

Kelley Square

Improvement Project

Worcester | Project File No. 609226

**PUBLIC INFORMATION
MEETING**

Worcester Academy Performance Center
December 5, 2018 | 6:00 pm

Project Team

- **MassDOT Highway Division**
- **VHB – Design Consultant**
- **RVA – Public Outreach Consultant**

Project Area



Project Need & Goals

- Improve safety for all users
- Improve mobility for all users
- Enhance neighborhood connectivity
- Create a walkable & bikeable Kelley Square
- Support existing businesses and economic growth

Potential Alternatives Evaluated

- Signalization
- Roundabout(s)
- Unsignalized with Geometric improvements
- Potential changes in directionality of streets

Alternative 1: Signalization



Clearly delineates traffic lanes and movements

- Complex signal phasing and long cycle lengths.
- Increased queueing
- Well understood ped phases with shorter crossings. However, long ped waiting times.
- Proposed street directionality modifications.
- Provides bike accommodation
- Requires property impacts
- I-290 WB ramps remains unsignalized

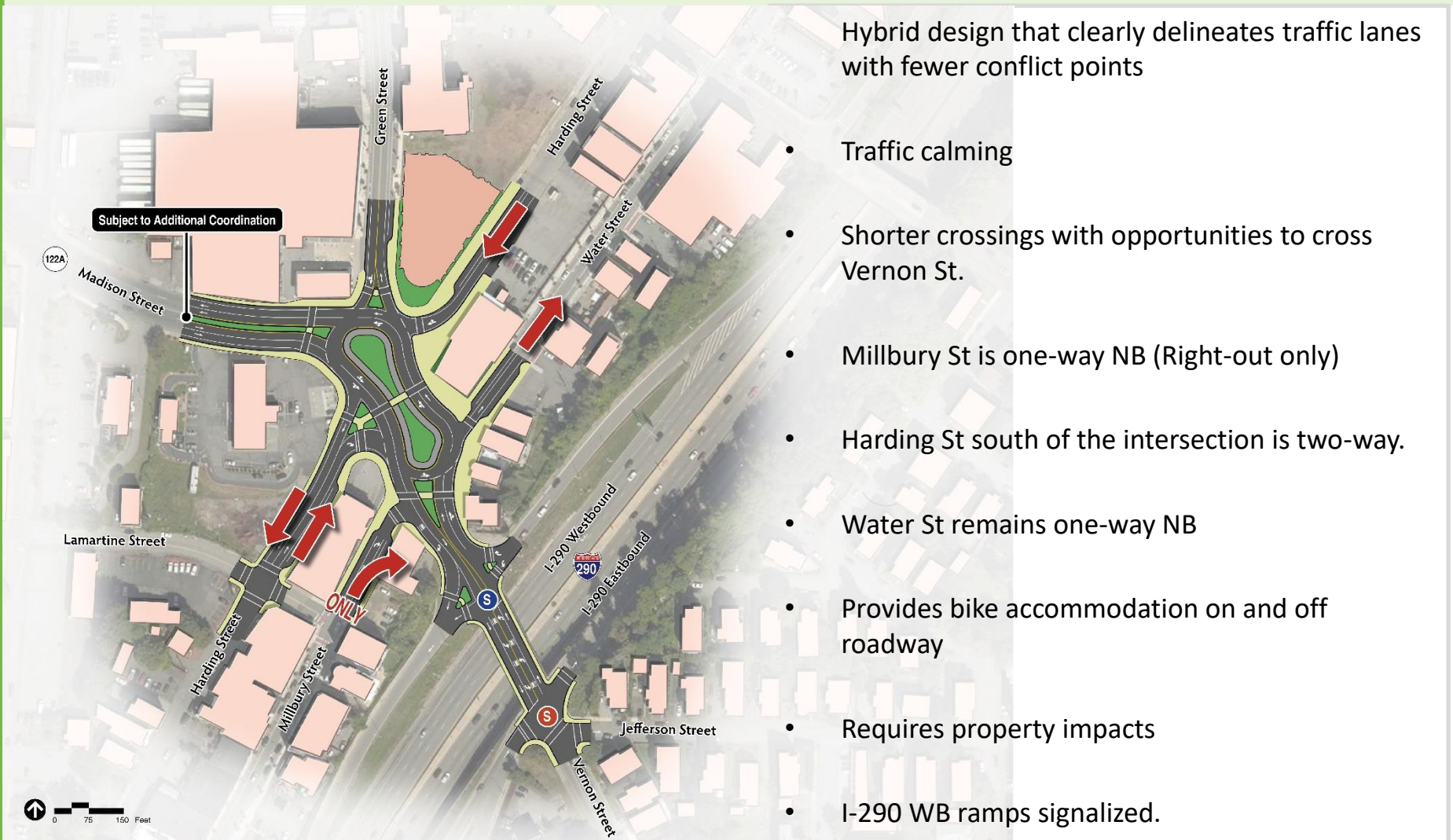
Alternative 2: Roundabout



Traditional Roundabout that clearly delineates traffic lanes with fewer conflict points

