Transportation Improvement Program FY 2023-24-25-26



Bay City Area Transportation Study (BCATS)

Final Report Approved on June 22, 2022

Prepared by the Bay County Transportation Planning Program 515 Center Avenue, Suite 504 Bay City, MI 48708

> 989-895-4244 TDD: 989-895-4049

www.baycounty-mi.gov/transportation



Acknowledgements

This Transportation Improvement Program Report was prepared in part through grants from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), U.S. Department of Transportation, under the Metropolitan Planning Program, Section 104(f) of Title 23, U.S. Code. The contents of this report do not necessarily reflect the official views or policies of the U.S. Department of Transportation. This document was prepared by staff of the Bay City Area Transportation Study (BCATS) of the Transportation Planning Program within the Department of Environmental Affairs and Community Development of Bay County, Michigan.

The BCATS FY 2023-2026 Transportation Improvement Program (TIP) was reviewed and discussed at the BCATS Technical Committee meeting on June 14, 2022, with a recommendation moved and supported to forward the TIP to the BCATS Policy Committee for approval. At the June 22, 2022 meeting of the BCATS Policy Committee discussion was held with a motion made and passed for the Resolution to approve the BCATS FY 2023-2026 TIP. These meeting minutes and copies of the Resolution are included in the Appendix of this document.

The FY2023-2026 TIP was prepared after the initial wave of Covid-19 and we are a changed community with new insight and appreciation of transportation routes, public transit and the non-motorized trail system. Staff turnover has been high at all levels through local and state transportation planning offices, new methods of meeting virtually have been utilized and the Bay County Transportation Planning Program is indebted to the patient and instructive professionalism generously offered by the BCATS members, neighboring MPO's and particularly the staff with the Michigan Department of Transportation.



Table of Contents

Section	Page
Chapter 1 – TIP Development and Overview	4
Public Outreach	5
BCATS Overview Map	
Chapter 2 – Financial Plan for Bay City area TIP	8
Introduction	
Part I: Available Highway and Transit Funding	
Part II: Fiscal Constraint.	
Part III: Estimate of Operations and Maintenance Costs for the Federal-Aid Highway S	ystem
	12
Part IV: Summary – Resources Available for Capital Needs of Public Transit Agencies	13
Part V: Demonstration of Financial Constraint, FY 2023 through FY 2026	14
Chapter 3 – Transportation Projects	15
Completed FY 2020-2021-2022-2023 TIP Projects	15
Delayed Transportation Projects	
FAST Act Performance Based Planning	
Performance Targets	
Amendments & Administrative Changes	27
2023-2024-2025-2026 TIP Project Locations	28
Chapter 4 – Environmental Justice	29
Environmental Justice	29
Definition of "Minority" for Purposes of Environmental Justice	
Definition of "Low-income" for Purposes of Environmental Justice	
Development and Analysis	
Project Overview Map / Total Minority	
Project Overview Map / African American Minority	
Project Overview Map / Native American Minority	
Project Overview Map / Asian American Minority	
Project Overview Map / Hispanic American Minority	
Project Overview Map / Total Low-Income Population	
Project Overview Map / Total Multiple Race Population Project Overview Map / Total Hawaiian and Pacific Islander Population	
Appendix A	
Metropolitan Transportation Planning Process Certification	
Consultation Letter	
Consultation Contact List	45



Bay City Area Transportation Study (BCATS) Transportation Improvement Program (TIP) - FY 2023-2024-2025-2026

Final Report 24 June 2022

Comments Received	50
Appendix B - Projects, Illustrative List, Fiscal Constraint Tables	52
2023-2026 Transportation Improvement Projects	
Appendix C - List of Available Federal-Aid Highway and Transit Resources	62
Highway Resources Transit Resources	62 63
Appendix D - Financial and Operations and Maintenance Assumptions	64
Funding Growth Rates Year of Expenditure (YOE) Rates Estimate of Operations and Maintenance Costs on the Federal-Aid Highway System	65
Year of Expenditure (YOE) Rates Estimate of Operations and Maintenance Costs on the Federal-Aid Highway System	

Cover photographs: Liberty Bridge raised overlooking a view of Bay City, April 2022

The preparation of this report has been financed in part through a grant from the Federal Highway Administration, U. S. Department of Transportation, under the Metropolitan Planning Program, Section 104(f)] of Title 23, U.S. Code. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation.



Chapter 1 – TIP Development and Overview

The Transportation Improvement Program (TIP) is an integral part of the planning process for the Bay City Area Transportation Study (BCATS). According to the Federal Transportation Bill, Fixing America's Surface Transportation Act (FAST Act) of 2015 and 23 USC 134(a) and (h)/FTA-Sec 8(a) and (h), a TIP must be developed for the Bay City metropolitan area by BCATS in cooperation with the State, transit operators, and local road implementing agencies. The TIP must be updated and approved at least every four years by BCATS and the Governor. It must include all projects to be funded under Title 23 and the Federal Transit Administration (FTA). This includes all federally funded highway, transit, and non-motorized transportation projects, as well as any regionally significant projects that are either federally funded or nonfederally funded. There must be a reasonable opportunity for public comment prior to TIP approval. The TIP must cover a period of not less than 4 years and must include a priority list of projects to be carried out in the first 4 years. The TIP shall be financially constrained and include a financial plan that demonstrates how the projects can be implemented while the existing transportation system is being adequately operated and maintained. Only projects for which construction and operating funds can reasonably be expected to be available may be included. In developing the financial analysis, BCATS shall consider all projects and strategies funded under Title 23, U.S.C., and the Federal Transit Act, other Federal funds, local sources, State assistance, and private contributions. The TIP must be consistent with the BCATS 2045 Metropolitan Transportation Plan and any future updates to the plan.

Implementing agencies in the BCATS area include: the Cities of Bay City and Essexville, the Bay County Road Commission (BCRC), the Bay Metropolitan Transportation Authority (BMTA) and the Michigan Department of Transportation (MDOT). MDOT is the implementing agency for all state highway projects. These agencies have representation on both the Policy and Technical Committees of BCATS. The Technical Committee reviews all project requests then forwards a recommended priority list of projects to the Policy Committee for final approval and placement in the TIP. All implementing agencies in the Bay City area have participated in the development of projects and priorities identified in the TIP. In addition, a map of the BCATS area is included on page seven (7).

The BCATS TIP is required to be fiscally constrained, and the implementing agencies have indicated that sufficient funds are available from the sources indicated to implement the projects listed in the TIP (i.e., non-Federal share will be available). Funds have been included in each agencies approved transportation budget. Furthermore, projects can be funded within available resources. Project listings for fiscal years 2023, 2024, 2025 and 2026 are included in Appendix B.

The United States Census was conducted in 2020, however much of the official data from the census collection has not been released by the U.S. Census Bureau at the time of TIP production. Therefore, this TIP reflects population data and demographics using the 2010 census data.



In addition, the TIP was developed in accordance with the BCATS Public Participation Plan, which was adopted on October 23, 2014. The Public Participation Plan describes BCATS public outreach contact and consultation organizations and ensures consideration of Environmental Justice concepts. A description of the Public Outreach measures taken during the development of this TIP is further described in this document. Consultation and contact lists are included in the Appendix. An Environmental Justice analysis of the TIP can be found in Chapter Four (4) of this document.

On May 12, 2012, the United States Environmental Protection Agency (EPA) revoked the 1997 8-hour 0.080 ppm Ozone standard for the purposes of regional transportation conformity. On May 21, 2012, the USEPA issued designations for the new 2008 8-hour 0.075 ppm Ozone standard. Bay County is designated attainment under the 2008 standard.

Effective July 21, 2013, (as a result of both the partial revocation of the 0.080 Ozone standard, and the designation of Bay County as attainment for the 0.075 standard), the Bay County attainment/maintenance area is no longer required to demonstrate regional transportation conformity of Long Range Plans or Transportation Improvement Plans (TIPs) until EPA publishes a notice designating the area in nonattainment.

Public Outreach

In accordance with the BCATS 2045 Metropolitan Transportation Plan Update and the Public Participation Plan, a Public Open House Meeting on the 2023-24-25-26 TIP was held on May 4, 2022, at 4:00 P.M to 7:00 P.M at the Bay County Community Center – Room 128, 800 John F Kennedy Drive, Bay City MI, 48706.

To inform the public of the projects in the 2023-24-25-26 TIP and solicit public comments, BCATS published a Public Notice, used social media and sent letters to community interest stakeholders and the environmental justice groups listed in the Public Participation Plan. Notices were also sent to our consultation contact list used for our 2045 MTP and updated to reflect changes. A copy of this letter is included in Appendix A. A Responsiveness Summary was developed in response to public comments received with a description of how any comments if any were incorporated into the program and this is added in Appendix A. The goal of the outreach is to keep those contacts informed on the transportation improvement program and acquire additional feedback from those groups, organizations, and individuals who have concerns or questions regarding the program. As part of the updated Travel Demand Model for the 2045 Metropolitan Transportation Plan Update, BCATS met directly with the townships and cities and discussed the 2023-26 TIP and well as their specific local plans and programs. Over the development of the 2023-26 TIP, BCATS held these and numerous other discussions with city and township staff, and other community agencies regarding any of their local plans.

The previously mentioned list is available in Appendix A. Additionally for public outreach and informational purposes, BCATS held a 30-day public comment period from April 25th, 2022 to May 24th, 2022. In addition to the open house, the public could access the TIP electronically on the Bay County website and there was a printed version available within the Environmental



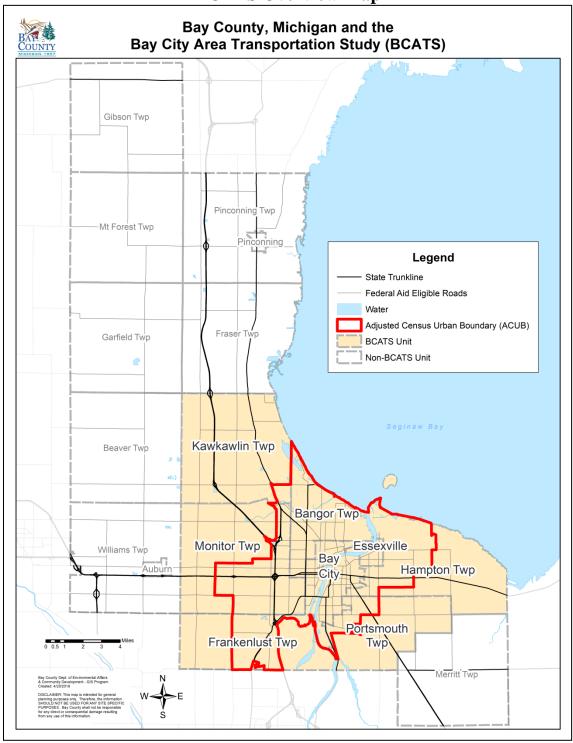
Bay City Area Transportation Study (BCATS) Transportation Improvement Program (TIP) - FY 2023-2024-2025-2026

Final Report 24 June 2022

Affairs and Community Development office on the 5th floor of the Bay County Building. The TIP and associated maps and tables on the Bay County Facebook page and Transportation Planning Website were available at www.baycounty-mi.gov/transportation. Prior to adoption of the TIP, a public hearing was held at the BCATS Policy Meeting on June 22, 2022 at 1:30 P.M. located at the Bay County Building, 515 Center Ave, Bay City MI, 48708.



BCATS Overview Map





Chapter 2 – Financial Plan for Bay City area TIP

Introduction

The Transportation Improvement Program (TIP) is the list of road and transit projects that communities and agencies plan to implement over a four-year period. These are planned to be obligated to implement the surface transportation policies contained in the BCATS 2045 Metropolitan Transportation Plan Update. That list is required to be fiscally constrained; that is, the cost of projects programmed in the TIP cannot exceed the amount of funding "reasonably expected to be available" during that time. The function of the TIP Financial Plan is to manage available federal-aid highway and transit resources in a cost-effective and efficient manner. This financial plan is the section of the TIP documenting the methods used to calculate funds reasonably expected to be available and compares this amount to proposed projects to demonstrate that the TIP is fiscally constrained. The financial plan also estimates the cost of operating and maintaining the transportation system in the Bay City Area Transportation Study during the four-year period covered by the TIP. Specifically, the Financial Plan details:

- I. Available highway and transit funding (federal, state, and local);
- II. Fiscal constraint (cost of projects cannot exceed revenues reasonably expect to be available);
- III. Expected rate of change in available funding (unrelated to inflation);
- IV. Year of Expenditure (YOE) factor to adjust for predicted inflation;
- V. Estimate of Operations and Maintenance (O and M) costs for the federal-aid highway system (FAHS).

Part I: Available Highway and Transit Funding

The majority of federal highway and transit funding is derived from federal motor fuel taxes and vehicle registration fees. On the federal and state levels, motor fuel is taxed at 18.4 cents per gallon on gasoline and 24.4 cents per gallon on diesel. The State of Michigan has a tax of 27.2 cents on both gasoline and diesel fuel. Michigan also charges sales tax on motor fuel, but this funding is not applied to transportation. These funds are deposited in the Highway Trust Fund (HTF). A portion of these funds is retained in the Mass Transit Account of the HTF for distribution to public transit agencies and states. The current law governing these apportionments is the Infrastructure Investment and Jobs Act (IIJA). Through this law, Michigan receives approximately \$1.4 billion in federal-aid highway funding annually. This funding is apportioned in the form of several programs designed to accomplish different objectives, such as road repair, bridge repair, safety, and congestion mitigation. A brief description of the major funding sources follows:

There are several federal highway programs serving different purposes. Appendix C contains a list of these programs. Federal highway funds are apportioned to the states (apportionment means distribution of funds according to formulas established by law) and then a portion is allocated to local agencies based on the population in each region.



Within the urban area of Bay City there are four (4) bascule (lift) bridges that cross the Saginaw River; two of the bridges are owned by the State and two are owned by the City of Bay City. As in many older cities with declining population and increased maintenance costs, public infrastructure needs have outpaced available revenues and the City has struggled to adequately fund maintenance of the bascule bridges. In 2020 the City of Bay City, City Commission voted to sell the bridges to United and the company will take over maintenance and require tolls on both bridges. Residents frequently crossing the river will have the option of a scanner for monthly billing of the tolls. Rehabilitation and construction will begin in 2022 on both the Liberty and Independence bridges and will last approximately two summers with both projects finalizing in 2023. The bridge's toll systems will be compatible with other popular toll systems (i.e. – EZ-Pass, MacPass etc.) and rates are expected to be set based off Bay City residency. Residents of Bay City with a transponder will be charged 50 cents per crossing. Non-Bay City residents with a transponder will be charged \$2 per crossing and both groups have the option of paying a flat rate of \$15 per month for unlimited crossings. Additionally, you can walk and cycle across the bridge for free. While the bridges are in the City of Bay City these projects are regionally significant as they impact the east -west corridor of federal highways M-25 and M-84 and the broader regional traffic flow.

Base and Assumptions Used in Forecast Calculations of Federal Highway Funds

At least every two years, allocations are calculated for each of these programs, based on federal apportionments and rescissions (nationwide downward adjustments of highway funding from what was originally authorized) and state law. Targets can vary from year to year due to factors including actual vs. estimated receipts of the Highway Trust Fund, authorization (the annual transportation funding spending ceiling), and the appropriation (how much money is approved to be spent). Allocations for FY 2022, as released by MDOT on January 2022, are used as the baseline for this FY 2023-2026 TIP financial forecast. The Financial Work Group of the MTPA developed an assumption, for planning purposes, that the amount of federal-aid highway funds received will increase by 2% each year during the FY 2023-2026 TIP period. Local agencies within the BCATS Planning Area receive approximately \$1 million in federal-aid highway funding each year.

Sources of Highway Funding Generated at the State Level

There are two main sources of state highway funding, the state motor fuel tax and vehicle registration fees.

The state law governing the collection and distribution of state highway revenue is Public Act 51 of 1951, commonly known simply as Act 51. All revenue from the motor fuel tax and vehicle registration fees is deposited into the Michigan Transportation Fund (MTF). Act 51 contains several complex formulas for the distribution of the funding, but essentially, once funding for certain grants and administrative costs are removed, approximately ten percent of the remainder



is deposited in the Comprehensive Transportation Fund (CTF) for transit. The remaining funds are then split between the Michigan Department of Transportation (MDOT), county road commissions, and municipalities (incorporated cities and villages) in a proportion of 39.1 percent, 39.1 percent, and 21.8 percent, respectively.

