

R. Thomas PE

ROADWAY DESIGN STAFF MEETING
Roadway Design Unit Conference Room
March 23, 2011
11:00 A.M. – 12:30 P.M.

Employee Recognition

Debbie Barbour presented Jay A. Bennett with an AASHTO award for 25 years of public service. This award is bestowed upon a committee member deserving recognition for outstanding service to a subcommittee in the field of highway and transportation design.

PDEA Move

Debbie Barbour discussed the PDEA staff move from the Highway Building to Century Center building 'A'. Placing planning and design staff in one location should help with project coordination. Their move is scheduled for March 28, 2011.

Performance Dashboard and Appraisal

Debbie Barbour discussed the new changes for the Performance Dashboard and Appraisal (See the Distribution 'A' Letter from Secretary Gene Conti below). The Appraisal cycle ends March 31, 2011 so the 2010 -2011 PDA close-outs should be completed by April 29th, 2011. No later than May 9th, 2011 each employee should have a new PDA in place for the 2011-2012 PDA which will cover the period from March 31, 2011 to December 31, 2011.

March 18, 2011

To: NCDOT Employees (Distribution A)

From: Secretary Gene Conti

Subject: PDA Changes and Improvements

Attachments: NCDOT Performance Management Policy.PDF
Performance Dashboard and Appraisal Form.DOC

In 2008, the Department of Transportation implemented a new performance management system focused on results and clear performance expectations. This new system was built around a tool used to plan and evaluate employee performance called the Performance Dashboard and Appraisal (PDA). The PDA system, created to manage our employee performance better, has been effective and will continue to be essential as we strive to enhance performance of employees and the Department in an unpredictable environment.

In an effort to continually improve the PDA system, the Department conducted an assessment in October 2010 using employee opinion surveys and focus group discussions. Based on this feedback, the Department's senior leadership team appointed a work group to review our process and make recommendations for improvement to the PDA and performance management policy. The work group made recommendations in January 2011.

From the survey and the work group's report, senior management has heard clearly that employees desire improvements to the PDA. To honor these improvements requested by employees, we have taken action to make several changes immediately to the performance management policy and PDA.

Effective April 1, 2011, the Department of Transportation will adopt a revised performance management policy that governs the use of the PDA. The revised Performance Management Policy is attached to this memo.

Most importantly, the following two changes will take effect April 1:

1. The PDA form will be reduced in length by removing Section C: Competencies. Supervisors and employees will no longer be required to complete Section C (called "competencies") as part of the performance management process. The benefits of removing this section from the PDA process include eliminating interpretation questions, confusion and inconsistency generated by this section; implementing a single concise form for all employees; and reducing the effort and number of pages associated with the PDA. The new, shortened PDA form, which should be used to begin the next cycle in April, is attached. It's also important to note that competency development for our employees will be retained but led by Human Resources and conducted independently from the PDA process.
2. The PDA's annual cycle will transition to January 1 – December 31. This will take effect January 1, 2012, therefore shortening the 2011 PDA cycle to nine months (April 1, 2011 - December 31, 2011). This change will eliminate an additional performance measurement tracking period, increase the amount of time supervisors have to complete the end-of-year evaluation, and institute consistency for various measurement systems used to track results. Employees are still required to have an individual PDA adopted this year on April 1, 2011, that will be effective for nine months.

In addition to these two policy changes, the Department and senior management have also committed to improve our internal communication efforts regarding performance management, performance metrics and the PDA process. This will be an ongoing effort, and supervisors will be expected to share information with their employees. Performance management resources also will be made available on the Intranet Portal at <https://intranet.dot.state.nc.us/portal/> and on the Workplace Portal at <https://workplace.ncdot.gov>.

As a reminder, this year's performance appraisal will begin on April 1, 2011, as planned. The next cycle will begin on January 1, 2012. Additional guidance on this cycle transition will be communicated later this year.

Employee Recognition

Jay A. Bennett presented Dean Noland and Oak Thammavong an Extra Mile Award for their work with developing Corridor Modeling for the unit. This award is given to employees for service above and beyond their normal duties.

Corridor Modeling

Jim McMellon gave a PowerPoint presentation (see attachment) on the current development of Corridor Modeling. This presentation included discussion on new multi-layered dtm's, location of the template library, setting resurfacing grades, superelevation, inspecting models visually and the new method for cutting cross-sections. The library includes culverts, ditches, and retaining walls. There was discussion on the new methods for calculation of quantities for earthwork and pavement. These quantities are calculated internally without the need of log files and spreadsheets. The presentation was then followed by a brief Q & A session.

Minutes Approved By:



