

Madison East-West Bus Rapid Transit (BRT) Planning Study

APA-Upper Midwest Planning Conference

The Lismore, Eau Claire, WI | October 3, 2019

MADISON DEPARTMENT



OF TRANSPORTATION

AECOM



Consultant Team



PROJECT OVERVIEW

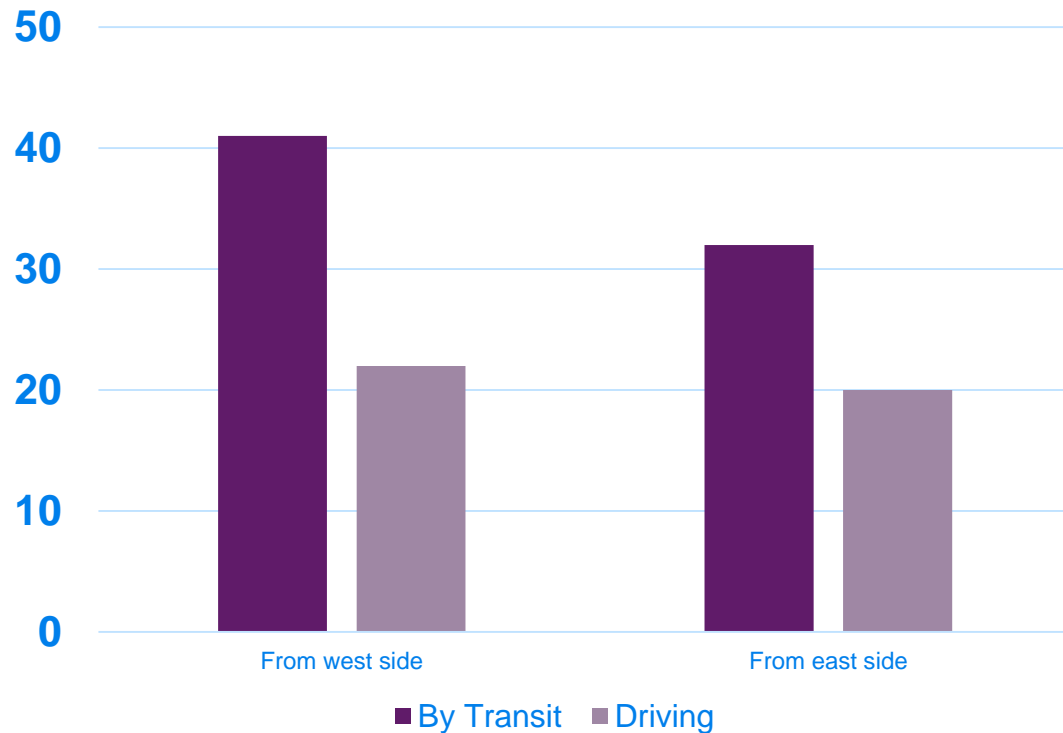
Goals, Key Steps, Public Engagement
Process and Input To Date

Current Project Study Goals

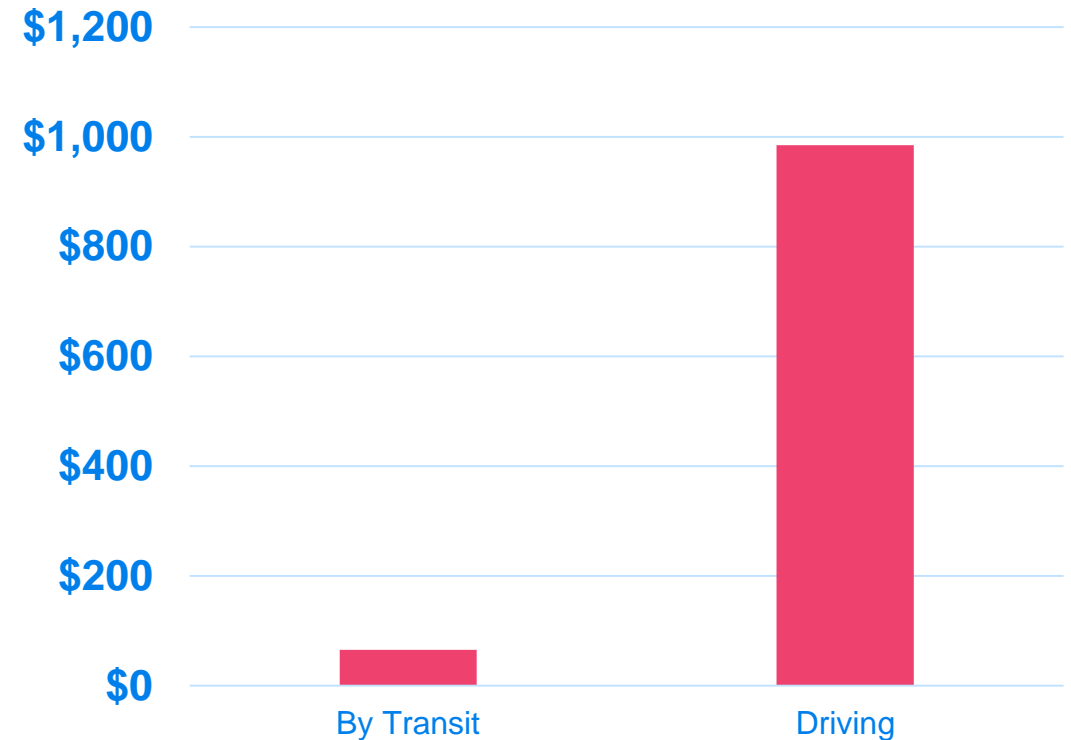
- + Develop a plan for Madison's first BRT route
- + Build community support
- + Identify local funding sources
- + **Set the stage to apply for Federal funding**

Need #1: Improve travel times throughout the corridor.

