

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY (THEA)

- **Connected Vehicles & *Transit***
- **Tolling & *Transit***

Walk. Ride. Drive. ***Smarter.***

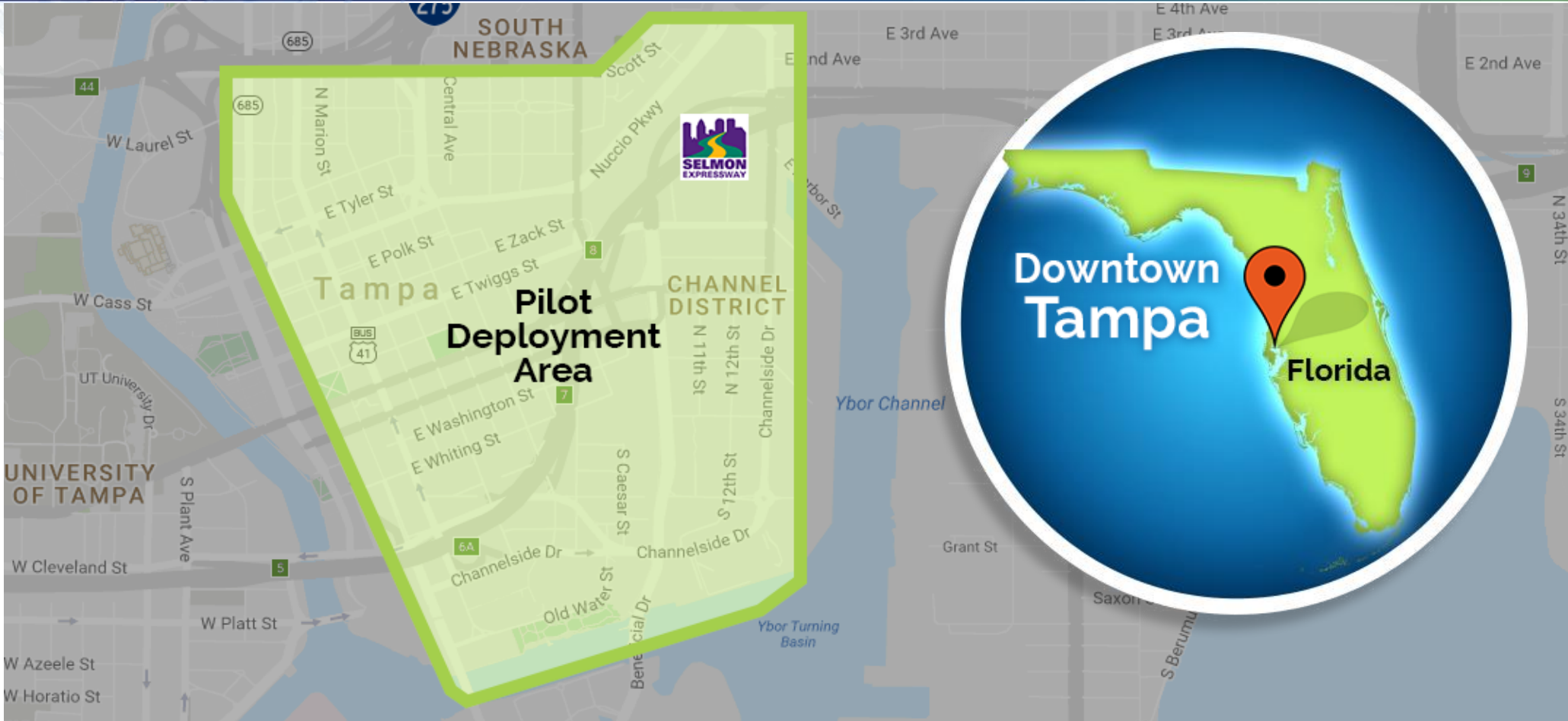




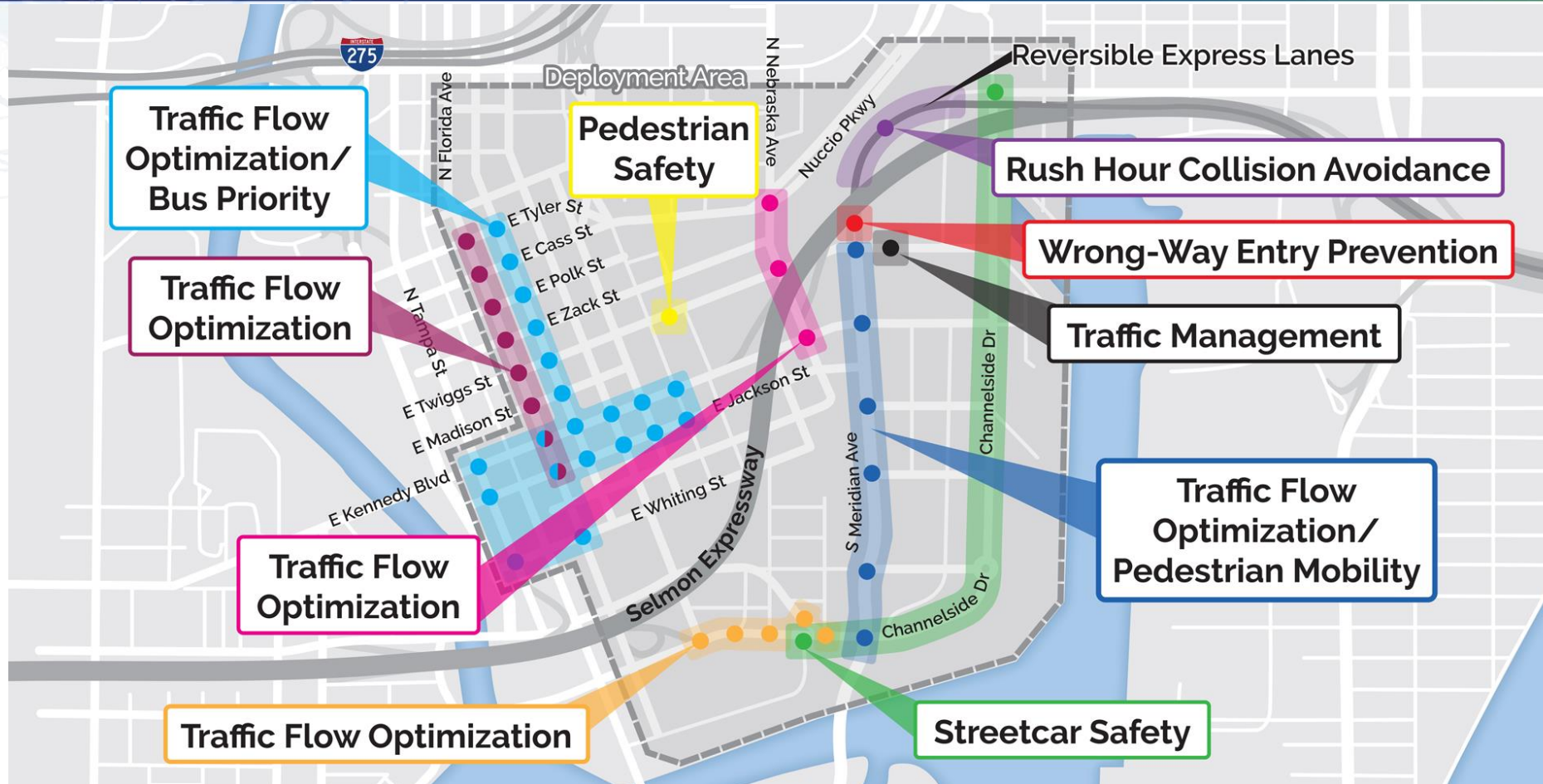
U.S. Department of Transportation



CONNECTED VEHICLES IN TAMPA



FOCUSED DEPLOYMENT AREA



PARTICIPANTS



1,600

Privately
Owned
Vehicles



500+

Pedestrian
Smartphones
(Android devices only)



10

TECO Line
Streetcar
Trolleys



10

Hillsborough Area
Regional Transit
(HART) buses



TRANSIT SIGNAL PRIORITY



Applications

I-SIG

Transit Signal
Priority (TSP)

IMA

Pedestrian Transit
Movement
Warning (PTMW)



STREETCAR CONFLICTS



Applications

Vehicle Turning
Right in Front of
Transit Vehicle
(VTRFTV)



PHOTO: TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY (THEA)

BUS TOLL LANES



Imagine...

a transit solution that
reduces traffic congestion
and pays for itself!