Since 2017, major changes to the State of Michigan's surface transportation revenue collection were enacted. These changes included:

- 1) Increasing the motor fuel tax to 27.2ϕ /gallon from 26.3ϕ /gallon (gasoline) and 26.3ϕ /gallon (diesel), effective January 1, 2022;
- 2) Raising vehicle registration fees by an average of 20%, effective January 1, 2017;
- 3) Transferring \$150 million from the state's General Fund to highways in fiscal year (FY) 2019;
- 4) Transferring \$325 million from the state's General Fund to highways in FY 2020;
- 5) Transferring \$600 million from the state's General Fund to highways in FY 2021 and subsequent years; and
- 6) Adjusting the motor fuel tax for inflation by up to 5% each year, starting in January 2022.

When these changes take full effect in the 2020-21 state fiscal year, which starts October 1, 2020, MTF revenue is anticipated to increase by approximately \$1.2 billion annually, from the current \$2.856 billion (in fiscal year 2018-19, the most recent fiscal year completed) to over \$4 billion annually.

MTF funds are critical to the operation of the road system in Michigan. Since federal funds cannot be used to operate or maintain the road system (items such as snow removal, mowing grass in the rights-of-way, paying the electric bill for streetlights and traffic signals, etc.), MTF funds are local community and county road agencies' main source for funding these items. Most federal transportation funding must be matched so that each project's cost is a maximum of approximately 80% federal-aid funding and a minimum of 20% non-federal matching funds. In Michigan, most match funding comes from the MTF. Finally, federal funding cannot be used on local public roads, such as subdivision streets, or other roads not designated as federal-aid eligible. Here again, MTF is the main source of revenue for maintenance and repair of these roads.

Funding from the MTF is distributed statewide to incorporated cities, incorporated villages, and county road commissions, collectively known as **Act 51 agencies**. The formula is based on population and public road mileage under each Act 51 agency's jurisdiction.

State Trunkline Funding

In addition, MDOT spends approximately \$2.5 million annually for capital needs on state-owned highways in the BCATS Planning Area (I-, US-, and M- roads). The last few years have been higher at closer to \$10 million.

Like the highway programs, there are several federal transit programs, the list of which can also be found in Appendix C. Transit funds are distributed according to a complex set of distribution formulas. BMTA receives approximately \$1.7 million in federal-aid transit funding each year.



A series of laws enacted in November 2015 increased state funding for transportation. The Michigan House Fiscal Agency estimates that, starting in FY 2016, an additional \$455 million will be raised, increasing each year until 2020, when it's expected that the increase will stabilize at an additional \$1.2 billion per year.¹

Local funding is much more difficult to predict. There is a patchwork of transportation millages, special assessment districts, downtown development authorities, and other funding mechanisms throughout the BCATS Planning Area. Therefore, this Financial Plan does not attempt to quantify current non-federal funding or forecast future non-federal funding revenues, except for MTF and CTF.

Part II: Fiscal Constraint

The most important financial consideration when creating and/or maintaining a S/TIP is fiscal constraint. This means that each year's list of projects cannot exceed the amount of funding reasonably expected to be available in the fiscal year. Funding is considered "reasonably expected to be available" if the federal, state, and local funding amounts are based on amounts received in past years, with rates of change developed cooperatively between MDOT, transportation planning agencies, and public transportation agencies. Note that these rates of change not the same as inflation; rather, they are forecasts of the amount of funding that will be made available by the federal, state, and local governments. In Michigan, this cooperative process is facilitated by the Michigan Transportation Planning Association (MTPA), whose members include the aforementioned agencies, plus the Federal Highway Administration (FHWA) and FTA. The MTPA has determined that recent federal transportation funding shortfalls make it prudent to hold federal funding levels at a two percent annual rate of increase for all four years for the FY 2020-2023 TIP (see Appendix D).

Year of Expenditure (YOE)

When MDOT, BCRC, City of Bay City, City of Essexville, and BMTA program their projects, they are expected to adjust costs using year of expenditure (YOE) dollars. YOE simply means that project costs have been adjusted for expected inflation. This is not the same as expected rates of funding change (see previous section). Each agency has its own inflation factor(s), based on past experience. However, MDOT has developed YOE factors for itself and any agency that hasn't developed its own. For the upcoming FY 2023-2026 TIP cycle, MDOT assumes a 2 percent inflation rate. See Appendix D for more details.

¹ Act 51 of 1951, Section 10(1)(j).

² Hamilton, William E., Jim Stansell, and Kyle I. Jen. "Road Funding Package-Enacted Analysis." Lansing, MI House Fiscal Agency, November 2015.

³ Michigan Department of Transportation, MDOT Report 139 (Schedule A) at https://www.michigan.gov/documents/mdot/Rpt139SchA_676118_7.pdf



Summary: Resources Available for Capital Needs on the Federal-Aid Highway System

Table 1 contains a summary of the predicted resources that will be available for capital needs on the federal-aid highway system in the BCATS Planning Area over fiscal years 2023 through 2026. The only local (i.e., non-federal) funding included is funding required to match federal-aid funds. This is usually about 20 percent of the cost of each project.

Table 1. Forecast of Resources Available for Capital Needs on the Federal-Aid Highway System in the BCATS Planning Area (Millions of Dollars) TIP revenue + RTF Estimate (810K) + Local Match

2023	2024	2025	2026	Total
\$45.90	\$121.27	\$5.65	\$6.96	\$179.77

Part III: Estimate of Operations and Maintenance Costs for the Federal-Aid Highway System

Almost all federal-aid highway funding is restricted to capital costs; i.e., the cost to build and maintain the actual physical assets of the federal-aid highway system (essentially, all I-, US-, and M- designated roads, plus most public roads functionally classified as "collector" or higher). Operations and maintenance (O and M) costs, such as snow and ice removal, pothole patching, rubbish removal, electricity costs to operate streetlights and traffic signals, etc. are the responsibility of MDOT or local road agencies, depending on road ownership. Nevertheless, federal regulations require an estimate of O and M costs on the federal-aid highway system over the years covered by the TIP. Appendix D explains the method and assumptions used to formulate the estimate. Table 2. Contains a summary O and M cost estimate for roads on the federal-aid highway system in the BCATS Planning Area. These funds are not shown in the TIP, because most highway operations and maintenance costs are not eligible for federal aid. The amounts shown are increased by the agreed-upon estimated YOE (i.e., inflation) factors (see Appendix D for a discussion of YOE adjustments).

MDOT Bay Region estimates that its operations and maintenance costs were approximately \$6.46 per lane-mile in FY 2022. Using the FY 2022 estimate as a baseline, costs were increased 4% per year over the life of the FY 2023-2026 TIP to adjust for inflation (also known as year of expenditure adjustment—see Year of Expenditure (Inflation) Adjustment for Project Costs section below) to provide a total of \$27.27 million estimated operations and maintenance costs on the state trunkline system in the BCATS area from FY 2023 through 2026.

Table 2. Forecast of Operations and Maintenance Costs on the Federal-Aid Highway System in the BCATS Planning Area (Millions of Dollars)

2023	2024	2025	2026	Total
\$6.60	\$6.75	\$6.90	\$7.02	\$27.27



Part IV: Summary – Resources Available for Capital Needs of Public Transit Agencies

Transit agencies receive their funding from a variety of sources: federal, state, and local. Federal funding is distributed, in large part, according to the population of the urbanized area and/or state. For example, Section 5307 (Urbanized Area Formula Grant) is distributed directly to large transit agencies located within Ann Arbor, Detroit, and Toledo Transportation Management Areas (TMAs; urbanized areas with more than 200,000 residents). Section 5307 funds are distributed to federally specified transit agencies in urbanized areas between 100,000 and 199,999 residents. For areas with populations under 100,000, the state can generally award funding at its discretion.

Other sources of funding are more specialized, such as Section 5310 (Transportation for Elderly and Persons with Disabilities) and Section 5311 (for rural areas). See Appendix C for more information on federal transit resources.

The State of Michigan, through the MDOT Office of Passenger Transportation (OPT), also distributes CTF funding to match federal aid, for job access reverse commute (providing access to available employment for persons in low-income areas), and for local bus operating (LBO). LBO funds are very important to the agencies as federal-aid funding for transit, like federal aid funding for highways, is almost entirely for capital expenses.

Local funding can come from fare box revenues, a community's general fund, millages, and other sources. As with local highway funding, local transit funding can be difficult to predict. Therefore, this chapter will only include federal and state resources available for transit.

Table 3 contains a summary of the predicted resources that will be available for capital needs (and some operation needs, depending on the program) for BMTA during fiscal years 2023 through 2026. Federal funding reasonable expected to be available is included. CTF funding expected to be distributed by the MDOT Office of Passenger Transportation to BMTA is also included.

Table 3. Forecast of Resources Available for Public Transit Capital Needs in the BCATS Planning Area (Millions of Dollars)

Funding Type	2023	2024	2025	2026	Total
Total	\$9.57	\$9.14	\$9.31	\$9.49	\$37.51
5307	\$4.72	\$4.82	\$4.92	\$5.01	\$19.47
5339	\$0.15	\$0.15	\$0.15	\$0.15	\$0.62
5311	\$1.33	\$0.75	\$0.76	\$0.78	\$3.62
LBO	\$3.05	\$3.11	\$3.17	\$3.24	\$12.58
Specialized Services	\$0.16	\$0.16	\$0.16	\$0.16	\$0.65
TTW	\$0.145	\$0.145	\$0.145	\$0.145	\$0.58



Part V: Demonstration of Financial Constraint, FY 2023 through FY 2026

After determination of resources available for federal-aid highway and transit capital needs in the BCATS Planning Area from FY 2023 through FY 2026, and matching those available resources to specific needs, a four-year program of projects is created within the context of the region's transportation policies as contained in the 2045 BCATS Long Range Plan. The list must be adjusted to each year's YOE factor and then fiscally constrained to available revenues (see Appendix D). Table 4 contains a summary of the cost of highway and transit projects programmed over the four-year TIP period, matched to revenues available in that same period. This table shows that FY 2023 through FY 2026 TIP is fiscally constrained. Note: Operations and maintenance costs of the federal-aid highway system are included in the text of this chapter. However, these costs are not included in the TIP itself, as nearly all highway operations and maintenance costs are ineligible for federal-aid funding. This table can be found on Page 12.

Table 4. Highway and Transit Project Programmed Funding for 2023-2026 TIP (in millions)

	2023	2024	2025	2026
Highway Funding	\$47.84	\$96.72	\$7.82	\$34.38
Highway Programmed	\$47.57	\$96.28	\$7.66	\$34.21
Transit Funding	\$6.20	\$5.72	\$5.83	\$5.95
Transit Programmed	\$6.20	\$5.72	\$5.83	\$5.95
Total Funding	\$54.04	\$102.44	\$13.65	\$40.33
Total Programmed	\$53.77	\$102.00	\$13.49	\$40.16
Difference	\$0.27	\$0.44	\$0.16	\$0.17



Chapter 3 – Transportation Projects

For projects to be included in the TIP, BCATS sends out a "Call for Projects" to the implementing agencies. Those transportation projects received are brought forward to the BCATS Technical Committee for review at a meeting open to the public where input is sought. The Technical Committee then prioritizes the projects based on how each project will enhance the entire system in the BCATS region based on condition of adjacent roads, traffic volumes, truck routes, adopted performance targets, and overall benefit to the roadway system and users in general. During this review the amount of available funds by the implementing agencies available for transportation projects is considered. The prioritization process has worked well in the past as it balances the implementing agency's ability to budget for the local match requirement, and yet focuses on the best projects for the system as a whole. The Technical Committee then recommends to the Policy Committee the prioritized projects for inclusion in the TIP. The full Policy Committee then votes on the recommended projects after review of all comments and suggestions, including a public comment period at each BCATS Policy Committee meeting.

Completed FY 2020-2021-2022-2023 TIP Projects

During the life of the FY 2020-2021-2022-2023 TIP, the BCATS implementing agencies completed several major projects.

In FY 2020 TIP, those include:

- City of Bay City Midland Street/Vermont Street rehabilitation from Wenona Avenue to Dean Street.
- BCRC locally
- BCRC W German Road and Bullock Road from Trumbull Road to M-15.
- BCRC Old Kawkawlin Road rehabilitation Project from 2 Mile to State Park Drive.
- BCRC M-13 Road Capital Preventative Maintenance from McGraw to Cass Road.
- MDOT Addition of roadway gates at Lake State Railway and Wilder Road
- MDOT Installation of a new crossing surface at Lake State Railway and Cass Avenue
- MDOT Longitudinal pavement markings.
- MDOT Application of special pavement markings.

In FY 2021 TIP, those include:

- City of Bay City S Wenona Ave Reconstruction
- City of Bay City Marquette Ave from Hart to Transit St.
- MDOT I-75 rehabilitation from Beaver Road to Cottage Grove Road.
- MDOT US-10 Reconstruction from W 7 Mile Rd to Bay City
- MDOT M-25 W (ends east to Walnut Street) complete roadway reconstruction (and 2022)
- MDOT M-25 E (ends to Walnut Street) complete roadway reconstruction (and 2022)



- MDOT Longitudinal pavement marking application.
- MDOT Special pavement marking application

In FY 2022 TIP, those include:

- City of Bay City Wenona Avenue Reconstruction between Fisher St and North Union
- BCRC Old Kawkawlin Road (Grove Street) rehabilitation from M-13 to Two Mile Road.
- BCRC S 7 Mile Road capital preventative maintenance from Salzburg Road to Midland Rd.
- BCRC S 7 Mile Road capital preventative maintenance from Beaver Road to 1600' N of River Road
- BCRC S Mackinaw Road capital preventative maintenance from Salzburg Road to Midland Rd.
- BCRC S Mackinaw Road capital preventative maintenance from Beaver Road to Linwood Road
- MDOT US-10 Reconstruction
- MDOT HMA Crack Seal over US-10 from Livingston St to Knight Road
- MDOT I-75 NB Road rehabilitation, M-13 Connector to Beaver Road.
- MDOT Areawide Road Capital Preventative Maintenance
- MDOT Bridge Rehabilitation on M-25 over Saginaw River
- MDOT Roadway Reconstruction on M-25 E and M-25 W
- MDOT Application of special pavement markings.
- MDOT Longitudinal pavement markings
- MDOT Non-Freeway Signing Upgrade along E Wilder Rd
- MEDC South Euclid Avenue from Hotchkiss to Salzburg Road

Delayed Transportation Projects

Originally listed in the FY 2020-2021-2022-2023 TIP for FY 2021, E Salzburg Road rehabilitation from Fraser Road to 8 Mile Road, and S 7 Mile Road from Salzburg Road to Midland Road were suspended. S 7 Mile from Salzburg to Midland was completed in June 2022. E Salzburg from Fraser to 8 Mile will be completed as a 2023 BCRC/MDOT joint project.

FAST Act Performance Based Planning

A key feature of the Fixing America's Surface Transportation (FAST) Act is the establishment of a performance and outcome-based program, originally introduced through the Moving Ahead for Progress in the 21st Century (MAP-21) Act. The objective of a performance-based program is for states and MPOs to invest resources in projects that collectively will make progress toward the achievement of national goals. 23 CFR 490 outlines the seven areas in which performance goals are required, these include: Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement, Environmental Sustainability, and Reduced Project Delivery Delay.



Performance Measures

The regulations required the U.S. Department of Transportation/Federal Highway Administration to establish final rules on performance measures to address the seven areas in the legislation, resulting in the following areas being identified as measures for the system:

- Fatalities and serious injuries, both in number and rate per vehicle mile traveled on all public roads as well as the number of non-motorized fatalities and serious injuries.
- Pavement condition on the Interstate system and on the remainder of the National Highway System (NHS).
- Bridge condition on the NHS.
- System reliability of the Interstate system and on the remainder of the NHS.
- Traffic congestion.
- On-road mobile source emissions.
- Freight movement on the Interstate system.

MAP-21 also mandated the Federal Transit Administration (FTA) to develop a rule establishing a strategic and systematic process of operating, maintaining, and improving public capital assets effectively through their entire life cycle. The Transit Asset Management (TAM) Final Rule 49 CFR part 625 became effective Oct. 1, 2016 and established categories of capital assets. The performance management requirements outlined in 49 CFR 625 Subpart D are a minimum standard for transit operators. Providers with more data and sophisticated analysis expertise are allowed to add performance measures and utilize those advanced techniques in addition to the required national performance measures.

- Rolling Stock means a revenue vehicle used in providing public transportation, including vehicles used for carrying passengers on fare-free services.
- Equipment means an article of non-expendable, tangible property has a useful life of at least one year.
- Facilities means a building or structure that is used in providing public transportation.
- Infrastructure means the underlying framework or structures that support a public transportation system.

