

# STATEWIDE NON-MOTORIZED TRAFFIC MONITORING (NMTM) PROGRAM

Webinar #1 Program Overview & Continuous Counts Focus





#### HOUSEKEEPING

- Attendees are automatically muted throughout the webinar.
- Click the ? To open the panel box and submit a question.
- Answers to questions will be addressed by the panelists either verbally or in the question box towards the end of the session.
- Webinars are being recorded and will be available with other materials on the Non-Motorized Traffic Monitoring Program website.
- Please complete the follow-up survey that will be sent via email at the conclusion of this webinar.
- AICP CM credits offered for Planners that attend the session
- You must attend the entire session to be eligible for the credit hours
- All attendees will receive certificates via email soon after the webinar





#### **GUEST HOST**

• Ed Hutchinson, FDOT Transportation Data and Analytics (TDA) Office Manager





#### WHY IS NON-MOTORIZED DATA IMPORTANT TO TDA?

• The Florida Department of Transportation Office of Transportation Data and Analytics (TDA) began the development of a Non-Motorized Traffic Counting Program in May 2018 with a need to provide bicycle and pedestrian (Non-Motorized) volume and supporting statistics and information to new and existing data customers. The intent of developing the non-motorized data program is similar to motorized traffic volume data in that non-motorized data can be used for all the same types of analyses such as safety studies, planning and programming FDOT facilities, pavement and trail maintenance, etc.



## WELCOME FROM THE SECRETARY















#### **AGENDA**

- Program Update
  - Short-term counts
  - Continuous counts
  - Data Repository
  - Outreach
- Continuous Counts
  - City of Gainesville
  - Miami-Dade TPO
  - Key West Demo STS















#### WEBINAR 1: PANEL 1



Liz Stolz, MDA

Director of Traffic Data Programs,
Marlin Engineering Inc.



Joey Gordon, FCCM
Traffic Data Analysis Supervisor,
FDOT Transportation Data and
Analytics Office



Jackie Masaki, PhD
Transportation Technology
Specialist, Marlin Engineering Inc.



Eric Katz, AICP

FDOT Statewide Non-Motorized

Traffic Monitoring Program

Coordinator (In-house consultant),

Marlin Engineering Inc.







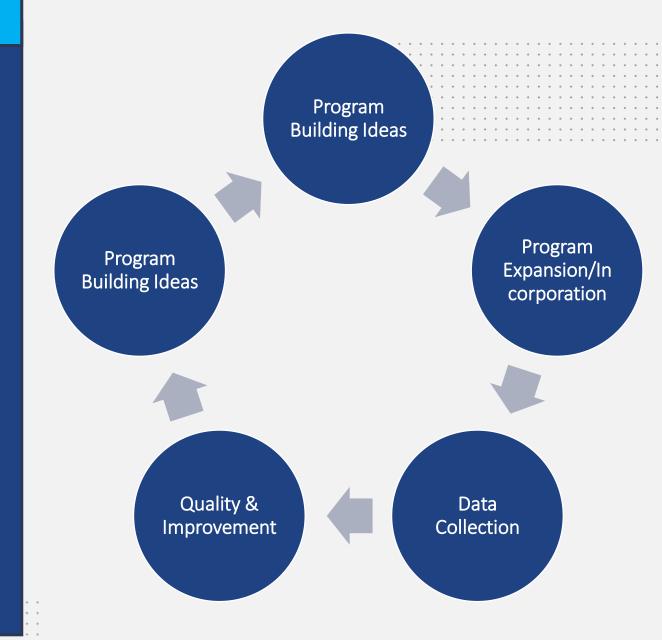






#### HOW WE GOT HERE...

- Year 1 2
  - Program Building
  - ProgramExpansion/Incorporation
- Year 3 4
  - Collecting Data
  - Quality and Improvement
- Year 5
  - Program Maintenance

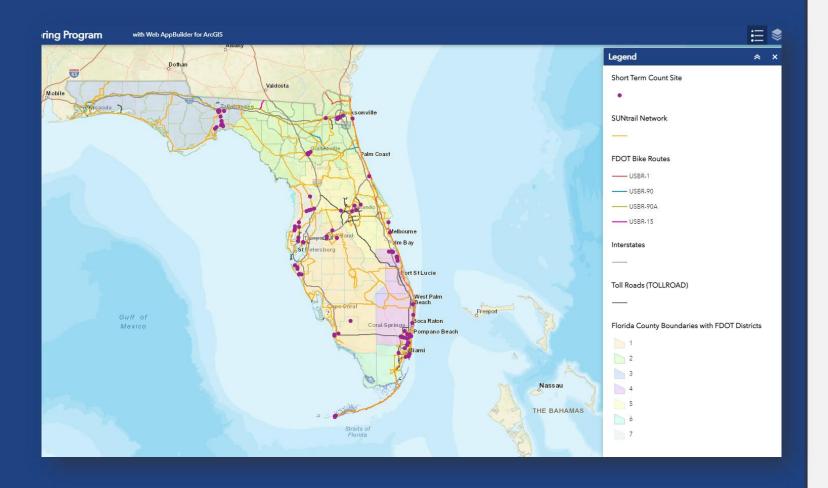






#### **SHORT-TERM COUNTS**

- Loaner Program + Transit Study =
  - 120 count stations
  - Tubes, Infrared, Smart Cameras utilized
  - All 7 Districts
  - 25 agencies directly involved in deployments





#### SHORT-TERM COUNT 2021/2022 CALENDAR

- On-Peak
  - September 2021 District 2
  - October 2021 District 3
  - November 2021 District 4
  - December 2021 District 6/D1 South
  - January 2022 District 5/D1 North
  - February 2022 District 7/D1 NW

- Off-Peak
  - March 2022 District 2
  - April 2022 District 4
  - May 2022 District 6/D1 South
  - June 2022 District 3
  - July 2022 District 5/D1 North
  - August 2022 District 7/D1 NW



#### SITE SELECTION COUNTS CRITERIA

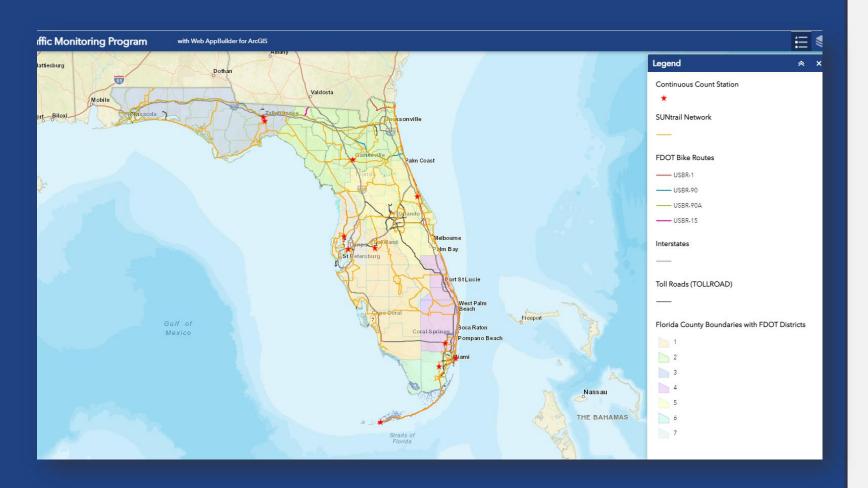
- Current Selection Criteria
  - On-System
  - SUN Trail Facility
  - Safety's Top 25 counties
  - Bike/Ped crash cluster zone
  - Anticipated Factor Group
  - Anticipated traffic volumes
  - Anticipated equipment
  - Evaluated by TDA
  - Local Agency Support
  - Historical Traffic Data
  - TDA Short-term

