



GIS Right-of-Way Inventory Review

Don't Let Your Data Go to Waste

PROBLEM

VDOT needed to establish a reliable statewide inventory of tree-lined roadways, ditches, pipes, and unpaved shoulders within the right-of-way on interstate, primary, and secondary roads.

SOLUTION

PILLAR successfully integrated multiple data sets from a statewide perspective using publicly available data to create a single usable database that can be integrated into the state's inventory and asset management system that was readily available and accessible.

APPROACH

Using data from publicly available aerial LiDAR data, aerial imagery, street level imagery, existing VDOT databases, and any other source of data made available, PILLAR calculated and geolocated tree-lined roadways, ditches, pipes, and unpaved shoulders within the right-of-way on interstate, primary, and secondary roads within Washington county. The collected information will be used within the agency's Highway Maintenance Management System (HMMS).

The available data was processed using PILLAR's Automated Feature Extraction System (AFEST™) which took outputs from the scan data and produced GIS features based on land use type.

These features included:

- Trees as linear features
- Ditches as linear features
- Unpaved shoulders as linear features
- Pipes as point features

The above features were presented as is and used for feasibility. We identified and provided corresponding GIS features in 1/10 mile sections by road corridors.

PILLAR worked with VDOT's HMMS Program Manager to identify an agreeable format for data submission to ensure the project was highly usable for stakeholders.