Table 5 below lays out the current timeline for the National Transportation Performance Measures and targets.



Table 5. National Transportation Performance Measures

Table 5. National Transportation 1 error mance Measures					
Area	Measures	Target Setting Status			
Safety Performance	 Number of fatalities; Rate of fatalities; Number of serious injuries; Rate of serious injuries; Number of non-motorized fatalities and non-motorized serious injuries 	Approved adoption of statewide targets (February 2019)			
Pavement and Bridge Asset Management	 Percent NHS Bridges in good and poor condition; Percent Interstate pavement in good and poor condition; Percent Non-Interstate NHS pavement in good and poor condition 	Approved adoption of statewide targets (October 2018)			
System Performance and Freight	 Interstate travel time reliability; Non-Interstate travel time reliability; Truck travel time reliability 	Approved adoption of statewide targets (October 2018)			
Congestion Mitigation and Air Quality	 Peak hour excessive delay per capita; Percent of non-single occupancy vehicle travel; Total emissions reduction 	Not Applicable to BCATS			
Public Transportation	Transit Asset Management (TAM) Plans; Public Transportation Agency Safety Plan • Fatalities • Injuries • Safety events • System reliability	Approved State of Good Repair Targets (December 2018); TAM Plans Received October 2018; Safety Plans have no regulations adopted at this time.			

Performance Targets

State Targets

Within one year of the U.S. Department of Transportation final rules on performance measures, States are required to set performance targets in support of these measures. Within 180 days of the state setting targets, MPOs are then required to choose to support the statewide targets, or optionally set their own targets. To ensure consistency, each MPO must, to the maximum extent practicable:

- Coordinate with an MPO when setting performance targets for the area represented by that MPO; and
- Coordinate with the relevant State and public transportation providers when setting performance targets in an urbanized area not represented by an MPO [§1202; 23 USC 135(d)(2)(B)].

The Statewide Transportation Improvement Program (STIP), State asset management plans under the National Highway Performance Program (NHPP), and State performance plans under the Congestion Mitigation and Air Quality Improvement program are required to include performance targets. Additionally, State and MPO targets should be included in State-wide transportation plans.



MPO Targets

Within 180 days of the state, and/or providers of public transportation, setting performance targets, it is required that MPOs set performance targets in relation to the performance measures (where applicable). To ensure consistency each MPO must, to the maximum extent practicable, coordinate with the relevant state and public transportation providers when setting performance targets. MPO Metropolitan Transportation Plans (MTPs) and TIPs are required to include State and MPO targets.

Current BCATS Programming of Projects Procedures and Performance Measures

Historically BCATS has and continues to face limitations in funding resources at the local, state, and federal levels. The MPO has established goals and objectives in the MTP to guide project selection as well as data gathered on the federal-aid road network. Data that is currently gathered by the BCATS on the federal-aid network and will tie into performance measures are traffic volumes, safety, non-motorized infrastructure, and pavement and bridge condition. The latest traffic volume, PASER rating, and non-motorized infrastructure is requested for each project submitted for inclusion in the TIP.

MPO staff meets regularly with road agencies and local units of government and offer crash data and additional relevant information upon request. Road agencies that have identified a safety deficiency in their area submit project proposals to MDOT for consideration. BCATS will, however, continue to program projects using all sources of funding that target identified intersections and corridors with high crash rates as well as intersections and corridors with high fatalities and serious injuries, which will support MDOT's safety targets.

As the performance measure targets are established in the future, BCATS will determine appropriate targets for the study area and include all necessary data for those performance measures for project selection in the development of all future TIP developments. BCATS will begin highlighting progress towards meeting current performance targets with the annual listing of obligated projects. MPO staff will also continue to work with other MPOs on best practices for performance-based programing of projects and analysis of performance measure data.

MPO Target Setting

Safety

The Highway Safety Improvement Program final rule (23 CFR Part 490) requires States to annually set targets for five safety performance measures by August 31st. MDOT coordinated the establishment of safety targets with the 14 MPOs in Michigan through monthly Target Coordination Meetings and through discussions at various meetings of the Michigan Transportation Planners Association (MTPA). MDOT officially adopted the 2022 state safety targets in the Highway Improvement Program annual report dated August 31, 2021. BCATS may, within 180 days of MDOT establishing and reporting its safety targets, establish safety targets by agreeing to plan and programming projects so that they contribute toward the accomplishment of the state safety targets, or committing to a quantifiable target for each safety



performance measure for the BCATS planning area. On November 18, 2021 the BCATS Policy Committee agreed to support the MDOT state safety targets for the calendar year of 2022. Table 6 below provides the current MDOT state safety targets that are supported by BCATS.

Table 6. Michigan State Safety Targets for Calendar Year 2022

Safety Performance Measure	Baseline Condition (2016- 2020)	Calendar Year 2022 State Safety Targets
Fatalities	1,028.20	1,065.2
Fatality Rate	1.051	1.098
Serious Injuries	5,673.2	5,733.2
Serious Injury Rate	5.778	5.892
Non-motorized Fatalities & Serious Injuries	762.8	791.6

The FY 2023 – 2026 TIP includes several projects which are anticipated to support the MDOT state safety targets in the BCATS planning area. Table 7 below represents over \$24 million investment in highway safety projects in the BCATS planning area.

Table 7. FY 2023-2026 TIP Safety Projects

Fiscal Year	Agency	Project	Work Type	Project Cost	Safety Benefit
2023	MDOT	M-84 N	Signing Upgrade (Non-freeway signing)	\$152,500	Increase driver awareness of signs and roadways
2023	MDOT	I-75 S	Signing Update	\$2,350,000	Increase driver awareness of signs and roadways
2023	MDOT	Bay Region-wide	Longitudinal Pavement Marking Application on Trunkline Routes	\$3,205,000 (\$282,040 estimated amount)	Increase driver awareness of roadway direction and movement
2023	MDOT	Bay Region-wide	Special Pavement Marking Application on Trunkline Routes	\$840,000 (\$72,920)	Increase driver awareness of signs and roadways
2023	MDOT	Bay Region-wide	Pavement Markings & Retro Reflectivity Readings on Trunkline Routes	\$22,000 (\$1,936 estimated amount)	Increase driver awareness of signs and roadways



Bay City Area Transportation Study (BCATS) Transportation Improvement Program (TIP) - FY 2023-2024-2025-2026

Final Report 24 June 2022

2023	MDOT	M-15 at Youngs Ditch	Signal Modernization & Geometric Improvements	\$2,542,727 (\$367,057 estimated amount)	Reduce the potential for intersection collisions and improve traffic movement efficiency
2023	MDOT	M-13	Modernizing signalized intersection to current standards	\$2,186,550 (\$1,881,638 estimated amount)	Reduce the potential for intersection collisions and improve traffic movement efficiency
2024	MDOT	Bay Region-wide	Longitudinal Pavement Marking Application on Trunkline Routes	\$3,205,000 (\$282,040 estimated amount)	Increase driver awareness of roadway direction and movement
2024	MDOT	Bay Region-wide	Special Pavement Marking Application on Trunkline Routes	\$840,000 (\$73,920 estimated amount)	Increase driver awareness of signs and roadways
2024	MDOT	Bay Region-wide	Pavement Markings & Retro Reflectivity Readings on Trunkline Routes	\$22,000 (\$1,936 estimated amount)	Increase driver awareness of signs and roadways
2025	MDOT	Bay Region-wide	Pavement Markings & Retro Reflectivity Readings on Trunkline Routes	\$22,000 (\$1,936 estimated amount)	Increase driver awareness of signs and roadways
2025	MDOT	Bay Region-wide	Longitudinal Pavement Marking Application on Trunkline Routes	\$3,325,000 (\$292,600 estimated amount)	Increase driver awareness of roadway direction and movement
2025	MDOT	Bay Region-wide	Special Pavement Marking Application on Trunkline Routes	\$540,000	Increase driver awareness of signs and roadways
2025	MDOT	Bay Region-wide	Pavement Markings & Retro Reflectivity Readings on Trunkline Routes	\$22,000	Increase driver awareness of signs and roadways
2026	MDOT	Bay Region-wide	Longitudinal Pavement Marking Application on Trunkline Routes	\$3,255,000	Increase driver awareness of roadway direction and movement
2026	MDOT	Bay Region-wide	Pavement Markings & Retro Reflectivity Readings on Trunkline Routes	\$22,000	Increase driver awareness of signs and roadways
2026	MDOT	Bay Region-wide	Longitudinal Pavement Marking Application on Trunkline Routes	\$440,000	Increase driver awareness of roadway direction and movement



Pavement and Bridge Condition

The Federal Highway Administration (FHWA) requires that MDOT will be establishing 2-year and 4-year targets for the four pavement and two bridge performance measures. MDOT finalized the pavement and bridge targets on May 20, 2018. Table 8 below shows the pavement and bridge performance measures set by the state of Michigan and supported by BCATS. MPOs are required to establish 4-year targets for these measures. On October 17, 2018 the BCATS Policy Committee signed a resolution supporting the MDOT 4- year targets.

Table 8. Michigan State Targets for First Performance Period

Performance Area	Performance Area Measure		2- Year Targets (ended 10/1/2020)	4- Year Targets
Duideo	Percent National Highway System (NHS) Deck Area in Good Condition	32.7%	27.00%	23.0% (adjusted from the previous 4-year target of 26%)
Bridge	Percent NHS Deck Area in Poor Condition	9.8%	7.0%	8.0% (adjusted from the previous 4-year target of 7%)
	Percent of Interstate Pavement in Good Condition	56.8%	N/A	47.8%
Pavement	Percent of Interstate Pavement in Poor Condition	5.2%	N/A	10.0%
	Percent of Non-Interstate NHS Percent in Good Condition	49.7%	46.7%	43.7%
	Percent of Non-Interstate NHS Percent in Poor Condition	18.6%	21.6%	24.6%

Pavement and Bridge projects in the BCATS 2023-2026 TIP can be seen in Tables 9 and 10 respectively. These projects represent over a \$50 million investment into NHS pavement improvements and over \$98 million investment into NHS bridge improvements in the BCATS Planning area.



Table 9. NHS Pavement Projects in the FY 2023-2026 TIP

Fiscal Year	Agency	Project	Work Type	Project Cost	Pavement Benefit
2023	MDOT	E Beaver Road	Road Rehabilitation	\$1,012,500	Improve surface condition and IRI
2023	MDOT	US-10 W from 7 Mile Road to Bay City	Reconstruction	\$33,380,987	Improve surface condition, IRI, cracking, and faulting
2025- 2026	Bay City	W Smith St from Henry to Joseph	Reconstruction	\$3,658,702	Improve surface condition, IRI, cracking, and faulting

Table 10. NHS Bridge Projects in the FY 2023-2026 TIP

Fiscal Year	Agency	Project	Work Type	Project Cost	Bridge Impact
2023	MDOT	M-13 (Lafayette Bridge over East Channel Saginaw River)	Bridge Replacement	\$100,656,592	Bridge Replacement
2023	MDOT	2 Structures on US-10	Bridge Rehabilitation	\$1,960,767	Bridge Rehabilitation (Overlay- Shallow)
2023	MDOT	I-75 (15 Structures in Bay County)	Bridge CPM (Overlay – Epoxy)	\$1,280,513	Bridge CPM
2023	MDOT	Mackinaw Road over US-10	Bridge Replacement	\$4,642,449	Bridge Replacement
2024	BCRC	S 7 Mile Rd/Mackinaw Rd	Bridge CPM	\$163,250	Bridge Capital Preventative Maintenance
2024	MDOT	M-25 over Saginaw River	Bridge Rehabilitation	\$3,410,264	Substitute Repair
2024	BCRC	S Euclid Ave/Fraser Rd	Bridge CPM	\$276,500	Bridge Capital Preventative Maintenance



System Performance and Freight

Federal regulations require states and Metropolitan Planning Organizations (MPOs) to use three performance measures for assessing travel time reliability. Travel time data used to calculate each measure is purchased by the Federal Highway Administration (FHWA) and made available for use by states and MPOs. The vehicle probe data set used for the federally required measures is called the National Performance Management Research Data Set (NPMRDS). The data is processed through an analytical software tool known as Regional Integrated Transportation Information System (RITIS). The travel time reliability measures, as defined in the PM3 federal rule are:

- Level of Travel Time Reliability (LOTTR) on the Interstate: % of person-miles traveled on Interstate that are reliable
- LOTTR on the Non-Interstate NHS: % of person-miles traveled on the Non-Interstate NHS that are reliable
- Freight Reliability Measure on the Interstate: Truck Travel Time Reliability (TTTR) Index

MDOT finalized the targets for the System Performance and Freight performance measures, on May 20, 2018. Table 11 shows the measures set by the state of Michigan and supported by BCATS. MPOs are required to establish 4-year targets for these measures. On October 17, 2018, the BCATS Policy Committee signed a resolution supporting the MDOT 4-year targets.

Table 11. Michigan State Reliability Targets

1 4 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
Measure	Baseline Condition 2017	2-Year Targets	4-Year Targets	
Interstate Travel Time Reliability	85.1%	75.0%	75.0%	
Non-Interstate NHS Travel Time Reliability	85.8%	-	70.0%	
Freight Reliability	1.38	1.75	1.75	

System performance and freight reliability projects in the BCATS 2023-2026 TIP can be seen in Table 12. These projects represent over an almost \$150 million investment into travel time and freight reliability improvements in the BCATS Planning area.



Table 12. System Performance and Freight Projects in the FY 2023-2026 TIP

Final					
Fiscal Year	Agency	Project	Work Type	Project Cost	Performance/Freight Benefit
2023	MDOT	US-10 W from 7 Mile Road to Bay City	Reconstruction	\$33,380,987	Improve travel time reliability
2023	MDOT	Mackinaw Road over US-10	Bridge Replacement	\$4,642,449	Improve travel time reliability
2023	MDOT	2 Structures on US-10	Bridge Rehabilitation	\$1,960,767	Improve travel time reliability
2024	MDOT	M-13	Bridge Replacement	\$100,659,592	Improve travel time reliability
2024	MDOT	M-25 over Saginaw River	Bridge Rehabilitation	\$3,410,264	Improve travel time and freight reliability
2026	MDOT	US-10 W	Reconstruction	\$47,144,287	Improve travel time reliability

Congestion Mitigation and Air Quality

This measure applies to urbanized areas containing NHS mileage and having a population over 200,000 (Phase 1 population over 1 million). The Bay City urbanized area does not meet the criteria for this performance measure.

Public Transportation

BCATS has worked with the Bay Metropolitan Transportation Authority (BMTA) to report State of Good Repair Targets to the Federal Transit Administration. On August 18, 2021, the BCATS Policy Committee supported the FY 2021 BMTA State of Good Repair Targets below in Table 13.



Table 13. BMTA State of Good Repair Targets

Asset Class	Current Condition	2021 Target	
Facilities	0% of our facilities have a term rating less than 3	0% of our facilities to be past Useful Life Benchmark (ULB)	
Revenue Vehicles	25% of our revenue vehicles are past Useful Life Benchmark (ULB) or have a condition rating less than "moderate".	17.9% of our revenue vehicles to be past Useful Life Benchmark (ULB) or have a condition rating less than "moderate".	
Non-Revenue Vehicles	28.6% of our non-revenue vehicles are past Useful Life Benchmark (ULB) or have a condition rating less than "moderate".	0% of our non-revenue vehicles to be past Useful Life Benchmark (ULB) or have a condition rating of less than "moderate".	

BMTA State of Good Repair projects in the BCATS 2023-2026 TIP can be seen in Table 14. These projects represent over a \$1.38 million investment into public transportation improvements in the BCATS Planning area.

