

SAULT STE. MARIE BRIDGE AUTHORITY

BUSINESS PLAN
2021-2025

December 31, 2020

ACKNOWLEDGMENTS

In accordance with the Intergovernmental Agreement for the International Bridge, the Sault Ste. Marie Bridge Authority (SSMBA) and the International Bridge Administration (IBA) have prepared this five year business plan to guide the management and operations of the International Bridge, located in Sault Ste. Marie, Ontario, and Sault Ste. Marie, Michigan. This document describes the history, the mission, organizational structure, and operations of the International Bridge.

The plan documents the relationship SSMBA and IBA have with federal, state, provincial, local public and private agencies, that are critical to the successful achievement of governance and operational goals.

SSMBA and IBA wish to recognize the leadership, dedication, and expertise that have been provided by the International Bridge Authority, Joint International Bridge Authority, and bridge staff over the past fifty-eight years. Through their efforts, the International Bridge continues as a successful venture in international cooperation, social and economic development, and linking together the people of two great countries.

The International Bridge Administration (IBA) wishes to acknowledge and recognize the invaluable assistance received from both the Michigan Department of Transportation (MDOT) and The Federal Bridge Corporation Limited (FBCL) in administering the 2019 asset management programs.

The preparation of this report was accomplished with the dedication and cooperation of many people. We would, therefore, like to express our sincerest appreciation for the assistance given by the Sault Ste. Marie Bridge Authority (SSMBA) Board of Directors, as well as the many IBA staff who have contributed to its preparation. This is a living document that enables SSMBA, MDOT, and FBCL to plan for the future of the Bridge and its continued place in the communities of Sault Ste. Marie, Ontario and Michigan as a means to providing safe, pleasurable, affordable, and expedient passage between Sault Ste. Marie, Ontario and Sault Ste. Marie, Michigan.

We would like to recognize the Bridge Administration team who participated in critical roles in developing this report: Peter Petäinen, Karl Hansen, Emily Jacques, Cheryn Sanford, Marcus Eidenier, Fiore Cappelli, Suzanne Moreau and Holly Bishop.

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

SSMBA	Sault Ste. Marie Bridge Authority	CP	Canadian Pacific Railway
MDOT	Michigan Department of Transportation	CN	Canadian National Railway
FBCL	Federal Bridge Corporation Limited		
IBA	International Bridge Administration		
DHS	Department of Homeland Security	USD	U.S. Dollar
CBP	U.S. Customs and Border Protection	CDN	Canadian Dollar
CBSA	Canada Border Services Agency	FAST	Free and Secure Trade
OPP	Ontario Provincial Police	NEXUS	Pre-approved joint Canada-United States traveler program
FHWA	Federal Highway Administration	ERP	Emergency Response Plan
		HST	Harmonized Sales Tax
TC	Transport Canada	AMP	Asset Management Plan
MTO	Ontario Ministry of Transportation		
FEDNOR	Federal regional development organization in Ontario		
DTMB	Department of Technology, Management and Budget		
CLMCCA	Chippewa Luce Mackinac County Community Action		

EXECUTIVE SUMMARY

The Sault Ste. Marie Bridge Authority (SSMBA) business plan is presented in accordance with the Intergovernmental Agreement for the International Bridge, September 1, 2009. The Authority’s business plan, read in conjunction with the Authority’s annual audited financial statements, and interim quarterly financial reports, represent the Authority’s expected financial status during the fiscal period 2021—2025. Unless indicated otherwise, all dollar amounts are reported in US currency.

EXECUTIVE SUMMARY

The proposed 2021-2025 Business Plan is based on best current available data used to prepare the estimated revenues and proposed expenditures. The plan may be subject to significant amendment during the 2021 fiscal year to account for unplanned changes resulting from an extended COVID-19 closure of the Canadian/U.S. border to non-essential travel.

The business plan includes the policy and governance, strategic objectives, partnerships, customer characteristics, asset management and capital projects planning, financial operations, the 40-year capital plan, and 30-year long range financial plan. Respective projected budgets by department and accounts, are included.

The fund balances below represent the Bridge Administration’s minimum operating fund balances, reserved fund balances, and respective owner reserve account fund balances throughout the planning period.

This document provides a historical perspective on traffic and revenues since 1980 to help frame the organization’s strategic objectives, and implementation strategies for the next five years. SSMBA and IBA present financial projec-

tions for the five year business plan period 2021-2025, and the thirty year 2021-2051 long range financial plan period.

The complete 5 year business plan may be reviewed on page 25.

Proposed 2021 budget is presented as a calendar fiscal year budget. Budgets are approved annually, and expire at the end of each fiscal year.

The budgets for 2021-2025 are presented for planning and informational purposes within the 5-year planning period.

The information summarized below for the budgetary periods for the Sault Ste. Marie Bridge Authority are presented in detail beginning on page 26.

The financial position reported herein is presented in accordance with the terms and conditions established in the Intergovernmental Agreement of September 1, 2009.

The original construction debt for the bridge and appurtenances has been paid. However, preventive maintenance and capital maintenance costs escalate with an aging bridge. With implementation and emphasis on in-house preventative asset management, \$33.7 million in capital projects have been deferred outside of the 5-year business planning period.

	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
Revenue Fund	\$330,495	\$290,157	\$248,408	\$205,197	\$160,474
Capital Fund	\$1,152,507	\$1,192,844	\$1,234,594	\$1,277,805	\$1,322,528
MDOT Capital Fund (owner’s reserve)	\$388,409	\$1,615,634	\$1,458,094	\$1,581,841	\$1,806,610
FBCL Capital Fund (owner’s reserve)	<u>(\$1,035,135)</u>	<u>\$192,090</u>	<u>\$34,550</u>	<u>\$158,297</u>	<u>\$383,066</u>
Fund Balance - Ending	<u>\$836,275</u>	<u>\$3,290,726</u>	<u>\$2,975,646</u>	<u>\$3,223,141</u>	<u>\$3,672,678</u>

SAULT STE. MARIE BRIDGE AUTHORITY

FIVE YEAR BUSINESS PLAN
2021—2025

Policy & Governance

Mission Statement

SSMBA and IBA have adopted the following mission statement, which is based on a vision and core set of values that will guide bridge operations and planning.

“The Sault Ste. Marie Bridge Authority and the International Bridge Administration are committed to the safe and efficient movement of people and goods across the International Bridge between Sault Ste. Marie, Ontario and Sault Ste. Marie, Michigan. The International Bridge is an asset which must be maintained and preserved to protect the mobility of local, state and provincial residents, and to promote U.S. and Canadian trade, tourism and regional economic development.”

Vision

We will meet our customers’ most important needs by providing safe, pleasurable, affordable, and expedient passage between Sault Ste. Marie, Ontario and Sault Ste. Marie, Michigan.

Values

Our mission is based on these values:

- | | |
|-----------------------|--|
| Quality | Achieving our best within our resources. |
| Teamwork | Effectively involving SSMBA, IBA, MDOT, FBCL, federal, state, provincial, local public officials, and our customers. |
| Customer focus | Knowing our customers and understanding their needs. |
| Responsibility | For the care of the International Bridge and its employees. |
| Integrity | Doing what is right. |
| Pride | In the International Bridge and the importance of overseeing, managing, operating and maintaining it. |

POLICY & GOVERNANCE

Sault Ste. Marie International Bridge

The Sault Ste. Marie International Bridge connects the cities of Sault Ste. Marie, Ontario with Sault Ste. Marie, Michigan. The International Bridge is owned by the Michigan Department of Transportation (MDOT) and The Federal Bridge Corporation Limited (FBCL). The bridge is operated under the terms of an Intergovernmental Agreement (Agreement) between MDOT and FBCL, through the Sault Ste. Marie Bridge Authority (SSMBA). SSMBA provides operational and policy oversight for the management of the bridge, consisting of eight persons. The four U.S. members are appointed and serve at the pleasure of the Governor of Michigan. The four Canadian members are appointed by the FBCL.

The SSMBA’s responsibilities include: approving bridge tolls, operating budgets and business plans, rules for the use of the bridge and related properties, approval of the acquisition of property, capital investments on the bridge and related properties, and oversight of the investment of the bridge reserve fund, and levels of insurance, as provided by the Agreement.

The International Bridge Administration (IBA), is responsible to SSMBA. IBA is a separate administrative entity within MDOT, whose staff is composed of both Canadian and American residents. IBA performs the day-to-day operations necessary to keep

the bridge open to traffic twenty-four hours per day, year-round, and carries out the business plans and budgets approved by the SSMBA. Operations includes toll collections, bridge maintenance, capital improvements, and infrastructure security. As well IBA provides a wide range of other customer services necessary to ensure the efficient and safe movement of people and goods between Michigan and Ontario.

Sault Ste. Marie is the only vehicular crossing between Ontario and Michigan within a 349 mile radius. The communities as served by the bridge include populations of 13,700 for the City of Sault Ste. Marie, Michigan, and 66,300 for the City of Sault Ste. Marie, Ontario.

SSMBA Board of Directors and officers in place at the time of Board adoption of this plan are as follows:

Sault Ste. Marie Bridge Authority

Board of Directors

Canadian Representatives

Ms. Natalie Kinloch

(2020 Vice Chair)
Apple Hill, ON

Mr. Warren Askew

Sarnia, ON

Mr. Thye Lee

Ottawa, ON

Mr. Anthony Pickett

Ottawa, ON

Michigan Representatives

Ms. Linda Hoath

(2020 Chair)
Sault Ste. Marie, MI

Mr. Thomas Buckingham Sr.

Newberry, MI

Mr. Scott Shackleton

Sault Ste. Marie, MI

Mr. Nicholas White

Petoskey, MI

POLICY & GOVERNANCE**History of the Bridge****International Bridge Authority**

The International Bridge Authority (IBA) was created by the State of Michigan in 1935, and given approval for an international crossing by an Information Act of Congress in 1940, with subsequent Acts extending the deadline. In 1955, the Canadian Parliament created the St. Mary's River Bridge Company (SMRBC) and granted it rights to construct an international crossing.

In 1960, the SMRBC assigned its rights to IBA. The Michigan State Highway Department, now known as the Michigan Department of Transportation (MDOT), agreed to construct the Michigan approach to the bridge for approximately \$4 million. This tied the bridge into the interstate freeway system, with federal funds financing 90 percent of the project. The International Bridge was designed by Dr. Carl Gronquist of the consulting engineering firm Steinman, Boynton, Gronquist and London, and cost \$16 million to construct. The bridge was financed by two series of bonds. Series A bonds totaling \$8.4 million (USD) were sold to private investors and were retired in 1983. Series B bonds totaling \$7.85 million (USD) were bought by the Province of Ontario, and were retired on September 1, 2000. The International Bridge was officially opened to traffic on October 31, 1962.

Prior to 1962, the only forms of transportation across the St. Mary's River, that separates the two cities, were ferries and a railroad bridge built in 1887.

IBA had three members from Michigan and two representatives from SMRBC. The Authority served as the decision making body for the bridge until September 1, 2000, when the bonds were retired and ownership of the bridge reverted to the State of Michigan and the SMRBC.

Joint International Bridge Authority

On September 1, 2000, a forty-year "Intergovernmental Agreement for the International Bridge," established a new operating framework for the bridge. The agreement between MDOT and SMRBC provided for an equal Canadian/American partnership in the governance, management, operations, and financing of the bridge. The operating model functioned under the governance of the Joint International Bridge Authority (JIBA) Board of Directors, consisting of three Michigan and three Canadian members.

In 2009, the SMRBC became a wholly-owned subsidiary of The Federal Bridge Corporation Ltd., a Canadian Crown corporation.

Sault Ste. Marie Bridge Authority

The Intergovernmental Agreement revision of September 1, 2009, established a modified governance and financial account-

ing structure. SSMBA, an eight member Board of Directors made equally of Michigan and Canadian representation, replaced JIBA.

On February 1st, 2015, a new Canadian parent Crown corporation, also named The Federal Bridge Corporation Limited (FBCL), was established through the amalgamation of its subsidiaries, including St. Mary's River Bridge Company (SMRBC). The amalgamation relieved the SMRBC Board of Directors of their duties and closed 60 years of dedicated service.

The fundamental operating and management principles established in the Agreement include:

- The bridge will be operated on a not-for-profit basis, and all revenues dedicated and used exclusively for the cost of operating, repairing, improving and administering the bridge and related facilities.
- The bridge will strive to be financially self-supporting with all administrative, operating, maintenance, and capital improvements paid out of toll and other bridge revenues.
- Separate owner reserve accounts for MDOT and FBCL, for future maintenance and capital improvement projects.
- The tolls in the currency of Canada will be established so as to achieve equivalency with United States currency under prevailing official currency exchange rates. (Intergovernmental Agreement Article X)
- Taxes or assessments paid directly to a Canadian local unit of government, an equal sum will be paid by the bridge to the equivalent Michigan local unit of government.
- The bridge will strive for balance in awarding contracts to Michigan and Ontario firms.

POLICY & GOVERNANCE

Partnerships

A wide range of Canadian and U.S. federal, state, provincial, and local public and private agencies partner with IBA in fulfillment of its responsibilities. These include, on the American side: U.S. Environmental Protection Agency, General Services Administration, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Army Corps of Engineers, U.S. Coast Guard, U.S. Department of Agriculture, Michigan State Police, Michigan Occupational Safety and Health Administration, Michigan Department of Natural Resources, Michigan Department of Environmental Quality, Michigan Department of Technology Management and Budget, Chippewa County, and the City of Sault Ste. Marie, Michigan.

