

## **CALGARY 2018 3D BUILDING MODELS**

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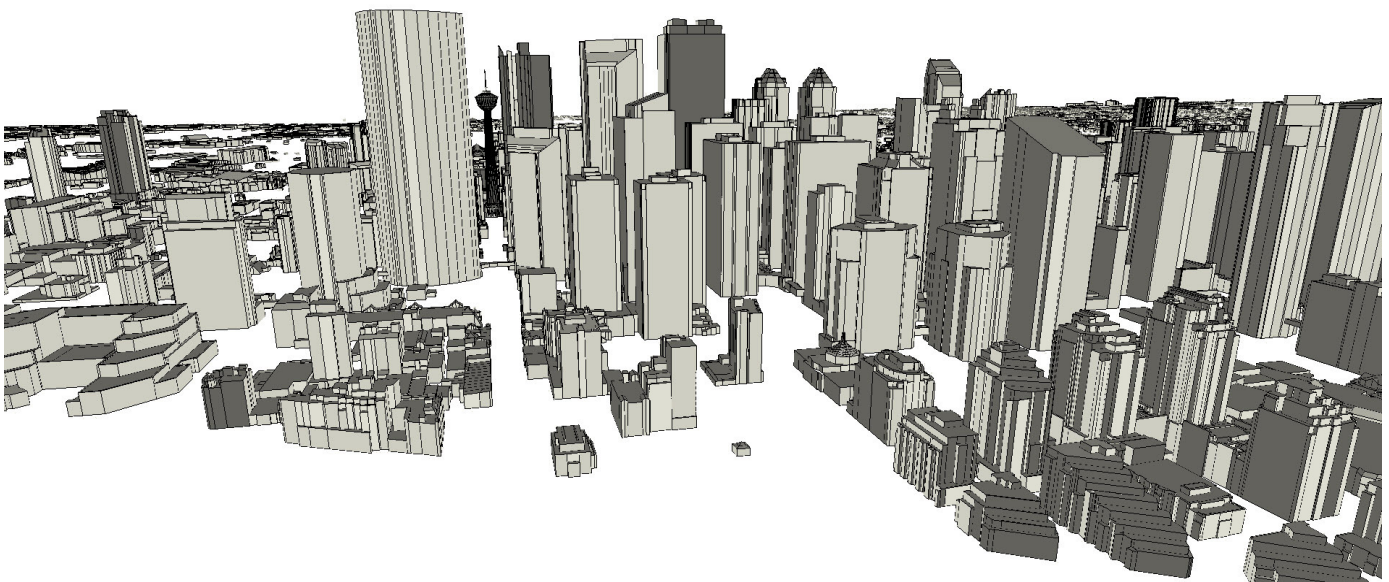
### **Calgary 2018 3D Building Models Metadata**

The Calgary 3D building models dataset is made up of multi-patch features that are derived from aerial LIDAR data captured between 2012 and 2018. (With the latest city wide update using LIDAR from August to October, 2018) The rooftop surfaces are modelled with best fitting planes and the exterior walls are projected down from the outer edges of the roof extents to just below the ground surface. Buildings larger than 16 square meters are modelled (commercial, industrial, residential, homes, garages & Plus 15s). Significant architectural features greater than 9 square meters are modelled. (i.e. small features such as HVACs, chimneys and antennas aren't modelled). Attributes include; City of Calgary SEID structure ID, building model last update, maximum rooftop elevation and min/max ground elevation along the perimeter of the building footprint.

The LIDAR data was captured using a fixed wing aircraft equipped with special aerial LIDAR sensors and high accuracy GNSS/INS positioning systems to gather direct range measurements of ground surface features at approximately 25 points per square meter (that's over 30 billion points across the entire city).

- LIDAR Survey Date: City wide coverage - August 8-21, 2018  
City landfills updated - October 28, 2018
- Point Density: 25 points per square meter (average)
- Airborne Sensor: ALIS-560 Airborne Laser Imaging System (Riegl LMS-Q560)

The 3D building models are available in ESRI multi-patch shapefile format on an ATS Section basis or as a city-wide ESRI file geodatabase upon request.



## The City of Calgary Geospatial Coordinate System

- Name: 3TM NAD83 Alberta 114W
- EPSG Code: 3776
- Projection: Transverse Mercator – 3TM (3 degree zone width)
- Horizontal Datum: NAD83 (Adopted/Original)
- Ellipsoid: GRS80
- Central Meridian: 114°00'00.0" W
- Scale Factor: 0.9999
- Origin Latitude: 0°00'00.0" N
- False Easting: 0 m
- False Northing: 0 m
- Positive Axes: North and East
- Planar Units: Meters
- Vertical Datum: CGVD28
- Geoid Model: GSD95 (ITRF version)
- Elevations: Orthometric (above mean sea level)
- Vertical Units: Meters

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