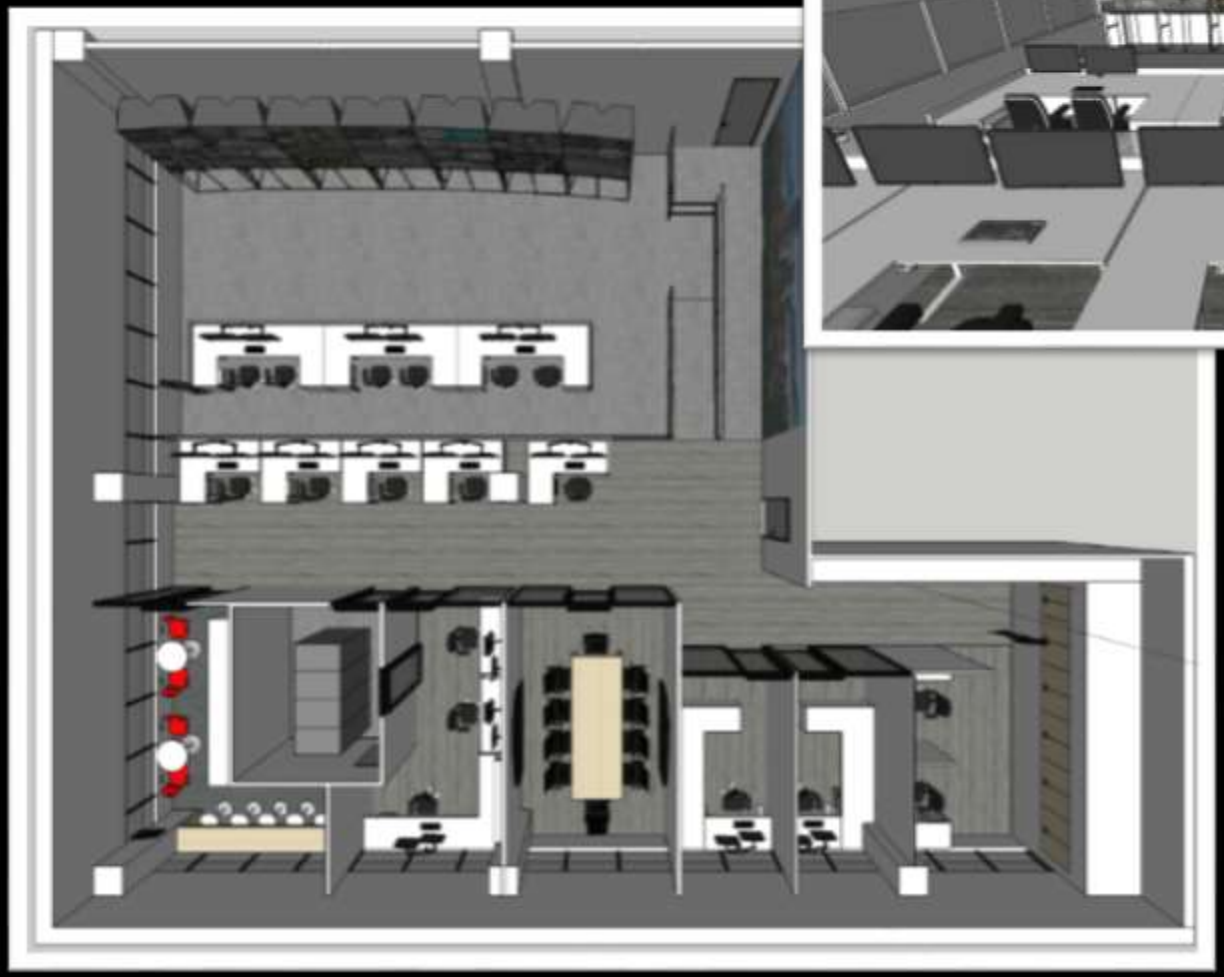
Calgary's Traffic Management Centre
A Step Towards AI and Machine Learning

Sameer Patil, Traffic Leader, TMC
City of Calgary

Next-Gen TMC (2015-2018)

