

Minutes
TC 9.12 TALL BUILDINGS
Location: Atlanta Hybrid Meeting (Omni Ballroom B)
Sunday February 5, 2023, 2:30 to 4:30 ET

1. CALL TO ORDER AND TC 9.12 SCOPE (Duncan Phillips)
 - a. The meeting was called to order by Chair Phillips at 2:35 EST following technical difficulties with the hotel equipment.
 - b. TC 9.12 is concerned with the function, operation, energy and human safety for buildings in excess of 300 feet in height. Also included is the determination of requirements related to hydraulics, airflow, infiltration, thermal insulation, water vapor retarders, environmental control, fire and smoke control and maintenance
 - ❖ Discussion started about revised the scope and mission statement of TC 9.12.
 - ❖ Revising the scope and mission statement to be on the agenda of the next meeting in Tampa.
2. INTRODUCTIONS (Duncan Phillips)
 - a. Chair Phillips asked attendees for introductions. There were 15 attendees in person and 7 attendees online, so *22 attendees total*. Quorum was established with 7 of 9 voting members present. This meeting was conducted in a hybrid fashion with two thirds of the participants in person.
3. CHAIR'S COMMENTS AND CODE OF ETHICS COMMITMENT (PHILLIPS)
 - a. "Commitment to the ASHRAE Code of Ethics – In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity, and respect for others, and we shall avoid all real or perceived conflicts of interests. See full Code of Ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>)
4. APPROVAL OF LAST MEETING MINUTES
 - a. Motion by Mark Fly and seconded by Dennis Wessel to approve the Toronto meeting minutes by a vote of 7-0-0 (yes-no-abstain).
5. LIAISON REPORTS (Duncan Phillips / Brad Cochran)
 - a. Brad Cochran informed us that the ASHRAE board wants to intercorporate other world standards and meld them into ASHRAE standard (e.g. Austro-Asian standards). A point of emphasis is on knowing who are the international attendees are (outside the US & Canada).
 - ❖ The six tracks or initiatives are:
 - i. Applications
 - ii. Pathways to net zero and decarbonization
 - iii. HVAC system and equipment
 - iv. Future proofing the built environment
 - v. Building control systems
 - vi. Professional development
 - b. ASHRAE President-Elect Ginger Scoggins is focusing on decarbonization and wants to all technical committees to look at decarbonization.

- ❖ Discussion about technical committees needing more time to implement new President-elects visions as ASHRAE is a large organization. It is difficult to change goals with each new ASRHAE national president.
 - c. Duncan Phillips shared his notes about the chair breakfast. It is more of a training into the board's agenda and structure of ASHRAE than about the content to disseminate to the rest of the technical committees individually.
 - d. Activity forums changed. The MOP updated for MTG to get their own MOP. Rest of function groups retain their MOP. TC need to update their roster. Six research initiatives and we need to align with their research initiatives.
6. SUBCOMMITTEE REPORTS
- a. Program Chair (Frank Kohout)
 - ❖ Disappointment that neither of the two programs submitted were accepted. How to get program submitted was discussed. A strategy of contacting the TRAC chair before we submit to have their feedback and editing helping was postulated. Frank will help with that effort. TC9.12 has two programs aimed for Tampa.
 - ❖ Deadline to submit for Tamp is Feb 27th. Two seminars include: tall buildings amidst hurricanes and wind driven rain & wind and pressurization.
 - ❖ Forum: special design challenges for tall multifamily buildings including pressurization and stack effect.
 - ❖ Future seminars for Chicago. Scott mentioned that TC9.1 to submit with TC9.12 as a sponsor.
 - ❖ Discussion for getting a mini-track for Chicago is goal. Tall building and net zero are possible topics. In April, we can meet to plan for future mini-track. One strategy to submit a bunch of seminars (7+) and they can select the best ones.
 - b. Handbook Chair (Mehdi Jalayerian)
 - ❖ Our next revision will be in the application handbook for 2023.
 - c. Research Chair (Scott Peach)
 - ❖ Unfortunately, no inquiries in the past six months.
 - ❖ Ideas include: climates for tall buildings (Peter Simmonds) and decarbonization (Luke Leung).
 - ❖ Plan to have a meeting to strategize for more research between now and Tampa conference.
 - d. Webmaster (Lisa Ng / Duncan Phillips)
 - ❖ ASHRAE wants us to use basecamp. Some agreed useful, but difficult to use. Role of secretary to make sure members can be on basecamp. However, basecamp does not replace our ASHRAE website. Our content to be posted and shared via the website primarily.
 - ❖ For communication, direct group emails is the preferred approach.
 - ❖ Action item: keep basecamp up to date
 - ❖ Action item: schedule meeting
 - e. Membership (Duncan Phillips)

- ❖ Discussion with Brad Cochran about who rolls on and off our group roster. Brad replied that he received a link/email about this information. The link does not show the expiration date/term of the voting member.
- ❖ Voting member rolling off after this meeting: Duncan Phillips
- ❖ Duncan Phillip's voting rights to be extended.
- ❖ Question of John Carter available and well-being.
- ❖ Luke Leung was pre-disposed with other affairs during this meeting.
- ❖ Inquiry on interest among TC in becoming a voting member.