- Traffic calming
- Shorter crossings with fewer opportunities to cross Vernon St.
- Millbury St is one-way NB (Right-out only)
- Water St remains one-way NB (Access restricted)
- Provides bike accommodation on and off roadway
- Requires property impacts
- I-290 WB ramps signalized

Alternative 3: Hybrid – Option 1



Hybrid design that clearly delineates traffic lanes with fewer conflict points

- Traffic calming
- Shorter crossings with opportunities to cross Vernon St.
- Millbury St is one-way NB (Right-out only)
- Harding St south of the intersection is two-way.
- Water St remains one-way NB
- Provides bike accommodation on and off roadway
- Requires property impacts
- I-290 WB ramps signalized.

Alternative 4: Hybrid – Option 2



- Hybrid design that clearly delineates traffic lanes with fewer conflict points
- Traffic calming
- Shorter crossings with opportunities to cross Vernon St.
- Millbury St is one-way SB
- Water St remains one-way NB
- Provides bike accommodation on and off roadway
- Requires property impacts
- I-290 WB ramps signalized and left turn at off ramp prohibited.

Public Outreach Feedback

Nearly 500 comments so far

- Bicycle and pedestrian accommodation/routes
- Vernon St bridge width & I-290 Ramps
- Maintain neighborhood connectivity
- Improve wayfinding signage
- Maintain business access
- Be sensitive to parking
- Place making/Gateway



Place making
Interchange
Millbury accessibility
Business benefits
Harding two way
Signage and markings
Pedestrian
Directionality
Neighborhood connections
Bike accommodation
Parking

Potential Improvement Alternatives

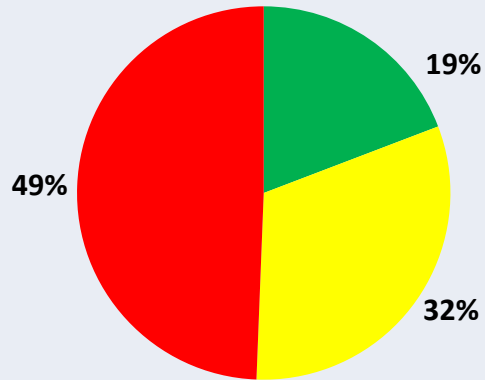
RESULTS FROM PUBLIC WORKSHOP #2 ON 10/24/18	Alt 1 Signalization	Alt 2 Roundabout	Alt 3 Hybrid – Option 1	Alt 4 Hybrid – Option 2
Safety	37%	28%	74%	85%
Pedestrian Accommodation	32%	9%	76%	85%
Bicycle Accommodation	10%	12%	50%	66%
Business Access/Egress	15%	13%	37%	71%
Traffic Operations (congestion, delay & queuing)	5%	21%	51%	74%
Property and Building Impacts	19%	20%	24%	64%
Place Making	15%	26%	65%	84%
Neighborhood Connectivity	29%	12%	44%	78%
Transit Options	22%	15%	18%	47%
Community Health	6%	12%	41%	73%

