

Center for Urban Transportation Research (CUTR)

CUTR Board Room

May 10, 2022 | 1:00pm – 3:00pm

§334.065, Florida Statutes – Center for Urban Transportation Research

- 1) *There is established at the University of South Florida the Florida Center for Urban Transportation Research*
- 2) *The center shall be a continuing resource for the Legislature, the Department of Transportation, local governments, the nation's metropolitan regions, and the private sector in the area of urban transportation research*
- 3) *An advisory board shall be created to periodically and objectively review and advise the center concerning its research program*

Board Members:

- Ysela Llort, Chair, CUTR Advisory Board and Principal, Renaissance Planning Group, Inc.
- Jon Martz, Vice Chair, Director of Government and Public Affairs, Enterprise Holdings Company
- Kimberlee DeBosier, Director of Operations, WGI, Inc.
- Jean W. Duncan, Administrator of Infrastructure and Mobility, City of Tampa
- Dane Eagle, Secretary, Florida Department of Economic Opportunity (FDEO) / Scott Rogers
- Sonny Holtzman, Principal, The Holtzman Group
- Ron Howse, Chairman, Florida Transportation Commission (FTC)
- Ram Kancharla, Vice President Planning and Development, Port Tampa Bay
- Jared Perdue, P.E., Secretary, Florida Department of Transportation (FDOT) / Brad Thoburn, Assistant Secretary
- Shawn Hamilton, Secretary, Florida Department of Environmental Protection (FDEP) / Chris Shahl
- Joseph Waggoner, Former Executive Director, Tampa Hillsborough Expressway Authority
- Thornton J. Williams, Managing Partner, Williams Law Group, P.A.

Ex Officio Members:

- Lisa Bacot, Executive Director, Florida Public Transportation Association (FPTA)
- Ralph Yoder, Executive Director, FTC

CUTR Leadership:

- Fred Mannering, Ph.D., CUTR Executive Director
- Lisa Staes, CUTR Associate Director
- CUTR Program Directors

Agenda:

Welcome and Introductions

- New Members
- Board Members
- Other Participants

- Chair, Ysela Llort

**Topic #1: Approval of Minutes CUTR
(Appendix A)**
(5 minutes)

- Ysela Llort

**Topic #2: Selection of New CUTR Advisory
Board Chair/Vice Chair**

Nominees:

- Chair: Joe Waggoner
- Vice Chair: Jean Duncan

(10 minutes)

- Lisa Staes for Ram Kancharla, CUTR Advisory Board Leadership Selection Committee

Topic #3: FDOT Update
(10 minutes)

- Secretary David Gwynn, P.E.

Topic #4: CUTR Updates

- Executive Director
- Associate Director Activities
- NICR Updates

(20 minutes)

- Fred Mannering, Ph.D., CUTR Executive Director
- Lisa Staes, CUTR Associate Director
- Xiaopeng Li, Ph.D., NICR Director

**Topic #4: USF Institute of Applied
Engineering**
(10 minutes)

- Tim Baxter, Executive Director, Programs and Customer Engagement

Topic #5: CUTR Strategic Plan Update
(10 minutes)

- Lisa Staes
- Arunima Bagui
- Sisinnio Concas
- Other Committee Members

BREAK
(5 minutes)

Topic #6: CUTR Presentations

- Evaluation of Dynamic Envelope Pavement Marking to Improve Motorist Stopping Behaviors at Highway-Rail Crossings
- Transportation Equity Toolkit

(30 minutes)

- Pei-Sung Lin, Ph.D.
- Tia Boyd

Topic #7: CUTR Advisory Board Business

- Upcoming Membership Transitions
- Other CUTR Business

(15 minutes)

- Chair
- Members

Adjourn

CUTR Advisory Board Meeting

Tuesday, May 10, 2022 | 1:00 – 3:00pm

CUTR Board Room
(and Microsoft Teams)

Agenda

- Welcome and Introductions
- Approval of Minutes
- Selection of New CUTR Advisory Board Chair/Vice Chair
- FDOT Update
- CUTR Updates
- USF Institute of Applied Engineering
- CUTR Strategic Plan Update
- CUTR Presentations
- CUTR Advisory Board Business

Welcome and Introductions

Chair, Ysela Llort

Approval of Minutes

Selection of CUTR Advisory Board Chair/Vice Chair

Lisa Staes (for Ram Kancharla)



FDOT Update

David Gwynn, P.E., FDOT District 7 Secretary

CUTR Updates

Dr. Fred Mannering, CUTR Executive Director

Lisa Staes, CUTR Associate Director

Dr. Xiaoping Li, NICR Director

CUTR Executive Director Updates

- News from the College of Engineering
- USF Leadership Changes
- University Transportation Centers Update

University Transportation Centers Re compete

- National CTECH – Preserving Environment (Cornell)
- National NICR – Re compete (USF/CUTR)
- National or Tier 1 – ACES Equity (USF/CUTR)
- National or Tier 1 – Urban Air Mobility (U of Buffalo)
- Tier 1 – Mineta Consortium for Transportation Mobility (SJSU)
- Tier 1 – Cyber-Physical Systems (U of Cincinnati)
- Tier 1 – CTEDD (UT – Arlington)
- Regional – MULTI-SAFE (UCF)

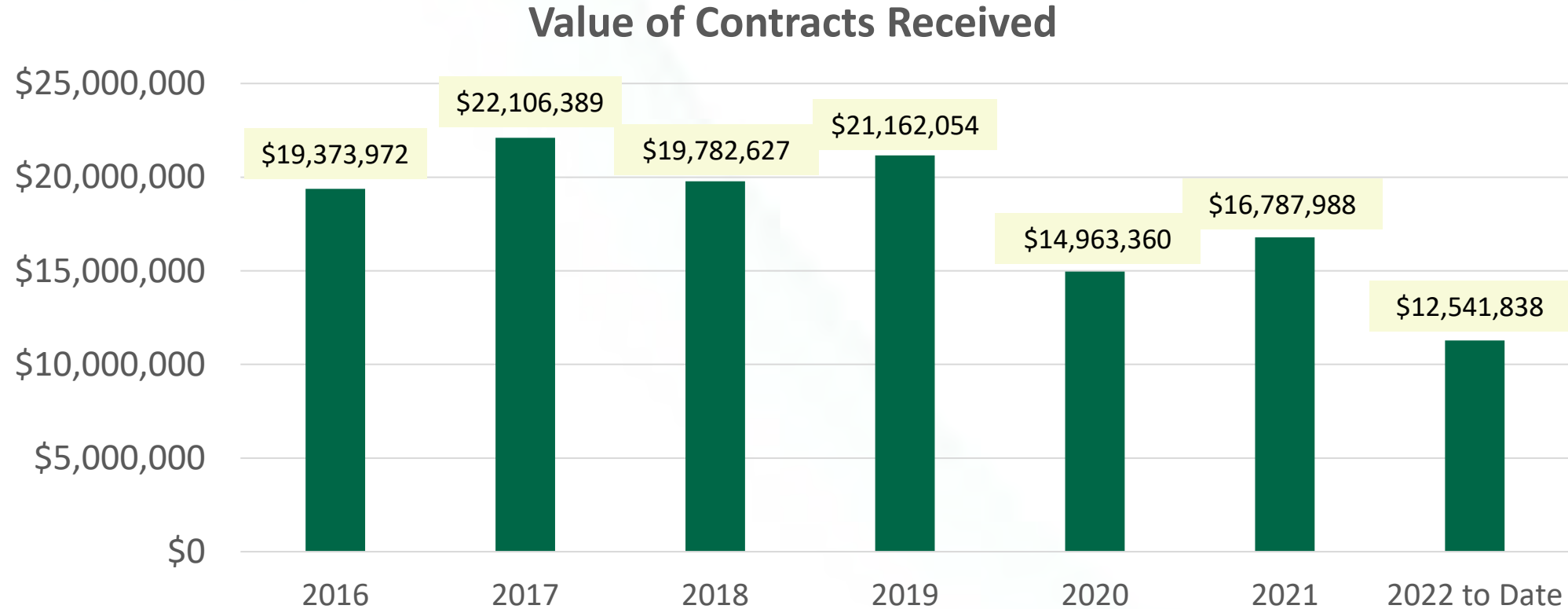
Associate Director Activities

- CUTR Internal Standing Meetings
- CUTR Strategic Plan Update
- Transportation Achievement Awards and Florida's Transportation Hall of Fame event (now Thursday, October 27, 2022)
- ENSCO/TTC Updates

CUTR Budget Update (FY 2016 – 2022)



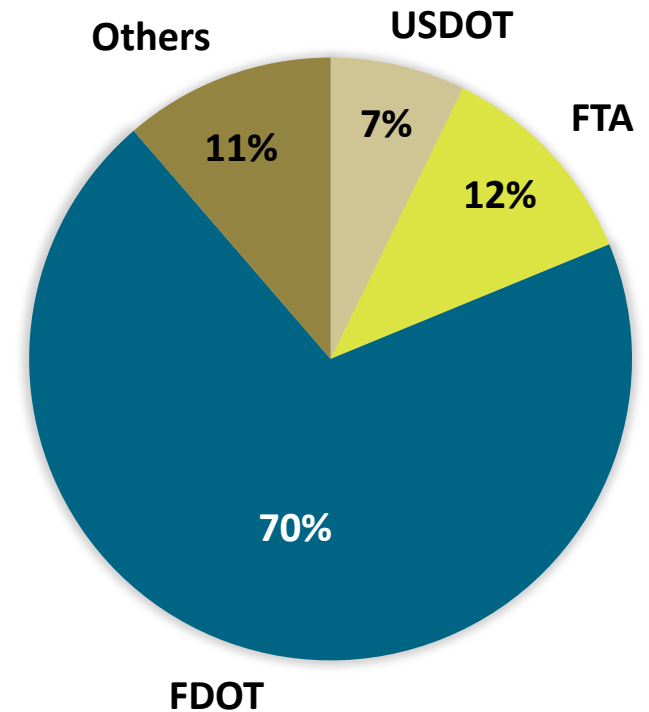
Research Funding (State FY 2016 – FY YTD 2022)



(*State Fiscal Year – July 1 through June 30)

