Making Commuting Satisfying For The Employees By Allocating Them To The Proximate Jobsite

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Building a structure is a long process and it is the construction manager’s job to verify and be prepared for any curve balls that can occur. However, construction managers can often get busy and get carried away by their responsibilities and inevitably pay less attention for employee's life after work. For my Senior Project, I have put together a website that can be used by the construction managers to allocate work not only based the skillset but also based on proximity. The name of the website is Proximate and it uses Google Earth Outreach (free tool) to make allocation possible. The information can be edited real-time and with multiple user accessibility. As the company bids on more job, company can update that information into the map and allocate appropriate craft with appropriate proximity. With Proximate pre-construction managers and superintendents can improve the commuting time of the craftsmen and allow fathers to participate at the dinner table.

Keywords: Proximate, managers, tool, website, busy, allocate, commute

Introduction

On the way to work, we often see some construction project going on the side of the freeway, but they are not our jobsite; our jobsite is still half an hour away from where the car is at. After a hard-working day, we have a long commute where long lines of traffic await.

During my internship, the only complain was time spent on commuting. Morning drive was not really a problem but driving after work was sometimes more stressful than the work itself. I began asking around my friends at work regarding their commute afterwork. Some had moderate driving responsibility, and some had unconvincing driving hours that made me question that if they are truly repeating that kind of lifestyle. Among the worst was Carpenter Bob who I met while I was working with Largo.
Carpenter Bob works very hard for his son's tuition and for the peace of the family. For him, his commute is 2 hours in the morning and 4 hours after work. When he has overtime, which very likely to happen at a construction job, he will not be available at the family table during supper. After realizing this as an issue, I decided to turn this into my senior project.

**Deliverables**

To make a website that will help managers visualize location data on google map which will be used to allocate appropriate employees on proximate jobsite. Using the website employees will be able to submit their personal information which will be collected via google survey forms. Then there will be a instructional video that will guide managers how those data can be visualized through Google Earth Outreach.

The website was made with webflow.com and Google Earth Outreach
Steps

My Initial Thought

After spending time during the pandemic, I did not want to give up freedom of time. Money was appealing but the aspect of having the control of time was a dilemma in front of a money-related commitment. Under the condition that the construction industry is bullish, and if jobs available like we have today in California, I think there can be a major improvement by locating labor in the proximate radius.

Action: Challenge #1

After deciding that I was going to make a website, I had to worry about coding and finding a web-developer who is adept in using html. But as I was researching ways to publish a website, I found that there are tools available online where I can create websites by drag and drop (designing web without knowing how to code). There were few web design tools available and I decided to use Webflow as my primary tool to make my website.

Action: Challenge #2

My desire was to visualize location data and jobsite data so that managers can make allocating decisions accordingly. This was the biggest challenge, because I didn’t know how I was going to make that possible. I tried various online tools that were available, but most of them involved computer coding that I was not capable of. At last, I luckily found Google Earth Outreach which was the perfect tool to visualize my wants.

Conclusion

The framework of the website was completed, and I was left with the video editing. The videos was particularly tough not only because I had to install Adobe Premiere Pro for video but also because I had to learn how to use that software.

Lessons I learned

In the beginning before I started my Senior Project, I constantly had ideas that I thought would improve my project. Little did I know that meant that I was going to have to work harder for my project. For my project, I really had to get out of comfort zone and learn new things that I would have otherwise not learned. There were moments where I wanted to change my topic because I thought it was going to be too overwhelming for me. But after everything is over, I think I am proud of my self for sticking with it. I think the biggest lesson is realizing that something may look tricky but those tricky things will become treats when the knowledge is acquired.
Photos of project

Fig 1. First page of the website

Fig 2. Information about retirement, joining the union, and Google Earth Outreach
Fig 3. Second page: Identifying the problem and providing a solution

Making money is good but...

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Carpenter Bob works very hard for his son’s tuition and for the peace of the family. For him, his commute is 2 hours in the morning and 4 hours after work. When he has overtime, which very likely to happen at a construction job he won’t be available at the family table during supper.

Is there a solution for Bob so that he can spend dinner time with his family?

Fig 4. Solution with Proximate!

Proximate does it by Making Commuting Satisfying

With Proximate, Preconstruction managers and unions can make use of important range information of the employees. If done accordingly, the job site that people drive pass on the freeway might become the job that we work for!

Proximate uses location data of the employees and of the jobsite and visualize them on google map so that managers can assign craftsmen with their proximate jobsite. It would be very much time consuming for someone who lives in LA to drive for a job in Riverside and vice-versa.
Fig 5. Link for a detailed video instruction of how to use Proximate as a tool

Fig 6. Collecting address information simple with google forms that are available in Excel.
Fig 7. Youtube video instruction showing how to use Google Earth Outreach with “google my map”

Fig 8. Managers can visualize location information and make good decisions.
Reference:
