

AGTEK SEMINAR CLASS OUTLINE

Day 4: Highway

6:00 am to 3:00 pm (PT)

This training will guide you through cross-section takeoffs, centerline alignments, corridor modeling, and managing highway electronic files.

- Performing highway cross-section takeoffs and generating mass haul diagrams for efficient haul analysis.
- Strategically phasing materials, earthwork, and utility quantities across highway construction projects.
- Enhancing field productivity by delivering geo-referenced, graphical production feedback directly to foremen via AGTEK mobile applications—empowering them with real-time insights on their smartphones or tablets.

| Time | Item |
|---------------|--|
| 6:00-6:30 AM | Welcome: Introduction of presenters and online resources. Training videos, videos, training guides and training files. |
| 6:30 AM-7 AM | Review of Basic Functions (Modes, Menus, Toolbar, hot keys, panning, tracing) Review of finished Project |
| 7 AM-8 AM | Cross Section Takeoff <ul style="list-style-type: none">• Cross section scale• Entering existing and proposed• Vectorizing Cross section.• Importing and exporting (station, offset, elevation format)• Average area method volume calculation, and mass haul diagram. |
| 8 AM-8:15 AM | 15 min Break |
| 8:15 AM-9 AM | Center Line Alignments <ul style="list-style-type: none">• Vectorizing Center Line from pdf plans• Attaching center lines to cross sections• Creating corridor model takeoff by surfacing cross sections• Aligning PDFs to Center line alignments. Removals, Paving, and phasing.• PDF management tools using image selection. |
| 9 AM-10:00 PM | Highway, Gradework, Materials & Underground Workflow <ul style="list-style-type: none">• Classes, structures, and materials for Highway jobs.• Removals, Paving, and Phasing using traffic control plans.• Applying Materials to Sectional and stripping areas. |
| 10:00 AM | End of Block 1. Lunch from 10:00 am to 11:00 am |

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| Time | Item |
|-----------------|---|
| 11 AM- 11:15 AM | Welcome |
| | Adding ponds and site takeoff to corridor takeoff mode. <ul style="list-style-type: none">• Ponds, and site takeoffs. |
| 11:15 AM- 12 PM | <ul style="list-style-type: none">• Adding highway stops and starts, entering spoils and borrows to mass haul diagrams, and adding compaction.• Roadway intersection clean-up |
| | Electronic Files |
| 12 PM-1 PM | <ul style="list-style-type: none">• Center lines: XML, dgn, and other common formats.• Cross sections: dgn & dwg, and station offset elevation formats.• Corridor models.• Generate cross sections from corridor models to check accuracy. |
| 1:00 PM | 15 min Break |
| | Advanced Examples |
| 1:15 PM-3 PM | <ul style="list-style-type: none">• Over excavation of walls and calculation of backfill.• Undercut of unsuitable soils using the cross section staging tool.• Mass Haul diagram by Phases of construction• Generating Reports.• Utilities for Highway jobs.• Bid review with Google Earth• Horizontal and Vertical COGO for machine control models.• Travel way transitions.• SmartDirt. |
| 3:00 PM | <ul style="list-style-type: none">• End of Block 2. |