OBJECTIVE

The objective of this project was to design a fully functional, code-abiding site from its current empty lot. The site was developed on a piece of property located at the corner of University Street and TN-43 Bypass in Martin, Tn. The following steps have been completed to ensure correct design: Code Review and Research, Survey Review and Corrections, Site Layout, Site Grading, Drainage Plan, and Sedimentation Pond.

2012 Site Development

Team Members: Logan Rogers
Advisors: Mr. Travis Martin of TLM Engineering
Dr. Ray Witmer

Code Review
Research was performed to find all necessary codes required to design the site properly. They were found using city, state, and federal mandated code manuals.

Layout Plan
This portion consisted of creating a layout design that satisfies all codes. It required multiple iterations until the clients' wants and code requirements were met. The final layout can be seen below.

Grading Plan
Grading begins from assigning spot elevations around the building and continues with creating contour lines that conform to the site. Grading is used for aesthetics and to direct surface runoff.

Sedimentation Pond
Sedimentation Ponds are used to capture eroded soil from rainwater during construction. The pond separates sediment from the water, and discharges after a period of time using a skimmer device. Calculations were performed to correctly size the pond.

Drainage Plan
The drainage plan was done by strategically placing catch basins throughout the site. Necessary calculations were performed to size the drainage pipes accordingly. The runoff from the basins flow into the sedimentation pond.