

# Transportation Commission

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August 16, 2017



TRANSPORTATION COMMISSION  
*City of Ann Arbor*

# School Crosswalks, Bike Routes, and Traffic Calming

Connectivity and Network Opportunities

A2 Safe Transport Crosswalk Study  
Strava Preferred Bike Routes  
Ann Arbor Bicycle Map  
Traffic Calming Data

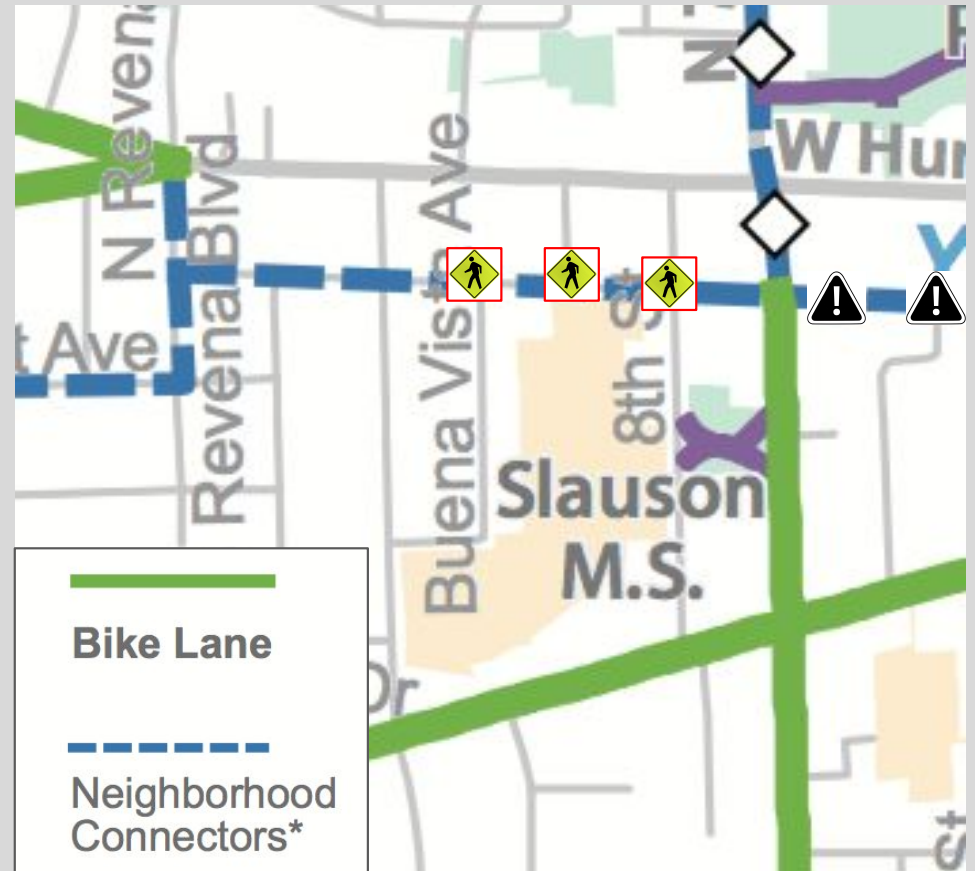
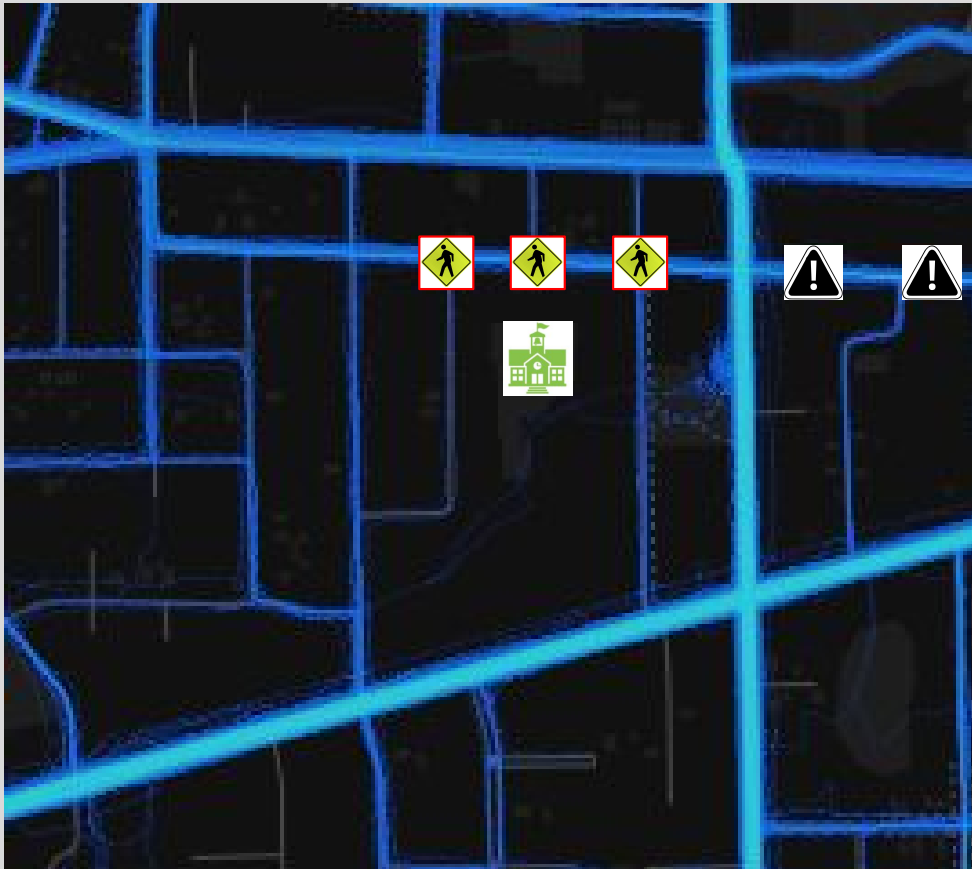
# Slauson Middle School Washington Street



