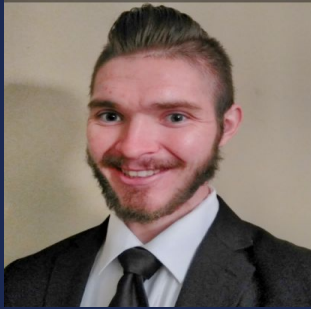


City of Woodstock



Smart Cities Traffic Project
City Council Presentation

Team Introduction



Noah Little

Current: Masters of Science in Analytics at Georgia Tech

Previous: Analyst for SaaS and Manufacturing industries



David Moss

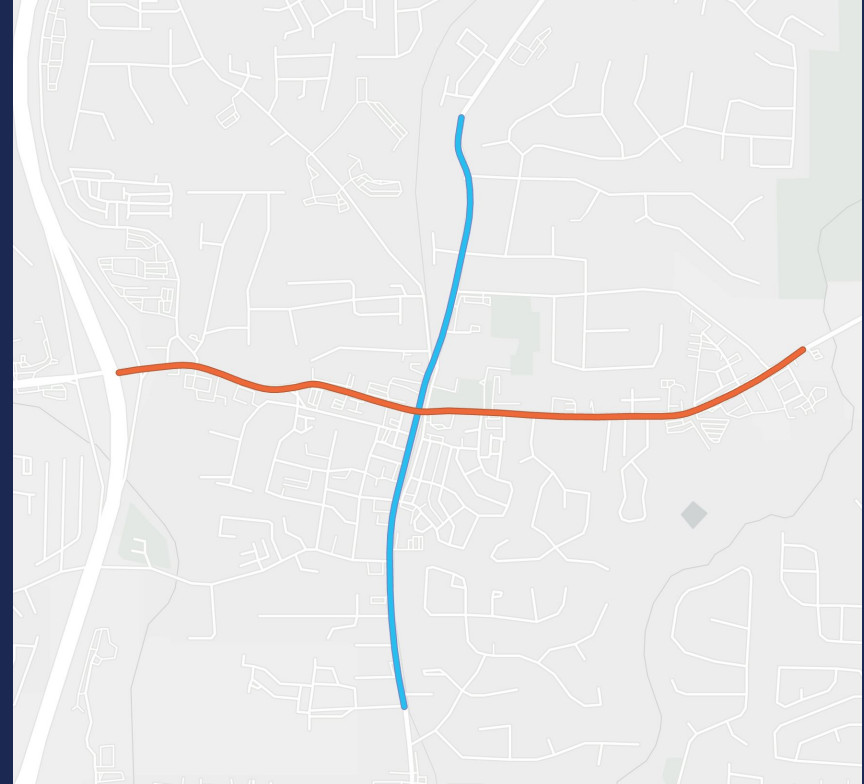
Current: Dual masters in City Planning and GIST at Georgia Tech

Previous: Consultant, then Operations at transportation technology firm

Project Information

As Woodstock continues to invest in revitalizing its historic downtown, it is facing **ever-increasing congestion**, particularly at the “**City Center Main**” intersection

This project focused on root-causing **why congestion occurs** and determining **which solutions should be implemented** to alleviate it while maintaining flexibility, given Woodstock’s future growth



Woodstock's road network, with **Main Street** and **Towne Lake Parkway / Arnold Mill Road** highlighted, which together comprise “City Center Main”

Plan of Action

Research and Interviews

First-hand research into the causes of Woodstock's congestion problems

Review relevant case study literature, from both company marketing materials and academic studies

Interview variety of subject matter experts across technical and operational domains

Data Tooling and Analysis

Inventory of current data collection and analysis capabilities

Exploration of possible complementary data solutions available

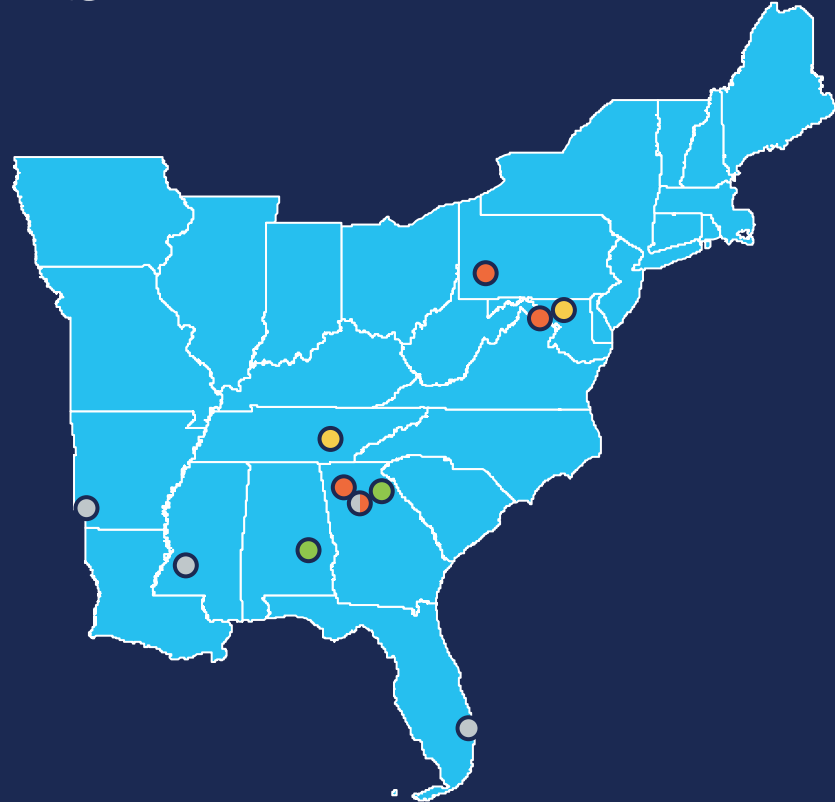
Evaluate best practices for measuring congestion

