

North-South Bus Rapid Transit Project

City of Madison, Wisconsin

Metro Transit

Project Narrative

August 2023



Project Narrative Revision History Record

Revision Number	Date	Reason for Revision
1.0	8-25-2023	Original for 2023 Small Starts Submittal

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1. Project Identification

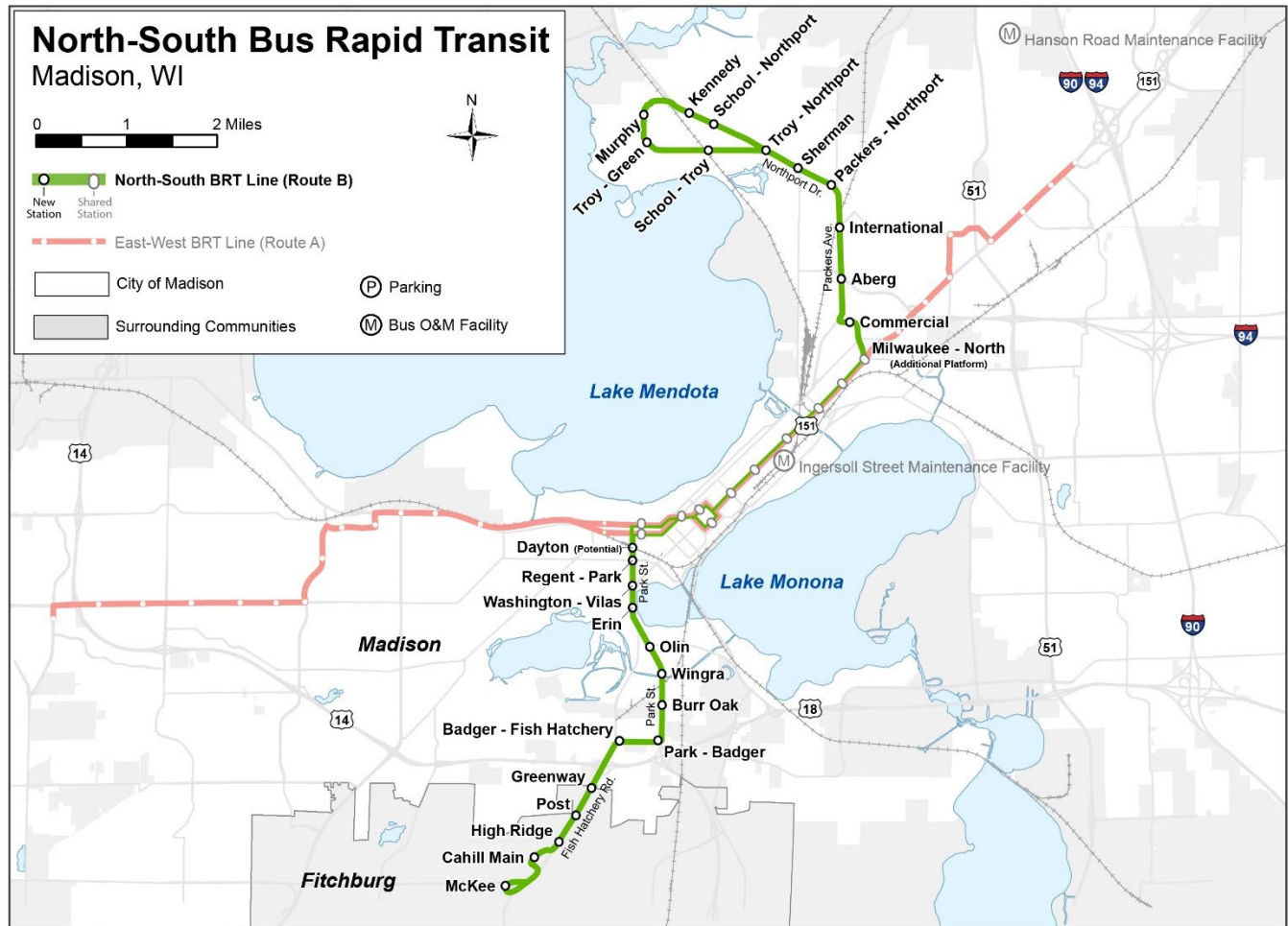
North-South BRT is a proposed 15-mile bus rapid transit (BRT) project in the City of Madison, Wisconsin, of which 3.5 miles of guideway is shared with East-West BRT (currently under construction) in the downtown Madison, University of Wisconsin-Madison (UW) Campus, and isthmus areas. The line will run from Northport Drive in north Madison, through the isthmus, downtown Madison, and part of the UW Campus, then continue to South Madison and terminate in the City of Fitchburg. The North-South BRT will serve 33 stations, of which 24 will be constructed through the North-South BRT project. The North-South BRT line shares 9 BRT stations with the East-West BRT. These stations will feature platforms suitable for near-level boarding and distinctly branded shelters with rider amenities such as real-time arrival information. The line will provide service from about 5:00 am to midnight, with headways of 15 minutes between 6 am and 8 pm. Operation of the line will be aided by approximately 5.2 miles of new exclusive bus-only lanes, and two new on-route chargers. Battery electric buses to operate the line have already been purchased with Madison's East-West Small Starts BRT Project.

