

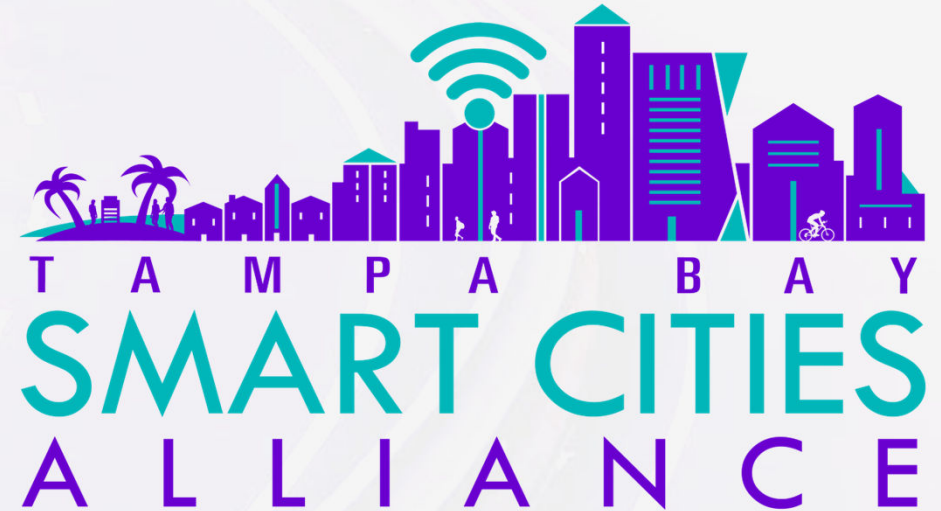


Winter Workshop Annual Review and 2025 Look Ahead

February 27, 2025

SkyCenter Board Room

Tampa International Airport





Welcome and Opening Remarks

Brett Fay, C.M.
Vice President of General Aviation
Hillsborough County Aviation Authority



2024 - Partner Reflections



Welcome and Introduction

Item	Description	Lead
1	Welcome and Introduction	Alice Price/ Brett Fay
2	Partner Reflections on 2024	Alice Price
3	Suncoast Mobility Hub • Update and Group Feedback • Smart Corridor User Case	Lee Woodcock Amber Russo
4	Hurricane Debrief - Leveraging the Benefits of Technology	Alice Price/Group Discussion
5	A Route to MaaS – Phase 2 – work zone mitigation? • Austin District CPP • Work Zone Data Exchange/ Data Sharing • Houston, Tx – case study • Tampa kiosks • Open Discussion	Lee Woodcock Lee Woodcock Ian Newberg (Moovel) Tampa Downtown Partnership ALL
6	Advanced Transportation and innovation Grants	Hillsborough and Pinellas Counties
7	Actions and Next Steps	Alice Price

The meeting is being recorded and will be shared on the Tampa Bay Smart Cities Alliance website.

Please place yourself on mute during the workshop. If you would like to contribute/ ask a question, then please click the 'raise your hand' icon then unmute yourself when the moderator recognizes you.



Suncoast Mobility Hub and Smart Corridor Updates

Lee Woodcock and Amber Russo
FDOT D7/AtkinsRealis

Suncoast Mobility Hub

Feedback

Some access issues but in part due to delay from sign up to use (forgot passwords, etc).

Limited opportunity to utilize the Hub so far but increasing likelihood in the new year.

Would like to see an export function (word, excel, csv, etc).

Add data analysis capability including dates, times, years.

The screenshot displays the Suncoast MobilityHub website. At the top left is the 'SMART CITIES ALLIANCE' logo. The main header reads 'Suncoast MobilityHub' and 'A Regional Data Platform for Tampa Bay'. Below this is a navigation menu with links: Home, About, and Contact. The main content area features a large banner with the text 'Suncoast Mobility Hub' and a search bar. To the right of the banner is a grid of icons representing various data categories: Safety, Mobility, and others. Below the grid is a map of the Tampa Bay area with data overlays. At the bottom of the page, there is a section titled 'In partnership with:' followed by logos for FDOT, Hillsborough County, Forward Pinellas, Polk County, Polk Transportation Planning Organization, and Sarasota Manatee MPO.

1



Florida Department of
TRANSPORTATION



Smart Corridor Phase 2 *Project Update*

February 27, 2025 – TBSCA Workshop



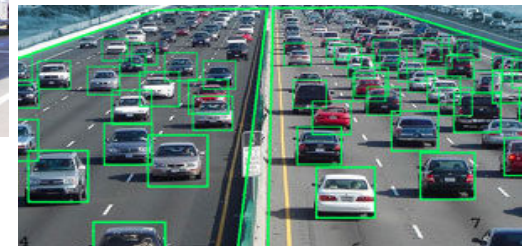
Smart Corridor - Phase 1

Schedule

- Began Winter 2020
- Completed Fall 2021

Deliverables

- A **clear description of smart corridor** for FDOT District 7
- **Unique toolkits** to support project development and pilots
- A **specific brand** for the smart corridor concept
- A **flexible approach** that leverages existing technologies, but is also **future proofed for new and emerging solutions** such as autonomous cars



Project Overview: Goals

- Develop the smart corridor concept for the selected corridor
- Analyze existing and proposed traffic conditions and projected volumes via modeling efforts.
- Include consideration of Ramp Metering, if applicable to the selected corridor.
- Create concept designs and operations for smart corridors.
- Complete the branding (Smartlink) including staff interviews
- Produce recommendations concerning the long-term investment of these technologies.



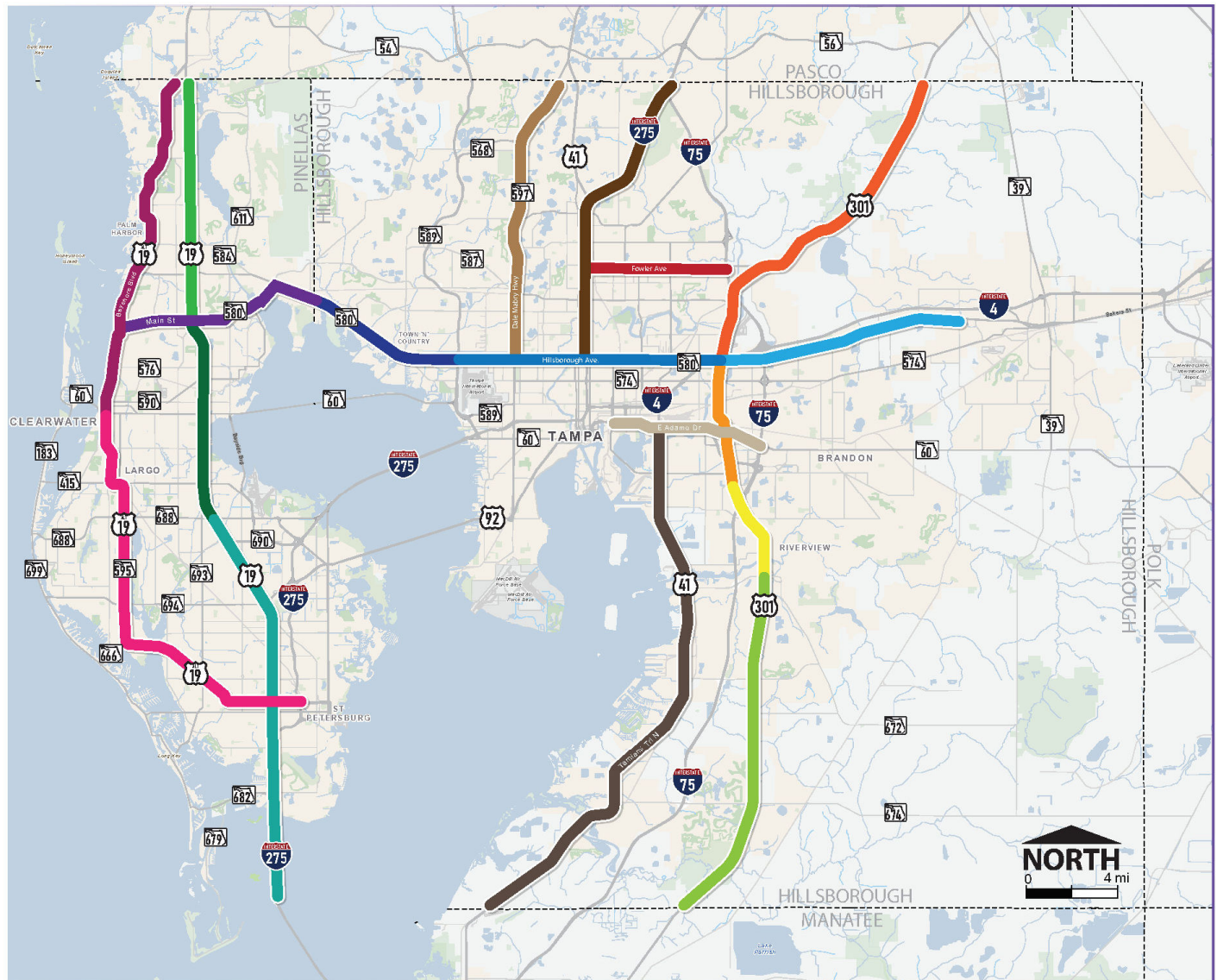
Smart Corridors Evaluation

Exhibit A

Potential Corridors Map

Legend

-  E. Fowler Ave. (I-275 to I-75)
-  US 301 (I-4 to Pasco County line)
-  US 301 (S. Falkenburg Rd to I-4)
-  US 301 (Gibsonston Dr to S. Falkenburg Rd)
-  US 301 (Monatee County line to Gibsonston Dr)
-  US 19 (Main Street/SR 580 to Pasco County line)
-  US 19 (Ulmerton Rd to Main Street/SR 580)
-  US 19 (Monatee County line to Ulmerton Rd)
-  E. Hillsborough Ave./US 92 (US 301 to N. Forbes Rd)
-  **Hillsborough Ave (SR 589)/Veterans Expy to US 301**
-  **Hillsborough Ave (Pinellas County line to SR 589/Veterans')**
-  **SR 580 (Alt 19 to Race/Track Rd/Hillsborough County line)**
-  **Alt 19 (SR 60 to Pasco County line)**
-  **Alt 19 (US 92/4th St N. to SR 60)**
-  **SR 60 E. Adamo Dr (Channel Side Dr to I-75)**
-  **US 41 (Monatee County line to Selmon Expressway)**
-  **Dale Mabry Hwy (SR 60/W. Kennedy Blvd to Pasco County line)**
-  **I-275 (I-4 to Pasco County line)**



Selection Criteria

Criteria	Definition (for this evaluation)
Safety	Safety was measured by the # of major incidents (fatalities + incapacitating injuries) and intermediate incident (non-incapacitating injuries) during 4/1/21 - 4/30/24. Then, an "incidents per mile" ratio was calculated and given a ranking. Major Ratio: LOW = <5; Med = 5 to 7; High = >7; Intermediate Ratio: LOW = <10; Med = 10 to 20; High = >20
Congestion	Congestion was measured using the volume to capacity (v/c) ratio. Low = <1.0; Med = 1.0; High = >1.0
Regional Connectivity	Activity Centers were identified based on regional trip generators in the affected cities/counties (for example: USF, Downtown Tampa, Westshore, South Hillsborough County, Pinellas Gateway, St. Petersburg, and Clearwater). Places where economic, social, and civic activity, as well as key infrastructure assets, are concentrated. For the ranking of the corridors, the number of activity centers connected: Low = 0-1; Med = 2; High = 3.
Local Connectivity	Local connectivity was analyzed by reviewing the number of signalized intersections that impacted the candidate corridor as well as the number of parallel routes.
Capacity Constrained via Policy	Capacity Constrained corridors are defined by policies adopted by Forward Pinellas (LRTP) and the Hillsborough Planning Commission (Comprehensive Plan). The policies limit any increase in capacity on the roadway and rely on technological and/or policy changes to attempt to control and/or limit traffic increases.
Bicycle/Pedestrian	If the corridor has existing sidewalks, trails, or bicycle facilities = Yes; Partial = ped/bike facilities exist on certain segments only; No = no existing bike/ped facilities.
Transit	If the corridor has existing transit route(s) = Yes; Partial = existing transit runs on certain segments only; No = no existing transit.
Technology	Recorded ITSFM (https://www.fdot.gov/traffic/itsfm/index) mile marker limits and the # of existing devices. Shows how these conditions could enable a smart corridor rather than a specific ranking element.
Equity	The Distressed Communities Index uses a multi-tier analysis to identify the level of economic well-being by zip code with rankings of "prosperous", "comfortable", "mid-tier", "at-risk", and "distressed".
Future Land Use	The Future Land Use is the category assigned to a parcel of land based on its intensity (i.e. residential, commercial, institutional, industrial, etc.)
Programming	The FDOT Work Program was consulted to determine if there were other projects already being considered for the candidate corridor, including resurfacing projects.



Recommended Corridors

Roadway Segment	County	Safety (4/1/21 to 4/30/24)						Regional Connectivity (# Activity Centers)	Local Connectivity		Capacity Constrained via Policy	Bike/Ped	Transit	Technology		Distressed Community Status	Future Land Use	Programming	
		Mile-age	Major Incidents (Fatalities + Incapacitating)	Ratio (per mi)	Intermediate Incidents (Non-incapacitating)	Ratio (per mi)	Congestion (v/c ratio)		# of Local Road Connections	Parallel Corridors				ITSFM Mile Marker limits	# Devices (Signal Controllers, MFES, CCTV, VDS, DMS)			# of Projects	Resurfacing Projects
US 19 (Main St/SR 580 to Pasco County line)	Pinellas	10.6	187	17.64	311	29.34	0.8-1.2	1	12	1	N	Y	Y	13.2-16.3	8 COMM. DEVICE, 6 FIBER DEVICE, 0 VDS, 0 CCTV, 0 DMS	Mid tier and comfortable	Mixed use and commercial	1	0
US 19 (Manatee County line to Ulmerton Rd)	Pinellas	18	172	9.56	544	30.22	0.5-1.2	2	28	1	N	partial	Y	13.0-17.4	8 COMM. DEVICE, 6 FIBER DEVICE, 0 VDS, 0 CCTV, 0 DMS	At risk, comfortable, distressed, and mid tier	Mixed use, commercial, institutional, planned development	9	1
Hillsborough Ave (SR 589/Veterans Expy to US 301)	Hillsborough	11.5	81	7.04	373	32.43	0.8-1.1	2	28	1	Y (Rome Ave - US 41)	Y	Y	7.0-20.0	10 COMM. DEVICE, 20 FIBER DEVICE, 0 VDS, 5 CCTV, 0 DMS	At risk and mid tier	Industrial, institutional, and commercial	4	2
W. Hillsborough Ave/SR 580 (Race Track Rd to SR 589/Veterans Expy)	Hillsborough	7	42	6.00	161	23.00	0.8-1.0	1	15	2	N	Y	Y	0.0-6.9	15 COMM. DEVICE, 3 FIBER DEVICE, 0 VDS, 1 CCTV, 0 DMS	Mid tier and comfortable	Institutional, mixed use, residential, and conservation	0	0
Dale Mabry Hwy (SR 60/W. Kennedy Blvd to Pasco County line)	Hillsborough	16.3	76	4.66	401	24.60	0.7-1.2	3	33	2	Y (Hillsborough Ave - COT limit)	Y	partial	SR573 0.2-1.8 SR600 4.0-11.0 SR580 9.7-12.7 SR597 0.0-5.9	35 COMM. DEVICE, 70 FIBER DEVICE, 0 VDS, 9 CCTV, 4 DMS	At risk and comfortable	Mixed use, institutional, commercial, recreation, residential	4	3

#1: Hillsborough Ave from SR 589/Veterans Expy to US 301

Next Steps

- Smart Corridor:
 - Confirm the corridor
 - Review all existing studies
 - Obtain critical data and access to models
 - Identify other project dependencies
 - Focus primary efforts of the traffic analysis activities with the other tasks mobilizing
- Suncoast Mobility Hub
 - Share your user cases and needs
 - Advise on datasets that would help you



