



The City of Calgary's **ITS PROGRAM** **2016 - 2017**



Calgary



PEDESTRIAN SAFETY



APS'



RRFB's



Ped Warrants & Control Guidelines

CENTRE CITY – ADVANCED TRAVEL INFORMATION SYSTEM



DESCRIPTION

- Downtown DMS mounted on existing structures
- Provide
 - Incident and emergency info
 - Overheight detection

BENEFITS

- Emergency messaging
- Travel information
- Improved travel routing
- Reduced +15 collisions

Calgary

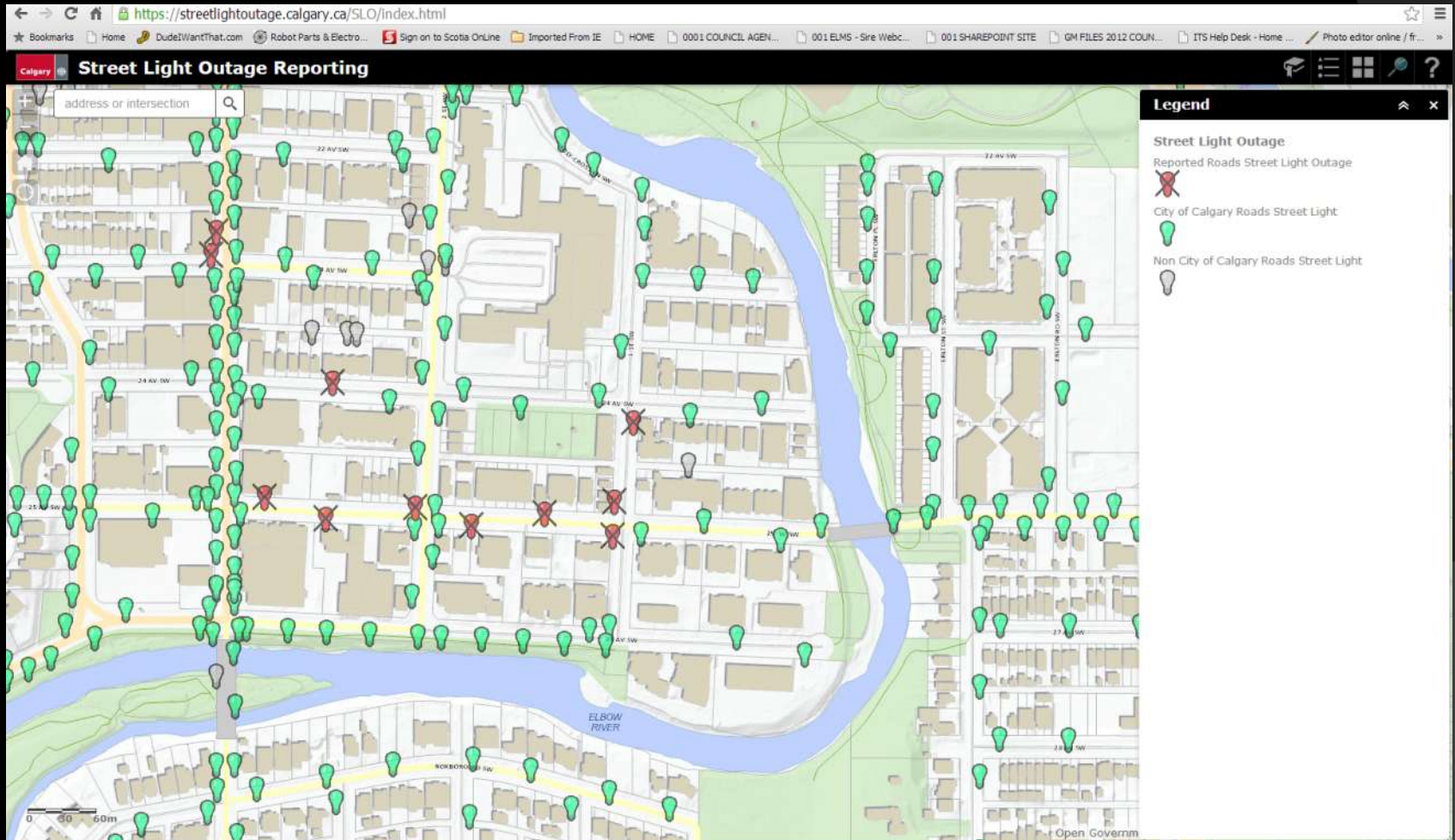


STREETLIGHT LED RETROFIT

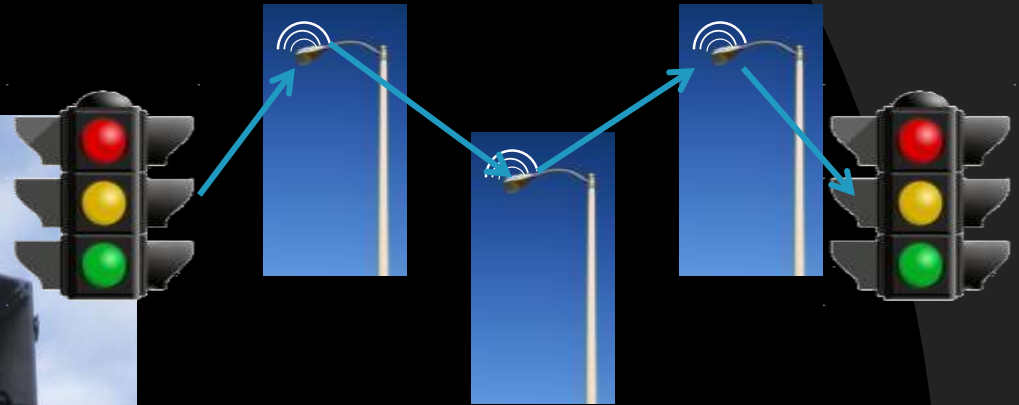
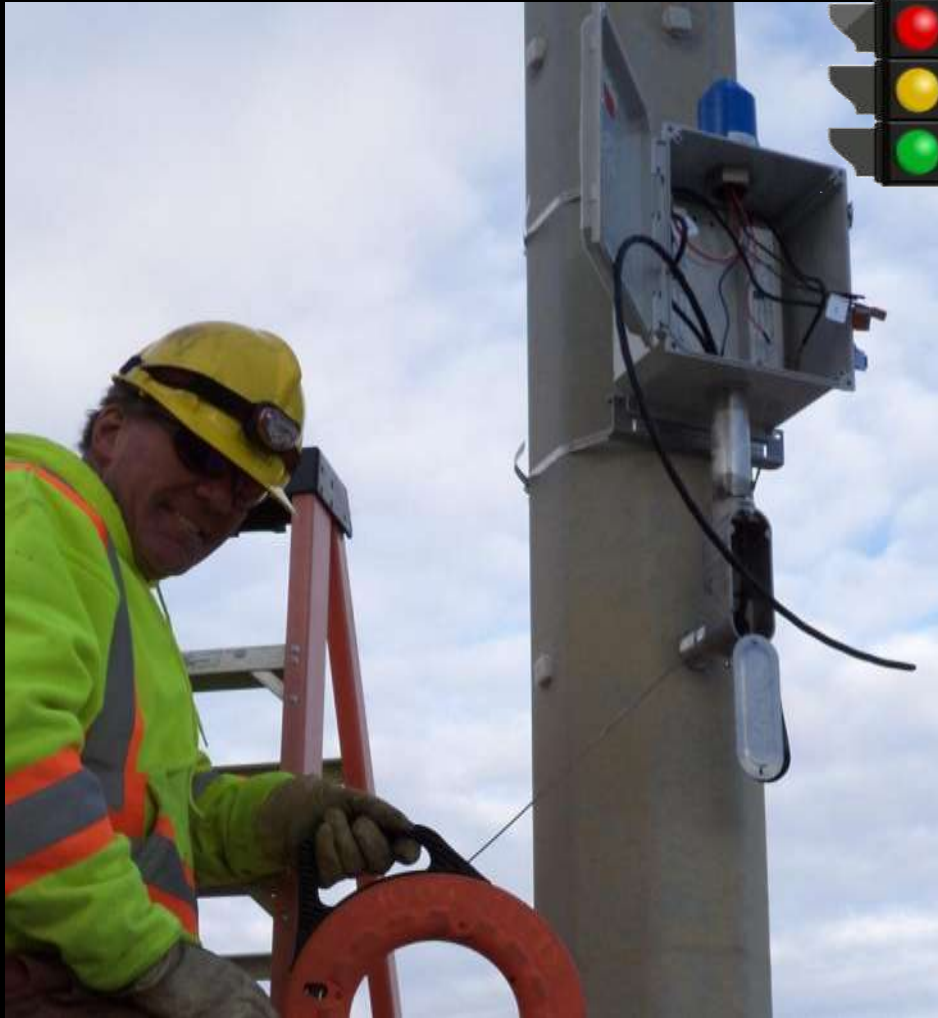


