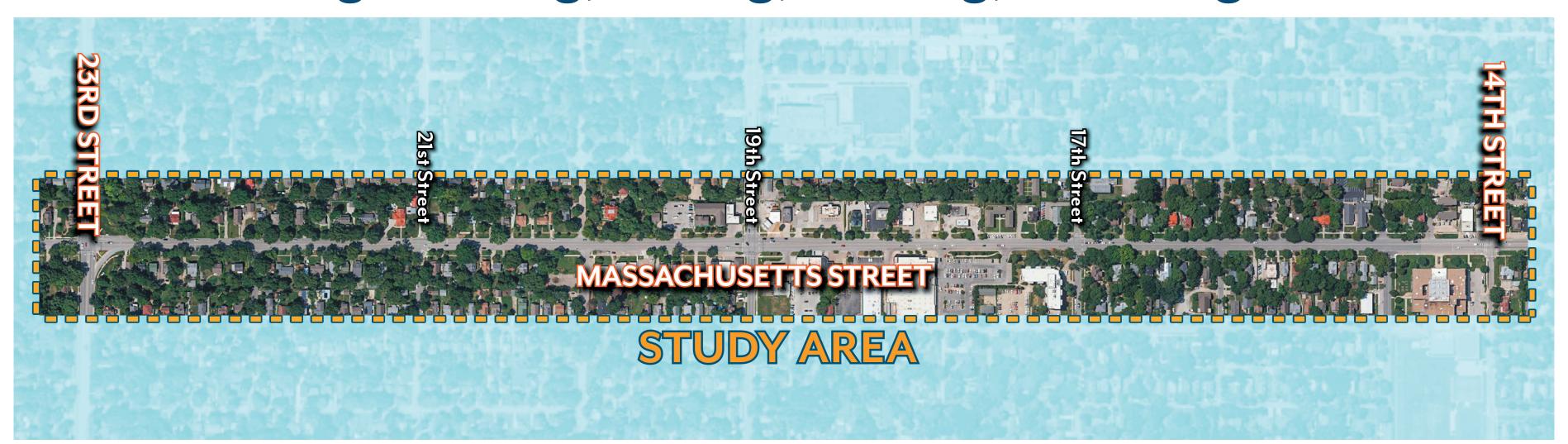


OPEN HOUSE No. 2 Feb. 7, 2024 4:30-6:30 p.m.

The Massachusetts Street

Multimodal Improvements Study
seeks to develop new multimodal infrastructure along
Massachusetts from 14th Street to 23rd Street.

Multimodal refers to all types of modes or transportation – including walking, biking, driving, or riding transit.

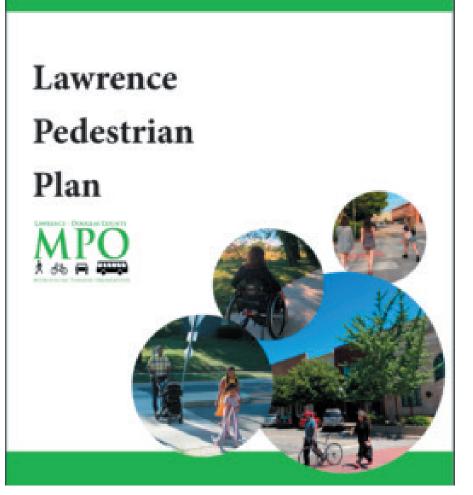


Relevant Plans

The Lawrence Bikes Plan identifies Massachusetts Street from 14th Street to 21st Streets as a priority funding segment in the City's bikeway network. Massachusetts Street from 21st Street to 23rd Street is on the secondary funding network. The Massachusetts Street roadway from 14th Street to 23rd Street is currently mostly unmarked for bicycling (sharrows) and contains no bike lanes.

The entire corridor is rated 5 out of 5 for least comfortable to cyclists.





The Lawrence Pedestrian Plan requires arterial roads to have connected sidewalk on both sides of the roadway. This project will assure sidewalk is in good condition and connected from

