BISMARCK-MANDAN

2023 TRANSIT DEVELOPMENT PLAN

PREPARED FOR:

Bismarck-Mandan
Metropolitan Planning Organization

BIS-MAN TRANSIT

SRF

With

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INTRODUCTION AND FINDINGS

1) Introduction

This document is the 2023 update to the Transportation Development Plan (TDP) of Bis-Man Transit in Bismarck, North Dakota. The TDP is updated every five years in a process that analyzes the current operations and governance of Bis-Man Transit, solicits community input, identifies opportunities for improvement, and outlines an implementation plan for those improvements deemed high priorities over the next five years.

The first chapter of the TDP shares findings from the update, most critically the financial analysis (page 15). The second chapter offers background on the agency's operations, fleet, facilities, and performance metrics, as well as the demographics of the communities it serves. It also summarizes the community engagement that took place throughout the TDP update process.

a) Bis-Man Transit

Bis-Man Transit is the primary public transit service provider for the Bismarck-Mandan metropolitan area in North Dakota, serving the cities of Bismarck and Mandan as well as the city of Lincoln – a total service area of 56 square miles. Its services currently include a fixed-route service for the general public in Bismarck and Mandan, complemented by a demand-response service available for seniors and people with disabilities in Bismarck, Mandan, and Lincoln.

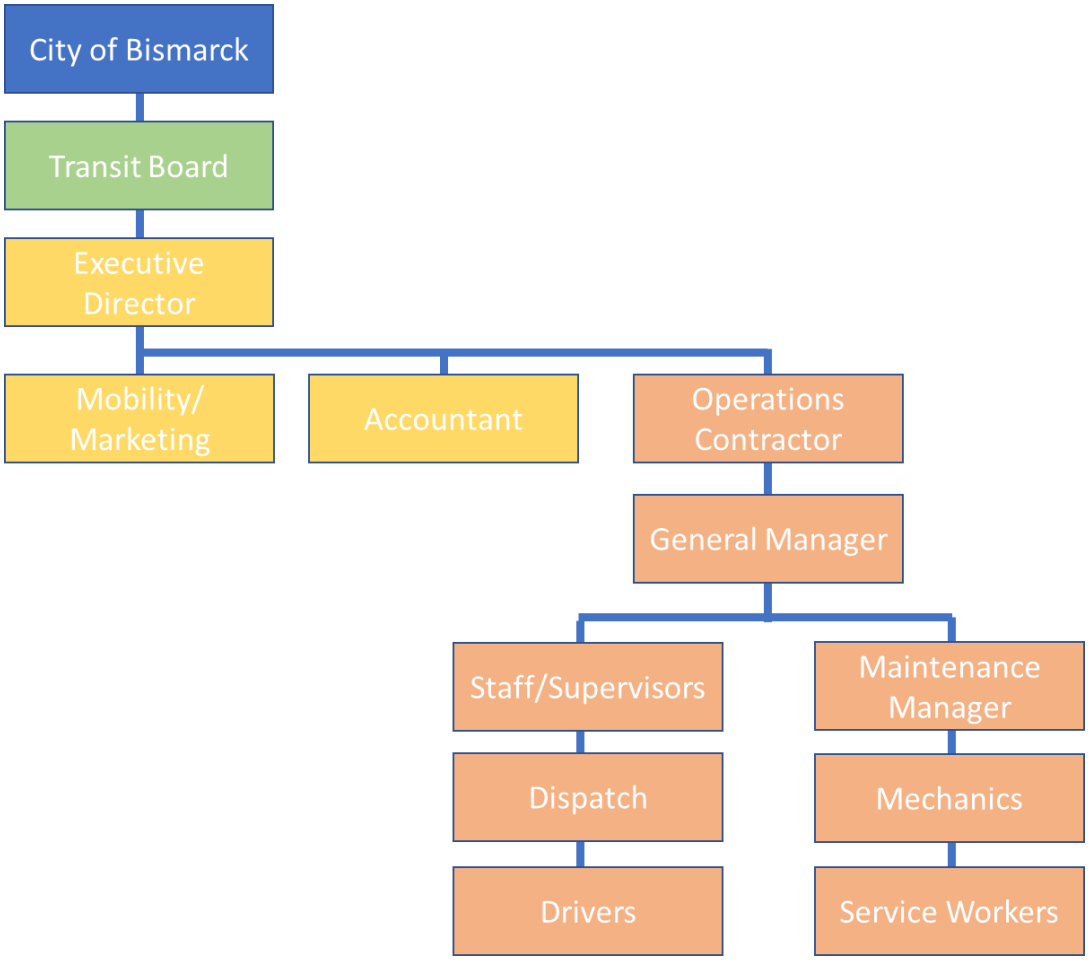
Its origin lies in volunteer advocacy for seniors and people with disabilities; when the Bis-Man Transit Board was first incorporated as a nonprofit organization in 1987, its purpose was "to identify, promote, coordinate, and establish transportation services for seniors and individuals with disabilities; to identify and meet transportation service needs of these individuals as it relates to employment, medical, recreational issues; to establish a transportation network serving elderly and handicapped individuals utilizing federal, state, county and local funding sources."

The board's initial funding was obtained through a combination of private fundraising, a grant from the North Dakota Council on Developmental Disabilities, and a 50 percent match from the Urban Mass Transit Authority (now the Federal Transit Administration). In its first formulation, the Transit Board contracted with Central NoDak Development Corporation for administration and Taxi 9000 for demand-response services. Later it expanded to fixed-route and paratransit service operated under a single third-party contract and administered by direct staff.

In the present day, the agency's nine-member volunteer board is responsible for overseeing transit operations. The service is managed by three direct staff (an executive director, a mobility and marketing specialist, and an accountant) and operated through a contracted service provider. The current contract is with National Express.

The Bismarck-Mandan Area Metropolitan Planning Organization (MPO) and the City of Bismarck both provide layers of oversight. Federal funding for transit is channeled through the City of Bismarck. Bis-Man Transit's organizational structure is shown in Figure 1.

Figure 1. Bis-Man Transit Organizational Structure



b) Project Purpose and Scope

- The scope of this TDP update was defined to address the challenges and opportunities considered most relevant by Bis-Man Transit and the MPO. It includes the following elements:
- An analysis of existing operations
- A governance study identifying possible alternative structures for Bis-Man Transit
- A financial study examining projected revenues and expenditures over the next several years
- A fleet replacement schedule with cost estimates for the next decade

c) Project Team

The project team included the Executive Director of Bis-Man Transit, the Executive Director of the MPO, and staff from SRF Consulting Group and Kimley-Horn Associates (KHA). Oversight and input were provided at regular intervals by the Bis-Man Transit Board, the MPO's Policy Board, and the MPO's Technical Advisory Committee.

2) Findings

a) Overview

The 2023 TDP update focuses its findings on three elements. First, it reviews the organizational structure of Bis-Man Transit and identifies opportunities to reduce the inconveniences inherent in the agency's current structure. Second, it reviews the financial situation of Bis-Man Transit and identifies revenue and service alternatives to address a looming gap in funding. Finally, this section also lays out the fleet replacement plan. Facilities planning is a typical component of TDPs.

This plan does not recommend a course of action. Rather, it presents a range of alternatives. The consequences of each alternative are noted, as are community sentiments (where known).

b) Governance Changes

i) Background

Bis-Man Transit's governance structure includes not just the Transit Board, but also the City of Bismarck and the MPO. A list of each entity's responsibilities is shown in Figure 2.

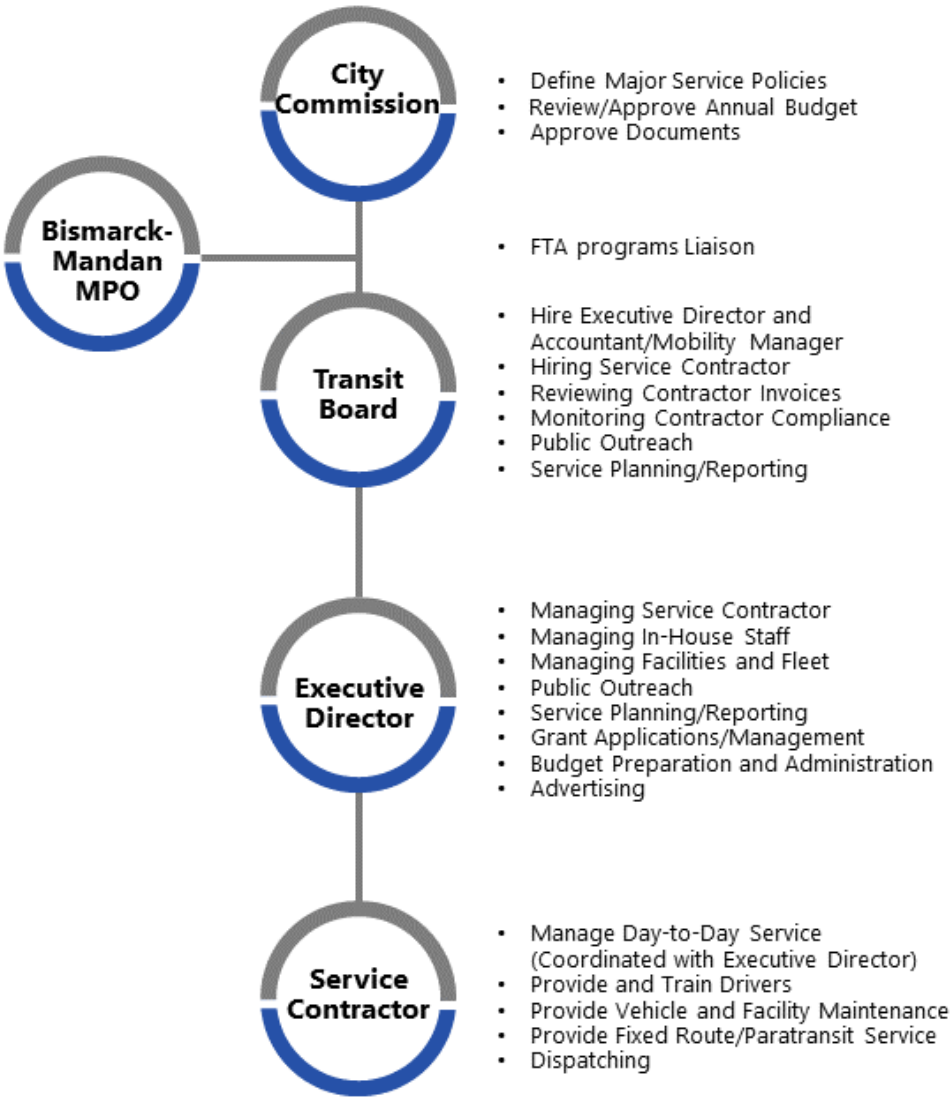
The Board does not have the final authority for most decisions; it presents its recommendations to the Bismarck City Commission to receive final approval. Items that need to go through the City Commission include grant applications, rolling stock and other major purchases, service changes, and policy changes.

- For the funding process, the Transit Board or its Executive Committee develop a budget that is presented to the Bismarck City Commission, followed by the MPO Technical Advisory Committee (TAC) and Policy Board.
- Service changes must be presented to the City Commission as well.

The current governance structure poses a number of challenges, including the following:

- The MPO spends substantial staff time on federal compliance tasks associated with transit.
- State and federal grant applications can be time sensitive. Bis-Man Transit staff needs support/approval from the Transit Board as well as the City Commission to pursue grants that often have tight timeframes between Notice of Funding Opportunities (NOFO) and deadlines. Valuable time is lost in the application window by preparing agenda items for two governing bodies. While critical deadlines have not been missed, the period for approvals makes the application process more rushed.
- As the City Commission oversees all aspects of the city and does not interact with transit on a day-to-day basis, the Commission will often adopt the Transit Board recommendations. However, efforts by the Board to bring service into line with its budget limits have met with hesitation from city commissioners. Commissioners are appropriately sensitive to the concerns of current riders but may not be as familiar with the transit budget impacts of their decisions or Federal Transit Administration requirements.

Figure 2. Transit Responsibilities



ii) Alternatives

The plan does not recommend an alternative as a locally preferred solution to pursue, but rather provides decision-makers with a comprehensive list of considerations to make informed decisions for a path forward. Three possible structures are shown in Figure 3, alongside a simplified version of the status quo. These governance alternatives were discussed in detail with the Transit Board, as well as staff and commissioners from the Cities of Bismarck and Mandan. The implications of each alternative are shown as a side-by-side comparison in Table 1.

All alternatives retain the model in which bus operations (bus drivers, dispatchers, etc.) are contracted out; where they differ is in the employment of administrative staff who manage the contractor. Bringing all operations in-house was briefly evaluated, but found to be less cost-effective, as the overhead rate for

contracted labor is lower than for city staff. The transit board and staff, MPO staff, and city administration and commissioners prefer the status quo of contracted operations.

The alternatives include:

- Transit administration becomes a new city department.
- Transit administration moves into an existing city department.
- Transit migrates to a newly established transit authority that would be an independent political subdivision in the region.

Figure 3. Governance Structure Alternatives

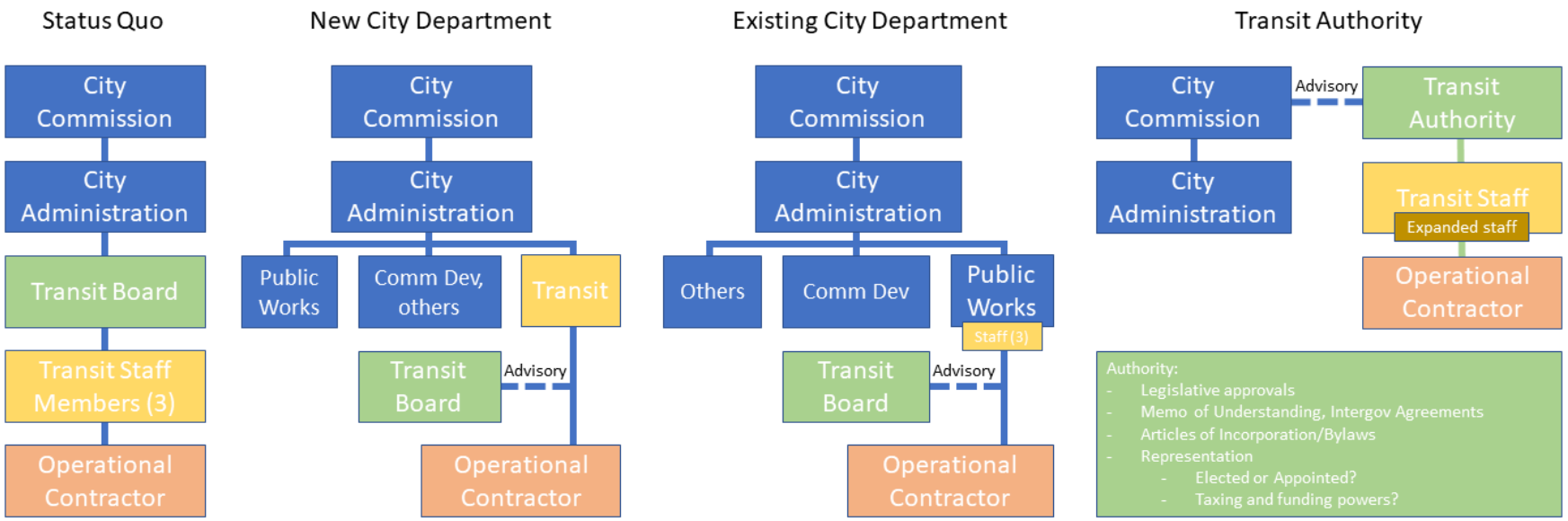


Table 1. Screening of Governance Structure Alternatives

Issue/Objective	Retain Current	Create City Department	Integrate into Current Department (Public Works/Planning/MPO)	Establish Authority
Level One Screening				
Time Associated with Decisions	Unchanged	Could be a marginal improvement as the Board would not discuss first and a city department director would be more involved in day-to-day, which may streamline mobilization of a new effort.	Could be a marginal improvement as Board would not discuss first. However, the department director would need to be informed by new transit staff in their department	Reduced – The concept assumes the reformulated Transit Board has authority to act/make final decisions on service, purchases, and budgeting.
Transit Priority in Breadth of Responsibilities	Commissioners still responsible for final decisions – one in each jurisdiction has transit in portfolio.	Little to no change from current	Similar to Create City Department	Substantially elevated – Transit is the only responsibility of the entity.
Expertise in FTA Requirements (Financial/Legal)	Unchanged – City staff provide the services needed, however, there are inefficiencies as transit is a minor part of their day-to-day effort. Keeping current potentially requires more effort to return than in other areas where investment into being current on requirements is reflected in use of learned processes/procedures.	Little to no change from current.	Similar to Create City Department	Implementing a transit authority assumes finance/legal/reporting would be brought "in-house". Requests would no longer be made of city and MPO staff. MPO staff would still have coordination role, consistent with highway planning.
Level Two Screening				
Impact on Customer Service	Unchanged. Current paratransit capacity issues likely continue.	Somewhat depends on the degree to which the Board influences customer service relative to the Director. If Board influences more and with this option Board is more an advisory committee, could experience reduced customer service.	Similar to Create City Department	Would likely be more responsive to customers – transit is only focus for leadership/decision-makers.
Ease of Implementation	Already in place	Moderate effort. No real need to change garage location, service provision, and the city already owns assets. Need to address: • Board changing role • Accounting • Reporting • Process of selecting of contractor Adding a new department requires steps, financial review for staffing, documentation of roles and responsibilities.	Likely a little less effort than Create City Department as do not need to determine roles/responsibilities for Director to same level.	Substantial effort. Would need to address all items of a City Department, plus: • Legislative approvals • Memo of Understanding, Intergovernmental Agreements • Articles of Incorporation/Bylaws • Representation elected or appointed? • Taxing and funding powers? • Transfer of staff • Transfer or lease of capital assets

Issue/Objective	Retain Current	Create City Department	Integrate into Current Department (Public Works/Planning/MPO)	Establish Authority
Decision Communication	Decision steps that are seen as barriers to addressing quick turnaround decisions remain in place	Potential for some streamlining as a department head will be more aware of day-to-day.	Potential for some streamlining, but not as much as with Create City Department as transit manager is not a department head and likely has less direct interaction with City Administration.	Once established, it would speed up decision making, as transit is only focus for leadership/decision-makers. Potential for independent vision and decision-making It would still require coordination with the MPO on including items in the TIP.
Sustainability/ Flexibility	Unchanged. Current structure is not a threat.	Relatively unchanged from current.	Relatively unchanged from current.	Financial sustainability will depend on taxing and revenue sources the authority will be able to raise, and its ability to increase tax rates. It would require additional staff to bring admin functions internal, establishing salaries and benefits
Addressing FTA Compliance	Unchanged. Support is provided through MPO and City staff.	Unchanged from current, unless the Transit Department adds staff to address needs. Likelihood of adding duplicative staff (accounting/legal/HR) to another city department is low.	Unchanged from current. Likelihood of adding duplicative staff (accounting/legal/HR) to another city department is low.	The authority would bring more staff and responsibilities in-house. The authority could become the designated subrecipient instead of the city, eliminating connection to oversight.

(1) New or Existing City Department

Moving transit from being managed by the Transit Board into a new or existing City of Bismarck department could be a marginal improvement as transit would report to the City Administrator and City Commission. If a new department were to be created, the transit Executive Director would report directly to the City Administrator. If transit were integrated into public works or another department, the Executive Director would first report to a department head, prior to raising concerns with the City Administrator. The Board would transition into a more advisory role.

(2) Transit Authority

Creating a Transit Authority with an independent governance board and potentially having taxing authority would require action by the state legislature to establish the organization. While that may appear time-consuming, there might be opportunities for coordination with other urban areas in North Dakota. MetroCOG in Fargo-Moorhead is exploring the possibility for its transit provider MATBUS to be part of a new transit authority with taxing powers.[1]

There are multiple ways for jurisdictions to interact with the authority for service, including:

- Each jurisdiction where there is service presently provided through Bis-Man Transit could be a member of the authority.
- One jurisdiction spearheads the authority and sells the desired level of transit service to other jurisdictions.

Each of the options provides the opportunity to invite Burleigh County and Morton County to either be a member or purchase some level of service from the authority should there be interest in extending service into the county.

As a separate political subdivision, the authority could have responsibilities for all areas that presently create the multi-step review process for service and funding actions. It is assumed the authority would be established with taxing authority to at least the same level as presently is identified in the Century Code. The direct decision-making powers and additional revenue from a potential transit levy would provide an opportunity to sustain the current level of transit service provided and explore the expansion of new routes and improved frequencies as the region's population grows.

An authority could have the ability to raise its own revenue. New or enhanced sources of operating revenue would need political support, and some might have implementation hurdles depending on local ordinances and state statutes. The main avenues for raising revenue would consist of property taxes or local sales taxes. Potential new or enhanced revenue sources would need to be capable of reliably funding both current service levels and potential further expansion of service in the future.

An authority would require the formation of a governing board. Most transit governing boards are appointed by the units of general-purpose government (e.g., city commission) or, sometimes, officers of the government (e.g., mayor or governor). Appointees of such boards are sometimes elected officials currently

[1] MATBUS Transit Authority Study, June 2020. https://www.fmmetrocog.org/projects-rfps/completed-projects/matbus-transit-authority-study

holding office but are often members of the public who hold no elected office. Additionally, certain qualifications (CPA, transit rider, and others) are sometimes also considered. Board members may also be directly elected but this rarely happens in practice. The legislature would ultimately decide on criteria for board qualifications, whether the positions are appointed or elected, and whether board representation would be at-large or by jurisdiction (either as a set number per jurisdiction or according to funding share). This new Authority Board would replace the current Transit Board.

A challenge of this option is that it requires action by multiple levels of government, including the state legislature, for implementation, making it a medium-to-long-term option.

iii) Implementation Roadmap

Upon establishing the preferred governance and financial alternatives, the alternatives must be implemented through adoption of the TDP and subsequent steps by the Bismarck City Commission, and the cities of Mandan and Lincoln. If an authority is preferred, state enabling legislation for the transit authority and its taxing powers must be established through the state legislature modifying the Century Code.

(1) City Department

Moving transit from the Transit Board to an existing city department would require a moderate level of effort. While there is no need to change garage location, service provision, or asset ownership, the transition would involve:

- Changing the role of the Transit Board
- Accounting
- Reporting
- Process of selecting of contractor

Adding a new department requires the steps above, as well as a financial review for staffing, documentation of roles and responsibilities.

(2) Transit Authority

A new North Dakota Transit Authority would require effort from the jurisdictions involved and concerted public engagement and support. The authority would provide independence, transparency and unity in decision-making. As a more standalone agency, it would likely add staff for accounting, legal, human resources and other areas. The authority may or may not participate in the city benefits program as current staff do. As most staff are currently in an established program, it should be the goal to continue existing salary and benefit packages for existing staff.