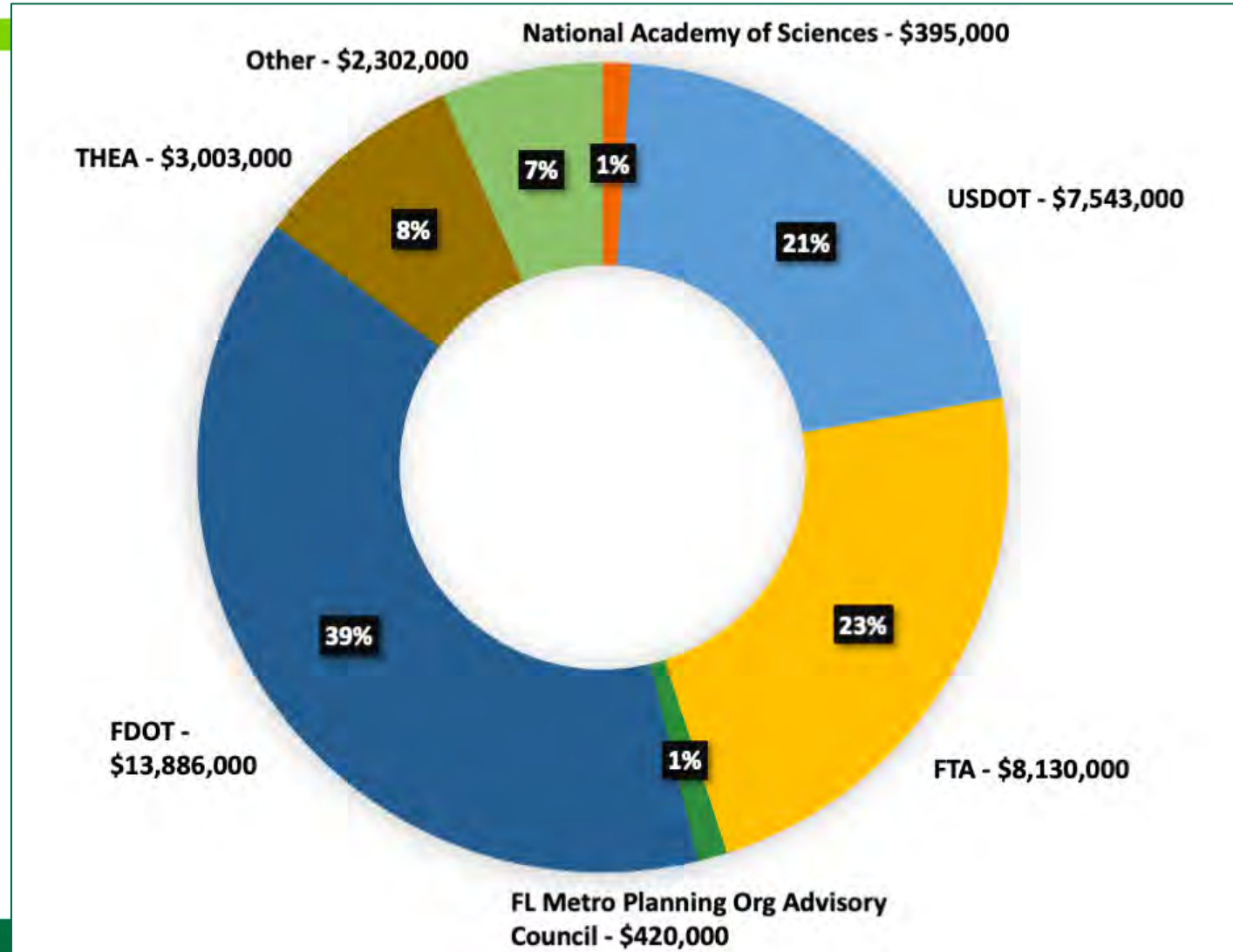
Award Details (FY 2016 – YTD 2022)

	USDOT	FTA	FDOT	Others	Total
FY 2016	\$1,393,300	\$2,106,835	\$13,892,216	\$1,981,621	\$19,373,972
FY 2017	0	\$3,409,692	\$15,465,523	\$3,231,174	\$22,106,389
FY 2018	0	\$1,283,423	\$16,903,034	\$1,596,169	\$19,782,626
FY 2019	0	\$4,395,344	\$14,835,282	\$1,931,428	\$21,162,054
FY 2020	\$2,609,409	\$843,561	\$9,458,098	\$2,052,292	\$14,963,360
FY 2021	\$2,443,750	\$2,107,672	\$9,853,865	\$2,382,701	\$16,787,988
FY 2022 – April 28, 2022	\$2,718,734	\$500,000	\$8,141,490	\$1,181,614	\$12,541,838
FY 2016 - 2022	\$9,165,193	\$14,646,527	\$88,549,546	\$14,356,999	\$126,718,227



Value and Source of Active Projects, April 2022

Total Value of Active Projects:
\$35,677,774



CUTR Update: National Institute for Congestion Reduction (NICR)



UNIVERSITY of
SOUTH FLORIDA

Research Project Update

- Year 3 Projects Selection
 - 3 short-term projects, covering topics such as equity, micro-mobility, data (2 USF)
 - 2 education projects, TB-CAT, access management curriculum development (both USF)
 - 12 research projects funded (6 USF)

NICR Newsletters

- <https://mailchi.mp/d6a57e89e6f7/march-2022-newsletter>

Semi Annual Progress Report

■ Submitted April 30th

Table 2. Performance Measures for Research Outputs.

A. T2 Goal and Description	B. Performance Measure	C. Achieved
Goal 1. Share new knowledge to address society's challenges and opportunities for reducing congestion	Number of presentations and estimated audience sizes	9/253
	Number of research reports and papers	8
	Number of peer reviewed journal publications	1
Goal 2. Provide diverse research products to meet the needs of <u>stakeholders</u> ; i.e., to put the right information in the right hands at the right time to combat congestion.	Number of Policy Briefs published	8
	Number of webcasts	4
	Number of podcasts	0
Goal 3. Professional & workforce development including educating & mentoring next generation transportation professionals, training existing workforce and grooming future leaders	Reported in Performance Metrics Annually (will be included in the next semi-annual progress report)	--
Goal 4. Commercialize research products to leverage public investment and yield broader implementation	Number of faculty and students completing I-Corps training	6

Semi Annual Progress Report

■ Submitted April 30th

Table 3. Performance Measures for Research Outcomes.

A. T2 Goal and Description	B. Performance Measure	C. Achieved
Goal 1. Share new knowledge to address society's challenges and opportunities for reducing congestion	Number of downloads of <i>Journal of Public Transportation</i> & <i>Journal of TDM Research</i>	47,081
Goal 2. Provide diverse research products to meet the needs of <u>stakeholders</u> ; i.e., to put the right information in the right hands at the right time to combat congestion.	Usage metrics for NICTD website, project-related websites, and Congestion Help Desk	4,183
	Number of articles in popular media	0
	Social media engagement (e.g. shares, comments, etc.)	2,932
Goal 3. Professional & workforce development including educating & mentoring next generation transportation professionals, training existing workforce and grooming future leaders	Contact hours in training, instructor-led and asynchronous learning	2,241
	Courses taught by personnel on a NICTD research project team.	44
	Number of students in courses taught by personnel on a NICTD research project team.	1070
Goal 4. Commercialize research products to leverage public investment and yield broader implementation	Number of patent applications	1

Semi Annual Progress Report

■ Submitted April 30th

Table 4. Performance Measures for Research Impacts.

A. T2 Goal and Description	B. Performance Measure	C. Achieved
Goal 1. Share new knowledge to address society's challenges and opportunities for reducing congestion	Number of citations in professional publications by NICR PIs	15,559
	Changes in policies or practice resulting from research	0
Goal 2. Provide diverse research products to meet the needs of <u>stakeholders</u> ; i.e., to put the right information in the right hands at the right time to combat congestion.	Numbers of subscribers to online networks, social media post reach, and reach of online peer-to-peer networks	14,726
Goal 3. Professional & workforce development including educating & mentoring next generation transportation professionals, training existing workforce and grooming future leaders	See Research Outcomes	--
Goal 4. Commercialize research products to leverage public investment and yield broader implementation	Cumulative number of patent disclosures, patents received, licenses issued, and businesses formed	0

UTC Re-Competition

- NOFO out this May?
- Letter of Support
- External Advisory Board

Thanks to NICR Staff



KRISTINE WILLIAMS, AICP
NICR Senior Program Manager
University of South Florida



SEAN BARBEAU, Ph.D.
Principal Mobile Software Architect for
USF Associate Director Technology Transfer
University of South Florida



PHILIP L. WINTERS
USF NICR Tech Transfer Assistant Director
University of South Florida



CHRISTINA VAN ALLEN
NICR Communications Officer
University of South Florida



REENA RATURI
NICR Fiscal Manager
University of South Florida



TAYLOR DINEHART
Graduate Student Researcher
University of South Florida

<https://nicr.usf.edu/>



Xiaopeng Li, Ph.D.
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USF Institute of Applied Engineering

Tim Baxter, Executive Director of Programs and Customer Engagement



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CUTR Strategic Plan Update

CUTR Group Leads



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SOUTH FLORIDA

CUTR Strategic Plan Update

- Developed action items in response to two goals
 - Combined Goals 1 and 6: *Financially Sustain CUTR Over the Long Term and Identify the Most Promising Markets*
 - Goal 5: *Build and Maximize the Capacity of our Human Resources*
- Internal committees established to develop action items
 - Goals 1 & 6: Vicky Perk, Sisinnio Concas, Jodi Godfrey, Jeff Kramer, Pei-Sung Lin, Julie Bond
 - Goal 5: Sisinnio Concas, Arunima Bagui, Martin Catala, Austin Sipiora, Stephen Wachtler, Sara Hendricks, Vishal Kummetha, Kristin Larson

Initial Action Items for Goals 1 & 6

- Secure multi-year appropriation from the Florida Legislature, USF Foundation, or corporate sponsor to support program and service development expansion and short-term technical support to “the Legislature, the Department of Transportation, local governments, metropolitan regions and the private sector.”
- Obtain remedies for USF indirect charges and redistributions
- Create a business plan to direct CUTR’s long-term investments, priorities and targeted market areas.

Initial Action Items for Goal 5

- Maximize the skill sets of our current employee base and internally promote or hire additional administrative staff to assist in key areas of operations like Pre-Award and human resources
- Allocate startup funds to attract new junior faculty as well as transitioning Post-docs into full time faculty positions
- Formal mentoring program for Post Docs, junior faculty and staff/administrative positions to prepare for career path
- Make more tools available for 1) better productivity like grant writing, project management and 2) better tracking of different request submissions like proposals, project execution, project amendments, etc.