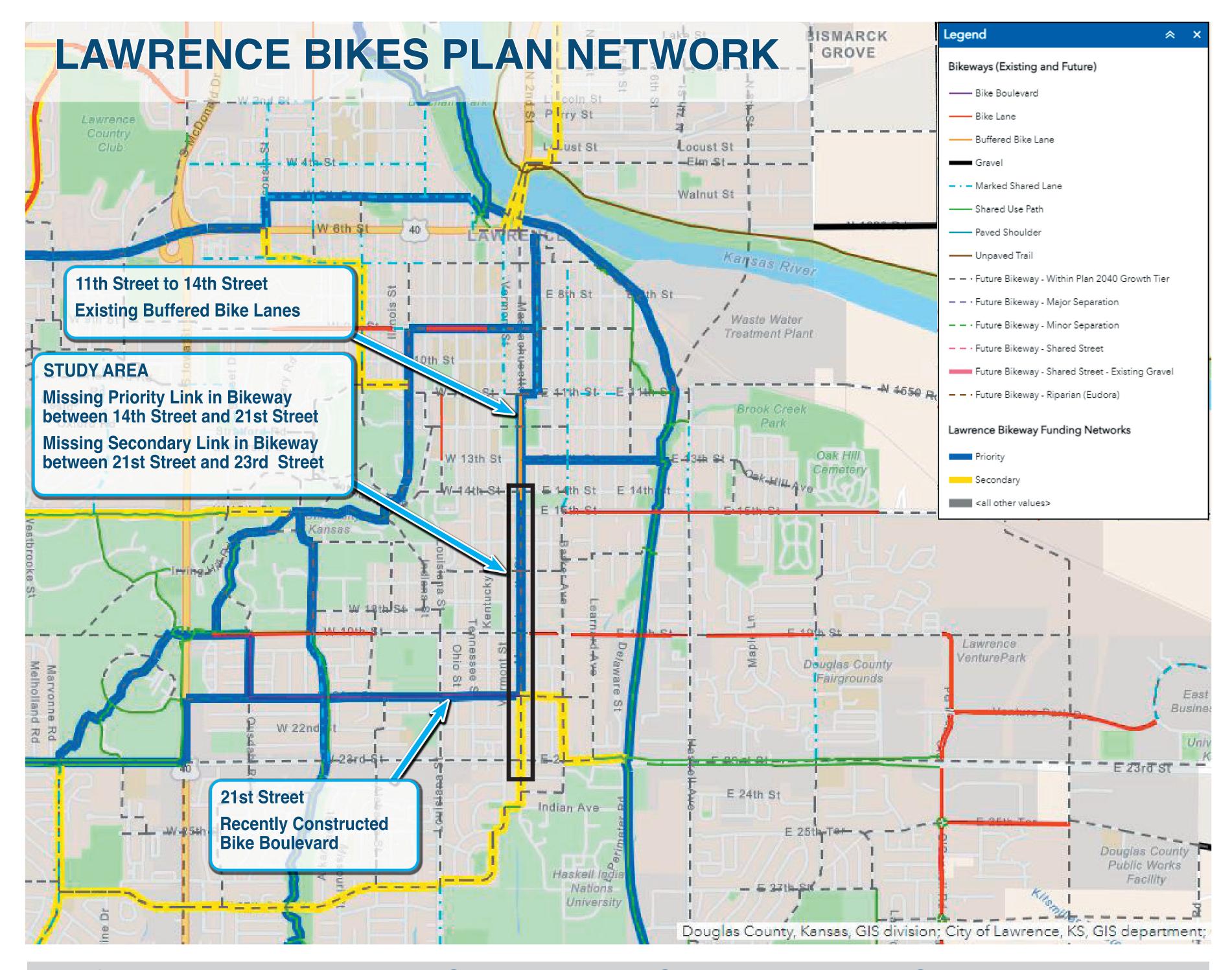


■ 14th St to 23rd St. This project will address sidewalk gaps, panel ADA deficiencies, and ADA ramps at intersections and driveways.

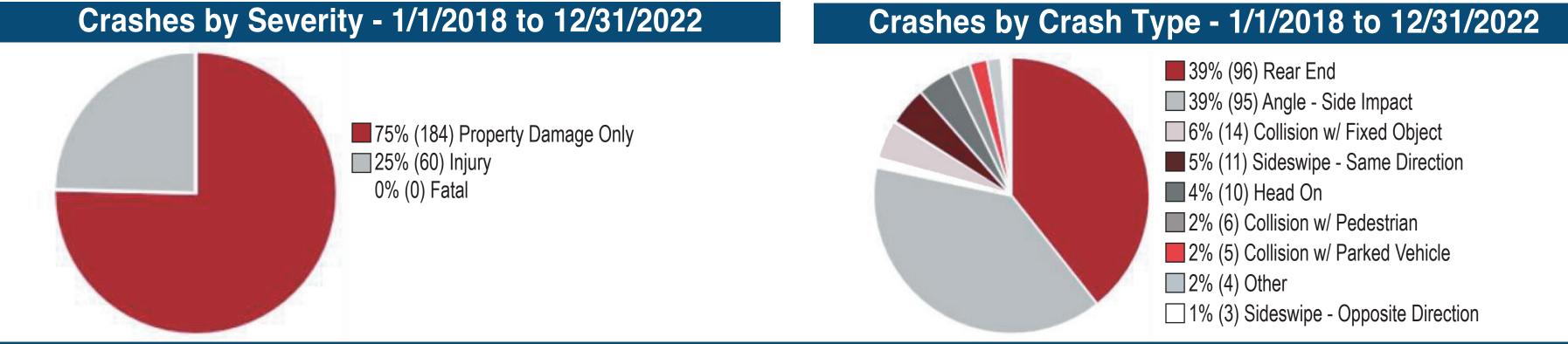


PROJECT BACKGROUND

- Massachusetts Street from 14th Street to 21st Street is a link in the future primary network in the Lawrence Bikes Plan.
- Massachusetts from 14th to 19th is on the Safe Routes to School network.
- Massachusetts Street is a minor arterial street and the Pedestrian Plan calls for connected sidewalks on both sides of the street.
- This project will provide recommended improvements to connect to the recently constructed bicycle boulevard on 21st Street between lowa and Mass.
- This project will complete the gap in the bike network and improve safe multimodal access to downtown Lawrence.



Crash history of 14th Street - 23rd Street on Mass Street corridor





WHAT WE HEARD

Open House No. 1 was well attended with approximately 72 people in attendance.

86 survey responses were collected.



Below are the prioritized rankings of multimodal improvements from the community feedback during Open House #1 in October 2023.

