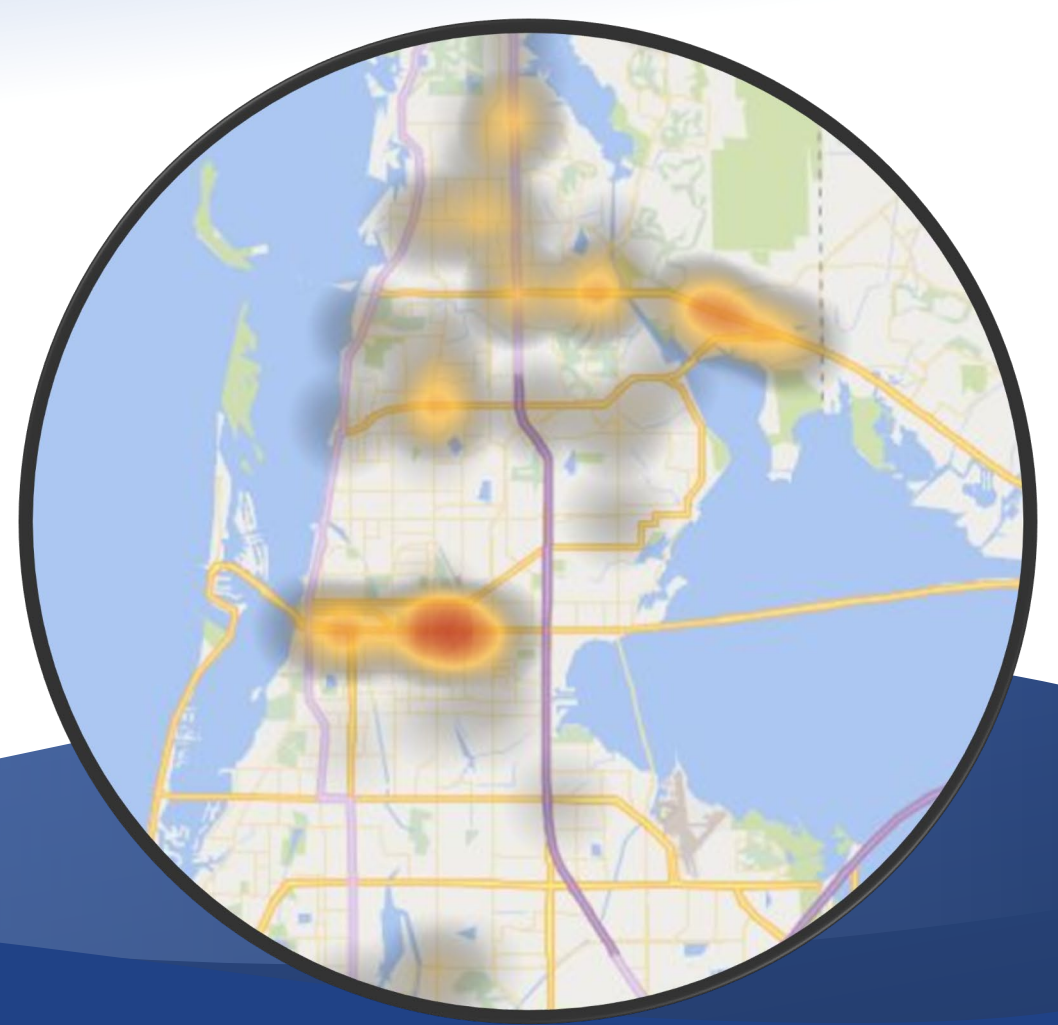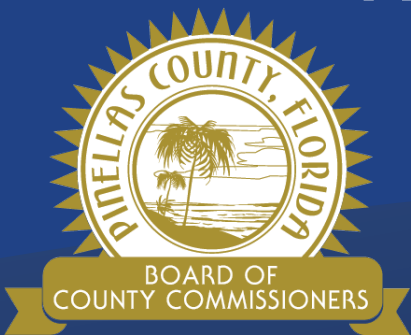# ATMS Program Update