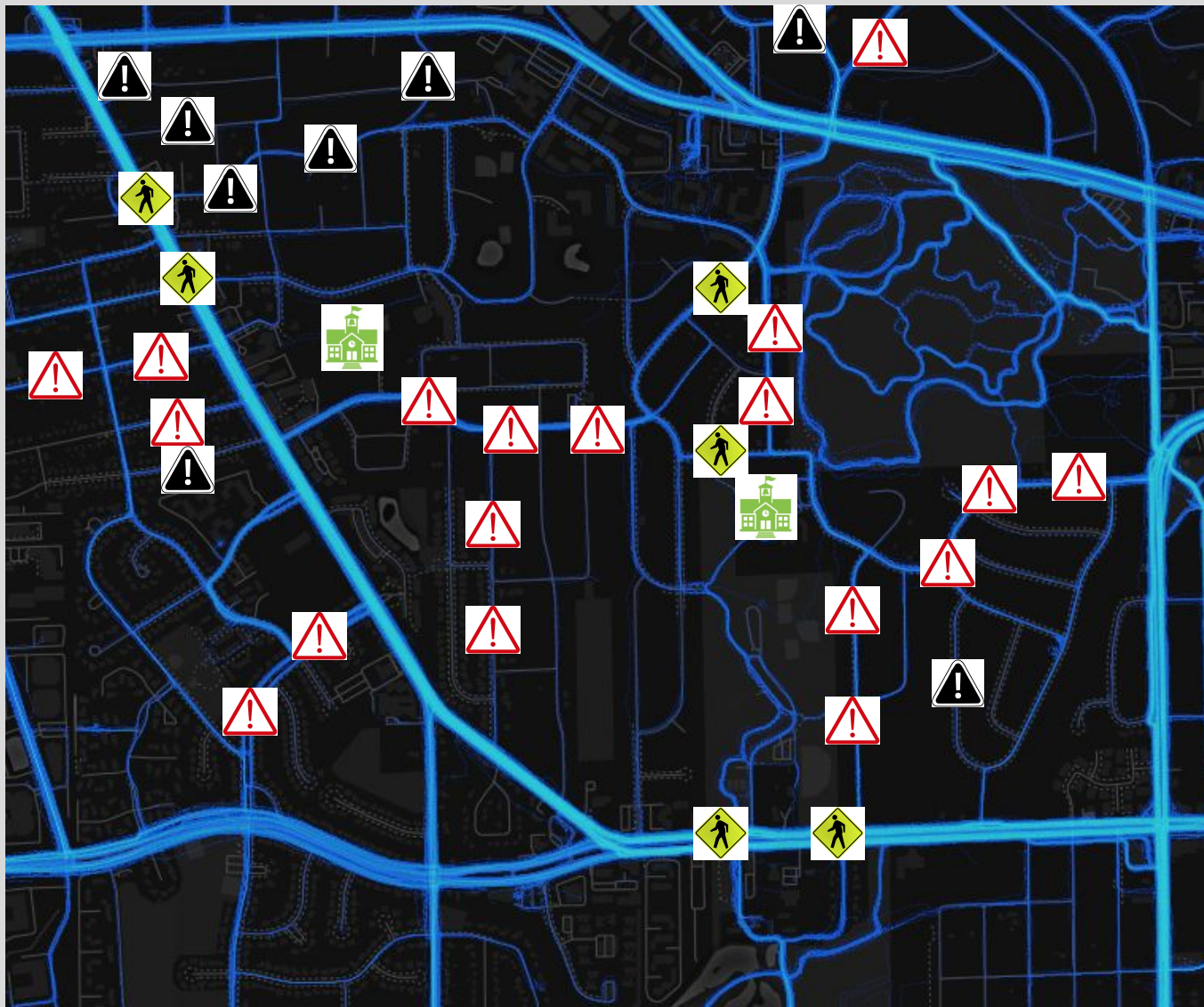
A2ST Identified Crosswalks



Denied Traffic Calming







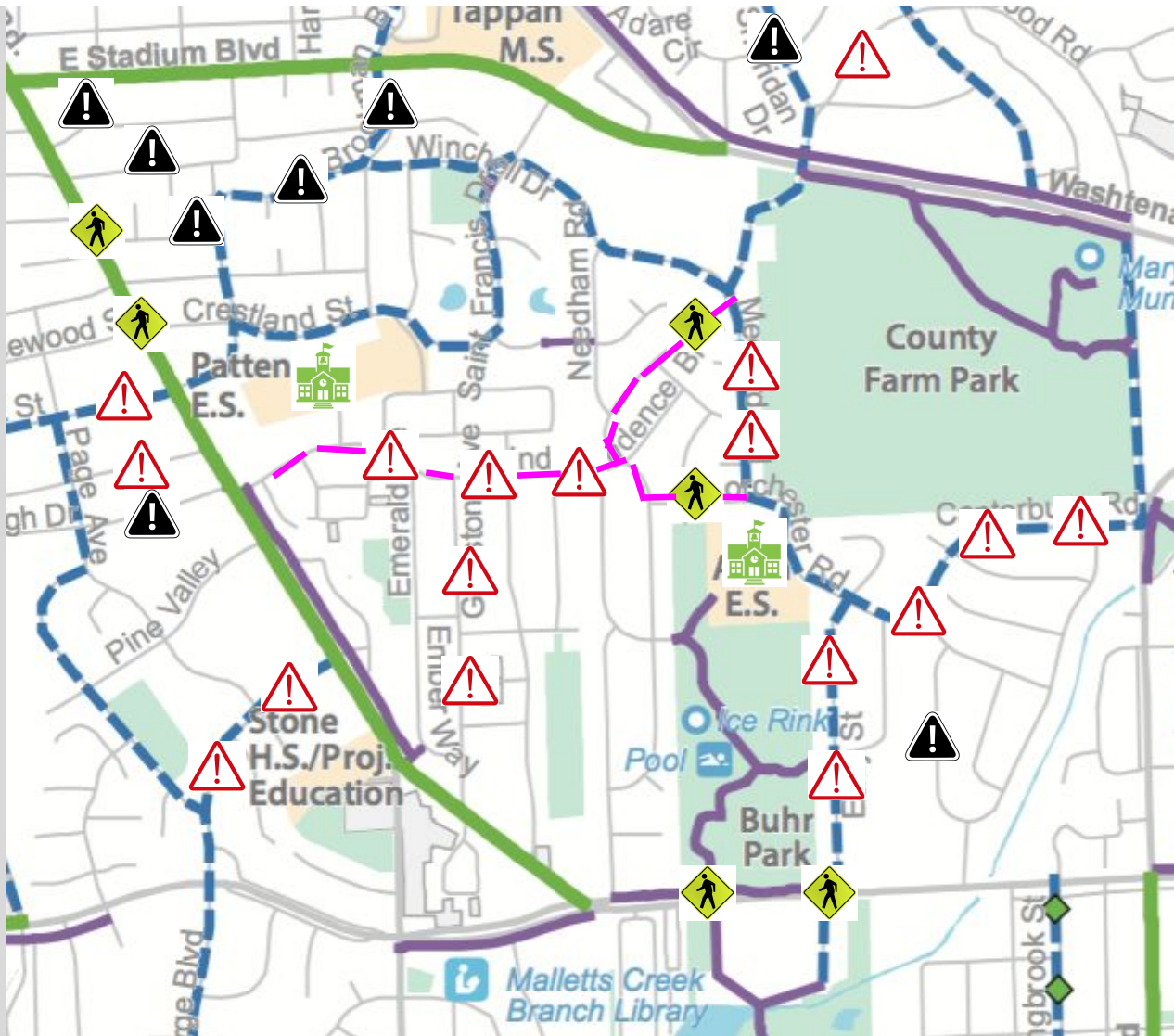
Existing  
Traffic Calming



Denied  
Traffic Calming



A2ST  
Crosswalk



Existing  
Traffic Calming

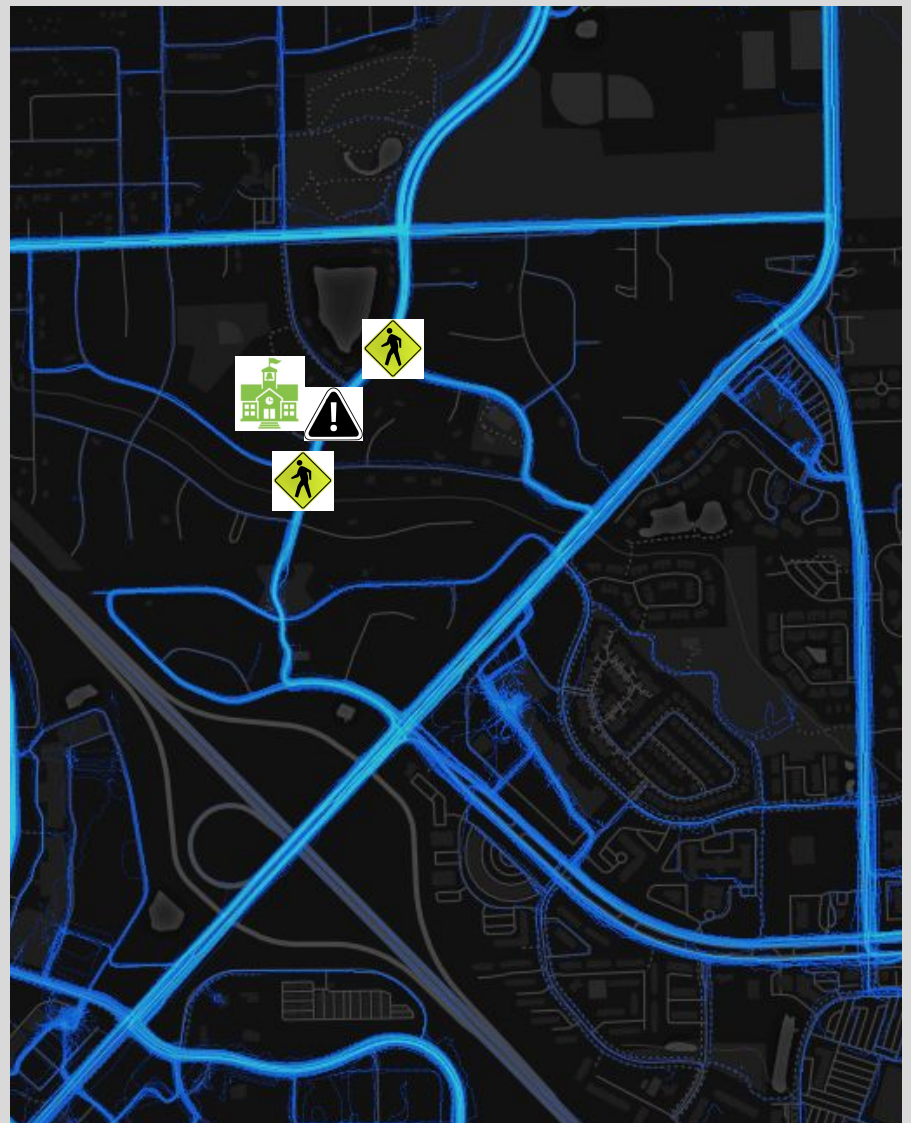
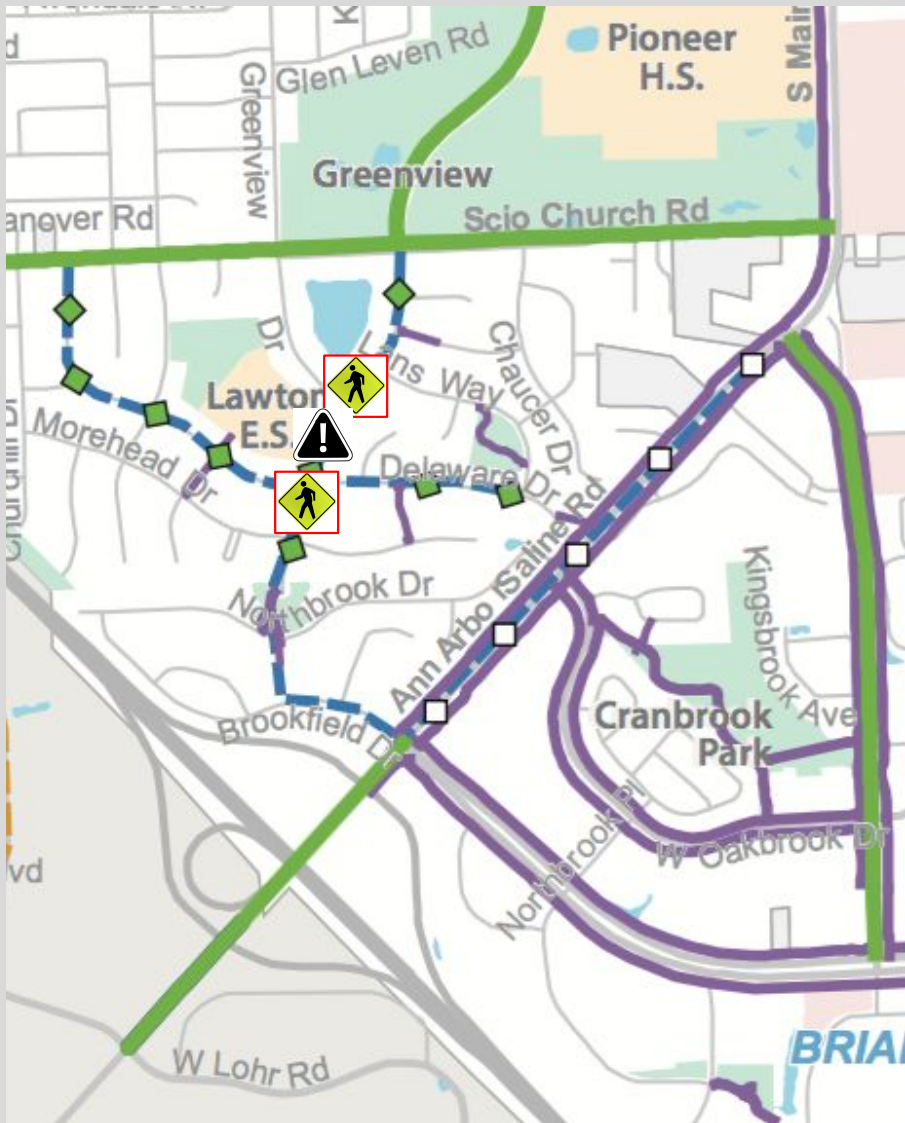


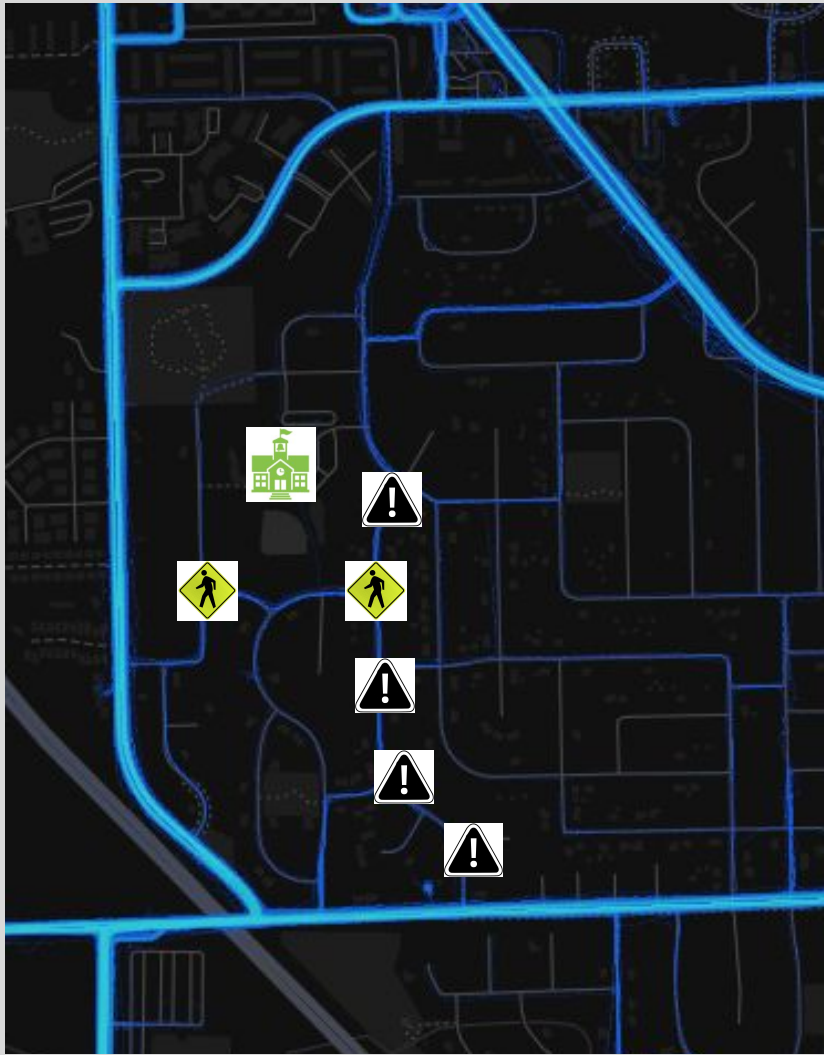
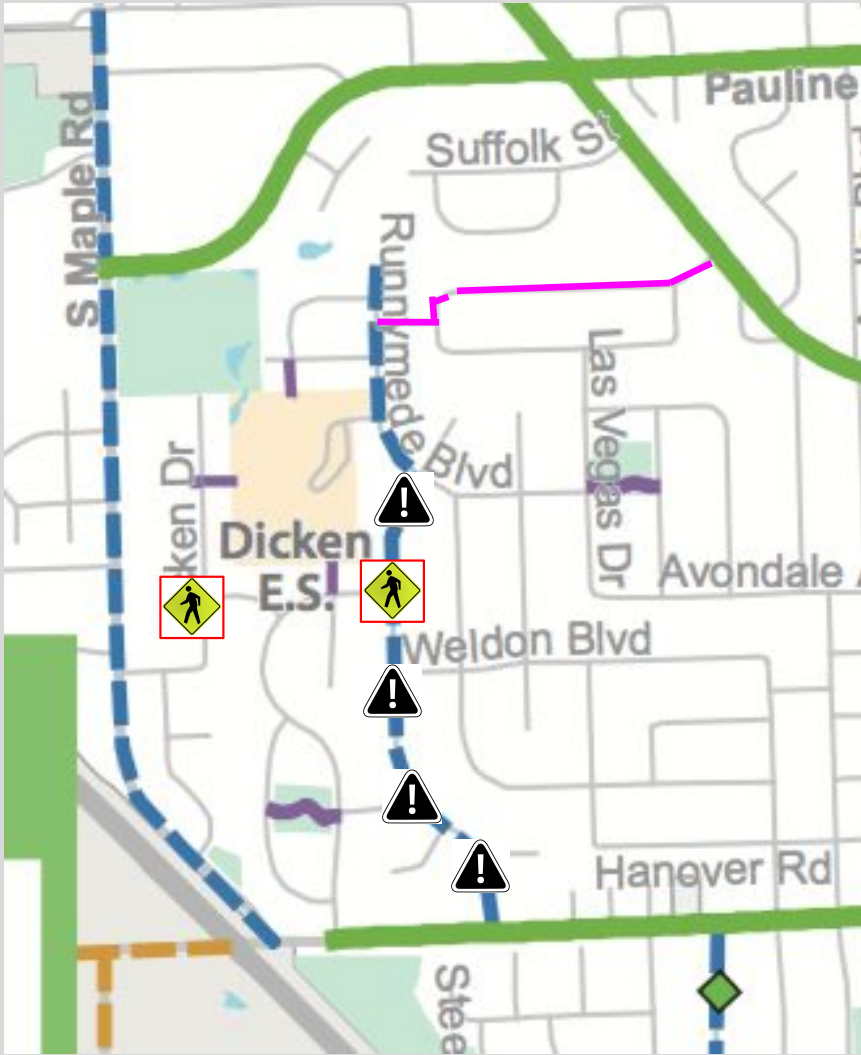
Denied  
Traffic Calming



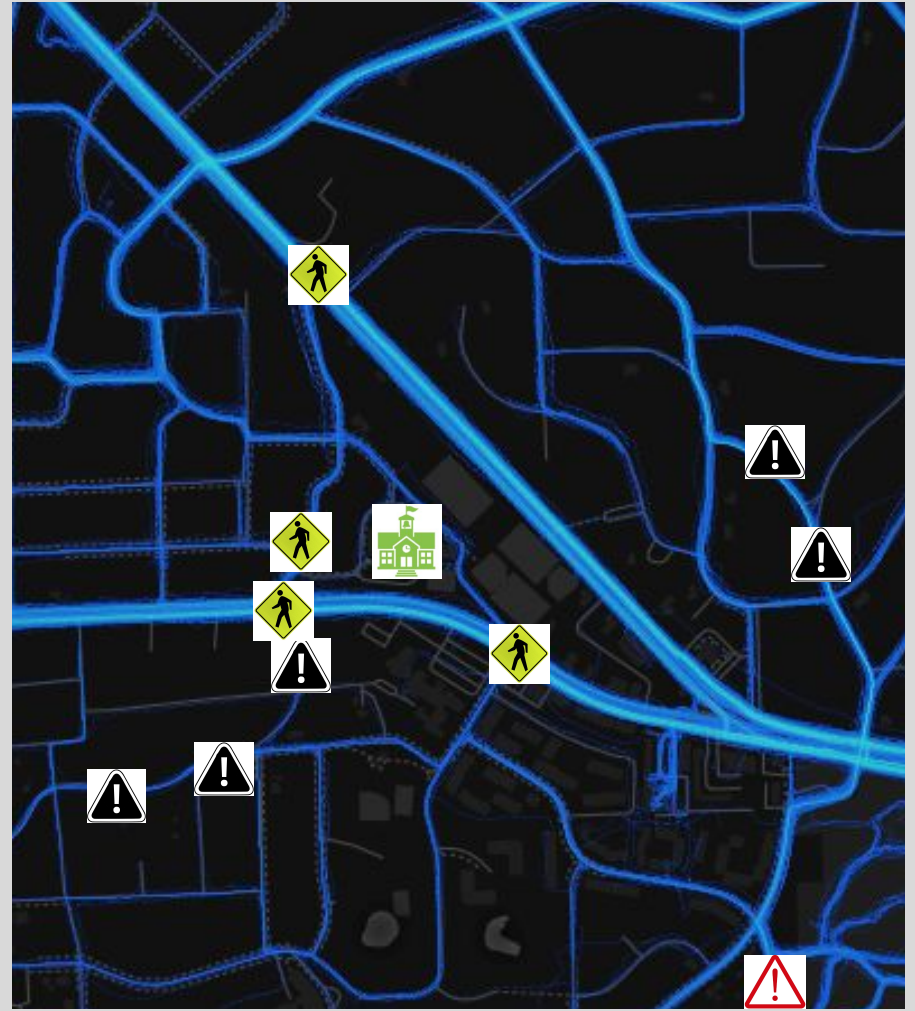
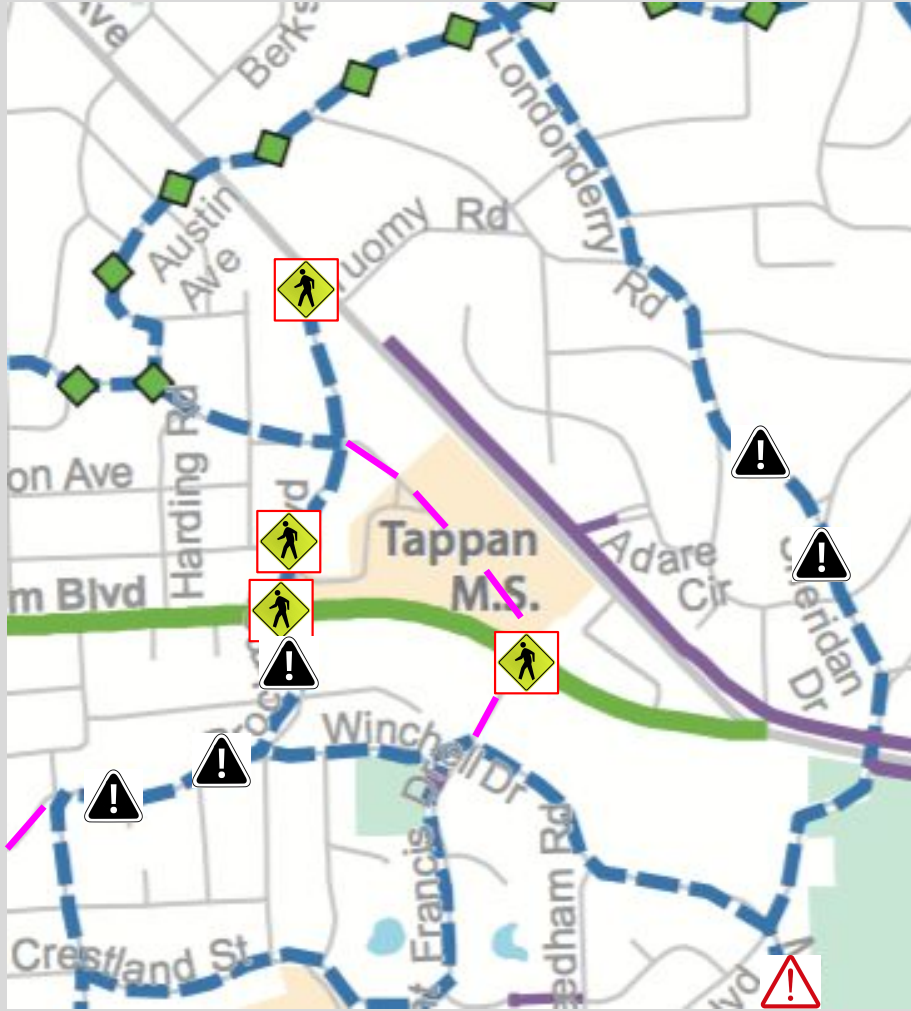
Strava Bike  
Route (not on  
bike map)