Improve Sidewalk Condition	
Preserving Street Trees	
Roadway Reconfiguration (4-Lane to 3-Lane Conversion)	
On-Street Buffered Bike Lane	
Sidewalk Connectivity	
On-Street Separated Bike Lane	
ADA Compliant Pedestrian Ramps	

OTHER GENERAL COMMUNITY COMMENTS TRENDS:

- Slow Down Traffic
- Provide Bike Lanes
- Provide Mid-Block Crossings
- Roadway Reconfiguration (4-Lane to 3-Lane)
- Preserve On-Street Parking for Businesses
- Consider Roundabouts

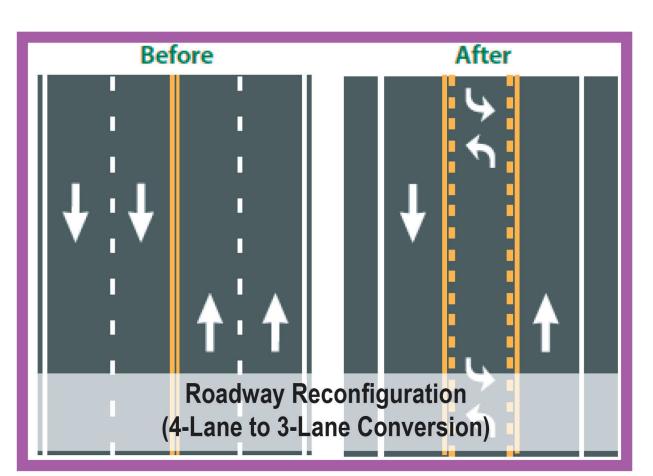




WHAT WE ARE DOING



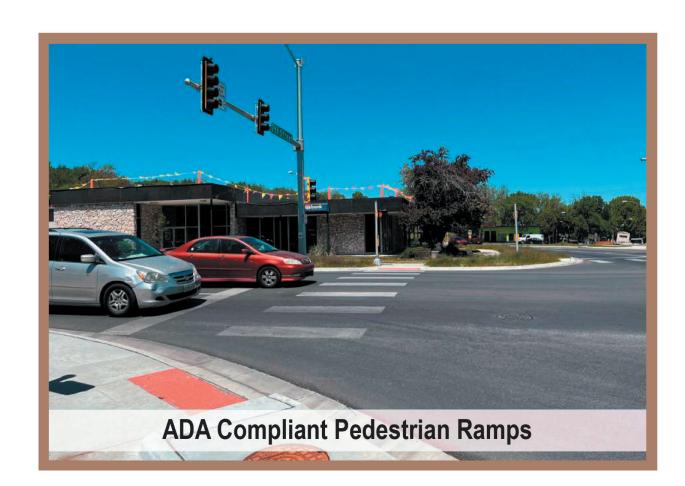
The City of Lawrence plans to analyze existing sidewalk condition during the design phase and improve sidewalk conditions as recommended.



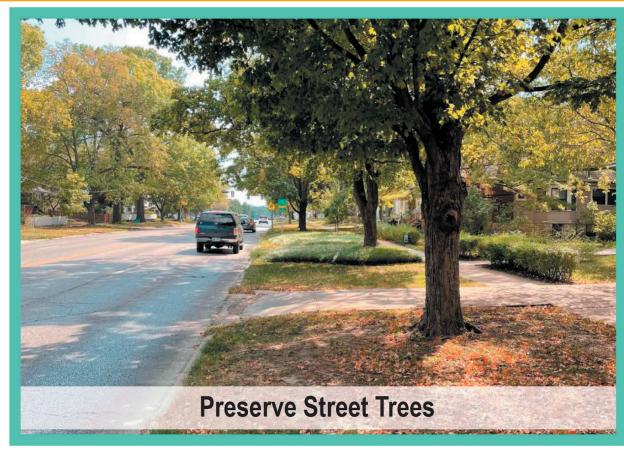
The recommended concepts consider reconfiguring Mass Street from 4-lanes to 3-lanes to promote safety for all users.



The recommended concepts include constructing sidewalk on the west side of Mass Street from 21st Street to 23rd Street to improve connectivity.



The recommended concepts consider improving pedestrian ramps per ADA compliance.



The recommended concepts consider preserving street trees along Mass street by maintaining the existing location of the curb.



The recommended concepts consider on-street buffered bike lanes on Mass Street.



The recommended concepts consider on-street separated bike lanes on Mass Street.

OTHER CONSIDERATIONS:

