



MID-AMERICA
TRANSPORTATION CENTER



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2022 MATC SUMMER INTERNSHIP PROGRAM

Every student before and during school wonders how work and life in the real world will be. How will I implement what I have learned on a real life job? The best answer for these questions is an internship experiment, which allows you to get a better idea of the work environment of your major in the real life, and what you have studied in school. Experiencing an internship will help you develop your skills and will make your resume look interesting and attractive for an employer. Personally, I was happy that I got the chance to be involved in this internship and work as an engineer. In this report, I will be describing my experience of the internship I had this summer with Alfred Benesch & Company.

Benesch is a multi-disciplined engineering and professional services firm providing clients with civil, structural, geotechnical and aviation services - to name a few. It was founded in 1946 by Mr. Alfred Benesch and its one of the top 500 design firms for 2022. There are around 46 locations around the United States. The core values for Benesch are legacy, collaborative, innovative, professional, integrity, quality, and most importantly, the family by providing the right support for the coworkers in the company. Not just that! Benesch provides many opportunities to get involved with the community such as volunteering activities to make positive impact in the community. Education, to help build up the generations training interns and provide them with scholarship programs. Lastly, donations which is an important act to support the community and the non-profit organizations as well.

My internship experience with Benesch, was wonderful and beneficial. I have learned a lot of things since my first day. I began my first week with preparing all the materials and equipment that I will need during my internship. The HR department walked me

through Benesch Learn which helps you with setting up company email, teaching you about the health benefits, safety and the company system. The second week was about watching lectures for learning and development. I also met with Jessica, the transportation group manager, to learn more about my coworkers and what they contribute to Benesch.

In the third week of the internship, I created a LinkedIn account showing who I am and what kind of experience I had. Also, I made connections with the employees in the company around different locations. Not just that, it did allow me to pursue many different certificates by watching educational videos online such as how to build up leadership mindset, how to respond to a threat or risk, and most importantly safety precautions. All these skills help to build up the essential elements that lead to success in my career and real life.

In my third and fourth week, I started my time in the engineering field where I got the chance to see how a civil engineer works and what relates to it. Civil engineering is a wide net that connects the geotechnical, structural, water, transportation, and environmental. I was involved in the field of H/H which means hydraulic and hydrology. Sunny, the project manager for H/H and wastewater department explained to me what type of work and projects they work on in this field. My first task from Sunny was about learning how to use the MicroStation and getting familiarized with it, MicroStation is a program that helps engineers to build and design roads, bridges, structures...etc.). So, after I learned MicroStation, I started a new task which was about detailing drainage area for the Niobrara River; this task did require a decent amount of time and concentration, by spending around 2 weeks of detailing the areas zooming in and out following the way where the water will drain from high to low points depending

on the land type and use as shown in Figure 1, also how the amount of the precipitation is calculated. It was an interesting task to learn from and getting to see the process of raising the level of the road after being flooded.

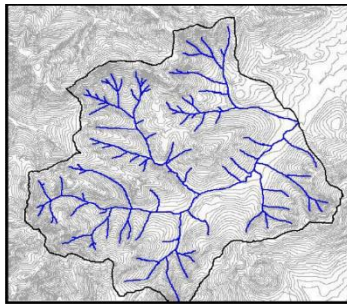


Figure 1: Example of flowlines

After those weeks that I have spent in the office, I got the chance to see how the work is in the field. Personally, being in the field is better than working in the office because I am the type of person that progresses more when I see the work visually and practically, but at the same time I do like the office work because it focuses more on the teams and organization performance as well as designing and growing your connections network. My supervisor George and the project manager Mike assigned me as inspector for the site of a current project ADA's (Americans with Disability Act). After I shadowed professional engineers to learn how to inspect, I was able to inspect by myself. This project was about reconstructing and resurfacing ramps, curbs and gutters, and sidewalks. My job as inspector was about working in the job site, writing daily reports of what the contractor did this day, such as pouring concrete, removal of curb, or clearing and grabbing. My other job was about taking quantities by measuring everything the crew poured to determine the cost. In addition, the current project focuses

mainly on providing the people with disabilities an easy and safe way of crossing the road, as well as making the city look better. The most important thing for people with disabilities is the ramp, so my job was to set up five-foot openings for each ramp according to the city standards as well as a specific percentage of slope for the ramp and the landing. This experience of being in the field helped me to gain more confidence, and to be fully responsible of making decisions. This job was more focused on the construction side in civil engineering, which is really an interesting side that connects what you have studied to how it looks in the real life. There are some pictures I have taken from the field.

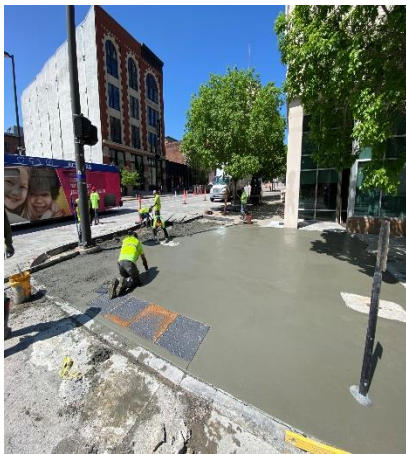


Figure 2: Poured sidewalk and ramp on 14th & Harney St



Figure 3: Pavement repair



Figure 4: Concrete test cylinders

All in all, I did briefly describe my experience of having an internship during the summer as a civil engineer with Benesch. Also, I am so thankful for the HR team that provided weekly follow-up with the interns and gave us the chance to meet the employees with different majors and fields as well as the CFO and CEO of the company. I would also like to thank the Omaha division manager Mr. Jeff and MATC program for giving me this wonderful opportunity of learning and developing my skills by getting engaged in this internship.