Next Steps

- Distribution to all CUTR personnel for comment/input
- Presentation and discussion final action items, corresponding assignments, and responsible parties with all CUTR personnel
- Update the plan and present to board
- Monitor the progress on each action item
- Report back to CUTR personnel and board, quarterly at a minimum



Break

5 Minutes

Evaluation of Dynamic Envelope Pavement Marking to Improve Motorist Stopping Behaviors at Highway-Rail Crossings

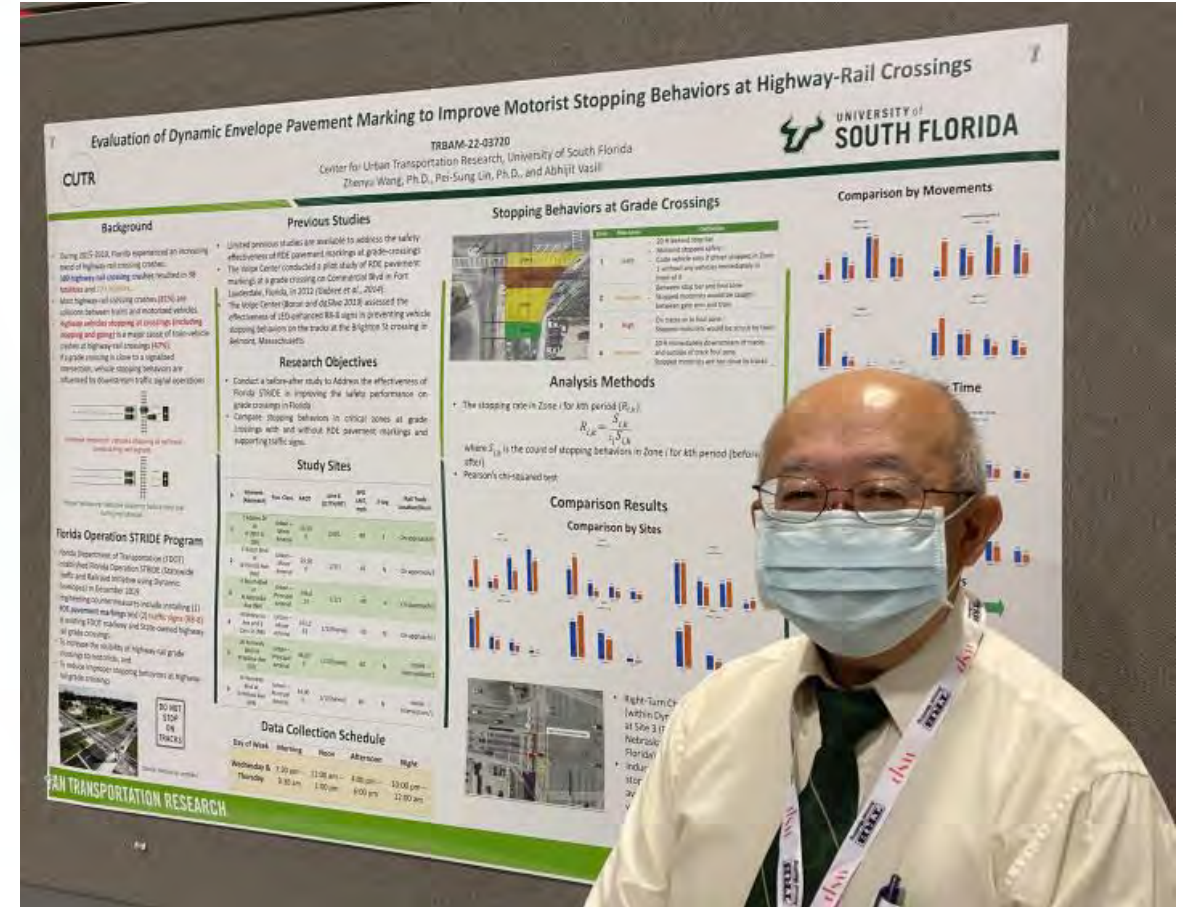
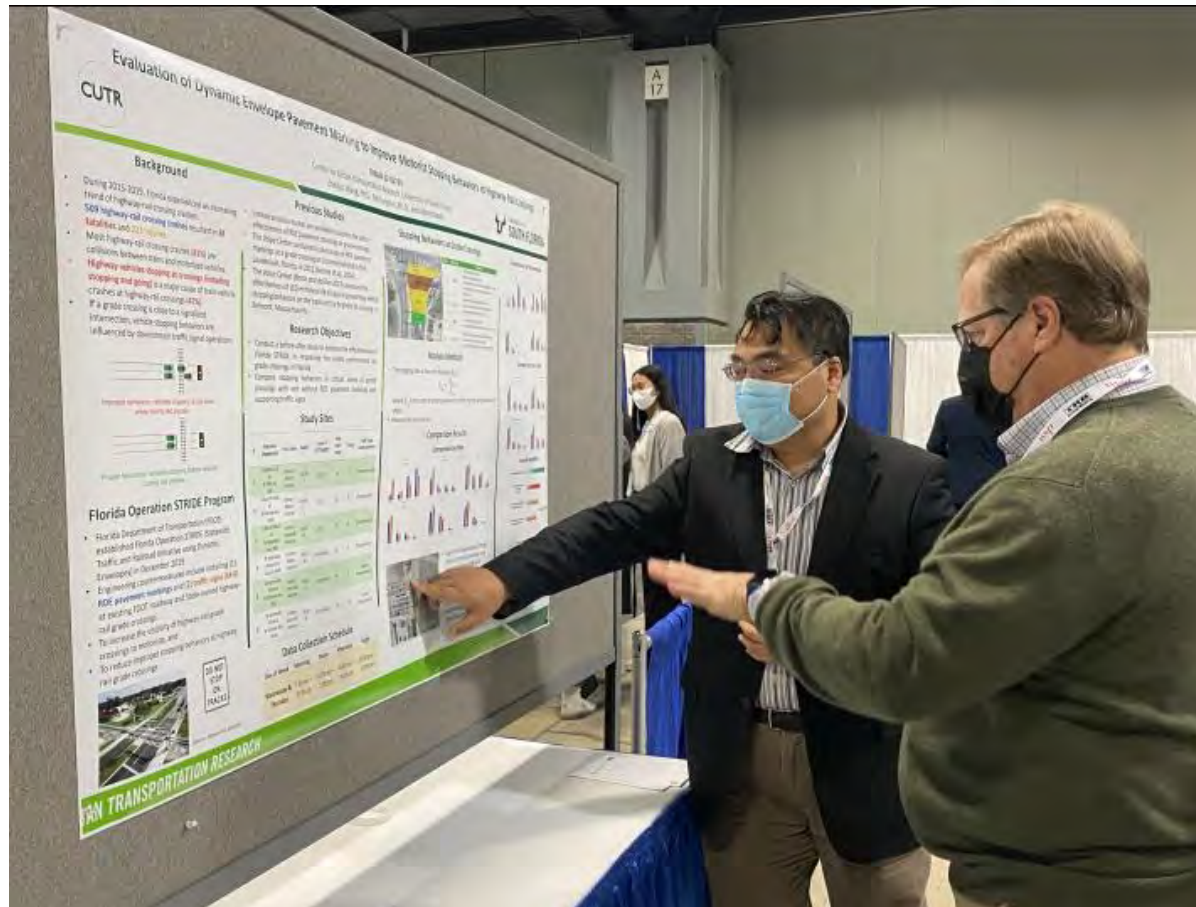
Dr. Pei-Sung Lin, P.E., PTOE, FITE
Dr. Zhenyu Wang

Center for Urban Transportation Research
University of South Florida

CUTR Advisory Board Meeting

May 10, 2022

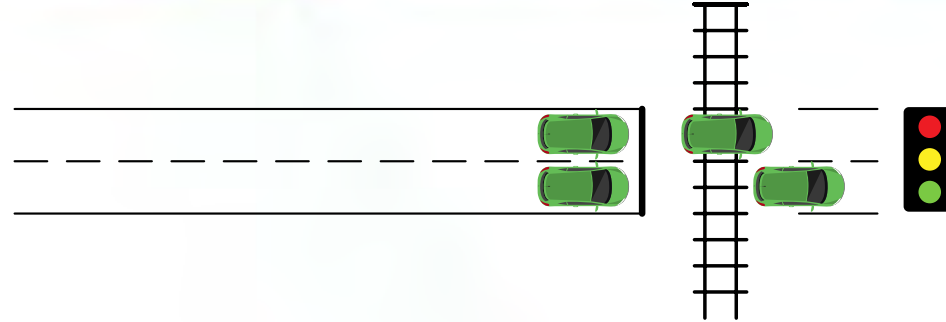
TRB Poster Presentation



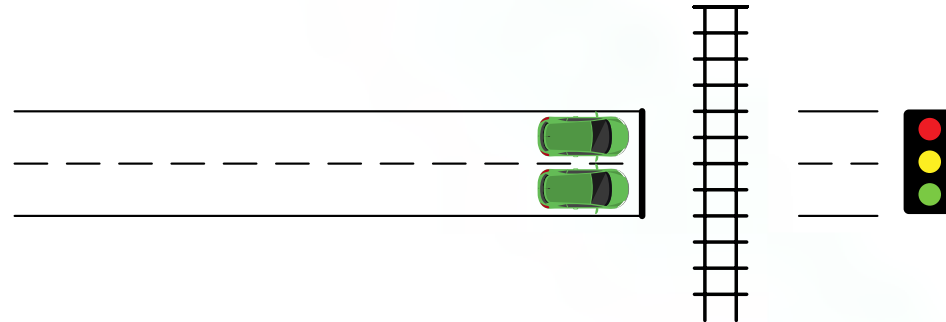
Background

- During 2015-2019, Florida experienced an increasing trend of highway-rail crossing crashes.
- **509 highway-rail crossing crashes** resulted in **38 fatalities** and **223 injuries**.
- Most highway-rail crossing crashes (**81%**) are collisions between trains and motorized vehicles.
- **Highway vehicles stopping at crossings (including stopping, or stopping and going)** is a major cause of train-vehicle crashes at highway-rail crossings (**47%**).
- If a grade crossing is close to a signalized intersection, vehicle stopping behaviors are influenced by downstream traffic signal operations.

Stopping Behaviors at Highway-Rail Crossings



Improper behaviors: vehicles stopping at rail track areas during red signals



Proper behaviors: vehicles stopping before stop bar during red phases

Florida Operation STRIDE Program

- FDOT established Florida Operation STRIDE (Statewide Traffic and Railroad Initiative using Dynamic Envelopes) in December 2019.
- Engineering countermeasures include installing (1) **Railroad Dynamic Envelope (RDE) pavement markings** and (2) **traffic signs (R8-8)** at existing FDOT roadway and State-owned highway-rail grade crossings.
- The goals were to increase the visibility of highway-rail grade crossings to motorists, and reduce improper stopping behaviors at highway-rail grade crossings.

Railroad Dynamic Envelope Pavement Marking

Florida DOT To Invest \$60M In Rail Crossing Improvements

editor@ashto.org December 13, 2019 0 COMMENTS



(Photo: FDOT)



(Source: Hanson Inc. website)



MUTCD R8-8

Research Objectives

- Conduct a before-after study to assess the effectiveness of Florida STRIDE in improving the safety performance at grade crossings in Florida.
- Compare stopping behaviors in critical zones at grade crossings with and without RDE pavement markings and supporting traffic signs.