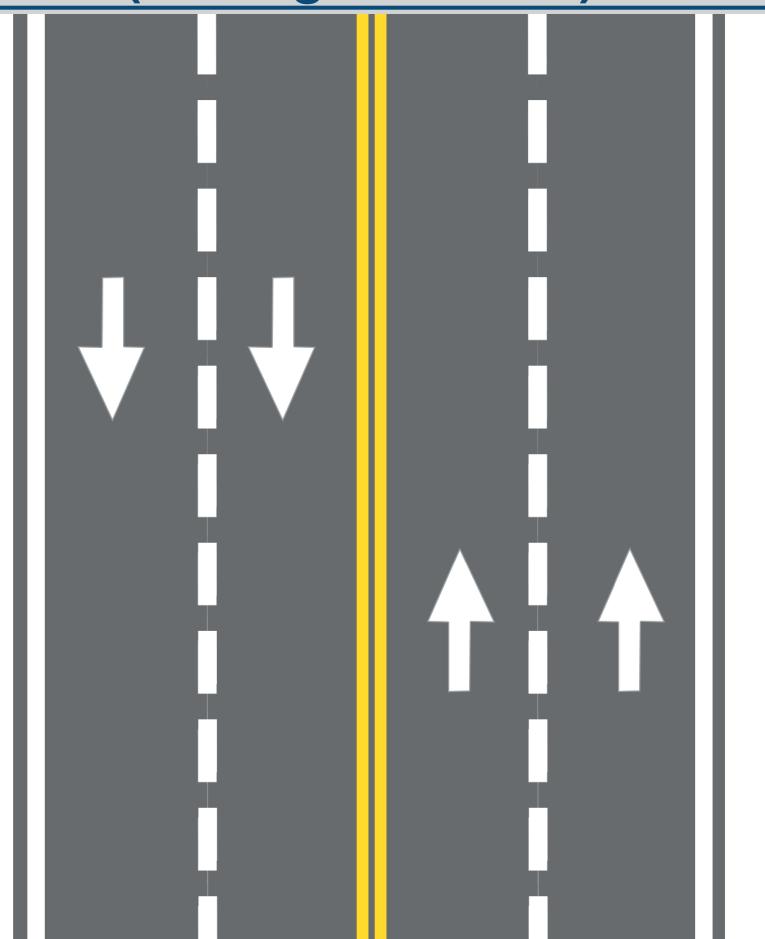
- Mid-Block Crossings have been recommended in key locations as shown in the current recommended solution strip map.
- On-Street Parking has been accommodated in key locations as shown in the current recommended solution strip map.
- A single-lane roundabout has been considered at 19th Street. However, is not recommended due to right-of-way impacts and traffic volumes.



MASS STREET TRAFFIC ANALYSIS FINDINGS

Roadway Reconfiguration Mass Street 4-Lane to 3-Lane Conversion

4-Lane Street (exising condition)



3-Lane Street (proposed)

Mass Street - Existing 4-Lane Roadway

Common Cause of Crashes on 4-Lane Roadways

- Speed differential between lanes
- Frequent/sudden lane changes
- Left-turning vehicles stopped in inside lane
- Poor sight distance/gap judgment for through/left-turning vehicles
- Lack of comfortable space for cyclists
- Long pedestrian crossings across 4 lanes of traffic

Mass Street - Proposed 3-Lane Roadway

Benefits of Converting 4-Lane Roadway to 3-Lanes

- More consistent and slower speeds
- Dedicated space for left-turning vehicles
- Improved sight distance/gap judgment due to lane reduction
- Opportunity to install pedestrian refuge islands
- Opportunity to install more comfortable facilities for cyclists
- Reduced length of pedestrian crossings
 Safety Benefit: 19-47% reduction in total crashes per FHWA

The volume of vehicles driven on Massachusetts Street in this corridor on any given day averages about 11,000.

A 3-lane roadway is capable of handling up to 25,000 vehicles per day, exceeding the typical traffic on Massachusetts Street between 14th to 23rd Street.

