Building Smart Programs

People driven solutions enabled by technology and creative partnerships

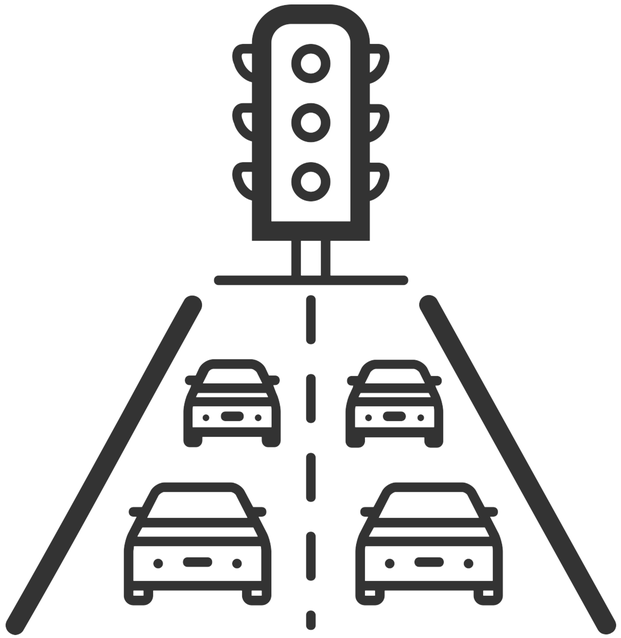
Joe Gillis & Langdon Sanders

SANDY SPRINGS™
GEORGIA

Welcome and Introduction

- Speaker Introduction
- Session Overview
- Smart Cities Task Force

Adaptive (Smart) Signals - SCOOT



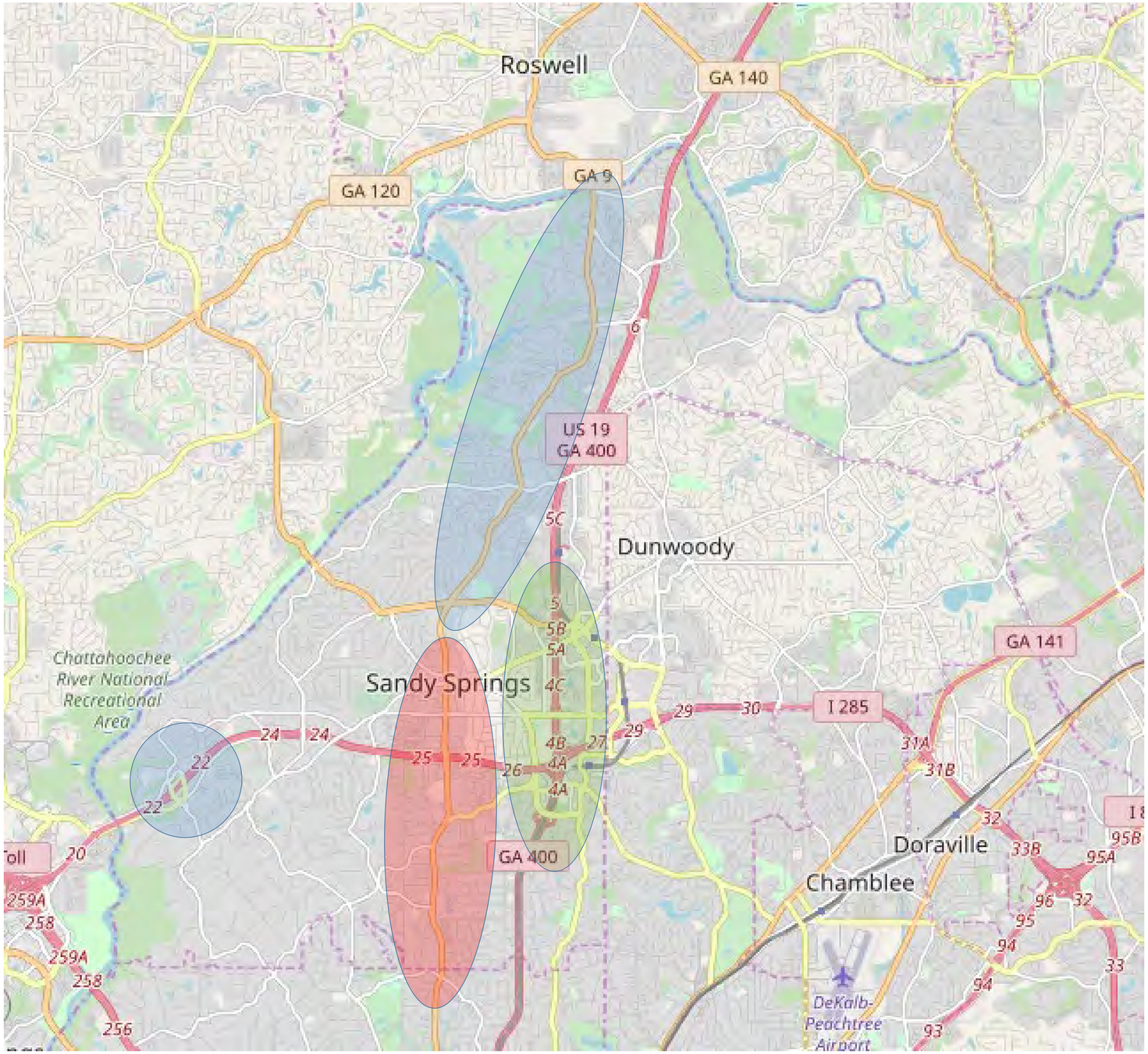
- Sandy Springs in 2008 began implementation of adaptive traffic signals using **Split Cycle Offset Optimisation Technique** (SCOOT - UK)
- SCOOT **continuously measures traffic demand** on all approaches to intersections in a network and **optimizes the signal timings** minimize delay and stops.
- Timing changes are small, to avoid major disruption to traffic flows, and frequent, to allow rapid response to changing traffic conditions.
- By the early 2020 the **City will have over 100** intersections using this technology to adjust green times to increase throughput on all approaches proportionally