Hurricane Debrief: Leveraging Technology

Alice Price
Group Discussion

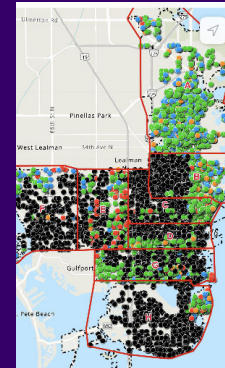
Hurricane Response



Mobile Command Support



Generator Refueling



GIS Support



Drones



Damage Assessment/DDIR



Debris/Sand Removal



Landfill Management



Group Discussion



Mobility as a Service Phase 2

Lee Woodcock
FDOT D7/AtkinsRéalis



Central Texas Construction Partnership Program



35+ significant construction projects that are soon-to-be under way in Central Texas, representing more than \$20B in infrastructure investment from federal, state and local funding sources. The region's transportation agencies have come together to form CPP to:

- ✓ **Improved Coordination**
- ✓ **Enhanced Safety**
- ✓ **Maintained Mobility**
- ✓ **Informed Public**
- ✓ **Long-Term Scalable Foundation**



DATA ORIENTATION

Gather disparate data from different sources and agencies



CONSTRUCTION DATA PLATFORM

Aggregate and standardize information

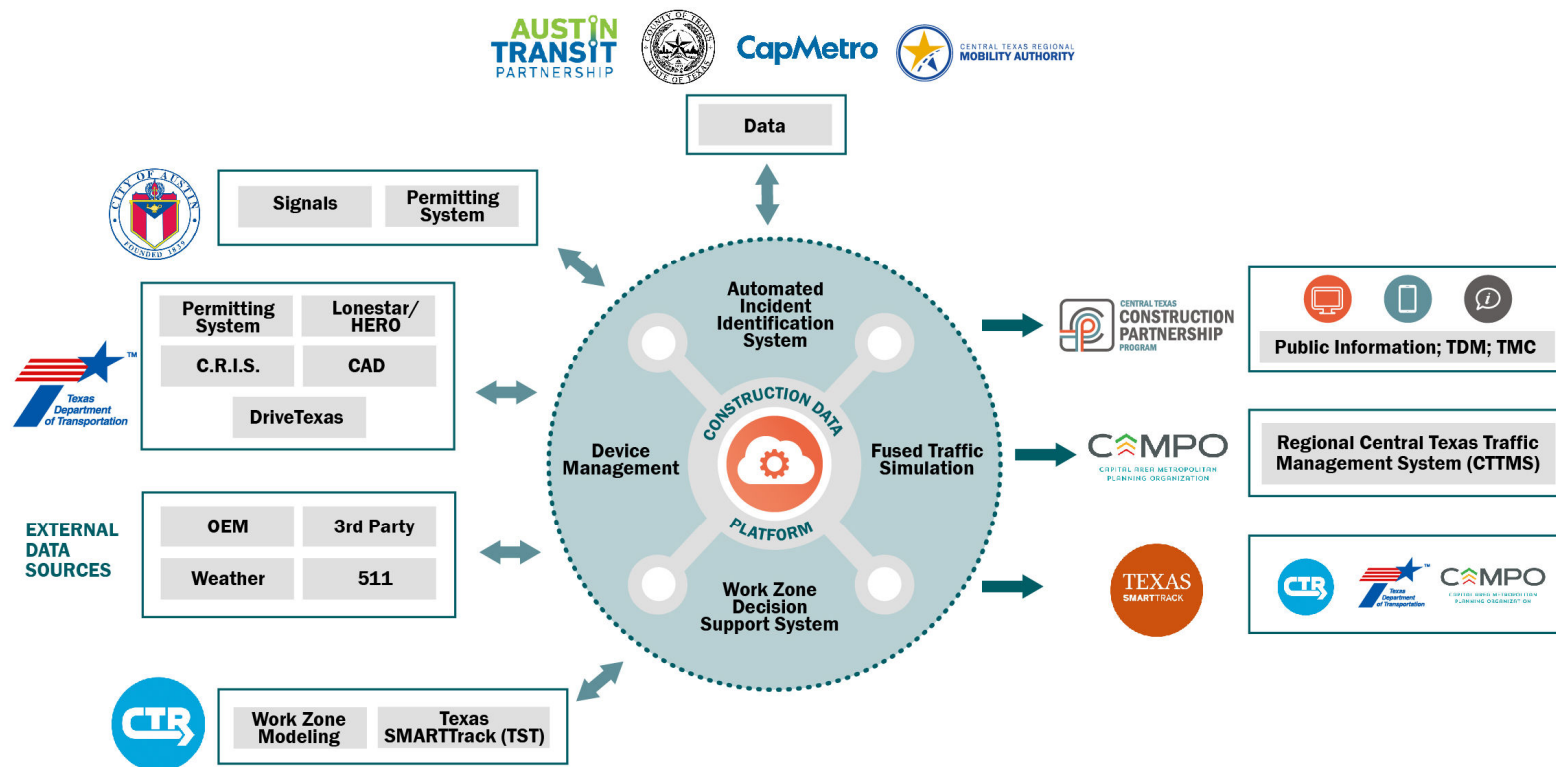


MAINTAIN AN INFORMED PUBLIC

Disperse information, enhance awareness, and improve outcomes

Central Texas Construction Partnership Program

Construction Data Exchange Platform
Conceptual Architecture



CPP Companion App

Optimize Regional Mobility

Designed to provide scheduled and real-time information to best serve the traveling public, elected officials, and construction workers.



REAL-TIME INFO

- Traffic Map
- Trip Planner
- Road Work
- Incidents
- Travel Times



PRIVACY & SECURITY

- Security by Design
- Data Protection



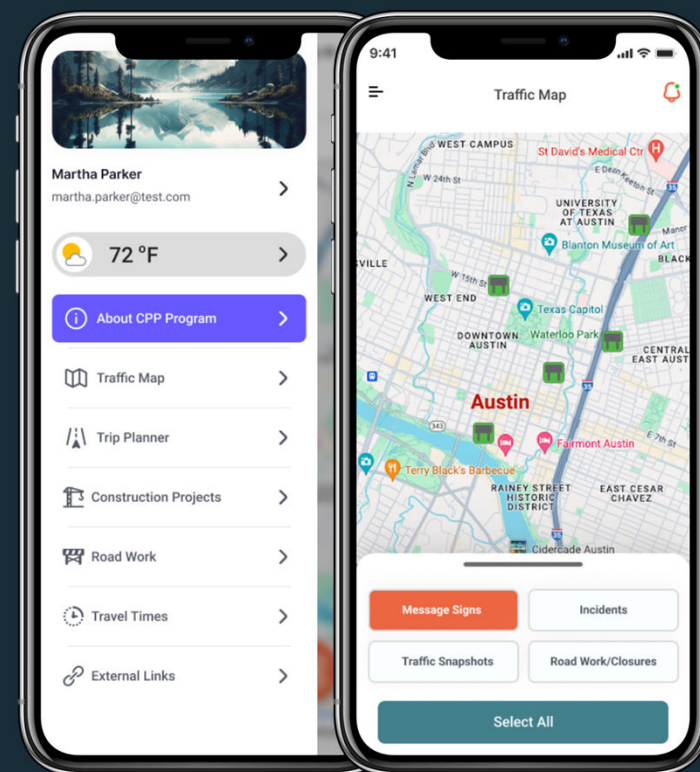
USER EXPERIENCE

- Personalization of Construction Alerts
- Data integrations with agency systems (i.e. Report an Issue)

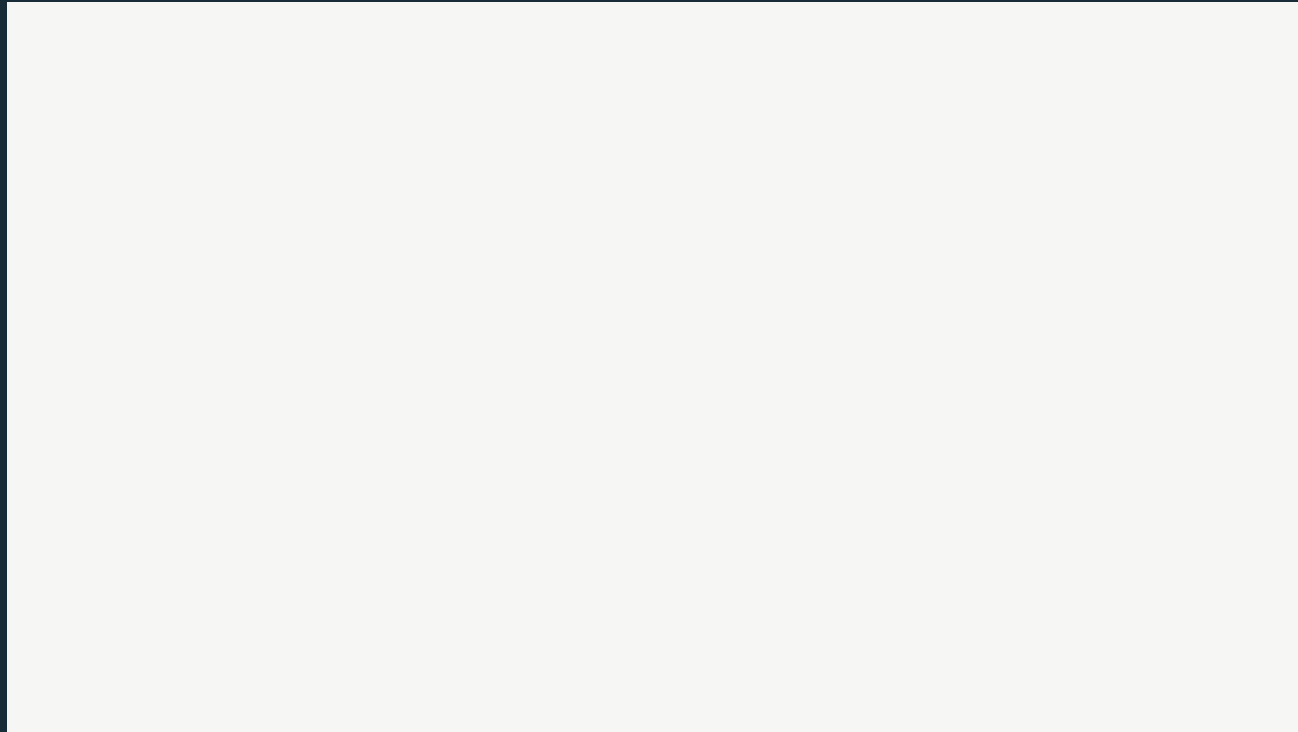


ACCESSIBILITY

- Customizable Settings
- English/Spanish Language
- ADA Compliant



Central Texas Construction Partnership Program

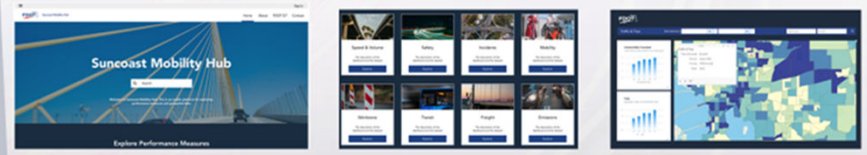


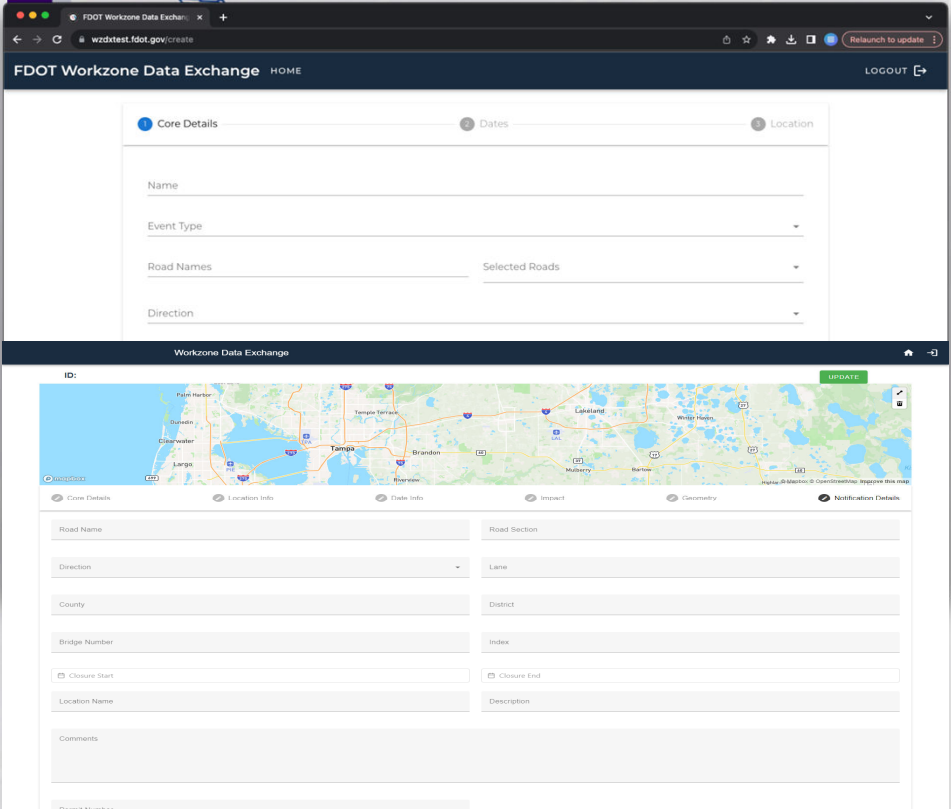
Work Zone Data

- Lee Woodcock



 **Suncoast MobilityHub**
A Regional Data Platform for Tampa Bay





The screenshot shows the FDOT Workzone Data Exchange web application. The browser address bar shows "wzdxtest.fdot.gov/create". The page has a dark header with "FDOT Workzone Data Exchange" and "HOME" on the left, and "LOGOUT" on the right. Below the header, there are tabs for "Core Details", "Dates", and "Location". The "Core Details" tab is active, showing a form with fields for "Name", "Event Type", "Road Names", "Selected Roads", and "Direction". Below the form, there is a map of the Tampa Bay area with a red line indicating a workzone. Below the map, there are tabs for "Core Details", "Location Info", "Date Info", "Impact", "Geometry", and "Notification Details". The "Core Details" tab is active, showing a form with fields for "Road Name", "Direction", "County", "Bridge Number", "Closure Start", "Location Name", "Comments", "Road Section", "Lane", "District", "Index", "Closure End", "Description", and "Permit Number".

Houston Case Study

Yi-Chang Chiu
Moovel - Metropia





A Route to MaaS Phase 2 – Work Zone Mitigation

Tampa Bay Smart Cities Alliance
February 27, 2025

The image features a group of eight business professionals standing in a line, silhouetted against a large, curved glass wall. The scene is set in a modern office or corporate building, with the floor reflecting the figures. The overall color palette is a deep blue, creating a professional and contemplative atmosphere. The text 'WHO ARE WE?' is prominently displayed in white, bold, sans-serif capital letters, underlined, and positioned on the left side of the image.

WHO ARE WE?

