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://njogis-newjersey.opendata.arcgis.com/

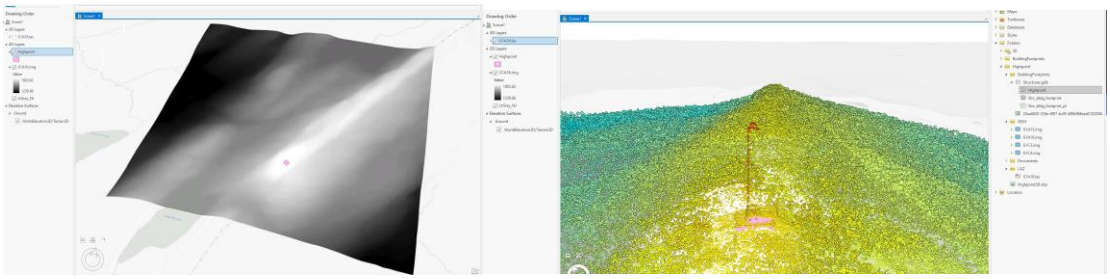
- Building Footprints
- LiDAR Point Cloud Data - Northwest NJ 2018 LiDAR Project, Vertical Positional Accuracy Value of 0.508
- Digital Elevation Model – 2 Ft Hydro-flattened Bare Earth DEM derived from the New Jersey 2018 Lidar project

Software Used:

- ArcGIS Pro 2.5
- LAS Building Multipath 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.



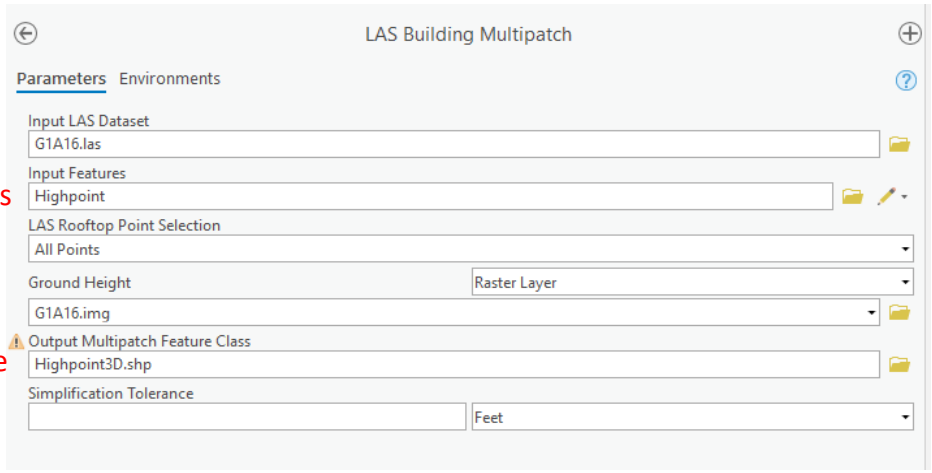
3. Open the LAS Building Multipatch Tool

Input LAS File

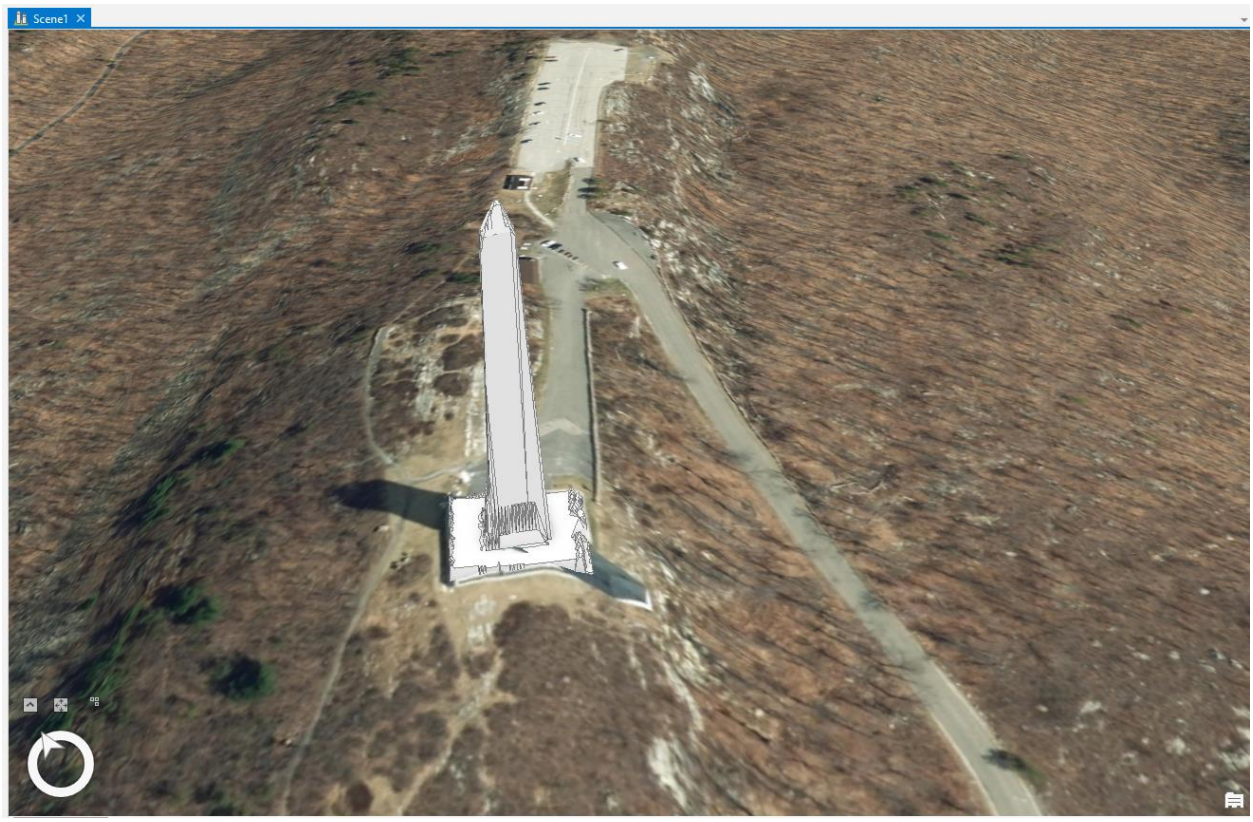
Input Building Footprints

Input DEM

Output Multipatch Feature



4. Load your output multipatch feature into the scene.


Scene1