One-way trip travel time by mode and direction

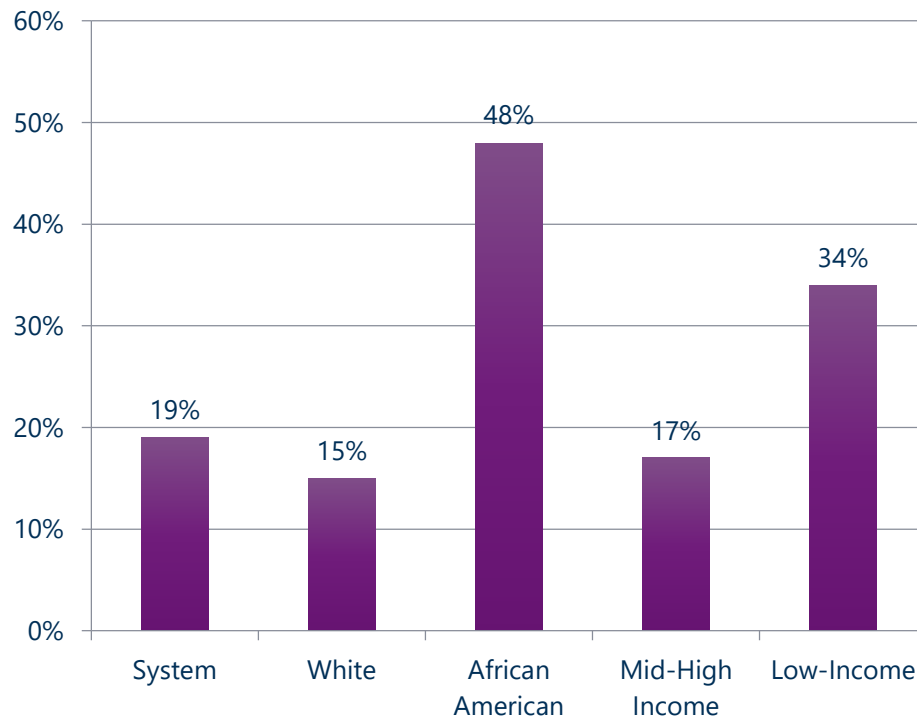


Cost of travel per month



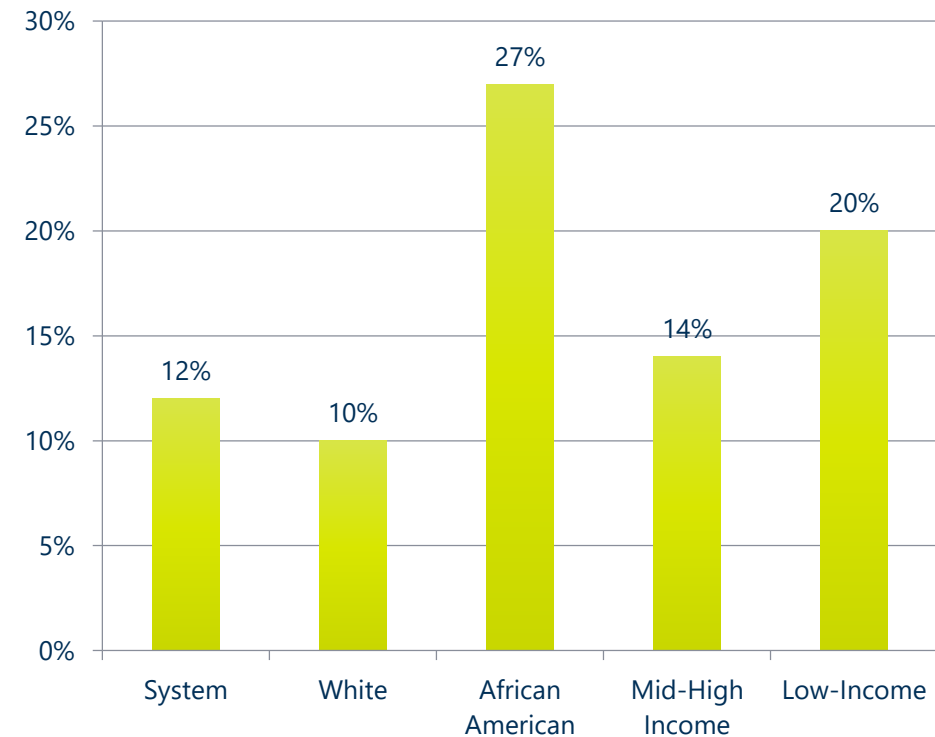
Need #2: Provide higher and more regular service levels connecting all neighborhoods.

Bus Transfer Rates for Minorities and Low-Income Populations



Source: Metro Transit

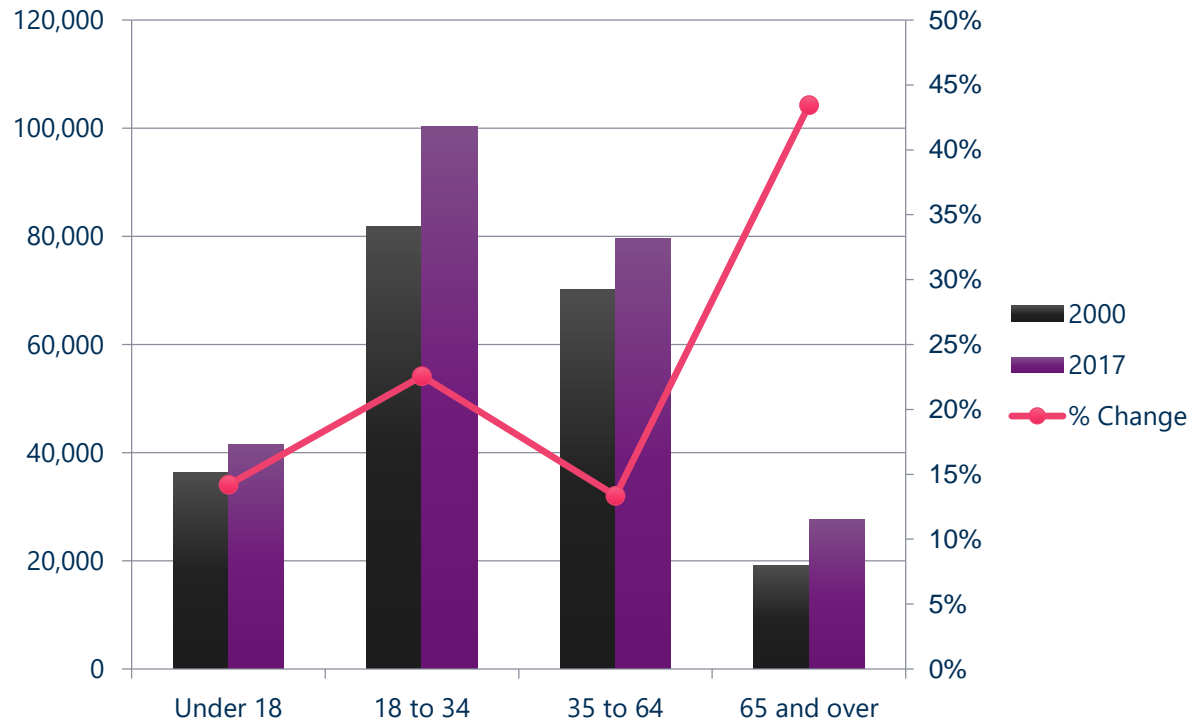
Share of Transit Riders with Travel Times that Exceed 45 Minutes