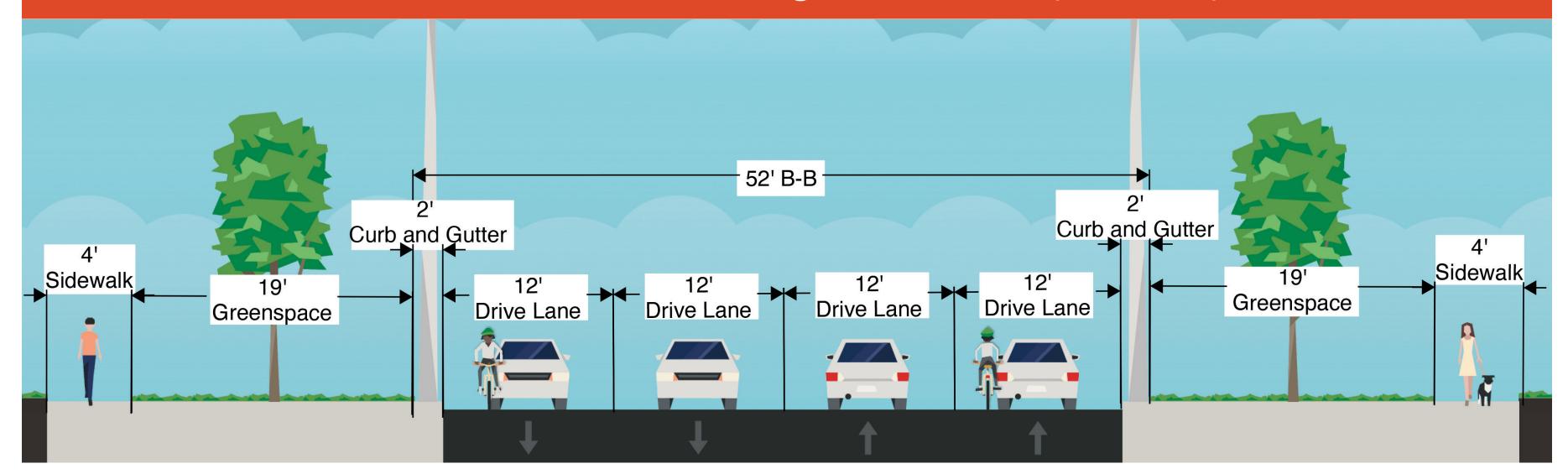




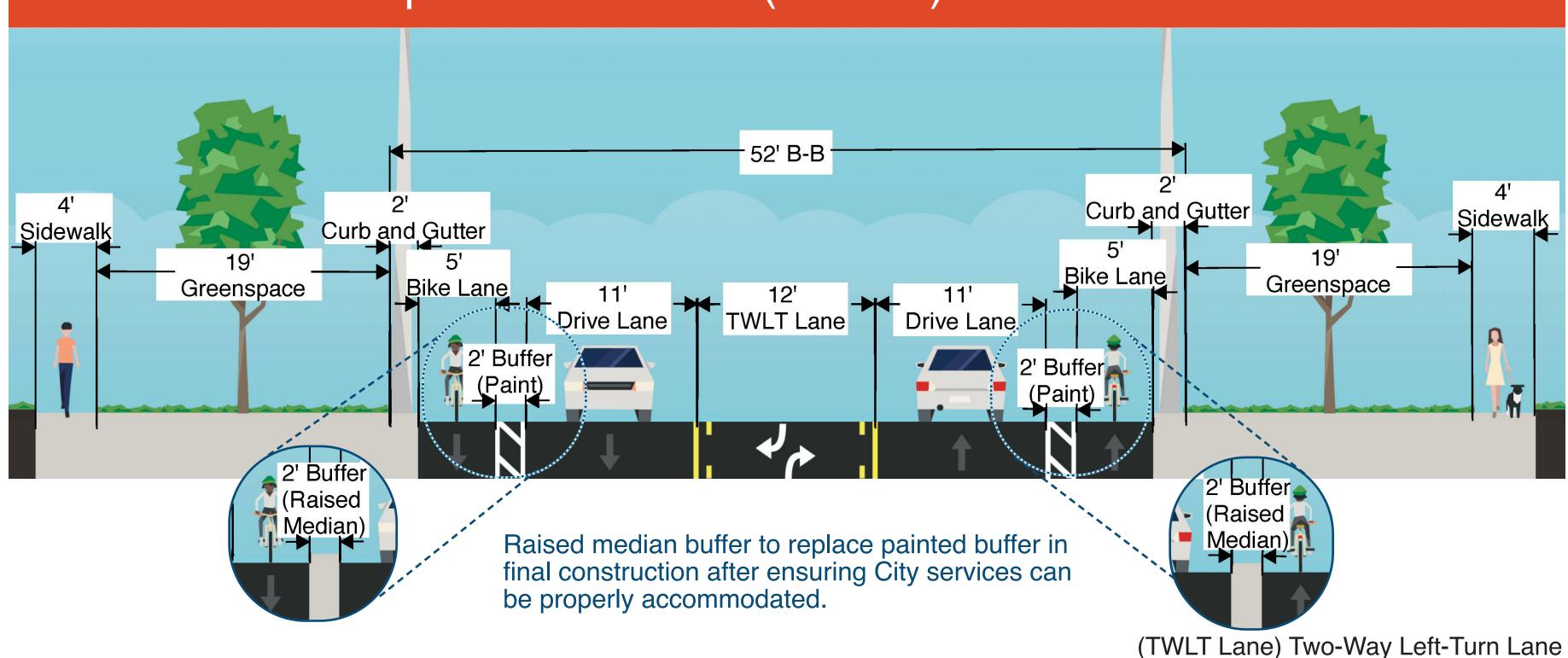
MASS STREET CONCEPTUAL OPTIONS

OPTION A

Mass Street - Existing Condition (4-Lane)