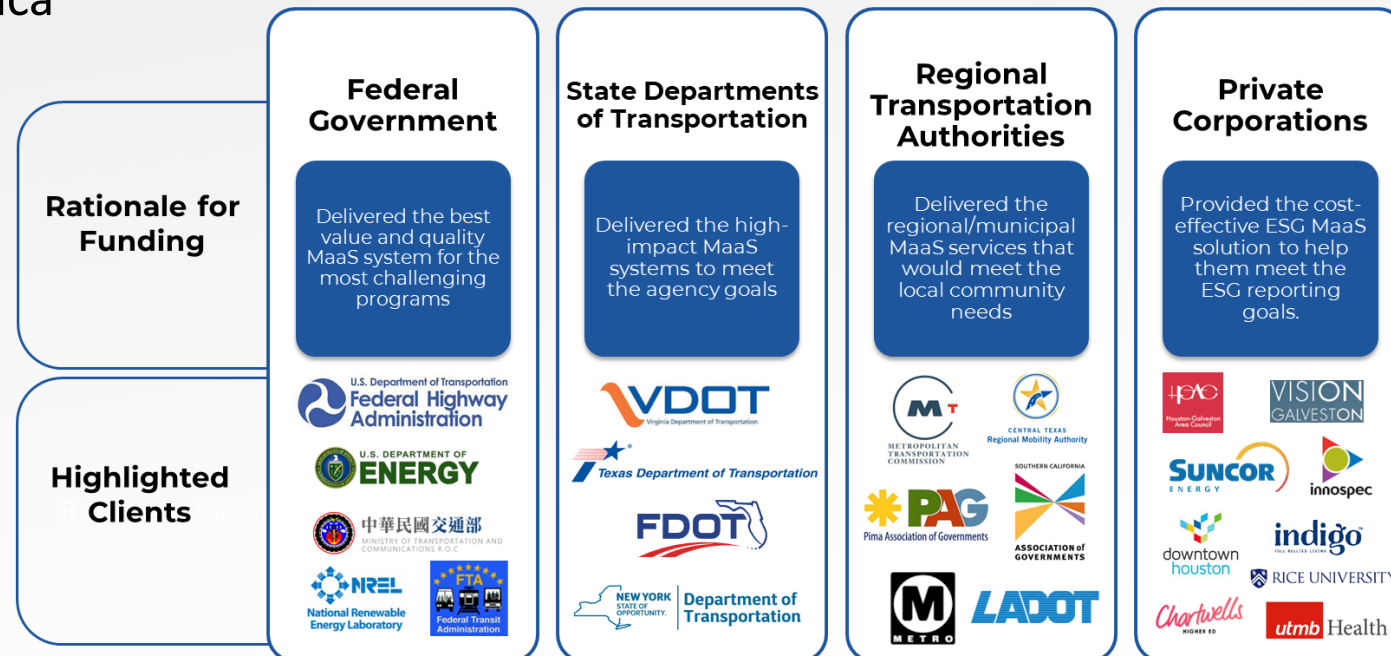
moovel

- Headquartered in Tampa, Florida
- Launched first Mobile Ticketing solution in North America
- \$100 million investment from Daimler/BMW
- Highest rated Transit Payment Solution in North America*
 - * 4.9 Star-rated Maryland MTA's Charmpass (24,000 reviews)
- Processed Over \$1 Billion in transactions
- Partnered with Metropia to provide the first Level-4 Mobility-as-a-Service (MaaS) solution in North America
- Latest implementation at SunRail (Orlando) went into service 2024. Has a 4.9 Star rating.



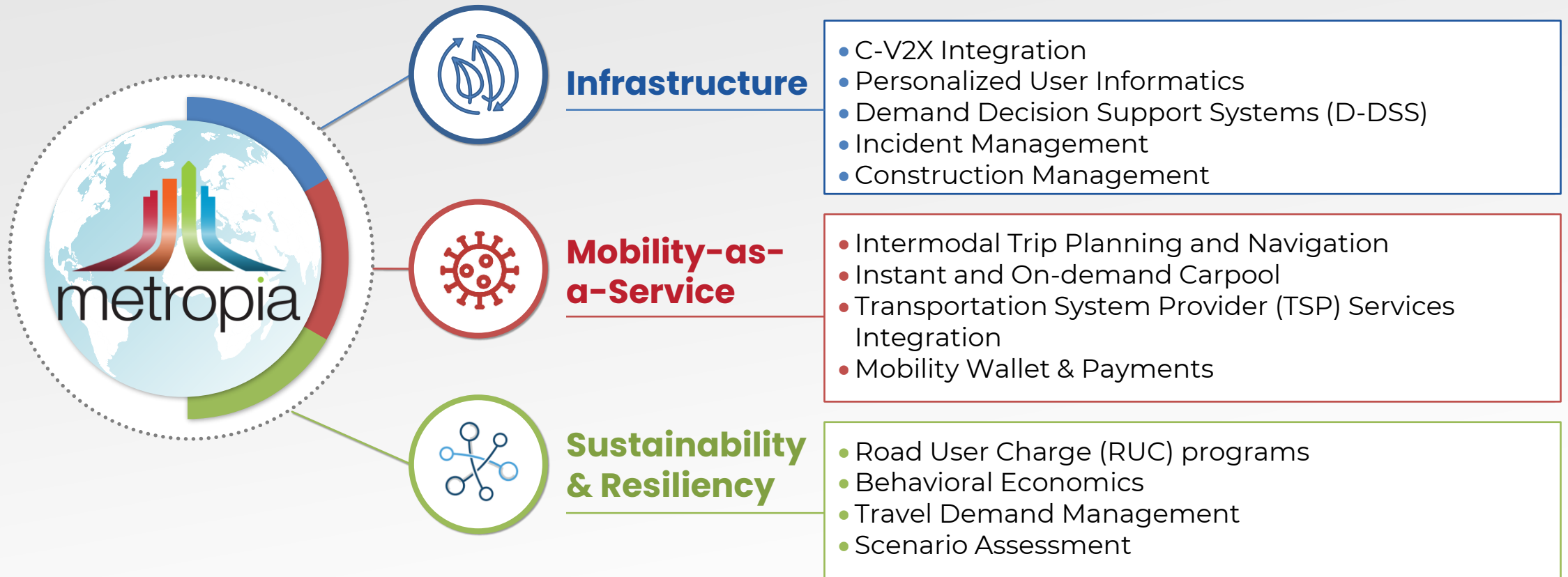
Metropia

- Headquartered in Houston, Texas; established in 2012, focusing on Connected MaaS
- Over 50 government agency and enterprise clients
- 4.5/5.0 Star-rated MaaS App
 - Metro area: Houston ConnectSmart (operational more than 2 years, 30K users)
 - State-wide: Virginia (just started operations)
 - Nation-wide: Taiwan (operational 4 years, 8MM users)
- Partnered with moovel to provide the first Level-4 Mobility-as-a-Service (MaaS) solution in North America

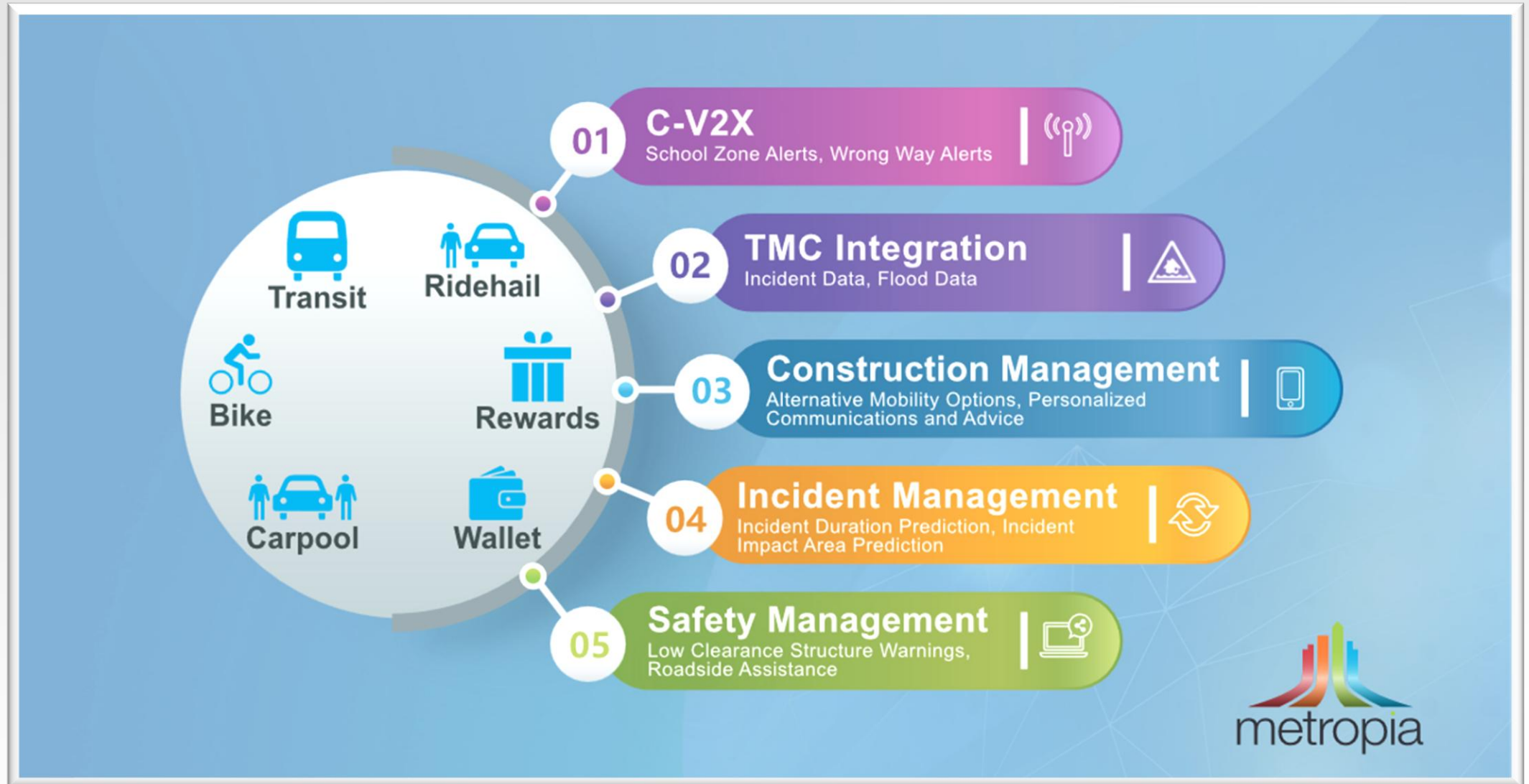


Proprietary, limited circulation, internal discussions only

Metropia Capabilities



Connected MaaS



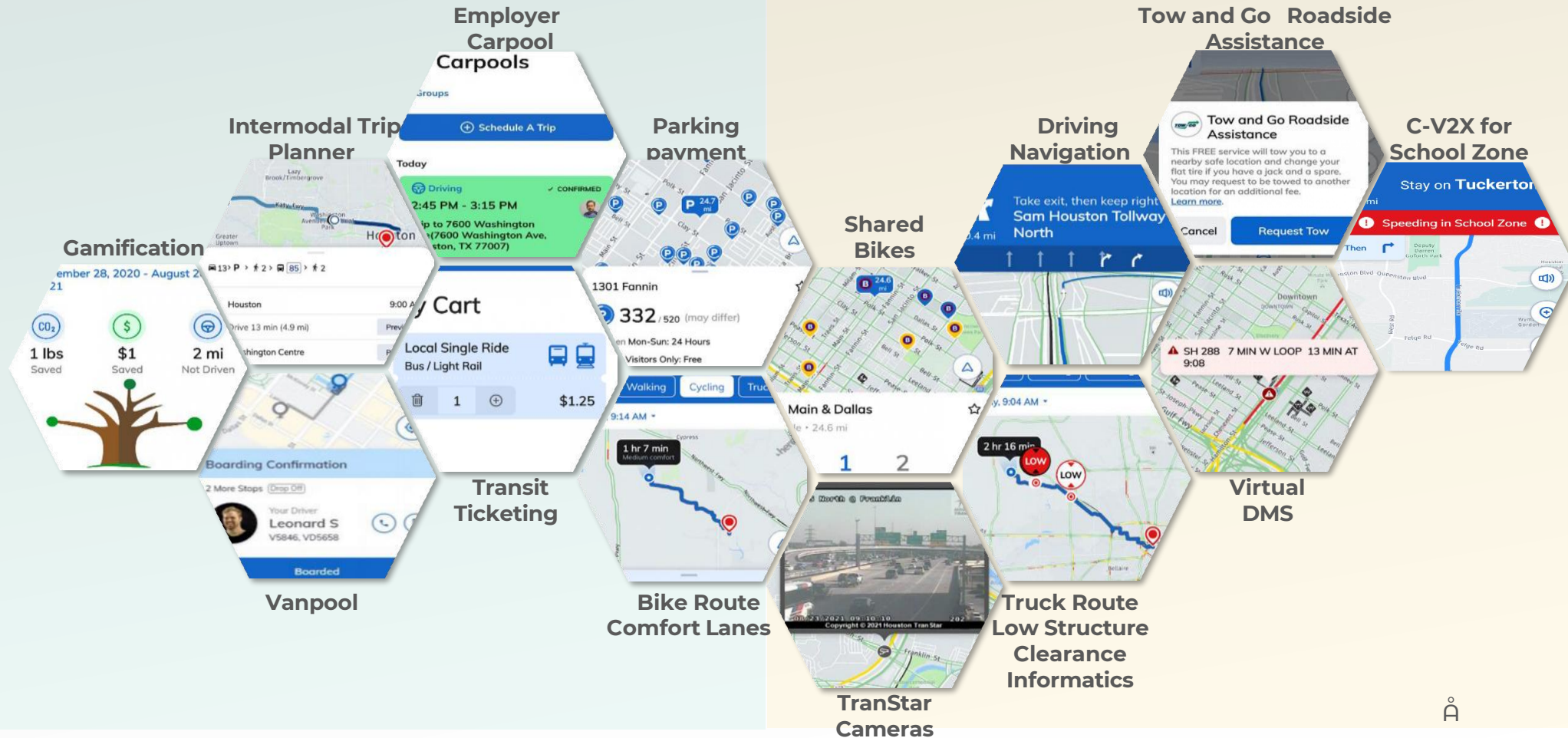
Connected MaaS

MaaS

Focuses on providing integrated mobility services to users for more convenient and seamless travel experiences.

