

Transportation Competition

Overview

The Transportation Design Competition challenges students' ability to design and enhance various sets of engineering and construction plans. The purpose of this competition is to test the participants' abilities to be adaptive and creative when dealing with streets. In cities, such as Chattanooga, it is important to build safe and time/cost efficient roads. However, many of today's roadways are cluttered with narrow pathways, and congested intersections. There is a growing movement across the country towards "complete street" designs. A complete street is a transportation policy and design approach that requires streets to be planned, designed, operated, and maintained to enable safe, convenient, and comfortable travel. The plan also allows access for users of all ages and abilities regardless of their mode of transportation.

Objective

Produce a rough draft design of a complete street given a scaled drawing of a two (2) or three (3) block section of an existing street in the City of Chattanooga.

Eligibility

Each university will be allowed to have one team of up to three (3) undergraduate members on the Transportation Design Team. Teams are not allowed to solicit help from individuals not participating as team members during the competition; otherwise, the team will be disqualified. Each team must report promptly to the testing location at the time of the competition, posted in the official competition schedule. Teams that arrive late will not be allowed to compete.

Materials and Limitations

Materials allowed for this competition are:

- Engineering scale.
- Colored pencils.
- Compass.
- Protractor.



Execution

Students will be given a scaled AutoCAD printout of a local street in Chattanooga Tennessee. During the time period allotted, each team will redesign the street by implementing complete street characteristics and/or by introducing structures that will enhance the flow of traffic on the street. The AutoCad file will be detailed with traffic flow data at various points, the type of vehicles that travel on the street, current crosswalks, parking locations, and the names of the businesses that are facing the street. Teams are encouraged to utilize green infrastructure and or other sustainable strategies.

Judging

The judging panel will be composed of three (3) current City of Chattanooga Transportation Engineers. The judges will evaluate the proposed complete streets based on the scoring components below. Each component is worth five (5) points. The team with the highest total points will be the winner.

Scoring

Scoring will be based on the following components:

- Ingenuity
- Feasibility
- Design
- Traffic Flow
- Safety
- Multimodalism
- Sustainability

Disqualifications

Teams may be disqualified if they fail to meet all stated rules and eligibility requirements, if they do not maintain the spirit of the competition, or at the judges' discretion.