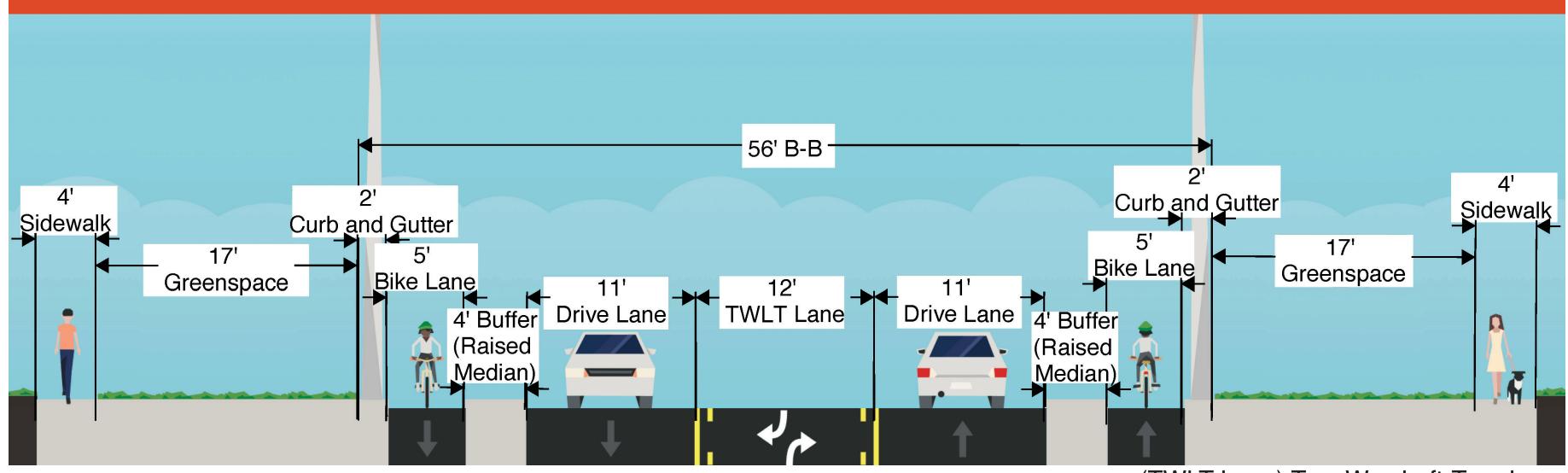


OPTION B Proposed Conditon (3-Lane) | 2 foot buffer



OPTION C

Proposed Conditon (3-Lane) I 4 foot buffer with street expansion



(TWLT Lane) Two-Way Left-Turn Lane





MASS STREET CONCEPTUAL OPTIONS

OPTION A

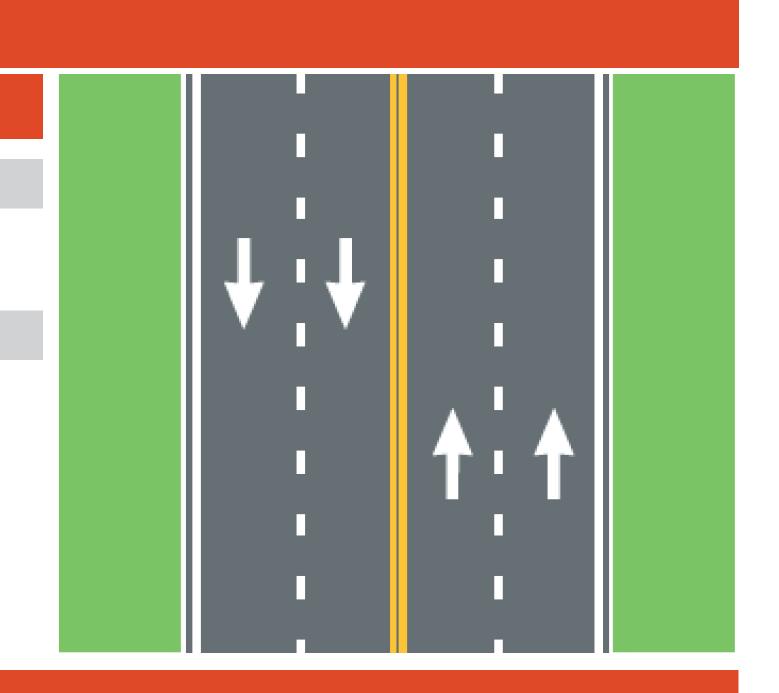
Mass Street - Existing Condition (4-Lane)

Benefits

- No increase in vehicle traffic times
- No impact to trees

Challenges

- Safety concerns for walking, biking, driving, or riding transit.
- Missed opportunity to increase bicyclist and pedestrian comfort.
- Increased opportunities for speeding vehicles.
- Prone to more vehicle crashes.



OPTION B

Proposed Conditon (3-Lane) I 2 foot buffer

Benefits

- Improve pedestrian facilities
- Improve bike facilities
- Anticipated reduction in rear-end crashes
- Anticipated reduction in left-turn crashes
- Anticipated reduction in right-angle crashes
- Fewer lanes for pedestrians to cross
- Opportunity to install pedestrian refuge islands
- Reduce traffic speeds
- Accommodate all users
- Minimize impacts to trees

Challenges

- Slight increase in vehicular travel times (10 to 15 seconds depending on direction and time of day or ~15%)
- Bike facilities less comfortable than Option C

OPTION C

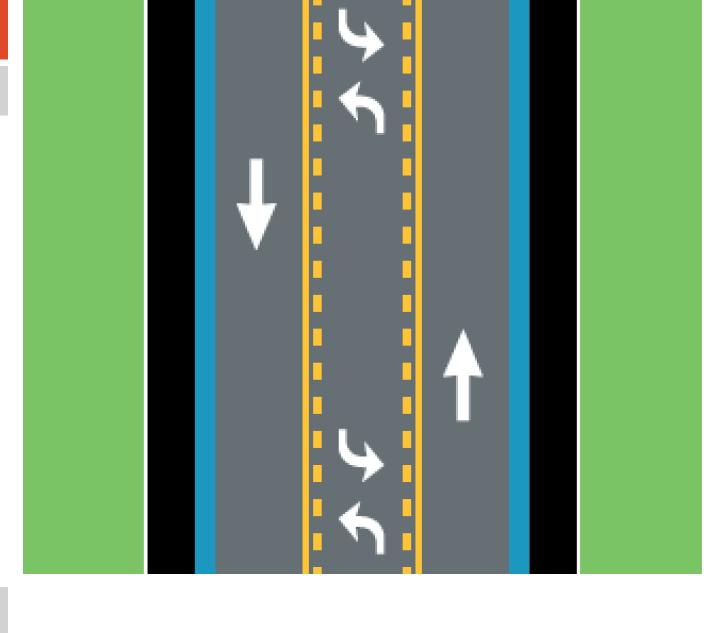
Proposed Conditon (3-Lane) 4 foot buffer with street expansion

