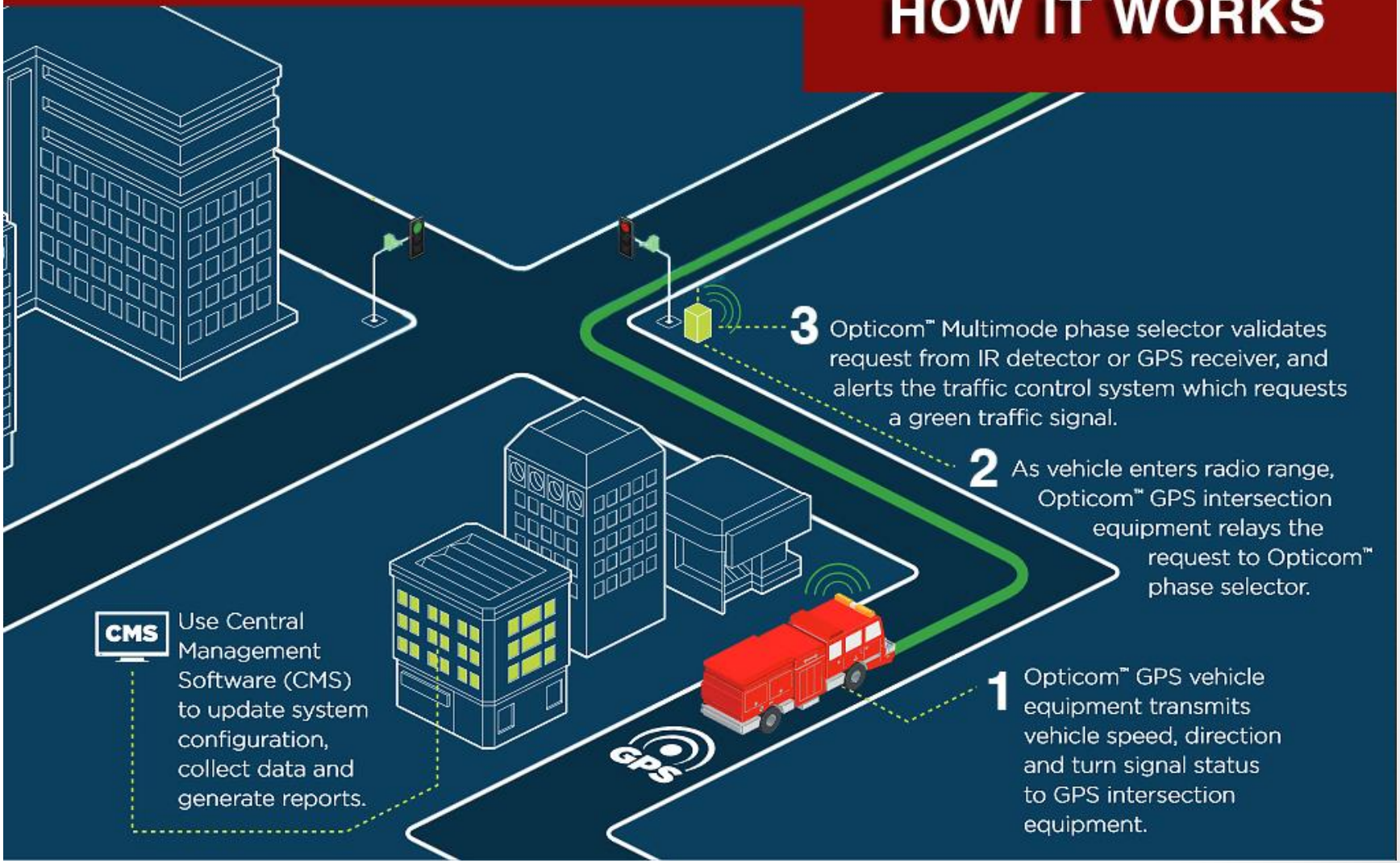
Emergency Vehicle Preemption

"Extending Our Reach"

+ Assistant Chief John Caussin
+ Strategic Planner, Laurie Stone
+ Captain Rich Merrell – EVP Manager
+ Captain Brian Edmonston – Field Liaison

EMERGENCY VEHICLE PREEMPTION
HOW IT WORKS



Why we need emergency vehicle preemption?