Pinellas County Public Works
Kelli Hammer Levy, Director
Tom Washburn, Transportation Division Director
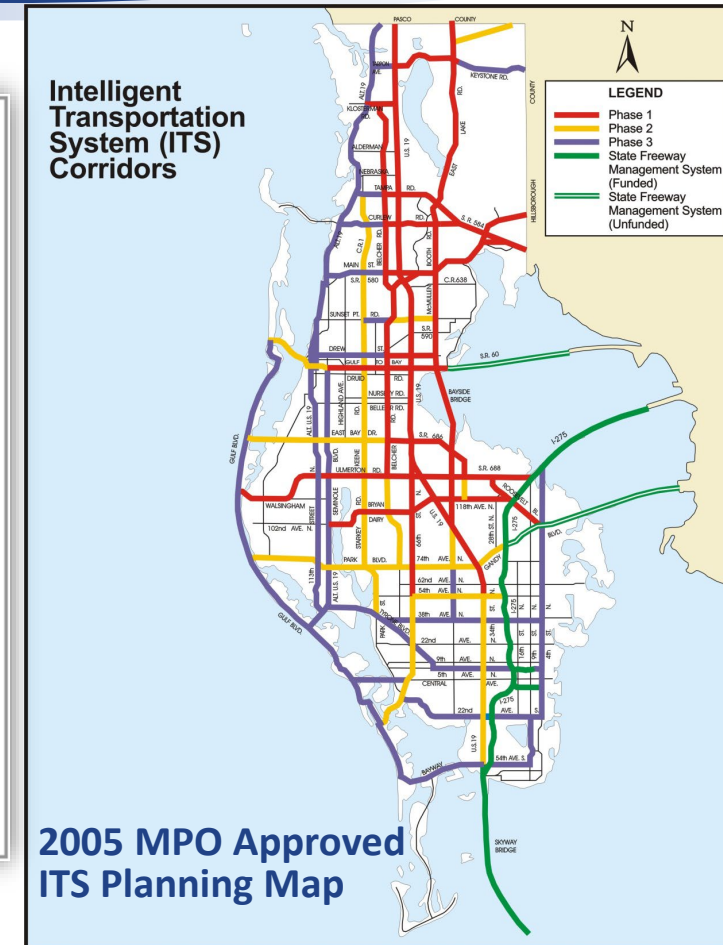