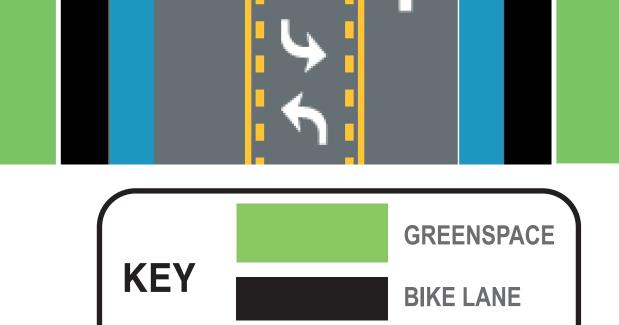
Benefits

- Improve pedestrian facilities
- Improve bike facilities
- Anticipated reduction in rear-end crashes
- Anticipated reduction in left-turn crashes
- Anticipated reduction in right-angle crashes
- Fewer lanes for pedestrians to cross
- Opportunity to install pedestrian refuge islands
- Reduce traffic speeds
- Accommodate all users
- Bike facilities more comfortable than Option B

Challenges

- Slight increase in vehicular travel times
 (10 to 15 seconds depending on direction and time of day or ~15%)
- **Major impact to trees (74% of existing trees impacted)**







BUFFER



19th Street/Massachusetts St INTERSECTION

Existing traffic signal control at the intersection of 19th Street & Massachusetts



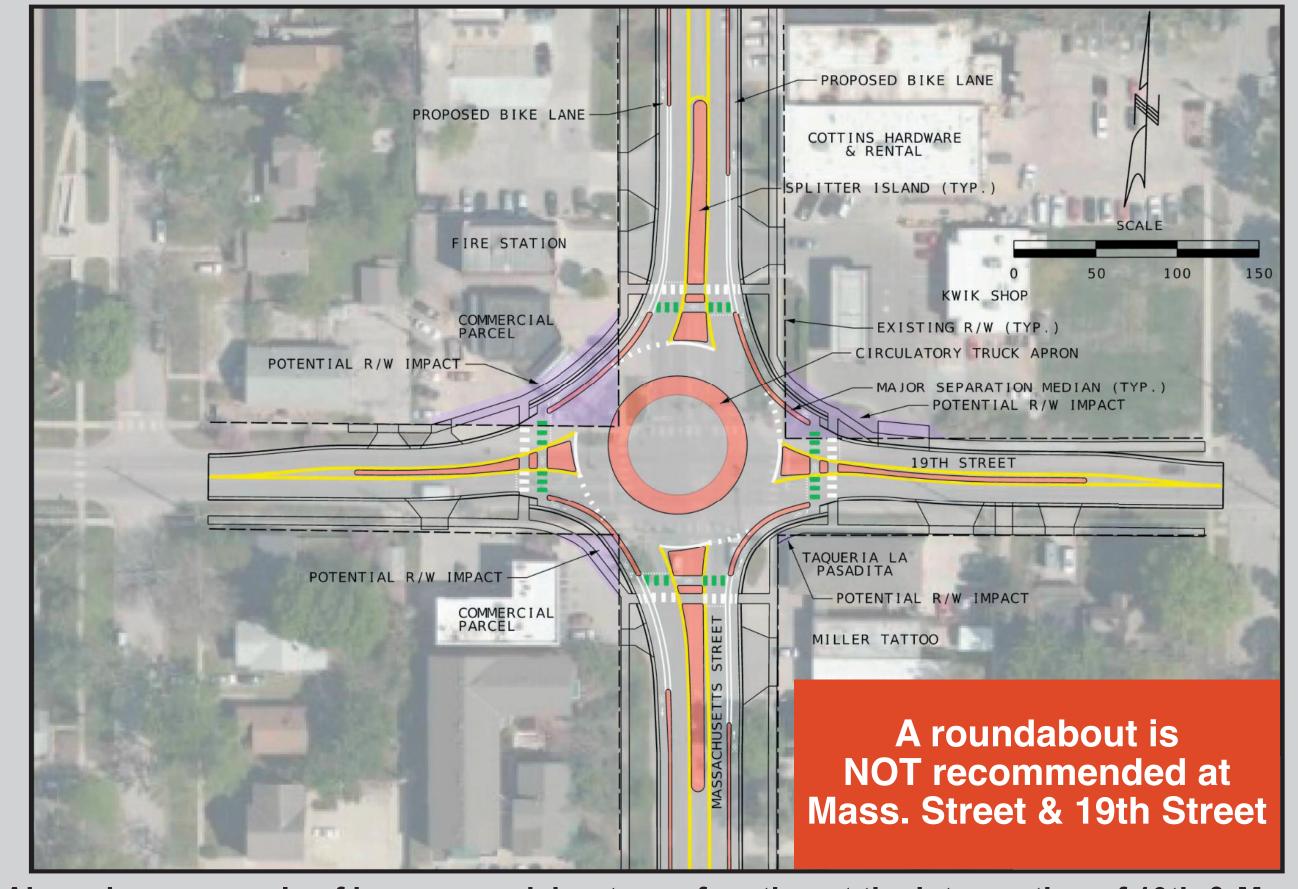
BACKGROUND

signal would be best.