Source: Metro Transit

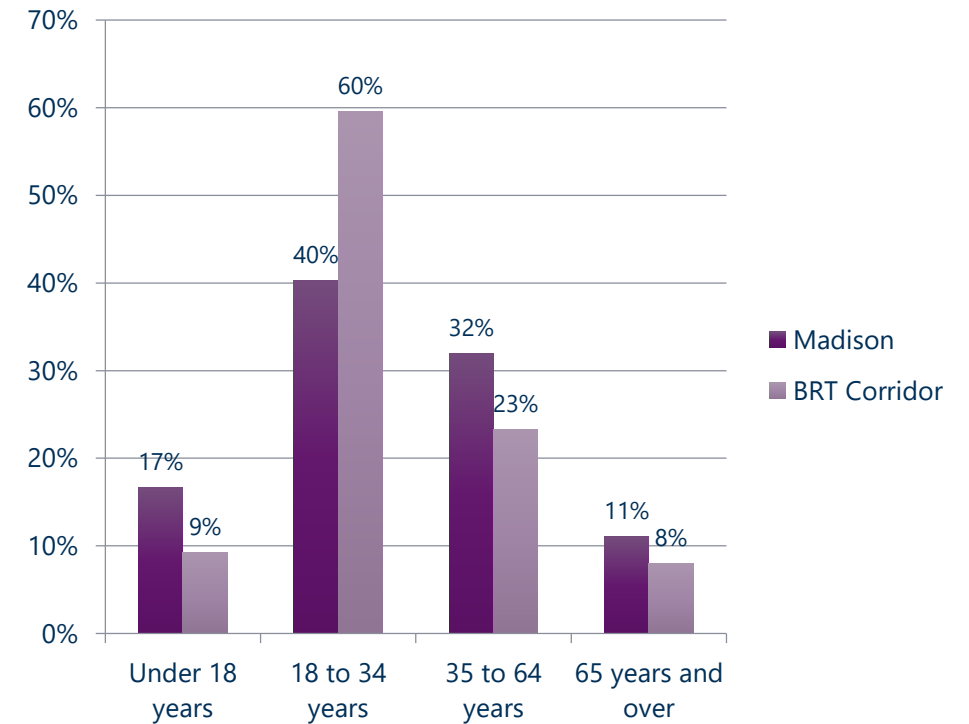
Need #3: Provide mobility for all age groups.