Initiation of a standalone authority would include requesting each of the jurisdictions interested in being a member to pass resolutions to enable the authority's formation. General experience is that this requires an individual champion of the legislation who enjoys enough public trust or influence to facilitate the momentum necessary; often, citizen committees or exploratory committees are also formed to build acceptance. Once finalized, discussions of contract service provision or board representation would follow. Some considerations before starting the transit authority process include:

- **Board Representation and Decision Equity:** Ultimately, board representation would be determined by the state legislature albeit with input from the general-purpose government units. Also, because board representation could be a point of conflict or disagreement among stakeholders, experience cautions against pre-mature discussions that could hinder the progress of passing state legislation. Ideally, the composition of the board should be held off until enough support is garnered for the effort. As previously stated, the final transit board should be formed to provide equity by reflecting the sources of local funding.
- **Transfer or Lease of Assets and Facility Ownership:** The City of Bismarck could lease or transfer the assets to the new authority. This includes vehicles, equipment and the facility. Details of the lease or transfer would be agreed upon by the city commission and stated in the intergovernmental agreement. The new authority could also charge back the capital cost as an element of the service contract to Mandan and Lincoln. Federal interests can be transferred to another or new grantee.
- **Funding:** With its own taxation powers, the authority would be provided with an opportunity to secure a stable source of long-term funding. A levy could be placed on either property or sales tax, or a utility fee. The authority could also be formed without authorizing a tax at the outset but would require start-up funding from the parties involved.

The Bis-Man Transit Executive Director and the MPO would need to provide the documentation and support for policy makers at the municipal and state levels to implement a transit authority. This would require leading policy development and engagement towards transit authority implementation. These policy development steps include the following local actions:

1) Drafting a transit authority strategic plan that will help identify objectives, consensus issues to be implemented during the establishment of the transit authority. It must also revisit funding splits for services provided, shared capital purchases and state of good repair investments relative to decision responsibility and benefits.
2) Drafting an operating agreement between Bismarck, Mandan, Lincoln, and the transit authority
    a. Drafting a new operating contract between the authority and transit operations contractors for fixed route and paratransit services
3) Drafting asset lease or transfer agreements from the City of Bismarck to the authority, including clauses on insurance and liability.
4) Drafting an organizational structure and board composition.
    a. Must decide on criteria for representation and qualifications, by jurisdiction, at-large, or funding share, and whether the positions are appointed or elected. Ultimately it will be up to the legislature.
    b. Draft human resources, employment, compensation and benefits policies of transit authority staff. Provide grandfathered provisions for current staff to retain existing benefits.
5) Finalize a preferred financial implementation plan for revenue collection.

Once these local decisions were finalized, the transit and MPO staff would need to work with local stakeholders to draft enabling legislation for the North Dakota legislature. This might be an opportunity for coordination with other urban areas in North Dakota, especially Fargo as it is exploring establishing a transit authority for MATBUS. Timing and coordination are critical, as the North Dakota legislature only meets once

every two years. The legislation would need to address the governance structure and the (taxation) powers of the transit authority through the following items:

- Option to start with one political subdivision and have new members join over time.
- Ability to collect taxes to provide a sustainable. reliable and independent funding source with the opportunity to support future population growth.
- Ability to create an Authority Board for representation of multiple communities.
- Ability to construct, operate and maintain transit and transit assets.
- Ability to acquire or condemn property independently.
- Ability to accept gifts, grants, loans or other property.
- Ability to provide service outside of transit area by contractual agreement.
- Authority to issue negotiable revenue bonds independently.
- Ability to independently borrow money.

An example of recent transit authority legislation is Nebraska Legislative Bill 492 (PDF version), passed in 2019. This bill allows a metro area of a certain size to establish a regional metropolitan transit authority with its own property taxation powers and have elected boards. Cities within eligible metro areas can opt into (or also leave) the authority with a two-thirds vote of their city council. The bill also allows cities that opt not to join the authority to contract for transit services directly with the authority. The bill would keep the current board structure in place until new board members are elected.

The transit authority may not be a 'metropolitan area' authority, but an authority of a single municipality and would contract services with surrounding communities. In this case, the municipal staff would participate with the Transit Executive Director and MPO to facilitate the development and management of the Authority. Additionally, the Authority Board would act at the behest of the city commission. Select decisions may require Commission approval.

If and when the North Dakota legislature passes the enabling legislation, Bis-Man Transit and the MPO will lead the implementation of the draft policies and transfer management to the new transit authority. These steps include:

1) Organizing the authority and finalizing board composition.
2) Appoint/elect the transit authority board of directors.
3) Adoption of an authority strategic plan, operating agreement, and transit asset lease or transfer agreement.
4) Assign the transit authority as FTA subrecipient for the Bismarck metro area.
5) Board appoints a transit director (most likely the transit executive director, but subject to the new board's approval).
6) Start collecting authorized taxation (property tax levy/sales tax/utility fee)
7) Select a transit operating contractor.
8) Transfer assets from the city to the transit authority.
9) Transfer transit staff from the Transit Board to new authority.

10) Start operations under a new operating contract between the authority and the selected transit operations contractor.

The steps outlined in this authority implementation roadmap are subject to change and may need to be revisited as the process moves forward. Political leadership will be needed in the community and Bis-Man Transit and the MPO will need to provide policy development assistance to bring the process to the desired outcome.

iv) Sentiment

The stakeholders who reviewed and discussed the alternatives did not identify a clear favorite among the possible structures. The transit authority concept generated more questions and comments than city-based governance. Some of the questions and answers around the creation of a transit authority include:

- **Would the authority become an FTA grantee?** Not necessarily, but authorities often are. If not, City of Bismarck would continue to be a designated recipient.
- **Would a city-created authority have taxing power?** No, not without a change in state law. Given the timeline for the North Dakota legislature, if Bismarck decided to create an authority in 2023, a tax-funded budget could not be approved until 2027 at the earliest.
- **Would the authority lift a burden from city staff?** Yes, to a limited degree. Although a number of city staff contribute to transit in some way, transit is generally a small fraction of individual workloads. The largest impact is to Community Development, with staff time spent on transit at around half to three-quarters of a full-time equivalent (FTE). Legal and financial staff spend closer to one percent of their time on transit activities.
- **Would the authority hire its own employees to do the work currently carried out by city staff**? Yes, it would need to hire two to three FTEs. Based on current city salaries, that would equate to $250,000 to $300,000 annually.

Changing the governance structure of Bis-Man Transit would not directly address its financial challenges, which were caused by non-structural factors. For this reason, pursuing organizational change is a lower priority than addressing finances.

c) Financial Alternatives

Bis-Man Transit is experiencing significant financial challenges. Since about 2017, the agency has continued to deliver service while working to address a growing deficit between revenue and expenses. Some of the actions taken to date include:

- Identifying additional federal and private grants to increase revenue from other (non-local) sources.
- Securing additional advertising revenue through more finding partners to fund bus advertising wraps and other visible sources.
- Creating a public transit working group with city staff to expand the understanding of service and discuss opportunities to close the gap and the local benefits of transit service.
- Conducting strategic planning sessions with the Board of Directors in which opportunities to address the gap are discussed.

The data show that more aggressive action is needed. An analysis of future income and expenses projects a deficit of approximately $520,000 occurring in 2023 and growing to approximately $2.4 million by 2029, reflecting operating costs increasing faster than revenue sources. The agency's cash reserve will hit zero by 2026.

For essential background, this section first describes Bis-Man Transit's existing revenue sources and the nature of its expenses. The financial projection is then detailed, followed by a presentation of alternatives to help close the gap.

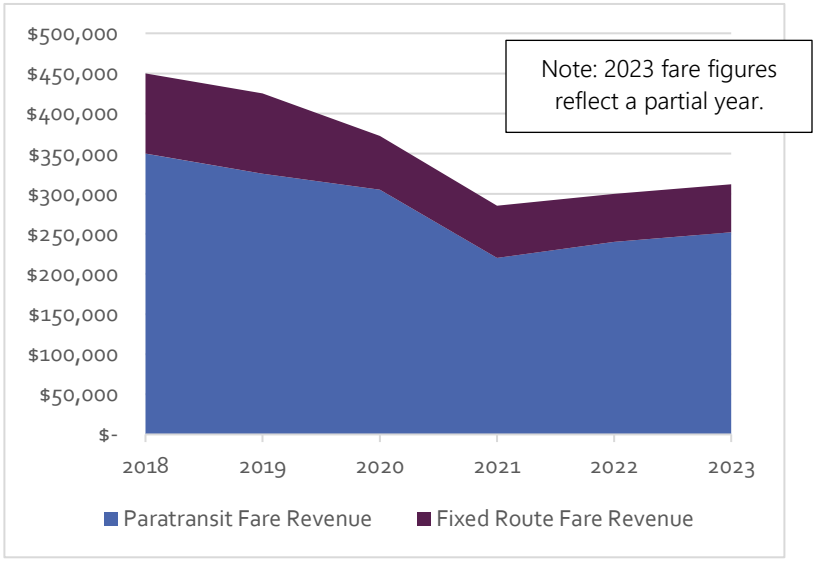
i) Funding and Expenses

Historically, Bis-Man Transit has received revenue from two main sources: direct fare revenues and public contributions.

(1) Direct Revenue

Bis-Man Transit operates paratransit and fixed-route service and receives farebox revenue from both, as shown in Figure 4. Revenue from paratransit service outpaces fixed-route revenue at about 70 to 80 percent of total fare revenue, which is expected as daily ridership between the services is relatively similar and the cash fare for paratransit is set at twice the fixed route fare. Fare revenue has declined, dropping gradually in 2018 and 2019 and then more sharply in 2020 and 2021. This mirrors national trends in declining ridership and fare revenue during the beginning of the COVID-19 pandemic.

Figure 4. Fare Revenue from Fixed-Route and Paratransit



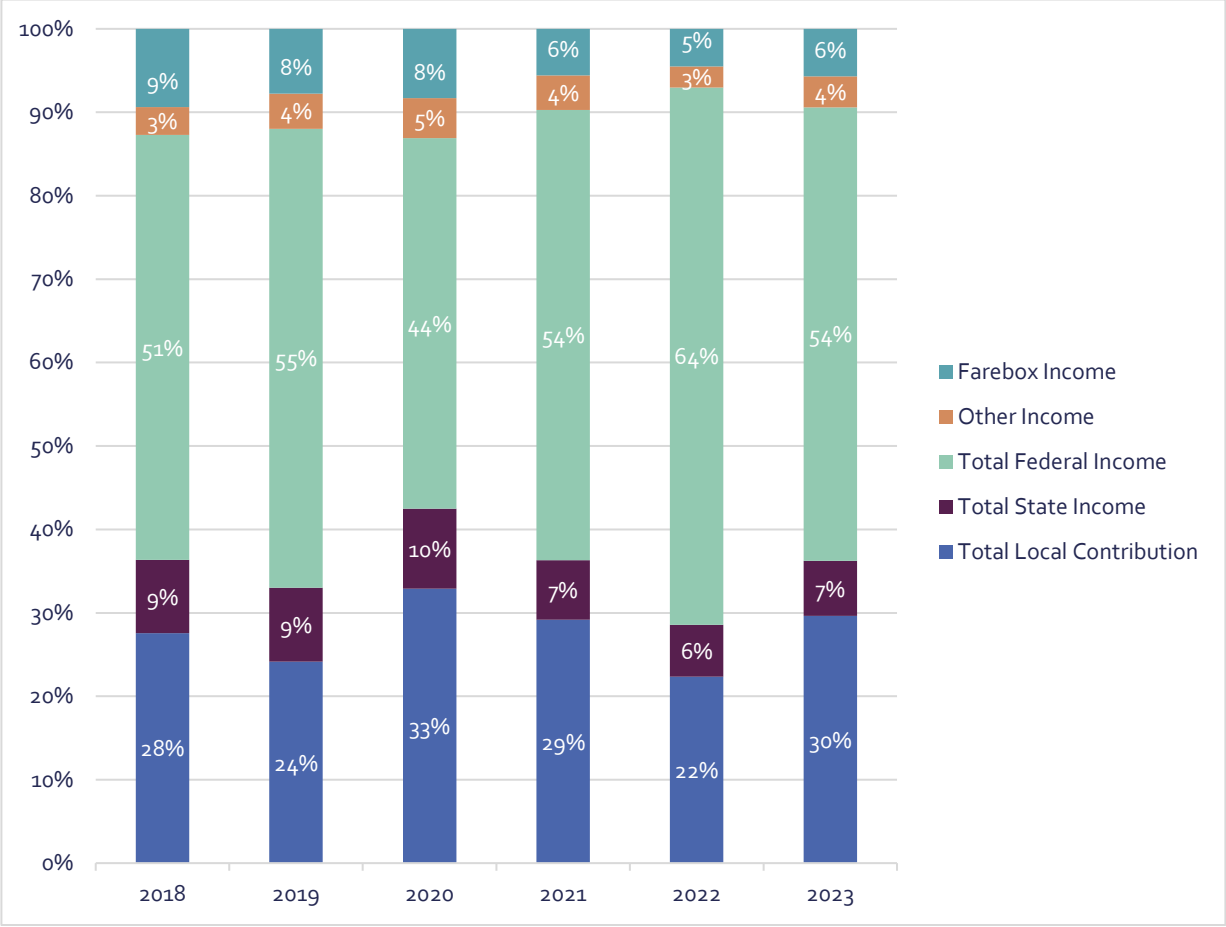
Source: Bis-Man Transit. 2023 data reflects a partial year.

Both fixed-route and paratransit revenues have rebounded slightly, but neither have returned to 2018 levels. In 2022, fixed-route farebox revenue was just 60 percent of its 2018 levels, and paratransit revenues were just 69 percent of 2018 levels. In 2018, farebox revenues accounted for just nine percent of all income, dropping to just six percent of all income in 2022.

(2) Federal, state, and local funding

Federal, state, and local contributions are the system's primary sources of funding for both capital and operations (see Figure 5). Federal funding constitutes the largest share of public funding and a majority of Bis-Man Transit's overall income. These funds are primarily from the Federal Transit Administration (FTA) in the form of capital grants and operations and maintenance funding, and they require local match funds. In 2021 and 2022, federal funding increased with the provision of COVID-19 economic relief from the Coronavirus Aid, Relief, and Economic Security (CARES) Act and American Rescue Plan Act (ARPA) funds.

Figure 5. Federal Funding as a Percentage of Total Funding



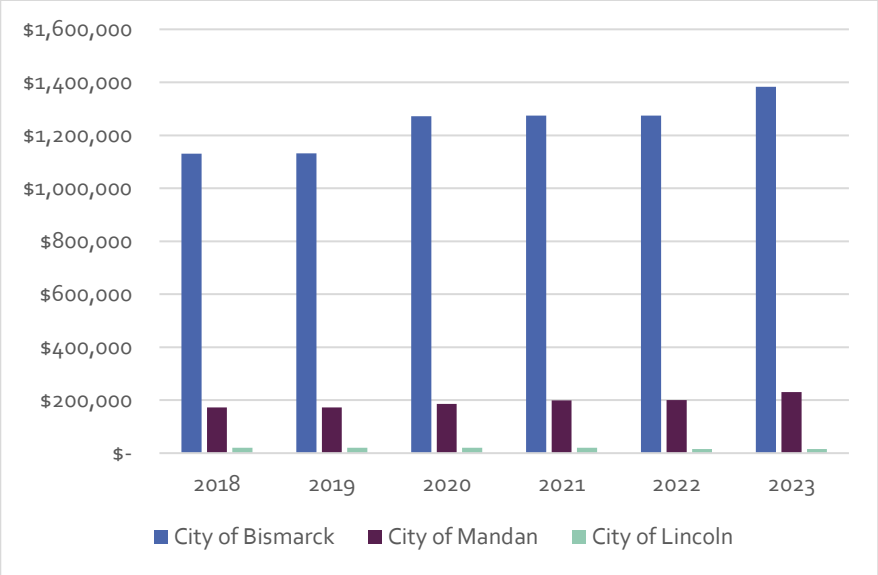
Source: KHA analysis of NTD and Bis-Man Transit data. Data for 2018-2022 are historical; 2023 values are based on the approved budget.

The local share of Bis-Man Transit's funding comes from a contract with the City of Lincoln and property tax mill levies in the cities of Bismarck and Mandan (Figure 6). For most municipal service areas, mill levies are calculated by dividing the tax revenue needed to fund public budgets by the assessed property value in a jurisdiction and they are expressed in mills, where one mill is $1 per $1,000 of assessed property value. By state law, cities are allowed to levy up to five mills – or 0.5 percent – to fund public transit. Currently the City of Bismarck has a three-mill levy, while Mandan has a two-mill levy. While other municipal service areas may

adjust the mill levy annually to support the approved budget, the approved mill levels for transit have not been adjusted for a number of years and adjustment to them requires a public referendum vote in each jurisdiction. Thus, transit must adjust service and capital investment to reflect the revenue generation from the established mill levies.

Bismarck's mill levy contributions total about 86 percent of total local funding, because of both the higher tax rate and the higher total taxable value. Contributions from both cities have slightly increased over the past five years, largely due to an increase in property values. Funding from the City of Lincoln for paratransit service has been $15,000, which comes from the general fund.

Figure 6. Local Contributions



Source: KHA analysis of Bis-Man Transit data. 2023 reflects budgeted amounts.

State funding is provided by the North Dakota Department of Transportation through transit state aid and through state Medicaid funds for the operation of paratransit. This funding is the smallest share of the system's primary operating contributions, at approximately $362,000 in 2023, or about seven percent of the total revenue.

ii) Expenses

(1) Operations

Bis-Man Transit incurs most of its expenses via its operations contract. This contract covers the cost of operating both paratransit and fixed-route service, as well as partnering with Jefferson Lines to provide regional service connections. In 2022, the operations contract accounted for about 55 percent of total expenses. The operations contract is re-advertised every three to six years. Typically, hourly costs increase with each contract, but remain relatively steady in the interim years. The contract signed with National Express in May 2023 represented an increase of approximately 15 to 17 percent for the first year.

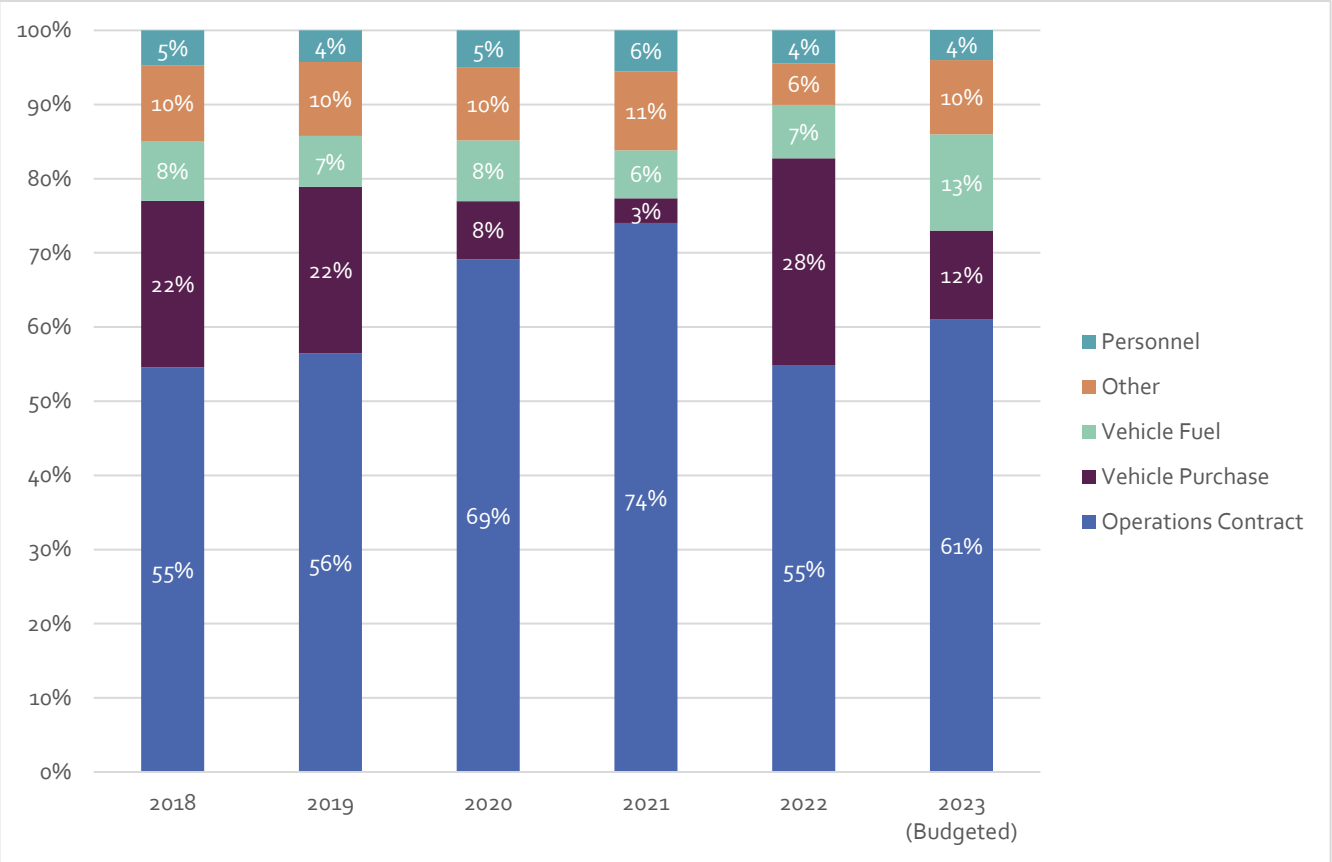
Other top operations expenditure categories include fuel and administration staff salaries. Vehicle fuel is highly volatile based on diesel and gas prices. Personnel costs remain relatively steady at four to five percent of total expenses. This number includes the executive director, marketing & mobility specialist, and accountant positions.

(2) Capital Costs

Capital costs vary widely from year to year based on need to replace an asset or required state of good repair activities in the garage. Bis-Man's largest capital costs historically have been vehicle purchases.

Vehicle replacements fluctuate from year to year depending on needs, from a low of $148,000 in 2021 (eight percent of total expenses) to $1.8 million in 2022 (28 percent of total expenditures for the year). To maintain a reasonable replacement schedule for fixed route and paratransit vehicles, Bis-Man Transit typically assumes replacement of one fixed route bus each year and an average two paratransit vehicles per year. A detailed fleet replacement schedule is included later in the TDP (see page 25). Vehicle purchase prices have escalated significantly in the last few years.

Figure 7. Top Spending Categories



Source: KHA and SRF analysis of NTD and Bis-Man Transit data. Data for 2018-2022 are historical; 2023 reflects budget.

iii) Operating Deficit

The fundamental challenge for Bis-Man Transit is that its costs are increasing at a higher rate than its revenues. In 2023, the deficit is projected to be $533,585 (Table 2). A projection of future income and costs, based on known costs for 2024 and using conservative inflation factors,[2] shows the deficit growing yearly. The forecasted gap between revenue and expenses is displayed in Figure 8.

