



The following tutorial explains how New Jersey Office of GIS resources can be utilized to create 3-dimensional model of New Jersey's iconic High Point Monument in Sussex Borough, NJ.



#### Reference Data:

The NJGIN Website and NJGIN Open Data can be used to find necessary reference data

<https://njgin.nj.gov/njgin/edata/elevation/#/>

<https://njgis-newjersey.opendata.arcgis.com/>

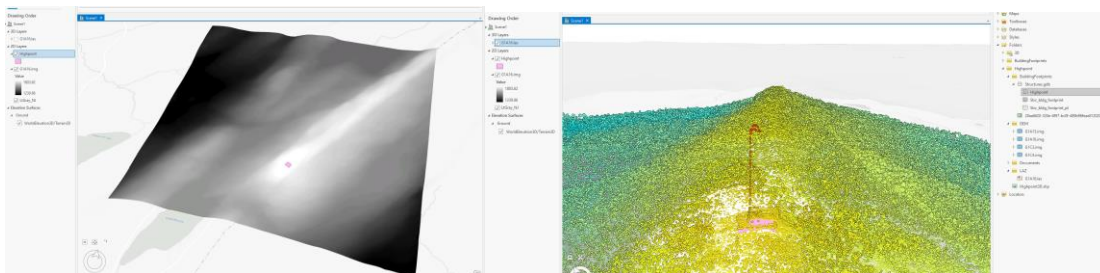
- Building Footprints
- LiDAR Point Cloud Data - Northwest NJ 2018 LiDAR Project, Vertical Positional Accuracy Value of 0.508
- Digital Elevation Model – 2 Ft Hydro-flattened Bare Earth DEM derived from the New Jersey 2018 Lidar project

#### Software Used:

- ArcGIS Pro 2.5
- LAS Building Multipatch geoprocessing tool which creates a building model by constructing a 3-dimensional polygon from the LAS points found within the supplied building footprint:

<https://pro.arcgis.com/en/pro-app/tool-reference/3d-analyst/las-building-multipatch.htm>

1. Open ArcGIS Pro and Insert a new local scene
2. Add your reference data to the scene. Note that your point cloud data cannot be in .LAZ format, it must be converted to .LAS in order to be used in ArcGIS Pro.



3. Open the LAS Building Multipatch Tool

Input LAS File  
Input Building Footprints  
Input DEM  
Output Multipatch Feature

The screenshot shows the 'LAS Building Multipatch' tool interface. It has two tabs: 'Parameters' (selected) and 'Environments'. The 'Parameters' tab contains several input fields and dropdown menus:

- Input LAS Dataset:** G1A16.las
- Input Features:** Highpoint
- LAS Rooftop Point Selection:** All Points
- Ground Height:** Raster Layer
- Ground Height:** G1A16.img
- Output Multipatch Feature Class:** Highpoint3D.shp
- Simplification Tolerance:** Feet

4. Load your output multipatch feature into the scene.