SCOOT Deployment Corridors By Year of Construction

2012

2018

2019
2020



Adaptive (Smart) Signals

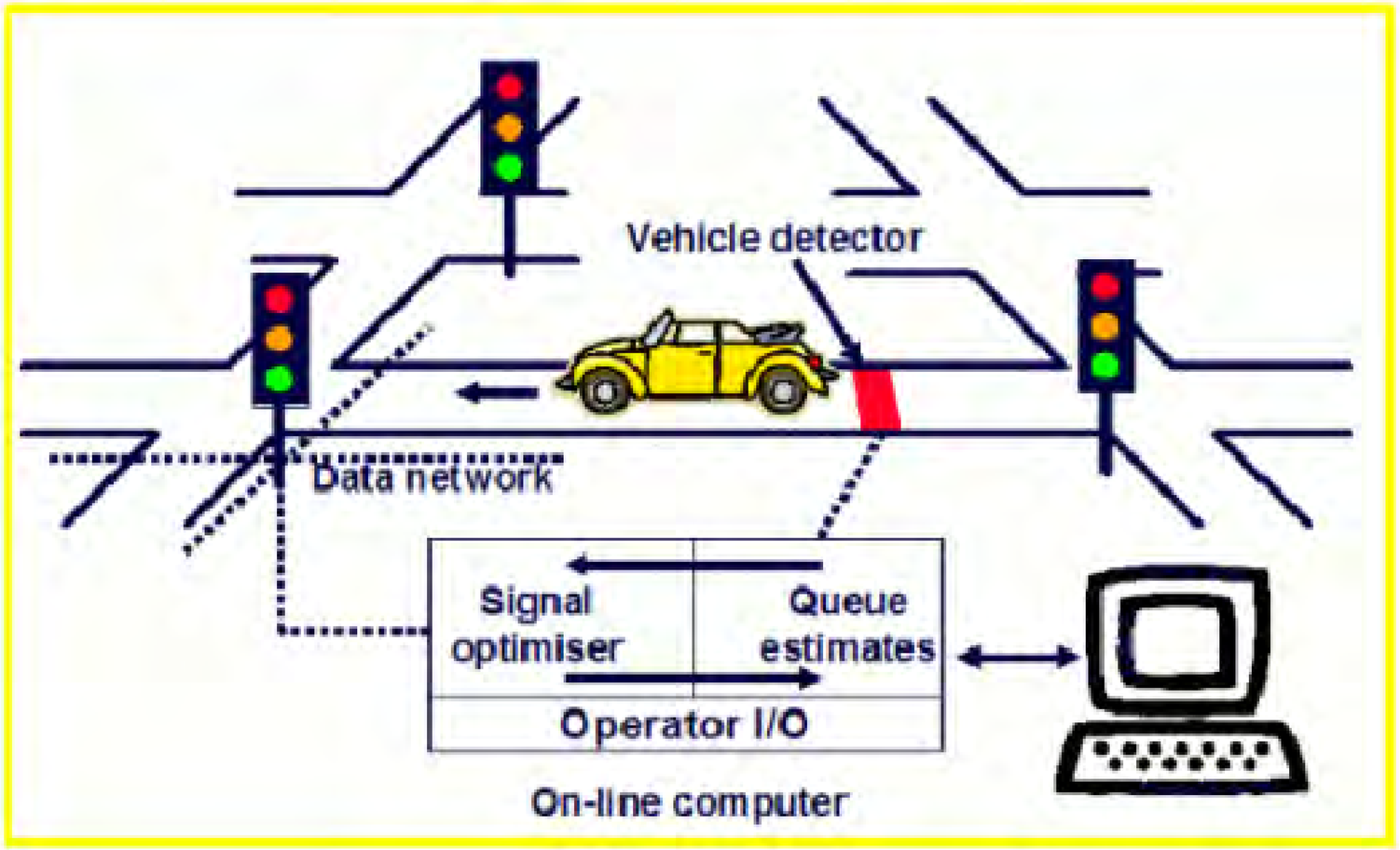
Field devices include ‘puck-style’ in-pavement detection, and wireless radio communication back to the traffic signal cabinet