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Bus Toll Lanes



An equity based revenue sharing concept that provides:

- A Transit application based on Price Managed Lanes.
- New capacity for transit's need & use that allows for limited access entry of toll paying vehicles; but prioritizes of available capacity for transit.
- Multi-modal solution for creating financially sustainable transit service while addressing urban congestion.
- Price managed to assure free flow operations and “Congestion Insurance” for all users.

Why Consider Bus Toll Lanes?



BTL – MOVE PEOPLE!

Condition (Vehicle Occupancy Rate = 1.1)	Buses Per Hour	Person Throughput Per Hour	Comparison to General Purpose Lane
General Purpose Lane With Severe Congested	0	1100	100%
Price-Managed Express Lane No Transit	0	1815	165%
BTL 15 Minute Headway	4	1977	180%
BTL 10 Minute Headway	6	2058	187%
BTL 5 Minute Headway	12	2302	209%
BTL 2 Minute Headway	30	3032	276%
BTL 1 Minute Headway	60	4248	386%

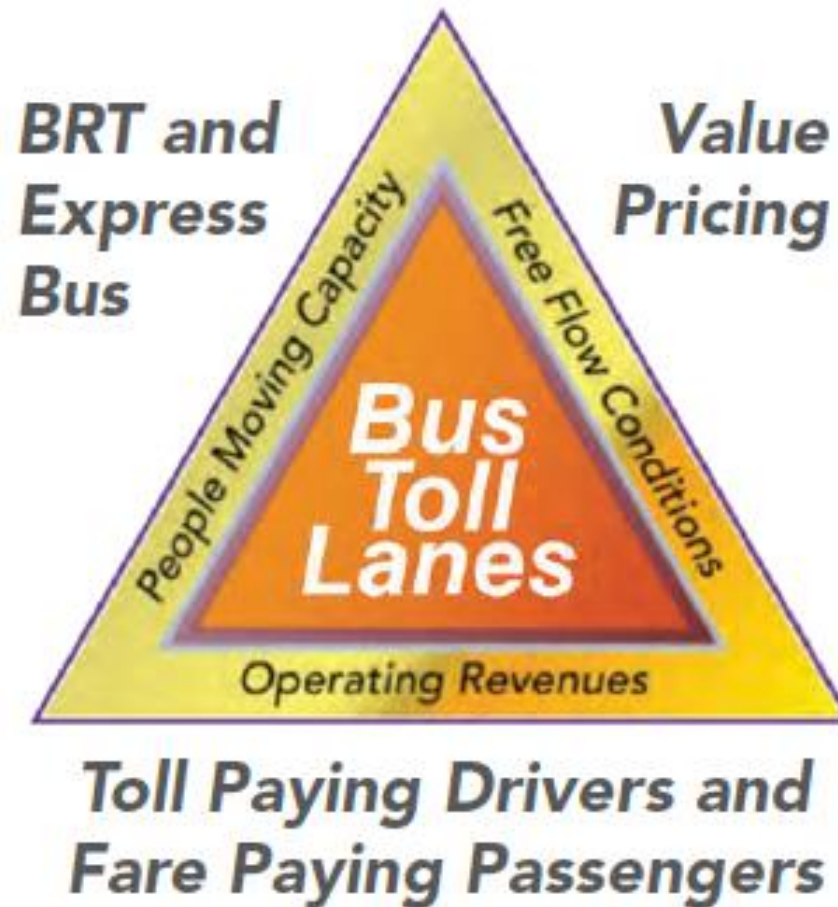
60 buses an hour would use less than 10% of the lane capacity.

The remaining 90% is available for toll paying vehicles that will support and grow the transit service.

Why Consider Bus Toll Lanes?



- Fast Reliable Transit Trips
- Low Cost Choice to Driving and Paying the Toll
- Competitive Choice to Move People Out of Cars
- Address Equity Issues



- Urban Solution
- Sustainable Level of Service
- Sustainable Source of Revenue
- Test Beds for the ACES Future
 - Automated
 - Connected
 - Electric
 - Shared

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<https://www.tampacvpilot.com/>

Joe Waggoner
Executive Director
joe@tampa-xway.com



Brochure: https://www.tampa-xway.com/wp-content/uploads/2016/04/Bus-Toll-Lanes-Final-Brochure_sm.pdf

Report: <https://www.tampa-xway.com/wp-content/uploads/2018/01/THEA-BTL-Final-Report-Full-Packet-3.pdf>