- Potential New Additional Criteria
  - Level of Service
  - Level of Traffic Stress
  - Traffic Analysis Zone
  - School Zone
  - Context Classification
  - Adjacent Bus Stop
  - Adjacent Bus hub/Train Station
  - US Bike Route
  - Zero Car households
  - 555



#### **CONTINUOUS COUNTS**

- Completed STIC Grant installations
- Validating existing sites with smart camera validation
- Develop
   Maintenance
   schedules
- On-going Data QA/QC
- On-going Data analyses





## CONTINUOUS COUNT EQUIPMENT



Q-Free Overhead passive infrared with piezo strips



Eco-Counter side detection passive infrared with loops



Q-Free side detection passive infrared with piezo strips







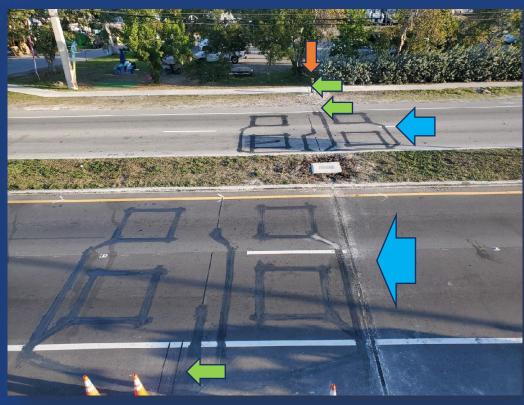






### NEW KEY WEST MULTI-MODAL TTMS SITE

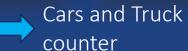






Bike counter

Pedestrian + bike counter









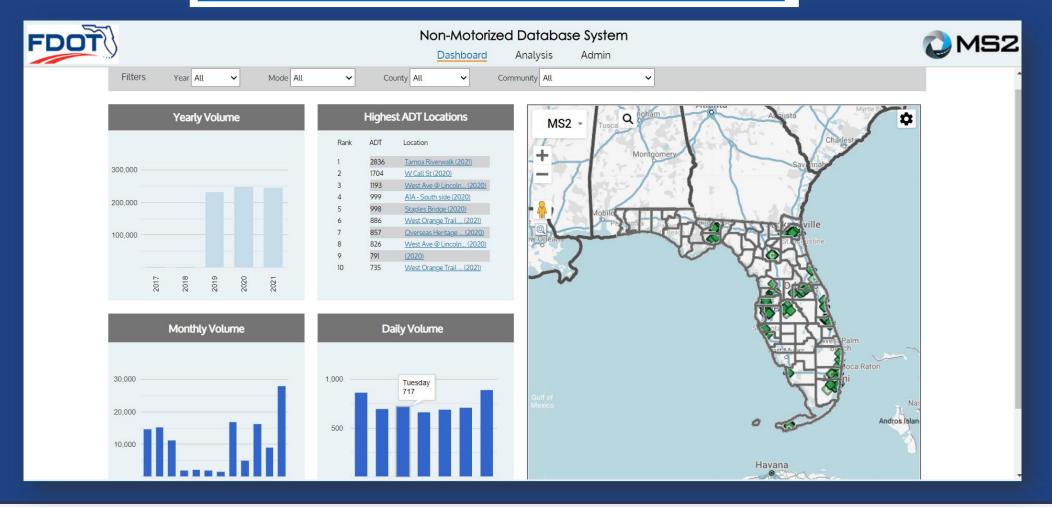
#### NMTM REPOSITORY

- Repository is now public-facing
- Year 4 of program will involve Repository refinement
  - QA/QC
    - 20 quality checks under review
  - Data formatting
  - Reporting to FHWA
  - Usage log



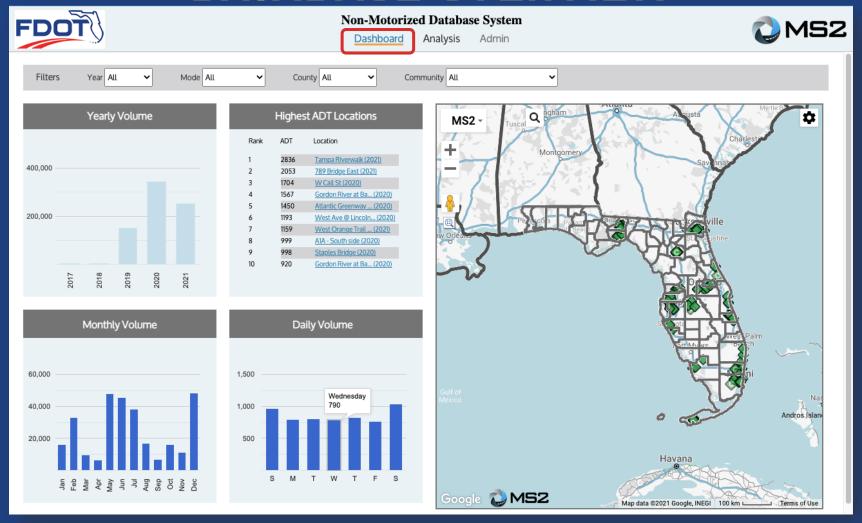
## NON-MOTORIZED DATABASE SYSTEM (NMDS)

https://fdot.ms2soft.com/tdms.ui/nmds/dashboard?loc=fdot





#### DATABASE OVERVIEW





## DATABASE OVERVIEW

Non-Mot Dashboa				orized Database System ard Analysis Admin				<b>0</b> M52
Quick Search	Advanced Search	1		MS2	Q 20 C	Location ID: 55N001 Community: Tallahassee Latest Count Date: 10/23/2020 Latest Count Total: 155	x s	٠
	Location ID County Community Counts Year	All All	•		Per a co 1 Primar	View location detail	ulle ystine	
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Filter:						Jan		}
	ation Id 💠	Located On \$	Latest Count Date \$					Nassau Nassau
<u>✓</u> <u>55</u>	5N001 St. Mar	rks Trail @ J. Lewis Park	10-23-2020	Google 🕻	MS2	0	Andros Map data ©2021 Google, INE	')
Showing 1 to 1 of 1 entries Previous 1 Next								
Reports					Count			
Name		t Date End Date				Path	Trav	vel .
Bike Volume By Month	For Year 🗸 1/1,	/2021 12/31/20	21	<b>⊘</b> Trail		7 301	Direct	
Run Report							Note	South
						Location Info		
				Description Non-Motorize Separately) -	ed Counts (Bike/Ped St. Marks Trail @ J. I	d L	St. Marks Trail @ J. Lewis Park	
				Coun Jurisdictio	nty: Leon on: DEP	Community : District/Region :		