In Cabinet

In Street

Mounted on pole

Adaptive (Smart) Signals: SCOOT



© - Traffic Technology International

Travel Time Logging (BlueTOAD) Background

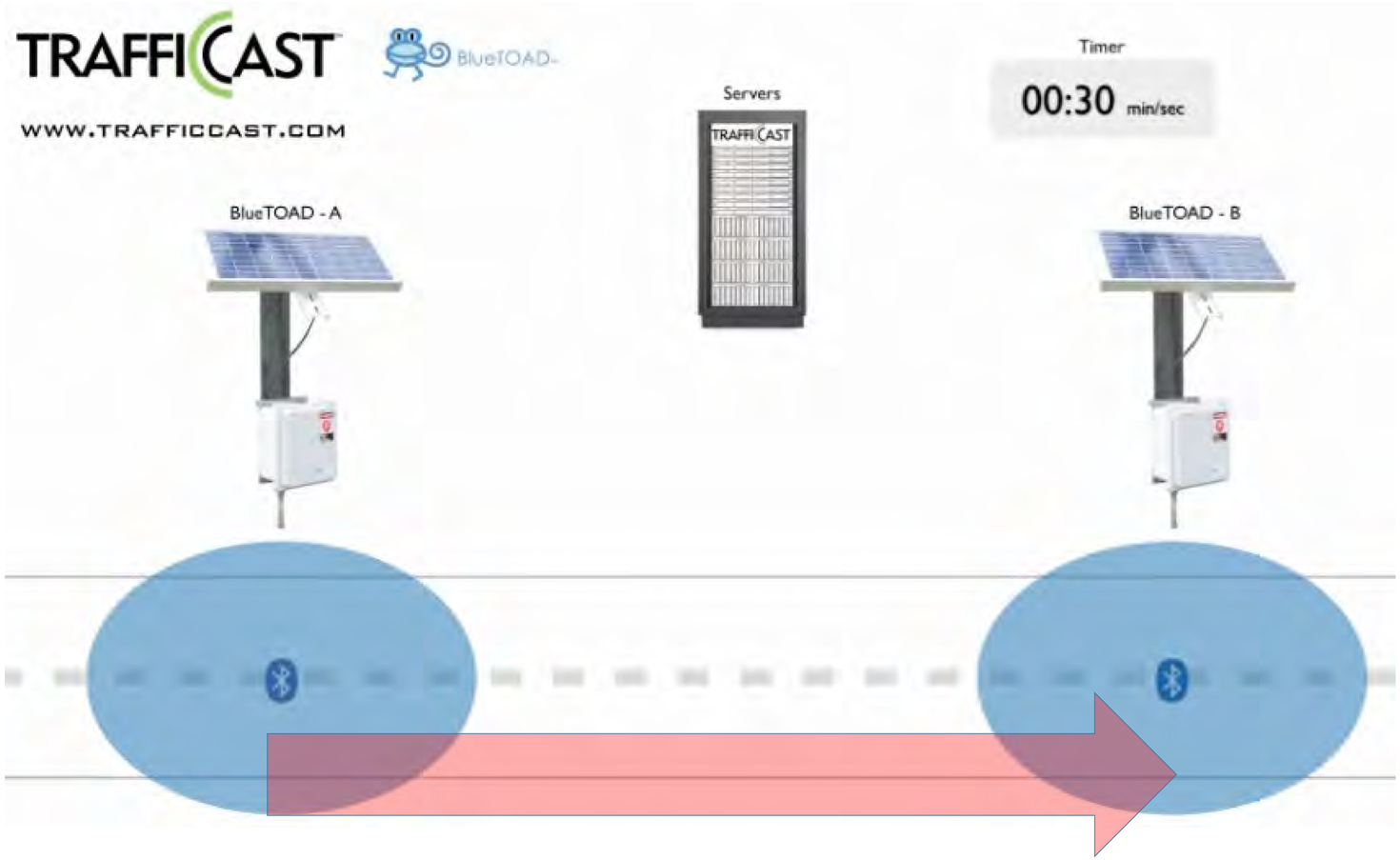
BlueTOAD is a wireless data collection system for travel time that captures data from blue tooth devices and transmits the data to a central server or cloud

- Provides travel times between BlueTOAD devices
- Traffic Management Center (TMC) uses data to adjust signal timing and detect malfunctions in the system
- Newer BlueTOAD devices may be used for Origin/ Destination studies
- Current and future BlueTOAD devices are, and will be, located at most of the same locations where SCOOT is being implemented across the City.

Travel Time Logging (BlueTOAD) Benefits

Benefits to the City of Sandy Springs

- Systems monitoring and operations
- Alerts staff to abnormal or incident congestion
- Validate success of SCOOT deployment



© - TrafficCast and Florida Department of Transportation (FDOT)

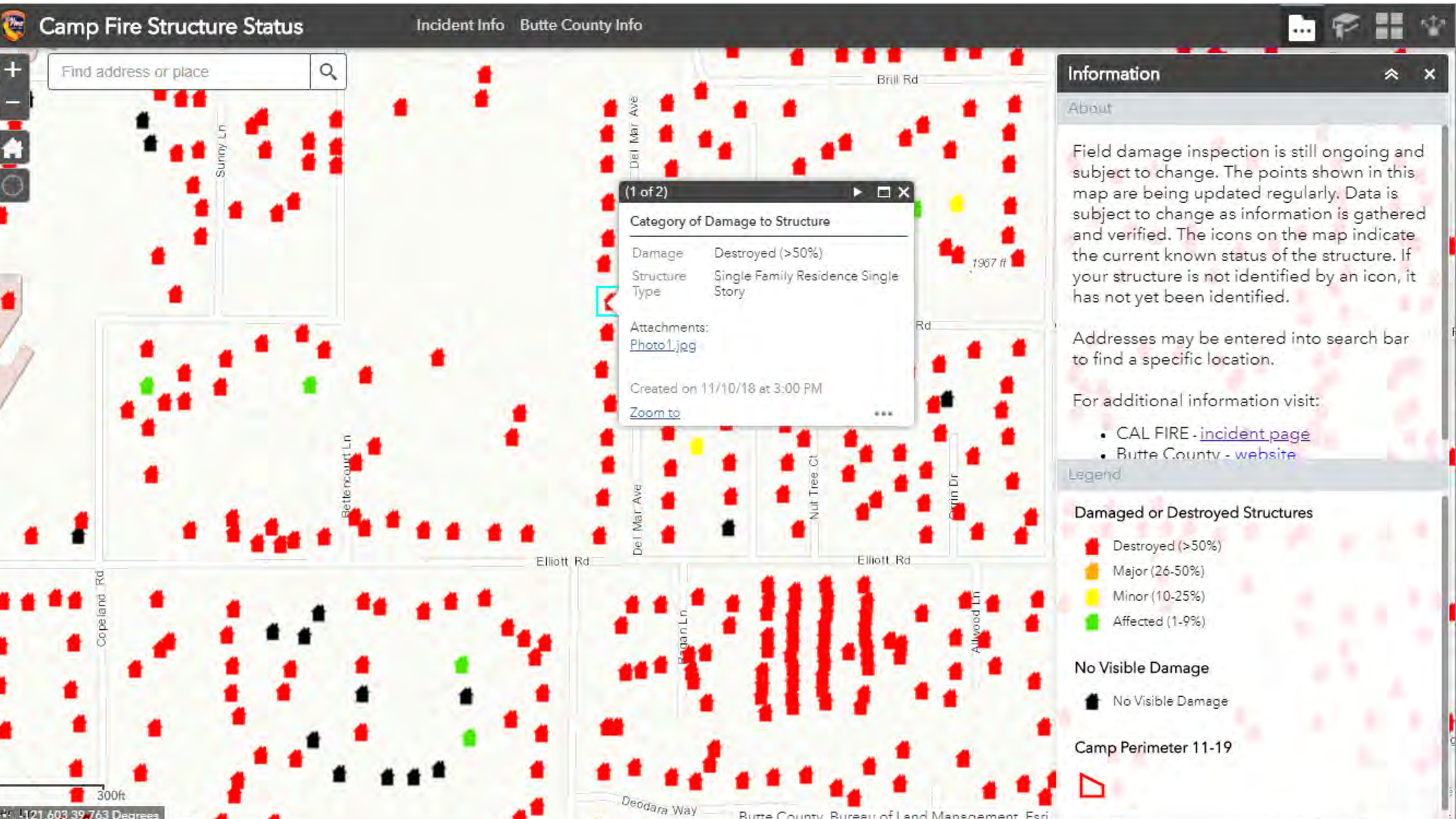
Public Safety + Public Works Collaboration