On the Canadian side, IBA interacts with: Canada Border Services Agency, Canadian Environmental Assessment Agency, Environment Canada, Transport Canada, Parks Canada, Ontario Ministry of Transportation, Ontario Ministry of Economic Development and Trade, the Ontario Ministry of Labor, Ontario Ministry of Public Works, the Royal Canadian Mounted Police, the Ontario Provincial Police, and the City of Sault Ste. Marie, Ontario.

The bridge itself is located on easements over property owned by other agencies. These include: the U.S. Army Corps of Engineers, Parks Canada, and the cities of Sault Ste. Marie, Ontario and Michigan.

Safety for both customers and employees is a high priority for IBA. In this regard, IBA maintains positive relationships and emergency response coordination with local Ontario and Michigan agencies such as the police departments, fire departments, and ambulance services as outlined in the IBA “Emergency Response Plan”.

IBA actively supports local activities and events to strengthen and unite the two communities. For example, annually on the last Saturday in June, IBA hosts a bridge walk sponsored by the Sault Ste. Marie Ontario and Michigan Chambers of Commerce, in conjunction with the U.S. Army Corps of Engineers “Engineer’s Day” Locks Festival.

IBA also annually hosts the War Memorial Hospital Sault International Festival of Races event on the last Saturday in September of each year. The running event draws hundreds of runners to an assortment of distance runs involving a 5K, bridge run 10K, and a 1/2 marathon. The course includes running north across the bridge to the Canadian plaza and turning around to run back.

IBA also provides speakers to local civic and governmental groups to provide information on bridge operations, and seeks to support community events when asked to participate. IBA maintains a continuing partnership with the City of Sault Ste. Marie Michigan and MDOT to maintain the Community Action

Agency “Bridge Bus”. The Bridge Bus provides a barrier free transportation link between the two communities. The partnership includes subsidizing the bus toll fare and a proportional one-third financial share of the transportation agency’s funding shortfall for operational costs not directly supported by bus ridership fares.

IBA helps to promote the local economy as well as have positive relations with the local communities. IBA is represented on the Sault Ste. Marie, Ontario and Michigan Chambers of Commerce, and the Sault Ste. Marie Ontario Transportation Infrastructure Task Force. IBA also conducts limited bridge tours for area civic, professional, and student groups.

IBA leases access rights. These include: access rights to the plazas for adjacent duty-free stores and telecommunications conduit usage on the bridge.

POLICY & GOVERNANCE

International Bridge Administration

IBA is managed by a General Manager, responsible for the MDOT employees assigned to IBA, under the supervision of the Chief Administrative Officer of MDOT. Under the terms of the *Intergovernmental Agreement*, all IBA personnel are MDOT employees. The staffing goal is to have balanced U.S. and Canadian resident employment. The staffing level for the International Bridge is 35 full time employees, with additional seasonal employees as determined by the planned capital and routine maintenance projects.

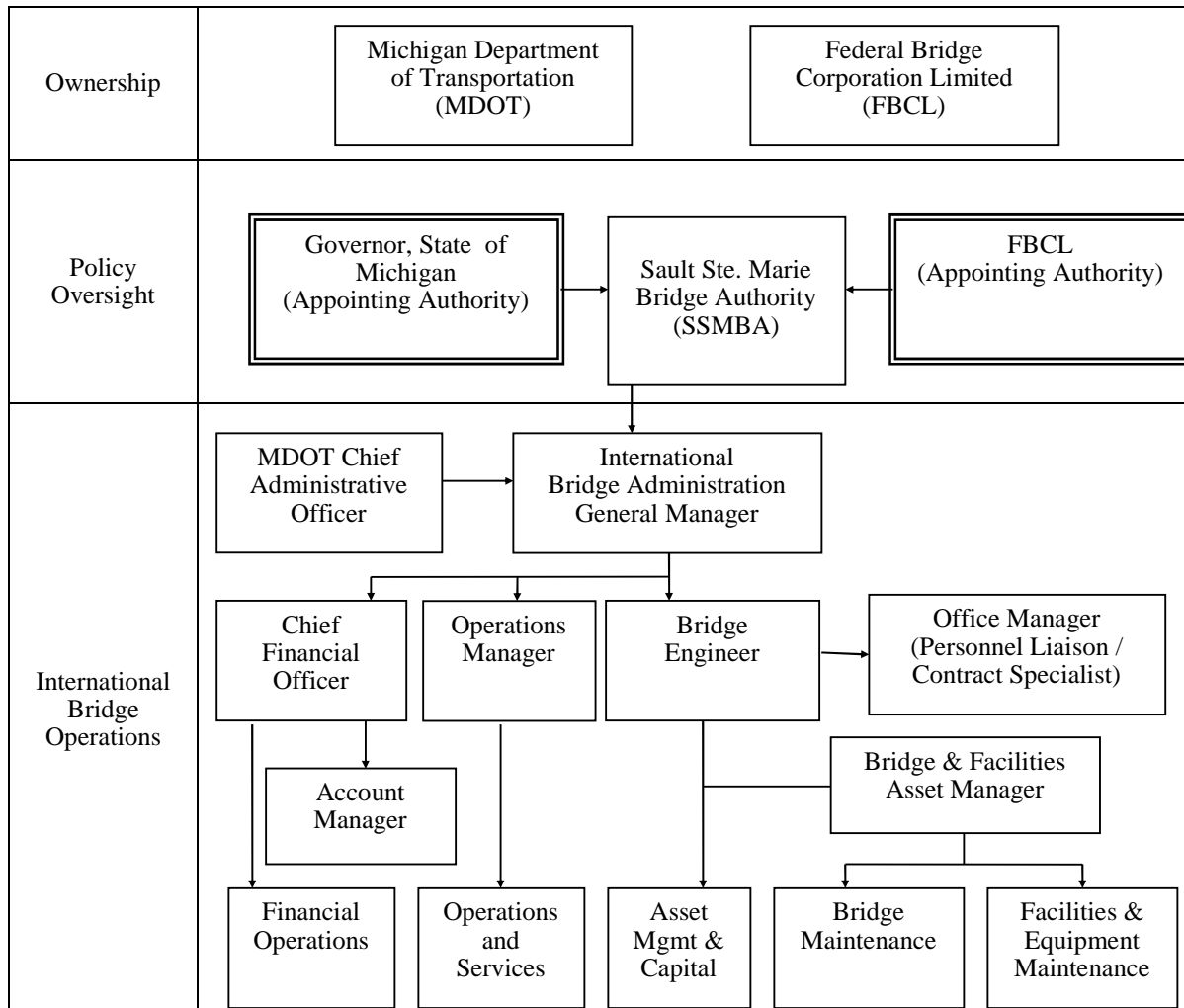
Additionally, IBA receives supportive services from MDOT including: human resources, planning, payroll, contracting, engineering, and information technology assistance. IBA determines current staffing levels based on the functions needed to deliver the annual construction and preventive maintenance program.

The management team for the IBA finance department includes the Chief Financial Officer, who is responsible for all the finance and budget functions.

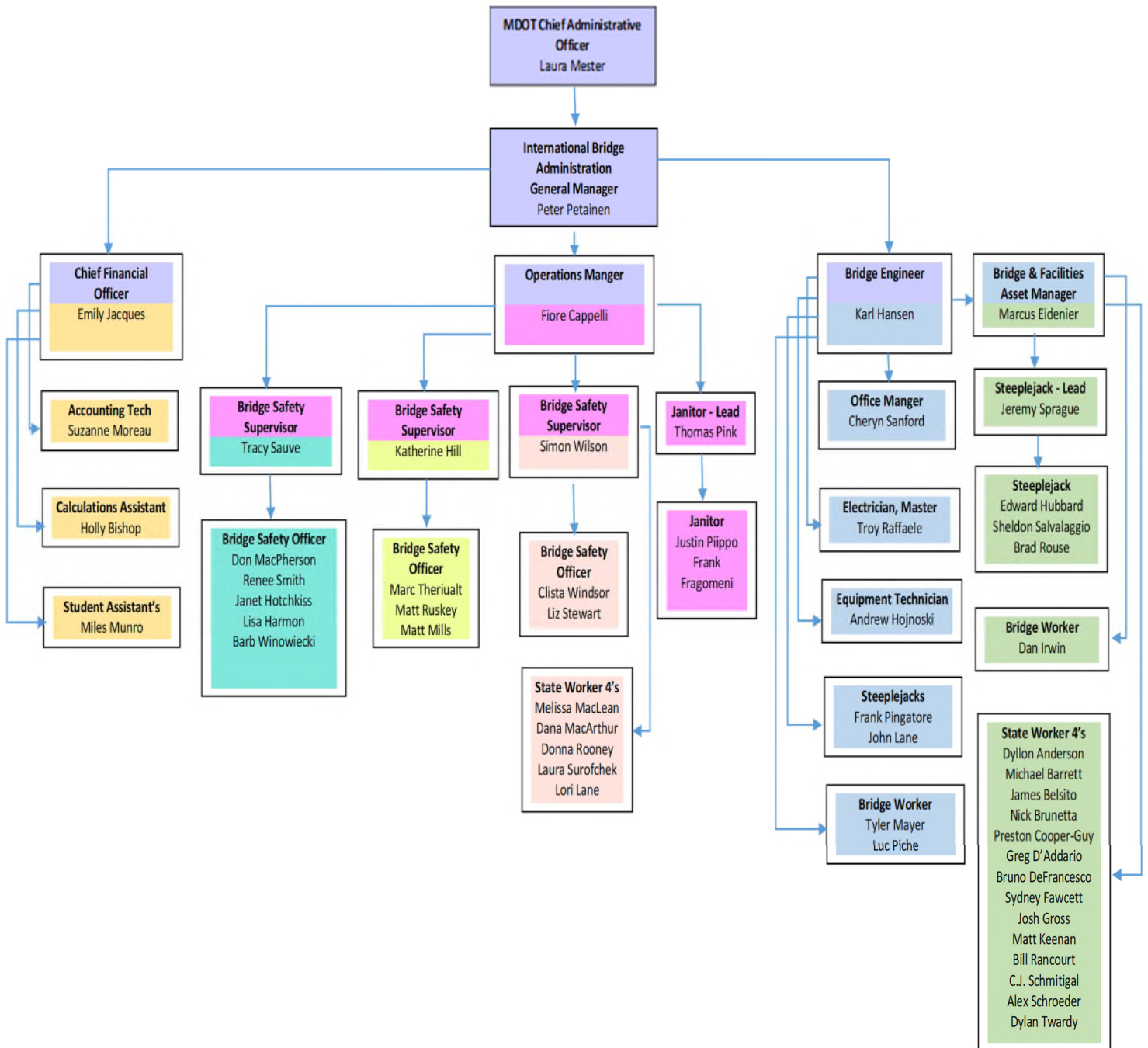
The operations and services department includes the Operations Manager, who oversees the day-to-day toll and traffic management.

The Bridge Engineer is responsible for managing capital projects and all the maintenance functions. Day-to-day maintenance responsibilities are under the supervision of a Bridge and Facilities Asset Manager for the ongoing asset management of the bridge. This also includes the toll plaza, the Canada Border Services Agency (CBSA) plaza and the various building and inspection facilities for CBSA on the Canadian plaza. Facilities include: office buildings, maintenance buildings, CBSA traffic and commercial buildings, inspection booths, and all traffic movement areas.

The Office Manager is responsible for all personnel transactions and human resource coordination.



POLICY & GOVERNANCE



Strategic Objectives

STRATEGIC OBJECTIVES

Strategic Areas of Focus

Leadership

Align the organization to carry out SSMBAmision, achieve the vision and demonstrate the values.

Customer-Centered

Understand our customers' most important needs to achieve a more customer-focused agency that results in better service and lower cost.

System Focus

Provide cost-effective, integrated and sustainable solutions in the maintenance of the bridge and plaza facilities.

Safety & Security

Ensure the International Bridge structure is safely maintained, and ensure the safety of staff through incorporation of safety in all our maintenance and operational efforts.

Partners

Foster and sustain partnerships to optimize operations and achieve customer-centered results.

Innovative & Efficient

Move people and goods through better customer-centered services and performance-driven decision-making.

Workforce

Recruit, develop, and retain a high-performing workforce.

STRATEGIC OBJECTIVES**Customer Services**

Key services provided in our Strategic Objectives to International Bridge customers include:

Leadership

- Establish clear, measurable and aligned performance goals and desired outcomes across the organization.
- Regularly evaluate organizational performance and adjust direction as necessary.
- Work closely and communicate through community engagement with both cities and regional indigenous groups on issues of common interest.
- Play an active role in the local Chambers of Commerce and Economic Development Agencies.
- Provide information, as requested, to MDOT, FBCL, Transport Canada, and FHWA concerning proposed federal, state, and provincial policies or proposed policies that would impact the operations of the International Bridge.

Customer-Centered

- Align our programs and services to be responsive to customer feedback.
- Be accountable and transparent to our customers through tracking and reporting key performance metrics.
- Provide timely information to users concerning toll rates, bridge operations, bridge or plaza construction, traffic conditions.
- Provide public views of current bridge traffic conditions:
 - www.saultbridge.com;
 - www.twitter.com/saultbridge.
- Maintain an efficient toll payment program.
- Ensure that IBA services are timely and cost effective.
- Evaluate the scope and level of services provided to determine viability of existing, expanded, or new services.
- Work with CBP and CBSA to minimize user delays to customers.

System Focus

- Apply asset management principles to prioritize and implement the most cost-effective transportation investment strategies.
- Implement capital improvement projects as identified and scheduled by the consulting engineer.
- Plan maintenance and capital projects to minimize traffic delays and lane closures.
- Maintain tolls at affordable levels while ensuring adequate levels of current services, and meeting long-term operating, maintenance, and capital needs.
- Ensure toll equity for Canadian and American customers by mandatory currency equity in terms of the currency exchange rules as per the Intergovernmental Agreement.
- Seek input from our customers and partners on proposed infrastructure improvements and operational improvements.