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#### **DATA SEARCH**

Non-Motorized Database System

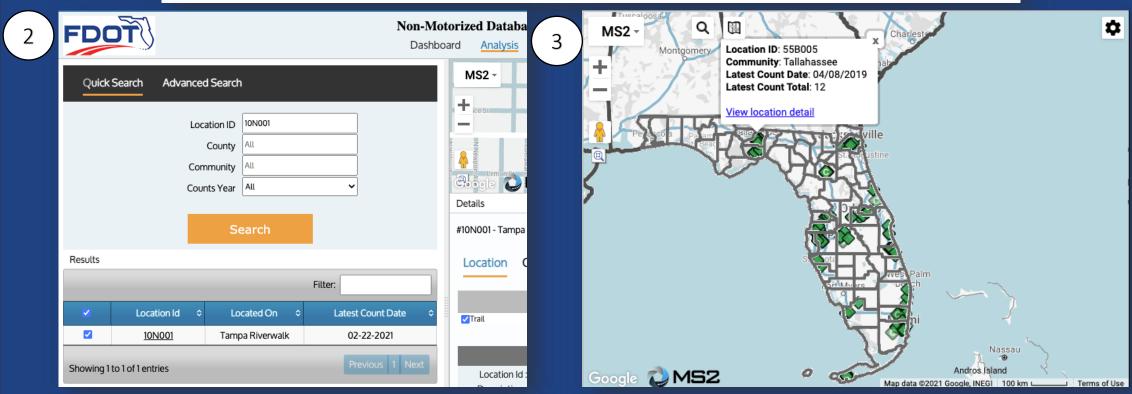
Dashboard Analysis Admin

Filters Year All 

Mode All 

County All 

Community All

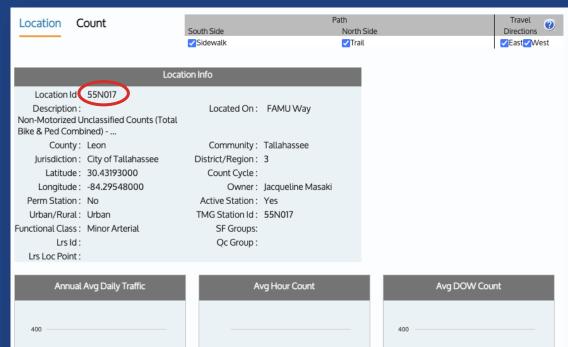


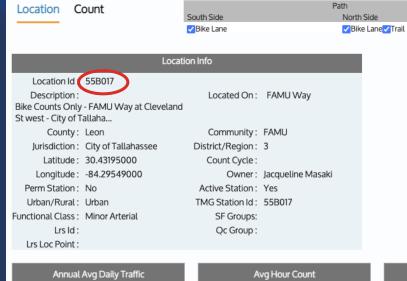


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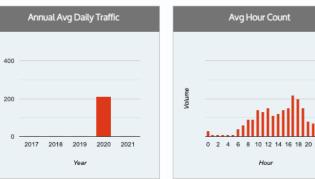
2017 2018 2019 2020 2021

#### DATA DESCRIPTION











Travel

Directions

✓ East ✓ West









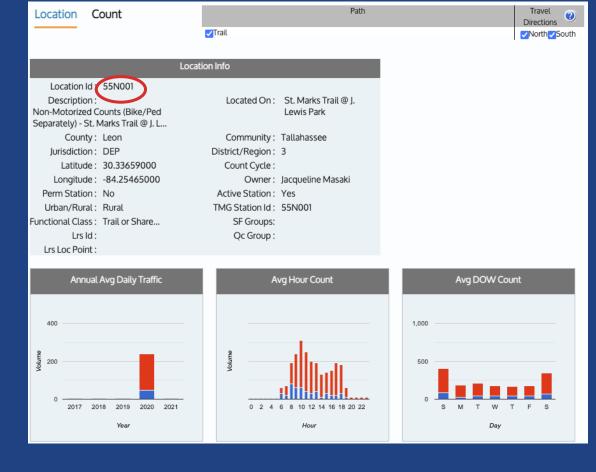


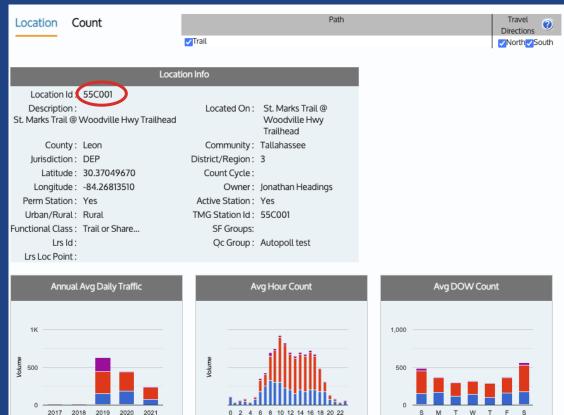






#### DATA DESCRIPTION

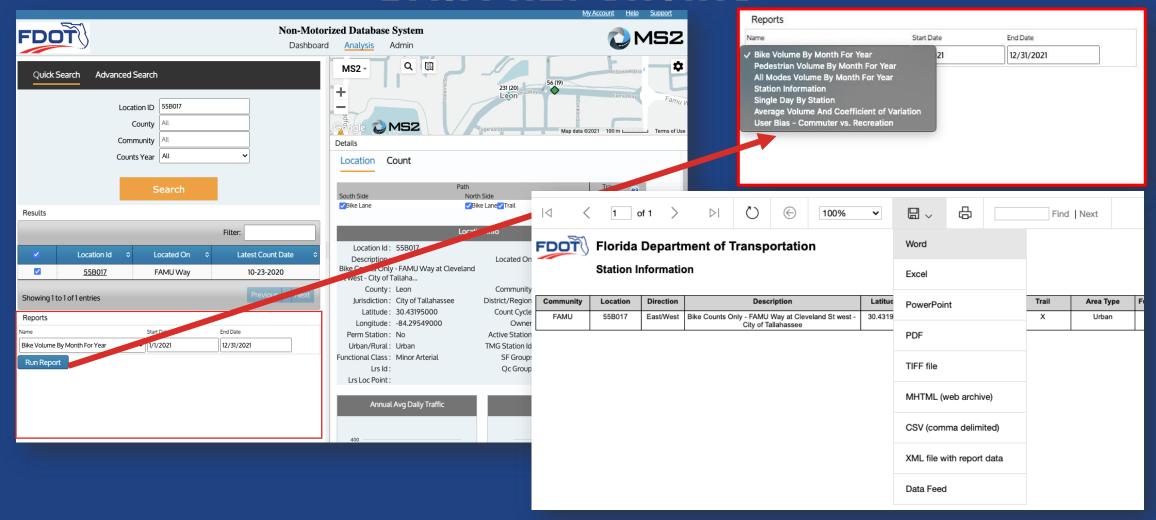








#### DATA REPORTING









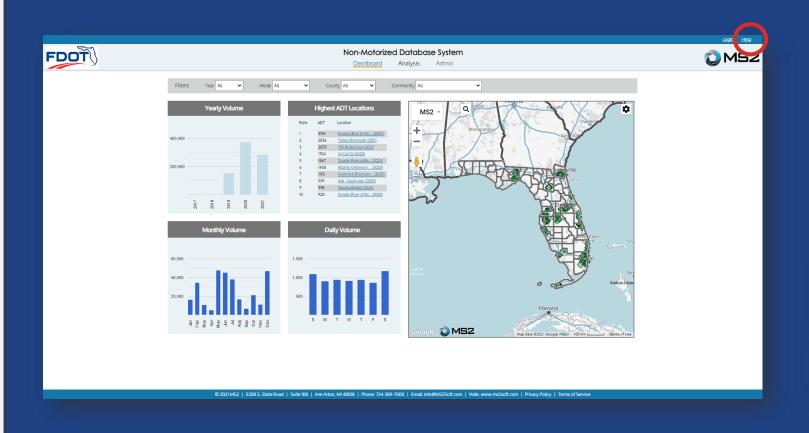


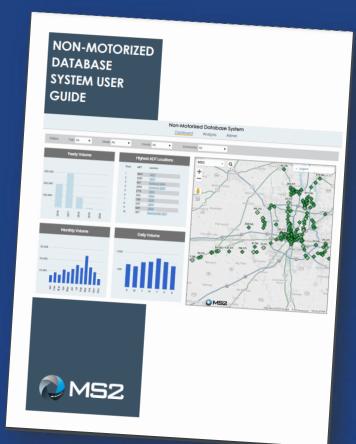






#### REPOSITORY MANUAL







OUTREACH

- NMTMP National Outreach
  - League of American Bicyclists Bike Summit
  - National Travel Monitoring Exposition and Conference (NATMEC) June 21 –
     25
    - Natmec.org
- NMTMP Statewide Outreach
  - Newsletters, Webinars, Statewide meetings, Trainings
  - Numerous local agency presentations