- **Neighborhood Safety Cameras**- HD cameras installed throughout the city will be used to collect analytics for better managing traffic and safety-related concerns
- **License Plate Readers** (Operation Shield)- are being considered for deployment at gateway locations near the City Limits to be used to collect data for crime investigations and for origin/destination traffic studies.
- **UAV (drone) systems** will provide information for emergency management, public safety response, search and rescue, in addition to communications videos, and traffic and parking studies.

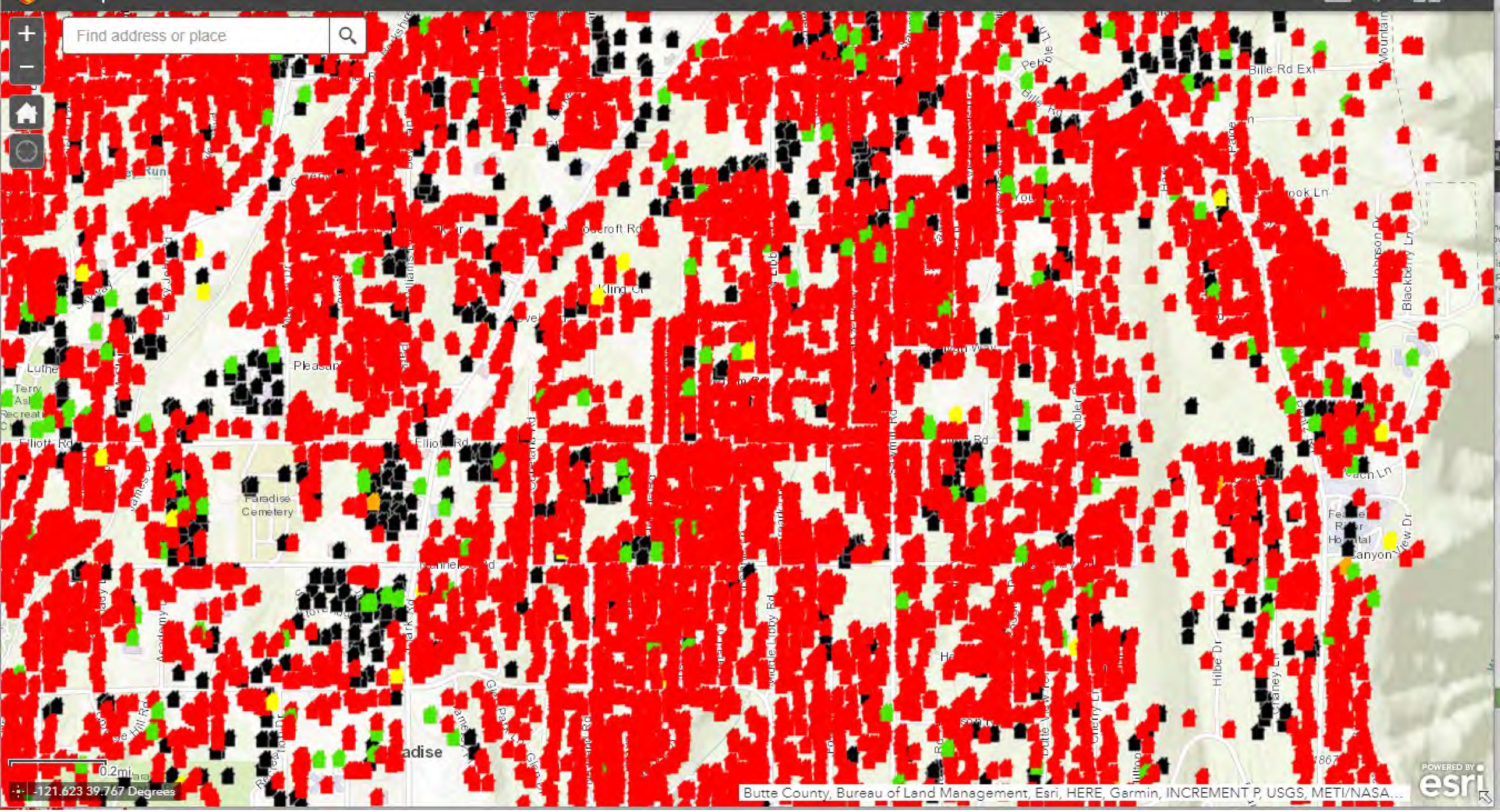
Integrating Systems (GIS and More)