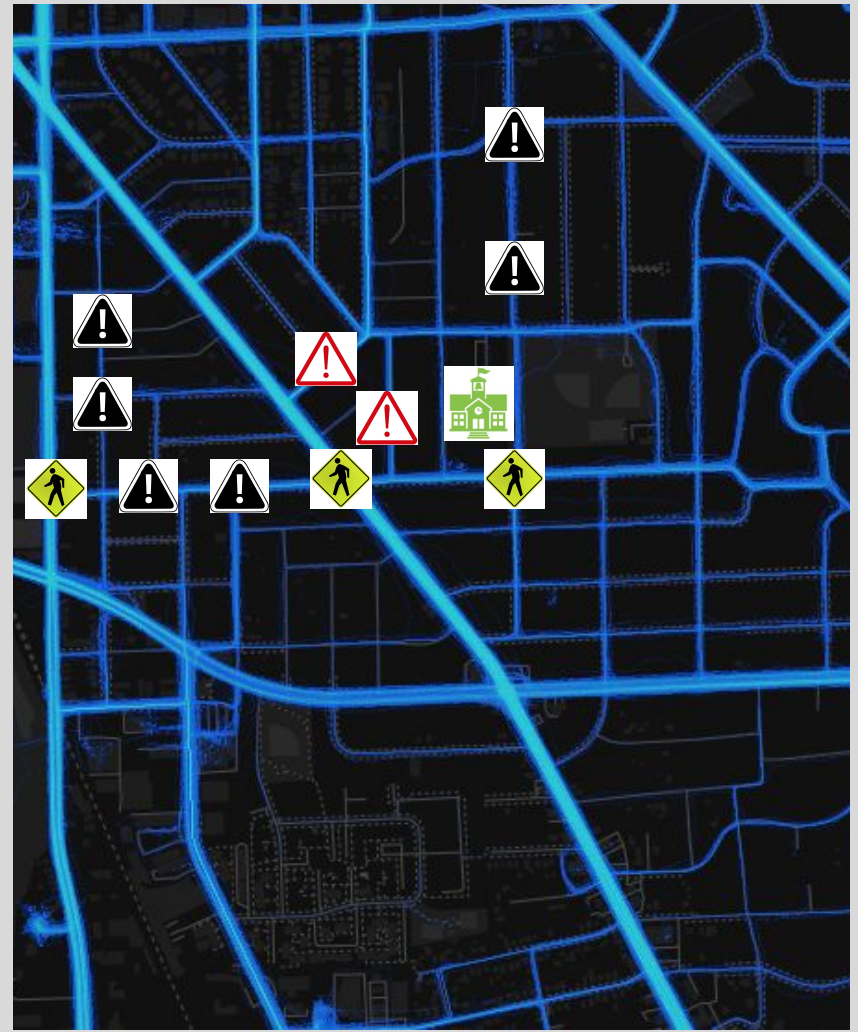
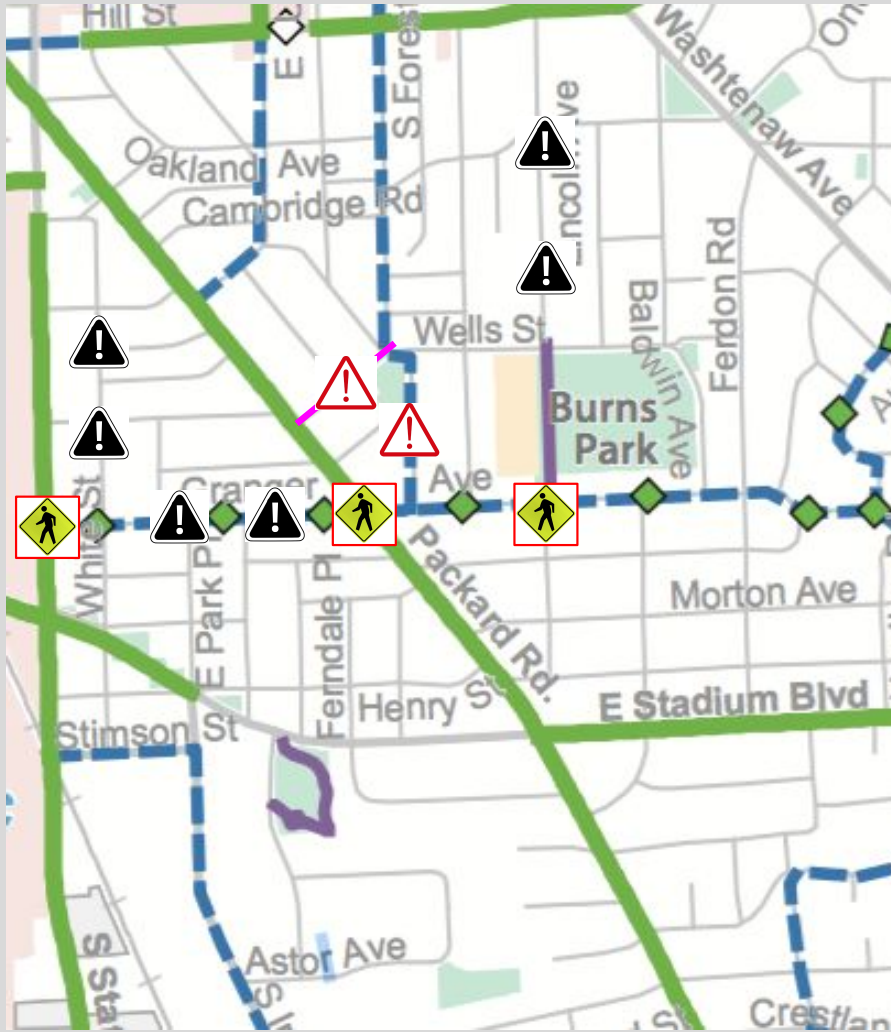




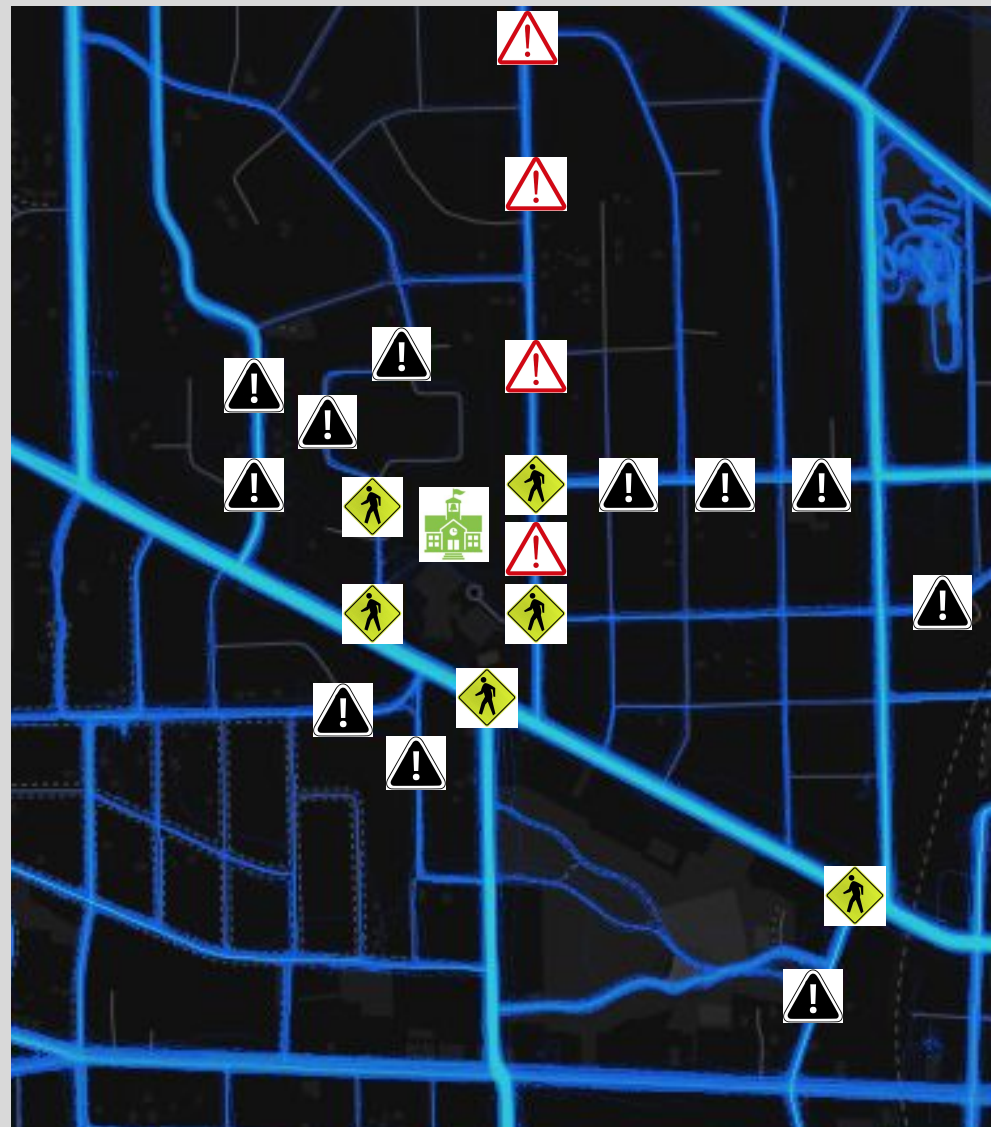
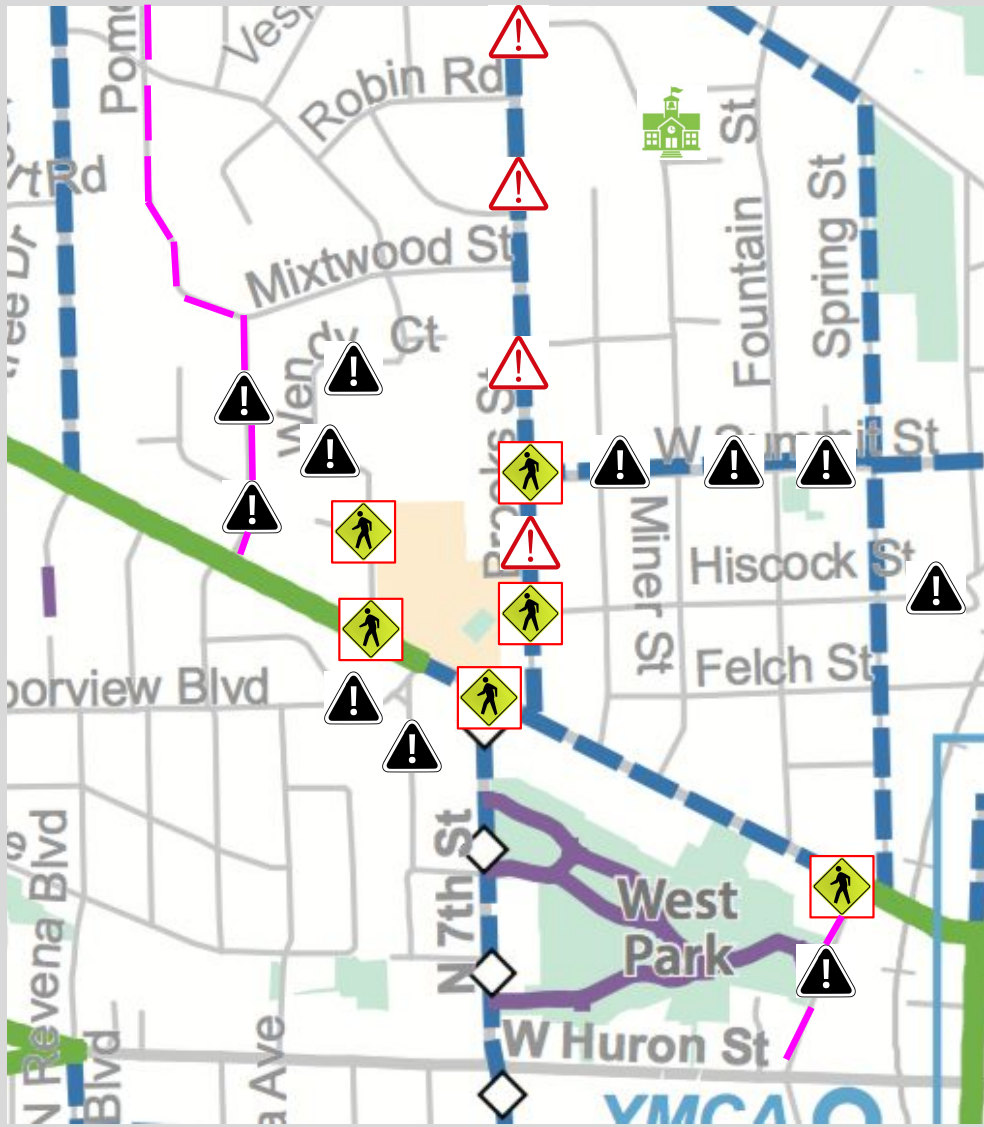


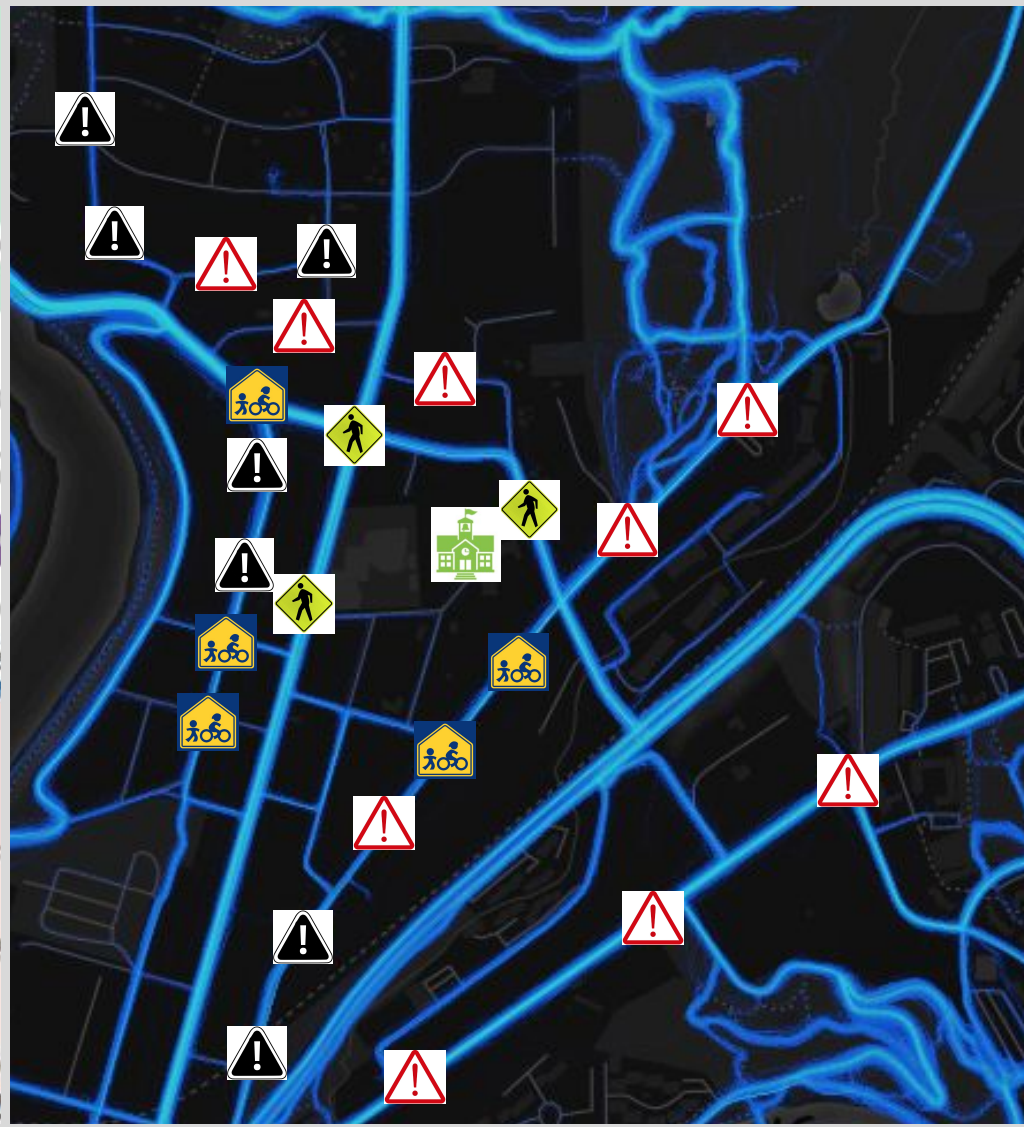
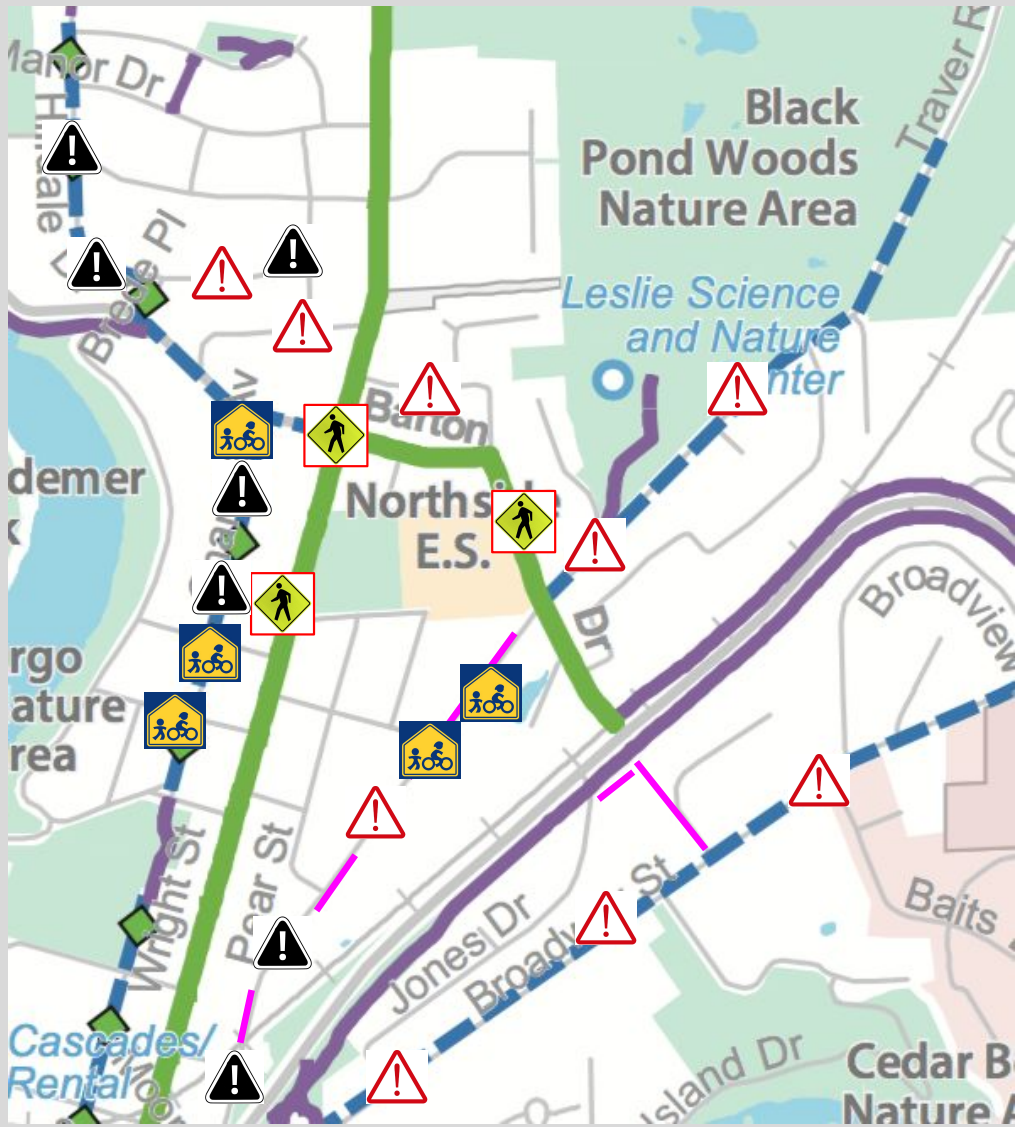














