

East-West Bus Rapid Transit Feasibility Study Update and Recommended Locally Preferred Alternative (LPA) Summary

September 2016



A feasibility study to evaluate bus rapid transit service in the East-West Corridor connecting major employment and activity centers between downtown Milwaukee, the Milwaukee Regional Medical Center (MRMC), and Milwaukee County Research Park (MCRP).



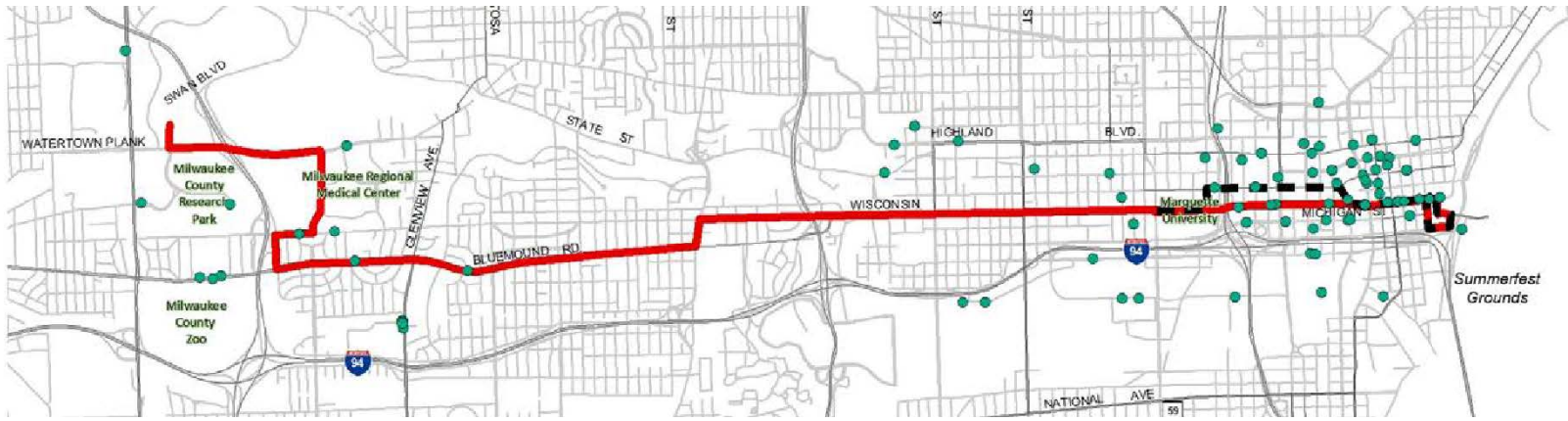
Legend

- East-West BRT LPA Based on Technical Analysis and Public/Stakeholder Input
- Proposed Stations

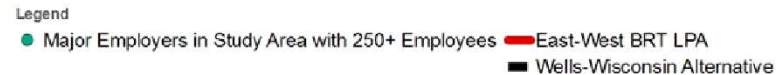
- Wells-Wisconsin Downtown Alignment if conditions arise where the LPA is not feasible during NEPA/PE phase of the project



Major Employers and Activity Centers



Major Employers



- Downtown Milwaukee is the largest employment hub in Milwaukee County
 - 81,000 jobs, new investments, 25,000 residents and growing
- Corridor has retail centers and strong neighborhoods in both Wauwatosa and Milwaukee, including the Near West Side Neighborhood:
 - 30,000 employees and 40,000 residents
- The MRMC/MCRP is a significant employment center and statewide/regional destination
 - Over 16,000 employees and 30,000 daily visitors
 - MCRP has 4,600 employees