City of Madison Percent Change in Population by Age Group, 2000 to 2017



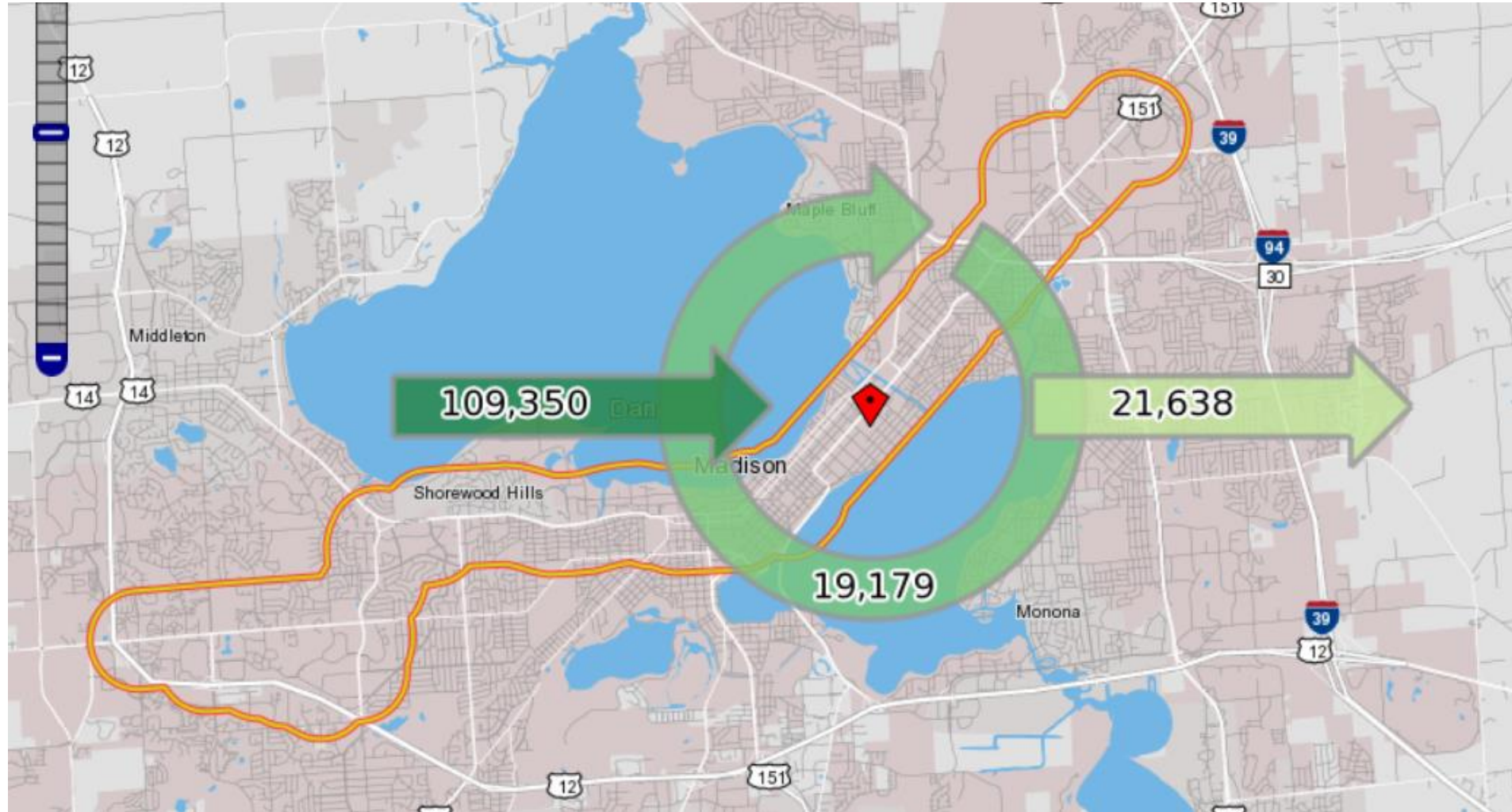
Source: U.S. Census, 2000 and 2017

Population Age Distribution of City of Madison and BRT Corridor

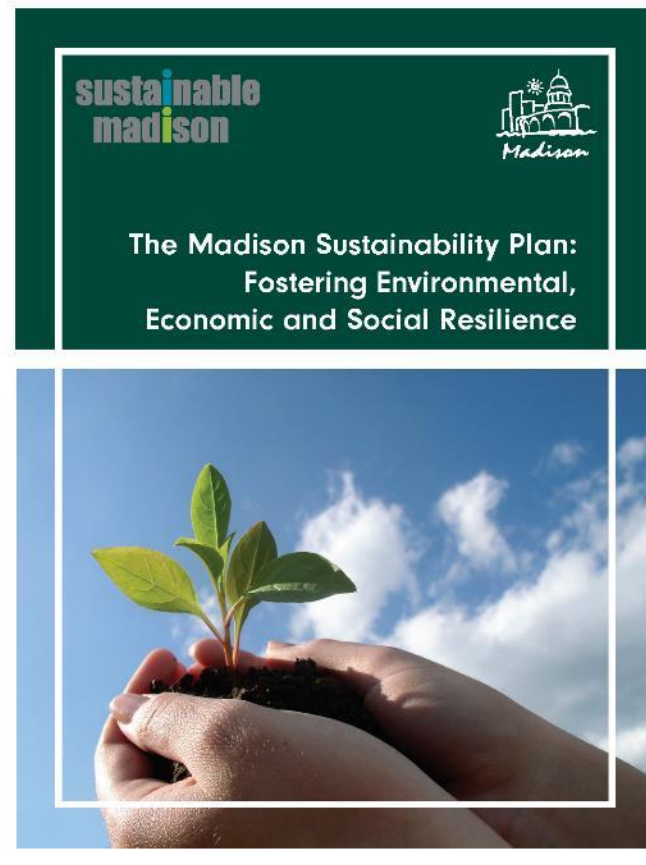
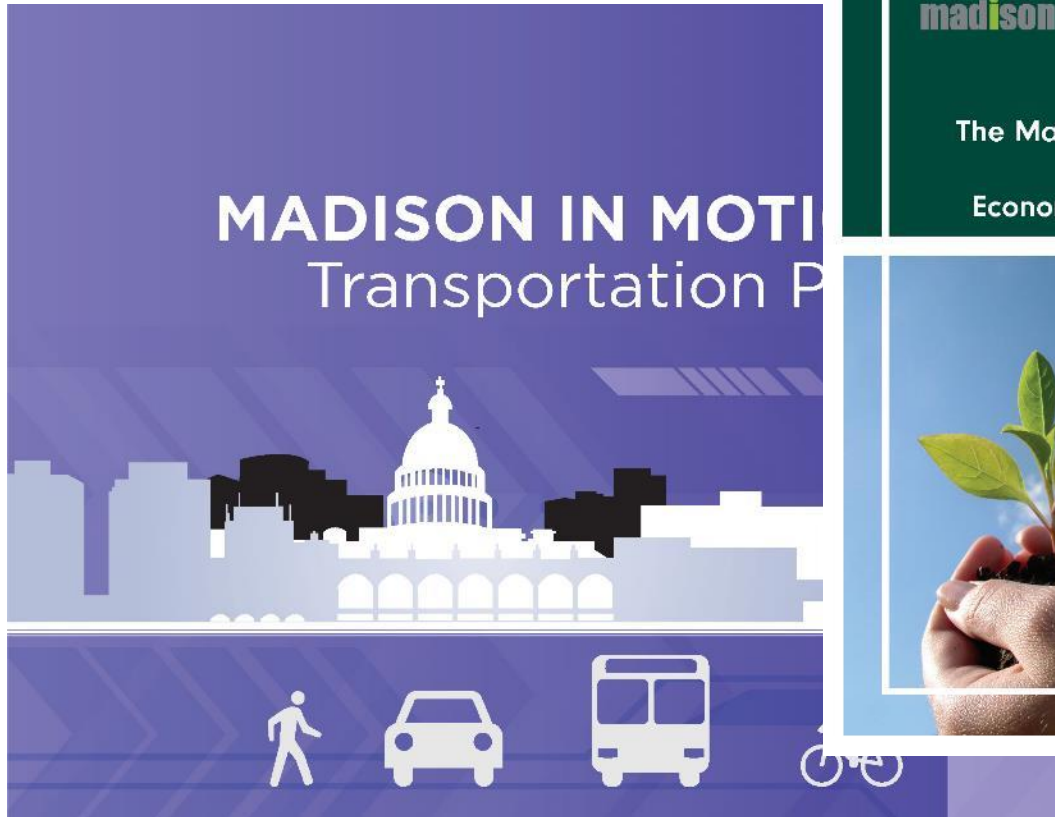