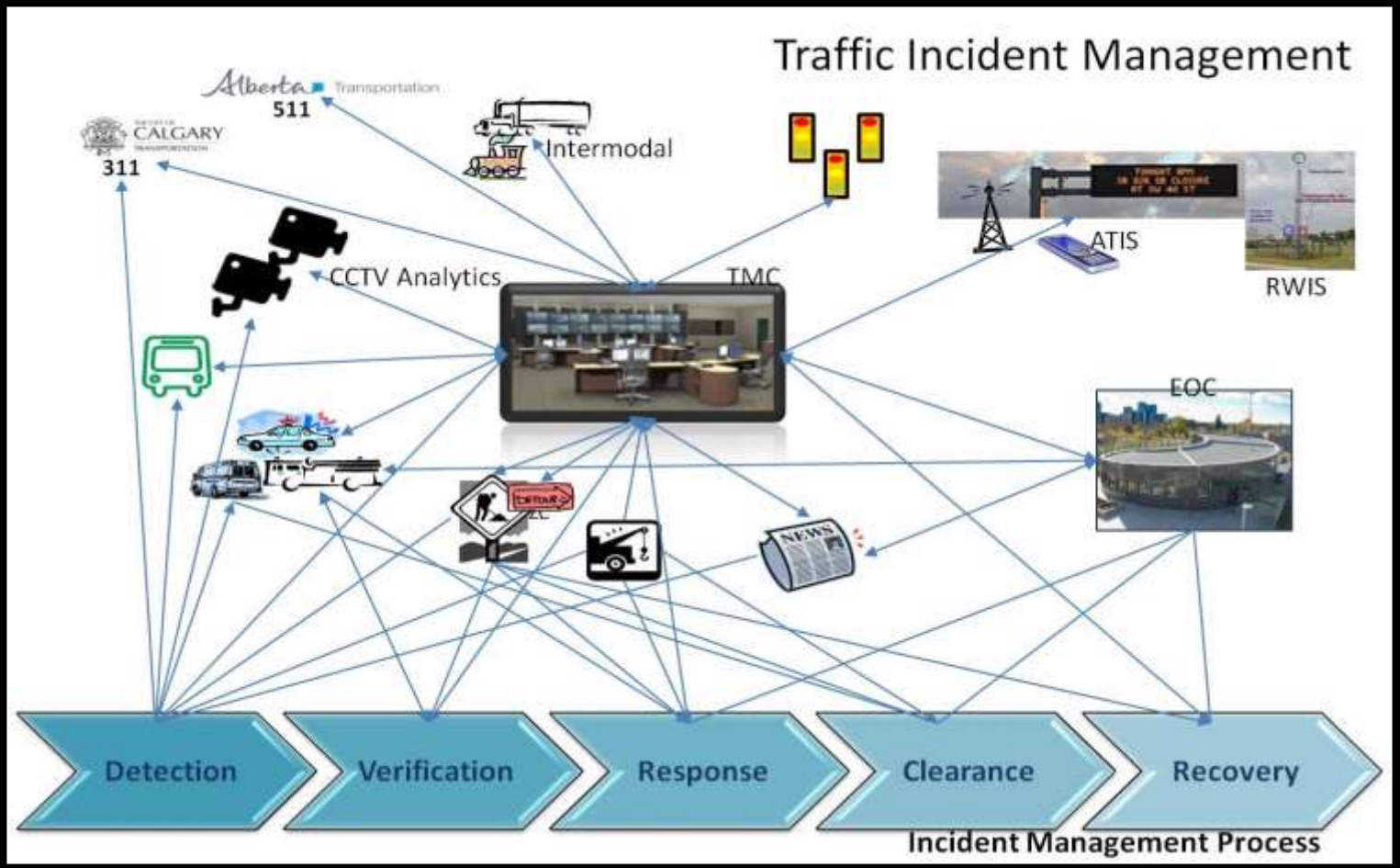


Calgary's TMC

Purpose

- To have a centralized traffic management centre for Calgary to:
  - Manage and monitor traffic flow
  - Manage traffic incidents and resulting congestion
  - Provide Traveler information

Our Traffic Incident Management Process



Key to effective traffic incident management is the capability:

