

AutoCAD Civil 3D Surface Modeling for Existing Conditions II – 1.0 Hours

Workshop Description

Summary

This class continues the examination of existing conditions Surfaces for AutoCAD® Civil 3D® begun in the previous class, applying the Civil 3D Surface methodology to working with point and breakline data as supplied from a survey.

Civil 3D Points can easily be added to a Surface; effectively filtering and adding only desirable point data facilitates the rapid creation of accurate surfaces. Breaklines are often the most critical pieces of data to be added to a Surface, and are, unfortunately, the least well understood. Civil 3D Surface Feature Settings affect the way data selected for a Surface will be processed, and, if ignored, can prevent some data from being utilized at all. These factors often conspire to result in a less-than-accurate surface produced from survey data, while a thorough understanding of how the Civil 3D processes Point and Breakline data will yield desirable results.

This session follows the processing of surveyed Point and Breakline data, the creation of a new surface in the project from these data, Surface quality-control and editing, and the merging of the new Surface into the Aerial Surface already produced in the previous class. Participants will get a detailed look at data management in a real project, and how Surface creation interacts with Civil 3D Points, Point Styles and Point Groups.

Topics and Schedule

AutoCAD Civil 3D Surface Modeling Overview

- Analyzing Existing Conditions Surfaces
- Building Surfaces from Traditional Survey Data
(Points and Breaklines)

Using AutoCAD Civil 3D with Survey Data

- Creating Automated Survey Figures and Surfaces
- Editing Survey Observations
- Importing Raw Survey Data Directly
- Utilizing Data from Aerial Photogrammetry

Learning Objectives

1. Participants will be able to describe how to create Surfaces in AutoCAD Civil 3D from point and breakline data as illustrated using the sample survey project used in the course.

AutoCAD Civil 3D Surface Modeling for Existing Conditions II – 1.0 Hours

Learning Objectives (Continued)

2. Participants will be able to describe how Surfaces can be used for creating objects that maintain dynamic relationships to the source data as illustrated using the sample survey project used in the course.
3. Participants will be able to describe techniques to identify and edit crossing breaklines as illustrated using the sample survey project used in the course.
4. Participants will be able to describe how Surface creation interacts with Civil 3D Points, Point Styles and Point Groups as illustrated using the sample survey project used in the course.

AUTOCAD CIVIL 3D SURFACE MODELING FOR EXISTING CONDITIONS II – ONE HOUR	
Overall Course Length	1.0 Hours
Instructional Time	1.0 HOURS
PROFESSIONAL DEVELOPMENT HOURS (PDHs)	
New York State Land Surveyors	1.0 PDHs
New York State Professional Engineers	1.0 PDHs



This course is a registered Continuing Education class with the AIA. Courses taught by CivilTraining, LLC meet continuing education/professional development requirements for Alabama, Delaware Professional Engineers, Georgia, Illinois, Kentucky, Michigan, Missouri, Nevada, New Mexico, Ohio, Pennsylvania, South Carolina, Tennessee Professional Engineers, Texas Professional Engineers, Utah, Virginia, and West Virginia. CivilTraining, LLC is an approved Florida Board of Professional Engineers Continuing Education Provider for Area of Practice courses. CivilTraining, LLC, License No. CE84, is an approved Continuing Education Provider by the Florida Board of Professional Surveyors and Mappers; this course, number 8531, is approved for 1.0 general continuing education credit. The Indiana State Board of Registration for Professional Engineers has approved this course for continuing education. CivilTraining, LLC is an approved Land Surveyor Continuing Education Provider by the Indiana State Board of Registration for Land Surveyors Professional Licensing Agency and an approved provider of Continuing Professional Competency (CPC) requirements for Maryland Professional Engineers and Land Surveyors, approved by the Maryland Boards for Professional Engineers and Land Surveyors. The New Jersey State Board of Architects has approved this course for continuing education credits, and this course has received approval for Continuing Professional Competency for Continuing Education of Land Surveying by the New Jersey Board of Professional Engineers and Land Surveyors. CivilTraining, LLC is an approved provider of Continuing Professional Competency courses for New Jersey Professional Engineers by the New Jersey State Board of Professional Engineers and Land Surveyors. CivilTraining, LLC, an approved sponsor of continuing education for Professional Engineers and Land Surveyors in New York State, NYS Sponsor #171, has received approval for the above-referenced PDHs for this course. CivilTraining, LLC is an approved sponsor for North Carolina Engineers and Land Surveyors, approved by the North Carolina Board of Examiners for Engineers and Surveyors. This course is approved for 1.0 continuing education credit for Rhode Island Professional Land Surveyors by the Rhode Island State Board of Registration for Professional Land Surveyors, and the Tennessee Board of Examiners for Land Surveyors has reviewed and approved CivilTraining, LLC's training courses for continuing education.

AutoCAD Civil 3D is a registered trademark or trademark of Autodesk, Inc., and/or its subsidiaries and/or affiliates in the USA and/or other countries.

5300 Wellington Branch Drive • Suite 100 • Gainesville, VA 20155 • Phone 732.869.0592 • Fax 732.377.5454

john.cooke@civiltraining.com • www.civiltraining.com

A division of Wetland Studies and Solutions, Inc.

a DAVEY company