Is your GIS ready for 3D?

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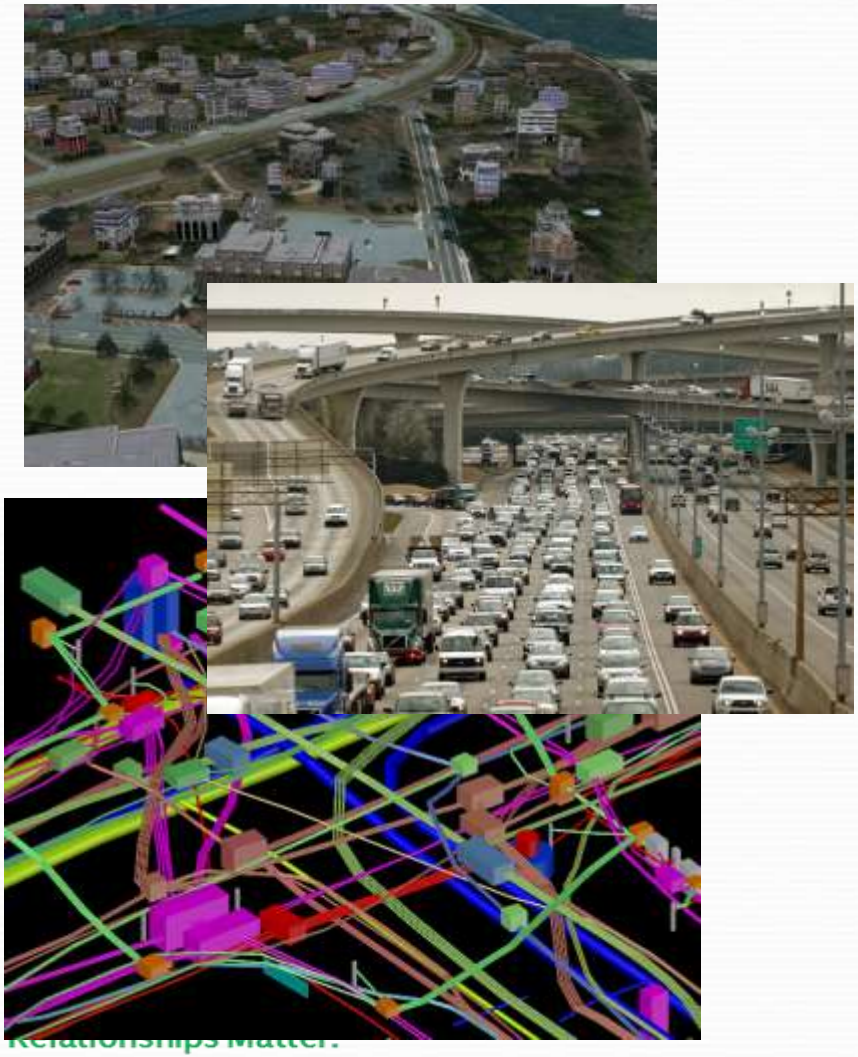
Objectives

- Why do we need to go 3D
- Challenges to moving data to 3D
- Types of 3D Data

Why do we need to go 3D?

- Increasing density of infrastructure
- Increasing use of geospatial data & capability
- Critical functions impacted
- Increasing need for accuracy
- Increasing values
- Increasing regulations
- Integration with other systems