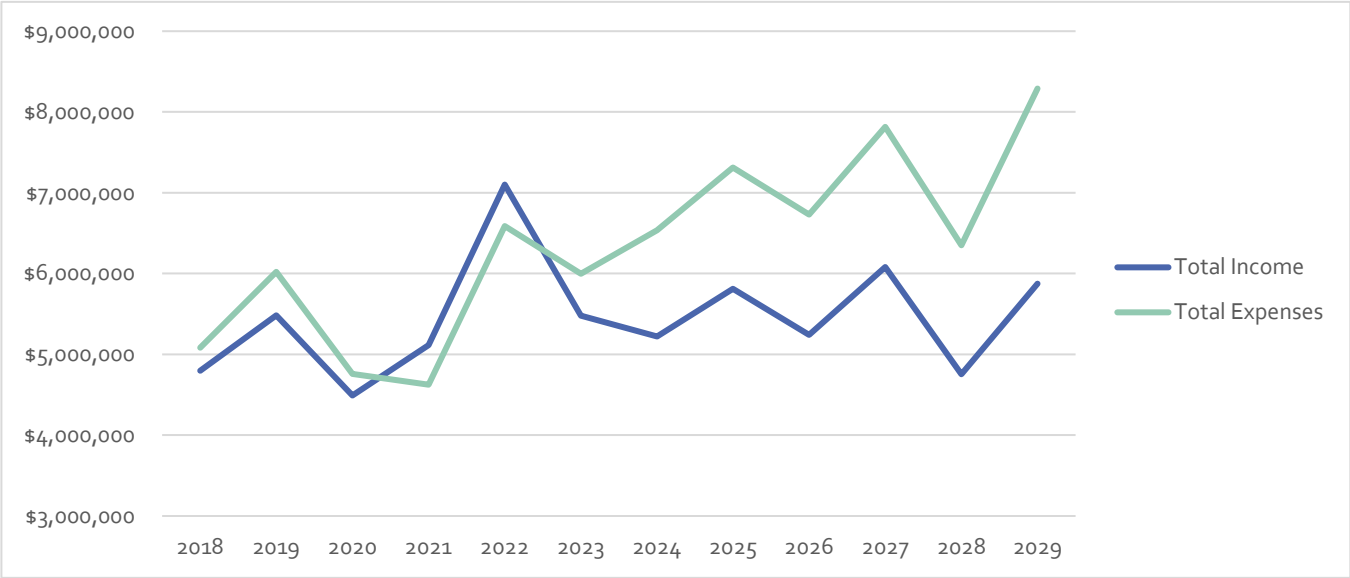
[2] A technical memorandum detailing assumptions used in the financial analysis is included in the Appendix.

Table 2. Projected Operational Funding Deficits

Year	Income	Costs	Total Deficit
2023	$5,552,345	$6,085,930	($533,585)
2024	$5,324,342	$6,657,008	($1,332,666)
2025	$5,918,946	$7,439,292	($1,520,346)
2026	$5,403,210	$6,920,651	($1,517,441)
2027	$6,192,728	$7,943,234	($1,750,505)
2028	$4,752,589	$6,348,606	($1,596,016)
2029	$5,875,502	$8,290,128	($2,414,626)

Source: KHA analysis of Bis-Man Transit data

Figure 8. Future Trends in Income and Expenses Through 2029



Source: KHA analysis of Bis-Man Transit data

iv) Cash Flow

Another important aspect of Bis-Man Transit's future finances is adequate cash flow. The agency relies on its reserve fund like a checking account to continually pay operating and capital expenses. While many capital expenses are eligible for some federal reimbursement, the agency must cover all costs up front and often receive reimbursement many months later. Operations expenses can be similarly unpredictable, with bills arriving at various times throughout the year. The agency must keep a minimum balance in the reserve fund at all times to cover anticipated and unanticipated expenses.

The minimum reserve fund balance is equal to the year's total expected vehicle replacement costs (since the agency must cover that cost up front) plus approximately six months of operating expenses to ensure enough cash flow in the case of lagging reimbursements. The minimum reserve fund for each year is shown in Table 3, based on these calculations.

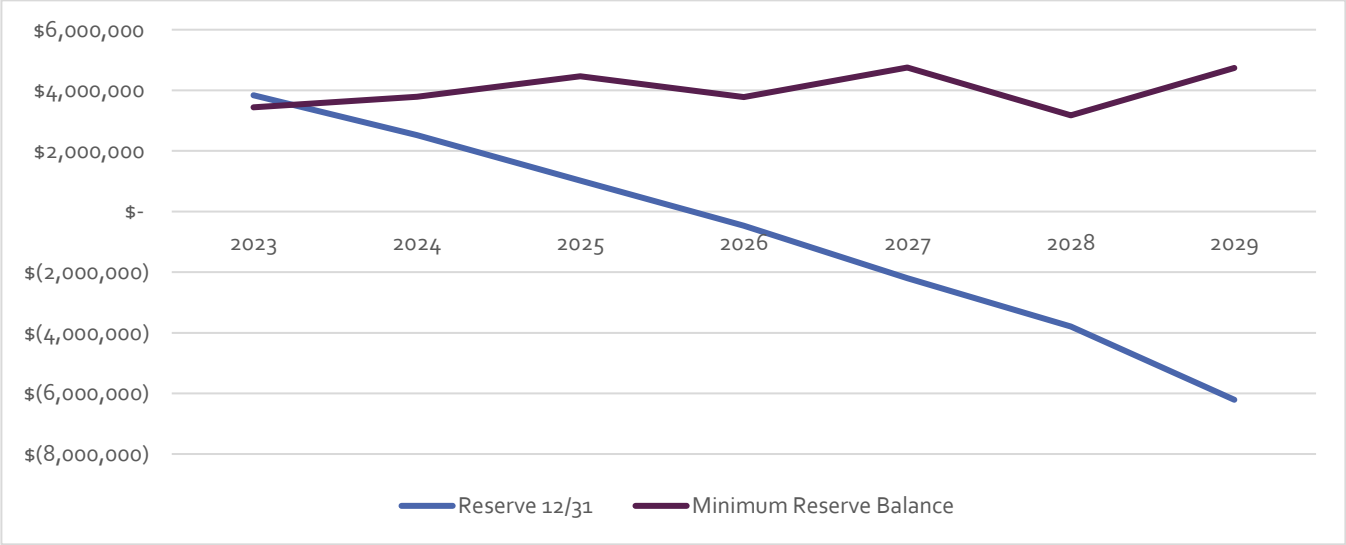
Table 3. Future Cash Flow Analysis, 2023-2029

Year	Vehicle Replacement Costs	Six Months Operating	Minimum Reserve
2023	$962,000	$2,561,965	$3,523,965
2024	$1,149,400	$2,753,804	$3,903,204
2025	$1,734,200	$2,852,546	$4,586,746
2026	$1,009,800	$2,955,425	$3,965,225
2027	$1,818,000	$3,062,617	$4,880,617
2028	-	$3,174,303	$3,174,303
2029	$1,194,200	$3,547,964	$4,742,164

Source: KHA analysis of Bis-Man Transit data

After calculating the annual minimum reserve balance, a cash flow analysis was completed. This involves projecting the year-end reserve balance based on the total operating deficit. For instance, if the reserve fund has a balance of $1 million on January 1, with a deficit that year of $500,000, the reserve fund on December 31 of that year would be expected to be $500,000. The results of this cash flow analysis are shown below, based on a January 1, 2023 reserve fund balance of $4,357,384.19.

Figure 9. Projected Cash Flow and Reserve Fund Balance



This analysis projects that the reserve fund will fall below the ideal minimum balance at some point in 2024, and continue falling due to continued deficits. If no major changes are identified, the fund balance is projected to be exhausted in 2026, and fall negative in future years. This implies a continued ongoing deficit that will jeopardize the ability of the agency to continue operating.

v) Alternatives to Close the Gap

Until now, Bis-Man Transit has had enough banked funds to fill the gap. Federal funding received through CARES and ARPA programs developed to address the impacts of COVID-19 bridged a critical period when, by Bis-Man Transit's assumptions, its reserves would otherwise have been exhausted. The agency has now come to the end of its pandemic assistance and will need to find new strategies for closing the gap. Very likely, it will be necessary to work from both ends: raising additional revenue, while also finding ways to cut expenses.

The alternatives presented for further consideration include reducing capital costs, raising local revenue, and reducing service.

(1) Reducing Capital Costs

The only major capital expense Bis-Man Transit anticipates over the next six years is the replacement of aged-out vehicles in its fleet. These replacements are necessary to maintain the system in good working condition. While purchasing smaller vehicles would mean a lower upfront cost, the service life of smaller vehicles is shorter, and as replacement would need to occur more often, the cost savings over time would be minimal. If the vehicles were small enough to be operated by drivers without a commercial driver's license, there might be indirect labor savings embedded in the next operating contract.

(2) Raising Local Revenues

The cities of Bismarck, Mandan and Lincoln currently contribute to the agency on an annual basis. Increased local contributions would help to offset the projected deficit.

There are three potentially viable strategies for raising local revenue. The first would increase the rate of the property tax that currently funds transit. The second would create a new revenue source via a special sales tax. The third would call on support from the private entities that benefit most from transit service.

Property Tax

As explained earlier, Bismarck and Mandan are authorized by the State of North Dakota to levy up to five mills (0.5 percent of a property's taxable value) in order to fund transit service. At present, Bismarck is levying three mills (0.3 percent), and Mandan is levying only two mills (0.2 percent). This means that there is capacity to generate additional funding by raising the transit levy. At current property values, this could mean up to $1.3 million annually.

This approach has the benefit of using an existing mechanism to fund transit. The disadvantage of this approach is that it may not find support among city commissioners. The current sentiment, both within city commissions and in the general public, is that existing property taxes are burdensome for ratepayers.

Sales Tax

The Bismarck City Commission can put a sales tax increase to the popular vote. As part of the funding analysis, an estimate of the sales tax rate required to partially or completely close the gap was developed. Based on 2022 retail sales, a rate of 0.1 percentage point would generate an estimated $1.6 million annually. Currently, there is a $0.05 sales tax dedicated to a specific group of transportation improvements. This tax is anticipated to sunset in 2028, and it is highly unlikely an additional amount would be levied before the sunset.

There has also been discussion of the use of a local option sales tax to fund need in other departments, including public safety and others, which means there is competition for this revenue option. Because a sales tax increase requires a vote by Bismarck residents, it is considered by some to be a more democratic method of fundraising than the property tax levy. On the other hand, it is also one of the more regressive forms of taxation, hitting low-income consumers the hardest. The voting public would need to be convinced that providing transit is in the social and economic interest of their community.

Private Donations/Contracts

Before Bis-Man Transit assumed its present-day structure, local nonprofits played more of a role in funding transportation. Hospitals and social service organizations form a substantial proportion of ridership, especially paratransit ridership. In the current crisis, other stakeholders have urged Bis-Man Transit to pursue funding agreements with these organizations. This would likely have a small impact compared to more stable fundraising mechanisms; however, a demonstration of broad community support would help the agency make its case for tax support as well.

(3) Service Alternatives to Decrease Operating Expenses

The final set of alternatives would reduce service, approaching the gap from the operations side. Reducing service is a tactic of last resort for any transit agency; for Bismarck-Mandan, any change would be drastic. As is detailed in the Transit System Overview (page 28), Bis-Man Transit is operating six hourly routes during limited times of day, six days a week. There is no redundancy in the route network. Moreover, given the extent of the funding gap, small reductions in service would have no meaningful impact.

After-Hours Paratransit

One possible reduction has been an ongoing discussion: limiting demand-response service to what is strictly defined as paratransit. FTA requires ADA complementary paratransit for seniors and people with disabilities to match fixed-route hours. At present, Bis-Man Transit operates fixed route Monday through Saturday. Weekday service runs from 6:30 a.m. to 7:00 p.m. and Saturday service starts an hour later in the morning. However, Bis-Man Transit offers paratransit service from 5:30 a.m. until midnight on those days. It also offers paratransit from 7:30 a.m. to 2:30 p.m. on Sundays and holidays. To differentiate complementary paratransit from the additional hours/days of service for discussion, this plan uses the term "after-hours service" for early and late service hours on weekdays and Saturdays, as well as the and Sunday and holiday service offered only on paratransit.

The after-hours service is important to its users. For example, the main reason it begins at 5:30 a.m. six days a week is to serve dialysis patients with little control over their schedules. But this level of service is difficult to sustain for an agency with depleted resources. Bis-Man Transit annually applies for, and has historically received, an FTA Section 5310 grant that covers half the cost of operating service, but approximately $270,000 a year remains the agency's responsibility. The Bis-Man Transit Board has suggested reducing hours/days of after-hours service as a means of reducing cost and narrowing the revenue-expenditure gap; however, the Bismarck City Commission has elected to retain the service. Additional funding has traditionally not been allocated to accompany the service retention decision.

As part of the 2023 TDP process, Bis-Man Transit requested from the commission additional funding to support the cost of after-hours service. In July 2023, the Bismarck City Commission approved allocations in local budget to support continuation of after-hours through fiscal year 2024. This was a short-term measure intended to buy time while Bis-Man Transit pursued longer-term solutions.

Range of Service Modification Alternatives

In the longer-term view, eliminating after-hours service is one of five alternatives presented for Bis-Man Transit's further consideration (Table 4). The alternatives are as follows:

- **Current**: No change to service, funding gap remains. Included for comparison.
- **Fixed Route / Paratransit Only:** This scenario reduces service to the ADA complementary paratransit, eliminating after-hours. The alternative would result in eliminating Sunday and holiday service and an hours reduction to reflect fixed route service hours on weekdays and Saturdays.
- **Convert to Demand Response**: This alternative eliminates fixed-route service and converts paratransit to general public demand response service. All rides would need to be reserved a day in advance, the way paratransit rides are reserved now. There are three possible variations of this alternative:
    - **Operate 20 Vehicles for Current Paratransit Hours**. Paratransit would remain unchanged from its existing schedule, and the six fixed-route buses circulating today would be added to the paratransit pool. Demand-response capacity is lower than fixed-route capacity, so moving fixed-route passengers to paratransit would mean an estimated 95 riders a day would not be able to reserve their desired trips. They would need to postpone, cancel, or make non-transit accommodations for those trips.
    - **Operate 20 Vehicles for Current Fixed Route Hours**. This alternative eliminates both fixed-route service and after-hours service. All riders, both ADA-eligible and general public, would make their trips on a demand-response system within the current fixed-route service day. The six fixed-route buses would be added to the paratransit pool. An estimated 140 riders a day would not be able to reserve their desired trips.
    - **Operate 14 Vehicles for Current Fixed Route Hours and Days**. This is the only alternative that fully closes the funding gap. In addition to eliminating after-hours service, it also shrinks the total fleet. The fixed-route buses would be retired from the fleet and transit service would be operated with 14 vehicles, which is the number presently used daily to provide paratransit service. Requests for trips would significantly exceed capacity as current paratransit demand essentially requires at least 14 vehicles. The result of implementing this alternative is that each weekday and Saturday, approximately 300 fewer trips would be served than the estimated demand.
- **Elderly and Disabled Only (Operate 14 Paratransit Vehicles and Current Paratransit Hours)**. This alternative takes the system back to its beginning: demand-response service only for seniors and people with disabilities. While eliminating service for the general public represents the greatest reduction in operating costs of all the alternatives, it would also result in a loss of federal funding. Without a general-public program, Bis-Man Transit is unlikely to continue receiving Urbanized Area Formula Funding under Section 5307.

vi) Conclusion

All of the service reduction alternatives represent undesirable outcomes for transit in the Bismarck-Mandan region. They represent lost work, missed medical appointments, purchases not made in local stores, and an overall detriment to quality of life for current and potential transit users.

As scenarios were defined and refined over the course of 2023, participants in TDP discussions generally agreed that revenue increases should be prioritized over cutting service. This feeling is shared by members of the public who attended the April 2023 informational meetings as well as the transit board, city staff, and MPO staff.

Table 4. Service Alternatives to Decrease Operating Expenses

	Current (Fixed Route / Paratransit / Non-ADA Demand Response)	**Fixed Route / Paratransit Only**	**Convert to Demand Response**			**Elderly and Disabled Only** (Operate 14 Paratransit Vehicles and Current Paratransit Hours)
			Operate 20 Vehicles for Current Paratransit Hours	Operate 20 Vehicles for Current Fixed Route Hours	Operate 14 Vehicles for Current Fixed Route Hours and Days	
Change Relative to Current Service	Retain Current 6 Fixed Routes and Retain Current Paratransit/Non-ADA Service Levels	(7 AM to 7 PM Weekdays) (8 AM to 7 PM Saturdays) (No Sunday Service) (No Holiday Service)	Same number of Vehicles as Current (14 Paratransit+6 Fixed Route) All Riders need to Reserve Their Trip at least One Day In Advance Reservations are First Come, First Served	Same number of Vehicles as Current (14 Paratransit+6 Fixed Route) All Riders need to Reserve Their Trip at least One Day In Advance	Operate 14 Vehicles in Service All Riders need to Reserve Their Trip at least One Day In Advance	Elderly and Handicapped Only Reserve Trip at least One Day in Advance (Same Number of Paratransit Vehicles) (Same Paratransit Hours)
Current Rider Impacts (Number of Daily Riders Impacted Reflects Average Daily First Half of 2023 Boarding Data)	No change - 303 daily FR and 258 Para Riders Accommodated	35 riders Weekdays/Saturday 41 rides on Sunday 51 rides on Holidays Move Trip Time / Do Not Make Trip	95 Fixed Route / Paratransit Riders not Served (Daily)	140 Fixed Route / Paratransit Riders not Served Weekdays/Saturdays 41 rides on no Served Sunday 51 rides on not Served Holidays No Paratransit Priority for Service	300 Fixed Route / Paratransit Riders not Served Weekdays/Saturdays 41 rides not Served Sundays 51 rides not Served on Holidays No Paratransit Priority for Service Concept Fares Reflect Current Paratransit – Increase from Fixed Route	303 Fixed Route Riders Per Day not Served
Eligible Federal Grants	5307 / 5310 / 5339	5307 / 5310 / 5339	5307 / 5310 / 5339	5307 / 5310 / 5339	5307 / 5310 / 5339	5310 / 5339
Annual Operating/Capital Cost	$7.1 Million (Average 2023-2029)	$6.7 Million (Average 2023-2029)	$7.4 Million (Average 2023-2029)	$6.6 Million (Average 2023-2029)	$5.3 Million (Average 2023-2029)	$5.6 Million (Average 2023-2029)
Funding Gap (Average 2023 through 2029)	$1.52 Million Operating Cash Account Depleted in 2026	$1.15 Million Operating Cash Account Depleted in 2026	$1.60 Million Operating Cash Account Depleted in 2026	$1.05 Million Operating Cash Account Depleted in 2026/27	Closes the Gap	$1.26 Million (Lose $1.7 million in 5307) Operating Cash Depleted within 2 Years of Implementing

Source: SRF analysis of Bis-Man Transit data

3)Scheduled Fleet Replacement

Purchase of replacements for fixed route, paratransit and other service vehicles that have fulfilled their useful life is an ongoing priority. The current fleet includes 10 fixed-route buses, 16 small paratransit buses, and 2 paratransit vans.[3] Several of these vehicles were replaced, or were due for replacement, in 2023.

The replacement schedule is based on the NDDOT useful life benchmark for each vehicle type. Bis-Man Transit typically makes its purchase decisions by comparing recently released federal grant opportunities with the age and mileage of the existing fleet. For example, 5310 grants for FY2024 will be awarded around the time that four paratransit vehicles purchased in 2016 reach their useful life benchmark of eight years; therefore, the agency plans to order replacements for these vehicles for delivery in mid-2024.

Consistent turnover is another consideration. Spacing out fleet replacements helps to manage the process of integrating newly acquired vehicles, and it assists with budgeting by keeping annual costs relatively stable from year to year.

With both these considerations in mind, a proposed schedule for the next 10 years of vehicle replacement was developed. Table 5 lists each vehicle with its anticipated replacement year and estimated cost. The table includes any vehicles that were in service at the end of 2022. This replacement schedule is one of the inputs for the projected annual costs in the preceding section. It makes the following assumptions:

- Service will continue at current levels.
- Vehicle costs escalate at a rate of three percent over the previous year, starting from 2023 contract prices of $154,000 for a small paratransit bus and $500,000 for a fixed-route bus.
- A maximum of six vehicles will be purchased in any given year.
- The local matching contribution for each vehicle will be 15 percent of the total price, with the remaining 85 percent covered by federal grants under Section 5310 or Section 5339.

Table 5. Fleet Replacement Timing and Cost

Fleet #	Mode	Useful Life Benchmark	Age in 2023 (Years)	Replacement Year	Federal Share	Local Share	TOTAL
53	Paratransit	8 year	11	2023	$130,900	$23,100	$154,000
54	Paratransit	8 year	11	2023	$130,900	$23,100	$154,000
55	Paratransit	8 year	11	2023	$130,900	$23,100	$154,000
401	Fixed Route	14 year	19	2023	$425,000	$75,000	$500,000
2023 Total					$817,700	$144,300	$962,000
1701	Paratransit	8 year	7	2024	$134,810	$23,790	$158,600
1702	Paratransit	8 year	7	2024	$134,810	$23,790	$158,600
1703	Paratransit	8 year	7	2024	$134,810	$23,790	$158,600
1704	Paratransit	8 year	7	2024	$134,810	$23,790	$158,600
1003	Fixed Route	14 year	13	2024	$437,750	$77,250	$515,000
2024 Total					$976,990	$172,410	$1,149,400

[3] The fleet size is larger than the number of circulating vehicles at peak service described in the preceding section. Spare vehicles are needed to maintain reliable service.

