



ACI 318 Subcommittee H Meeting – Virtual Fall Convention
Tuesday, 19 October 2021
Via Zoom Webinar
1:30 – 6:00 pm (PDT)

DRAFT MINUTES

Attendance:

Members Present (20): Saman Abdullah, Sergio Alcocer, Carlos Arteta, Sergio Breña, Ned Cleland, Ken Elwood, David Fields, Luis Garcia, SK Ghosh, Jim Harris, Rick Henry, Dominic Kelly, Dawn Lehman, Andres LePage, Ray Lui, Adolfo Matamoros, Steve McCabe, Jack Moehle, John Wallace, Loring Wyllie.

Member Absent (2): Jeff Dragovich (excused), Hitoshi Shiohara.

Visitors (34): Ali Ahrabi, Paul Brien, Shih-Ho Chao, Louis Colarusso, Joe Ferzli, Garrett Hagen, Karl Grassl, Insung Kim (Sub C), Xuejian Liu, Zelong Liu, Jacob Marino, Kenton McBride, Ian McFarlane, Nicolas Rodrigues, Mario Rodriguez, Matias Rojas, Eyitayo Opabola, Viral Patel, (Sub W), Seyed Parham Pirzadeh, Juan Diego Pozo, Daniel Reider, Santiago Rodriguez Sanchez, Guillermo Santana (Sub I), Siamak Sattar, David Shook, John Silva (Sub R), Amy Trygestad (CRSI), Abhimanyu Singh, Ariel Suselo, Andrew Taylor (318 Chair), Mehmet Emre Unal, Alex Wiley, Fernando Yanez, Greg Zeisler (318 Secretary).

Wallace called the online meeting to order at 1:35 pm (PDT).

1. Introductions

Subcommittee members introduced themselves as the chair read their name.

2. Membership Update

Wallace noted that Sharon Wood is no longer a voting member of 318H (318 Consulting Member) and Saman Abdullah has been added.

3. Review and approval of agenda

Sub H approved the agenda as distributed (which was modified by Wallace to add Membership update and more detailed information on 318 ballot schedule).

4. Approval of minutes from Spring Virtual Meeting.

Sub H approved the minutes from the March 30, 2021 meeting.

5. Review of 318 schedule

Wallace noted that two 318 ballots were scheduled prior to the Spring convention in late March: Nov 12 and Feb 4. 318H ballots will likely be around Dec 15th and Feb 4th.

6. ACI 318-22



- a. Reference update: Wallace mentioned the need to update (review) organizational references for 318-22, and that he will be contacted a few members to help with this effort. (Ghosh and Harris have already been engaged).
- b. Commentary review (Chapter 12, 18, Appendix A)

The main idea of the commentary review is to identify commentary that might be outdated, redundant, or simply not needed. Also, where commentary provides a lengthy discussion that is covered elsewhere in published reports or papers, the commentary might be deleted and a reference provided to a separate publication.

A task group will be formed to accomplish this task.

7. Change proposals balloted on LB21H-02

- a. CH080a – Special Structural Wall Reinforcement – Wallace/Abdullah

Wallace noted that this change proposal is being revised for re-ballot and that no additional discussion was needed at this time.

- b. CH200c - Earthquake-Resistant PT Structures – Moehle

Moehle indicated that the change proposal focuses mainly on how to calculate M_{pr} . The approach was presented in the background and detailed comparisons with test data show that the approach is reasonable. He also noted the approach need not be perfect (e.g., use of 1.25 f_y for beam M_{pr}). Other, relatively minor issues were discussed and Moehle indicated that this item will be ready for re-ballot soon after the convention.

- c. CH230c - Intermediate Precast Structural Walls Connection Overstrength Upper Bound – Cleland (Item passed with 1 negative vote) [318 ballot]

Cleland presented the discussion that will be included with this item when it is sent to main committee for ballot (to address the one negative vote from Lehman). Lehman summarized her views and there was general agreement that this item should be forwarded to main committee for ballot.

- d. CH250a – Special Wall Detailing – boundary and web – Abdullah/Wallace

There was considerable discussion on this item. Abdullah summarized the issues and responses to the negative votes on the first ballot. Some members (e.g., Ghosh, Elwood) expressed a desire for the committee, with the help of practicing engineers, to conduct a comprehensive review of the impact of changes to 318-19 on example designs before making additional changes. There was generally agreement that this would be helpful. Wallace expressed concern that this would take too long, and that the proposed item would provide relief by reducing the need for overlapping hoops. There was discussion that the bigger issue was the need to clarify when overlapping hoops are required and if they are needed in flanged or core walls, as members Fields and Moehle presented one interpretation of the requirement and Wallace and Ghosh another. It was agreed that this issue needs to be clarified and would be considered in the revised ballot. Henry suggested separating special walls into low- and high-ductility (like in NZ) and having different detailing requirements. Consensus view was that this approach had merit, but might take



some time to accomplish. Wyllie noted that this ballot item was not discussed before the ballot and that this discussion would be helpful for the next ballot.