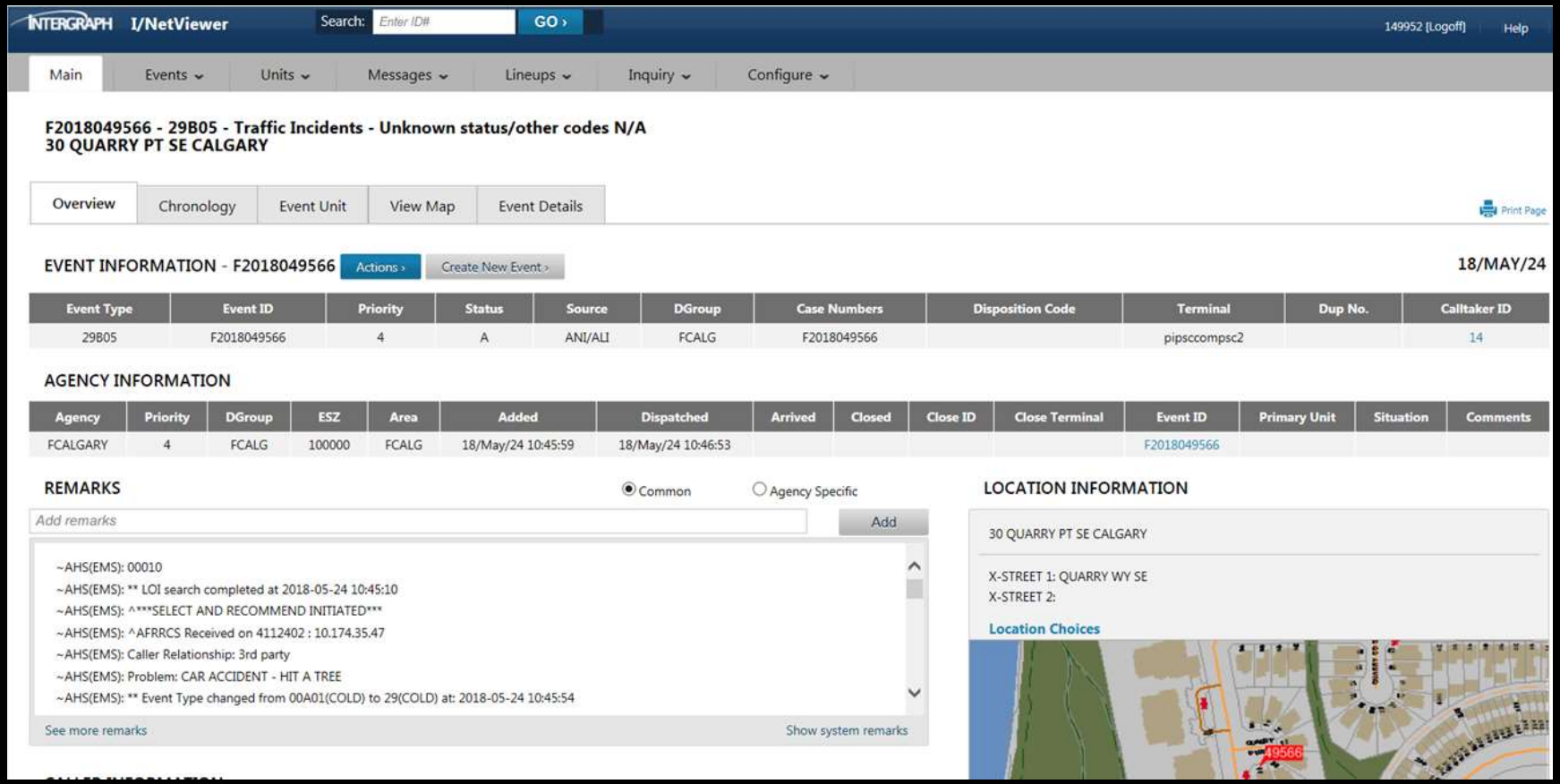
- **to collect reliable and timely traffic information**
- **of real-time identification and verification of incidents**

Incident Detection- 911 CAD Database

- Phone Call (2005-2011)

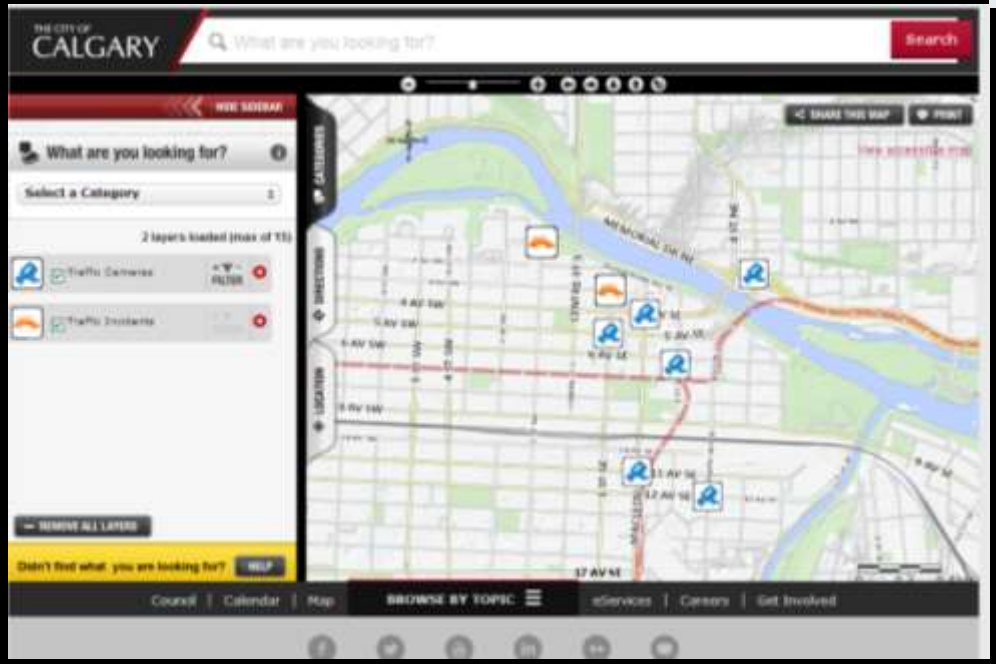
Incident Detection- 911 CAD Database

- iNETViewer (2012-2016)