The Outcomes of East-West BRT

- **Outcomes to transit riders**

- Improves existing corridor transit service by:
 - Operating every 10 minutes on weekdays
 - Arriving at downtown stops every 5 minutes during rush hours (either an East-West BRT or Route 30/30X bus)
 - Saving up to 13 minutes in transit travel time between downtown and the Swan Blvd. Park-and-Ride lot
 - This savings translates into over 112 hours a year, which is valued at \$1,464
 - Saving up to 8 minutes in transit travel time between downtown and MRMC
 - This savings translates into over 69 hours a year, which is valued at \$901
 - Connecting downtown to Miller Park in just over 15 minutes
 - Connecting Marquette to the Milwaukee Art Museum in 11 minutes
 - Connecting Wauwatosa to Riverside in 23 minutes
 - Connection the west side (35th Street) to MRMC in just over 17 minutes
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The Outcomes of East-West BRT

- **Outcomes to communities**

- Provide cost-effective alternative to a car
 - Owning a car costs corridor residents an average of \$755/month, compared to \$64/month for an MCTS pass

- Expand mobility

- Improve access for those who cannot or choose not to drive
- 7,250 to 9,250 corridor residents depend on transit



The Outcomes of East-West BRT

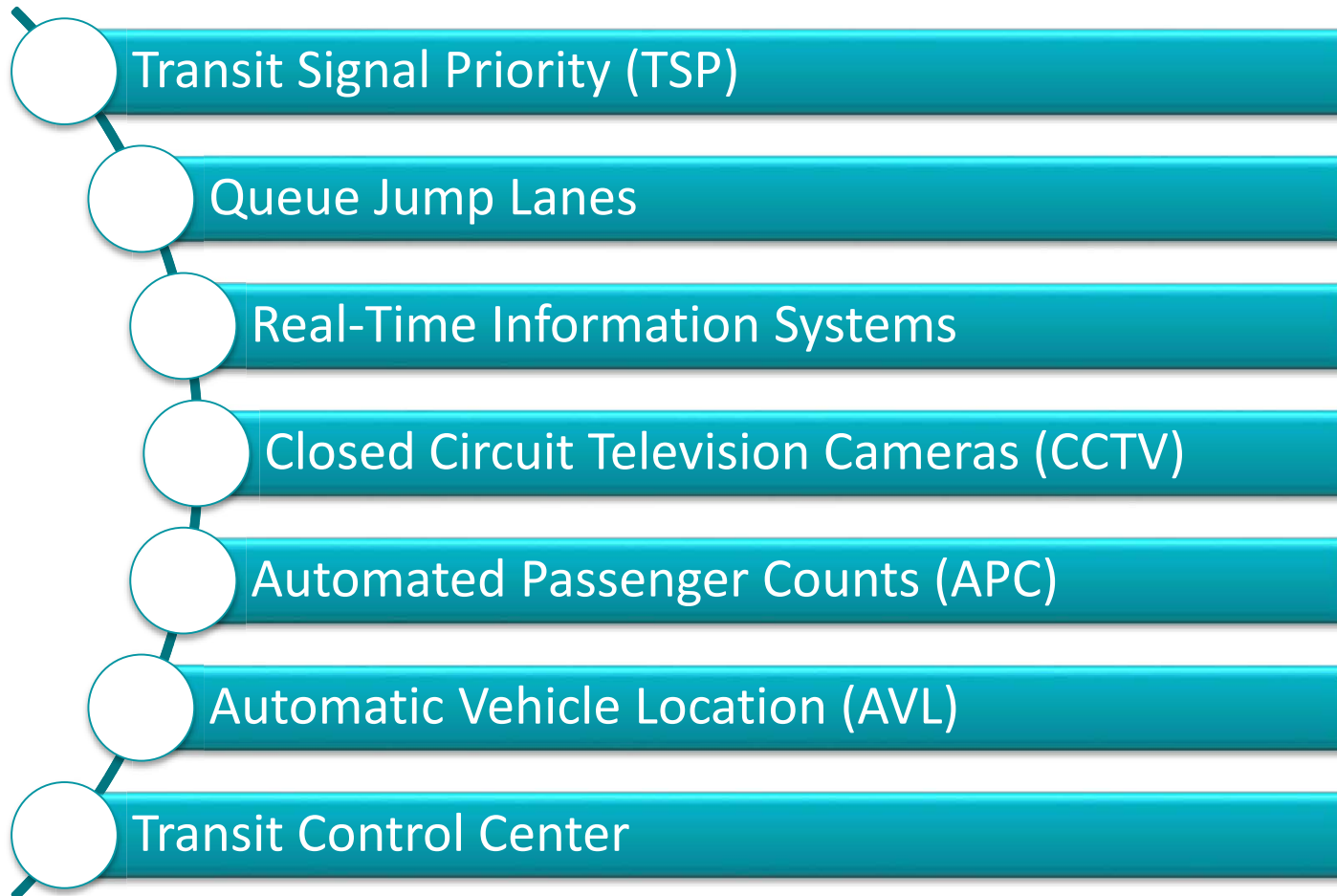
- **Outcomes to commuters**
 - Reduce congestion
 - Removes up to 6,700 cars daily
 - Approximately 77% of those cars travelling along Bluemound Road and Wisconsin Avenue are single-occupant;
 - Improve safety
 - Dedicated lanes reduce traffic weaving
 - Dedicated lanes mean cars won't get stuck behind buses



