

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

Downtown Route Options – February 3, 2020

MADISON DEPARTMENT



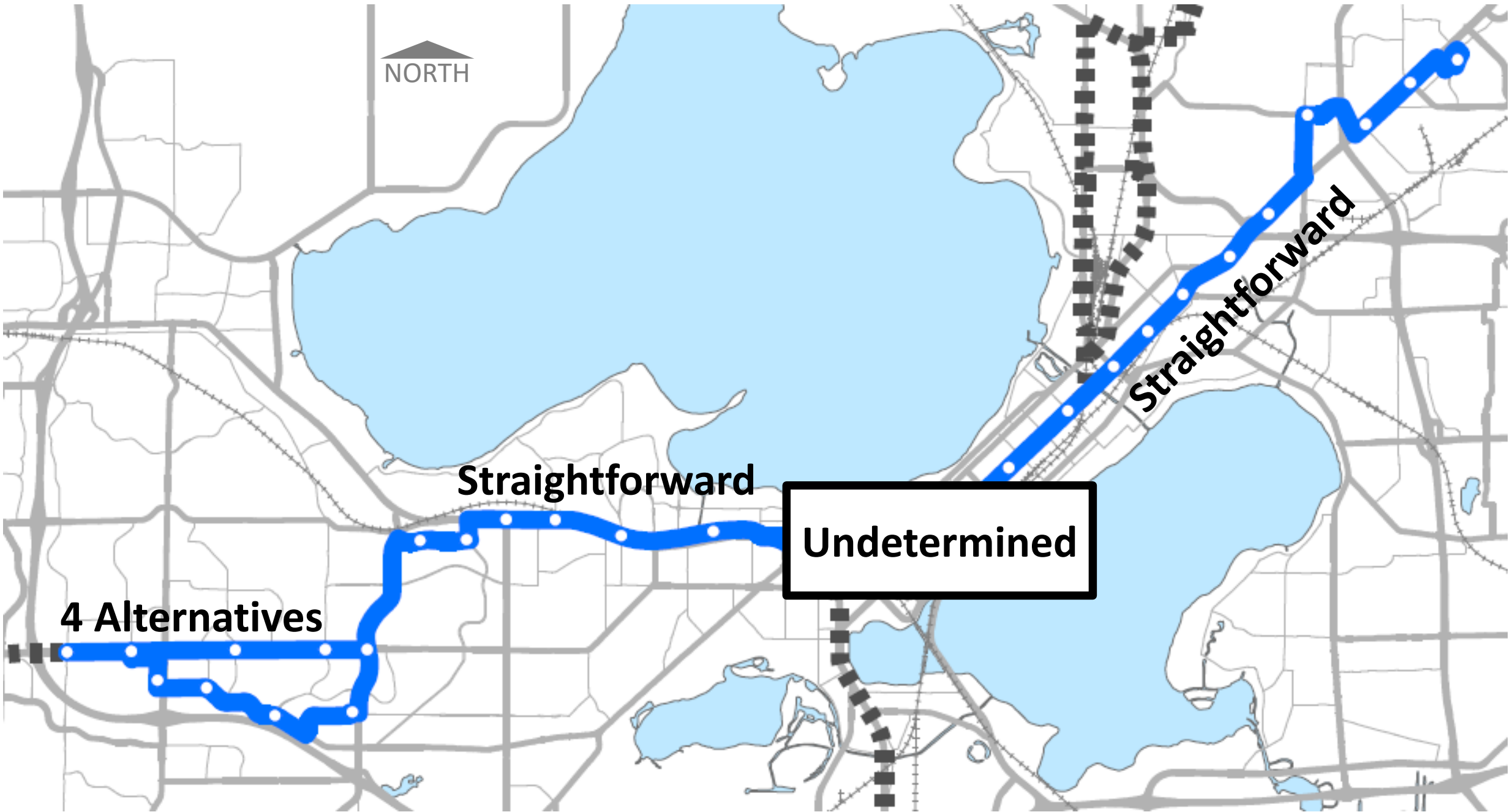
OF TRANSPORTATION

Downtown Routing Goals and Objectives

- Serve important regional destinations (State Street, Capitol Square, Monona Terrace, government offices)
- Provide dedicated running way (bus lanes)
- Provide good BRT station locations. These locations:
- Minimize and/or accommodate detours.
- Provide convenient transfers from BRT to local Metro routes.

Downtown Routing Goals and Objectives

- Minimize BRT travel times
- Minimize traffic impacts
- Accommodate local bus integration
- Minimize impacts to on-street parking and parking revenue lost
- Accommodate and address bike traffic