JAY A. BENNETT

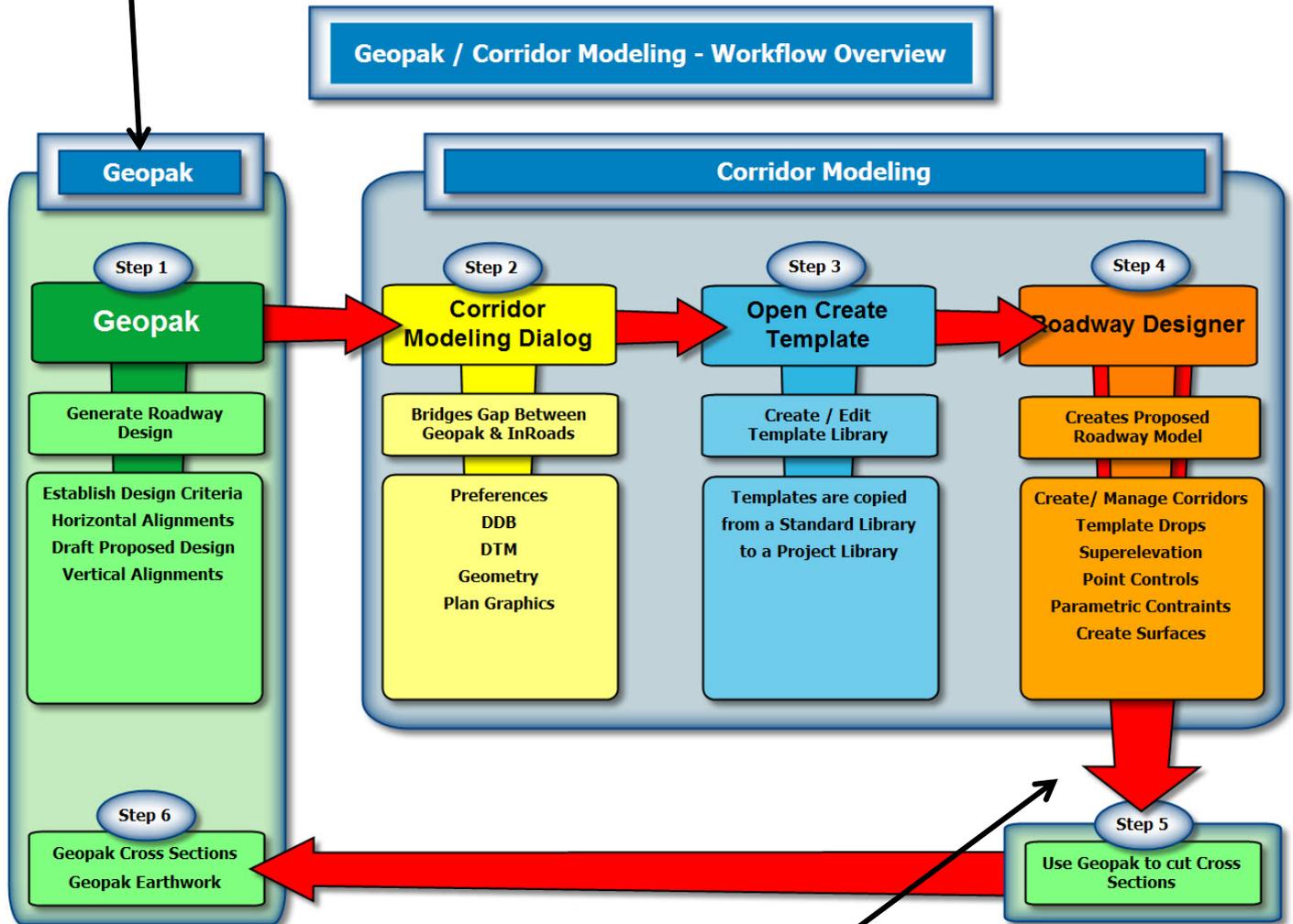
Date:

4/1/14

Preparing for 3D. Converting Geopak into InRoads data

Understanding the process

Project Start –Same



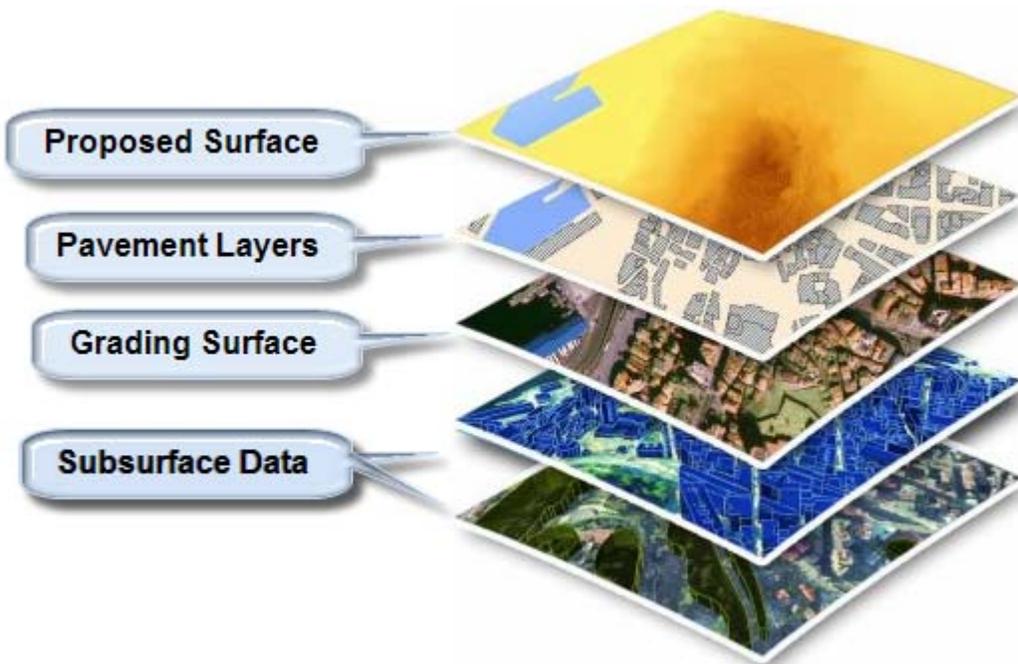
Create surface used in cutting x-sect

New DTM

Old .tin file was a single layer 3D surface.