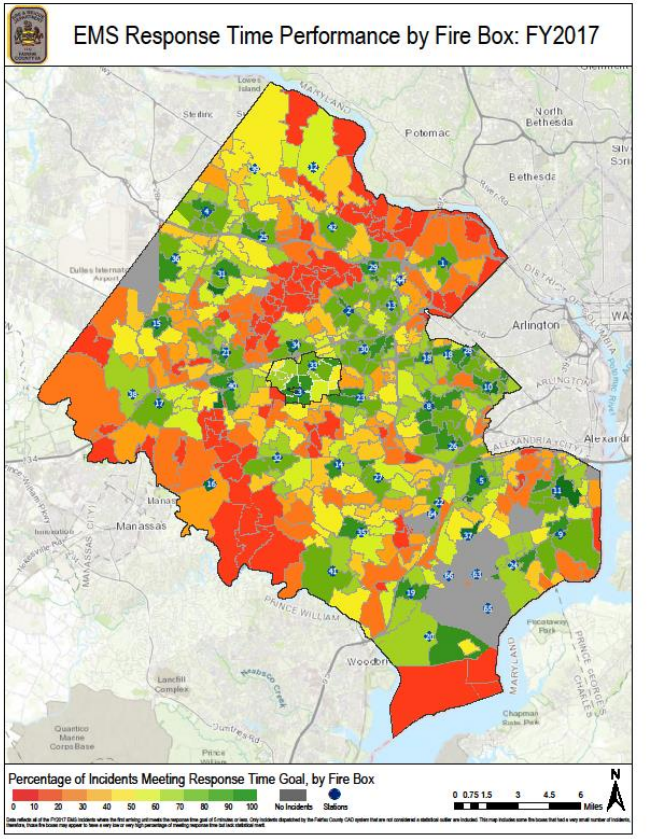
Problem Statement:

Difficulty meeting National response time standards.

+ Currently, FRD meets national response time goals for EMS and fire incidents less than 55% of the time.

+ 2017 FRD surpasses **100,000** requests for response service.