- **EmergencyManagement GIS**
  - GIS Web applications
  - Drones – The Camp Fire
- **Informing your Community**
  - Open Data
  - Web Applications
- **Creative Partnerships:**
  - Working with Waze Data

The Camp Fire
Paradise, California


Camp Fire Structure Status
Incident Info
Butte County Info
Find address or place
Brill Rd
Sunny Ln
Del Mar Ave
1967 ft
(1 of 2)
Category of Damage to Structure
Damage
Destroyed (>50%)
Structure Type
Single Family Residence Single Story
Attachments:
Photo1.jpg
Created on 11/10/18 at 3:00 PM
Zoom to
Rd
Rettenmourt Ln
Del Mar Ave
Nut Tree Ct
Orrin Dr
Elliott Rd
Elliott Rd
Copeland Rd
Regan Ln
Allwood Ln
Deodara Way
300ft
Information
About
Field damage inspection is still ongoing and subject to change. The points shown in this map are being updated regularly. Data is subject to change as information is gathered and verified. The icons on the map indicate the current known status of the structure. If your structure is not identified by an icon, it has not yet been identified.
Addresses may be entered into search bar to find a specific location.
For additional information visit:
CAL FIRE - incident page
Butte County - website
Legend
Damaged or Destroyed Structures
Destroyed (>50%)
Major (26-50%)
Minor (10-25%)
Affected (1-9%)
No Visible Damage
No Visible Damage
Camp Perimeter 11-19

Find address or place
Woodcroft Rd
Orput Ln
Freestone Ct
Williams Dr
Howard Ln
Clark Rd
Moon Way
Rosemary Ct
Peck Ln
N Libby Rd
Mabelle Way
Which Way
Saxberg Dr
Kling Ct
Kay Ct
Sawpeck Way
Nelson Ln
Powell Ln
Lovely Ln
Sunny Ln
Grill Rd
Hazel Way
Sylvan Way
Sleepy Hollow Ln
Del Mar Ave
Debbie Ln
Meriam Rd
Fox Rd
Nut Tree Ct
Cameron Ln
Elliott Rd
Copeland Rd
Grape Ln
Sawmill Rd
Nielsen Dr
Lighty Ln
Cottontail Ln
Kibler Rd
Covert Ln
Ingalls Rd
Deodara Way
Derrough Ln
Alexis Ln
Kenglo Dr
Deerpark Ln
Nunneley Rd
Golden Oaks Rd
Bonnie Ln
Locust Valley Rd
600ft
-121.608 39.765 Degrees
Butte County, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, M...


Find address or place
Bille Rd Ext
Kling Ct
Pleasant
Elliott Rd
Paradise Cemetery
Hilbe Dr
Blackberry Ln
Canyon View Dr
0.2mi
-121.623 39.767 Degrees
Butte County, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA...
POWERED BY esri