Source: American Community Survey, 2013-2017

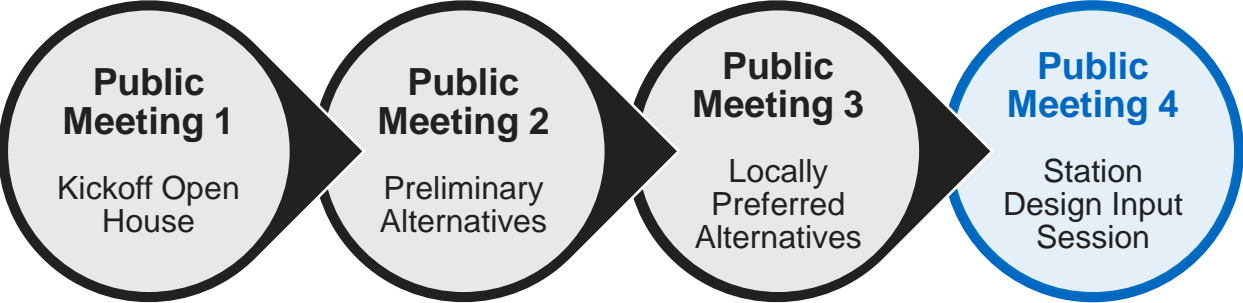
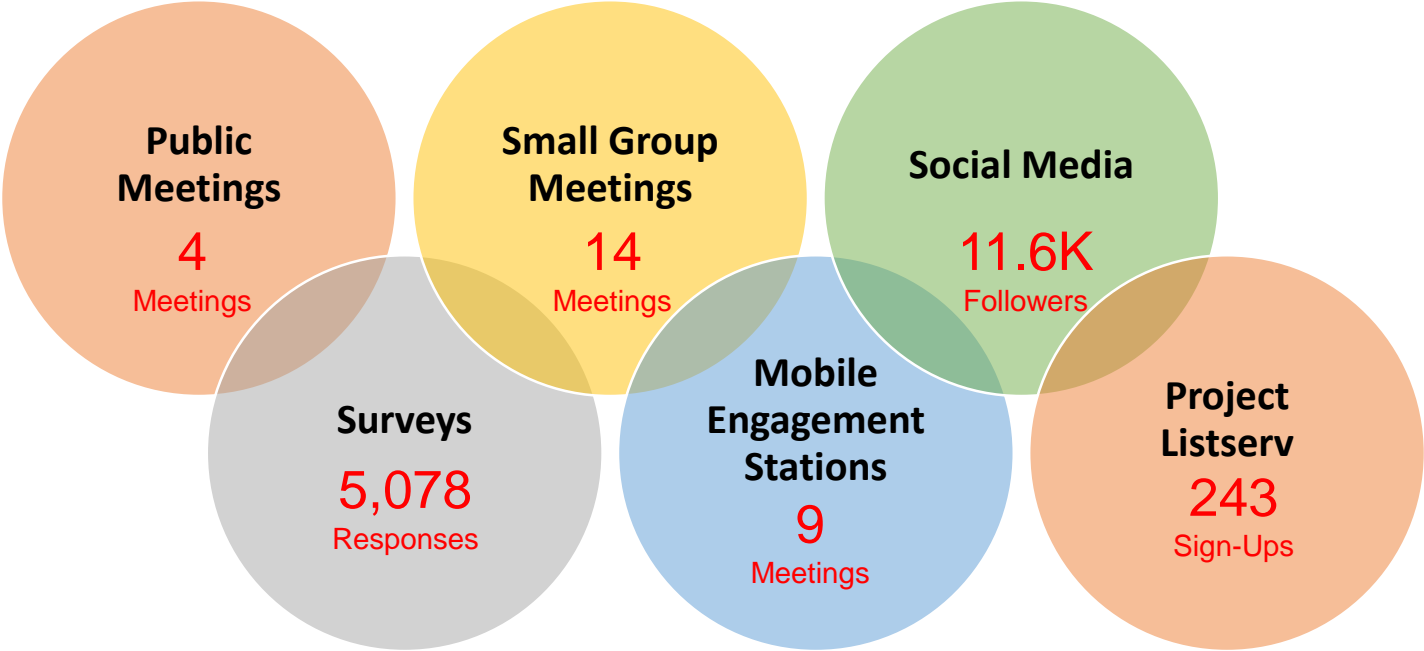
Need #4: Accommodate increasing travel demand through multimodal investment.



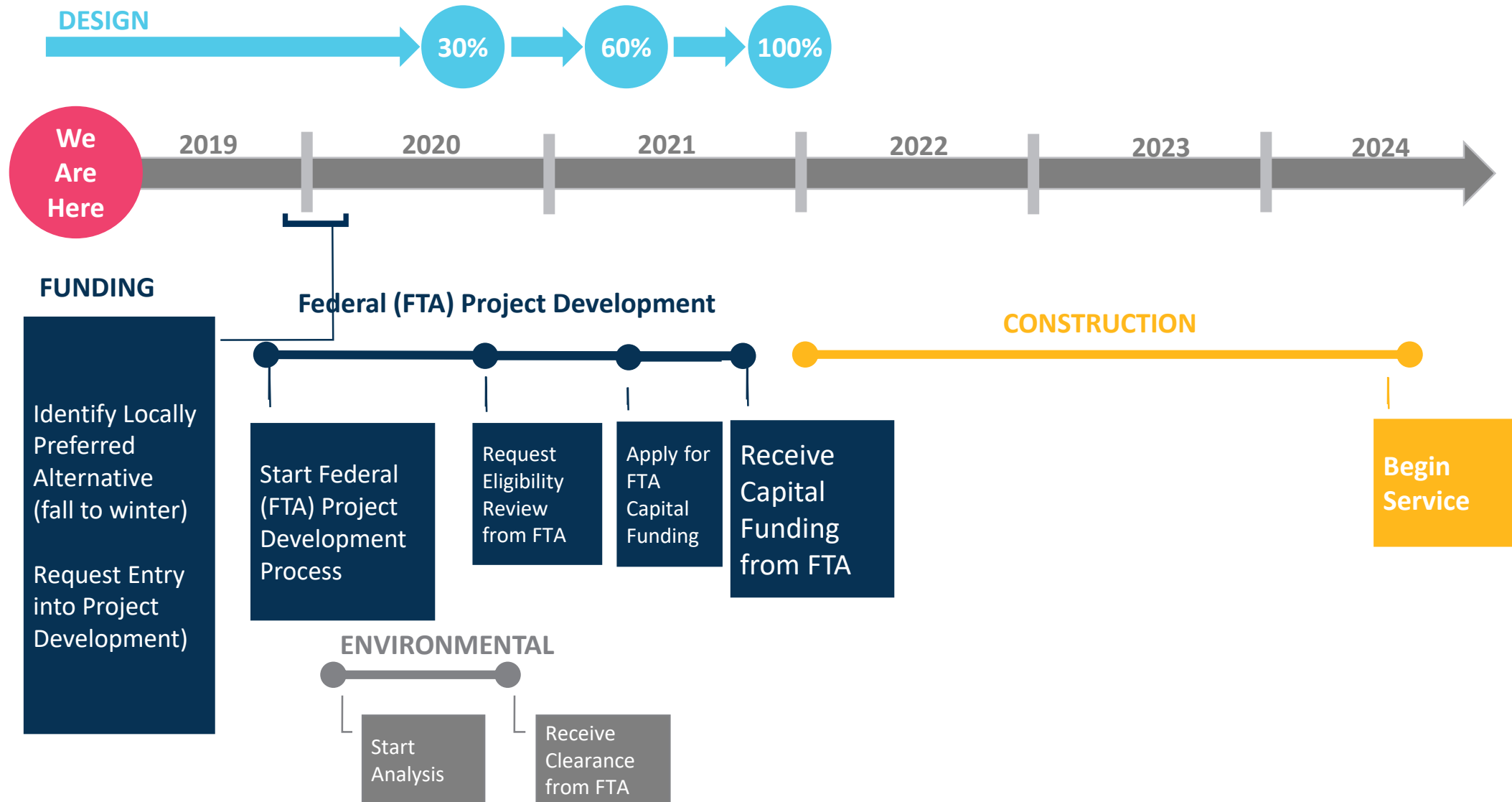
Need #5: Transit supports Madison's sustainable growth plans and policies.