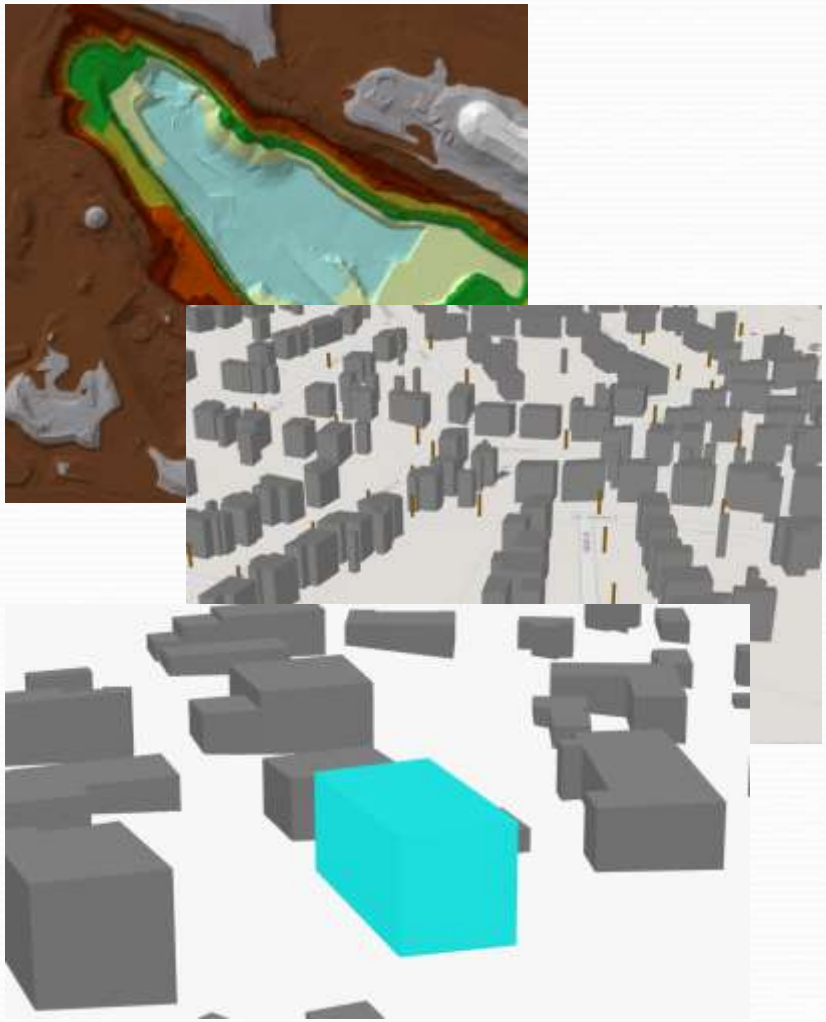
We don't want

Major challenges to 3D

- Software does not support it
- No current data
  - Missing elevations
  - Missing heights
  - Data in other systems
- Accuracy
  - GNSS vertical 1.5 to 2 times horizontal
  - Datums
    - Transition from GDA 94 to GDA2020
    - AHD – 1971 & 1983
- Lack of training/understanding

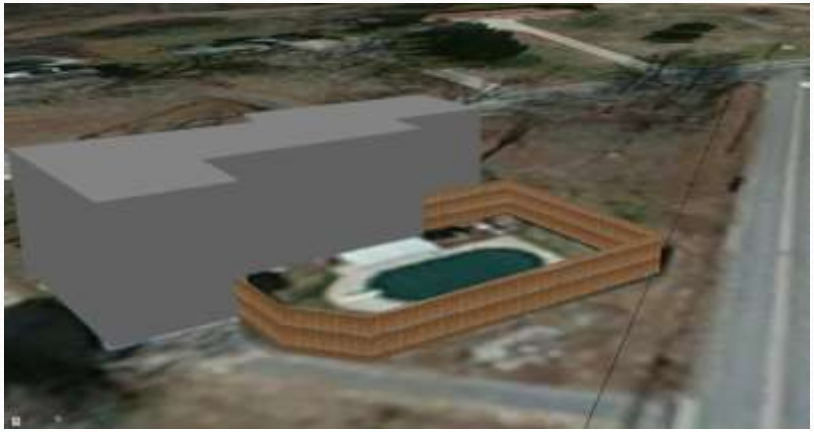
Types of 3D data

- Z enabled geometry
  - Points
  - Lines
  - Polygons
- Multipatch
- Triangulated Irregular Networks (TIN)
- LiDAR
- Digital Elevation Model (DEM)



Formats which support 3D

- Computer Aided Drafting
  - DWG
  - DXF
  - DGN
- GIS
  - Geodatabase
  - Shapefiles
  - KML/KMZ
  - Spatial Databases
    - Oracle Spatial
    - PostgreSQL



How do I get my data into 3D?

- Begin collecting new data with elevations
  - Develop standards
  - Quality control
- Convert existing data to one that supports 3D
- Establish data interoperability standards if working with multiple data formats
- Ensure you have a good ground elevation model
  - DEM
  - TIN
- Train staff to work in 3D

Questions

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