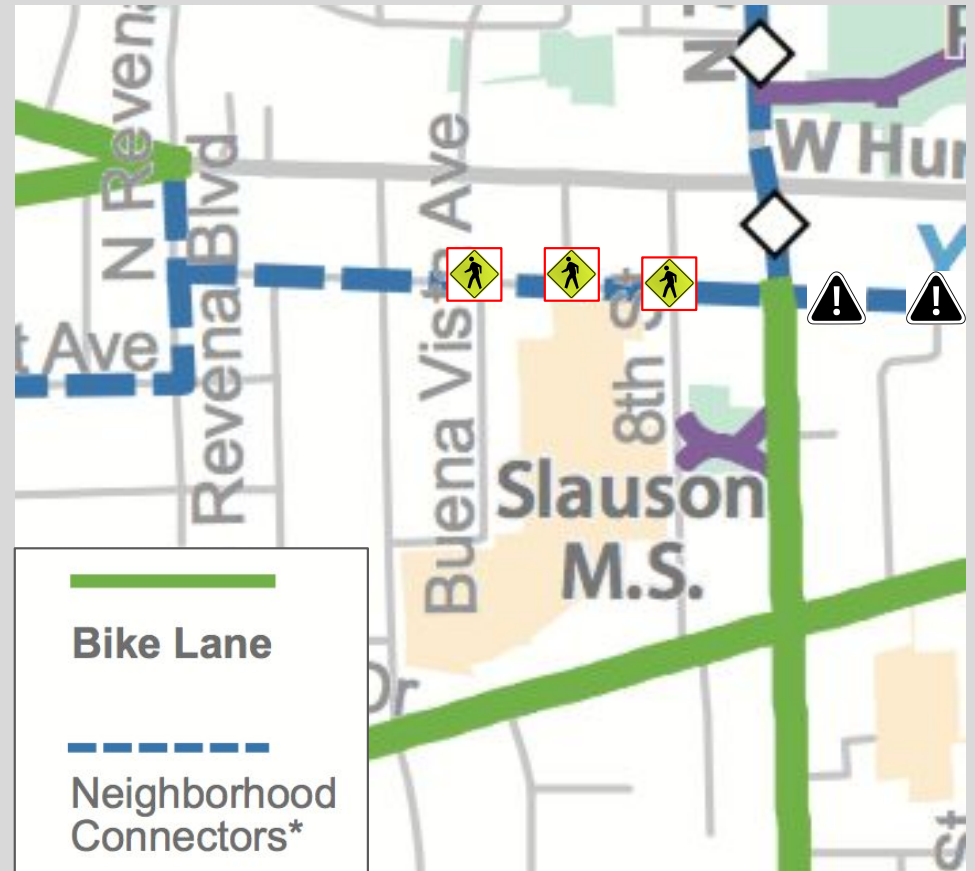
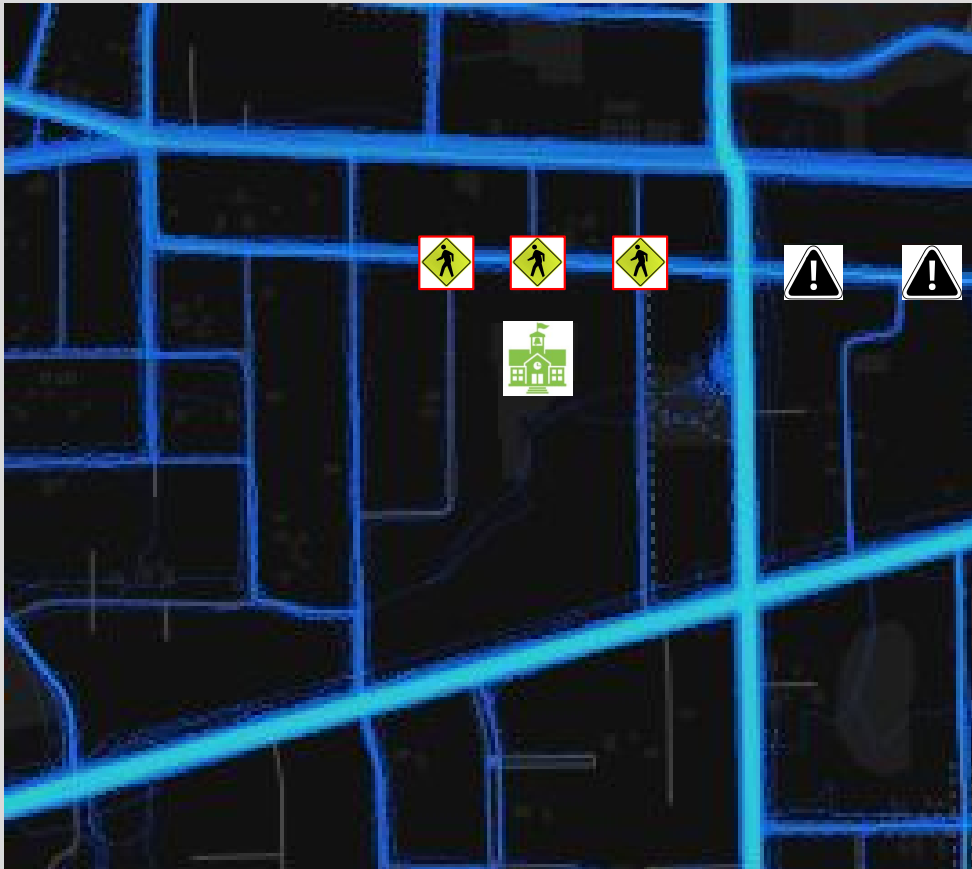
# Slauson Middle School Opportunities



A2ST Identified Crosswalks



Denied Traffic Calming



## Opportunity:

Slauson Crosswalk Improvements scheduled for 2018 in conjunction with a water main project.

Washington as a potential Bicycle Boulevard identified in 2017 CIP for study.

Washington identified as best option for a Bicycle Boulevard in 2013 NMP Update.

Help solve crosswalk issue by prioritizing bicycle/pedestrian users.

## CIP PROJECT DATASHEET

**PROJECT NAME:** W Washington Transportation Study (1st to Revena)

**Project ID:** TR-AT-16-06

**Project Type:** Study

**Prioritization Model Rank:** 0

**Prioritization Model Score:** 0

**Location:** W Washington (1st to S Revena)

### Identified Need:

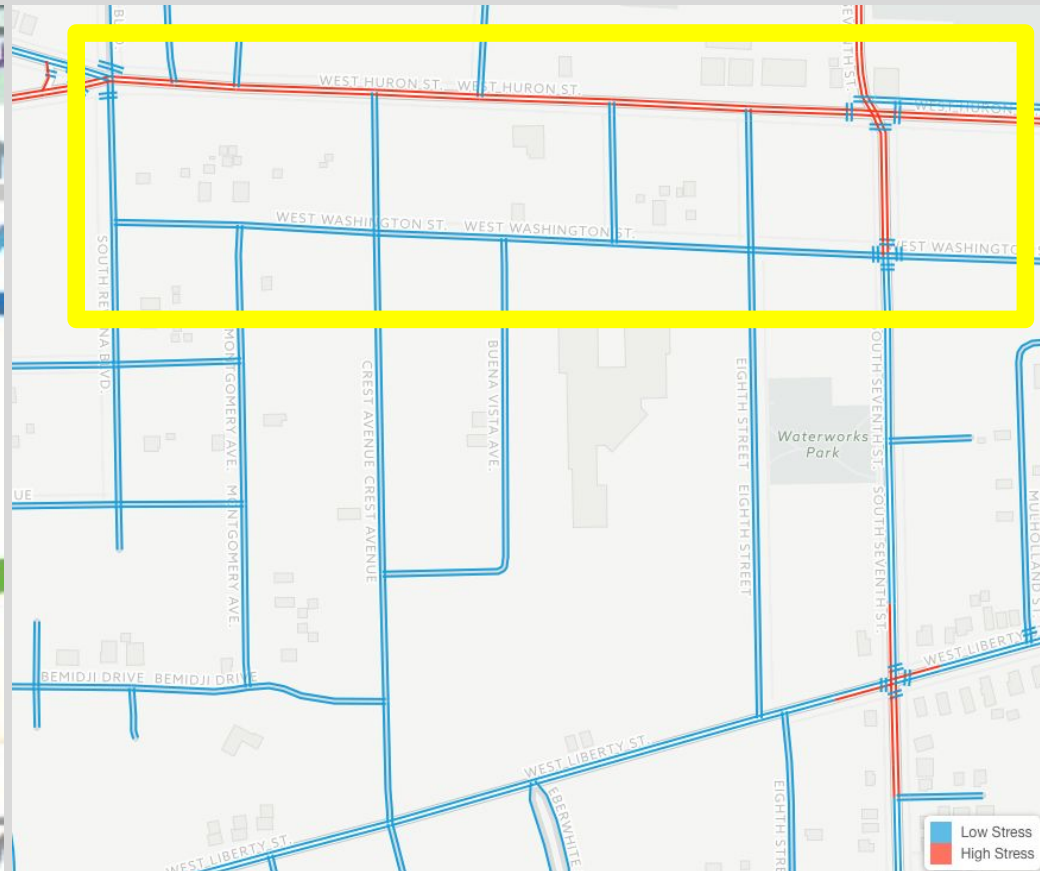
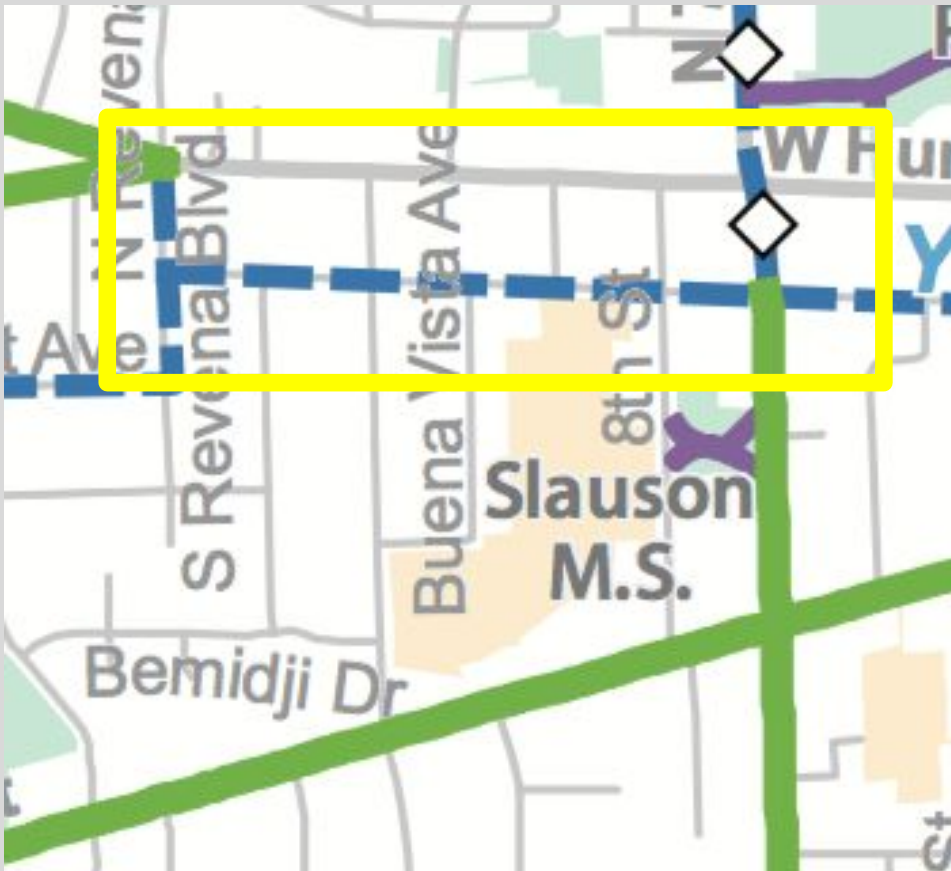
Congestion and safety issues, particularly from the railroad tracks to 3rd

### Scope Items:

Investigate bike boulevard and other roadway alternatives to address congestion, parking, and non-motorized concerns, particularly near the YMCA; in DDA: 415 W Washington considerations; Non-Motorized Plan

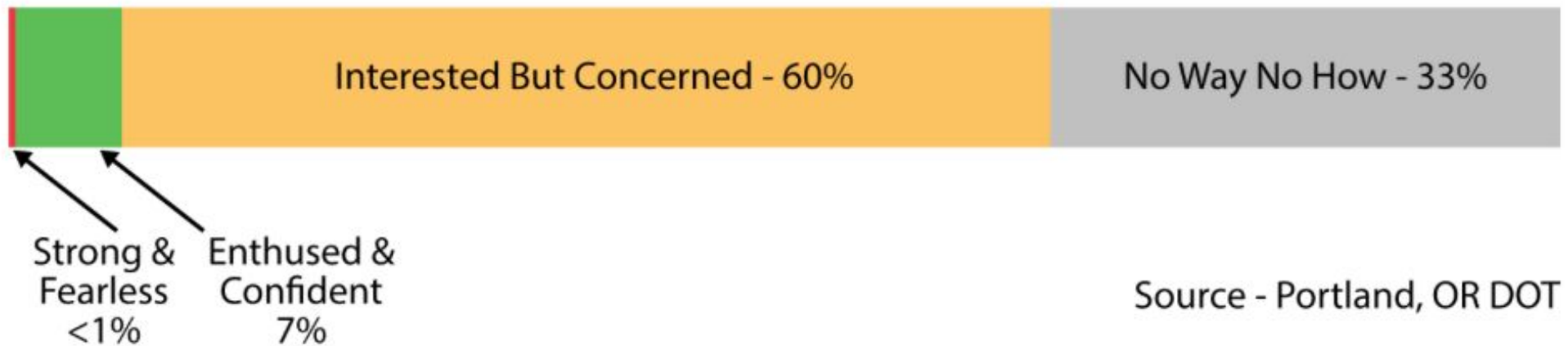
Public Engagement Anticipated?  Public Plan Review/CPC Approval