8. Change proposals balloted on LB21H-03

a. CH010a – Steel Fiber Reinforced Coupling Beams – Lepage

There was a brief discussion of this item. Wallace noted that this ballot might have been balloted prematurely, but that the ballot responses provide valuable information for a revised ballot. Item to be revised and re-balloted.

b. CH140b – Inconsistencies of Diaphragm Design Provisions in the Code – Breña (Item passed with 1 negative vote) [318 ballot]

Breña presented a revised ballot, and after some discussion, all negatives were withdrawn based on substantive changes. Passed 20 affirmative; 2 not returned.

c. CH160d – Limits on Penetrations in Diagonally Reinforced Special Coupling Beams – Fields (Item passed with 0 negative votes) [318 ballot]

Wallace noted that all negatives had been withdrawn and this item has already been sent to main for ballot.

d. CH270c - Spacing of Transverse Reinforcement in Coupling Beams with High-Strength Reinforcement – Lepage (Item passed with 1 negative vote, withdrawn) [318 ballot]

Lepage summarized this item and noted that the negative had been withdrawn (based on editorial changes). Item to be forwarded to main committee for ballot. Matamoros noted that current design requirements for coupling beams allow for cases with very different deformation capacity at strength loss (e.g., around 3% for conventional beams and 5 to 6% for diagonally beams). There was consensus that this should be pointed out in the commentary. Lepage noted that he would prefer to see 135-135 crossties required. Consensus that this was new business.

e. CH290a – Relocation of Commentary to Toolbox Chapter – Wyllie (Item passed with 1 negative vote) [318 ballot]

Based on the editorial change, which all agreed with, the Breña withdrew his negative.

9. Change proposals balloted on LB21H-01

a. CH130b – Spread of Plasticity in Columns – Matamoros

Not discussed. To be revised for re-ballot.

10. The following change proposals, which are under development – were not discussed

a. CH050 – Wall Shear Strength – Alcocer/Abdullah/Harris

Update to be given at the Nov/Dec online meeting.

b. CH090 – Coupling Beam Stiffness – Henry

c. CH150 – Grade 100 Reinforcement in Special Moment Frames – Lepage



11. Change proposals under development – Not discussed during March 2021 meeting, updates expected at October 19, 2021 meeting

- a. CH020 – Column Shear Strength – Matamoros/Abdullah

Update to be given at the Nov/Dec online meeting.

- b. CH030 – Column Shear Amplification – Abdullah/Matamoros

Update to be given at the Nov/Dec online meeting.

- c. CH170 – Splices at the Base of Walls – Lehman/McCabe

Lehman presented background and the approach for the change proposal. There was considerable discussion. Change proposal to be finalized for ballot in subcommittee.

- d. CH260 – Web Cross Ties – Lehman/Abdullah

Abdullah presented a proposed change to address an issue brought to the committee by Ian McFarlane that contractors would like to use alternative details to satisfy the intent of the code, but the code language needs to be revised to allow these details. Proposal to be revised for ballot.

It was noted that additional changes may be proposed in another change proposal (CH320).

- e. CH210 – Load Combinations in Shear Wall Design – Moehle

This item will be considered as part of the wall task group.

- f. CH300 – Special Walls R-factor – Fields/McFarlane

McFarlane presented the background and approach. Discussion indicated that this would need to be carefully written to avoid conflicts with ASCE 7. McFarlane to revise and submit for ballot.

- g. CH310 – Redistribution of demands in coupling beams – Fields/McFarlane

McFarlane presented the background and approach. General agreement that this would be a useful change. McFarlane to revise and submit for ballot.

- h. CH330 – Phi factor for shear amplification slender walls (clarification) – Fields/McFarlane

McFarlane presented the background and approach. General agreement that this would be a useful change. McFarlane to revise and submit for ballot.

12. Liaison with other committees

- a. ASCE 7 – Harris/Ghosh

Ghosh and Harris provided brief reports on coordination issues.

- b. Anchorage and Development – John Silva

- c. John Silva gave a presentation about the goals of Subcommittee R to address inconsistencies and other items related to development and anchorage provisions in 318. Presentation



attached).

13. New (Old) business

a. Special Wall – Code case

Wallace update that a Code Case has not been submitted, but that one is likely to be submitted in the near future related to the need for clarifications related to new provisions for special structural walls. Wallace noted that the Code Case must be submitted in writing to the TAC Secretary. It was noted by Wallace that the TCM indicates a fee might be required to submit a code case.

b. Wall Task Group

Wallace noted that an ad-hoc task group will be formed to: 1) respond to the Code Case, and 2) to provide a comprehensive review of the influence of the 318-19 changes on example designs.

c. UPT Wall Task Group

Wallace noted that he may form an ad-hoc task group to explore the potential of including Unbonded Post-Tensioned walls in Chapter 18. Task members to include Henry and Cleland, and possibly several non-members of 318H (Hawkins and Gavridou). Coordination with ACI 550 would be required – Cleland is a member of 550.

14. Adjourn

Wallace adjourned the meeting at 6:03 pm (PDT).

Next Meetings:

- 1) Nov/Dec online: TBD
- 2) Tuesday, 29 March 2022, Orlando