Table 14. State of Good Repair Projects in the FY 2023-2026 TIP

Fiscal Year	Agency	Project	Project Cost	Asset Benefit
2023	ВМТА	Replace Tire Charger	\$153,759	Facilities
2023	ВМТА	Replace (2) Lift Vans	\$153,759	Revenue Vehicles
2023	BMTA	Rehab Existing Concrete Drive at Facility	\$153,759	Facilities
2024	BMTA	Window, Door, and Floor Replacements	\$153,759	Facilities
2024	BMTA	Replace (2) Lift Vans	\$153,759	Revenue Vehicles
2025	BMTA	Replace (2) Lift Vans	\$153,759	Facilities
2025	BMTA	Replacing Canopy Structure at the Central Bus Station	\$153,759	Facilities



2026	ВМТА	Replace (2) Lift Vans	\$153,759	Facilities
2026	BMTA	Replacing Canopy Structure at the Central Bus Station	\$153,759	Facilities

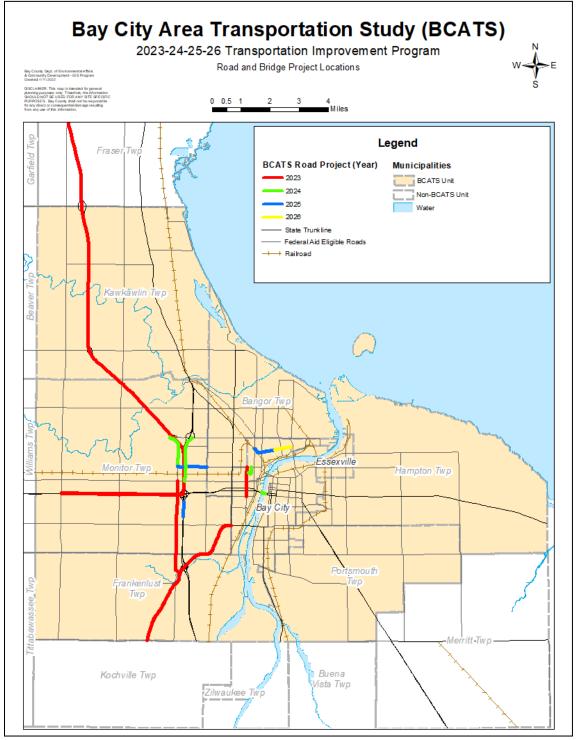
Amendments & Administrative Changes

It is important to remember what constitutes an amendment and what represents an administrative change because each has a different process and approval procedures. The table below provides guidance to assist local agencies in determining whether an amendment is needed for a project of if an administrative change is sufficient.

Amendments Include:	Administrative Changes Include:		
1. Adding new project(s). New projects include projects previously deleted from the TIP and then resubmitted at a later time for inclusion in the TIP.	1. Carrying a project from one approved TIP to the next as long as it is not a major capacity project and the carrying forward is done in the first quarter of the first year of the new TIP.		
2. Deleting projects	2. A minor change in scope of work (generally, anything not mentioned in the "Amendment" column is considered minor).		
3. Extending the length of a previously approved project one-half mile or greater. This is considered a major change in scope of work.	3. Cost increases of 10 percent or less without a major change to scope of work AND without over programming the TIP.		
4. Adding a travel or turn land one-half miles or greater to a previously approved project. This is considered a major change in scope.	4. Changing the source of federal aid within the same federal agency.		
5. Adding a new project phase to a previously approved project. This is considered a major change in scope.	5. Changing the order of approved projects by year within the TIP.		
6. Adding federal funds to a previously non-federally funded project.	6. Changing a federally funded project to advance construct. The project must be shown in both the advance construct and payback years.		
7. Cost increases by more than 25 percent with or without a major change in scope of work.	7. Moving a project from the Illustrative List to the TIP should a cost savings occur or additional funding becomes available.		



2023-2024-2025-2026 TIP Project Locations





Chapter 4 – Environmental Justice

Environmental Justice

In April 1997 the U.S. Department of Transportation (DOT) issued the DOT order on environmental justice to address Environmental Justice in Minority Populations and Low-Income Populations (DOT Order 5610.2). The order generally describes the process for incorporating environmental justice principles into all DOT programs, policies, and activities.

Most recently, on January 27th, 2021, President Biden signed Executive Order (EO) 14008, Tackling the Climate Crisis at Home and Abroad, creating the government wide Justice40 initiative. The Biden administration aims to deliver 40 percent of the overall benefits of federal investments in climate and clean energy, including sustainable transportation, to disadvantaged communities (DACs).

According to the Climate and Economic Justice Screening Tool, multiple census tracts within Bay City and Hampton Township have been identified as being disadvantaged in several categories to include sustainable housing, pollution, clean water and wastewater infrastructure, health burdens, and workforce development; however, no census tracts within Bay County have been identified as being transportation disadvantaged. BCATS will continue to monitor the screening tool to identify DACs throughout the county as the tool is updated and feedback is implemented throughout 2022. If further DACs are identified, specifically transportation related, BCATS will keep these areas of concern in mind when it comes to grant funding, planning, and implementation of transit-related projects. Bay County DACs can be visualized through the screening tool at the following link: (https://screeningtool.geoplatform.gov/en/#9.49/43.715/-83.9651).

Environmental justice is an important part of the planning process and must be considered in all phases of planning. This includes all public participation plans and activities, the development of Regional Transportation Plans and Transportation Improvement Programs adopted by BCATS. Specifically, BCATS will consider environmental justice concerns within their established public participation and public involvement procedures.

There are three fundamental concepts of environmental justice:

- To avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.



BCATS has identified census block groups where a high percentage of low-income and minority populations live so that their needs can be identified and addressed, and the benefits and burdens of transportation investments can be fairly distributed. BCATS updated its Public Participation Plan in 2014 to eliminate barriers and engage minority and low-income populations in transportation decision making.

However, BCATS cannot fully meet community needs without the active participation of well-informed, empowered individuals; community groups; and other non-governmental organizations. These individuals and groups advance the letter, spirit, and intent of environmental justice in transportation when they are involved in public participation activities (meetings, hearings, advisory groups) to help BCATS understand community needs, perceptions, and goals. Our basic message to all citizens is that the earlier you get involved, the better your chances will be to create the impact you desire. There are many situations where public participation has influenced transportation decisions made in our community.

Transportation programs and projects cannot proceed without citizen acceptance and support that comes through an educated public and an open inclusive process.

BCATS has worked with the following groups for environmental justice purposes: the five Bay City Citizen District Councils, the Hispanic Community Agency, the NAACP Bay City branch, the Saginaw Chippewa Native Indian Tribe, the Bay City Housing Commission (low income) and the Division on Aging. Of particular note, the City of Bay City and the Saginaw Chippewa Native Indian Tribe have cooperated on past projects by agreeing on an official protocol for the handling and disposition of human remains discovered during the course of a past development project. BCATS has contacted the five Citizen District Councils to solicit input into the transportation planning process. BCATS has notified the local president of the NAACP regarding the TIP and Metropolitan Transportation Plan. TIP project and meeting information is posted on the BCATS website http://www.baycounty-mi.gov/transportation as well as being published in the local newspaper, Bay City Times, and in and around the Bay County Building. BCATS will host a Public Open House Meeting to present the TIP to the public and solicit comments on Wednesday, May 4, 2022, from 4 p.m. to 7 p.m. at the Bay County Community Center: 800 John F. Kennedy Drive, Bay City, MI, 48706. BCATS will continue the ongoing development of strategies to ensure cooperation between the MPO and community organizations representing low-income populations and minority populations.

Definition of "Minority" for Purposes of Environmental Justice

According to the U.S. DOT Order 5610.2 the following groups are defined as "minority":

- 1. Black (a person having origins in any of the black racial groups of Africa).
- 2. Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race).
- 3. Asian American (a person having origins in any of the original people of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands).



- 4. American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).
- 5. Native Hawaiian and Other Pacific Islanders (a person having origins in any of the original people of Hawaii, Guam, Samoa, or other Pacific Islands).

Definition of "Low-income" for Purposes of Environmental Justice

"Low-Income" is defined as a person whose household income is at or below the Department of Health and Human Services (HHS) poverty guidelines. HHS poverty guidelines are used as eligibility criteria for the Community Services Block Grant Program and several other federal programs. However, a state or locality may adopt a higher threshold for low-income, if the higher threshold is not selectively implemented and is inclusive of all persons at or below the HHS poverty guidelines.

Development and Analysis

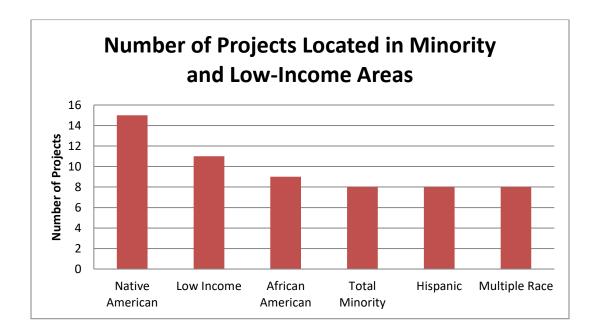
BCATS has developed a demographic profile of the transportation planning area that includes identification of the locations of minority populations and low-income populations as covered by the executive order on environmental justice.

The maps, beginning on page 35, identify the minority populations and low-income populations within the BCATS Planning Area. The maps identify minority and low-income areas in relation to the FY-2023-24-25-2026 proposed TIP projects, in order to provide a visual analysis of potential impacts.

Of the 21 total street and highway projects in the TIP, eight (8) projects are located within or adjacent to census tracts identified as having a total minority percentage higher than the overall BCATS average for all census block groups. For each identified minority population, nine (9) projects are located within or adjacent to African American minority areas, eight (8) projects are located within or adjacent to Asian minority areas, fifteen (15) projects are within or adjacent to Native American minority areas, and eight (8) projects are within or adjacent to Hispanic minority areas. Furthermore, 11 of the 21 projects are within or adjacent to block groups which have been identified to have a low-income population higher than the overall BCATS average for all block groups. Overall, 21 of the 21 of the street and highway projects are completely preservation and maintenance in nature. These projects do not include any relocations and/or displacements. Chart 1 and the following two tables (15 and 16) are based on the 2010 census demographics data.



Chart 1: Number of Projects Located in Each Minority and Low-Income Area.



The data that was used in the minority maps is based on individuals, while the data for low-income is based on household. In order to show if there are minority populations or households below the poverty level impacted by a road project, a "buffer" was created with a radius of 0.25 miles around each project to provide an Impact Area; shown in light blue on the maps. Since some of the block groups are large in area, and many of the road projects are smaller in comparison, an analysis technique was applied to the raw data to better show how many people are being affected by the road projects. The data had to be prorated by using the ratio of the total area of the block groups to the total area of the Impact Area. Once the ratio is obtained, it is then used to derive an estimated amount of people from the minority and low-income groups that are within a quarter mile radius of all projects.

Each percentage was calculated by taking the estimated number of individuals in each minority group within the Impact Area and dividing it by the estimated total population within the Impact Area. In addition, the percentage of each minority group was calculated for all the block groups located in the BCATS area. Once the percentages of minority and below-poverty households were calculated within the Impact Area, they were compared to the percentages of the whole BCATS area. Table 15 shows the summary of the minority populations and low-income households in the entire BCATS area, as well as the totals and percentages of each group located within the 0.25-mile Impact Areas of the 2023-2026 TIP projects.



Table 15. Environmental Justice Analysis of Minority and Low-Income Populations

	BCATS MPO		Project Impact Area (0.25 mile buffer)	% within Impact Area
Total Area (miles²)	172.38		14.65	7.2%
Total Population	90,318	100%	11,309	9.1%
White	79,965	88.5%	10,056	88.9%
African American	1,651	1.8%	200	1.8%
Native American	451	0.5%	57	0.5%
Asian	517	0.6%	78	0.7%
Hispanic	4,584	5.1%	539	4.8%
Hawaiian	12	0.01%	1	0.0%
Other Races	966	1.1%	108	1.1%
Two or More Races	2,172	2.4%	270	2.4%
Total Households	38,819		4,897	
Households Below Poverty Level	5,343	13.8%	500	

As the data shows, there are not any groups that are disproportionately neglected or overexposed in terms of proposed transportation projects. For each minority group, the percentage within the Impact Area is roughly equal to or higher than the percentage in the whole BCATS area. This shows that the minorities' needs are being taken into consideration with respect to future transportation improvements. The same is true for low-income population. The 9.1% of low-income (below-poverty-level) households that are within the Impact Area of proposed transportation projects are roughly equal to the overall percentage in the whole BCATS area (13.8%).

Table 16 below, shows a slightly different assessment; it compares the minority populations within the Impact Area to the total population within the Impact Area. In this case, the Impact Area percentages should be compared up & down the column to the Total Population percentage to see if any minority group or low-income population is more concentrated therein. This analysis shows that similar percentages of most minority groups and low-income population are represented within Impact Areas of proposed transportation projects. Accordingly, it is concluded that imminent transportation system investments are affecting all involved in a similar manner. These projects do not disproportionately burden nor fail to meet the needs of any segment of the population.



Table 16. Percent Concentrations within Projects' Impact Area

	BCATS MPO	2023-2026 EJ Impact Area (0.25 miles)	% Concentration per Category within Impact Area
Total Area (miles²)	172.38	14.65	
Total Population	90,318	11,309	12.5%
White	79,965	10,056	12.6%
African American	1,651	200	12.1%
Native American	451	57	12.6%
Asian	517	78	15.1%
Hispanic	4,584	539	11.8%
Hawaiian	12	1	8.3%
Other Races	966	108	11.2%
Two or More Races	2,172	270	12.4%
Total Households	38,819	4,897	12.6%
Households Below Poverty Level	5,343	500	7.09%

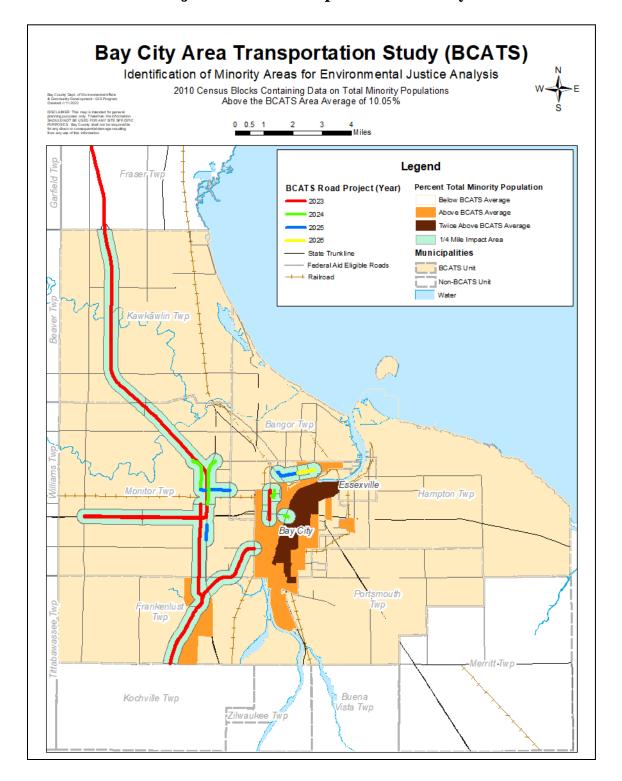
During the planning process, all projects will have an opportunity for public comment and public participation. For major projects in the TIP, open houses will be conducted by the implementing agencies. These project open houses are held to discuss the socio-economic impacts of the project on the community which includes any low-income populations or minority populations. Mailing lists are compiled and invitations sent to everyone in the affected neighborhood. Also, during construction, appropriate detour routes are developed to minimize delay and disruption on all population groups. Having followed the adopted environmental justice practices BCATS has not identified any disproportionate adverse effects on minority and low-income populations.

There are also 11 transit projects identified in the TIP. The service area of the BMTA is the entire County of Bay which encompasses all of BCATS. BMTA promotes equality within their transportation programs. For example, BMTA supplies transit service to everyone, regardless of where they live, if they own a vehicle or not. BMTA has discounted fares for the elderly, the disabled and student populations. Outside of vehicle replacement purchases and operating costs, all projects are for improvements at the central passenger station or the main administrative building. These 11 projects benefit all identified minority populations and low-income populations.

This TIP was adopted according to the BCATS Public Participation Plan, which ensures that the decision-making process was open and fair and there was no denial or delay of benefits to minority and low-income populations. It should be noted that the Public Participation Plan was adopted on October 23, 2014. BCATS will continue to address environmental justice issues over the life of the TIP. Coordination with MDOT with assistance and guidance provided by FHWA will help to refine and expand on our efforts.