Safety & Security

- Foster communications, coordination and collaboration with our public and private safety partners to achieve the goal.
- Prioritize IBA safety investments to provide safe and efficient access year-round.
- Conducting annual, fracture critical and underwater inspections to protect the safety of the bridge as required by U.S. and Canadian law.
- Ensure customers safe passage over the bridge.
- Assist stranded motorists on the bridge.
- Provide snow removal, and ice control for the bridge and Customs plazas.
- Provide Commercial vehicle escorts for:
 - over-sized commercial trucks;
 - wind-susceptible vehicles during high winds;
 - placarded trucks carrying hazardous material.
- Coordinate with law enforcement and emergency service agencies.

STRATEGIC OBJECTIVES**Safety & Security (continued)...**

- Improve security of bridge facilities and operations:
 - Pro-actively address security issues;
 - Maintain a security patrol program;
 - Participate in infrastructure security assessment studies to evaluate existing conditions, and recommend future improvements.
- Implement viable improvements to decrease threats and mitigate vulnerabilities, based on risk reduction benefit analysis.
- Participate in emergency preparedness and planning, in cooperation with local emergency response agencies.
- Review, update, and test the IBA Emergency Response Plan.
- Coordinate and test dry hydrant risers yearly with local fire department resources.

Innovative & Efficient

- Pursue innovations, transformational changes and organizational efficiencies and optimize the contribution to transportation investments the economies of Michigan and Ontario.
- Manage performance to provide value and better customer-centered results.
- Maintain management systems and records in compliance with all federal, state, and provincial laws and regulations.
- Maintain adequate insurance coverages.
- Maintain a long range capital and financial plan for preserving the bridge and its appurtenances.
- Lease Authority properties and facilities, where applicable, to enhance revenue.
- Identify alternative sources of revenue.

Workforce

- Value, engage and empower our employees at all levels of the organization.
- Use workforce planning to increase flexibility in the workplace.
- Target employee development to improve organizational performance, with a focus on customer service.
- Provide, and track, employee participation in ongoing employee training and development opportunities.
- Provide equal opportunity for U.S. and Canadian employee advancement.
- Value, engage and empower our employees at all levels of the organization.
- Effectively administer the workforce and succession planning.

Partners

- Prioritize and strengthen partnerships that create organizational efficiencies and optimize the contribution of bridge investments to the economies of Sault Ste. Marie Ontario and Michigan.
- Provide adequate facilities to support Canadian Border Service Agency operations, per Section 6 regulations.
- Facilitate local support for the Chippewa Luce Mackinac County Community Action Agency (CLMCCA) bridge bus operation.
- Support local special events:
 - Annual International Bridge Walk;
 - Sault International Festival of Races.
- Coordinate facility and operations with the U.S. General Services Administration (GSA) and USCBP on the U.S. plaza.
- Coordinate with FBCL operational oversight of the Canadian plaza and facilities.
- Communicate regularly with custom officials on issues affecting bridge operations, including but not limited to:
 - hiring of employees;
 - bridge and traffic issues and back-ups;
 - security monitoring and incident responses.
- Communicate regularly with public and private agencies served by IBA.
- Maintain partnerships with other international bridge crossings.

STRATEGIC OBJECTIVES

The IBA adopted the MDOT House, designed to address these challenges by:

- Developing current and future leaders.
- Assessing and adjusting roles and staffing to address future needs.
- Capturing wisdom and information to equip our workforce.
- Recruiting, developing and maintaining top talent.
- Setting you up for success in your current position and future career opportunities.

Why? Our work is changing as so is our workforce.



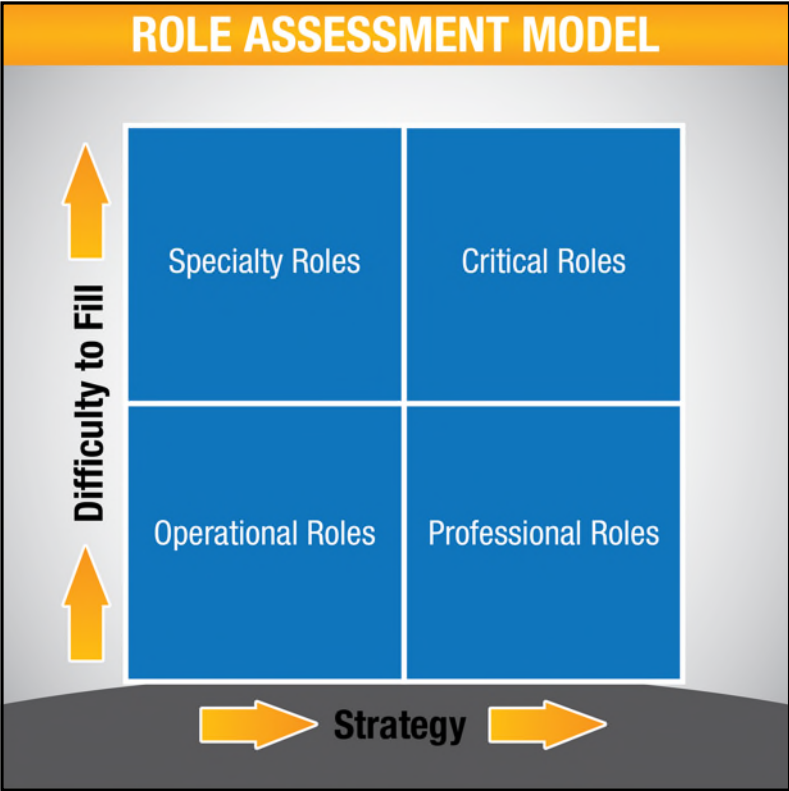
MDOT workforce demographics:

- **40%** - 50 Years and older are eligible to retire in the next 5 years.
- **40%** - Between 35 and 49 with experience and 401K plans makes them attractive to other employers, and less tied to the department.
- **10%** - 35 Years and younger are of an age group that doesn't spend their entire career in one place.
- **10%** - Transitional phase employees between the other categories.

Represents the skills, competencies and behaviors essential for all MDOT leaders to demonstrate, ensuring the Agency's current and future success.



STRATEGIC OBJECTIVES

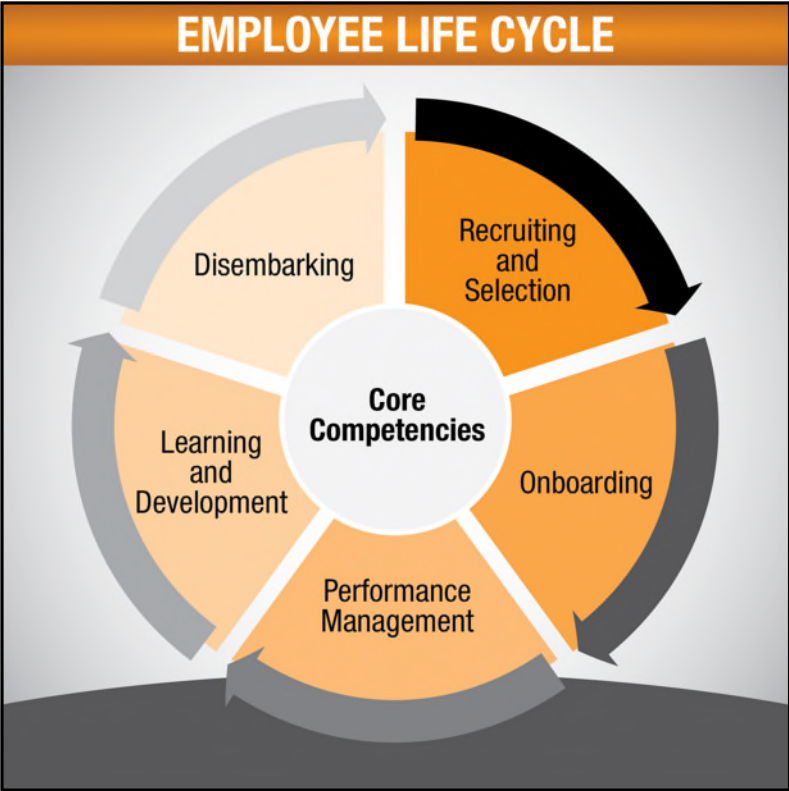


A framework to analyze the organization’s jobs/roles based on their relation to the strategy and the difficulty of finding candidates to fill the jobs/roles. The framework provides leaders with a methodology to prioritize and create plans to mitigate talent risks.

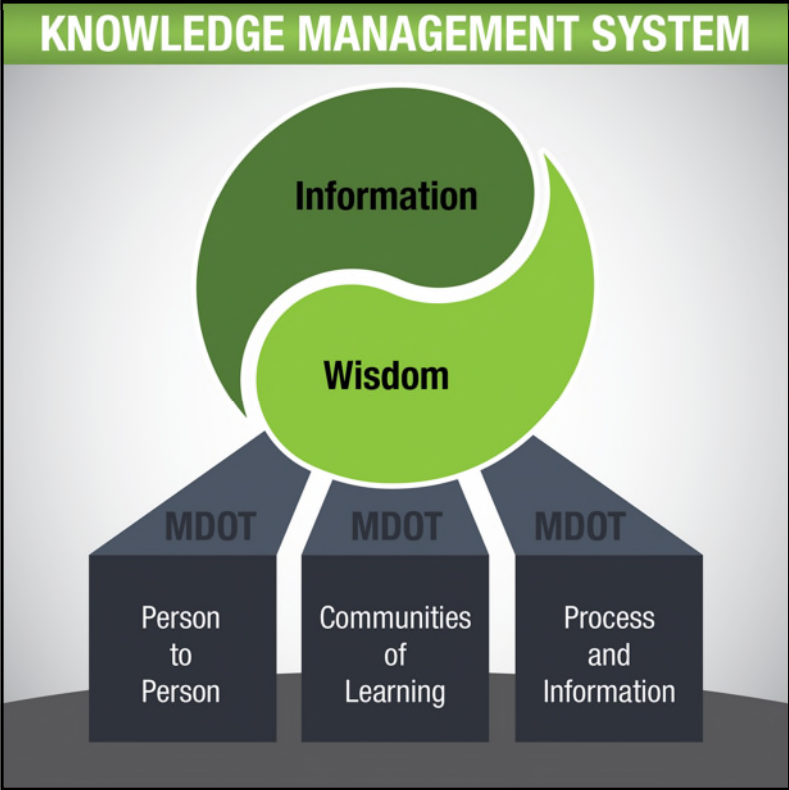


A process that engages leaders in discussing employee’s strengths, areas for development and action plans as part of the succession planning system.

STRATEGIC OBJECTIVES



A set of practices and processes that build, leverage and sustain the intellectual capital of the agency.



Represents the phases of an employee’s experience from entry to exit.

Customer Characteristics

CUSTOMER CHARACTERISTICS

Customer Characteristics

Customer Profile

The census population in 2016 for Sault Ste. Marie, Ontario, was 66,313¹. Sault Ste. Marie, MI was 13,552². An MDOT 2015 Origin / Destination study conducted, indicates approximately 80% of bridge users are Canadian. Local Sault Ste. Marie, MI retail outlets, through the Chamber of Commerce, estimate that greater than 30% of customer sales are Canadian.

Traffic Summary

International Bridge traffic averages 1.84 million crossings annually. Annual traffic volumes are heavily dependent on both changes in the economic conditions and populations of the local communities, as well as any significant currency fluctuation in the Canadian/U.S. exchange rate. Annual Percentage changes in traffic as

compared to percentage changes in the Canadian/U.S. exchange rate are illustrated in Figure 2.

In fiscal year 2019, 1.35 million vehicles crossed the International Bridge. This included 1.21 million cars and motorcycles, and 135,191 trucks and buses. Approximately 49.9% of the auto traffic took advantage of the discounts offered through the bridge’s I.Q. Prox (RFID) commuter card program. Account usage is comparable to the population of the respective communities, with 84% of active accounts being Canadian currency and 16% U.S. currency.

While commercial trucks represented 6.4% of the crossings, they accounted for 33.0% of toll revenue. The most prevalent were trucks with five axles and large rigs with nine or more axles, reflecting the regions reliance on timber, paper, steel, and other heavy industries.