Percentages presented are the percent scored as positive impact

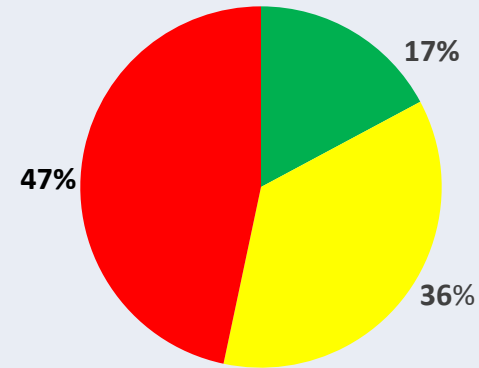
Summary

- Positive Impact
- Neutral Impact
- Negative Impact

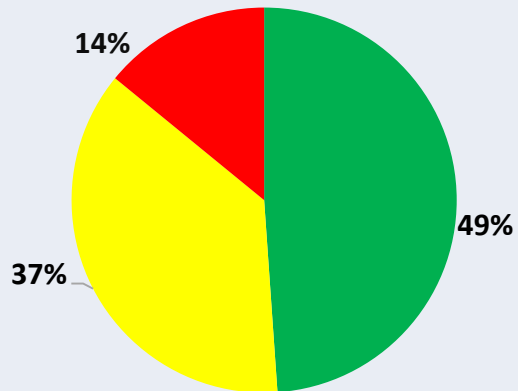
Alternative 1 Signalization



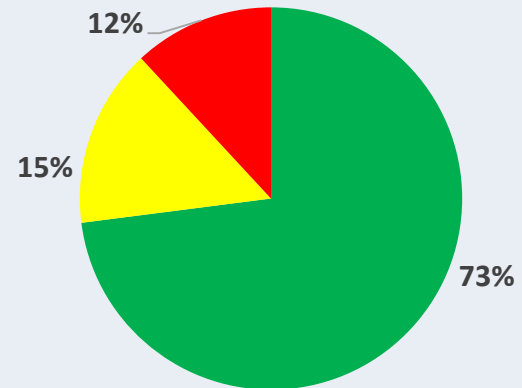
Alternative 2 Roundabout



Alternative 3 Hybrid Option 1



Alternative 4 Hybrid Option 2



Kelley Square Reimagined



Preferred Alternative:



- Hybrid design that clearly delineates traffic lanes with fewer conflict points (safety improvement)
- Closest to existing geometry
- Traffic calming
- Provides connectivity between neighborhoods
- Shorter pedestrian crossings with opportunities to cross Vernon St.
- Provides bike accommodation on and off roadway
- I-290 WB ramps signalized and left turn at off ramp prohibited.

Harding St (South of Kelley Sq)



- One-way travel lane northbound
- On-street parking on both sides
- Sidewalks on both sides
- Enhanced Bicycle accommodation (north of Lamartine St)
 - 5' on-road bicycle lane northbound



Harding St (North of Kelley Sq)



- One-way travel lane southbound
- (south of Harrison St)
- On-street parking on both sides
- Sidewalks on both sides
- Enhanced Bicycle accommodation
 - 5' on-road bicycle lane southbound
 - Contraflow separated bicycle facility northbound



Vernon St Bridge and Ramps

- Reestablish 4 lanes on bridge
- Signalization
- Left prohibited from I-290 WB Off-Ramp
- Two lane entrance onto I-290 WB On-Ramp
- Potential Ward St modifications



Existing Operations – PM Conditions



Proposed Operations – AM Conditions



Proposed Operations – PM Conditions



Safety Improvements – Vernon St at I-290 WB Ramps



Left-turn crashes

Upgrades:

- Signalize intersection
- Prohibit left turn from off-ramp
- Better define lanes

Safety Improvements – Vernon St at Water/Millbury St



Angle collisions

Upgrades:

- Define traffic control
- Formalize lane configuration
- Millbury St directionality change

Safety Improvements – Madison St at Harding/Green St



Angle collisions

Upgrades:

- Define traffic control
- Formalize lane configuration
- Enhance sight lines

Safety Improvements – On-street parking



Side-swipe /
backing maneuvers

Upgrades:

- Eliminate parking within intersection
- Enhance sight lines

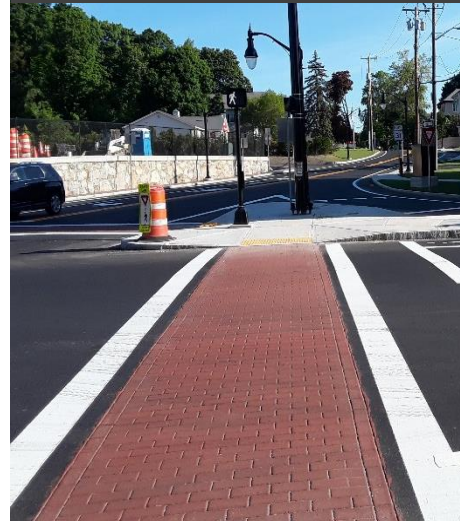
Pedestrian Accommodation



Rectangular Rapid Flashing Beacon (RRFB)



