

# Carlson Civil

— Civil design that puts you in the passing lane

## Get Powerful Automation

What might take days with other civil software takes just hours, or even minutes, with the powerful, intuitive Carlson Civil.

**Road NETWORK.** Build all roads, intersections and cul-de-sacs in 2D and 3D with a single click of the "PROCESS" button.

**Site NETWORK.** Elevate your estimating accuracy with this intuitive layer-based surface generator and earthwork calculator.

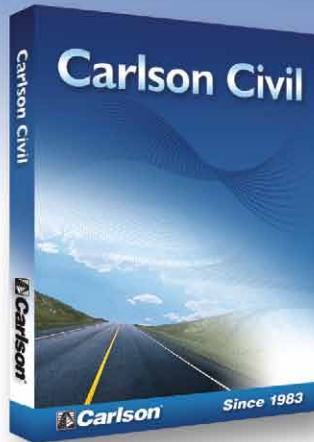
**Lot NETWORK.** Quickly define an entire subdivision of lots based on an outer boundary, interior ROWs or Centerlines, and a simple set of user-defined "rules," then pick "PROCESS" and the lots appear, defined and labeled.

## Carlson Offers Choice

- AutoCAD® or IntelliCAD® – Carlson Civil runs on top of any AutoCAD® or Map® from versions 2004 and up AND Carlson Civil comes with built-in IntelliCAD®
- Automatic, Prompt or Manual – Carlson's fully dynamic design environment – its trademark "networking" – means that changes made to one aspect of your design are reflected in all other related aspects
- 2D, 3D, or Flyover – get true 2D, easy-to-use 3D, plus the ability to view an aerial image draped onto a surface in both the Carlson 3D Viewer and Surface 3D Flyover
- Affordable, Voluntary Maintenance Programs – Carlson customers are allowed to choose to upgrade based solely on the merits of the software's new features. There is no retirement of software.

 **AUTODESK**  
Authorized Developer

 Authorized  
IntelliCAD® Technology  
Consortium Member



## Be Competitive with Carlson

"[Carlson Civil] enables us to provide the same service as the big firms without the level of cost."

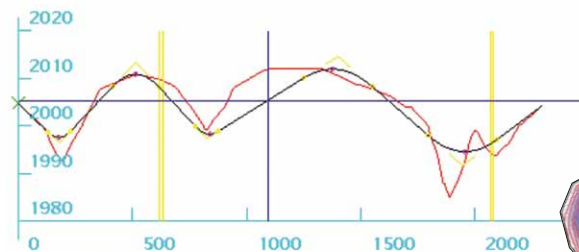
*Eric Almond, Almond Engineering, PA,  
Jacksonville, Florida*

"Since we started using Carlson Software, we've been able to be much more responsive to our customers. We can get answers to them in a much shorter amount of time. And the Carlson support staff is outstanding. It amazes me that I can call in, get a person right away, get my question answered and be right back to production."

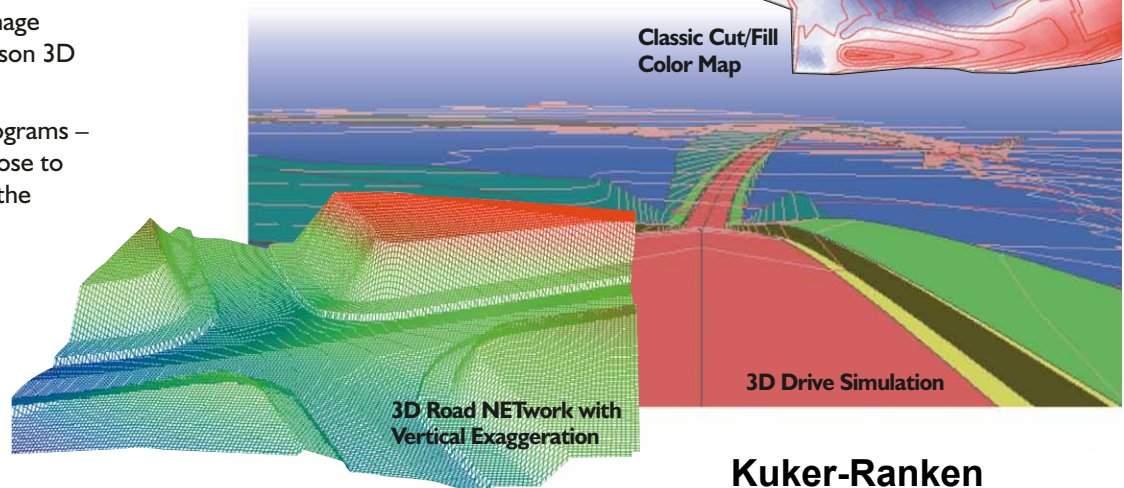


### Road Design Interface with Dynamic Graphics

Sta: 10+91.424 Elv: 2005.342 Slope: 3.000% Depth: 6.512



Classic Cut/Fill  
Color Map



3D Road NETWORK with  
Vertical Exaggeration

3D Drive Simulation

## Kuker-Ranken

Seattle: 800-454-1310  
Tacoma: 888-562-3082  
Portland: 800-472-7007  
Salt Lake City: 844-702-7329



A TRADITION IN PRECISION

# Carlson Civil

— Advanced technology that works for you

## Top New Features

- **New Dual CAD/3D Viewer** — check the design and adjust the drawing at the same time
- **Road NETWORK Enhancements** with support for rounded template transitions and medians that cross the centerline
- **Cleanup for Lot Linework** that automatically finds any overshoots or undershoots and highlights them
- **New Footprint Creator** — a library of different house footprints
- **Road Rehabilitation** command to create profiles for specified overlay with milling or leveling.
- Command for **Vehicle Path Tracking**, which allows you to trace wheel paths for vehicle dimensions along centerline.
- **Edit Contours** and instantly update the underlying 3D model (updates the underlying TIN surface to match the modified contours), a feature that is unique to Carlson.

