

ACI COMMITTEE 369-F
SEISMIC REPAIR AND REHABILITATION: RETROFIT

ACI Spring Convention
Sunday, March 27, 2022
Orlando, FL
Room: C-Hibiscus

2:00 – 5:00 pm (EDT)
Draft Agenda

1. Welcome and introductions
2. Additions to agenda
3. Approval of minutes from Fall 2021 virtual meeting (Atlanta, GA)
4. NIST update on retrofit efforts (S. Sattar)
5. Changes to ACI 369.1
 - a. CF02-Chapter 3 changes
 - i. Discussion of changes to address negative votes; will re-ballot shortly after spring 2022 meeting
 - b. Other change proposals?
6. Chapter X – Column retrofitting by jacketing
 - a. Updates from column jacket material workgroups
 - i. Concrete (Alcocer, Celestino, Cates)
 - ii. Steel (Ghannoum, Kehoe)
 - iii. FRP (Breña, Fathali, Kanitkar, Ghannoum, Rasheed)
7. Wall retrofitting (Hube, SantaMaria, Fathali, Celestino, Alcocer, Dukes, Ghannoum)
 - a. Database development (S. Abdullah, M. Hube, Dukes, Alcocer, Ghannoum)
8. Diaphragm retrofitting using FRP (Kanitkar) – on hold
9. Technical presentations: Alcocer – Retrofitting through addition of concrete walls
10. New business
11. Next meeting – 2022 ACI Fall Convention (October 23 – 27), Dallas, TX
12. Adjournment

Addendum A

Column Jacketing Chapter Outline (after October 2021 meeting)

1. Introduction to Column Jacketing

1.1 Purpose and Scope – eliminate gravity failure; modify failure mode toward ductile mode

Chapter applies to methods that increase deformation capacity of deficient members

Eliminate non-ductile failure modes. If not provisions in chapter are not satisfied, elements shall be classified as force-controlled. Types of jackets.

1.2 Deficiencies addressed

1.2.1 Low confinement

1.2.2 Shear deficiency

1.2.3 Short splice length

2. Concrete Jacketing

2.1 Scope

2.2 Minimum detailing requirements for use of tables (will vary by jacket type)

2.2.1 Shear transfer and jacket anchorage requirements (Connection to existing column)

2.2.2 Thickness

2.2.3 Minimum reinforcement

2.2.4 Gaps top and bottom?

2.3 Strength of Jacketed columns

2.3.1 Moment Strength

2.3.2 Shear Strength

2.3.3 Splice Strength

2.4 Linear Static and Dynamic Procedures

2.4.1 Modeling

2.4.1.1 Stiffness

2.4.2 Acceptance criteria (deformation capacity) – m factors

2.5 Nonlinear Static and Dynamic Procedures

2.5.1 Modeling

2.5.1.1 Lumped plasticity models?

2.5.1.2 Tables (a,b,e,f) and acceptance criteria

3. Steel Jacketing

[repeat sections similar to concrete jacketing here]

4. FRP Jacketing

[repeat sections similar to concrete jacketing here]