ASSOCIATED SCHOOLS OF CONSTRUCTION
2021 Student Competition
Open Problems
Concrete Solutions
INTRODUCTION

Sundt Construction, Inc, is proud to be sponsoring the 2021 “Concrete Solutions” ASC Student Competition problem. Welcome and thank you for your participation.

Concrete has been a leading building material for over 2,000 years. Every project involves the use of concrete in some way, and for some projects concrete is the main building material. Modern ready mixed concrete also provides remarkable flexibility in meeting the needs of challenging design and sustainability considerations.

The ASC Competition has done an excellent job in providing an environment for the competitors to experience life as a general contractor and as a subcontractor within the mechanical/electrical fields. In participating in the Concrete Solutions problem, you will have the opportunity to peek into the life of a self-performing general contractor.

This competition offers an outstanding opportunity for your career development: it allows you to showcase your talents, become a leader and network with protentional employers and construction recruiters. Congratulations on making the decision to compete.
Sundt has recently been successful in its pursuit of a new and exciting project. Your team of “Sundt employees” has been assembled to assist the company in self-performing the concrete scope of work. The problem statement will be related to both preconstruction and construction responsibilities. The judges will be acting as the general contractor for the project. They will be reviewing your written proposal and will request a formal interview.

Listed below are some items to review which will help prepare your team for the competition:

**The competition teams will be expected to:**

- Provide budget assistance
- Provide design assistance and constructability reviews
- Perform a quantitative takeoff
- Develop a detailed estimate
- Develop a construction/pour sequence schedule, demonstrating an understanding of concrete-related activities and sequence
- Recognize and address safety concerns and develop a detailed site-specific safety plan
- Recognize and be able to address project and ACI specification items
- Analyze forming systems and determine which system best fits the project scope items

**Deliverables that are expected to be received from the teams are as follows:**

**Proposal** – You will be expected to provide a typed proposal that includes any clarifications or specific exclusions

**Schedule** – You will be expected to provide a schedule in Primavera P6, or other scheduling software, that details the overall plan and current status of construction, including sequences of concrete placements.

**Presentation** – You will present your solution to the problem using Microsoft PowerPoint or a software program of your choice
SCORING CRITERIA

<table>
<thead>
<tr>
<th>POINTS</th>
<th>CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Points</td>
<td>Prequalification</td>
</tr>
<tr>
<td>40 Points</td>
<td>Self-Perform deliverables (template(s) to be provided)</td>
</tr>
<tr>
<td>60 Points</td>
<td>Project Meeting/Team Presentation</td>
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<tr>
<td>5 Points</td>
<td>Bonus: identifying the concrete solution</td>
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</tbody>
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Other Notable Problem Information

- Participation in this problem will be limited to twelve teams determined on a first come, first served basis.
- Competing teams will have access to the internet at their own discretion and cost.
- Zoom will be the platform used for presenting in all meetings, including Pre-Bid Meeting, Room Visits and Team Presentations.
- Points will be deducted for submitting deliverables past the stated deadlines - 1 point for every minute late.
- Zoom Meeting will be provided for presentations.
- Team rooms will be visited virtually by the judges periodically on Thursday, February 4, 2021.
- Initial problem documents will be distributed via flash drive. Hard copies of particular documents may be provided.
- Trophies and cash prizes will be awarded for first, second and third place finishing teams.
- An additional award will be provided – Name TBD.
- The competition rules listed at asc67.org/rules.html will be strictly adhered to.

Suggested software

- On Screen Take Off or other quantity take off software
- Bluebeam Revu
- Microsoft Office
- Revit Structure or other modeling software
- HCSS Heavy Bid or other estimating software
- Primavera P6 or other scheduling software

Miscellaneous

- Looking for a little insight to the competition? Check out this video from previous competitions: youtube.com/watch?v=ZmRaPy0x_Hk
- ASC Regions 6 & 7 website: asc67.org/competition.html

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TIMELINE OF EVENTS

Friday, December 11, 2020
• Team registration ends; Team member names due to ASC committee

Wednesday, January 6, 2021
• Deadline to provide a simple biography of each team member, including a “head-shot” photo and a brief narrative of the individual’s scholastic status, industry experience and contact information
• Please provide e-mail and phone number for the point of contact during the competition
• If applicable: Please provide name and company of industry sponsor

Wednesday, February 3, 2021
• Events as listed in ASC Schedule of Events, which is posted online. This schedule is subject to change; please note posting date.
• 11:00am – 8:00am: Pre-bid meeting. Sundt will introduce the Problem Statement and the official Scope of Work Documents will be distributed to the teams
• 8:00pm: 1st Deliverables as outlined in the Problem Statement are due

Thursday, February 4, 2021
• Events as listed in ASC Schedule of Events. This schedule is subject to change; please note posting date.
• 8:00pm: 2nd Deliverables as outlined in the Problem Statement are due

Friday, February 5, 2021
• 7:00am – 6:30pm: Oral Presentations
• Presentation times will be assigned on Thursday during problem exercise
• Times will be emailed to teams
• 6:30pm – 6:55pm: Problem Recap Meeting

Saturday, February 6, 2021
• Events as listed in ASC Schedule of Events. This schedule is subject to change; please note posting date.
• 8:00am – 12:00pm: Virtual Job Fair
• 12:15pm – 1:00pm: Awards Ceremony

In an effort to continuously improve the quality of this problem, a survey will be issued via email to each team member and coaches the week after the competition

Written feedback will be distributed to each team within 30 days of competition
Concrete Solutions has been integrated into the ASC completion to allow you an opportunity to experience the world of self-performed concrete. We believe that this problem will challenge you to think in detail about what it takes to win and build a job in this extremely competitive market. Thank you very much for your interest and we look forward to seeing you in February!

*Prior to the competition questions can be directed to:*

**Mike Canter**  
602.402.3086  
ASCConcreteSolutions@sundt.com

Contact information for questions during the competition will be provided the day of the event.

*Congratulations to last year’s first place finishing team:  
Cal Poly – San Luis Obispo*