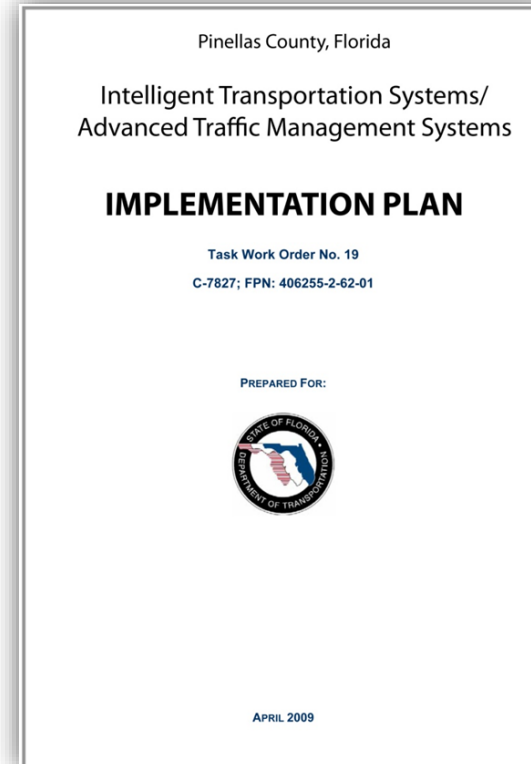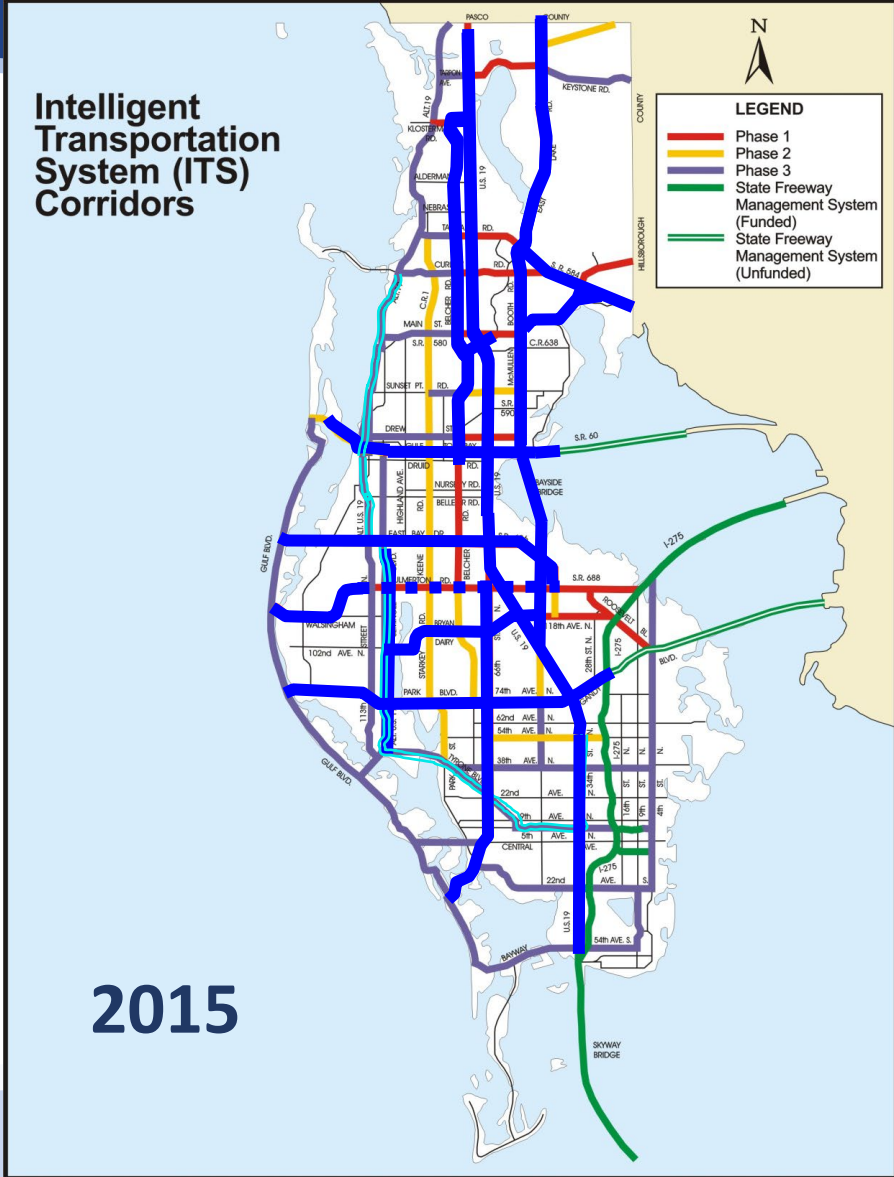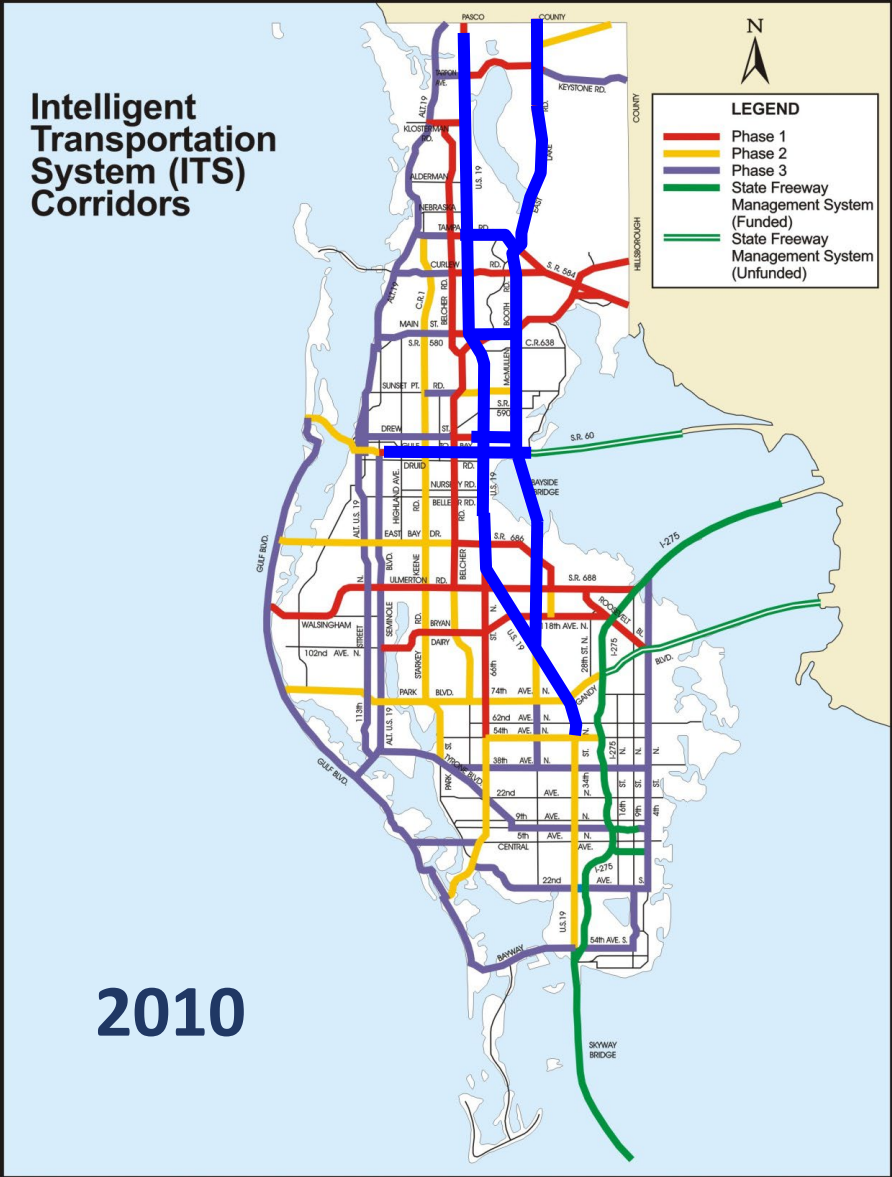
ATMS Program - History