#### WHAT TDA HAS LEARNED

- NMTM supports FDOT's Vital few
  - Improve Safety
  - Enhance Mobility
  - Inspire Innovation
- Video technology is a game-changer
  - Opportunity to capture counts and travel behavior
- Florida's local agencies are seeking guidance on site selection, technology selection, and data formatting
- TMG Traffic Monitoring does not separate motorized from non-motorized anymore...



#### **OUR MISSION**

The department will provide a safe transportation system that ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities.

#### **OUR VISION**

As one FDOT team, we serve the people of Florida by providing a transportation network that is well planned, supports economic growth, and has the goal of being congestion and fatality free.

#### VITALFEW

- Improve Safety
- Enhance Mobility
- Inspire Innovation

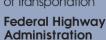
Central Office - Tallahasse





#### THANK YOU PARTNERS!



























West Kendall Baptist Hospital

An academic affiliate of the



PALM BEACH
Transportation
Planning Agency













FLORIDA





































East Coast







TRI&RAIL



























## CONTINUOUS COUNTS FOCUS



Atlantic Greenway Trail , Miami Beach, FL













### PANEL 2



Scott Wright, AICP Transportation Planner, City of Gainesville



Kevin Walford
Transportation Planner III,
Miami-Dade TPO



Terry Robinson
Southern Traffic Services



## CITY OF GAINESVILLE

**CONTINUOUS BIKE/PED COUNTS PROGRAM** 

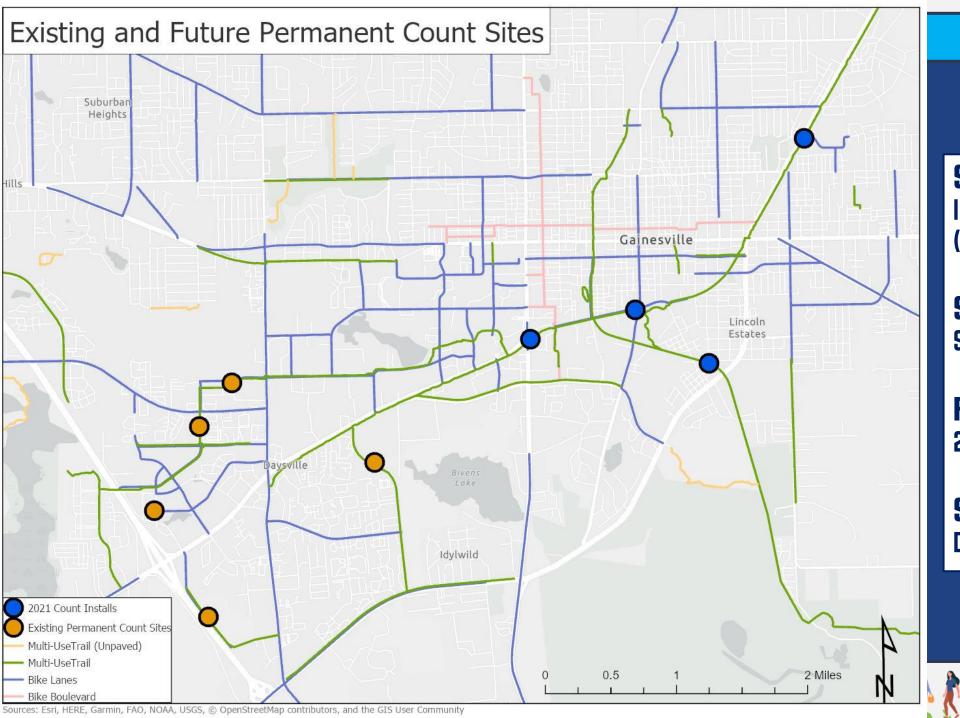


SCOTT A. WRIGHT, AICP
DEPT. OF TRANSPORTATION AND
MOBILITY, CITY OF GAINESVILLE









SPRING 2019
INITIAL COUNTERS PURCHASE (ECOCOUNTER MULTI)

