

North Central Texas
Council of Governments

BICYCLE AND PEDESTRIAN ADVISORY COMMITTEE

North Central Texas Council of Governments
Virtual Teams Meeting
November 17, 2021
2:00 pm - 4:00 pm

<p>2:00 – 2:05 (5 min)</p>	<p>1. Welcome – Introductions Discussion of the August 18, 2021, BPAC meeting summary, as necessary.</p>	<p>Kathy Nelson, Chair, City of Grapevine</p>
<p>2:05 – 2:30 (25 min)</p>	<p>2. Local Community Updates a. Vision Zero – Kathryn Rush, City of Dallas b. Real time Display Kiosks – Gene Moulden, City of Irving c. Dallas Road Corridor & Cotton Belt Trail Ext. – Kathy Nelson, Grapevine d. Upcoming Events – Robert Caskey, Frisco</p>	<p>Various BPAC Members and Guests</p>
<p>2:30 – 2:45 (15 min)</p>	<p>3. Smart Sensors and Infrastructure for Transportation Overview of the importance of continuous pedestrian behavior data collection to build a smart transportation system with equitable safety, the roadmap of pedestrian safety improvements, the basics of Lidar sensing, and the downfalls of pedestrian data collection at intersections.</p>	<p>Dr. Pengfei (Taylor) Li, Univ. of Texas at Arlington</p>
<p>2:45 – 2:55 (10 min)</p>	<p>4. Walk. Bike. Safe Texas Initiative and Training for Law Enforcement Overview of two initiatives that aim to address pedestrian and bicyclist safety, including an outreach and educational campaign for all road users and training for law enforcement on pedestrian and bicyclist related laws.</p>	<p>Neal Johnson, Texas A&M Transportation Institute</p>
<p>2:55 – 3:05 (10 min)</p>	<p>5. Bike DFW Coordination with Local Communities Overview of Open Streets and Ciclovía events, Community Rides with Elected Officials, Bike Friendly America Program, and Bike-to-Work Day.</p>	<p>Heather McNair, Bike DFW</p>
<p>3:05 – 3:20 (15 min)</p>	<p>6. Santa Fe Trail Master Plan Overview of the Santa Fe Trail Master Plan that includes major and minor trail improvements and enhancements such as wayfinding signage, art installations, and tree planting.</p>	<p>Samuel Mortimer, Friends of Santa Fe Trail</p>
<p>3:20 – 3:55 (35 min)</p>	<p>7. NCTCOG Updates a. Monthly Trail Usage – Daniel Snyder b. Data Collection and Reporting – Daniel Snyder c. Regional Trail Branding and Wayfinding Project – Shawn Conrad d. Regional Complete Streets/Context Sensitive Design Policy–Julie Anderson e. TxDOT Inventory/Active Transportation Tool – Julie Anderson f. Update on the TxDOT Roadway Design Manual – Julie Anderson g. 2022 BPAC Representatives and Meeting Schedule – Bobby Kozub</p>	<p>Various NCTCOG Staff</p>
<p>3:55 – 4:00 (5 min)</p>	<p>8. Other Business/Open Discussion This item provides an opportunity to bring items of interest before the Committee or propose future agenda items.</p>	<p>Kathy Nelson, Chair, City of Grapevine</p>

Next BPAC Meeting

The **next** meeting of the Bicycle and Pedestrian Advisory Committee is scheduled for **February 17, 2022**, from 2:00-4:00pm. The meeting is anticipated to be in person at NCTCOG in the Regional Transportation Council room. In January 2022 NCTCOG will contact STTC reps to designate their agency representatives to BPAC.

Dallas Vision Zero Action Plan

NCTCOG Bicycle & Pedestrian Advisory Committee

November 17, 2021



Kathryn Rush, Chief Planner
Department of Transportation
City of Dallas

Vision Zero Action Plan Development

Scope of work:

1. **Public and stakeholder engagement:** Task Force, public survey and interactive comment map, public meetings, etc.
2. **Crash data analysis** and identification of focus areas (locations and topics).
3. **Review of best practices** related to engineering, enforcement, education, evaluation, equity.
4. **Assessment of existing policies, programs, practices.**
5. **Draft Recommendations:** formulate strategies and policies, and create an implementation plan with department/agency buy-in.
6. **Prepare the Vision Zero Action Plan.**

WE
ARE
HERE



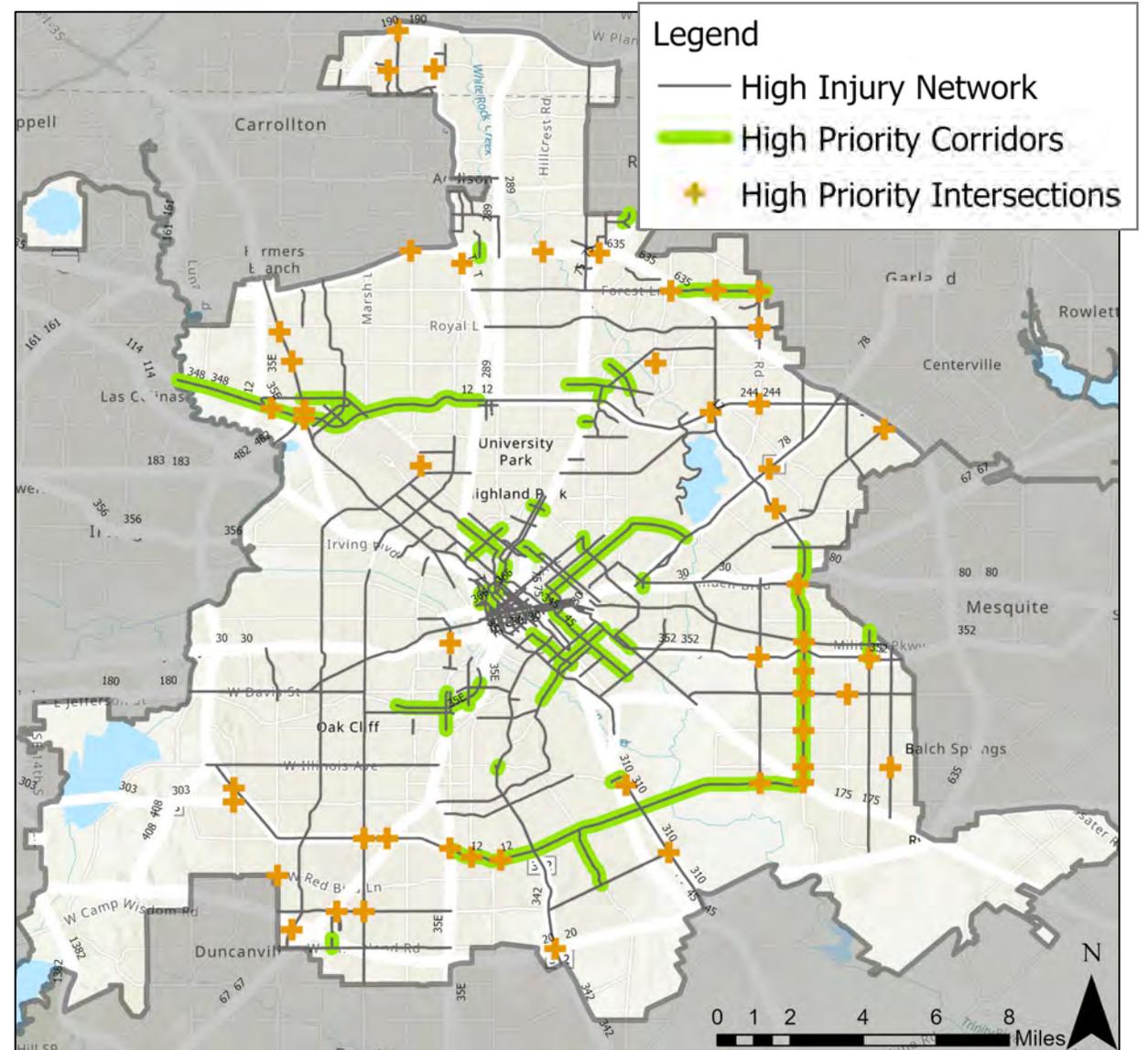
Plan Focus Areas

Factors that account for the highest percentage of fatal and severe crashes in Dallas:

1. **Pedestrian-Involved Crashes** (36% of crashes)
2. **Speeding/Unsafe Travel Speeds** (19% of crashes)
3. **Left-Turn Crashes** (10% of crashes)
4. **Red Light Running** (10% of crashes)
5. **Under the Influence** (14% of crashes)
6. **Not Using Proper Restraints** (Seat Belt, Car Seat) (16% of crashes)
7. **Distracted Driving** (only 5% in crash data, but a top priority in the survey)

Geographic Focus Areas

- The **High Injury Network (HIN)**: streets where a disproportionate number of severe crashes have occurred.
- In Dallas, 8% of streets (non-freeways) account for 60% of severe crashes.
- Of the roadways that account for the remaining 40%:
 - 15% of severe crashes were on other streets (non-freeways)
 - 25% were on freeways



Draft Recommendations

Overall Themes

1. Work across departments and agencies and take a comprehensive approach to improving safety using Engineering, Enforcement, Education, Evaluation, and Equity.
2. Use data to determine priorities.
3. Dedicate resources to reducing fatal and severe crashes.
4. Create a culture of safety.

Draft Recommendations

Engineering

- Expanded engineering safety traffic studies on HIN
- Evaluation of short, medium and long-term countermeasures
- Update or adopt new policies, procedures, and standards

Enforcement

- Conduct High-Visibility Enforcement along HIN corridors to target the most dangerous driving behaviors
- Provide consistent levels of enforcement across all DPD Divisions
- Work with Courts to create graduated penalties for repeat offenders who engage in dangerous driving behavior

Draft Recommendations

Education

- Align all traffic safety education and outreach efforts in the city under the Vision Zero umbrella
- Convene interdisciplinary meetings to facilitate coordinated and strategic internal/external outreach
- Develop and implement a safety education campaign in coordination with internal and external stakeholders
- Use data to focus education on the most dangerous behaviors, to determine the target audience and where to deploy resources

Next Steps

- Public Input Phase 2 to collect public and partner feedback on the draft recommendations.
 - Virtual Public Meeting is scheduled to be held at 6 p.m. on Tuesday, November 16, 2021.
 - Online survey will be open from November 16 – November 30, 2021.
- City Council Briefing scheduled for December 15, 2021, to present draft Vision Zero Action Plan.
- City Council adoption of the Vision Zero Action Plan anticipated in Spring 2022.

For more information, visit:

dallascityhall.com/VisionZero





Real Time Display Kiosks

Bicycle and Pedestrian Advisory Committee

November 17, 2021



Site Plan

LEVY EVENT PLAZA



Lake Carolyn Promenade



4th of July Event



Plaza Area



Real-time Displays

Eco-DISPLAY Classic+

A high-visibility, real-time count display for bicycles, pedestrians & scooters that also presents dynamic, customizable text to passers-by.

Active Transportation

Bicycle Tourism

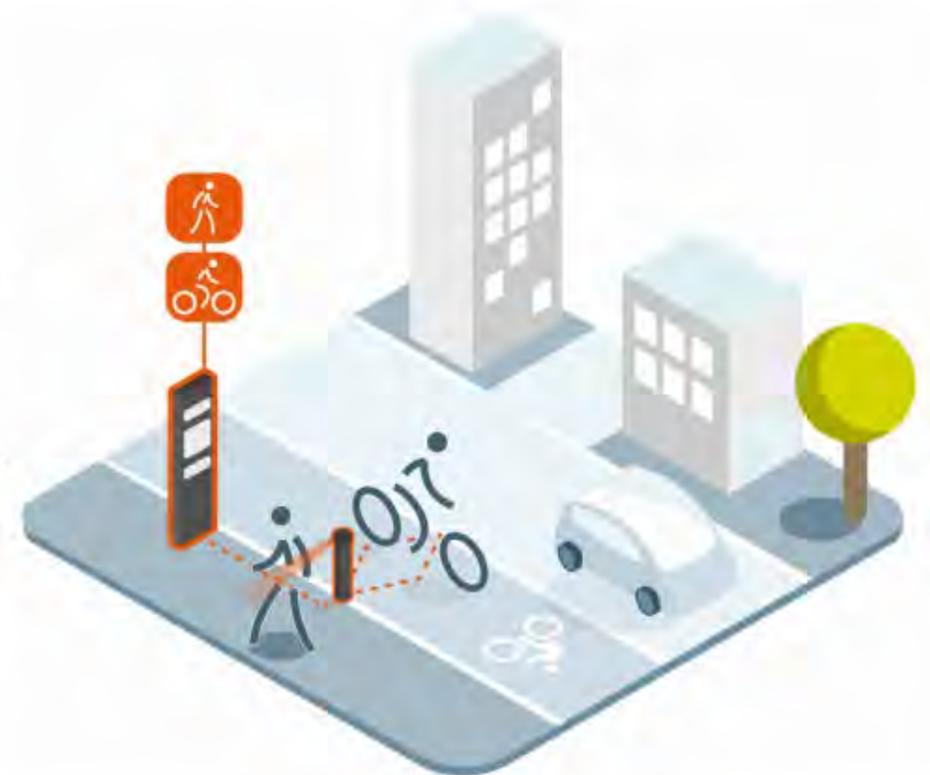
Benefits :

- Highly customizable display
- Elegant piece of street furniture
- Display visible at night
- Robust and vandal-resistant

Overview

The **Eco-DISPLAY Classic+** is an eye-catching and powerful display that makes cyclists and pedestrians a more visible part of the urban landscape.

The counts registered are sent to our online software solution Eco-Visio, where they can be analyzed and shared with the public. Using the ComEth technology, the system can be connected to any Eco-Counter Sensor*. The ComEth-based system also allows for rich ITS integration options.



Digital Display Installation



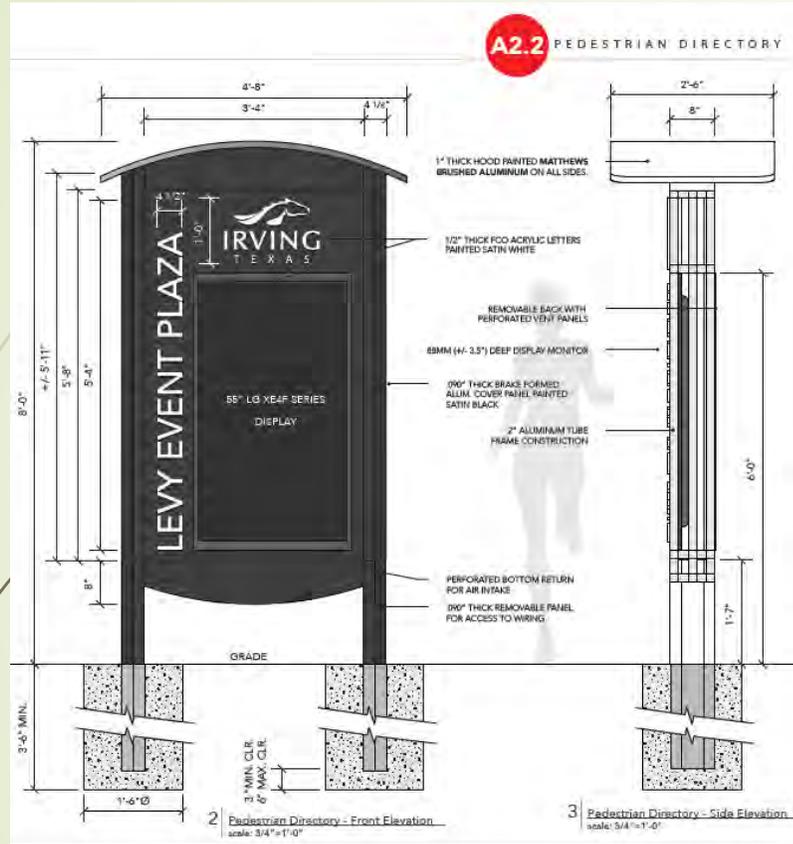
Urban Counter

- Bluetooth enabled
- Power and all connections are hard wired
- Custom Graphics
- Counter is +/- 180 away
- Set-up was virtual



Real Time Digital Display

Digital Kiosk



- Power Hardwired
- Software provided
- Cellular modem included
- Programmed content and display length



Dallas Rd. TOD
Corridor/Cotton Belt Trail
Extension Project

Completion



- 2017 NCTCOG TA Set-A-Side Funding - \$5M
- Construction Bid - \$8.4
- Construction - Jan. 2020 to Sept. 2021
- Project objective: to create a more comfortable and safer zone for pedestrians and bicycles as part of the critical last 1/2 mile for the new TexRail Station and rapidly emerging transit oriented development.

Overview



Added Components:

- 3 mid-block crossings with RFB and pavers.
- 1 new signalized intersection with crosswalks and pavers.
- 2 enhanced signalized intersections with refuge islands and paving design.
- 1.5 miles of the regional Cotton Belt Trail with driveway demarcation.

Overview

Added Components



- 6'-wide sidewalks.
- 125 Shade trees and pedestrian lighting equally spaced with benches and trash receptacles.
- Landscaped center median and 5'-wide landscaped buffers back of curb.
- Narrower travel lanes.
- Reduced number of driveways with tighter radii.