There have been ongoing conversations in the community about the intersection at 19th Street and Massachusetts Street for over a decade.

Specifically, a report from AARP titled, "Walkability and Complete Streets" from the summer of 2014 discussed the opportunity to change the intersection to a roundabout as a means of increasing "walkability and livability". However, since this report there have been additional engineering studies which conclude that a roundabout would not be recommended at this intersection. These engineering studies reviewed the traffic volumes, crash history, speeds, and the available right-of-way and came to the conclusion that a traffic





treet

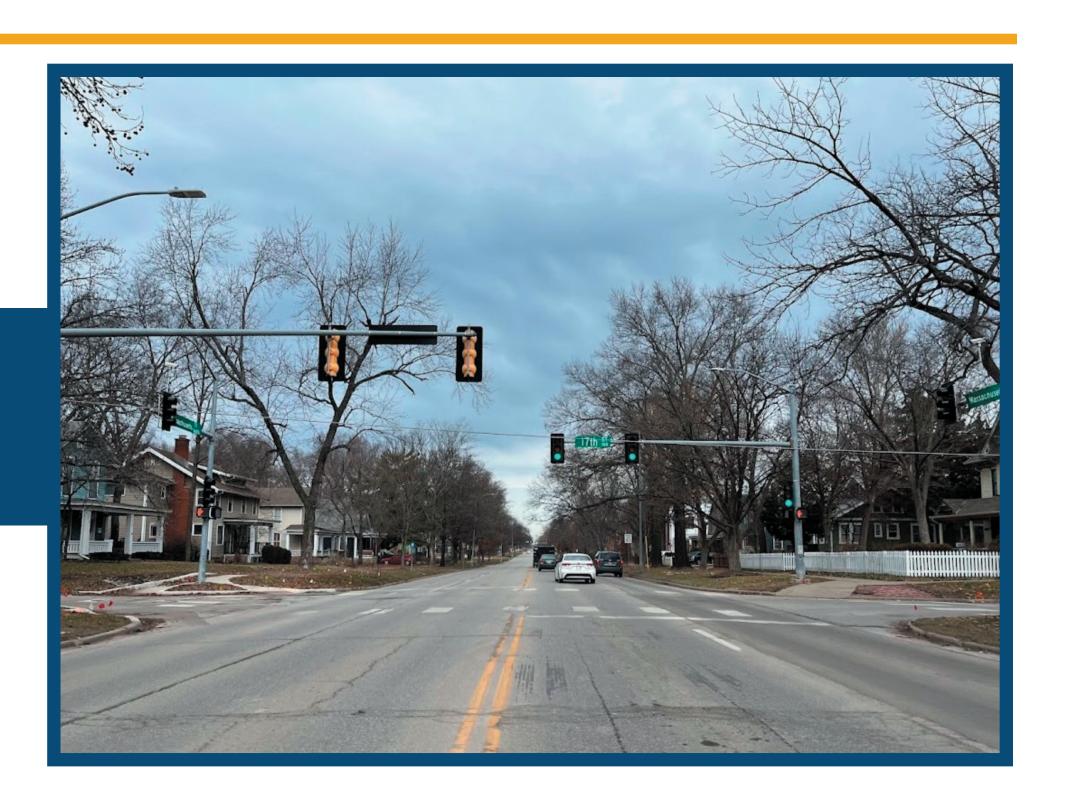
Summary of Findings

- A traffic signal is anticipated to operate better than a roundabout
- A roundabout would have right-of-way impacts
- A roundabout is not recommended at the intersection of Mass.
 Street & 19th Street



17th Street/Massachusetts St INTERSECTION

Existing traffic signal control at the intersection of 17th Street & Massachusetts



BACKGROUND

The traffic signal at the intersection of 17th Street and Massachusetts street was installed in 2000 at request of the community due to increasing pedestrian concerns. The City noted at the time of the installation that this intersection did not meet the vehicle traffic standards for a traffic signal (MUTCD).

Since the installation of the traffic signal there have been traffic studies which found the warrants are still not being met for the traffic signal at this intersection.

Additionally, HAWK signals were not an approved pedestrian safety device in 2000. Engineering studies show that the use of this "new" technology are appropriate for the vehicle traffic volume at this intersections.



Example of how a HAWK signal may function at the intersection of 17th & Mass Example location: 21st & Mass Street | HAWK signal

Summary of Findings

- A HAWK signal is anticipated to operate better than a traffic signal.
- 17th & Mass does not meet MUTCD vehicle warrants for a traffic signal.
- Removing the traffic signal will likely reduce crashes.

Youtube video of how to use the 21st and Mass Bike Ped Signal posted in 2021.







NEXT STEPS & UPCOMING ENGAGEMENT OPPORTUNITIES

PROJECT SCHEDULE:

- ✓ Open House #1 October 2023
- ✓ Concept Development
 Oct 2023 to Jan 2024

Open House #2 - Feb 2024

Concept Refinement
- Jan 2024 to Mar 2024

Open House #3 - Mar/April 2024

Concept Approval - Spring 2024

Potential Funding & Design - Spring 2024 to Winter 2024

Construction - TBD

Feel free to provide comments online or through paper forms. Check out the project website to stay up-to-date on future events.

Comment Form Https://arcg.is/1DzuDu0