STREETLIGHT OUTAGE MAP

<https://streetlightoutage.calgary.ca/>



STREETLIGHT MESH COMMS



DESCRIPTION

- Adaptive lighting module, modified to allow LED streetlights to create a low bandwidth wi-fi network

BENEFITS

- Inexpensive communications option to connect traffic signals (and other devices) to TMC
- Lower clock drift, better offset coordination, improved ability to adjust traffic signal timings

DETECTION



VISIBLE

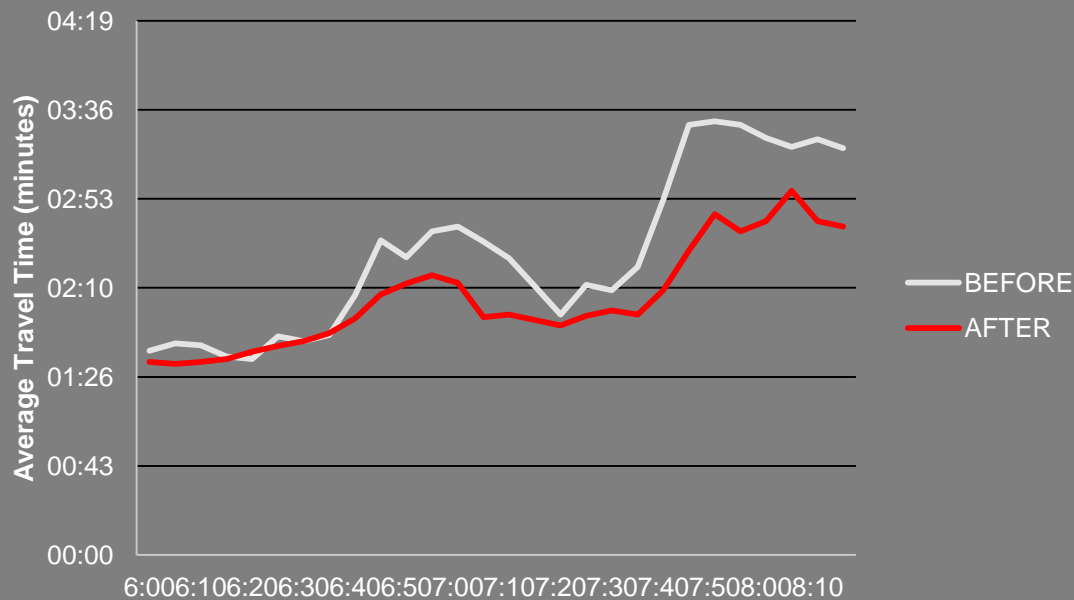
THERMAL





17 Ave SE Peak Hour Travel Time

Deerfoot Trail to Alyth Road

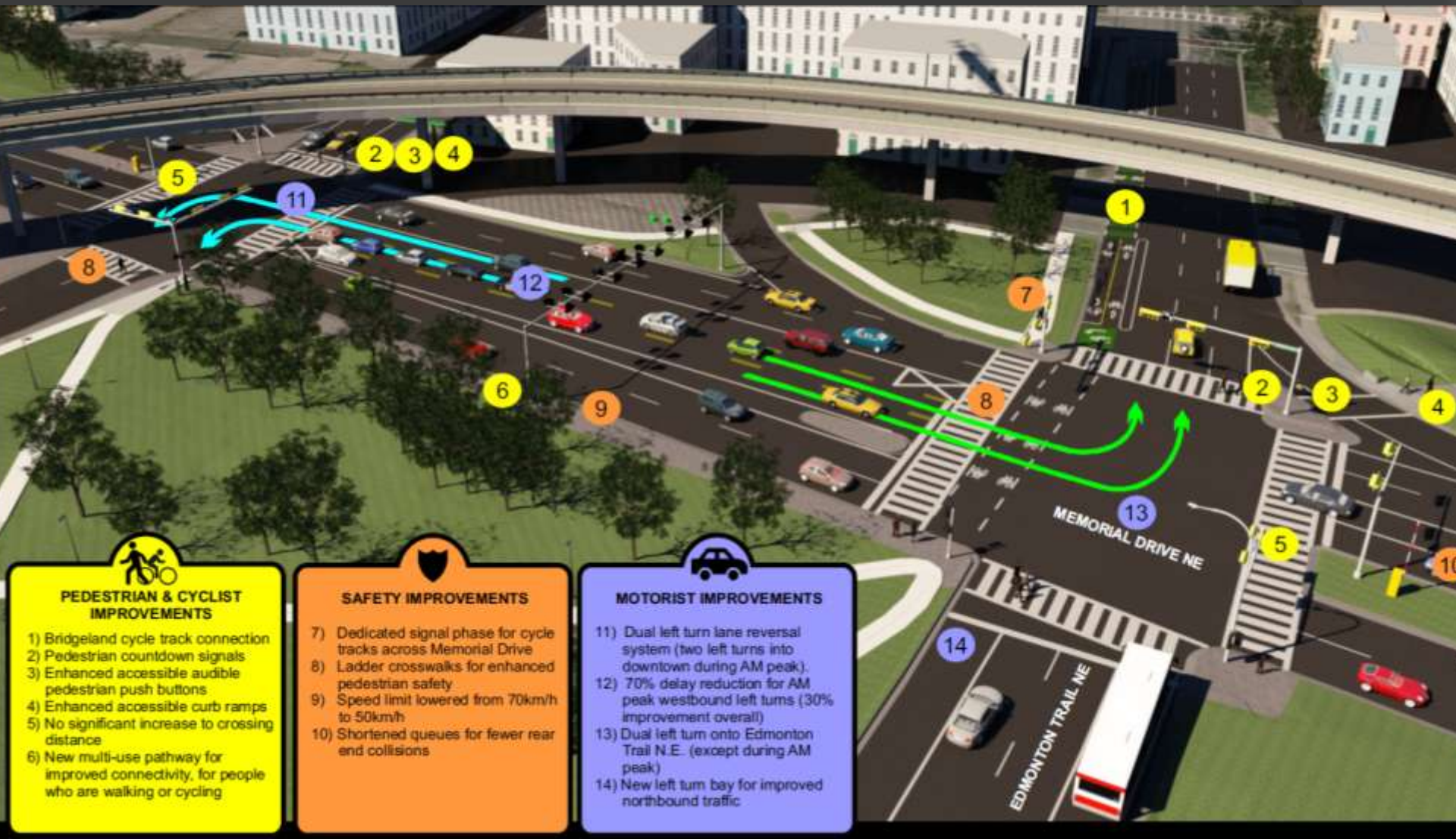


BENEFITS

- 14% Improvement overall
- 30% peak hour travel time improvement
- Benefits to both Transit and motorists