TSMO/NG-ATIS

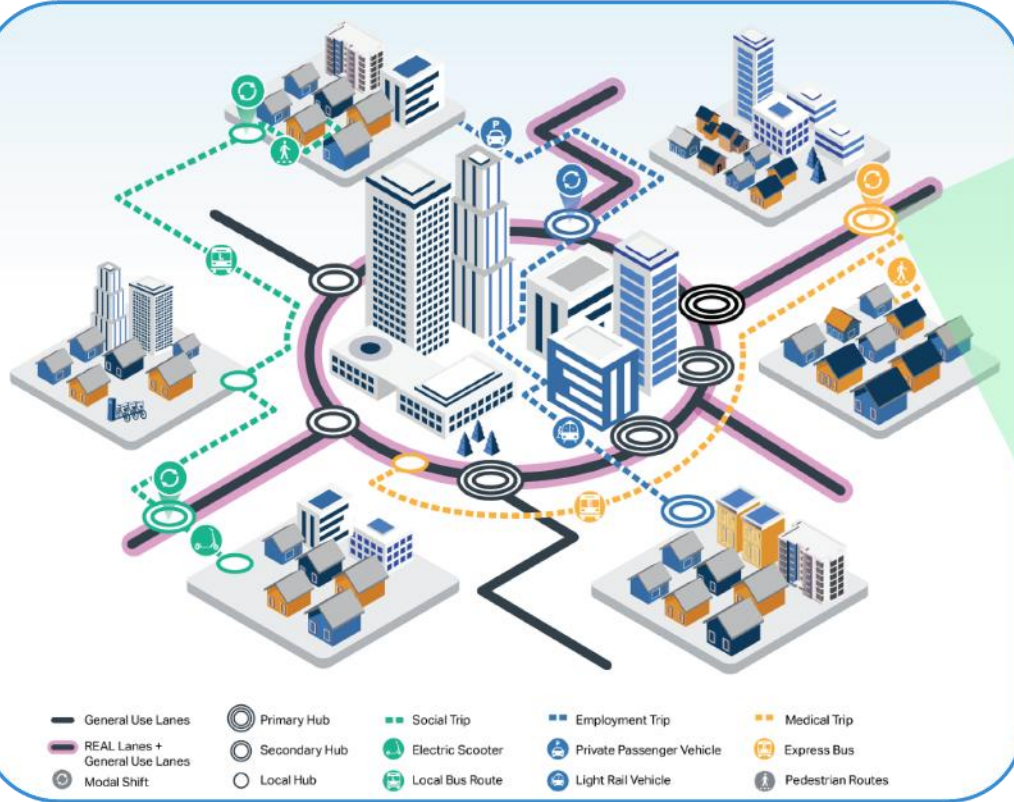
Focuses on influencing the traveling public's behavior toward system-wide safety, efficiency, and sustainability



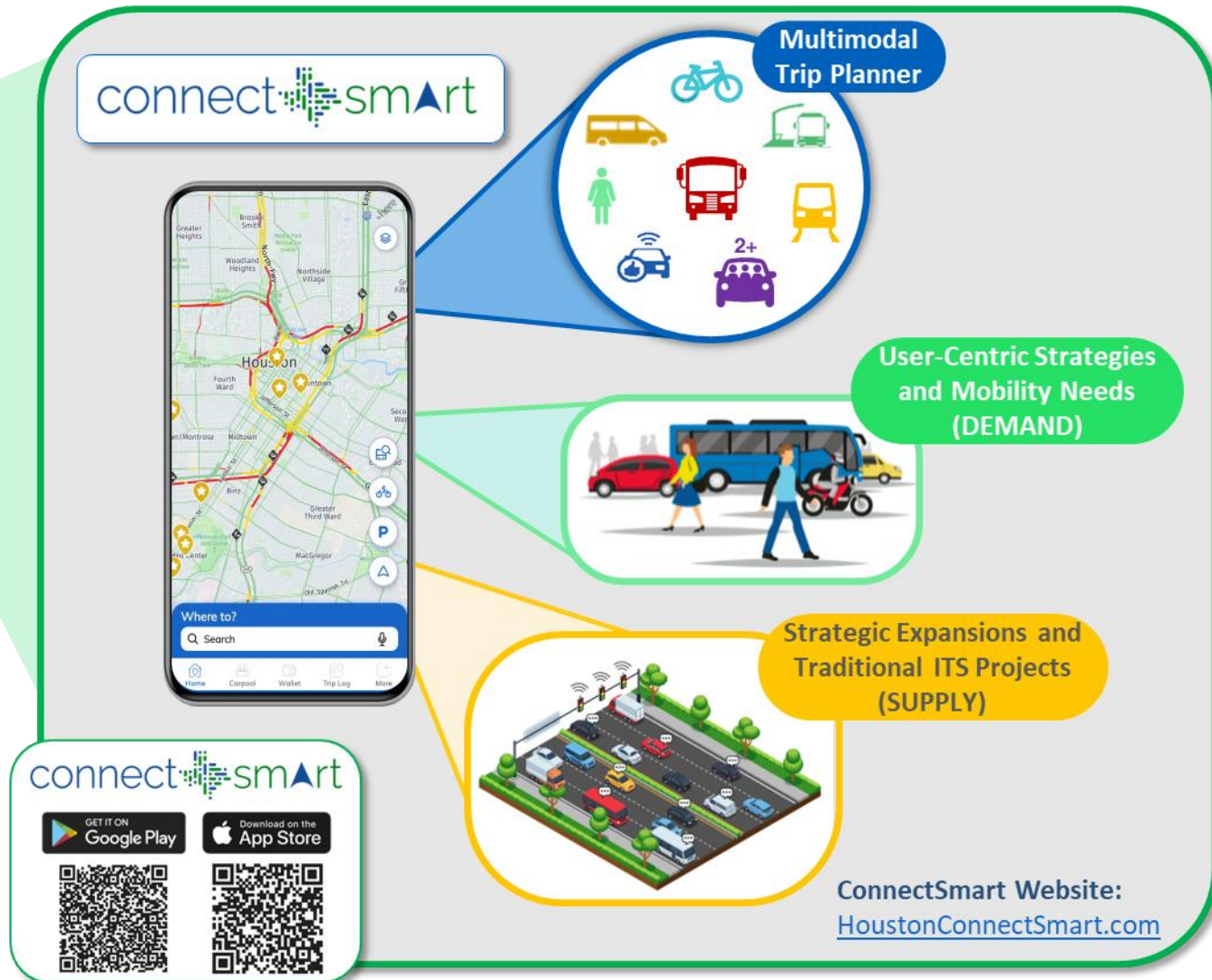
TxDOT Houston ConnectSmart Deployment

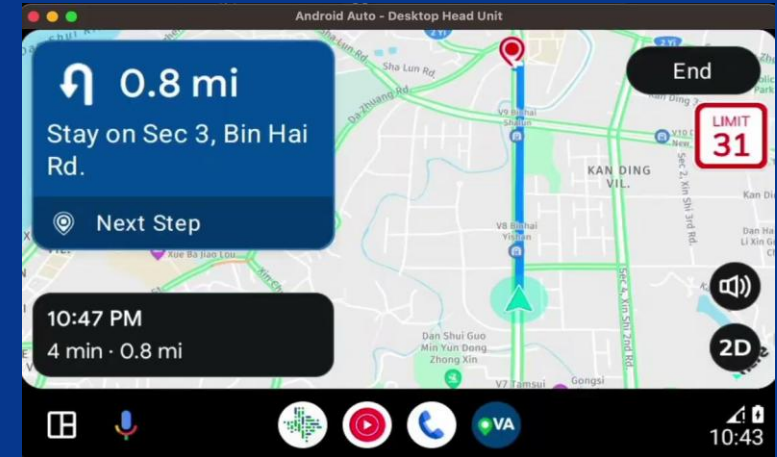
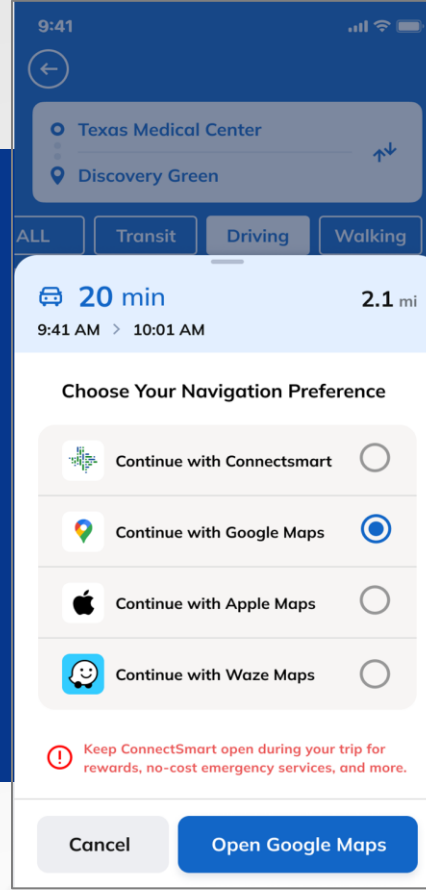
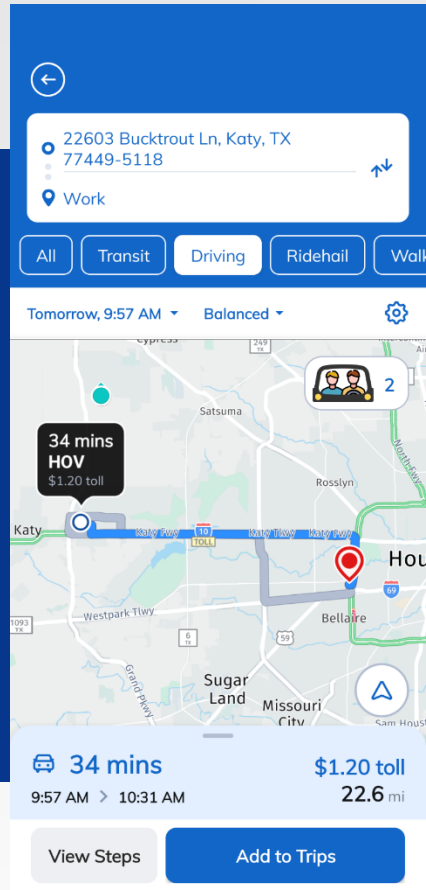
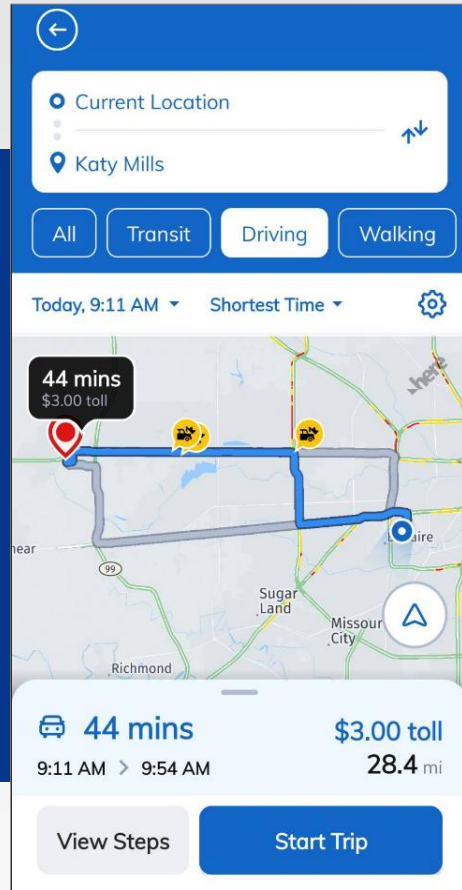


Solving Transportation Challenges with MaaS+TSMO Integration



ConnectSmart is the Technology
Connecting Users to
Transportation Infrastructure and Services





←

Current Location

NRG Arena

AllTransitDrivingWalking

Today, 9:35 AM ▾ Earliest Departure ▾ ⚙

🚶 6 > 🚌 60 > 🚶 7

48 mins Buy (\$1.25) 9:27 AM > 10:15 AM 🚶 4 > 🚶 6 > 🚶 3 > 🚌 60 > 🚶 25

41 mins Buy (\$1.25) ⚠ 9:32 AM > 10:13 AM 🚶 11 > 🚌 84 > 🚶 12

39 mins Buy (\$1.25)

Map

🚶 11 > 🚌 84 > 🚶 12

Loop Rd, Houston, TX // 005 9:32 AM

🚶 Walk 11 mins (0.4 mi) Preview

🚌 University Blvd @ Lanier Dr 9:43 AM

⚠ 84 Scheduled > Buy (\$1.25)