Fleet #	Mode	Useful Life Benchmark	Age in 2023 (Years)	Replacement Year	Federal Share	Local Share	TOTAL
1801	Paratransit	8 year	5	2025	$143,055	$25,245	$168,300
1802	Paratransit	8 year	5	2025	$143,055	$25,245	$168,300
1803	Paratransit	8 year	5	2025	$143,055	$25,245	$168,300
1804	Paratransit	8 year	5	2025	$143,055	$25,245	$168,300
1001	Fixed Route	14 year	13	2025	$450,925	$79,575	$530,500
1002	Fixed Route	14 year	13	2025	$450,925	$79,575	$530,500
2025 Total					$1,474,070	$260,130	$1,734,200
1901	Paratransit	8 year	5	2026	$143,055	$25,245	$168,300
1902	Paratransit	8 year	5	2026	$143,055	$25,245	$168,300
1903	Paratransit	8 year	4	2026	$143,055	$25,245	$168,300
1904	Paratransit	8 year	4	2026	$143,055	$25,245	$168,300
1911	Paratransit	7 year	4	2026	$143,055	$25,245	$168,300
1912	Paratransit	7 year	4	2026	$143,055	$25,245	$168,300
2026 Total					$858,330	$151,470	$1,009,800
1905	Paratransit	8 year	4	2027	$147,305	$25,995	$173,300
1906	Paratransit	8 year	4	2027	$147,305	$25,995	$173,300
1907	Paratransit	8 year	4	2027	$147,305	$25,995	$173,300
1908	Paratransit	8 year	4	2027	$147,305	$25,995	$173,300
1501	Fixed Route	14 year	8	2027	$478,380	$84,420	$562,800
1502	Fixed Route	14 year	8	2027	$478,380	$84,420	$562,800
2027 Total					$1,545,980	$272,820	$1,818,800
1909	Fixed Route	14 year	4	2029	$507,535	$89,565	$597,100
1910	Fixed Route	14 year	4	2029	$507,535	$89,565	$597,100
2029 Total					$1,015,070	$179,130	$1,194,200
2201	Fixed Route	14 year	1	2034	$588,455	$103,845	$692,300
2202	Fixed Route	14 year	1	2034	$588,455	$103,845	$692,300
2034 Total					$1,176,910	$207,690	$1,384,600

BACKGROUND

4)Transit System Overview

a) Fixed-Route Service

Bis-Man Transit operates six regular fixed routes on weekdays and Saturdays. Weekday service runs from 6:30 a.m. to 7:00 p.m. and Saturday service starts an hour later at 7:30 a.m. Four of the routes operate on an hourly pulse schedule, with all buses arriving at the same time at a stop on Front Avenue and departing ten minutes later. The exceptions are:

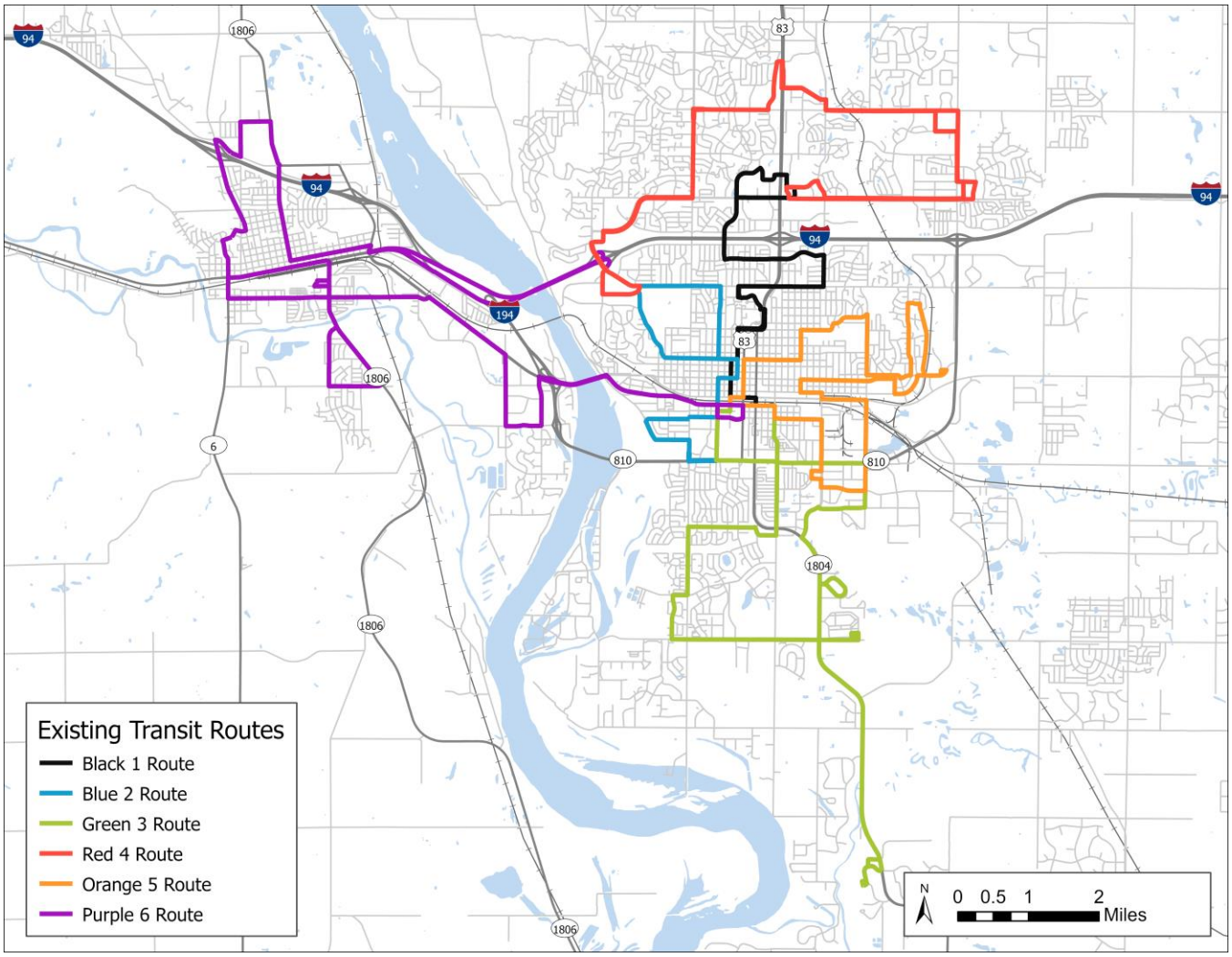
- Purple Route to Mandan, which serves this stop every two hours.
- Red Route, which serves the north end of Bismarck. This is an hourly route, but it has a west endpoint at Bismarck State College (BSC) and east endpoint at North 14th Street/Mapleton Avenue. At BSC, the Red Route has a transfer point with the Blue Route and at the east end the route has a transfer point with the Black Route to provide connection to the remainder of the system.

Each route is described below and illustrated in Figure 10.

Table 6. Description of Current Bis-Man Fixed-Route Service

Black-1	This route primarily travels north-south through central Bismarck between the Front Avenue stop and the Gateway Mall area on East Century Avenue. Major destinations along this route include Bismarck Public Library, the North Dakota State Capitol building, North Pizza Hut, and Dan's Supermarket North. The route loops back at the Mapleton Avenue Transfer Point.
Blue-2	Also departing from Front Avenue, this route serves major destinations such as Dan's Supermarket South, Bismarck Public Library, Tom O'Leary Tennis Courts, the BSC campus, and the YMCA before looping back toward downtown Bismarck.
Green-3	The third route converging at Front Avenue, this route serves the southernmost portion of Bismarck. Major destinations include Cashwise Foods, Sanford South Clinic, Tatley Place, the University of Mary (U-Mary), UTTC Wellness Center, Bismarck Airport, and South Super Walmart.
Red-4	The Red Route begins at BSC and travels northeast, serving major destinations such as Pinehurst Square, US Social Security Administration, North Super Walmart, and Dan's Supermarket East, before looping back at the Mapleton Avenue Transfer Point.
Orange-5	The Orange Route serves much of central Bismarck running east-west. It is the fourth route that stops at Front Avenue, and serves major destinations such as the Dream Center, South Super Walmart, Big Boy, Dakota Center for Independent Living, Bis-Man Transit Facility, Rita Murphy Elementary School, Simle Middle School, and Bismarck High School.
Purple-6	The Purple Route travels between BSC, Mandan, and Front Avenue. It is the only bus route serving Mandan. The route links major destinations such as the Bank of North Dakota, Raging Rivers Waterpark, Midway Lanes, Fort Lincoln Elementary School, Dan's Supermarket Mandan, Mandan High School, Mandan Walmart, and Sanford East Mandan.

Figure 10. Current Fixed-Route Network



i) Fares

Bis-Man Transit offers a number of single-ride and unlimited ride passes for purchase online, on a bus, at the administrative office or at various points of sale in the metro. As they board, passengers can purchase (cash only) single ride, one-day, and 30-day passes by informing the operator of which pass they are purchasing before placing their money in the farebox.

Passes can also be purchased with credit/debit card or check at the administrative office on Rosser Avenue or Cashwise Foods (Bismarck) or Dan's Supermarket (Bismarck and Mandan). Bis-Man Transit also offers a mobile ticketing option through the Token Transit application, with accounts set up and reloaded via the app or a web portal.

Reduced fares are available for veterans, Medicare card holders, and all students (including both K-12 and higher education). Operators will ask for verification of the rider's qualifying status before granting the discounted rate. Additionally, both seniors aged 65 and older and paratransit customers ride free with a valid ID. A full breakdown of the CAT fare structure is located below in Table 7.

Table 7. Fare Structure

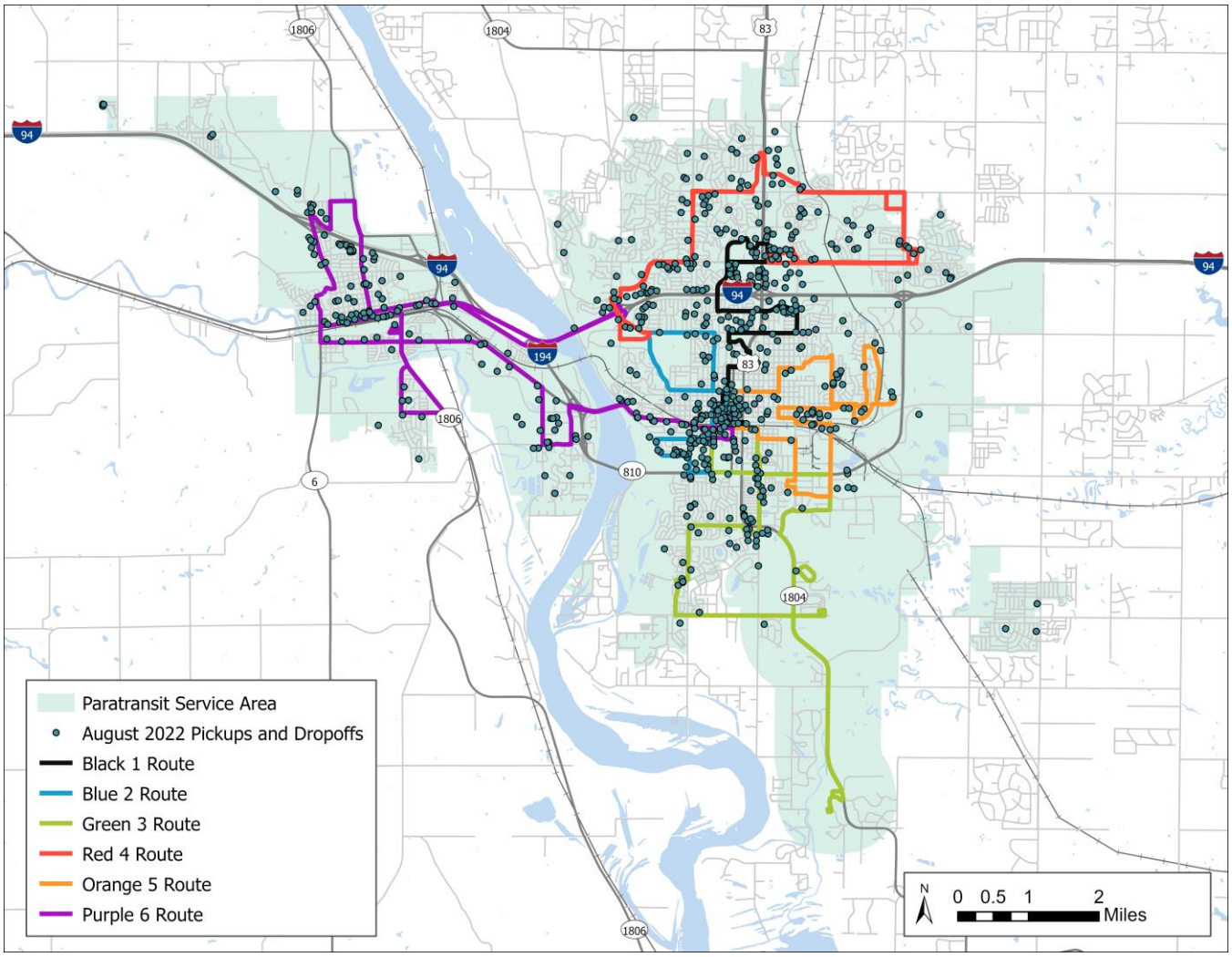
Description	Regular Fare	Reduced Fare
Single-ride	$1.50	$0.75
1-day pass	$6.00	$3.00
30-day pass	$36.00	$24.00

Source: Bis-Man Transit

b) Paratransit Service

Paratransit door-to-door services are available to senior citizens 70 years of age or older and to individuals with any type of certifiable disability. This service operates within the city limits of Bismarck, Mandan, and Lincoln; on the U-Mary campus; and within three-quarters of a mile from fixed-route service. Figure 11 shows a current map of the paratransit service area, as well as the pickup and drop-off locations of the 8,000-plus paratransit trips conducted in August of 2022.

Figure 11. Current Paratransit Service



Reservations can be scheduled for a specific pickup time (such as for a commute home from work), drop-off time (such as for a commute to work or an appointment), or for "will-calls," which send the first

available bus for pickup using only approximate time windows. All one-way trips are $3.00, and can be paid with exact change, prepaid punch cards loaded in increments of $12.00, over the phone, or with a personal diminishing balance account.

ADA-eligible individuals who are visiting the communities served are able to utilize the system at the same price of $3.00 per ride and are not required to be registered in the agency's transit database.

c) Fleet

As of September 2023, Bis-Man Transit operates 10 heavy-duty buses to provide service on its six fixed routes. The fleet also includes 18 medium- and light-duty cutaway buses and two vans for paratransit service.

d) Facilities

All CAT routes except the Red 4 Route depart from and return to the bus shelter at 500 Front Avenue. A second transfer point with a shelter is located at Bismarck State College. Of all locations served by CAT routes, the Bis-Man Transit Facility (served by the Orange 5 Route) is the only site with additional amenities, such as restrooms, vending machines, and bus pass purchase options. The Bis-Man Transit Board holds regular monthly meetings in this building, and the facility also serves as the agency's bus depot. Connections and ticket purchase options for other transit services are available, including Jefferson Lines, West River Transit, Standing Rock Transit, and intercity bus service to Minot provided by Souris Basin Transportation.

5) Policy Guidance

Transit service in the area is informed by preceding policies and plans created by Bis-Man Transit and the Metropolitan Planning Organization (MPO). Table 8 summarizes key policies from complementary documents.

Table 8. Previous Plans and Policies

Policy Document	Description	Themes & Connection to Transit
Bis-Man Transit Development Plan 2019	Bis-Man Transit completed its most recent TDP in 2019, covering the same basic categories as this plan.	Identifies needs, gaps, and goals and objectives from 2019 onward. Recommends service reductions and estimates the dollar savings of several possible reduction strategies.
Coordinated Public Transit – Human Services Transportation Plan 2022	Consistent with requirements for Section 5310 recipients, Bis-Man Transit updated its coordination with organizations that provide transportation to senior, disabled, low-income, or veteran clients. Identifies services, transportation needs, opportunities to fill gap between services and needs, and implementation priorities.	Provides overview of organizations; summarizes input from organizations and their clients. Identifies a primary objective as moving capable individuals using paratransit to the fixed-route system. Outreach included a survey of the general public. Out of 54 responses, the top priorities included unserved service areas, earlier morning hours, later evening hours, Sunday availability, greater reliability. A five-year action plan identifies seven strategies: create positive relationships with service providers, continue to pursue funding, increase ridership on CAT, investigate demand response service for CAT riders, reach out to employers, create a student-specific training program, and increase CAT signage.
Bis-Man Transit Management Alternatives Study (2011)	The MPO commissioned this study to evaluate alternatives to its contracting model.	Provides historical context for present decisions. Previously the City of Bismarck contracted with a nonprofit, No-Dak Development Corporation, to administer transit service. The study recommended continuing with this model but, if a suitable candidate failed to appear on next bid renewal, creating a city department for transit.
Bismarck-Mandan Metropolitan Transportation Plan (2020)	As a condition of federal transportation funding, the MPO prepared this plan to guide its transportation planning through 2045. THE MTP is updated every five years.	Goal 5: Alternative Transportation Modes to Automobile Travel highlights the importance of public transportation and sets a desired target of increasing fixed-route transit ridership. Objective 5A is to consider coordination with transit agencies to improve transit route efficiency, system productivity, and community awareness by implementing transportation investments that support the transit system. Objective 5B is to improve transit and rideshare opportunities for travelers commuting into Bismarck-Mandan from outside the urban area. The MTP also sets goals and objectives for environmental sustainability, transit fleet maintenance, and multimodal connections.
2023-2026 Transportation Improvement Program (TIP)	The TIP lists significant transportation system improvements to be implemented in the MPO planning area during the next four years. It is prepared annually by the MPO.	A transit improvement project list is included on page 18. A December 2022 amendment updated Bis-Man Transit's Transit Asset Management (TAM) report to reflect its November 2022 fleet inventory.

6)Market and Needs

Analyzing trends and patterns in Bismarck-Mandan is a critical task in assessing the community's transportation needs. The following section uses socioeconomic data to develop a baseline understanding of community demographics. Cumulatively, this information is used to:

- Identify locations that can potentially generate the highest levels of transit use
- Gauge the extent to which existing fixed-route service meets potential demand
- Inform what type of transit service is best suited for an area

a) Transit-Supportive Areas

Several factors are often correlated with and suggest the need for public transit service. Among the most important are job locations, density of job locations, and density of housing.

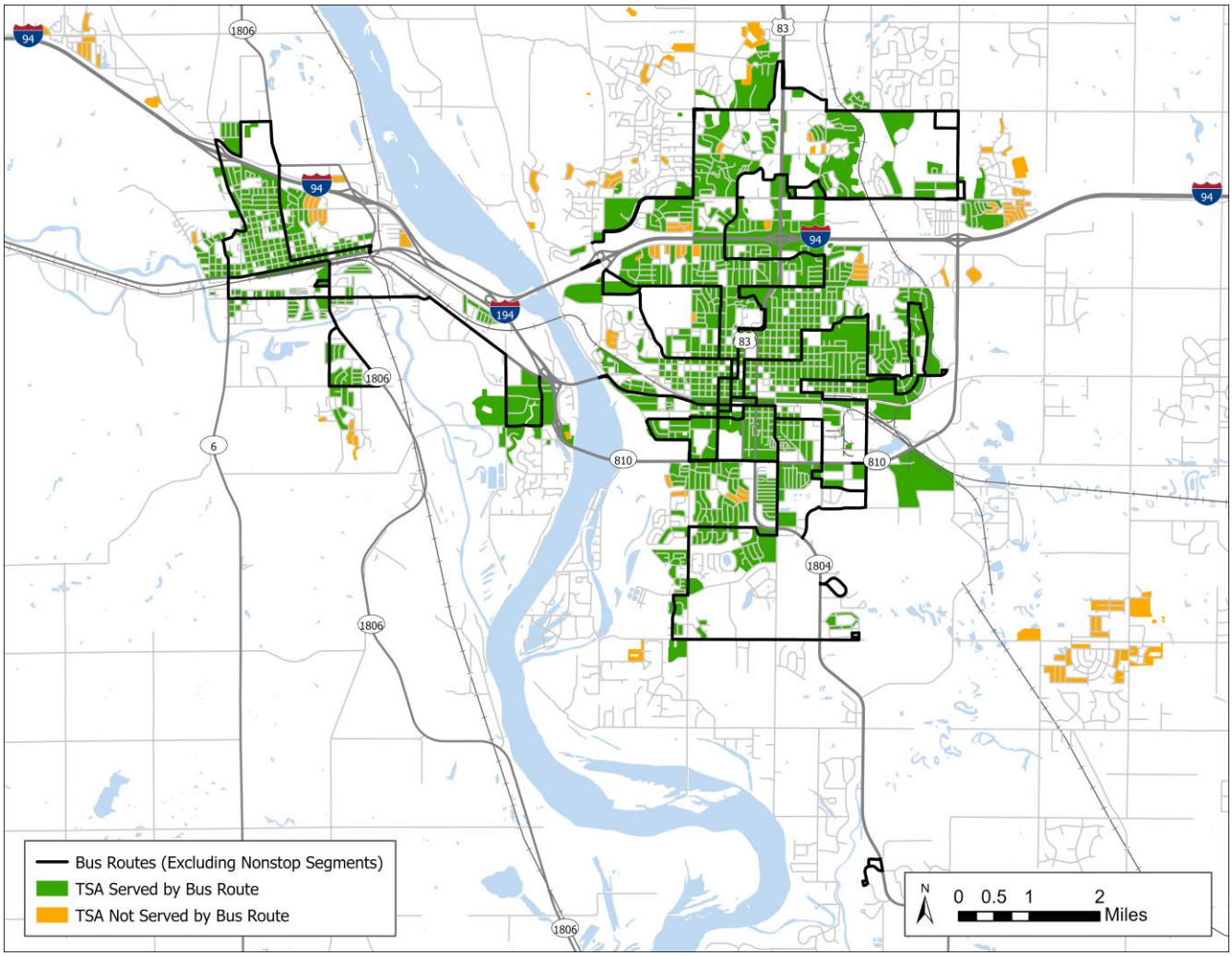
Figure 12 identifies census blocks that are transit-supportive (Transit-Supportive Areas, or TSAs) on the basis of their housing density, their job density, or both. For this purpose, a TSA is defined as having residential density of at least three households per acre or employment density of at least four jobs per acre. This service planning rule of thumb assumes low service frequency (approximately 60 minutes) and partial farebox recovery.[4]

The TSAs are shown in green if they are within a quarter mile of a fixed route segment with pickup and drop-off service. They are shown in gold if they are more than a quarter mile from service. As the dominant color in the map suggests, 90 percent of the transit-supportive acreage in Bis-Man Transit's service area is served by a fixed route.

There are TSAs in both Bismarck and Mandan without service. These would be expansion areas to consider if Bis-Man Transit were to add service in the future. However, given the extent of its coverage, the agency does not have a compelling reason to prioritize expansion.

[4]For more detailed discussion, see TCRP Report 165, Transit Capacity and Quality of Service Manual, Third Edition, pp. 3-19 to 3-20.

Figure 12. Transit-Supportive Areas



b) Demographics

Two of the top demographic factors correlated with transit demand are income and vehicle ownership. People with lower incomes are more likely to ride public transit, as are those whose households do not have access to a vehicle.

The age of residents can also be a predictor of transit use. Children and older adults may benefit from access to transit, and it is typical for young adults of student age to use transit at a higher rate than other groups.

Additionally, it is critical to consider racial equity in the allocation of transit service. Looking at the spatial distribution of race, ethnicity, and English proficiency in relationship to existing transit routes can identify potential equity gaps in service. These characteristics are used to define protected classes under Title VI of the 1964 Civil Rights Act.

Figure 13 through Figure 19 show choropleth maps of the demographic groups in Bismarck-Mandan overlaid with the existing CAT network. These figures use data gathered from the 2016-2020 American Community Survey.

Figure 13 shows the percentage of low-income individuals in each block group, defined as those whose annual income falls below the federal poverty level (FPL). In 2022, the FPL was set at $13,590 for an individual and $27,750 for a family of four.

Generally, the outermost neighborhoods have smaller low-income concentrations, while block groups closer to central Bismarck have higher percentages of low-income individuals, with some nearing 50 percent. These neighborhoods in the urban core are located near a major transfer point on Front Ave, where residents have access to five of the six bus routes. However, some residents of these neighborhoods are not within a quarter-mile walkshed of existing bus service and may not be able to easily access this major transfer point.