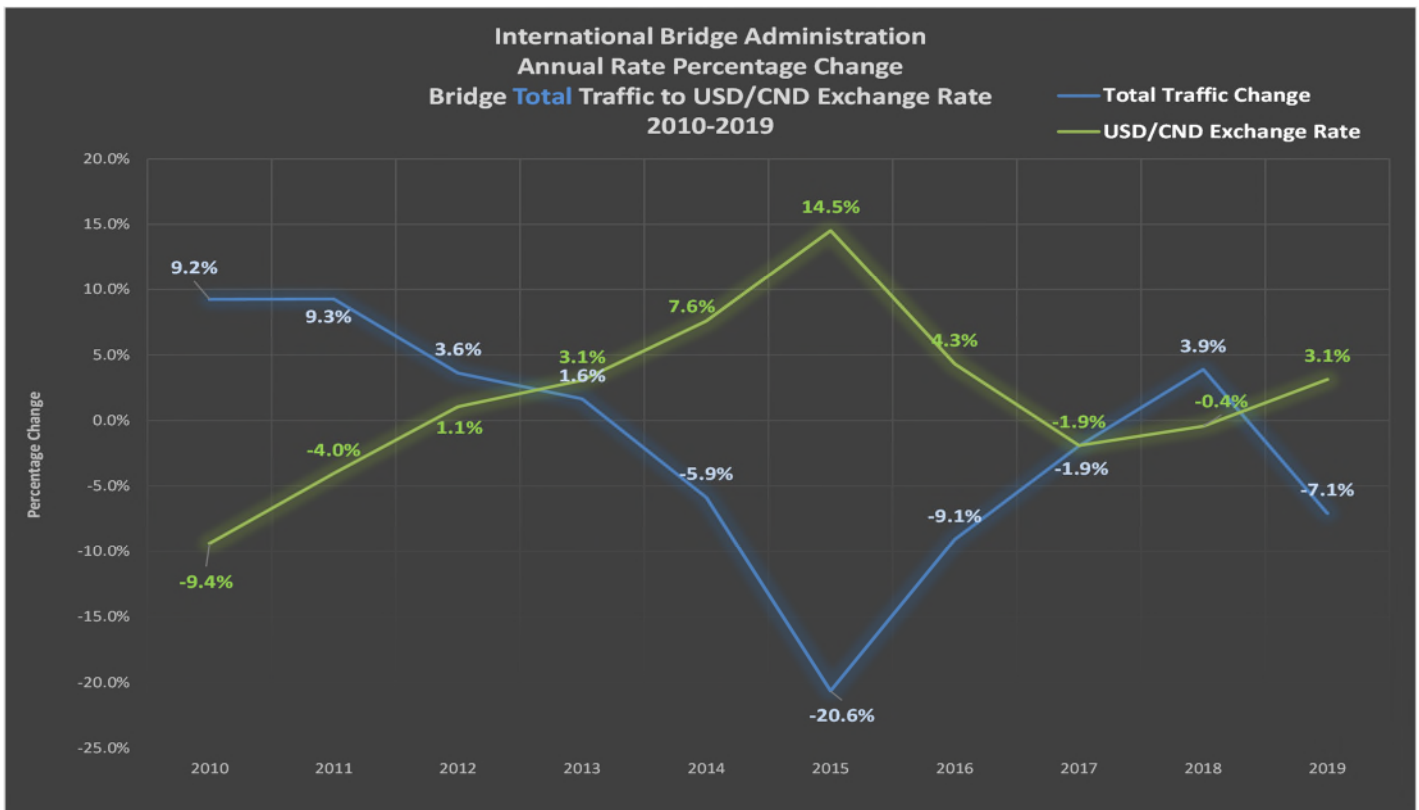


Figure 2: Percent Change in Average Bridge Traffic & Exchange Rate

- 1 Statistics Canada. 2017. Sault Ste. Marie [Population centre], Ontario and Ontario [Province] (table). Census Profile. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released May 3, 2017. <http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E> (accessed July 31, 2017).
- 2 United States Census Bureau. Sault Ste. Marie [Population centre], Michigan. Census Profile. July 1, 2018. <https://www.census.gov/quickfacts/fact/table/saultstemariemichigan/PST045218>

CUSTOMER CHARACTERISTICS

Passenger Vehicle Profile

IBA conducted Origin and Destination (O&D) studies in 2009 and 2015 of bridge traffic.

The 2009 survey was conducted in June during the peak traffic season of the bridge. The 2015 study was conducted during May, at traffic volumes consistent through 8 months of the calendar year.

The number of passengers per vehicle remained largely the same by trip purpose. The overall occupancy rate decreased slightly from 1.64 in 2009, to 1.59 in 2015. This is consistent with the timing of the survey. The seasonal outdoor recreation trips raised the occupancy rate in 2009, while the greater representation of shopping trips lowered the overall average in 2015.

Trip ends remained largely the same; however, there was less trip diversity in 2015, as more trips were made between the U.S. and Canadian Sault Ste. Marie.

The frequency of shopping trips increased to 1,226 crossings from 630 shopping trips, accounting for 53 percent of all passenger trips, as compared to the 29 percent in the 2009 survey. This is consistent with the timing of the survey comparing peak summer traffic to

the average daily commuter bridge traffic.

In 2015, 63 percent of people who indicated that they traveled less than in previous years, and attributed this to the exchange rate, as compared to only nine percent in 2009. People were much less likely to cite backup and delay in 2015 (two percent compared to 10 percent).

Passenger vehicle summaries are displayed in Tables X and Y.

Nexus Card

In 2015, drivers were asked whether they possessed a Nexus Card and to explain why if they did not.

Of passenger vehicles surveyed 73 percent responded that they did not possess a Nexus Card and gave their explanation as *no reason* or *other*. Of these, many gave a verbal response to the surveyors that they did not have a card because they already have a passport. Additional reasons offered include: people see no reason to get the card, there are no major backups, and Canadian Border Services Agency often opens the Nexus lane for only a few hours.

Passenger Vehicle Trip Destinations				
NORTHBOUND	#	aadt	pct	Avg trip length
Home	697	1897.75	80.27%	48.00
Work	40	84.64	3.58%	152.67
School	6	15.57	0.66%	92.48
Shopping	22	50.62	2.14%	16.03
Personal Business	24	61.29	2.59%	254.06
Outdoor Rec.	37	86.91	3.68%	331.55
Indoor Rec.	11	31.60	1.34%	275.62
Lodging	16	42.47	1.80%	415.62
Social/Other	29	77.59	3.28%	218.43
No Answer	6	15.84	0.67%	162.51
TOTAL	888	2364.34	100.0%	83.29

Passenger Vehicle Trip Destinations				
SOUTHBOUND	#	aadt	pct	Avg trip length
Home	133	236.57	10.01%	226.17
Work	102	200.57	8.48%	109.06
School	15	26.96	1.14%	89.21
Shopping	660	1174.90	49.69%	23.69
Personal Business	116	206.32	8.73%	114.13
Outdoor Rec.	42	79.09	3.35%	218.87
Indoor Rec.	92	163.62	6.92%	87.47
Lodging	6	11.05	0.47%	184.11
Social/Other	76	135.19	5.72%	159.15
No Answer	73	129.86	5.49%	126.00
TOTAL	1315	2364.35	100.0%	87.52

CUSTOMER CHARACTERISTICS

Commercial Vehicle Profile

Sault Ste. Marie is the largest international trade crossing in northwestern Ontario. In 2019, the Sault Ste. Marie crossing ranked 19th of 79 among all U.S. and Canadian border crossings in terms of dollar value of trade volume. This equated to \$2,017 billion in U.S. dollars (USD) in total trade. Total trade value of the crossing consisted of \$1,066.2 million in Canadian exports and \$951.5 million (USD) in U.S. exports. Ontario accounted for the largest share of exports with \$549.8 million (USD), followed by Quebec at \$372.5 million (USD). Conversely, Wisconsin was the largest exporting state at \$203.3 million (USD), followed by Minnesota at \$114.7 million (USD) and Michigan at \$104.7 million (USD).

The International Bridge connects to the Trans-Canada Highway, and is a convenient route for goods transported from northeastern and eastern Ontario, and from Quebec, to the Upper Great Lakes states. The crossing is connected directly to the major north-south artery I-75 and to Michigan Highway 28, which runs south of Lake Superior into Wisconsin and Minnesota.

Long distance commercial trips are prevalent with an average trip distance of 591 miles. Common trip ends

were Sault Ste. Marie and Quebec for Canadian cities and Sault Ste. Marie and Brimley in the United States.

Empty trucks accounted for 28% of all trucks, with 32% travelling empty into Canada, and 25% empty into the United States.

Table Z shows the top five commercial vehicle trip ends by direction for the International Bridge O&D study. Commercial trip ends have greater diversity than passenger crossings. The top five northbound origins and southbound destinations account for around 39% and 28% respectively of their classifications. The top five southbound origins and northbound destinations account for 77% and 74% of their respective classifications.

Table Z: Top Five International Bridge Truck Trip Ends

NORTHBOUND—Avg. Trip Distance 617.31 miles

ORIGINS	SURVEYS	AADT EXPANDED	PERCENT
Sault Ste. Marie	10	23.74	12.96%
Brimley	7	14.81	8.08%
Minnesota (MN)	5	13.99	7.64%
Dafter	4	9.58	5.23%
Arcadia, WI	3	8.44	4.61%

DESTINATIONS	SURVEYS	AADT EXPANDED	PERCENT
Sault Ste. Marie	37	89.01	48.59%
Quebec	9	28.57	15.60%
Toronto	2	6.04	3.30%
Thunder Bay	2	6.04	3.30%
Ottawa	2	6.04	3.30%

SOUTHBOUND—Avg. Trip Distance 565.57 miles

ORIGINS	SURVEYS	AADT EXPANDED	PERCENT
Sault Ste. Marie	53	97.63	53.31%
Quebec	15	29.35	16.02%
Dryden	3	6.15	3.36%
Sudbury	2	4.39	2.40%
Cornwall	2	3.96	2.16%

ORIGINS	SURVEYS	AADT EXPANDED	PERCENT
Sault Ste. Marie	12	21.88	11.95%
Brimley	6	11.00	6.00%
Port Huron	4	8.35	4.56%
Dafter	3	5.16	2.82%
Manistique	3	4.95	2.70%

CUSTOMER CHARACTERISTICS

Crossings: Canada to the United States

The value of trade crossing in Sault Ste. Marie is represented by Ontario which is the largest component of trade at approximately \$549.8 million (USD). This is 58.6% of the value of goods crossing in 2019, to the United States. Quebec represented 39.8% or \$372.5 million.

The destinations for trade from Canada are: Michigan, Wisconsin, Minnesota, Indiana and Illinois. These five States make up 59% of the total U.S. bound destinations.

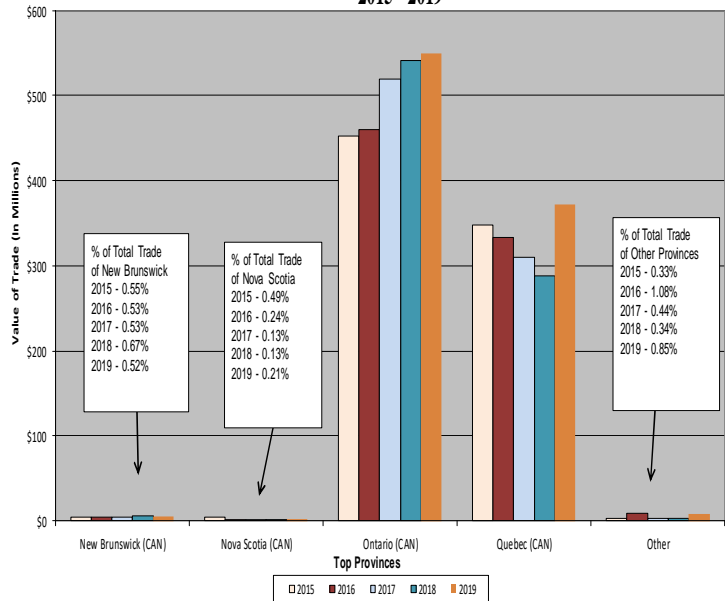
Source—Canada to U.S.	Value of Trade	Percentage
Ontario	\$ 549.8	58.6%
Quebec	\$ 372.5	39.8%
Other Provinces	\$ 14.7	1.6%
Total	\$ 937.0	100.0%

Destination—Canada. to US	Value of Trade	Percentage
Michigan	\$193.6	20.6%
Wisconsin	\$136.0	14.5%
Minnesota	\$ 111.6	11.9%
Indiana	\$ 55.0	5.9%
Illinois	\$ 47.4	5.1%
Ohio	\$ 35.5	3.8%
Other States	\$ 357.9	38.2%
Total	\$ 937.0	100.0%

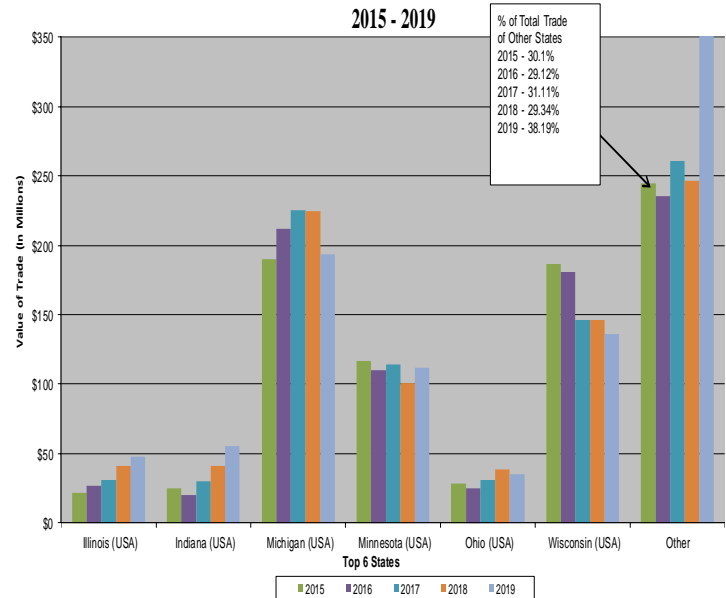
Commodities - Canada to U.S.

The available cross-border commodities data for Sault Ste. Marie is available from U.S. Department of Transportation, Research and Innovative Technology Administration (USDOT/RITA) beginning in 2009, and thereafter. Presented on page 20 are the top 9 commodities exported from Canada to the United States. The largest commodity is Iron and Steel, and represented an average of 17% of the total southbound commodities crossing the bridge.