🚌 Kirby Dr @ Westridge St 10:02 AM

🚶 Walk 12 mins (0.4 mi) Preview

📍 NRG Arena 10:13 AM

41 mins 9:32 AM > 10:13 AM

Start Trip

Map

🚶 11 > 🚌 84 > 🚶 12

Loop Rd, Houston, TX // 005 9:32 AM

🚶 Walk 11 mins (0.4 mi) Preview

🚌 University Blvd @ Lanier Dr 9:43 AM

Route 84 Detour View Details > X

Start time: Apr 13, 2023, 10:17 AM

End time: Nov 13, 2023, 4:30 AM

Source: METRO

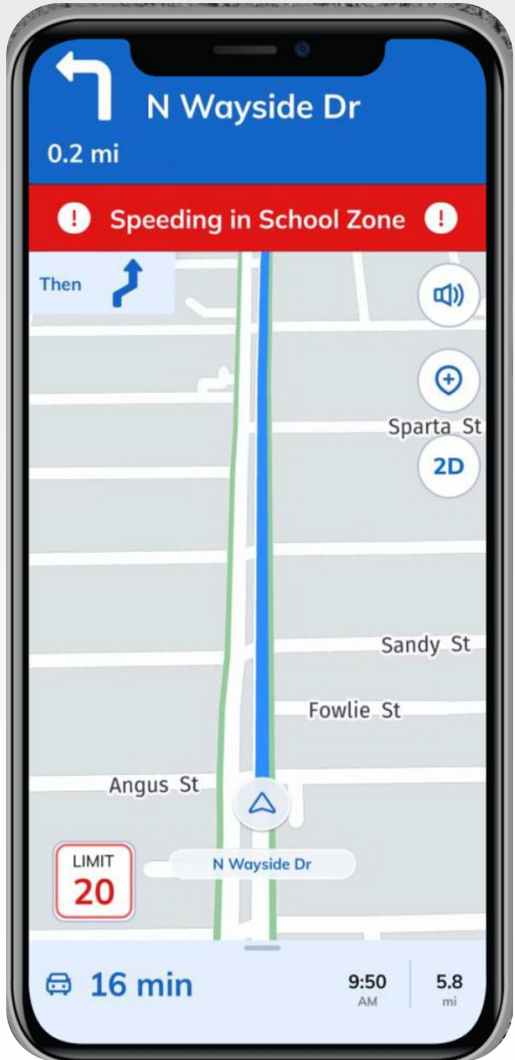
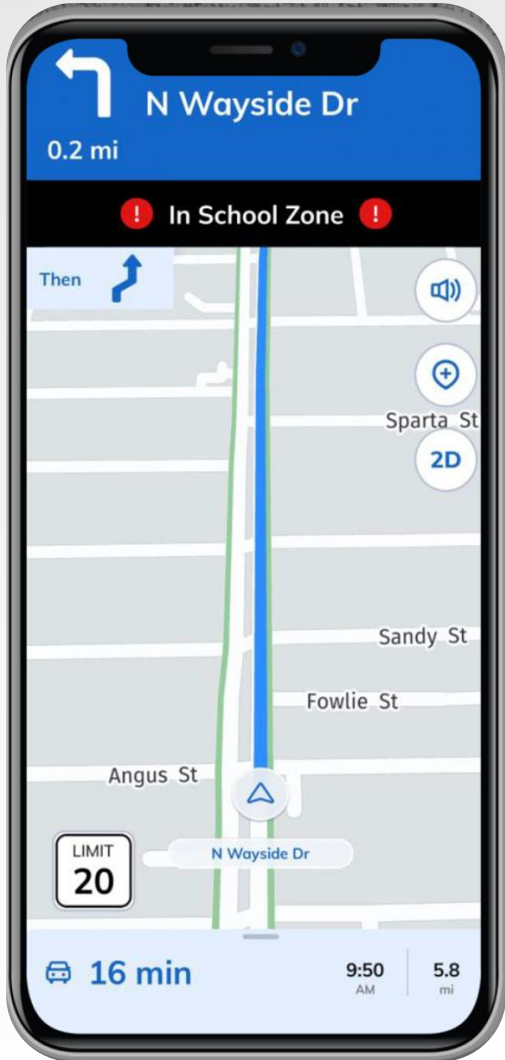
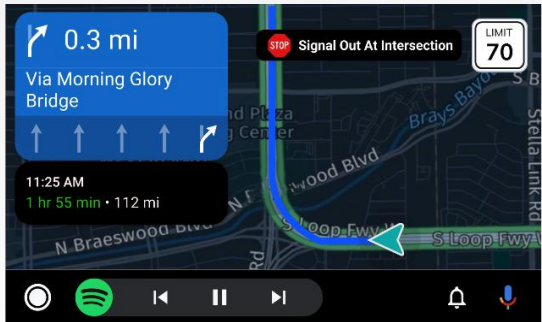
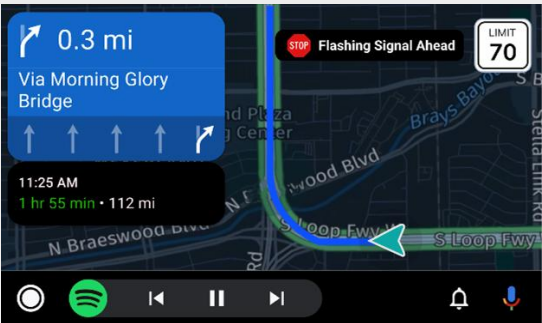
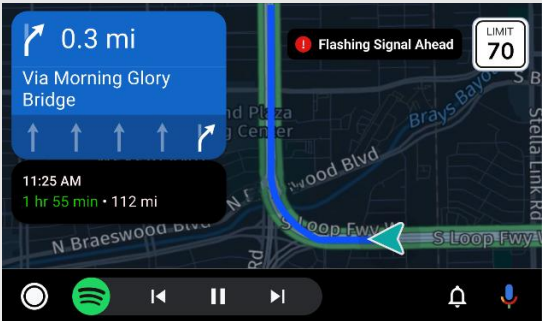
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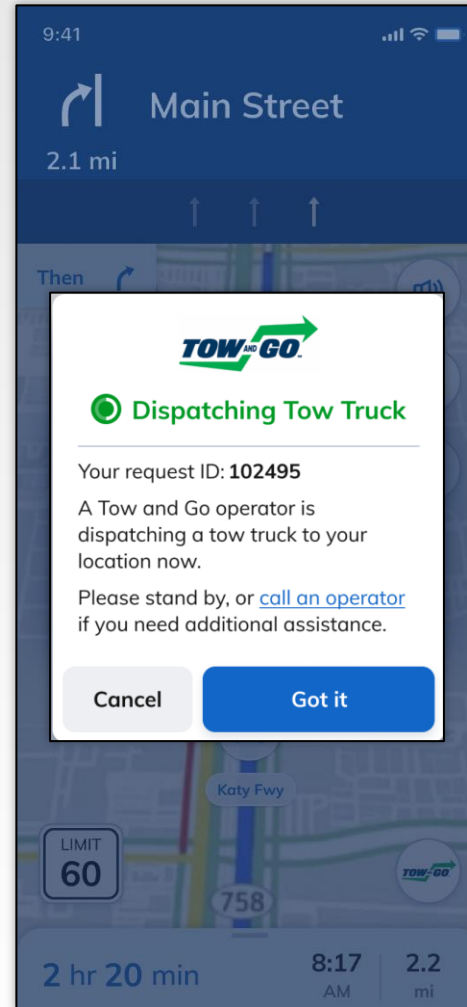
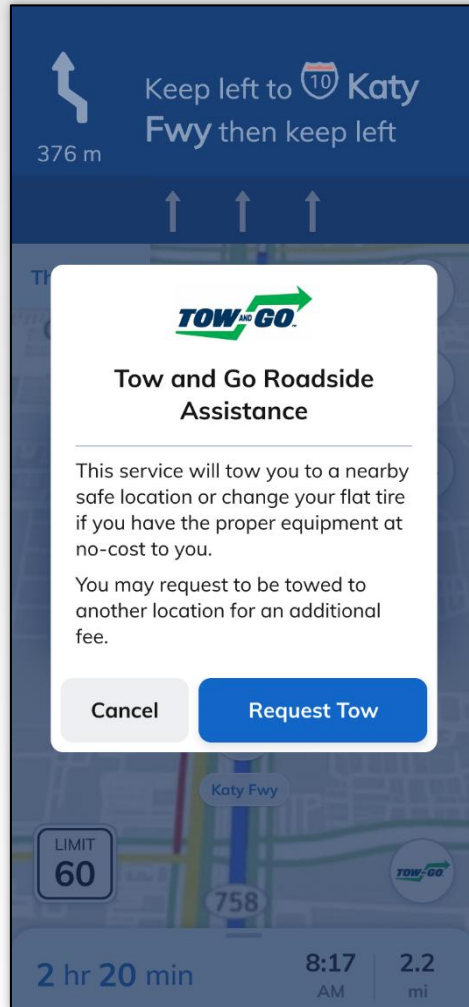
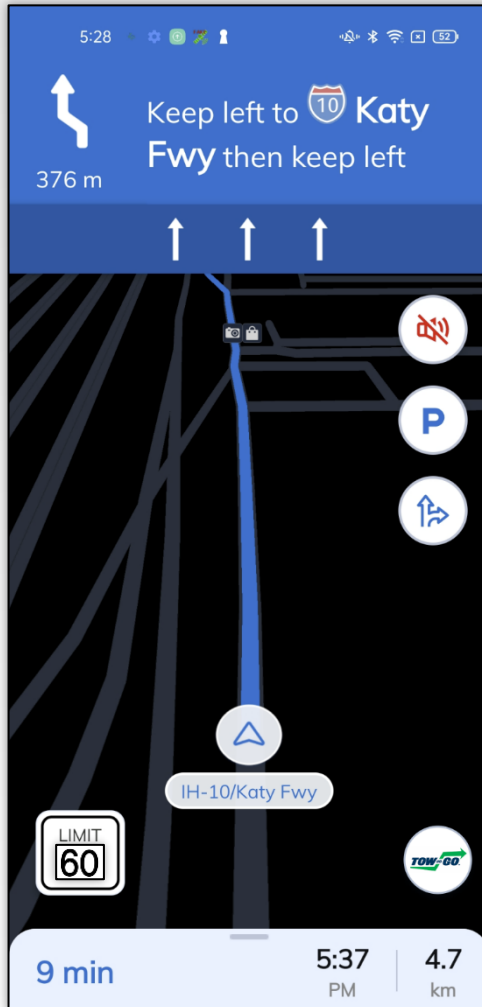
Route 84 Detour

Route 84 Buffalo Speedway detoured due to University St. closure.

Affected direction: Northbound
Via University, Right Kirby, Left Rice Blvd.,
Right Buffalo Speedway to regular route.

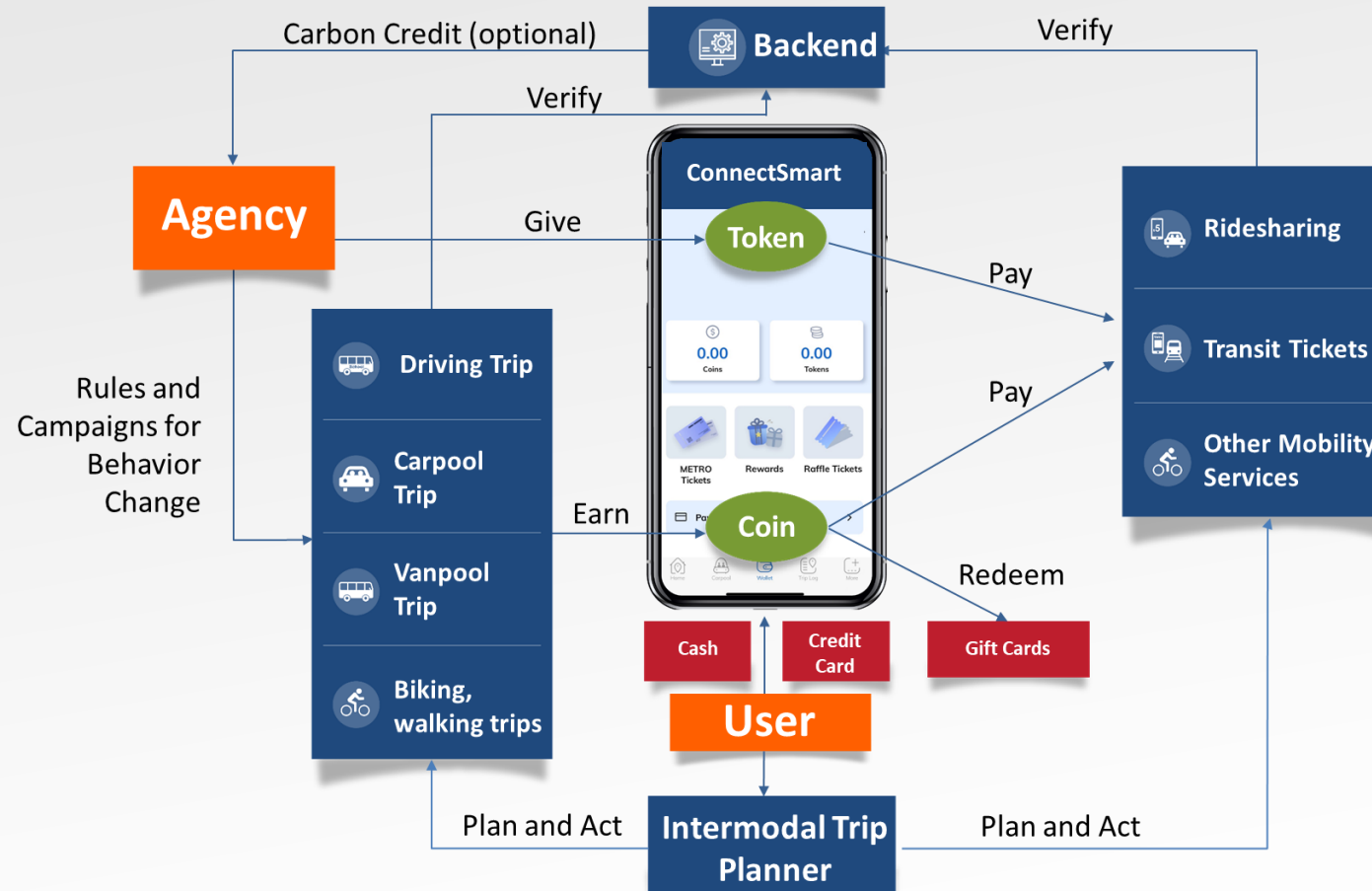
Source: METRO





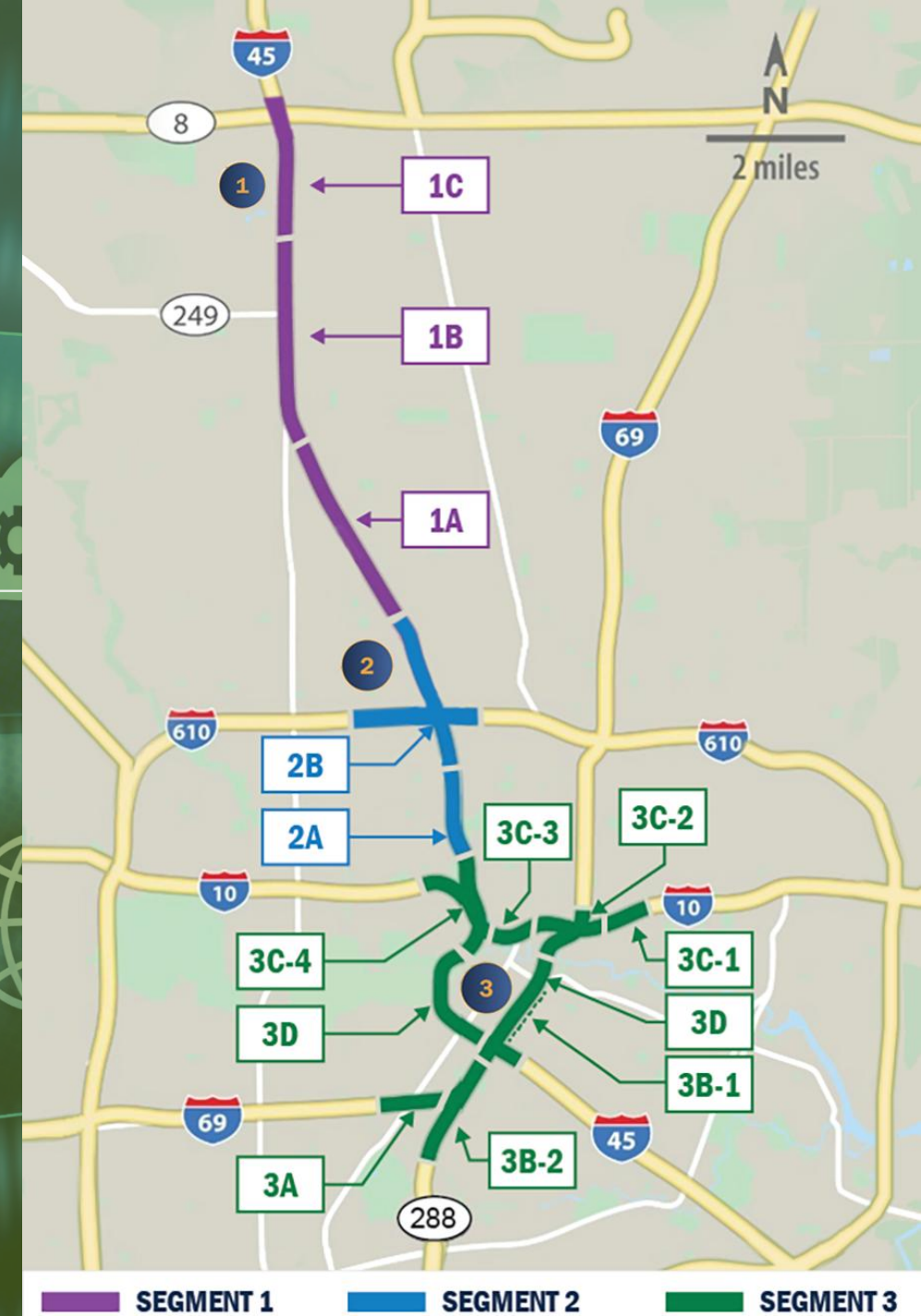
Integration Goals

- Improve roadway safety
- Reduced incident response time
- Faster incident and roadway clearance times
- Reduced risk of secondary incidents