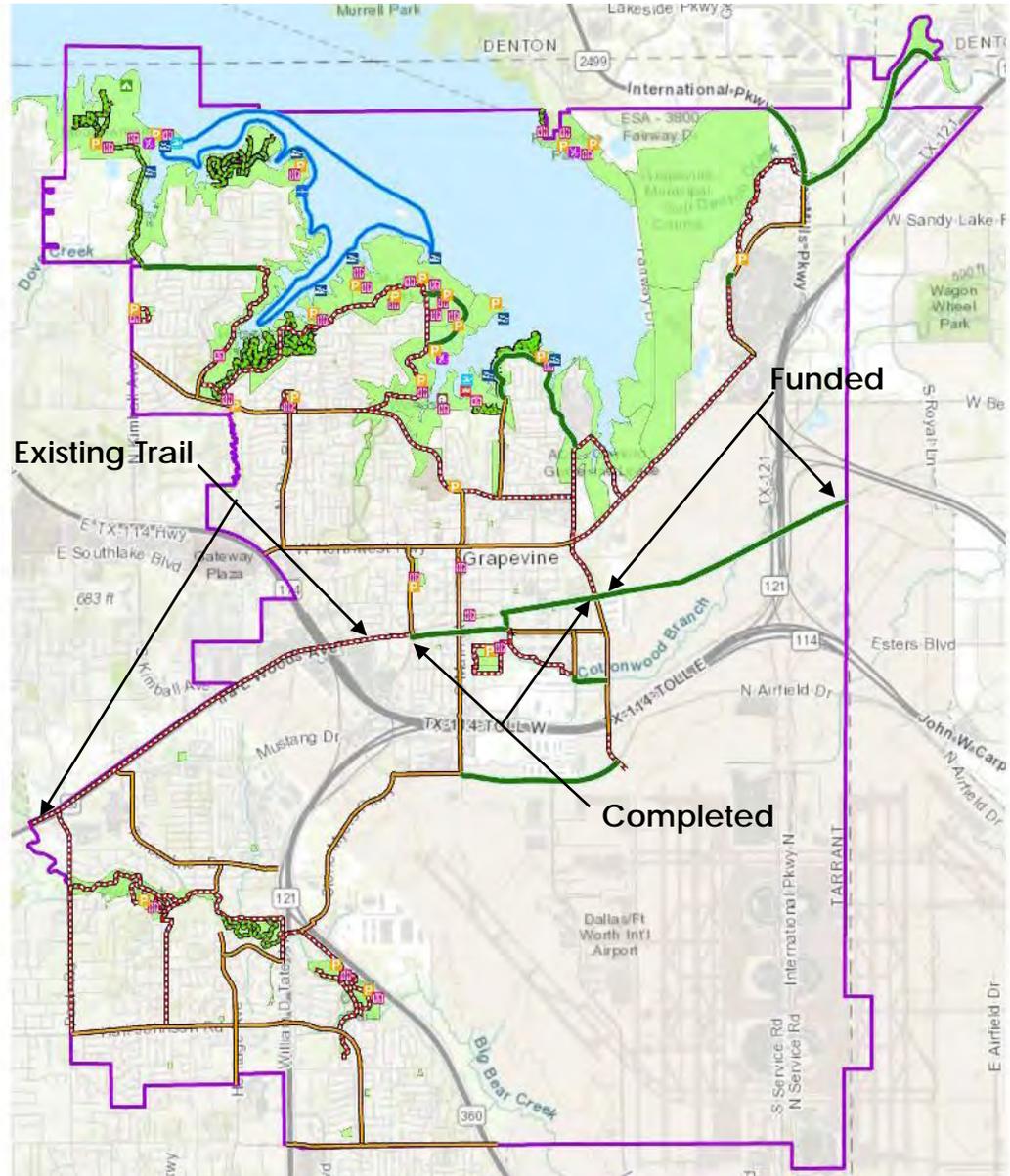
Overview

Added Components cont.



PARKS & TRAILS SYSTEMS

-  Boat Ramp
-  Cabins
-  Non-Motorized Boat Ramp
-  Paddlesport Rental
-  Park Restroom
-  Parking
-  Primitive Camping
-  RV Camping
-  Swim Beach
-  Future Trail
-  Hard Surface Trail
-  Sidewalk Connector Trail
-  Soft Surface Trail
-  Water Trail
-  Parks
-  Grapevine City Limits



Project Images

As the saying goes...
“A Picture is worth
1000 words.”



Before & After Images



Before & After Images



Before & After Images



Before & After Images



Project Images



Project Images



Dallas Rd. TOD
Corridor/Cotton Belt Trail
Extension Project

Completion

Kathy Nelson, AICP, RLA
Planning Manager
Grapevine Parks & Rec. Dept.
knelson@grapevinetexas.gov
817.410.3394

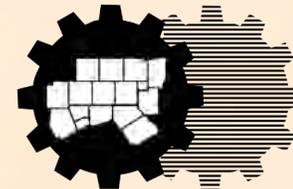


THANK YOU

UPCOMING EVENTS AND TRAINING

**Bicycle and Pedestrian Advisory Committee
November 17, 2021**

**Robert Caskey, BPAC Vice-Chair
Senior Traffic Engineer, City of Frisco**



**North Central Texas
Council of Governments**

Hartlee Field Mountain Bike Trail Grand Opening

Clear Creek Heritage Area

5792 Hartlee Field Rd., Denton, TX
76208

November 20 | 10 am - 12 pm

facebook.com/dentonparksnrec

DENTON PARKS AND RECREATION

MOUNTAIN BIKE TRAIL GRAND OPENING



HARTLEE FIELD MTN BIKE TRAIL
5792 HARTLEE FIELD RD., DENTON, TX 76208



GRAND OPENING CELEBRATION
10AM - NOON



RIBBON CUTTING & CEREMONIAL RIDE
10:30AM

**SATURDAY
NOV. 20**



Join us to celebrate the grand opening of the Hartlee Field Mountain Bike Trail.

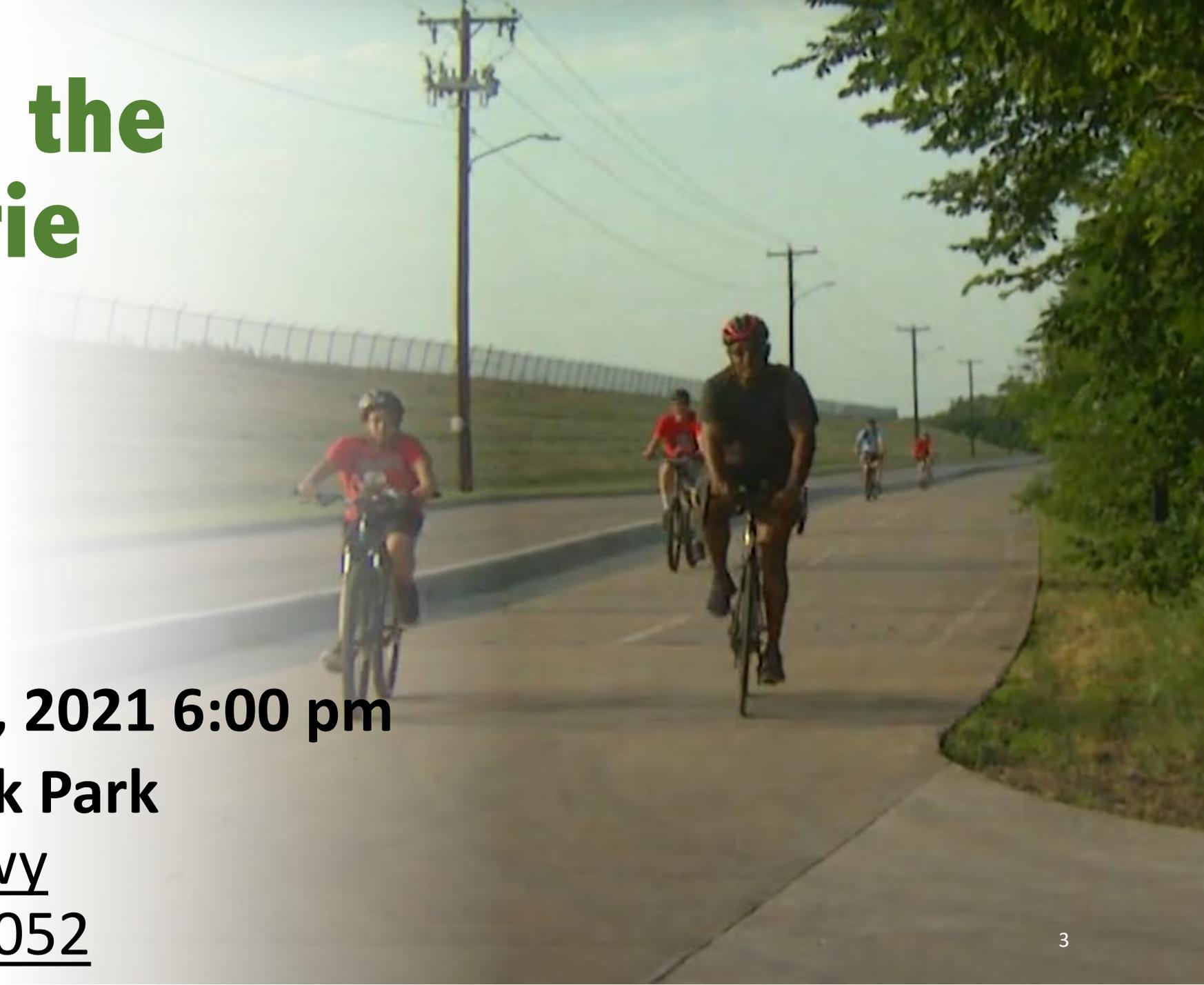
ACTIVITIES

- Open and guided trail rides
- Local bike shops
- Bike safety demos
- Inaugural ride with Denton City Council
- Food and drink
- Live DJ & more!



Bring your family and friends to tour Denton's newest mountain bike trail! Don't forget your mountain bike to take an inaugural ride.

Cyclin' with the Mayor Prairie Lights Ride



Date: November 22, 2021 6:00 pm

Location: Lynn Creek Park

5610 Lake Ridge Pkwy

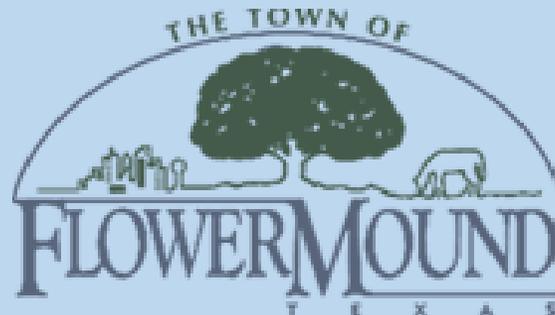
Grand Prairie, TX 75052

Come Cruisin' with the Council

November 27, 2021

9:30 am

Parking lot at **Oran Good Park**
(13411 Tom Field Road)



Tour de Foundry: Holiday Lights Tour

Foundry District, Fort Worth

December 11, 5 pm

Fortworthbikesharing.org



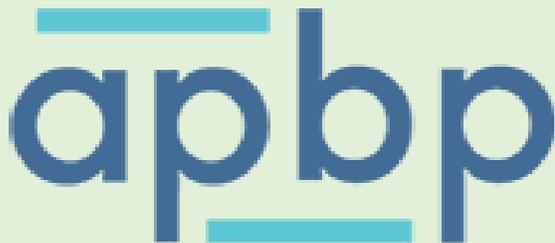
City as a Canvas

How Three Florida Cities
Approach Placemaking

December 15, 2021

2:00-3:30 pm CST

Virtual event



ASSOCIATION OF PEDESTRIAN
& BICYCLE PROFESSIONALS
Expertise for Active Transportation

Register at apbp.org

SAVE THE DATE!!!



2022

NATIONAL BIKE SUMMIT

MARCH 27-30, 2022

ONLINE & WASHINGTON, DC

**SAVE
THE
DATE!!!**

National Planning Conference 2022



**April 30–May 3, 2022
San Diego, CA**

American Planning Association

Bike-to-Work Day

May 20, 2022

MAY IS
BIKE
MONTH



I RIDE BECAUSE IT
MAKES MY BUSINESS
RUN BETTER.



I RIDE TO TURN
MY COMMUTE
INTO A WORKOUT.



#BIKEMONTH [BIKELEAGUE.ORG/BIKEMONTH](https://bikeleague.org/bikemonth)

Master Plans Underway or Anticipated in 2021/2022

- Carrollton Trails Master Plan (expected late 2021)
- McKinney Trails Master Plan (expected late 2021)
- Southlake Pathways Plan (expected December 2021)
- City of Denton Mobility Plan (expected spring 2022)
- Flower Mound Parks and Trails Master Plan (expected March 2022)
- City of Ennis Parks Master Plan (expected June 2022)
- Highland Village Trails Master Plan (expected fall 2022)
- Cedar Hill Trails Master Plan (expected fall 2022)
- Richardson Active Transportation Plan (expected fall 2022)
- City of Dallas Bikeways Master Plan (expected late 2022)

Other Events or Training?

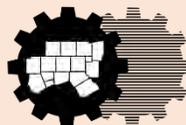
For any suggestions/topics for future training opportunities that NCTCOG can help coordinate or promote, please contact:

Daniel Snyder

dsnyder@nctcog.org

Bobby Kozub

rkozub@nctcog.org



North Central Texas
Council of Governments

Utilizing LIDAR sensors to collect pedestrian behavioral data and improve pedestrian safety

Taylor Li, Ph.D., P.Eng.

Assist Professor at UT Arlington

Farzana R. Chowdhury

Ph.D. Student in Civil Engineering at UT Arlington

11/17/2021



Outline

- Self Introduction
- Importance of pedestrian behavioral data.
- What is LIDAR?
- Roadmap of applying LIDAR sensors to pedestrian protection
- Practical considerations (maintenance, installation cost, data storage, data mining)
- Demonstrations.

Self introduction

- Dr. Taylor Li, P.Eng. (Alberta, Canada)
 - An assistant professor at UT Arlington since 2019
 - Years of industrial experiences before returned to academia
 - Focus on big data analytics (planning/operations), Traffic signal, ITS sensor development

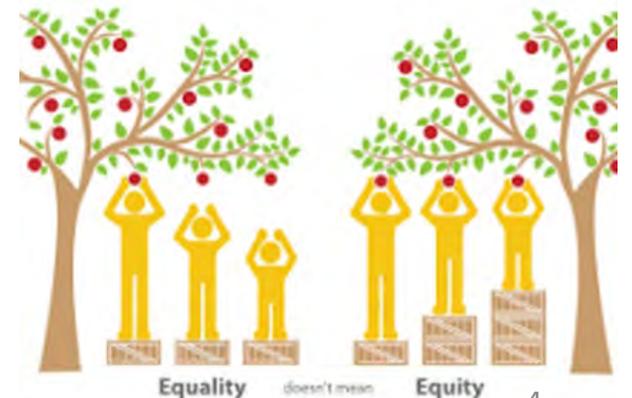
- Ms. Farzana Chowdhury
 - A senior Ph.D. student under Dr. Li's supervision
 - Focus on Network modeling, planning and big data analytics



Pedestrian safety is getting worse!

- NHTSA reported that pedestrian fatalities increased by 44% from 2010 to 2019.
- This results in
 - Huge social, economic losses
 - Lack of transportation equity because “*Transportation Equity means safety for Everyone*” (C. Walker, FHWA Associate administrator for Safety, 2021)
- A “smart infrastructure” is not smart unless it has equitable safety for pedestrians

6,590 pedestrian deaths in 2019, the highest in 30 years, 18% at intersections



Importance of collecting behavioral data for pedestrian safety analytics

- Plenty of pedestrian counts data
 - Large-scale commercial data products
 - Project-based data collection
 - Strava data sets
 - Many insights can be developed out of those data sets
- However, pedestrian counts do not necessarily reflect the pedestrian safety



High ped volume but low safety hazard

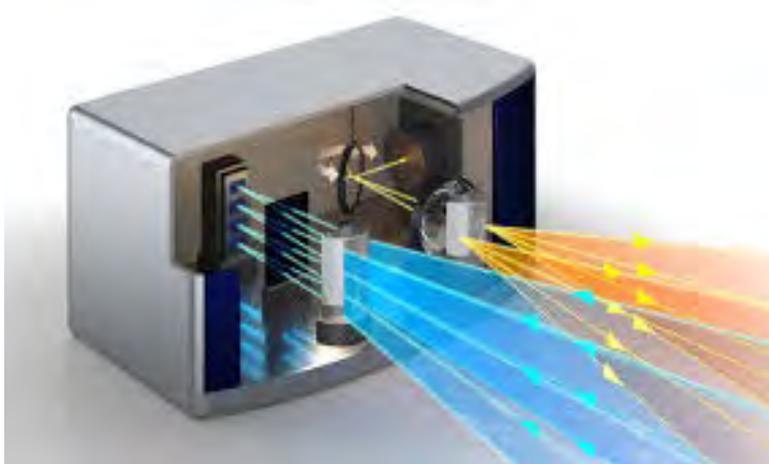
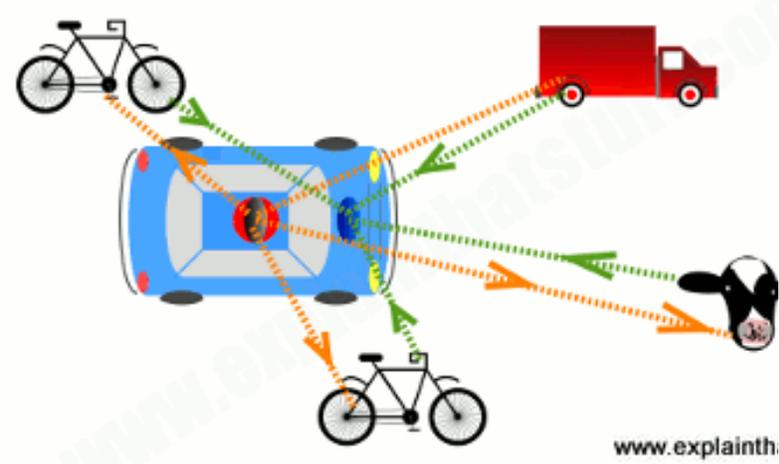
V.S.



