



2021

AMERICAN SOCIETY OF CIVIL ENGINEERS®  
CONSTRUCTION INSTITUTE STUDENT CONFERENCE COMPETITION™

# RULES AND REGULATIONS

Revision 2 - March 1, 2021



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## **Section 1: Competition Overview**

The Construction Institute (CI) is one of nine institutes that represent the American Society of Civil Engineers (ASCE) to provide professionals, students, and organizations, resources to enhance skills, grow their network, and shape the future of the civil engineering industry. The vision of the Institute is to be the leader in promoting quality in construction.

CI has always had a plan to be a leader in institute participation among ASCE student conferences, and with help from their young professional's council (YPC), a competition has been developed to provide a construction engineering experience to civil engineering students. CI hopes to challenge students to work "towards" something and not just "on" something; to show that project management is less about managing projects and more about leading people. With CI's devoted network across the country and the assistance of ASCE student conference hosts, the Institute is confident that students will get the most out of this Construction Institute Student Conference Competition. As this is the first year offering this competition, it is being held as a pilot at select student conferences.

## **Section 2: Participation and Teams**

Each ASCE student chapter that participates in a 2021 ASCE Student Conference that is selected to pilot the competition will be eligible to register three (3) to four (4) students for the Construction Institute's Student Conference Competition. Each student must be a member of an ASCE Student Chapter in good standing, be a Society Student Member of ASCE, a registered participant of the student conference, and an undergraduate student enrolled during all or part of the current competition academic year. For registration, schools will provide the list of names to the host school's conference committee by the host school's scheduled date of required registration and submission of rosters. The student conference host shall then provide the list of all students and their respective student chapters to the Construction Institute.

Each teams will consist of three to four students, all from the same university. Multiple teams from the same school is not permitted. Each team shall still designate one member as team captain and email CIYPCASCE@gmail.com the following by April 1<sup>st</sup> 2021:

- Team Name (Company Name)
- Verification of each team member's first and last name

### Section 3: Competition Information and Requirements

Congratulations! Your team’s Invitation to Bid for the 2021 *Local Construction Project*\* was accepted! The ASCE CI {herein defined as ENGINEER} is releasing a Request for “Presentations” (RFP) on behalf of the *Local Community*\* {herein defined as the OWNER}. To be awarded this job, your team {herein defined as CONTRACTOR} must present on their plan for construction.

Each CONTRACTOR will be tasked with reviewing a set of construction documents, provided by the ENGINEER on behalf of the OWNER and their *Local Construction Project*\*. The CONTRACTOR will then be required to complete a report for construction planning, including but not limited to: A Critical Path Method (CPM) schedule, a contractor’s estimate, and project management proposal templates. The OWNER has also requested that the CONTRACTOR deliver a presentation explaining their proposed approach to the project and project deliverables.

*\* Indicates an undefined term as this Rules and Regulations document is applicable to all ASCE student conferences hosting the competition. Each student conference will receive their own project information in the RFP.*

**3.1 Ethics and Required Conduct** – According to the ASCE Code of Ethics (<https://www.asce.org/ethics/>), Canon 5, “Engineers shall build their professional reputation on the merit of their services and shall not compete unfairly with others”. In the context of this contest, “unfair competition” may include conduct such as the following:

- Failure to provide proper credit for past teams, plagiarism, or any other false statement concerning the source of material used in the contest.
- Taking ideas, artwork, or other creative content from others without their permission (for an overview of Intellectual Property Laws, including Trademark and Copyright, visit <https://fairuse.stanford.edu/overview/introduction/intellectual-property-laws/>).
- Any false or malicious statements about other teams or anyone involved in the competition

All participants shall act professionally and respectfully at all times. Failure to act appropriately can result in sanctions, disqualifications, and loss of invitations to future competitions or Society-wide competitions. The inappropriate use of language, alcohol, or materials, uncooperativeness, or general unprofessional or unethical behavior will not be tolerated.

**3.2 Participant Material Requirements** – Considering the format and objective of the competition, students should come prepared with any materials they deem necessary to be successful. Consider the competition as “open book”; where anything goes in the creation of their deliverables and the creation of their presentation. For the actual delivery of the presentation, no one other than the team members themselves are allowed to present to the judges.

*All teams will receive project specific information (scope of work) in the RFP, passed out three weeks before the start date of the actual competition. The project documents (drawings and specifications) will be given to teams three weeks prior as well. This Rules and Regulations document is for competition specific information and not project specific information. The RFP will also include **appendices A-E** as they **are not included in this document** (see Section 4: Deliverables).*

Due to the format and time constraints of this competition, along with this being a pilot year, a project SAMPLE with a sample RFP and completed deliverables will be sent out to host schools to be shared with competing student chapters and their students by March 1<sup>st</sup>, 2020. This SAMPLE will be a detailed representation of what students should expect when creating their own projects for the student conference, but will not be all-inclusive as to what is expected.