Initiated in 2004

Program Strategy

- **Focus on Arterials and Collectors**

- **Fiber Optic Communication Backbone**

  - CCTV Cameras: Complete video coverage of corridors

  - DMS Signs: Located strategically for evacuation and travel-time information

- **Traffic Control Center: Includes workstations for FDOT, St Pete, and Clearwater**

- **Master Plan Update: Recently Completed**

Pinellas County, Florida

Intelligent Transportation Systems/
Advanced Traffic Management Systems

IMPLEMENTATION PLAN

Task Work Order No. 19

C-7827; FPN: 406255-2-62-01

PREPARED FOR:

APRIL 2009

Intelligent Transportation System (ITS) Corridors

LEGEND
Phase 1
Phase 2
Phase 3
State Freeway Management System (Funded)
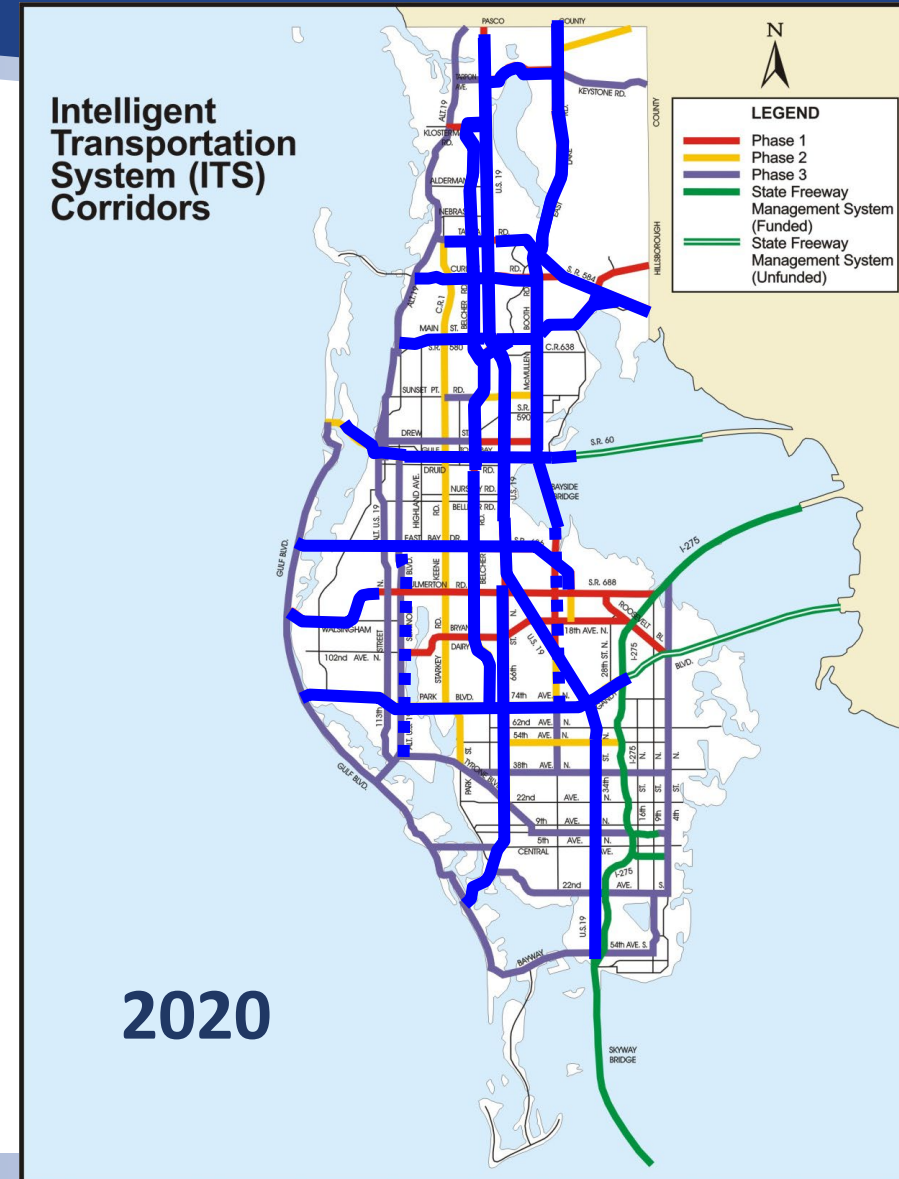State Freeway Management System (Unfunded)