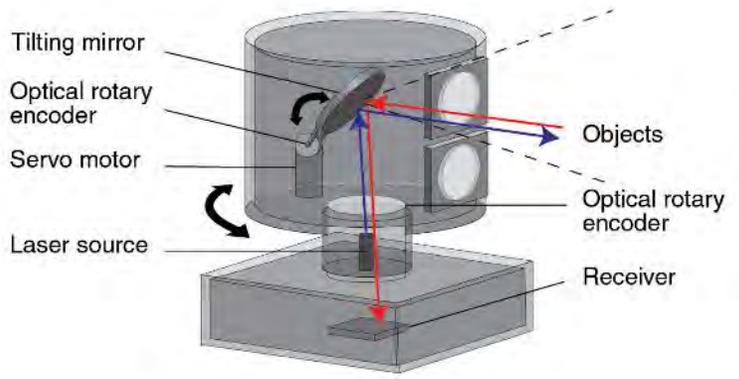
Low ped volume but high safety hazard

Outline

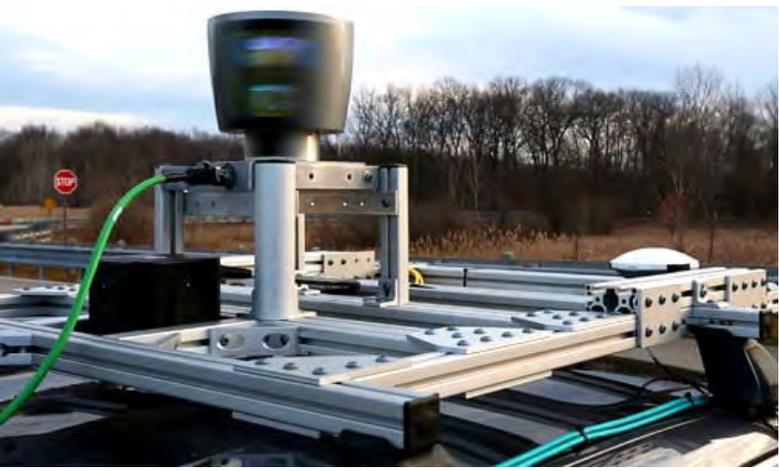
- Self Introduction
- Importance of pedestrian behavioral data
- **What is LIDAR?**
 - Roadmap of applying LIDAR sensors to pedestrian protection
 - Practical considerations (maintenance, installation cost, data storage, data mining)
 - A demonstration at signalized intersection.
 - Conclusion and future work



What is LIDAR?



- LIDAR is a method for measuring distances (ranging) by illuminating the target with laser light and measuring the time the reflection of the light takes to return to the sensor. Two types:
 - Mechanical LIDAR sensors: cover 360 degree
 - (16 lines ~128 lines)
 - Quasi-solid-state LiDAR sensors: directional, no rotating parts
 - SCHOTT/Cepton/LSIS/HESAI, etc.
 - Very active market to meet the enormous demand for Avs
- Cannot penetrate metal frame or human body
 - The point cloud will be bounced back.



Three levels of algorithms for LIDAR sensors

- Hardware algorithms:

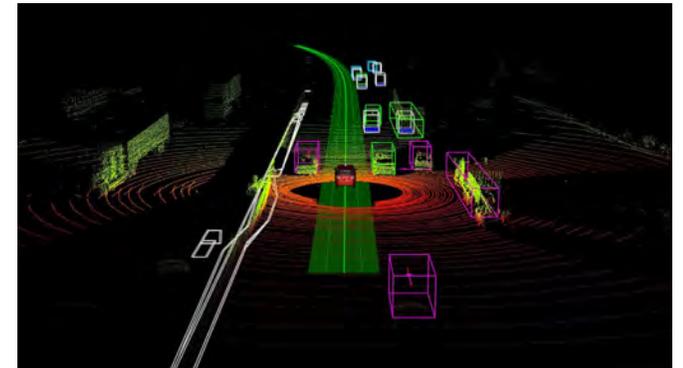
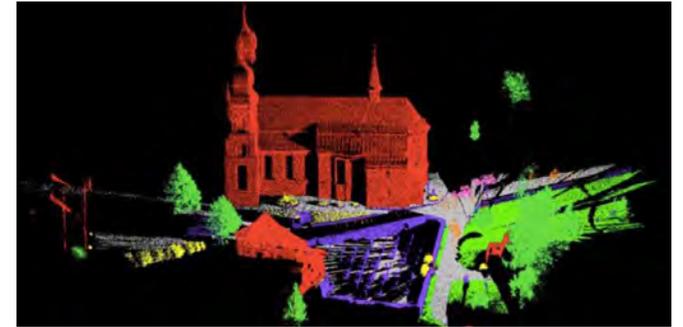
- *To make the LIDAR sensors efficient and reliable to generate raw point clouds. It is concerns of LIDAR sensor manufacturers*

- Perception and classification algorithms:

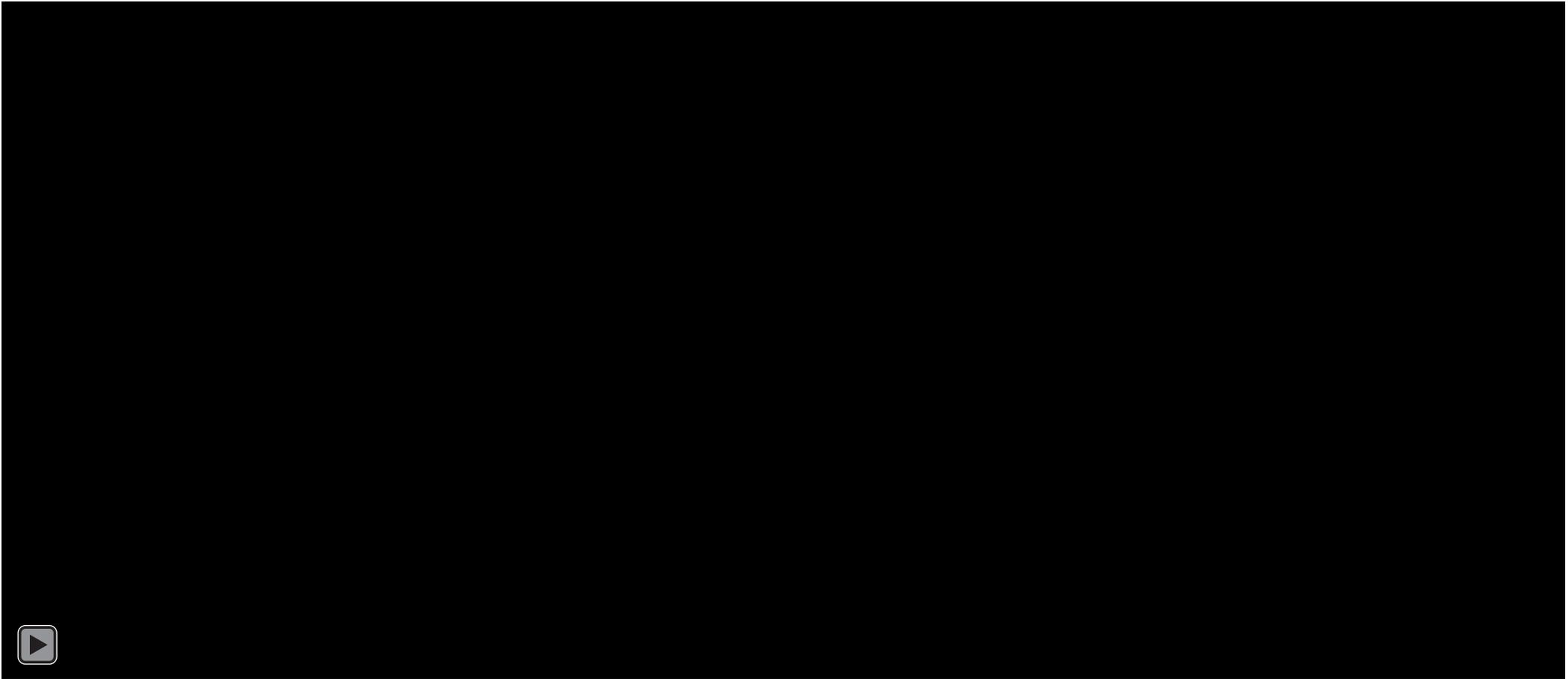
- *Cluster the point clouds into objects*
- *Identify the objects characteristics (types, behaviors, etc.)*
- *OEM or 3rd-party*

- Integration algorithms:

- *Domain-specific applications*
- *For instance, we integrate the LIDAR tracking algorithm with real-time traffic signal status at intersections*

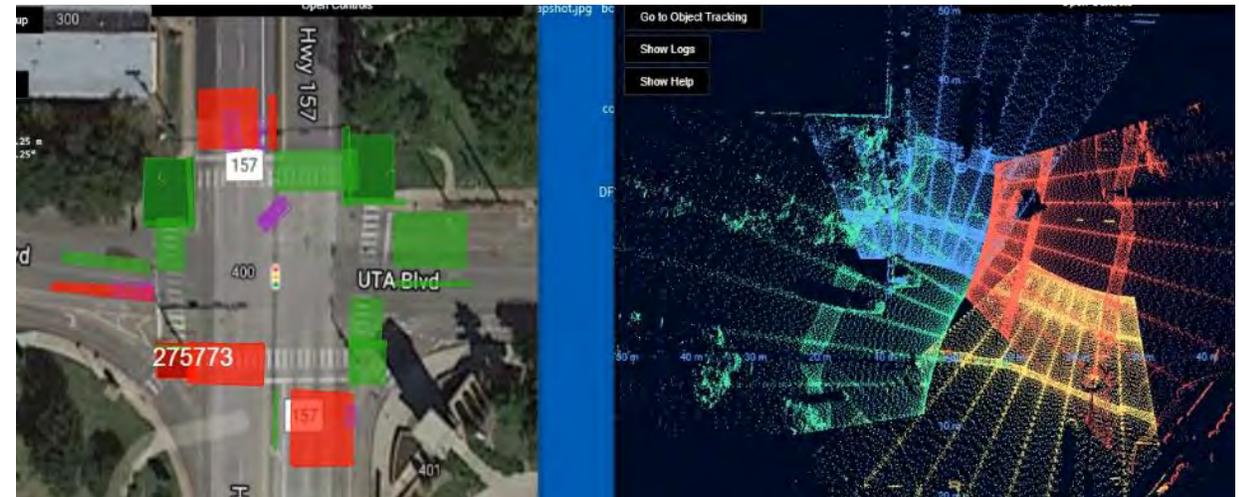


LIDAR's prominent performance in pedestrian tracking in dark conditions



LIDAR's prominent performance in pedestrian tracking in dark conditions

- At intersections



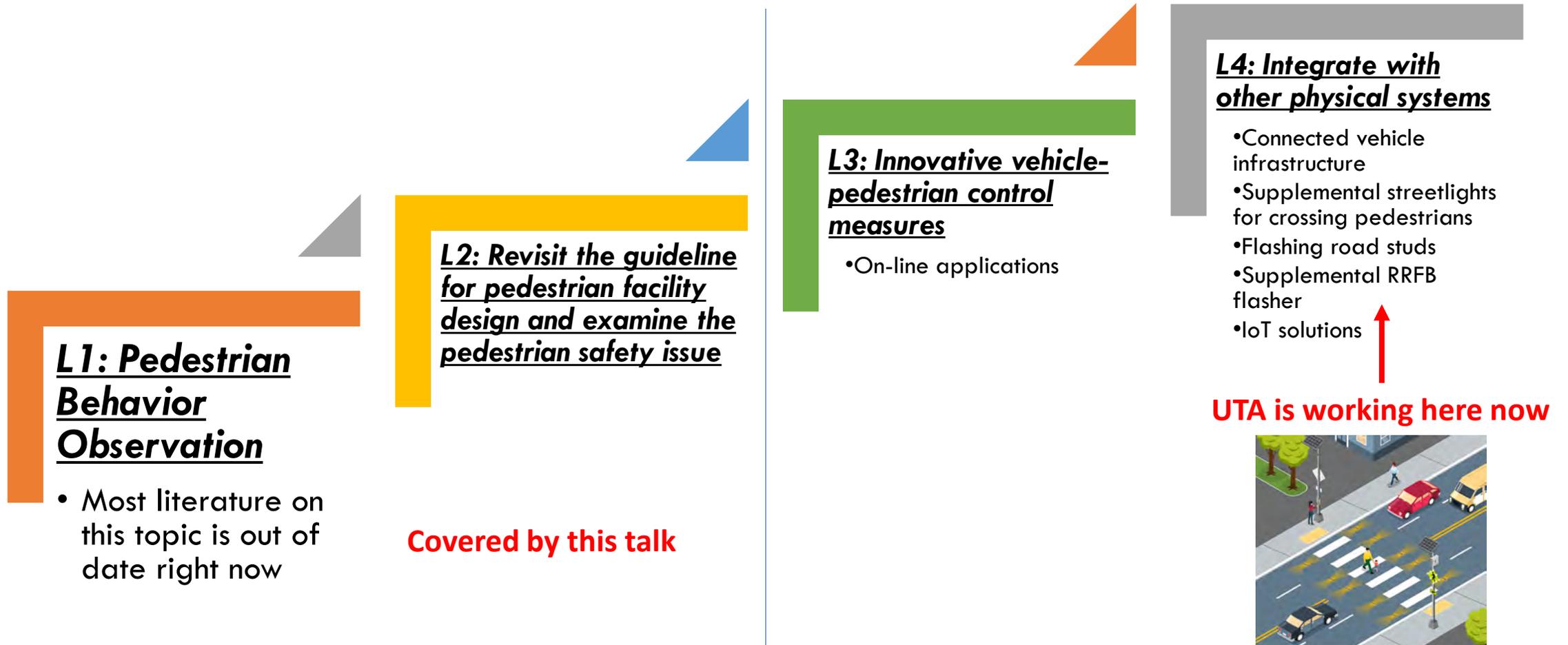
- LiDAR does not have concerns of privacy, either.
 - Privacy concern is being raised at the national level.
 - E.g., Bill S.1214 - Privacy Bill of Rights Act (116th congress)

Outline

- Self Introduction
- Importance of pedestrian behavioral data
- What is LIDAR?
- **Roadmap of applying LIDAR sensors to pedestrian protection**
- **Practical considerations (maintenance, installation cost, data storage, data mining)**
- A demonstration at signalized intersection.
- Conclusion and future work

Road map of Pedestrian Safety Improvement

A technical perspective



Implementations in the field

- It is anticipated that the LIDAR-based solution(s) in near future can be deployed permanently (and cost-effectively) at large scale like traffic detectors
- Solution procurement
 - Hardware, software, annual licensing (“try-and-buy” cost vs. volume purchase cost)
 - The market price of hardware we selected is comparable with prevailing traffic detectors
 - Brand selection: tier-one vendors are necessary to maintain a part supply for a long time
- Maintenance
 - Initial intense care is OK for pilot studies but not for everyday practice
 - It is OK to spend some time on installing and fine tuning this new solution, but the existing practice should NOT be changed too much.
 - Pay attention to the grade of parts (commercial vs. Industrial; indoor or outdoor)