Figure 13. Low-Income Population by Block Group

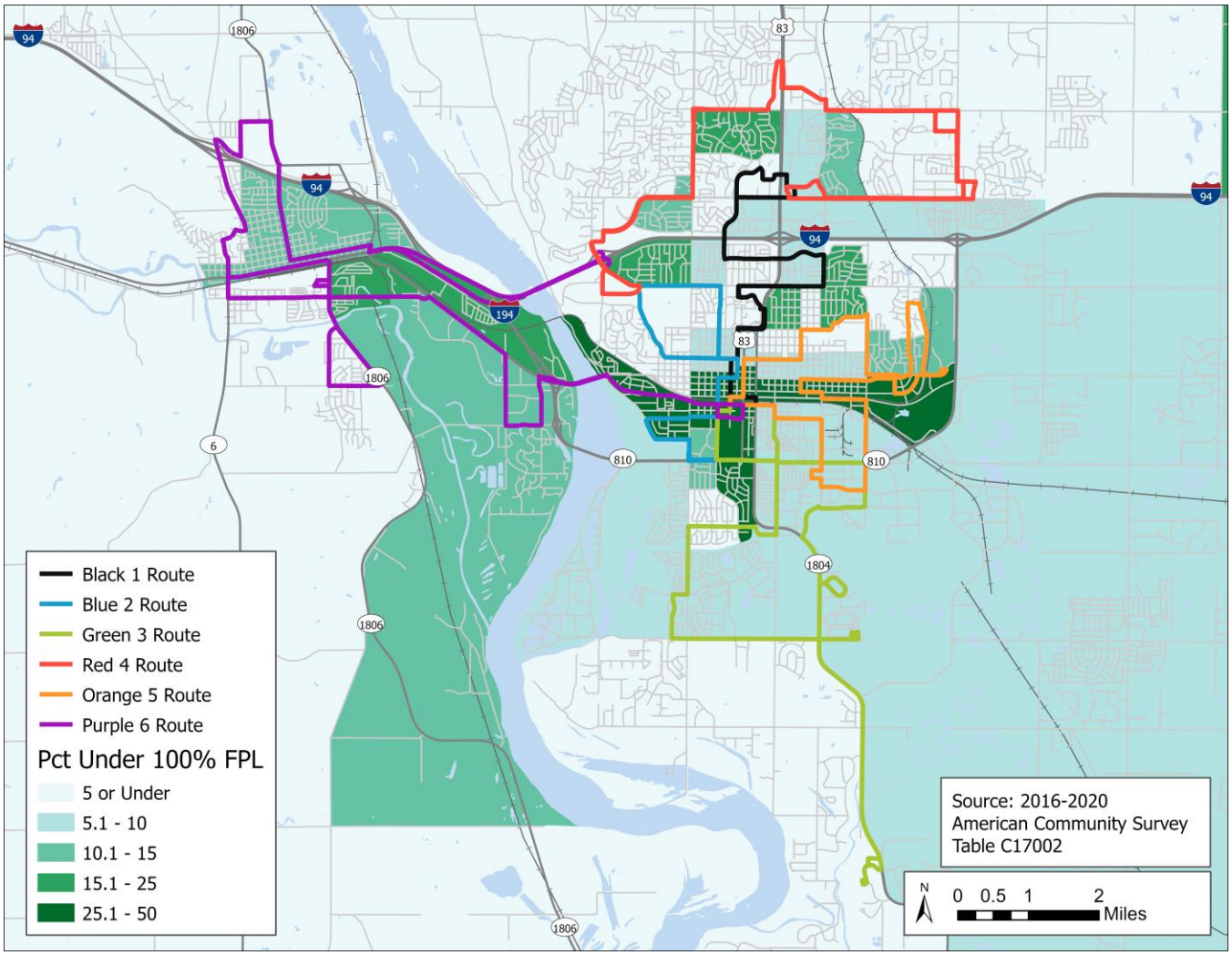


Figure 14 shows the percentage of households in each block group that reported possessing no functioning vehicles. In several block groups, more than 20 percent of households are zero-vehicle. Although many of these block groups are well-served by the CAT network, some households north of

Century Avenue and east of the Dakota Missouri Valley & Western Railroad fall outside a quarter-mile walkshed of the Red Route. Additionally, households along the eastern side of the Missouri River near I-94 fall outside a quarter-mile walkshed of the Purple Route.

Figure 14. Zero-Vehicle Households by Block Group

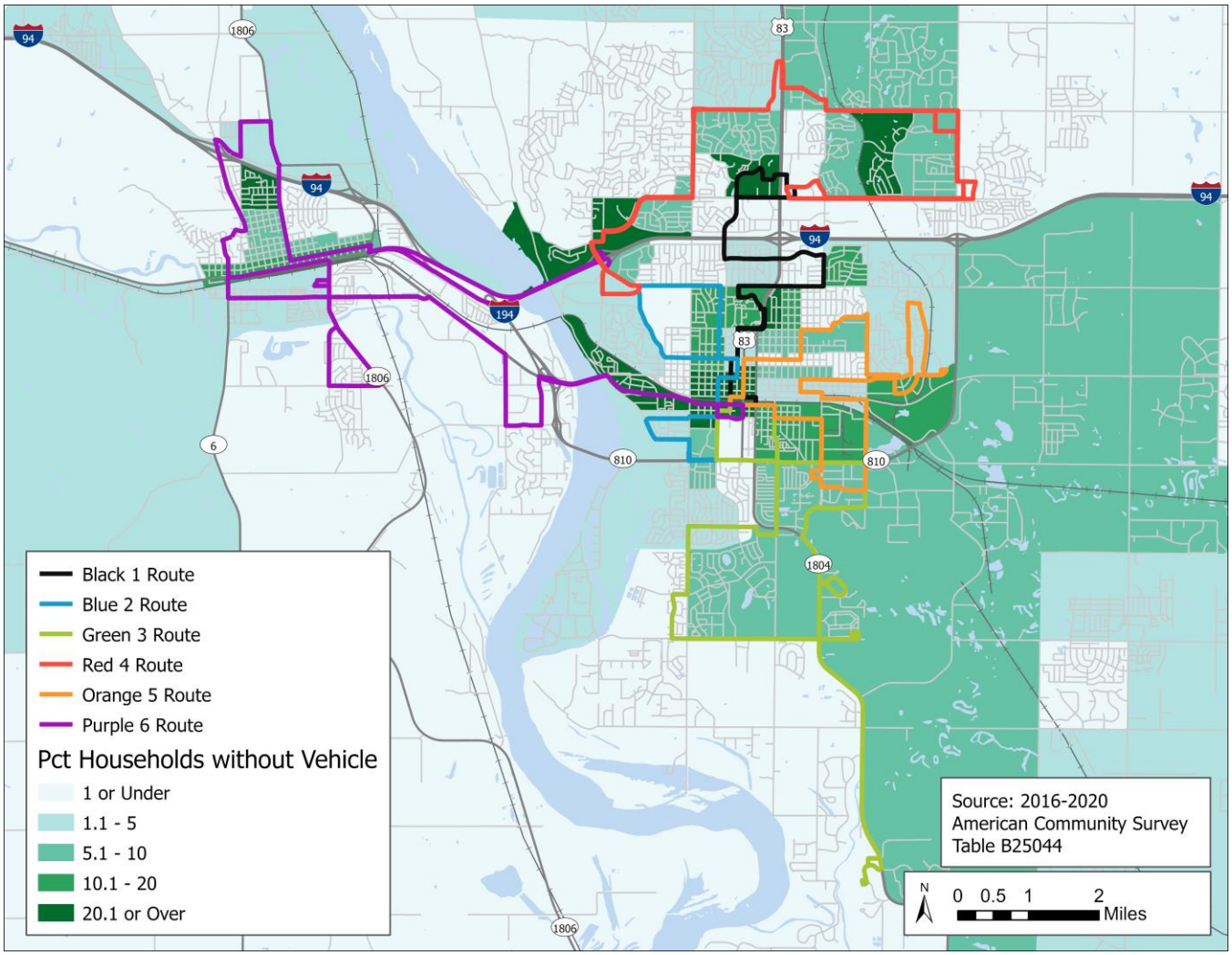
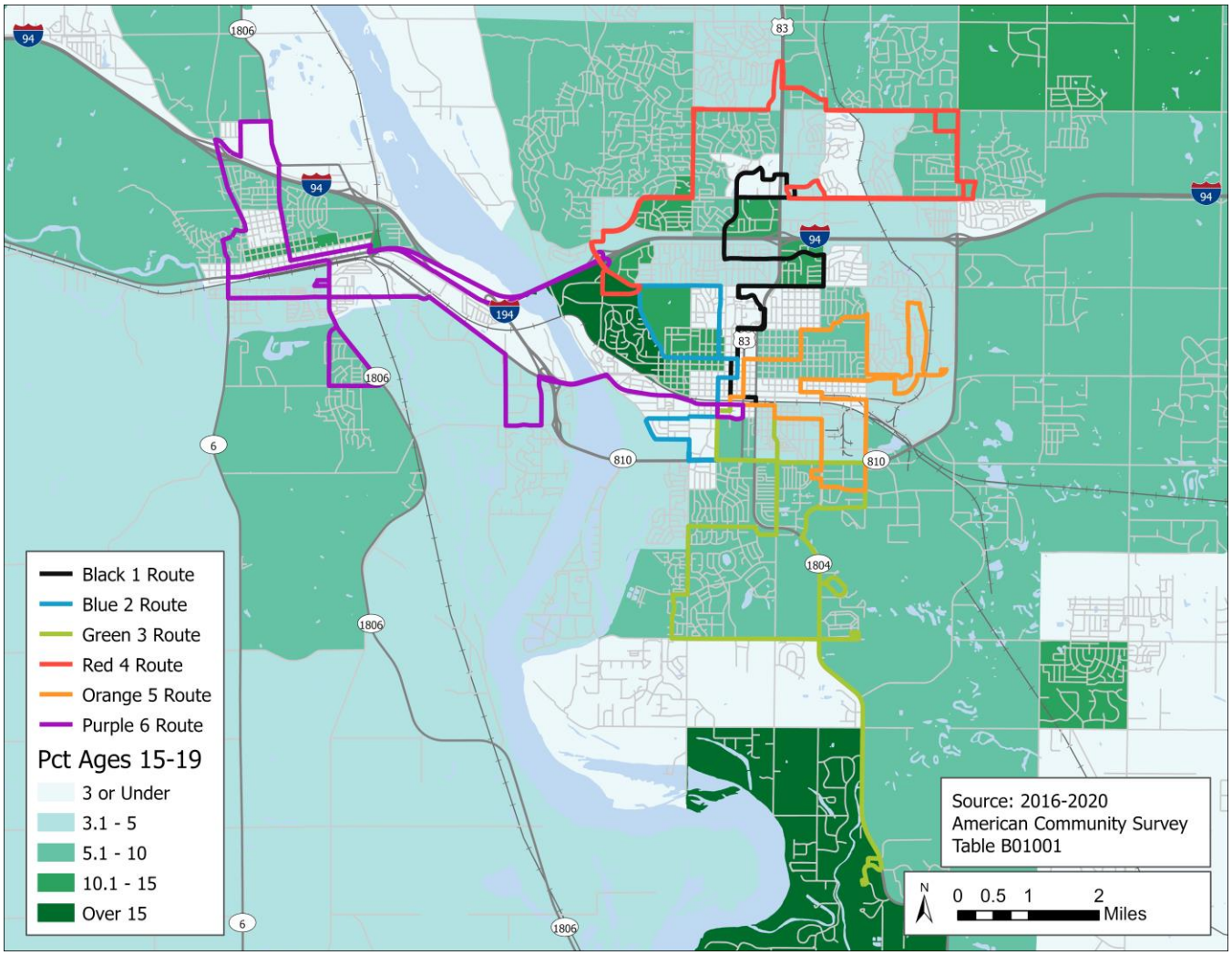


Figure 15 shows each block group's population of children and youth between the ages of 15 and 19. At 10 percent or fewer in most block groups, the map suggests that adolescents and young adults in this age range are relatively evenly distributed throughout the city and surrounding areas. However, in some block groups in Bismarck and Mandan's urban cores, as well as in Lincoln, this age group composes up to 15 percent of the population. Outliers include the block groups containing the main campuses of both University of Mary and Bismarck State College, which likely both house many 17-to-19-year-olds. These campuses are both served by the CAT system, but the best-served areas in the metro area have comparatively low youth populations.

Figure 15. Population Ages 15-19 by Block Group



The distribution of adults 65 or older (Figure 16) is less even, with block groups ranging from under five percent to over 30 percent. While the older adult populations in the Bismarck urban core are well-served by the CAT network, some neighborhoods along the Missouri River with higher concentrations of this age group are underserved. Some of these block groups have high rates of vehicle ownership, specifically in southeast Mandan and southwest Bismarck, but others may have concentrated pockets of non-driving seniors who are more reliant on alternatives to fixed-route bus service. Both the block group north of Century Avenue and east of the Dakota Missouri Valley & Western Railroad and the block group east of the Missouri River and north of I-94 are notable for their high senior populations and high rates of zero-car households.

Figure 16. Population Ages 65+ by Block Group

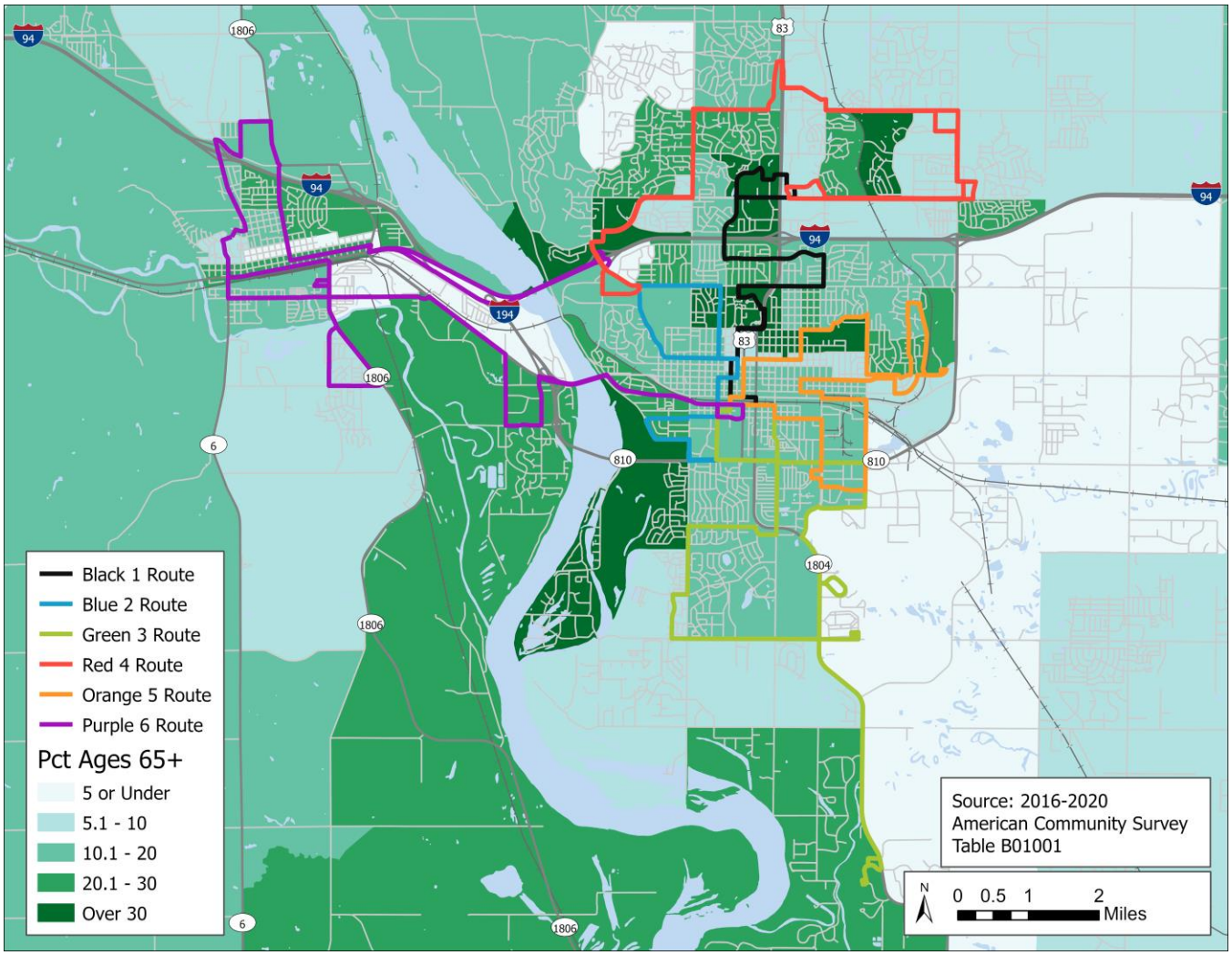


Figure 17 shows the percentage of each block group's residents who are people of color, here defined as those who self-identified in the 2016-2020 American Community Survey as a race other than White Alone. It therefore includes all racial minorities and mixed-race residents. Though there is a concentration of people of color in Bismarck's city center, these populations are distributed throughout the metro area. Overall, there are fewer service gaps in neighborhoods with higher percentages of people of color.

Figure 17. Population of Color by Block Group

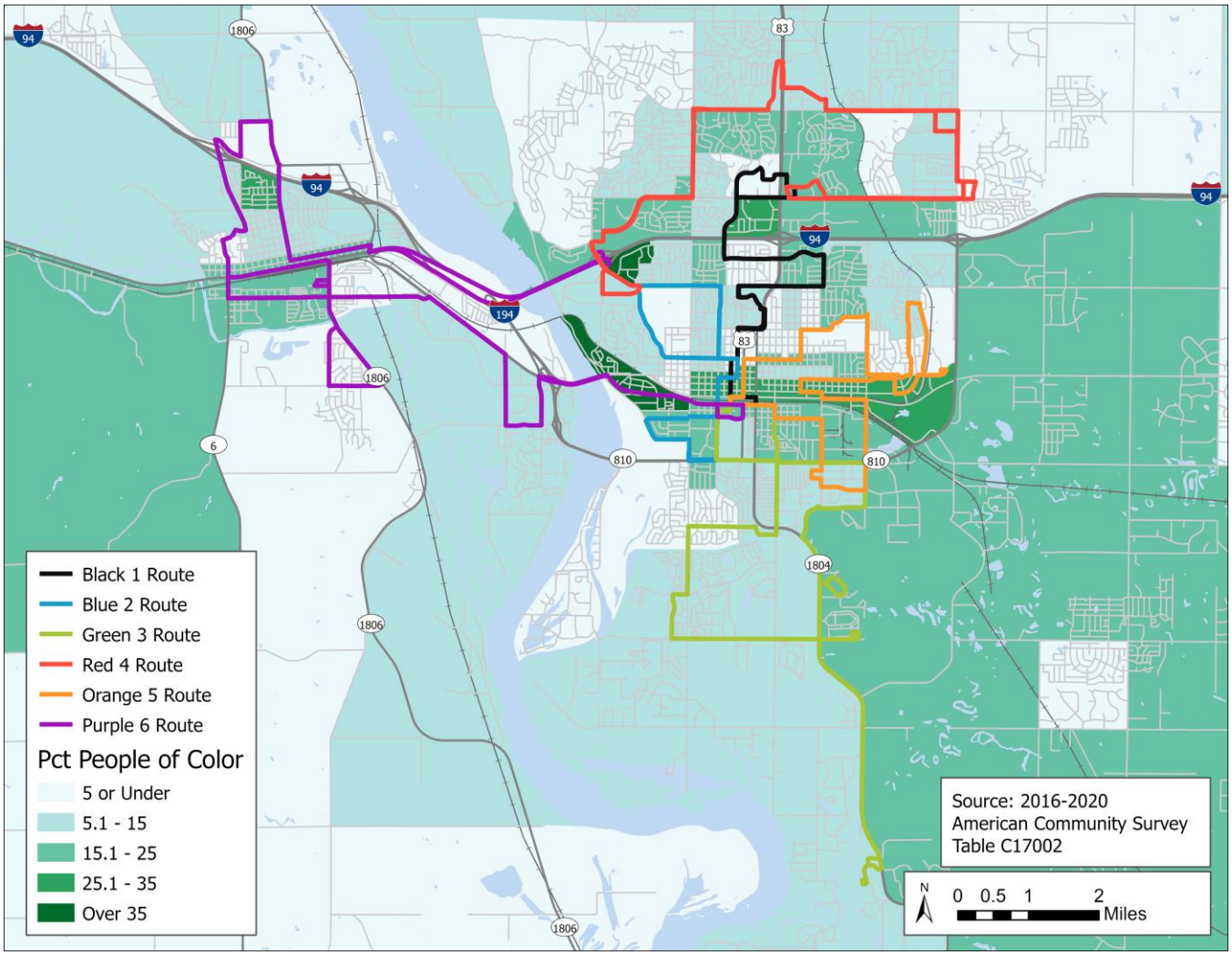


Figure 18 shows the percentage of each block group with Hispanic or Latino origin. This comprises people of all races (or combinations of races), including people of color and those who consider themselves both white and Hispanic or Latino. Some block groups have no Hispanic or Latino residents at all, while most other block groups' populations are under five percent. However, there are higher concentrations of Hispanic and Latino residents in Mandan's urban core, some neighborhoods of Bismarck's urban core, and its easternmost neighborhoods, which contain relatively few total households. The Purple Route is less frequent than the other five routes, so there is some evidence that this population is underserved by the CAT network.