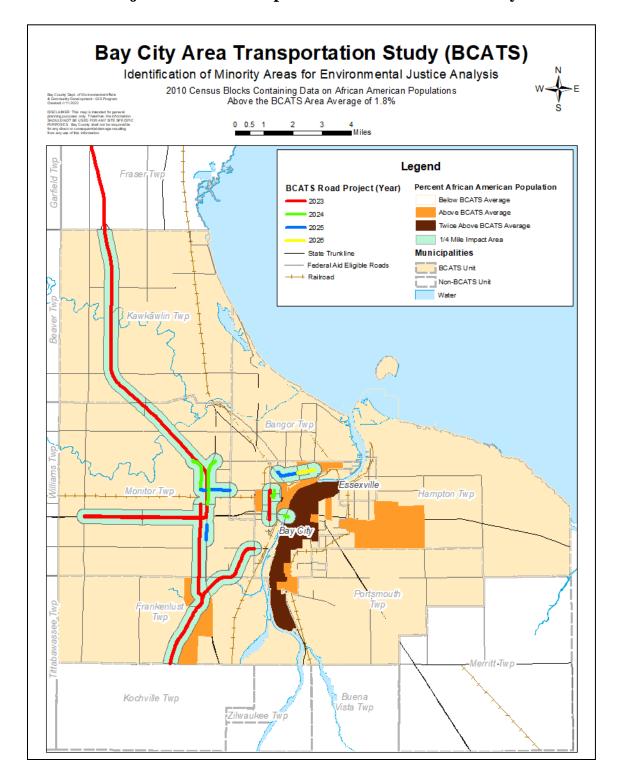


Project Overview Map / Total Minority



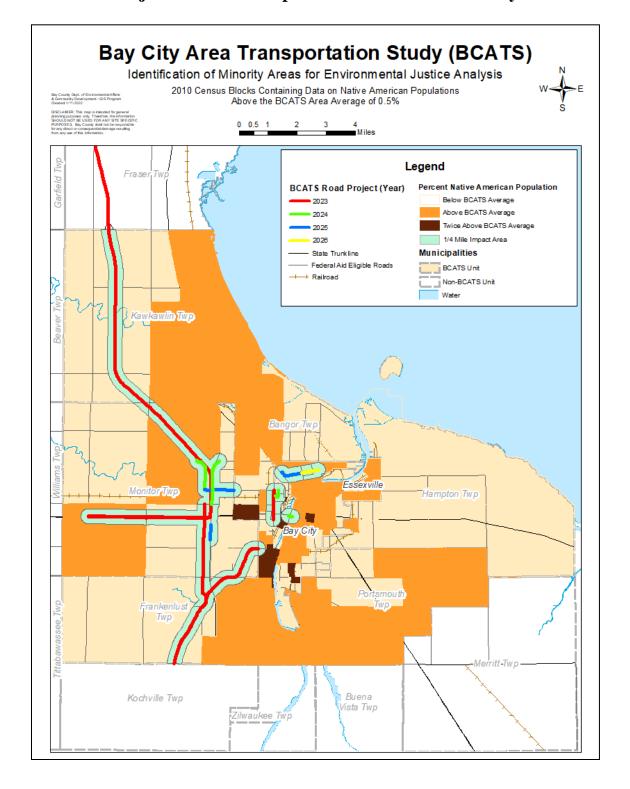


Project Overview Map / African American Minority



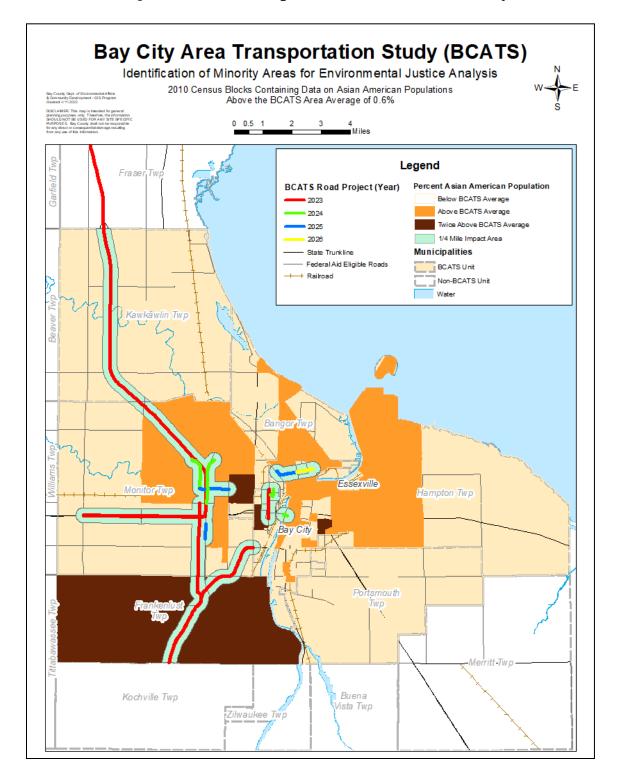


Project Overview Map / Native American Minority



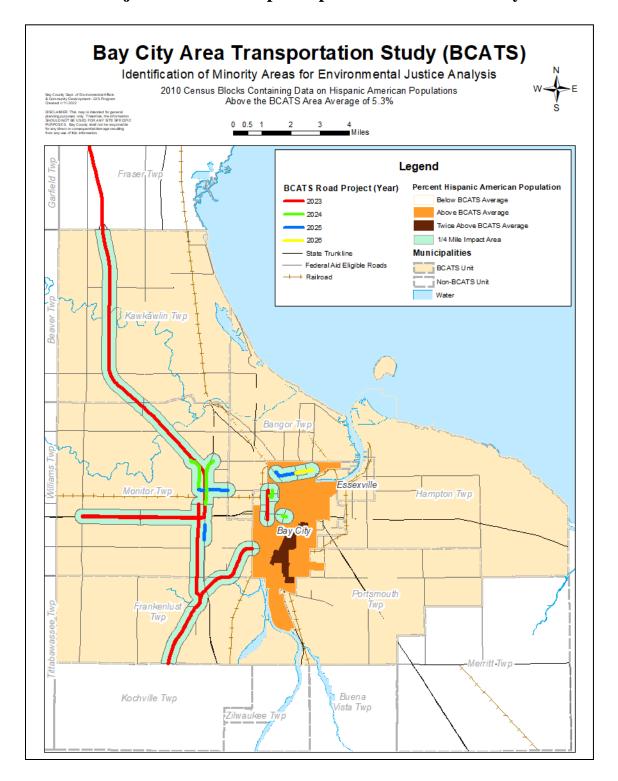


Project Overview Map / Asian American Minority



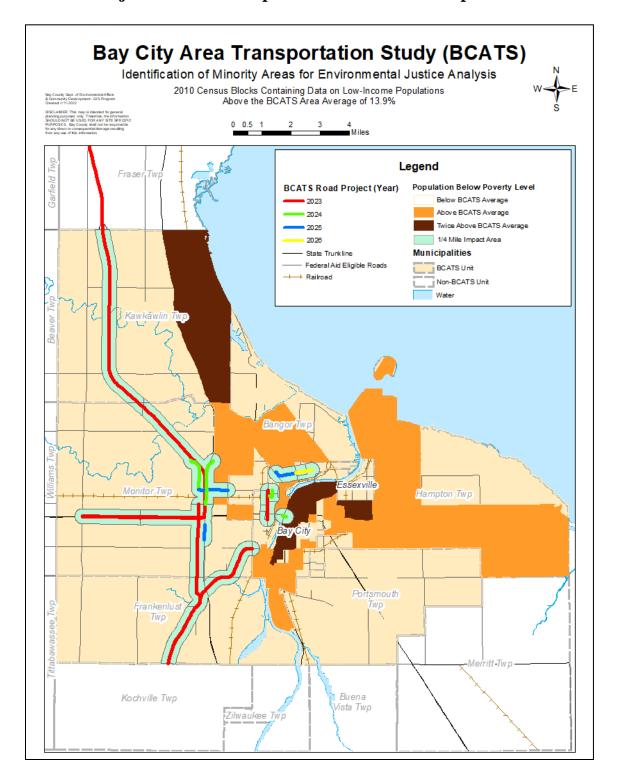


Project Overview Map / Hispanic American Minority



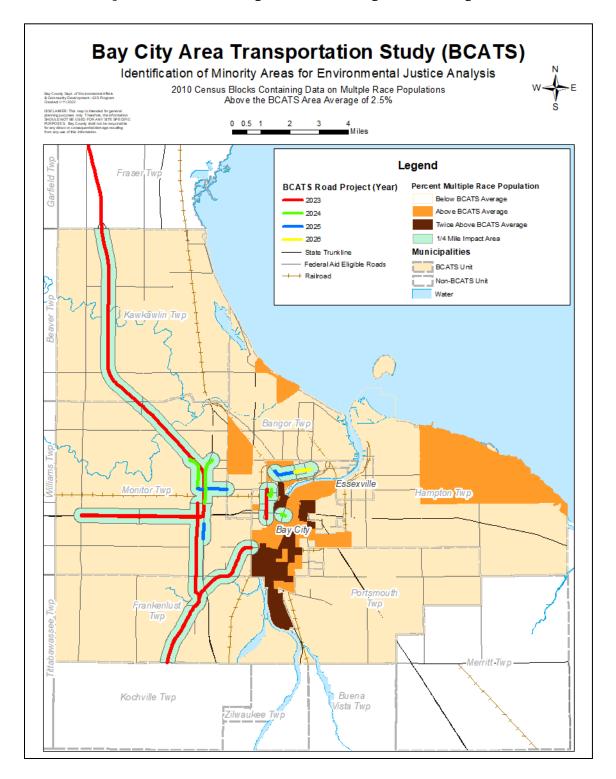


Project Overview Map / Total Low-Income Population



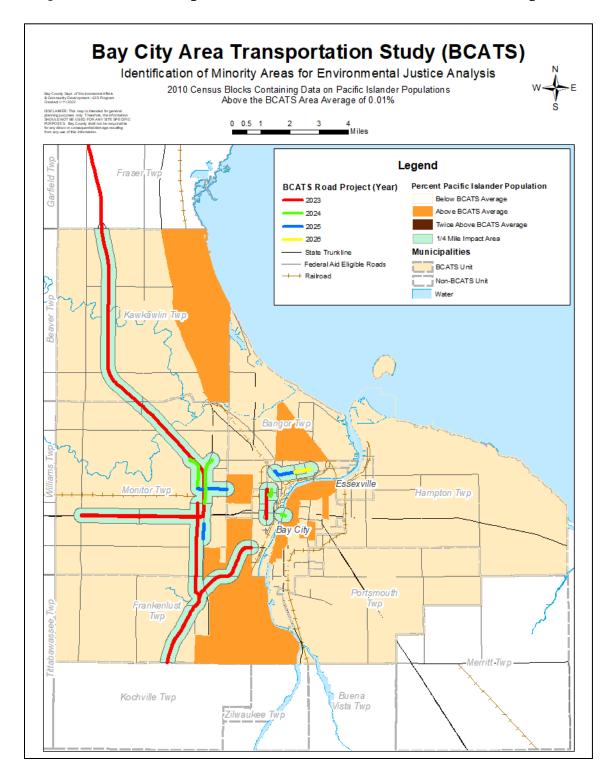


Project Overview Map / Total Multiple Race Population





Project Overview Map / Total Hawaiian and Pacific Islander Population





Appendix A

Metropolitan Transportation Planning Process Certification

METROPOLITAN TRANSPORTATION PLANNING PROCESS CERTIFICATION

In accordance with 23 CFR 450.334, the Michigan Department of Transportation and the Bay City Areat Transportation Study (BCATS), the Metropolitan Planning Organization for Bay City, Michigan urbanized area, hereby certify, as part of the STIP submittal, that the transportation planning process is addressing the major issues in the metropolitan planning area and is being conducted in accordance with all applicable requirements of:

- I. 23 U.S.C. 134 and 135, 49 U.S.C. 5303 and 5304, and this part;
- II. Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part 21;
- 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
- Section 1101(b) of the FAST Act (Pub. L. 114-357) and 49 CFR part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects;
- V. 23 CFR part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts;
- VI. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) and 49 CFR parts 27, 37, and 38;
- VII. The Older Americans Act, as amended (42 U.S.C. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance:
- VIII. 23 U.S.C. 324, regarding the prohibition of discrimination based on gender; and
- IX. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR part 27 regarding discrimination against individuals with disabilities.
- X. (applicable to Non-Attainment and Maintenance Areas only) Sections 174 and 176(c) and (d) of the Clean Air Act, as amended (42 U.S.C 7504 and 7506(c) and (d))-and 40 CFR part 93

Jim Lillo, Chairman

Bay City Area Transportation Study

Todd White, Director

Bureau of Transportation Planning

Date



Consultation Letter

BAY COUNTY TRANSPORTATION PLANNING

515 Center Avenue, Suite 504 Bay City, Michigan 48708

DOMINIC PAVONE

Transportation Planner/GIS Manager pavoned@baycounty.net Phone 989-895-4244



JAMES A. BARCIA

County Executive

LAURA OGAR, DIRECTOR

ogarl@baycounty.net

Saginaw Bay Restoration Community Initiatives Geographic Information Systems Gypsy Moth Suppression Program Mosquito Control Transportation Planning

April 12, 2022

Public Notice Bay City Area Transportation Study (BCATS) 2023-24-25-26 Transportation Improvement Program (TIP) Public Comment Period and Open House

The Bay City Area Transportation Study (BCATS) is seeking public comment on the proposed 2023-24-25-26 Transportation Improvement Plan (TIP). The TIP includes information about proposed road, bridge, transit, and non-motorized transportation projects, as well as other regionally significant projects. The 30-day public comment period is April 25, 2022 thru May 24, 2022. You may also view the proposed TIP on the BCATS website at www.baycounty-mi.gov/Transportation. The public is encouraged to submit written comments to BCATS by emailing them to Dominic Pavone, Bay County Transportation Planner/GIS Manager at pavoned@baycounty.net, or by mail to 515 Center Avenue, Suite 504, Bay City, MI 48708. Please submit your comments by no later than May 24, 2022.

An Open House to discuss the TIP will be held on Wednesday, May 4, 2022 from 4:00 p.m. to 7:00 p.m.in room #128 in the Bay County Community Center Located at 800 John F. Kennedy Drive, Bay City, MI 48706.

Copies of the proposed TIP are available for review at the Transportation Planning Office in the Bay County Environmental Affairs and Community Development Department which is located at on the 5th Floor of the Bay County Building, 515 Center Avenue, Bay City, MI 48708 or on the BCATS Website.

A Public Hearing to adopt the TIP will be held during the regularly scheduled June 22, 2022 BCATS Policy Committee Meeting at 1:30 p.m.in the 3rd Floor conference room of the Bay County Building located at 515 Center Avenue, Bay City, MI 48708. If you have any questions regarding the proposed FY2023-26 TIP, please contact Dominic Pavone at 989-895-4244.

Pursuant to the Americans with Disabilities Act, individuals with disabilities may request aids/services within a reasonable time period to participate in the meeting. To request aids/services please contact Amber Davis-Johnson, Corporation Counsel Director at the Bay County Building, 4th Floor, 515 Center Avenue, Bay City, MI 48708 or by email at johnsona@baycounty.net. To contact Amber Davis-Johnson by phone, please call 989-895-4131/TDD 989-895-4049.