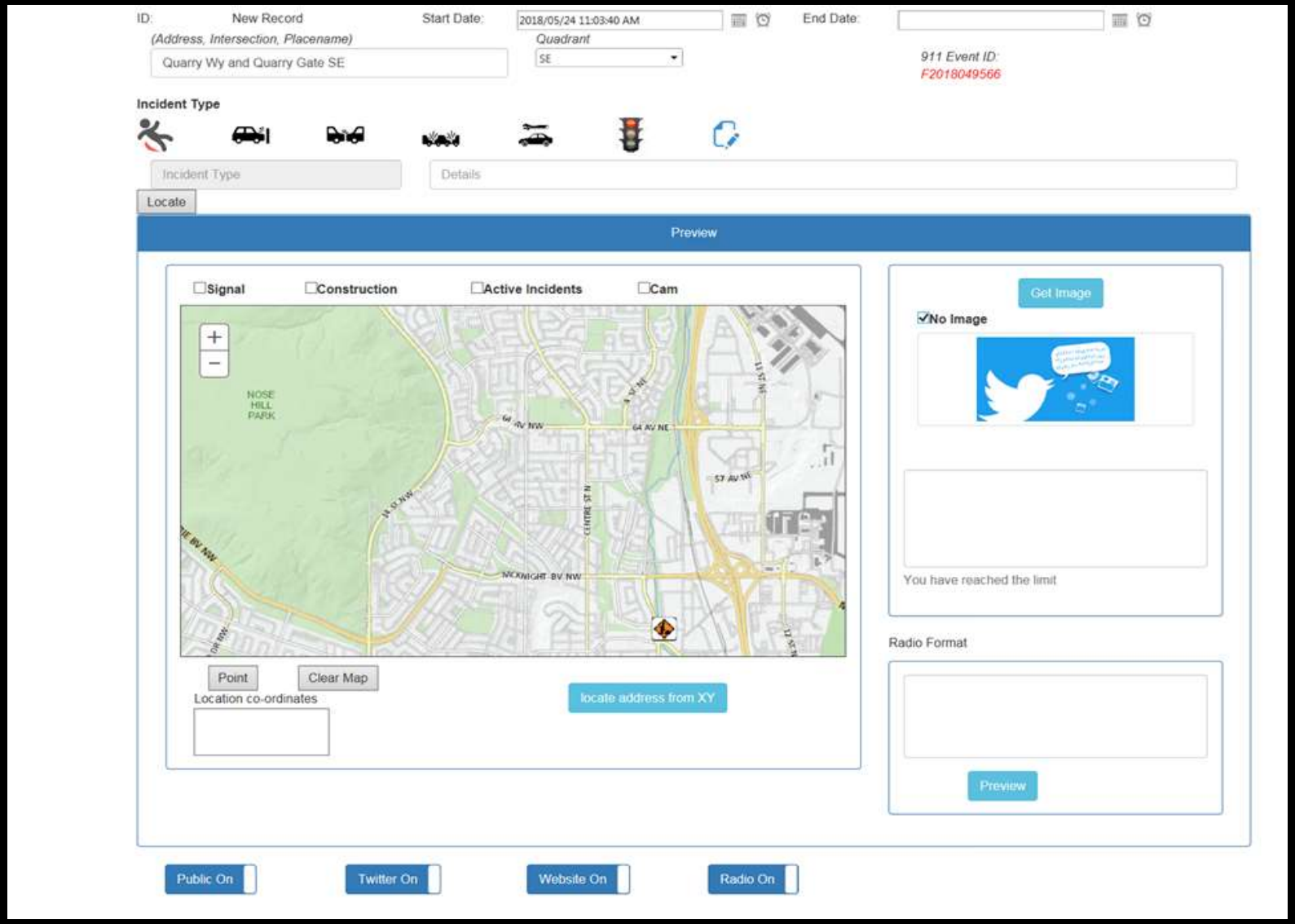
Traveler Information

- Twitter
- Traffic Advisory Radio 106.5 FM
- ATIS Website
- Dynamic Message Signs (DMS)

