

# Allplan BIM 2008

## Road Construction Package



The CAD planning solution for Road Construction

The Allplan road construction package is the ideal solution for road construction tasks. If required, buildings and engineering structures can easily be embedded. The extensive range of layout, design and visualization functions enables you not only to automatically create plans but also to generate attractive 2D and 3D presentations.

### Includes Allplan Design package

This package includes the entire Design package and builds on its functions for 2D design, 3D modeling, layout, design, visualization etc. Please refer to the relevant data sheet for more information.

### Digital Terrain Models

Terrain modeling is based on Delaunay triangulation and optimum interpolation is guaranteed. Breaklines, line structures and fillets can be defined in order to precisely match models and reality. Every terrain model can contain one or more layers of earth.



Abbildung: Autobahneinfahrt Payerne VD Dépt. des Travaux Publics Vaud, Lausanne  
Visualisierung: Terrainview von ViewTec Zürich

### Route

Straight lines, circles, clothoids and parabolas allow you to define any kind of route. Changes appear graphically and interactively on-screen as you work. At the same time, you can display and edit the site plan, longitudinal profile and transverse profiles.

### Transverse Profiles

The data is stored in a completely three-dimensional model of the project, thus enabling you to manage transverse profiles, perspective views and quantities, regardless of the complexity of the project. Profiles for the road surface, slope and shape contained in a library define the structure of the road profile by profile. Cants can be automatically calculated or manually changed.

### Highlights Allplan Road

- ▶ Terrain modeling for one or more layers of earth
- ▶ Consistent, parametric 3D model with automated plan generation for road construction
- ▶ Extensive layout and visualization functions
- ▶ Any kind of route with straight lines, circles, clothoids and parabolas
- ▶ Automatic or manual cants and enlargements
- ▶ Plan intersections and traffic circles and check with tractrix curve simulation
- ▶ Comfortable editing of site plan, longitudinal profile and transverse profiles
- ▶ Create pegging tables (polar and orthogonal)
- ▶ Automatic cut and fill calculation
- ▶ GEO-Tiff ortho-photo

Links between the axes and slopes ensure the three-dimensional integrity of the project.

### Quantities

Road volumes, surfaces and segment lengths are calculated automatically and serve as a basis for tenders.

### Pegs

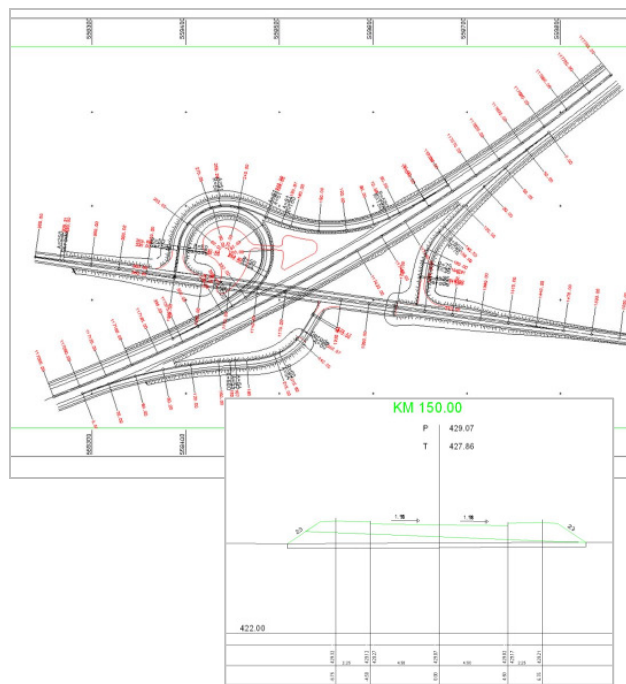
All the detail points in the project can be exported together with their coordinates and descriptions to ASCII files. You can also create pegging tables (polar and orthogonal).

### Plans

The plans are generated quasi automatically based on the model and they can be given the final touch directly in Allplan prior to plotting.

### Design Traffic Circles

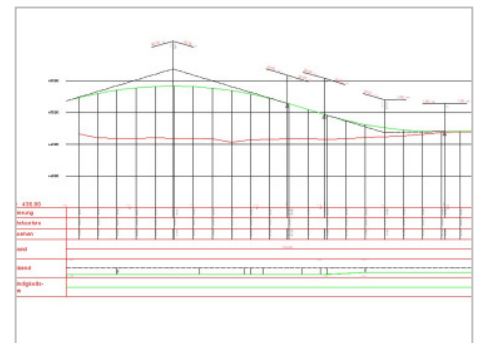
Allplan Road Construction allows you to create first drafts of traffic circles in a comfortable and easy manner. Based on the parameters you set, the program automatically creates the basic 2D geometry and the corresponding dimensions for predefined traffic circle types.



Picture: Access road Payerne VD, Dépt. des Travaux Publics Vaud, Lausanne

### Path Simulation with tatrix curves

With its tatrix curve path simulation, Allplan Terrain assists you in the process of designing intersections, traffic circles and road openings in a quick and cost-saving manner. For example, you can check tight road details or plan delivery by articulated truck.



### Further Information

If you need additional information or would like to find out more about one of our products, please contact your local Nemetschek dealer or visit our website at: [www.nemetschek.com](http://www.nemetschek.com).