LANE REVERSAL SYSTEMS

MEMORIAL @ Edmonton



PEDESTRIAN & CYCLIST IMPROVEMENTS

- 1) Bridgeland cycle track connection
- 2) Pedestrian countdown signals
- 3) Enhanced accessible audible pedestrian push buttons
- 4) Enhanced accessible curb ramps
- 5) No significant increase to crossing distance
- 6) New multi-use pathway for improved connectivity, for people who are walking or cycling

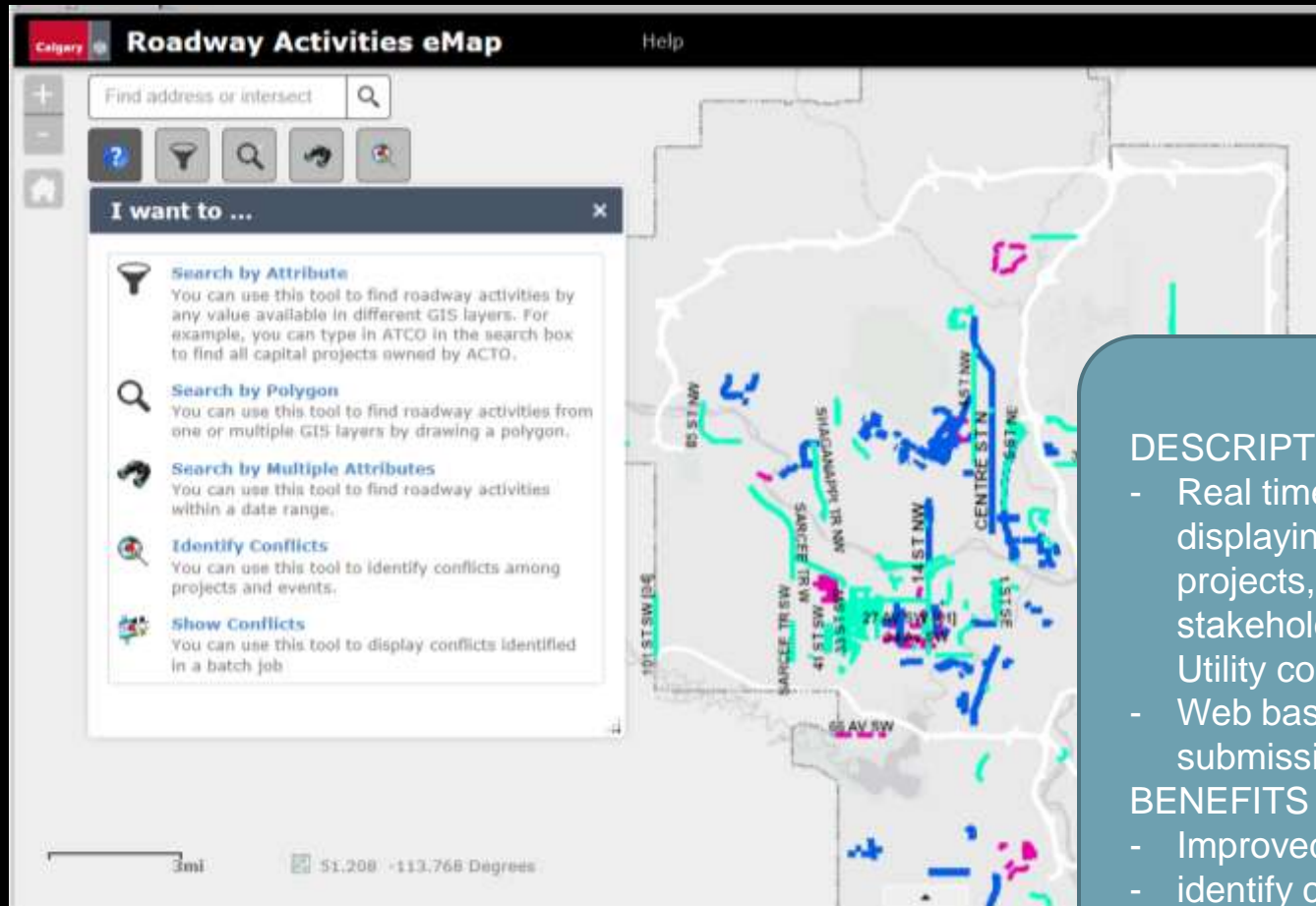
SAFETY IMPROVEMENTS

- 7) Dedicated signal phase for cycle tracks across Memorial Drive
- 8) Ladder crosswalks for enhanced pedestrian safety
- 9) Speed limit lowered from 70km/h to 50km/h
- 10) Shortened queues for fewer rear end collisions

MOTORIST IMPROVEMENTS

- 11) Dual left turn lane reversal system (two left turns into downtown during AM peak)
- 12) 70% delay reduction for AM peak westbound left turns (30% improvement overall)
- 13) Dual left turn onto Edmonton Trail N.E. (except during AM peak)
- 14) New left turn bay for improved northbound traffic

ROADWAY CONSTRUCTION OPS MAP



DESCRIPTION

- Real time single source map displaying the current and future projects, available to impacted stakeholders: Roads, City BU's, Utility companies
- Web based GIS mapping submission