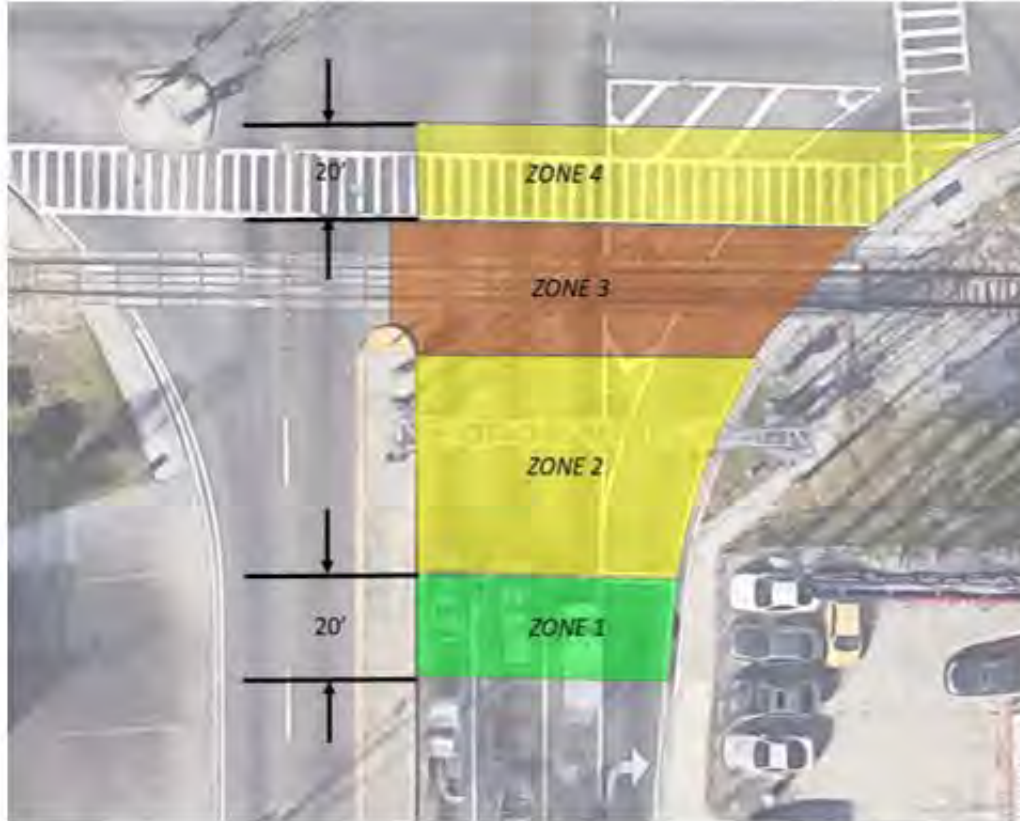
Study Sites in Tampa Bay Area

#	Intersect. (Approach)	Fun. Class.	AADT	Lane # (LT/TH/RT)	SPD LMT, mph	3-Leg	Rail Track Location/Num.
1	E Adamo Dr at N 39th St (SB)	Urban – Minor Arterial	13,500	2/0/1	40	Y	On approach/3
2	E Busch Blvd at N Florida Ave (NB)	Urban – Minor Arterial	29,500	1/3/1	45	N	On approach/1
3	E Busch Blvd at N Nebraska Ave (NB)	Urban – Principal Arterial	106,013	1/2/1	40	N	On approach/1
4	N Nebraska Ave and E Cass St (NB)	Urban – Minor Arterial	101,563	1/1(Shared)	35	N	On approach/1
5	W Kennedy Blvd at N Willow Ave (EB)	Urban – Principal Arterial	34,000	1/1(Shared)	40	N	Inside Intersection/1
6	W Kennedy Blvd at N Willow Ave (WB)	Urban – Principal Arterial	34,000	1/1(Shared)	40	N	Inside Intersection/1

Data Collection Schedule

Day of Week	Morning	Noon	Afternoon	Night
Wednesday & Thursday	7:30 am – 9:30 am	11:00 am – 1:00 pm	4:00 pm – 6:00 pm	10:00 pm – 12:00 am

Stopping Behaviors at Grade Crossings



Zone	Risk Level	Definition
1	Safe	• 20 ft behind stop bar • Motorist stopped safely • Code vehicle only if driver stopped in Zone 1 without any vehicles immediately in front of it
2	Moderate	• Between stop bar and foul zone • Stopped motorists would be caught between gate arm and train
3	High	• On tracks or in foul zone • Stopped motorists would be struck by train
4	Moderate	• 20 ft immediately downstream of tracks and outside of track foul zone • Stopped motorists are too close to tracks

Analysis Methods

- The stopping rate in Zone i for k th period ($R_{i,k}$)

$$R_{i,k} = \frac{S_{i,k}}{\sum_i S_{i,k}}$$

where $S_{i,k}$ is the count of stopping behaviors in Zone i for k th period (before or after)

- Hypothesis Testing - Use Pearson's chi-squared test to compare the stopping rates before and after the implementation of RDE.

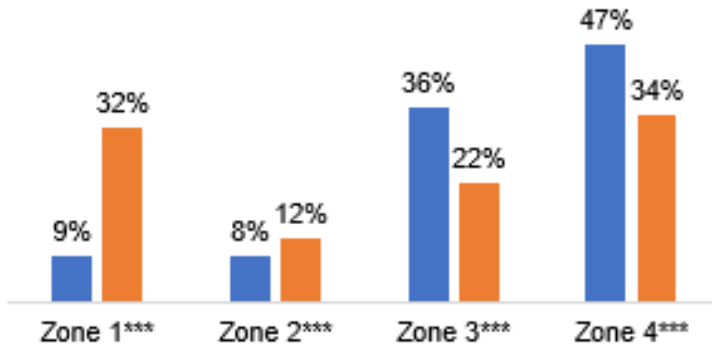
H_0 : Before Stopping Rate at Zone i = After Stopping Rate at Zone i