Outline

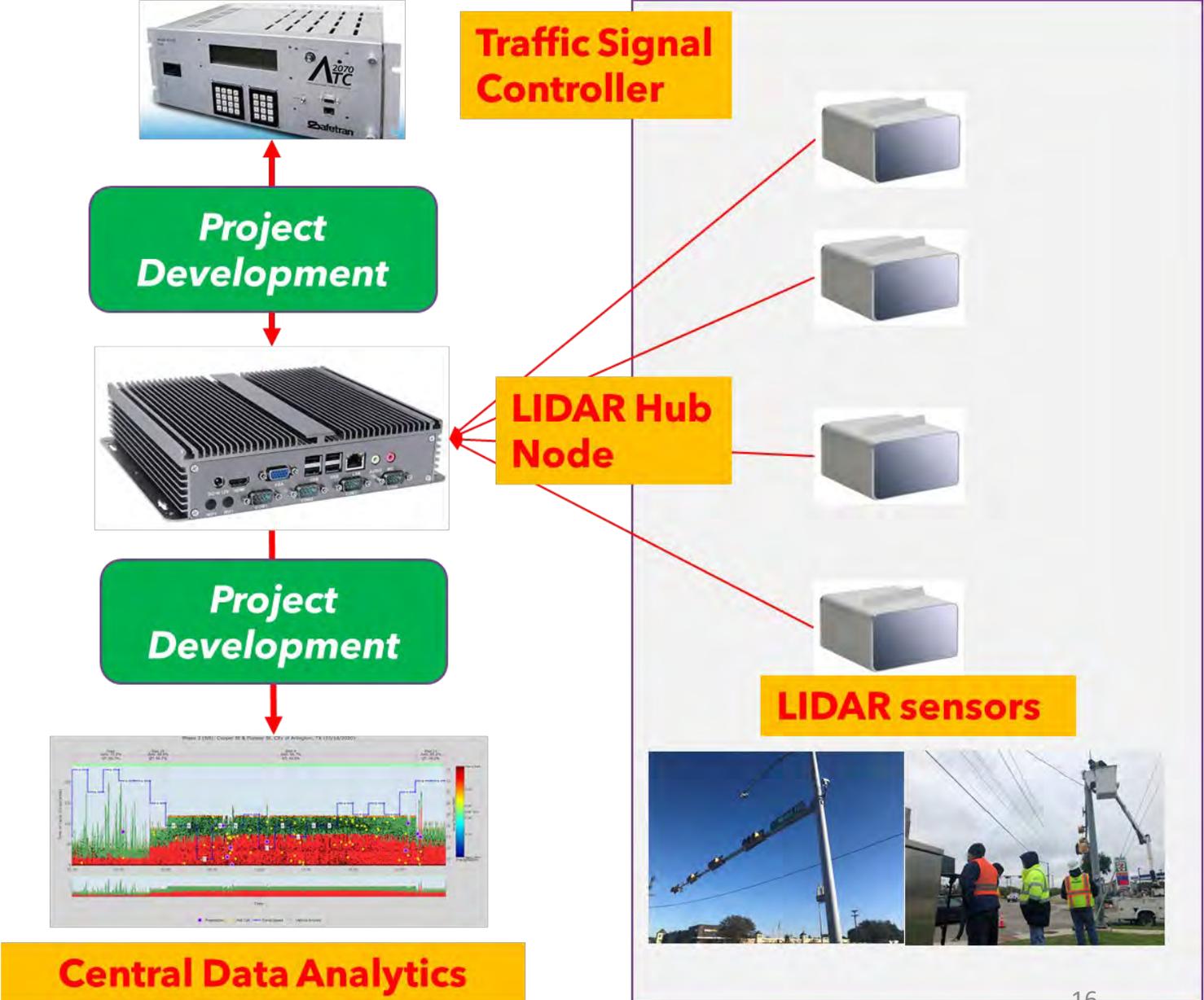
- Self Introduction
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- **A demonstration at signalized intersection.**
- Conclusion and future work

Preparation for this pilot study

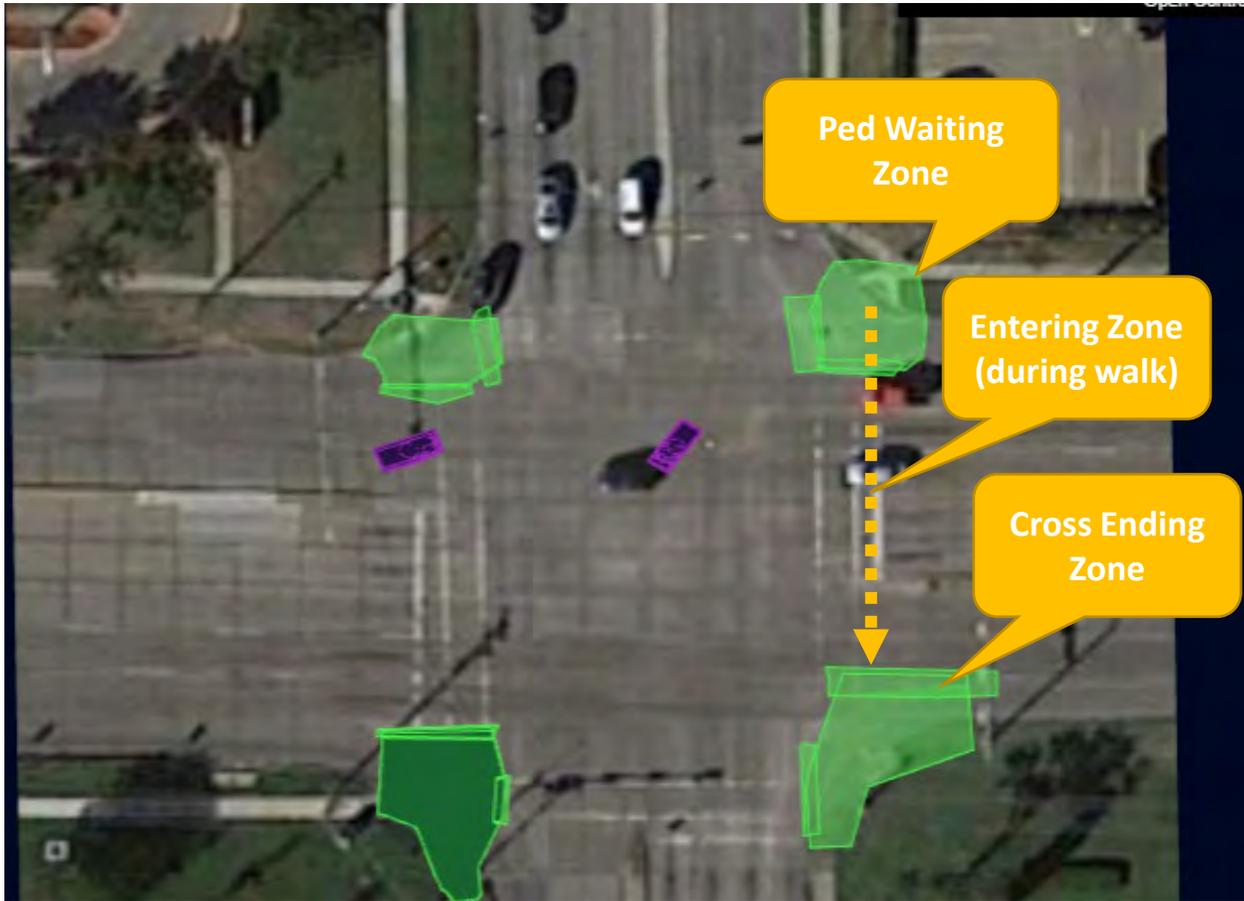
- A TOC computer is needed
 - The computer should have access to the local LIDAR platform and controller at that location.
- The selected intersection should have PoE cables
 - 2 crew, 2.5 hours for installation at one intersection. Another 1 hour to fine tuning from the office.



System Architecture



Zone-based Pedestrian tracking process



Pedestrian information is minimal at intersections

- Through push button, we know some people wishes to cross
 - But we do not know how many people wish to cross and how long they have waited
 - Excessively long waiting time will make pedestrians lose respect to traffic light.
 - **It was observed a lot during the experiment (e.g., Jaywalking)**

Zone-based pedestrian tracking can capture the traffic conflict (i.e., near misses)

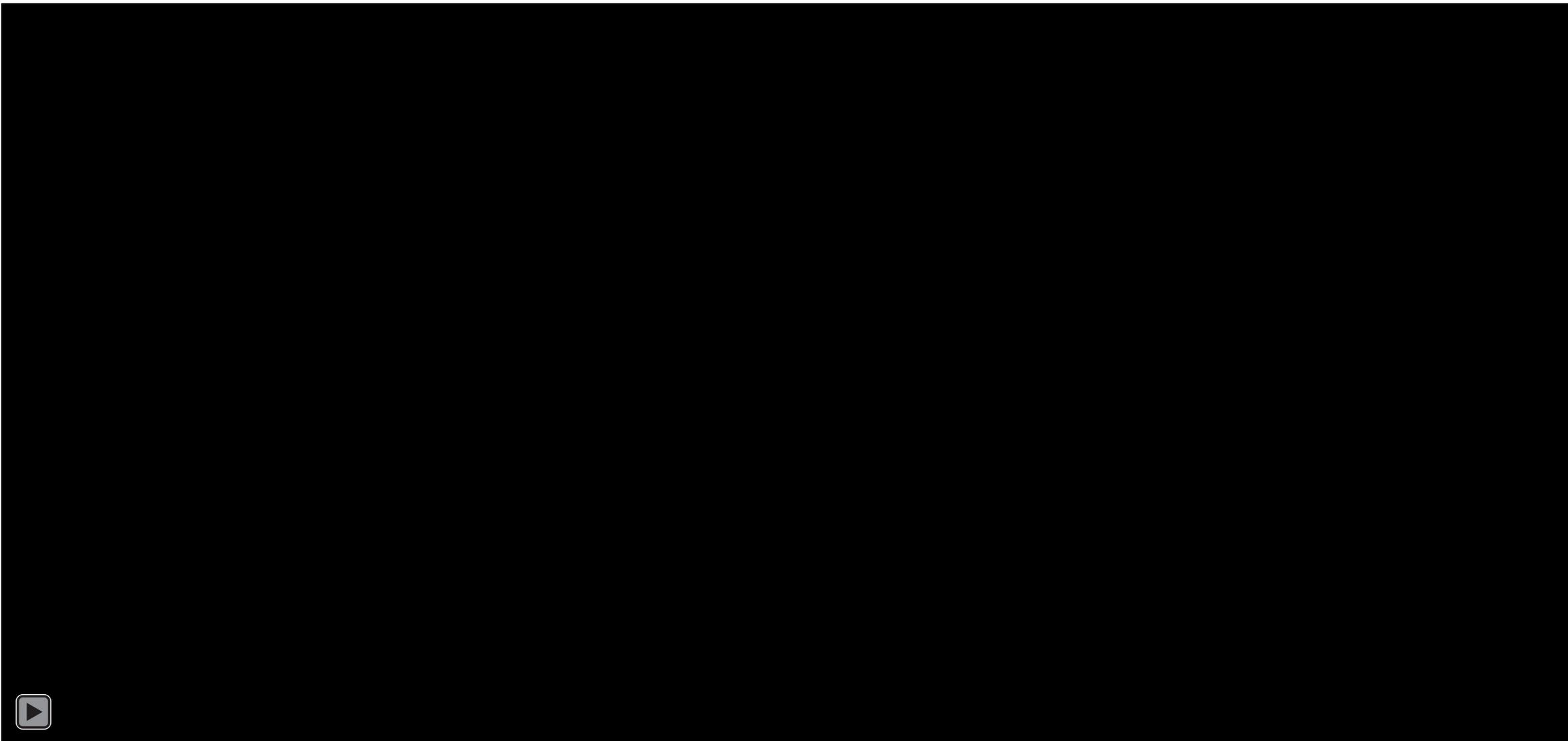
Advantages in data volume and long-term storage

Site Selection

ADA-compliant and smaller waiting areas



A demonstration: City of Irving



Results - S Cooper St. & UTA Blvd.

Ped Phase	n	Avg. Delay (s)	Avg. PRT (s)	Avg. Crossing speed
2	165	32.2	2.3	5.0 ft/s
4	1941	52.6	1.7	5 ft/s
6	257	27.3	3.1	6.5 ft/s
8	378	52.2	3.1	4.87 ft/s
Avg		48.9	2.1	5.34 ft/s

ASSHTO recommendation: 4.0 ft/s

Results - W Walnut Hill Ln. & N. Beltline Rd.

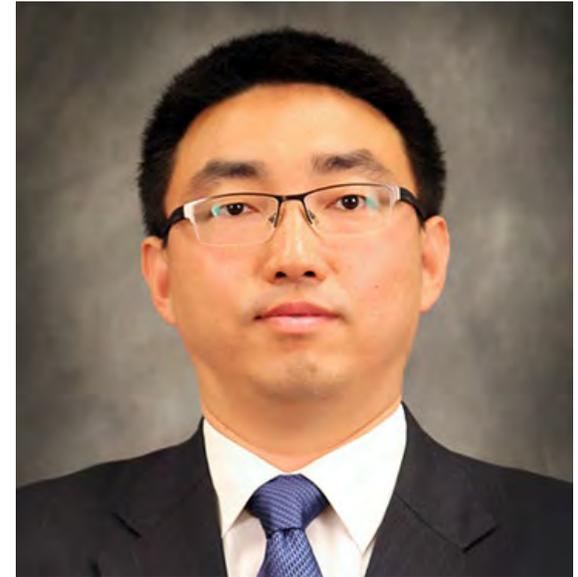
Ped Phase	n	Avg Delay(s)	Avg PRT (s)	Avg Crossing speed
2	231	23.9	5.1	4.91 ft/s
3	482	42.7	4.6	4.88 ft/s
4	750	45.1	5.1	5.18 ft/s
6	206	29.7	4.3	5.35 ft/s
Avg		39.6	4.9	5.08 ft/s

Findings

- The collected pedestrian behavioral data are based on a large sample size and no need for hypothesis test
- Perception-reaction time does not match the recommended WALK time
 - Sensitive to type of pedestrian call facility
- Measured pedestrian crossing speed is significantly slower than the 4.0 ft/s recommended by AASHTO
 - We know most pedestrians at two intersections are young and so the average speed could be even slower in other locations.
 - **This implies an urgent need to modifying the guideline of traffic signal control design.**

Questions?

- Contact for more details:
 - Taylor Li, P.Eng., Ph.D., Assist Prof at University of Texas in Arlington,
Email: Taylor.Li@uta.edu; <https://actionlab.uta.edu>





Center for Transportation Safety

Safety Research and Outreach

Neal A. Johnson
Laura Higgins
Joan G. Hudson



Pedestrian and
Bicycle Safety
Presentation

WALK. BIKE. SAFE.



Save a Life[™]
Texas Department of Transportation





Crash Trend in Texas





Bicyclists have the same rights and responsibilities as motor vehicle drivers on Texas roadways.

1. True
2. False





As a bicyclist, I am required to use a bike light at night.

1. True
2. False





What is the Texas statewide legal passing distance for a driver of a passenger vehicle to allow between their vehicle and a bicyclist?

1. 1 foot
2. 2 feet
3. 3 feet
4. A safe distance



What is the green pavement marking indicating?

1. A bicyclist passing zone.
2. A two-stage left turn box for bicyclists.
3. The spot where a bicyclist should stop on a red light.





Are there crosswalks in each of these pictures?



1. Yes
2. No



As a pedestrian where should you walk if there are no sidewalks?

1. On the right side of the road in the same direction as traffic.
2. On the left side of the road facing oncoming traffic.
3. If a median is present, walk in the median.



The pedestrian always has the right-of-way?

1. True
2. False



Who has the right of way in this scenario?



1. Pedestrian
2. Motorist



Post-Presentation Survey

https://tti.qualtrics.com/jfe/form/SV_d5vaJ5rx9ll1XUO



Join us Online and Follow us on Social Media

WALK. BIKE. SAFE.



Save a Life™
Texas Department of Transportation



Instagram/walkbikesafetx



facebook/WalkBikeSafeTexas



twitter.com/WalkBikeSafeTX



search: Walk Bike Safe Texas

www.walkbikesafetexas.org



Center for Transportation Safety

Safety Research and Outreach

Law Enforcement Training on Bicycle & Pedestrian Laws in Texas

Neal Johnson

Joan Hudson



Law Enforcement Hand-out

MOTORISTS



Know When and Where to Yield.



Keep Your Distance from Bicyclists.



Be aware of your environment and avoid distractions to keep yourself and others safe. No texting while driving—it's the law. [Texas Transportation Code, §545.4251].

MAKE A SAFE SPACE. Maintain a safe distance when passing a bicyclist [Texas Transportation Codes, §545.053, §551.101]. Local ordinances may specify the required distance (e.g., 3 feet).



BE ALERT. Yield to pedestrians at all marked and unmarked crosswalks [Texas Transportation Codes, §541.302, §552.003].

MARKED CROSSWALK

UNMARKED CROSSWALK



THINK RIGHT, DO RIGHT. Yield to bicyclists on your right when making right turns [Texas Transportation Codes, §545.101, §545.103, §541.401, §551.101].



LOOK BEFORE YOU GO. Yield to pedestrians when turning at a stop light, even if the light is green [Texas Transportation Codes, §552.001, §552.002].



BICYCLISTS

Keep Motorists Informed.



PEDESTRIANS

Know When and Where to Go.

Follow the rules of the road. Make sure motorists know where you are and where you're going. Be visible and clear in signaling your intentions. Obey traffic signals—it's the law.

FOLLOW THE SIGNS. Obey all traffic signs and signals [Texas Transportation Code, §551.101].



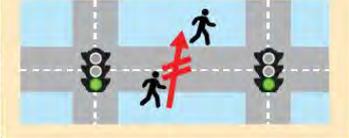
NO CROSSWALK? YIELD TO TRAFFIC. Yield to vehicles when crossing outside of a crosswalk. When crossing, obey all signs and signals—it's the law.



BE SAFE, BE SEEN. Use a white light on the front and a red light or reflector on the rear of your bicycle [Texas Transportation Code, §551.104].



USE THE CROSSWALK. Don't cross the road between two adjacent intersections with traffic signals in use. [Texas Transportation Code, §552.005].



GIVE YOURSELF A HAND. Use hand signals when changing lanes and turning [Texas Transportation Codes, §551.101, §545.104–107].

Use arm gestures to clearly signal intent.

Left-turn signal: Extend the left hand and arm horizontally



Right-turn signal: Extend the left hand and arm upward OR extend the right hand and arm horizontally



Decrease speed: Extend the left hand and arm downward



HERE'S YOUR SIGNAL. Follow all crossing signals [Texas Transportation Code, §552.002].





Law Enforcement Resources

Roll-call videos



LAW ENFORCEMENT TRAINING ON **PEDESTRIAN AND BICYCLE LAWS** ONLINE

Join us on the Internet for FREE training for law enforcement on pedestrian and bicycle laws. The training will be webcast via Webex. Texas Commission of Law Enforcement (TCOLE) certification credits will be available.