The Outcomes of East-West BRT

- **Outcomes to businesses**
 - Catalyze economic development
 - Peer agencies have seen \$500 million or more in investment along BRT routes
 - Increase employee attraction and retention
 - Attracts businesses and community investment in station areas and along the route because the infrastructure signals permanent investment
 - **Outcomes to the region**
 - First investment in a regional BRT network
 - Provide regional, multi-modal connections
 - Improve air quality
 - Generate a 17 million-mile annual reduction in vehicle miles travelled
 - Leverage federal funding that is not otherwise available locally
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BRT Intelligent Transport Systems

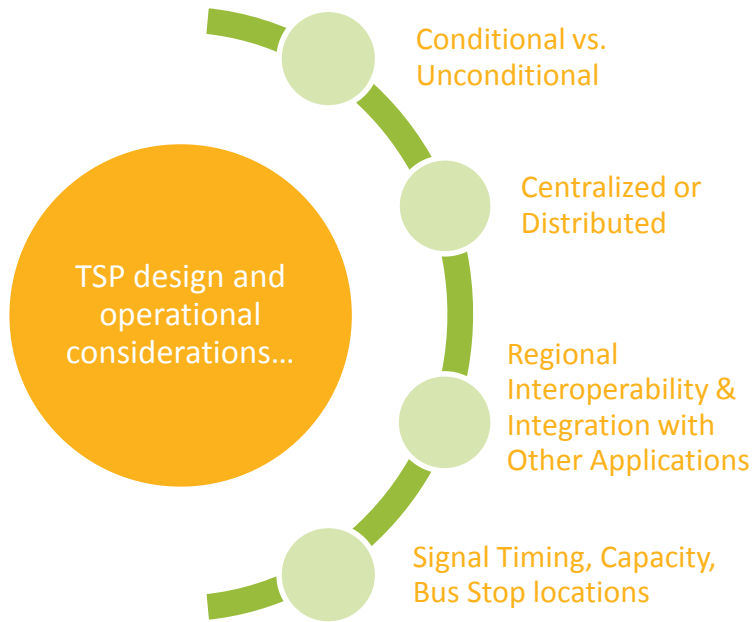


Communications

Most ITS systems use one form or another of communications technologies.

- **Private radio networks:** Consists of a radio base, radio towers and transmitter/receivers in each bus. Enables long-distance exchange of live data.
 - **Cellular:** Each bus driver has a cell phone for voice and a cell modem for data (can also be combined). Enables long-distance exchange of live data.
 - **Wi-Fi:** Consists of a garage or an area with wireless access points. Each bus has a Wi-Fi bridge that links the bus to the network.
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Transit Signal Priority (TSP)



Real-Time Information Signs



Metro Transit, Minneapolis, MN

Notes:

- Pole mounted outside bus stops
- Used at stops with multiple routes, high ridership
- Fiber used for communications to central office



Chicago Transit Authority

Notes:

- Smaller size, integrated into shelter
- Cellular communications to center

Fare Collection



Sales/vending technology: Given the higher-quality image and customer-friendly experience that is often one of the goals of BRT, ticket vending machines at BRT stations are typically introduced.

