# ATTAIN CENTRAL FLORIDA
advanced transportation technology

Advanced Transportation Technology

The Florida Department of Transportation (FDOT) District Five is deploying a variety of innovative technologies to meet the growing demands on Central Florida's transportation system. Many of these efforts come together in a program called ATTAIN Central Florida, which aims to improve safety and mobility throughout the region.

The program focuses on the main campus of the University of Central Florida (UCF) in Orlando, nearby roads, and other locations on the Interstate 4 (I-4) corridor, but the benefits will not end there. Along the way, FDOT will evaluate each deployment to identify what works, then apply those lessons to future projects in other areas.
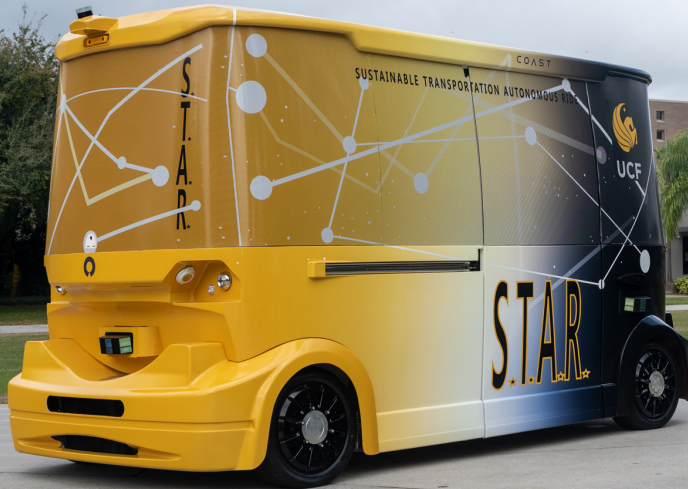
Funding

$11.9 MILLION
FHWA ATCMTD Grant

+

$53.1 MILLION
Matching Local Funds and Value-in-Kind Assets

=

$65 MILLION
Total Program Funding

ATTAIN is funded in part by an Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) grant from the Federal Highway Administration (FHWA).

Partners

FDOT is leading the ATTAIN program in partnership with MetroPlan Orlando, UCF, and 28 local governments and transportation agencies in District Five, which comprises Brevard, Flagler, Lake, Marion, Orange, Osceola, Seminole, Sumter, and Volusia counties.

FDOT

metroplan orlando
A REGIONAL TRANSPORTATION PARTNERSHIP

UCF
UNIVERSITY OF CENTRAL FLORIDA

28
Local Governments And Regional Agencies

Four interrelated programs are the heart of ATTAIN Central Florida. Three of those programs—PedSafe, GreenWay, and SmartCommunity—leverage innovative technologies to improve safety for pedestrians, cyclists, and motorists; and to help connect people with the places they want to go. The fourth program, SunStore, will collect and store data from these projects and make it available for research purposes.

PedSafe

PedSafe is designed to make crosswalks safer for pedestrians and cyclists. Roadside equipment will be installed to monitor crosswalks at signalized intersections. When activity is detected, the system may adjust traffic signal timing to reduce wait times for pedestrians, or lengthen a crosswalk signal to give them more time to cross the street.

This roadside equipment will also communicate wirelessly with specially equipped vehicles. Drivers with onboard units in their cars will receive an alert as they approach an intersection where a pedestrian is present. Cyclists and pedestrians may also receive safety messages through their smartphones or other devices.

The Florida Department of Transportation (FDOT) is deploying this innovative technology on the UCF campus and at some off-campus intersections along Alafaya Trail (State Road 434) and McCulloch Road.

GreenWay

The GreenWay program employs a variety of advanced technologies and strategies to reduce congestion and enhance mobility in Central Florida.

