



LiDAR Traffic Data Collection Trailer



Figure 1. Image of NDOT's Mobile LiDAR Trailer Unit.

Background

Light Detection and Ranging (LiDAR) is a remote sensing method that uses light in the form of pulsed lasers to measure distances. A LiDAR sensor unit typically consists of a laser, a scanner and a GPS receiver. NDOT has completed the installation of permanent LiDAR sensor units at several intersections along Clarksville Pike, Buchanan Street and Lower Broadway. NDOT has also acquired this mobile unit for data collection purposes.

LiDAR provides an immersive data-rich feed while maintaining anonymity and privacy. The raw data, which can also be collected in dark conditions, includes counts for vehicles, pedestrians and cyclists as well as vehicles classifications. Trajectory data obtained from the sensor also facilitates deeper safety studies including near-miss analysis and pedestrian desire paths.

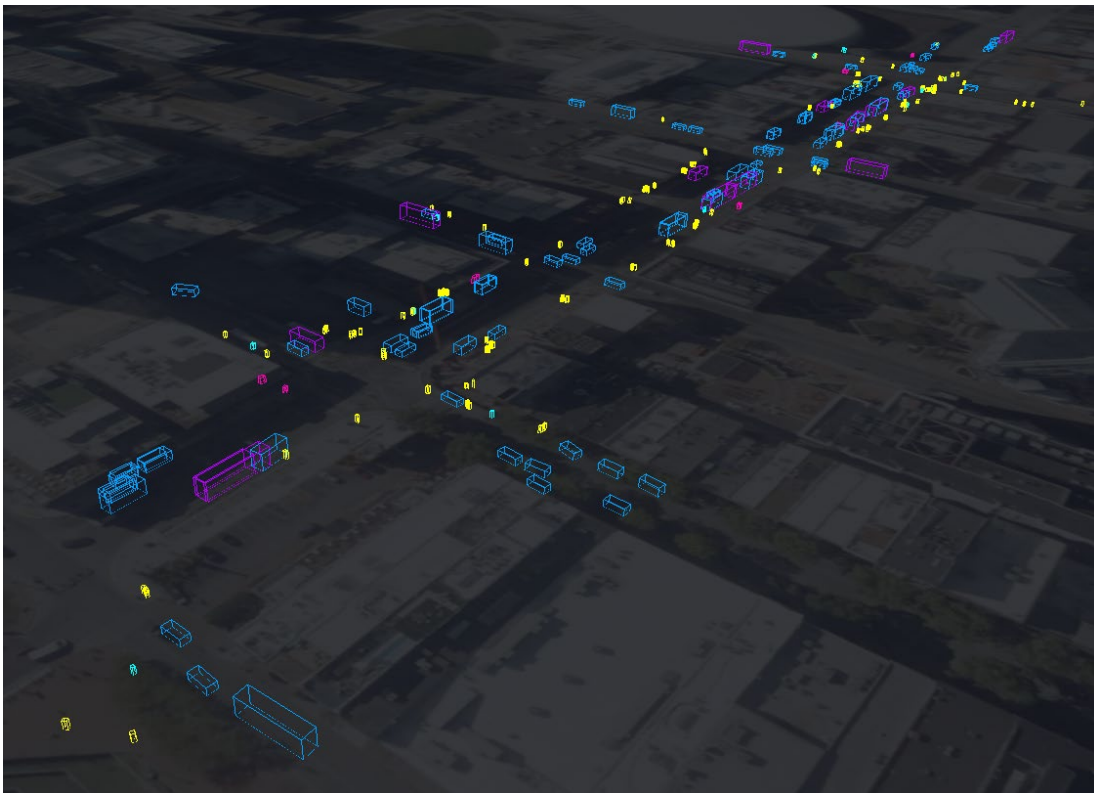


Figure 2. Image of the LiDAR feed from permanent sensors installed at intersections along Lower Broadway showing pedestrians, passenger vehicles and buses.

For additional information about NDOT's application of LiDAR technology, please visit the [LADDMS](#) website.

For additional information about this deployment of the trailer, please contact piro.meleby@nashville.gov & aaron.cushman@nashville.gov .