UAVs (drones) are no longer a dream

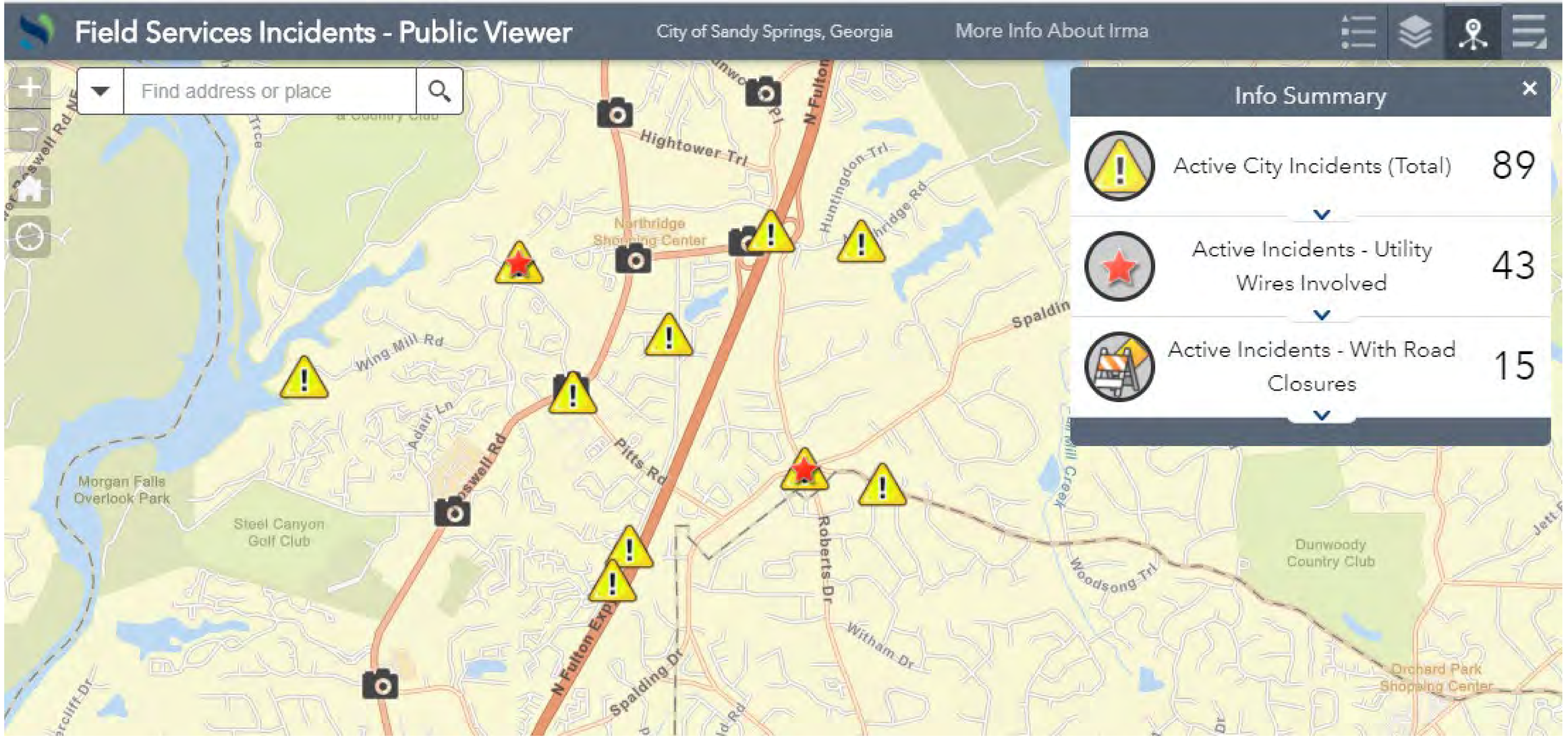
https://camp-fire.dronedeploy.com/

Inform your community

What’s happening out there?

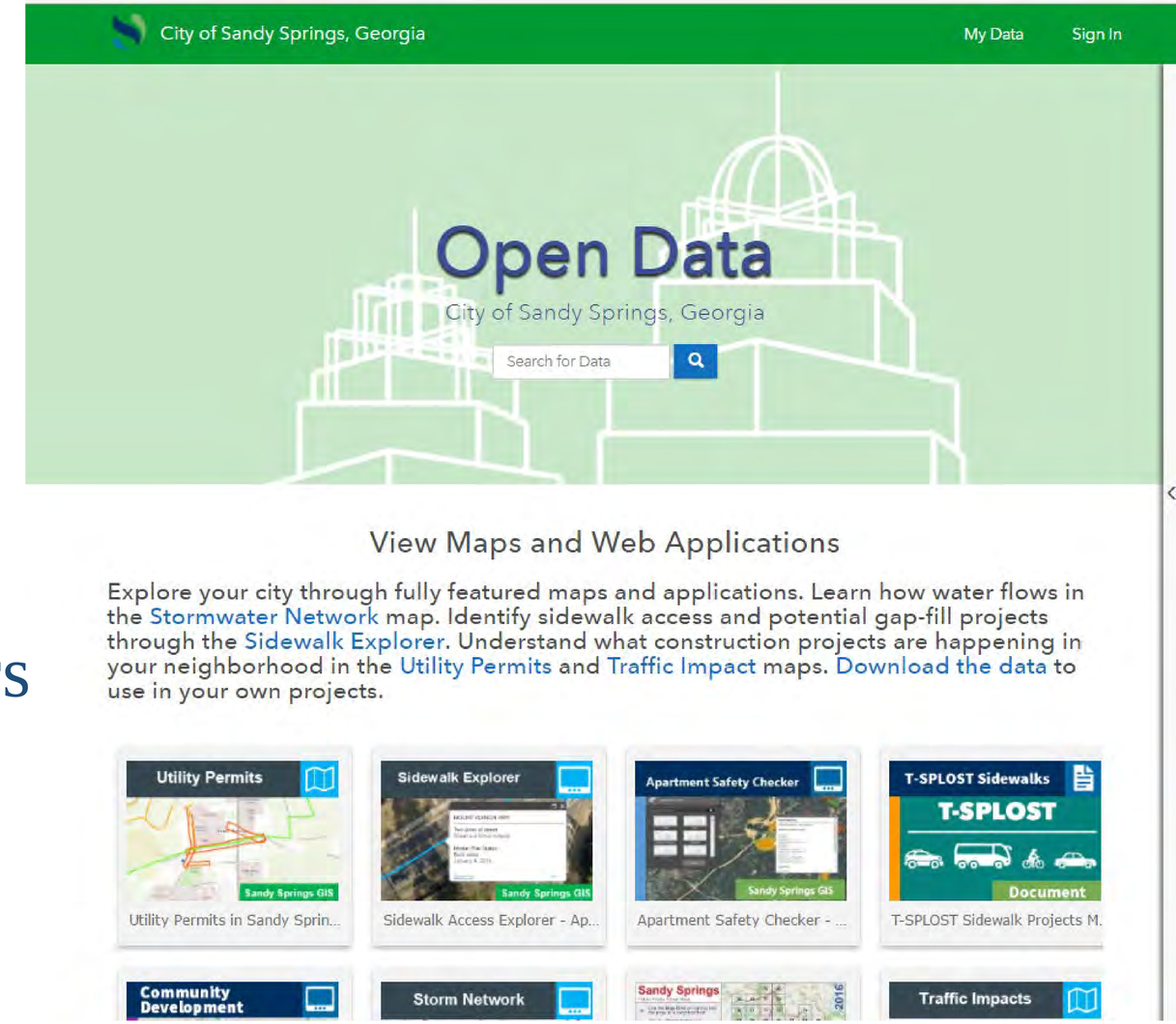
What's happening in the Emergency Operation Center?

What does the public see?



Open Data Portal and Application Gallery

- A Central Hub for Information
- Public Use
- Maps
- Applications
- Data Downloads
  - Developers, students, researchers
  - Partners
  - Other Agencies



Our Popular Applications

Mailing List Generator (App) ...

Utility Permits in Sandy Sprin...

Sidewalk Access Explorer - A...

Data Tile Downloader (App) -...

Traffic Count Locator - Sandy...

Community Development

General Use application for Community Development including layers related to zoning and private development.

View App

ZIP(+4) Code Boundaries Ex...

Apartment Safety Checker - ...

