In order for the team to successfully manage the inherent risks of the project, such risks need to be identified in order to realize what makes this project unique and the management strategies to be applied to mitigate these risks. Before beginning to respond to each section of the proposal, a brainstorm was held to align the entire team to a problem solving mentality: What are the aspects and creative solutions that could be enacted in real time while ensuring the timely and profitable completion of the project.

The nature of this problem requires students to not only think quickly and creatively, but to also engage in the mindset of our bosses and coworkers as many as twenty years our superior. In addition to the short eighteen-hour window to develop a proposal looking at a project for the beginning, this proposal also required a number of ‘time warp’ problems, describing hypothetical management and field issues occurring several months into the project. These added challenges required project teams to think ‘in the real world’ to develop creative solutions that could be enacted in real time while ensuring the timely and profitable completion of the project.

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This commercial proposal centers on developing a construction services proposal and providing a number of management solutions for the Sanford Consortium project, a design-assist contract for an $80 million, 150,000 square foot laboratory space located in La Jolla, CA. The facility will be used for stem cell and regenerative medicine by a number of high-profile world leaders in biomedical research. Each of the thirteen university teams were given the construction plans and eighteen hours to develop formal proposals addressing the budget, financial status for the design and construction phases, construction schedule, site coordination and utilization plans, quality and safety plans, change orders, relationship management strategies, risk analysis, sustainability solutions, and management strategies for the project, including a number of real-life problems that occurred during the construction of the project. These formal proposals were submitted and their values presented to the company’s upper management at a First Point Meeting the next morning with the intent of demonstrating which project team would be most competent in securing the job and ensuring a profitable endeavor for the company.

The SANFORD CONSORTIUM: A Simulation and Analysis of a Construction Services Proposal

PROJECT OVERVIEW

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SANFORD CONSORTIUM FOR REGENERATIVE MEDICINE

First Point Proposal Outline

**Financial Status Report**

As part of the First Point Review, the financial status of the project must be analyzed. In order to satisfy the owners and enable the company to meet performance expectations, a thorough analysis must be performed to summarize profitability, risks, and risk mitigation between the design, budget, and construction phases.

- **Part A** – Financial Status Report: updates project items through the project phase to determine financial gains and losses in the current estimate, general conditions, and the purchase amount for major scopes as analyzed in the proposal summary.

**General Conditions**

The ‘general conditions’ consist of all on-site project management and supervisory, administrative, and professional services, including the design and construction of construction. This includes staff salary and benefit costs, technology such as computers, phone service, and software upgrades, reprographics, office supplies, and temporary facilities and construction-related means such as office trailers, sanitary equipment, site development, surveying, construction, weather protection, inspections, permitting, and more.

- **Part A** – The General Conditions report provides a detailed breakdown of the costs for these indirect costs expected for the duration of the project based on the team’s judgment of experience and resources.

**Proposed Summary**

One of the most critical steps in the subcontracting phase of a project is determining the actual scope each bidding subcontractor has included in their bid number. Using this data, we can compare apples to apples looking at subcontractor quotes to select the best value subcontractor that covers the entire work scope.

- **Part B** – After the client has approved the change order from part A and construction of the Aquatics Center is partially complete, the owner states that the project participants and analyzed the scope of the change order to be written. The team has analyzed the potential for this contractual change, identified benefits and drawbacks for all project participants and analyzed the scope of the change order to be written.

**Change Management**

- **Part A** – Construction is underway when an ASI (Architectural Subcontracting Issuance) is issued that details a design change adding an Aquatics Center to the current design. The project engineer is tasked with compiling and reviewing the change estimate for this added scope of work.

**Quality Control**

The company’s culture is that of a true builder. As such, the concrete scope of work will be self-performed. With this decision, the responsibility of ensuring each pour’s success falls on the project’s superintendent and field engineers. The concrete base of design is that an on-site test, not allowing for any grading or exposed surfaces. The need for raw place perfect of the concrete as well as flawless formwork construction. To accomplish this, the subcontractor, the Subcontractor adjacent to the project is the ACI Gold Standard for an exact, concrete, and is to serve as a model for the quality of concrete on this project.

**Safety**

- **Part B** – The subcontractor is preparing to start construction of vertical concrete, the project superintendent is concerned with the complexity of the as-cast concrete. A plan has been developed to ensure that the concrete will be placed correctly and efficiently, and the direction of crews and lifts will include the coordination of subcontractors, elimination of aggregate segregation, and consistency of truck productivity to deliver the quality.

**Personnel Issues**

- **Part A** – As the construction of four team construction and project personnel is completed, the project’s superintendent (General) is having an engineer who has been cleared to lead a weekly meeting covering fall protection. These meetings highlight safety issues and concerns while encouraging safe work practices, and this topic affects carpenters, laborers, and finishers who all need fall protection until the next few months. The agenda for the meeting has been written for review and comments.

- **Part B** – The pods on the exterior of the building are built on centered concrete decks, posing a number of certain safety risks. Pre-planning is critical to the construction of the decks with no injuries or accidents. The Job Hazard Analysis (JHA) is the primary safety tool in the pre-planning process. A good JHA identifies hazards, develops a plan to prevent hazards from becoming accidents, and gives employees detailed safety instructions prior to beginning work.

**Schedule**

- **Part A** – A project schedule is a fundamental tool in properly planning and managing a project. A well constructed, comprehensive schedule directs all parties along the path to success. A complete, working Critical Path Method (CPM) schedule coverage is effective providing the best of attack to build the project. In addition, a Complete CPM Report, Primary Critical Path Report, and Interactive Report has been approved by the formwork subcontractor to reflect the site-specific safety program and company standards.

- **Part B** – Funding sources for this project have mandated that the Consortium begin using the facility no later than Dec 1, 2014. Funding negotiations for this project are well underway, a small window of time is needed to have a ‘Beneficial Occupancy’ by this date. Six months into the project, the project team has stated that they would like to get an occupancy of the entire lab building by this date. The team has executed a statement indicating areas of the schedule that could be accelerated to accommodate this request and how changes will be implemented, expressing which areas can be made available by this date.

**Proposal Summary**

The First Point Meeting gives the team the opportunity to synthesize their understanding of the project and present it to the owner company. In this meeting, the project team presents the status of the project, explaining the time warps given in the deliverable, presenting the status of construction. A review of the project is presented to the senior management of the company and consists of a 20-minute oral presentation focusing on the safety, regulation, budget, schedule, and quality, followed by a five-minute question and answer session with the senior management board.

The First Point Meeting is the final opportunity for the project team to conduct due diligence and analyze the project to sell it to the owner. It is an important and profitable endeavor for the company, and being able to accurately answer any questions concerning the project from the perspective of their professional roles that are anywhere from the smallest utility to the largest utility experience beyond the classroom level.