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2023-2024 CTBUH Mass Timber Student Design Competition

Competition Brief

The Council on Tall Buildings and Urban Habitat (CTBUH) is pleased to announce the 2023-2024 CTBUH Mass Timber Student Design Competition kindly sponsored by Think Wood. The goal of the competition is to shed new light on the meaning and value of tall buildings in modern society. The age of the tall building as a single iconic piece of sculpture, standing in isolation from its surroundings, is coming to an end. Designers have a responsibility to ensure that these permanent urban structures engender a future-oriented urban response to the greatest challenges of our time: unprecedented population growth; mass urbanization; climate change; environmental degradation; social, political, and economic change; and the rapid advance of myriad technical innovations.

This year's competition focuses on **the use of mass timber in multi-story buildings through the lens of affordable housing that emphasizes rapid development**. Mass timber buildings provide myriad benefits for society, including a lower energy footprint to be produced as a building material, compared to traditional alternatives; the sequestering of carbon out of the atmosphere while producing itself as a building material (typically 50% of a tree by dry weight is carbon); evidence that suggests people feel a sense of well-being when exposed to natural materials such as wood; prefabricated components that can enable significant speed and cost savings during construction; better, sustainable management of forests.

Participants are free to locate their projects anywhere in the United States. But this is not to undervalue the importance of site—participants should carefully consider how their site (which must be a “real” site, in an existing urban location) influences the project's design. Participants are also free to determine the size, height, function, accommodation, and responsibilities of the building. The only stipulation is that the **building should be multi-storied** (i.e., not a pavilion or single space), and be designed to **maximize the use and expression of mass timber** while taking into consideration the 2021 IBC building code and current standards. It is also suggested that participants consider **prefabricated components** or **volumetric modular approach** to highlight the benefit of utilizing mass timber for rapid development. The intention with freedom of site and program selection is to maximize the diversity and creativity of the responses. It is also intended to allow students from specific educational studies already undertaking mass-timber-oriented studio projects during the 2022–23 and 2023–24 academic years to submit their projects for consideration.

Participants should engage with the exploration and resolution of the synergistic relationship between a mass timber building and its urban setting; how that building can be inspired by the cultural, physical, and environmental aspects of its site; how the program of the building is influenced by the micro and macro-site/urban conditions; and how the building responds to global issues. Proposals should show evidence of a clear understanding of how considerations of structure, environment, servicing, etc. are as vital to the success of a mass timber building as the form, materials, aesthetics, etc.

Participation Requirements

- The competition is open to all students who are registered at a university level **but U.S. and Canada-based institutes only**. For recently graduated students: you must have been a registered student during the 2023–24 academic year.
- Entries to the CTBUH competition must be original works by the students and cannot have been submitted to any previous design competition. Students may work under the guidance of a faculty adviser if they so choose.
- The official language of the competition is English.
- Participation in this competition is anonymous. You will be issued a registration number which will serve as the only means of identification during the entire judging process.
- Contact between participants and members of the jury is prohibited.
- A number of “Finalists” will be selected to present their schemes to the jury in a virtual event, which will also be open to attendance by other interested parties within the CTBUH network. Participation in the event and presentation to the jury are required as a condition of being awarded finalist status and receiving the award. Finalist teams that do not attend will be ineligible for prizes.
- Copyright and intellectual rights of the submissions remain with the original authors. Participants in the CTBUH Student Design Competition agree to allow CTBUH and Think Wood to display their work in any forum or publication, physical or digital.

Prizes

- **First Place:** US\$5,000
- **Second Place:** US\$4,000
- **Third Place:** US\$3,000
- **Fourth Place:** US\$2,000
- **Fifth Place:** US\$1,000
- **Honorable Mentions**
A select number of additional entries may be recognized as Honorable Mentions and awarded with a certificate.

Key Dates

- 8 January 2024: Competition formally launched
- March 2024: Submission Portal opens
- 5 August 2024: Registration / Submission deadline
- August 2024: Semi-finalists notified
- September 2024: Top-five finalists notified
- October 2024: Top-five finalists will present to the jury via a virtual event
- November 2024: Winners announced

Registration

- All university students are invited to participate in the design competition. Multidisciplinary teams are strongly encouraged.
- Teams can be made up of one to five individuals.
- Only one single project can be submitted by any one individual/team.
- Students cannot participate in more than one team.
- If a team chooses to work under the guidance of a faculty advisor, they must provide his/her name when registering. While students cannot participate on more than one team, a faculty member is eligible to advise multiple teams.
- **Participants must register online by 5 August 2024. Note that the Submission Portal opens in March 2024.**

- All team members must submit proof of student status when they register. A scanned copy of a student ID or other form of verification for each member of the team must be uploaded to the registration site in order to successfully complete the registration. Note that proof of student status must indicate either the expiration date or graduation date to prove the student status.
- After your registration and student status has been approved, CTBUH will issue you a unique registration number, which will be necessary for the final submission.
- **There are no registration fees. Participation in this competition is free.**