2005 MPO Approved ITS Planning Map

ATMS Program - History

Funding

- **Dedicated Funding: Ninth Cent Fuel Tax**
  - ~4M Annually
- **Funds Design, Construction, Operations and Maintenance**
- **Grant Revenue >$39M**

Intelligent Transportation System (ITS) Corridors

LEGEND
- Phase 1
- Phase 2
- Phase 3
- State Freeway Management System (Funded)
- State Freeway Management System (Unfunded)

2020

ATMS Program – The System Today

- **400 Miles of Fiber Optic Cable**

- **228 CCTV Cameras**

- **62 DMS Signs**

- **102 Bluetooth Travel Time Sensors**

- **6 Intersection Video Analytic Devices**

- **Traffic Management Center**

What Does Success Look Like?

Outcomes

- **Optimized Traffic Flow**
  - Adaptive and Responsive Signal Timings
- **Reliable Communications**
  - Redundant
  - County Facility Connections
- **Timely Equipment Status Alerts**
- **Faster response to congestion and crashes**
- **Identification of potential crashes, near misses, wrong way driving**
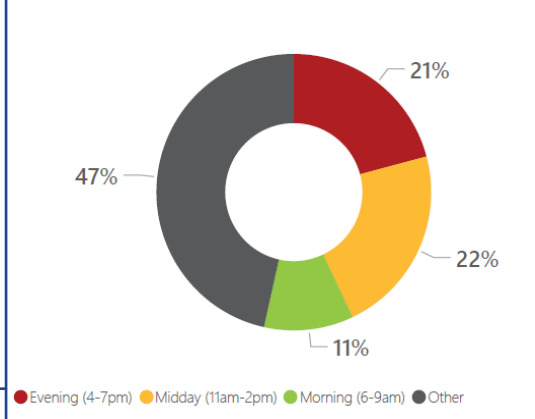
Limitations

- **Roadway Capacity**
- **Seasonal Impacts e.g., Spring Break, Spring Training**
- **Non-recurring Congestion**
  - Crashes
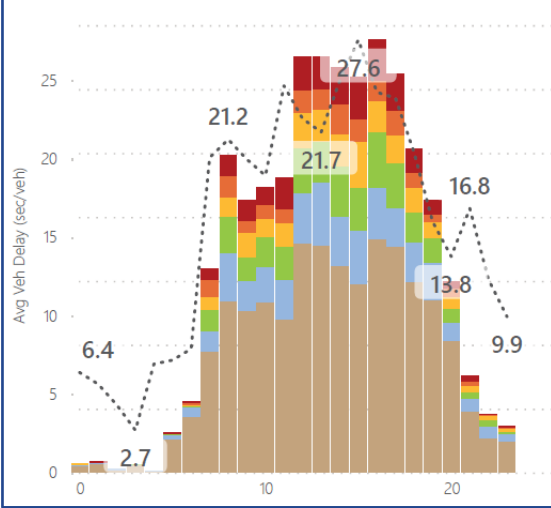 - Emergency Pre-Emption
  - Construction

How will we Know it is Working?

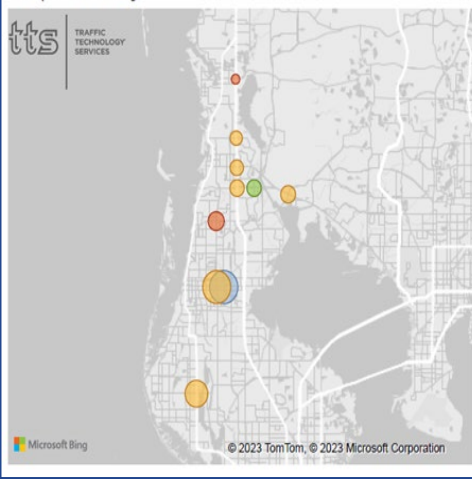**Automated Traffic Signal Performance Measures (ATSPMs)**

ATMS Program – The Next 3 Years

Additional Allocation: $18M

- **Corridor Retiming**
  - 250 Signals
  - FY 24 Goal - 75 Signals / 8 Corridors
- **Video Analytics**
  - 390 Signals
  - FY 24 Goal – 130 Signals
- **Quarterly Progress Updates**

Projects

- **GIS Fiber Mapping: BTS and PW ARPA**
- **Emergency Vehicle Pre-emption Upgrade w/Emergency Services**
- **SR60 Upgrade**
- **ATCMTD Smart Cities**
- **ATMS Projects: SR 580, SR 586, Alderman Rd, & 113th St**