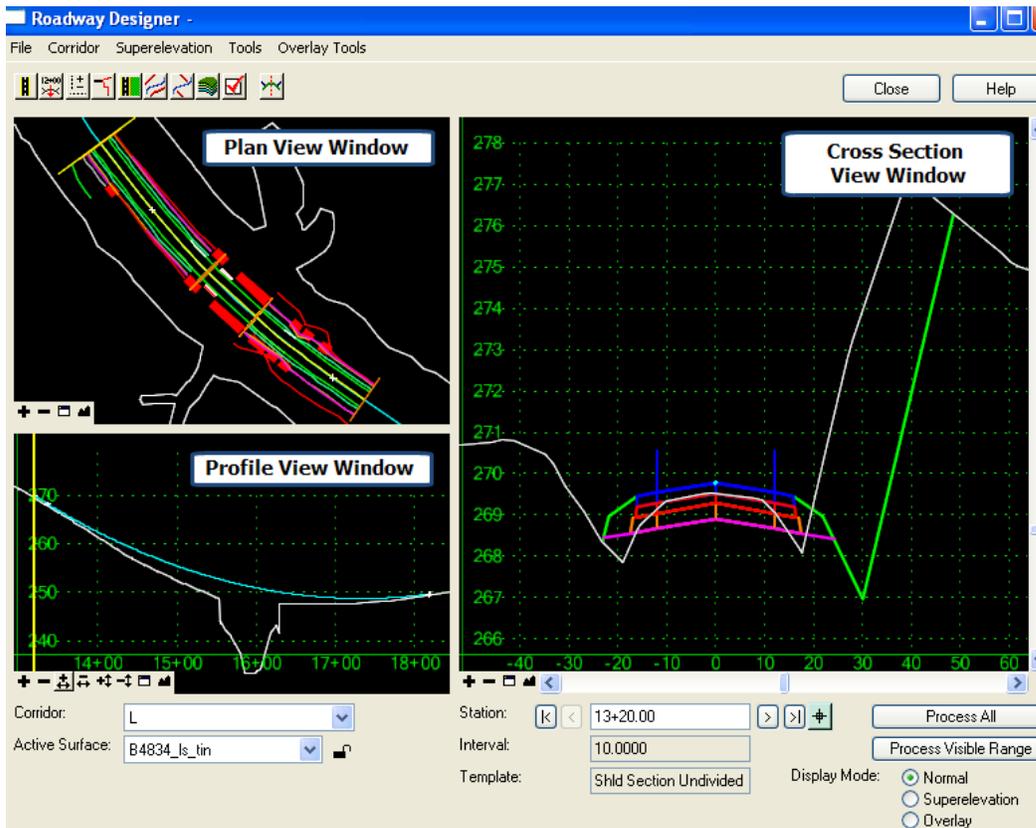
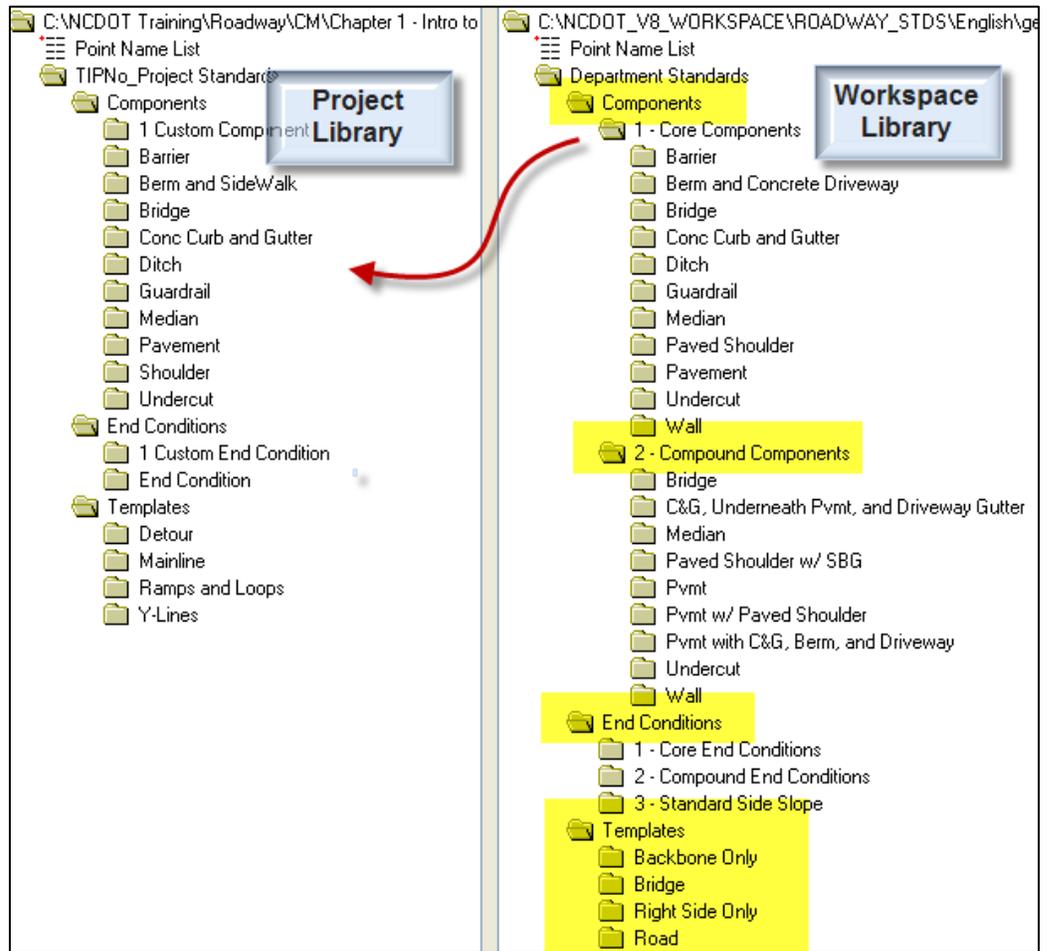
New .dtm file is a 3D surface of multi-layers.

It is important to understand because there are volumes between each of the surfaces.



Template Library

Create customized templates for any station range or can use the standard template included in the workspace.