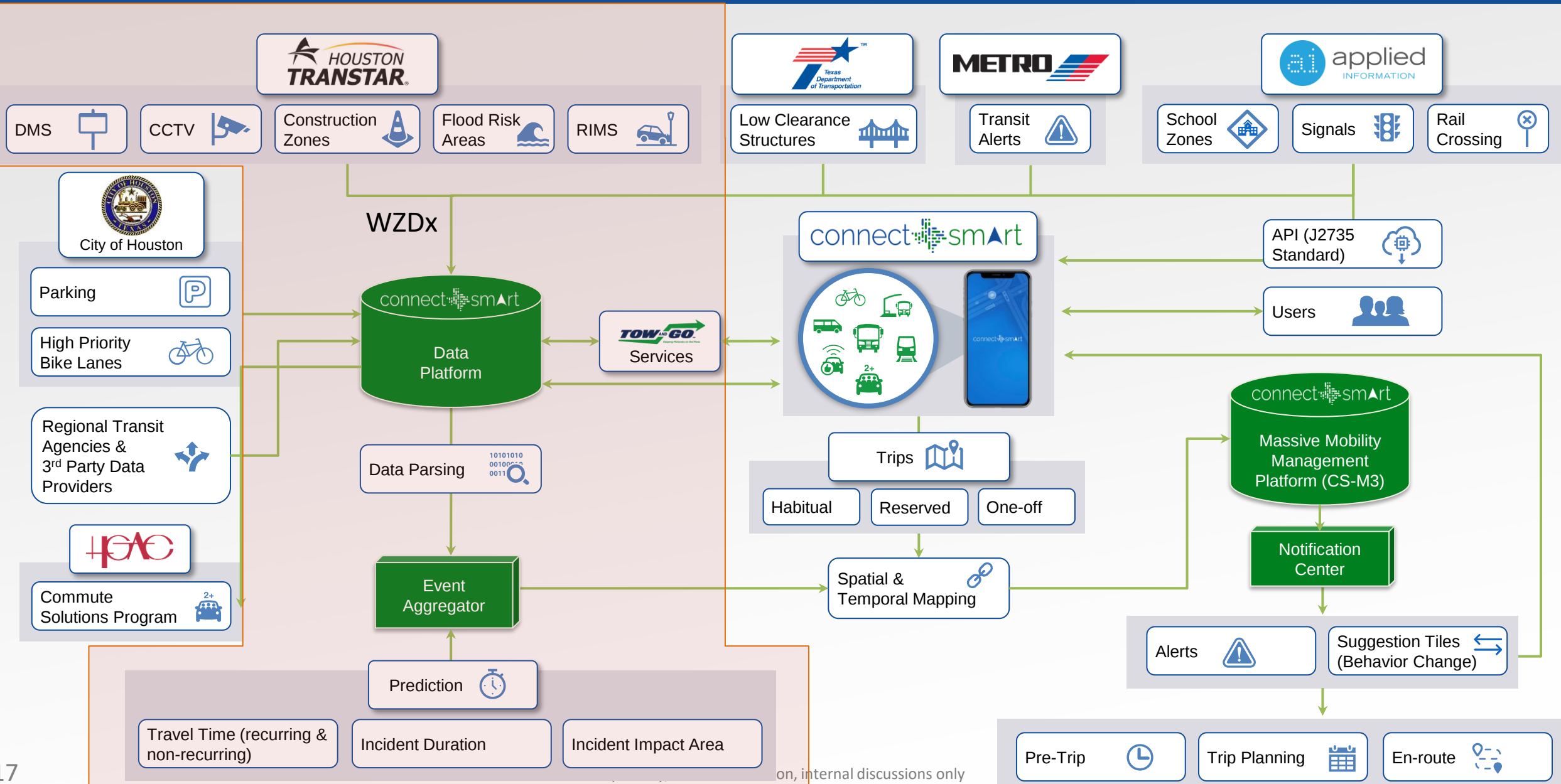


Houston ConnectSmart Construction Management

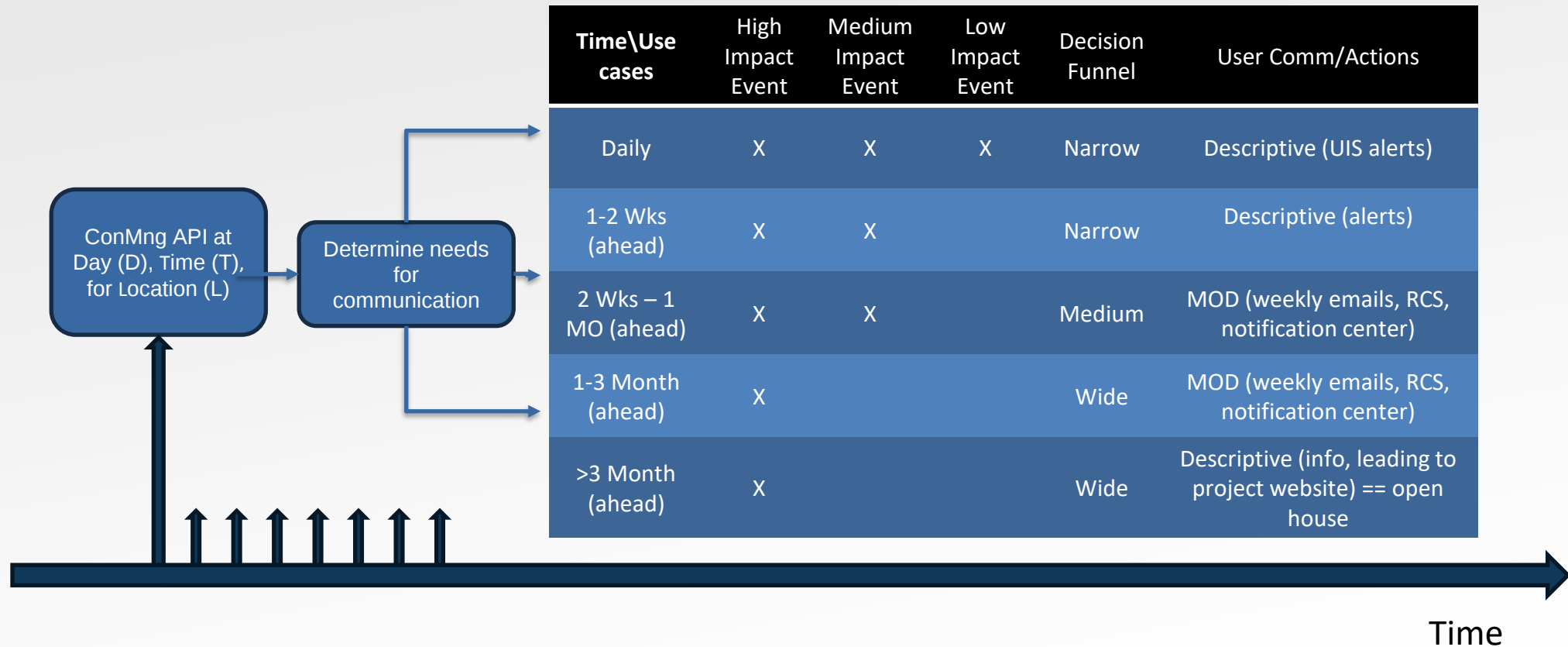
(North Houston Highway Improvement Project, NHHIP)



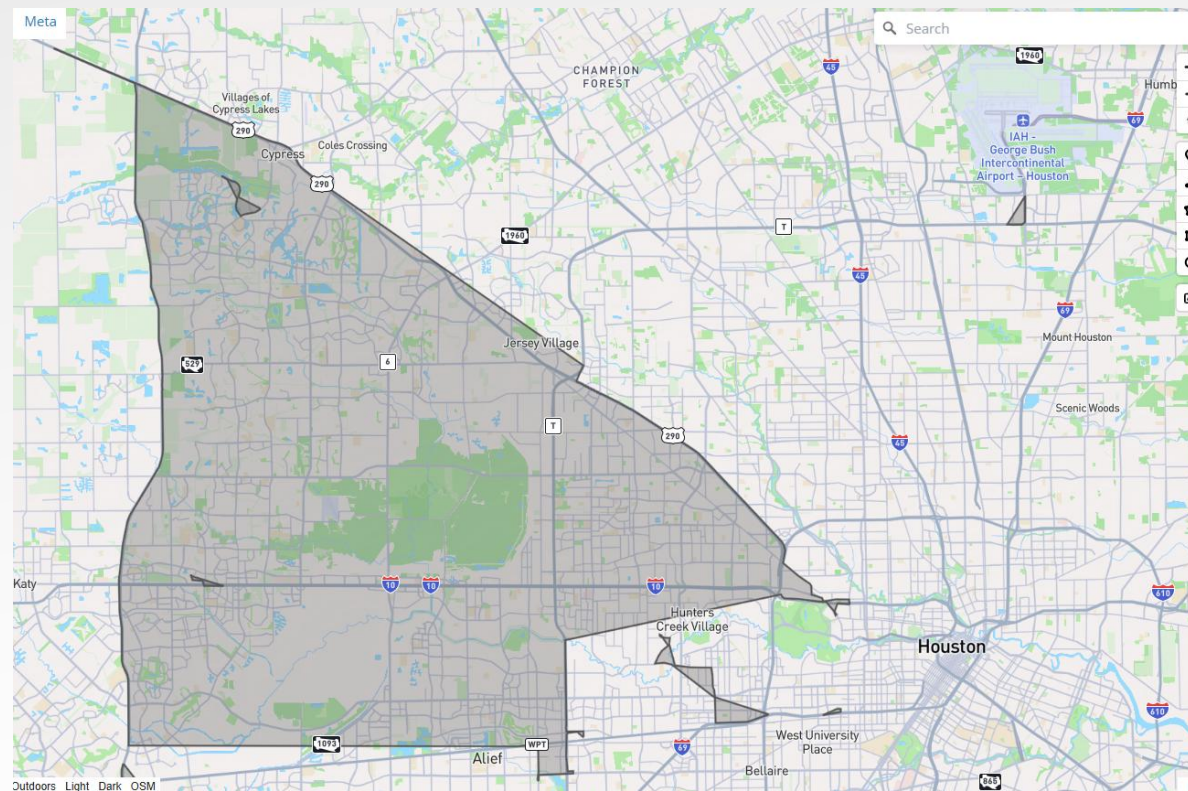
Congestion Management System



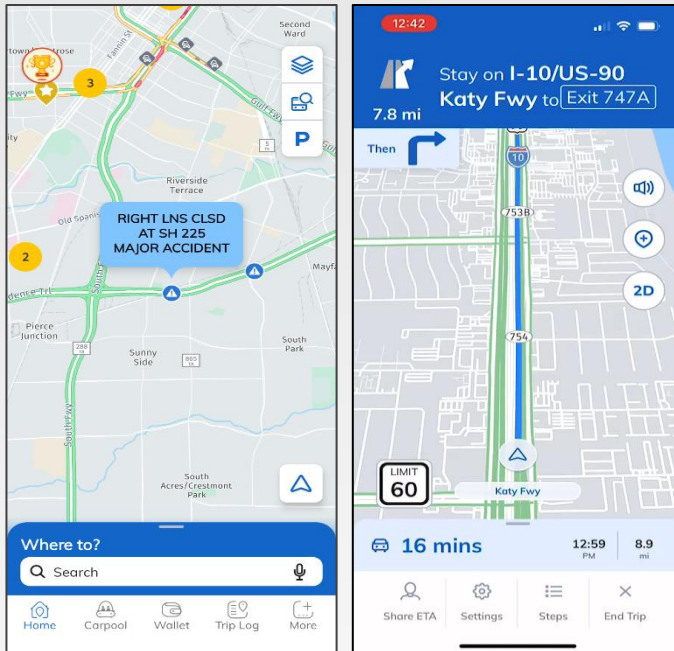
- Strategy One: For high-impact constructions, communicate early



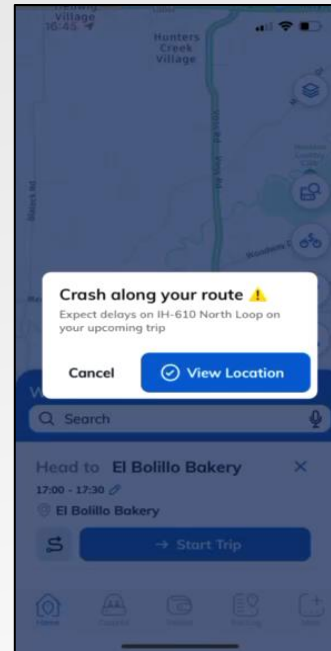
- Strategy Two: Communicate the right work zone to the right users
 - User's Activity Area
 - Habitual Trips
 - Upcoming Calendar Events



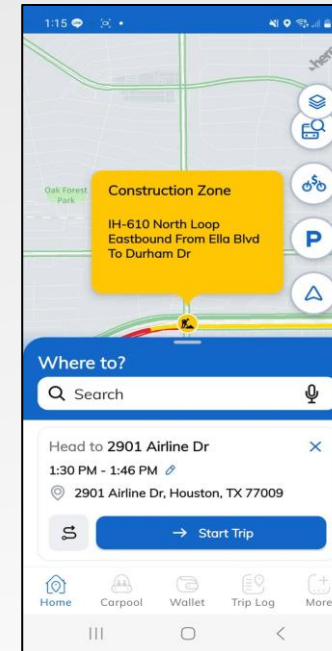
Advanced Dynamic Messaged Sign



Incident



Construction zone



CCTV



Stage 1: Pre-Trip

- User receives pre-trip push notifications or in-app pop-up messages for system events that impact an upcoming habitual trip.



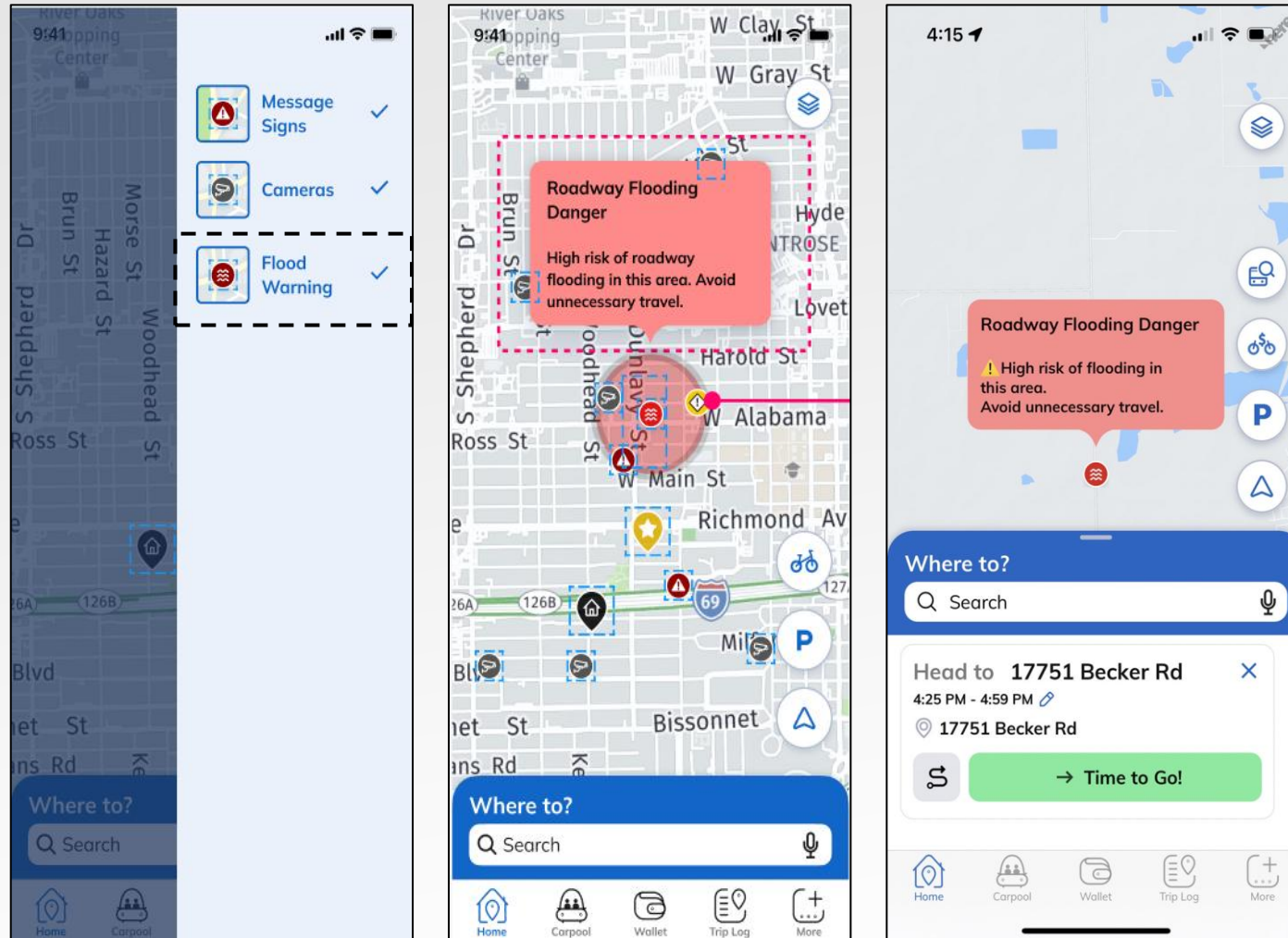
Stage 2: Trip Planning

- User views system event icon and pertinent information along the recommended routes in the trip planner.



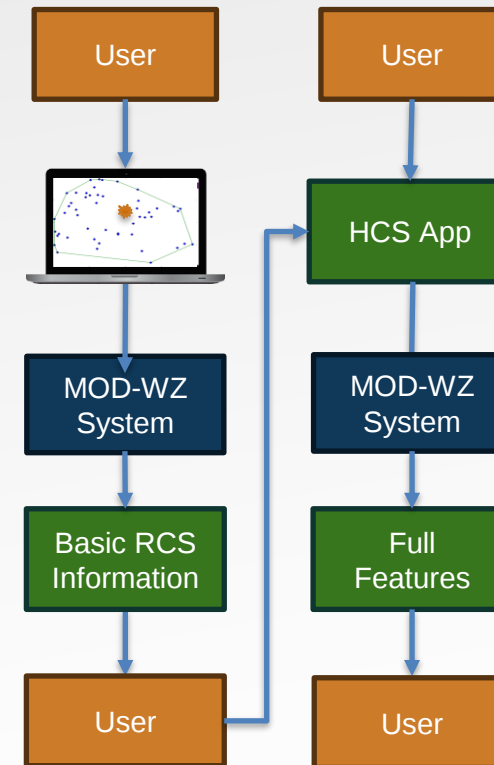
Stage 3: En-route

- User receives en-route alerts for system events that impact their current trip.



