3D GIS for Local Government Planning
Applications
Room 143A (Theatre 100)

Patrick Gahagan
Solutions Engineer
Esri – New York City
Agenda

• Introduction- Platform and 3D

• ArcGIS for Local Government

• 3D Planning Applications

• 3D Planning Demos

• Questions/Your Feedback
ArcGIS is a Platform
Providing Mapping, Analysis, Data Management & Collaboration Capabilities
3D as a GIS capability
Core part of the platform

- Combine 2D and 3D in the same web GIS architecture
- Reuse dynamic services across clients
- Securely collect, manage, curate 3D data
- Conduct analysis across real-time and historical data
- Create tailored experiences for different types of users
ArcGIS for Local Government
Esri solutions for local government customers

- Series of useful maps and apps focused on local government work
  - Configurable and extensible
  - Freely available and fully supported
- Community of users
  - Best Practices / Implementation Support
- Network of Esri Services and Partner offerings
  - Help users implement, sustain and enhance

.....Available on-premise or in the cloud
• Deliver maps and applications quickly throughout your organization

• Stay current with future releases / avoid legacy technology

• Deploy a geospatial platform that can be leveraged by many

• Leverage the collective knowledge of the entire community

• And do this with....less staff, budget, and technical expertise
150+
350+ Maps and Apps
Organized by 9 Primary Domains

- Local Government
- State Government
- Emergency Management
- Water
- Electric
- Gas
- Defense
- Telecommunications
- Parks & Gardens
The 3D Maps and Apps
What they are

• ArcGIS Pro Configurations

• For Each
  - Requirements
  - What you get
  - What’s New
  - Download
  - Try it Now

• Plus
  - Sample Data
  - Tasks
  - Toolboxes/Python Scripts
  - Rules
  - Styles

Overview

Visibility Assessment is a configuration of ArcGIS Pro that can be used by local governments to answer various visibility questions within the community.

For example, planners, architects, and real estate appraisers can use Visibility Assessment to determine visibility of/from a proposed development from/of surrounding locations. Event planners can use Visibility Assessment to calculate event visibility from specific locations or surrounding buildings.
The 3D Maps and Apps
The foundation for starting 3D GIS

• Local Government Scenes (3D Visualization)
  - Basic Scene
  - Schematic Scene
  - Realistic Scene

• Review Proposed Developments (3D Analysis)
  - Visualize Proposed Development
  - Conduct Visibility Assessment
  - Calculate Solar Radiation
  - Evaluate Shadow Impact
  - 3D Public Survey
Local Government Scenes

Basic Local Government Scene
Includes the World Topographic basemap draped over detailed elevation, simple buildings, and trees and is used to support planning and public engagement needs.

Schematic Local Government Scene
Includes the World Topographic basemap draped over detailed elevation, more detailed buildings, and trees and is used for in-depth planning and zoning needs.

Realistic Scene
Includes the World Imagery basemap draped over high resolution elevation, detailed buildings with textures and realistic trees. This scene is typically used for community visualization and engagement.
LOD - Levels of Detail
Review Proposed Developments

**Visualize Proposed Development**
Visualize Proposed Development can be used by planners and architects to visualize the proposed development in the wider cityscape.

**Conduct Visibility Assessment**
Visibility Assessment can be used by planners to assess the visibility from or visibility of a proposed development within the community.

**Calculate Solar Radiation**
Calculate Solar Radiation can be used by local government staff to calculate potential solar radiation for buildings within the community.

**Evaluate Shadow Impact**
Shadow Impact Analysis can be used by planners to assess the potential shadow impact of the proposed development on the surrounding community.

**3D Public Survey**
3D Public Survey can be used by local government staff to engage with the community to solicit structured feedback about the proposed development.
Take the Next Step
Explore the Maps and Apps at solutions.arcgis.com
3D Local Government Planning Applications
Solutions for 3D Basemap and Development Review

Introduction

Our world is 3D, but many of our plans and maps are still 2D.

3D maps (Scenes) are quickly moving from “nice to have” to becoming a “must have” to improve spatial understanding and communication with both internal stakeholders and the public.

Especially when planning for growth, designing new development, or reviewing design plans in your community, you should start with a well-designed 3D basemap.

This Story Map will tour the Esri solutions and examples for creating and leveraging your 3D basemap. It shows how you can explore and visualize example data overlays, review development evaluation results, and conduct public surveys.

https://awesome3d.maps.arcgis.com/apps/MapJournal/index.html?appid=e0ad318ea7c4ad2a0a29286fd9685f3&folderid=ef68fa95da1c4282a93c75466346ad10
Please Take Our Survey on the Esri Events App!

Download the Esri Events app and find your event

Select the session you attended

Scroll down to find the survey

Complete Answers and Select "Submit"
# Print Your Certificate of Attendance

Print stations located in the 140 Concourse

## Monday
- **12:30 PM – 6:30 PM**
  - GIS Solutions Expo, Hall B
- **5:15 PM – 6:30 PM**
  - Expo Social, Hall B

## Tuesday
- **10:45 AM – 5:15 PM**
  - GIS Solutions Expo, Hall B
- **6:30 PM – 9:30 PM**
  - Networking Reception, Smithsonian National Air and Space Museum