Set Resurfacing Grade

Cross Slope Optimization

Results:

Station	Ground Slope	Design Slope	Difference	Corrected Slope	Delta Ele
12+60.00	1.61%	-2.00%	-3.61%	1.61%	0.0000
12+70.00	0.42%	-2.00%	-2.42%	0.42%	0.0000
12+80.00	-0.74%	-2.00%	-1.26%	-0.74%	0.0000
12+90.00	-1.29%	-2.00%	-0.71%	-1.29%	0.0000
13+00.00	-1.68%	-2.00%	-0.32%	-1.68%	0.0000
13+10.00	-2.25%	-2.00%	0.25%	-2.25%	0.0000
13+20.00	-2.79%	-2.00%	0.79%	-2.79%	0.0000
13+30.00	-3.34%	-2.00%	1.34%	-3.34%	0.0000

Vertical Adjustments

Vertical Overlay Adjustment Settings



OK
Cancel
Preferences...
Reset
Help

Backbone: 0.2083 Parametric Label: Surface Course Ded

Use Minimum Overlay: 0.0000 Minimum Overlay

Use Minimum Milling

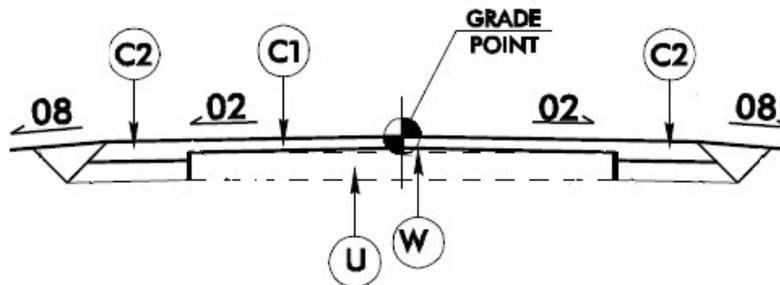
Maximum Milling: 0.0000

Template Range
Left Point: LT_PV1_OEOT Right Point: RT_PV1_OEOT

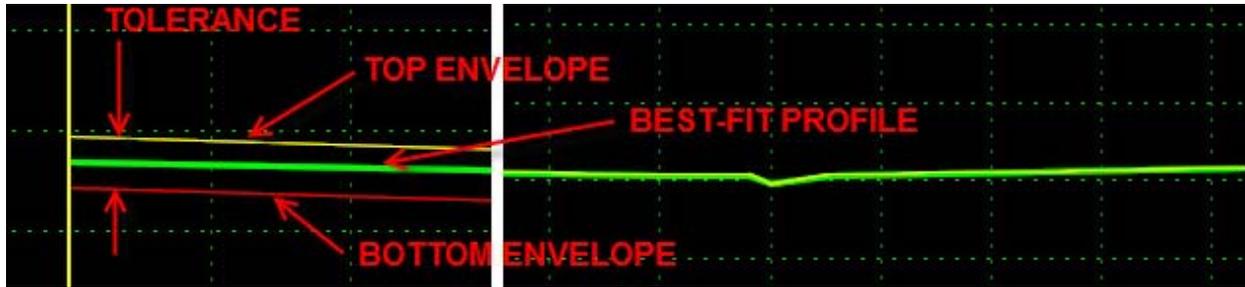
Existing Ground Range
Type: Match Template Range

Limits
 Station
Start: 10+00.00 Stop: 24+13.22

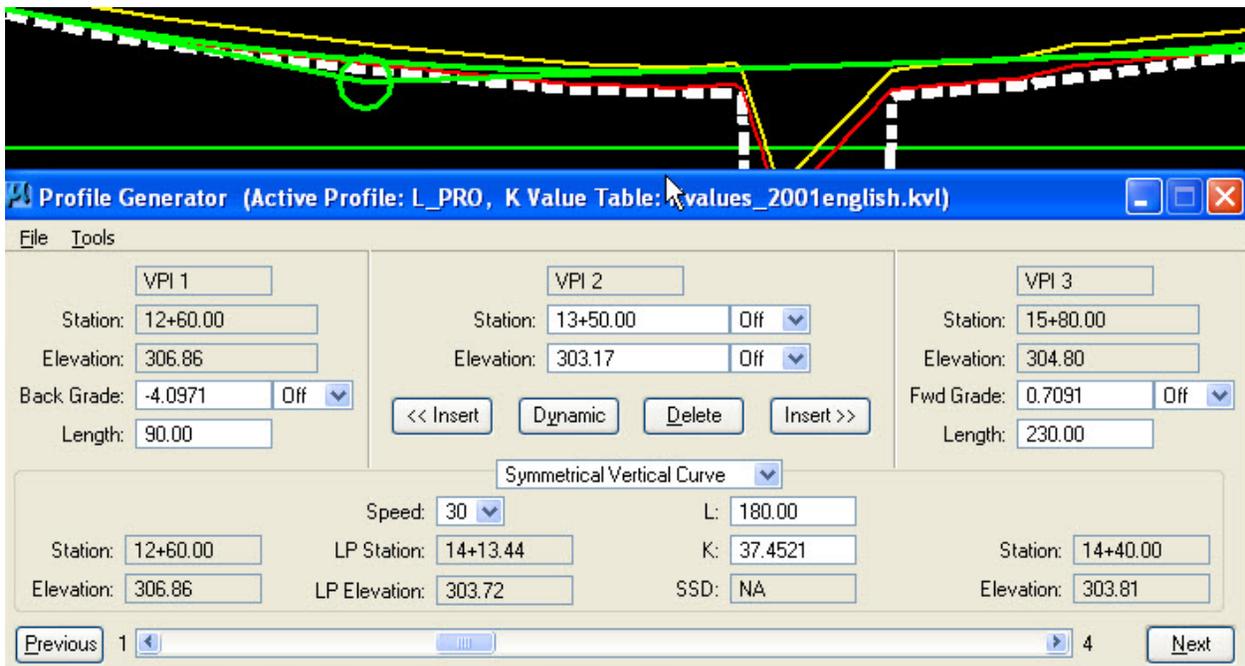
Solution Option
 Examine all Cross Section Points
 Examine Template Points Only
Maximum Vertical Difference: 0.0000