NORTH

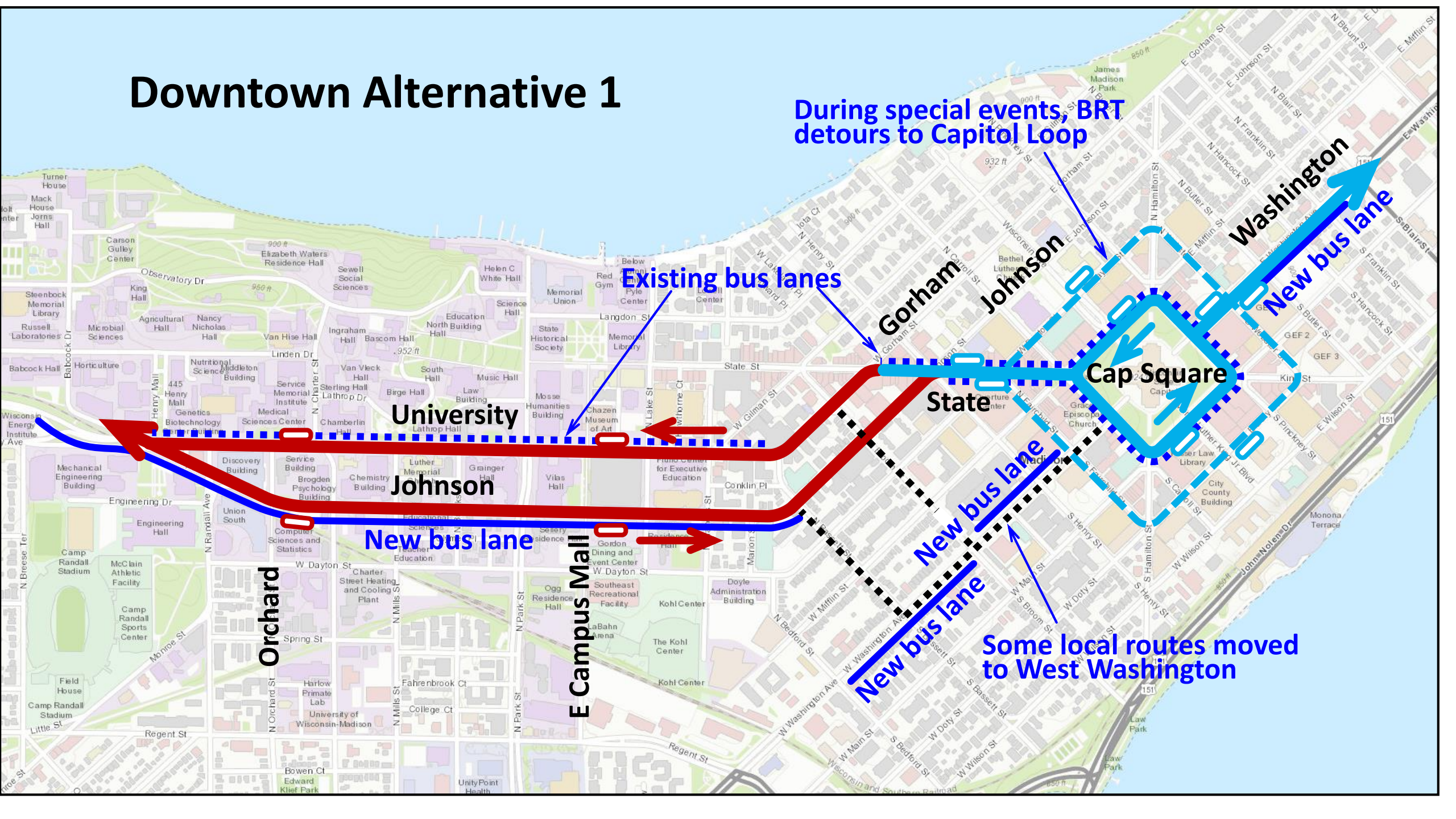
Straightforward

Undetermined

Straightforward

4 Alternatives

Downtown Alternative 1



During special events, BRT detours to Capitol Loop

Existing bus lanes

Gorham
Johnson

Washington
New bus lane

Cap Square

State

University

Johnson

New bus lane

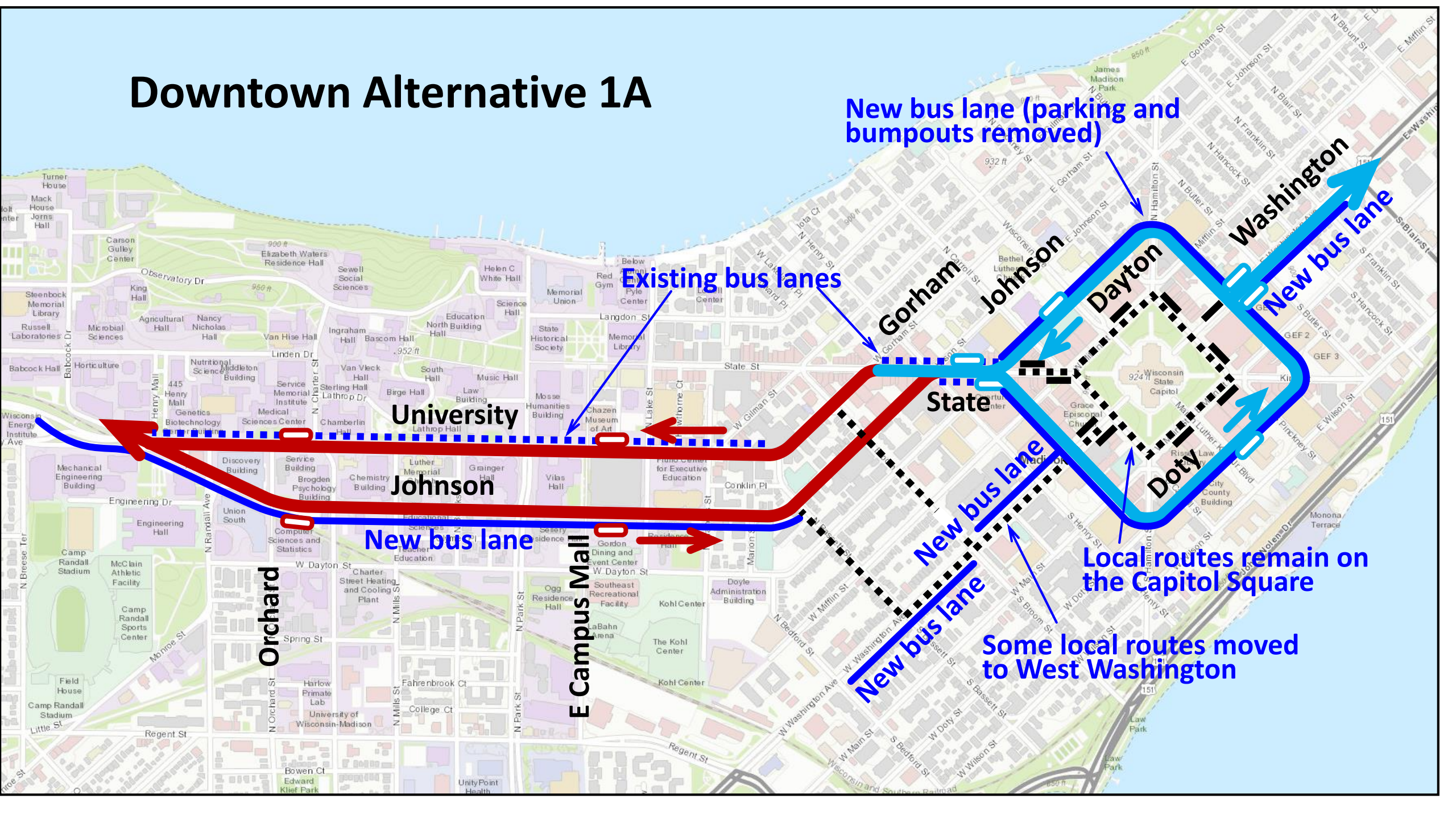
Orchard

E Campus Mall

New bus lane
New bus lane

Some local routes moved to West Washington

Downtown Alternative 1A



New bus lane (parking and bumpouts removed)

Existing bus lanes

Local routes remain on the Capitol Square

Some local routes moved to West Washington

University

Johnson

Orchard

E Campus Mall

State

Gorham

Johnson

Dayton

Doty

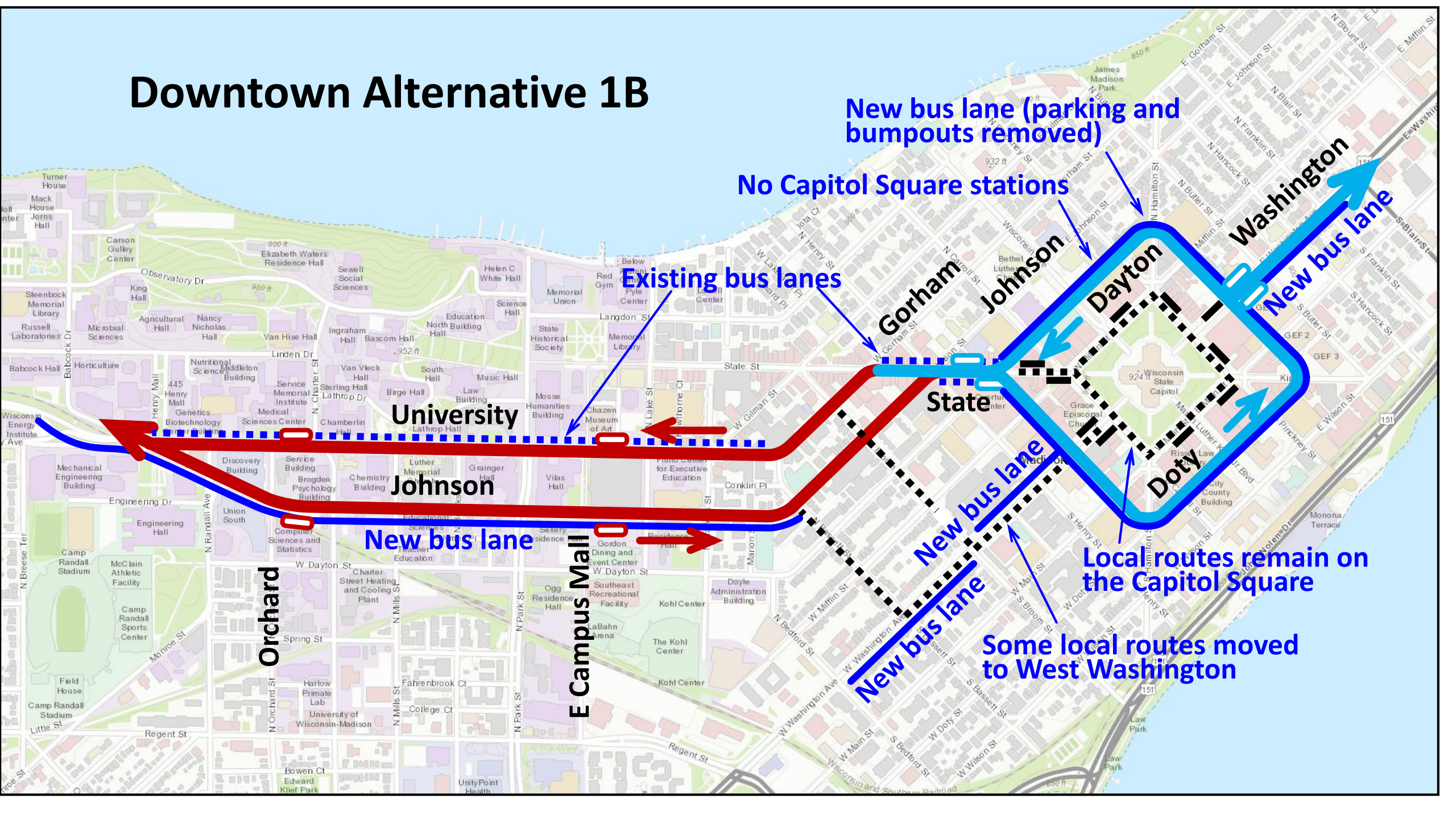
Washington

New bus lane

New bus lane

New bus lane

Downtown Alternative 1B



New bus lane (parking and bumpouts removed)