DATES:

Thursday June 4, 2020
10:00 a.m. – 11:00 a.m. OR
1:00 p.m. – 3:00 p.m.

WHERE:

Via Webex (a link to the video conference will be emailed to you approximately one week before the training)

REGISTER NOW at <https://groups.tti.tamu.edu/cts/lepedbike/law-enforcement-training-on-pedestrian-and-bicyclist-safety/>



Training Workshops



Law Enforcement Training

- We are gathering information to plan for upcoming training workshops

- Survey link:

https://tti.qualtrics.com/jfe/form/SV_dbTAVw4KJQJbcb4



Links & Contact Information

- Walk. Bike. Safe. Project

- <https://www.walkbikesafetexas.org/>
- <https://www.facebook.com/WalkBikeSafeTexas>
- <https://twitter.com/WalkBikeSafeTX>
- <https://www.instagram.com/walkbikesafetx/>



- Law Enforcement Resources

- Direct Link: <https://cts.tti.tamu.edu/lepedbike/>

- Neal Johnson

neal-johnson@tti.tamu.edu



SANTA FE TRAIL



studio**Outside**

Santa Fe Trail Identity - what defines the trail?



Forest/Wild



- Embrace varied terrain
- Allow for dense forest experiences
- Shade and cooling opportunities
- Incorporate areas for respite



Prairie



- Support and connect to adjacent parks
- Provide unique neighborhood spaces
- Increase native planting and wetlands



Urban

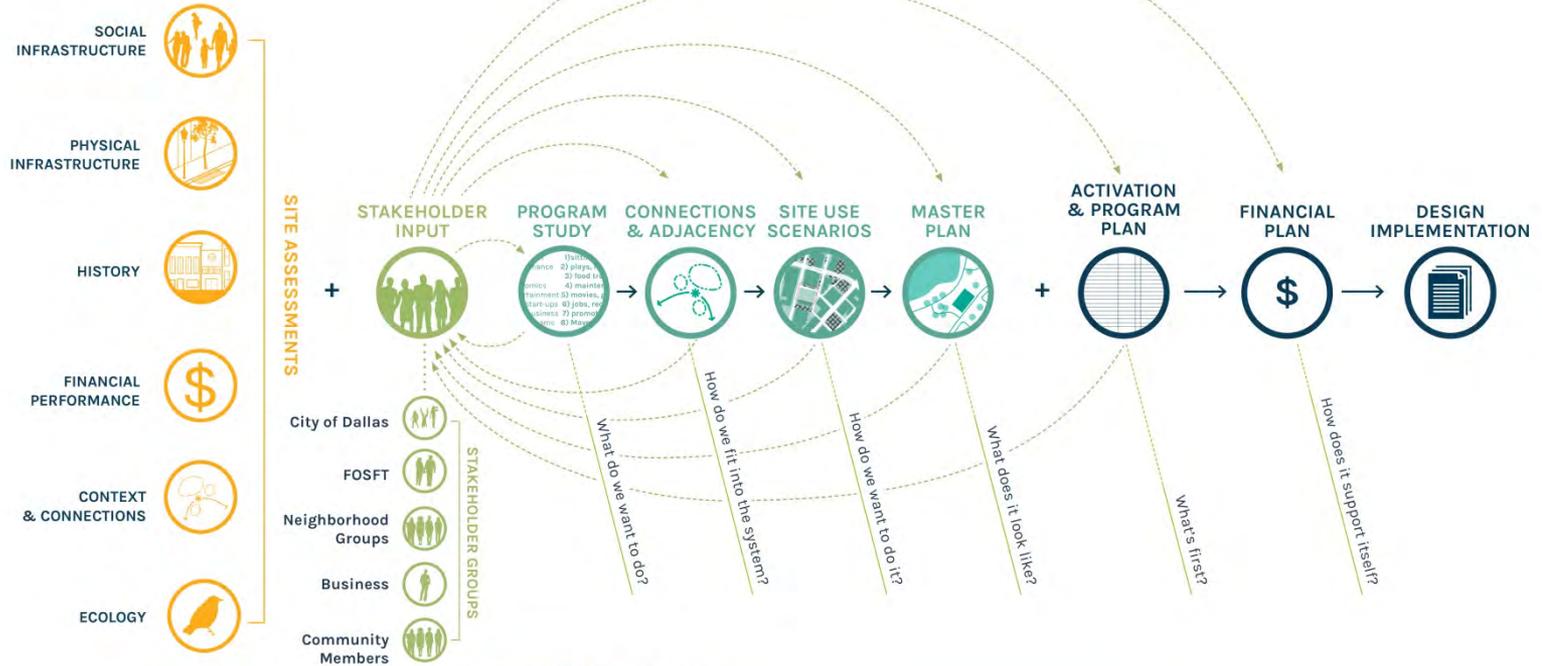


- Curate views to downtown
- Increase orientation to major destinations
- Use infrastructure as art opportunities

A long, straight concrete path stretches into the distance, flanked by lush green trees and a chain-link fence. The path is dappled with sunlight and shadows from the trees. The text "WHY A MASTER PLAN?" is overlaid in the center of the path.

WHY A MASTER PLAN?

Process



We are here!

Analysis [Completed]	Feedback Loop #1 Early Summer 2021	Feedback Loop #2 Late Summer 2021	Approval and Implementation September and beyond
	Presentations, surveys, tabling, etc	Presentations, surveys, tabling, etc	
	Feedback analysis and refinement of master plan proposal	Feedback analysis and refinement of master plan proposal	
			Discussions with representative stakeholder groups and Parks-Rec
			Submission of Santa Fe Trail Master Plan for formal adoption
			Project prioritization, fundraising, and implementation

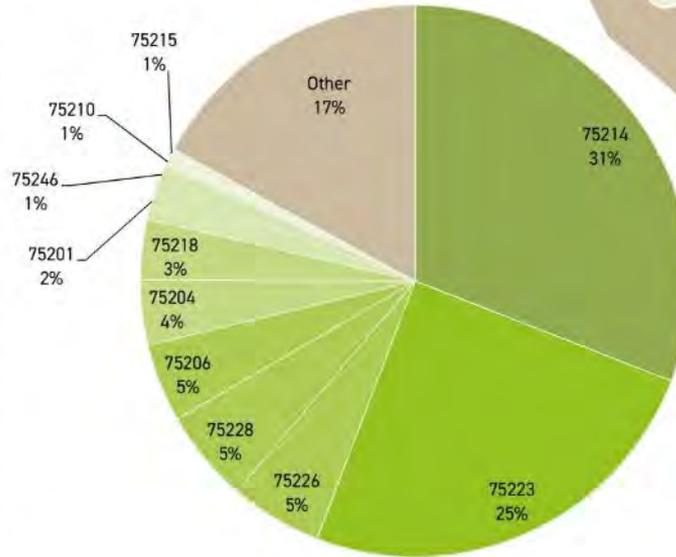
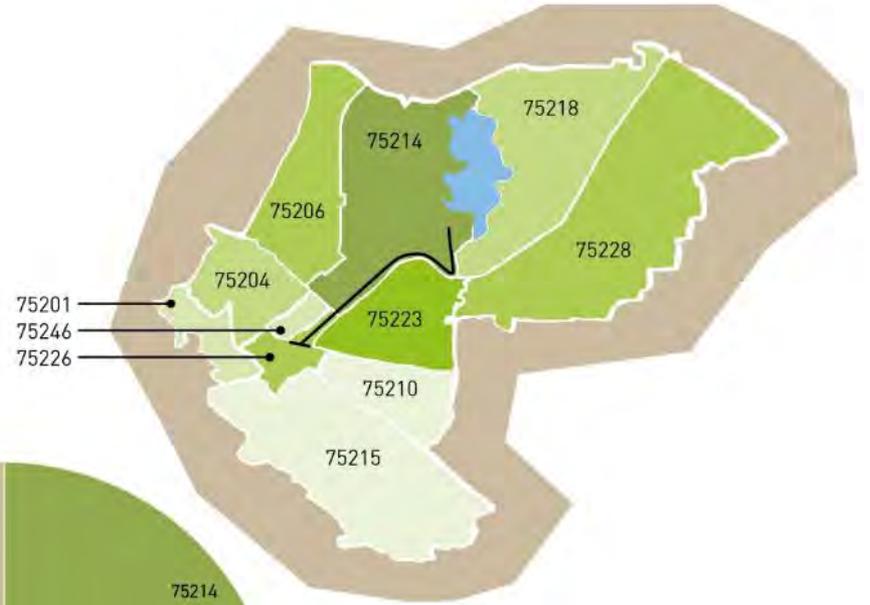


**PUBLIC INPUT
HIGH LEVEL RESULTS**



Respondent Zip Codes

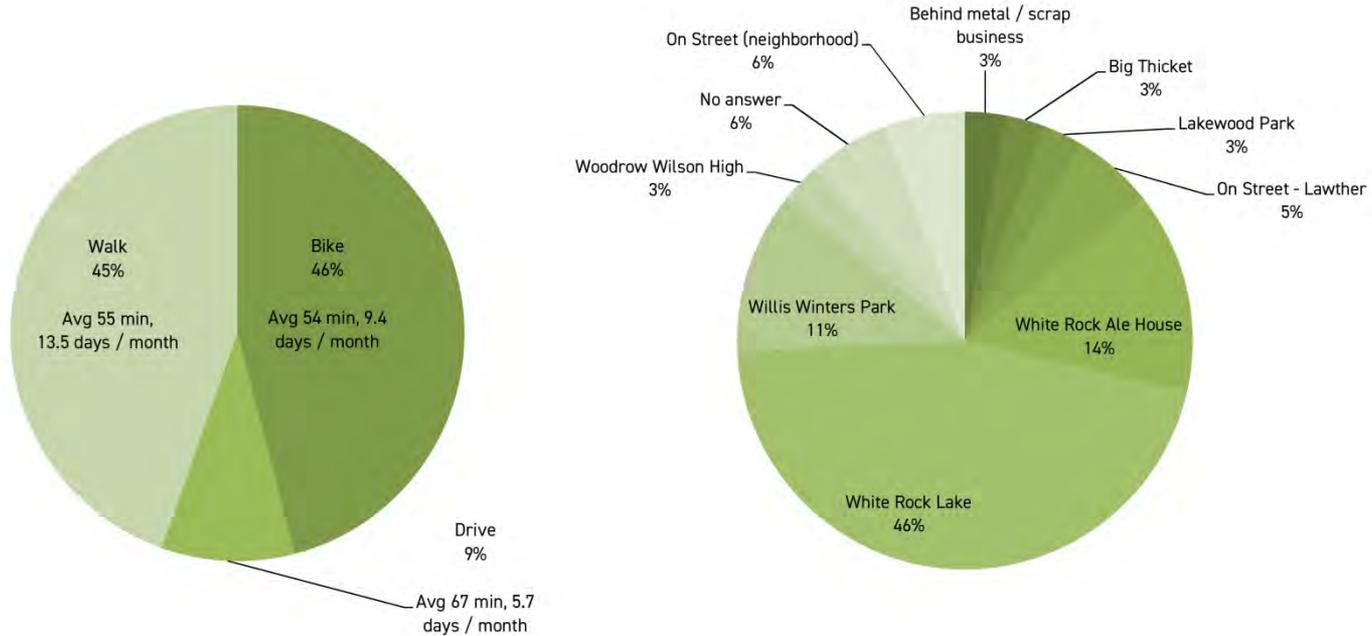
75214	114	75215	2
75223	92	75287	1
75226	20	75240	1
75228	20	76012	1
75206	17	74248	1
75204	14	75074	1
75218	13	75224	1
75238	11	75203	1
75201	8	75181	1
75246	6	76214	1
75243	4	75043	1
75208	4	75071	1
75219	3	75227	1
75231	3	75252	1
75080	3	75211	1
75230	3	75220	1
75225	3	75212	1
75229	2	74214	1
75033	2	75217	1
75210	2	No Answer	3
75205	2	TOTAL	369





Results of Master Plan Public Input Session #1

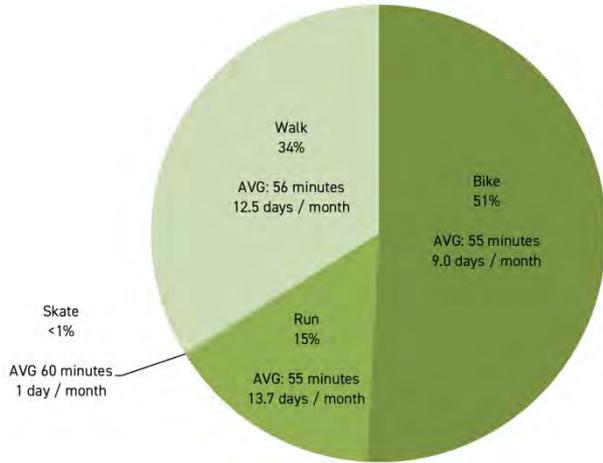
How do users get to the trail? Where do drivers park to access the trail?



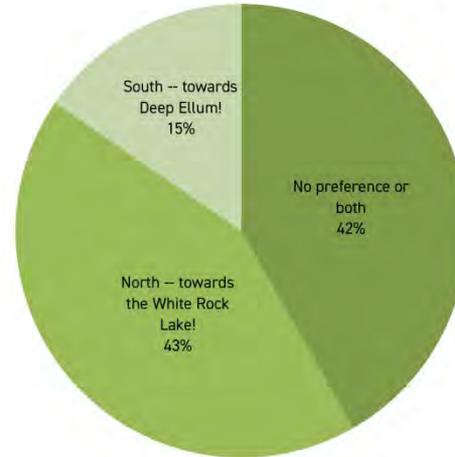


Results of Master Plan Public Input Session #1

What are trail user's preferred activity?



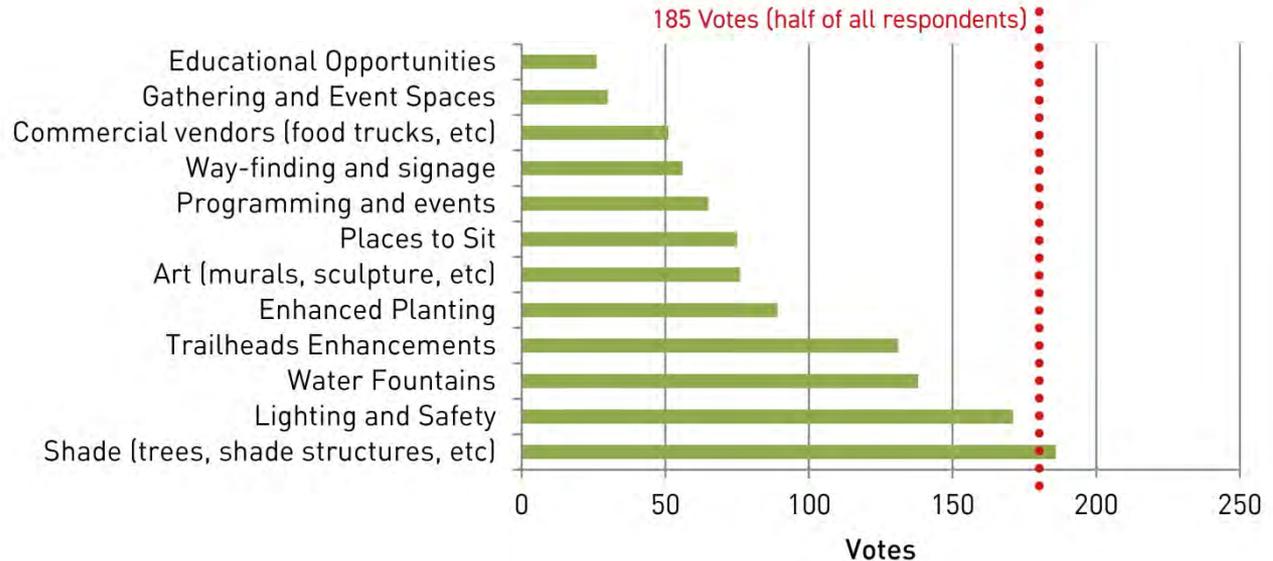
Which direction do trail users prefer to travel?





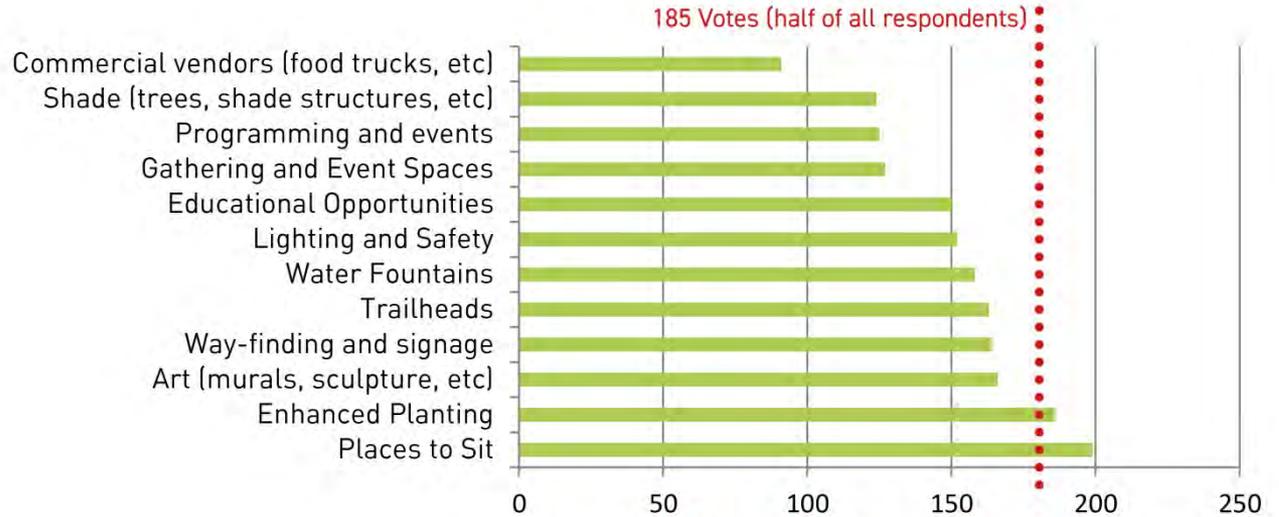
Results of Master Plan Public Input Session #1

What does the Santa Fe Trail need?