Sault Ste. Marie Bridge Authority
Value of Trade - International Bridge
Canada to United States - Source
2015 - 2019



Sault Ste. Marie Bridge Authority
Value of Trade - International Bridge
Canada to United States - Destination
2015 - 2019



SAULT STE. MARIE BRIDGE AUTHORITY

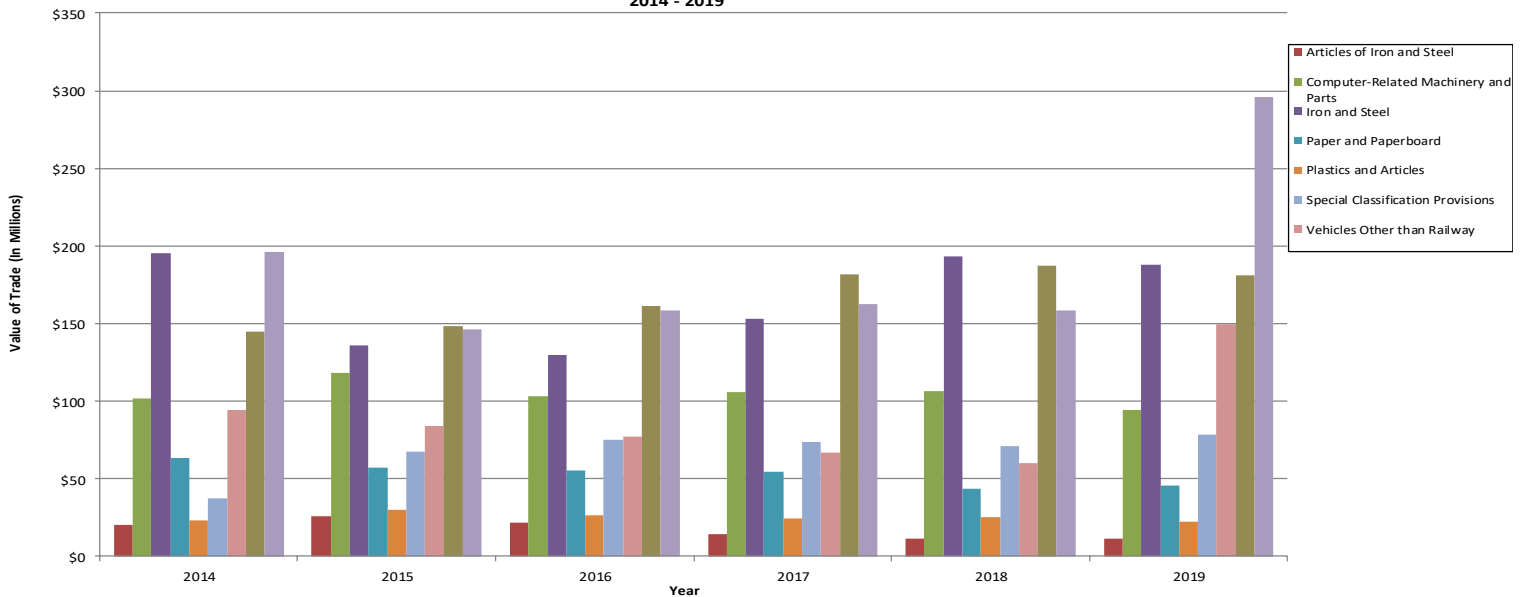
BUSINESS PLAN
2021—2025

Crossings: Canada to the United States Continued

CUSTOMER CHARACTERISTICS

Type of Commodity	2013	2014	2015	2016	2017	2018	2019
Articles of Iron & Steel	\$23.7	\$20.1	\$26.0	\$22.1	\$14.5	\$11.3	\$11.8
Computer Related Machinery & Parts	\$90.5	\$101.6	\$118.0	\$103.1	\$105.8	\$106.5	\$34.1
Iron & Steel	\$231.1	\$195.6	\$136.0	\$129.6	\$152.8	\$193.2	\$187.6
Paper & Paperboard	\$91.9	\$63.6	\$57.1	\$55.5	\$54.9	\$43.6	\$45.6
Plastics & Articles	\$27.7	\$23.0	\$29.8	\$26.5	\$24.4	\$52.1	\$22.5
Pulp of Wood and Paperboard	\$10.3	\$16.4	\$9.5	\$13.1	\$13.0	\$20.3	\$15.0
Special Classification Provisions	\$41.6	\$37.7	\$67.3	\$75.1	\$73.8	\$71.1	\$78.6
Vehicles Other than Railway	\$65.4	\$94.3	\$83.8	\$77.3	\$67.1	\$60.1	\$149.7
Wood & Articles	\$135.1	\$144.9	\$148.4	\$170.0	\$181.9	\$187.5	\$180.8
Others	\$145.3	\$179.5	\$136.8	\$136.1	\$150.0	\$111.1	\$340.5
Total \$ (in Millions)	\$862.6	\$876.7	\$812.7	\$808.4	\$838.2	\$856.8	\$1,066.2

**Sault Ste. Marie Bridge Authority
Commodities Value of Trade - International Bridge
Canada to United States
2014 - 2019**



CUSTOMER CHARACTERISTICS

Crossings: United States to Canada

Conversely, the trade value from the U.S. to Canada was \$905.9 million (USD). The top 5 States of origin in 2019, illustrated in the following table:

Source—U.S. to Canada	Value of Trade	Percentage
Wisconsin	\$209.3	23.1%
Minnesota	\$ 118.2	13.1%
Michigan	\$ 133.9	14.8%
Illinois	\$ 188.5	20.8%
Ohio	\$ 33.5	3.7%
Other States	\$ 422.6	24.5%
Total	\$ 905.9	100.0%

Destination--U.S. to Canada	Value of Trade	Percentage
Ontario	\$ 901.2	99.48%
Quebec	\$ 1.8	0.13%
Other Provinces	\$ 2.9	0.39%
Total	\$ 905.9	100.0%

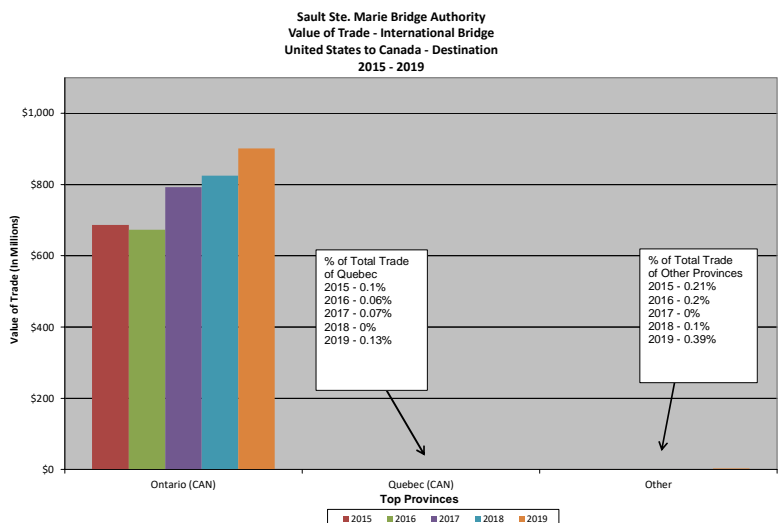
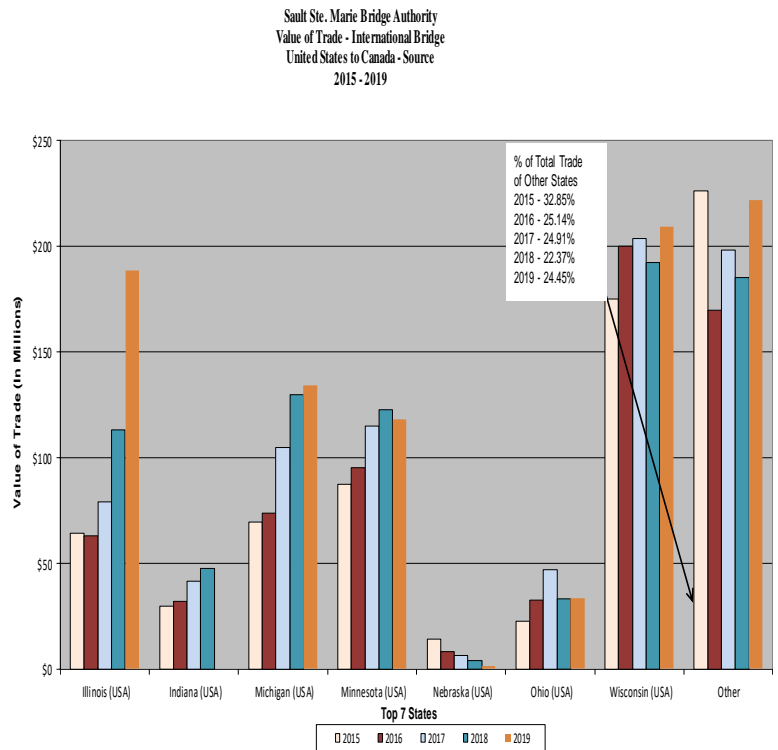
The overwhelming majority, 99.5% of the value of trade of \$901.2 million (USD), originating in the United States, was destined for Ontario.

The value of the Canadian dollar fell below par with the U.S. dollar in 2014, and as the Canadian dollar fell, Canadian exports to the U.S. have slowly increased as goods become more price competitive.

Cross-border goods decreased steadily between 2011 to 2017 and remain below 2007 and prior volumes.

Commodities - U.S. to Canada

The top 8 commodities for Sault Ste. Marie are shown in are table and graph format for goods exported from the United States to Canada. The largest commodity is Inorganic Chemicals represented an average of 11.8% of the total northbound commodities crossing the bridge.



SAULT STE. MARIE BRIDGE AUTHORITY

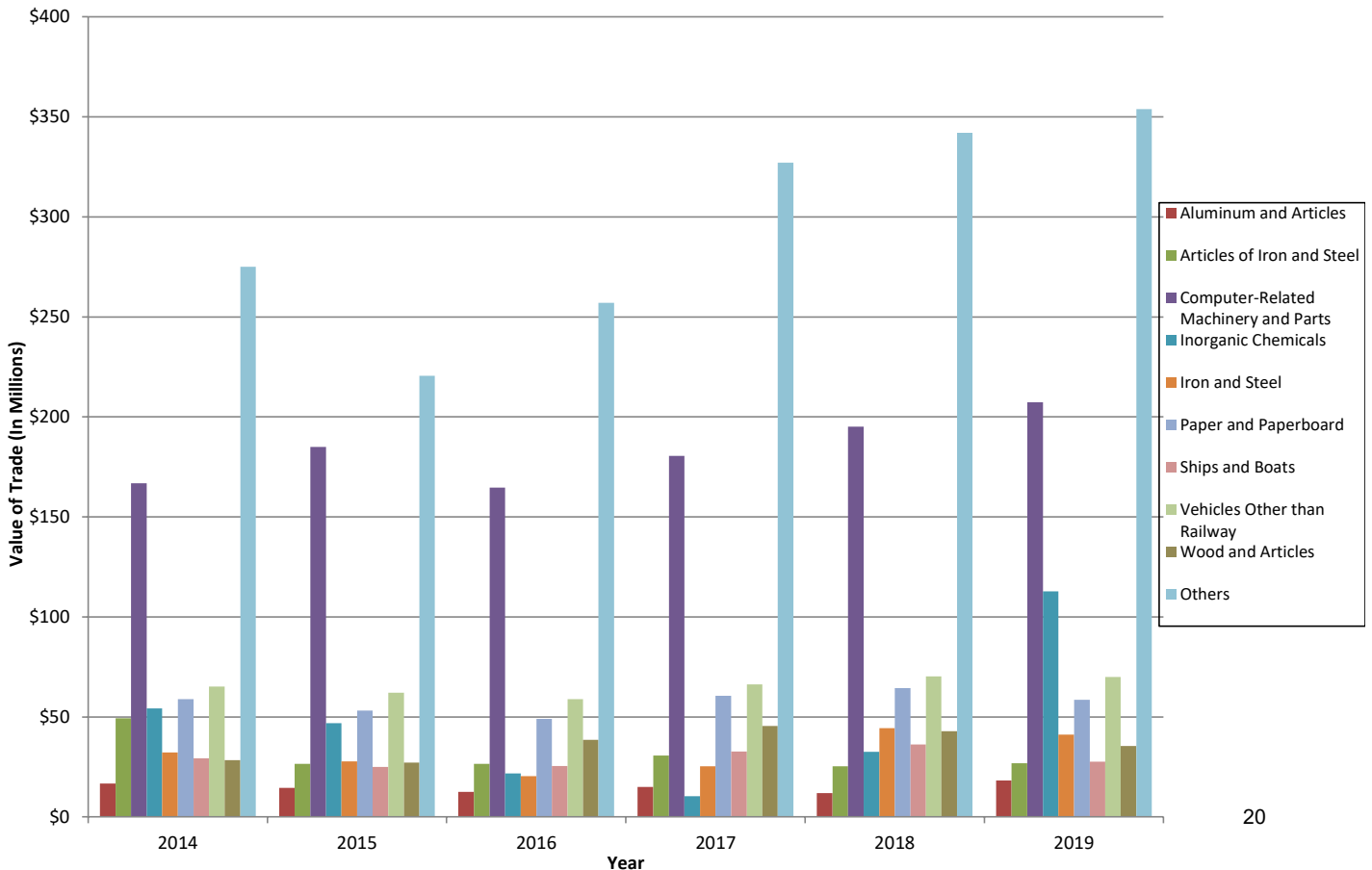
BUSINESS PLAN
2021—2025

Crossings: United States to Canada (Continued)

CUSTOMER CHARACTERISTICS

Type of Commodity	2013	2014	2015	2016	2017	2018	2019
Articles of Iron & Steel	\$38.3	\$49.4	\$26.5	\$26.6	\$30.6	\$25.3	\$26.9
Computer-Related Machinery & Parts	\$166.9	\$166.8	\$185.0	\$164.6	\$180.5	\$195.0	\$207.3
Albuminoidal Substances; Glues and Enzymes	\$29.9	\$33.5	\$27.0	\$21.7	\$6.9	\$1.5	\$3.5
Inorganic Chemicals	\$126.2	\$54.2	\$46.9	\$21.8	\$10.4	\$32.6	\$112.7
Iron & Steel	\$28.4	\$32.2	\$27.9	\$20.4	\$25.3	\$44.5	\$41.1
Paper & Paperboard	\$69.1	\$58.8	\$53.3	\$49.0	\$60.6	\$64.4	\$59.2
Vehicles Other than Railway	\$83.1	\$65.3	\$62.1	\$58.8	\$66.3	\$70.2	\$69.9
Wood & Articles	\$30.0	\$28.4	\$27.3	\$38.6	\$45.5	\$43.0	\$35.5
Others	\$286.0	\$287.7	\$232.8	\$246.2	\$368	\$388.6	\$395.4
Total \$ (in Millions)	\$857.9	\$776.3	\$688.8	\$647.7	\$794.1	\$865.1	\$951.5

**Sault Ste. Marie Bridge Authority
Commodities Value of Trade - International Bridge
United States to Canada
2014 - 2019**



Financial Operations

Financial Operations

Toll Collection

Bridge tolls are collected from both northbound and southbound traffic by toll staff booths located on the IBA toll plaza. The number of toll staff assigned at any time is dictated by traffic volumes, and may vary from one to four collectors on duty. Tolls collected are reconciled with the actual lane treadle counts on a daily basis. All receipts are counted, checked and deposited on a daily basis.