  - Increasing Population
  - Future Development
  - Increased Congestion

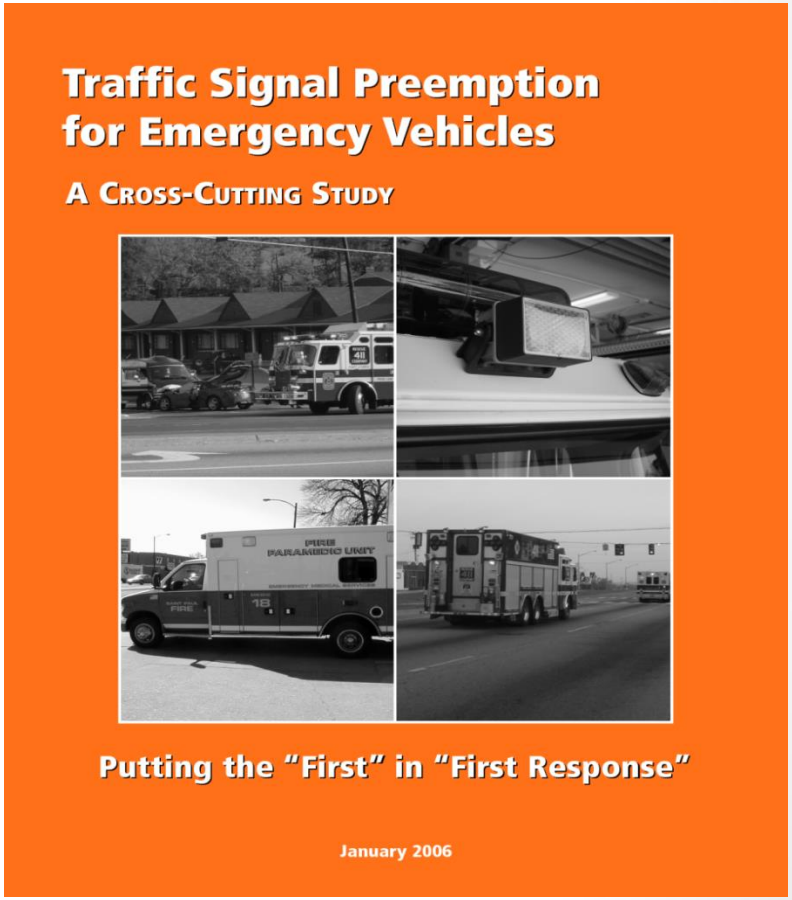


Data reflects percentage of FY2017 EMS incidents where first arriving unit meets the response time of 5 minutes or less. Note: fire boxes have varying geographical sizes and number of incidents.

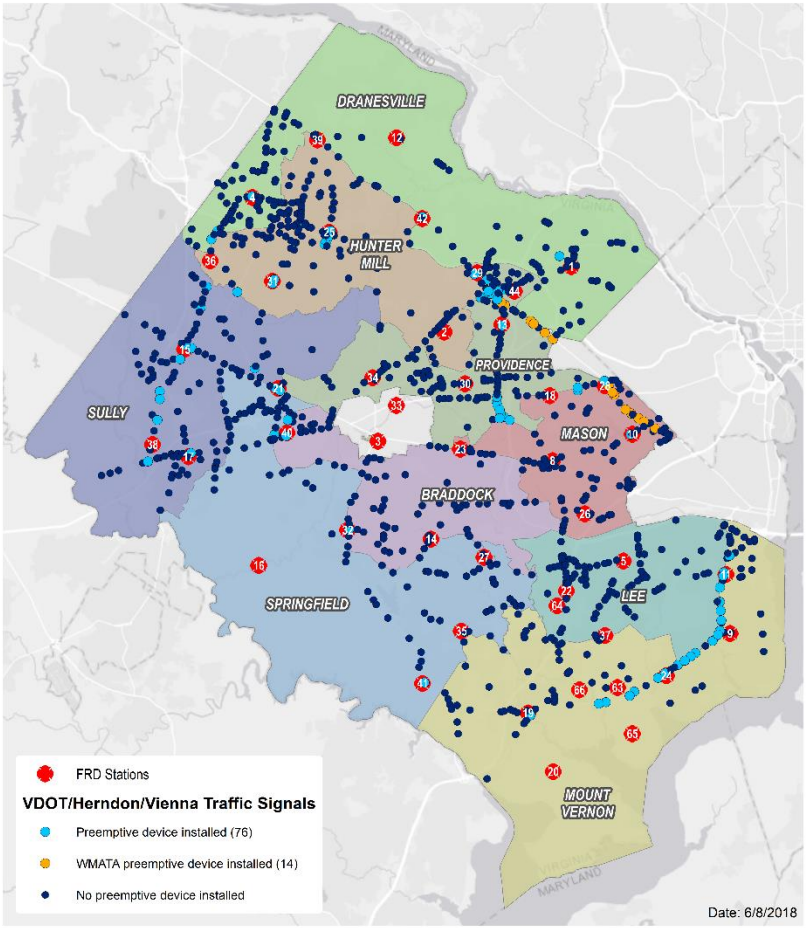
NHTSA Study: Fairfax emergency vehicle preemption

Benefits of EVP:

+ Help reduce the risk of accidents at intersections
  - Improved safety and reduced liability
+ Better response times
  - Reducing response times anywhere between14–23 %
    **Approx. 70 seconds on a route with 3 to 6 signalized intersection*