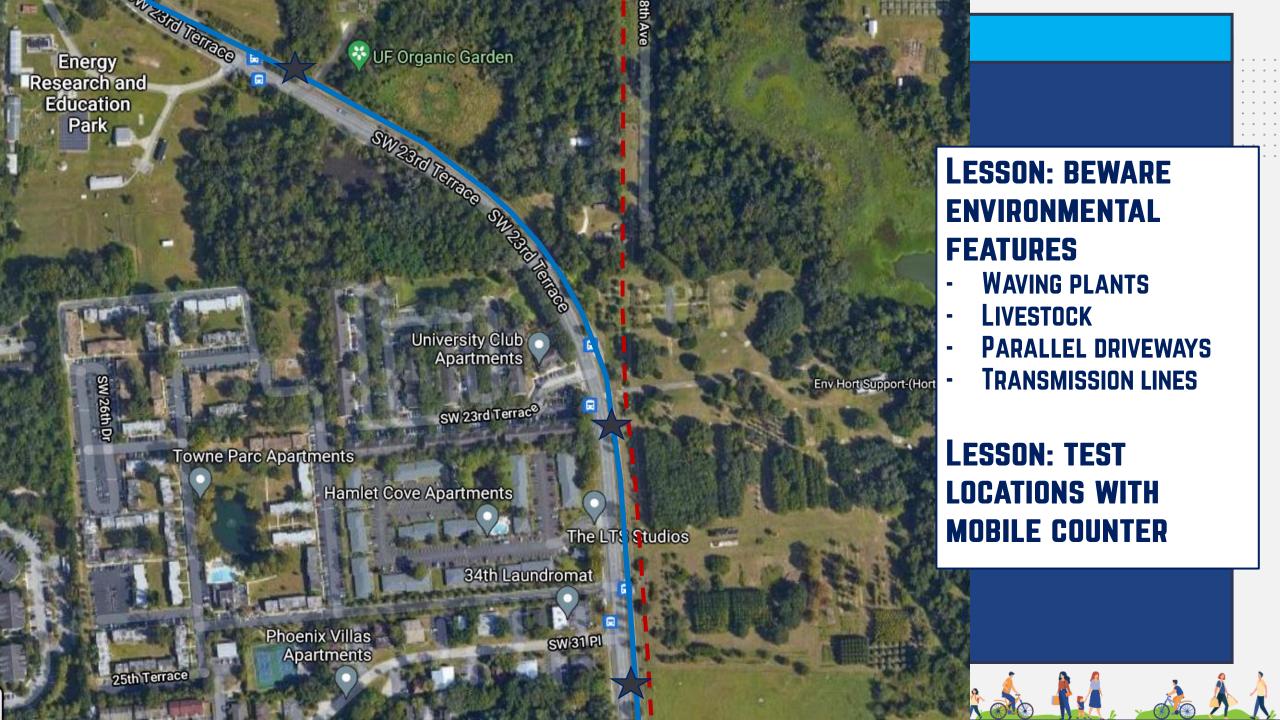
**SPRING 2020**SOUTHWEST INSTALLATIONS

FALL 2020 2<sup>ND</sup> COUNTERS PURCHASE

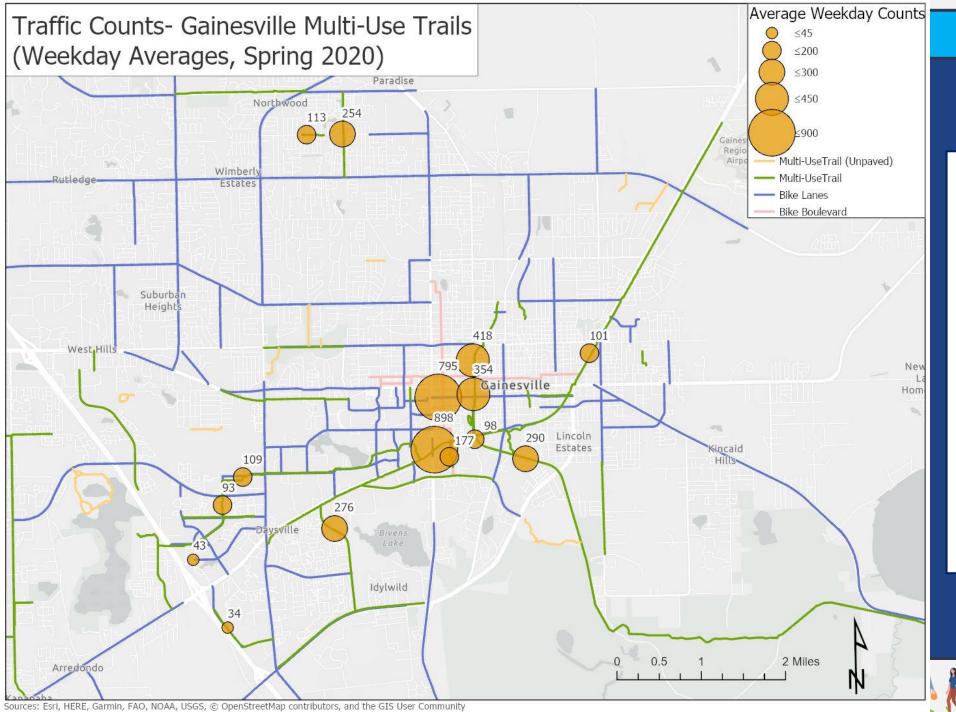
**SUMMER 2021**DOWNTOWN INSTALLATIONS











#### **RESOURCE ALLOCATION**

- **NEW TRAILS**
- TRAIL CONNECTIONS
- **REPAIR STATIONS**
- WAYFINDING
- LIGHTING

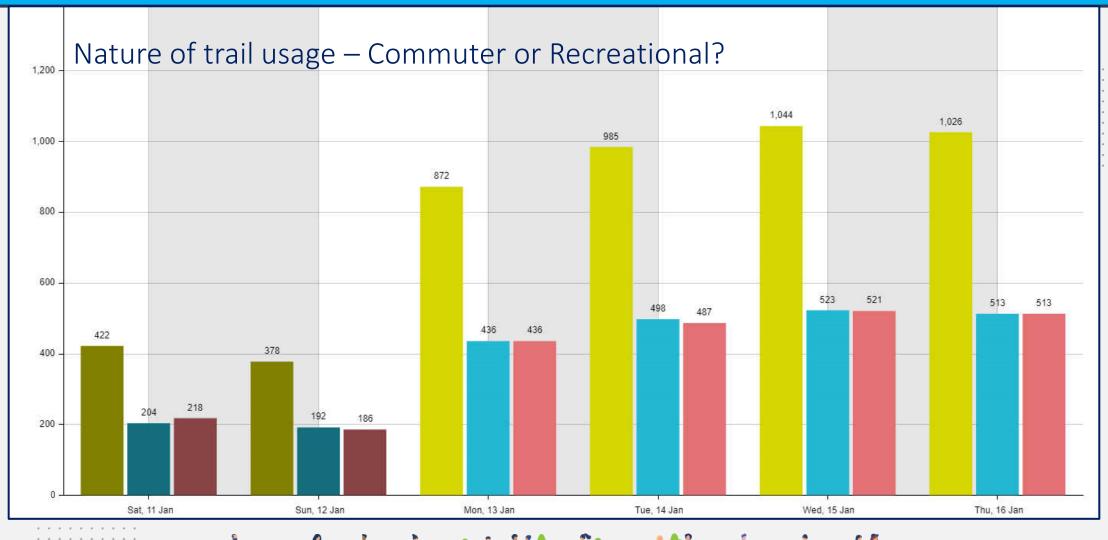
#### **MODE SPLIT**

FOR EXAMPLE, TRAIL TRIPS **EQUAL ABOUT 5% OF ROADWAY** TRIPS ON NW 6TH ST

**GRANT SUPPORT DEMONSTRATE USAGE OF TRAILS TO SUPPORT APPLICATIONS** 

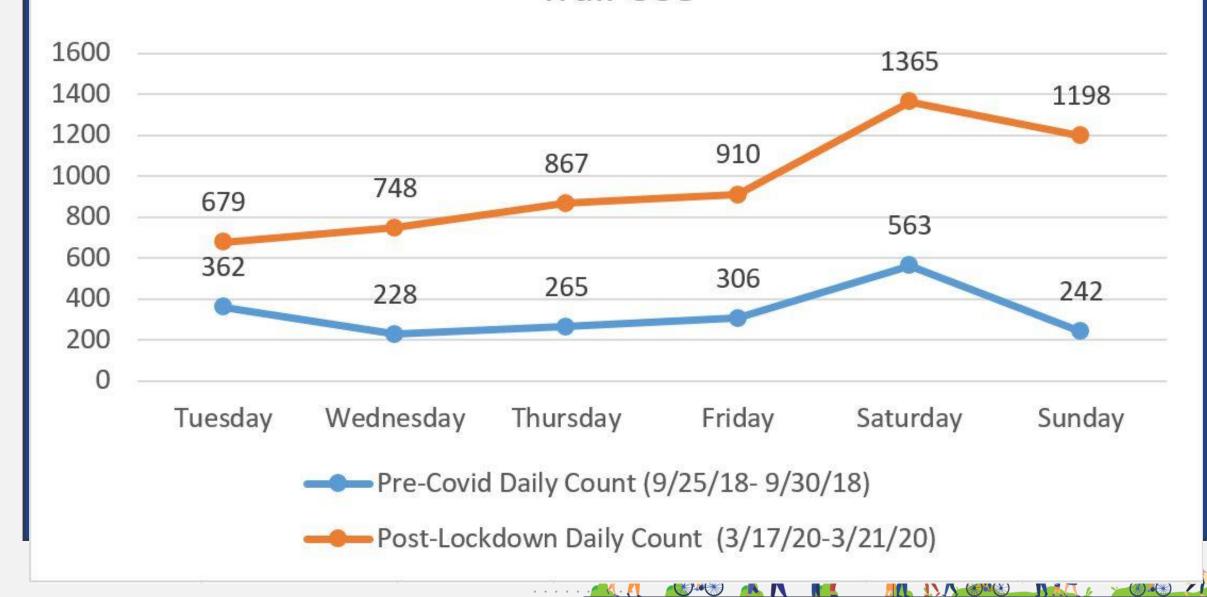


#### Helix Bridge Bicycle/Pedestrian Counts (daily)



#### Helix Bridge Bicycle/Pedestrian Counts (hourly) Nature of trail usage – Commuter or Recreational? 100 50 12:00 Sun, 12 Jan 12:00 Mon, 13 Jan 12:00 12:00 Wed, 15 Jan 12:00 Thu, 16 Jan Tue, 14 Jan 12:00