No Capitol Square stations

Existing bus lanes

University

Johnson

New bus lane

Orchard

E Campus Mall

State

Gorham

Johnson

Dayton

Washington

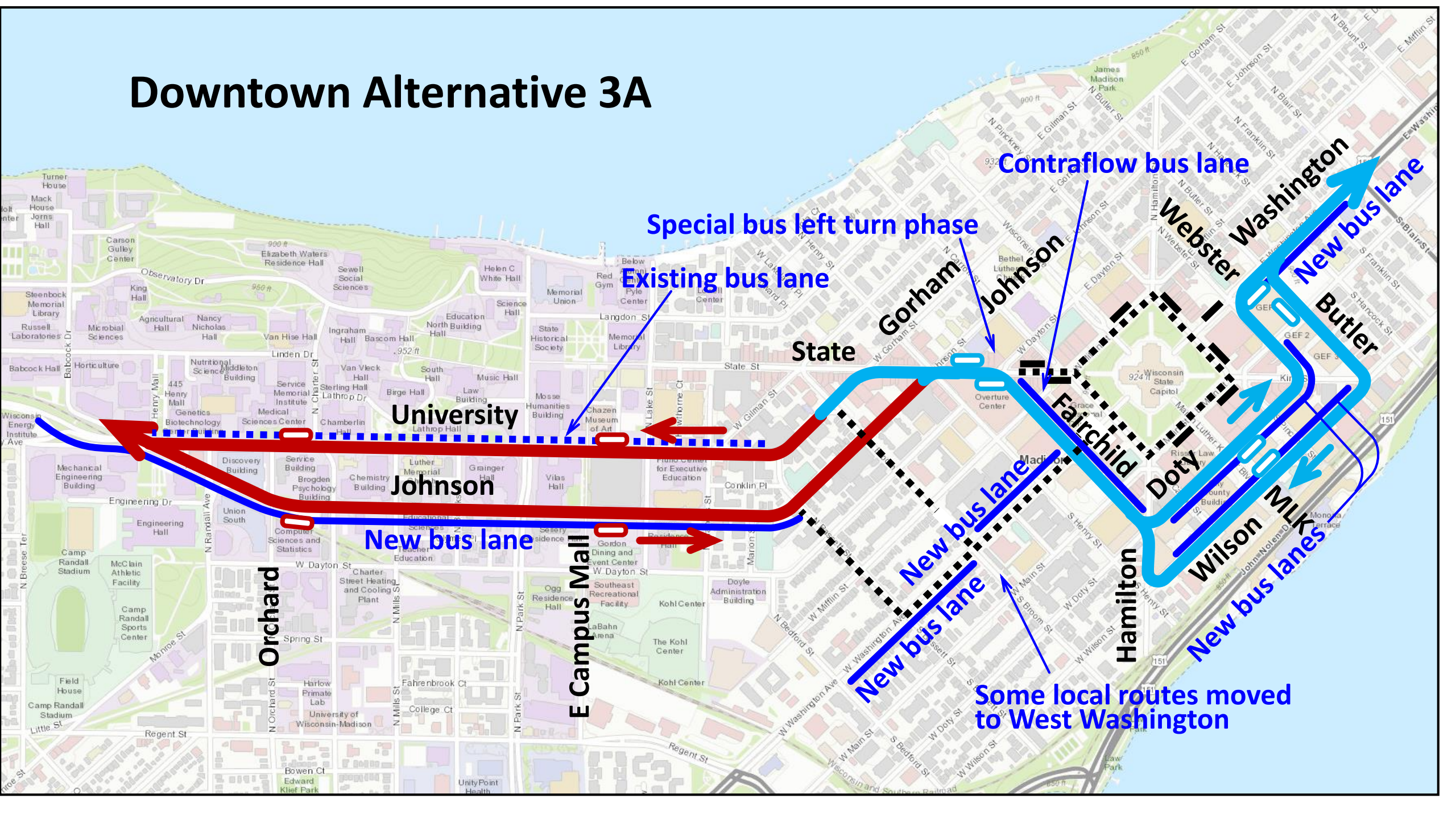
New bus lane

Doty

Local routes remain on the Capitol Square

Some local routes moved to West Washington

Downtown Alternative 3A



Special bus left turn phase

Existing bus lane

Contraflow bus lane

University

Johnson

New bus lane

Orchard

E Campus Mall

State

Gorham

Johnson

New bus lane

New bus lane

Some local routes moved to West Washington

Fairchild

Doty

Hamilton

Wilson MLK

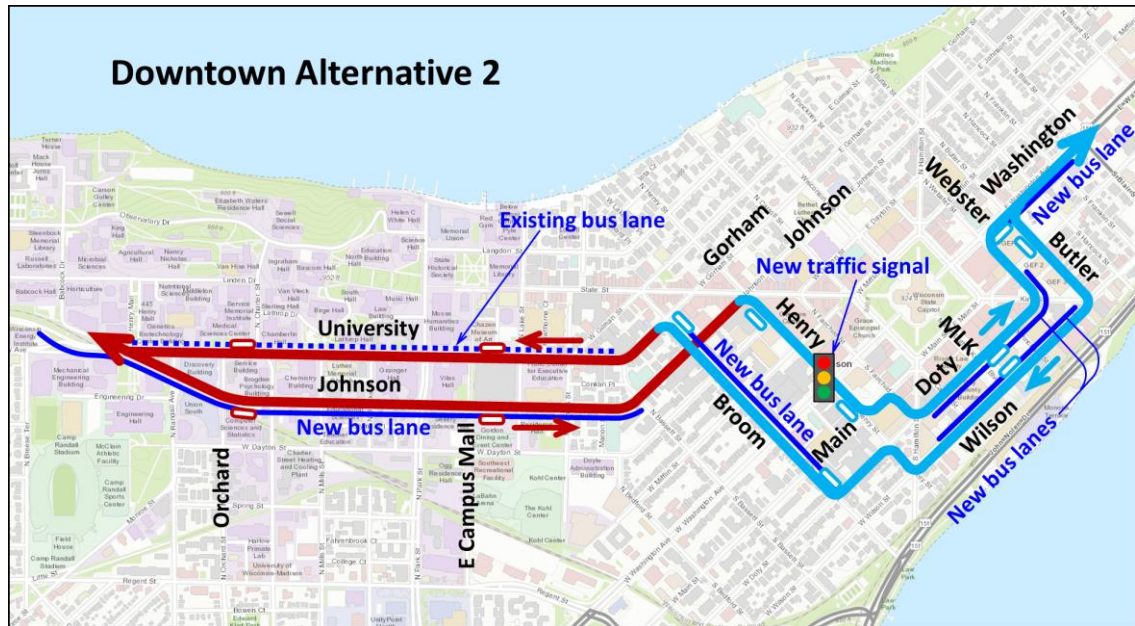
New bus lanes