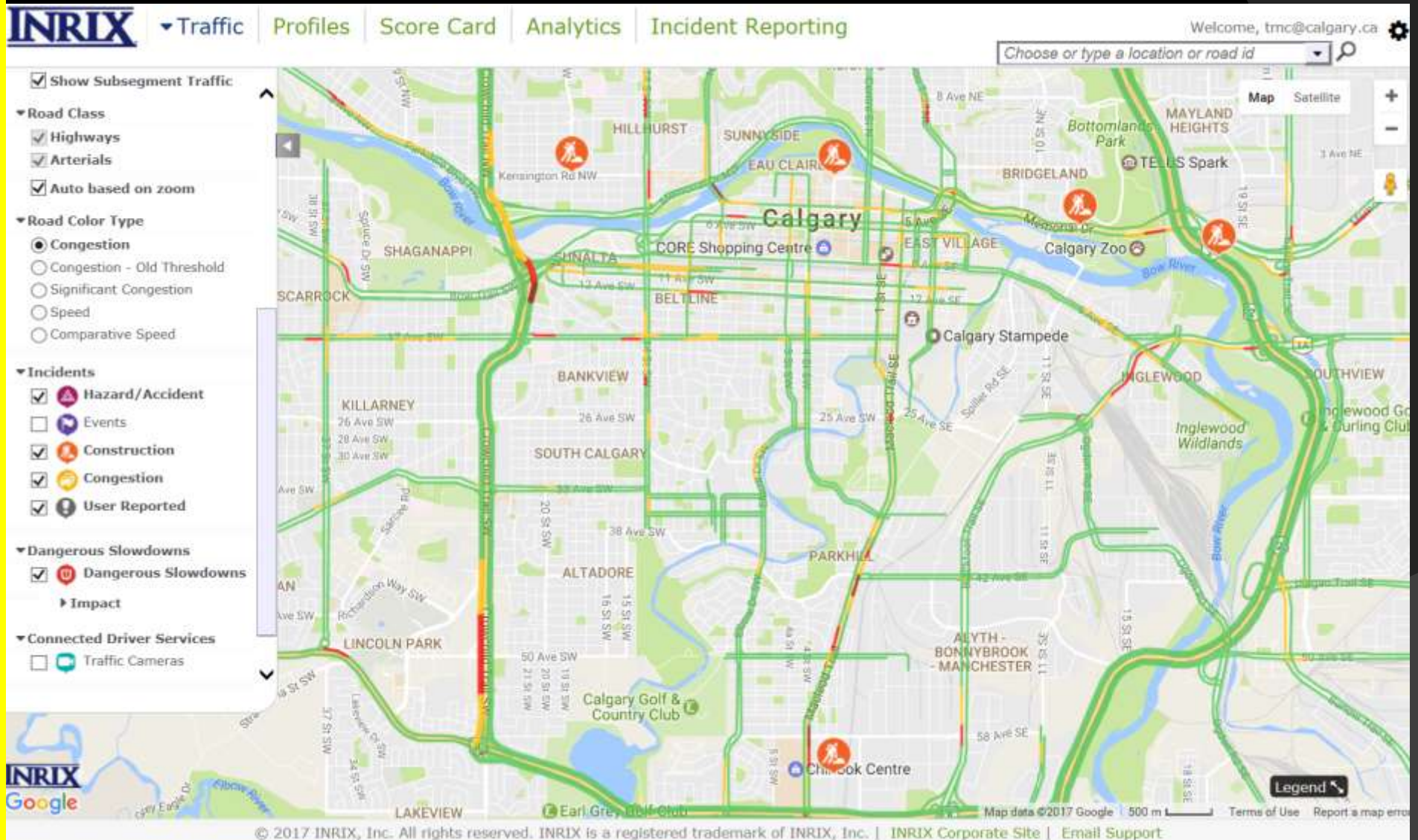
BENEFITS

- Improved coordination of projects
- identify conflict locations
- Identify efficiencies/collaboration
- Improved Roadway efficiency

