

# Construction of a House in Tijuana, Mexico

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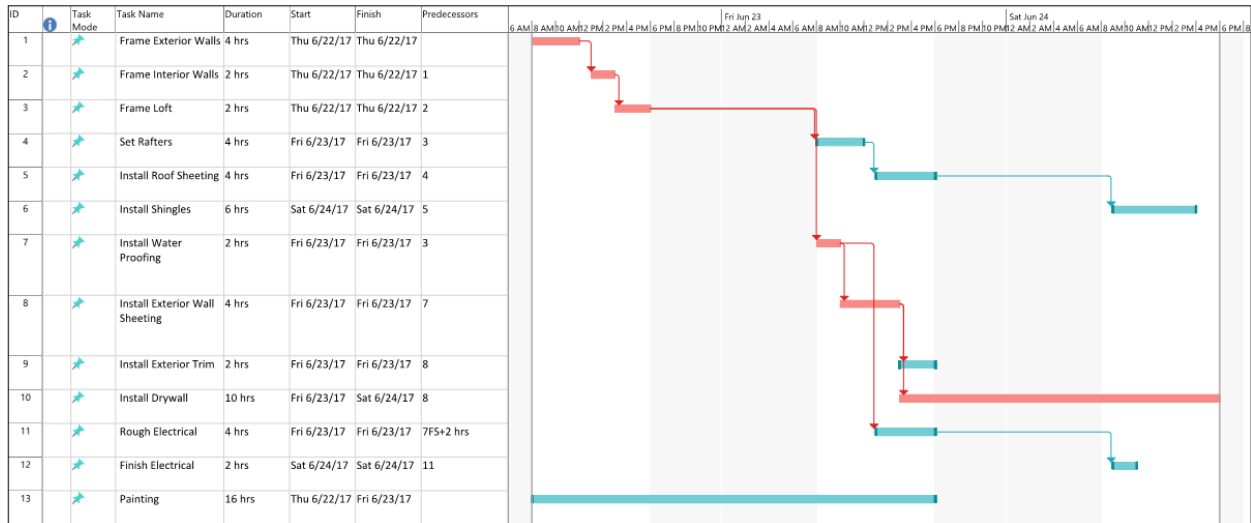
There is a major need for solid, structurally sound houses throughout the world, and there are many non-profit organizations who go and build such a house for people in need. For this project I will be going to Mexico with a non-profit called MI6:8 when they go and build four houses in the outskirts of Tijuana, Mexico. My job with them will be to lead a group of people in the construction of one of the four houses. This paper will go through the experiences I had, the process we took, and what I learned.

**Key Words:** Construction, Mexico, Non-profit, Management, Schedule

## Introduction

This project came about because I wanted to use the skills I have in both carpentry and construction management in my senior project. I had heard of the organization, MI6:8 through a family friend who has been on a few trips before with this group. Through him I got in contact with the organizers and they were more than happy to let me do my senior project with them. They let me know the dates and gave me the contact information of the other house leaders in-case I had any questions before the trip started, as well as the construction documents to look over. The house is approximately 500 SF house with a living room, two bedrooms, and a loft as well as an outhouse.



