

Meeting Agenda
Residential Concrete
ACI 332 Task Group D (Footings and Foundation Walls) & E (Above Grade)
Tuesday, April 5, 2011
Marriott – Meeting Room 13
8:00 am – 10:30 am

Task Group Voting Members in Attendance:

Ed Sauter
Mike Cook
Buck Bartley
Jamie Farny
Kelvin Doerr
Augusta Carroll

Guests in Attendance:

Jim Baty, Chair 332
Dave Bye
Robert Sculthorpe
Todd Hankinson

- I) Welcome & Introductions
- II) Proposed Ballot Options for 332-13
- III) A) Continuous Footing Tables

The IRC, CFA, and 332 Footing Tables were compared. While they are close in several areas, there is no ascertainable basis for how any of the tables were generated. The most likely cause of the different assumptions for the myriad of variables that enter into the calculations. Scott Humphries has developed a spreadsheet that will enable anyone to vary the parameters. For the purpose of the development of tables in the next edition of 332 the task group recommends the following variable and fixed parameters.

VARIABLE PARAMETERS:

Soil Conditions: 2000 psf; 3000 psf; 4000 psf.

Building Dimension (direction of joist/truss span): 16'; 24'; 32' (with 2' overhang)

Variation of Above with Center Floor Support (all spans but roof span halved).

Stories: Slab on Ground; One story w/basement; 2 story w/basement; 3 story w/basement

Roof Live Load: 30 psf, 50 psf, 70 psf

Wall Load: Frame Construction, Frame w/Brick Veneer; 8" Block w/grouted cores.

FIXED PARAMETERS:

Above Grade Wall Height: 10'

Floor Live Loads: 40 psf main floor; 30 psf 2nd and 3rd floor

Floor Dead Loads: 15 psf; ceiling load 10 psf.

Basements Wall Contribution: 10"x9' or 1125 plf.

B) Isolated/Pier Footing Tables

The task group also feels that the contributing area used in determination of isolated footings and piers is too conservative. The current standard uses a 20'x 32' area. Since a footing pad would typically be used in a center beam/column support scenario and the maximum span distance of 32' is stipulated, a contributing length of 16' should be conservative. A column spacing of 10' should also be conservative so the task group recommends a contributing area of 160 sq. ft instead of 640 sq. ft. in determination of the area of a footing pad.

C) Foundation Wall Lintel Design.

The task group recommends that the increased lintel design and parameters be included in the next balloted edition of the 332 standard.

D) Moderately Reinforced Design (MRD)

The Concrete Foundations Association published the MRD Design Method as a white paper and solicited public input for nearly 12 months. Only a few minor comments were received. The task group will recommend to the full committee that the Moderately Reinforced Design method be balloted in 332-13.

The Task Group requests that qualified people on the full committee review the full standard for modifications that inclusion of MRD might necessitate of footings, walls, and other portions of the documents.

The Task Group also felt that someone familiar with seismic loading (such as Ken Bondy) should be asked to take a look at the chapter.

The wall tables will also have to be revised to take into account the moderate reinforcement approach.

IV) TAC Comments

A) Water in Footing Excavation (Public Comment #25)

The task group does not feel that water in the footing is an issue. They would accept a statement in the commentary that recommends a

maximum slump of 4 if it is known that the footings will be cast into standing water. This will further reduce the likelihood of a harmful reduction in the w/c ratio of the mix and water should mix.

B) Corner Detailing

No action taken.

V) Old Business

A) Above Grade Design

This effort is still on hold pending engineering expertise to reverse engineer the PCA 100 standard. The acceptance and approval of the moderately reinforced design section of 332 could further this effort.

B) Review of Guide Chapters 3&4 (Footings/Foundation Walls)

Sauter and Bartley reviewed Chapters 3 and 4 and have some minor modifications. They recommended additional information on safety, in particular for fall protection in light of the new OSHA standard as well as confined space requirements.

VI) New Business

No new business was discussed

VII) Future Task Group and Committee Meetings

Sauter requested that the task group meeting be delayed in the future to 9:00 am as he is joining Sustainability Subcommittee 130-G on Sustainability Education and Certification and they meet on Tuesday from 7:30 – 9:00 am.

VIII) Adjournment

The Subcommittee Meeting was adjourned at approximately 10:30 am.



Committee Meeting Sign In Sheet*

Page:

Committee: 332 D&E		Date: 4/5/11	
Name and Address (Please Print): * Members - Please give address, phone number, and e-mail only if changed * Visitors - Please give complete address, phone number, and e-mail		Comm. Member ?	Visitor? **
Mike Cook		✓	
JIM BARRY, 332 CHAIR			✓
Buck Bartley		✓	
DAVE BYE			✓
Ed Santer		✓	
Jamie Farny		✓	
Kelvin Doerr		✓	
ROBERT SCANTARPO			
TODD WILKINSON			
Augusta Carroll Insteel Wire Products		✓	

***Technical Committee Attendees:** The purpose of an ACI technical committee is to reach consensus and publish information on concrete-related issues within its mission. The discussions at the committee's meetings are part of this consensus process, and are not the official position of the committee. Only a published committee document represents the formal consensus of the committee and the Institute.

** Visitors interested in committee membership should contact the chair or visit the ACI website, www.concrete.org, for a membership application.