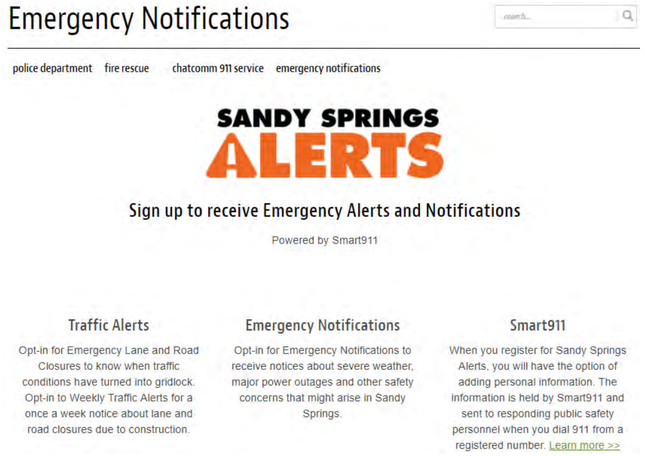
Inform your community on the platforms they use

Private Partnerships (Waze)

- Waze Connected Citizens Program
- **We provide road closures**
  - planned and emergency
  - On our GIS platform
  - Integrated in their apps
- **We receivedata**
  - Reports
  - Traffic Jams