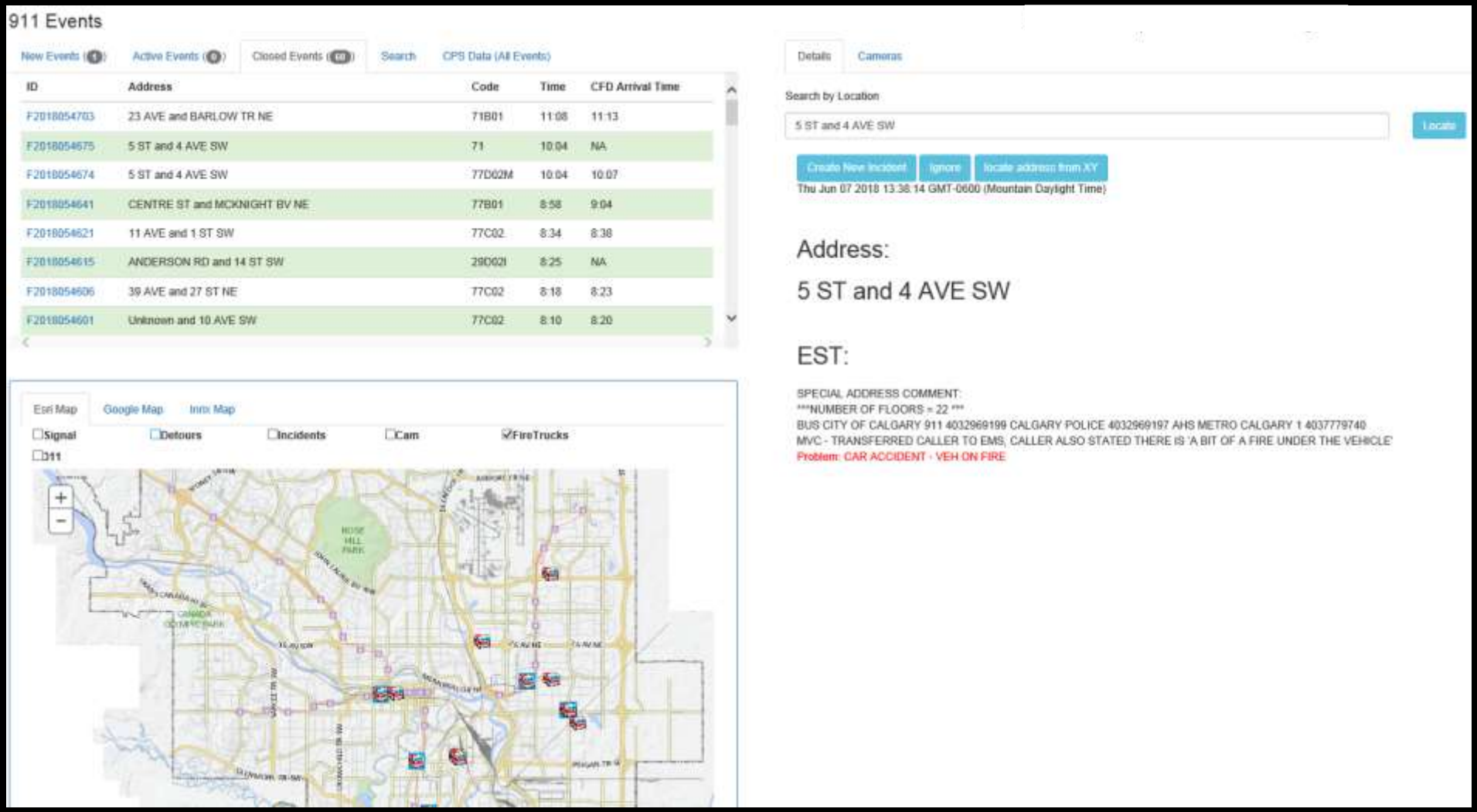


Single Incident Portal

- Direct Feed(2017)