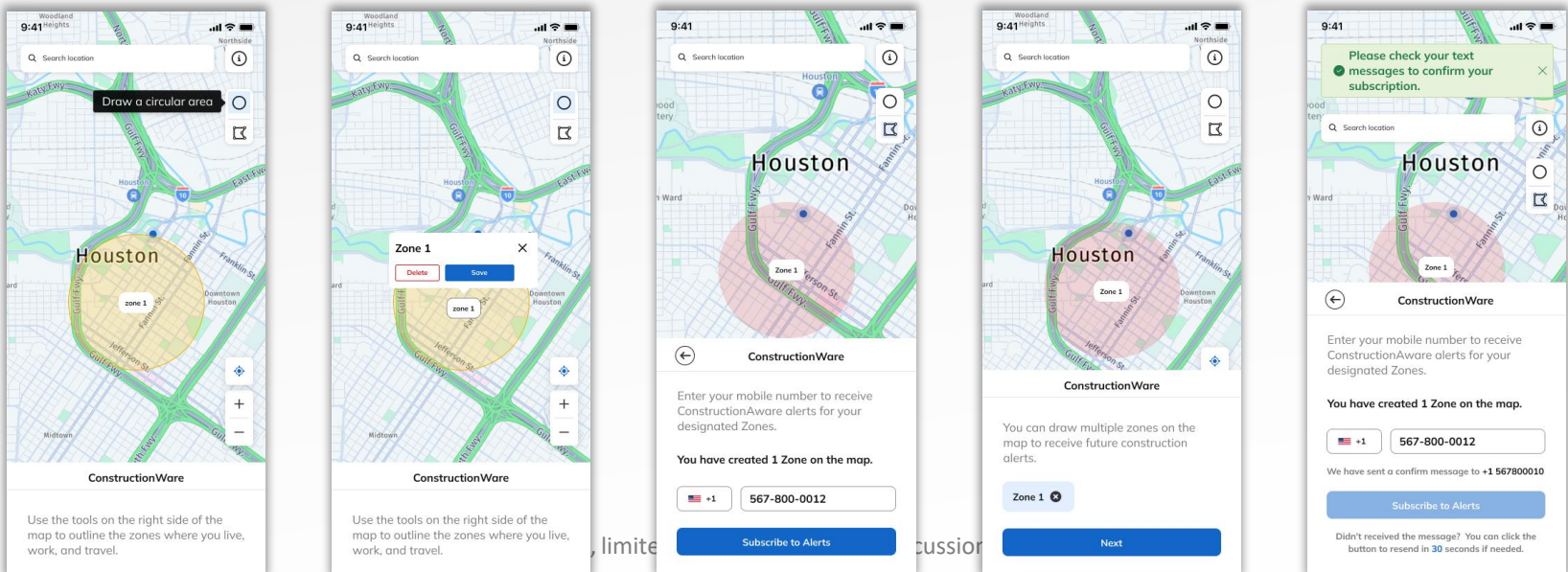
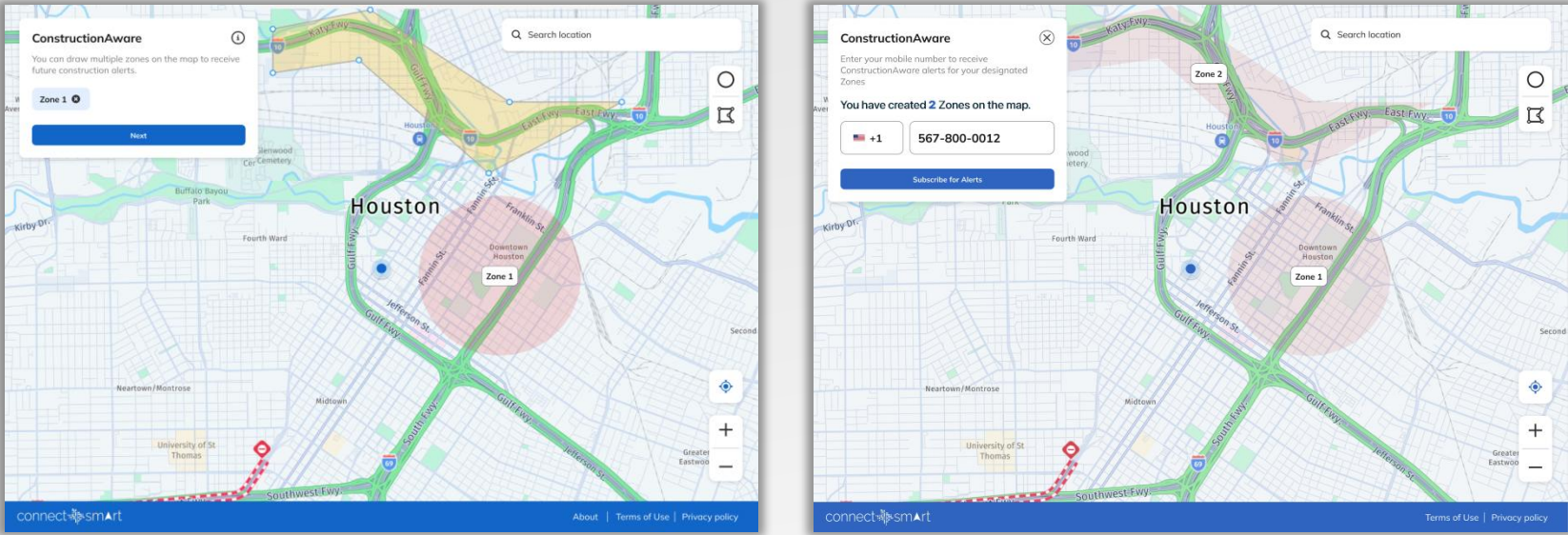
- Users receive an audible alert when they are 3 miles or 0.5 miles away from the center of the risk area.
 - 3 miles for precipitation alerts.
 - 0.5 miles for stream level alerts.

- Strategy Three: Multiple communication choices besides the HCS app
 - Allowing the user to choose to either download the app or sign up on the web portal to Work Zone alerts/MOD recommendation only via Rich Content Service (RCS).
 - The RCS users can be nudged to download the app if they see the value and/or wish to explore other ConnectSmart features.
 - Expand the footprint of the ConnectSmart program without being limited to app downloads.

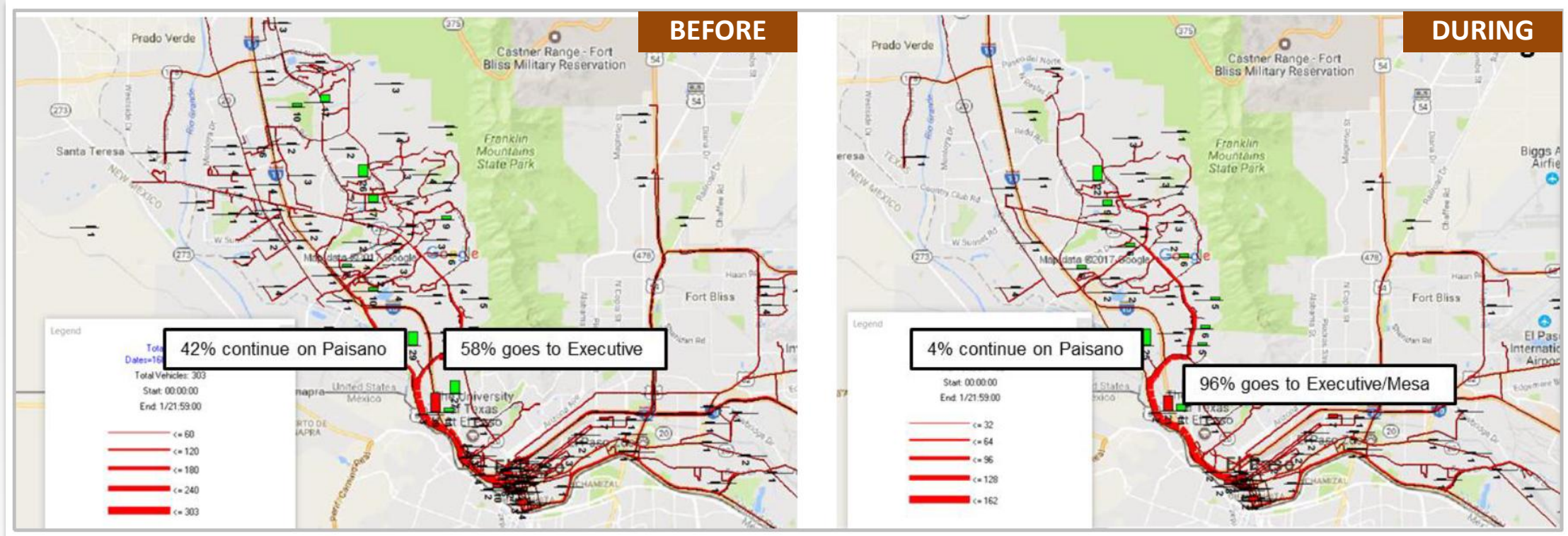


Web Portal for Personalized Alerts via SMS/RCS

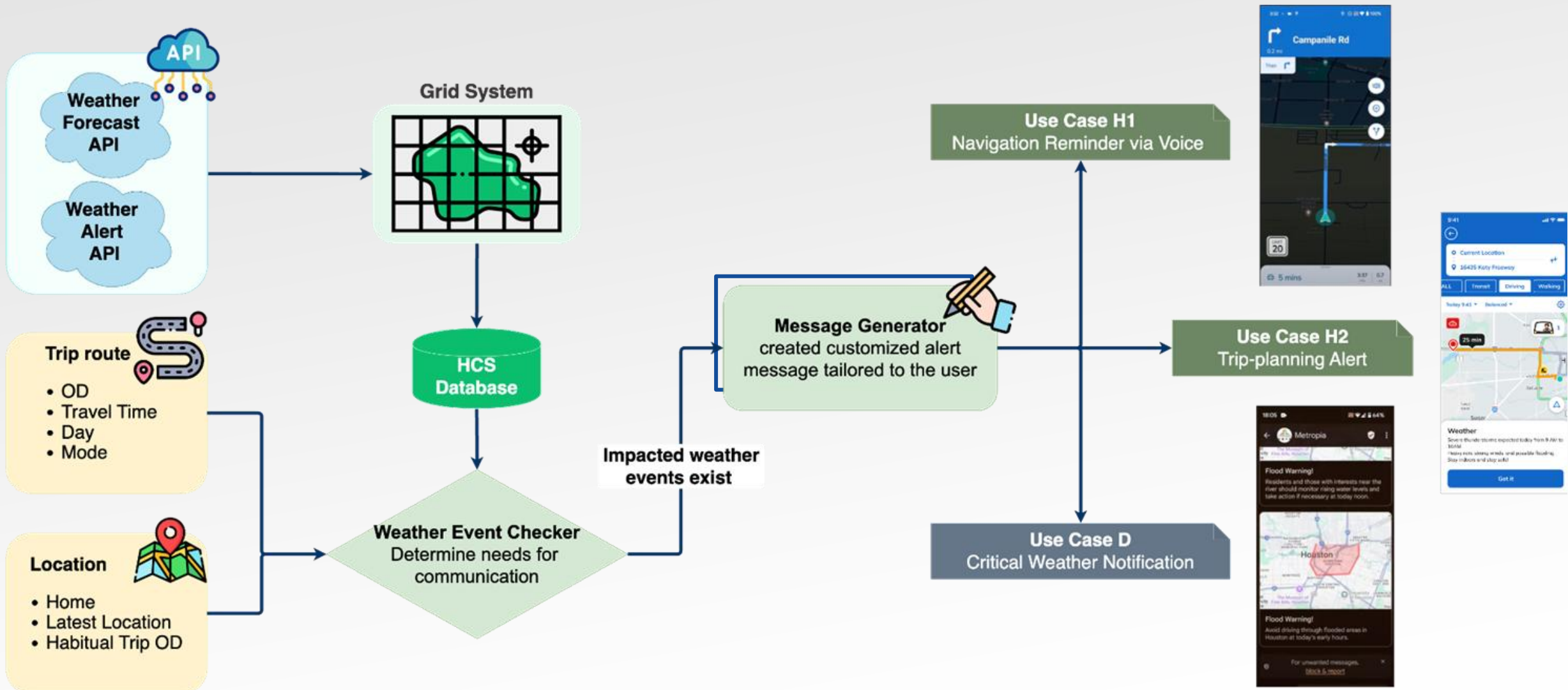
connectsmart

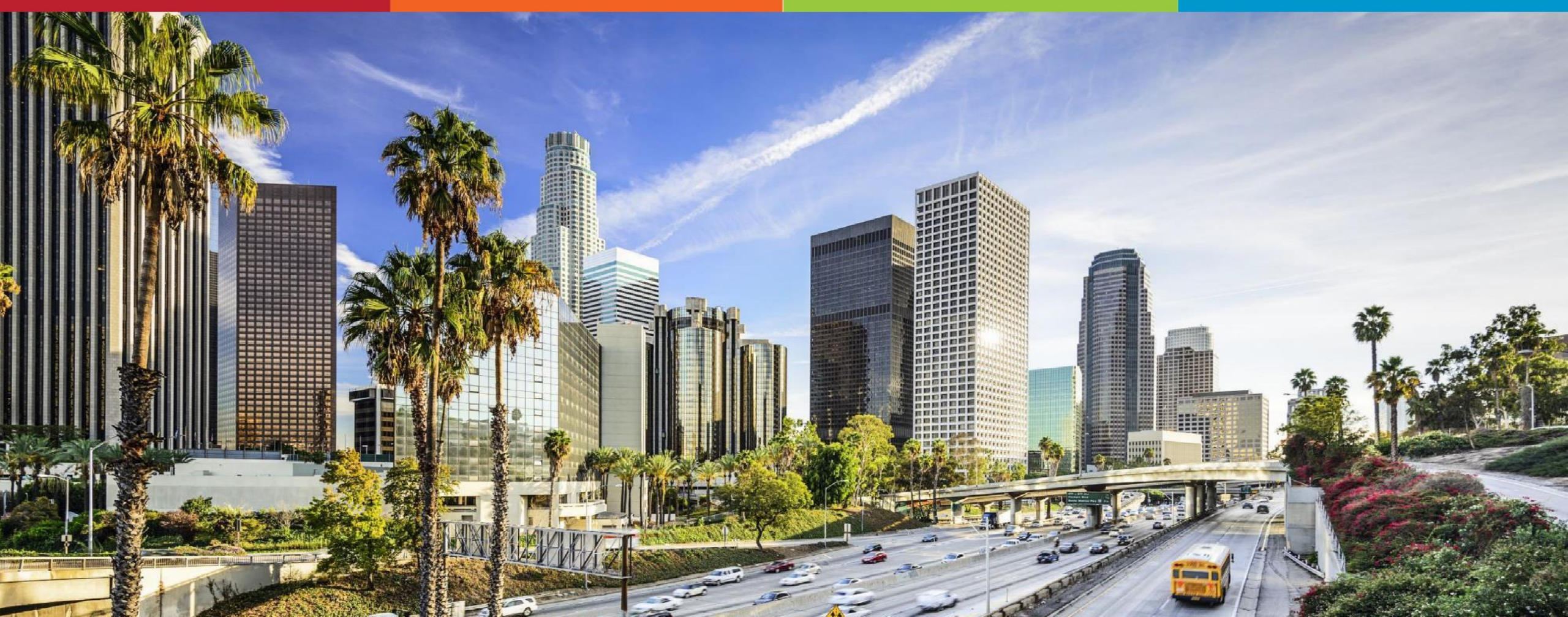


Construction Zone Analysis (Agency Tool)