The project will be the second BRT line to operate in Madison, along with East-West BRT. Together, these two lines both take advantage of a BRT spine running down the length of the city's central area which is situated on an isthmus between two large lakes and is crowned by the Wisconsin State Capitol. At the southwest end of the isthmus is the UW campus, which is home to almost 50,000 students and employs over 25,000 staff.¹

North-South BRT will exclusively serve destinations to the north and south of the downtown and UW areas. To the north, it will serve residential communities along Northport Drive and Packers Avenue, and place two stations adjacent to the massive site of a former Oscar Mayer meat processing plant, which is envisioned for high density mixed use development. To the south, it will serve UnityPoint Health Meriter Hospital, SSM Health St. Mary's Hospital, the bustling commercial corridors along Park Street and Fish Hatchery Road, and the residential neighborhoods along and around these corridors.

¹ <https://www.wisc.edu/about/facts/>

2. North-South BRT Project Setting



3. Current Conditions and Future Year Conditions

The entire North-South BRT corridor has a total population of approximately 89,000 (the project’s current year is 2021) and a total employment of 87,000, all within a constrained 12.4 square miles of land area. The population density of the corridor is approximately 7,200 people per square mile and the employment density is 7,000 jobs per square mile. These figures include the segment of the North-South BRT corridor that runs through downtown Madison and the UW campus and is shared with the East-West BRT (Route A). More detailed station area calculations are included in the Small Starts template.

The corridor that the North-South BRT serves independently has an approximate total population of 37,000, a total employment of 32,000, and a land area of 9.1 square miles. The population density of these corridor segments is approximately 4,000 people per square mile and the employment density is 3,500 jobs per square mile. 15% of housing units on these corridor segments are legally binding affordability restricted.

By 2045, the entire North-South BRT corridor is projected to have an approximate total population of 117,000 and a total employment of 98,000. The population density of the entire 12.4 square mile corridor would be 9,500 peoples per square mile and the employment density would be approximately 7,800 jobs per square mile. These estimates would represent a population increase of approximately 32% and an employment increase of 13% respectively from the current year condition. Also by 2045, the corridor that the North-South BRT serves independently is projected to have a total population of 46,000 and an approximate total employment of 36,000. The population density of these corridor segments would be approximately 5,000 people per square mile and the employment density would be approximately 4,000 jobs per square mile. These estimates would represent a population increase of 25% and an employment increase of 13% respectively from the current year condition.

4. Project Purpose and Merit

Transit service within the Madison area is currently operated primarily by buses on local routes that face challenges such as congestion-related delays and long travel times due to the nature of fixed-route bus service. These challenges can burden disadvantaged communities that rely on transit to access employment and critical services, making transit an unattractive travel alternative. The proposed BRT alignment will serve several of the most disadvantaged areas within the Madison area.