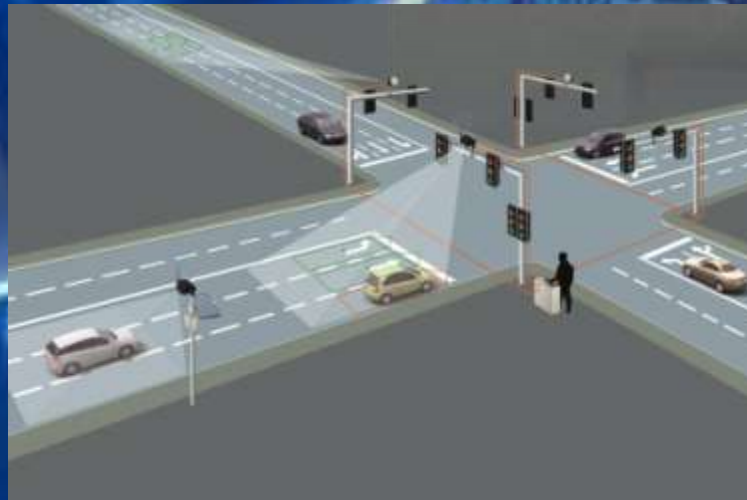
<http://roadsemap.coc.ca/>



INRIX DATA INTEGRATION

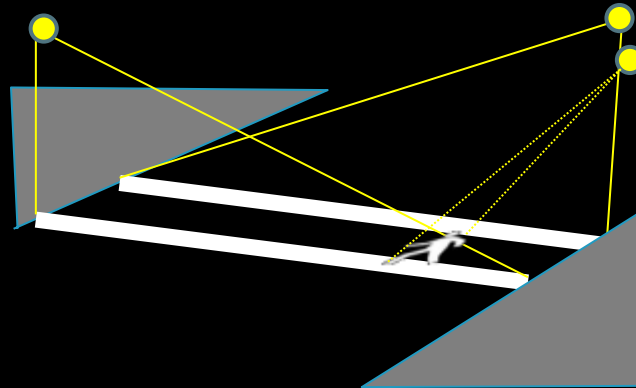
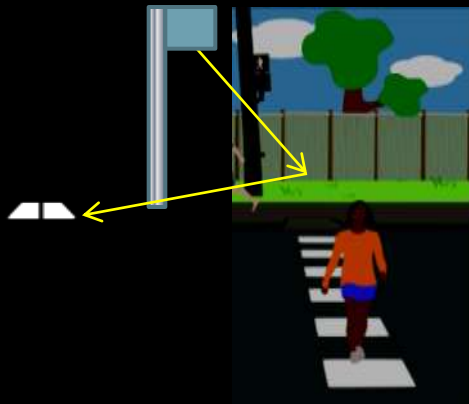


