Journeyman International: ASYV Women’s Co-op & Community Center

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The purpose of this project is to provide a space for the woman of the Agahozo-Shalom Youth Village in Rwanda; to not only learn how to create a self-sufficient community, but also economic and financial independence. The new buildings will provide crucial opportunities for the village on their path of recovery from the Rwandan genocide that occurred in 1994. There will be a total of four new buildings; a storefront, community center, work space, and a building for pineapple and mango prep. The project is headed by the non-profit organization of Empowering Villages, in conjunction with Journeyman International. The project was interdisciplinary, with architect, architectural engineer, and construction managers working together throughout the year. The construction manager is responsible for a conceptual estimate, quantity takeoff, the project schedule, site utilities analysis, hazard and risk analysis, a site and safety plan, SWPPP, and feasibility analysis.

Key Words: Rwanda, Non-profit, Women’s Co-op, Humanitarian Construction, International Construction

Introduction

I decided to work with Journeyman International when Daniel Wiens came to our Senior Methodology class, presenting about the possible senior project opportunities. It was an easy decision to use Journeyman International as my senior project because when I was in my second year at Cal Poly and heard of someone not only doing all the preconstruction for a project in Africa, but also went over and acted as the Project Manager. I knew then I wanted to do something similar, and so I found myself in an office being interviewed by Daniel. After going through all the formalities Daniel started showing me possible projects and when we came across the ASYV Women’s Co-op & Community Center in Rwanda. He paused and asked how much of the Rwandan genocide I knew. Knowing nothing I told Daniel so, and he went into a brief history of the Tutsi and Hutu. He talked about their hatred and mistrust for each other and how it reached a breaking point in 1994 and caused the deaths of 800,000 people in 100 days. Daniel then explained how the country was a wreck with no real leadership in place to help the country move on, and it was up to the women of Rwanda to step up and fix everything. That’s what this project is about, providing a space for women to learn the necessary skills to contribute to the economy and help the whole country recover from the devastation of its past. It wasn’t until later that I met Amanda Stahler, a Cal Poly architecture student and the architecture on the project; and the two Cal Poly architectural engineers Tanya Wohlfarth and Tia Deharpport. Together we worked hard under the guidance of Daniel and other industry to create a set of buildings that we believe can help this community on the path of recovery.

Process

The process of this project began when Amanda, Tanya, and Tia traveled to Rwanda and visited the community and the future construction site. After exhaustive talks with the women of the community Amanda began her design in early January. Luckily for our team we all went to Cal Poly and were able to have weekly meeting with Amanda as she designed the buildings. Tanya, Tia, and I were able to help Amanda with some of the practical matters and give advice to avoid future pitfalls. Amanda took everything to heart and worked hard to come up with a great design. We were really lucky with the ASYV community; they were open to any design as long as it met their needs. They were always happy to answer any of our questions and provided us with more information than we could have hoped for.

The design was finalized in April and the workload passed on to Tia, Tanya, and I. Tia and Tanya got to work on designing the loads of the buildings, figuring out column and beam sizes. I started doing all the deliverables a construction manager is responsible for. In these tasks were lucky to have each other and the ASYV team. For any question about building in Rwanda cannot be easily researched on google. We would ask each other a lot of questions in our weekly meetings and ask the ASYV team for when we collectively didn’t know something. The JI
community at Cal Poly was also a big help, the construction managers were always in contact with each other, making sure everyone was doing okay. Personally, the saving grace was access to past JI projects in Rwanda. It gave great examples and cases of what to expect when building in Rwanda.

**Deliverables**

There are quite a few deliverables for the construction manager on a Journeyman International project. I was responsible for a conceptual estimate, quantity takeoff, the project schedule, site utilities analysis, hazard and risk analysis, a site and safety plan, SWPPP, and feasibility analysis. Luckily JI provides a handbook that lays out some guidelines to help along the way. I used Bluebeam to count, measure, and scale the drawings that Amanda did in Rhino. The counts and measurements were then put into a template that also included a blank conceptual estimate provided by JI. I used Microsoft Project for the project schedule with help from past projects to determine durations. The phasing was broken apart by building and then stacked on each other, working right to left. Completing the site utilities plan was simple thanks to the provided civil drawings given by the neighboring solar farm. The hazard and risk analysis along with the site safety plan give a good look into the dangers of the surrounding areas and the steps that will be put in place to ensure all workers go home unharmed at the end of the day. The SWPPP plan is the safety plan for the environment, it explains how we intend to divert runoff away from certain parts of the sites; along with preventing runoff from leaving the site. Journeyman International was extremely helpful on this front by providing a handbook with step by step instructions.

**Lessons Learned**

One thing that I learned early on in this project is the importance of communication, especially early in the design process. With changes to the design consistently happening it is important to communicate what exactly you need from the architect or else things will slip through the cracks. I learned that the hard way and found myself scrambling around near the end of the project in order add the things I missed. It could have been easily avoided with a continued conversation during the design process. Bringing something up once will not be enough, it will just get lost amidst the constant changes. I was also very lucky with my team, they were very responsive to all my questions, answering within an hour at most, responding to my request not so much. Some requests for dimensions and scales were forgotten about, which just taught me to be more persistent and to give deadlines rather than trying to be polite. The project taught me a lot in how to communicate with an architect in a polite but stern manner in order to get the necessary deliverables.

Working with Journeyman International has taught me so much about how construction actually works. Although I have been learning about it for the past four years, it is another thing to experience it. I am so grateful for Daniel and the rest of the JI team for allowing me to participate in something so much bigger than myself and a senior project. It has truly been an eye opening process in regards to seeing how humanitarian construction works and it’s not so subtle differences from what I am use to. Going from the building codes of the United States which are some of the strictest codes in the world, to the standards of a third world country was strange to say the least. It was weird designing a SWPPP plan, knowing that it properly wouldn’t be put into practice; or designing a safety plan, knowing for the most part it will be ignored. However, it gave me experience of doing something different. I will experience something similar if I were to leave California and go to another state, although not to the same extreme. I am beyond grateful for this opportunity and will remember it for the rest of my life, and for reasons beyond a senior project and construction.

**Application to Construction Industry**

The application of a project like this to the construction industry is obvious. JI threw me in the deep end and told me to swim, they didn’t walk away but nor did they throw me a line. It was up to me to use the knowledge gained through internships and classes to complete the deliverables. There was no hand holding, and thanks to that I was able to gain a better understanding of the preconstruction process and how important communication between the team is. The project forced me to go deeper than the superficial level that I am use to in school, to really research a problem and look for an answer that might not be there. It gave me a taste of the industry without drowning me or babying me in an internship. I will take this experience with me everywhere I go in the industry, for it was my first taste of managing a project completely on my own.