Sample analysis of key downtown corridor to validate previous findings

Research and Interviews

Conducted **two in-person ground truthing sessions** to root-cause Woodstock's congestion issues

Also conducted **four expert interviews**, **two technical interviews**, **two local government interviews**, and analyzed six more case studies provided by leading experts and companies



Not pictured: Utah, Michigan, and Seattle

Data Tooling and Analysis

Current Inventory



Variety of data sources currently available, but difficulties accessing and interpreting the data

New Datasets



Access to new, high-quality solutions possible through ARC participation in TETC

Measures of Effectiveness



Literature review yielded list of 5 recommended congestion measures to track going forward

Key Problems



Heavy traffic volumes along both North-South and East-West axes of travel



Pass-through commuter traffic *and* destination traffic use same travel corridors



Data from GRIDSMART camera arrays is **siloesd and difficult to access** for analyses



Complications: Parallel railroad tracks, too many unsignalized pedestrian crossings, an abundance of on-street parking, and roads too narrow for emergency vehicles

Final Recommendations

Priorities

Short-Term



Manually Re-Time Signals



Store and Analyze Current Data

Medium-Term



Implement *Traffic Responsive* Technology



Expand GRIDSMART array

Other



Optimize School Bus Routes

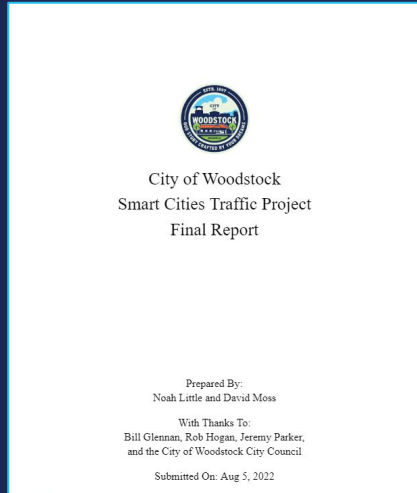


Consolidate Pedestrian Crossings



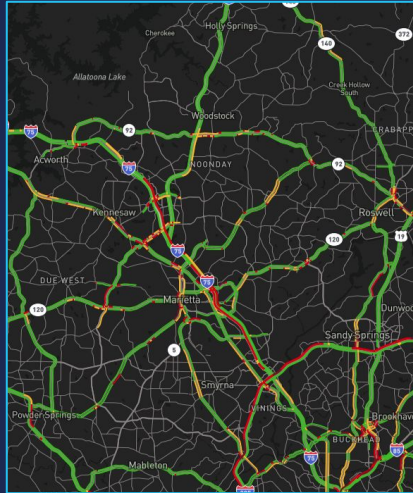
Preempt Emergency Vehicles

Project Deliverables



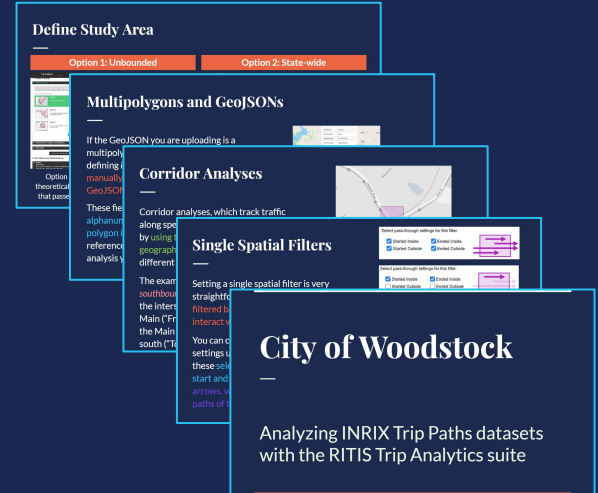
Final Report

Contains more detail on findings and recommendations



RITIS Access

Enables access to travel speed, trip routing, and incident databases



RITIS Tutorials

Teaches how to use RITIS's tools to perform analyses

Questions?