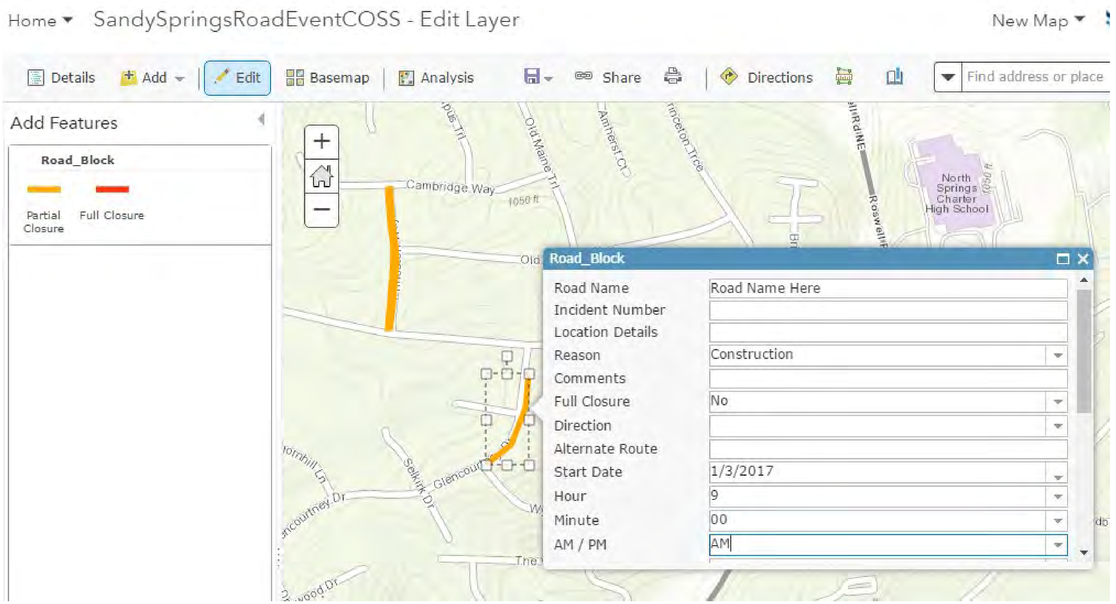
https:// www.waze.com/ ccp

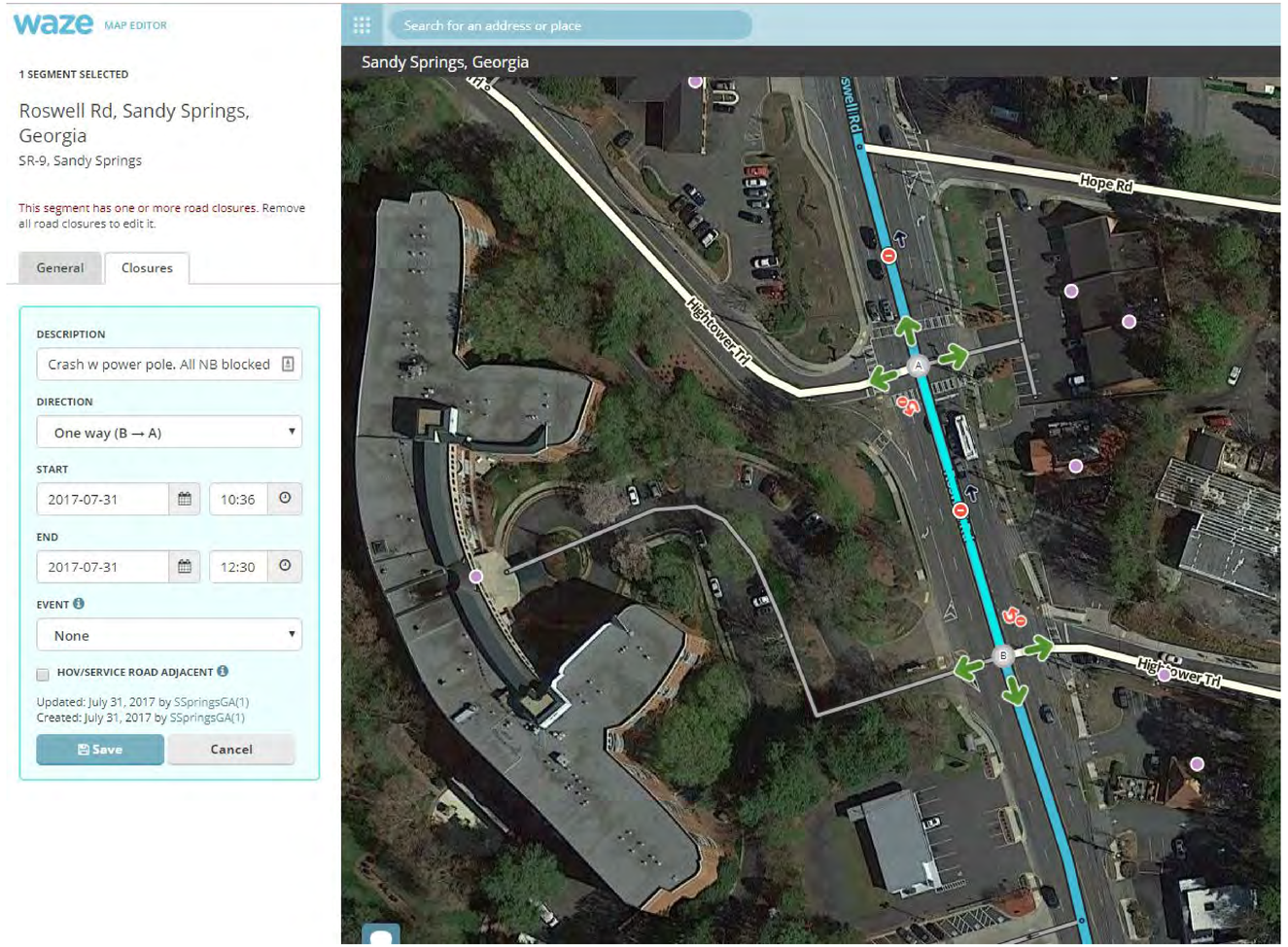
Live Incident Management



Adding the closure

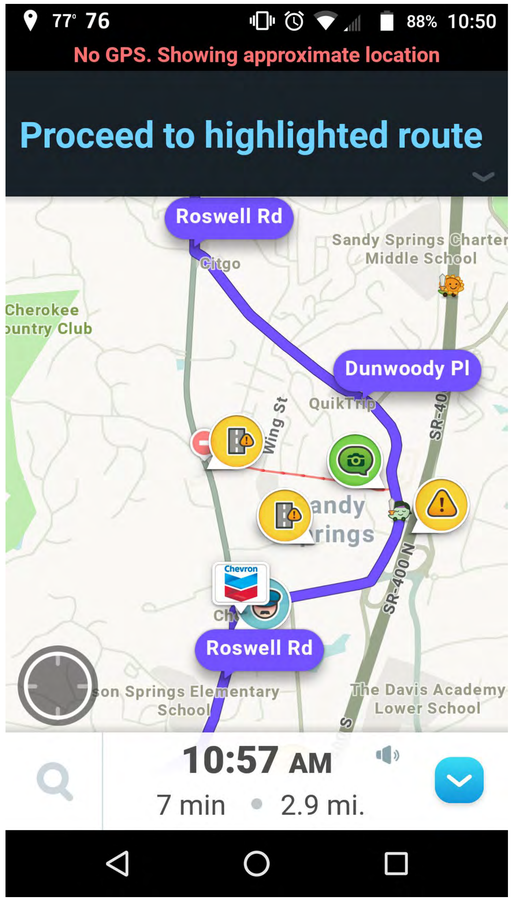
- In our GIS platform
- Or Waze map editor

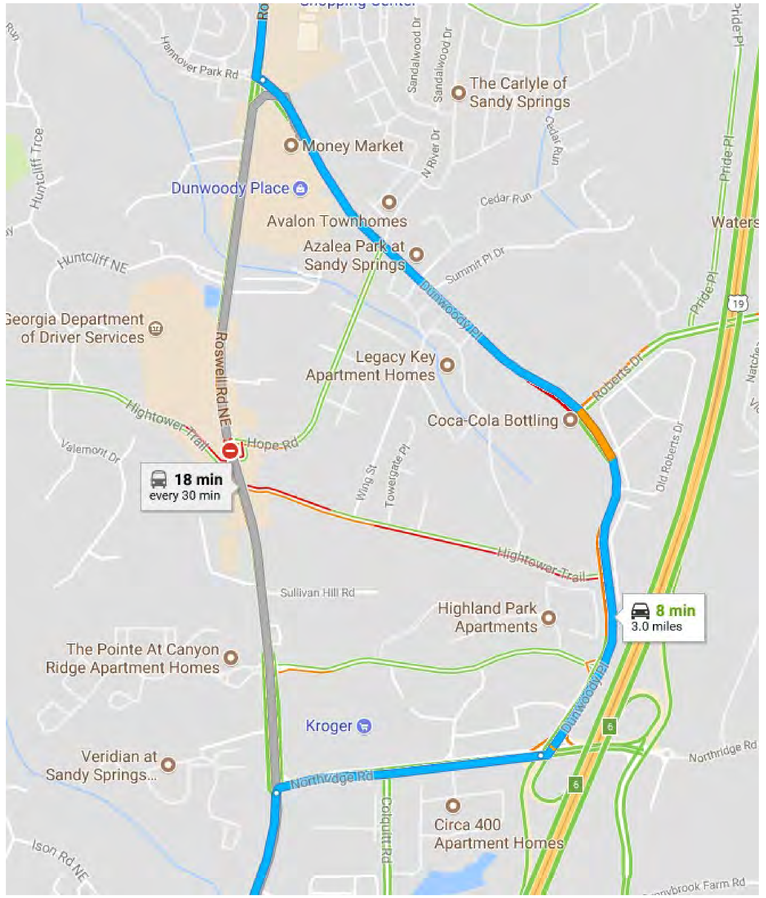




Routing around the event

- Within 15 minutes
- **Bring your data to your community** on the platforms they already use.
- Teamwork
  - Police, Fire, Communications, Public Works, GIS, Call Center,
  - Private Partners





Thank you.

Joe Gillis

Jgillis@sandyspringsga.gov

Langdon Sanders

Lsanders@sandyspringsga.gov