Figure 18. Hispanic/Latino Population by Block Group

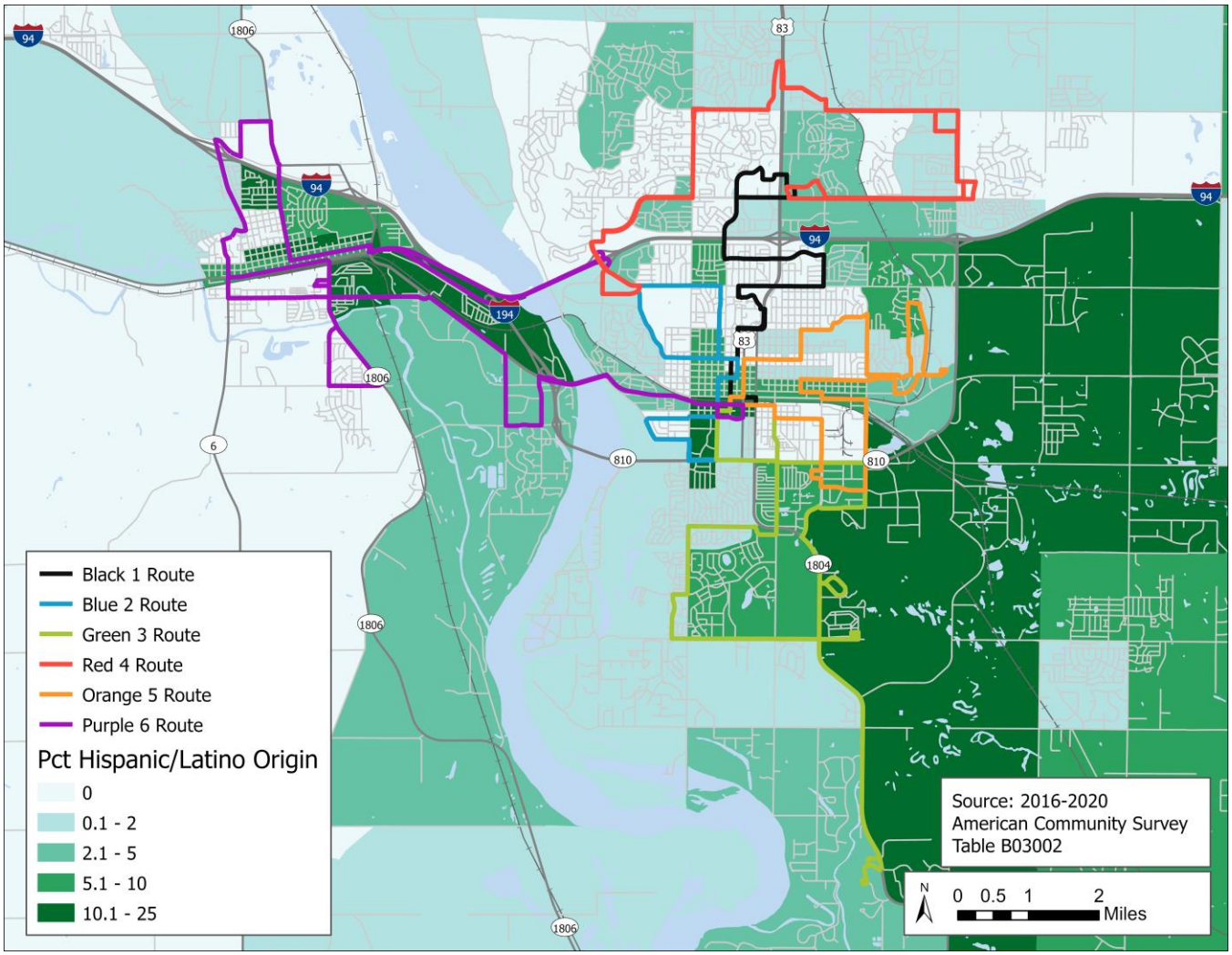
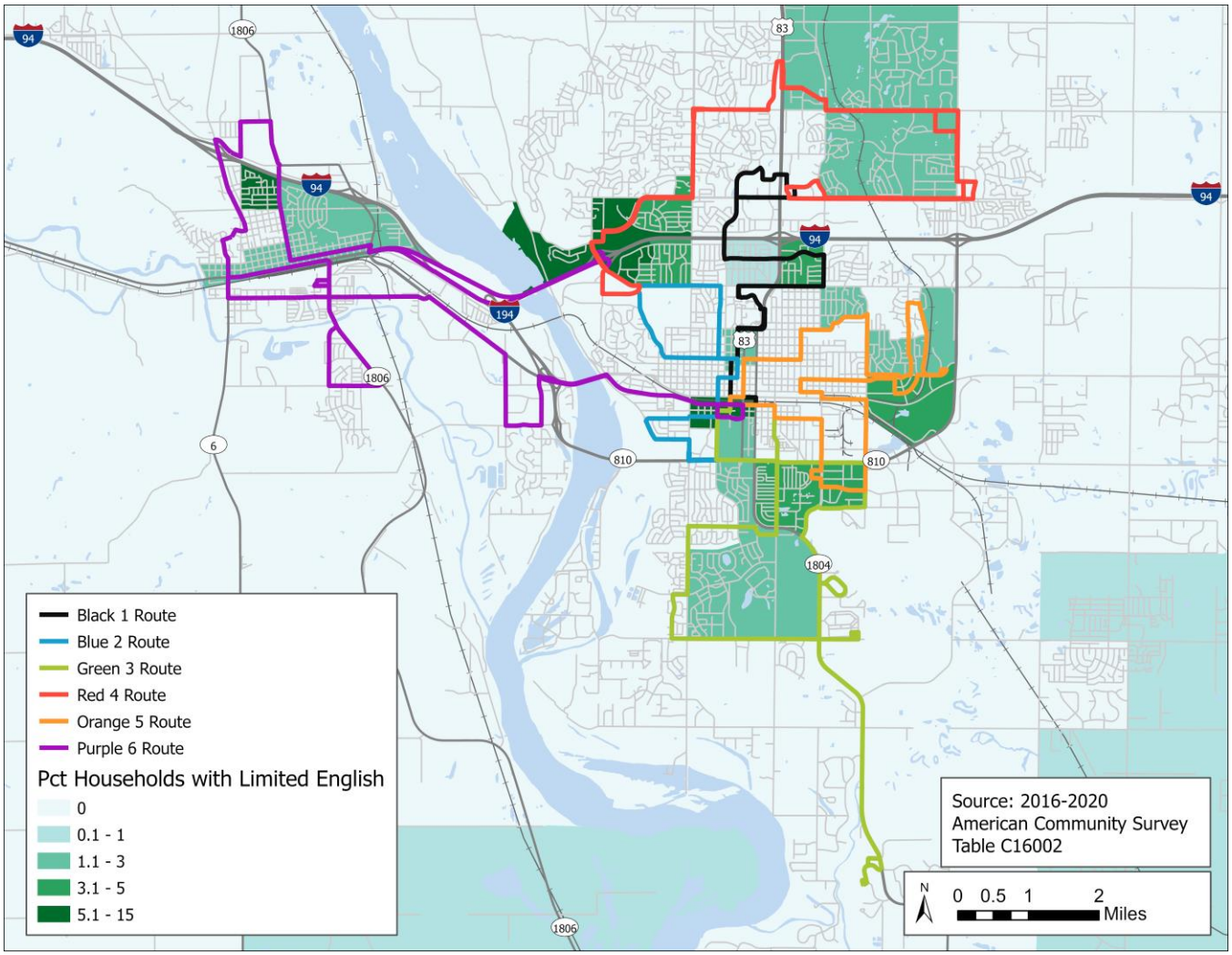


Figure 19 shows the percentage of households with limited English proficiency (LEP). Overall, there is a very low number of LEP households, with most block groups containing none at all, but a few spots of higher concentration exist in central areas in both Bismarck and Mandan.

Figure 19. Limited English Proficiency by Block Group



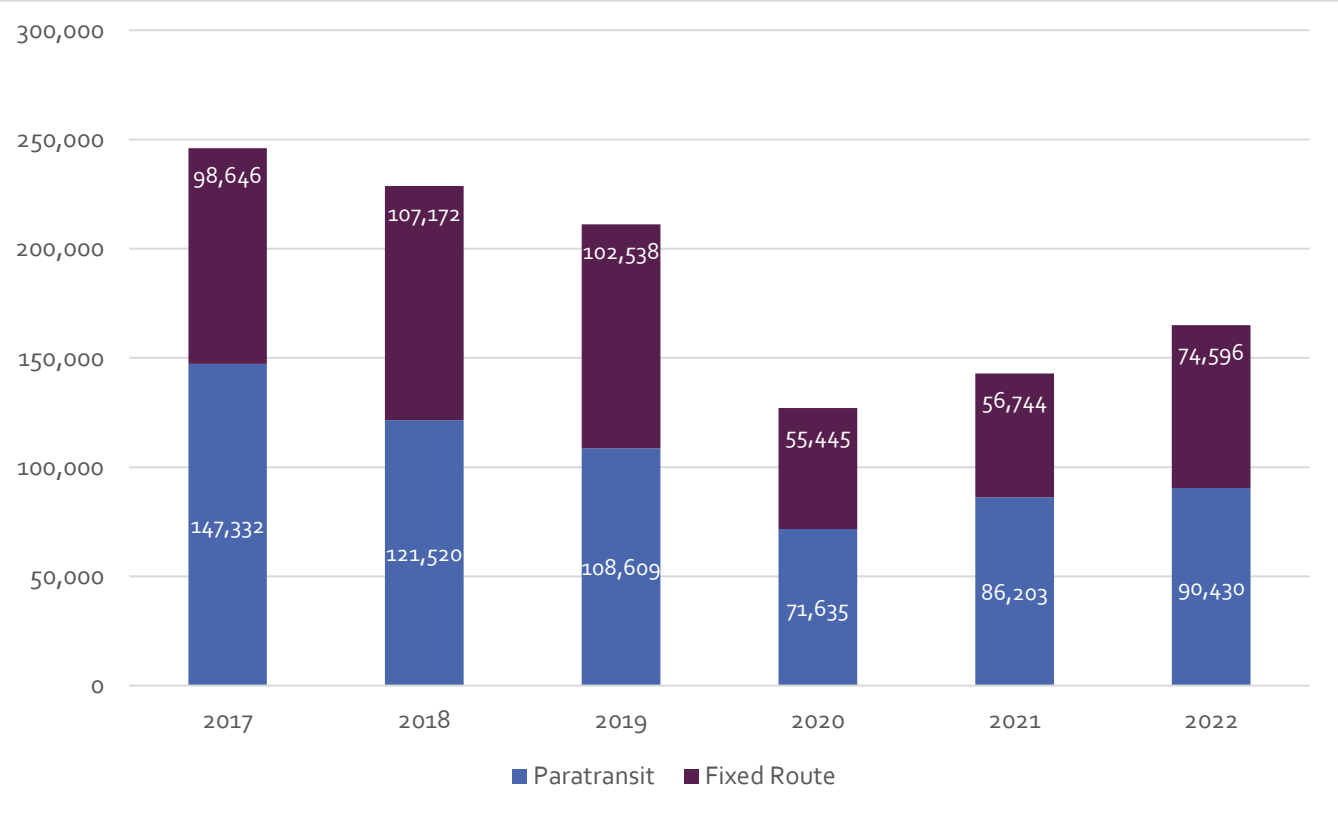
7) Existing Service Review

a) Systemwide

Figure 20 shows five years of historical ridership in terms of total boardings per year. Both fixed-route and paratransit ridership followed the same pattern: gradually declining from 2017 to 2019, falling sharply in 2020 due to the COVID-19 pandemic, and recovering slightly over the course of 2021-2022.

Paratransit consistently generated more than half of each year's total boardings. With that said, fixed-route ridership showed better recovery in 2022, narrowing the gap between the two modes.

Figure 20. Ridership by Mode, 2017-2022



Source: National Transit Database

b) Fixed Route

i) Standard Performance Metrics

Every transit agency reports certain operating statistics annually to the FTA National Transit Database. This standardized data source allows comparison across years, modes, and transit agencies. Table 9 shows several key operating statistics reported by Bis-Man Transit for its fixed-route service over five years. Both revenue hours and passenger trips dipped in 2020. Revenue hours recovered to pre-pandemic levels, while passenger trips did not.

Table 9. Fixed-Route Operating Statistics over 5-Year Period

Operating Statistic	2017	2018	2019	2020	2021
Revenue Hours	24,146	21,340	20,811	18,400	21,707
Passenger Trips	98,646	107,172	102,538	55,445	56,744
Operating Expenses	$1,610,875	$1,574,148	$1,558,069	$1,420,374	$1,699,835
Passenger Revenue	$66,516	$78,141	$74,006	$51,884	$50,929

Source: National Transit Database

Although reporting is standardized by FTA, performance metrics are not. It is up to the transit agency to identify which objectives and accompanying metrics are most relevant to them. The performance metrics chosen for Bis-Man Transit are described below and summarized in Table 10.

- Cost effectiveness addresses transit use in relation to the level of resources expended. The primary measure for comparison in this category is operating cost per passenger trip. The lower the cost per passenger trip, the more cost effective the service.
- Cost efficiency examines the amount of service produced in relation to the amount of resources expended. Operating cost per revenue hour is often a primary measure of a service's cost efficiency.

Table 10. Performance Objectives and Metrics

Performance Objective	Performance Measure
Cost Effectiveness	Operating Expenses Per Passenger Trip
Cost Efficiency	Operating Expenses Per Revenue Hour
Service Effectiveness	Passenger Trips Per Revenue Hour
Passenger Revenue Effectiveness	Average Fare Per Passenger Trip
	Operating Ratio (Passenger Revenues Per Operating Expenses)
	Subsidy Per Passenger Trip

- Service effectiveness is a measure of the consumption of public transportation service in relation to the amount of service available. Passenger trips per revenue hour is the measure used to assess service effectiveness.
- Passenger revenue effectiveness is measured with three metrics in this analysis: passenger revenue per passenger trip, operating ratio, and net expense (subsidy) per passenger trip.
    - Passenger revenue per passenger trip, or average fare per passenger trip, measures the amount each passenger is paying to use the service. The higher the average fare, the more cost is being borne by the passenger.
    - A system's operating ratio is the ratio of revenues to operating expenses and measures the level of operating expenses that are recovered through passenger fare payment. This measure is also referred to as the operating ratio or farebox recovery. It is expressed as a percentage to represent what percent of operation expenses are recovered through fare revenue.
    - Net expense (subsidy) per passenger trip is used to measure the cost of each passenger trip that is paid for by public operating subsidy. Subsidy per passenger trip is calculated by subtracting passenger revenues from total operating expenses and dividing by total trips. The higher the operating subsidy, the more local, state, and federal resources are required to cover expenses.

Table 11 shows these performance statistics for Bis-Man Transit from 2017 to 2021. Relative to the number of trips taken, expenses rose and fare revenue fell over this period.

Table 11. Fixed-Route Performance Statistics over 5-Year Period

Performance Measure	2017	2018	2019	2020	2021
Operating Expense Per Passenger Trip	$16.33	$14.69	$15.20	$25.62	$29.96
Operating Expense Per Revenue Hour	$66.71	$73.77	$74.87	$77.19	$78.31
Passenger Trips Per Revenue Hour	4.09	5.02	4.93	3.01	2.61
Average Fare Per Passenger Trip	$0.67	$0.73	$0.72	$0.94	$0.90
Operating Ratio	4%	5%	5%	4%	3%
Subsidy Per Passenger Trip	$15.66	$13.96	$14.47	$24.68	$29.06

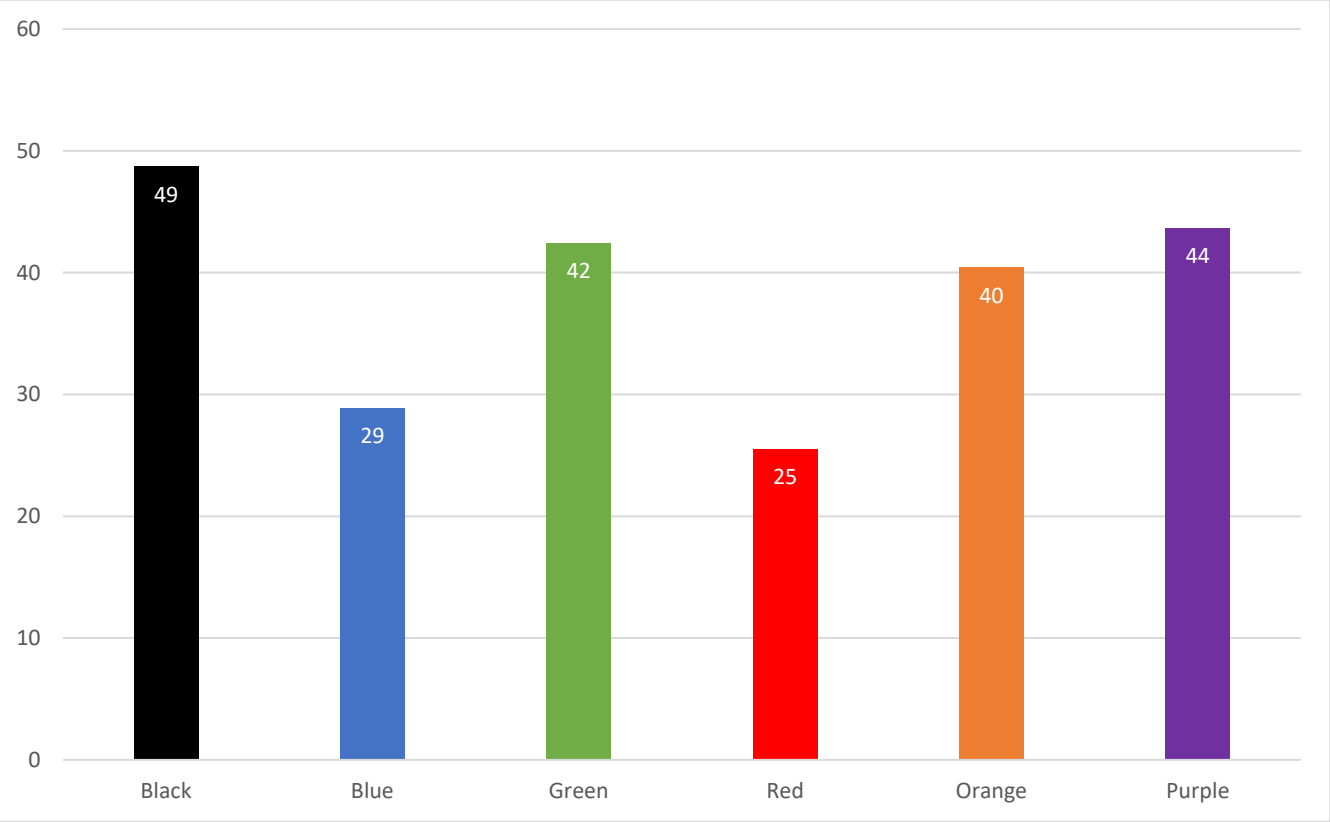
Source: National Transit Database

ii) Route-Level Analysis

The following section summarizes existing fixed-route performance at the route level. As Figure 21 shows, ridership varies by route. The Black 1 Route has the highest ridership in the system, with 49 boardings on an average weekday. The Red 4 Route has only about half that ridership, at 25 average boardings.

Of note is that the second-highest weekday ridership on the system is seen on the Purple 6 Route, despite its limited schedule.

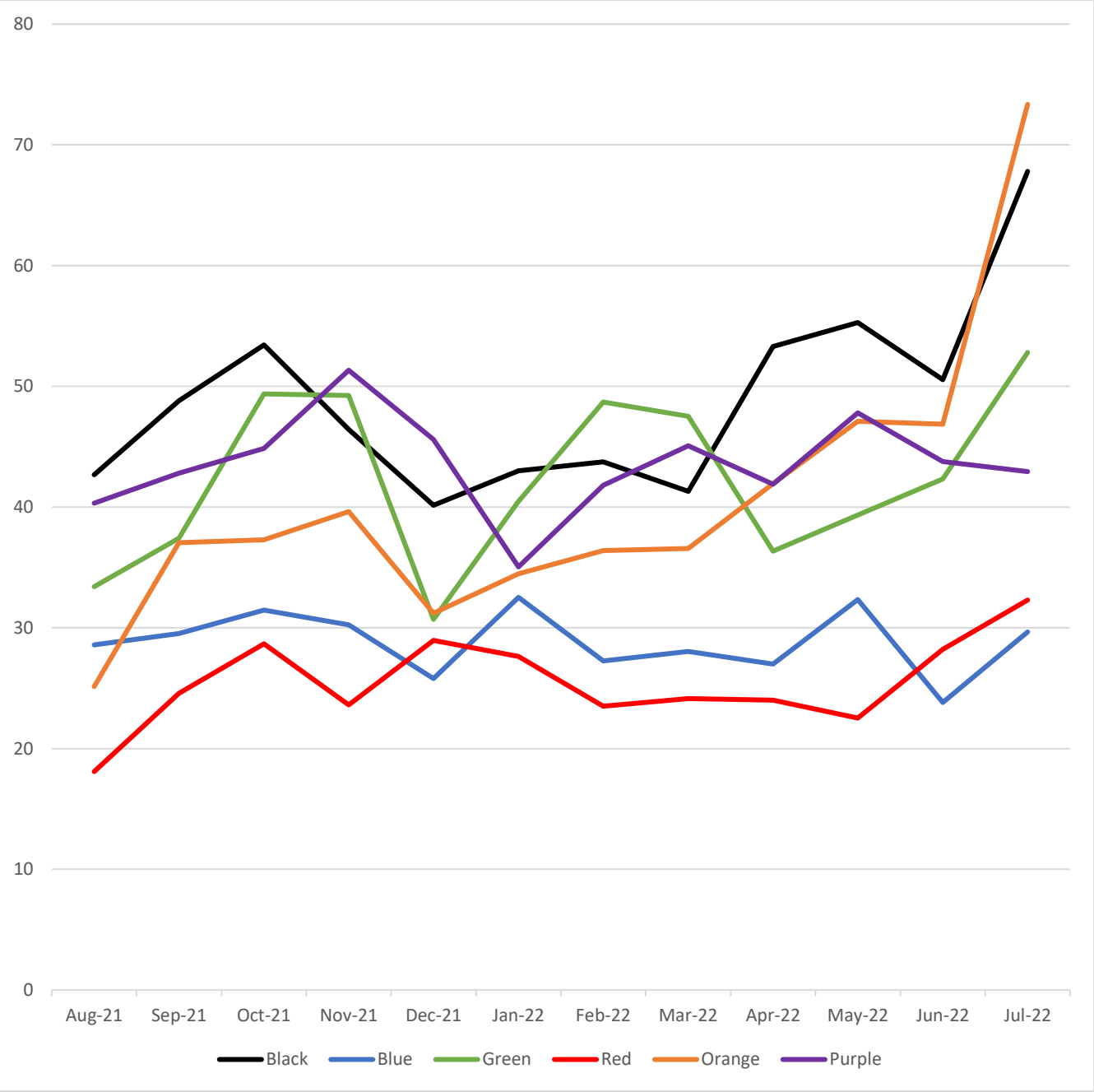
Figure 21. Average Weekday Boardings by Route (August 2021 – July 2022)



Source: SRF analysis of Bis-Man Transit data

Figure 22 displays the fluctuation of average boardings by route over the course of a year. Ridership on the Green 3 Route dropped in December, likely due to winter break at U-Mary. Ridership on most routes jumped upward between June and July of 2022.

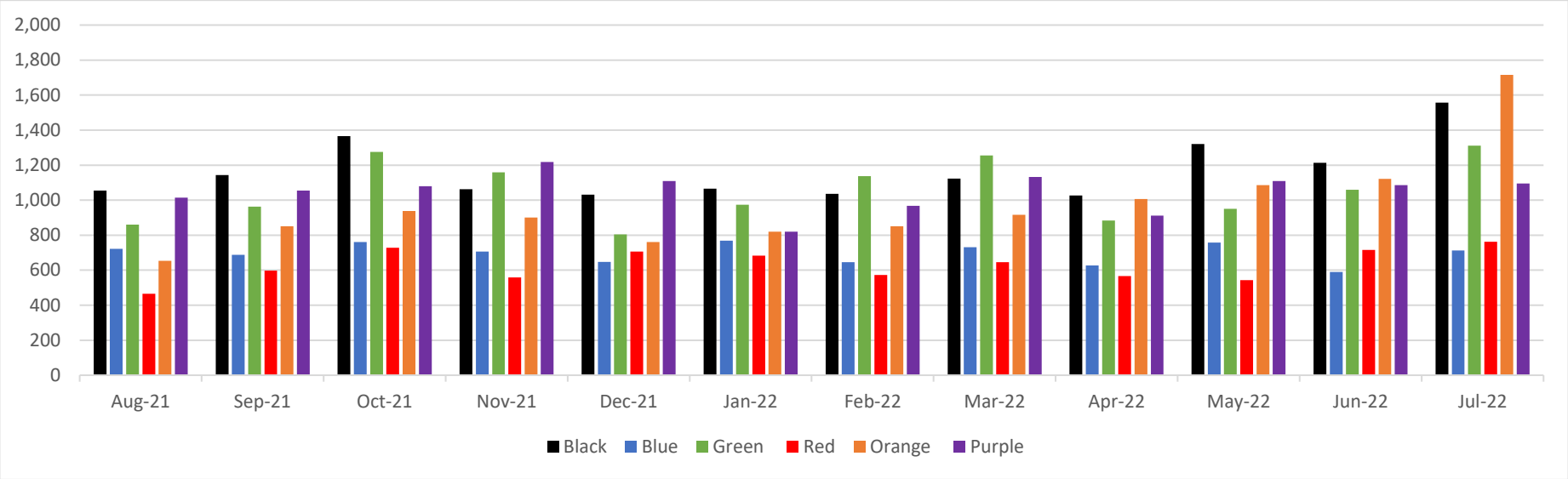
Figure 22. Average Weekday Boardings by Route and Month



Source: SRF analysis of Bis-Man Transit data

Figure 23 shows the total ridership by route from August 2021 to July 2022, including both weekdays and Saturdays. The highest-ridership month was July 2022. A total of 1,716 boardings were made on the Orange Route, and 1,557 on the Black Route. On the Black Route, the lowest-ridership month was April 2022 with 1,026. From month to month, the Blue and Red Routes were trading off for last place.

Figure 23. Total Boardings by Route and Month



iii) February 2021 Route Change

In February of 2021, CAT underwent a major route redesign. The changes expanded the service boundary eastward, from 26th to Centennial Road and Bis-Man Transit's headquarters. In summary, the changes were as follows.