Public Engagement to-Date



Project Development Process



MADISON EAST-WEST BRT

Runningway Options

BRT Runningway Options



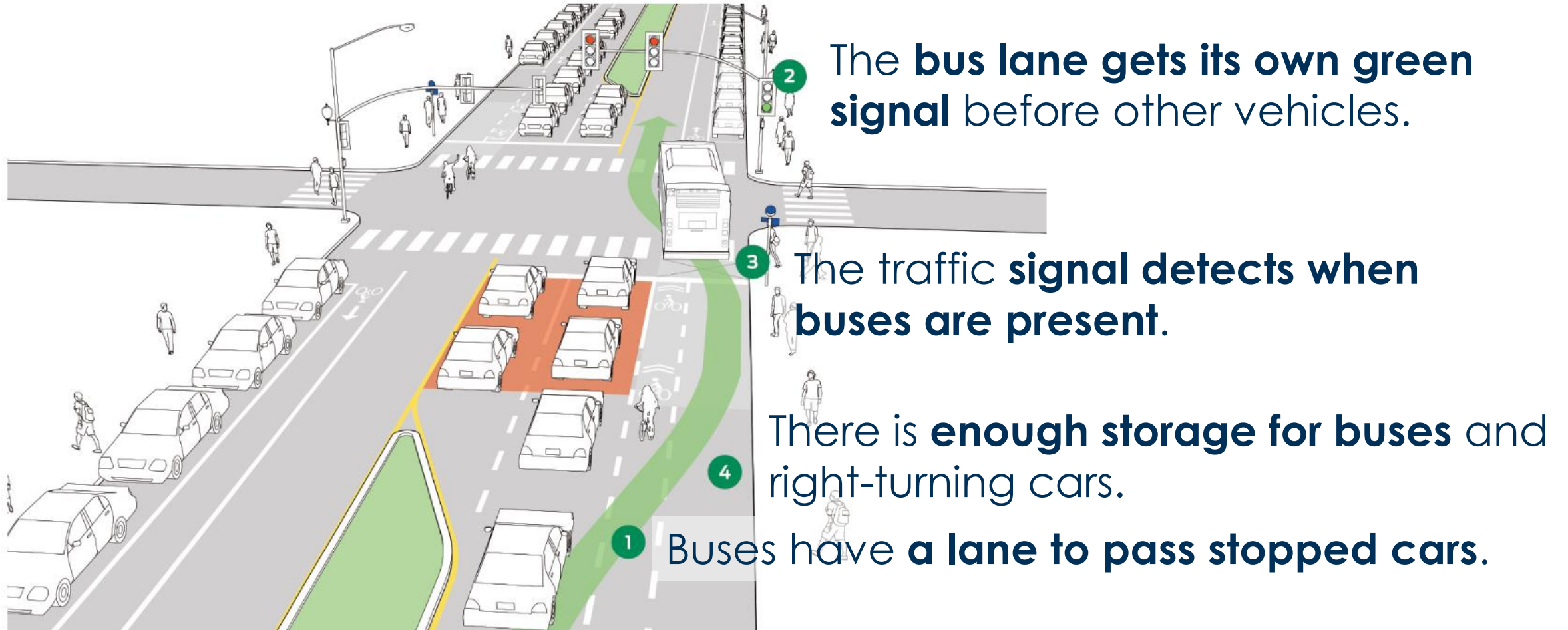
Median Dedicated BRT Lanes: remove one lane of traffic