Implementing Preemption Technology



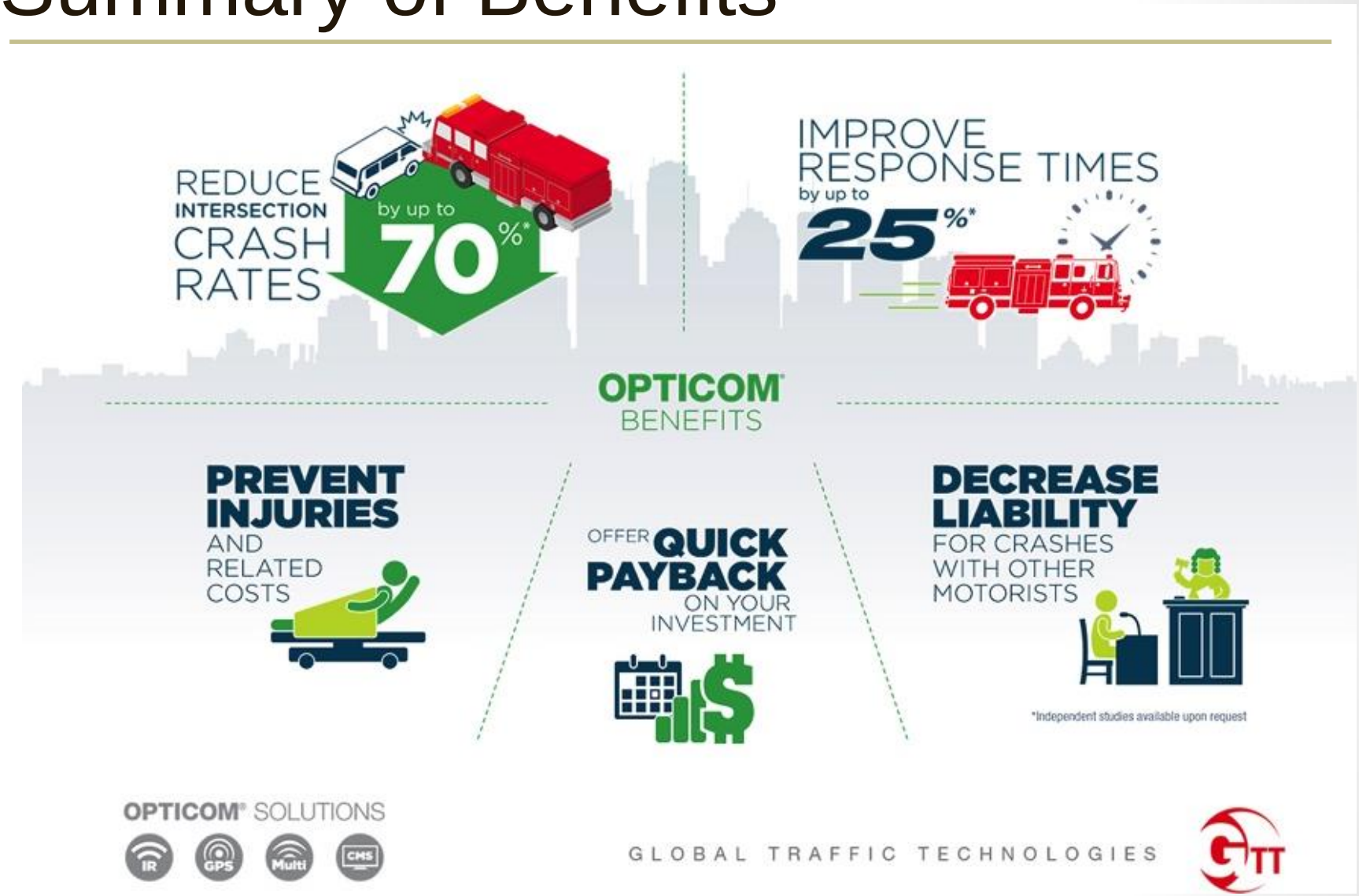
+ Strategic Initiative to Expand Emergency Vehicle Preemption (EVP)

- Cooperative Partnership with Stakeholders
  - VDOT, FCDOT, WMATA
- Fostering Interoperability
  - Prince William County, Loudoun County, Fairfax City, Town of Herndon, Town of Vienna