Webster

Washington

Butler

Dismissed Alternatives

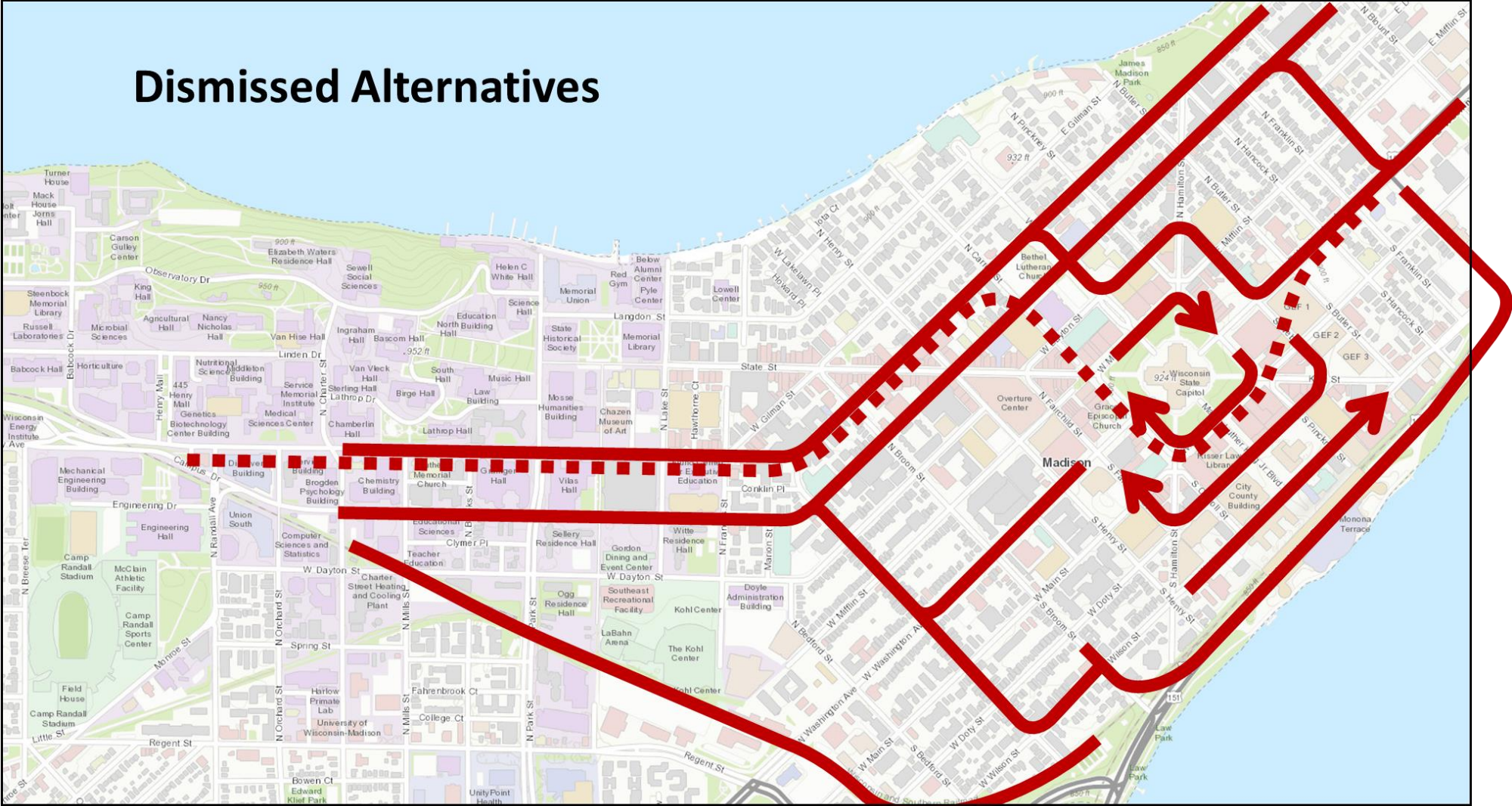


- Alt 2 – Broom/Henry
Unreliable during Overture Center Events

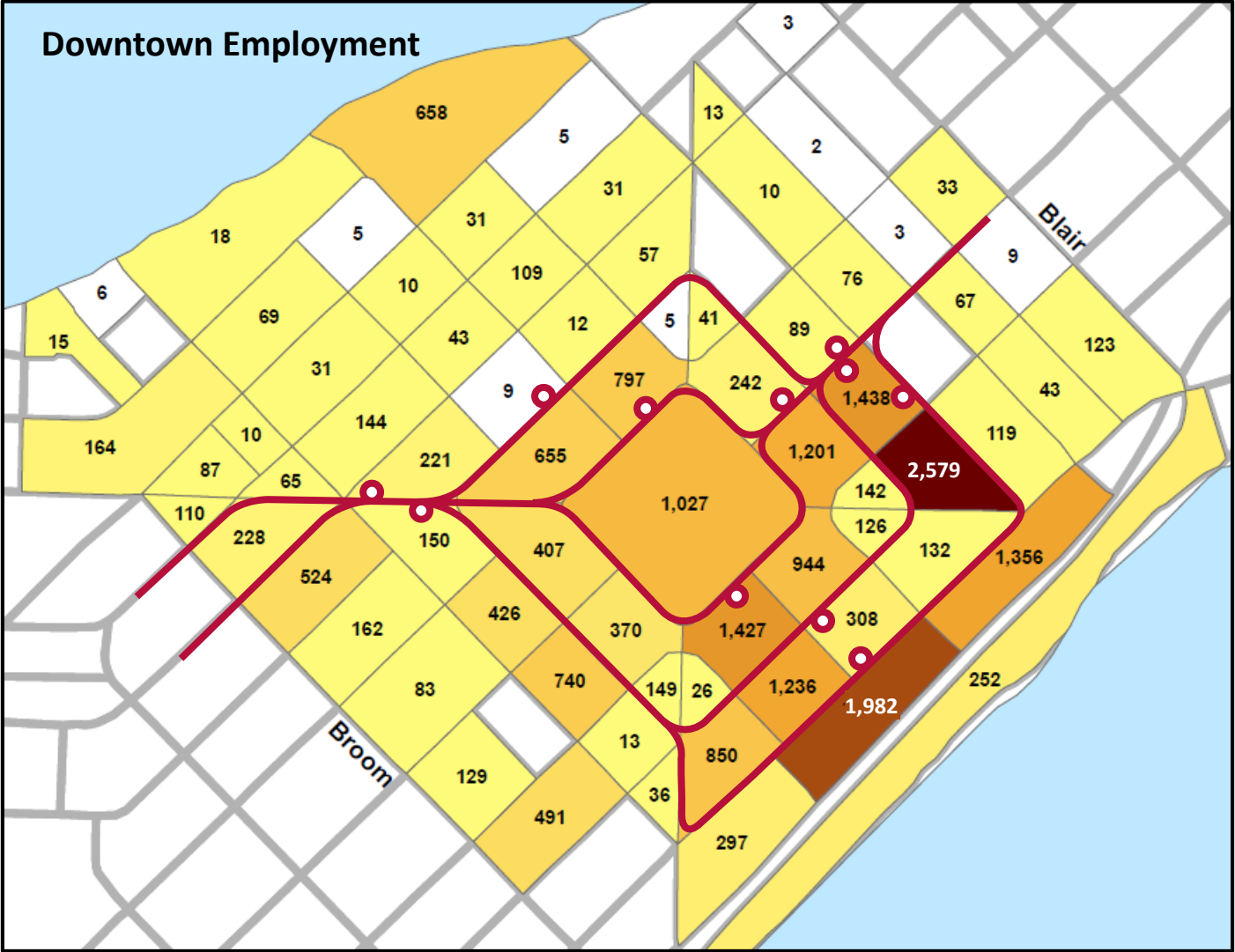


- Alt 3 – Two-way Broom
Insufficient access to State Street




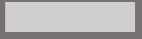



Dismissed Alternatives

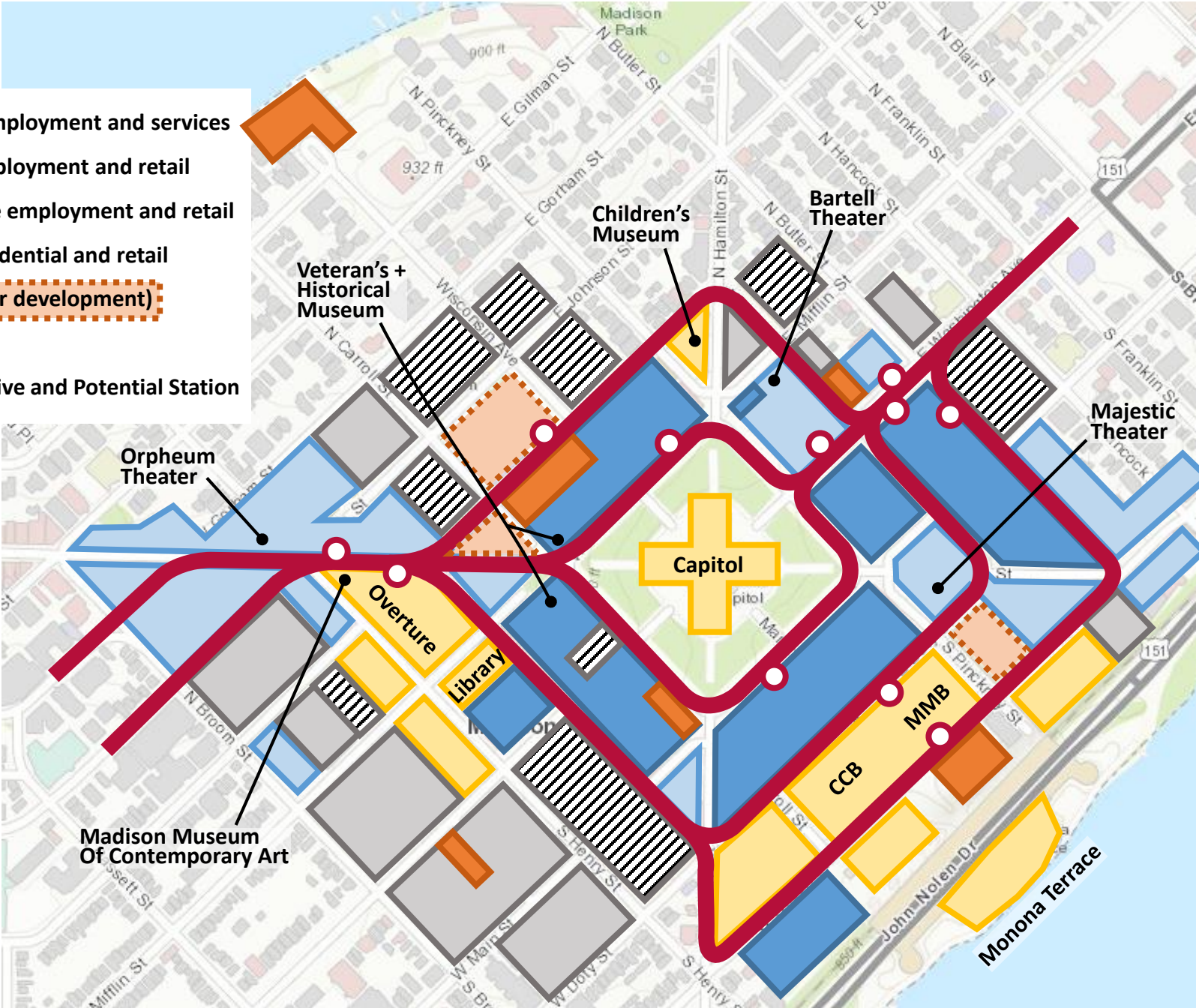


Employment



Destinations

-  Municipal employment and services
-  High rise employment and retail
-  Low/mid rise employment and retail
-  High rise residential and retail
-  Hotel (under development)
-  Other
-  BRT Alternative and Potential Station



