



**Duration:** 3 Days

**Prerequisites:**

- A fundamental understanding and knowledge of civil engineering terminology.

**Course Outline**

This training guide provides you with a fundamental knowledge of the accelerated design process that uses data-rich 3D models with high-end visualizations. This enables you to create, evaluate, and better communicate 3D site plan proposals for faster approvals.

The main topics covered include:

**Roadway Design:**

- Create property boundaries for parcels, easements, and right of ways
- Create and modify design roads with precise parameters
- Add components and decorations to roads
- Adjust roadside grading
- Apply and review super-elevations in component roads
- Modify how design roads intersect using a standard intersection or roundabout
- Optimize the vertical design of a roadway
- Create gradient maps based on selected feature sets to identify areas with low impact for site or corridor optimization
- Find an optimal horizontal design of the roadway which yields a cost-effective and environmentally friendly solution
- Run traffic simulations to analyze and animate design traffic

**Bridge Design:**

- Add bridges to a design roadway
- Work with bridge deck and girder cross sections
- Perform analysis and design checks on all the pre-stressed girders of your bridge

**Drainage Design:**

- Run a watershed analysis
- Run a watershed analysis
- Create or modify culverts
- Create a pavement drainage network

**Point Cloud Modeling:**

- Preparing the point cloud
- Create a terrain from a point cloud
- Create features from a point cloud



*Please do not hesitate to contact us for registration and further information*

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