#### **Section 4: Deliverables**

**4.1 Schedule** – Each CONTRACTOR shall submit a Project Schedule, performed either by hand or in MS Excel or a similar program (advanced scheduling programs not allowed). The schedule shall be performed using CPM through net logic diagrams and then into a Gantt chart. Examples will be provided showing competition teams what is expected in the SAMPLE document as discussed in Section 3.2 of this document. *See Appendix A in the RFP for examples of net logic diagram and Gantt chart schedule making.*

**4.2 Estimate** – Each CONTRACTOR shall submit a contractor’s estimate. The OWNER has provided a list of bid items to price in the RFP. Consider all other items that can be reasonably inferred to complete the project as supplied and furnished by OWNER. Perform take-offs using the contract documents and tabulate in MS Excel or similar, or by hand (advanced estimating software not allowed). Examples will be provided showing competition teams what is expected in the SAMPLE document as discussed in Section 3.2 of this document. *See Appendix B in the RFP for examples of take-offs and creating an estimate.*

**4.3 Technical Assessment & Risk Management** – In any construction project, there will be some level of risk and risk management. In your project deliverables, it is important to not only address how long the project will take and how much it will cost, but it is essential for the owner to fully believe that the contractor understands risk and will plan for it. *The OWNER is asking for completed templates (provided in Appendices C-E) to show your understanding of risk management.*

- C) Material, Personnel, and Equipment Staging and Procurement
- D) Health, Safety, and Environment (HSE)
- E) Quality Assurance and Quality Control (QA/QC)

## Section 5: Oral Presentation

Delivering an informative and validating presentation to a client is a critical aspect of the proposal process. To “Win the Job”, the project development and pre-con teams must show the client that they fully understand and will satisfy, the owner’s concerns and desires.

Oral presentations must be delivered in English and in a professional manner: one in which a professional engineer would give to a client. Each team will be given ~~(7)~~ **10-minutes** to deliver a presentation addressing the OWNER’S concerns and desires. This is including but not limited to the project deliverables and their team’s approach to the construction of the project. There will be no slides, PowerPoints, or videos allowed. The OWNER simply wants an in-person talk from each CONTRACTOR to make their decision about who is right for the job. Each team member must speak for at least ~~one~~ **two minutes**. An automatic 10-point deduction in presentation score will be applied for failing to meet this requirement, ~~and~~/or if the presentation exceeds or is under ~~seven~~ **10-minutes** by one minute or more. At the completion of the presentation, the judges will ask each team member one question regarding the information presented and/or in the project deliverables submitted beforehand.

Due to the nature of the competition, presentations will all be delivered through Zoom, MS Teams, or another virtual platform that the host school uses. Judges will be in a “room” on-line, teams will be given a time slot to join the meeting room. This information, the time slots for each team and the order of presentations will be delivered to participating schools at a later date. The CI representative hosting the call will do their best to maintain a rate of 20 minutes for each team to log on, deliver their presentation, answer questions, and exit the call, but due to technical difficulties and other unforeseen conditions, each block will be spread out by the half hour (every 30 minutes).

## Section 6: Submission Details

Project estimates, schedules, and templates must be submitted to the web page or drive that will be provided by the host school in one of their later mailers. It is preferred that all deliverables are compiled into one PDF and submitted.

- Subject of the PDF must be: “CI Construction Competition: *Your Company Name*”

This document, also available on the ASCE Student Competitions Page of the ASCE Website, defines the 2021 ASCE Construction Institute Student Conference Competition Rules. Requests for Information (RFI) should be sent to the ‘discussion’ post tab on this webpage. Each RFI will be reviewed by ASCE’s website managers and then will be given to CI to read and answer. You may not see your post immediately after you post it. Clarifications will be posted at the Construction Institute Student Conference Competition Collaborate Site on every other Friday starting September 25, 2020 and ending the Friday before the week of the competition.

Each post will address the questions received from the previous two weeks through the Wednesday before 11:59PM EST. Exact RFI end dates for each conference will be listed on the Collaborate site.

### **Section 7: Conference Scoring and Recognition**

Teams will be scored based upon the judge's discretion using the rubric attached in Appendix F (see Section 3.2 for information on other appendices). The top three scoring teams will receive points that may be applied to conference overall scoring. In addition, the first, second, and third place teams and their members will receive recognition awards.

