

Case Study: Bismarck-Mandan Metropolitan Planning Organization (Bismarck-Mandan MPO) East Main Avenue Corridor Study

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The Bismarck-Mandan Metropolitan Planning Organization (MPO) is pursuing a Complete Streets approach to transportation infrastructure preservation and expansion. The MPO is partnering with the City of Bismarck, North Dakota, to study the East Main Avenue Corridor, located on the east side of downtown Bismarck. The MPO has promoted efforts to identify, develop, and maintain a robust bicycle and pedestrian network and demonstrated a multimodal, forward-looking approach to transportation planning and development for a region of just over 125,000 residents. This new study reviews transportation needs for people and freight; identifies ways to expand transit, bicycle, and pedestrian infrastructure; and pinpoints development opportunities along the East Main Avenue Corridor.

The MPO's 2045 [Metropolitan Transportation Plan \(MTP\)](#), adopted in 2020, highlights seven overarching goals for enhancing the safety, comfort, and accessibility of the Bismarck-Mandan metro area's transportation system. Goal Five, in alignment with the MPO's Complete Streets planning framework, focuses on developing alternative transportation modes to automobile travel through increased transit system productivity, bicycle and pedestrian connectivity opportunities, and safety and awareness for all travelers.

Background and Demographics

The Bismarck-Mandan metropolitan area serves as a freight and commercial retail hub for the region. The Bismarck-Mandan MPO oversees transportation planning

PROJECT SNAPSHOT

- In 2010, the MPO hosted a Complete Streets workshop for member jurisdictions and other planners within the region.
- The East Main Avenue Corridor study is intended to identify ways Complete Streets concepts can meet the needs of travelers along the corridor.
- The MPO intends for this study to be the first of many to redevelop additional corridors into a regionally connected network.

PUBLIC PARTICIPATION HIGHLIGHTS

- The project utilizes an interactive map as a forum for the public to assign comments and suggestions to locations along the corridor.
- Project staff conducted one-on-one interviews with property owners along the corridor.
- At the end of 2022, an Open House and Community workshop will be held to gather a final round of feedback from the public and key stakeholders.

and management of five jurisdictions: the City of Bismarck, the City of Mandan, the City of Lincoln, Burleigh County, and Morton County. The Bismarck-Mandan region has had steady population growth since 1985. However, from 2010-2015, population growth doubled compared to historical rates. The MPO forecasts 50,000 new residents, 19,000 new households, and 49,000 new jobs within the region by 2045.

The League of American Cyclists designated the Bismarck-Mandan metropolitan area as a Bicycle Friendly Community at the Bronze level in 2015, scoring the community based on five categories: 1) Equity and Accessibility, 2) Engineering, 3) Education, 4) Encouragement, and 5) Evaluation and Planning. Since then, the MPO has fostered enhancement of bicycle and pedestrian infrastructure to prioritize safe travel for various modes of transportation through signage, street markings, and on- and off-street barriers protected travel areas. Within its [2017 Bicycle + Pedestrian Plan](#), the MPO identified shortcomings in regional bicycle and pedestrian infrastructure: low number of bicycle commuters, high rate of bicycle accidents, and limited on-road bicycle infrastructure.

Agency Challenges

To accommodate quality of life and travel needs for the region's diverse population, the Bismarck-Mandan MPO is prioritizing changes that increase connectedness and safe access to critical services, like medical care, schools, and social service facilities. According to the [American Communities Survey](#), the East Main Ave Corridor neighborhood is 30-40% below the poverty line and has a majority non-white population. In addition to physical and operation concerns, the data collection and assessment phase of the East Main Avenue Corridor study utilized environmental justice metrics to determine a multidimensional picture of the current and potential challenges facing the corridor.

Complete Streets in the Planning Process

The MPO encourages its member jurisdictions to incorporate Complete Streets concepts into all local planning efforts. In 2012, the MPO conducted the [Bismarck Downtown Subarea Study](#), presenting topics such as expanding gathering and green spaces, reducing parking, and other urban design concepts new to the region. Several recommendations from the study were incorporated into the downtown Bismarck



Figure 1: View of East Main Ave. corridor between 7th St. and 26th St. This portrays challenges faced by travelers when navigating the area. Photo credit: SRF Consulting

development projects, including ADA accessible crossings, intelligent transportation systems, audio and visual elements for pedestrians, lane reductions, speed reductions, and streetscape elements like bicycle racks and benches. The downtown area has seen a significant increase in commercial, leisure, and pedestrian activity compared to 10 years ago.

