Day 3 Seminar Class Outline

Note: *Although Earthwork Software Services* ***no longer conducts*** *the Day 3 AGTEK seminar, the Day 3 Handbook is the* ***textbook*** *that the Day 3 seminar was taught from and the latest updated edition of the Day 3 Handbook can be ordered at* ***www.earthworksoftwareservices.com/hbk-replace-order.aspx****. The following outline topics draw from pages 27-181 of the Day 3 Handbook.*

(Morning Class Session)

8:00 Sign-In and Seating

8:30 (Class Begins) Brief Seminar and Documentation Overview

8:40 Modeling Subsurface Strata

- Strata Layers List Entries
- Strata Borehole Entries
- Interpolation Options
- Strata Volume Calculations and Reporting

10:00 Morning Break

10:15
- “Stripping” the Upper Strata Material
- Volume of a Strata Seam

Balancing Onsite Cut and Fill

Identifying Work Areas with Cut-Fill Lines

- Stripping Area Conflict at Strata Cut
- Model Subsidence Loss at Fill Areas
- Stripping Areas by Cut/Fill Depth
- Waste Areas by Depth of Cover

12:00 Lunch Break

Day 3 Seminar Class Outline (Cont.)

(Afternoon Class Session)

1:00 Modeling Vertically-Staged Earthwork

- Six Approaches to a Soil Undercut
  1. Transfer Subgrade Utility
  2. New Surface and Stage Into Utilities (AGTEK 4D)
  3. Apply Survey Utility
  4. Stage Over-Ex Utility
  5. Apply Template Utility (AGTEK 4D)
  6. Over-Ex Guide (Gradework 4D - 2024 Post-Seminars)

2:15 Afternoon Break

2:30 Modeling Vertically-Staged Earthwork (Cont.)

- Modeling for Retaining Wall Cut Back
  - Create *Diff* Calculation Surface with Lowest Surface Utility
  - Create Wall Cut Back Model (AGTEK 4D Method)
    - Apply Template Utility for Cut Back Lines and Staged Wall-Cut Surface
  - Calculate Cut Back and Backfill Volumes
    - Backfill Volume by Vertical Interval Option
    - Measure Wall's Face Area for Volume Adjustments
- Rock Undercut Volume (Subtraction Method)
- Variable-Depth Removal of Expansive Clay
  - Use Cut-Fill Line Utility for Removal Transition
  - Use Stage Over-Ex Utility for Composite Cut Surface
  - Calculate and Evaluate Volumes

4:00~4:30 Class Adjourns