
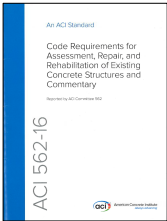


Code Adoption of ACI 562-16

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Background

- ICC Codes do not cover everything
- They rely on "Referenced Standards" for material specific materials
- Referenced standards must be developed in accordance with a "consensus" process
- Referenced standards are typically developed by an accredited industry group




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ACI is an accredited standard development body



Accredited Standards Developer page 13

Developer Name: American Concrete Institute
Acronym: ACI

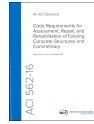
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Scope: Standards relating to concrete

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Therefore.....

Consensus-based standards developed by ACI should not be hard to have incorporated into the appropriate ICC Code....



However.....



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That's not what happened last code cycle...



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Last cycle's original proposal:

EB10-16
301.1.5 (New), Chapter 16
Proposed Change as Submitted
Proponent : Matthew Senecal, American Concrete Institute, representing American Concrete Institute (matthew.senecal@concrete.org)
2015 International Existing Building Code
Add new text as follows:
301.1.5 Concrete evaluation and design procedures Evaluation and design of structural concrete shall be in compliance with this code and ACI 562, except for seismic evaluation and design which shall be in compliance with Section 301.1.4.
Reference standards type: This reference standard is new to the ICC Code Books
Add new standard(s) as follows:
ACI
562-16 Code Requirements for Assessment, Repair, and Rehabilitation of Existing Concrete Structures



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Result: DISAPPROVED

- Committee Reason: There is an apparent lack of coordination between the proposed referenced standard and the IEBC.
- It is not clear that it contains criteria that assists the building official.
- The provisions seem to be confusing and hard to enforce.
- There is a requirement for a design basis report that would usually be a matter for the designer and building owner to agree on.
- There is disagreement with the cost impact and a belief that costs will increase, particularly on smaller projects.
- Even without adding this new standard to the IEBC, it can still be used as an alternative method of design.



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Round 2: Public Comment

Modify as Follows:

2015 International Existing Building Code

301.1.5 Concrete evaluation and design procedures Evaluation and design of structural concrete shall be in compliance with Except where this code and ACI 562, except for seismic evaluation and design which retrofit is required, in addition to the requirement of this code, ACI 562 shall be in compliance with Section 301.1-4 permitted for the evaluation and repair of existing structural concrete.

301.1.5 Concrete evaluation and design procedures. Except where seismic evaluation and retrofit is required, in addition to the requirement of this code, ACI 562 shall be permitted for the evaluation and repair of existing structural concrete.



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Reason:

The American Concrete Institute is greatly concerned that there are no requirements available to the registered design professional, building code official, or owner that want to rely on consensus information related to the repair of concrete. There are no standards that deal with problem of applying present repair materials to existing concrete structures. The IEBC limits repair materials to those approved by the applicable code for new construction, hence it prohibits the use of newly developed FRP materials. ACI allows the use of these materials in accordance with industry standards. Since ACI 562 is the only code that deals with the direct repair of concrete, it becomes the current standard of care for the industry.



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RESULT: DISAPPROVED

So where does that leave us????



Try Again!




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Strategy:

1. Is the Existing Buildings Code the correct code to reference this standard?

A: Yes I think so. ACI 562 applies to existing concrete structures, so this is the right code.




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Strategy:

2. Should the standard be a mandatory or voluntary standard?

A: I think it could go either way. But unless anybody else knows of a generally accepted method that is not included in ACI 562, then I think it makes sense to have it be mandatory.

Caveat: Need to check with other groups, particularly NCSEA (National Council of Structural Engineering Associations).



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Strategy:

3. Who should carry this forward?

A: Obviously ACI is an option. ICRI could be the proponent. If NCSEA would do it that would be a big boost. But what is needed is the impression that the ENTIRE industry is behind this standard. The more names on the proposal as supporters the better.

Any objections raised in front of the Committee give the impression that there is some disagreement and controversy involved in that particular code change. A broad front of designers, manufacturers, and if possible, code officials need to present strong, vocal support for adoption of this standard.



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Strategy:

4. Vocal Support

This can not be stressed enough. We need multiple designers, and NCSEA if possible, multiple manufacturers, some past users, Committee members, etc to convince the committee that the entire industry wants this standard adopted because it is the best thing out there, and anybody that doesn't want it doesn't want to follow the rules.



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Strategy:

5. Anticipate the opposition

- Figure out why that one engineer was so opposed to this standard last time. Was she rejected from being a member of the committee? Was she a member of the committee whose proposals were voted down? Is she actually experienced and just uses some other generally accepted method that you might promise to include in the next version of the standard?
- Make sure you have rebuttals ready for all the objections raised last time.



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Strategy:

6. You want approval by the Structural Committee the first time.

- Get your initial proposal right. It is so important to get the vote you want from the Committee. Overturning a Committee vote is a very difficult proposition. The Committee is seen as the Technical Experts who weigh technical arguments during their hearings. The ICC members who vote the second time are mostly not engineers and may not have any experience in concrete repair. They tend to take the recommendation of the Committee.



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