FDOT Roadway Design and 3D Modeling

Advanced Training

CE-11-0139

Description

This is a 2-day training course to include Chapters 8, 9, and 10 of the course guide. Participants will continue to learn the Bentley GEOPAK V8i SELECT Series4 (SS4) OpenRoads Technology tools for design and modeling within the FDOTSS4 workspace. Several advanced concepts and technologies will be introduced including:

- Rule Based Superelevation Design Parameters
- Associating Template Points to Superelevation Lanes
- Constructing 3D Elements
- Building Intersection Terrains from 3D Elements
- Applying a Surface Depth to Terrain Elements
- Placing 3D Civil Cells
- Configuring Advanced 2D and 3D Civil Cells
- Corridor and Terrain Model Clipping
- Applying Linear Templates to 3D Elements
- Building DTM, XML Files for Construction Deliverables

Objectives

- Create a Superelevation Shape Model.
- Create Superelevation Sections and Lanes.
- Calculate and Assign Superelevation to a Corridor.
- Create an Intersection Terrain Model from 3D Elements.
- Create a Traffic Separator Nose Model on the Corridor Model.
- Create an Island Model on an Intersection.
- Apply Linear Corridors along 3D Elements.
- Create 3D Driveway on a Corridor Model.
- Create 3D Sidewalk Ramps on Intersection Model.
- Prepare the Files Necessary for Construction Deliverables.

Audience

- FDOT Roadway Designers and Engineers

Prerequisites

Participants need to have a basic understanding of Computer Aided Drafting and Design (CADD) using MicroStation, a basic understanding of GEOPAK concepts and a solid understanding of the engineering necessary to design a Roadway.

In addition to the above, the participant is required to complete:

FDOT Roadway Design and 3D Modeling - Basic Training.

Duration: 16 Hours

Professional Credit Hours: 16 PDHs