

Cal Poly – Construction Management Senior Project – Student Evaluation Form

Instructions: In addition to your one page single spaced summary reflection paper, please fill out this student evaluation form so we can better format, implement, and execute the senior project goals and objectives.

Student Name: Ethan Lin

Project Type: Project Based

Project Title: United Methodist Children Center Drain Renovation

1. How did you come to choose the project and project type ended-up with explained in such a way that future students could benefit?

I chose this project after speaking my advisor Dan Knight. He suggested that the United Methodist Childrens Center needed some work done and that I should check it out. I think speaking with a professor is a great way to start your research for a project as they often have the connections and idea of exactly how much work you should be looking to perform.

2. What challenges/obstacles did you have to overcome on this project that other students might learn from?

Make sure to spend extra time on your estimating and planning of the project. You want to be wary of exactly how you are going to build the project. I was unaware of some of the equipment required and the man-hours required to execute the job.

3. Approximately how many person-hours did you spend on your senior project (not including the CM461 course)?

50 hours

4. What instructions or advice that you received did you find most helpful in navigating your senior project?

Some advice I was given was to pick a project I know I would be passionate about as it would take lots of effort. The project should also be something that will give you the knowledge you know you will use in the future.

5. What instructions or advice that you did NOT receive (or should have been emphasized more) would you have found to be helpful in navigating your senior project?

Something that I think should have been emphasized more was making sure you know exactly how you are going to build something and sit down with your SME and write out exactly how you are going to execute the project.

6. How satisfied are you with the “Senior Project Experience” you received (1 – 10) and why?

I give my senior project experience an 8 out of 10. I feel like I learned so much about running a job, concrete, owner relations, and the importance of planning and being able to adapt to challenges.

7. How might the content in the CM460 class be changed to better support moving forward with CM462 and the rest of your senior project?

I Think Cm 460 is amazing for a research project, but it could also include lectures or sections more geared toward project-based ones.

8. How might the SPD's (Senior Project Director's) role be improved to better support your senior project efforts?

I think the SPD did a great job on this project.

9. How might the SME's (Subject Matter Expert's) role be improved to better support your senior project efforts?

I think my SME did a great job.

10. Any advice you would give future CM students in going through this process?

Make sure you keep all parties involved in the proposal process and the build process.

Keeping in touch with the client and SME so that they understand exactly what is going on and can correct you when you are building.

United Methodist Children Center Drain Project

Ethan Lin

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Self Reflection

My senior project was the demolition and reconstruction of a drain and curb at the United Methodist Childrens Center. This new drain would address the tripping hazards presented by the existing drain. The new drain would also extend the existing y about 3ft. The project was my first experience being in charge of a real job. This gave me the opportunity to be involved in all aspects of the construction process. This included estimating, scheduling, planning, coordination, safety planning, design, equipment procurement, subcontractor coordination, and concrete construction. Being involved and learning how to create and manage these aspects of a project has given me more confidence for when I start my full-time job. The project also helped me practice and improve my communication skills. This included coordinating with my workforce, contractors, and the owner's representative. Working on the United Methodist Childrens Center improved the safety of the school. It also gave me the opportunity to give back to the San Luis Obispo community and open the door to future senior projects on the campus. The entire process also presented challenges and learning opportunities I will take with me in the future.

At Cal Poly I was also told to "Learn By Doing" and I think the CM senior project really embodies this. The first major lesson I learned was how important understanding the scope of work is. Andy and I originally planned to complete 65ft worth of demolition and only ended up doing around 25ft in the same amount of time estimated. This showed how I should have double-checked with my SME and gotten a better idea of just how I was going to do the construction of this project, and how long it would realistically take two non-experienced individuals. Another lesson I learned was the importance of understanding the critical path. Since concrete was going to arrive Monday morning, I had to learn to prioritize the work between Andy and me to do what was critical. Since tying the rebar was critical, Andy and I both worked on that instead of hauling off extra dirt we excavated which could be done after the rebar was finished. Just learning how to prioritize different aspects of the project and understanding the sequence of events really improved our work. Another major lesson learned was the importance of being prepared. It is easy to write a schedule "formwork", but that includes creating the right conditions to start the work and having the right equipment and materials. Throughout the project, Andy and I had to go to Home Depot or SST to find tools we did not have. Making sure we were prepared was a significant lesson learned. Finally, the last lesson learned was controlling the mood of the project. Andy and I worked long hours, the project was challenging both physically and mentally. But overall, we both kept positive attitudes and understood when we needed to take a break and when we were no longer productive. We both could have worked a 14-hour day on Sunday to finish the rebar, but we knew we would be more productive on Monday morning and that Dan and Henry would help us out. Looking back, I enjoyed this experience and am glad to have contributed to the United Methodist Children Center becoming a safer campus for the children.