» **Integrated Corridor Management (ICM)** is an approach to transportation that aims to optimize the movement of people and goods by integrating operations across an entire corridor. On Central Florida's I-4 corridor, ICM enables operators to quickly analyze a traffic incident, predict how motorists will respond, and direct them to the most efficient alternate route. Information is shared so that local transportation agencies can work together to adjust signal timing to allow for the efficient flow of redirected traffic.

» **Connected Vehicle (CV)** technology enhances safety and mobility by enabling wireless communication between vehicles and infrastructure. For example, emergency vehicles can communicate with traffic signals to pass through intersections more quickly. Roadside CV equipment also provides the backbone for the PedSafe collision avoidance system.

» **Automated Traffic Signal Performance Measures** and **Intersection Movement Count** technologies will enable FDOT to modernize traffic signal management and adjust signal timing plans on a more frequent basis by continuously collecting data at intersections.

» **Transit Signal Priority** tools will enable buses to communicate with traffic signals at certain intersections to increase on-time arrivals and improve service.

» **Adaptive Traffic Signal Interface with Positive Train Control Technology** is expected to help manage traffic at railroad crossings more efficiently. For example, the system can reduce traffic delays by extending the green signal phase at intersections near railroad crossings to clear vehicles before a train arrives.
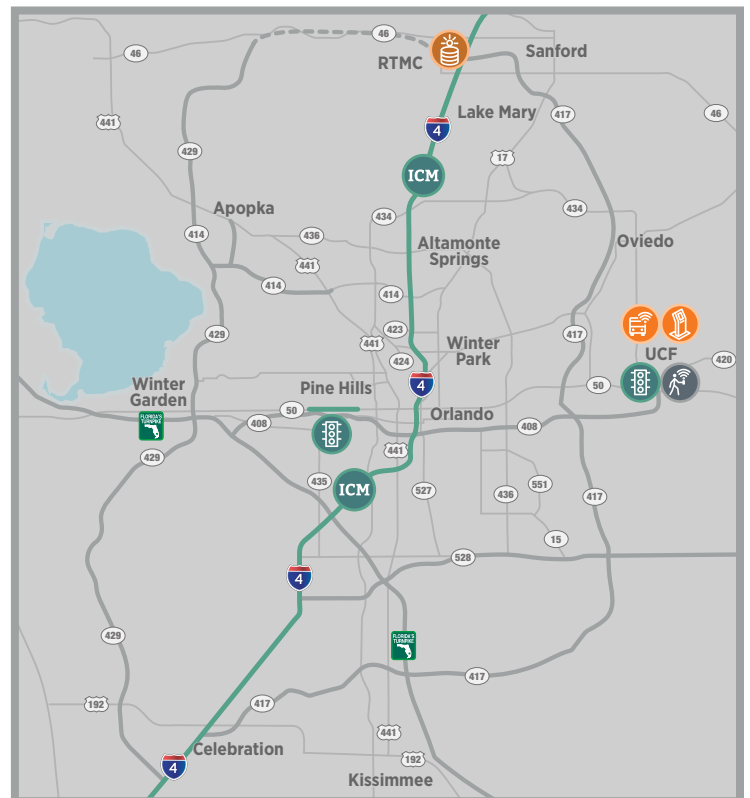
SmartCommunity

The SmartCommunity program focuses on connecting people with the places they want to go and the services they need. A suite of innovative technologies will inform users of alternative modes of transportation and empower them to choose the combination of options that is right for them.