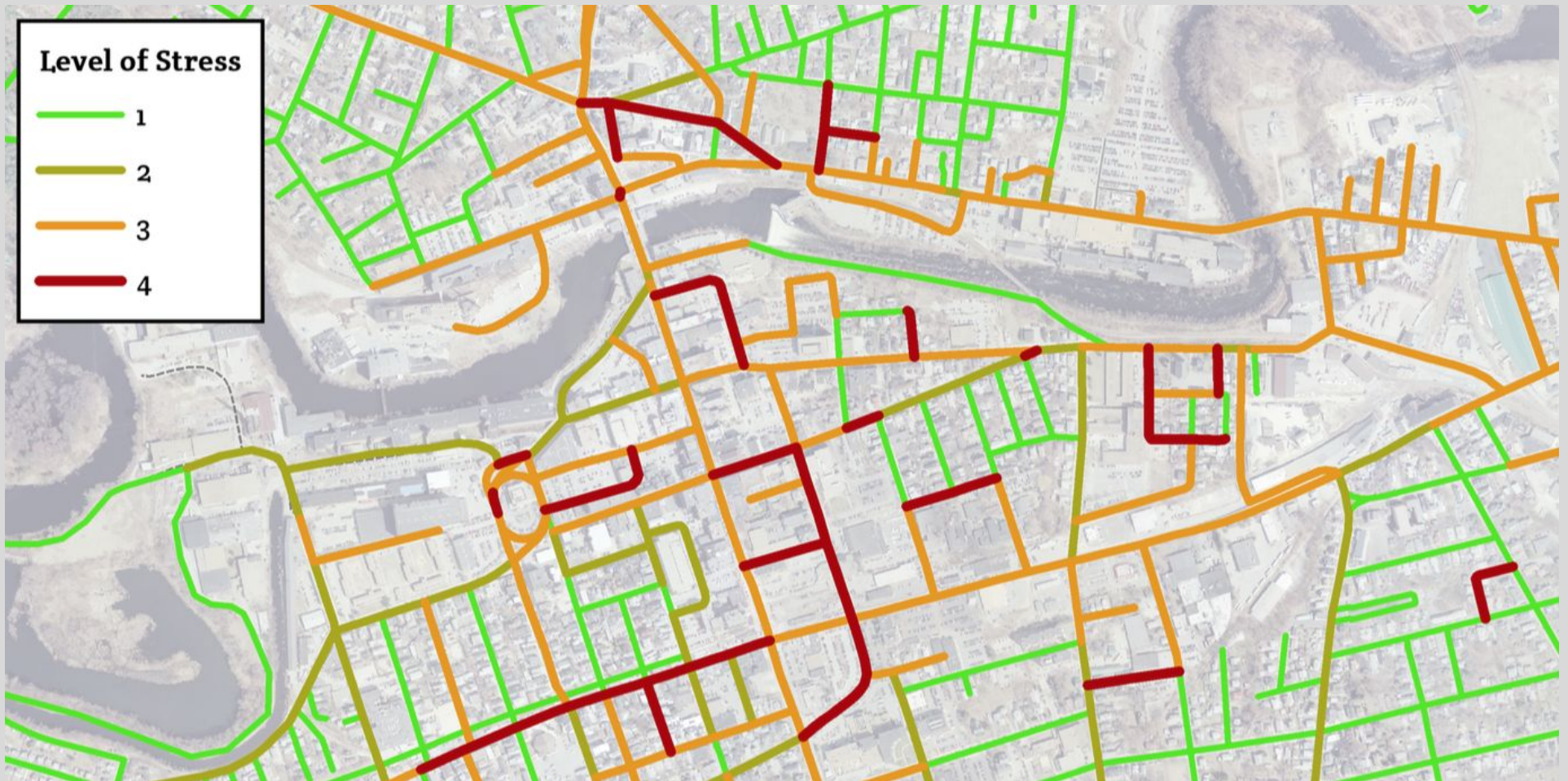
Fills a Gap in the Low-Stress Bicycle Network

# Four Types of Cyclists By Proportion of Population



Source - Portland, OR DOT





Nashua, New Hampshire

<https://healnh.org/index.php/newsroom/news/536-what-makes-a-bicycle-friendly-street-levels-of-stress-data-used-to-analyze-nashua-s-streets>

## **“Low-Stress Bicycling and Network Connectivity,” Peter Furth (2012)**

Embraced by *League of American Bicyclists* and *People for Bikes*

### **The “Inventory Definition” of Network:**

- All facilities are inventoried, placed on a map, and deemed a “network.”
- Patchwork implementation.
- Includes bike lanes on high speed roads.
- Bike lanes that disappear.
- Omits low-stress streets without facilities.
- Includes high-stress links.

### **“Connectivity” Model of Network**

- User needs prioritized for low-stress connectors in network.
- Network-based implementation.
- High-stress bike lanes are last resort.
- Routes classified by highest stress point.
- Uses low-stress streets without facilities.
- Gaps identified by weakest link.

### 2013 NMT Plan Update:

“The approach to handling bicycles in the City is inconsistent and incomplete....**In short, there is no cohesive system.**” (152) [Emphasis added]

“For bicycling networks, connectivity at an acceptable level of traffic stress and without undue detour is the most fundamental measure that determines how well a network serves the community.”



 **peopleforbikes**

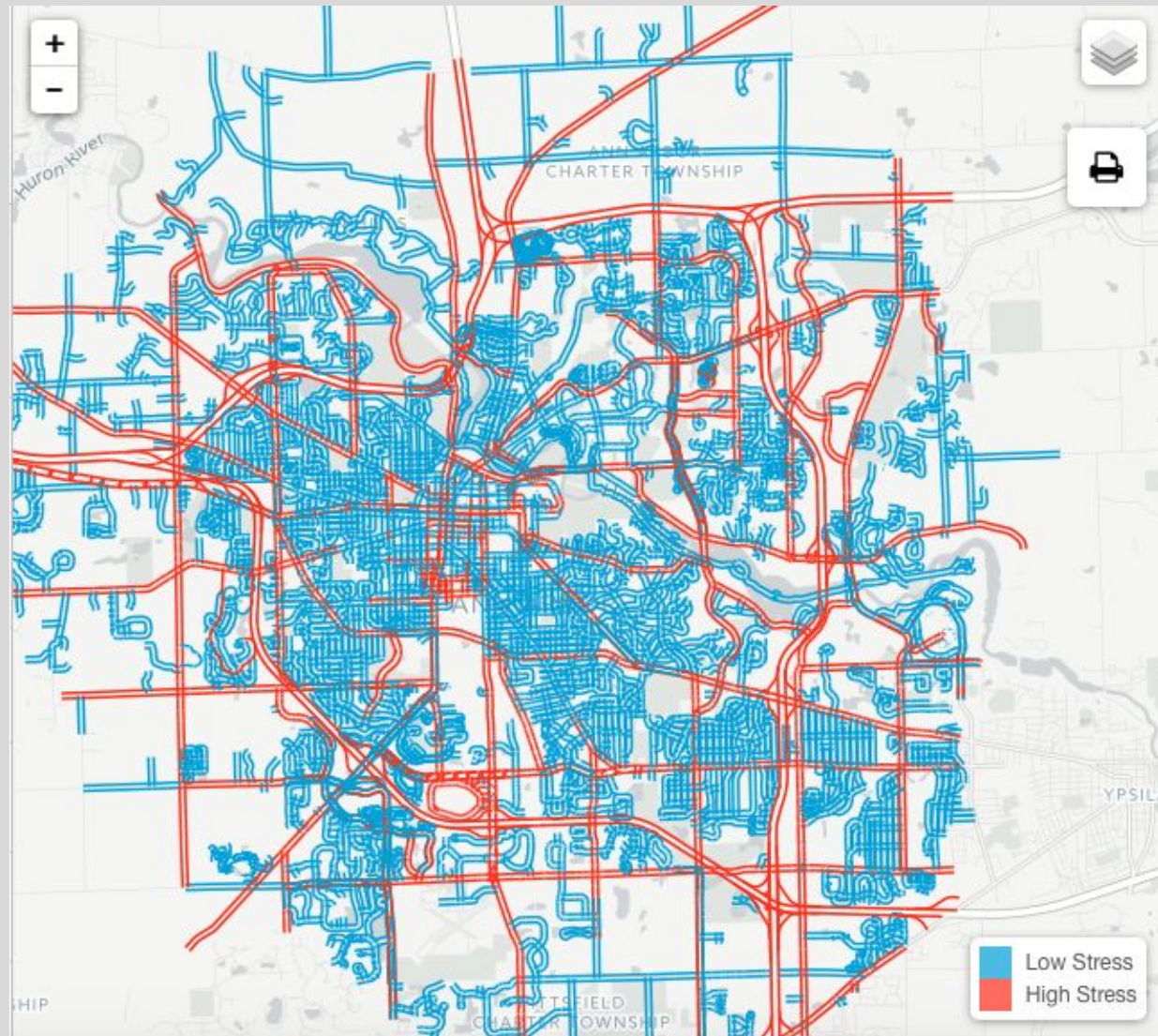
**Ann Arbor**  
MI  
Last updated: July 19, 2017

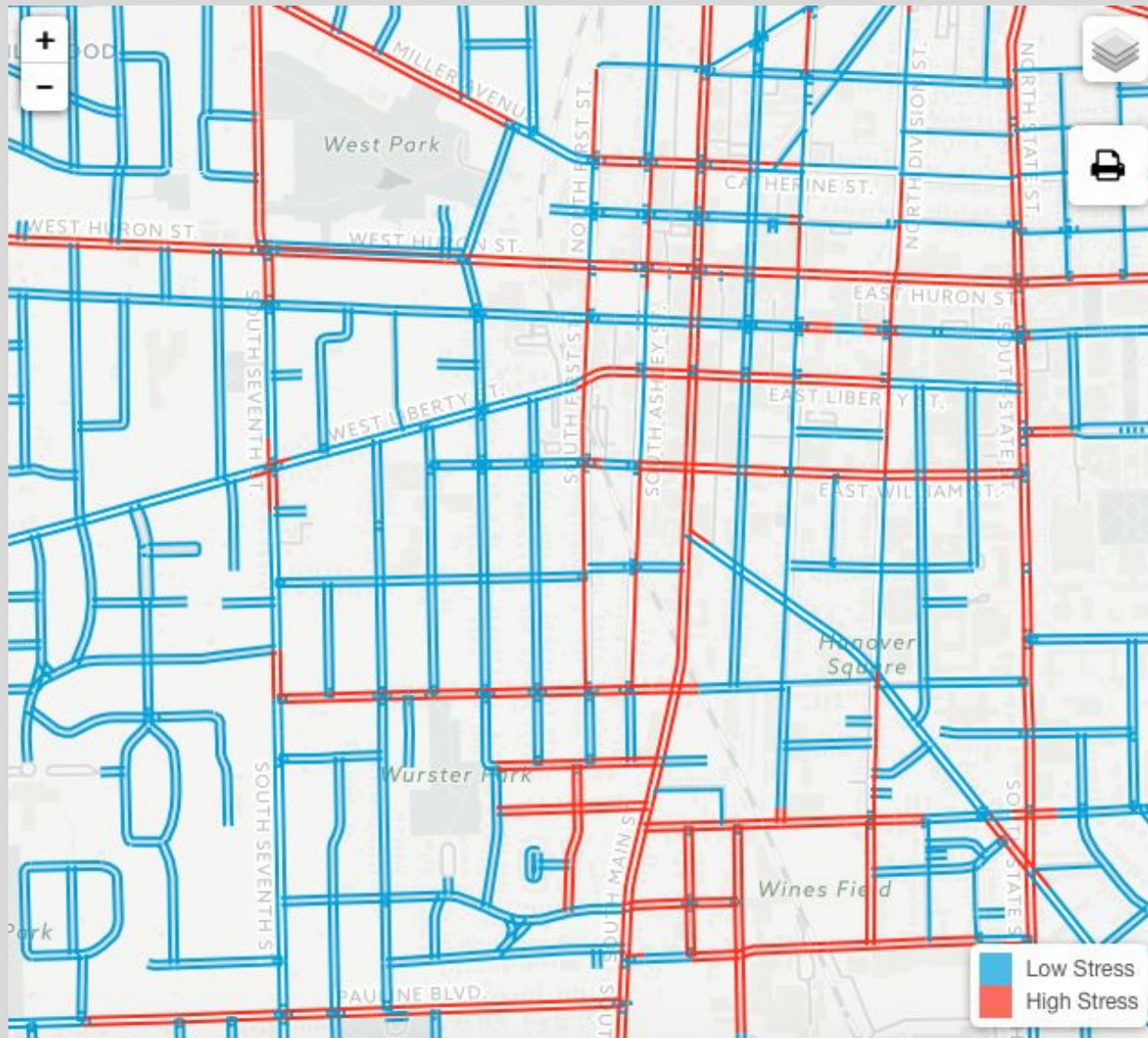
**33** BNA Score 

Bike Network Analysis: 33/100

Highest Ranking City: 79/100

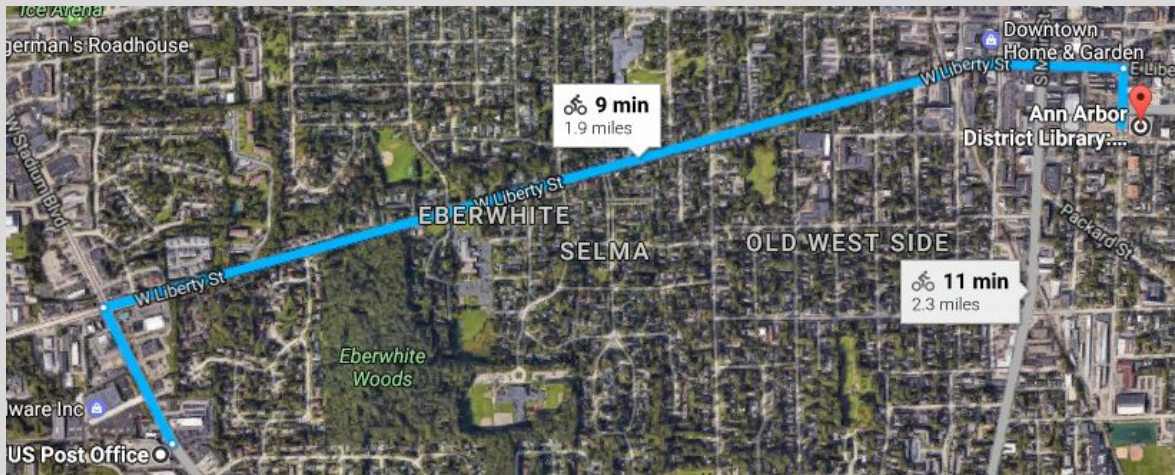
A2 Ranked #74 Nationally for Connectivity (out of 300 studied).