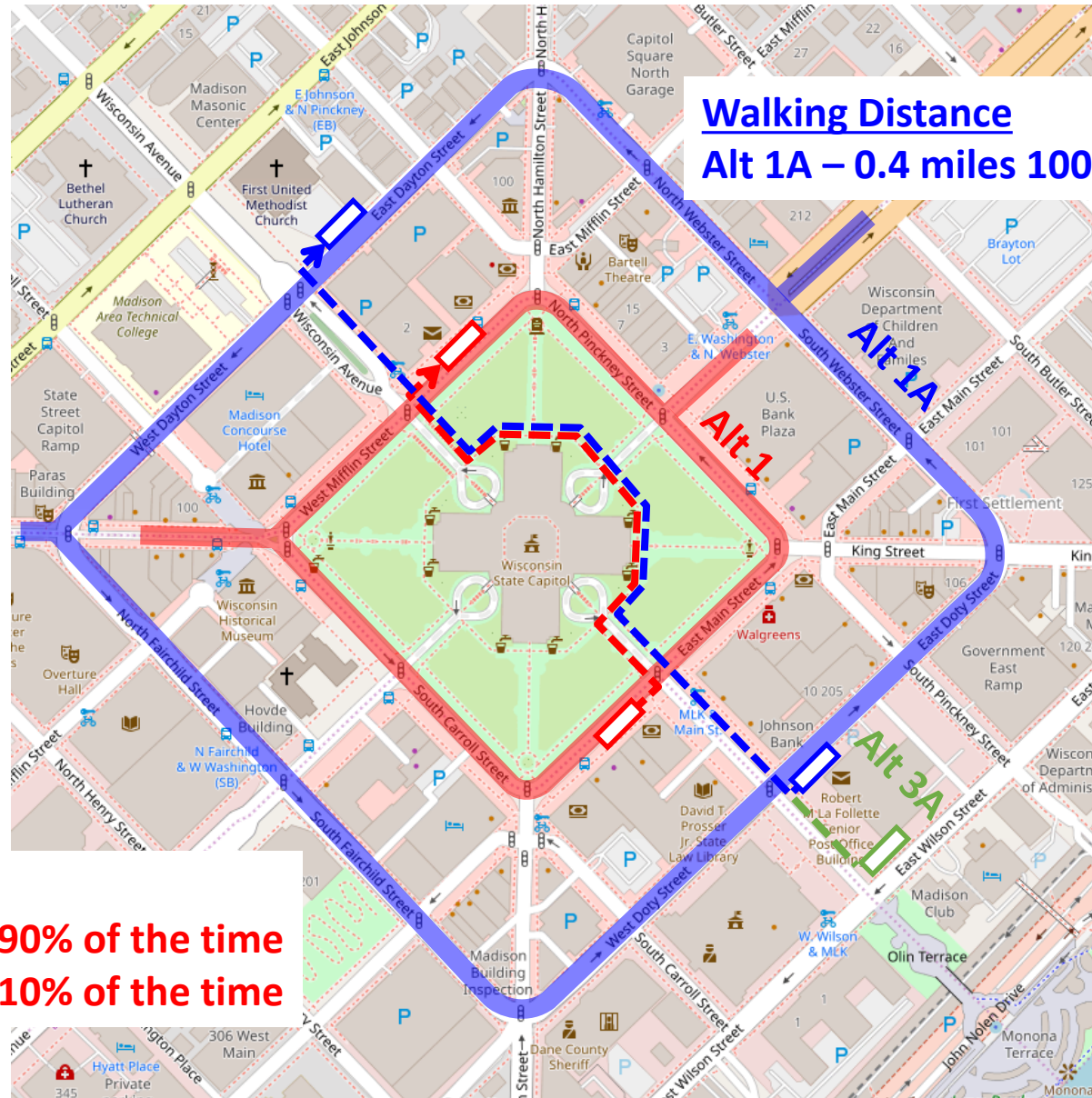
Dedicated Runningway

Alternative

	1	1A	1B	3A
Percent Bus Lanes	70	76	76	59
Miles of Bus Lanes	1.3	1.6	1.6	1.6

Between Broom Street and Blair Street

Station Pairs and Transfers



Walking Distance

Alt 1A – 0.4 miles 100% of the time

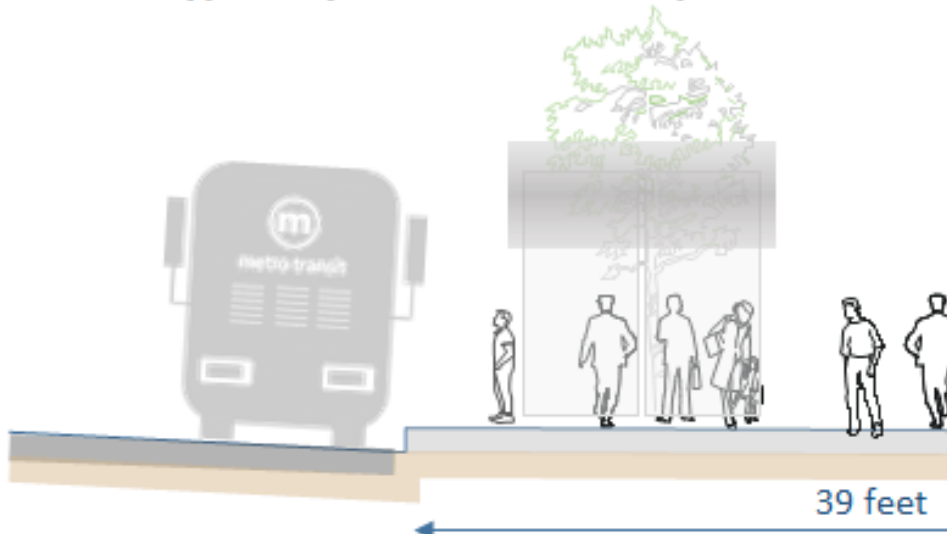
Walking Distance

Alt 1 – 0.25 miles 90% of the time

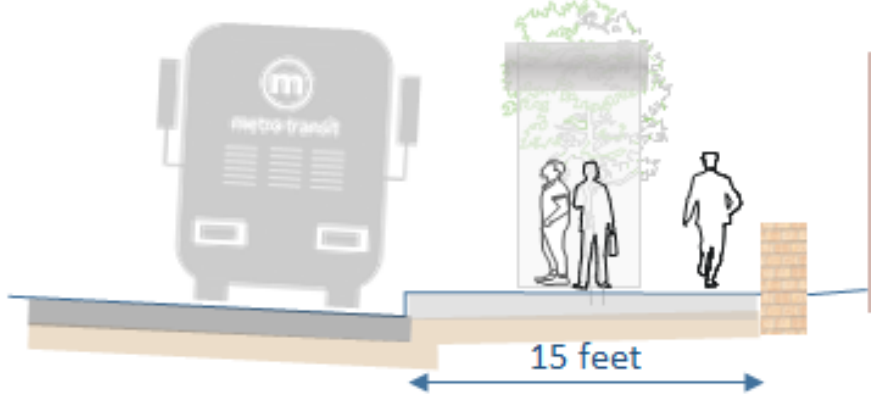