Submission Requirements

Submissions will be digital only; no hard copies will be required or accepted. **Participants must submit their project no later than 5 August 2024.** Access to upload your submission will be provided to you at the same time you register at the submission portal. **Please be sure to set your email to accept all correspondence from CTBUH email accounts to ensure you do not miss any important information.**

Project submissions are limited to the following two files (both files are required):

- **One A1 board**
 - This primarily visual presentation of your project should include the following: the name/title of your project, the project concept, diagrams, plans, sections, and perspectives. However, it is up to each individual team to determine what information is needed to communicate their project most effectively to the judges.
 - The board must be ISO A1 (841mm x 594mm) in size and oriented to the **LANDSCAPE** (i.e., horizontal) format.
 - The board must be saved as a PDF file of high visual resolution, however the file size should not exceed 20MB.
 - Entry must include your unique registration number in the upper right corner of the board. There should **NOT** be any personal names, affiliations, or any other forms of identification on the board.
 - The file name must include your four-digit registration number and conform to the following naming convention: **CTBUH2022_XXXX.pdf**
- **One DOC file written description (one-page)**
 - This one-page written description is your opportunity to further describe your project's concept, design, motivations, etc.
 - Please include the name/title of your project at the top of the document.
 - Text should be a maximum of 500 words, and not to exceed one page.
 - There should **NOT** be any personal names, affiliations or any other forms of identification in the text.
 - The file name must include your four-digit registration number and conform to the following naming convention: **CTBUH2022_XXXX_Description.doc**
- Only these two files (one .pdf and one .doc) will be accepted. No additional files will be accepted. Supplemental files (.ppt, .mov, etc.) or files that do not conform to the above listed specifications will be discarded and not reviewed by the jury.
- The top five projects selected as finalists will elect one team member to present the project during the virtual event. This will include an 8-minute oral presentation (supported by a PowerPoint presentation), followed by a 5-minute question and answer session with the jury. **Attendance at the virtual event is mandatory. Finalist teams that fail to attend will be ineligible for the prizes.**

Jury

The competition consists of two juries. The first-round jury will narrow the submissions down to 25 semi-finalists. The second-round jury will then select the five finalists from the semi-finalists. The members of the second-round jury will consist of prominent experts involved in mass timber initiatives within the CTBUH and Think Wood network.

Judging Criteria

To assist with the judging process, a series of judging criteria is defined in four categories as outlined below. Participants are strongly encouraged to keep these criteria in mind throughout the design process.

■ Creative Approach (25 percent):

- The design response is innovative and inspirational.
- The design response shows originality and creative thinking in terms of multi-storied design.
- The building program is creative, yet clear and justified.

■ Response to Site (25 percent):

- The design responds to the physical/cultural aspects of its site, such that the design is unique to its location, and not a generic response to produce a tall building capable of being reproduced regardless of its location.
- The design responds to the environmental aspects of its site.

■ Sustainability (25 percent):

- The design considers the building's environmental impact and energy usage.
- The design considers efficiency throughout (core, shell, space, usage, etc.).
- The design considers social sustainability, occupant lifestyle, and well-being.

■ Use of Mass Timber (25 percent):

- Mass timber clearly influenced the design of the building from start to finish.
- Mass timber is optimized in the building in every way.
- The design response emphasizes the benefits of using mass timber.

About CTBUH

The Council on Tall Buildings and Urban Habitat (CTBUH) is the world's leading resource for professionals focused on the inception, design, construction, and operation of tall buildings and future cities. Founded in 1969 and headquartered at Chicago's historic Monroe Building, the CTBUH is a not-for-profit organization with an Asia Headquarters office at Tongji University, Shanghai; a Research Office at Iuav University, Venice, Italy; and an Academic Office at the Illinois Institute of Technology, Chicago. CTBUH facilitates the exchange of the latest knowledge available on tall buildings around the world through publications, research, events, working groups, web resources, and its extensive network of international representatives. The Council's research department is spearheading the investigation of the next generation of tall buildings by aiding original research on sustainability and key development issues. The Council's free database on tall buildings, The Skyscraper Center, is updated daily with detailed information, images, data, and news. The CTBUH also developed the international standards for measuring tall building height and is recognized as the arbiter for bestowing such designations as "The World's Tallest Building." See more at ctbuh.org

About Think Wood

Think Wood is a communications campaign that provides commercial, multifamily and single-family home design and build resources to architects, developers, and contractors. Think Wood's funder is the Softwood Lumber Board (SLB). The SLB is a check-off program established to promote the benefits and uses of softwood lumber products in outdoor, residential and non-residential construction. Programs and initiatives supported by the SLB focus on increasing the demand for softwood lumber products in the United States. Visit thinkwood.com.