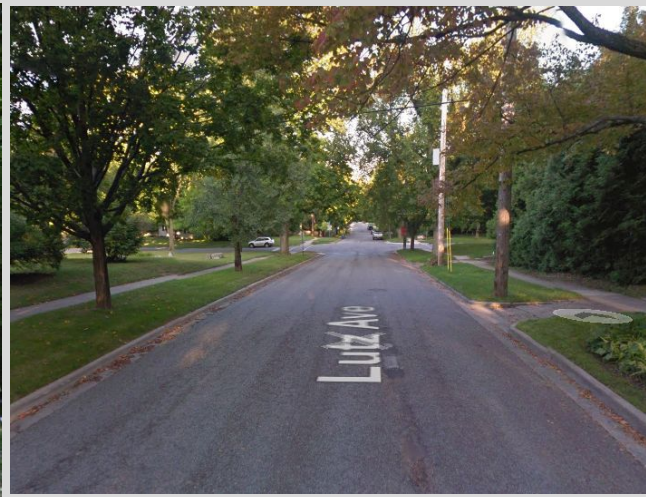
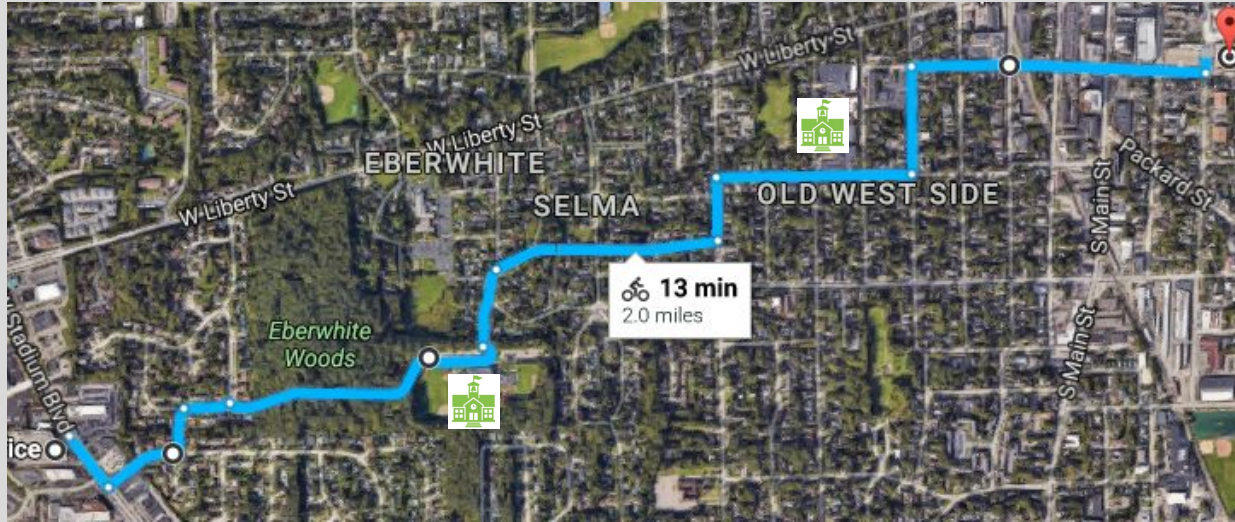


# Route According to Google Maps (and A2 Bike Map)





# Alternative Low-Stress Bike Route: Everwhite and Bach



# Ann Arbor Non-Motorized Transportation Plan Update 2013

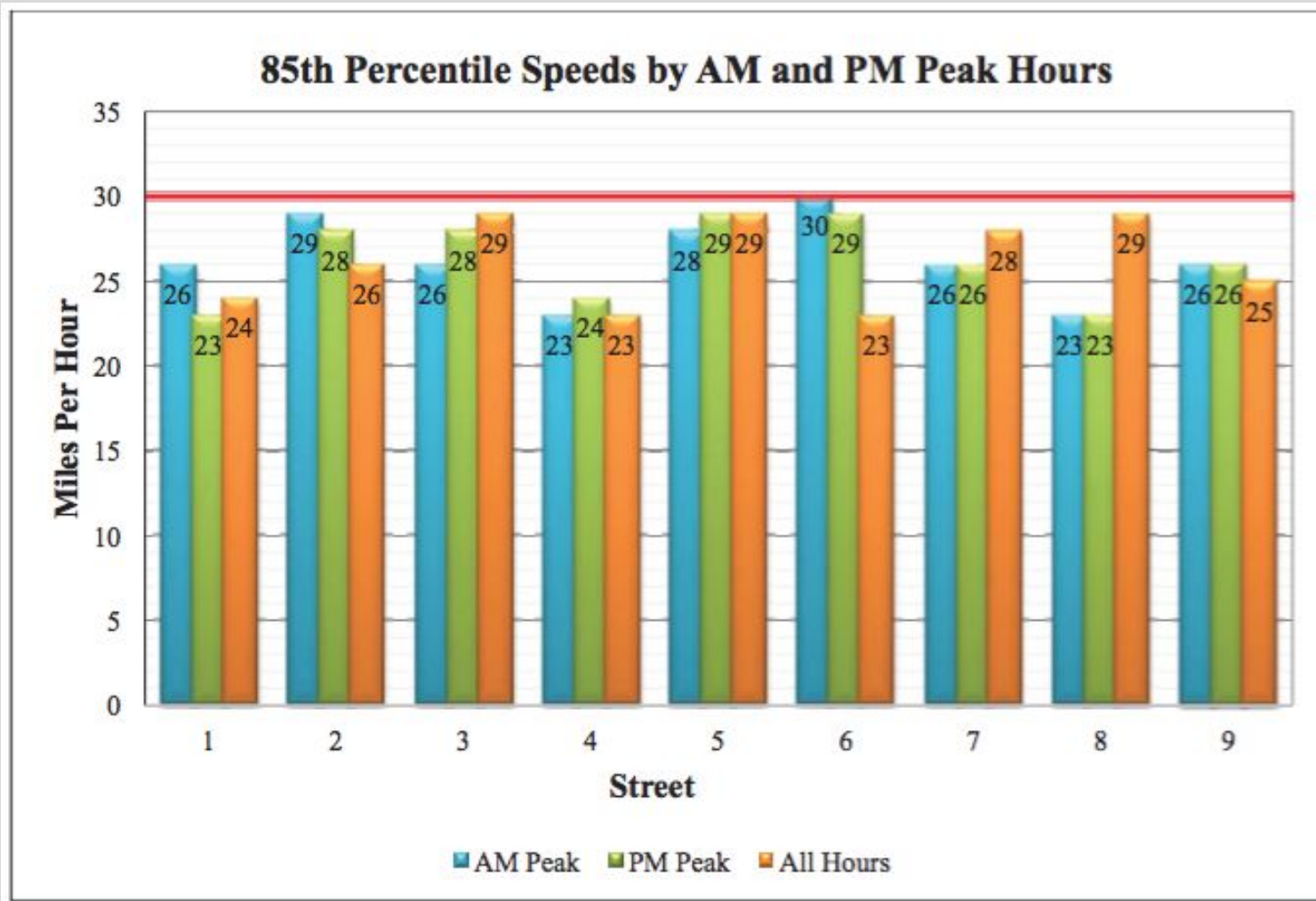


“Directional Signage” recommended in the 2007 Plan

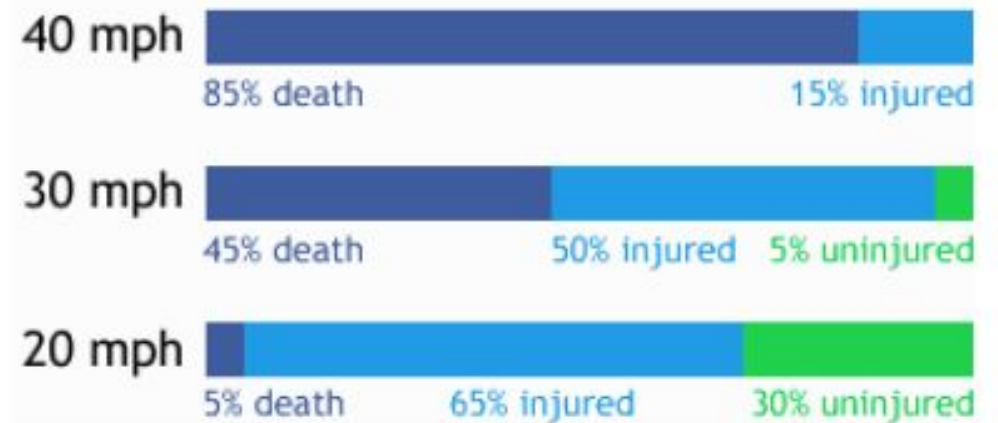
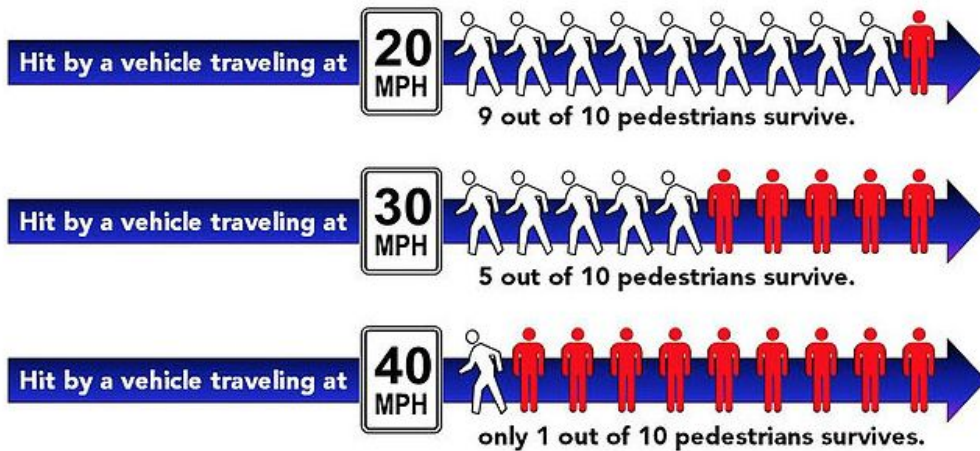
2013 Plan updated signage to 3D best practices: (destination, direction, distance).

“The locations for the signs should be determined through **a citywide planning process** to define the key destinations, **preferred bike routes** and location for such 3D signage.” (222) [Emphasis Added]





Memo and Technical Paper Responding to Resolution 16-352.pdf



*The relationship between pedestrian injury severity and motor vehicle impact speeds. Source: Federal Highway Administration*









Additional Examples and Opportunities

(time permitting or review individually)





SRTS Northside Identified Problem  
Example: Traver Rd.











## CIP PROJECT DATASHEET

**PROJECT NAME:** Traver Rd (Barton to Moore) Sidewalks

**Project ID:** TR-AT-18-05

**Prioritization Model Rank:** 19

**Project Type:** New Construction

**Prioritization Model Score:** 44.08

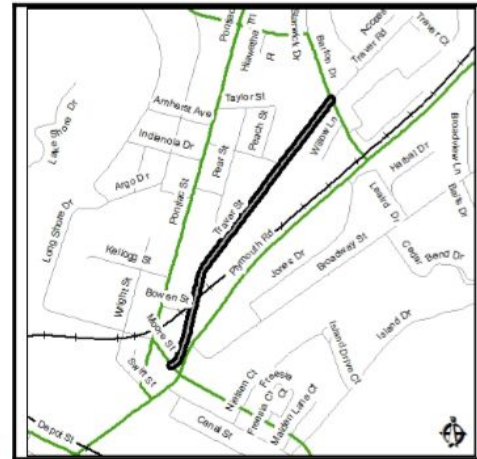
**Location:** Traver (Moore to Barton)

**Identified Need:**

Complete sidewalk system

**Scope Items:**

Install approximately 3700 LF of sidewalks to fill existing gaps; both sides; coordinate with water project UT-WS-16-24 and any associated paving. Difficulty Rating: 2-3 (Topography, Utility Conflict, Natural Features, Possible Lack of ROW)



Public Engagement Anticipated?  Public Plan Review/CPC Approval

**Construction:** 0 To: 0 **\$888,000.00**

Rev	Revenue Source Name	Prior Years	Funding (in thousands) *							Beyond FY23	Total
			FY18	FY19	FY20	FY21	FY22	FY23			
2710	General Fund	\$0	\$0	\$0	\$0	\$0	\$62	\$826	\$0	\$888	
		\$0	\$0	\$0	\$0	\$0	\$62	\$826	\$0	\$888	

**Source of Need:**

Outside Request?

Staff? Customer Level of Service

Sidewalk Gap Prioritization

Master Plan?

Master Plan 1:

Master Plan 2:

Master Plan 3:

Master Plan 4:

**Schedule**

Planning Start:	0	Planning End:	0	<b>\$0.00</b>
Design Start:	0	Design End:	0	<b>\$0.00</b>
Construction:	0	To:	0	<b>\$888,000.00</b>

Rev	Revenue Source Name	Prior Years	Funding (in thousands) *							Beyond FY23	Total
			FY18	FY19	FY20	FY21	FY22	FY23			
2710	General Fund	\$0	\$0	\$0	\$0	\$0	\$62	\$826	\$0	\$888	
		\$0	\$0	\$0	\$0	\$0	\$62	\$826	\$0	\$888	





<p><b>Sheet 6 - Traver, between John A Woods and Barton</b></p>	<ul style="list-style-type: none"><li>• Add a speed table along this segment.</li></ul>	<ul style="list-style-type: none"><li>• Speeding has been noted as an concern along Traver and additional speed tables have been requested.</li></ul>	<ul style="list-style-type: none"><li>• Speed tables will be subject to the City's traffic calming program and will not be submitted as a part of the safe routes grant funding application.</li></ul>
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More Aggressive Speed Calming

Designed to Prioritize Bicycles and Pedestrians

Less ROW encroachment

Discourages Throughway Use

Neighborhood Enhancement

Not a Speed Hump

This Location: Austin, TX





SRTS Northside Identified Problem  
Example: Chandler

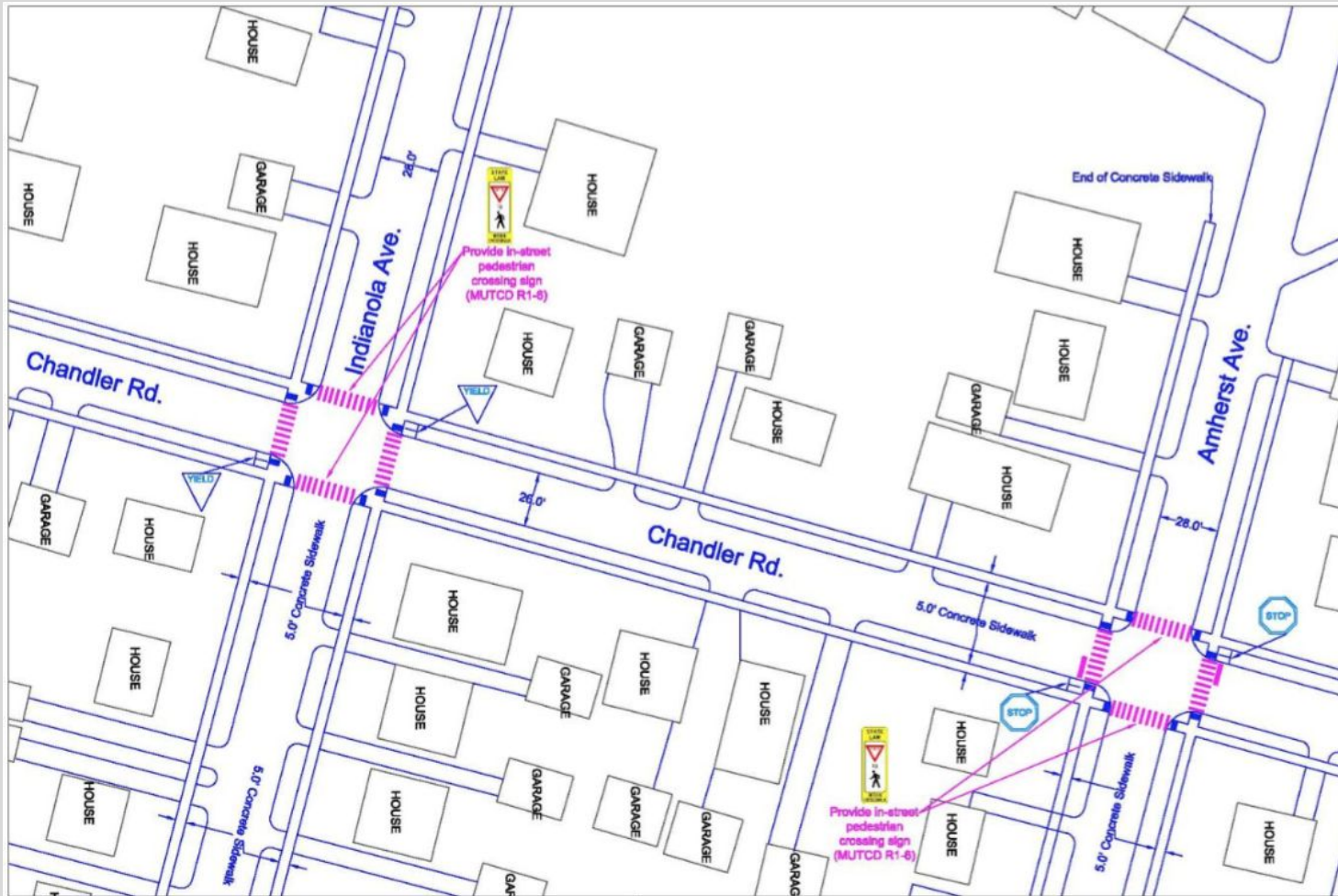




<p><b>Sheet 10 - Barton between Chandler and Pontiac Trl</b></p>	<ul style="list-style-type: none"> <li>Reconfigure the intersection to make a tighter turning radius for speed control for traffic</li> </ul>	<ul style="list-style-type: none"> <li>Chandler is a desirable "cut-through" alternative to Pontiac Trail, and the oblique angle of this intersection affords a large</li> </ul>	<ul style="list-style-type: none"> <li>This location is included in the City's 2020 capital improvement project along Barton from M14 to</li> </ul>
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<p><b>Sheet 12 - Chandler at Indianola</b></p>	<ul style="list-style-type: none"> <li>Change yield signs to stop signs at Indianola.</li> <li>Upgrade the crosswalks across Chandler to raised crosswalks</li> </ul>	<ul style="list-style-type: none"> <li>There was an expressed need for further speed control/traffic calming on Chandler.</li> </ul>
<p><b>Sheet 13 - Chandler at Amherst</b></p>	<ul style="list-style-type: none"> <li>Upgrade the crosswalks across Chandler to raised crosswalks</li> <li>(recommendations from Sheet 12 for Chandler/Indianola will also be made here)</li> </ul>	<ul style="list-style-type: none"> <li>Although stop signs exist on Chandler at Amherst, there was an expressed need for further speed control/traffic calming on Chandler.</li> <li>Students gather at this intersection, so additional safety enhancements here are encouraged.</li> </ul>