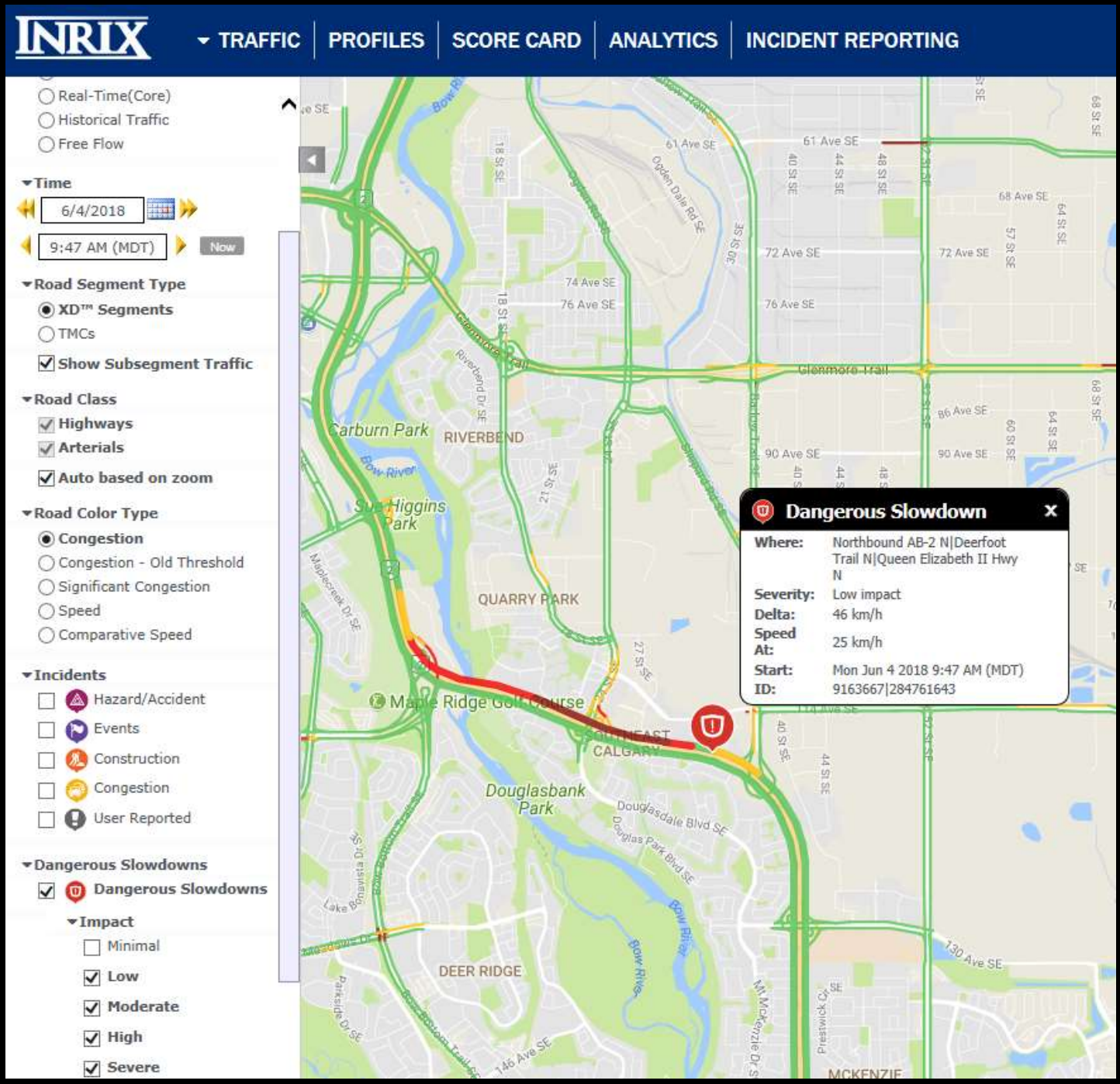


311 And Fire Truck location Integration



INRIX Data

Dangerous Slowdown API Integration



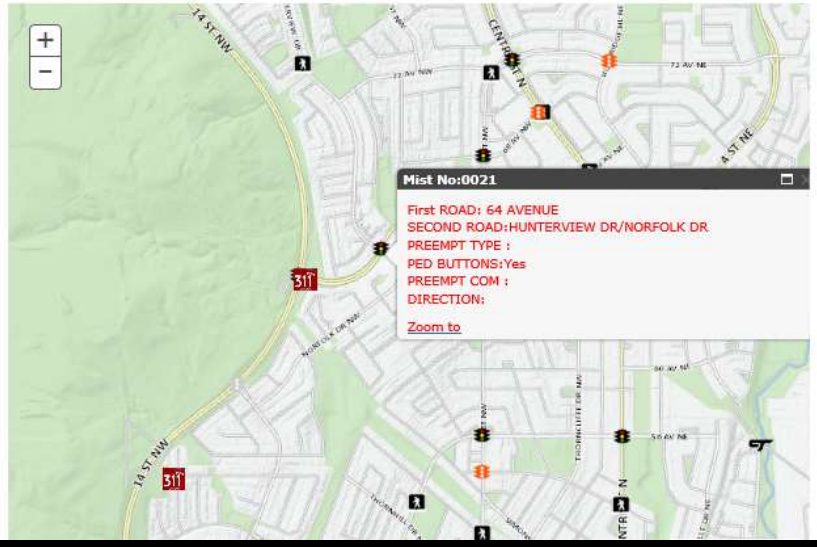
INRIX Data Integration

New Events (0) | Active Events (1) | Closed Events (69) | Search | CPS Data (All Events)