H_a : Before Stopping Rate at Zone $i \neq$ After Stopping Rate at Zone i

Results of Comparison by Sites

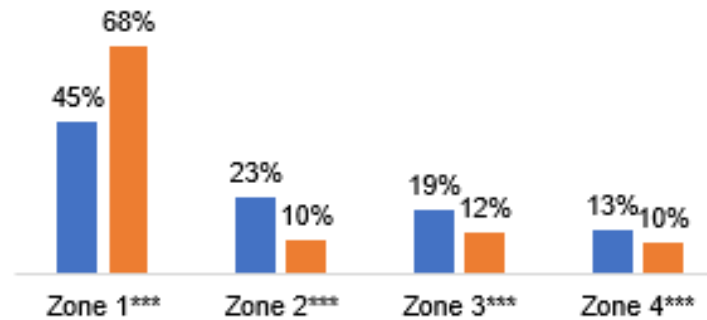
Site 1

■ Before ■ After



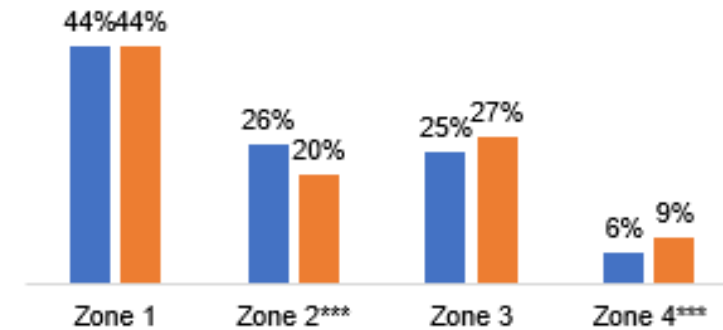
Site 2

■ Before ■ After



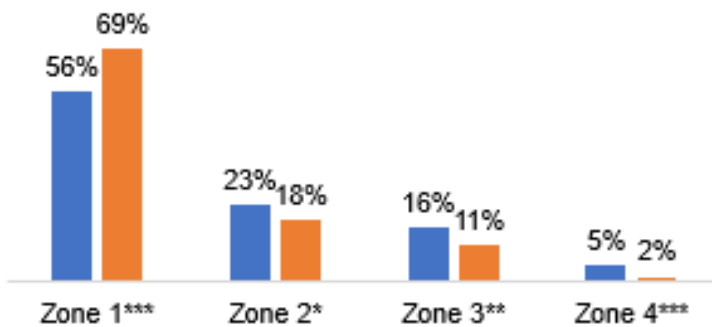
Site 3

■ Before ■ After



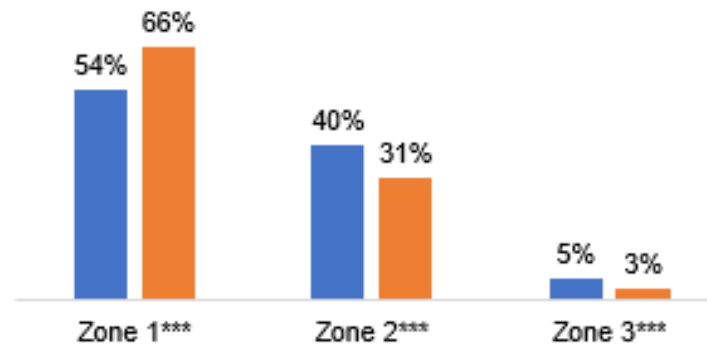
Site 4

■ Before ■ After



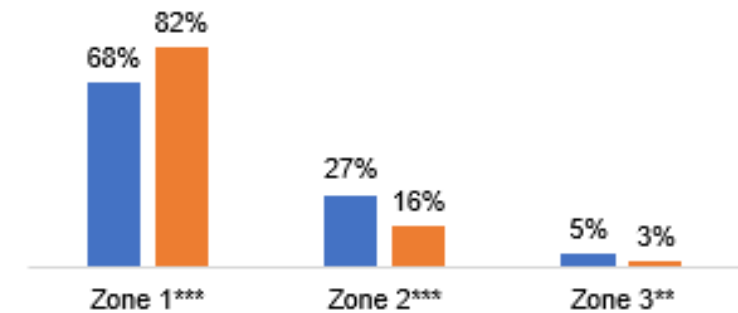
Site 5

■ Before ■ After



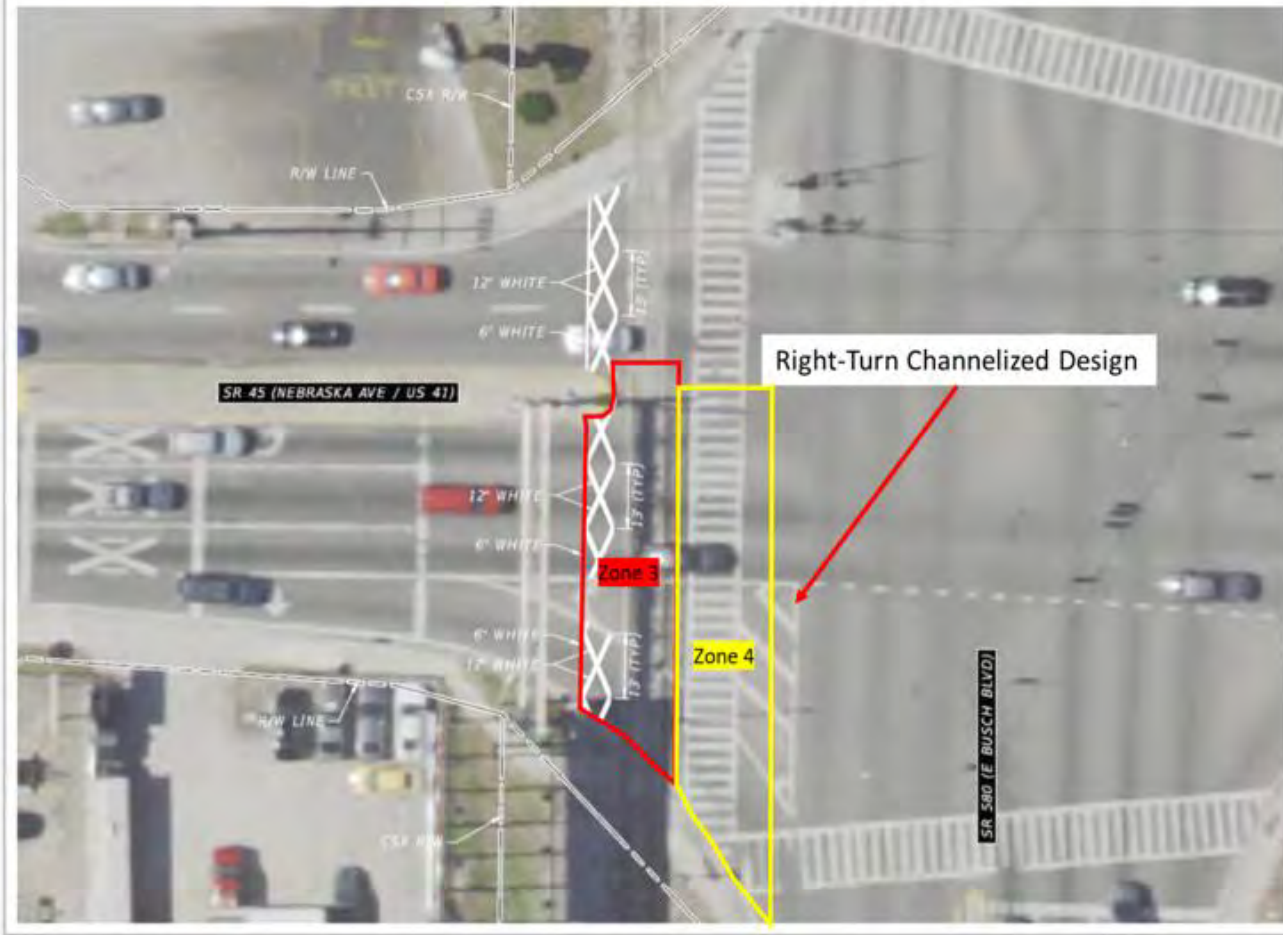
Site 6

■ Before ■ After



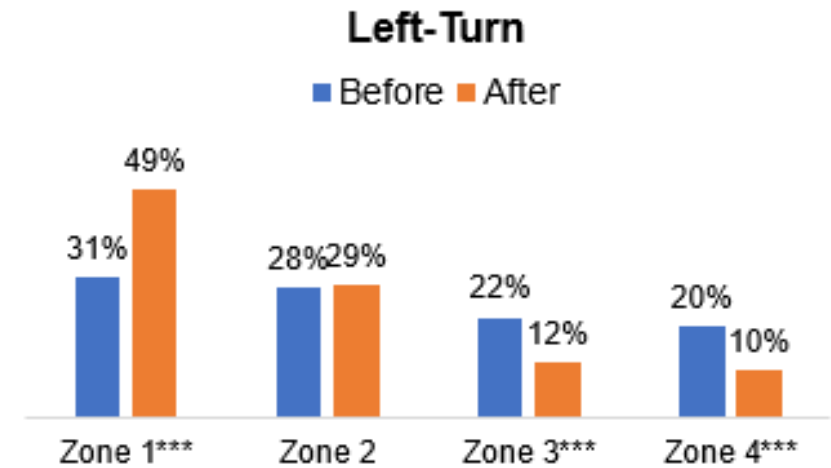
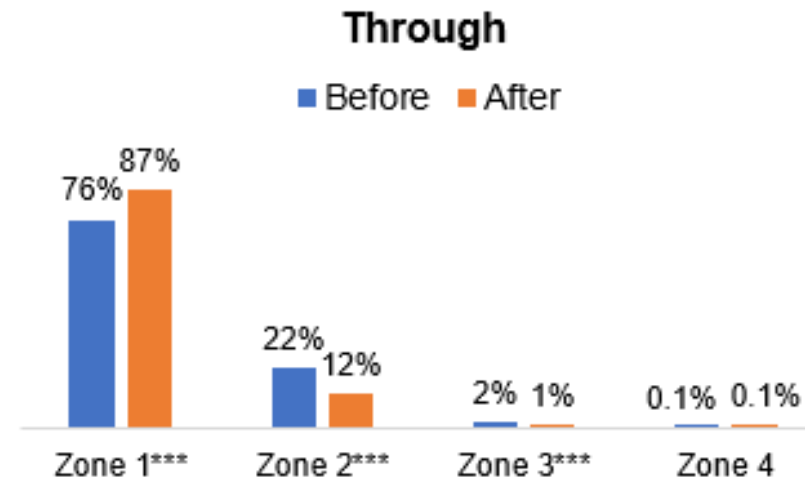
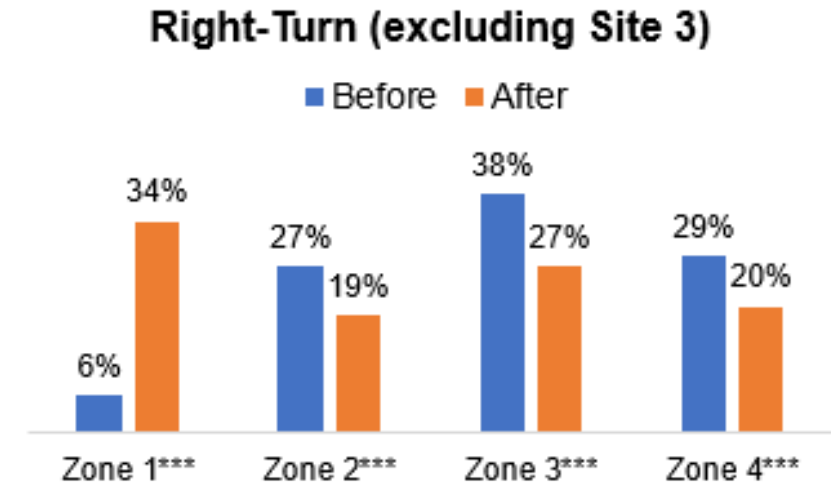
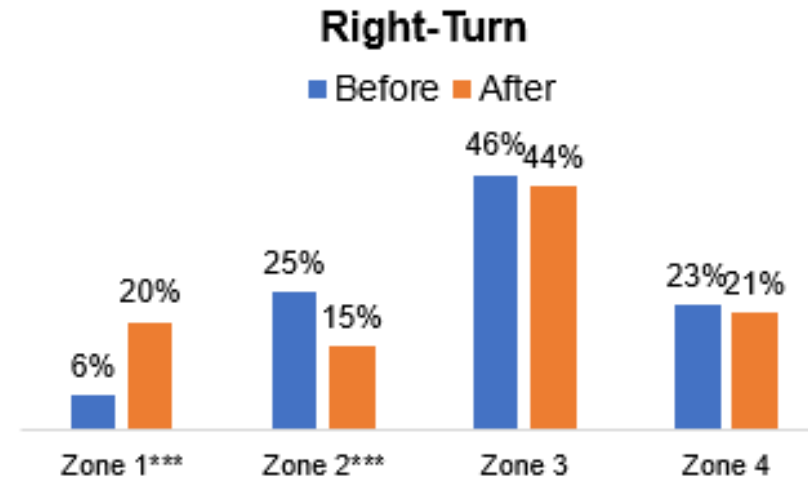
*** 99% significance; ** 95% significance, * 90% significance

Right-Turn Channelization at Site 3



- A right-turn channelization existed (within Dynamic Envelope area) at Site 3 (E Busch Blvd at N Nebraska Ave [NB], Tampa, Florida)
- Induces right-turning motorists to stop at Zone 3 or Zone 4 to seek available gaps in conflicting traffic when they see a red signal.

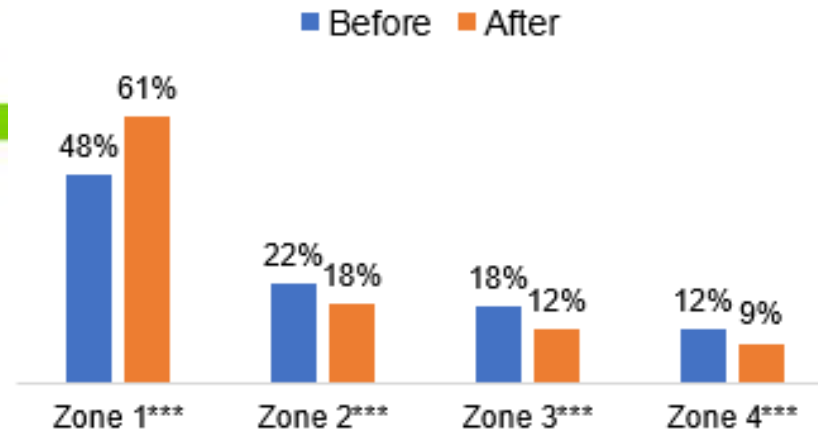
Results of Comparison by Movements



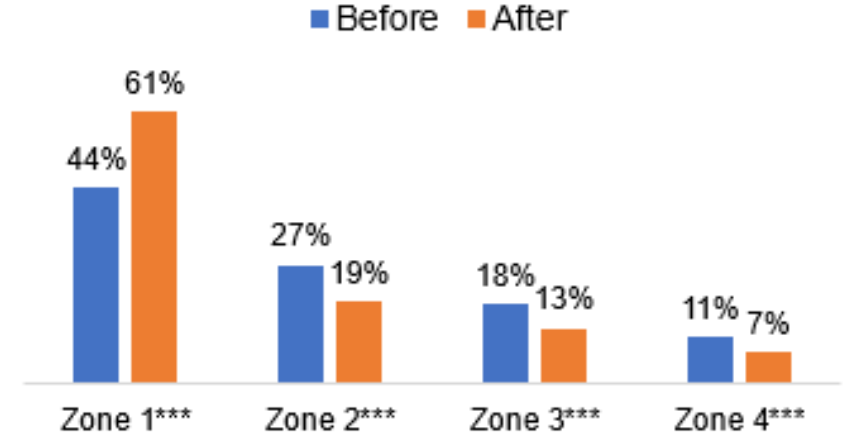
*** 99% significance; ** 95% significance, * 90% significance

Results of Comparison by Time

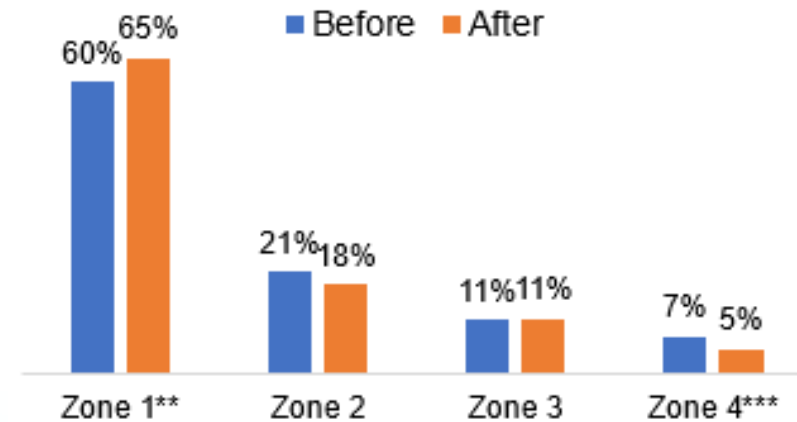
Morning (7:30 AM - 9:30 AM)



