

# **2008 MATC Intern Report: Metro Area Planning Agency (MAPA)**

**By: Paul Roh**

My summer internship at the Metro Area Planning Agency was a great learning experience that taught me valuable information about the transportation engineering field. It exposed me to several vast “real” world applications and let me see the interactions between engineers from both the public and private sectors. It provided me great insight into a career field that I would like to pursue, and it didn’t disappoint. It was an exciting experience that could not have been learned in a classroom.

I went into this internship with great anxiety and some nervousness, not really knowing what to expect since it was my first job involved with the engineering profession. I didn’t even know what MAPA was, until I learned that I had received the internship. I found out that MAPA is a council of governments that was formed to aid the five county region in decision making on regional problems and issues, especially those that may cross jurisdictional boundaries. On the first day of work, I met my coworkers, got a brief overview of the projects, and was introduced to the GIS software that I would be using for much of the summer. The rest of the first week was spent working on the Highway Performance Monitoring System (HPMS), which involved traveling around the metropolitan area and evaluating pre-selected roadway segments on certain criteria.

Most of the summer, I was working on a Travel Time Study to determine the congestion levels and mobility of streets throughout the metro area during the morning and evening commutes. This work made for some long days, but it was very interesting analyzing the data and seeing where the problem areas are

around the city. This information will be helpful for MAPA to produce its Long Range Transportation Plan, which addresses significant transportation improvements and policies necessary for efficient transportation in the future. Also, I worked on updating the capacity codes for the traffic model for the region, which is used to forecast future traffic demands on the roadway system. This project entailed looking at aerial photos over a GIS layer of street segments and changing the capacities in the database based on road improvements since the last update.

Another major project that I worked on this summer was creating a database that contains all the current and historic traffic counts for the region. This project involved taking the data in an Excel format, putting it into a database, and ultimately converting it into a GIS layer that could be incorporated into a website for the public to view. This was a fun and interesting experience that taught me a lot about problem solving and working together in accomplishing a task.

One of my favorite aspects of this internship was the meetings that I was able to attend. I was able to go to meetings ranging from Council Bluffs Interstate Improvement to Transportation Technical Advisory Committee to an Incident Management Seminar. All of these meetings taught me quite a bit about how things work in the real world. I got to see up close the engineering of some projects. I think the most important thing that I can take away from these meetings is the fact that I was able to observe the interaction and networking among engineers in a professional setting.

Overall, this internship was very important to help me realize what I want to do with my career. I experienced some of the highs and lows of working in the transportation field. It was a great advantage to work at MAPA because of the fact that I was able to experience first hand the interaction between public and private entities. I really learned a lot from this internship experience and am very appreciative of the awesome opportunity provided by MATC.