0.4 miles 10% of the time

Station Areas

Typical Space Available – Square – Alt 1



Typical Space Available – Outer Loop – Alt 1



Parking

	1	1A, 1B	3A
Total Parking Spaces Removed	4	85	68-104 *
Annual Revenue Lost **	\$8 K	\$170 K	\$136-208 K

* Depending on outcome of Wilson Street Study

** All spaces are metered

Bikes



Alt 3A

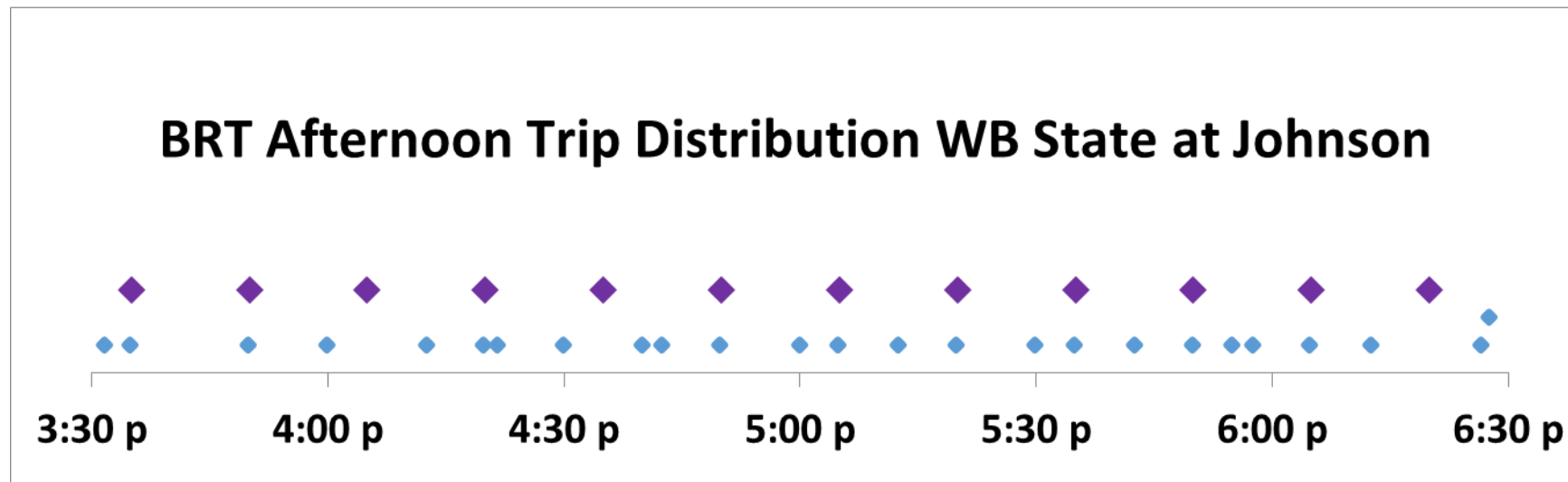
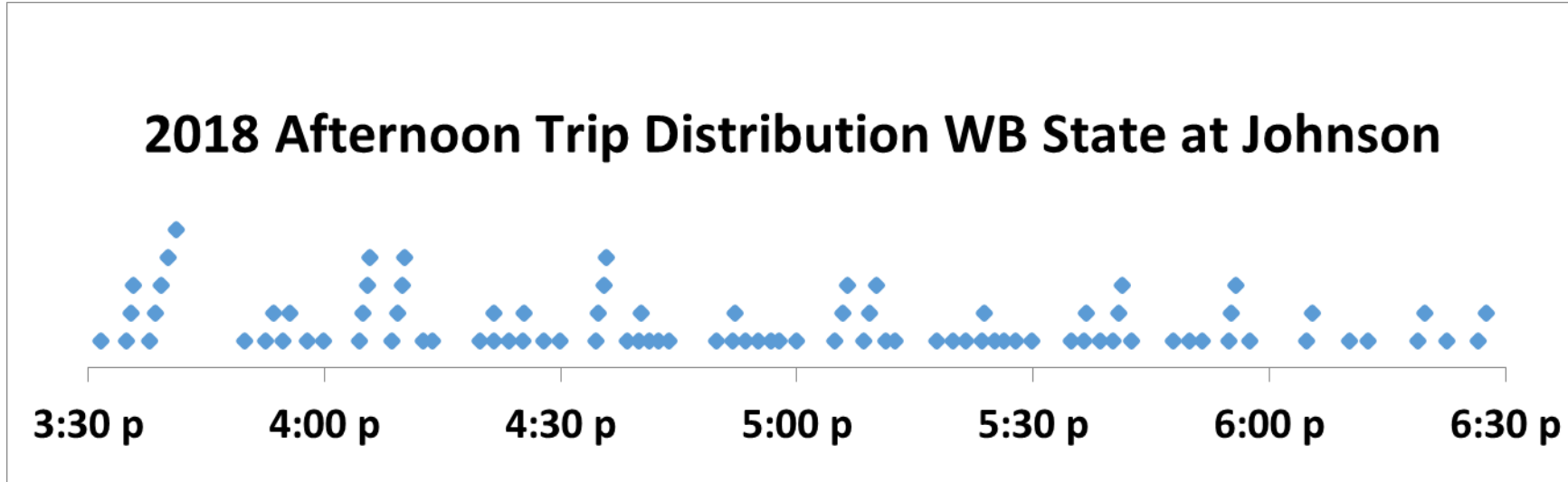
Alt 1A, B,

