You can work on any one of the following problems (or choose a different topic if that is of interest to you):

I. Any transportation-related design problem is acceptable. Examples of topics include:
   1. Alternative fuels
   2. Study of Signals on 15th and Sage
   3. Proposal for the improvement of I-87 Corridor
   4. Burdett Avenue and 15th Street stopping sight distance study
   5. The effect of alternate fuels on vehicle performance, emissions and economics
   6. Effect of pedestrian crosswalks on safety and speed (in front of the Student Union)
   7. Assessment of high-speed rail transportation
   8. Motorcycle analysis: The most efficient braking
   9. America’s dependency on oil and the need for alternative fuel
  10. Car accident and the effects of age, race, gender and speeding
  11. Analysis of the influence of anti-lock brakes on the Chevrolet S-10 pickup truck

There are two general types of design papers:
A. Site Specific Study - In this case you analyze an existing problem poorly designed intersection or roadway design and propose a solution. You can also evaluate a solution proposed by someone else. You can get information from state/city officials and/or gather reports from library/internet sources. You may also have to collect some data (counts of vehicles, etc.).
B. General Design Analysis - Information is collected from library/internet sources on a design problem that is local, nationwide, or worldwide in scope. A number of journals available online are an excellent place to start.

It is important for your paper to be well structured. Although each paper will be different, most papers should have:
1. Problem Statement, including the significance of the problem and who is likely to be interested in the solution.
2. Evaluation of the important factors involved in solving the problem.
3. Proposing one or more desirable solutions.

The paper should be 10 to 15 pages typed (including figures and tables). Try to be succinct and to the point but be careful not to leave out important information. The project can be done individually or in groups of two to four. For example, site specific studies may require more than one person to collect data and other design information.
Grading

The grading will be based solely on the overall quality of your technical report. Quality is defined as documenting all of the required information in an efficient manner that is easily understood by the desired audience. Technical reports not containing all the information described earlier are unlikely to receive full credit. Note that reports that do not use a technical writing style will receive a significant deduction from their grade.