*The breakdown of this competition's "worth" or the amount of points going to the student chapters' overall conference score is to be determined by the student conference host.*

**Failure to provide team name and member information at deadline or on-time deliverable submission will result in a 25-point reduction from final score (100pts).**

### **Section 8: Competition Schedule**

**Release of CI Construction Competition Rules and Regulations – 9/9/2020**

**Release of Sample Project – March 1, 2021**

**Release of Contract Documents and RFP – March 19, 2021**

**Final Day to Submit RFIs to CI – March 31, 2021 (Final RFIs answered April 2, 2021)**

**Team Captain w/ Team Name (Company Name) email to CI – April 1, 2021**

**Team Project Documents Submission – April 5, 2021**

**Conference Date – April 2021**

**Presentations (*Order and times will be given to each team in a mailer*) – TBD by host school.**

**Award for summer 2021 Local Construction Project – Conference Ceremony**

All project documents are to be ~~turned in 1 week prior to the conference start date~~ (*Exact dates and times will be posted on the CI collaborate competition website*). Because the competition will be online, the teams schedule, estimate, and risk management templates will be turned in one week prior to the competition start to allow for more time for judges to score the written portion of the competition. The only project item to be completed during the conference is the delivery of the presentation (see Section 5).

### **Section 9: Concepts and Vocabulary**

All students that wish to participate and sign up are encouraged to familiarize themselves with construction concepts and vocabulary before the competition. To find a list of popular terms, you can visit the CI Student Days website [here](#). Note that this is not an all-inclusive list of

what you should expect to see during the competition, nor are you guaranteed to see all of these terms during the project.

### **Section 10: Virtual Competition Options**

In the event that a virtual competition is deemed necessary, the ASCE Construction Institute Student Conference Competition would receive the following changes to adapt.

Option 1: 100% ONLINE – Where if a decision is made for the student conference to be held virtually:

- Change 1. Each team will be composed of students from the same chapter, not different chapters.
- Change 2. All presentations will be delivered live and online at a time TBD during the student conference.
- Change 3. The RFP and contract documents will be released 3-weeks prior to the student conference.
- Change 4. All deliverables will be required to be submitted a week prior to the student conference at a date and time TBA on the CI collaborate competition website.

### **Section 11: Judging**

CI will host a minimum of three (3) judges for the reviewing of project deliverables and assessment of the team presentations. The panel will be composed of industry professionals and/or those with previous involvement in the *Local Construction Project*. Judges will have the authority to score teams based on their individual interpretation of the rules and rubric criteria with the guidance of the CI representative on campus or virtual. The CI representative will be responsible for ensuring the judges are competent in the understanding of the scope of work in regard to the *Local Construction Project*.

Scoring data shall be recorded for each team which competes. Official judging forms shall be used and will be provided by the CI representative after judges' training. The information from the judges' data sheets is entered into a spreadsheet which tabulates the official results of the competition. A summary report will be provided to each conference host for their records and distribution to the student conference.

<b>Deductions Rubric</b>		<b>Overall Score</b>	
<b>Team (Company) Name:</b> <b>University:</b>		<b>Points Deducted Possible</b>	<b>Score</b>
<b>Submission Requirements</b> Failure for team to submit names and team information by the deadline of April 1 <sup>st</sup> 2021 (25 points)  Failure to submit all documents by April 5 <sup>th</sup> , 2021 (25 points)		<b>50</b>	
<b>Technical Presentation</b> Failure for each team member to speak for at least 2 minutes (10 points)  Failing to keep the presentation within 10 minutes +or- 1 minute (10 points)		<b>20</b>	
<b>Subtotal</b>		<b>70</b>	
<b>Total Score</b>			

<b>Scoring Rubric</b>	<b>Overall Score</b>	
<b>Team (Company) Name:</b> <b>University:</b>	<b>Possible Points</b>	<b>Score</b>
<b>CPM Schedule</b> Network Logic Diagrams and Gantt Chart illustrate understanding of construction sequence (7.5 points) Network Logic Diagram durations and dates are precise (5 points) Schedules contain all required items (Milestones, Critical Tasks, Specified Tasks (2.5 points)	<b>15</b>	
<b>Construction Estimate</b> Contractor's Estimate contains all Bid Items (5 points) Estimate shows accuracy of quantities (10 points)	<b>15</b>	
<b>Material, Personnel, Equipment Management</b> 3 of 9 Task Hazards are Described and Planned for (3 points) Template shows understanding of risk items through clear and concise descriptions (7 points)	<b>10</b>	
<b>Health, Safety, and Environment Management</b> 3 of 9 Task Hazards are Described and Planned for (3 points) Template shows understanding of risk items through clear and concise descriptions (7 points)	<b>10</b>	
<b>Quality Assurance &amp; Quality Control</b> 3 of 9 Task Hazards are Described and Planned for (3 points) Template shows understanding of risk items through clear and concise descriptions (7 points)	<b>10</b>	
<b>Technical Presentation</b> Presentation Professionalism; Energy/ Excitement; Delivery (5 points) Understanding of the project and deliverables (20 points) Organization and effort put forth to hit most talking points (10 points) Company introduction, history, qualifications (5 points)	<b>40</b>	
<b>Subtotal</b>	<b>100</b>	
<b>Deductions</b>	<b>(70)</b>	
<b>Total Score</b>		