Create Top & Bottom Envelope

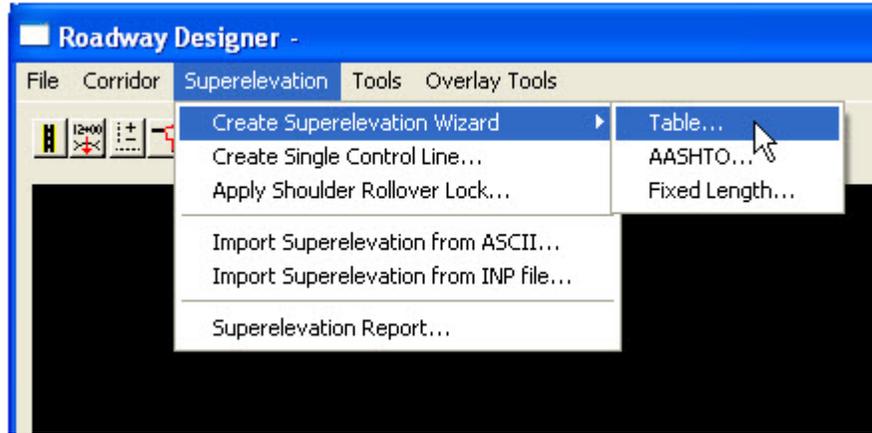


Export to Profile Generator



Superelevation

Superelevation is controlled inside Roadway Designer. Do not need Geopak to create shapes.



Get superelevation data reports and station reports.

Superelevation Data Report

Super Control Line: Y9_SE PV1_PGL-LT_PV1_OEOT

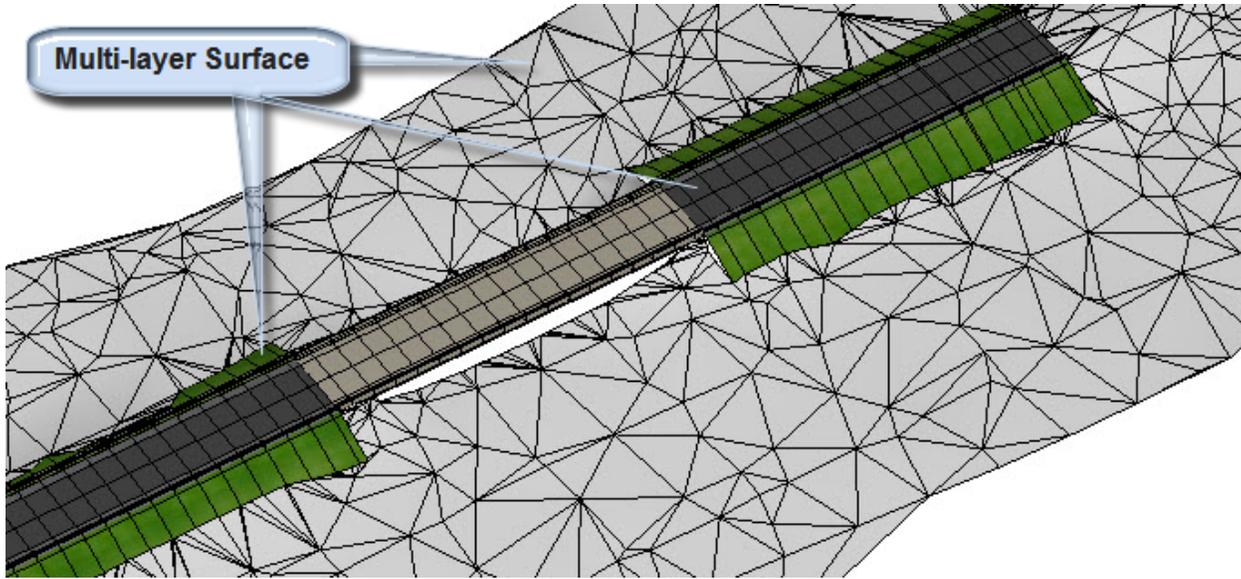
Type: Linear

Station	Cross Slope	Point Type
9+60.29	-2.00%	Normal Crown
10+32.78	0.00%	Zero Cross Slope
11+05.26	2.00%	Reverse Crown
12+50.23	6.00%	Full Super
19+14.35	6.00%	Full Super
20+04.35	2.00%	Reverse Crown
49.35	0.00%	Zero Cross Slope
94.35	-2.00%	Normal Crown
18.74	1.36%	Normal Crown
58.74	-0.42%	Zero Cross Slope
98.74	2.00%	Reverse Crown
18.74	8.00%	Full Super

Superelevation Station Report

Station	Name: LT_PV1_OEOT	RT_PV1_OEOT
10+00.00	Cross Slope: -0.90%	-2.00%
	Delta G: 0.3311	0.0000
	Mode: Linear	Constant
10+32.78	Name: LT_PV1_OEOT	RT_PV1_OEOT
	Cross Slope: 0.00%	-2.00%
	Delta G: 0.3311	0.0000
	Mode: Linear	Constant
10+50.00	Name: LT_PV1_OEOT	RT_PV1_OEOT
	Cross Slope: 0.48%	-2.00%
	Delta G: 0.3311	0.0000
	Mode: Linear	Constant
11+00.00	Name: LT_PV1_OEOT	RT_PV1_OEOT
	Cross Slope: 1.85%	-2.00%
	Delta G: 0.3311	0.0000
	Mode: Linear	Constant