Toll collection is a combination of manual and automated services utilizing:

- Conduent (formerly Xerox) Vector4 toll software suite (lane, online, back office components);
- ELO touchscreen computers;
- treadle devices (which count the number of axles per vehicle – located in the road bed);
- loop detectors (which detect the physical mass of vehicles – located in the road bed);
- Automated gates;
- Internal and external booth mounted proximity card readers.
- Customer account secure web portal access, with vendor hosted credit card solutions.

The International Bridge Administration has maintained full toll lane automation since 2008, for account card holders, utilizing magnetic and HID Global proximity cards as a basis for the card programs. The IBA system utilizes a 125 kHz device proximity card, with a known range of 0-6 inches. A card fee \$5.00 U.S. or \$5.00 CDN is assessed per card, and cards are printed as needed or on demand at IBA.

Colour Digital Message Signs (DMS) from *Adaptive* are installed on the toll canopy to inform customers which lanes are automated and which lanes are staffed for mixed transaction types.

Commercial carriers have the option of paying the toll in cash or by prepaid bridge debit card. Legacy commercial accounts utilize only magnetic card solutions. All new and replacement cards on account are issued as proximity cards. Monthly activity and balance statements are electronically issued to all debit account owners.

Toll Equivalency

Article X of the Intergovernmental Agreement, effective September 1, 2009, states, “The tolls will be separately

established in the currency of Canada so as to achieve equivalency with United States currency under prevailing official currency exchange rates. IBA shall make periodic adjustments to account for changes in the exchange rates as provided in Section 3 of this Article.”

Section 3 states, “Effective on April 1 and October 1 of each year the IBA shall adjust the level of the toll in Canadian currency to achieve equivalence with currency of the United States as provided in this section. The adjustment will be based on the average daily official exchange rate for the six-month period preceding March 1 or September 1, respectively. Adjustments will be made if the toll rate inequality, between the average daily exchange rate, and the exchange rate then in effect, is equal to at least 5 cents for regular-fare passenger vehicles, in the currency of either Canada or the United States. The adjustment shall be made to the nearest nickel, rounded as may be necessary for administrative efficiency.”

Canadian currency toll rates were adjusted accordingly on April 1, 2020. The weakened Canadian dollar resulted in a currency equity adjustments based on a currency equity factor of 0.7576.

Toll Rate Schedule

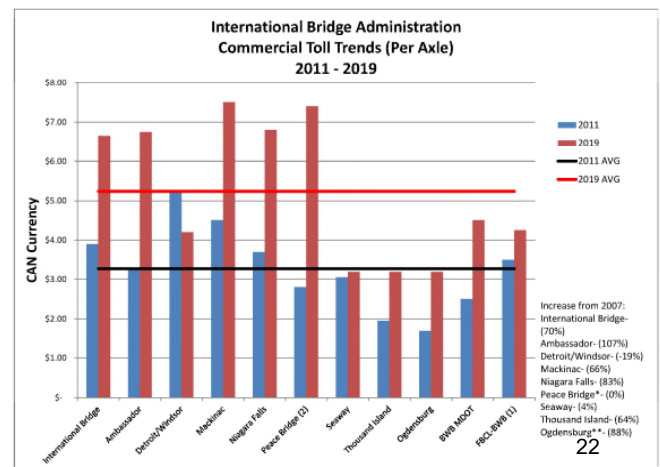
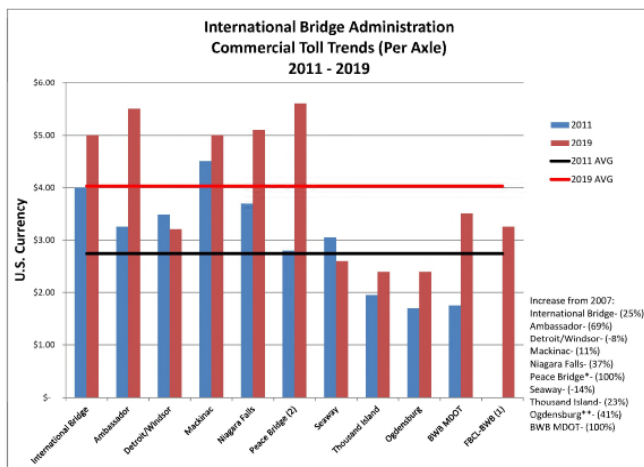
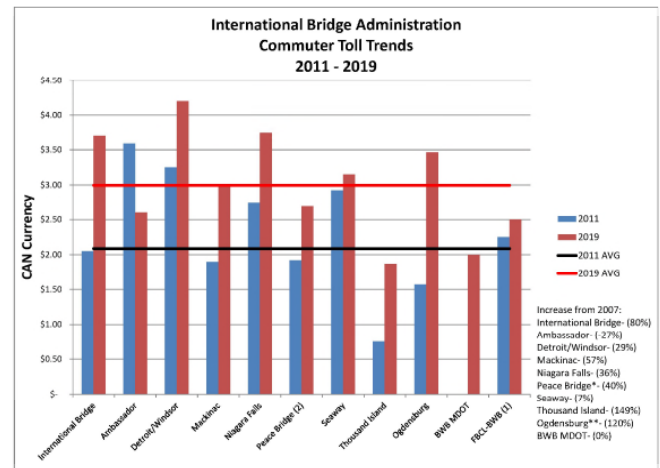
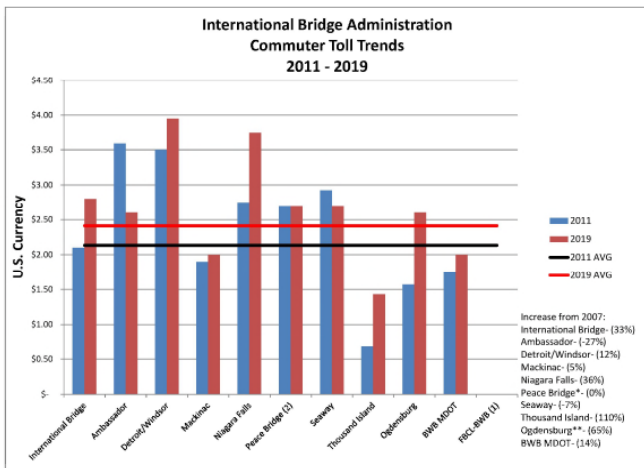
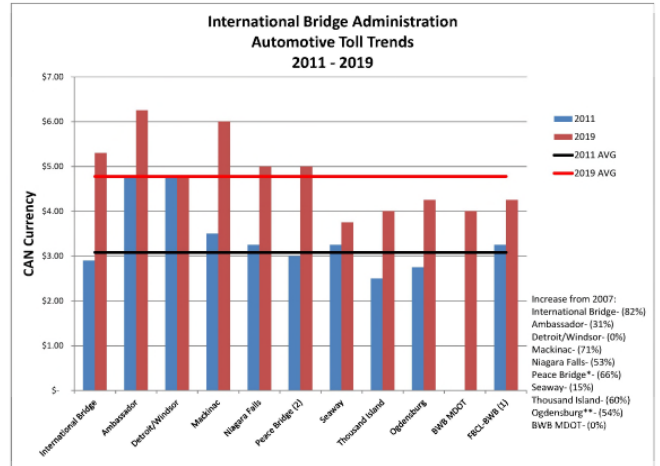
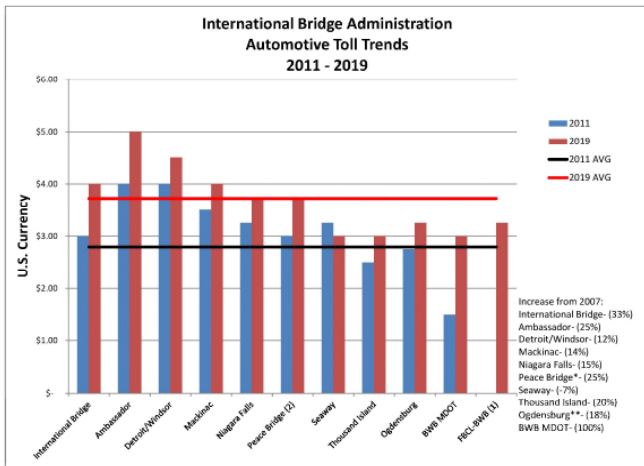
The most recent toll increase took effect following public hearings in December 2008 and JIBA approval on February 26, 2009. The toll increase was based on a 10-year declining bridge traffic trend. In 2006, total traffic was almost one half of the 1992 high of 3.6 million crossings. Financial fund balance forecasts were based on projected toll revenue as well as planned operational and capital improvement expenditures for the period 2014 through 2053, developed by IBA to aid in long-range financial planning.

The toll rate increase is based on significant capital improvement expenditures planned per SSMBA Capital Plan, for the 58-year old bridge in the planning period.

The current toll rates for all vehicle classifications in U.S. and Canadian currency is listed on page 23.

Toll Trends - U.S.

Toll Trends - Canadian



FINANCIAL OPERATIONS

Toll Rate Comparison

The following table shows rates effective April 1, 2020, for all crossings in the Bridge and Tunnel Operator Association (BTOA) plus the Mackinac Bridge. BTOA represents publicly owned border crossings between the province of Ontario and the states of Michigan and New York, including the International Bridge. (Please note that Niagara Bridge, Peace Bridge, and Thousand Island Bridge are only 1 way tolls. All other bridges in the comparison have tolls each way.)

	Auto	Commercial Per Axle
International Bridge	\$4.00	\$5.00
Ambassador Bridge	\$5.00	\$5.00
Blue Water Bridge (FBCL)	\$3.25	\$3.50
Blue Water Bridge (MDOT)	\$3.00	\$4.25
Detroit/Windsor Tunnel	\$4.50	\$3.50
Mackinac Bridge	\$4.00	\$5.00
Niagara Falls Bridges	\$4.00	\$3.00
Ogdensburg	\$3.25	\$3.40
Peace Bridge	\$3.75	\$3.50
Seaway International	\$3.00	\$3.75
Thousand Islands	\$3.00	\$3.40

Table A

Toll Revenues

Toll Rates effective October 1, 2020

Effective October 1, 2020, Canadian currency toll rates were adjusted to maintain currency equity per the inter-governmental agreement. American currency toll rates remain \$4.00. (See notes about vehicle classifications and currency exchange below.)

Vehicle Class	U.S. Toll	CDN Toll
Class #1 Passenger car or truck, van, motorcycle	\$4.00	\$5.50
Class #2 Class 1 vehicle with 1 axle trailer	\$6.00	\$8.00
Class #3 Class 1 vehicle with 2 axle trailer	\$8.00	\$12.00
Class #34 IQ Prox Card Class 1 vehicle only (See notes, below.)	\$20.00	\$20.00
Class #12 Recreational vehicle (\$2.75/axle U.S. or \$3.95/axle Canadian)	\$6.50	\$8.00
Class #11 Buses (\$4.00/axle U.S. or \$5.95/axle Canadian)	\$10.00	\$13.90

Non-passenger Vehicles

Class #5 Vehicle with 2 axles	\$10.00	\$13.70
Class #7 Vehicle with 3 axles	\$15.00	\$20.55
Class #8 Vehicle with 4 axles	\$20.00	\$27.40
Class #9 Vehicle with 5 axles	\$25.00	\$34.25
Class #16 Vehicle with 6 axles	\$30.00	\$41.10
Class #17 Vehicle with 7 axles	\$35.00	\$47.95
Class #18 Vehicle with 8 axles	\$40.00	\$54.80
Class #19 Vehicle with 9 axles	\$45.00	\$61.65
Class #20 Vehicle with 10 axles	\$50.00	\$68.50
Class #21 Vehicle with 11 axles	\$55.00	\$75.35
Per additional axle over 11	\$5.00	\$6.85

Card Fees

IQ Prox Card Fee (Discount Accounts)	\$5.00	\$5.00
Debit Card Fee (Commercial Accounts)	\$3.00	\$3.00

Notes about vehicle classifications

- IQ Card minimum deposit of \$20, or more, at any time.
- Frequent Users: Autos, light duty trucks, motorcycles (no trailers allowed). Discount rate structure is based on Prox card use over the previous 30 days:
 - Zero to two crossings: 10 percent discount (10%)
 - Three to eight crossings: 20 percent (20%)
 - Nine or more crossings 30 percent (30%)
- Light duty trucks with a gross vehicle weight rating (GVWR) 10,000 pounds and less will be classified as a Class #1 vehicle. All medium and heavy duty vehicles and not-for-hire passenger vehicles with a GVWR greater than 10,000 pounds will be recorded as a Class #12 recreational vehicle.
- Note 2: Class #1 passenger vehicles utilized for taxi, complimentary shuttle and equivalent services, do not qualify for bridge frequent user card program usage, but do qualify for commercial debit accounts.
- Note 3: RV Classifications include medium and heavy duty vehicles, not-for-hire passenger vehicles with a GVWR greater than 10,000 pounds, and recreational vehicles defined as type A, B, C and bus conversions as defined by the family motor coach association.