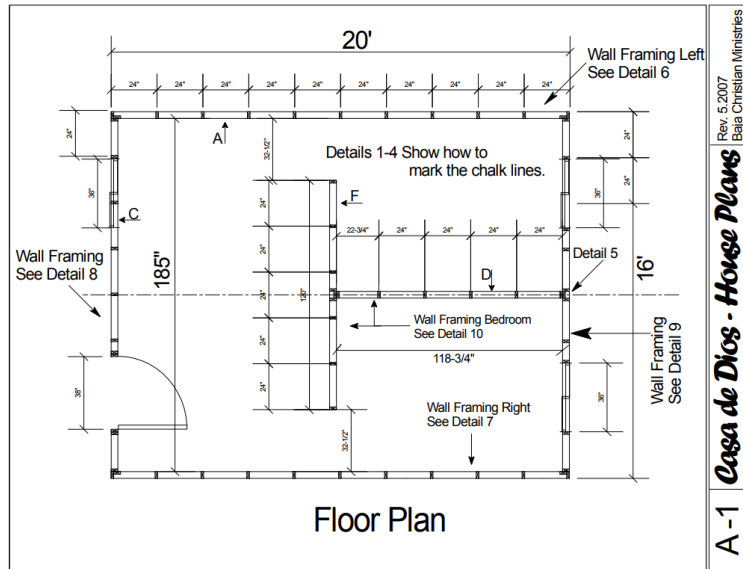


## Project Schedule

### Wednesday

On Wednesday morning I drove down to the San Diego International Airport to meet up with the rest of the group and we all crossed the border together. We then headed to Ranch Jireh where we were staying and unpacked all our equipment and tools. During talks with the other group leaders prior to the trip down they suggested that I bring as many tools down as I could as the group didn't have many of their own. After unpacking I got to meet the team that I was going to be leading. Like the organizers and other leaders had told me most of the team had very little construction experience, a few of them worked in the industry and a few had been on previous trips. Then all the group organizers and team leaders went and visited to site to figure out which lot each team had and to meet the families. I was shocked at how small the sites were and what the family's current houses looked like.





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### *Thursday*

We got the site at 7 AM on Thursday morning and immediately started work. Because of how small the site was the first thing I had people do was organize our material and clearing off the slab. Once the slab was clean I had a group of people start framing and standing up the exterior walls. I spent most of my time teaching people how to swing a hammer or how to keep two pieces of wood still while you nailed them together. After finishing the exterior walls, we framed the interior walls and the loft. The first day went by very quickly and rather smoothly, the biggest issue was finding something for everyone to do. I met with the other group leaders and we discussed how all the houses were doing, one of the other houses was a little behind so we made a plan to send some of our team over to their house to help them catch up the next day.



*Friday*

Friday was by far the hottest day of the trip, so the first thing we did was install the plywood on the loft to provide some shade. We then began framing the roof, first by setting the ridge beam followed by the rafters. At the same time as the roof I had another group start on finishing the exterior walls, this included putting up waterproofing and exterior plywood and trim. The size of our site was a major hinderance here because there was very little room to work on the side of the house. After the rafters the roof team moved on to the waterproofing and plywood sheeting on the roof, this was the most dangerous part of the construction, so we made sure that anyone working on the roof was tied off. The last thing we worked on was the rough electrical inside the house; this included lights and outlets in every room as well as a light in the front.



### *Saturday*

Saturday was our last day of construction, our house was still on schedule, so I had no worry that we wouldn't be able to finish it in time. The roof team continues their work on the roof by installing the asphalt shingles. Inside the house we continued the electrical work while starting to install the drywall. After talking with both the family and the organizers of the group we decided that we were going to add a door at the back of the house. This was because they still had a house behind their new house that they wanted to be able to access and the narrow passage on either side of the house wasn't going to cut it. We finished off Saturday by finishing the electrical work and starting on the final finishes which included touch up painting and bringing in new furniture.



### *Sunday*

On Sunday we finished all the “punch-list” items and cleaned the site. We then got the entire group together as well as the family and gave the keys to the family, this was definitely the most rewarding part of the trip seeing the families faces and reactions. Then after having lunch with the families we pack our things and left to head back to San Diego. Once back in San Diego all the team leaders met for one last time to discuss the trip, all four of the houses got finished on time and no one was injured, so we deemed the trip a success.



## **Conclusion**

I am very happy that I was able to do this project as my senior project, I was able to use the skills I have learned previously to give a family a safe and dry home to live in. I learned many things that I will be able to take with me into my career in construction, such as managing multiple crews working on different tasks. The unique challenges that this project had also helped me learn adaptability in facing new obstacles, such as working with inexperienced workers and working such a small jobsite. In the end I will probably go on other trips similar to this one as I learned a lot and it was a very rewarding experience.