2021 ASC Student Competition
OPEN COMPETITION PRECONSTRUCTION PROBLEM

Competition Information Package
August 30, 2020

Presented by:

PCL CONSTRUCTION
Welcome Students and Teaching Professionals to the 2021 ASC Student Competition!

PCL Construction, Inc. is proud to be the sponsor of the Open Competition Preconstruction Problem at the 2021 ASC Student Competition (VIRTUAL). We believe this competition is an invaluable tool for your career development. PCL wants every team to benefit from the knowledge and experience gained by participating in this mock Preconstruction Problem.

THE IMPORTANCE OF PRECONSTRUCTION

The road to the successful delivery of a project begins with solid preconstruction planning. Preconstruction is where contractors have the greatest ability to bring additional value to the project and assist the owner and consultants in achieving their vision in the most cost- and time-efficient way possible.

The objective of this competition is to increase students’ exposure to the everyday occurrence of preconstruction tasks in today’s construction environment. The problem proposed will be typical to the required tasks performed by a contractor during the preconstruction phase of a project. Tasks encountered as part of the competition may include:

- Proper selection of your construction team
- Risk analysis
- Analysis of various schedule scenarios
- Estimating
- Constructability reviews
- Logistics reviews
- Value engineering studies
- Safety
- Site logistics planning
- Contracting

There are many dynamic elements to every project, whether in design or under construction, including this actual project constructed by PCL. We hope you keep an open mind to the challenges that are presented, and learn from our experiences as well.

At the end of the competition, only three teams will be recognized at the Virtual Awards Ceremony; however, each participant is truly a winner when you combine the experience of the competition and the industry exposure gained by attending the event.

Note: All teams are to provide actual resumes of each student along with a photograph to PCL by TBA (Walter Jimenez – wjimenez@pcl.com). All resumes shall be in the same format, font, organizational structure, etc.
THE COMPETITION SCENARIO

Your team is a general contracting firm that is proposing on a new powerhouse at an existing dam. The powerhouse will provide localized power for the facility, with the potential to send power to the grid. The project is called *Northwater Dam*. If selected, your team will be issued a preconstruction agreement and will assist the owner and design team in establishing budgets, keep the design in alignment with budget, and perform constructability and logistic reviews in order to provide the best value to fill the affordable housing need.

The competition consists of the following phases:

- **Phase I - Request for Proposal Submission** (30 points)
- **Phase II - Preconstruction Meeting Deliverables** (30 points)
- **Phase III - Preconstruction Meeting** (40 Points)

Each individual section is discussed further in this document. The final problem solution and debrief will be given by PCL the night of *TBA* (Walter Jimenez – wjimenez@pcl.com).

Prerequisites

Successful teams and their members will need to exhibit the following skills and expertise:

- Collaboration and problem-solving techniques
- Oral and written communication skills
- Conducting project meetings
- Constructability knowledge
- Risk analysis
- Quality management
- Site logistics planning
- Scheduling
- Estimate development and quantity takeoff
- Conceptual estimating
- Value engineering (value management)
- Safety planning
- Innovation
Without exception, the rules for the competition will be governed by the following guidelines:

- Adhere to the approved and posted ASC 2021 Competition Rules.
- Other competition rules will be reviewed at the Competition Kick-off Conference held on the morning of TBA (Walter Jimenez – wjmenez@pcl.com) at 7:00 AM in PCL’s assigned virtual room.
- Participation is expected to be limited to 14 teams for this problem. Participation will be on a first-come, first-served basis.
- A maximum of one team per school will be admitted for this competition.
- Internet is allowed.
- PCL will use a web-based file share site for distribution of problem statement files, requests for information, submittals, etc.
- Software requirements are limited to Microsoft Word, Microsoft Excel, a CPM scheduling program, and a PDF program (preferably Bluebeam Revu 2017). However, students are strongly encouraged to have licenses available for tools to assist them with typical planning and preconstruction activities such as estimating, word processing, modeling and clash detection, scheduling, presentations, etc. Innovation is encouraged, and points will be assessed based on the quality of the deliverables.

The first, second, and third place teams will be recognized with a trophy and a nominal cash award at the Virtual Awards Ceremony following the Career Fair.

