



Nebraska
Department of Roads

My Summer Internship

Sarah Schroeder

August 2007



“ITS? What’s that?” That’s what my roommates asked me when I told them what I was going to be doing this summer. What did I tell them? I told them I had no idea, and that was the truth. Before this internship began, I didn’t even know what ITS was an acronym for.

This summer, I got the opportunity to work with the Nebraska Department of Roads (NDOR) in their Intelligent Transportation Systems (ITS) division. My super advisor, Steve Garbe, began to explain to me what ITS was all about and gave me an idea of what I would be working on this summer.

They had no problem getting me started. The next morning, I was told to arrive to work by 6:00 a.m. so we could make a trip out to Kearney for a Maintenance Conference. I was less than thrilled about having to get up early, but glad that I was getting the opportunity. The two hour car ride gave me the chance to get to know a couple of my co-workers I had met for the first time.

After the conference, I got my first assignment: inventory. My task was to take multiple lists of ITS devices (Dynamic Message Signs (DMS), highway cameras and speed info units) compare them and make a master sheet. Oddly enough, this was a project I enjoyed a lot. I learned to use NDOR’s inventory system as well as a Google application called local live. Only one person at NDOR, Ron Guay, knew how to use this program; and after he taught me, that made two. This program allowed me to take my master list and plot the locations of each of the ITS devices on a map.

Once I was finished with that, Steve found another task for me to keep occupied with. This task was to check all of the highway cameras in Nebraska to make sure they

were working properly. This was a daily task which worked out really well when I finished the other projects he gave me throughout the summer.

One of the bigger projects I got to work on was the Omaha contra-flow project. This was a project that had not even been started. Steve gave the project to me to run by myself. At first, it made me feel like I had been thrown into a lake when I didn't know how to swim. But eventually, after I caught my breath, I learned to tread water and swim. I made the decision on which highways were likely to be used for contra-flow, calculated the number of cars entering Omaha, decided which intersections in Omaha and Lincoln would be used for starting and stopping the contra-flow, where to place fueling stations, what the DMS would say, etc. Basically, every decision in the project was mine except for a few expert opinions I chose to obtain from Steve. This project made me feel like I was really doing something worthwhile and I enjoyed the opportunity to make decisions on what I thought was best. It was also nice being able to see the large picture as it unfolded. This project really gave me a sense of accomplishment.

One last small project I worked on was obtaining GPS for all the cameras in the state of Nebraska. You could say I got experience with the state highways and put quite a few miles on the state vehicles. I enjoyed this project because it was different from the other tasks I had been given previously at NDOR. This project involved being outside and on the road. This was also another project I was able to run by myself. I taught myself how to use the GPS unit and planned each of my days out on which cameras I was going to go to first.

I learned quite a lot while working at NDOR and was able to see a field of engineering I knew little about. Thanks to Steve Garbe and Steve Olson, I quickly

learned what ITS was all about. Working with NDOR was a great experience that allowed me to learn the independence I hadn't quite been exposed to yet.

These last two summers as a MATC intern have allowed me to see both sides of the engineering profession. Working for the state as well as a private firm is not an opportunity many people get to experience before becoming an entry level engineer. I feel this will benefit me not only in helping me decide whether to work for the state or for a private firm, but also to have a better understanding of the other side of engineering once I make my decision on which job I take. I have learned so much this summer and owe a lot to the MATC program as well as NDOR. So when my roommate comes back up to me and asks "what's ITS?" my answer this time will be: "Sit down and let me tell you all about it."