Workflows to Support Geodesign:

ArcGIS Interoperability for Site Design, Engineering and 3D Visualization

- Generate Design Content (including proposed terrains)
- Convert to GIS
- Model in CityEngine
- Share via Web
Client Based Design Studios
Challenge:

- Develop rich site design content (including terrains)
- Use ArcGIS to integrate and share design content with stakeholders
Mustin Park District
January 22nd, 2015
2015 GeoDesign Summit

Geodesign Workflow Collaborators:
• Patrick Gahagan: Esri and Philadelphia University
• Steve Lewis and Mike Kissinger: Pennoni Associates
POWERED TO DO WHAT’S NOW, POWERED TO DO WHAT’S NEXT.
SiteOps

- SAAS solution uses existing GIS data and imagery
- Site design
  - Circulation
  - Parking lots (islands, spaces, drives, etc.)
  - Other landscape features (e.g., plazas, parks, etc.)
- Site engineering
  - Proposed contours and spot elevations
  - Proposed terrain
  - Stormwater management infrastructure
- Export to ArcGIS via DWG and LandXML
ArcGIS Desktop

- Create geodatabase
- Import site design content into the geodatabase
- Add attributes and projection
- Import proposed terrain content
- Prep for CityEngine
CityEngine

- **Intuitive and realistic** 3D visualization of designs
- **Clear** representation of design goals
- **Report generation** to support design goals (e.g., sustainable design measures)
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CityEngine Web Scene

- Upload to CityEngine model to ArcGIS Online and share with stakeholders