# Effect of Pandemic on Gainesville-Hawthorne Trail Use





# STATEWIDE NON-MOTORIZED TRAFFIC MONITORING PROGRAM (NMTM)

2021 Statewide Meeting Kevin Walford





## MIAMI-DADE TPO

- Two locations dating back to 2014
- Eco Counter Urban Post Counters
- Record high numbers tabulated in 2020 due to COVID-19











### WHY COUNT?

- Implications for increased nonmotorized travel potential for unlinked trips and first-last mile trips to transit stations.
- Inform municipal entities for programs and prioritization for improvement and expansion of pedestrian and bicycle network facilities.
- Monitor areas of high activity and help plan a more efficient and safer bicycle and pedestrian network









## PERIODIC STUDIES



Bike Friendly
Miami-Dade NonMotorized Counts

NON-MOTORIZED COUNTS



MARLIN Engineering, Inc. 15600 SW 288th Street, Ste. 20 Mami, FL 33033 P: 305.477.7575 www.marlinengineering.com

MARIIN







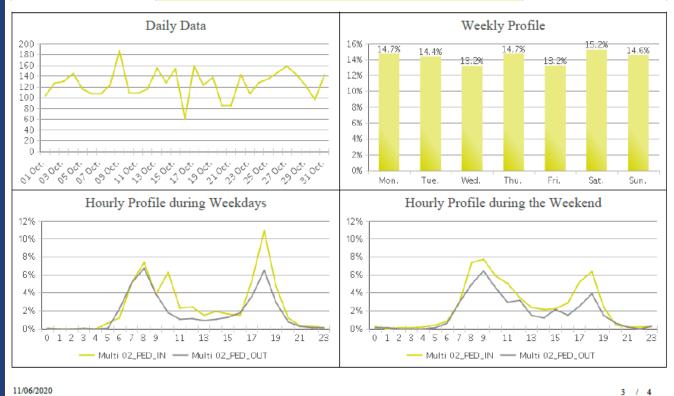
## **TECHNOLOGIES**

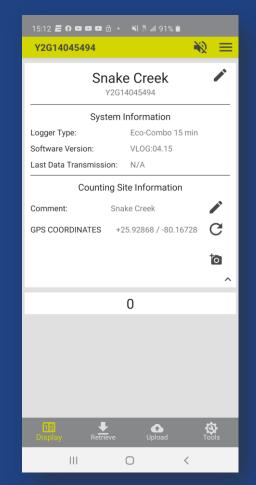


Miami Dade MPO - Multi 02 - M-Path (Pede...