7. New Business (Duncan Phillips)

- a. Discussion about the meeting slot.
 - ❖ John Carter moved earlier a few years ago. After much discussion, Sunday noon seemed like the initial consensus. Duncan Phillips to contact ASHRAE about moving the TC9.12 meeting to Sunday noon.
- b. Scope and mission statement Revision
 - ❖ Question posed if we want to define different heights of buildings? Similarly to CTBUH? Dennis mentioned that we listed 300 ft because of fire protection, but he is open to a revised definition. Should we talk with TC5.6 more?
- c. Atlantic Magazine Article chastising tall buildings "Are building too tall?"
 - ❖ Article link:
<https://www.theatlantic.com/magazine/archive/2023/01/supertall-mega-skyscraper-building-nyc/672228/>
 - ❖ It is agreed that it is ok to circulate article for educational and critiquing purposes. Scott later found that it is allowed to disassemble articles for scholarly comment and criticism.
 - ❖ Deliberation on responding to the article.
- d. Human health and tall building
 - ❖ Conversation that at 55 meters, the older human body may feel pressure changes differently. Mehdi shared that sleeping and age could affect breathing and how much oxygen they get at higher elevations. The idea of people living, working, and playing all in the same area of the skyscraper. In Saudi Arabia, the means of egress through elevators was 30 minutes for building evacuation.
 - ❖ How to design for building safety and pressure differentials. The higher pressure of oxygen to help compensate for the human body not internalizing as much oxygen.

8. ADJOURN (Phillips)

- a. Next meeting in Tampa is June 25th from 12:00 PM (noon) until 1:30 PM (EST)
- b. Motion to adjourn by Dennis and seconded by Mehdi.
- c. Adjourned at 4:00pm.

MEETING ATTENDANCE (Roster as of 2/5/23 with guests)

Full Name	Position	Email	Present	Online	Voting	YEA	INT'L
Mr Duncan A Phillips	Chair	duncan.a.phillips@gmail.com	x		x	n	n
Mr Scott B Peach	Vice Chair	sp@sp.engineering	x			n	n
Mr David Norris	Secretary	dwn2103@gmail.com	x			n	n
Mr Francis J Kohout	Program Subcommittee Chair	frank.kohout@outlook.com	x		x	n	n
Dr Lisa Chen Ng	Webmaster	lisa.ng@nist.gov	x		x	n	n
Mr Mark W Fly	Member	markwfly@gmail.com	x		x	n	n
Mr William A Webb	Member	wfpc@gmail.com	x		x	n	n
Mr Dennis J Wessel	Member	dwessel49@gmail.com	x		x	n	n
Mr Gregory Marcus Gross	Provisional Corresponding Member	gmgross@gmail.com	x			n	n
Mr Mehdi K Jalayerian	Corresponding Member	mjalayerian@esdglobal.com	x			n	n
Christopher Krieps	Corresponding Member	chriskrieps@gmail.com	x			y	n
Mr Brad C Cochran	Section Head	sh9@ashrae.net, bcochran@cppwind.com	x			n	n
Mrs Suzan Sun-Yuan	Member	ssunyuan@esdglobal.com		x	x	n	n
Prof Dahai Qi	Provisional Corresponding Member	darren.dahaiqi@gmail.com		x			
Ms Audrey Quay	Provisional Corresponding Member	aquay@shaw.ca		x		n	n
Mr Kim Clawson	Corresponding Member	mr.kim.clawson@gmail.com		x			
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Mr Luke C H Leung	Member	luke.leung@som.com			x		
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Mr Ronald George	Provisional Corresponding Member	Ron@Plumb-TechLLC.com					
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Mr Roland Charneux	Research Liaison	rcharneux@pageaumorel.com					
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Guests							
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Mr Jeremy Smith	Guest	jeremysmith@eeace.com	x			y	n
EC Engineer	Guest			x			
Vinay A	Guest			x			