# **PRODUCT DATA SHEET**





# **Bentley SITEOPS**<sup>®</sup> A Smarter Way to Do Site Design

SITEOPS is conceptual site design software that allows civil engineers, architects, landscape architects, and land developers to evaluate more information in the early stages of a project, design more efficiently, and minimize site development costs. Using SITEOPS you can provide your clients with more up-front options by using cost-effective optimizing tools found in the grading and stromwater and site layout modules. Make smart, measurable, and defendable design decisions while you create and revise site designs in real time.

#### Integrated Modeling and Documentation Workflows

The CONNECT Edition provides a common environment for comprehensive project delivery and connects users, projects, and your enterprise. With the CONNECT Edition, you now have a personal portal to access learning, communities, and project information. You can also share personal files including i-models and PDFs directly from your desktop with other users, or stage them for easy access from a Bentley app, such as Structural Navigator. With the new project portal, your project teams can review project details and status, and gain visibility into project performance. With the CONNECT Edition, your project team may also wish to take advantage of the new ProjectWise<sup>®</sup> Connection Services including Project Performance Dashboards, Issues Resolution, and Scenario Services

# **Unmatched Speed**

The patented generative design capabilities in SITEOPS can solve incredibly complex engineering feats, comparing millions of layout, grading, and piping combinations for a site within hours. Revisions are easy: simply adjust a building's location and watch as the software automatically redraws parking, driveways, islands, grading, stormwater piping, and more.

# **Cost Optimization**

SITEOPS grading and stormwater piping capabilities provide incredible time and cost savings while reducing project risk for site planning and land design. Use SITEOPS to identify improved layout solutions and grading savings on sites from a single-acre retail parcel to distribution centers, shopping centers, schools, industrial projects, and mixed-use projects. SITEOPS helps you have more control over projects with automated designs and associated costs. You can create, revise, and optimize conceptual layouts, grading plans, and stromwater drainage plans at reduced costs.

# The Power of "What If?"

SITEOPS, with grading and stormwater piping, gives engineers the ability to produce conceptual site designs faster and be able to present more options to land developers. SITEOPS uses cloud-based computing techniques to empower you to move beyond engineering to optioneering, which enables the exploration



#### SITEOPS combines data interoperability, site design with grading and stormwater, swept path analysis, and 3D visualization to provide optimized conceptual site layouts.

of engineering alternatives and their costs. The software ensures you have accurate data in the conceptual phase of the project for better decision making. SITEOPS identifies the least expensive way to meet all your site constraints providing your client with more design options.

# Technology

SITEOPS is patented, revolutionary technology for land development, combining evolutionary computation, cloud computing, generative design, and operations research. SITEOPS optimization uses an array of powerful servers capable of handling highly complex algorithmic functions to consider thousands to millions of combinations of layout, grading, and piping options for a site. In addition, SITEOPS is CAD agnostic, allowing for easy importation into many other CAD programs via DGN, DWG, and LandXML formats.

# **3D Visualization**

SITEOPS enables you to easily create 3D views while in the conceptual design phase. Import proposed layouts, including parking lots, driveways, islands, curbs, parking lines, building pads, and more into Trimble's SketchUp. You can quickly visualize grading plans, including geotechnical layers, as well as automatically drape underlay images to proposed surfaces on the fly. With each layout, you have budget information with realistic 3D renderings to readily convey project data to your client.

# **System Requirements**

#### Processor

Intel Pentium-based or AMD Athlonbased processor, 2.0 GHz or greater

#### **Operating System**

Microsoft Windows 8, Windows 8 x64, Windows 7, Windows 7 x64,

Windows Vista, Windows Vista x64, Windows XP Professional (SP3 or later), Window XP x64

#### Memory

2GB minimum, 4 GB recommended (more memory typically results in better performance)

**Disk Space** 1.25 GB minimum free disk space

Input Device Mouse or digitizing tablet

**Browser** Microsoft Internet Explorer 8.0 or later

Sun Java 1.7 (update 7) or later

Broadband Internet connection

# Find out about Bentley at: www.bentley.com

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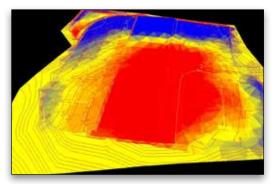
# **Bentley SITEOPS At-A-Glance**

### **Data Interoperability**

- Import data from the U.S. Geological Survey, SRTM, and Trimble's SketchUp (maps include aerial imagery and topography adjusted to local state plane coordinates)
- Automatically drape imagery on TIN surfaces for quick 3D surface visualization
- · Import downloaded data into your favorite CAD software
- Import GIS data from local Esri ArcGIS servers

#### Site Optimization

- Design commercial, residential, industrial, multi-family, and other layouts
- Generate multiple site options with associated costs
- Create parking lots, streets, sidewalks, and many other options using dynamic auto-drawing tools
- Perform design edits, and all other areas of the model are automatically redrawn
- Prototype complex site layouts in minutes with spatial templates
- Includes roadway cross-section templates (layout tools), curb and gutter location controls, site data acquisition (ability to access high resolution imagery, flood plain, and parcel data through Esri applications), and parcel layout
- Enables import of data into CAD programs via DGN, DWG, Land XML, and PDF formats



*Create cost-optimized conceptual site plans and takeoff budgets within minutes to reduce project risks.* 

# **Grading and Stormwater**

- Auto-generate grading and stormwater drainage plans
- · Generate cut-and-fill estimates with one click
- Export design files in DGN, DWG, LandXML, PDF, and COLLADA formats
- Generate reports that include 2D and 3D images
- Use an array of intelligent auto-drawing tools

# **Swept Path Analysis**

- · Incorporates a pre-populated library of vehicle templates
- Output contains the center, wheel paths, swept path, and vehicle images
- Ability to design vehicle templates
- Exportable files in DWG, LandXML, and PDF formats

## **3D Visualization**

- Create 3D views while still in the conceptual design phase
- Generate budgets with 3D visualizations
- Quickly visualize proposed grading plans, including geotechnical layers (where applicable)
- Import proposed layouts, including parking lots, driveways, islands, curbs, parking lines, building pads, and more into SketchUp
- Drape underlay image to proposed surface automatically
- Download directly from SITEOPS into Trimble's SketchUp



SITEOPS ensures your designs are real-time and real-place referenced to readily view the 3D model in a real-world setting.



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