



International Code Council

PUBLIC COMMITTEE MEETING #2 MEETING MINUTES

ICC 1150 3D Automated Construction Technology for 3D Concrete Walls Consensus Committee (IS-3DACT)

The second public meeting of the ICC 1150 3D Automated Construction Technology for 3D Concrete Walls Consensus Committee (IS-3DACT) was convened on November 17, 2023, to discuss the scope of the working groups for the development of the ICC 1150 standard.

1. Meeting Opening

- a. Opening remarks, objective of the meeting, and housekeeping:

Staff Secretariat, Melissa Sanchez called the meeting to order at 10:03 am PST and welcomed all committee members, invited parties, and ICC staff. Ms. Sanchez noted that the ICC Code of Ethics and Section 5.1.10 Representation of Interests in Council Policy #7 were enacted. These documents are on ICC’s website under Corporate Governance.

- b. Quorum and membership review:

Ms. Sanchez called the roll of the IS-3DACT with the following members registering attendance. Ms. Sanchez noted there was enough for a quorum.

NAME	2023 IS-3DACT COMMITTEE MEETING			
	intro 9/18/23	#1 10/20/23	#2 11/17/23	#3 tbd
Jared Brewe [A]	x	X	X	
Gabriel Carrera [D]		X	X	
Bora Gencturk [C]	x	X	X	
Rory Hamaoka [H]	x	X	X	
Werner Hellmer[H]	x	X	X	
Maryam Hojati [D]	x	X	X	
Berok Khoshnevis [D]		X	X	
Jeff Martin [A]	x	X		
Doug Mayer [H]	x	X		
Paul Messplay [H]	x	X	X	
Aubrey Smading [B]	x	X	X	
Adil Tamimi [D]	x			
Bing Tian [A]	x	X	X	
TOTAL	11/13	12/13	10/13	

Interested parties in attendance included Botong Zheng (USC), Josh Gebelein (Parsons), Steve S. Szoke (ACI)

2. Approval of Agenda

Chair Mr. Bora Gencturk asked for a motion for approval of the agenda. Mr. Paul Messplay motioned and Mr. Bing Tian seconded. The agenda was unanimously approved.

3. Approval of Previous Meeting Minutes:

Mr. Gencturk asked for a motion for approval of the previous meeting minutes. Mr. Werner Hellmer motioned and Mr. Messplay seconded. The previous meeting minutes were unanimously approved.

4. Update on Work Groups:

a. Materials Work Group (Bing Tian)

Mr. Tian summarized the first working group session that took place on October 27, 2023 with 5 committee members, 2 visitors, and 1 ICC staff member in attendance. One new definition -3D Printing Mortar- was added to the definitions list. Mr. Tian presented the scope that was decided on in the working group session.

Mr. Gencturk starts the committee discussion on the scope. He suggests to change pre-evaluation to lab evaluation and to include "specification on the mixers and printers" to the scope. Ms. Aubrey Smading and Mr. Berok Khoshnevis do not agree with this inclusion stating that the standard is on the final product and thus on-site quality control already includes specifications on mixers and printers. Mr. Tian and Mr. Josh Gebelein state that proper processes to check materials is important. Mr. Hellmer agrees that the standard should be on the final product.

The scope is revised to read: The scope of this working group includes the definition of materials for 3D printing, provisions for lab evaluation and qualification of the materials, specification of the printed material properties using proper and accurate processes, and on-site quality control.

Mr. Gencturk asked for a motion for approval of this revised scope. Mr. Tian motioned and Mr. Hellmer seconded. The scope is unanimously approved.

b. Structural Work Group (Jared Brewe)

Mr. Brewe summarized the first working group session that took place on October 27, 2023 with 6 committee members and 1 visitors in attendance. Mr. Brewe presented the scope that was decided on in the working group session. Mr. Brewe brings up ACI ITG-12 and ACI Committee 564 are both working on similar standards to this one. Ms. Smading updates the committee on the scope of the ACI ITG-12 working group.

Mr. Gencturk starts the committee discussion on the scope. Ms. Maryam Hojati states that the word "wall" should be added to the scope as the standard is meant to consider only walls. Mr. Brewe replied that a discussion on incorporating other types of structural members were discussed. Mr. Gencturk states it's a good idea to restrict scope to wall. Ms. Smading suggest the word "cementitious materials" instead of concrete as the material covers both mortar and concrete. Mr. Brewe states the title of the standard should be changed to reflect this. Mr. Gencturk asks whether inspections should be part of scope. Mr. Brewe states that inspections are included in other ICC standards. Mr. Rory Hamaoka asks if the standard should include different types of occupancies. Mr. Hellmer states the standard will be self-limiting because it does not include seismic provisions and R-values.

The scope is revised to read: The scope of this working group includes the structural parts of this standard which will define the engineering design and construction requirements for 3D printed wall construction using cementitious materials including defining the limitations on the use of these walls and providing prescriptive provisions,

engineered provisions, structural testing criteria, special inspections and structural observation.

Mr. Gencturk asked for a motion for approval of this revised scope. Mr. Brewwe motioned and Mr. Gabriel Carrera seconded. The scope is unanimously approved.

Voting of the scope of materials and structural working groups.

All the scopes were unanimously approved.

5. Discussion of Initial Draft and standard versus acceptance criteria.

Ms. Sanchez explains the Acceptance Criteria 509 needs to be changed to reflect the language of a Standard. The goal of this ICC standard is for it to be referenced in the IBC/IRC. AC509 is only a starting place for the standard and that the final ICC standard can be different.

6. Next Meeting.

With no objection Mr. Gencturk sets the next meeting to be on December 15, 2023 at 10 am PST. Mr. Carrera and Ms. Hojati cannot make the next meeting. The working groups will set their own meeting times before this meeting.

7. New Business.

Ms. Smading shared that ICON has published their own design guidelines in collaboration with Walter P. Moore. This document is public and will be added to the shared Drive. Mr. Gencturk thinks incorporating parts of this document should be added to the ICC standard.

8. Action Items & Adjournment

The action items from the meeting were summarized as follows:

<i>Add ICON design guide and ICC ESRs for ICON and Black Buffalo to the shared drive.</i>	<i>Ms. Sanchez</i>
<i>Working group sessions with outline/table of contents for each of these groups</i>	<i>Mr. Tian and Mr. Brewwe</i>

With no other questions or comments before the committee Mr. Gencturk moved to adjourned the meeting. Mr. Hellmer motions for adjourning and Mr. Hamaoka seconds the motion. The meeting is adjourned at 11:34 am PST.