- Previously there had been two routes serving Mandan, 5-Brown and 6-Purple. These routes were consolidated into one Purple route serving both areas. At the same time, frequency of the Purple route was halved.
- 4-Red, which had previously run a zigzag route from its northernmost point at the Skyline Boulevard Walmart down to the Front Avenue transfer stop and the Bismarck Event Center, was shifted east to add service to 43rd, Centennial Road, and Century. It no longer serves Front Avenue. Frequency was doubled from a trip every two hours to a trip every hour.
- Some of the neighborhoods south of Century that had been served by the Red route are now served by the newly created 4-Orange route. In addition, the Orange route adds service to the Transit Center via Rosser.
- 2-Blue was changed from bidirectional service to a loop, and its south end (previously serving Reno) was truncated by two blocks (now ending at the Bismarck Expressway).
- 3-Green was extended southwest on Burleigh and Washington.
- 1-Black saw only small changes to its alignment.
- Table 12 shows the average on-time performance (OTP) of fixed-route buses before the route change and in more recent months.

Table 12. On-Time Performance (CAT)

Time Period	Average % On-Time
Before Route Change (2019)	80.3
Since Route Change (July 2021-August 2022)	85.6

Source: SRF analysis of Bis-Man Transit data. CAT OTP is not available for Jan -June 2021.

c) Paratransit

Table 13 shows key operating statistics for paratransit during the period between 2017 and 2021.

Table 13. Paratransit Operating Statistics over 5-Year Period

Operating Statistic	2017	2018	2019	2020	2021
Revenue Hours	45,012	40,047	38,615	28,715	28,950
Passenger Trips	147,332	121,520	108,609	71,635	86,203
Operating Expenses	$2,151,561	$2,288,926	$2,537,027	$2,070,486	$2,111,094
Passenger Revenue	$443,872	$331,958	$303,168	$168,945	$249,680

Source: National Transit Database

Table 14 shows paratransit performance measures. The operating ratio is higher than with fixed-route transit. That is partly because paratransit charges a higher fare, but it is also because paratransit service is

driven by demand. This means that as demand fluctuates over time, operating expenses track the number of trips more closely than is the case with fixed-route service.

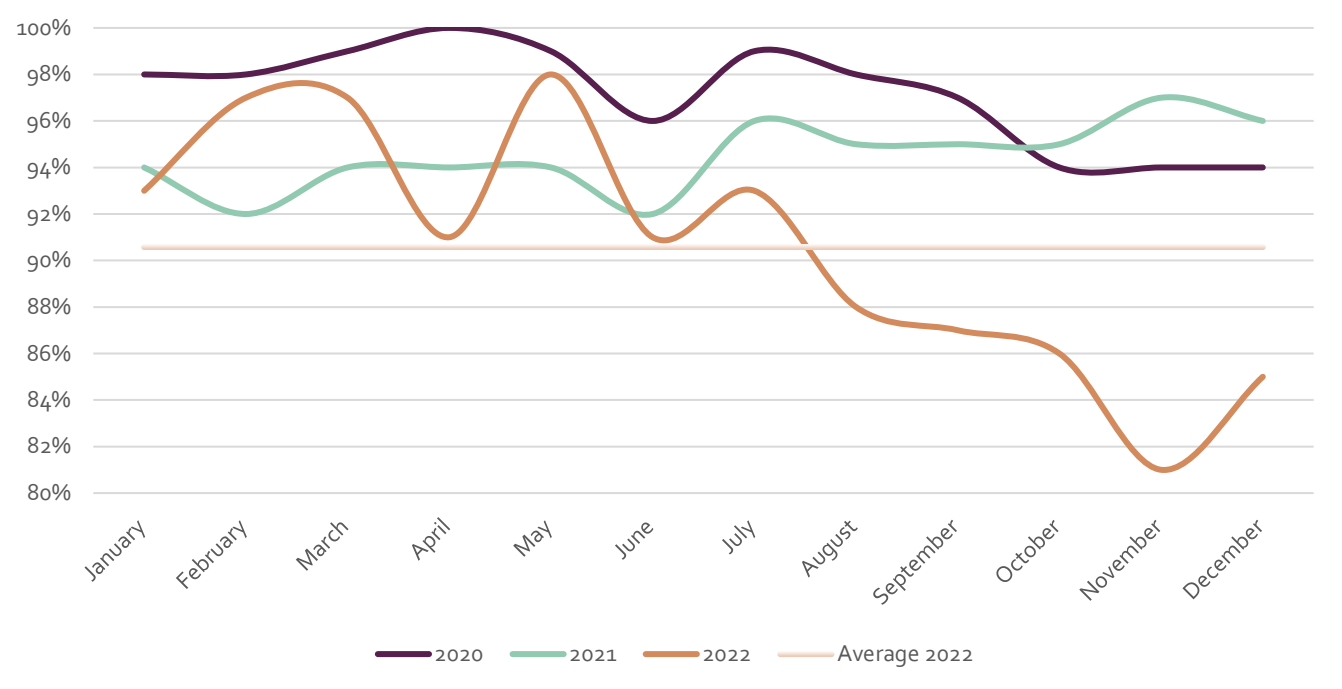
Table 14. Paratransit Performance Statistics over 5-Year Period

Performance Measure	2017	2018	2019	2020	2021
Operating Expense Per Passenger Trip	$14.60	$18.84	$23.36	$28.90	$24.49
Operating Expense Per Revenue Hour	$47.80	$57.16	$65.70	$72.10	$72.92
Passenger Trips Per Revenue Hour	3.27	3.03	2.81	2.49	2.98
Average Fare Per Passenger Trip	$3.01	$2.73	$2.79	$2.36	$2.90
Operating Ratio	21%	15%	12%	8%	12%
Subsidy Per Passenger Trip	$11.59	$16.10	$20.57	$26.54	$21.59

Source: National Transit Database

However, paratransit service can only meet demand if it has the resources to do so. As Figure 24 shows, on-time performance for paratransit has averaged lower each year since 2020. Until recently it remained consistently higher than fixed-route; however, OTP fell sharply in summer of 2022. The primary reason was that Bis-Man Transit began to experience serious staffing issues; however, loss of alternative service contributed, as explained in the following section.

Figure 24. On-Time Performance (Paratransit)



i) Taxi 9000 Closure

Demand for paratransit services rose in 2022, after one of the region's three taxi services shut down. Taxi 9000 first announced its closure in April, while waiting on a site inspection by the Medicaid program. It reopened within days of that announcement; however, by September 2022 the company had permanently ended operations.

Paratransit dispatchers reported an immediate flood of enquiries from Taxi 9000 customers. Table 15 illustrates a rise in call volumes over the year, from 9,900 in March to 16,706 in October (an increase of 69 percent).

Table 15. Paratransit Call Volumes 2022

Month	Inbound Calls	Inbound Answered	% Answered	Avg Waiting Time	% Answered < 10 Seconds
Mar-22	9,900	9,386	95%	0:00:11	81.8%
Apr-22	15,542	13,936	90%	0:00:17	74.4%
Aug-22	16,149	14,971	93%	0:00:18	75.3%
Oct-22	16,706	15,174	91%	0:00:22	72%

Source: Bis-Man Transit

In January 2023, Bis-Man Transit was able to bring its on-time performance for paratransit service back up to 95 percent. However, the agency does not have the capacity to meet all potential demand for paratransit services. It has had difficulty in hiring new drivers and that situation is likely to continue, as driver shortages are a problem throughout the country.

8)Public Engagement

During 2022-2023, a series of activities solicited input from community members to help guide priorities for the project and acquire feedback on proposed alternatives. The activities are outlined in Table 16 below.

Table 16. Public Engagement Schedule

Date	Description
Sep 17, 2022	Booth at Bismarck Street Fair
Sep 24-27, 2022	Ridealong conversations on the bus
Oct-Nov, 2022	Community survey
Dec 6, 2022	Open houses at Bismarck library and Mandan city hall meeting room
April 10, 2023	Open houses at Bismarck and Mandan libraries
June 27, 2023	Structure and financial discussion with city staff, commissioner liaisons, transit board members
July 25, 2023	Open houses at Bismarck and Mandan libraries
Ongoing	A dedicated webpage offered updates and requested input by email

a) Ridealongs

In September 2022, members of the consulting team rode all of the fixed routes in Bis-Man's system and struck up conversations with passengers structured around the following questions:

- What is working well? (What do you like about the route we're on right now?)
- What is *not* working well? (What would you change about the route you're on right now?)
- Are there places you can't reach by transit?
- Have you previously shared your thoughts with Bis-Man Transit? (If yes – how?) (If not – why not?)
- If paratransit service were opened up to the general public, would you use it?

About 25 passengers engaged in conversation. They had positive remarks about the fact that the service exists as an alternative to driving, and several commented that the system met all their needs. On the other hand, many commented that the hours could be extended into the evening and on weekends.

Although not every conversation touched on the final three questions, those who did offer their thoughts were almost uniform in their responses. These passengers felt they could reach everywhere they really needed on transit, although for two there is a long walk involved. Only one had previously shared his thoughts with the organization, and he had not seen his input make a difference. Many passengers commented that they would be interested in using the demand-response service if it were opened up to the general public. For some, this followed previous comments about the lack of evening hours; a few people arranged their work schedules/social lives around the bus schedule and found it limiting. They said they would use an option that extended transit service later in the day.

b) Survey

A community survey was conducted online from October 24 to November 14, 2022. The survey was directed toward a broad audience and asked questions about the use and perception of transit, potential improvements, and demographics. Outreach for the survey included posts on the websites and social media channels of Bis-Man Transit and the MPO and its member jurisdictions. A link to the survey was also sent by email to a list of stakeholder organizations for wider distribution. On Facebook, the survey post was boosted twice to reach more users with local zip codes.

A total of 172 people completed the survey, although the number of responses for any given question was closer to 100. Their responses can be summarized as follows:

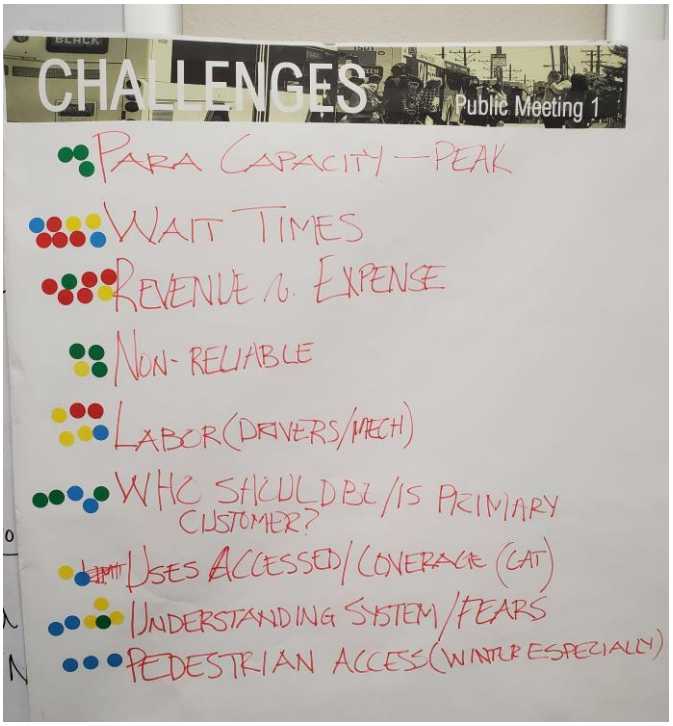
- There are diverse trip purposes among those who use transit.
- Hours of service were the number one reason for not using transit.
- A majority of respondents agree that transit is important for the community, but only a minority say that it meets their daily travel needs.
- Later weekday hours, Sunday service, and new service areas top the list of priorities for fixed route.

The full survey results were shared with Bis-Man Transit in a separate memo.

c) Public Information Meeting #1

Meetings with the public were held in both Bismarck (Public Library) and Mandan (City Hall) in December 2022, with the purpose of:

- Introducing the transit development plan process to the community.
- Providing people (riders and non-riders) with an opportunity to provide input regarding their experience with service and/or input on why they do not use the service.
- Discussing challenges riders, people that are not currently riding and the agency observe today. Attendees were asked to rank the importance of each of the identified challenges. From the poll, the most important to address are wait times for fixed route and paratransit, the current condition of expenditures outpacing revenue and labor shortages within the agency.



Challenges recorded at December 2022 public meetings

- The background presentation was recorded and uploaded to the Bis-Man Transit website to support community-wide access for people who could not make the meeting. The recorded presentation provided information as to how viewers could connect with the study and provided methods of providing comments through email and/or text.

d) Public Meeting #2 – April 10, 2023

A second round of public meetings (one in Mandan and one in Bismarck) was held on April 10, 2023. The focus of the second round was presenting and discussing ideas to address the current and anticipated on-going funding gap. Each of the public meetings started off with a presentation on the primary subject areas of the second round, including:

- An update on the overall status of updating the transit plan.
- Introduction of the current and projected Bis-Man Transit financials.
- Alternatives to address the gap, including both service modification (reduction) options and potential sources of increased funding to fill the gap.

The presentation informed participants that the current and projected funding-to-expenditure gap had been an ongoing condition since about 2017. Until recently, Bis-Man Transit had had enough banked funds to fill the gap. Federal funding received through CARES and ARPA programs developed to address the impacts of Covid bridged a critical period when, by Bis-Man Transit's assumptions, its reserves would otherwise have been exhausted. By mid-2023 these 100 percent federal funding dollars (no non-federal match required to receive the funds) would be spent. Thus, future funding-to-expenditure gaps would result in a draw down from Bis-Man Transit banked funds.

Participants heard that over this period, Bis-Man Transit had discussed and/or implemented a number of measures to reduce or close the gap before considering requesting an increase in local funding to help fill the gap. Ideas considered or implemented include:

- Identifying addition federal and private grants to increase revenue from other (non-local) sources.
- Securing additional advertising revenue through more aggressively finding partners to fund bus advertising wraps and other visible sources.
- Created a public transit working group with city staff to expand the understanding of service, discuss opportunities to close the gap and the local benefits of transit service.
- Conduct strategic planning sessions with the Board of Directors in which opportunities to address the gap are discussed.

In the meeting, three reduced service concepts that could result in reduced operating costs were presented. It was emphasized that each of the alternatives has negative impacts on current system users, including fixed route riders and paratransit riders. Thus, while most of the alternatives have a lower operating cost, from the perspective of current users, none of the alternatives were acceptable. Meeting attendees were asked, through a raised-hand vote, to provide input as to whether they supported or opposed the concept, using the color scale below:

- Green light – Support the concept
- Yellow light – Tempered support, but also some concern about the negatives
- Red light – Do not support/Oppose

Table 17 highlights the alternatives and the resulting preference voting across the two public meetings.

Table 17. Alternative Service Concepts Discussed at April 2023 Public Meeting

Service Alternative	Description	Preferences Expressed at Public Meetings
Fixed Route with Same Hours Paratransit	Retain fixed route service at current level. Reduce non-ADA service (paratransit outside fixed route hours and days) to be the same as fixed route.	Some support of the alternative relative to others.
Convert Fixed Route to Demand Response – Co-mingle all riders	Eliminate fixed route service. Use vehicles (or more appropriate replacements) and paratransit vehicles to provide demand response service (no certified paratransit user preference).	Not supported – Capacity is substantially less than demand – Fewer rides supported each day.
Provide Elderly and Disabled Service Only	Eliminate fixed route service. Provide demand response service to only seniors and persons with disabilities.	Not supported. Concept does not close the funding gap (even as it costs less money) because Section 5307 funding would likely be lost.

In addition to discussing the alternative service concepts, preliminary ideas for increasing funding were introduced. The intent of introducing the alternative funding concepts was to get ideas in the open that would be reviewed in greater detail going forward in the transit planning study. Alternatives introduced were:

- Increase the current property tax levy. Both primary service communities have reserve capacity in the allowable five mill property tax levy (Bismarck is presently at three mills and Mandan is at two mills). Increasing the mill levy requires a referendum vote in either community.
- Establish a local retail sales tax dedicated to transit operations. Presently, Bismarck has a one-half cent tax on retail sales to fund specific transportation improvements. A concept similar to this was discussed as a means of closing the funding-to-expenditure gap.

The meeting presentation was recorded and along with the displays and presentation slides, were made available for download on the Bis-Man Transit website.

e) Public Meeting #3

The final public meeting series on July 25, 2023, covered funding and a summary of a review of alternative structures for managing transit service in the Bismarck-Mandan region. As with the first and second rounds, meetings were held in Mandan and in Bismarck, with consistent material covered in each meeting. The meeting presentation provided information on the following:

- An update on the overall status of updating the transit plan.
- Review of the current Bis-Man Transit organizational structure and potential alternatives.
- More detailed discussion of the funding gap and alternatives to address the gap.

Participants heard that the current gap between revenue from all sources and expenditures is anticipated to result in exhausting the operating and capital fund by approximately 2026. Work completed as part of the transit plan identified:

- The current and anticipated funding gap going forward.
- Alternative revenue enhancement concepts for discussion.
- Pros and cons of the revenue enhancement alternatives.

A review of the current organizational structure has included alternatives that would relocate transit into a department of the City of Bismarck and an alternative that would establish a standalone transit authority. The positive and negatives of each alternative were discussed at the public meeting and input from attendees was collected. Key to the review was, what are the impacts to fixed route and paratransit riders. Whether the current organizational structure remains the same as today or would change to any of the alternatives reviewed, users would not really see a change from the current. A contractor would still provide daily service, which is the primary interface with passengers. The intent of the organizational review in the transit plan is to document any issues or concerns there are with the current structure, review options and narrow the range to ideas that could be reviewed in more detail in the future. No decisions regarding a change are to be made as part of the transit plan update.

From the second round of public meetings the primary takeaway was that service reductions should be a last resort, with the first path to closing the gap being requesting additional local funding for transit. Presented and discussed at the meetings were the alternatives addressed in the financial analysis and initial reactions received from discussions with Board members and city staff. The direction received from conversations was a sales tax likely has a better potential for implementation than asking for an increase in the property tax levy. While no final decisions have been made, opportunities for a sales tax continue to be discussed with city staff and decision-makers.

The meeting presentation was recorded and along with the displays and presentation slides, were made available for download on the Bis-Man Transit website.

APPENDIX

Technical Memorandum: Future Funding Projections

Bismarck-Mandan Transit Future Funding Projections

This technical memo follows the financial existing conditions and provides a look into the agency's future funding and cost projections. While future costs and funding are inherently uncertain, the projections included in this memo utilize data from previous years of operations (2018-2022) as well as historic trends and insights into industry trends to develop the best-available analysis.

FUTURE INCOME ASSUMPTIONS

As noted in the existing conditions memo, BisMan Transit's income is derived from four primary sources: direct revenue (including farebox revenues), and federal, state and local contributions. Future projections for 2024-2029 for these sources were based on the following assumptions:

- **Direct Revenues** were escalated at 2% per year from 2023 levels, based on conservative industry trends. Notably, local historic trends are difficult to interpret due to revenue loss during the COVID-19 pandemic. However, this rate of escalation is considered quite conservative since revenues would still be below pre-pandemic levels by 2029.
- **Federal funding** is divided between operations and capital funding. Operations funding (FTA 5307 formula funding) was escalated at 2% per year from 2023 levels. This is in line with the recent increase in funding levels from 2022 to 2023, and reflects a conservative estimate that federal funding will remain essentially flat for the next five years. Capital funding is assumed to cover 85% of that year's vehicle replacement costs, per federal policy. Other federal funding in recent years include pandemic relief funds, which are not anticipated to be continued in the future.
- **State funding** is assumed to be continue at 2023 levels in future years, based on recent historic trends that show state funding slightly fluctuating each year, but not meaningfully increasing.
- **Local funding** comes in the form of contributions from the Cities of Bismarck, Mandan and Lincoln. Bismarck and Mandan each contribute through a property tax mill levy. The mill levies are not anticipated to increase, and funding has escalated at 3% each year to reflect rising property values. The City of Lincoln provides a lump sum each year which was held consistent ($15,000 per year) with no change in funding assumed.

Previous funding (2018-2022) and future projections (2023-2029) using the noted assumptions are as follows:

	Previous Years				
	2018	*2019*	*2020*	*2021*	*2022*
Federal Operation Funding	$1,437,271	$1,822,290	$1,577,888	$1,384,082	$1,711,464
Federal Capital Funding	$1,008,200	$1,193,673	$417,568	$334,512	$1,688,543
Other Federal Funding	$-	$-	$-	$1,041,611	$1,332,896
Total State Funding	$421,500	$487,000	$430,940	$365,000	$411,593
Total Local Contributions	$1,322,556	$1,323,856	$1,477,666	$1,492,386	$1,488,736
Direct Income	$609,602	$656,617	$587,371	$496,601	$468,301
Total Income	**$4,799,129**	**$5,483,436**	**$4,491,433**	**$5,114,193**	**$7,101,533**

Table 1: Previous Funding Data, 2018-2022

	Current Year	Future Projections					
	2023	*2024*	*2025*	*2026*	*2027*	*2028*	*2029*
Federal Operation Funding	$1,744,938	$1,779,837	$1,815,433	$1,851,742	$1,888,777	$1,926,553	$1,965,084
Federal Capital Funding	$817,700	$976,990	$1,474,070	$858,330	$1,545,300	$-	$1,015,070
Other Federal Funding	$482,400	$-	$-	$-	$-	$-	$-
Total State Funding	$362,177	$362,177	$362,177	$362,177	$362,177	$362,177	$362,177
Total Local Contributions	$1,628,095	$1,676,938	$1,727,246	$1,779,063	$1,832,435	$1,887,408	$1,944,031
Direct Income	$517,035	$528,401	$540,020	$551,897	$564,039	$576,451	$589,140
Total Income	**$5,552,345**	**$5,324,342**	**$5,918,946**	**$5,403,210**	**$6,192,728**	**$4,752,589**	**$5,875,502**

Table 2: Future Income Projections, 2023-2029

FUTURE COST ASSUMPTIONS

Future costs are anticipated to come from four major categories: operations, personnel, vehicle replacement and capital costs, and other expenses. Future projections for 2024-2029 for these categories were based on the following assumptions:

- **Operations costs** primarily include the agency's contract with a third-party agency. This contract represents the most significant cost for the agency each year. The current operations contract with expire at the end of 2023, resulting in a new negotiated contract. The last time the contract was re-negotiated (2019) operations costs that year increased 22% from the previous year, and then remained relatively steady throughout the contract period. Because of this, operations costs are assumed to increase 17% in 2024, and then increase a nominal 4% each year during the remainder of the contract period (2025-2028). Costs are also anticipated to increase by 17% in 2029, the next year the contract will be re-negotiated.
- **Personnel** expenses are not anticipated to substantially change, other than yearly adjustments due to the cost of living and insurance. Personnel costs are assumed to increase 5% each year.

- **Vehicle purchase** costs are based on the agency's fleet management spreadsheet, which is used to plan out bus purchases for both fixed route and paratransit vehicles. The total cost varies each year depending on the amount of vehicles purchased, from a low of $0 (no vehicles purchased) in 2028 and a high of $1.8 million in 2027 (6 vehicles purchased). No other major capital expenses are anticipated during the 5-year horizon of these projections.
- **Other expenses** include vehicle fuel, supplies, insurance costs, security, and other miscellaneous costs. These are anticipated to rise 5% per year based on a 2022 baseline (2023 fuel cost estimates were artificially inflated due to high fuel costs assumptions at the time the budget was created, so is not considered a good baseline estimate). This escalation factor is based on historic and industry trends in inflation.