BRT Runningway Options



Curbside Dedicated BRT Lanes: remove one lane of traffic or parking

BRT Runningway Options



BRT Operates in Mixed Traffic: transit signal priority and queue jumps

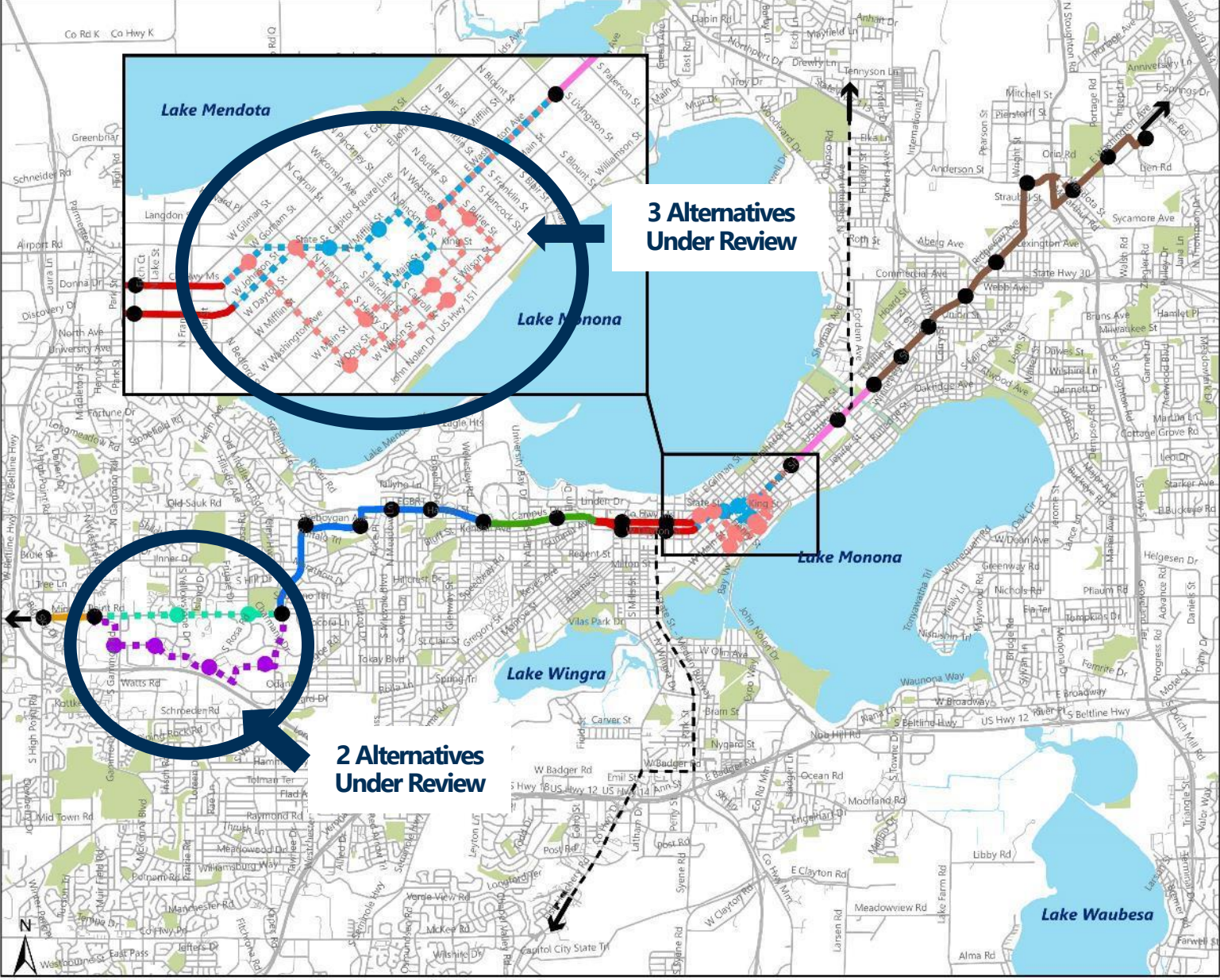




MADISON EAST-WEST BRT

Route Options and Working Locally Preferred Alternative

Working Locally Preferred Alternative Route



Downtown Alternative 1

79% dedicated running way



- Remove regional/commuter routes from State Street
- Signal timing improvements, WB left arrow at Gorham
- Reliable Y detour with Wisconsin Ave improvements