Surveillance/CCTV/Security Systems

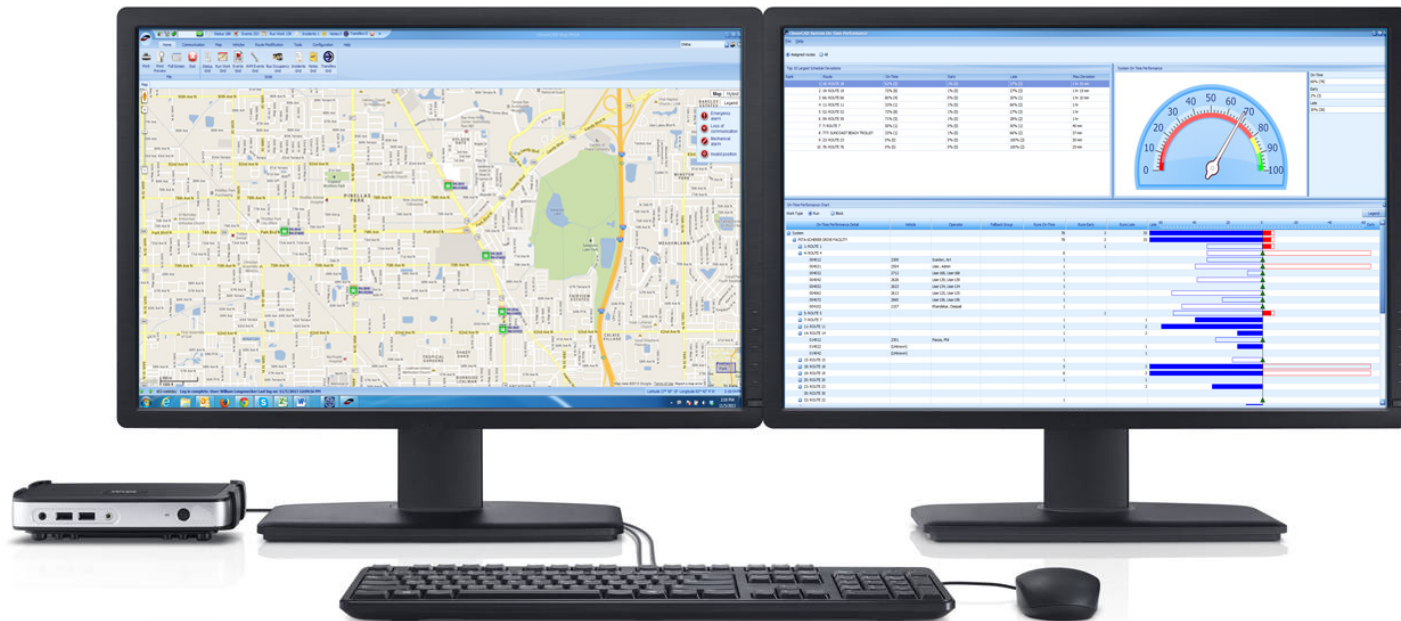


Surveillance devices are principally made up of closed-circuit television (CCTV) cameras, occasionally equipped with microphones. These enable a central dispatch and/or control center to remotely monitor vehicles, stations and guideways.



Alarms can include passenger-activated alarm strips or buttons on vehicles or in stations, and operator panic buttons

Automatic Vehicle Location (AVL) Systems



AVL technology is applied to monitor the location of transit vehicles in real time through the use of GPS devices or other location-monitoring methods. Information about the vehicle location is transmitted to a centralized control center in either raw data format or as processed data.

BRT Capital Cost Sharing

Total Cost = \$42 – 48M