Period Analyzed: Thursday, October 01, 2020 to Saturday, October 31, 2020













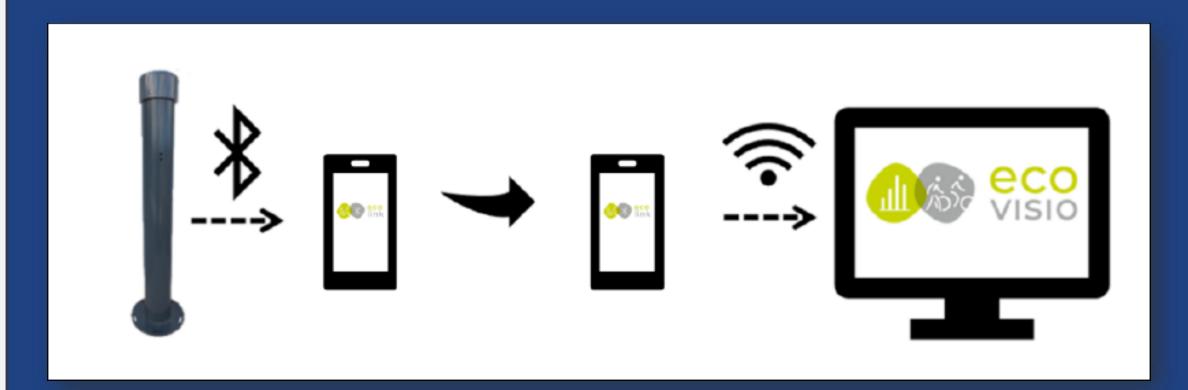








## **TECHNOLOGIES**

















# LESSONS LEARNED







# DESIGN/ CONSTRUCTION

NON-MOTORIZED PROGRAM

















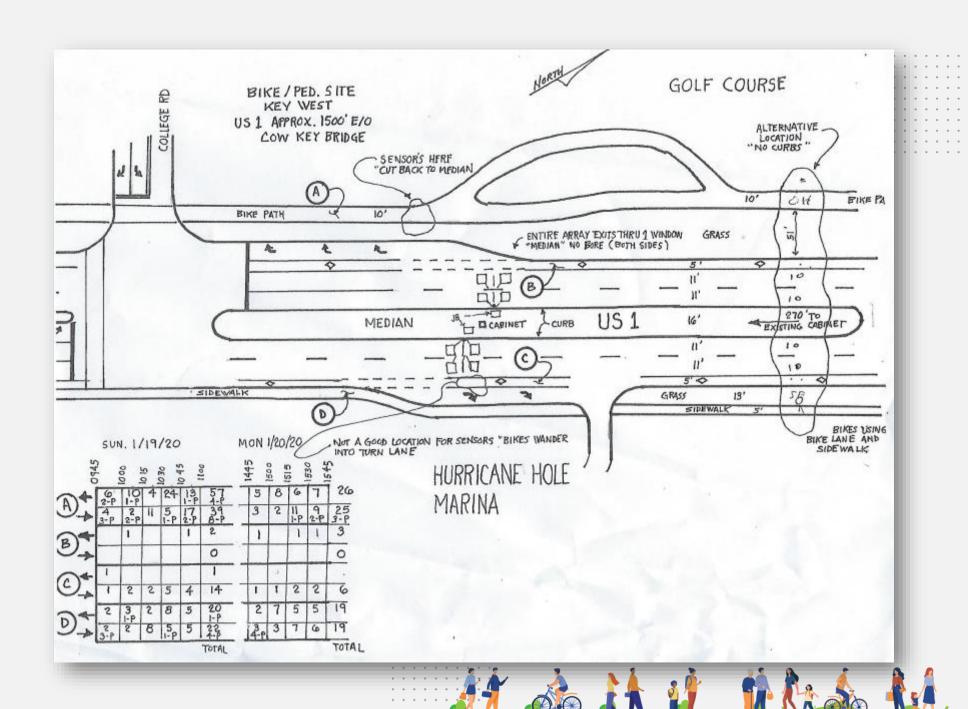








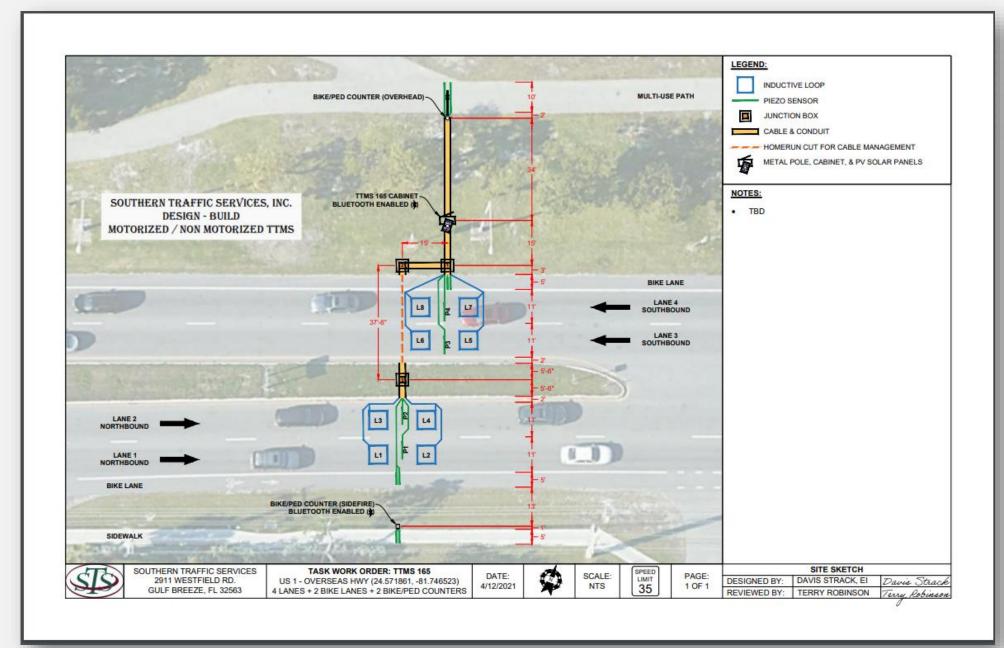




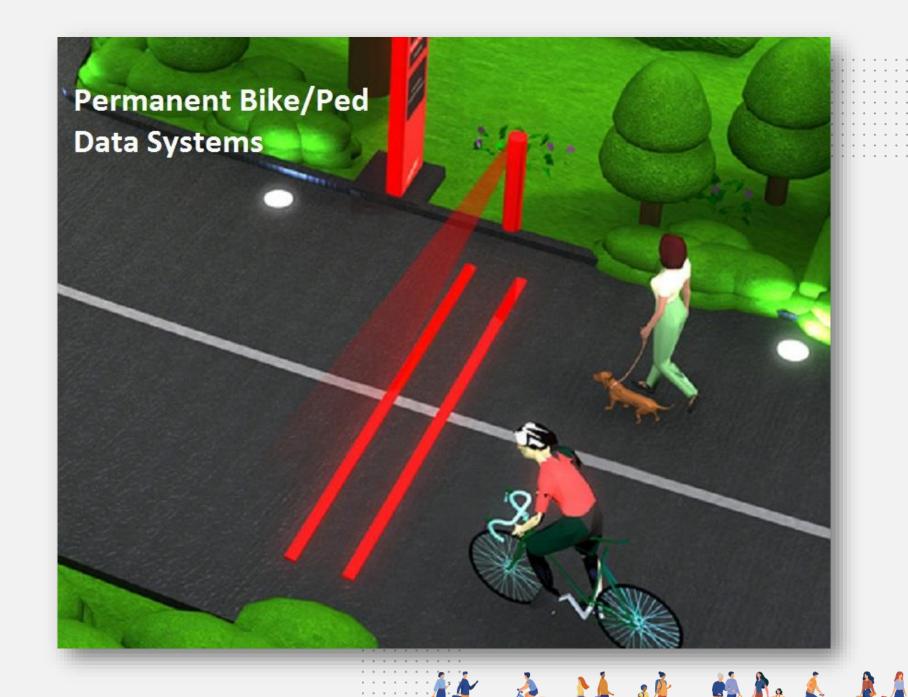
#### KEY WEST FLORIDA US I SITE DESIGN

- PLANNED SITE EVALUATION
- STS CAMERA SET UP FOR VOLUME/ CLASSIFICATION/ NON- MOTORIZED
- A.I. CAMERA TO STUDY MOVEMENTS, IDENTIFICATION, VALIDATIONS
- ROAD TUBES TO MOTORIZED/ NON- MOTORIZED TRAFFIC EVENTS
- UTILITY IDENTIFICATION
- TRAFFIC QUEING
- SYSTEM DESIGN









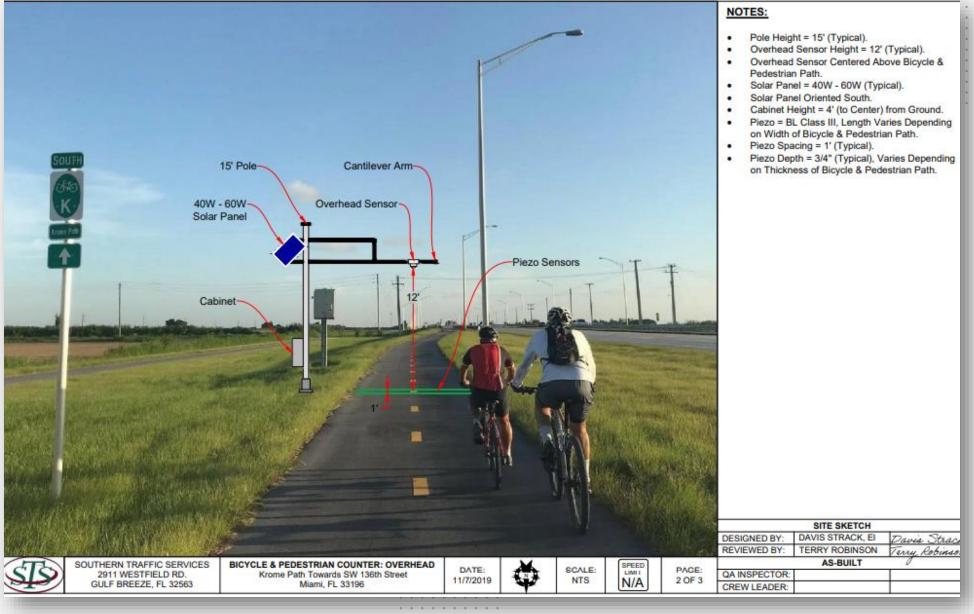


Multi-directional Thermal People Counting Solution

- · 95% Accuracy People Counting
- · Up to 16 counting lines
- · Highly reliable: MTBF > 25 years
- · IP or Relay output
- · Un-matched low cost of ownership
- · Unique wide-opening capability
- · Low power consumption
- · Fasy install and simple to configure
- · Wide range of mounting heights
- · Indoor and outdoor options