Consultation Contact List

NAME	CONTACT	ORGANIZATION	ADDITIONAL INFO
	MEANS		
Terry Moultane	email	Midland/Salzburg Citizens	Bay City Planning & Zoning
		District Council	Manager
Debbie Kiesel	email	Northwest Citizens District	Staff Liaison
In Dian	:1	Council North and Citizens Biotoist	Chain
Jan Rise	email	Northeast Citizens District Council	Chair
Amy MacDonald	email	Columbus Avenue Citizens	Staff Liaison
7 mily made on and	ciriaii	District Council	Starr Liaison
Tony Dier	email	South-End Citizens District	Staff Liaison
		Council	
Darold Newton	email	NAACP - Bay City Branch	
Bay City DDA	email	Bay City DDA	
Dan Hansford	email	Essexville DDA	City Manager/DDA
			Director
Donna Samyn	email	Hampton DDA	
Karie Wardynski	email	Bangor DDA	DDA Treasurer
Amy Lyday	email	Monitor DDA	DDA Treasurer
Terry Spencer	email	Monitor DDA	Monitor Township
Monitor DDA	aa:I	Manitar DDA	Supervisor DDA email from website
	email	Monitor DDA	
Department on Aging	email	Senior Citizens Advisory Committee	Part of the Department on Aging
Erin Kreutzberg	email	Railtrail/Riverwalk Committee	Program Officer for R/R
	cilian	Transfer, Title Walk Committee	Committee
Bay Foundation	email	Railtrail/Riverwalk Committee	Bay Foundation general
			email
Tim Botzau	email	James Clements Airport Advisory	
		Committee	
AAA Taxi	mail	AAA Taxi Company	
Bangor Township Public Schools	mail	Bangor Township Public Schools	
Neal Addis	email	Transportation Bay City Public Schools	Manager BCPS Trans Dept.
iveal Audis	Ciliali	Transportation Program	Ividilagei bers Halls Dept.
Everett Jacobs	email	Essexville-Hampton Public	
		Schools Transportation	
Bay City Housing Staff	email	Bay City Housing Commission	
Bay City Housing Staff	email	Bay City Housing Commission	
Bay City Housing Staff	email	Bay City Housing Commission	
Bay City Housing Staff	email	Bay City Housing Commission	





Nicole Luczak	email	United Way of Bay County	
Bay County	email	Bay County Division on Aging	
Department on Aging			
Connie Garcia	email	Region VII Area Agency on Aging	Care Coordinator at Region VII AAA
Tri-City Cyclist Organization	mail	Tri-City Cyclist	
Larry Rodarte	email	GLBRHBA	Executive Director
Dana Muscott	email	Bay City	City Manager
Daniel Murawski	email	Pinconning	City Manager
David Haag	email	Auburn	City Manager
Daniel Hansford	email	Essexville	City Manager
Glenn Rowley	email	Bangor Charter Township	Township Supervisor
Nicholas Tomczak	email	Beaver Township	Township Supervisor / Township Hall
Ronald Campbell	email	Frankenlust Township	Township Supervisor
Mark Galus	email	Fraser Township	Township Supervisor
James Dubay	email	Garfield Township	Township Supervisor
Chris Cousineau	email	Gibson Township	Township Supervisor
Terri Close	email	Hampton Charter Township	Township Supervisor
Samuel Davidson	email	Kawkawlin Township	Township Supervisor
David Schabel	email	Merritt Township	Township Supervisor
Terry Spencer	email	Monitor Township	Township Supervisor
Michael Haranda	mail	Mt. Forest Township	Township Supervisor
Sharon Stalsberg	email	Pinconning Township	Township Supervisor
Robert Pawlak	email	Portsmouth Township	Township Supervisor
Will Butterfield	email	Williams Township	Township Supervisor
Kathleen Newsham	email	Bay City	Mayor
Rachel Phillips	email	Bay City	Engineering Manager
Kerice Basmadjian	email	Bay City	Commissioner, 7th Ward
Brentt Brunner	email	Bay City	Commissioner, Sgt-at- arms, 4th Ward
Ed Clements	email	Bay City	Commissioner, 8th Ward
Jesse Dockett	email	Bay City	Commissioner, 1st Ward
Christopher Girard	email	Bay City	Commision President, 6th Ward
Rachelle Hilliker	email	Bay City	Commissioner, 5th Ward
Kristen McDonald Rivet	email	Bay City	Commission Vice President, 2nd Ward
Trey Pinkstock	email	Bay City	Commissioner, 3rd Ward
Bay City Streets Division	email	Bay City	Street Division





Marty Jurish	email	Bay City	Water Distribution Mgr
Bay City Electric Light & Power	email	Bay City Electric Light & Power	Electric Department Distro
Tim Botzau	email	Bay City Parks & Sanitation Manager	
Jeremy Lowell	email	Bay County	EA&CD
Dominic Pavone	email	Bay County	EA&CD
James Deweerdt	email	Bay County	EA&CD
Laura Ogar	email	Bay County	EA&CD
Cynthia Gaul	email	Bay County	EA&CD
Trey Pinkstock	email	Bay Area Chamber of Commerce	
Department on Aging Distro	email	Bay County Department on Aging	Department distro
Ryan Gale	email	Bay County	911 / Central Dispatch Director
Cristen Gignac	email	Bay County	Recreation & Facilities Director
Craig Goulet	email	Bay County	Administrative Services Director
Katie Zanotti	email	Bay County	Clerk
Brandon Krause	email	Bay County	Register of Deeds
Marie Fox	email	Bay County	Board of Commissioners
Ernie Krygier	email	Bay County	Board of Commissioners
Vaughn Begick	email	Bay County	Board of Commissioners
Kim Coonan	email	Bay County	Board of Commissioners
Tom Herek	email	Bay County	Board of Commissioners
Kaysey Radtke	email	Bay County	Board of Commissioners
Jayme Johnson	email	Bay County	Board of Commissioners
Troy Cunningham	email	Bay County	Sheriff
Shawna Walraven	email	Bay County	Treasurer
Ryan Manz	email	Bay County	Emergency Services/Management
Michael Rivard	email	Bay County	Drain Commissioner
Jim Lillo	email	Bay County Road Commission	Engineer Manager
Tom Kramer	email	Bay County Road Commission	General Superintendent
Cory Wale	email	Bay County Road Commission	Assistant Engineer
Trevor Keyes	email	Bay Future	President & CEO
Megan Manning	email	Bay Future	Investor Relations & Marketing Manager
Jim Reaume	email	Bay Future	Economic Development Manager
Sherrie Gray	email	Bay Future	Administrative Assistant



Jeff Anderson	email	Bay Metro Transit Authority	
Matt Lemon	email	City of Midland	City Engineer
Great Lakes Bay Regional CVB	email	Great Lakes Bay Regional CVB	
Andrea Ursuy	email	Delta College	Secretary to the Board
Sue Fortune	email	EMCOG	Director
Cody Bodrie	email	EMCOG	Regional Planner / Transportation
Cynthia Edwards	email	EMCOG	Planning Analyst / IT Coordinator
Kathy Kowal	email	EPA	NEPA Reviewer
Virginia Laszewski	email	EPA	NEPA Reviewer
Kenneth Westlake	email	EPA	Deputy Director
Christina Ignasiak	email	FHWA Michigan Division	Planning & Environmental Specialist
Andrew Sibold	email	FHWA Michigan Division	Transportation Planner
Andy Pickard	email	FHWA Michigan Division	Senior Transportation Planner
Bay Transport INC	mail	Freight Company	
DHT Group	mail	Freight Company	
Great Lakes Haulers	email	Freight Company	
Blumfield Secure Transport	email	Freight Company	
Schiebner Trucking	mail	Freight Company	
Go-To Transport INC	email	Freight Company	
Webers Trucking INC	email	Freight Company	
J&L Transport	email	Freight Company	
Rob Eggers	email	GLBRT/Spicer	Spicer Group & GLBRT President
Xiaohan Bao Smith	email	Michigan Historic Preservation Network	
Cynthia Bruntjens	email	Michigan Historic Preservation Network	
Michigan Historic Preservation	mail	Michigan Historic Preservation Network	General info distro
Bay County Historical Society	email	BCHS/Museum	
Jonathan Myers	email	Midland County Road Commission	Director/Engineer
Adam Rivard	email	MDOT	
Anita Boughner	email	MDOT	
Don Mayle	email	MDOT	
Jack Hofweber	email	MDOT	Region Planner



Bay City Area Transportation Study (BCATS) Transportation Improvement Program (TIP) - FY 2023-2024-2025-2026

Final Report 24 June 2022

Jay Reithel	email	MDOT	Region Planner
John Lanum	email	MDOT	Statewide Planning Section
Lindsey Dowswell	email	MDOT	MPO Program Manager
Don Matula	email	MDOT	
Brian Stark	email	MDOT	
Jeff Franklin	email	MDOT	Transportation Planner
Michigan DNR	email	Michigan DNR	
Rich Fenner	email	DNR Bay County	
Tri City Post	mail	Michigan State Police	
Mlive	email	Mlive	Bay City Times
Gavin McIntyre	email	MLive	Bay City Tlmes
Dave Maurer	email	WSGW News Radio	Content Director
Demetra Manley	email	Saginaw MPO	Transportation Planner
Erik Rodriguez	email	Saginaw Chippewa Indian Tribe	Public Relations Manager
Frank Cloutier	email	Saginaw Chippewa Indian Tribe	Public Relations Director
Sandy McCreery	email	Saginaw Chippewa Indian Tribe	Administrative Assistant II
Saginaw Bay WIN	email	Saginaw Bay WIN	
Zachary Brannigan	email	Saginaw Bay Land Conservancy	Director
Lisa Cleland	email	Saginaw Bay Land Conservancy	Associate Director
Trevor Edmonds	email	Saginaw Bay Land Conservancy	Director of Land Protection
Ted Lind	email	Saginaw Bay Land Conservancy	Director of Community Conservation
Christopher Klove	email	SEMCOG	Transportation Planning
Edward Hug	email	SEMCOG	Transportation Planning
Trevor Brydon	email	SEMCOG	Transportation Planning
Stephen Brudzinski	email	SEMCOG	Transportation Planning
Mark Rodman	email	Michigan Historic Preservation Office	Preservation Officer
Timothy Beson	email	Michigan House of Representatives	96th District
Kevin Daley	email	Michigan State Senate	31st District



Comments Received

<u>Public Comment:</u> BCATS received a letter that identified the need for public transportation that extends beyond Bay County to Saginaw and Midland for medical facilities and shopping centers.

Response: BCATS reached out to Bay Metro the public transportation provider in Bay County who identified that a transit program is in place for seniors (60+) and ADA certified individuals that will go beyond Bay County boundaries for certain medical appointments under certain conditions. Bay Metro's Dial-A-Ride program will have additional detailed information describing the options for further medical appointment services.

Additionally, for shopping or other excursions, regional connectivity has been put in place through Bay Metro's Route 4 that goes to Saginaw Valley State University where passengers can then connect with Saginaw or Midland's public transportation service.

Other transportation modes are available through other providers such as Bay City Taxi, Uber, Lyft, etc.

Richard R. Luczak,

..... Bay City MI 48708

May 7, 2022

Mr. Dominic Pavone

Regarding Transportation Planning in Bay County

Dear Sir:

I believe that there is a need for occasional transportation services from points of origin in Bay County to destinations in Saginaw and Midland Counties.

Examples

- I need the services of medical specialists who have offices in the City of Midland. These are services which I cannot find in Bay County.
- Closely related to the previous, there is satellite facility of Mid-Michigan Medical Center in Midland, which is located on Bay City Road, ½ mile beyond the Bay County line. This is an out-patient surgery facility.

my family is mostly gone and I don't know of any private or religiously-affiliated services for transportation to these medical facilities.

Beyond the scope of my recent medical needs, there are also shopping destinations in Midland and Saginaw counties, which are well-known, such as the Fashion Square Mall, Midland Mall, and even the major shopping centers for Sam's Club and Costco.

Discussion and Suggestions

The services which would fulfill the needs that I described above fall under the category of regional transportation needs. I suggest that any planning for transportation needs in Bay County should be broadened to regional transportation needs.

Further I would suggest cooperation with public and private transportation services in those nearby communities. And, I would suggest that such planning and the creation of new regional services be done sooner rather than later – I think there are special needs that could be addressed with a business model of on-demand services, rather than with a business model which requires setting up permanent transportation corridors.

With respect to the non-emergency medical transportation services, again, I feel a cooperative effort between the three counties and their local public and private transportation providers is the solution.

I am not a U.S. military veteran. But, I understand there is a service for local veterans to obtain transportation to nearby and even distant medical facilities. That is the type of service that I think is needed for all residents, veterans or otherwise.

I urge you to consider these transportation objectives as a matter of your public duty not to an abstract and arbitrary geographical territory, but as a duty to the residents within the local and regional boundaries.

Sincerely, Rubant Musch

Richard R. Luczak



<u>Public Comment:</u> An email was received from the Bay County Department on Aging (DOA) that raised a concern about a rural road out in Beaver Township that experiences hazardous driving conditions during inclement weather. The DOA has several customers on Rogers Road that are homebound and receive home-delivered meals, but these customers are difficult to reach due to degraded seasonal road conditions.

Response: BCATS reached out to the Bay County Road Commission (BCRC) and informed them of the concern. BCRC described that Rogers Road is a local road and BCRC helps maintain it by filling potholes and surface grading with gravel. However, any rebuilding or road improvement must be initiated and paid for by the township, according to state law. BCATS shared the concern with Beaver and Garfield townships where the degraded road conditions exist, which is outside the BCATS urbanized boundary area of Bay County.

From: Elizabeth Eurich < Eurich E@baycounty.net>

Sent: Tuesday, April 26, 2022 8:34 AM

To: Dominic Pavone <PavoneD@baycounty.net>

Subject: Re: Bay City Area Transportation Study (BCATS) 2023-24-25-26 Transportation Improvement

Program (TIP) Public Comment Period

Hi Dominic,

I was looking over your TIPs Study and was wondering if Rogers Rd would be part of this program. We have 3 clients on this road and during the spring, fall and winter it becomes impassible for our Meal trucks to get

down from mud, muck and snow. I have asked BCRC multiple times to look at and do something as we have vulnerable clients who live on this road. They usually just throw some stones that are so big it causes damage to our vehicles.

Let me know if this is something that can be added or addressed

Kind Regards,

Beth Eurich, LBSW

Director, Bay County Department on Aging 515 Center Ave, Suite 202 Bay City, MI 48708 Work: 989-895-4100

Work: 989-895-4100 Fax: 989-895-4094



Appendix B - Projects, Illustrative List, Fiscal Constraint Tables



2023-2026 Transportation Improvement Projects

Fiscal Year	Job#	GPA Type	County	Responsible Agency	Project Name	Limits	Length	Primary Work Type	Project Description ACC Year(s)	Phase	Fed Estimated Amount	State Estimated	Local Estimated Amount	Total Estimated Amount	Fund Source	Total Job Cost incl. NON LAP	MPO/Rural Approval Date
2023	200103	S/TIP Line items	Bay	ВМТА	Transit Operating	Areawide	0.000	SP3000- operating except JARC and New Freedom	FY 2023 Sec 5307 Operating Assistance	NI	\$1,410,079	\$1,748,890	\$1,565,518	\$4,724,487	5307	\$4,724,487.00	12/22/2021
2023	201403	S/TIP Line items	Вау	MDOT	US-10 W	7 Mile Road to Bay City	5.485	Reconstruction	HMA Reconstruct	CON	\$25,644,651	\$5,686,626	\$0	\$31,331,277	NH	\$33,680,987.00	06/19/2019
2023	202144	S/TIP Line items	Bay	MDOT	US-10	Mackinaw Road over US- 10	0.000	Bridge Replacement	Bridge Replacement	CON	\$3,335,742	\$739,690	\$0	\$4,075,432	NH	\$4,642,449.00	06/19/2019
2023	202649	S/TIP Line items	Вау	MDOT	M-84 N	Signing Upgrade	29.048	Traffic Safety	Non-freeway Signing	CON	\$152,500	\$0	\$0	\$152,500	STG	\$577,000.00	05/19/2021
2023	202723	S/TIP Line items	Bay	MDOT	I-75 S	Signing Update	75.287	Traffic Safety	Freeway Signing	CON	\$2,350,000	\$0	\$0	\$2,350,000	IMG	\$4,260,000.00	06/19/2019
2023	204851	Trunkline Bridge	Вау	MDOT	US-10	2 Structures on US-10	0.000	Bridge Rehabilitation	Overlay - Shallow	CON	\$1,387,684	\$307,716	\$0	\$1,695,400	NH	\$1,960,767.00	
2023	206168	S/TIP Line items	Bay	Bay County	E Beaver Rd	County Wide Rehabilitation	0.000	Road Rehabilitation	Crush & Shape & Asphalt Resurfacing	CON	\$603,000	\$0	\$207,000	\$810,000	STL	\$1,012,500.00	
2023	206234	S/TIP Line items	Bay	Bay City	Wenona Ave	between Fisher St and North Union St	1.002	Reconstruction	Reconstruction 2023	CON	\$1,174,000	\$0	\$0	\$1,174,000	STUL	\$6,568,612.00	10/20/2021
2023	206288	S/TIP Line items	Bay	ВМТА	Transit Capital	Areawide	0.000	SP1105-van replacement, any size with or without lift	FY 2023 Sec 5339 - Facility Imp/Maint Equip/Vehicle Replacement	NI	\$96,000	\$24,000	\$0	\$120,000	5339	\$153,759.00	02/20/2019
2023	206288	S/TIP Line items	Bay	ВМТА	Transit Capital	Areawide	0.000	SP1408- maintenance equipment (hoists, tools, etc.)	FY 2023 Sec 5339 - Facility Imp/Maint Equip/Vehicle Replacement	NI	\$12,000	\$3,000	\$0	\$15,000	5339	\$153,759.00	02/20/2019
2023	206288	S/TIP Line items	Bay	ВМТА	Transit Capital	Areawide	0.000	SP1203- admin/maintena nce facility improvements	FY 2023 Sec 5339 - Facility Imp/Maint Equip/Vehicle Replacement	NI	\$15,007	\$3,752	\$0	\$18,759	5339	\$153,759.00	02/20/2019