NEXT GENERATION TMC



PEDESTRIAN ACTIVATED CORRIDOR LIGHTING SYSTEMS

Refracted downlighting



Projected
Roadmarkings

Backlit Downlit
Signage w beacons

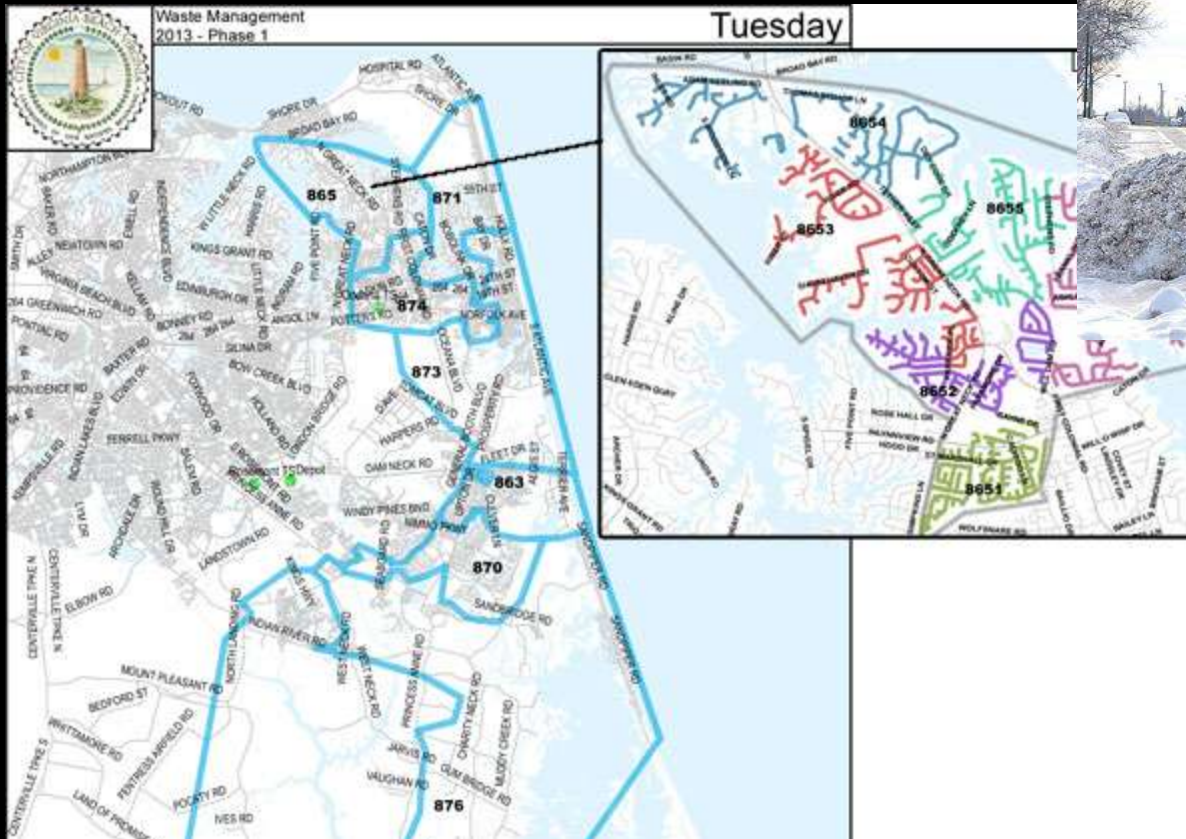


LED Outline
PED Head

BIKE ACTIVATED SAFETY SIGNAGE



ROUTE OPTIMIZATION SOFTWARE





SMART ROADS STRATEGY