ID	Address	Code	Time	CFD Arrival Time	Status
F2017083143	32 AVE and DEERFOOT	72C01	10:26	11:32	Active

Esri Map | Google Map | Inrix Map

☑Signal ☐Detours ☐Incidents ☐Cam ☐FireTrucks
☑311



INRIX

New (2) | Ignore (1) | Closed (6)

16 Ave E/B
Abnormal Conditions
Active Ignore
View

64 Ave & Deerfoot
Abnormal Conditions
Active Ignore
View

Details | Cameras

SW | SE | NW | NE | Memorial | Macleod | Glenmore | Downto
52St | 17Ave_Blackfoot | 16Ave

Macleod/Glenmore

149 Av/Macleod

Anderson/14 St

5 Av/5 St

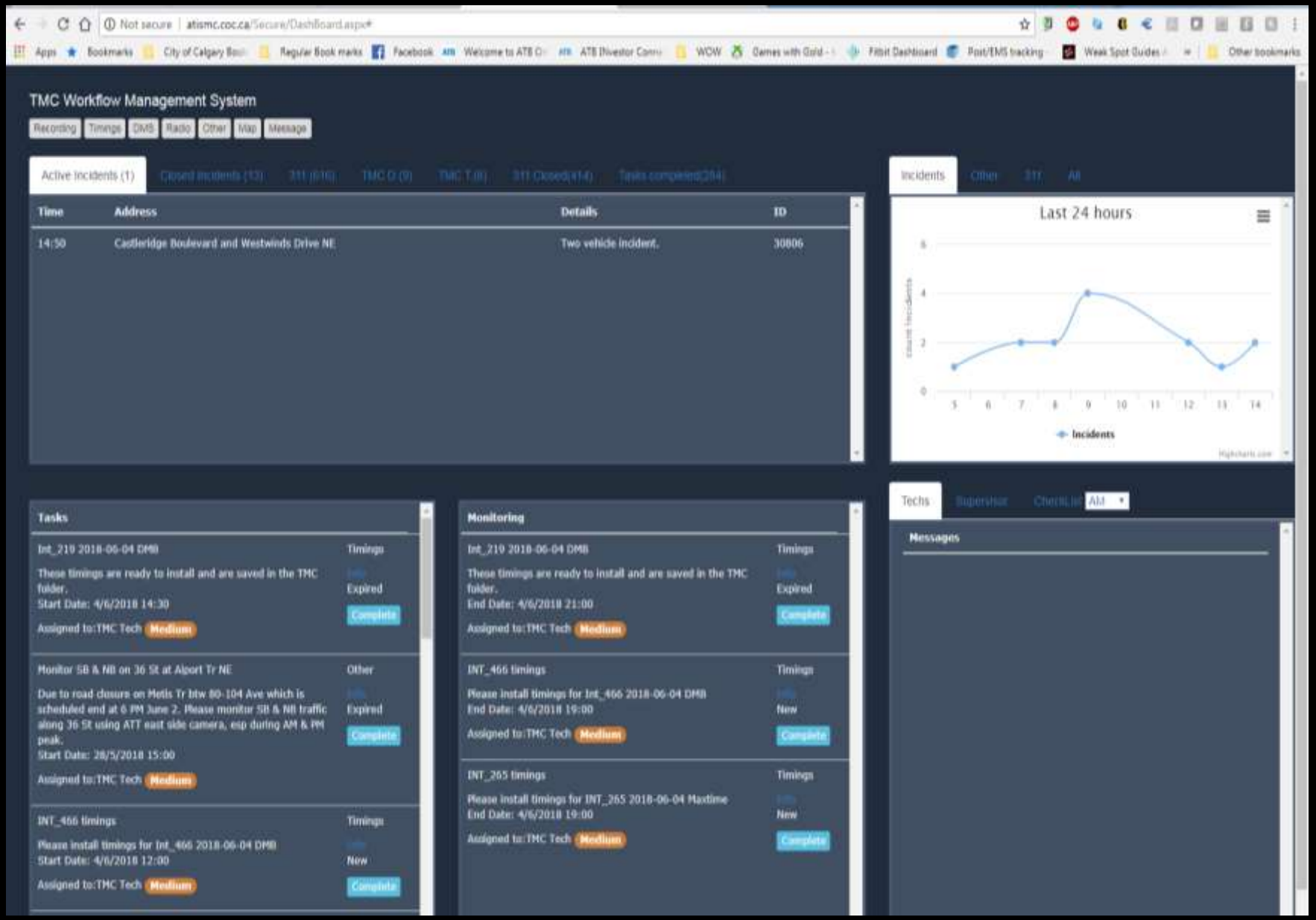
Crowchild/Bow

Sarcee/Bow

Crowchild/Glenmore

14 St/Southland

TMC Work Flow Management System



- ATIS Enhancement realized – 80 % reduction in the Incident response time from TMC.
- Reduced potential for manual errors
- Automated process added huge efficiencies

What is Next?