» **Transit Kiosks** will be installed at existing shuttle stops on the UCF campus. Users can plan a trip to their destination that combines multiple modes of transportation such as bus, rail, ride share, and bike share services. In the future, similar kiosks may be placed in other areas to connect underserved populations to the rest of the region.
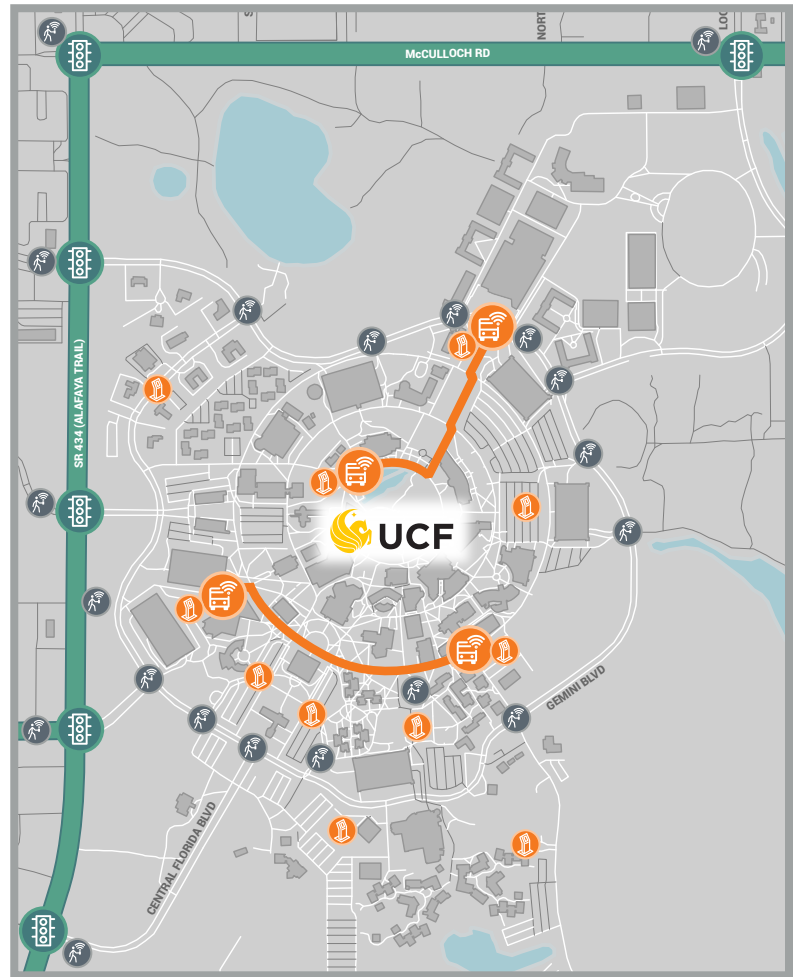
» A **Smart Parking System** will identify available spaces in surface lots on the UCF campus and communicate the information to a mobile app. The technology may eventually be deployed throughout the region to manage parking in congested areas and during special events.
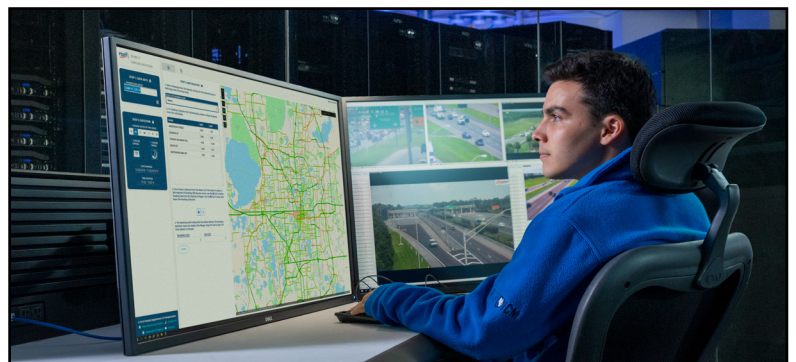
» SmartCommunity also includes an exciting new form of transportation: a pair of **Autonomous Vehicle Shuttles** that will operate on the UCF main campus. The driverless, electric shuttles will transport students, faculty, staff, and visitors at a maximum speed of 15 mph on pathways that are closed to other motorized vehicles.