FINANCIAL OPERATIONS

Insurance

The International Bridge has traditionally maintained insurance coverage from the private sector for various risk exposures. These include:

- Bridge Physical Damage
- Blanket Property Damage for Buildings, Equipment, etc.
- Bridge Use & Occupancy
- Business Interruption
- Boiler & Machinery
- Commercial General Liability
- Primary & Excess Umbrella Liability
- Worker's Compensation
- Public Officials' Liability
- Commercial Crime

SSMBA and IBA are committed to continuation of adequate coverage for the various risk exposures. The majority of coverage is obtained through an insurance brokerage firm with substantial experience and exposure to international bridge operations. Deductibles and limits are reviewed annually for acceptable risk coverages, and revised if deemed appropriate. Premiums are invoiced in either Canadian funds or US funds, dependent on when the exchange rate is most beneficial for further reducing realized currency exchange losses.

The 2019-2020 premiums remain comparable to previous years at \$239,007. Premiums were \$267,448 in 2018, with no changes in deductions or levels of existing coverage, and include the addition in 2016-2017 of terrorism coverage for the bridge.

Risk management currently is under purview of SSMBA Audit Committee and as such is tasked with examining options of revising current insurance coverage and deductible limits, as well as pursuing self-insurance options.

Payment of Taxes or in Lieu of Taxes**Property Taxes**

The bridge and related properties were exempt from property taxes in both Michigan and Ontario, until September 1, 2000. Ontario law establishes a formula to determine the level of taxes to be paid by the International Bridge to the city of Sault Ste. Marie, Ontario, on behalf of FBCL. Michigan State Law, 1954 PA 99 as amended, authorizes that, "if taxes are imposed in Canada, an equal amount may be expended in Michigan for purposes similar to those of taxes..." Through 2017 property taxes were paid by IBA for property in Canada, and an equivalent amount was paid in lieu of taxes (PILT) to the city of Sault Ste. Marie, Michigan. The Canadian property tax payment for the period January 1, 2017, through December 31, 2017, was \$106,053 (USD) paid in equivalent Canadian currency. Equivalent PILT of \$61,636 was paid to Sault Ste. Marie, Michigan. In 2018, FBCL took over the responsibility for the tax payments for the new CBSA property. IBA is still responsible for property tax payments to the city of Sault Ste. Marie, Ontario for certain portions of the Canadian plaza, including the maintenance garage, as well as the PILT payment to the City of Sault Ste. Marie, Michigan equivalent to what is paid for the portion of the Canadian plaza. Slight annual variances may result as Michigan payments are reduced in the current year for applicable property tax refunds and credits received for prior years.

Sales Taxes

In Michigan, governmental agencies are exempt from all sales taxes. In Ontario, both provincial and federal sales taxes are applied to goods and services acquired by IBA, unless exported by IBA to Michigan. When export of goods and services is acquired, goods and services are zero-rated.

SAULT STE. MARIE BRIDGE AUTHORITY
COMPARATIVE STATEMENT OF REVENUES,
EXPENDITURES, AND CHANGES IN FUND BALANCE
ALL GOVERNMENTAL FUND TYPES
2021 - 2050

	2021	2022	2023	2024	2025
REVENUES					
Toll revenues	\$ 3,820,535	\$ 5,730,807	\$ 5,845,420	\$ 6,534,014	\$ 6,664,690
Interest income	63,039	64,079	65,136	66,211	67,304
Lease income	100,000	101,000	102,010	103,030	104,060
FBCL Owner Funds	360,000	-	-	-	-
MDOT Owner Funds	-	2,500,000	-	-	-
Service fees	53,456	55,594	57,818	60,131	62,536
Total Revenues	4,397,030	8,451,480	6,070,384	6,763,386	6,898,590
EXPENDITURES					
Current operations					
Operations and services	1,650,372	1,684,546	1,821,955	1,858,947	1,896,858
Bridge maintenance	2,525,177	2,625,118	2,667,085	2,721,684	2,770,795
Administration	538,252	548,996	559,954	571,310	582,839
Other expenditures	428,597	437,189	445,933	454,850	463,947
Total current operations	5,142,398	5,295,849	5,494,927	5,606,791	5,714,439
Capital fund expenditures	350,456	701,181	890,537	909,101	734,614
Total capital expenditures	350,456	701,181	890,537	909,101	734,614
Total Expenditures	5,492,854	5,997,030	6,385,464	6,515,892	6,449,053
Excess (deficiency) of revenues over expenditures	(1,095,824)	2,454,451	(315,080)	247,494	449,537
Net change in fund balances	(1,095,824)	2,454,451	(315,080)	247,494	449,537
Fund Balance-Beginning	1,932,100	836,275	3,290,726	2,975,646	3,223,141
Revenue fund	330,495	290,157	248,408	205,198	160,474
Capital fund	1,152,507	1,192,844	1,234,594	1,277,805	1,322,528
MDOT Capital fund (owner reserve)	388,409	1,615,634	1,458,094	1,581,841	1,806,610
FBCL Capital fund (owner reserve)	(1,035,135)	192,090	34,550	158,297	383,066
Fund Balance-Ending	\$ 836,275	\$ 3,290,726	\$ 2,975,646	\$ 3,223,141	\$ 3,672,678

Notes:

1) Beginning and ending interfund budget appropriations will equal transfers according the transfer requirements outlined in the Intergovernmental Agreement, for maintaining positive capital fund and owner reserve capital fund balances.

SAULT STE. MARIE BRIDGE AUTHORITY
REVENUE FUND
ANNUAL BUDGET SCHEDULE BY ACCOUNT
OPERATIONS AND SERVICES DEPARTMENT
DECEMBER 31, 2021

Account			Proposed Budgets				
Dept	Acct	Name	2021	2022	2023	2024	2025
120	701	Salaries	\$ 66,461	\$ 67,790	\$ 69,146	\$ 70,529	\$ 71,940
120	703	Longevity	610	790	790	1,040	1,040
120	715	FICA	4,121	4,203	4,287	4,373	4,460
120	716	Medicare	964	983	1,003	1,023	1,043
120	717	LTD & U.B. Life Insurance	1,401	1,429	1,458	1,487	1,517
120	718	Dental	1,591	1,623	1,655	1,688	1,722
120	719	Vision	179	183	187	191	195
120	721	Hospitalization	18,338	18,705	19,079	19,461	19,850
120	722	Workers Compensation	493	503	513	523	533
120	724	Retirement	3,030	3,090	3,152	3,215	3,279
120	725	OPEB	26,894	27,432	27,981	28,541	29,112
Total 120 - Bridge Safety Supervisor 10			<u>124,081</u>	<u>126,731</u>	<u>129,251</u>	<u>132,071</u>	<u>134,691</u>
121	701	Salaries	115,930	118,249	120,614	123,026	125,487
121	703	Longevity	1,300	1,300	1,340	1,340	1,340
121	704	Overtime	14,856	15,153	15,456	15,765	16,080
121	715	FICA	8,109	8,271	8,436	8,605	8,777
121	716	Medicare	1,896	1,934	1,973	2,012	2,052
121	717	LTD & U.B. Life Insurance	2,841	2,898	2,956	3,015	3,075
121	718	Dental	4,542	4,633	4,726	4,821	4,917
121	719	Vision	3,750	3,825	3,902	3,980	4,060
121	721	Hospitalization	18,288	18,653	19,026	19,407	19,795
121	722	Workers Compensation	986	1,006	1,026	1,047	1,068
121	724	Retirement	10,161	10,364	10,571	10,782	10,998
121	725	OPEB	85,039	86,740	88,475	90,245	92,050
Total 121 - Bridge Safety Supervisor 9			<u>267,698</u>	<u>273,026</u>	<u>278,501</u>	<u>284,045</u>	<u>289,699</u>

SAULT STE. MARIE BRIDGE AUTHORITY
REVENUE FUND
ANNUAL BUDGET SCHEDULE BY ACCOUNT
OPERATIONS AND SERVICES DEPARTMENT
DECEMBER 31, 2021

Account			Proposed Budgets				
Dept	Acct	Name	2021	2022	2023	2024	2025
122	701	Salaries	158,342	161,509	164,739	168,034	171,395
122	703	Longevity	980	1,240	1,240	1,420	1,530
122	704	Overtime	3,587	3,659	3,732	3,807	3,883
122	715	FICA	10,040	10,240	10,445	10,654	10,867
122	716	Medicare	2,348	2,395	2,443	2,492	2,542
122	717	LTD & U.B. Life Insurance	3,430	3,499	3,569	3,640	3,713
122	718	Dental	5,852	5,969	6,088	6,210	6,334
122	719	Vision	6,128	6,251	6,376	6,504	6,634
122	721	Hospitalization	4,633	4,726	4,821	4,917	5,015
122	722	Workers Compensation	1,479	1,509	1,539	1,570	1,601
122	724	Retirement	10,472	10,681	10,895	11,113	11,335
122	725	OPEB	89,758	91,553	93,384	95,252	97,157
Total 122 - Bridge Safety Officer 8			297,049	303,231	309,271	315,613	322,006
123	701	Salaries	335,372	342,079	348,921	355,899	363,017
123	703	Longevity	2,000	2,830	2,900	3,150	3,590
123	704	Overtime	24,421	24,909	25,407	25,915	26,433
123	715	FICA	22,307	22,753	23,208	23,672	24,145
123	716	Medicare	5,217	5,321	5,427	5,536	5,647
123	717	LTD & U.B. Life Insurance	7,431	7,579	7,731	7,886	8,044
123	718	Dental	8,571	8,743	8,918	9,096	9,278
123	719	Vision	5,767	5,882	6,000	6,120	6,242
123	721	Hospitalization	41,869	42,706	43,560	44,431	45,320
123	722	Workers Compensation	3,450	3,519	3,589	3,661	3,734
123	724	Retirement	27,712	28,266	28,831	29,408	29,996
123	725	OPEB	128,413	130,981	133,601	136,273	138,998
Total 123 - Bridge Safety Officer 7			612,528	625,568	638,093	651,047	664,444

SAULT STE. MARIE BRIDGE AUTHORITY
REVENUE FUND
ANNUAL BUDGET SCHEDULE BY ACCOUNT
OPERATIONS AND SERVICES DEPARTMENT
DECEMBER 31, 2021

Account			Proposed Budgets				
Dept	Acct	Name	2021	2022	2023	2024	2025
125	701	Salaries	37,432	38,181	38,945	39,724	40,518
125	704	Overtime	2,811	2,868	2,925	2,984	3,044
125	715	FICA	2,495	2,545	2,596	2,648	2,701
125	716	Medicare	584	595	607	619	631
125	720	Unemployment	6,518	6,648	6,781	6,917	7,055
125	722	Workers Compensation	1,479	1,509	1,539	1,570	1,601
125	725	OPEB	10,241	10,446	10,655	10,868	11,085
Total 125 - State Worker 4			61,560	62,792	64,048	65,330	66,635
126	701	Salaries	103,292	105,357	107,464	109,613	111,805
126	703	Longevity	300	300	300	300	630
126	715	FICA	6,404	6,532	6,663	6,796	6,932
126	716	Medicare	1,498	1,528	1,559	1,590	1,622
126	717	LTD & U.B. Life Insurance	2,217	2,261	2,306	2,352	2,399
126	718	Dental	2,570	2,621	2,673	2,726	2,781
126	719	Vision	313	319	325	332	339
126	721	Hospitalization	27,508	28,058	28,619	29,191	29,775
126	722	Workers Compensation	1,479	1,509	1,539	1,570	1,601
126	724	Retirement	7,262	7,407	7,555	7,706	7,860
126	725	OPEB	18,583	18,954	19,333	19,720	20,114
Total 126 - Account Tech. & Office Assistant			171,425	174,846	178,336	181,896	185,858

SAULT STE. MARIE BRIDGE AUTHORITY
REVENUE FUND
ANNUAL BUDGET SCHEDULE BY ACCOUNT
OPERATIONS AND SERVICES DEPARTMENT
DECEMBER 31, 2021

Account			Proposed Budgets				
Dept	Acct	Name	2021	2022	2023	2024	2025
128	728	Supplies	4,500	4,590	4,682	4,776	4,872
128	729	Postage	400	408	416	424	432
128	741	Cleaning Allowance	495	505	515	525	536
128	749	Uniforms	1,238	1,263	1,288	1,314	1,340
128	807	Advertising	2,500	2,550	2,601	2,653	2,706
128	809	Cash Transportation Services	12,000	12,240	12,485	12,735	12,990
128	816	Salary Administration MDOT	25,674	26,187	26,711	27,245	27,790
128	820	Commutation Debit Accts	-	-	-	-	-
128	838	Medical Exam	1,000	1,020	1,040	1,061	1,082
128	865	Travel & Meeting Expense	-	-	-	-	-
128	914	Liability / Auto Insurance	350	357	364	371	378
128	923	Telephone	2,500	2,550	2,601	2,653	2,706
128	931	Building Maintenance	2,100	2,142	2,185	2,229	2,274
128	933	Equipment Repair	6,525	6,656	6,789	6,925	7,064
128	964	Software Purchase	5,280	5,386	5,494	5,604	5,716
128	965	Miscellaneous	2,060	2,101	2,143	2,186	2,230
128	966	Software Support	19,800	20,196	5,000	5,100	5,202
128	990	Service Contract MDIT	5,250	5,355	124,798	127,294	129,840
Total 128 - Departmental Expenditures			<u>91,672</u>	<u>93,506</u>	<u>199,112</u>	<u>203,095</u>	<u>207,158</u>
129	979	Equipment	16,000	16,320	16,646	16,979	17,319
129	980	Office Furniture	336	343	350	357	364
129	989	Computer Equipment	8,023	8,183	8,347	8,514	8,684
Total 129 - Departmental Capital Outlays			<u>24,359</u>	<u>24,846</u>	<u>25,343</u>	<u>25,850</u>	<u>26,367</u>
Total Operations and Services expenditures			<u>\$ 1,650,372</u>	<u>\$ 1,684,546</u>	<u>\$ 1,821,955</u>	<u>\$ 1,858,947</u>	<u>\$ 1,896,858</u>