Ninth Cent Reauthorization: FY26

ATMS Master Plan – The Next 10 Years

Construction Projects

- **Pace Slows**

Focus Shifts:

- **Communication Redundancy**
- **Replacements & Upgrades**

Operations and Maintenance

Connected Vehicle (CV) Applications

ATMS Master Plan – The Next 10 Years

Planned Construction Projects

Deployment	From (West/South)	To (East/North)	Construction Cost *
CR-1 Phase I	SR-688 (Ulmerton Rd)	SR-60 (Court St)	$3,562,908
38th Ave N Phase I	49th St	US-92 (4th St N)	$2,454,208
CR-1 Phase III	Country Club Rd	Park Blvd	$2,956,641
CR-1 Phase II	Park Blvd	SR-688 (Ulmerton Rd)	$3,349,597
Sunset Point Rd	CR-1 (N Keene Rd)	McMullen Booth Rd	$2,219,771
118th Ave N	US-19	28th St N	$2,257,637
CR-1 Phase IV	49th St S	Country Club Rd	$2,638,364
Central Ave	Park St S	US-19	$2,426,479
38th Ave N Phase II	Alt US-19 (Tyrone Blvd)	49th St N	$1,774,634
54th Ave N Phase I	58th St N	US-19	$1,166,786
54th Ave N Phase II	CR-1 (Park St N)	58th St N	$1,505,934
54th Ave N East	I-275 NB Off-Ramp	US-92 (4th St N)	$1,278,208
22nd Ave	49th St	US-19 (24th St N)	$670,747
Total	-	-	$28,261,914

Estimated based on projected inflationary factors

Legend
- TMC
- Existing Fiber
- Planned/Future Projects
- D7 TSM&O Master Plan
- Proposed ATMS Expansion
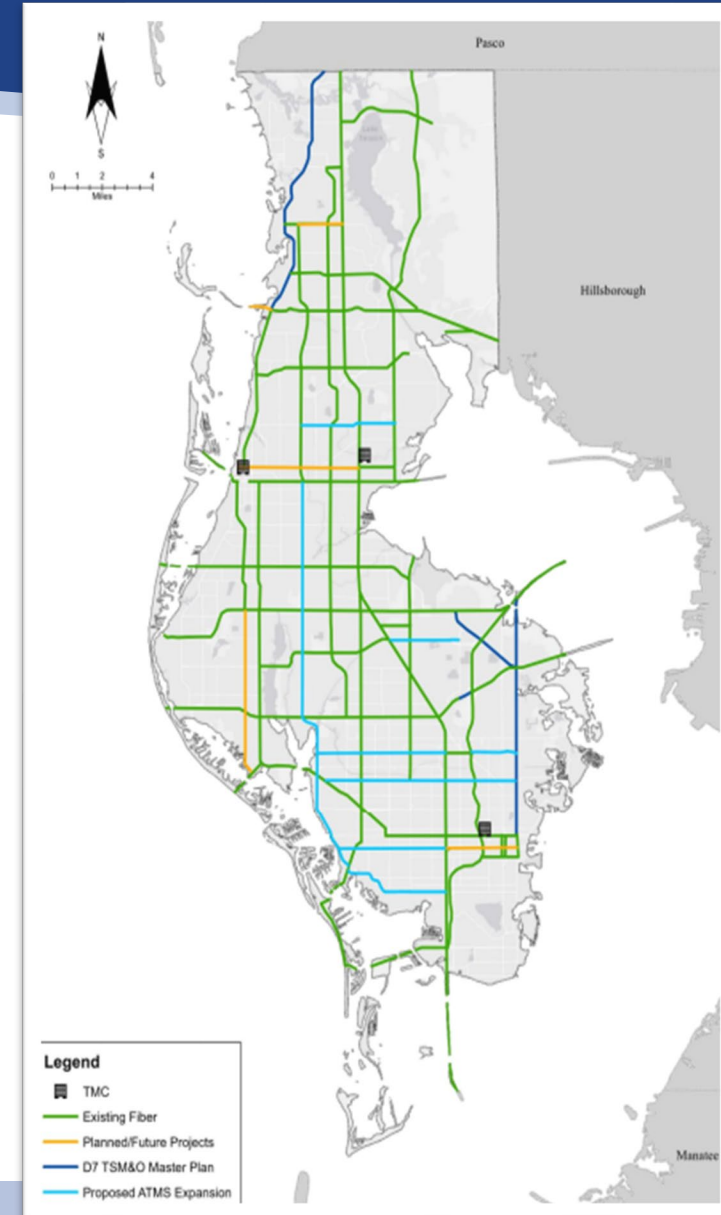
Communication Redundancy

CCTV Replacements/Upgrades

- **75-100 Units Beyond Lifecycle in Next 10 Years**
- **Estimated Cost: $800K to $1.5M (FY24 Dollars); $100K to $150K Annually Beginning in FY25**