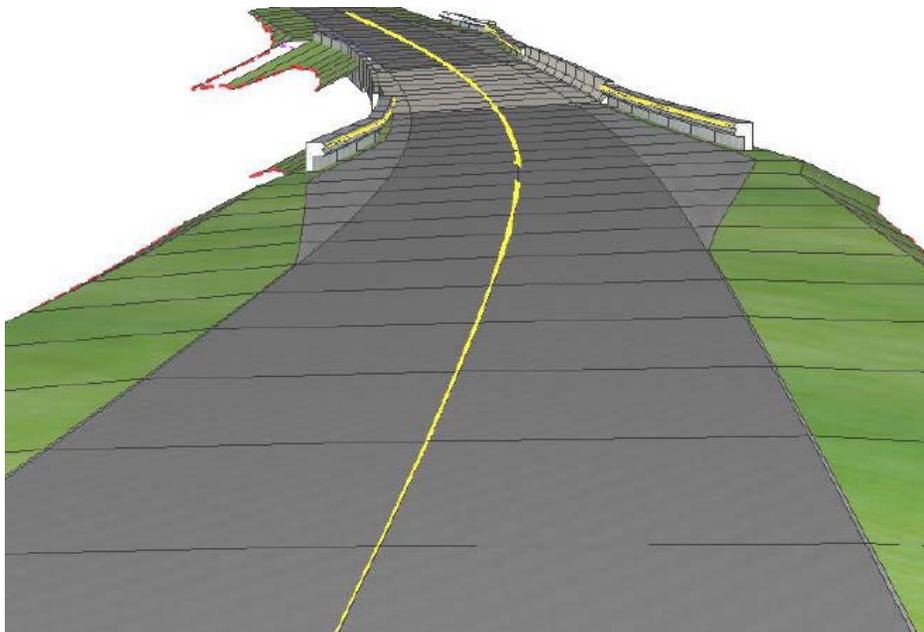
Create Surface – Drive – Inspect



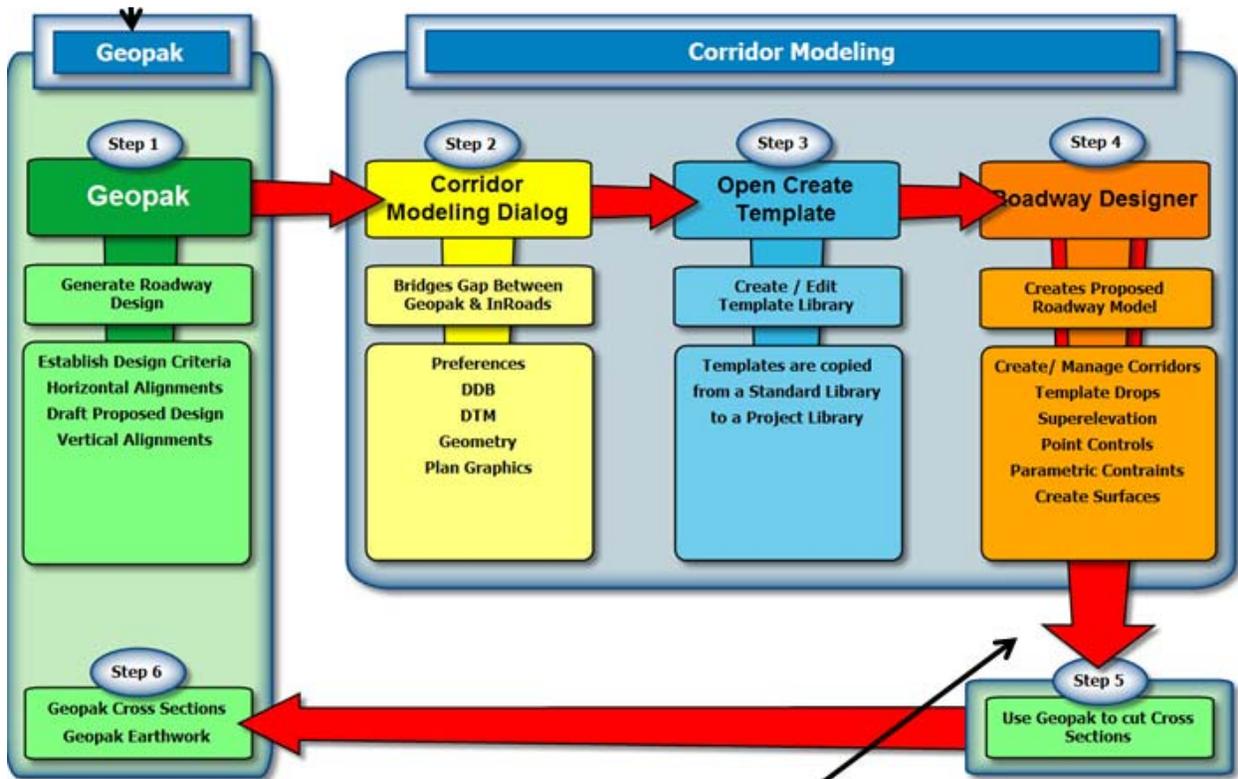
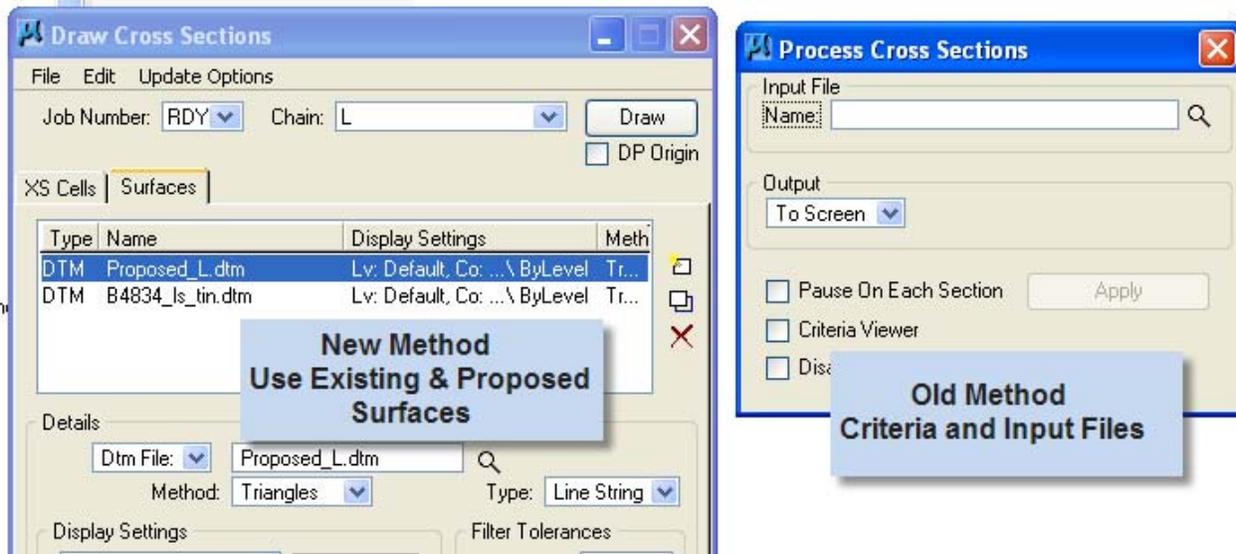
Inspect Model Against Plan Graphics



