? Has it been reviewed or shared with people or organizations likely to be affected by it? If so, who, and if not, why not?

This proposal was developed in consultation with a major ANSI mortar manufacturer. It has not yet been shared with others likely to be affected by it as they are difficult to identify.

2. Does this proposal impact other specialty codes or statewide programs?

There is no additional impact to my knowledge.