The selection process is a three-step process. Determination of the winning team is based on a pre-established uniform grading scale for each phase of the problem submittal, for a total of 100 points. There is an added 5 point discretionary bonus for those teams that exhibit a creative aspect during the Presentation Phase. Each team will receive a summary of their scoring after the competition, which will include the top, average, and individual scores.

*Note: Points will be deducted from the overall team score by 25% per phase of deliverables submitted after the stated deadlines.*
THE PROJECT PHASES

A Phase I proposal request will be distributed via a file share site to the registered teams on TBA (Walter Jimenez – wjimenez@pcl.com). It will be a Request for Proposal with a brief description of the project type and a list of project requirements. The deliverables will be detailed in the Phase I proposal request and may include but are not limited to:

- Project organizational chart
- General conditions proposal outlining overhead and fee costs as a percentage of direct costs
- Conceptual project budget
- List of value engineering ideas for owner consideration
- Drafts of contractor’s proposed tracking tools to be utilized during preconstruction (tools could include budget tracking, permits, etc.)
- Schedule
- Logistics plans
- Construction equipment planning and selection
- One (1) electronic copy (PDF format) via PCL’s Egnyte Drive, Phase I submission, and editable versions of the estimate and schedule will be required

The Phase I proposal package shall be prepared by each team prior to the competition and be submitted via PCL’s Egnyte Drive at the Pre-Proposal Virtual Conference (Walter Jimenez – wjimenez@pcl.com) at 7:00 AM.

The Phase II Preconstruction Meeting Minutes outlining the required Deliverables will be distributed and discussed at the mandatory Competition Kick-off Meeting. All teams attending the meeting are then invited to submit one (1) electronic copy of the Phase II submission via PCL’s Egnyte Drive. The following will be shared virtually with the project teams at the kick-off meeting:

- Each team will be provided an electronic version of the drawings and specs as required to complete the various phases of the competition.
Phase III: Preconstruction Meeting (Presentation)

In Phase III, the Phase II Deliverables will be presented by each team on TBA (Walter Jimenez – wjimenez@pcl.com). All meeting times will be emailed to each group leader by 7:00 AM. All teams are expected to be ready to deliver their presentation materials by 7:00 AM and present by 7:50 AM. Teams may not use any materials in their presentation that are not submitted by the 7:00 AM deadline.

Meeting parameters:

- All meeting (presentation) material must be uploaded to the team’s Egnyte drive by 7:00 AM.
- Meetings will be facilitated via Microsoft teams
- If there are any embedded media files in your presentation, make sure the original media files are in your Egnyte drive

- All presentations are limited to 30 minutes in length with a Question and Answer portion to be expected during the meeting time limit. All meetings will end 30 minutes from the start of the presentation. Scoring will be based on correct solutions to the open action items AND the number and quality of discussion of other meeting agenda items covered during the meeting.
Timeline

**Thursday, February 4, 2021**  TBA (Walter Jimenez – wjimenez@pcl.com)

7:00 AM – Competition Kick-off Meeting. **Phase I Request for Project Update Due.** PCL to introduce Problem Statement and Phase II Preconstruction Services Meeting Minutes and Deliverables to teams.

11:00 AM - Phase II RFIs due to PCL

1:30 PM - Group meeting to discuss Phase II RFIs

7:00 PM - **Phase II Preconstruction Meeting Deliverables due**

**Friday, February 7, 2020**  TBA (Walter Jimenez – wjimenez@pcl.com)

7:00 AM - Post meeting times at meeting room

7:00 AM – Meeting (presentation) materials due in Egnyte Drives by all teams

7:50 AM to 5:30 PM – Meetings

6:15 PM – PCL to present solution set to teams (Group Meeting Debrief)

7:15 PM to 9:00 PM – **VIRTUAL HAPPY HOUR?**

**Saturday, February 8, 2020**  TBA (Walter Jimenez – wjimenez@pcl.com)

8:00 AM to 12:00 PM – Career Fair

Virtual – Awards Ceremony

Contact Us

Good luck in your endeavors! Any questions can be directed to the PCL representative below.

Email: ASCStudentComp@PCL.com