

# Cal Poly Construction Management 2022 Summer Bootcamp Group Service Project



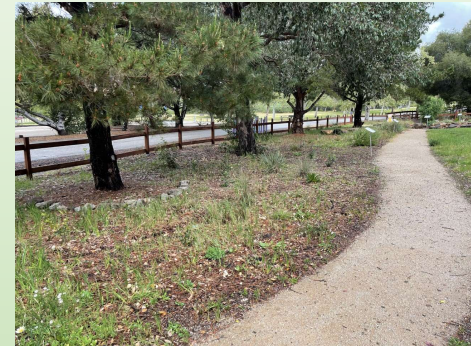
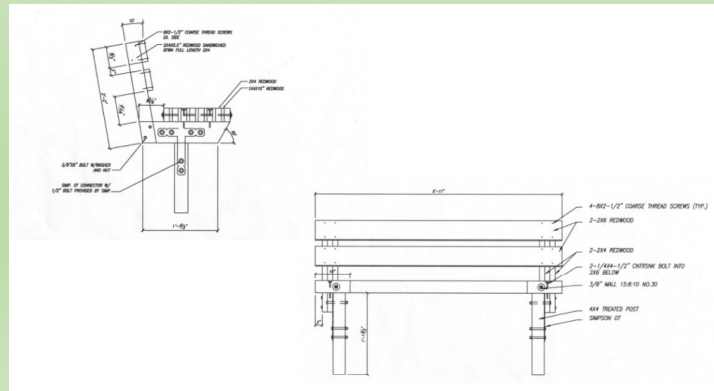
Sample of benches at SLOBG

Day	Time	Activity
Day 1: July 23	12:30 pm – 1:30 pm 1 hour	Group Project Introduction <ul style="list-style-type: none"> <li>- Plan Reading</li> <li>- Create a project execution plan</li> </ul>
Day 2: July 24	2:45 pm – 4:15 pm 2 hours	Bench Backrest Prep & Cut <ul style="list-style-type: none"> <li>- Cut (4) 2"x4" Redwood at 2'-2"</li> <li>- Cut (2) 2"x4" Redwood blocks at 5 1/2"</li> <li>- Cut (2) 2"x6" Redwood at 5'-11"</li> </ul>
Day 3: July 25	1:45 pm – 4:15 pm 2 hours 30 minutes	Assemble Bench Backrest & Begin Bench Seating <ul style="list-style-type: none"> <li>- Build (2) backrest support using (2) 2"x4" and 5 1/2" block.</li> <li>- Secure (2) 2"x6" boards to sandwiched.</li> <li>- *Begin bench seating if time allows.</li> </ul>
Day 4: July 26	1:00 pm – 4:00 pm 3 hours	Bench seat prep, cut, and assemble <ul style="list-style-type: none"> <li>- Cut (14) 1"x4" Redwood at 10"</li> <li>- Cut (8) 2"x4" Redwood at 5'-11"</li> <li>- Cut (2) 2"x6" Redwood at 2'-0" with the indicated angle cuts.</li> <li>- Cut (2) 4"x4" Pressure Treated at 1'-1 1/2"</li> <li>- Pre-drill holes on all cut pieces where bolts and screws are required.</li> <li>- Secure bench seat to 4"x4" PT using Simpson Strong Tie OT Connector.</li> </ul>
Day 5: July 27	12:30 pm – 1:30 pm 1 hour	Assemble Bench and Finish <ul style="list-style-type: none"> <li>- Secure backrest to bench seating using 3/8" x 6" bolt w/ washer and nut.</li> <li>- Note: Backrest should be roughly 76 degrees.</li> <li>- Create and finish punchlist.</li> </ul>

## Abstract

The outline of this paper will highlight the project logistics and pre-construction planning of the 2022 Cal Poly Construction Management Summer Bootcamp group service project, including a plan, schedule, and estimate of materials. The group service project will be organized into four groups of six students, where each group will be given the same scope and drawings of a park bench for the San Luis Obispo Botanical Garden. Throughout the week, the groups will have a total of nine hours and thirty minutes to complete one bench per group. Day one will consist of a one-hour project introduction that focuses on the fundamentals of plan reading and preparation of a project execution plan. Construction will begin on day two, where students will begin executing their plan prepared the previous day. Days three and four, groups will continue to make progress. Lastly, day five, will primarily focus on finishing and closing out any punch list items before the camp graduation. The purpose of the group service project focuses on creating an understanding of plan reading, construction execution process and procedures, and a fun collaborative environment for students, while also allowing for the opportunity to complete a community-based project for a local non-profit organization.

**Key Words:** Summer Bootcamp, Service-Learning, Building Fundamentals, Construction Education, Collaborative Project



Benches to be installed at SLOBG Childrens Garden

Item	Quantity	Price / Item	Total
2"x6"x8' Redwood	9	\$ 16.76	\$ 151.02
2"x4"x8' Redwood	25	\$ 13.98	\$ 349.50
2"x4"x10' Redwood	7	\$ 16.64	\$ 116.48
4"x4"x8' Pressure Treated	2	\$ 18.64	\$ 37.28
3/8" Mall 15:8:10 No. 30	8	\$ 24.75	\$ 198.00
1/4" x 4 1/2" Countersunk Bolt (10 ct.)	2	\$ 8.34	\$ 16.68
8 x 2 1/2" Coarse Threaded Screws (91 ct.)	2	\$ 10.98	\$ 21.96
Simpson OT Connector With 1/2" Bolt (12 bolt ct.)	8	\$ 32.94	\$ 263.52
3/8" x 6" Bolt with Washer & Nut	16	\$ 5.24	\$ 83.84
Total			\$ 1,238.28
Tax (8.75)			\$ 108.35
<b>Total Cost</b>			<b>\$ 1,346.63</b>

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