DMS Replacements/Upgrades

- **29 Signs, 3 Phases**
- **Estimated Cost: $3M to $4M (FY24 Dollars); $300K Annually Beginning in FY25**

CCTV Camera Legend
- Proposed CCTV Camera
- Within Lifecycle
- Projected Out of Lifecycle in 2 Years
- Outside Lifecycle
- CCTV Camera Replacement Corridor

ADMS Legend
- Phase I
- Phase II
- Phase III

Connected Vehicle (CV) Applications

Top Delay | Top Red Arrivals | Top Split Failures

ID	Count	Avg Delay	Street 1	Street 2
48		63	US HWY 19 N	E TARPON AVE
261		55	KEENE RD	MAIN ST
170		54	US HWY 19 N	CURLEW RD
136		53	US HWY 19	TAMPA RD
100		47	US HWY 19	ALDERMAN RD
814		47	SEMINOLE BLVD	102ND AVE N
1463		41	KEENE RD	GULF TO BAY BLVD
196		39	FOREST LAKES BLVD	TAMPA RD
174		27	COUNTRYSIDE BLVD	CURLEW RD
1498		18	S HERCULES AVE	GULF TO BAY BLVD

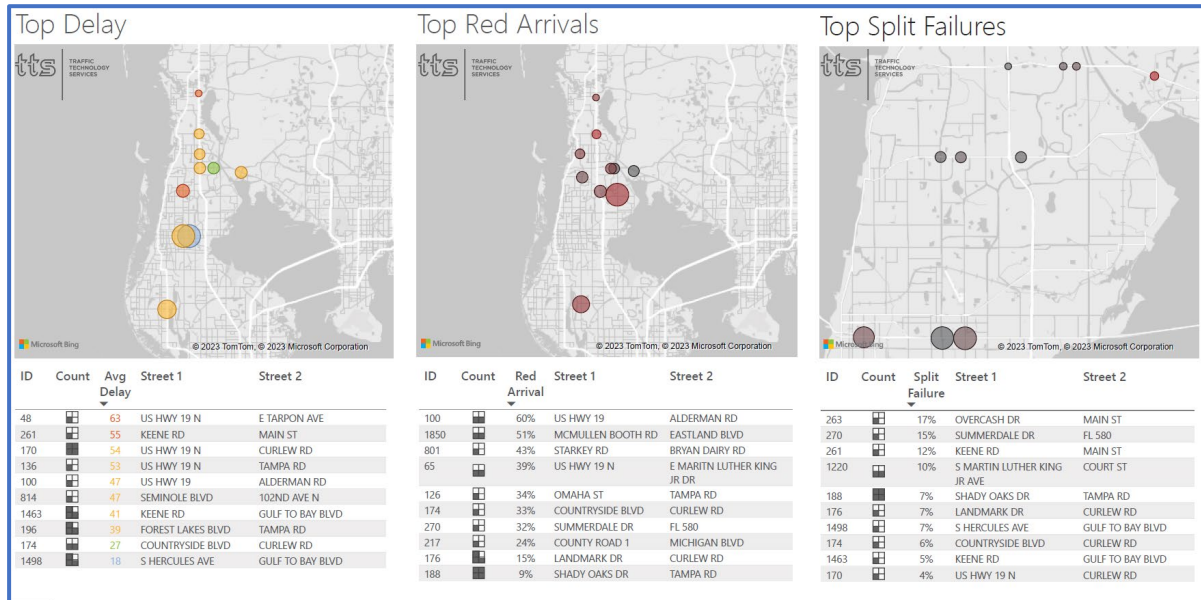| ID	Count	Red Arrival	Street 1	Street 2
100		60%	US HWY 19	ALDERMAN RD
1850		51%	MCMULLEN BOOTH RD	EASTLAND BLVD
801		43%	STARKEY RD	BRYAN DAIRY RD
65		39%	US HWY 19 N	E MARTIN LUTHER KING JR DR
126		34%	OMAHA ST	TAMPA RD
174		33%	COUNTRYSIDE BLVD	CURLEW RD
270		32%	SUMMERDALE DR	FL 580
217		24%	COUNTY ROAD 1	MICHIGAN BLVD
176		15%	LANDMARK DR	CURLEW RD
188		9%	SHADY OAKS DR	TAMPA RD

| ID	Count	Split Failure	Street 1	Street 2
263		17%	OVERCASH DR	MAIN ST
270		15%	SUMMERDALE DR	FL 580
261		12%	KEENE RD	MAIN ST
1220		10%	S MARTIN LUTHER KING JR AVE	COURT ST
188		7%	SHADY OAKS DR	TAMPA RD
176		7%	LANDMARK DR	CURLEW RD
1498		7%	S HERCULES AVE	GULF TO BAY BLVD
174		6%	COUNTRYSIDE BLVD	CURLEW RD
1463		5%	KEENE RD	GULF TO BAY BLVD
170		4%	US HWY 19 N	CURLEW RD