Walk / Drive / Fly



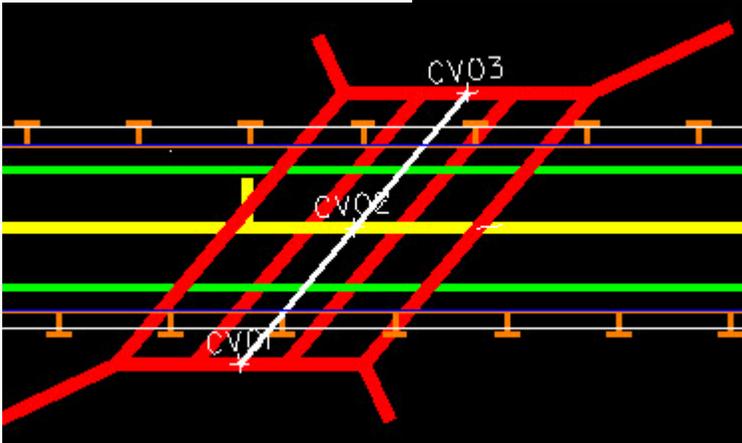
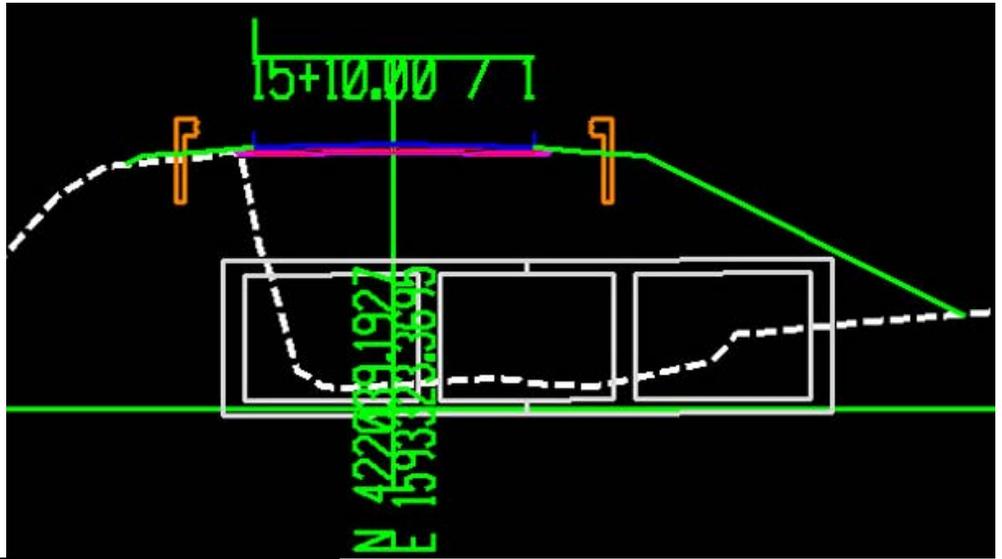
Cross Sections



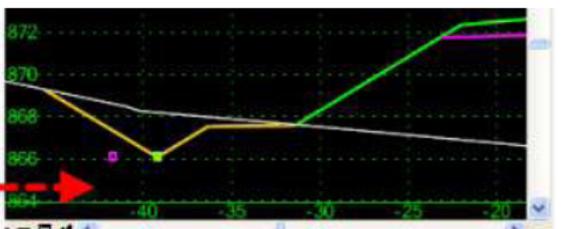
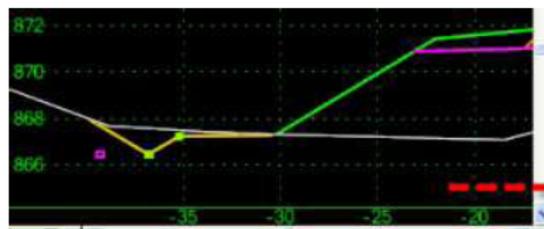
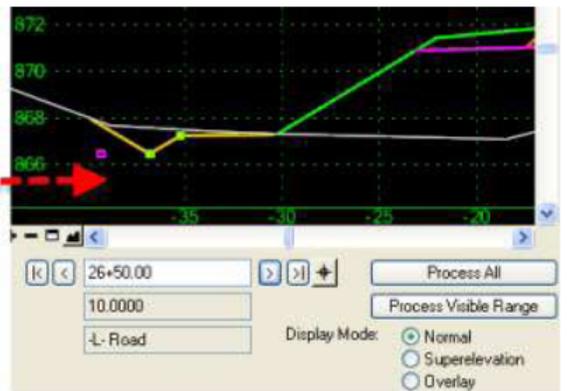
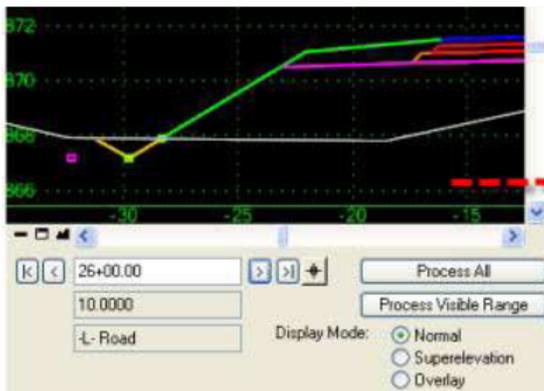
Create surface used in cutting x-sect

