

# San Luis Obispo Botanical Garden Amphitheater Benches – The Design

Devon Barthmaier

California Polytechnic State University  
San Luis Obispo, CA

This paper will outline the process of designing, building, and installing ten concrete benches at the San Luis Obispo Botanical Gardens with an Emphasis on the design phase. The San Luis Obispo Botanical Gardens is home to an amphitheater that is used for event spaces. The goal of the project was to create a design to seat approximately forty people facing the stage. The project group consisted of six students broken into two teams, a pre-construction team and a construction team. The pre-construction team focused on designing the benches and procuring the materials while the construction team focused on the logistics of building the benches off-site and bringing them to the garden. The design phase began by coordinating a schematic design with the employees of the garden and planning a realistic design that would be shown in plan, elevation, and isometric views. This paper will cover the entire process of the project with a primary focus on the stages of design.

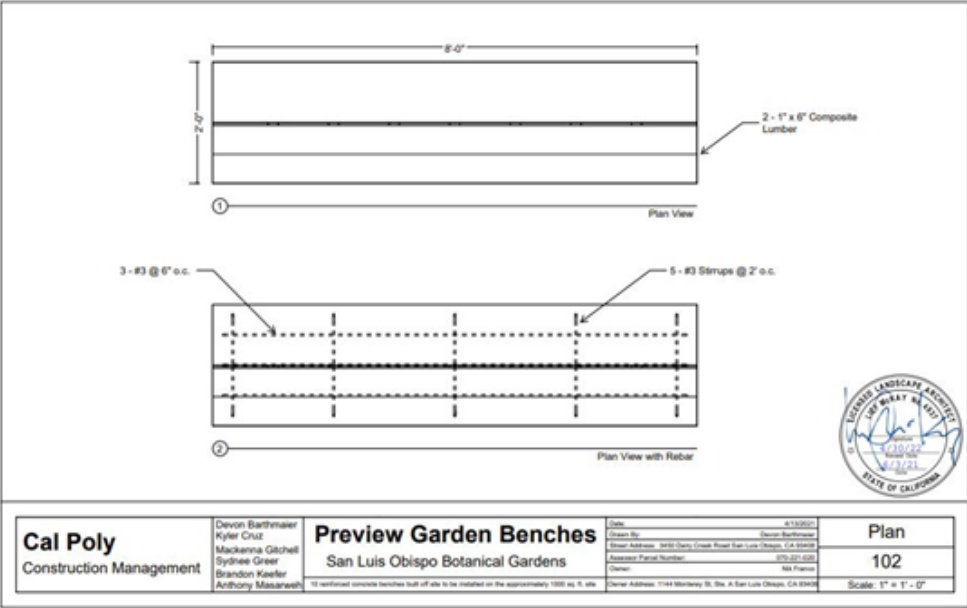
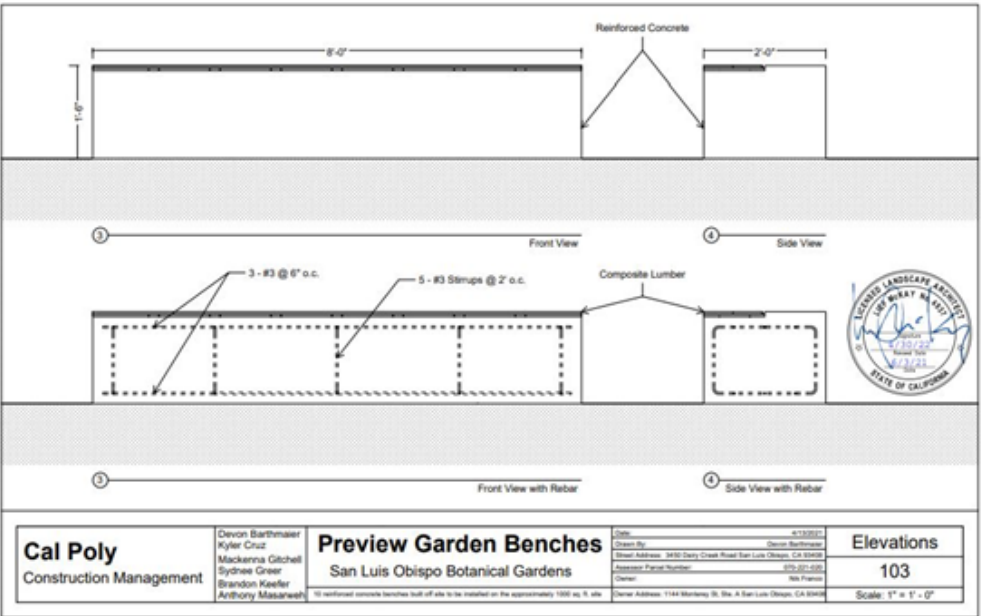
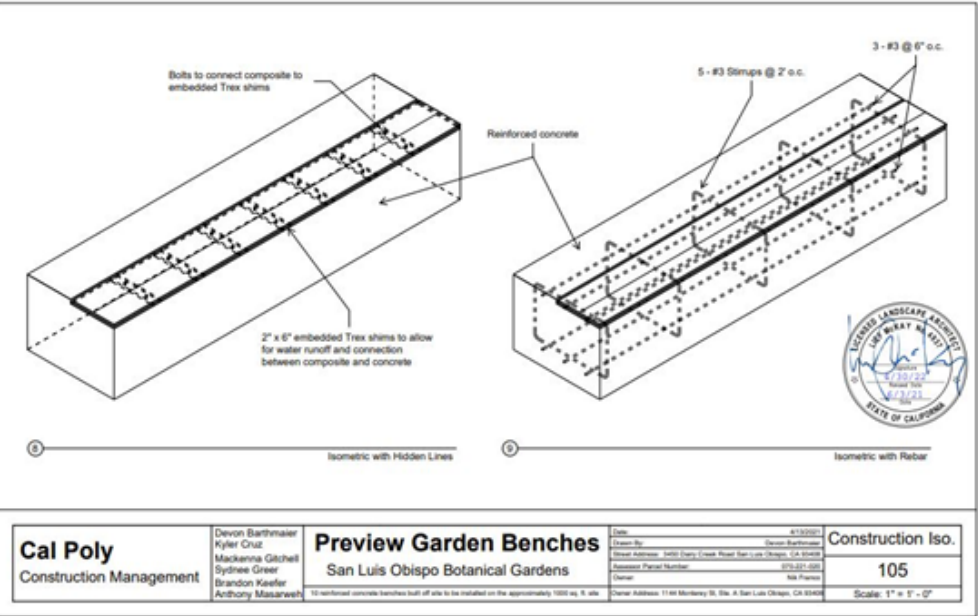
**Key Words:** Design, Concrete, Benches, Coordination, Digital Drawing



The team trying out the benches after they were successfully designed, built, and delivered on site.



The first time the benches were seen after the concrete was poured and the composite was added. The benches were built entirely off-site at various Cal Poly facilities.



The final design of the benches drawn from a 3D isometric viewpoint to help the construction team visualize how to build the benches. The drawing on the left shows details of the composite connecting the concrete and the drawing on the right shows details of the interior rebar cage.

The final design of the benches drawn from both elevation view points to help the construction team visualize how the benches would interact with the ground. The bottom drawings shows details of the interior rebar cage.

The final design of the benches drawn from an plan view to help the construction team visualize how the benches would look from the top.