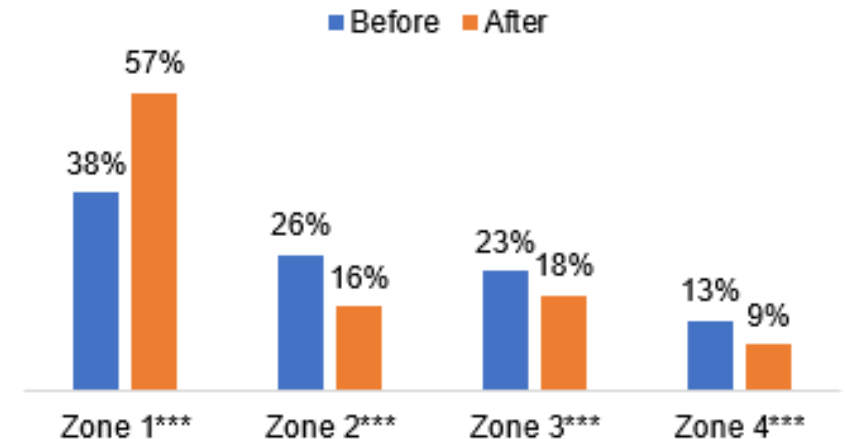
Noon (11:00 AM - 1:00 PM)



Night (10:00 PM - 12:00 AM)



Afternoon (4:00 PM - 6:00 PM)



*** 99% significance; ** 95% significance, * 90% significance

Overall Benefits

Safe Stopping (Zone 1)

Increased by 20%

Most Dangerous
Stopping
(Zone 3)

decreased by 8%

Moderately-Dangerous
Stopping (Zone 2)

decreased by 7%

Moderately-Dangerous
Stopping (Zone 4)

decreased by 5%

Excluding Site 3

Conclusions and Recommendations

- **Implementations of Railroad Dynamic Envelope (RDE) pavement markings and traffic sign - “DO NOT STOP ON TRACKS” (MUTCD R8-8) significantly improved the safety performance at grade crossings on urban major and minor arterials.**
- **It is recommended to avoid right-turn channelization within RDE areas or use No Turn on Red operations at downstream signalized intersections.**
- **It is recommended to improve the visibility of RDE pavement markings and traffic signs to motorists at night** via improving street lighting level.
- It is recommended to relocate the traffic signs if blocked by obstacles.
- It is recommended to add flashing beacons to the traffic signs.



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Transportation Equity Toolkit

Tia Boyd
Research Associate
University of South Florida
Center for Urban Transportation Research

The Transportation Equity Toolkit

Focuses on the transportation needs of underserved communities



Source: [Metro ATL Pedestrians12](#) by Transportation for America

Two equity-based processes

- Needs assessment
- Project prioritization



Source: [Jerilee Bennett/The Gazette](#)

Emphasizes community engagement throughout each process



Source: [d.wildapricot.net](#)

Traditionally Underserved Communities

- Communities whose needs have traditionally been underserved in the transportation planning process
- Populations may include
 - Low-income
 - Minority
 - Older adults
 - Young persons
 - Women
 - Persons with disabilities
 - Single-parent households
 - Zero-vehicle
 - Limited English Proficiency (LEP)
 - LGBTQ+
 - Other underserved or disadvantaged populations groups



Source: [Senior Citizens Area](#) by Chapendra

Individuals may belong to more than one underserved community and face intersecting barriers.

Identifying Community Needs



Source: [Jerilee Bennett/The Gazette](#)

Identifying Community Needs

Photo from Charlotte WALKS, City of Charlotte, NC, Bicycle and Pedestrian Plan



- Integrate equity into needs assessment processes
 - Identify the specific needs of underserved communities
 - Evaluate needs to determine root causes
- The toolkit includes a survey-based audit tool based on criteria of relevance to traditionally underserved communities.

How to Conduct the Needs Assessment?

Develop a community profile

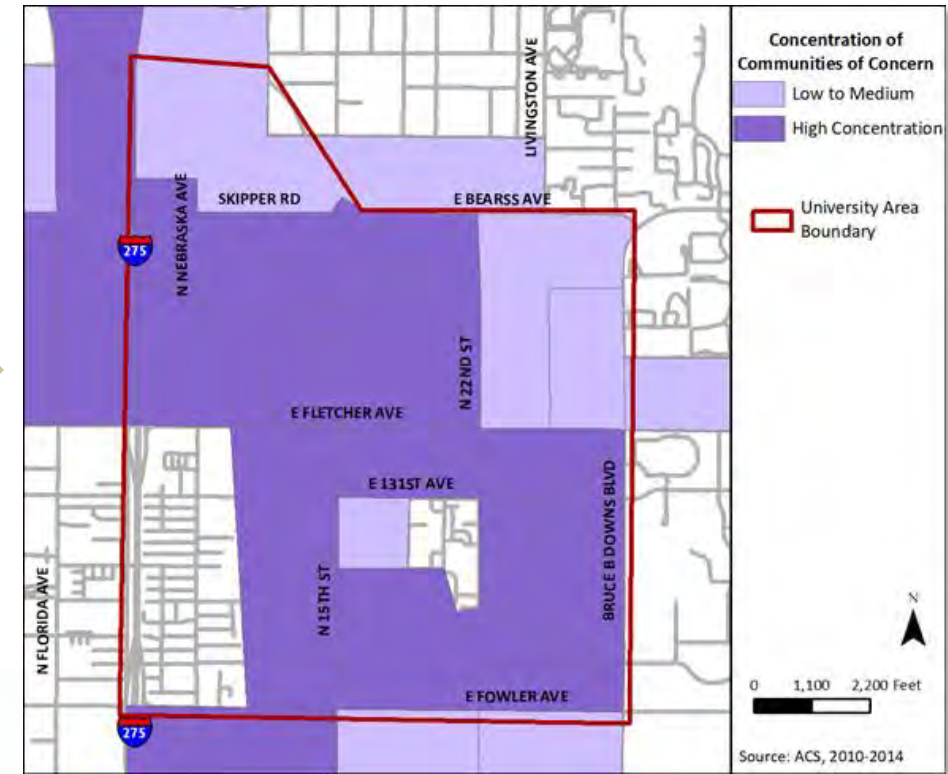
- Define and map underserved communities
- Develop an inventory and assess mobility needs

Involve the community

Use the audit tool

Prioritize needs

Defining & Mapping Underserved Communities



Develop a community profile

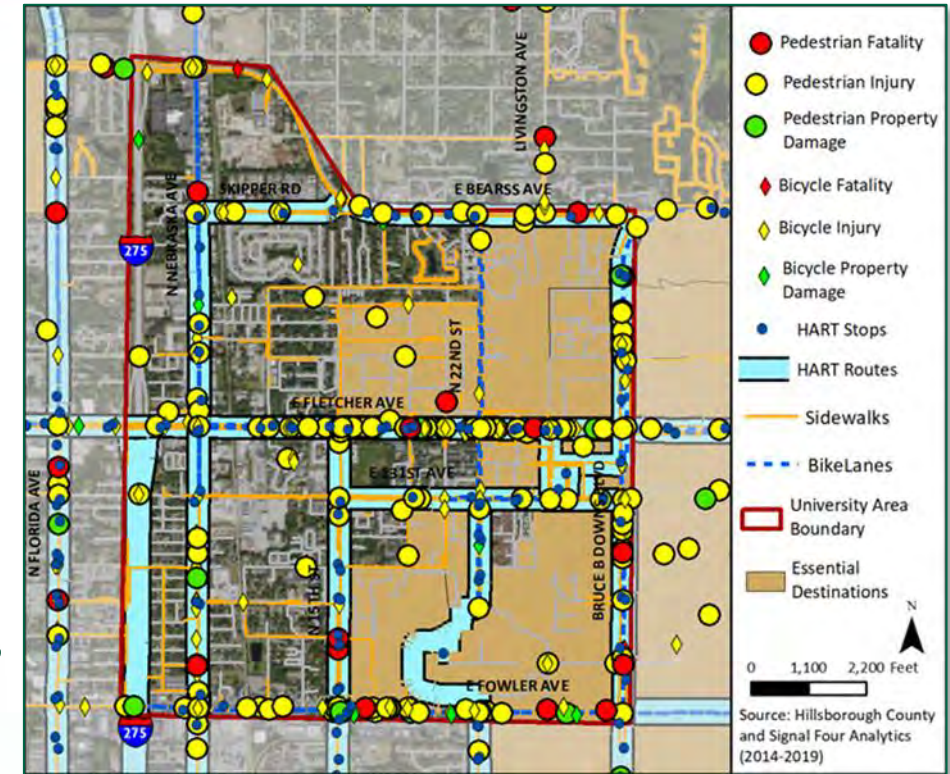
Involve the community

Use the audit tool

Prioritize needs

Developing an Inventory & Assess Mobility Needs

- 1 Summarize travel patterns and modes used
- 2 Identify current and proposed projects and services
- 3 Use GIS to build inventory maps
- 4 Overlay the inventory maps onto the COC maps
- 5 Conduct targeted field studies & summarize findings



Develop a
community profile

Involve the
community

Use the audit tool

Prioritize needs

Example: Sidewalk and Crosswalk Analysis



Develop a
community profile

Involve the
community

Use the audit tool

Prioritize needs

Collaborate and Co-create with the Community

- Inform
- Consult
- Involve
- Collaborate
- Empower

Source: Sustainable CT Equity Toolkit

A goal of the audit is to empower community members to become advocates for their needs



Source: [Community Meeting](#) by San Jose Public Library



Source: [Interactive Design Charrette](#) by Daniel Farrell

Develop a
community profile

Involve the
community

Use the audit tool

Prioritize needs

The Transportation Equity Audit Tool



Community
Characteristics



Access to
Opportunity



Environment



Safety



Active
Transportation



Public
Transportation



Investments and
Burdens

Develop a
community profile

Involve the
community

Use the audit tool

Prioritize needs

Access to Opportunity

Select the modes of transportation you use to travel to each destination (*Check all that apply*).

	Walking	Biking	Riding Transit	Riding Taxi or Rideshare	Driving or Passenger	Other
Employment	☐	☐	☐	☐	☐	☐
Education	☐	☐	☐	☐	☐	☐
Community services and shopping areas	☐	☐	☐	☐	☐	☐
Health care	☐	☐	☐	☐	☐	☐
Grocery stores or markets	☐	☐	☐	☐	☐	☐

On a scale of 1-5, rate how difficult it is to get to each destination using the listed modes of transportation? (1= "not difficult at all" and 5= "extremely difficult")

	Walking	Biking	Riding Transit	Riding Taxi or Rideshare	Driving or Passenger	Other
Employment						
Education						
Community services and shopping areas						
Health care						
Grocery stores or markets						

Is there anywhere that you need to go that is not reachable due to a lack of transportation options?

- ☐ Yes. If yes, please provide more details: _____
☐ No

Are there affordable transportation options in your community?