## General

- CAD Platforms: AutoCAD versions 2004 and up as well as AutoCAD Map, Land Desktop and Civil3D, and IntelliCAD 7.2
- Project Setup: Flexible data and settings storage
- Drafting Enhancements: Handy tools for working in AutoCAD/IntelliCAD
- Data Compatibility: Supports industry standard LandXML plus specific data conversions
- Languages: Spanish, Portuguese, Russian, French, German, in addition to English

## CAD Standards

- Draw Standard Item: Create common CAD entities with pre-defined properties
- Settings Explorer: Manage all program settings from single interface
- Settings Libraries: Setup tables for symbols, layers, road templates, etc.
- Data Depot: Document management for workgroups and archiving
- Project Sub-Folders: Custom controls of data folders by type

## 3D Data

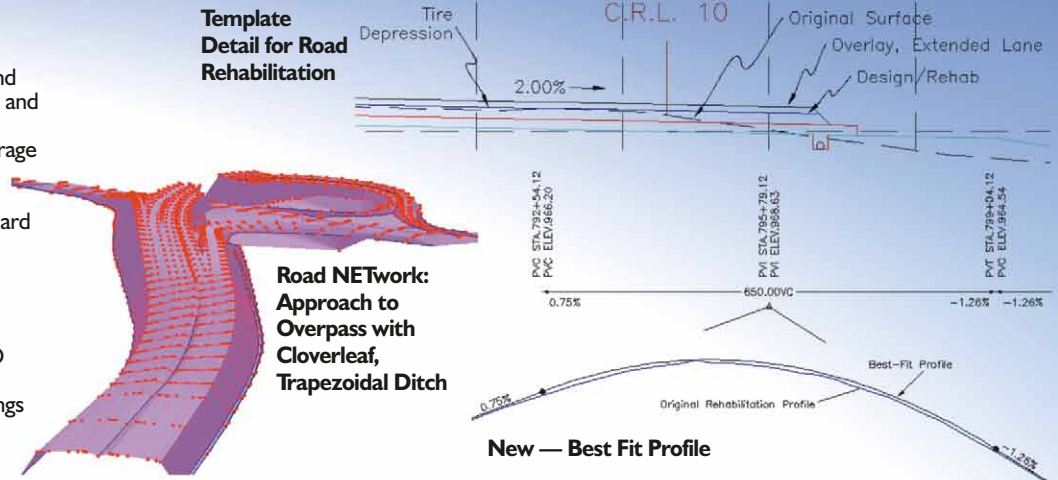
- Elevate 2D to 3D: For spot elevation, polylines, contours and pads
- Edit-Assign Polyline Elevations: Elevates 3D polylines using control points
- 3D Polyline Tools: Draw, offset, fillet and merge 3D polylines

## Surfaces

- Build Surfaces: By triangulation or rectangular grids
- Contouring: One step from 3D entities or from surface files
- Triangulation Utilities: TIN math and offset, simplify and merge functions
- Surface Manager: Change surface properties and data
- 3D Surface Flyover: 3D viewer with vehicle to drive over surface or follow 3D path
- Slope Analysis: Slope reports and zone analysis

## Grading

- Volumes: Earthwork volumes between triangulation or grid surfaces
- Pad Design: Tie cut/fill slopes from pad perimeters
- Cut/Fill Color Maps and Labels: Draw shaded red/blue map with labels
- SiteNET: Organize surfaces by layer with subgrade adjustments



## Centerlines

- Design Centerlines: Input alignments on screen or in dialog with graphics
- Label Stations and Offsets: Annotate along centerline at selected points
- Calculate Offsets: Reports stations and offsets for selected points along centerline
- Offset Points: Create points at specified stations and offsets
- Spirals: Flexible handling of most complex spiral curves

## Profiles

- Create Profiles: From surfaces, screen entities, points on centerline, etc.
- Quick Profile: One step profile creation with real-time updates
- Input-Edit Profiles: Enter profile data in dual spreadsheet and graphics
- Draw Profiles: Draws profiles on grids or plan-profile sheets
- Profiles To 3D: Create points and 3D polylines from profiles

## Sections

- Create Sections: From surfaces, screen entities, points, etc.
- Quick Sections: One step creation of sections
- Draw Sections: In vertical stack or sheets
- Input-Edit Sections: Enter section data in dual spreadsheet and graphics
- Sections to 3D: Create points and 3D polylines from sections
- Mass Haul: Diagrams and Analysis
- Section Volumes: By end areas method

## Road Design

- Template Design: Detailed yet simple template design
- Template Transitions: Define transitions for templates and superelevation
- Road Network: Dynamic road design with intersections and cul-de-sacs

## Points

- Draw Points: Draw points with settings for symbols, layers and styles
- Point Groups: Point group manager to define sets of point by filters
- Coordinate File History: Tracks all changes to points with report and undo functions
- Fix Point Label Overlaps: Finds point label overlaps with rules to fix automatically
- Point Tools: Utilities for modify point labels such as move with leader, twist and resize

## Area/Layout

- Label Areas: Customized area label styles
- Size Areas: Sliding side, hinged and radial from curve
- Lot Manager: Definitions by point numbers
- Lot Network: Size lots along alignment
- Parking, Intersections and Cul-de-Sacs: Layout for linework

## Annotation

- Angle & Distance Labels: Flexible routines to label linework
- Curve Labels: Label curve data in stack, along arc or in table
- Mapping Labels: Routines to create typical plat labels
- Linetypes: Draw special linetypes