Abstract: In the recent years, there has been interest regarding an overhead crane to be assembled inside of Cal Poly Simpson Strong Tie Lab (Building 187). The proposed "Under Running" Single girder crane system will be used for construction classes and to lift heavy equipment. The erection of this 2 ton indoor crane will be crucial to provide modular pieces for those who lost their homes due to the California fires. I was in charge of collecting information regarding: Bid Estimate, Advertisement Strategy, and Permit Compliance. In order to minimize costs, this project seeks funding from Cal Poly trade partners while reallocating its resources for best construction practices. In order to satisfy proper permitting requirements, we need to self-allocate a proportion of this project to Facilities Management and Development. I gathered current 2018 crane costs to compare different means and methods of crane installation (sub-out versus self-perform options). The Revit 3D model illustrates different components to be budgeted for the crane project. Having a compliance review helped check off pre-construction line items needed for utilization of SST crane. Please feel free to review my comprehensive deliverable binder, or contact me with any questions.

Funding & Execution Strategy for SST Crane

ESTIMATED TOTAL CRANE COST = $72,047
(100% OF ESTIMATE)

ESTIMATED BUDGET COMPARISON (% OF TOTAL ESTIMATE)

TOTAL ESTIMATED INDIRECT COSTS 23%
TOTAL ESTIMATED EQUIPMENT 7%
TOTAL ESTIMATED LABOR 22%
TOTAL ESTIMATED CRANE SYSTEM 34%
TOTAL ESTIMATED STRUCTURAL MODIFICATION 14%

PERMITTING COMPLIANCE:
- SCOPE
- SPECIFICATIONS
- ELECTRICAL, STRUCTURAL, SHOP DRAWINGS
FOR MORE INFO VISIT: https://afd.calpoly.edu/facilities/services_buildingpermits.asp

Arya Ghourchian
Construction Management Department
California Polytechnic University, San Luis Obispo