Historic cost data (2018-2022) and future cost projections (2023-2029) using the noted assumptions are as follows:

	Previous Years				
	2018	*2019*	*2020*	*2021*	*2022*
Operations Contract	$2,761,105	$3,375,383	$3,248,142	$3,279,328	$3,560,657
Personnel	$237,919	$255,083	$237,276	$243,713	$291,770
Vehicle Purchase	$1,136,800	$1,338,082	$368,050	$148,158	$1,810,120
Fuel and Other Expenses	$947,029	$1,053,668	$906,086	$953,753	$925,046
Total Income	**$5,082,853**	**$6,022,216**	**$4,759,554**	**$4,624,952**	**$6,587,594**

Table 3: Historic Cost data, 2018-2022

	Current Year	Future Projections					
	2023	*2024*	*2025*	*2026*	*2027*	*2028*	*2029*
Operations Contract	$3,417,761	$3,998,780	$4,158,732	$4,325,081	$4,498,084	$4,678,007	$5,379,709
Personnel	$247,275	$259,639	$272,621	$286,252	$300,564	$315,593	$331,372
Vehicle Purchase	$962,000	$1,149,400	$1,734,200	$1,009,800	$1,818,000	$-	$1,194,200
Fuel and Other Expenses	$1,458,894	$1,249,189	$1,273,740	$1,299,518	$1,326,585	$1,355,006	$1,384,847
Total Costs	**$6,085,930**	**$6,657,008**	**$7,439,292**	**$6,920,651**	**$7,943,234**	**$6,348,606**	**$8,290,128**

Table 4: Future Cost Projections, 2023-2029

FUTURE FUNDING ANALYSIS

Using the revenue and cost projections detailed above, the total annual projected operating deficit for each year was calculated. This number simply represents the expected revenues minus the expected costs for each calendar yet (note that not all costs occur within a single

calendar year and some funding sources operate on varying fiscal years, but costs and revenues were treated as occurring within a single year for the sake of this analysis).

The results below show a projected deficit occurring in 2023 and continuing each year throughout the short-term future. The operating deficit begins at approximately $533,000 in 2023, and grows to approximately $2.4 million by 2029, reflecting operating and capital costs increasing faster than revenue sources.

	Current Year	Future Projections					
	2023	*2024*	*2025*	*2026*	*2027*	*2028*	*2029*
Projected Income	$5,552,345	$5,324,342	$5,918,946	$5,403,210	$6,192,728	$4,752,589	$5,875,502
Projected Costs	$6,085,930	$6,657,008	$7,439,292	$6,920,651	$7,943,234	$6,348,606	$8,290,128
Total deficit	**$(533,585.00)**	**$(1,332,665.95)**	**$(1,520,346.18)**	**$(1,517,441.21)**	**$(1,750,505.45)**	**$(1,596,016.46)**	**$(2,414,626.36)**

Table 5 Future Operational Deficit Projections, 2023-2029

These projected deficits follow a few years of operating surplus due to temporarily increased revenue from pandemic relief funding. Those funding sources are not anticipated to be provided in the future. Overall, the deficit is expected to increase moving forward as costs continue to escalate faster than revenues grow, with the overall trend shown below.

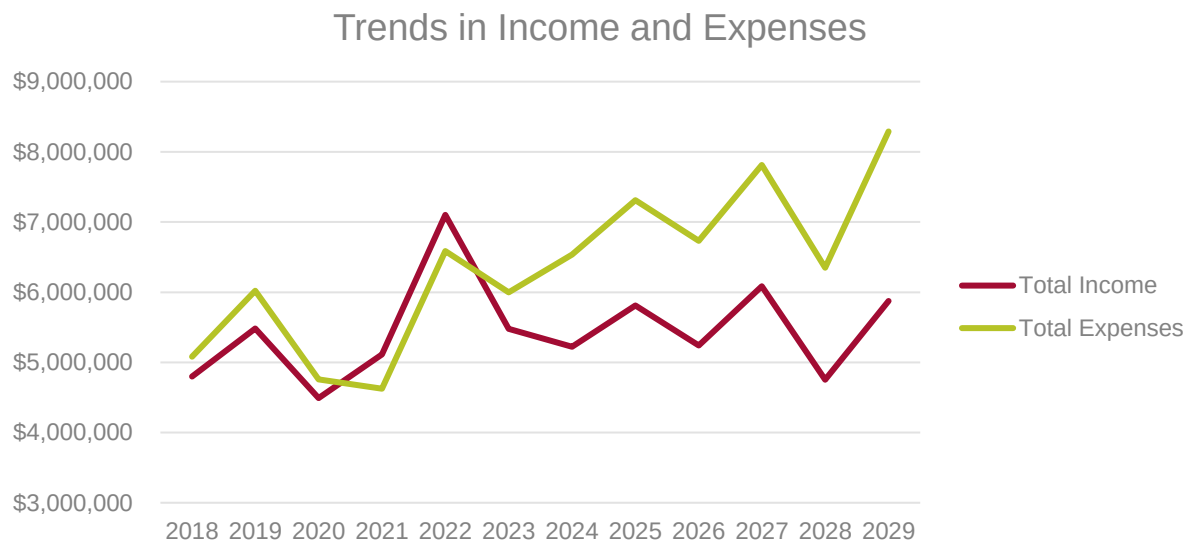


Figure 1 Future Trends in Income and Expenses through 2029

CASH FLOW ANALYSIS

Another major aspect of BisMan Transit's future finances is adequate cash flow. The agency relies on its reserve fund like a checking account to continually pay operating and capital

expenses. While many capital expenses are eligible for federal reimbursement, the agency must cover all costs up front and often receive reimbursement many months later. Operations expenses can be similarly unpredictable, with bills arriving at various times throughout the year. As such, the agency must keep a minimum balance in the reserve fund to cover anticipated and unanticipated expenses throughout the year.

The minimum reserve fund balance is equal to the year's total expected vehicle replacement costs (since the agency must cover that cost up front) plus approximately 6 months of operating expenses to ensure enough cash flow in the case of lagging reimbursements. The minimum reserve fund for each year is shown below, based on these calculations.

	Current Year	Future Projections					
	2023	*2024*	*2025*	*2026*	*2027*	*2028*	*2029*
Vehicle Replacement Costs	$962,000	$1,149,400	$1,734,200	$1,009,800	$1,818,000		$1,194,200
Six months operating	$2,561,965	$2,753,804	$2,852,546	$2,955,425	$3,062,617	$3,174,303	$3,547,964
Minimum Reserve Balance	**$3,523,965**	**$3,903,204**	**$4,586,746**	**$3,965,225**	**$4,880,617**	**$3,174,303**	**$4,742,164**

Table 6 Future Cash Flow Analysis, 2023-2029

After calculating the annual minimum reserve balance, a cash flow analysis was completed. This involves projecting the year-end reserve balance based the total operating deficit. For instance, if the reserve fund has a balance of $1 million on January 1, with a deficit that year of $500,000, the reserve fund on December 31 of that year would be expected to be $500,000. The results of this cash flow analysis are shown below, based on a January 1, 2023 reserve fund balance of $4,357,384.19

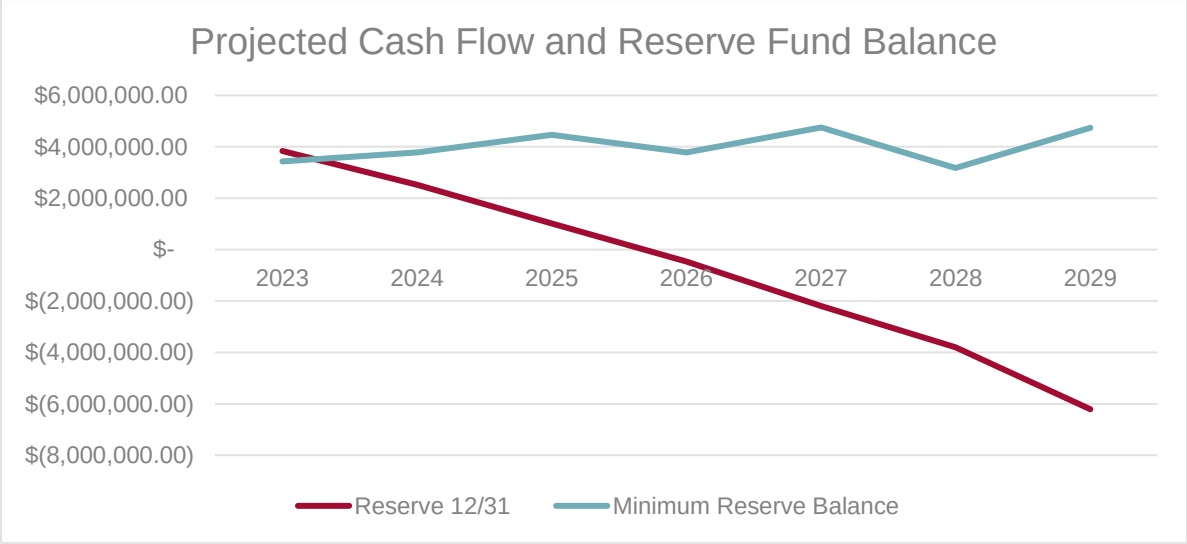


Figure 2 Future Cash Flow Analysis, 2023-2029

This analysis projects that the reserve fund will fall below the ideal minimum balance at some point in 2024 and continue falling due to continued deficits. If no major changes are identified, the fund balance is projected to hit $0 in 2026 and fall negative in future years. This implies a continued ongoing deficit that will jeopardize the ability of the agency to continue operating.

FUTURE OPTIONS

As the gap between income and costs are anticipated to increase in the coming years, BisMan Transit will need to explore possible ways to bridge that gap. Notably, the agency will need to find ways to either cut expenses or raise additional revenue in order to remain soluble. Likely, both strategies will be necessary. Potential ideas include:

- Raising local revenues: The cities of Bismarck, Mandan and Lincoln currently contribute to the agency on an annual basis. Increased local contributions, either through the property tax mill levy or increased lump sum contributions, would help rase overall revenues to offset some of the projected deficit. Additional state revenues may also be an option, and federal revenues may be increased when the results of the 2020 census are finalized, since federal formula funding is based on population formulas.
- Decreased operating expenses: The current projected operating costs assume a 17% increase in contract expenses in 2024, based on historic trends. The transit agency only has so much control over this factor since contract rates are set based on a competitive bidding process. Reducing service hours or routes may be another factor to decrease future costs, though it comes at the expense of eliminating service riders may rely on.
- Reduce capital costs: BisMan Transit already has no major projected capital expenses besides vehicle replacements over the next 6 years. Vehicle replacements are necessary to maintain the system in good working condition. Some savings may be possible by purchasing smaller vehicles or extending the service life of all vehicles another additional year. However, extending the life of existing vehicles is likely to incur higher maintenance costs, and the overall savings from this strategy are anticipated to be minimal.

Presentation: Public Meeting #2

BIS-MAN TRANSIT – TRANSIT DEVELOPMENT PLAN

PUBLIC MEETING #2

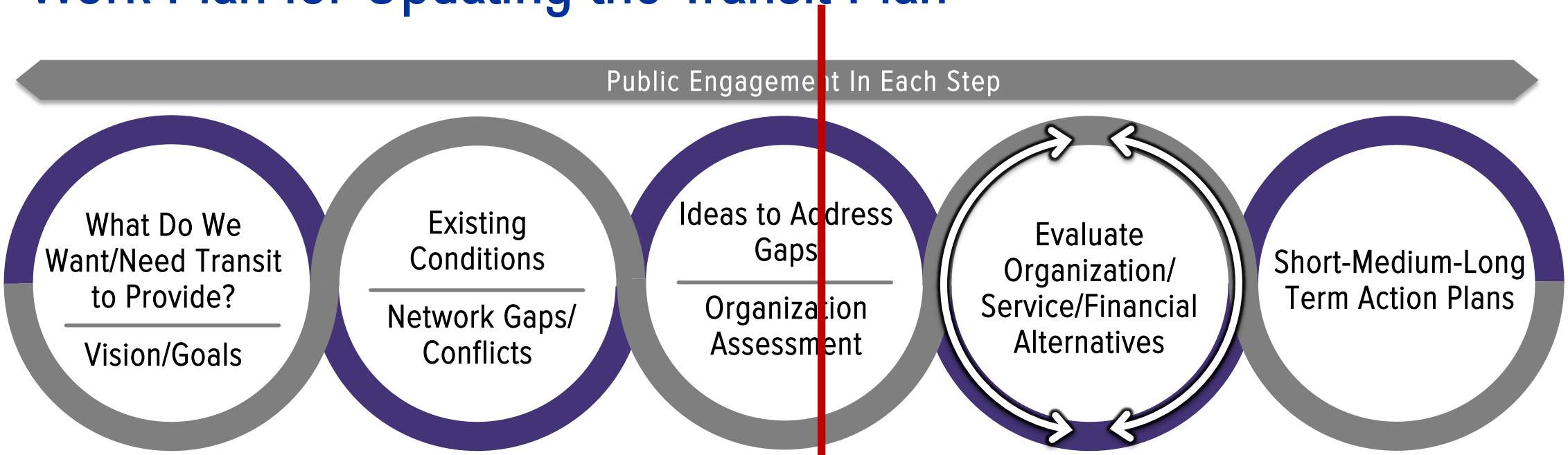
APRIL 10, 2023

BIS-MAN TRANSIT PLAN

Public Meeting Overview

- Introductions
- Overview of the Plan Update:
  - Steps
  - Key Areas of Focus
- Current and Projected Financials
- Addressing the Gap:
  - Service Options to Address Gap
  - Financial Options to Address Gap
- Wrap-up/Discussion

Work Plan for Updating the Transit Plan



Gaps/Conflict:

- Too Few Hours
- Not Enough Coverage
- Capacity Versus Desired Trip Time
- Fare Relative to Ability to Pay
- Operating/Capital Cost Relative to Funding

Financial Conditions

Where Are We Today?

- Budget Issues of 2018/19 Have not been Resolved:
  - Costs Exceed Revenue
- CARES/ARPA Funding has Helped During Challenging Period
- Funds have been Exhausted

What is the Future?

NO ACTION/STATUS QUO

- Currently Account is at Operating Minimum

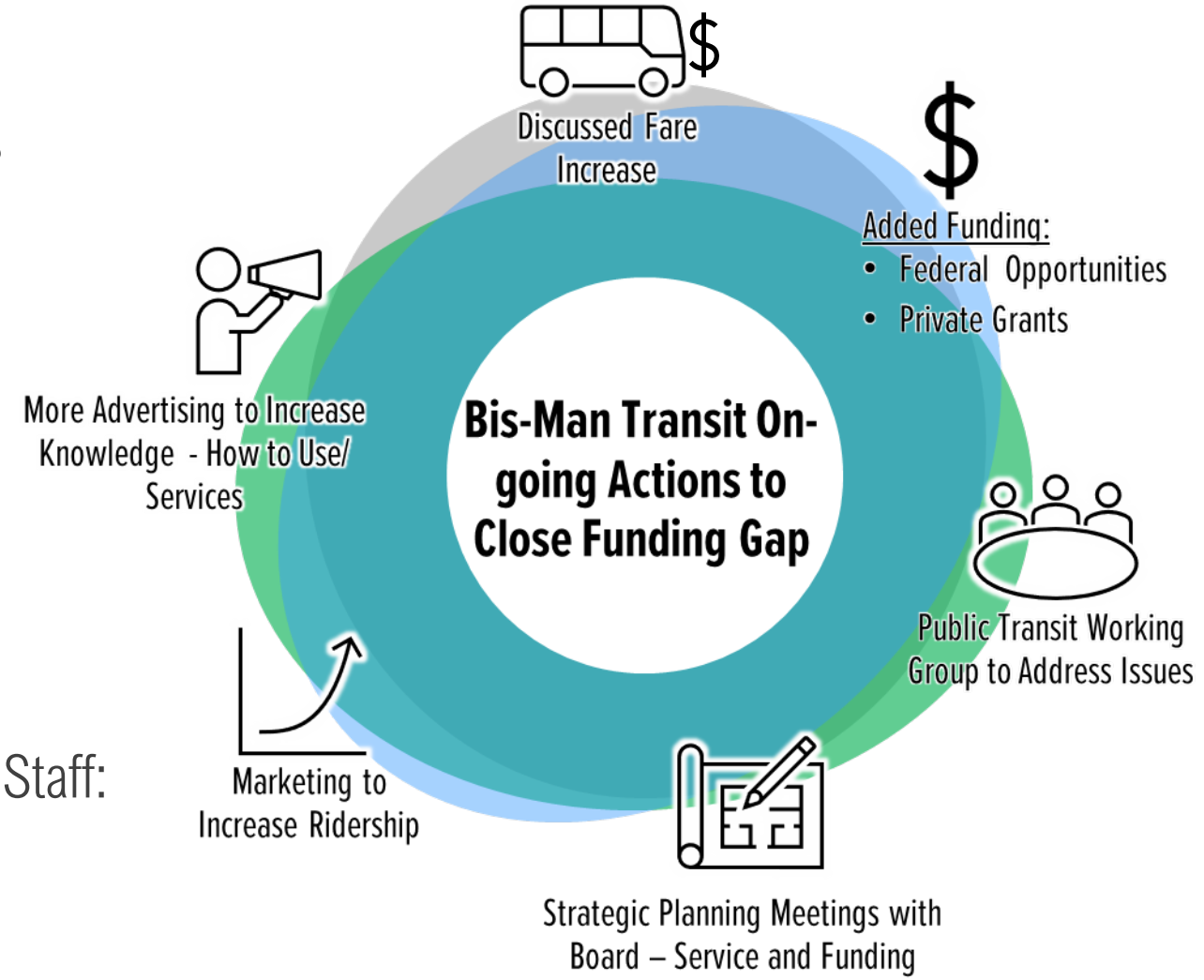
- 2024 Estimate $1.3 Million Below Operating Minimum
- By 2026 Operating Account is Exhausted

Average Annual Operating Deficit (2023-2029)
$1.35 Million

2023-2029 Range
$520,000 to $2.1 Million

Bis-Man Transit Actions to Steady Financial Conditions

- Federal and Private Grant Opportunities
- Expanding Outreach:
  - Advertising
  - Marketing to Gain Ridership
- Discussed Fare Increases
- Strategic Planning Sessions:
  - Service Needs
  - Funding
- Public Transit Working Group with City Staff:
  - Service Issues/Needs
  - Funding



Financial Conditions

Adjustments Needed

- Annual Costs by $1.35 Million
- Revenue by $1.35 Million
- Share Responsibility to Close the Gap

What We are Reviewing

- Options to SAVE Money, While Retaining Service:
  - Are there more cost-effective service options?
  - Adjust hours
- Options to Increase Revenue:
  - After Hours service: Fund from non-transit levy source
  - Increase transit levy
  - Others?

- What are User Impacts?
- Who is Impacted?
- How Much is Saved?
- How Much is Gap Reduced?

- What Benefits Does Transit Provide?

Service Options Being Reviewed

Characteristics of Option	Service Alternative			
	Current – Fixed Route / Paratransit / After Hours	Fixed Route / Paratransit	General Public Demand Response (Same Total Vehicle Number as Current)	Elderly and Disabled Only (Same Number of Paratransit Vehicles)
Change Relative to Current Service	None	(7 AM to 7 PM Weekdays) (8 AM to 7 PM Saturdays) (No Sunday Service)	All Riders need to Reserve Their Trip at least One Day In Advance Option A: Same as Current Paratransit Hours Option B: Same as Current Fixed Route Hours	Elderly and Handicapped Only Reserve Trip at least One Day in Advance (Same Number of Paratransit Vehicles) (Same Paratransit Hours)
Current Rider Impacts	None	**13,300 riders on After Hours** – Move Trip Time / Do Not Make Trip	Assuming Reservations are First Come, First Served, about **Option A: 30,700 Fixed Route/ Paratransit Riders not Served** **Option B: 44,000 Fixed Route/ Paratransit Riders not Served**	**80,000 Fixed Route Riders not Served**
Eligible Federal Grants	5307 / 5310 / 5339	5307 / 5310 / 5339	5307 / 5310 / 5339	5310 / 5339
Annual Operating/Capital Cost	$6.8 Million (Average 2023-2029)	$6.3 Million (Average 2023-2029)	$6.2 to $6.7 Million (Average 2023-2029)	$3.5 Million to $4.0 Million
Funding Gap	$1.35 Million	$1.0 Million	$0.9 to $1.34 Million	$0.5 to $1 Million

Funding Grants and Uses

Current Service

FTA 5307
- Fixed Route and Paratransit Operations
- Short and Long Term Planning
- Capital/Fleet Improvements

$1.7 Million

FTA 5310
- Capital/Fleet Improvements
- Elderly/Handicapped Operations

$0.14 Million

FTA 5339
- Capital/Fleet Improvements

$0.7 Million

State Funds
- Fixed Route and Paratransit Operations
- Short and Long Term Planning
- Capital/Fleet Improvements

$0.4 Million

Elderly/Disabled Service Only

FTA 5310
- Capital/Fleet Improvements
- Elderly/Handicapped Operations

$0.14 Million

FTA 5339
- Capital/Fleet Improvements

$0.7 Million

State Funds
- Operations
- Short and Long Term Planning
- Capital/Fleet Improvements

$0.4 Million

Alternate Funding Increase Sources

- Property Tax – Capacity Exists in Transit Levy (Reserve in Bismarck – 2 Mills; Mandan – 3 Mills: Maxing out Levy would Generate $1.3 Million annually)
- Sales Tax – Small Increment (0.10% would Generate $1.6 Million Annually)

- Utility Fee - Add to Water/Sewer/Gas/Electric Bill (Dismissed)
- Lodging Fee (Dismissed)

Funding Comparison for Fixed Route – North Dakota Cities

City	Fixed Route Funding	2020 Urban Area Population	Transit Investment /Capita
Bismarck-Mandan	**$1,669,835**	**98,198**	**$17.00**
Minot	$1,142,740	50,925	$22.44
Fargo	$9,947,128	216,214	$46.01
Grand Forks	$2,696,389	68,160	$39.56

Funding Comparison for Paratransit – North Dakota Cities

City	Paratransit Operating Expenses	2020 Urban Area Population	Transit Investment /Capita
Bismarck-Mandan	**$1,964,234**	**98,198**	**$20.00**
Minot	$2,111,094	50,925	$41.45
Fargo	$2,101,230	216,214	$9.72
Grand Forks	$1,409,485	68,160	$20.68

Capital Investment Options

- Rather than Heavy Duty Buses, Convert Fleet to Smaller/Light Duty Vehicles:
  - Lower Capital Cost per Vehicle ($125,000 versus $500,000 – 2023 Estimates)
  - Light Duty has Shorter Useful Life (8 versus 14 years)
  - Local Responsibility (15% of total)
- Looking Forward Two Heavy Duty Bus Replacement Cycles - Saves about $100,000/Year in Local Funds
- Light Duty Vehicle - Eliminate Need for CDL - Does not Substantially Lower Operating Cost, but Broadens Employee Pool

Evaluating the Local Transit Investment

Benefits Relative to Costs

Economic Benefits

BENEFITS

- Lower Out of Pocket Transportation Costs:
  - Vehicle costs
  - Fuel costs
  - Parking costs
  - Taxi costs
  - Costs friends/family incur to provide ride
- Negative Impacts of Trips Not Made:
  - Lower wages – Work trips not made
  - Higher medical cost – Missed routine trips can become emergency room trips

COSTS

- Annual Transit Operating Costs
- Annualized Capital Costs:
  - Buses
  - Building Improvements
  - Shelters
  - Equipment

BENEFITS

- Jobs Supported by Transit (Jobs people get/keep because they have reliable transportation)
- Jobs Created at Transit Agency
- Income Spent in Community from Transit Jobs

BIS-MAN TRANSIT – TRANSIT DEVELOPMENT PLAN

PUBLIC MEETING #2

APRIL 10, 2023