Automated Incident Plan Activation

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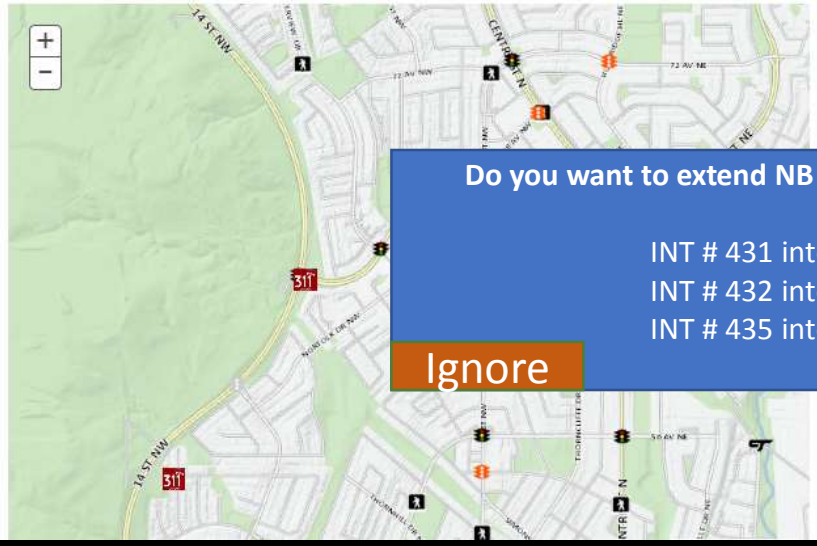
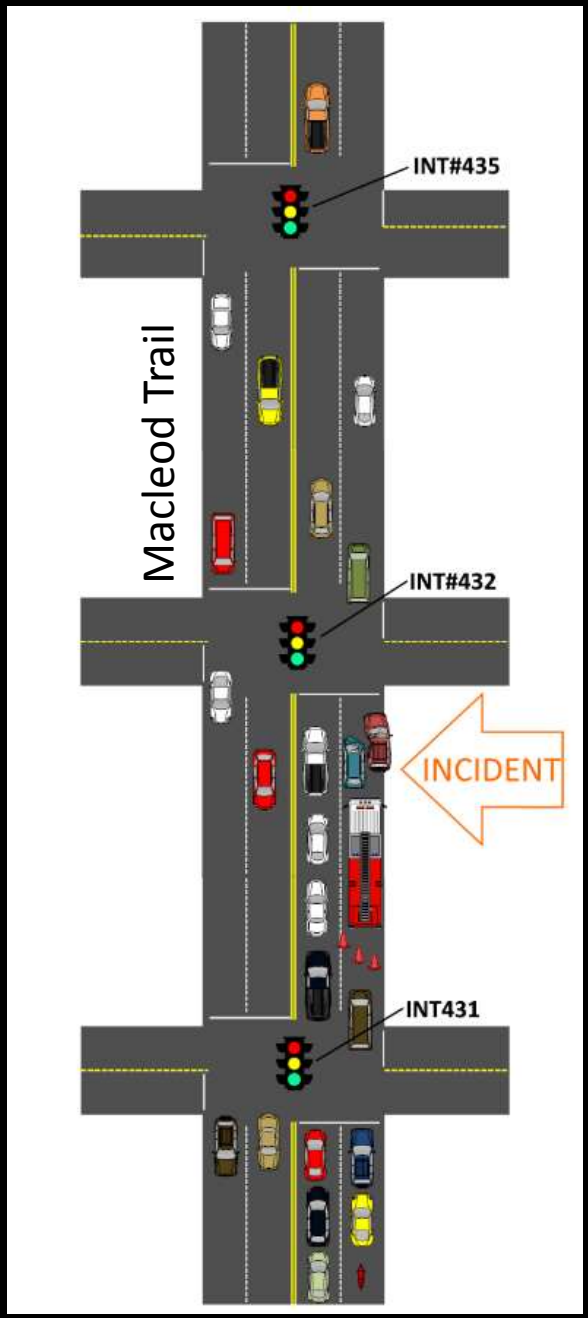


Do you want to extend NB Macleod Trail by 30sec?

INT # 431 into 611 Plan
INT # 432 into 611 Plan
INT # 435 into 611 Plan

Ignore

Apply



Thank You!