Pedestrians

- No significant changes to street infrastructure
- State Street – All alternatives reduce the daily total and greatly reduce the PM peak volumes
- Capitol Square – Alternative 1 replaces some local buses with electric BRT buses, reducing waiting and idling

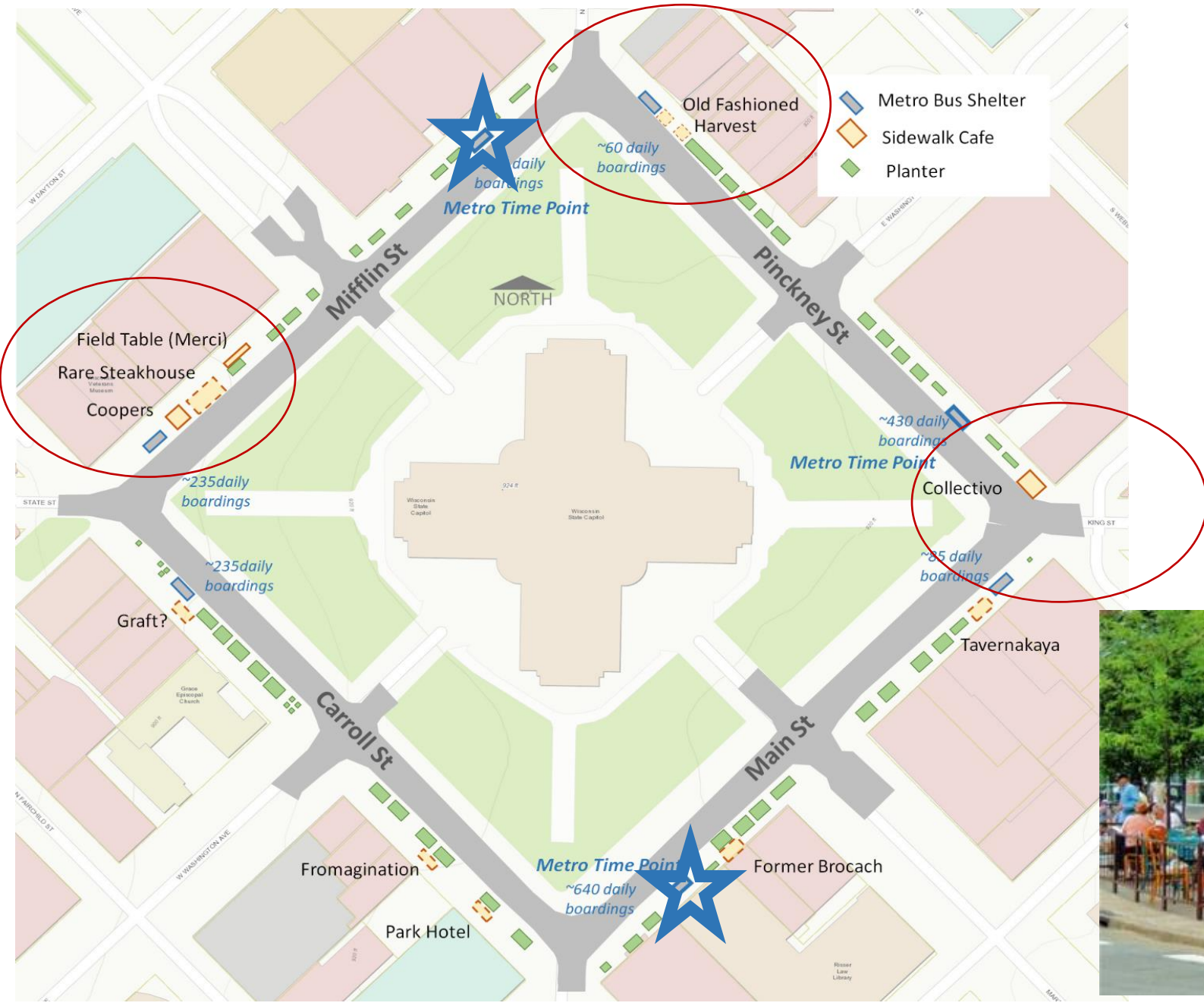


State Street



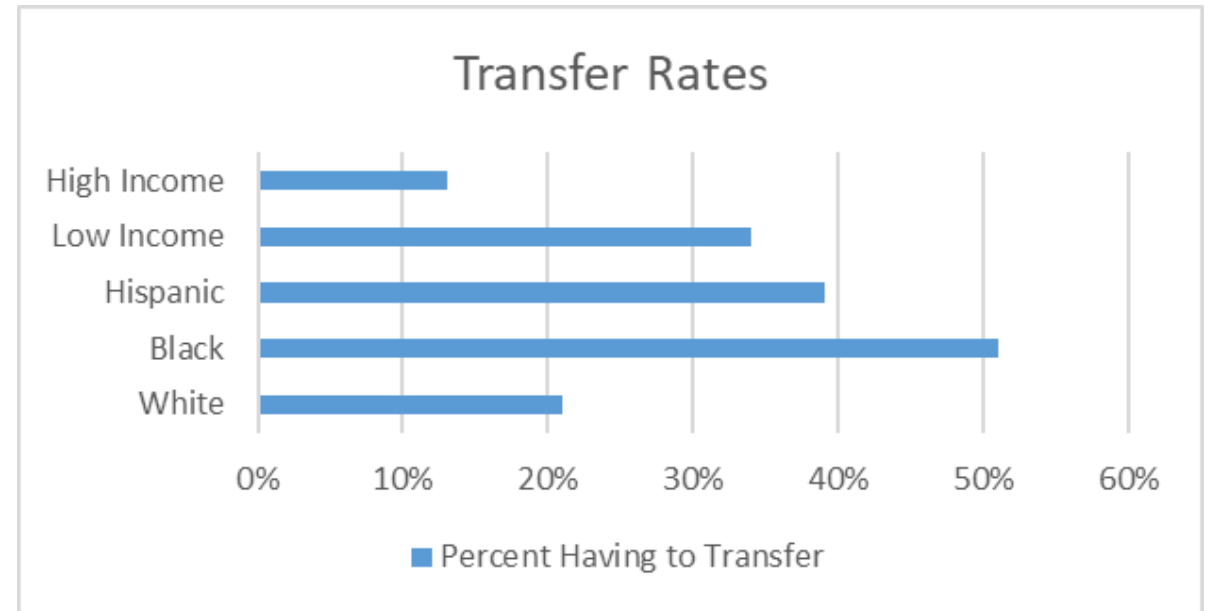
Business Concerns

- Concerns about buses:
 - Noise and emissions
 - Bus shelters take up space
 - More events could be held if buses didn't have to be detoured
- Other concerns:
 - Panhandling
 - Disruptive and illegal behavior



Equity

- 2015 On-board survey indicates low-income people and people of color transfer at higher rates than the general population
- One in four boardings on the square is a transfer.
- Transfers are how users access different parts of the system, and are particularly important for passengers traveling through. (ex Owl Creek)