2023	207356	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes of BCATS MPO	3.494	Traffic Safety	Longitudinal pavement marking application on trunklines in Bay Region	PE	\$1,584	\$176	\$0	\$1,760	HSIP	\$3,205,000.00	06/19/2019
2023	207356	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes of BCATS MPO	3.494	Traffic Safety	Longitudinal pavement marking application on trunklines in Bay Region	CON	\$252,252	\$28,028	\$0	\$280,280	HSIP	\$3,205,000.00	06/19/2019
2023	207357	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes of BCATS MPO	3.554	Traffic Safety	Special pavement marking application on trunklines in Bay Region	PE	\$792	\$88	\$0	\$880	HSIP	\$840,000.00	06/19/2019
2023	207357	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes of BCATS MPO	3.554	Traffic Safety	Special pavement marking application on trunklines in Bay Region	CON	\$65,736	\$7,304	\$0	\$73,040	HSIP	\$840,000.00	06/19/2019
2023	207374	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes of BCATS MPO	3.187	Traffic Safety	Pavement marking retroreflectivity readings on trunklines in Bay Region	CON	\$1,742	\$194	\$0	\$1,936	HSIP	\$22,000.00	06/19/2019
2023	209495	Trunkline Traffic Operations And Safety	Вау	MDOT	M-13	Various Locations - Bay City TSC	0.000	Traffic Safety	Modernizing signalized intersection to current standards	CON	\$1,881,638	\$0	\$0	\$1,881,638	STG	\$2,186,550.00	
2023	209496	S/TIP Line items	Saginaw	MDOT	Regionwide	M-15 at Young's Ditch	0.000	Traffic Safety	Modernizing signalized intersection to current standards	CON	\$367,057	\$0	\$0	\$367,057	STG	\$2,542,727.00	02/19/2020
2023	210744	S/TIP Line items	Вау	ВМТА	Transit Operating	Areawide	0.000	3000-Operating Assistance	FY2023 5311 Operating Assistance	NI	\$662,501	\$662,501	\$0	\$1,325,002	5311	\$1,325,002.00	06/17/2020
2023	206288	S/TIP Line items	Вау	ВМТА	Transit Capital	Areawide	0.000	SP1203- admin/maintena nce facility improvements	FY 2023 Sec 5339 - Facility Imp/Maint Equip/Vehicle Replacement	NI	\$15,007	\$3,752	\$0	\$18,759	5339	\$153,759.00	02/20/2019
2024	128908	S/TIP Line items	Вау	MDOT	M-13	Over the East Channel of the Saginaw River	0.000	Bridge Replacement	Bridge Replacement	CON	\$76,676,221	\$15,514,991	\$1,487,739	\$93,678,951	BFP	\$100,656,591.80	
2024	207382	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes of BCATS MPO	4.052	Traffic Safety	Longitudinal pavement marking application on trunklines in Bay Region	PE	\$1,584	\$176	\$0	\$1,760	HSIP	\$3,205,000.00	
2024	207382	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes of BCATS MPO	4.052	Traffic Safety	Longitudinal pavement marking application on trunklines in Bay Region	CON	\$252,252	\$28,028	\$0	\$280,280	HSIP	\$3,205,000.00	
2024	207383	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes of BCATS MPO	3.443	Traffic Safety	Special pavement marking application on trunklines in Bay Region	PE	\$792	\$88	\$0	\$880	HSIP	\$840,000.00	



2024	207383	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes of BCATS MPO	3.443	Traffic Safety	Special pavement marking application on trunklines in Bay Region	CON	\$65,736	\$7,304	\$0	\$73,040	HSIP	\$840,000.00	
2024	207398	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes of BCATS MPO	1.358	Traffic Safety	Pavement marking retroreflectivity readings on trunklines in Bay Region	CON	\$1,742	\$194	\$0	\$1,936	HSIP	\$22,000.00	
2024	208823	S/TIP Line items	Вау	MDOT	M-25 W	M-25 Freeway Ends east to Walnut Street.	1.262	Reconstruction	Complete Roadway Reconstruct.	CON	\$9,375,580	\$1,897,094	\$181,914	\$11,454,588	NH	\$12,595,914.00	
2024	208827	S/TIP Line items	Вау	MDOT	M-25 E	M-25 Freeway end to Walnut Street	1.211	Reconstruction	Complete roadway reconstruction.	CON	\$8,861,559	\$1,793,085	\$171,940	\$10,826,584	NH	\$11,910,819.00	
2024	211561	Trunkline Bridge	Вау	MDOT	M-25	M-25 over Saginaw River	0.000	Bridge Rehabilitation	Substructure Repair	CON	\$2,450,378	\$543,365	\$0	\$2,993,743	ST	\$3,410,264.00	
2024	214178	S/TIP Line items	Вау	ВМТА	Transit Operating	Areawide	0.000	SP3000- operating except JARC and New Freedom	FY2024 Sec 5307 Operating Assistance	NI	\$1,438,281	\$1,783,868	\$1,596,828	\$4,818,977	5307	\$4,818,977.00	
2024	214191	S/TIP Line items	Bay	вмта	Transit Operating	Areawide	0.000	SP3000- operating except JARC and New Freedom	FY24 Sec 5311 Operating Assistance	NI	\$374,195	\$374,195	\$0	\$748,390	5311	\$748,390.00	
2024	214195	S/TIP Line items	Вау	ВМТА	Transit Capital	Areawide	0.000	SP1105-van replacement, any size with or without lift	FY 2024 Section 5339 - Van Replacement and Maintenance Equipment	NI	\$96,000	\$24,000	\$0	\$120,000	5339	\$153,759.00	
2024	214195	S/TIP Line items	Вау	ВМТА	Transit Capital	Areawide	0.000	SP1408- maintenance equipment (hoists, tools, etc.)	FY 2024 Section 5339 - Van Replacement and Maintenance Equipment	NI	\$27,007	\$6,752	\$0	\$33,759	5339	\$153,759.00	
2024	214363	S/TIP Line items	Вау	Bay County	Monitor Rd	from Midland Road to Wilder Road	1.581	Road Capital Preventive Maintenance	Preventative Maintenance	CON	\$248,000	\$0	\$62,000	\$310,000	STUL	\$310,000.00	
2024	214414	S/TIP Line items	Bay	Bay County	S Euclid Ave/Fraser Rd	S.Euclid Rd,Str.#720 - Squaconning Crk, Fraser Rd,Str.#738 - Kawkawlin Rivr	0.000	Bridge CPM	Bridge Capital Preventative Maintenance	CON	\$97,600	\$18,300	\$6,100	\$122,000	во	\$246,000.00	
2024	214414	S/TIP Line items	Вау	Bay County	S Euclid Ave/Fraser Rd	S.Euclid Rd,Str.#720 - Squaconning Crk, Fraser Rd,Str.#738 - Kawkawlin Rivr	0.000	Bridge CPM	Bridge Capital Preventative Maintenance	CON	\$99,200	\$18,600	\$6,200	\$124,000	во	\$246,000.00	

Final Report 24 June 2022

Bay City Area Transportation Study (BCATS)
Transportation Improvement Program (TIP) - FY 2023-2024-2025-2026

2024	214415	S/TIP Line items	Bay	Bay County	S 7 Mile Rd/Mackinaw Rd	7 Mile Rd, Str #702, and Mackinac Rd, Str # 706 over N B Kawkawlin River	0.000	Bridge CPM	Bridge Capital Preventative Maintenance	CON	\$39,200	\$7,350	\$2,450	\$49,000	ВНТ	\$163,250.00	
2024	214415	S/TIP Line items	Bay	Bay County	S 7 Mile Rd/Mackinaw Rd	7 Mile Rd, Str #702, and Mackinac Rd, Str # 706 over N B Kawkawlin River	0.000	Bridge CPM	Bridge Capital Preventative Maintenance	CON	\$81,600	\$15,300	\$5,100	\$102,000	ВНТ	\$163,250.00	
2024	214351	S/TIP Line items	Вау	Bay County	S 3 Mile Rd	from North Union to Wilder Road	1.151	Road Capital Preventive Maintenance	Preventative Maintenance	CON	\$188,800	\$0	\$47,200	\$236,000	STUL	\$295,000.00	
2024	215869	S/TIP Line items	Bay	Bay City	Clara St/N Dean St	from Dewitt to Dean/S Union to N Union	0.346	Reconstruction	Road Reconstruction	CON	\$600,000	\$0	\$0	\$1,050,000	STUL	\$2,062,500.00	
2025	209614	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes of BCATS MPO	2.755	Traffic Safety	Longitudinal pavement marking application on trunklines in Bay Region	PE	\$1,584	\$176	\$0	\$1,760	HSIP	\$3,325,000.00	
2025	209614	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes of BCATS MPO	2.755	Traffic Safety	Longitudinal pavement marking application on trunklines in Bay Region	CON	\$261,756	\$29,084	\$0	\$290,840	HSIP	\$3,325,000.00	
2025	209615	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes of BCATS MPO	2.101	Traffic Safety	Special pavement marking application on trunklines in Bay Region	PE	\$792	\$88	\$0	\$880	HSIP	\$540,000.00	
2025	209615	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes of BCATS MPO	2.101	Traffic Safety	Special pavement marking application on trunklines in Bay Region	CON	\$41,976	\$4,664	\$0	\$46,640	HSIP	\$540,000.00	
2025	209629	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes of BCATS MPO	3.225	Traffic Safety	Pavement marking retroreflectivity readings on trunklines in Bay Region	CON	\$1,742	\$194	\$0	\$1,936	HSIP	\$22,000.00	
2025	213224	S/TIP Line items	Bay	MDOT	I-75	Bay City Rest Area	0.000	Roadside Facilities - Improve	Building Replacement/Site Work	CON	\$3,683,250	\$816,750	\$0	\$4,500,000	NH	\$5,000,000.00	
2025	214203	S/TIP Line items	Bay	ВМТА	Transit Operating	Areawide	0.000	SP3000- operating except JARC and New Freedom	FY 2025 Section 5307 - Operating Assistance	NI	\$1,467,047	\$1,819,545	\$1,628,765	\$4,915,357	5307	\$4,915,357.00	
2025	214206	S/TIP Line items	Bay	ВМТА	Transit Operating	Areawide	0.000	SP3000- operating except JARC and New Freedom	FY 2025 Section 5311 - Operating Assistance	NI	\$381,679	\$381,679	\$0	\$763,358	5311	\$763,358.00	



2025	214226	S/TIP Line items	Вау	ВМТА	Transit Capital	Areawide	0.000	SP1105-van replacement, any size with or without lift	FY 2025 Section 5339 - Van Purchase & Facility Improvements	NI	\$96,000	\$24,000	\$0	\$120,000	5339	\$153,759.00	
2025	214226	S/TIP Line items	Вау	ВМТА	Transit Capital	Areawide	0.000	SP1206-Bus terminal facility improvements	FY 2025 Section 5339 - Van Purchase & Facility Improvements	NI	\$27,007	\$6,752	\$0	\$33,759	5339	\$153,759.00	
2025	214374	S/TIP Line items	Вау	Bay County	E North Union Rd	from Three Mile Road to Two Mile Road	1.002	Road Capital Preventive Maintenance	Preventative Maintenance	CON	\$164,800	\$0	\$41,200	\$206,000	STUL	\$206,000.00	
2025	214516	S/TIP Line items	Вау	Bay City	W Smith St	from Henry to Joseph	0.761	Reconstruction	Asphalt Reconstruction	CON	\$1,134,200	\$0	\$1,722,062	\$2,852,962	STUL	\$3,691,650.00	
2025	214516	S/TIP Line items	Вау	Bay City	W Smith St	from Henry to Joseph	0.761	Reconstruction	Asphalt Reconstruction	CON	\$48,000	\$0	\$22,700	\$70,700	STP- Flex (Small MPO)	\$3,691,650.00	
2026	211183	S/TIP Line items	Вау	MDOT	US-10 W	BCATS	6.998	Reconstruction	Reconstruct	CON	\$4,764,538	\$1,056,522	\$0	\$5,821,060	NH	\$47,144,267.00	
2026	213337	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes in BCATS MPO	3.256	Traffic Safety	Application of longitudinal pavement markings on trunklines in Bay Region	PE	\$1,584	\$176	\$0	\$1,760	HSIP	\$3,255,000.00	
2026	213337	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes in BCATS MPO, Al trunkline routes in BCATS MPO	3.256	Traffic Safety	Application of longitudinal pavement markings on trunklines in Bay Region	CON	\$256,212	\$28,468	\$0	\$284,680	HSIP	\$3,255,000.00	
2026	213338	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes in BCATS MPO	2.730	Traffic Safety	Application of special pavement markings on trunklines in Bay Region	PE	\$792	\$88	\$0	\$880	HSIP	\$440,000.00	
2026	213338	S/TIP Line items	Saginaw	MDOT	Regionwide	All trunkline routes in BCATS MPO	2.730	Traffic Safety	Application of special pavement markings on trunklines in Bay Region	CON	\$34,056	\$3,784	\$0	\$37,840	HSIP	\$440,000.00	
2026	213359	S/TIP Line items	Saginaw	MDOT	Bay Regionwide Pvmt Mrkg Retro Readings	All of BCATS MPO	23.843	Traffic Safety	Pvmt mrkg retroreflectivity readings on trunklines in Bay Region	CON	\$1,742	\$194	\$0	\$1,936	HSIP	\$22,000.00	
2026	214228	S/TIP Line items	Bay	ВМТА	Transit Operating	Areawide	0.000	SP3000- operating except JARC and New Freedom	FY 2026 Section 5307 - Operating Assistance	NI	\$1,496,388	\$1,855,936	\$1,661,340	\$5,013,664	5307	\$5,013,664.00	



Bay City Area Transportation Study (BCATS) Transportation Improvement Program (TIP) - FY 2023-2024-2025-2026

Final Report 24 June 2022

2026	214229	S/TIP Line items	Вау	ВМТА	Transit Capital	Areawide	0.000	SP1206-Bus terminal facility improvements	FY 2026 Section 5339 - Van Purchase & Bus Facilities		NI	\$27,007	\$6,752	\$0	\$33,759	5339	\$153,759.00	
2026	214229	S/TIP Line items	Вау	ВМТА	Transit Capital	Areawide	0.000	SP1105-van replacement, any size with or without lift	FY 2026 Section 5339 - Van Purchase & Bus Facilities		NI	\$96,000	\$24,000	\$0	\$120,000	5339	\$153,759.00	
2026	216421	S/TIP Line items	Вау	ВМТА	Transit Capital	Areawide	0.000	SP3000- operating except JARC and New Freedom	FY 2026 Sec. 5311 Operating		NI	\$389,313	\$389,313	\$0		5311	\$778,626	
2026	214371	S/TIP Line items	Вау	Bay City	E Smith St	from Joseph to Patterson	0.558	Reconstruction	Asphalt Reconstruction		CON	\$1,115,000	\$0	\$878,495	\$1,993,495	STUL	\$1,993,495.00	
2026	214516	S/TIP Line items	Вау	Bay City	W Smith St	from Henry to Joseph	0.761	Reconstruction	Asphalt Reconstruction	2026	CON	\$209,000			\$209,000	STUL	\$3,691,650.00	
2026	214516	S/TIP Line items	Вау	Bay City	W Smith St	from Henry to Joseph	0.761	Reconstruction	Asphalt Reconstruction	2026	CON	\$42,800			\$42,800	STP- Flex (Small MPO)	\$3,691,650.00	



Demonstration of Fiscal Constraint Table

Fund Source	Total Revenue	Federal Revenue	Federal Commitment	State Commitment	Local Commitment	Total Commitment
Fiscal Year - 2023						
Fiscal Year - 2023, Local MPO Based Constraints						
Carbon Reduction - Small MPO	\$154,000	\$154,000	\$0	\$0	\$0	\$0
STP - Small MPO	\$1,248,000	\$1,248,000	\$1,174,000	\$0	\$0	\$1,174,000
STP Flex - Small MPO	\$46,000	\$46,000	\$0	\$0	\$0	\$0
FY 2023, Local MPO Based Constraints Total	\$1,448,000	\$1,448,000	\$1,174,000	\$0	\$0	\$1,174,000
Fiscal Year - 2023, Local RTF Based Constraint						
STP - Rural/Flexible	\$810,000	\$603,000	\$603,000	\$0	\$207,000	\$810,000
FY 2023, Local RTF Based Constraint Total	\$810,000	\$603,000	\$603,000	\$0	\$207,000	\$810,000
Fiscal Year - 2023, MDOT Project Templates						
Bridge Replacement and Preservation	\$8,644,933	\$7,075,879	\$7,075,879	\$1,569,054	\$0	\$8,644,933
Road - Rehabilitation and Reconstruction	\$31,331,277	\$25,644,651	\$25,644,651	\$5,686,626	\$0	\$31,331,277
Traffic & Safety	\$5,109,091	\$5,073,301	\$5,073,301	\$35,790	\$0	\$5,109,091
Other	\$500,000	\$409,250	\$409,250	\$90,750	\$0	\$500,000
FY 2023, MDOT Project Templates Total	\$45,585,301	\$37,793,831	\$38,203,081	\$7,382,220	\$0	\$45,585,301
Fiscal Year - 2023, Transit Project Categories						
5307	\$4,724,487	\$1,410,079	\$1,410,079	\$1,748,890	\$1,565,518	\$4,724,487
5311	\$1,325,002	\$662,501	\$662,501	\$662,501	\$0	\$1,325,002
5339	\$153,759	\$123,007	\$123,007	\$30,752	\$0	\$153,759
FY 2023, Transit Project Categories Total	\$6,203,248	\$2,195,587	\$2,195,587	\$2,442,143	\$1,565,518	\$6,203,248
Fiscal Year - 2023 Grand Total	\$54,046,549	\$42,449,668	\$42,175,668	\$9,824,363	\$1,772,518	\$53,272,549
Fiscal Year – 2024						
Fiscal Year - 2024, Local MPO Based Constraints						
Carbon Reduction - Small MPO	\$157,000	\$157,000	\$0	\$0	\$0	\$0
STP - Small MPO	\$1,882,000	\$1,273,000	\$1,036,000	\$0	\$609,200	\$1,646,000
STP Flex - Small MPO	\$47,000	\$47,000	\$0	\$0	\$0	\$0
FY 2024, Local MPO Based Constraints Total	\$2,086,200	\$1,477,000	\$1,036,000	\$0	\$609,200	\$1,646,000