68% dedicated running way



Requires ~110 Parking Spaces and Loading Zones

Downtown Alternative 3

72% dedicated running way

Requires ~110 Parking Spaces and Loading Zones



Existing bus lane

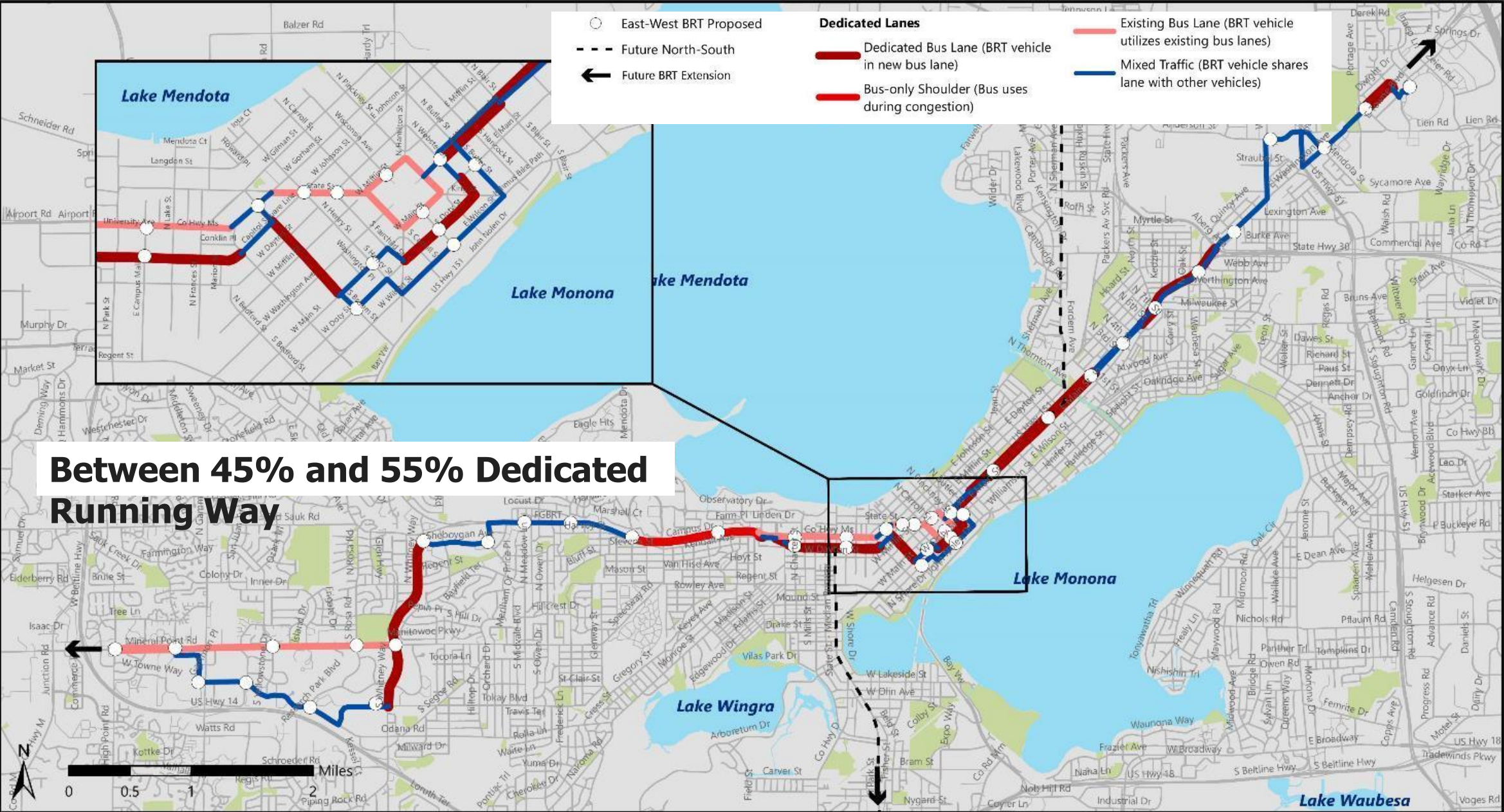
New bus lane

New bus lane

New bus lanes

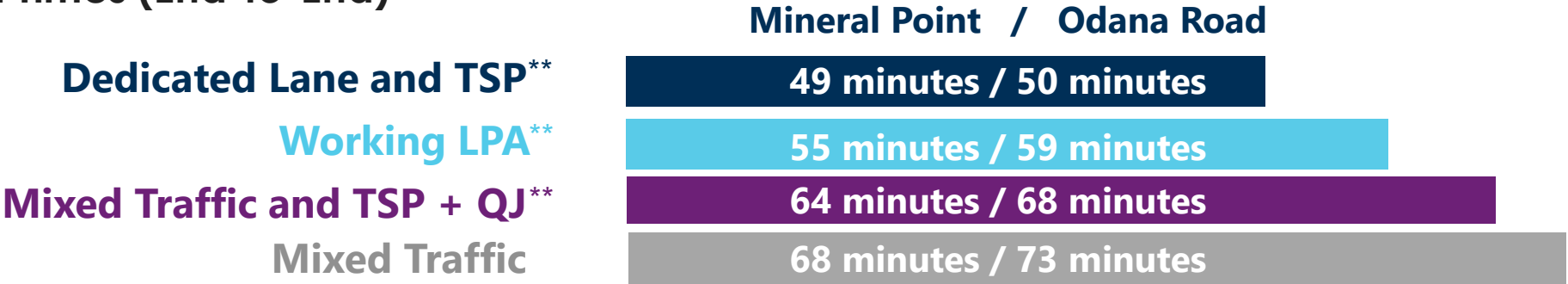
Buses go both ways on Broom Using new SB counterflow lane

Location of Dedicated Lanes for Working LPA

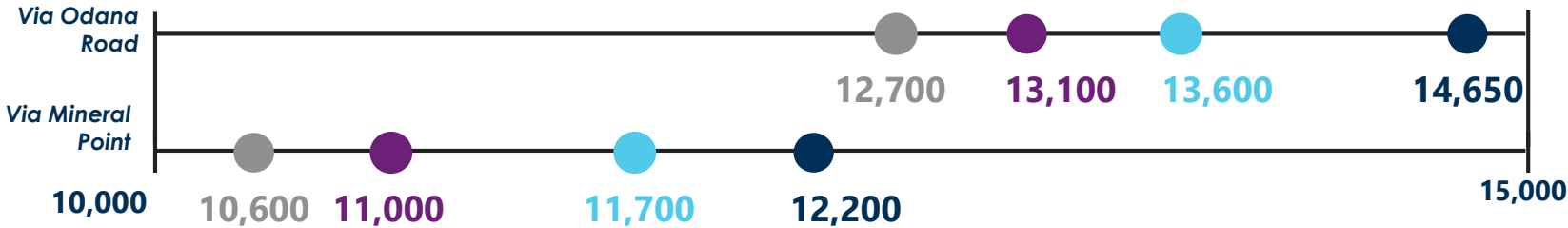


BRT Travel Time, Ridership, Capital Costs*

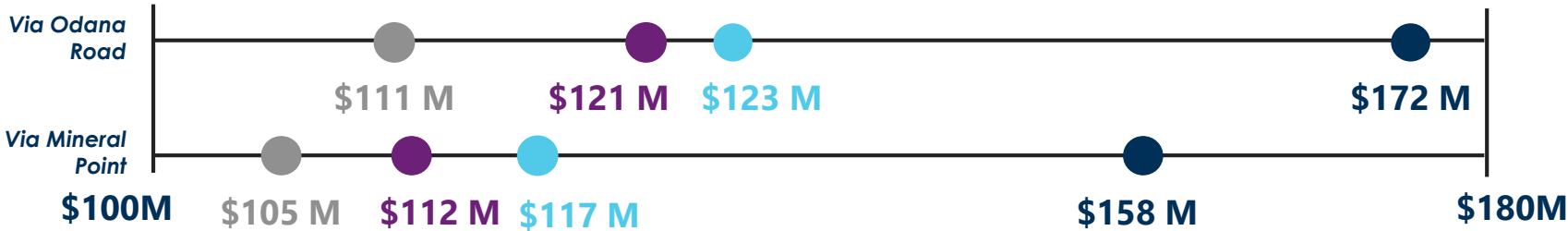
Travel Times (End-to-End)



Daily Ridership



Capital Costs



*All data reflects the Broom/Wilson downtown option
**LPA = Locally Preferred Alternative, TSP = Transit Signal Priority, QJ = Queue

Next Steps

- + **Fall 2019-Winter 2020:** Apply for entry into federal funding process
- + **2020:** Continued planning, community engagement and system design

Thank You!

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