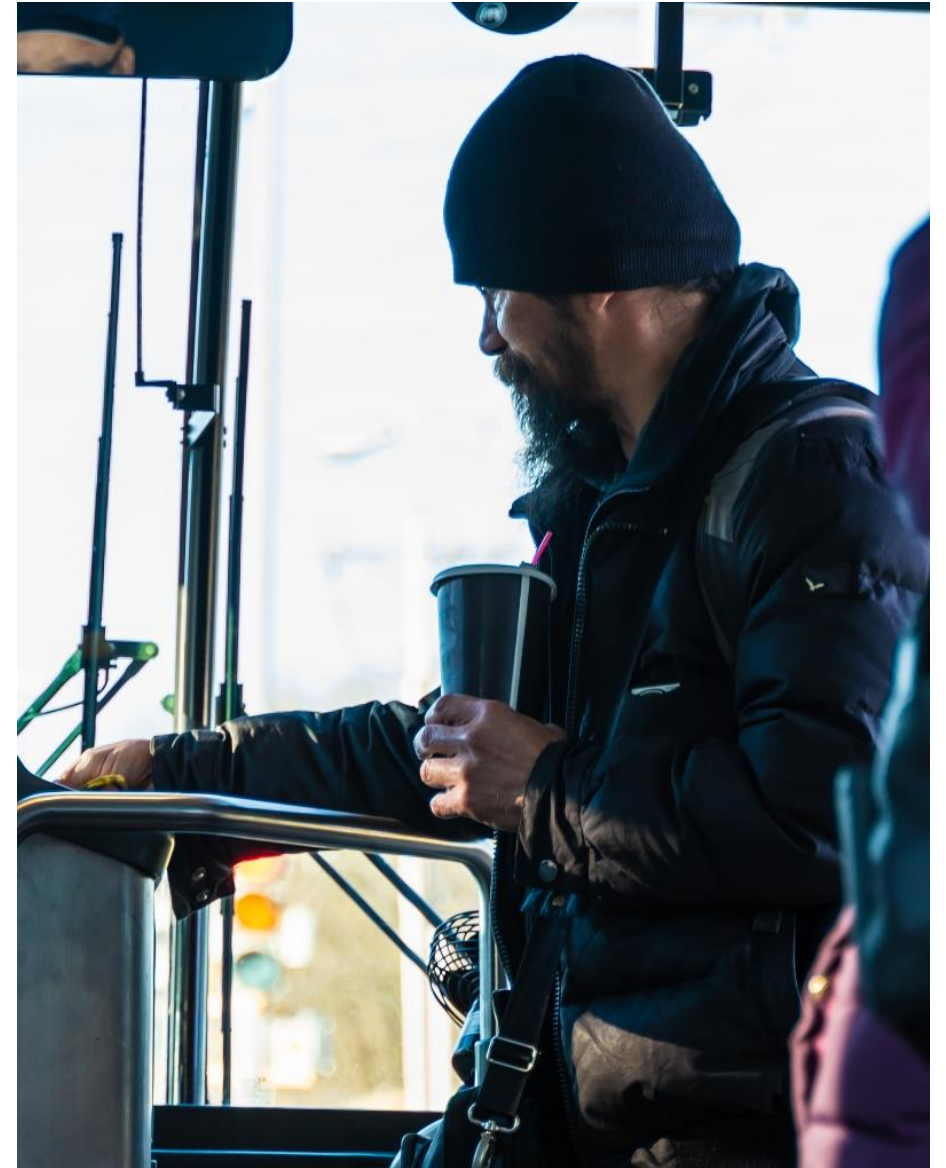
Its not possible to provide **direct** routing to all the destinations a person make need to go.



Equity

City staff interviewed bus riders on the Capitol Square during the day:

- 55% indicated that walking one block to transfer would be a problem
 - Those with mobility problems expressed greatest concern
- 78% indicated that eliminating stops on the square would be a problem
- 25% indicated that detours were a problem for them



Staff Recommendation: Alternative 1

- Most direct access to the city center
- Easiest to use - EB and WB stations are within a block or two
- Generous space for stations
- Does not reduce parking revenue
- Reduces the number of buses on State Street during PM peak
- Allows most convenient transfers to and from local buses

(Mobility considerations)

Staff Recommendation: Alternative 1

- Can minimize impacts (improve) urban environment
 - Some local bus routes will be removed from the Capitol Square
 - Diesel buses will be replaced by electric buses
 - BRT infrastructure can be positioned to maintain sidewalk and event space
 - Some bus stops on the Capitol Square may be closed or relocated
- BRT will be detoured for special events, but improved with:
 - Real-time signs with more up-to-date information
 - Benches and shelters on the Capitol Loop
- Metro Transit Network Plan – 2020

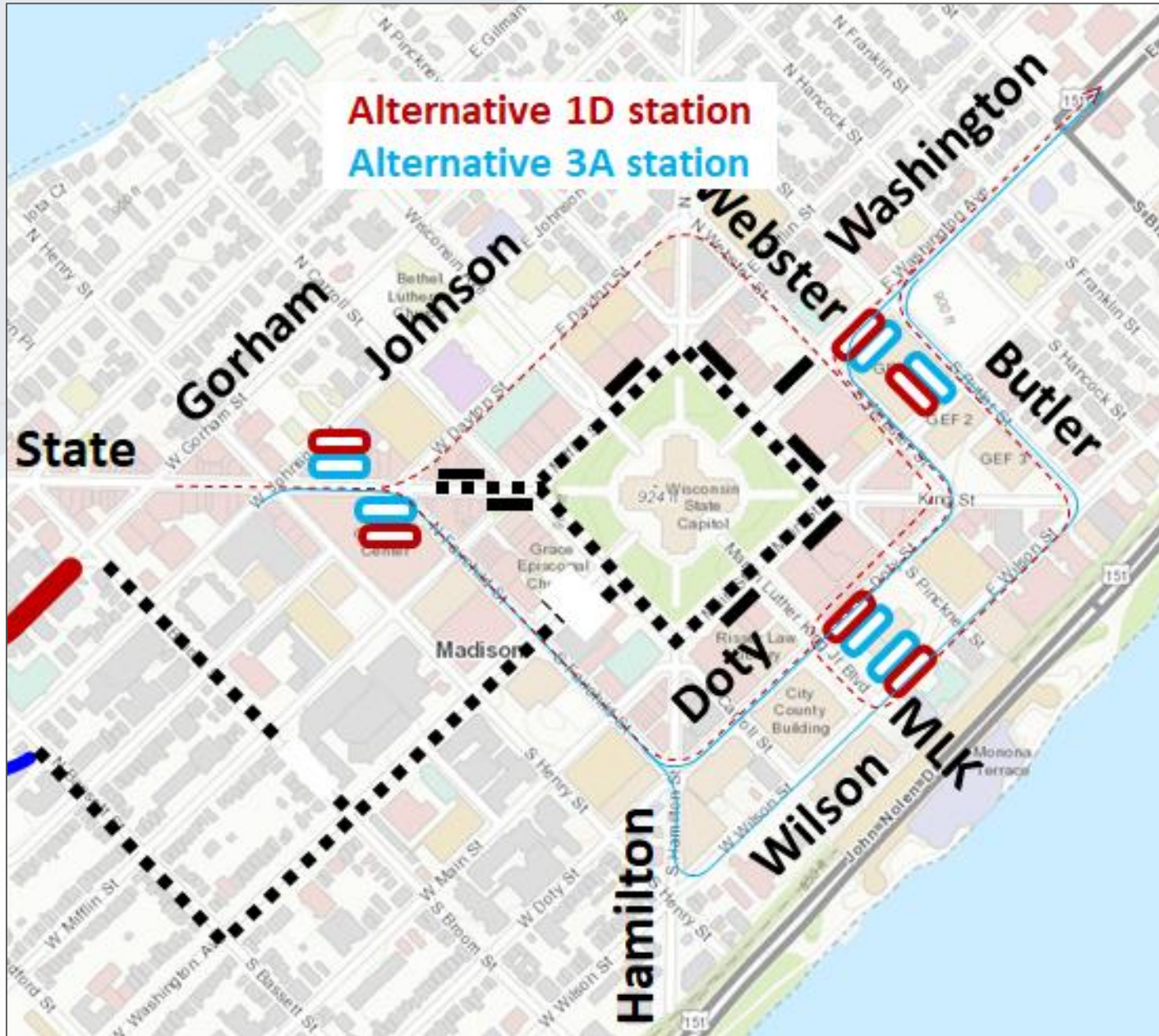
Madison East-West Bus Rapid Transit (BRT) Planning Study

Downtown Route Options – February 3, 2020

MADISON DEPARTMENT



OF TRANSPORTATION



BRT Travel Times