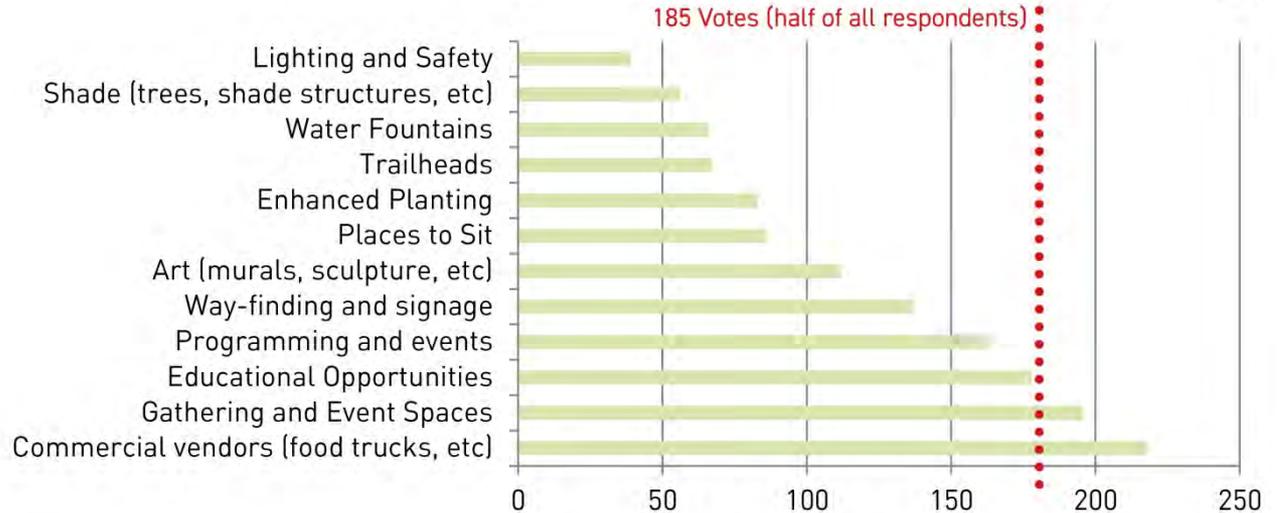


Most Need

Some Need



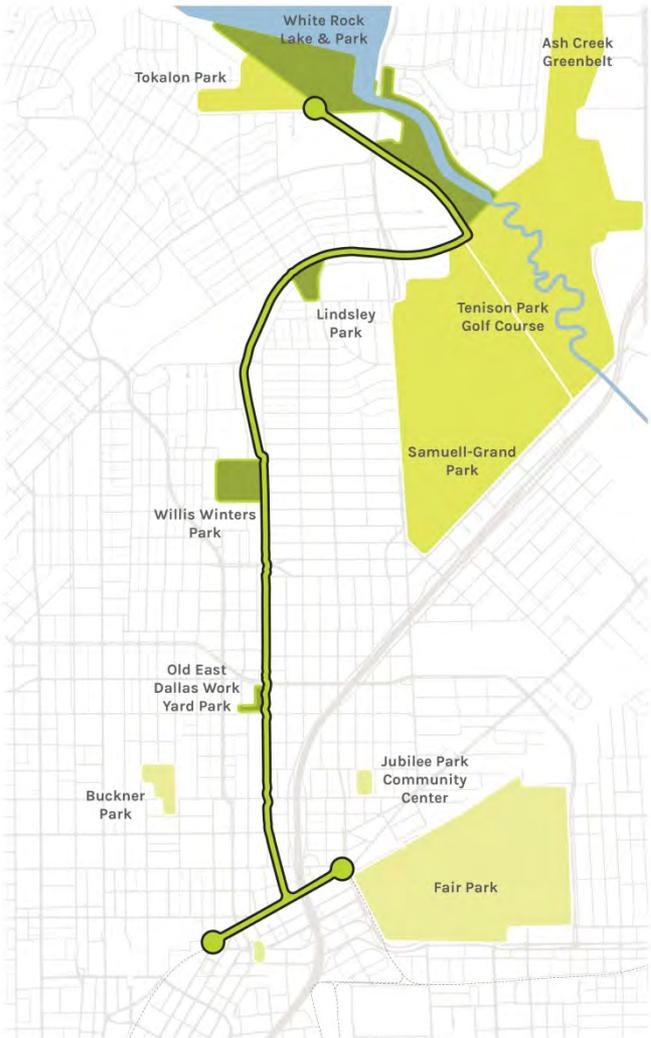
Least Need





**MASTER PLAN AREA
RECOMMENDATIONS**

Santa Fe Trail - Trailwide Recommendations



Safety

Lighting

Branding & Art

Water

Seating & Gathering

Planting

- Trees
- Rain Gardens
- Biodiversity
- Prairie & Wildflowers

Wayfinding

Education



**MASTER PLAN
RECOMMENDATION
- VIGNETTES -**



Character Zone: Prairie

1

Support adjacent parks and connect to neighborhood

2

Provide unique neighborhood spaces

3

Increase native planting and wetlands

EXISTING BENCH AND WATER FOUNTAIN

Street-end Trailhead

1

Lawn & Prairie Planting

Rain Garden

2

Tree Clustering

3

Benches & Tables

Trail Crossing Enhancement





Character Zone: Forest

1

Embrace varied terrain

2

Allow for dense forest experiences

3

Shade and cooling opportunities

4

Incorporate areas for respite

2

EXISTING
TRAIL SIGNAGE

4

Benches & Bike Parking

Street Crossing Enhancements

Lawn





**MASTER PLAN
RECOMMENDATION
- MAJOR INTERVENTIONS -**





Santa Fe Trail Major Interventions

① Tokalon Park Trailhead



⑤ Glasgow Trailhead



② Old Rail Bridge Overlook



⑥ "T" Intersection Park



③ Grand Ave Overpass

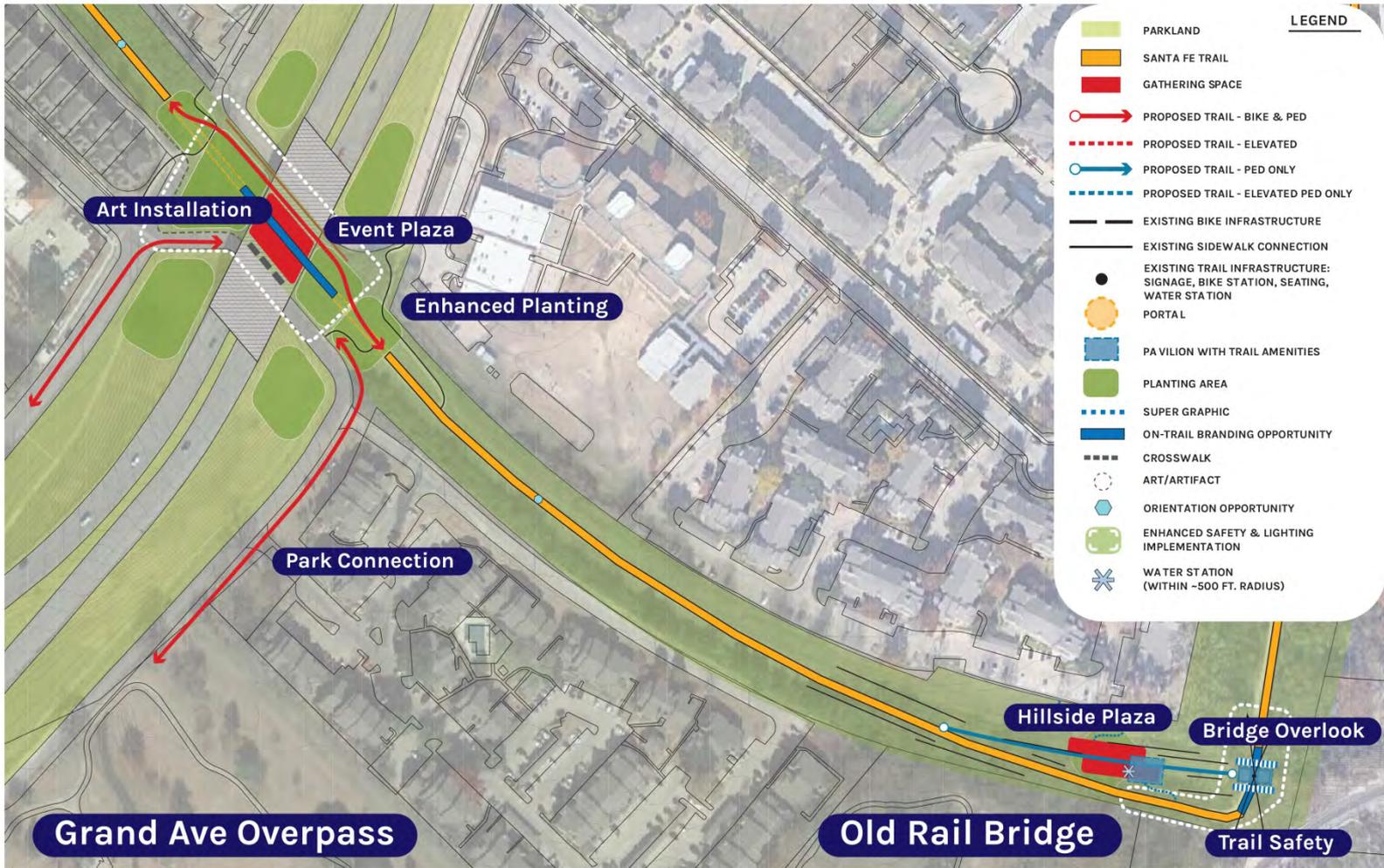


⑦ Deep Ellum & Fair Park Gateways

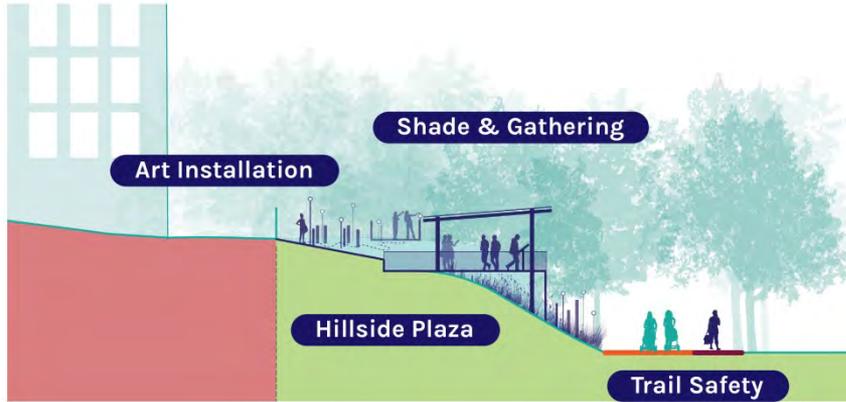


④ Brookside Overpass





Old Rail Bridge Overlook & Gathering Space



"Community gathering places & destinations!"

CONTEXT MAP



PRECEDENT IMAGES



Grand Ave Overpass Gathering Space



Public art! I love the new mural."

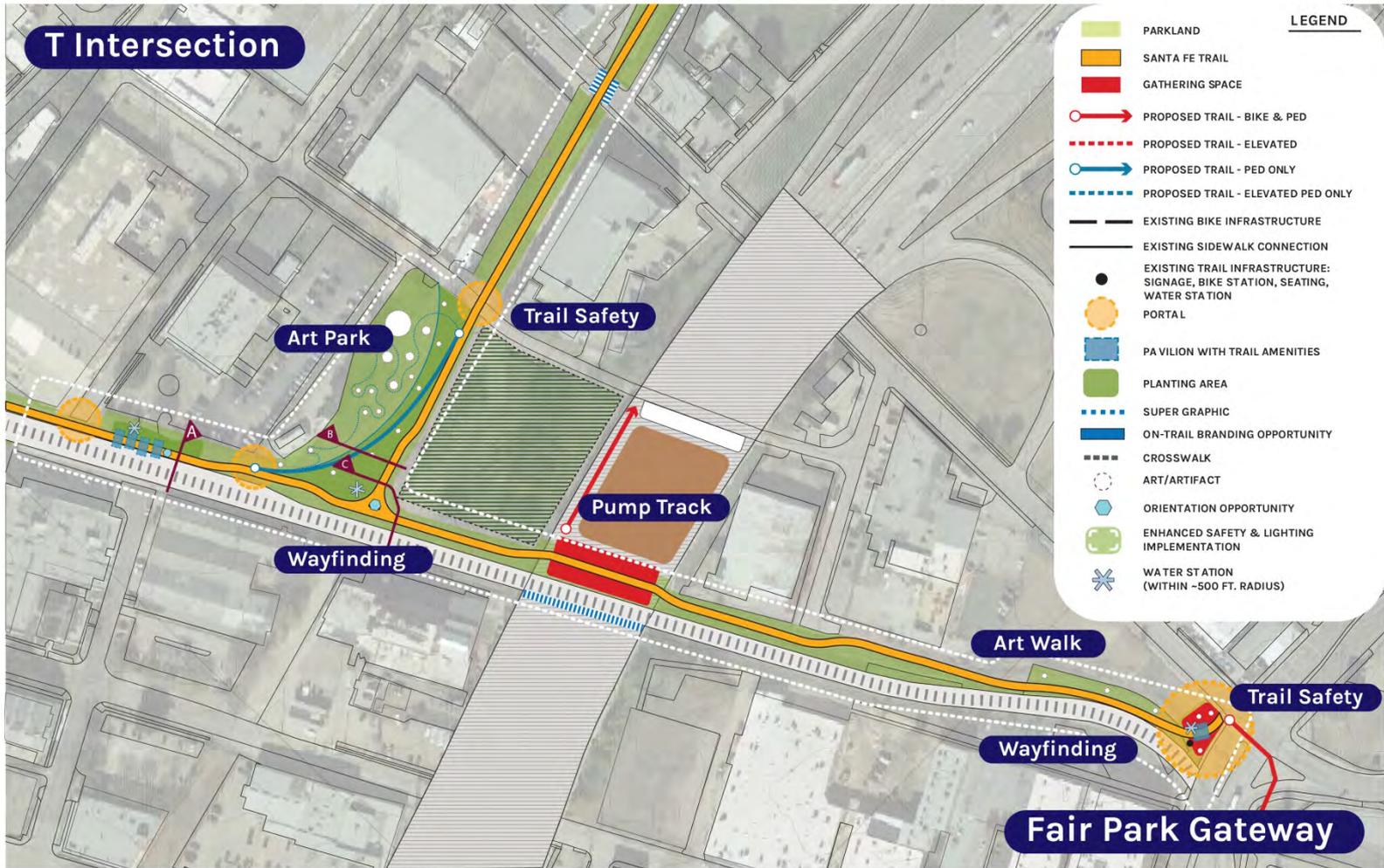
CONTEXT MAP



PRECEDENT IMAGES



T Intersection



LEGEND

- PARKLAND
- SANTA FE TRAIL
- GATHERING SPACE
- PROPOSED TRAIL - BIKE & PED
- PROPOSED TRAIL - ELEVATED
- PROPOSED TRAIL - PED ONLY
- PROPOSED TRAIL - ELEVATED PED ONLY
- EXISTING BIKE INFRASTRUCTURE
- EXISTING SIDEWALK CONNECTION
- EXISTING TRAIL INFRASTRUCTURE: SIGNAGE, BIKE STATION, SEATING, WATER STATION
- PORTAL
- PAVILION WITH TRAIL AMENITIES
- PLANTING AREA
- SUPER GRAPHIC
- ON-TRAIL BRANDING OPPORTUNITY
- CROSSWALK
- ART/ARTIFACT
- ORIENTATION OPPORTUNITY
- ENHANCED SAFETY & LIGHTING IMPLEMENTATION
- WATER STATION (WITHIN ~500 FT. RADIUS)

"T" Intersection Park & Gathering Space



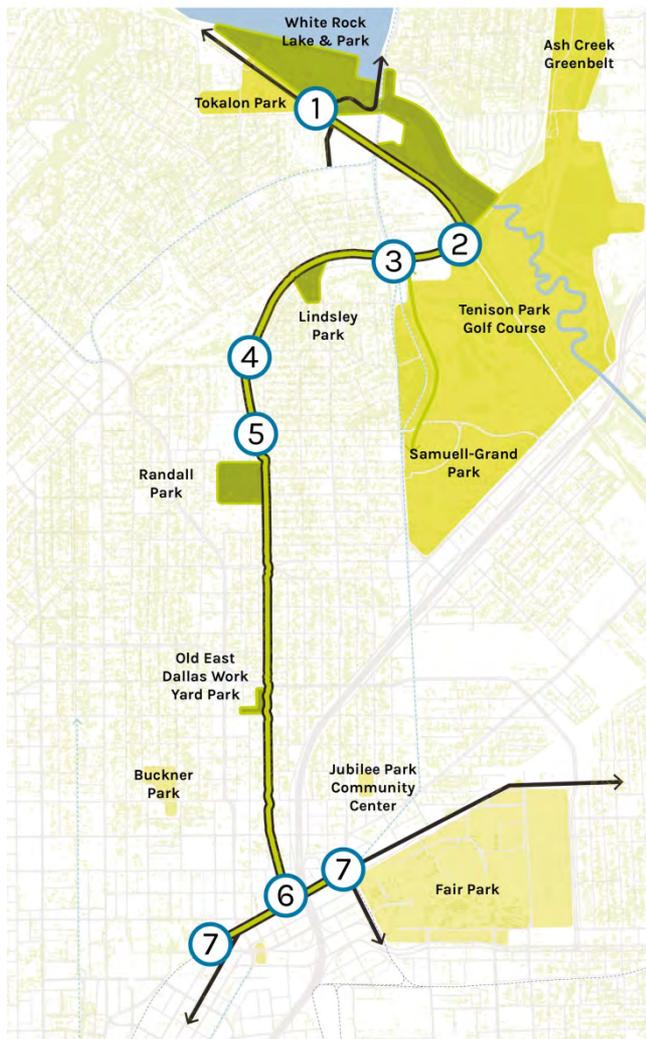
"I'd love to see a better gateway on the Fair Park end of the trail."

