

MATC 2019 Intern Program-City of Omaha
Traffic Division



MID-AMERICA
TRANSPORTATION CENTER

Intern: Ismail Alsubeihi

I was so excited to have an internship this summer after four years and a half at school. I have found myself I am ready to go experience and implement what I have learned. I applied for the MATC Intern Program because I was told by a previous intern that MATC program is your best place to have a good experience. My interest is in transportation and traffic engineering so MATC was my place. I was happy to be offered to intern at the City of Omaha as a traffic engineer. I was enlightened and get more excited when I talked to Mr. Jeffery Riesselman, the traffic engineer at the Traffic Department of the City of Omaha, during the orientation as he explained to me what they do and what they work at. This report explains my internship experience at the City of Omaha at the Traffic Department for summer 2019.

My supervisor Bryan P. Guy, Assistant City Traffic Engineer, welcomed me on the first day of my internship and introduced me to everyone in the Public Works Department at the city. During the first week, I started working in MaxView, software to control and monitor signals, that I used to place detectors. Also, I learned how traffic engineers use Avigilon, software to watch live intersection through cameras. They use it to see if there is a problem in the intersection whether a signal problem or any other problems instead of going to the field to check the problem.

Furthermore, I went to an interesting meeting with Mr. Bryan to NDOT about the Adaptive Control Signal Technology to be implemented in the Dodge Street in Omaha. The system will reduce stops and crushes as well as reducing travel time. I had the chance to work in this new system that I will talk about later in the report.

Every Tuesday and Wednesday of every week, I was going to the traffic shop to learn how the work is done and see what they do. I worked with different groups. I worked with signals, communication, signs, and GIS. It was so useful to see different kinds of work and how they work together to make their work smooth. I liked the work of the signals and the GIS groups. It

was beneficial and fun at the same time. I went to the field to see how the signals operate and what is inside the cabinet. They explained every single piece in the intersection and inside the cabinet, so I understood the whole system and how it works. I also learned about the master plan that the city is implementing for more than a thousand signalized intersections as well as for different areas. Working with GIS group was a great experience to learn how to use GIS software and what areas of traffic engineering they use it for. So, I went to the field to cover a few annexations to record some information for all the signs in the streets. I recorded the date that the sign was implemented, type of the sign, and what material used for the sign. Also, I went to the field to take pictures for some new intersections so anyone in the public works can use them for any purposes they needed.

The most fun and exhausted work I had was to do a traffic study for Dodge Street, 72nd Street, and Cass Street. I used Tru-traffic software to conduct the study. My job was to drive for three hours during rush hour and using GBS to track my travel time. After the ACST is implemented, I will go back again and do the same process. By doing this, with my supervisor, we will compare the results and study it.

Overall, being an intern at the City of Omaha through MATC Intern Program was an asset to my future career. It was a good experience to be surrounded by professional engineers who made me passionate for my work. For the future MATC interns I recommend to them to ask questions as many as you can. If you are curious about something how it is done, just go and ask anyone in the office. They will be welcome to answer your questions. Also, if you feel you want to learn something new, go and tell your supervisor. Furthermore, I would suggest you learn several engineering softwares such as Civil3D, MicroStation, AutoCAD, etc. those will be helpful for your upper level courses. Below are some photos that I took during my internship.