TAMPA BAY SMART CITIES ALLIANCE

Benefits

- **Real-Time Traffic Information**
- **Safety and Mobility**
- **Regional Coordination**

Road user classification

Pedestrian detection and classification
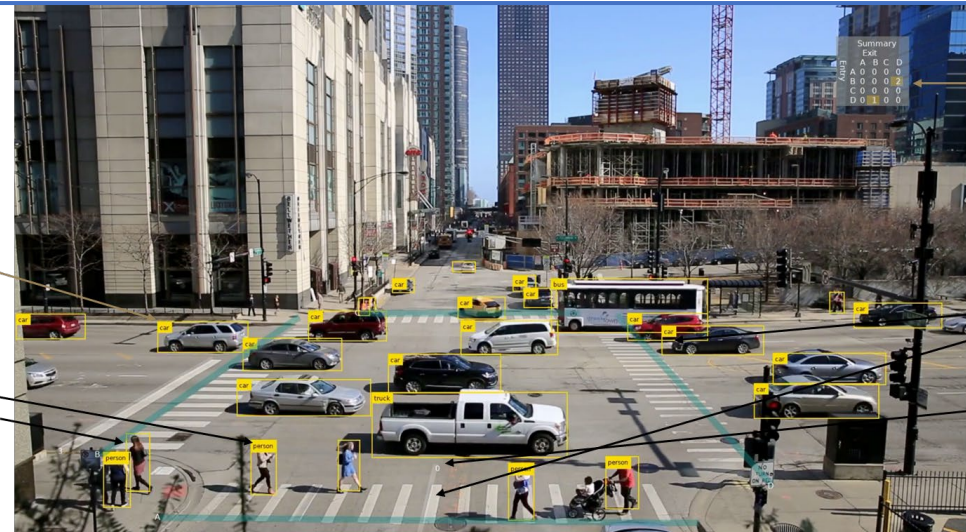
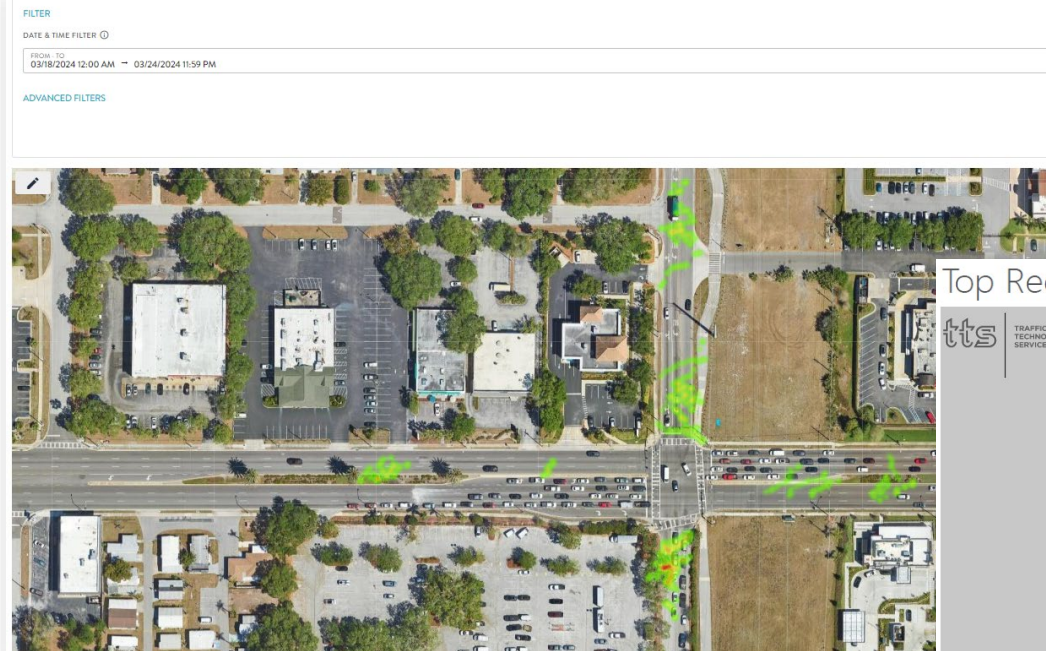Micro origin / destination matrix

Virtual Detection Lines

Pedestrian counter

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Outcomes

- **Optimized Traffic Flow**
  - Adaptive and Responsive Signal Timings
- **Reliable Communications**
  - Redundant
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Questions?