Bay City Area Transportation Study (BCATS) Transportation Improvement Program (TIP) - FY 2023-2024-2025-2026

Final Report 24 June 2022

Fiscal Year - 2024, Local Projects from Statewide Sources						
Bridge	\$246,000	\$196,800	\$196,800	\$36,900	\$12,300	\$246,000
STP - Flexible (Bridge)	\$151,000	\$120,800	\$120,800	\$22,650	\$7,550	\$151,000
FY 2024, Local Projects from Statewide Sources Total	\$397,000	\$317,600	\$317,600	\$59,550	\$19,850	\$397,000
Fiscal Year - 2024, MDOT Project Templates						
Road - Rehabilitation and Reconstruction	\$200,000	\$163,700	\$163,700	\$33,124	\$3,176	\$200,000
Traffic & Safety	\$357,896	\$322,106	\$322,106	\$35,790	\$0	\$357,896
Other	\$93,678,951	\$76,676,221	\$76,676,221	\$15,514,991	\$1,487,739	\$93,678,951
FY 2024, MDOT Project Templates Total	\$94,236,847	\$77,162,027	\$77,162,027	\$15,583,905	\$1,490,915	\$04,236,847
Fiscal Year - 2024, Transit Project Categories						
5307	\$4,818,977	\$1,438,281	\$1,438,281	\$1,783,868	\$1,596,828	\$4,818,977
5311	\$748,390	\$374,195	\$374,195	\$374,195	\$0	\$748,390
5339	\$153,759	\$123,007	\$123,007	\$30,752	\$0	\$153,759
FY 2024, Transit Project Categories Total	\$5,721,126	\$1,935,483	\$1,935,483	\$2,188,815	\$1,596,828	\$5,721,126
Fiscal Year - 2024 Grand Total	\$102,441,173	\$80,892,110	\$80,451,910	\$17,832,270	\$3,716,793	\$102,000,973
Fiscal Year - 2025						
Fiscal Year - 2025, Local MPO Based Constraints						
Carbon Reduction - Small MPO	\$161,000	\$161,000	\$0	\$0	\$0	\$0
STP - Small MPO	\$2,186,150	\$1,299,000	\$1,299,000	\$0	\$887,850	\$2,186,850
STP Flex - Small MPO	\$322,500	\$48,000	\$48,000	\$0	\$274,500	\$322,500
FY 2025, Local MPO Based Constraints Total	\$2,670,350	\$1,508,000	\$1,347,000	\$0	\$1,162,350	\$2,509,350
Fiscal Year - 2025, MDOT Project Templates						
Traffic & Safety	\$342,056	\$307,850	\$307,850	\$34,206	\$0	\$342,056
Other	\$4,805,000	\$3,932,892	\$3,932,892	\$872,108	\$0	\$4,805,000
FY 2025, MDOT Project Templates Total	\$5,147,056	\$4,240,742	\$4,240,742	\$906,314	\$0	\$5,147,056
Fiscal Year - 2025, Transit Project Categories						
5307	\$4,915,357	\$1,467,047	\$1,467,047	\$1,819,545	\$1,628,765	\$4,915,357
5311	\$763,358	\$381,679	\$381,679	\$381,679	\$0	\$763,358
5339	\$153,759	\$123,007	\$123,007	\$30,752	\$0	\$153,759
FY 2025, Transit Project Categories Total	\$5,832,474	\$1,971,733	\$1,971,733	\$2,231,976	\$1,628,765	\$5,832,474



Bay City Area Transportation Study (BCATS) Transportation Improvement Program (TIP) - FY 2023-2024-2025-2026

Final Report 24 June 2022

Fiscal Year - 2025 Grand Total	\$13,649,880	\$7,720,475	\$7,559,475	\$3,138,290	\$2,791,115	\$13,488,880
Fiscal Year - 2026						
Fiscal Year - 2026, Local MPO Based Constraints						
Carbon Reduction - Small MPO	\$164,000	\$164,000	\$0	\$0	\$0	\$0
STP - Small MPO	\$1,596,546	\$1,324,000	\$1,324,000	\$0	\$272,546	\$1,596,546
STP Flex - Small MPO	\$49,000	\$49,000	\$42,800	\$0	\$0	\$42,800
FY 2026, Local MPO Based Constraints Total	\$1,809,546	\$1,537,000	\$1,366,800	\$0	\$272,546	\$1,639,346
Fiscal Year - 2026, MDOT Project Templates						
Road - Rehabilitation and Reconstruction	\$28,102,232	\$23,001,677	\$23,001,677	\$4,746,701	\$353,854	\$28,102,232
Traffic & Safety	\$327,096	\$294,386	\$294,386	\$32,710	\$0	\$327,096
Other	\$4,140,002	\$3,388,591	\$3,388,591	\$751,411	\$0	\$4,140,002
FY 2026, MDOT Project Templates Total	\$32,569,330	\$26,684,654	\$26,684,654	\$5,530,822	\$353,854	\$32,569,330
Fiscal Year - 2026, Transit Project Categories						
5307	\$5,013,664	\$1,496,388	\$1,496,388	\$1,855,936	\$1,661,340	\$5,013,664
5311	\$778.626	\$389,313	\$389,313	\$389,313	\$0	\$778,926
5339	\$153,759	\$123,007	\$123,007	\$30,752	\$0	\$153,759
FY 2026, Transit Project Categories Total	\$5,946,049	\$2,008,708	\$2,008,708	\$2,276,001	\$1,661,340	\$5,946,049
Fiscal Year - 2026 Grand Total	\$40,324,925	\$30,230,362	\$30,060,162	\$7,806,823	\$2,287,740	\$40,154,725



Appendix C - List of Available Federal-Aid Highway and Transit Resources²

Highway Resources

Source	Purpose	Examples of Eligible Activities
Surface	Maintain and	Construction, reconstruction, or rehabilitation of highways,
Transportation	improve the federal-	bridges, and tunnels; transit capital projects, infrastructure-
Block Grant	aid highway system.	based intelligent transportation systems (ITS) capital
Program		improvements; border infrastructure; highway and transit
(STBG)		safety projects; traffic monitoring, management, and control
		facilities; non-motorized projects (including projects eligible
		under the former Transportation Alternatives Program); and
TT: 1 G G	D 11.1	bridge scour countermeasures.
Highway Safety	Decrease highway	Intersection safety improvements; pavement and shoulder
Improvement	deaths and injuries.	widening; rumble strips or other warning device;
Program (HSIP)		improvements for pedestrian or bicyclist safety or safety of persons with disabilities; Construction and improvement of a
		railway-highway grade crossing safety feature, including
		installation of protective devices; traffic calming features;
		elimination of a roadside hazard; and installation, replacement,
		and other improvement of highway signage and pavement
		markings, or a project to maintain minimum levels of retro-
		reflectivity, that addresses a highway safety problem
		consistent with a State Strategic Highway Safety Plan;
		roadside safety audits.
Congestion	Reduce emissions	Installing dedicated turn lanes; signal retiming,
Mitigation and	from transportation	interconnection, or actuation; constructing roundabouts; diesel
Air Quality	sources.	retrofits; projects to reduce single-occupant vehicle travel; new
Improvement		or reduced-headways transit routes. However, since Bay
Program		County is in attainment for Ozone under USEPA's recently
(CMAQ)		implemented 8-hour Ozone Standard, BCATS is not eligible
National	Maintain and	for CMAQ funds. Construction, rehabilitation, or reconstruction of highways,
Highway	improve the National	bridges, and tunnels; transit capital projects on the NHS;
Performance	Highway System	infrastructure-based intelligent transportation systems (ITS)
Program	(NHS) (i.e., state	capital improvements on the NHS; highway and transit safety
(NHPP)	trunkline roads or	projects on the NHS; certain bicycle and non-motorized
	principal arterials or	activities; and construction, rehabilitation, or reconstruction of
	above).	highways, bridges, and tunnels on federal-aid highways not on
		the NHS, as long as they are within the same corridor as a
		segment of the NHS.
Carbon	Projects that reduce	CRP activities include traffic monitoring, transit, non-
Reduction	carbon emissions.	motorized facilities, alternative fuel vehicle equipment, and

² Not intended to be an exhaustive list of all eligible activities.

_

Final Report 24 June 2022

Program		other carbon reduction measures.
Transportation	Used to improve the	Activities include non-motorized projects, preservation of
Alternatives	transportation system	historic transportation facilities, outdoor advertising control,
Program (TAP)	environment.	vegetation management in rights-of-way, and the planning and
		construction of projects that improve the ability of students to
		walk or bike to school. Funds are split between the state and
		various urbanized areas based on population.

Transit Resources

	Transit Resources				
Source	Purpose	Examples of Eligible Activities			
Sec. 5307	Funding for basic	Capital projects, transit planning, and projects eligible under			
Urbanized	transit capital needs of	the former Job Access Reverse Commute (JARC) program			
Area Formula	transit agencies in	(intended to link people without transportation to available			
Grants	urbanized areas.	jobs). Some of the funds can also be used for operating			
		expenses, depending on the size of the transit agency. One			
		percent of funds received are to be used by the agency to			
		improve security at agency facilities.			
Section 5310,	Improving mobility	Projects to benefit seniors and disabled persons when service			
Elderly and	options for seniors and	is unavailable or insufficient and transit access projects for			
Persons with	disabled persons.	disabled persons exceeding Americans with Disabilities Act			
Disabilities		(ADA) requirements. Section 5310 incorporates the former			
		New Freedom program.			
Section 5311,	Improving mobility	Capital, operating, and rural transit planning activities in			
Non-	options for residents	areas with under 50,000 total population.			
Urbanized	of rural areas.				
Area Formula					
Grants					
Section 5337,	Maintaining fixed-	Capital, maintenance, and operational support projects.			
State of Good	guideway transit	Recipients develop and implement an asset management			
Repair Grants	systems in a state of	plan. Half of Section 5337 funding is distributed by a formula			
	good repair.	accounting for vehicle revenue miles and directional route			
~		miles; half is based on ratios of past funding received.			
Section 5339,	Funding for basic	Replace, rehabilitate, and purchase buses and related			
Bus and Bus	transit capital needs of	equipment, and construct bus-related facilities.			
Facilities	transit agencies,				
	including construction				
	of bus-related				
	facilities.				



Appendix D - Financial and Operations and Maintenance Assumptions

Funding Growth Rates

These rates are not Year of Expenditure (i.e., inflation). Funding growth rates are the forecast of what is expected to be apportioned and/or allocated to the state and the MPOs. These funds are not indexed for inflation: There is no "cost of living" adjustment. Assumptions are made based on information known at a given point in time. What we know as we develop our current estimates is:

- 1. Michigan has seen very little growth in its federal-aid highway apportionment over the past couple of decades. Over the past 18 fiscal years, the state's apportionment has only increased, on average 2.47 percent per year. In recent years the average annual change in apportionment has been negative, with the ten-year average at -0.30 percent and the five-year average at -1.21 percent.
- 2. On December 4, 2015, the FAST Act was signed into law. The FAST Act authorizes \$305 billion in federal funding for the nation's surface transportation system over the next five years. The legislation breaks the cycle of short-term funding authorizations that have characterized the federal program for the past 10 years and, in covering nearly five full fiscal years, represents the longest surface transportation authorization bill enacted since 1998.
- 3. Reliance on non-transportation revenue to support investments in surface transportation is continued in the FAST Act. The FAST Act transfers \$70 billion from the federal General Fund into the federal HTF to ensure that all investments in highways and transit during the next five fiscal years are fully paid for. This brings the total amount of non-transportation revenue that has supported investments from the HTF during the past seven years to nearly \$145 billion.

Although the FAST Act has increased funding stability over the next five fiscal years, funding increases are modest at best. In keeping the modest increases outlined in the FAST Act, MDOT is recommending two percent per year funding increases between FY 2020 and FY 2023.

Recently, the Infrastructure Investment and Jobs Act (IIJA) was passed in November 2021. This legislation will provide \$550 billion over the next five years to various modes of transportation infrastructure. Below is a table illustrating the revenue estimates for the 2023-2026 TIP Development, which includes Carbon Reduction Program funding. Carbon Reduction Program is a new funding category in the IIJA that provides sub-allocated funding by urbanized areas, depending on status of the area.

Table 1: FY 2023-2026 TIP Revenues for TIP Development

Bay City MPO	Туре	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate
STBG Urban Program Area	Small MPO	\$1,248,000	\$1,273,000	\$1,299,000	\$1,324,000



STBG Flex	Small MPO	\$46,000	\$47,000	\$48,000	\$49,000
Program Type					
Carbon	Small MPO	\$154,000	\$157,000	\$161,000	\$164,000
Reduction		·	·	·	
Program					

Final Report 24 June 2022

Year of Expenditure (YOE) Rates

These rates represent the forecast of how much the cost of implementing transportation projects will increase each year, on average. In other words, YOE is the expected inflation rate in the transportation agencies' cost of doing business. YOE adjustments to project costs are essential to show the true relationship between costs and resources. In recent years, highway and transit agencies have been increasingly squeezed by this phenomenon, since the inflation rate on transportation costs have increased essentially around 2.47 percent, the inflation rate means that less work can be done per allocated dollar. When viewed from the point of view of purchasing power, the states and MPOs have experienced a sharp decline in funding resources.

Based on experience, MDOT, in cooperation with MTPA, will use the 4 percent YOE factor with 2021 as the base year. Chart 2 is an example that illustrates the difference between what BCATS will officially receive in STPBG Urban funding over the life of the FAST Act (i.e., nominal funding), and what that funding will be worth relative to the purchasing power of the base year (i.e., real funding) starting in 2023.

\$2,550 \$2,500 \$2,487 \$2,450 \$2,456 \$2, \$2,400 \$2,423 \$2,350 \$2,300 \$2,250 \$2,200 \$2,150 \$2,100 \$2,050 2023 2024 2025 2026 Fiscal Year Nominal Funding Real Funding

Chart 1: Nominal and Real Funding for Each Fiscal Year



Estimate of Operations and Maintenance (O and M) Costs on the Federal-Aid Highway System

Repair and improvements to capital assets are only part of the total cost of the federal-aid highway system. Operations and maintenance (O and M), defined as those items (other than repair/replacement of capital assets) necessary to keep the highway infrastructure functional for vehicle travel, is just as important. Federal-aid funds cannot be used for O and M, which covers activities like grass cutting, trash removal, and snow removal. However, federal transportation planning regulations require an estimate of those costs on the federal-aid highway system.

The O and M estimate was derived in the following manner:

- 1. MDOT's estimate of total O and M funding available for the state trunkline system throughout Michigan is approximately \$599 million annually.
- 2. The total lane miles for the entire state trunkline system are determined and used as the denominator in the fraction \$599 million/Total State Trunkline Lane Miles to determine a per-lane-mile cost.
- 3. Approximately 1.0 percent of the lane miles in the state trunkline system are in the BCATS Planning Area.
- 4. Assuming a roughly equal per-lane-mile operations and maintenance cost throughout the state trunkline system, MDOT should spend approximately \$ 6.6 million annually in the BCATS Planning Area on these activities.
- 5. The per-lane-mile cost will also be applied to locally owned roads on the federal-aid-highway system.
- 6. The sum of costs from Steps 4 and 5 will constitute the required O and M estimate.
- 7. This base estimate is adjusted according to the inflation factors noted above in each fiscal year, since this is the *cost* of O and M, not a particular funding *source*.