- ☐ Yes
☐ No

Please provide any additional details on the presence or absence of affordable transportation options in your community:

Suggested Methods to Evaluate Audit Results

- Prioritize needs
 - Identify indicators to measure and prioritize transportation needs
 - Conduct a SWOT analysis
- Identify and analyze causes
 - Root cause analysis
 - Cause and consequence analysis
- Summarize and share findings
 - Review, synthesize, and document evaluation results

Adapted from [Comprehensive Needs Assessment](#), Office of Migrant Education, 2001



Overall Ratings

Please rank the following categories from 1 to 5 (1 = lowest priority need and 5 = highest priority need):

	Ranking	Comments
Access to Opportunity		
Environment		
Safety		
Active Transportation		
Investments and Burdens		

Please rate the overall transportation experience.

	Excellent	Adequate	Poor	Don't know
Walkability	☐	☐	☐	☐
Bikeability	☐	☐	☐	☐
Public Transportation	☐	☐	☐	☐
Safety	☐	☐	☐	☐
Environment	☐	☐	☐	☐
Overall Transportation Experience	☐	☐	☐	☐

Please provide any additional comments on the transportation experience in your community:

Please note any ideas you may have for transportation projects that might address the needs you have identified.



Project Prioritization



Source: 2.bp.blogspot.com

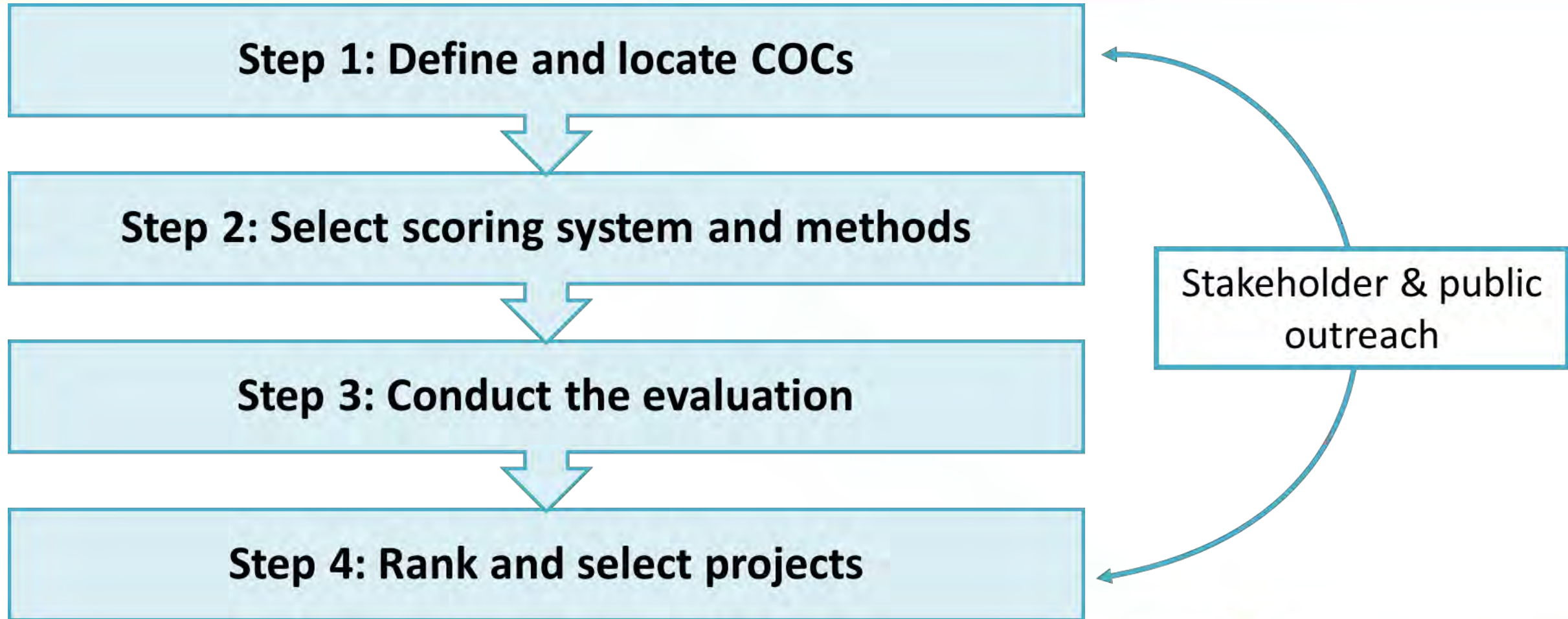
Project Prioritization

- Integrate equity into project screening and prioritization
 - Advancing the needs of underserved communities
 - Avoiding adverse and disproportionate impacts
- Includes an excel-based project screening tool developed using criteria specific to these needs



Source: streets.mn

How to Conduct the Prioritization Process?



Categories, Factors, and Criteria

Category	Factor	Criteria
Access to Opportunity	Employment	Project improves access to employment opportunities.
	Education	Project improves access to educational opportunities (e.g., higher education, job training, schools, daycare, after school programs).
	Community Services and Shopping	Project improves access to community services and shopping areas.
Health and Environment	Health Care	Project improves access to health care services.
	Healthy Food	Project connects to grocery stores or markets that provide healthy and fresh food at affordable prices.
	Environment	Project increases livability (e.g., community cohesion, streetscaping, green infrastructure, etc.) through design and/or mitigation measures.
Safety and Emergency Evacuation	Safety	Project improves safety for pedestrians and bicyclists at high-crash locations.
		Project improves safety at other (non-high crash) locations.
	Emergency Evacuation	Project improves emergency evacuation (e.g., transit coordination, connections to shelters, etc.).
Affordability	Housing	Project improves access to and from affordable housing.
	Transportation	Project increases availability of affordable transportation options.
	Housing and Transportation Costs	Project decreases the share of household income consumed by transportation and housing.
Mobility	Active Transportation	Project includes construction or improvement of sidewalks, trails, bike lanes, or other active transportation options.
	Transit Access and Service	Project improves transit service and/or access, including first and last mile access.
	Americans with Disabilities Act (ADA)	Project improves accessibility for persons with disabilities (e.g., transit stops, ADA curb ramps, audio-visual signals, driveway grade, etc.).
Burdens	Adverse Impacts	Project has adverse impacts (e.g., cumulative or disproportionate impacts, creates a barrier, increases noise or emissions, increases displacement/gentrification etc.)

Select Scoring System

- 0: No concentration of COCs
- +1: Low to medium concentration of COCs
- +2: High concentration of COCs
- 10: Adverse impact on COCs

Score		Weight	
Points (COCs)	Max Points	COCs*Impact	Max Points
-10, 0, +1, or +2	2	$(-10, 0, +1, \text{ or } +2) * (2)$	4

Select scoring
system & methods

Conduct the
evaluation

Rank and select
projects

- ```

graph LR
 A[Select scoring system & methods] --> B[Conduct the evaluation]
 B --> C[Rank and select projects]

```



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# Project Type and Location

**34<sup>th</sup> Street, City of Tampa**

**Results:** The 34<sup>th</sup> Street project is a safety project.

## Summary

34<sup>th</sup> Street from Columbus Drive to Hillsborough Avenue is primarily a 2-lane undivided collector roadway with a posted speed of 30 mph, as shown in Figure 2. 34<sup>th</sup> Street provides a secondary north/south access between the port area and northeast Tampa with 40<sup>th</sup> Street being the primary north/south arterial. 34<sup>th</sup> Street has an average daily traffic volume of 6,000 to 8000.

In a review of city-wide fatal and incapacitating injury crashes from 2009 to 2011, this section of 34<sup>th</sup> Street was identified as having a clustering (14) of fatal and severe injury crashes. As such, this section of roadway was analyzed for countermeasures to improve safety and apply as a candidate for Highway Safety Improvement Program (HSIP) Off-System Funds. Appendix A: Photo Log contains all the field review photographs taken.