The project identifies several needs in the corridor, which are summarized below:

- **Need to effectively connect neighborhoods to employment.** Equity is a top priority of City leaders and any investment in transit should serve those who have the greatest need, including disadvantaged communities, low-income populations, and transit-dependent individuals and households. Transit should provide efficient connections to employment centers and be an economic driver of high-quality jobs. The proposed Corridor alignment serves several of the most disadvantaged communities in Madison, as well as major employment centers, and has a need for continued transit investment.
- **Need to provide high quality, reliable and frequent transit service to underserved communities on Madison’s north and south sides.** Madison’s north and south sides have some of the greatest racial, ethnic, and income diversity within the City. This Corridor is or will be home to Madison College, Urban League’s Black Business Hub, Centro Hispano, the Center for Black Excellence, Access Health Care, Dean Health Clinic, Warner Community Center, The River Food Pantry, and numerous other agencies focusing on Madison’s underserved residents. Madison has established a \$99 million South Madison TID 51 to support and encourage investments by non-profit entities and build critical infrastructure. The North-South BRT will provide a high-quality connection to these important services for community members that have reduced access to personal motor vehicles.
- **Need to accommodate increased travel demand to and from existing and planned developments, services, jobs and destinations through multi-modal transportation investments.** Current travel times in the North-South Corridor are not competitive with travel outside the central Madison area. Congestion, transit demand, and continued development in the area contribute to delays on the current bus network, which reduce operational efficiency and on-time performance. According to [WisDOT Traffic Counts](#), key areas along the Corridor with the highest Annual Average Daily Traffic Count (AADT) include South Park Street (37,100), Packers Avenue (37,900), and East Washington Avenue (43,600). Large areas with a likelihood of developable space, such as near the Packers Avenue and Aberg Avenue Interchange, will increase travel demands on roadways along the proposed Corridor. Providing high-capacity BRT will more efficiently and quickly move people through the most congested areas of the city and will better meet future travel demands.
- **Need to support to sustainable growth strategies in adopted plans and policies.** The *Imagine Madison* (Madison’s comprehensive plan) *Madison In Motion* (Madison’s transportation vision), and *Regional Transportation Plan 2050* (The MPO’s long range plan) call for a transportation system that accommodates transportation needs while mitigating congestion, promoting air quality, and promoting sustainability and energy conservation. In 2023 Madison is demonstrating this commitment through construction of the East-West Bus Rapid Transit line and implementing a full restructuring of transit routes to improve access and increase ridership. The North-South BRT project will further enhance the transit network to reduce reliance on single-occupant motor vehicles and support regional sustainability goals.

5. Project Summary

The North-South BRT project will provide high quality transit service to communities and job centers located north and south of the downtown Madison isthmus, including the future development at the Oscar Mayer site, two hospital complexes, and the fast-growing suburb of Fitchburg. The project will equip these areas with new stations that will improve system legibility, rider comfort and safety, and boarding and alighting operations. It will also consolidate stops and reserve new dedicated transit right-of-way, significantly improving travel times and boosting reliability for riders.

This project was planned as part of a larger redesign of the transit network for the Madison area and will improve connections with other routes, including the East-West BRT with which it will share the central BRT spine. Together, East-West BRT and North-South BRT will form the backbone of the transit network in Madison, with connections to several other routes.

The corridor itself is responsive to the ridership of the local bus network of Madison, tying together trip generators on the edges of the city with the ridership engine of the downtown and UW Campus. The geography of the City itself, with major institutional and office uses concentrated on a natural chokepoint, is ideal for transit and for a branching system design. BRT is the ideal mode to cost-effectively expand transit service to a busy city of Madison's size, and the alignment chosen will maximize the benefits of bus-only lanes, and shared stations.

The North-South BRT project will serve residents of Madison with transit service that is frequent, fast, reliable, legible, comfortable, and safe. The project makes sense on its own terms, and those benefits are multiplied by its integration into a broader metropolitan vision for bus service. Madison is a city with a nearly ideal geography, mix of uses, and density of activity for transit, and the North-South BRT project will go far in meeting that opportunity.