

# GEOPAK<sup>®</sup> SITE<sup>™</sup>



## A Comprehensive Site Solution

Bentley's GEOPAK<sup>®</sup> Site<sup>™</sup> software offers a comprehensive approach to site design. Companion design tools let you design in all engineering disciplines within the context of a single, integrated site. GEOPAK Site addresses site feature modeling and terrain modeling, roadway design, storm sewer design, water and sewer system layout and profile design, geotechnical evaluations and more. The software provides a comprehensive means of managing COGO and survey data and controlling earthwork volumes as your design progresses. GEOPAK Site includes a complete set of plan preparation and quantity takeoff capabilities.

Based on MicroStation<sup>®</sup>, GEOPAK is geared to handle the real-world project process, helping you explore a wealth of design scenarios quickly. Special features handle any type of site object, from ponds to cul-de-sacs. Soil, rock or water volumes and material quantities are automatically calculated, enabling well balanced, efficient planning that streamlines site development and construction. GEOPAK Site is used for a range of projects, including commercial and manufacturing sites, urban complexes, subdivisions, parks, golf courses and dams.

### Field-to-finish Integration

GEOPAK Site streamlines site design, production and construction processes. Intelligent associativity between design disciplines removes risk of error and ensures consistent, accurate plan production—actually improving constructability. The software offers tools to easily import, incorporate and export design and coordinate geometry (COGO) information. GEOPAK Site also includes a full array of analysis capabilities.

### A Visual Approach to Site Modeling

Flexible relationship-modeling tools enable dynamic exploration of design scenarios. GEOPAK Site lets you control the associativity between objects in the site model, including the precedence of objects and of relationships. You can combine site objects so they move together when changes are made. This enables rapid development of designs and resolution of unsuitable conditions.

### Flexible Roadway Design

GEOPAK Site offers flexible modeling capabilities for urban, subdivision and simple road design. Like all design objects, roads obey the associations between site objects that you have established for your model. Dynamically change a curve or raise a vertical road alignment, and associated objects will move accordingly. If a curb has been attached to a graphic element, as the element is modified or moved, so goes the curb. You can visualize limitless scenarios before committing design changes.

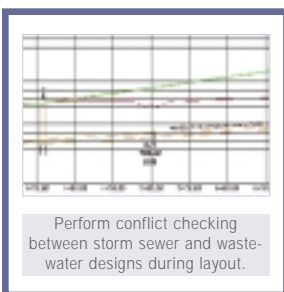
A user-friendly Composite Section dialog assists you in defining the edges of pavement from centerline outward. You can add shoulders, curbs, gutters and sidewalks, as well as create a table of offset distances and elevations to define the curb and gutter section that will run along the edge of pavement. Left and right sides can be as similar or as different as the need requires.



Site meets the demands of today's site project challenges with ease.



Extensive analysis tools provide designers with accurate display of project conditions.



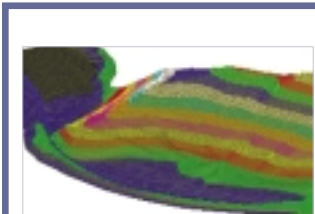
Perform conflict checking between storm sewer and wastewater designs during layout.



## GEOPAK SITE AT-A-GLANCE



Complete final construction drawings easily using the advanced labeling functions.



Custom-evaluate proposed and existing site conditions, including terrain elevation differences.

### Survey Data Management

- Communication with all major data collectors
- Processing of virtually all data sources: raw, ASCII station/offset/elevation, ASCII XYZ, AASHTO SDMS, Florida EFB
- Network least squares, transit rule and compass rule adjustment routines
- Extensive feature database support for feature mapping
- Powerful map and chain editing tools

### Digital Terrain Modeling

- Generated from survey data, ASCII files, MicroStation 2D/3D graphics and digital elevation maps
- Creation of triangles, lattices, building pads
- Dynamic visual editing tools
- Extensive analysis tools include slope and elevations, drainage, visibility and a surface navigation camera
- Exporting capability to Trimble DTX, Trimble TTM and Leica GSI formats

### Geometry

- Coordinate geometry module supports command-line and graphical tools
- Graphical- and element-based Horizontal Alignment Generator
- Automated subdivision wizard for lot layout
- Advanced legal description editing functions

### Roadway Design

- Simple geometry referencing for establishing roadway models
- Composite Section generation of roadway features—curbing, sidewalk, etc.
- Dynamic modifications adjust throughout the model
- Accurate roadway models suitable for construction stakeout

### Plans Production

- Plan and profile sheet composition capability
- Extensive plan/profile and cross-section labeling tools
- Profile generation for single and multiple surfaces and with tabular data
- Powerful drafting tools with the Design and Computation Manager

### Drainage

- Storm sewer design
- Culvert design
- Routing capabilities
- Complete user-definable drainage library for localized design
- Reporting and computation functionality

### Water and Sewer Layout and Analysis

- Extensive toolsets for water system and sewer system layout and design
- Seamless integration with drainage module for conflict finding and labeling
- Functionality for inclusion of miscellaneous utilities

### Geotechnical

- Import support for CSV and Microsoft® Access database file types
- Display borehole data in plan, profile, cross section and 3D views
- Subsurface determination of material types
- User-definable preferences for graphic representation of boring data

## GEOPAK SITE SYSTEM REQUIREMENTS

- Prerequisites: MicroStation v8.1 or higher
- Processor: Intel® Pentium® 400 Mhz minimum, 500 Mhz recommended
- Operating System: Microsoft® Windows® XP Professional, Microsoft Windows 2000, Microsoft Windows NT® (SP6 recommended)
- Memory: 128 Mb minimum, 256 Mb recommended
- Disk Space: 140 Mb minimum, 170 Mb or more recommended
- Input Device: Mouse

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