**LEGEND**

- + TRAFFIC SIGNAL
- T TRAFFIC SIGN
- + STREET SIGN
- ADA RAMP
- ⊗ POWER POLES
- ▨ PROPOSED ADA RAMP

**SIDEWALK RAMPS SHALL BE ADA COMPLIANT**  
 GREEN DENOTES OBSTACLES AND FEATURES  
 GRAY DENOTES EXISTING P.V.M.T. MARKINGS  
 BLUE DENOTES EXISTING INFRASTRUCTURE  
 PINK DENOTES PROPOSED IMPROVEMENTS

**Chandler Rd. from Indianola Ave. to Amherst Ave.**

MODIFY DATE	SCALE	DRAWN BY:	REVIEWED BY:	REVIEW DATE:	PAGE NUMBER
12/22/2016	1:60	J.S.	T.G.	12/22/2016	13

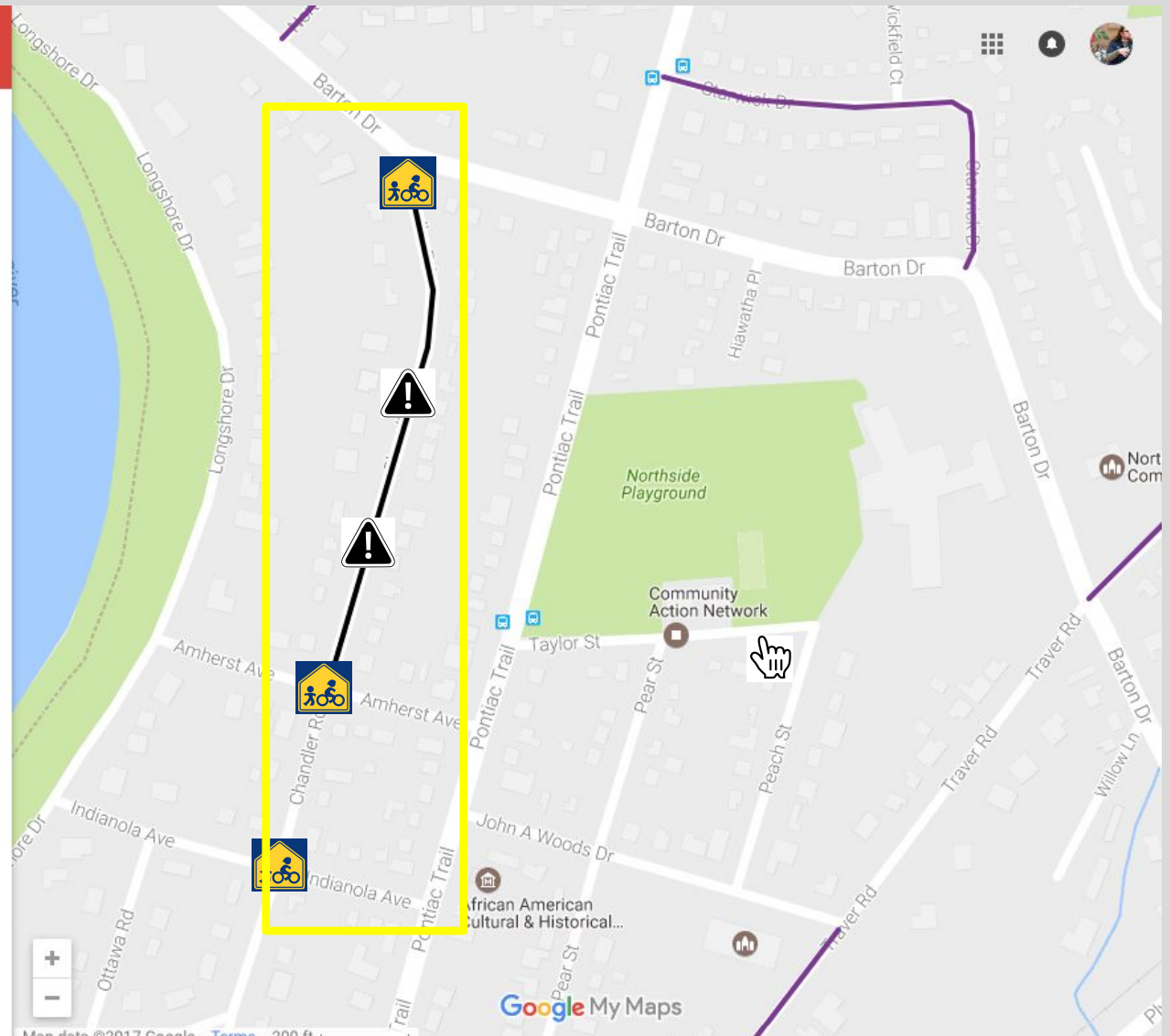




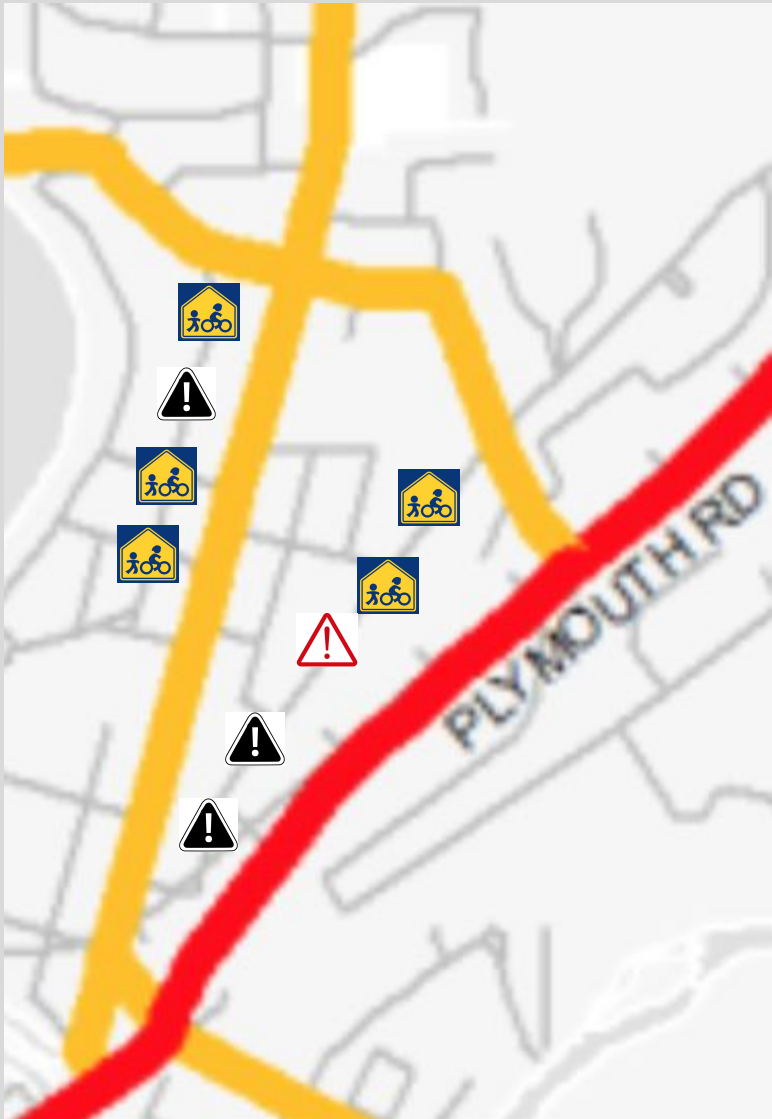
← Chandler Ave (Barton-Amherst)

name  
Chandler Ave (Barton-Amherst)

description  
Petition received 10/31/2013. Studied; not qualified based on speed study results.







### National Functional Classification

- Principal Arterial
- Minor Arterial
- Collector





# CIP Committee Recommendations

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## **Recommendation #1:**

Council should direct that all CIP road improvement and reconstruction projects for 2018-2019 shall include efforts to calm traffic and lower speed through design.

# CIP Committee Recommendations

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## **Recommendation #2:**

Suggest that the Planning Commission update CIP categories to separate Transit, Active Transportation, and Other. Rail transportation consumes a significant amount and percentage of the budget in the existing Alternative Transportation Category. Moving rail transportation projects to a Transit category would allow a more realistic and understandable context for bike and pedestrian improvements.



# CIP Committee Recommendations

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## **Recommendation #3:**

The City should explore opportunities to identify CIP projects related to Safe Routes to Schools and provide logical public access to these projects and funding amounts, when available.

# CIP Committee Recommendations

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## **Recommendation #4:**

The City should add a Bicycle Network Gap Program to the CIP; similar to the sidewalk gap program, this program would seek to fill existing bicycle network gaps and set priorities based on previous plans, specifically the 2013 non-motorized plan.



# CIP Committee Recommendations

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## **Recommendation #5:**

The City should determine locations where there are stairs in the sidewalk system and incorporate into the CIP a program or series of projects to examine and improve the safety and usability of the sidewalk system at these locations. Example: stairs at Third and Krause

# CIP Committee Recommendations

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## **Recommendation #6:**

Request that Staff provide an update to the Transportation Commission on rail transportation plans, including public input to date and timeline to move forward.

# CIP Committee Recommendations

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## **Recommendation #7:**

The proposed bicycle Blvd project for Washington St. should be considered for inclusion during the next full CIP cycle (Fall 2018).



# CIP Committee Recommendations

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## **Recommendation #8:**

Suggest that Planning Commission move proposed work on 7th St. from Other Transportation to Alternative Transportation.

# Speed Reduction Committee Proposal

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This committee will research and prepare recommendations for Commission action at the October or November 2017 meeting. The areas of focus will include:

- Reducing speeds on all city owned roads to 25 mph
- Further speed reductions in residential areas
- Suggestions for speed reduction on State owned roads within the City
- Suggestions to reduce crashes and improve safety
- A proposed resolution to City Council regarding lowering speeds city-wide to calm traffic and improve pedestrian and bicyclist safety
- Implementation methods
- Gathering information from other communities (i.e., benchmarking research) to address implementation and gaining support for a speed reduction program
- A comprehensive approach to lowering speeds which may include engineering, educational efforts, and changing current speed limits

# County Public Safety/Community Mental Health Millage

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## **Pedestrian Safety**

At a 20% allocation, the returned amount is estimated to be between \$0.44M and \$0.50M annually. Staff recommends the funds be used to address pedestrian safety, with emphasis on safe routes to school. We have been working with the Ann Arbor Public School System's Transportation Safety Committee (AAPSSTSC) to define, validate, coordinate, and prioritize projects. Components of these projects include street lighting, rectangular rapid flashing beacons (RRFBs), programmable electronic speed limit signs, pavement markings, and school zone signage. We would also recommend incorporating neighborhood traffic calming measures be included as we look at the routes to and from elementary schools. Where appropriate, we would also improve bicycle connections to schools using the returned funds. Staff is currently working with the AAPSSTSC to ratify and adopt a work program based upon community input, engineering analysis, and synchronization with the AAPSS' capital program.



# Major Street Projects

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## **Transportation Commission Role**

- Identification of Major Street Projects for Review
- Participation in Conceptual Design



# City of Ann Arbor

Transportation Commission Safety Update  
August 2017

# Objective

Provide the Transportation Commission with an update on current safety initiatives, specifically the A2 Be Safe Program (Lisa Wondrash, City Communications Manager) and the status of school safety projects (Nick Hutchinson, City Engineer).



# “5 E’s” of Traffic Safety

- ▶ Enforcement
- ▶ Education
- ▶ Encouragement
- ▶ Engineering
- ▶ Evaluation





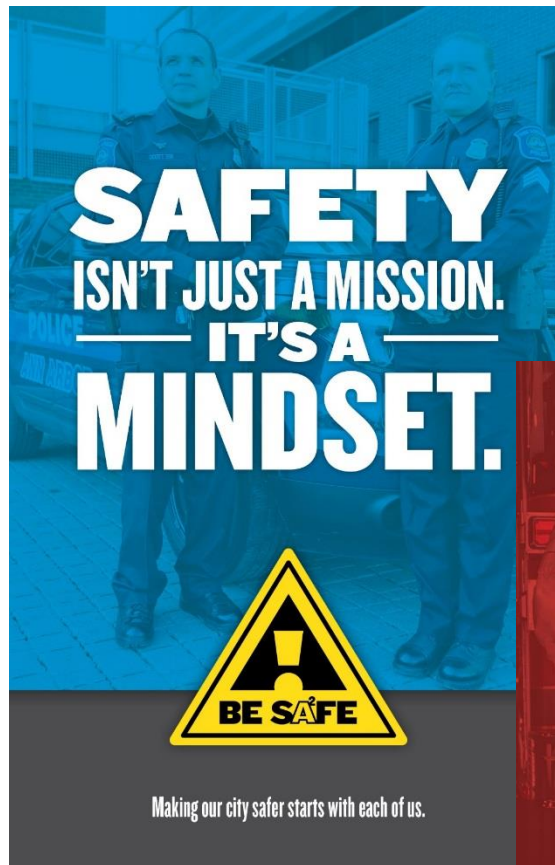
Transportation Commission Presentation

August 16, 2017



# Why A2 Be Safe?

- ▶ Safety is a core value of the City of Ann Arbor and a top concern for many in our community.
- ▶ The City of Ann Arbor wanted to create a safety campaign to elevate safety messages in every aspect of employee conduct, city services and city operations.
- ▶ The Communications Office engaged a local design and marketing firm to create the A2 Be Safe logo and core campaign.
- ▶ The goal was to create a singular logo and tie together the internal and external campaigns.
- ▶ In April 2017, A2 Be Safe was launched by the city's Safety Unit.