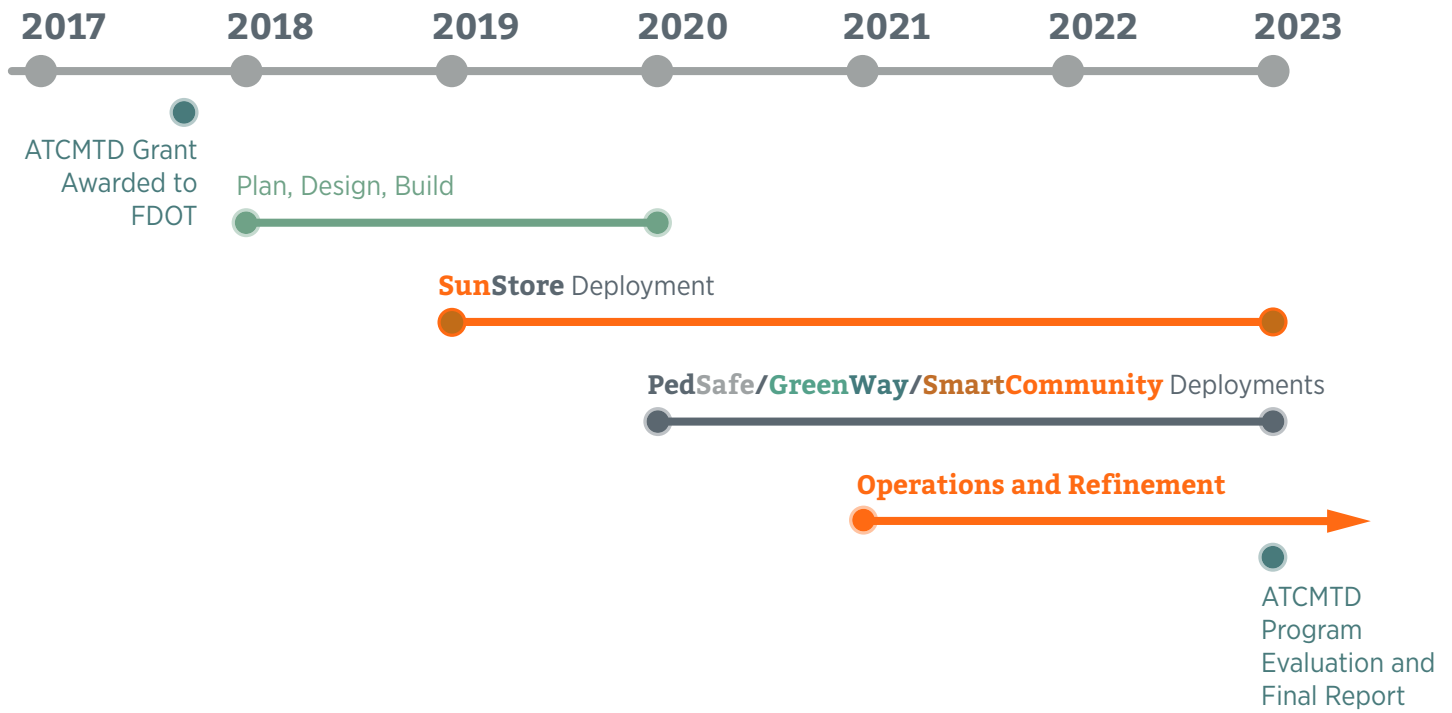
SunStore

SunStore is an ongoing initiative to connect and integrate the data created and utilized by FDOT District Five. More than 80 data sets are available for research purposes, including data collected by the PedSafe, GreenWay, and SmartCommunity deployments. FDOT uses SunStore data for both planning and operations.

https://sunstore.cflsmartroads.com/

Timeline

2017	2018	2019	2020	2021	2022	2023

ATCMTD Grant Awarded to FDOT

Plan, Design, Build

SunStore Deployment

PedSafe/**Green**Way/**Smart**Community Deployments

Operations and Refinement

ATCMTD Program Evaluation and Final Report

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For more information on ATTAIN Central Florida, please visit:

www.ATTAINCFL.com

FDOT