	Weather Management	Construction Management
Data Source	3 rd -Party Weather API Service	Work Zone DB and API Service
Monitoring	Real-Time	Real-Time
Prediction Area & Impact Analysis	Grid/ 3 rd -party API forecast	Activity Area/MOD
User Communication and Engagement	Scenario-Based Alerts and MOD	Scenario-Based Alerts and MOD
User Communication Channels	Common Feature (RCS, Weekly Email, In-App Notification)	Common Feature (RCS, Weekly Email, In-App Notification)





THANK YOU

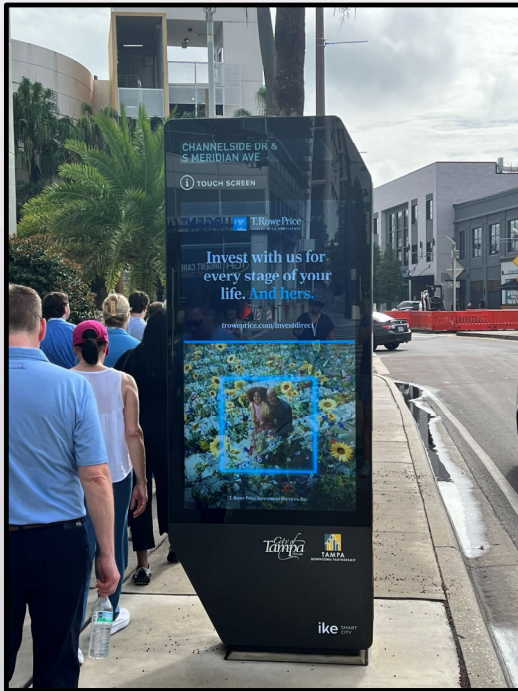
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MaaS – Phase 2

- Wayfinding Kiosks



MaaS – Phase 2

- Open Discussion





Advanced Transportation Technology and Innovation (ATTAIN) Grants

Rafael De Dios Claudio
Hillsborough County



Advanced Transportation Technology and Innovation (ATTAIN) Program – Grant Award

Traffic Management Center
Smart Traffic Network



Hillsborough
County Florida

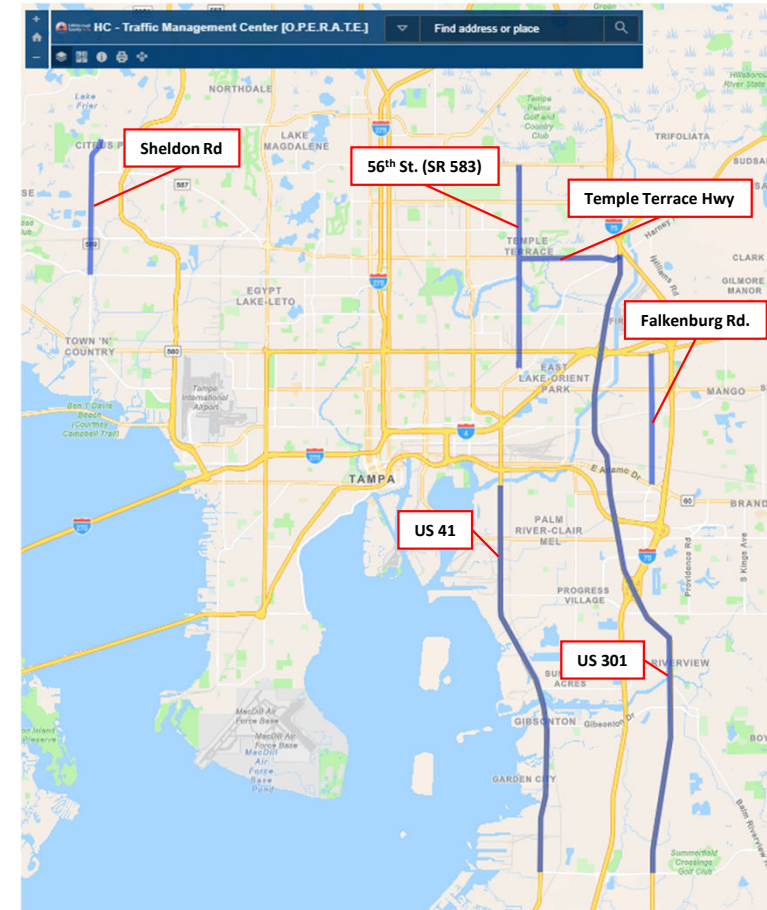
2024 ATTAIN award

Project overview

The \$2.96 million award with a \$987.5k County match for a total of \$3.95 million.

This initiative seeks to enhance safety and mobility by leveraging and optimizing Hillsborough County Smart Traffic technology while achieving Connected Vehicle readiness for 75 intersections along 42.6-miles of major arterial roads.

- **US 301** - Big Bend Rd to Harney Rd (27 intersections - 17.4 miles)
- **US 41** - Big Bend Rd to Palm River Rd (9 intersections - 10.7 miles)
- **Temple Terrace Highway (CR 580)** – 56th St. (SR 583) to US 301 (8 intersections – 2.7 miles)
- **56th St.(SR-583)** - Net Park Entrance to Fletcher Avenue (12 intersections – 5.3 miles)
- **Sheldon Road (CR-589)** - Waters Avenue to Gunn Highway (9 intersections - 3.7 miles)
- **Falkenburg Rd** - SR 60 to US 92 (10 intersections – 2.8 miles)



2024 ATTAIN award

Specific objectives

Procure, deploy and integrate smart traffic technology to enhance traffic signal operations.

1. Upgrade **55** traffic signal cabinets on 6 major Hillsborough County operated and maintained arterial corridors.
2. Upgrade **70** traffic signals legacy controllers to our newest adopted ATC controllers.
3. Enhance intersection vehicle detection system to allow the TMC traffic signal central system to collect hi-res controller data.
 - **30** Non-intrusive Stop-Bar vehicle detection systems.
 - **25** Non-intrusive Advanced vehicle detection systems.
4. Smart School Bus Safety technology.
 - **30** On-Board Units (OBUs) to be installed & configured (1 per Bus) on HCPS school buses to send CV Basic Safety Messages to a smart phone app or CV enabled vehicles (Ford, Tesla, Audi, BMW, etc.)
 - Configuration of School Bus Priority for select intersections near selected county schools.
5. Regional Traffic Data Exchange (RTDX) – will allow the improvement of corridors operation by identifying and reacting to work zones along major corridors sharing lane/road closure events data to the major GPS providers including Google, Waze, and TomTom.

2024 ATTAIN award

Proposed technologies

55 new traffic signal cabinets



70 Advanced Traffic Controllers



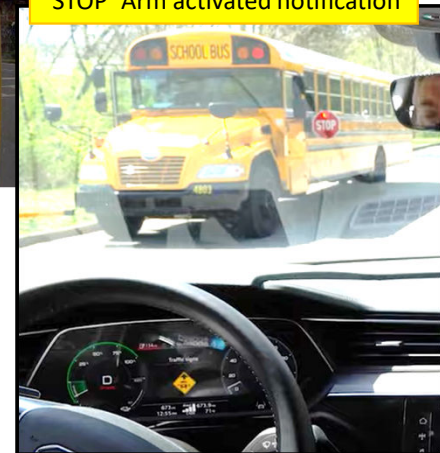
- 30 Non-intrusive Stop-Bar vehicle detection systems
- 25 Non-intrusive Advance vehicle detection systems



- 30 Onboard Units (OBUs) for School Bus Safety needed to provide Stop Arm activated notifications and traffic signal priority



'STOP' Arm activated notification

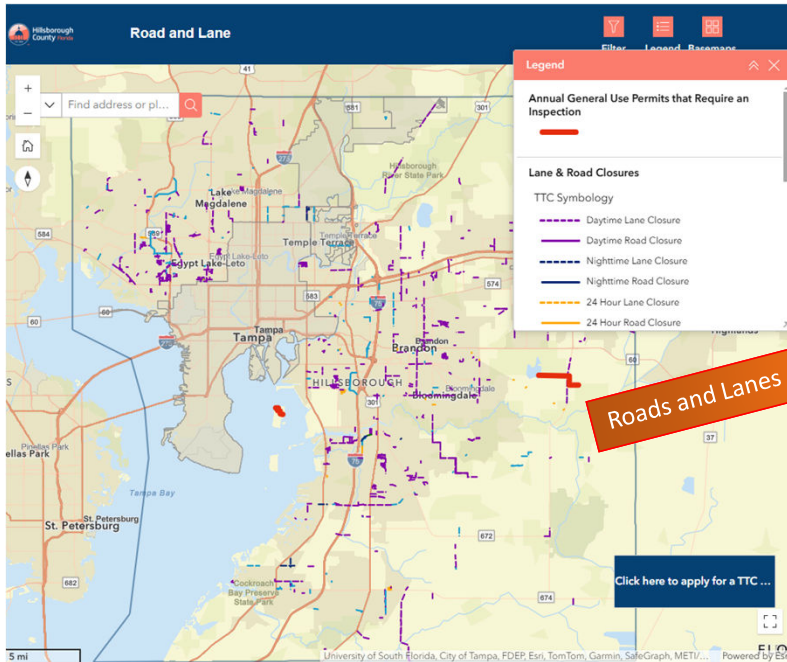


2024 ATTAIN award

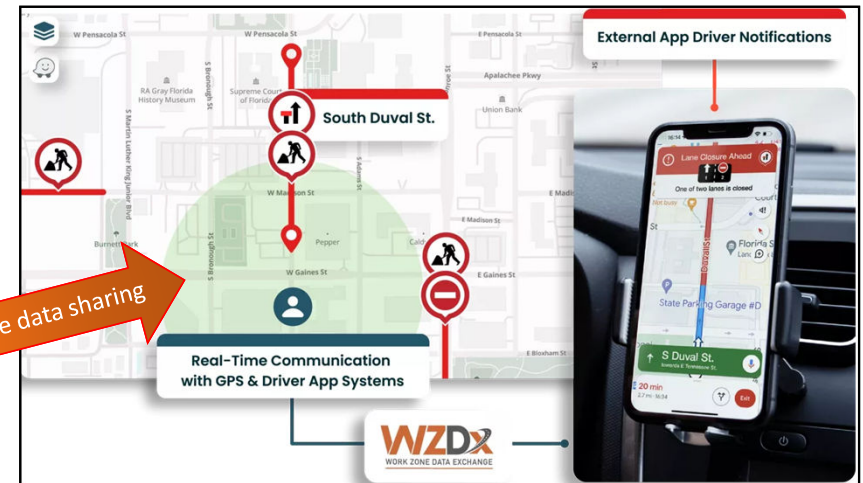
Proposed technologies

Regional Traffic Data Exchange (RTDX) – Lanes & Roads closure events data sharing with 3rd party using .WZDx format

- Current County TTC permits map in HCFL.gov



- Proposed





Advanced Transportation Technology and Innovation (ATTAIN) Grants

Tom Washburn
Pinellas County

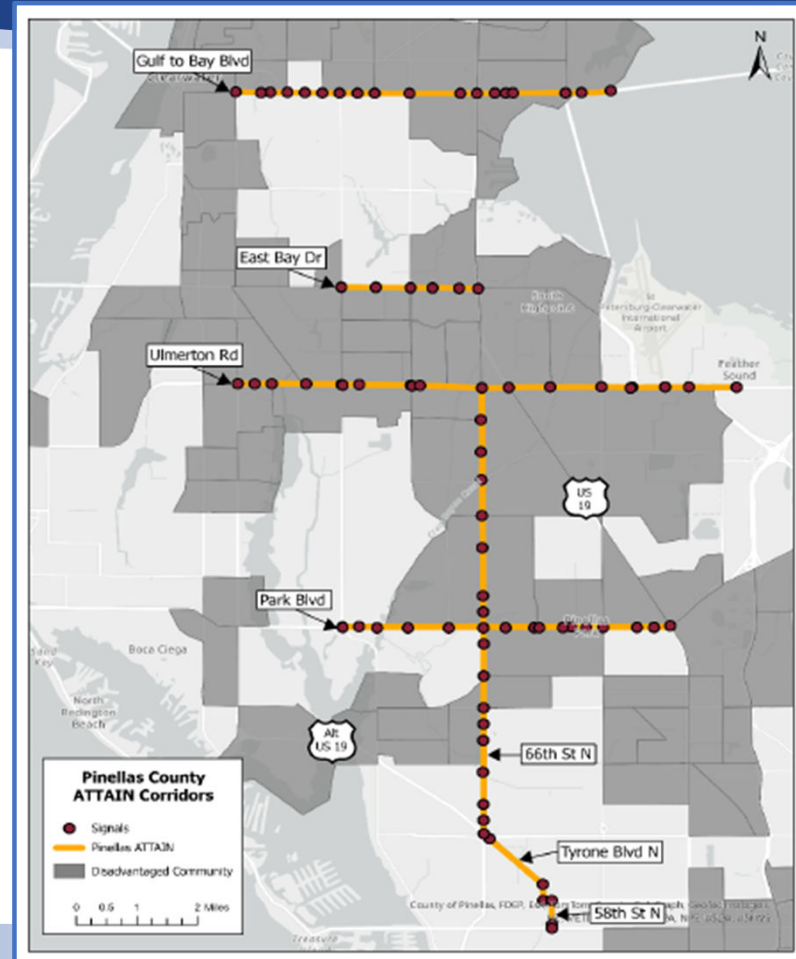
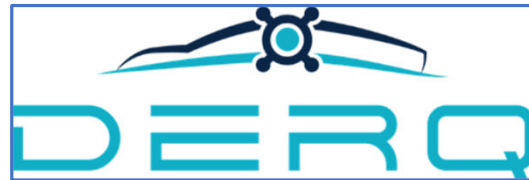
ATTAIN Grant

Pinellas Advanced SmartTracs System (PASS)



• Project Corridors

- State Road 60
- Ulmerton Road
- Park Boulevard
- East Bay Drive
- 66th Street N
- Tyrone Boulevard
- 58th Street N

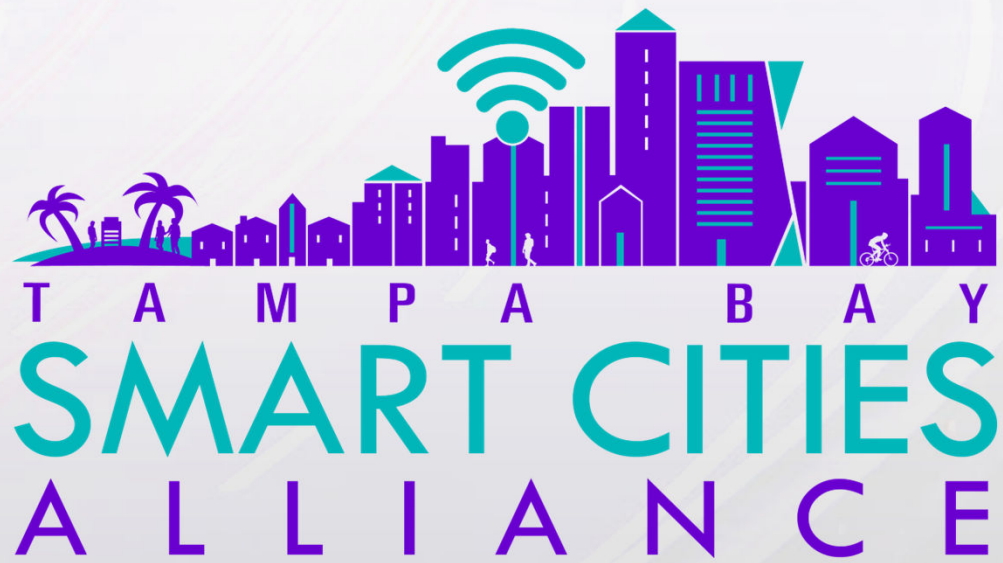


**ZERO FATALITIES
& SERIOUS INJURIES
ON FL ROADWAYS**



EVERYONE
HAS **SOMETHING**
TO GET HOME TO





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