High Visibility Crosswalk



Wayfinding Signage



Bicycle Accommodation



Shared Use Path



Separated Bike Lane



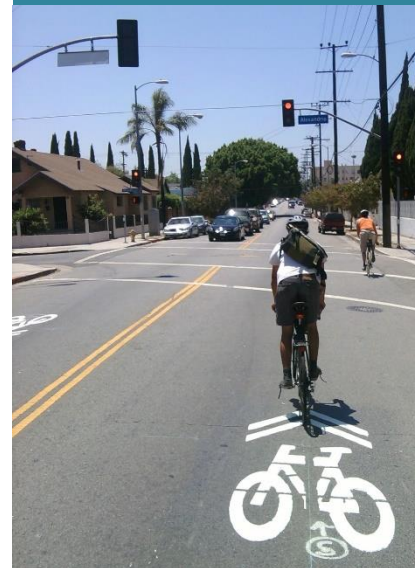
Bicycle Accommodation



5' Bike Lane



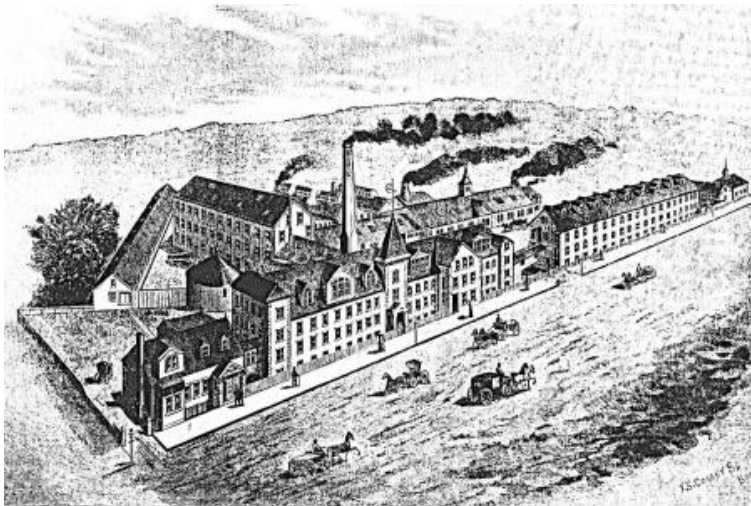
Sharrow



Placemaking Design

- Establishing Identity
- Wayfinding and Movement
- Programming
- Site Elements and Materials
- Scale and Composition

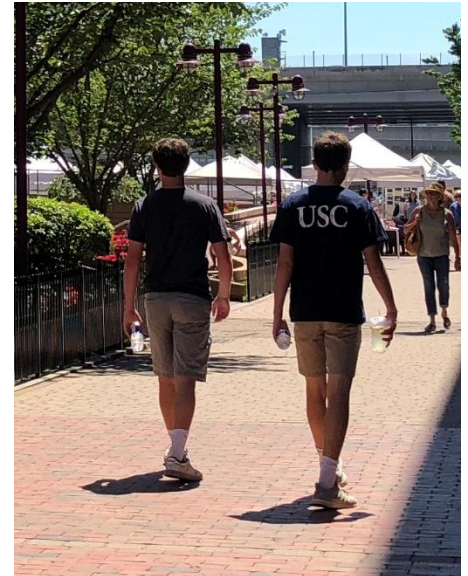
Establishing Identity: History



Establishing Identity: Culture



Programming



Scale and Composition

MADISON STREET

GREEN STREET

HARDING STREET NORTH



14'
TRAVEL LANE

14'
TRAVEL LANE

2' BUFFER

10'
TRUCK APRON

VARIES
CENTER SQUARE

10'
TRUCK APRON

2' BUFFER

14'
TRAVEL LANE

14'
TRAVEL LANE

2' 2'