Distributed by













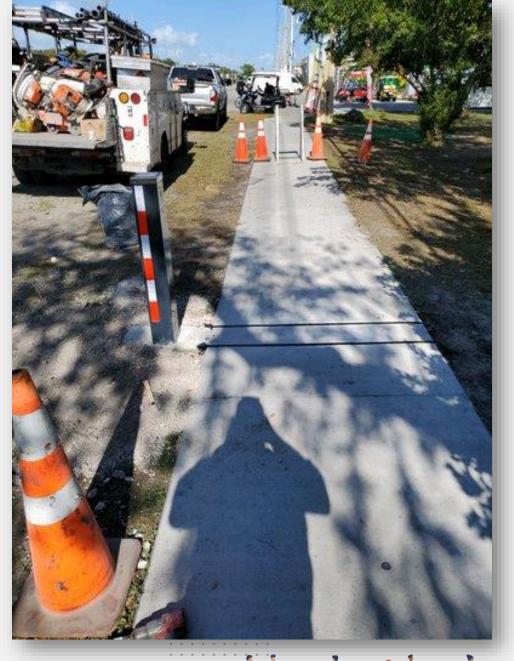






Overhead detection Key West Overseas Heritage Trail







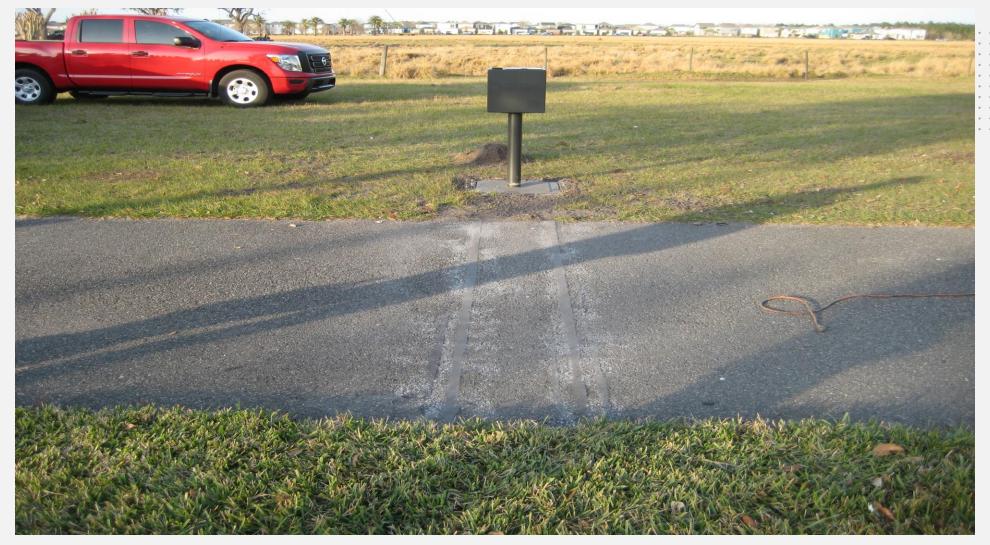












METRO COUNT SIDE DETECTION WITH PIEZO SENSORS











Eco Counter side detection with loops







Eco Counter side detection with loops





## QUESTIONS AND CONTACT INFORMATION

- Ed Hutchinson Ed.Hutchinson@dot.state.fl.us
- Liz Stolz Estolz@marlinengineering.com
- Joey Gordon <u>Joey.Gordon@dot.state.fl.us</u>
- Jackie Masaki <u>Jmasaki@marlinengineering.com</u>
- Eric Katz <a href="mailto:Eric.Katz@dot.state.fl.us">Eric Katz <a href="mailto:Eric.Katz@dot.state.fl.us">Eric Katz@dot.state.fl.us</a>
- Scott Wright <u>Wrightsa@cityofgainesville.org</u>
- Kevin Walford <u>Kevin.walford@miamidade.gov</u>
- Terry Robinson <u>Trobinson@southerntrafficservices.com</u>







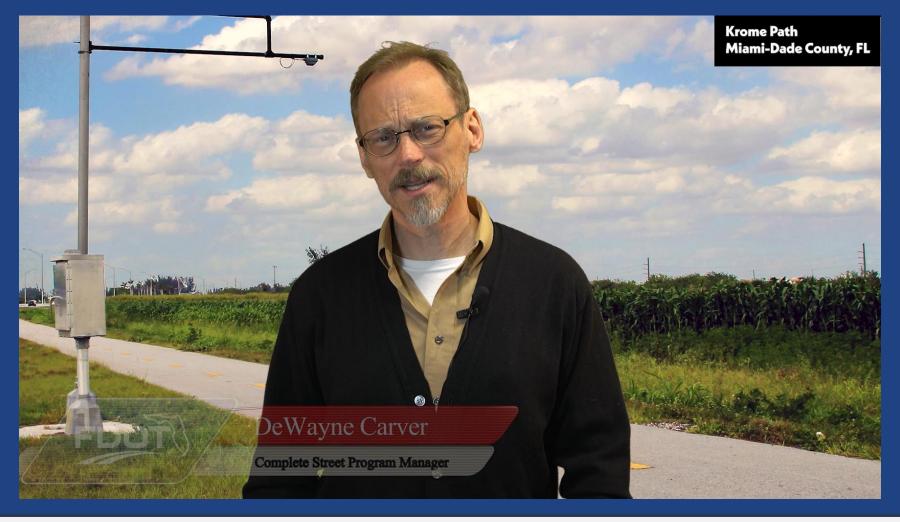








# **CLOSING VIDEO**





#### THANK YOU FOR ATTENDING!

- Recording will be made available soon after the webinar
- Please complete the follow-up survey that will be sent via email at the conclusion of this webinar
- Next webinar will be Thursday May 6<sup>th</sup>, 11:00am – 12:15pm (EST), and will cover Short-term Counts and NMTM Program Partnership Details
- Contact <u>Eric.Katz@dot.state.fl.us</u> for any questions related to today's presentation and/or AICP CM credits

FDOT Statewide Non-Motorized Traffic Monitoring Program

#### **2021 STATEWIDE ANNUAL MEETING**

#### HURSDAY

MAY 06 11:00AM -12:15PM (Eastern Time Zone)

#### WEBINAR #2:

FDOT Partnership Details / Short-term Counts focus Click HERE to attend



#### WELCOME FROM FOOT SYSTEMS IMPLEMENTATION OFFICE

Chris Edmonston, FDOT Manager of

11:05 AN

#### STATEWIDE SHORT TERM COUNTS OVERVIEW AND BEST PRACTICES

Eric Katz, NMTM Program
Coordinator

11-20 AM

#### SHORT-TERM COUNT PARTNERSHIP

Tiffany Gehrke, FDOT District 6 Bicycle/Pedestrian and ADA Coordinator

Michelle Mejia, West Kendall Baptist

Tina Russo, Pasco County MPO

12:05 PM

**OUESTIONS** 

12:13 PM

CLOSING VIDEO FROM FDOT CHIEF

**Traffic Monitoring Division** 

Huiwei Shen, FDOT Chief Planner



This webinar will provide Florida with details regarding short-term count deployments and how local agencies can partner with FDOT and assist in the development of the Statewide Non-Motorized Traffic Monitoring (NMTM) Program. Whether it be proposing new count stations, sharing non-motorized count data, or assisting FDOT on a scheduled short-term count deployment, there are various ways local agencies and organizations can support the

#### WEBINAR PARTNERS





An academic affiliate of the





QUESTIONS? Please e-mail Eric.Katz@dot.state.fl.us or Joey.Gordon@dot.state.fl.u







## SAFETY MESSAGE

 Wear helmet when riding your bike