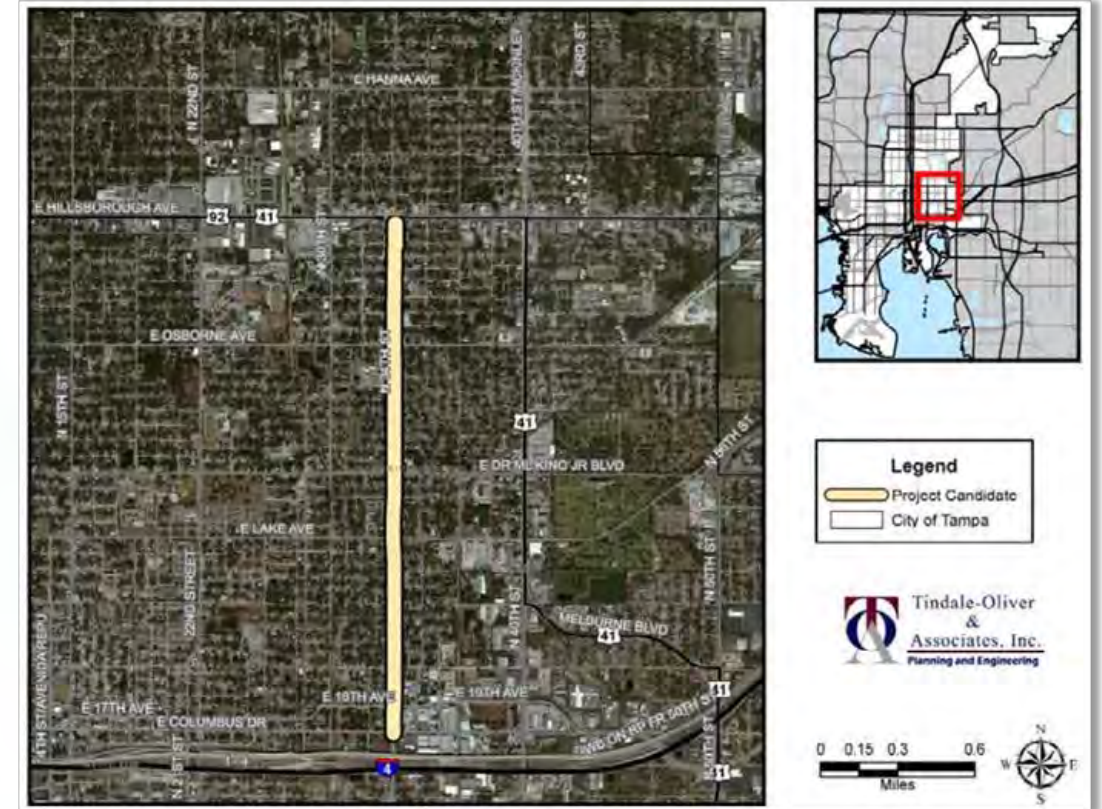
## Select scoring system & methods

## Conduct the evaluation

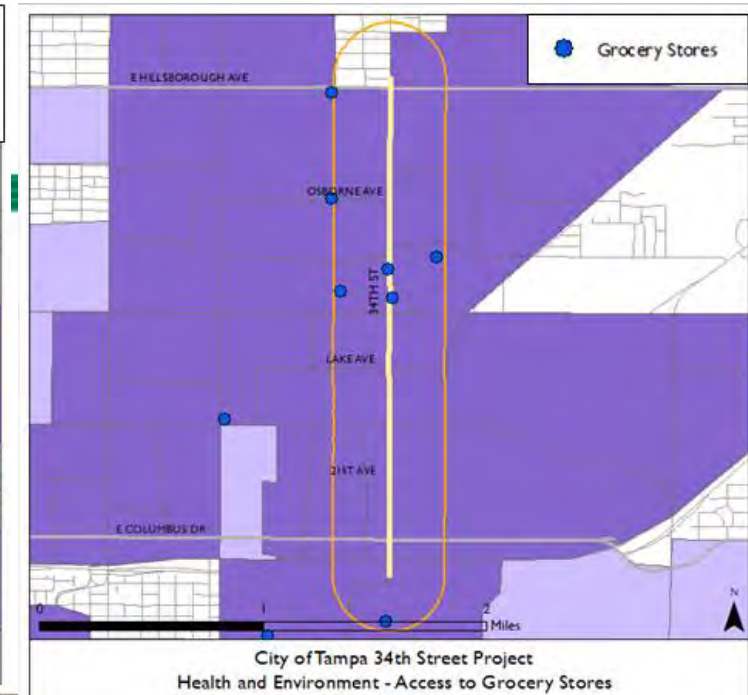
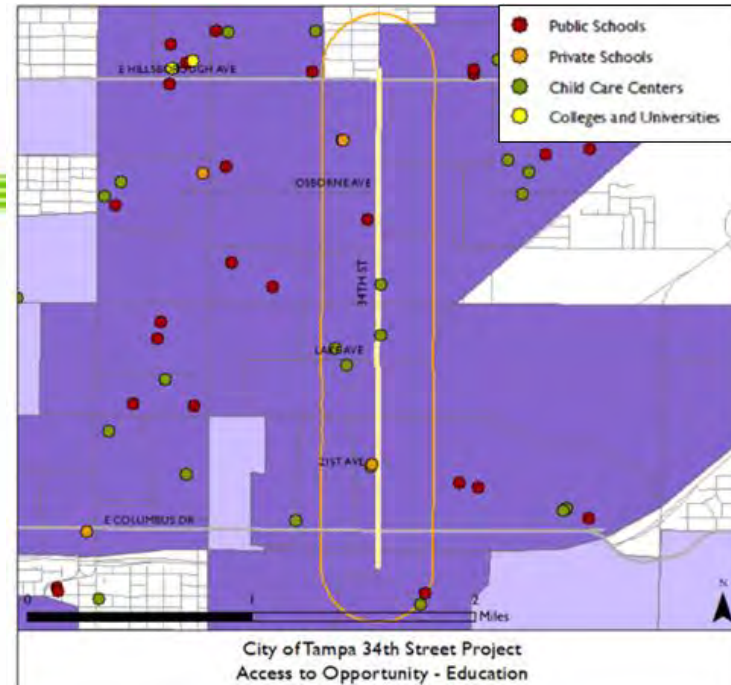
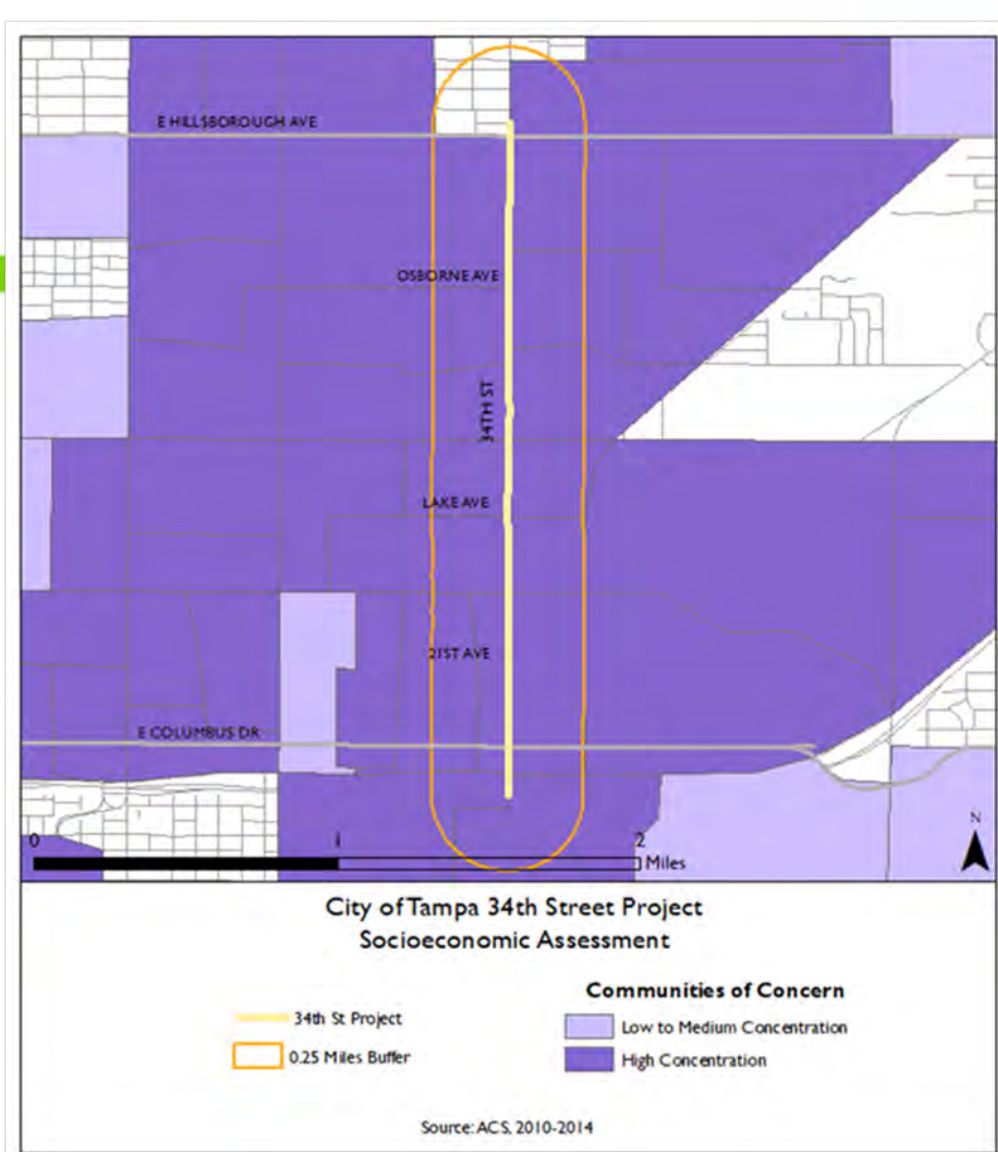
## Rank and select projects

**34<sup>th</sup> Street, City of Tampa**

**Results:** The project is located on 34<sup>th</sup> Street between Columbus Drive and Hillsborough Avenue.



Source: City of Tampa, 2013



Select scoring system & methods

Conduct the evaluation

Rank and select projects

# Add Projects to the Scorecard

Transportation Equity Scorecard Tool

Directions : Select " No, Yes, or Yes, high impact". See user guide for details.

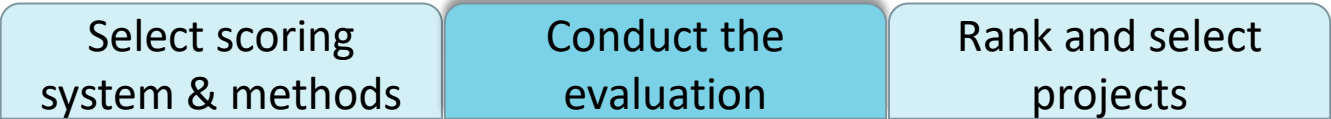
Project ID

|                                 | Criteria                                                                                                              | Response |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------|
| COCs                            | What is the concentration of COCs within a 1/4 mile of the project?                                                   |          |
| Access to Opportunity           | Does the project improve access to jobs?                                                                              |          |
|                                 | Does the project improve access to educational facilities                                                             |          |
|                                 | Does the project improve access to community services?                                                                |          |
| Health and Environment          | Does the project improve access to health care?                                                                       |          |
|                                 | Does the project improve access to grocery stores or markets with healthy and fresh affordable food?                  |          |
|                                 | Does the project increase livability through design and/or mitigation measures?                                       |          |
| Safety and Emergency Evacuation | Does the project implement appropriate safety countermeasures for pedestrians and bicyclists at high-crash locations? |          |
|                                 | Does the project implement appropriate safety countermeasures at other (non-high crash) locations?                    |          |
|                                 | Does the project improve emergency evacuation?                                                                        |          |
| Affordability                   | Does the project decrease the share of household income consumed by transportation and housing?                       |          |
|                                 | Does the project reduce travel time or eliminate a barrier to/from affordable housing?                                |          |
|                                 | Does the project provide affordable transportation choices, especially in areas with a high transportation cost?      |          |
| Mobility                        | Does the project improve or expand bicycle or pedestrian facilities?                                                  |          |
|                                 | Does the project improve transit service or access, including first mile/last-mile access?                            |          |
|                                 | Does the project include special measures to improve accessibility for persons with disabilities?                     |          |
| Burdens                         | Does the project cause cumulative, disproportionate, or other major adverse impacts?                                  |          |

Cancel

Save & Continue

Scores are automatically calculated based on responses.



# Rank and Select Projects

**Directions:** Click "Add" to answer questions for each project. See tabs named "Criteria Overview" and "Weights" for details related to the criteria and examples of "high impact" respectively.

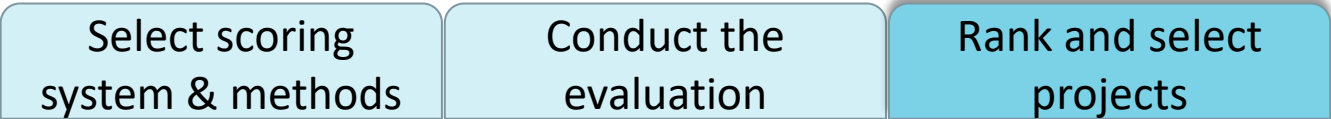
|               |                  |
|---------------|------------------|
| Add           |                  |
| Edit / Delete | Project Rankings |

|                       |                                 |
|-----------------------|---------------------------------|
| Project ID            |                                 |
| Category              | Factor                          |
| Access to Opportunity | Employment                      |
|                       | Education                       |
|                       | Community Services and Shopping |

Scores for each factor/criteria.

|         |                                       |
|---------|---------------------------------------|
|         | Transit Access and Service            |
|         | Americans with Disabilities Act (ADA) |
| Burdens | Adverse Impacts                       |
|         | Total Score                           |
|         |                                       |
|         | Project ID                            |
|         | Access to Opportunity                 |
|         | Health and Environment                |
|         | Safety and Emergency Evacuation       |
|         | Affordability                         |
|         | Mobility                              |
|         | Burdens                               |
|         | Total                                 |

Scores for each category.



# Thank you!



[tiaboyd@usf.edu](mailto:tiaboyd@usf.edu)

# CUTR Advisory Board Business

# Advisory Board Member Updates

- Membership transitions
- Other Board Items

# Adjourn