CONTEXT MAP



PRECEDENT IMAGES





VISIT [LINKTR.EE/FOSFT](https://linktr.ee/fosft)
FOR FULL PRESENTATION
PDF FILE DOWNLOAD



Bicycle & Pedestrian Data Reporting

Bicycle and Pedestrian Advisory Committee

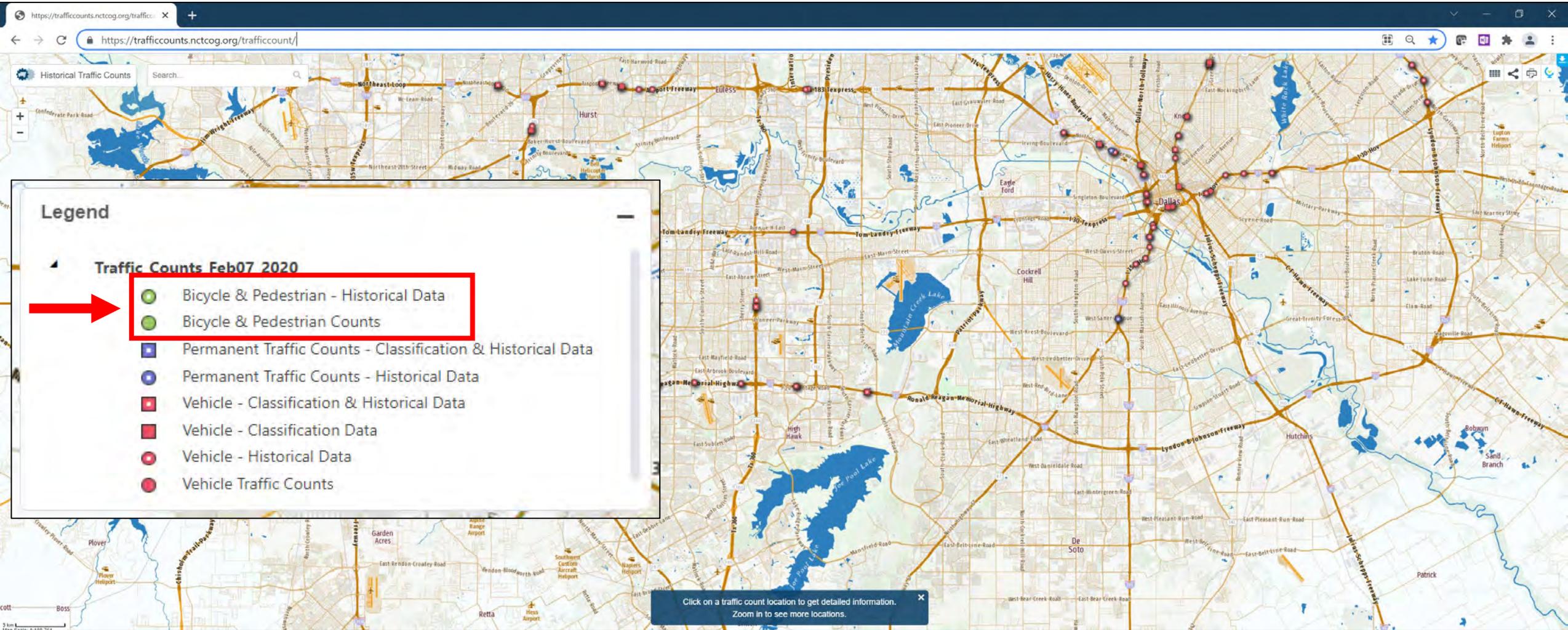
November 17, 2021

Daniel Snyder, AICP

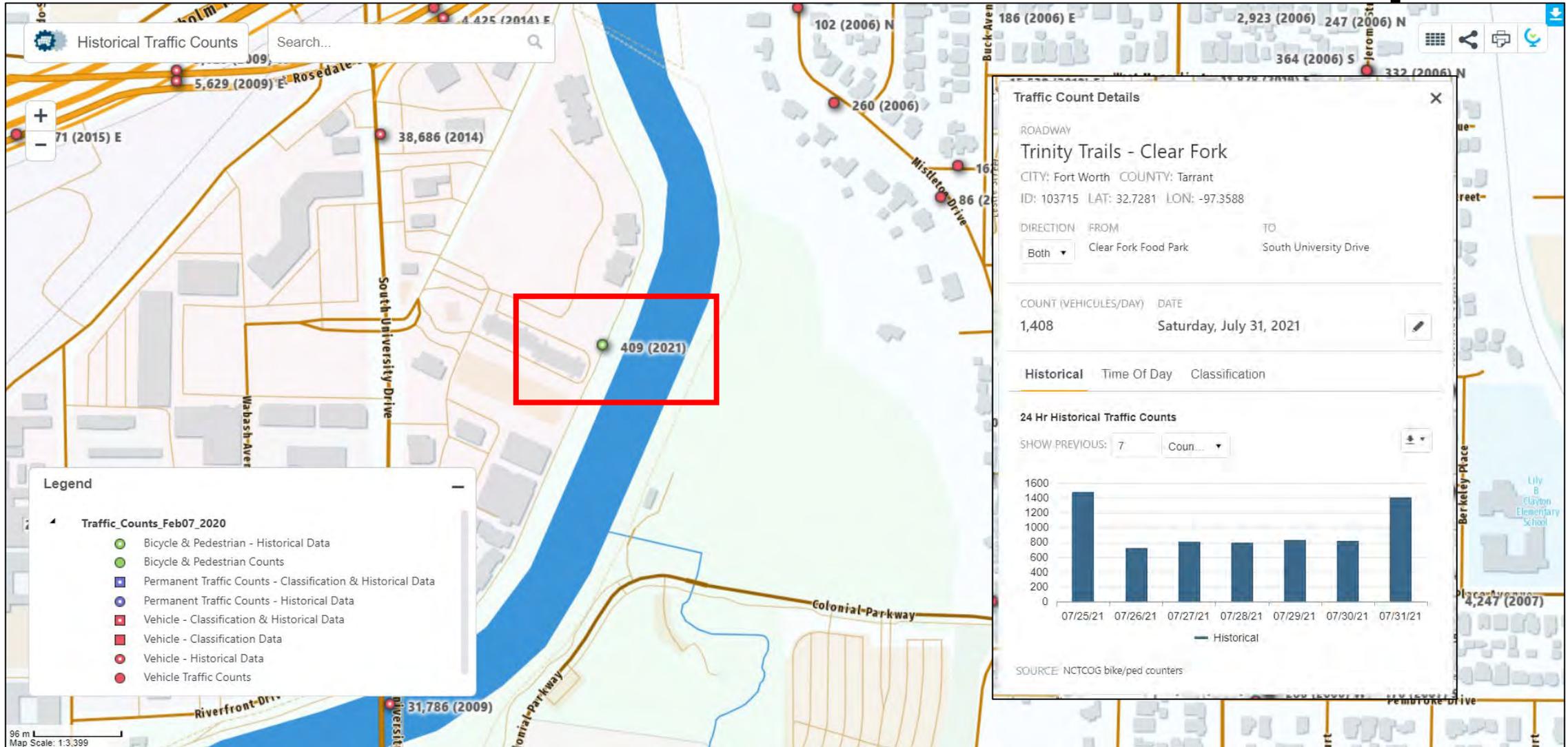


**North Central Texas
Council of Governments**

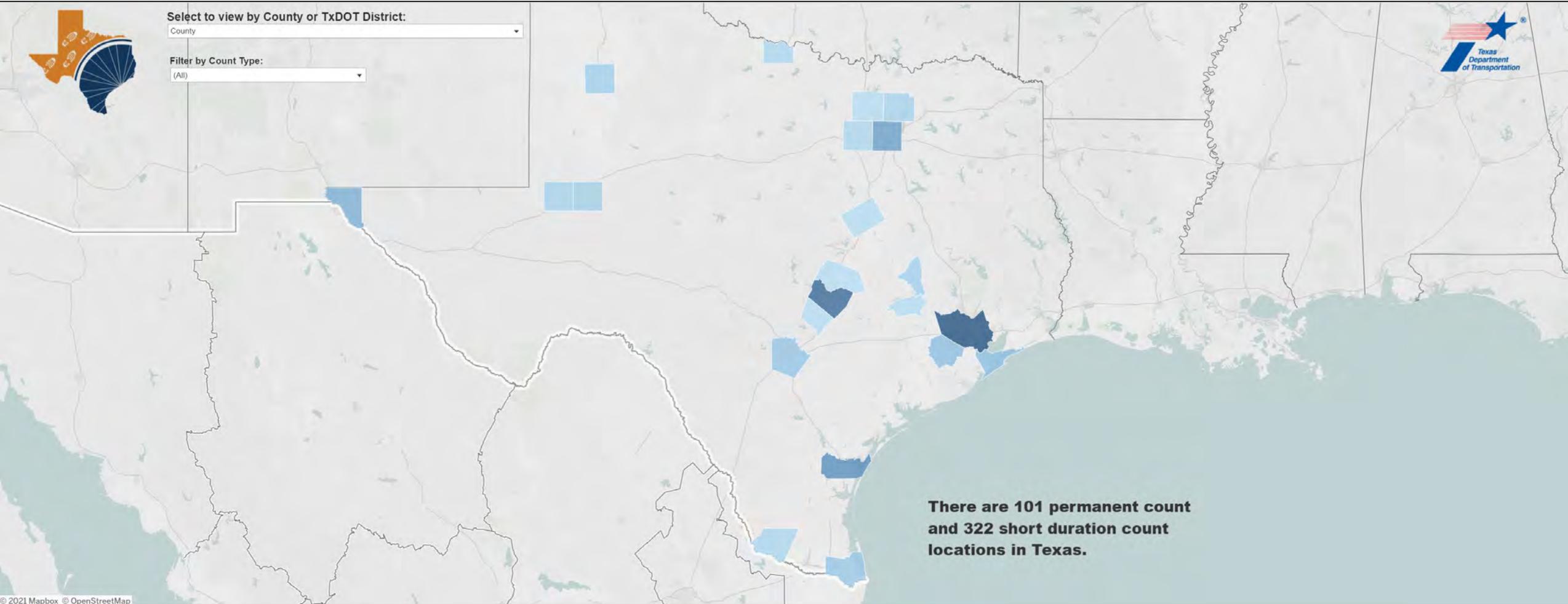
NCTCOG's Online Traffic Count Map



NCTCOG's Online Traffic Count Map



TxDOT's Bicycle & Pedestrian Count Exchange (BP | CX)



TxDOT's Bicycle & Pedestrian Count Exchange (BP | CX)



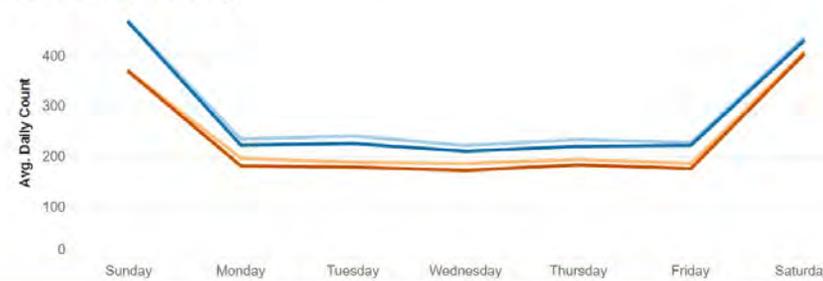
Trinity Trail at Clearfork Food Park



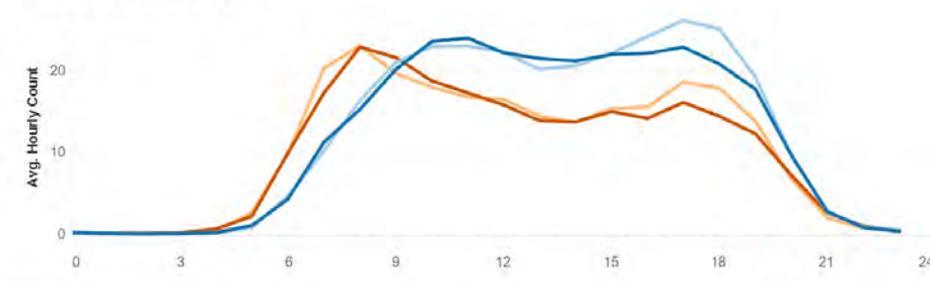
Start here. Filter data by: Travel Direction (All) Count Type (All) Specific Day of the Week (All) Show Abnormal or Invalid Data (Multiple values)

Legend: Bicycles only, Northbound; Bicycles only, Southbound; Pedestrians only, Northbound; Pedestrians only, Southbound

Day of Week Average



Time of Day Average

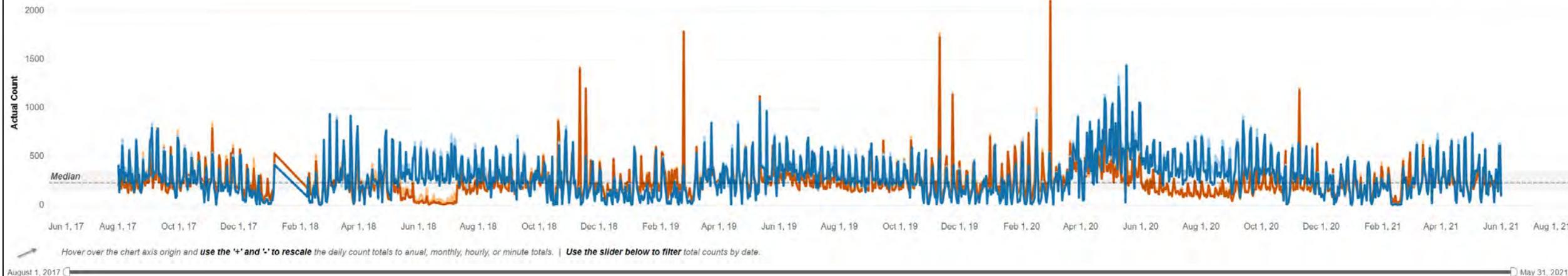


Counter Information

Count Type: Permanent Stations
Functional Class: Urban Trail or Shared Use Path
Facility Type: Trail not associated with a roadway
Owner Agency: North Central Texas Council of Governments
Brand: Eco-Counter

YTD Count vs Previous Year: 143,183

215,986



North Central Texas Council of Governments

<https://mobility.tamu.edu/bikepeddata/>

Contact Information:



Daniel Snyder, AICP

Transportation Planner

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Kevin Kokes, AICP

Program Manager

kkokes@nctcog.org



Fort Worth to Dallas Regional Trail Branding Project

November 2021 Update – BPAC

www.nctcog.org/fwtodaltrail
www.fortworthtodallastrail.com

What would you name this trail?