Other Items

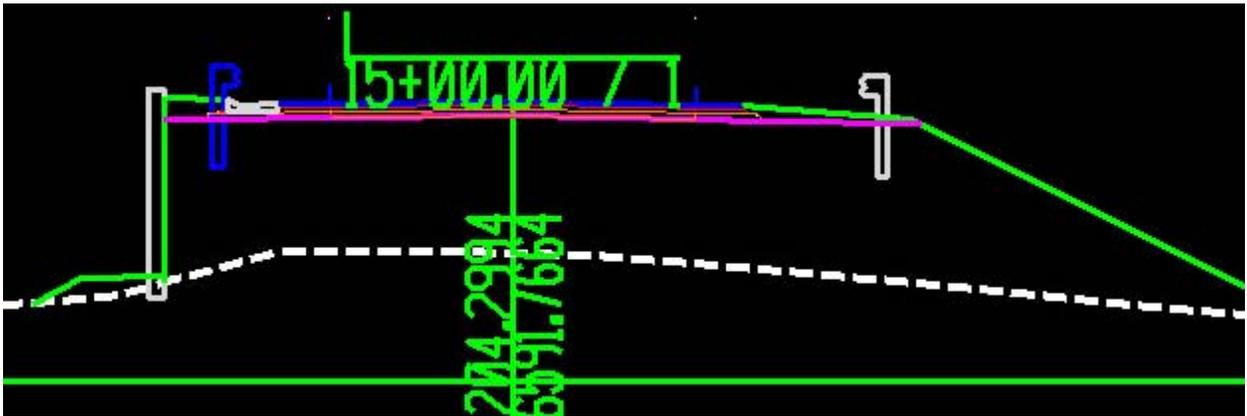
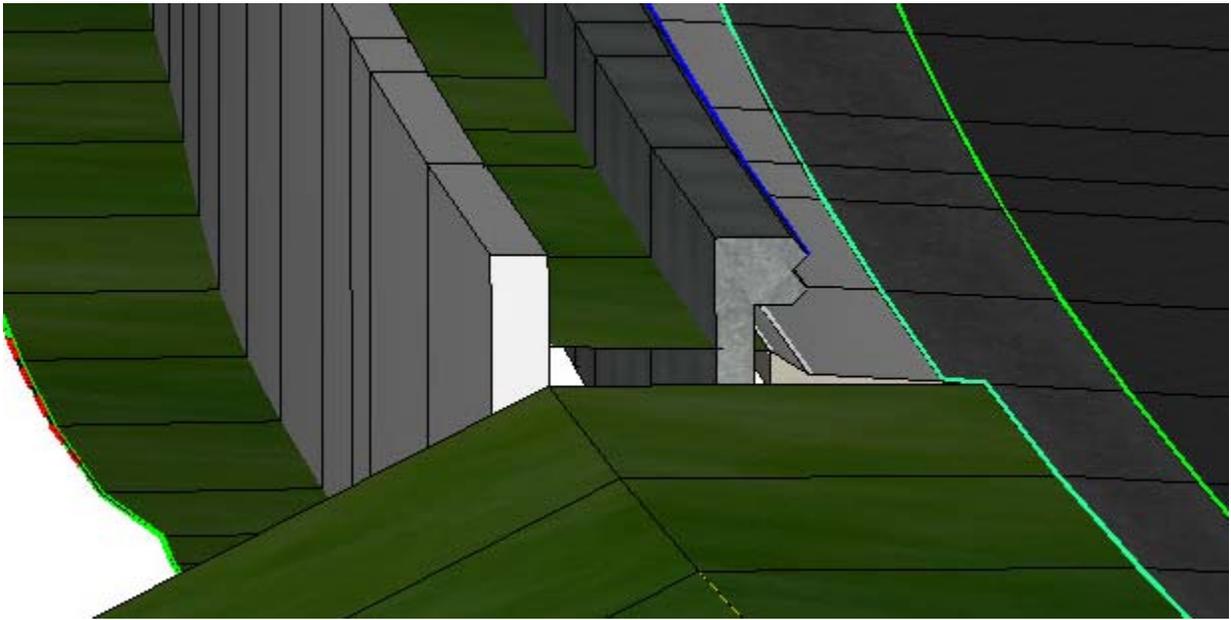
Culverts



Ditches



Walls



Quantities

Earthwork (includes shallow & regular undercut)

Pavement (includes wedging)

Currently using input files and processing the runs for Earthwork log files
Roadway Designer Calculates Internally

NCWedge is no longer required for quantities on old projects

On the Way

On-Site Detours
Bridge Abutments, End Bents, Approach Slabs
At-grade Intersections
Divided Facilities
Interchange
Automated Calculation of Quantities

Reasons for this development path.

Each previous step is a building block for the next step.

Components and end conditions —————> Templates

Undivided, detours, intersections —————> Divided Facilities

Changes

Roadway Design manual side slopes.

Standard Drawing Shoulder Construction

Wedging Details

No need for Criteria or NCWedge

Computations of certain quantities and Plan Checking involvement