

Class Project Description

CIVL 4162/6162 Traffic Engineering

First draft of your report will be due on Thursday 11:00am, Nov. 16, 2017, and final report will be due on Thursday 11:00am, December 5, 2017. Submit your report to as a PDF via email to both Dr. Mishra and Sam Jordan (smishra3@memphis.edu and samjordan8@gmail.com). Late submission will not be accepted.

The Memphis Medical District Collaborative (MMDC) is undertaking a pedestrian improvement and traffic calming project along the Manassas Street corridor in Memphis, TN. The local department of transportation (DOT) wants to mitigate the traffic congestion in this corridor and along neighboring streets. Please use your knowledge on traffic engineering and operations learned from the traffic engineering course to help the local DOT find needs of improvement and alternative solutions for this corridor.

You are required to do the following tasks:

- Create a traffic model using Synchro/SimTraffic software with given data set
 - Your assigned corridor is along Manassas St. and Dunlap St. between Union Ave. and Poplar Ave.
 - Do NOT include changes for the intersections with Union Ave or Poplar Ave—just focus on the cross streets between those two (12 intersections).
 - Demonstration of Synchro and Sim is currently scheduled for Thursday, Oct. 26th and Tuesday, October 31st during class.
- Perform traffic performance analysis for the subject roadway corridor
- Identify problems and needs of improvement
- Propose feasible solutions and recommendation including redesign of intersection and/or signal timing plan, etc.
- Prepare a technical report to document your findings (refer to the course project guideline for writing a technical report)

Some information here may help you to build the model:

- The background map will be provided in class. A rough base map is included below.
- The configuration of all intersections and proposed changes is shown in the “Medical District Streetscape Improvements, Phase 2” construction documents
- Traffic data, signal timing, speed limits, and additional basemaps are being requested from the City of Memphis. Once we have access to those, they will be available on the course website.

Deadlines for this project are as follows:

- Project update #1 due 10/24/17 by 9:40am
 - Include project outline, introduction, and site description
- Project update #2 due 11/16/17 by 9:40am
 - Include Synchro model, data collection, and any calculations
- Draft project report due 11/28/17 by 9:40am
 - Draft full report expected. This report should be of sufficient quality to be turned in to MMDC. Follow the report guidelines available on the website.
- Final project report due 12/12/17 by 10:30am
 - Your group will also deliver a presentation over your report, and presentation file is due on 12/11/2017

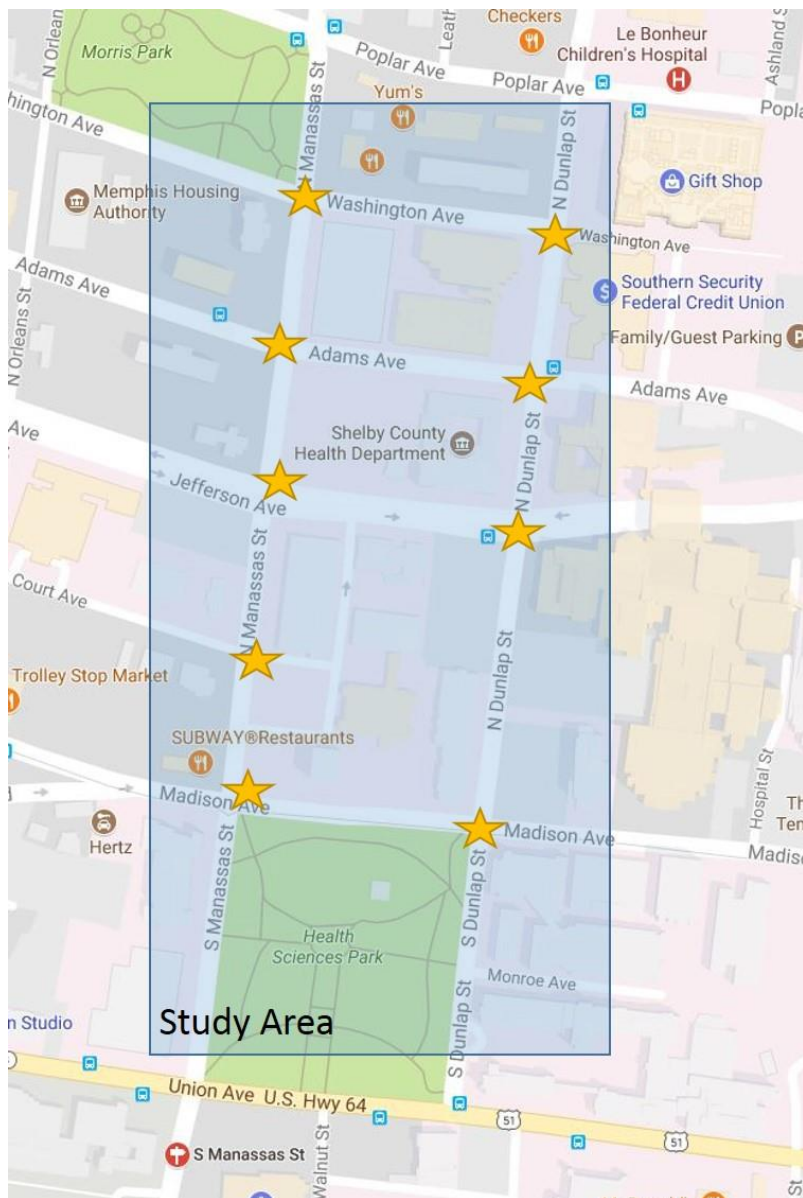


Figure 1. Project Study Area