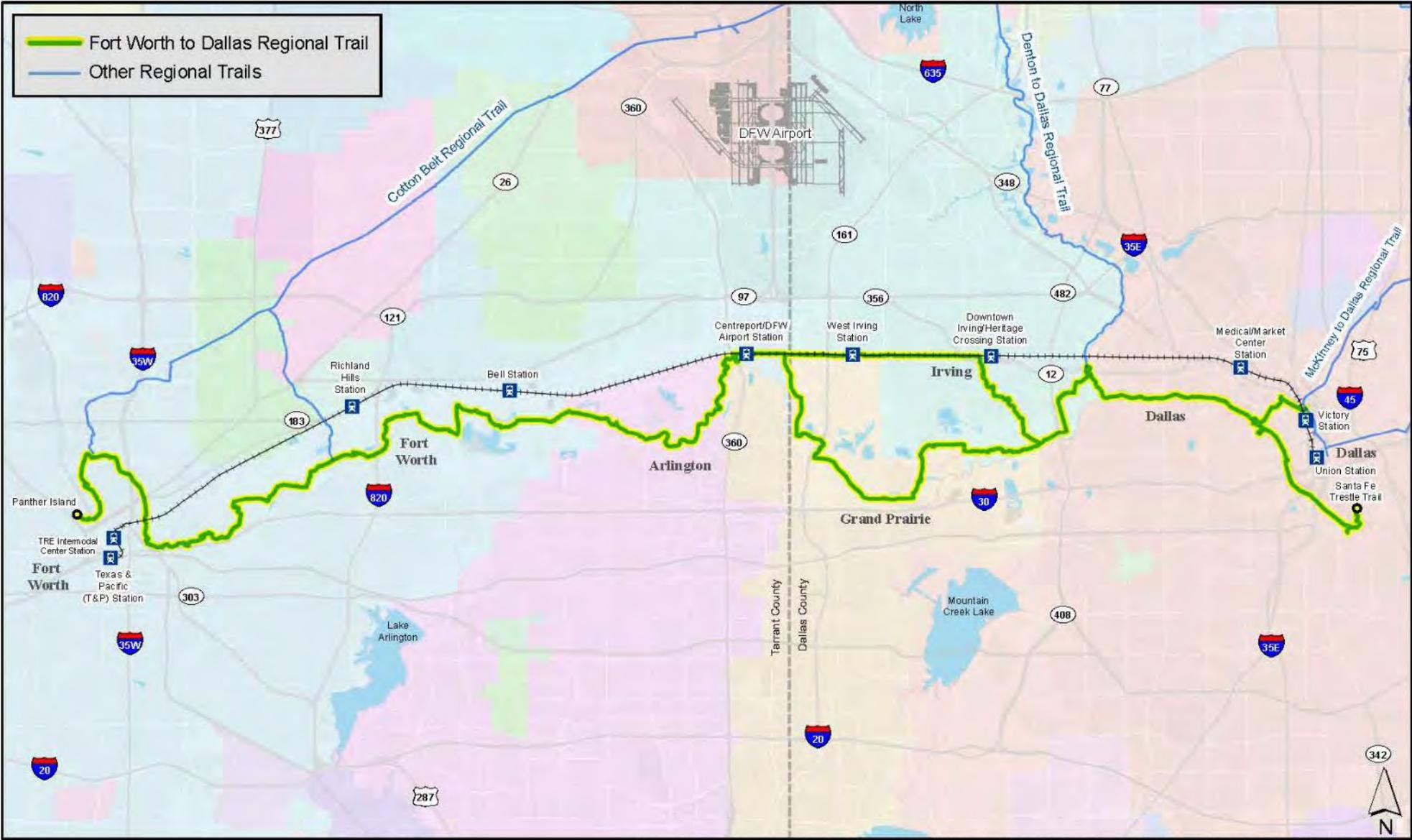


North Central Texas
Council of Governments



Fort Worth to Dallas Regional Trail Corridor

Total Length: 66 Miles



Document Path: I:\Sustainable_Development\ArcGIS\Bike_Ped\Projects\Regional Trail Corridors - GIS\Fort Worth to Dallas Regional Trail\Simplified_FTWtoDallasMap.mxd

Project Overview and Deliverables

- Enhance functionality, promote visibility, and attract new users and programming to the Trail
- Create a regional-level trail name and brand
- Create branding and wayfinding signage guidelines
- Create unified 911 signage and lighting recommendations
- Recommendations for major event infrastructure and trail maintenance/management



Local Stakeholder Kickoff Meeting

- Held virtually on November 4
- Identified stakeholder priorities for project
- Introduced overview project goals, scope of work, branding process, roles, and schedule
- Reviewed wayfinding and branding best practices and peer projects
- Trail branding exercise: naming and visual preferences
- Introduced Virtual Public Open House

Public Virtual Open House #1

- *Currently available at www.FortWorthtoDallasTrail.com*
- Survey questions on current trail usage, visual preferences, name and historical connotations to local area
- “Map Your Experience” for places of interest along the trail, common access points and routes
- Advertisement via stakeholders, social media, and signs placed on trail and at trailheads

Fort Worth to Dallas Regional Trail Branding & Wayfinding Project

Virtual Open House

Welcome to the Fort Worth to Dallas Regional Trail Branding & Wayfinding Project Virtual Open House! This project seeks to leverage and enhance the existing, and soon to be complete, 66-mile regional trail connecting Fort Worth, Arlington, Grand Prairie, Irving, and Dallas.

[GET STARTED →](#)

Learn more about the project

Stay informed about the project

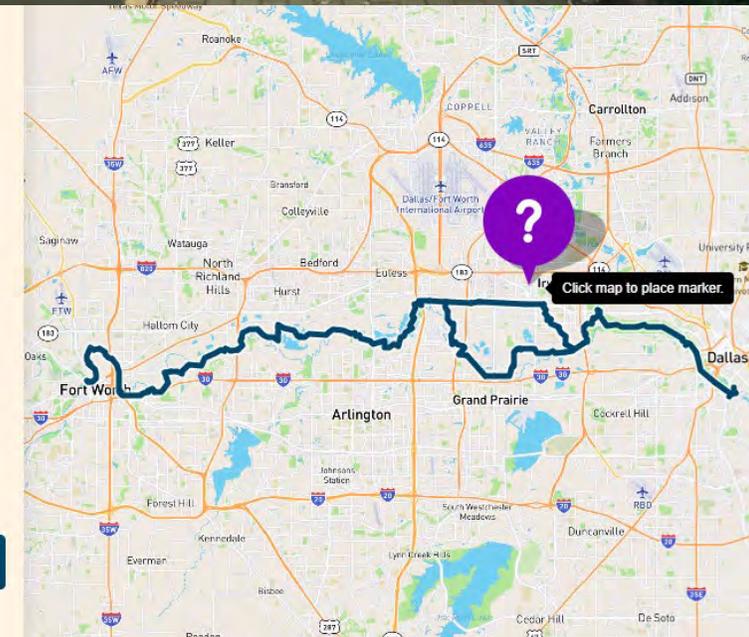
[SUBSCRIBE →](#)

Where are the places that are special to you along this trail?

Identify special locations along the corridor. These could include scenic views, interesting landscapes, or your personal favorite place on the trail.

[ADD A POINT OF INTEREST](#)

[SAVE & CONTINUE →](#)



Project Timeline

- Steering Committee Meetings:
 - #1: November 2021
 - #2: Spring 2022
 - #3: Summer 2022
- Virtual Open Houses:
 - #1: November/early December 2021
(Open Now!)
 - #2: Spring 2022
- Stakeholder Interviews: Winter 2021
- Identify Preferred Branding: Summer 2022
- **Project Completion: Fall 2022**



*Help shape
the future of
this trail!*



North Central Texas
Council of Governments

Contact Us



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Principal Transportation Planner
Project Manager
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Transportation Planner
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KWindsor@nctcog.org



North Central Texas
Council of Governments

Context Sensitive Design of Complete Streets

BICYCLE AND PEDESTRIAN ADVISORY COMMITTEE

NOVEMBER 17, 2021

JULIE ANDERSON, SR. TRANSPORTATION PLANNER

UPDATE

- At the August 2021 BPAC meeting: NCTCOG staff highlighted Complete Streets principles and the proposed development of a “Regional Complete Streets Policy”
- Currently tweaking the approach to promote a regional policy emphasizing “**Context Sensitive Design**” (CSD) for roadway projects
- Proposed future development of a CSD checklist/guide relevant to projects requesting federal transportation funding

A CSD approach helps to ensure projects:

- Are safe for all users.
- Use a shared stakeholder vision as a basis for decision and for solving problems that may arise.
- Meet or exceed the expectations of both designers and stakeholders, thereby adding lasting value to the community, the environment, and the transportation system.
- Demonstrate effective and efficient use of resources.

WHAT is *Context Sensitive Design*?

A design process that not only considers physical aspects or standard specifications of a transportation facility, but also the **economic, social, and environmental resources in the community** being served by the facility.

Source: FHWA

Context Sensitive Design

Urbanized Context (Urban Core / Urban / Suburban / Small Town)

Rural Context

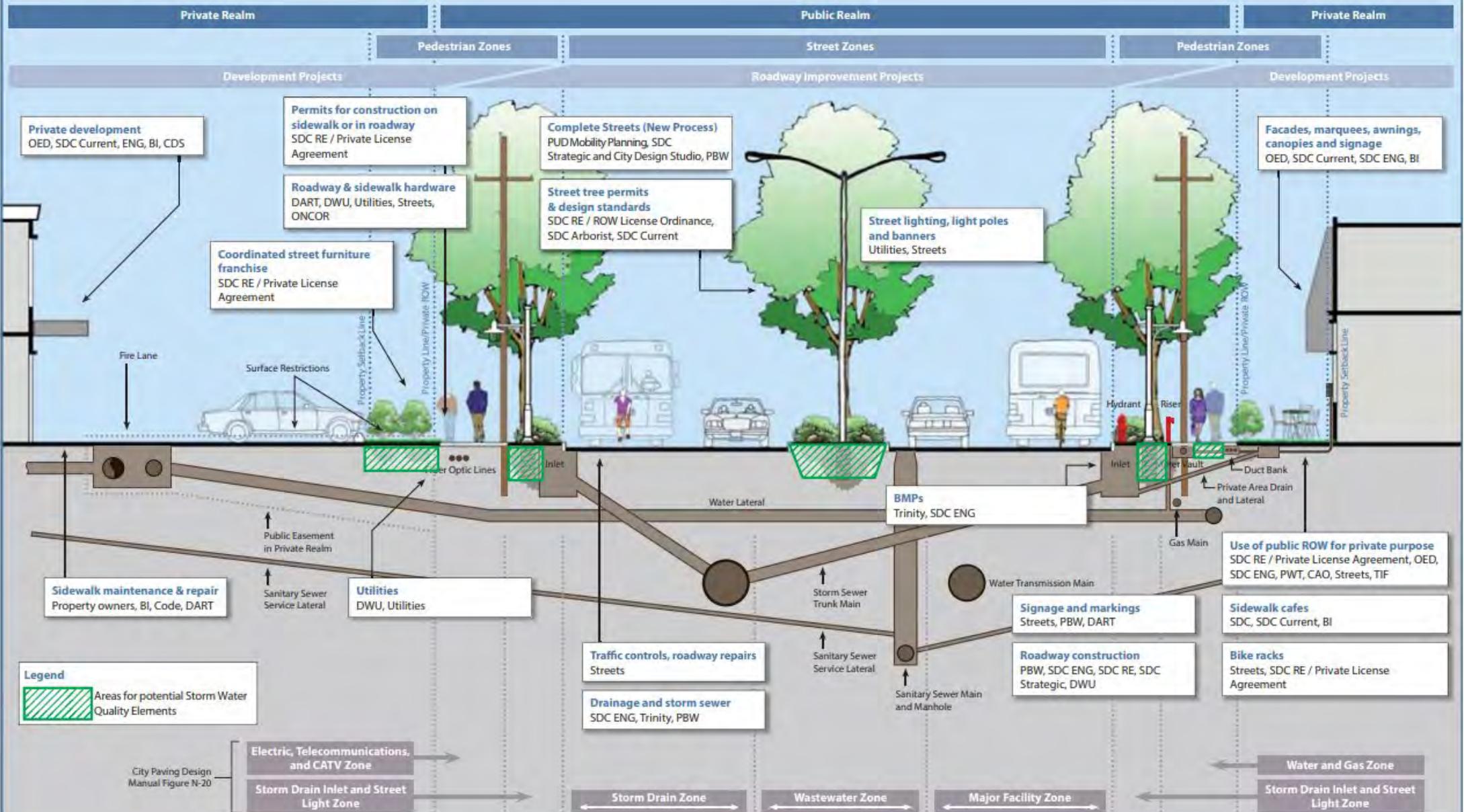


Context	Roadway Type
Urban/Suburban	Interstates, freeways, or expressways
Urban/Suburban	Principal arterial street
Urban/Suburban	Major or minor arterial street
Urban/Suburban	Collector street
Urban/Suburban	Local street
Rural	Highways
Rural	Roadways

Seeks to understand the landscape, the community, valued resources, and the role of **all appropriate modes** of transportation in each unique context ***BEFORE*** developing engineering solutions.

Source: Center for Environmental Excellence
By AASHTO

Agency Roles on the City's Streets



Source: City of Dallas Complete Streets Design Manual

APPROACH

Regional Transportation Council would adopt a policy outlining these objectives:

- **Policies:** Support the adoption and implementation of local city policies/resolutions related to “Context Sensitive Design” with local transportation projects
- **Develop:** Checklist and/or Guide for projects with CSD elements
- **Evaluate:** CSD elements are included in all projects across the jurisdiction being funded by RTC requests/federal funds, TxDOT, City and County bond programs, and other local funded projects

NEXT STEPS

Develop a Policy
for RTC adoption
with the
Mobility 2045
(2022 Update)

Develop a *draft*
CSD
Checklist/Guide

Receive feedback
from regional
stakeholders and
through public
meetings

**Finalize
the CSD
Checklist/
Guide**

Anticipated Project Schedule

August 18, 2021: BPAC Briefing
Introduction to Complete Streets, survey results

November 17, 2021: BPAC Briefing – Context Sensitive Design

February 2022: BPAC Update

Spring 2022: STTC and RTC Informational Presentations

June 2022: STTC and RTC Adoption of Regional Policy with Mobility 2045 Plan (2022 Update)

2022: Develop CSD Checklist/Guide

Staff contacts:

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Kevin Kokes, AICP

Program Manager
kkokes@nctcog.org

Karla Weaver, AICP

Senior Program Manager
kweaver@nctcog.org

Active Transportation Plan Inventory





What is the Active Transportation Plan Inventory (ATPI)?

A map-based, central repository of bicycle, pedestrian, or any other form of human-powered, non-motorized transportation (e.g., micro mobility, skateboarding, wheelchair use, etc.)



Provide a centralized inventory of active transportation plans across Texas.

Enable easy access to active transportation plan by engineers and the public.

Increase collaboration and coordination among planning professionals.

Facilitate the development of safe bicycle and pedestrian networks.



Active Transportation Plan Submission Portal

Welcome to the Texas Active Transportation Plan Submission Portal!

Use this self-service tool to add or update entries in the Texas Active Transportation Plan Inventory.

To begin, click on the map near the area applicable to the plan being added or updated. After selecting the appropriate Planning Area Boundary from the list of existing entity boundaries (or drawing your own), enter the plan details, then submit the information to TxDOT for review. Once the plan information is validated, the plan information will be available to view on the Texas Active Transportation Plan Inventory.

Click on the "Layers List" icon in the upper right to view layer options. Toggle layers on and off until the desired Planning Area Boundary appears in the list.

For more information, refer to the [user guide](#).

Zoom to a region on the map and click on the map to begin.

Plan Submission Portal



Your organization should contribute to the Texas active transportation plan inventory because...

Roadway designers will have easy access to your community's vision for building bicycle and pedestrian infrastructure and networks.

Planning professionals can easily find examples of different types of active transportation plans, goals and actions, and performance measures.

Awareness can facilitate coordinated and seamless transitions between communities to create integrated active transportation networks.

Local and regional entities can benchmark against their peers.

The more plans in the inventory, the greater the opportunity for statewide collaboration.

All these benefits combine to encourage safer and more sustainable active transportation networks in Texas!



This inventory only reaches its full potential if we have participation statewide.

How You Can Help

Upload your agency's Active Transportation Plans.

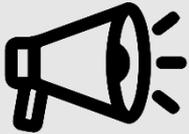
- Add to the inventory and encourage others to do so.

Forward TxDOT's emails.

- A familiar name helps.

Keep your plan information up to date.

- It only takes a few minutes!



Coming Fall 2021/Winter 2022

Thank You!

Noah Heath, Project Manager
TxDOT Public Transportation Division
Noah.Heath@txdot.gov

Rebecca Van Dyke, Project Manager
High Street Consulting Group
vandyke@highstreetconsulting.com



North Central Texas
Council of Governments

TxDOT

Roadway Design Manual

Updated Bicycle Accommodation Design Guidance

BICYCLE AND PEDESTRIAN ADVISORY COMMITTEE
NOVEMBER 17, 2021
JULIE ANDERSON, SR. TRANSPORTATION PLANNER

UPDATE

- At the May 2021 BPAC meeting, Ken Mora with the TxDOT Design Division/Roadway Design Section presented the Interim Guidance for Design Practices to Accommodate Bicycles, in anticipation of being included in the updated Roadway Design Manual (RDM)
- The Federal Highway Administration approved the RDM updates this summer.
- The updated Ch 6., Sect. 4 Bikeway Facilities emphasizes "**context**" considerations and Bikeway Planning Principles: **safety, comfort, connectivity, and cohesiveness**
- TxDOT Districts are currently using the updated bicycle facility guidance for new projects

UPDATE

- Expected publication of the new TxDOT RDM is December
- NCTCOG will distribute a link to the updated RDM when it's available

Roadway Design Manual

- Chapter 6: Special Facilities
 - Section 4: Bicycle Facilities

http://onlinemanuals.txdot.gov/txdotmanuals/rdw/bicycle_facilities.htm



2022 Nominations

Please keep an eye out for an email regarding the **2022 BPAC Representative Nominations** going to your STTC representative!

2022 BPAC
Dates

2.17.2022

5.18.2022

8.17.2022

11.16.2022