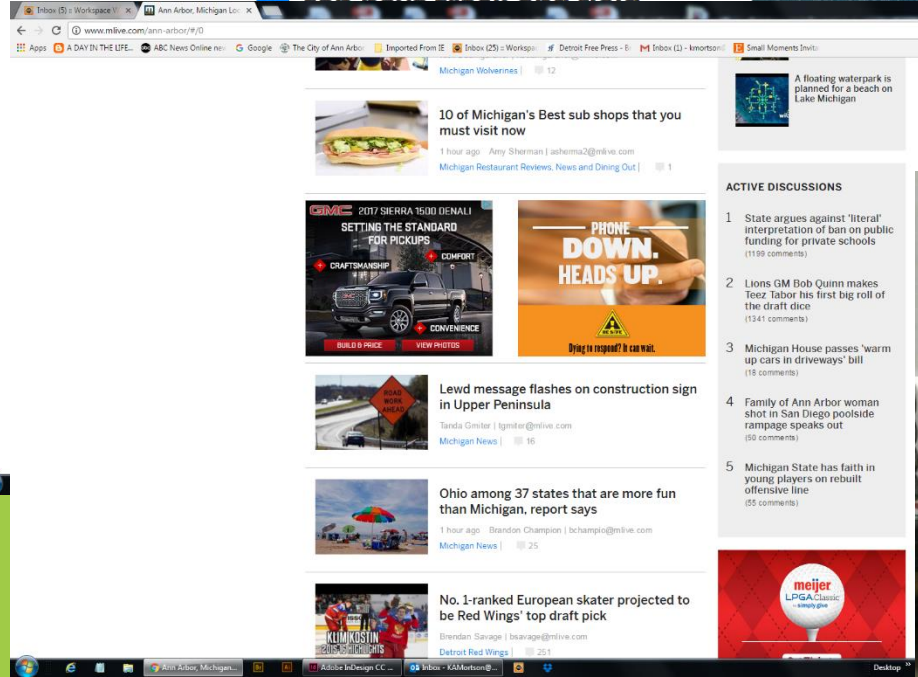
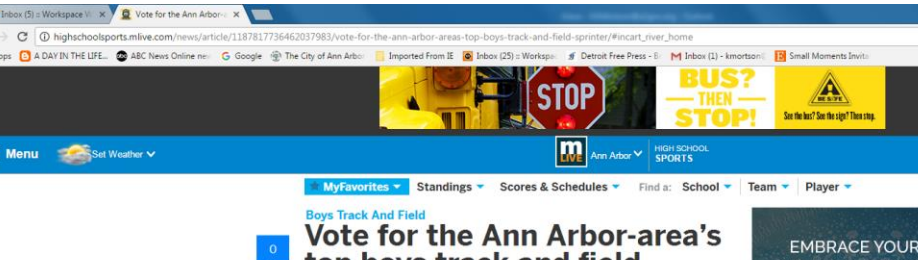


# Campaign Overview

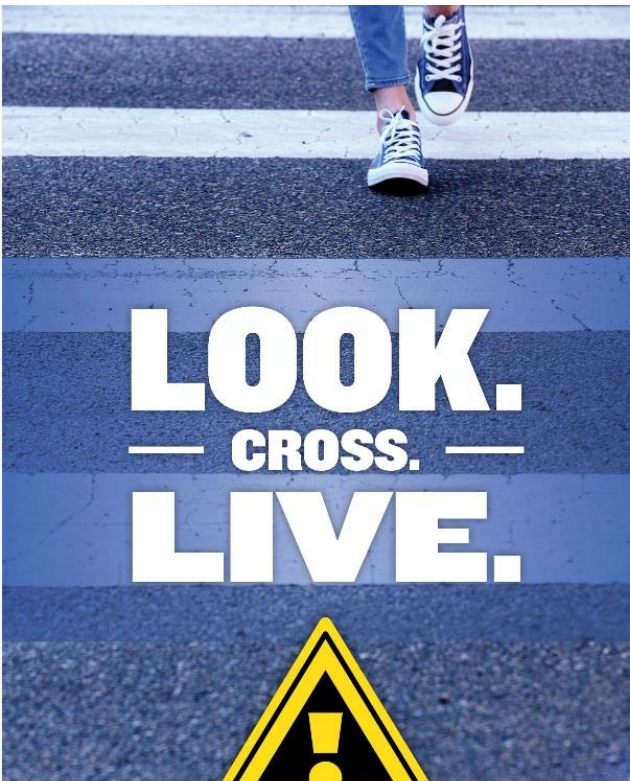
- ▶ Messaging: Actionable, simple and bold. Photos are secondary. Be Safe: Everywhere, Everyone, Every Day.
- ▶ Audiences: City employees, residents, commuters, students, pedestrians, drivers, bicyclists, parents. Everyone.
- ▶ None of the external campaign materials are trademarked. They were created to be shared and are intended for local partners and community members to share or modify.
- ▶ All campaign materials are available via an online portal.
- ▶ Detailed communication plan is available upon request, outreach has included:
  - ▶ Posters, social media campaign, online portal, AAATA bus tails, print advertising, CTN public service announcements, window clings, bike helmet decals, T-shirts, coffee mugs, mouse pads, lapel pins and floor decals.
- ▶ Agency partners to date: AAPS; Safety Town; AAATA; DDA; Washtenaw County Road Commission; WATTS; MIOSHA; Washtenaw County Public Health; University of Michigan



# Advertising







**LOOK.**  
— CROSS. —  
**LIVE.**



It's common sense: use the crosswalks.



**BUS?**  
— THEN —  
**STOP!**



See a bus? See the sign? Then stop.



— PHONE —  
**DOWN.**  
**HEADS UP.**



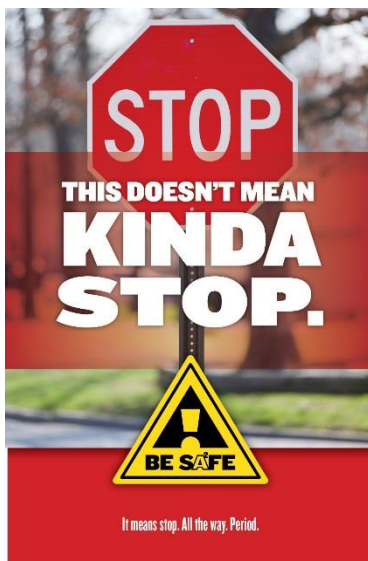
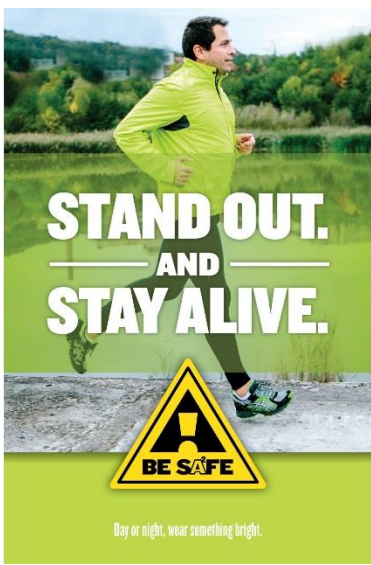
Dying to respond? Don't. It can wait.





# Feedback

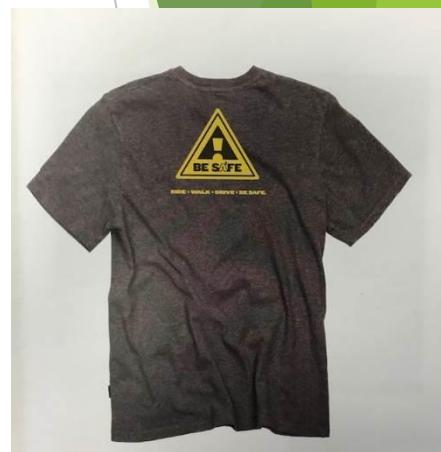
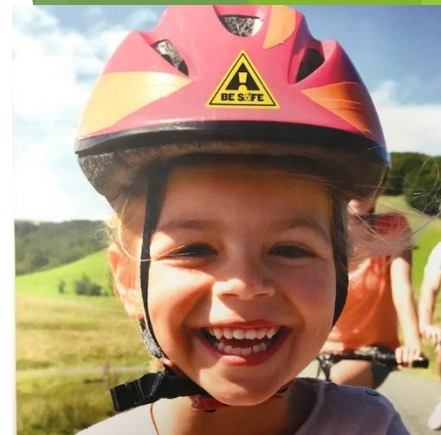
- ▶ Largely positive. We have presented the campaign to multiple agencies, including AAPS; DDA; Washtenaw County Road Commission; MIOSHA; Washtenaw County Public Health and the University of Michigan.
- ▶ From April 1-Aug. 1, the A2 Be Safe website had 1,500 visitors and the online portal had 264 visitors.
- ▶ We will continue to broaden outreach efforts and work to expand messaging and target audiences, including school and construction zones and public works winter safety.





# Fall Campaign

- ▶ 107.1 Radio PSAs: 15-second spots called Traffic Tuesdays with a safety focus in partnership with WCRC and WATTS.
- ▶ A2 Observer City Guide call to action ad: visit customer service center for a free A2 Be Safe window cling, while supplies last.
- ▶ Social media paid ads.
- ▶ A2 Be Safe poster contest. Details to come.
- ▶ A2 Be Safe campaign roll out throughout AAPS.
- ▶ Brochure created as a companion piece to campaign messages, explaining pedestrian/motorist/bicyclist laws and how to Be Safe.
- ▶ Working with UM to attend fall festival & include A2 Be Safe information with student welcome messages.



# School Safety Update

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August 16, 2017





# School Safety

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- Recent focus on pedestrian safety around schools
- Update of school safety efforts
- Transportation Safety Committee (TSC)
- Based on report to City Council from January 2017 & follow-up memo dated February 9, 2017
- First priorities requested by Ann Arbor Public Schools (AAPS)
- City prioritized and organized planned work into 4 Tiers

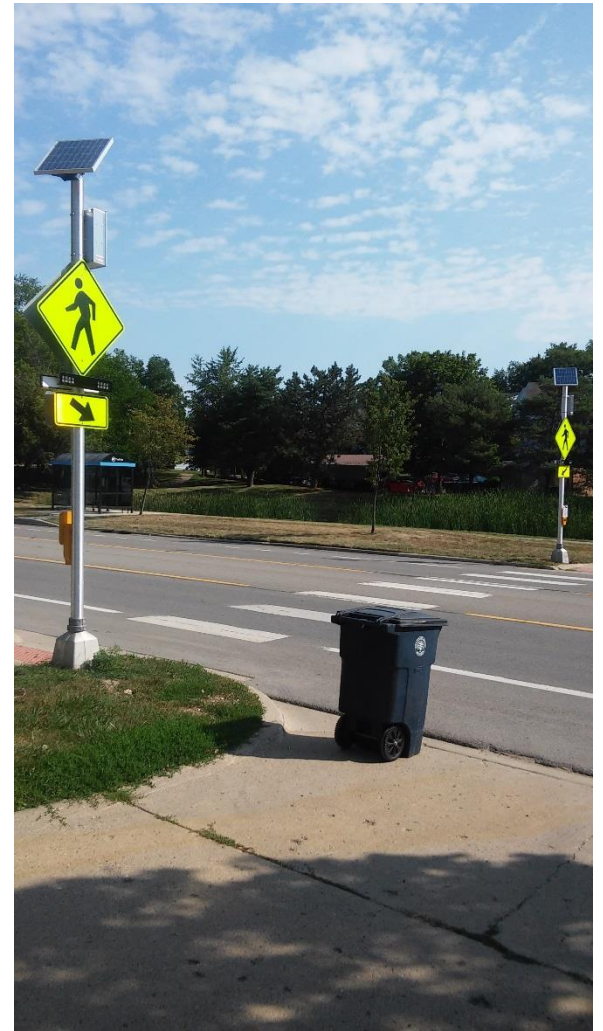
# Tier 1 – Upgrading Signs & Markings

- Routine maintenance work, funded through typical maintenance sources
- Pavement markings
  - Completed at 22 of 24 locations
- Updating signs to high visibility
  - Completed at 16 of 27 locations
- Installation of School Speed Zones
  - Completed at all five locations



# Tier 2 – Capital Improvements on Major Streets

- Work on major streets adjacent to schools and on some local streets adjacent to middle schools
- RRFB installations
  - Installed at Huron, Pioneer, & Pathways
- Crosswalk Improvements
  - Slauson & Community (August)
  - “Gateway Treatments” at various locations (August)
- Other Work
  - By AAPS, or as part of other capital projects



TRANSPORTATION COMMISSION  
*City of Ann Arbor*



# Tiers 3&4 – Elementary School Areas

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- Tier 3 – Immediately adjacent to Elementary Schools
- Tier 4 – Improvements on School Walking Routes
  
- Very rough cost estimates:
  - Develop recommendations for Tiers 3&4: \$1,000,000
  - Tier 3 Improvements: \$630,000
  - Tier 4 Improvements: \$2.7 million

# Tiers 3&4 – Elementary School Areas

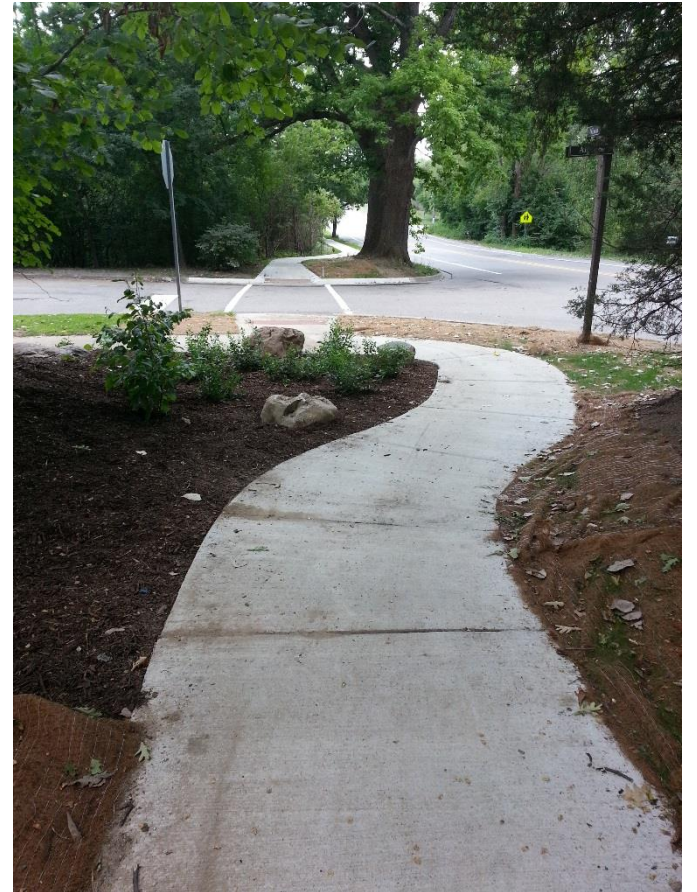
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- Current Status:
  - A2 Safe Transport performed survey of schools
  - List of needs submitted to the Transportation Safety Committee (TSC)
  - If approved by TSC, this would become the basis of a revised Tier 3
- Timeframe dependent on TSC approval
  - Likely for construction starting in 2018
- Estimated costs to be developed

# Other Efforts

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- Safe Routes to School Grants
  - City works with Safe Routes to School (SRTS) committees at individual schools
  - Currently active groups at only a handful of schools
  - Northside/STEAM grant application in for FY19
- Upgrading crosswalks, ADA ramps, etc. as part of routine capital projects





# Questions & Discussion

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# Transportation Funding Sources

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August 16, 2017



# Transportation Funding Sources

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- Street, Bridge, & Sidewalk Millage
- Major & Local Street Funds (Act 51, “Gas Tax”)
- Alternative Transportation Funds (sub-set of Act 51)
- Federal Funding / Grants
- Washtenaw County Millage



# Street, Bridge, and Sidewalk Millage

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- Approved by voters every 5 years since early 1980's
- Currently 2.125 mils
- FY17 revenue = \$10M
- Additional 0.125 mils was added in 2011 for sidewalk repairs

# Street, Bridge, and Sidewalk Millage

- Things it *can* be used for:
  - Street repaving and reconstruction
  - Capital maintenance on streets
  - Bridge repair and replacement
  - Crosswalks & crosswalk improvements
  - Sidewalk Repairs
  - City share for new sidewalk installations
  - Incidental items related to these



# Street, Bridge, and Sidewalk Millage

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- Things it *cannot* be used for:
  - Utility work
  - Routine maintenance (potholes, snow removal, signs & signals maintenance, etc.)
  - Paving unpaved roads





# Major & Local Street Funds

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- Michigan Public Act 51 of 1951
- Formulaic distribution to local communities from State Gas Tax and Vehicle Registration Taxes
- FY17 revenue = \$9.3M
  - \$7.3M (Major Streets)
  - \$2.0M (Local Streets)

# Major & Local Street Funds

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The City uses these funds for a variety of purposes:

- Traffic Engineering
- Traffic counts & speed studies
- Bridge inspection & maintenance
- Traffic, Non-Motorized, and Pedestrian Sign & Signal installation and maintenance
- Capital preventative road maintenance
- Snow removal
- Street sweeping
- Gravel road maintenance
- Pothole repair
- Pavement patching
- Pavement marking maintenance
- Guardrail maintenance
- ALT Transportation Fund (5%)
- Sidewalk Ramp Requests
- Traffic Calming
- Pavement Evaluation & Asset Management



# Federal Funds & Grants

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- Surface Transportation Program (STP)
  - Federal Funds
  - Distributed through States
  - Eligible projects coordinated through regional planning organizations (WATS, SEMCOG)
  - City typically receives \$2M / year on average
  - Only Major Streets are eligible
  - Used for:
    - Larger Reconstruction Projects
    - Capital Preventative Maintenance Programs
    - Sidewalk Gap Projects



# Federal Funds & Grants

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- Congestion Mitigation/Air Quality (CMAQ) Funds
  - For projects that reduce air pollution by improving traffic flow
  - Competitive grant award; coordinated through WATS
  - Typically used by the City for projects such as roundabouts or traffic signal interconnection projects
- Highway Safety Improvement Program (HSIP or “Safety”) Grants
  - For projects that improve safety (motorized or non-motorized)
  - Competitive grant award
  - Typically used by the City for pedestrian safety improvements and guardrail improvements

# Federal Funds & Grants

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- Local Bridge Program
  - For bridge replacement & maintenance projects
  - Recent project: Fuller & Maiden Lane Bridge Maintenance Project
  - City has applied for funding for E. Medical Center Drive project



# Washtenaw County Road Millage

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- 4-Year millage approved by voters in 2016 for 0.5 mils
- FY17 revenue for the City = \$2M
  - After 20% comes off the top for County-wide non-motorized
- City has a multi-year plan to spend remaining \$2M
  - Approximately \$500K each year for non-motorized improvements
  - Remaining amount for road work, focused on major roads



# Transportation Funding Sources

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## QUESTIONS & DISCUSSION