[The East Main Avenue Corridor Study](#)

Through a partnership with the City of Bismarck, the Bismarck-Mandan MPO is studying the East Main Avenue Corridor's past, current, and future needs to develop creative, forward-looking project plans to improve corridor mobility. The City of Bismarck leads the effort, and the MPO provides guidance, oversight, and funding support. In 2020, the [Pavement Conditions Analysis](#) flagged the corridor as deteriorating and in short-term need of reconstruction. Initial reactions to a proposed reconstruction project for the East Main Ave Corridor garnered pushback from some corridor property owners, inspiring the MPO to initiate a study of the area to gain understanding of the most appropriate strategies for reconstruction and redevelopment in this context.

The East Main Avenue Corridor Study has four main goals for the corridor, that evolved through public input: 1) Improve the aging corridor pavement, 2) Ensure all modes of transportation are comfortably accommodated, 3) Support economic development opportunities along the corridor (through implementation of transportation projects), and 4) minimize detrimental impacts to adjacent corridors (to maintain and improve overall regional mobility).

[East Main Avenue Corridor Features and Functions](#)

The study area sits east of the Bismarck downtown area from 7th Street to 26th Street along East Main Avenue. There are three distinct segments to the corridor, each of which has different land use components and transportation needs. According to the [City of Bismarck Downtown Streetscape Standards](#), the study areas includes a “Signature Street” between 7th and 9th Street. The City of Bismarck defines a “Signature Street” as a street that serves as a confluence of retail, social, and cultural activity; functions as a primary gateway to downtown; and is designed to be multimodal.

Traffic data evaluating current operating conditions along the study corridor identified two intersections experiencing queuing up to 500 feet during peak traffic times and critical crash rates at several of the intersections. The corridor also serves the industrial sector with connections to local and regional truck and rail routes.

The approximately two-mile-long corridor provides access to several critical community services and facilities such food pantries, secondhand shops, medical centers, and other social service facilities serving low-income and transient populations. Currently, the setup of the corridor creates access management problems for some of the business and services facilities along the corridor.

[Public Participation and Stakeholder Outreach](#)

Bismarck-Mandan MPO engages stakeholders, including local decisionmakers, pedestrians, business owners, homeowners, and roadway users, in the [East Main Avenue Corridor Study](#) through a variety of participation and outreach strategies. Recently, the study team hosted an open house for local property owners and a community workshop to introduce the study and potential transportation alternatives for the corridor and gather preliminary feedback. The East Main Avenue Corridor study team also canvassed door to door to engage business owners in conversation regarding the project, as well as to encourage them to advertise and communicate to patrons about the opportunities for public participation.

The study's public [webpage](#), which includes information on the corridor's history and an overview of the study process and timeline, featured an [interactive map](#)¹ allowing the public to assign their comments to locations along the corridor as part of the first round of public input. Respondents were able to categorize their comments according to seven topic areas: walking, biking, accessibility, driving, safety, transit, or other. Feedback through the interactive map feature has identified location-specific challenges, such as a drive-thru queue that contributes to congestion. Respondents were able to propose solutions such as expanding traffic lanes or altering snow removal strategies. One respondent identified that the corridor serves as the gateway to downtown for many travelers coming from the east but "has the feeling of driving through a commercial park, rather than a 'front door' to downtown."²

Next Steps

The East Main Avenue Corridor Study team plans to continue gathering community feedback through December 2022 with an open house for property and business owners in the area, a community workshop, and continued availability for comment on the study website. These events will be an opportunity for the study team to present findings and initial recommendations to the public. A report with final projects and recommendations will be available for review and public comment in early 2023.

The Bismarck-Mandan MPO sees the infusion of Complete Streets concepts into the MPO's planning efforts as a continuing effort, with Complete Streets implementation anticipated to be a phased effort over the coming years. The MPO's vision is for Complete Streets to enable future redevelopment projects to balance increased functionality and beautification for all travelers.

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¹ The interactive component was deactivated shortly after the first round of public input concluded, and the issues and needs of the corridor had been identified. Comments are no longer being solicited through the map.

² City of Bismarck and Bismarck-Mandan MPO. 2022. "East Main Avenue Corridor Study". [Interactive Map](#).

Resources

[Bismarck-Mandan MPO](#)

[Bismarck Mandan-MPO: Share the Road Resources](#)

[Bismarck-Mandan MPO: Arrive 2045 Metropolitan Transportation Plan](#)

[Bismarck-Mandan MPO: Transportation Improvement Plan](#)

[Bismarck-Mandan MPO: Public Participation Plan](#)

[Bismarck-Mandan MPO: Bicycle + Pedestrian Plan](#)

[Bismarck-Mandan MPO: Downtown Bismarck Sub Area Study](#)

[City of Bismarck Downtown Streetscape Standards](#)

[City of Bismarck East Main Avenue Corridor Study](#)

[City of Bismarck East Main Ave Corridor Study Interactive Map](#)