+ Pursuing Various Funding Sources

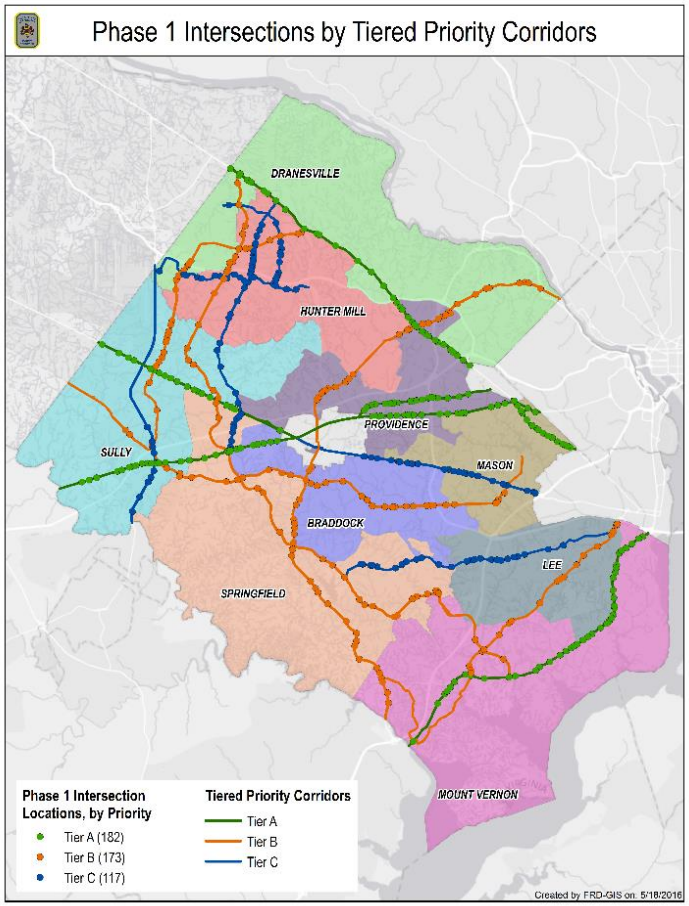
- Grant Funding
- CIP Funding
- Development Proffers
- General Fund

Summary of Benefits



Fairfax County EVP Priority

All Phase 1 Intersections



Phase 1 – Tiered Priority

Phase 1 Signals, by Tiered Priority

Phase 1 Tier	Corridors Included	Total Unique Signals*	Percent of Phase 1 Signals (n = 472)	Percent of All Signals (n = 957)
Tier A	50, 29, 7, 1	182	39%	19%
Tier B	123, 286, 620, 611, 657/288/6656/606	173	36%	18%
Tier C	236, 28, 5320, 644, 828, 602/608	117	25%	12%
Total		472	100%	49%

*Signals in the Town of Herndon and Town of Vienna are excluded from this table

Fairfax County Signals covered by Phase 1 or Phase 2

Phase	Total Unique Signals*	Percent of All Signals (n = 957)
1	472	49%
2	127	13%
Total	599	63%

*Signals in the Town of Herndon and Town of Vienna are excluded from this table

EVP Proffer Methodology

- FRD requests EVP cash proffers for the following:
  - Mixed-use residential developments within proffer exempt areas
  - New residential developments with 50 or more dwelling units
  - Assisted living or senior living facilities
  - Large commercial buildings with significant increase in employees and customers
- EVP Request:
  - 1 Signal: 50 – 249 dwelling units (DUs)
  - 2 Signals: 250 – 500 DUs
  - 3 Signals: 501 – 750 DUs
  - 4 Signals: 751 – 1000 DUs
  - 5 Signals: 1000+ DUs
- FRD includes map of emergency response routes from two closest fire stations to proposed development.
- EVP installed on traffic signals based on FRD's Priority Plan and station input.

EVP Installations

Total: 76 installed
WMATA: 14
Goal: 900+

MOU with VDOT
Spec for Intersection projects