10'
SHARED USE PATH

8'
WALK

Kelley Square

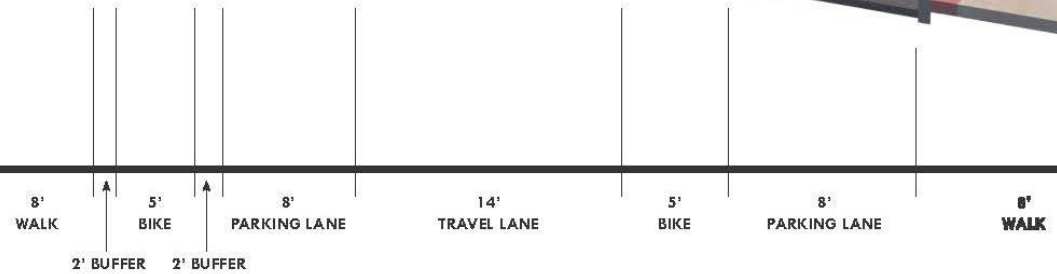


Hardscape Square



Softscape Square

Harding Street North Cross Section



Project Schedule

25% Design Submittal
Feb 2019

100% Design Submittal
May 2019

25% Design Public
Hearing
March 2019

Construction Starts
Oct 2019

Outreach

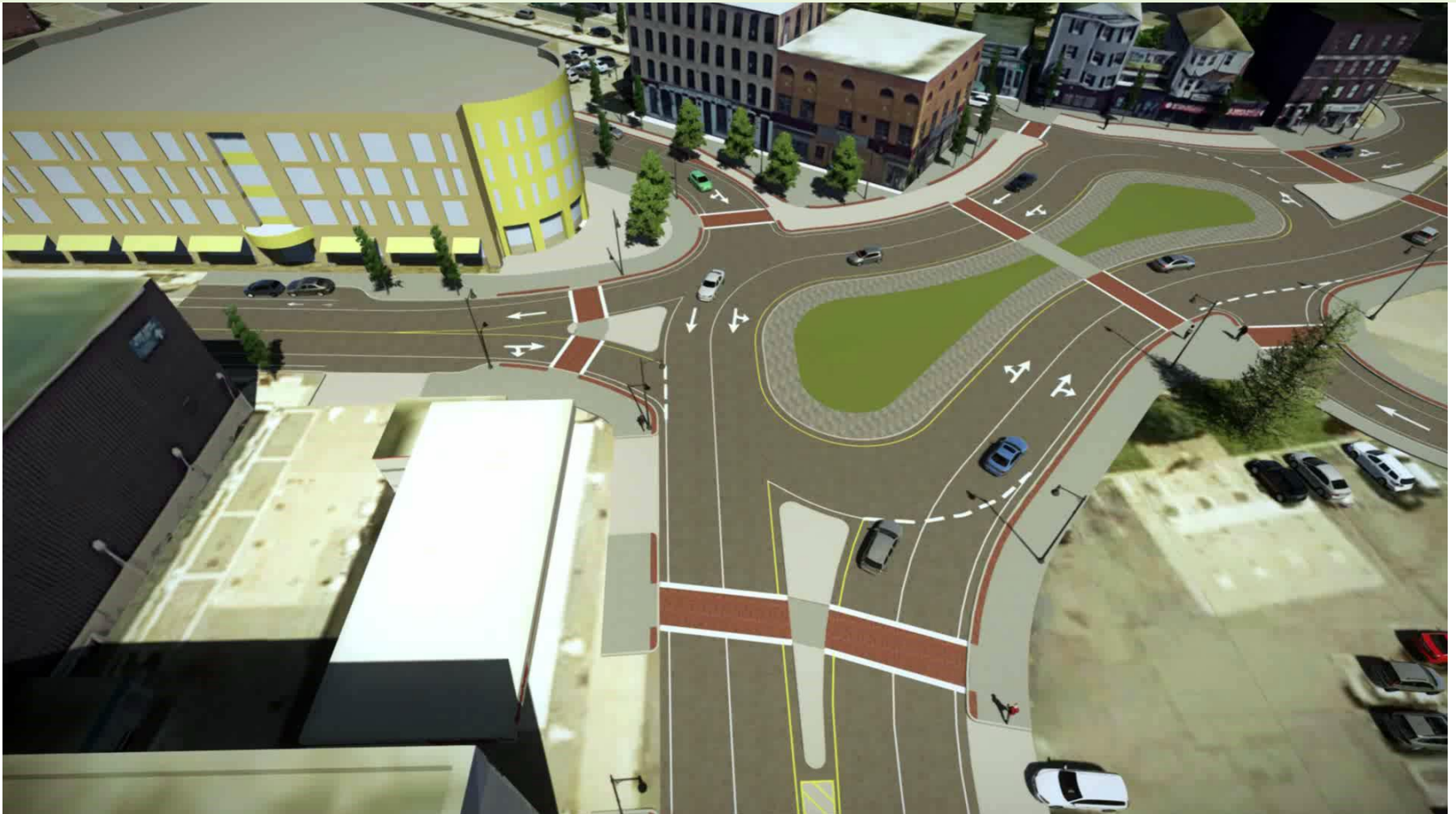
- Outreach to date
 - Numerous meetings with community/business/stakeholder groups
 - MassDOT 1st Public Workshop – Oct 10, 2018
 - MassDOT 2nd Public Workshop – Oct 24, 2018
 - MassDOT Public Information Meeting – Dec 5, 2018
- Additional community/business/stakeholder meetings continuing
- Additional public meetings during Design, Preconstruction and Construction phases

We Want To Hear From You...



- Mail-in comment sheets
- Project Email Address: kelleysqproj.worcester@dot.state.ma.us
- Project website:
<https://www.mass.gov/worcester-kelley-square-improvement-project>

Kelley Square Reimagined



Kelley Square Reimagined