SAULT STE. MARIE BRIDGE AUTHORITY

REVENUE FUND

ANNUAL BUDGET SCHEDULE BY ACCOUNT

MAINTENANCE DEPARTMENT

DECEMBER 31, 2021

Account			Proposed Budgets				
Dept	Acct	Name	2021	2022	2023	2024	2025
130	701	Salaries	\$ 98,678	\$ 100,652	\$ 102,665	\$ 104,718	\$ 106,812
130	703	Longevity	370	370	370	370	480
130	715	FICA	6,118	6,240	6,365	6,492	6,622
130	716	Medicare	1,431	1,459	1,488	1,518	1,548
130	717	LTD & U.B. Life Insurance	2,035	2,076	2,118	2,160	2,203
130	718	Dental	490	500	510	520	530
130	719	Vision	60	61	62	63	64
130	721	Hospitalization	6,113	6,235	6,360	6,487	6,617
130	722	Workers Compensation	493	503	513	523	533
130	724	Retirement	6,420	6,549	6,680	6,814	6,950
130	725	OPEB	36,702	37,436	38,185	38,949	39,728
Total 130 - Bridge Engineer			158,910	162,081	165,316	168,614	172,087
131	701	Salaries	60,514	61,724	62,958	64,217	65,501
131	703	Longevity	300	300	370	370	370
131	704	Overtime	2,568	2,619	2,671	2,724	2,778
131	715	FICA	3,911	3,989	4,069	4,150	4,233
131	716	Medicare	915	933	952	971	990
131	717	LTD & U.B. Life Insurance	1,412	1,441	1,470	1,499	1,529
131	718	Dental	1,659	1,692	1,726	1,761	1,796
131	719	Vision	187	190	194	198	202
131	721	Hospitalization	19,116	19,498	19,888	20,286	20,692
131	722	Workers Compensation	493	503	513	523	533
131	724	Retirement	4,241	4,326	4,413	4,501	4,591
131	725	OPEB	24,113	24,595	25,087	25,589	26,101
Total 131 - Transportation Maintenance Supervisor			119,427	121,810	124,311	126,789	129,316

SAULT STE. MARIE BRIDGE AUTHORITY

REVENUE FUND

ANNUAL BUDGET SCHEDULE BY ACCOUNT

MAINTENANCE DEPARTMENT

DECEMBER 31, 2021

Account			Proposed Budgets				
Dept	Acct	Name	2021	2022	2023	2024	2025
132	701	Salaries	127,264	129,809	132,405	135,053	137,754
132	703	Longevity	1,040	1,040	1,040	1,040	1,040
132	704	Overtime	1,013	1,033	1,054	1,075	1,097
132	715	FICA	7,953	8,112	8,274	8,439	8,608
132	716	Medicare	1,860	1,897	1,935	1,974	2,013
132	717	LTD & U.B. Life Insurance	2,308	2,354	2,401	2,449	2,498
132	718	Dental	2,211	2,255	2,300	2,346	2,393
132	719	Vision	1,860	1,897	1,935	1,974	2,013
132	721	Hospitalization	7,518	7,669	7,822	7,978	8,138
132	722	Workers Compensation	986	1,006	1,026	1,047	1,068
132	724	Retirement	10,123	10,326	10,533	10,744	10,959
132	725	OPEB	28,527	29,098	29,680	30,274	30,879
Total 132 - Electrician			192,664	196,496	200,405	204,393	208,460
133	701	Salaries	319,073	325,455	331,964	338,603	345,375
133	703	Longevity	3,790	4,040	4,260	4,520	5,080
133	704	Overtime	21,712	22,147	22,590	23,042	23,503
133	715	FICA	21,129	21,551	21,982	22,422	22,870
133	716	Medicare	4,941	5,040	5,141	5,244	5,349
133	717	LTD & U.B. Life Insurance	8,867	9,044	9,225	9,410	9,598
133	718	Dental	14,065	14,346	14,633	14,926	15,225
133	719	Vision	10,373	10,581	10,793	11,009	11,229
133	721	Hospitalization	78,606	80,179	81,783	83,419	85,087
133	722	Workers Compensation	3,943	4,022	4,102	4,184	4,268
133	724	Retirement	31,836	32,473	33,122	33,784	34,460
133	725	OPEB	219,965	224,364	228,851	233,428	238,097
Total 133 - Bridge Workers			738,302	753,242	768,446	783,991	800,141

SAULT STE. MARIE BRIDGE AUTHORITY

REVENUE FUND

ANNUAL BUDGET SCHEDULE BY ACCOUNT

MAINTENANCE DEPARTMENT

DECEMBER 31, 2021

Account			Proposed Budgets				
Dept	Acct	Name	2021	2022	2023	2024	2025
134	701	Salaries	110,109	112,311	114,557	116,848	119,185
134	704	Overtime	1,702	1,736	1,771	1,806	1,842
134	715	FICA	6,932	7,071	7,212	7,356	7,503
134	716	Medicare	1,621	1,654	1,687	1,721	1,755
134	717	LTD & U.B. Life Insurance	2,487	2,537	2,588	2,640	2,693
134	718	Dental	3,208	3,272	3,337	3,404	3,472
134	719	Vision	1,996	2,036	2,077	2,119	2,161
134	721	Hospitalization	21,528	21,959	22,398	22,846	23,303
134	722	Workers Compensation	1,479	1,509	1,539	1,570	1,601
134	724	Retirement	9,656	9,849	10,046	10,247	10,452
134	725	OPEB	39,166	39,949	40,748	41,563	42,394
Total 134 - Janitorial			199,884	203,883	207,960	212,640	216,881
135	701	Salaries	282,379	288,027	293,788	299,664	305,657
135	704	Overtime	6,888	7,026	7,167	7,310	7,456
135	715	FICA	17,935	18,293	18,659	19,032	19,413
135	716	Medicare	4,194	4,278	4,364	4,451	4,540
135	720	Unemployment	2,913	2,971	3,030	3,091	3,153
135	722	Workers Compensation	10,844	11,061	11,282	11,508	11,738
135	725	OPEB	111,315	113,541	115,812	118,128	120,491
Total 135 - State Worker 4			436,468	445,197	454,102	463,184	472,448

SAULT STE. MARIE BRIDGE AUTHORITY

REVENUE FUND

ANNUAL BUDGET SCHEDULE BY ACCOUNT

MAINTENANCE DEPARTMENT

DECEMBER 31, 2021

Account			Proposed Budgets				
Dept	Acct	Name	2021	2022	2023	2024	2025
138	728	Supplies	10,000	10,200	10,404	10,612	10,824
138	729	Postage	-	-	-	-	-
138	741	Cleaning Allowance	750	765	780	796	812
138	749	Uniforms	3,322	3,388	3,456	3,525	3,596
138	776	Ground Maintenance	2,000	2,040	2,081	2,123	2,165
138	777	Janitor Supplies	129,000	131,580	134,212	136,896	139,634
138	807	Advertising	-	-	-	-	-
138	816	Salary Administration MDOT	31,130	31,752	32,387	33,035	33,696
138	820	Commutation Debit Accts	-	-	-	-	-
138	838	Medical Exam	1,485	1,515	1,545	1,576	1,608
138	852	Radio Repair	2,000	2,040	2,081	2,123	2,165
138	863	Vehicle Gas & Oil	30,000	30,600	31,212	31,836	32,473
138	865	Travel & Meeting Expense	-	-	-	-	-
138	867	Vehicle Maintenance	12,360	12,607	12,859	13,116	13,378
138	914	Liability / Auto Insurance	18,000	18,360	18,727	19,102	19,484
138	921	Water & Sewer	20,000	20,400	20,808	21,224	21,648
138	922	Fuel & Heating	40,000	40,800	41,616	42,448	43,297
138	923	Telephone	5,000	5,100	5,202	5,306	5,412
138	924	Electricity	175,000	178,500	182,070	185,711	189,425
138	931	Building Maintenance	12,051	12,292	12,538	12,789	13,045
138	932	Refuse Disposal	4,800	4,896	4,994	5,094	5,196
138	933	Equipment Repair	22,366	22,813	23,269	23,734	24,209
138	934	Heating & Plumbing Repair	8,000	8,160	8,323	8,489	8,659
138	935	Service Contract MDOT	5,305	5,411	5,519	5,629	5,742
138	964	Software Purchase	-	-	-	-	-
138	965	Miscellaneous	541	552	563	574	585
138	970	Leases & Rentals	15,500	15,810	16,126	16,449	16,778
138	975	Building Improvement	10,609	10,821	11,037	11,258	11,483
Total 138 - Departmental Expenditures			559,219	570,402	581,809	593,445	605,314

SAULT STE. MARIE BRIDGE AUTHORITY

REVENUE FUND

ANNUAL BUDGET SCHEDULE BY ACCOUNT

MAINTENANCE DEPARTMENT

DECEMBER 31, 2021

Account			Proposed Budgets				
Dept	Acct	Name	2021	2022	2023	2024	2025
139	852	Radio Replacement	-	7,074	4,262	7,998	571
139	853	Security System	41,914	61,274	72,652	69,416	59,054
139	854	Safety Equipment	16,765	40,802	23,708	25,818	39,820
139	981	Paint / Sandblast Materials	4,250	4,335	4,422	4,510	4,600
139	982	Sand & Ice Melter	12,490	12,740	12,995	13,255	13,520
139	983	Small Tools Purchase	4,017	4,097	4,179	4,263	4,348
139	992	Bridge Maint. & Repair	25,000	25,500	26,010	26,530	27,061
139	994	Road Maint. & Repair	9,500	9,690	9,884	10,082	10,284
Total 139 - Departmental Capital Outlays			<u>113,936</u>	<u>165,513</u>	<u>158,112</u>	<u>161,872</u>	<u>159,258</u>
148	962	Training	-	-	-	-	-
148	990	Service Contract MDIT	5,150	5,253	5,358	5,465	5,574
Total 148 - Departmental Support			<u>5,150</u>	<u>5,253</u>	<u>5,358</u>	<u>5,465</u>	<u>5,574</u>
149	980	Office Furniture	773	788	804	820	836
149	989	Computer Equipment	444	453	462	471	480
Total 149 - Departmental Capital Support			<u>1,217</u>	<u>1,241</u>	<u>1,266</u>	<u>1,291</u>	<u>1,316</u>
Total Maintenance Expenditures			<u><u>\$ 2,525,177</u></u>	<u><u>\$ 2,625,118</u></u>	<u><u>\$ 2,667,085</u></u>	<u><u>\$ 2,721,684</u></u>	<u><u>\$ 2,770,795</u></u>

SAULT STE. MARIE BRIDGE AUTHORITY

REVENUE FUND

ANNUAL BUDGET SCHEDULE BY ACCOUNT

ADMINISTRATION DEPARTMENT

DECEMBER 31, 2021

Account			Proposed Budgets				
Dept	Acct	Name	2021	2022	2023	2024	2025
150	701	Salaries	\$ 124,933	\$ 127,432	\$ 129,981	\$ 132,581	\$ 135,233
150	703	Longevity	480	480	480	480	610
150	715	FICA	6,200	6,324	6,450	6,579	6,711
150	716	Medicare	1,812	1,848	1,885	1,923	1,961
150	717	LTD & U.B. Life Insurance	2,086	2,128	2,171	2,214	2,258
150	718	Dental	1,717	1,751	1,786	1,822	1,858
150	719	Vision	1,799	1,835	1,872	1,909	1,947
150	721	Hospitalization	1,360	1,388	1,416	1,444	1,473
150	722	Workers Compensation	493	503	513	523	533
150	724	Retirement	8,097	8,259	8,424	8,592	8,764
150	725	OPEB	47,400	48,348	49,315	50,301	51,307
Total 150 - General Manager			196,378	200,296	204,293	208,368	212,655
151	701	Salaries	61,320	62,546	63,797	65,073	66,374
151	715	FICA	3,802	3,878	3,956	4,035	4,116
151	716	Medicare	889	907	925	944	963
151	717	LTD & U.B. Life Insurance	1,293	1,319	1,345	1,372	1,399
151	718	Dental	3,308	3,374	3,441	3,510	3,580
151	719	Vision	1,978	2,018	2,058	2,099	2,141
151	721	Hospitalization	19,698	20,092	20,494	20,904	21,322
151	722	Workers Compensation	493	503	513	523	533
151	724	Retirement	5,183	5,287	5,393	5,501	5,611
151	725	OPEB	36,635	37,368	38,115	38,877	39,655
Total 151 - Accountant			134,600	137,292	140,037	142,838	145,694

SAULT STE. MARIE BRIDGE AUTHORITY

REVENUE FUND

ANNUAL BUDGET SCHEDULE BY ACCOUNT

ADMINISTRATION DEPARTMENT

DECEMBER 31, 2021

Account			Proposed Budgets				
Dept	Acct	Name	2021	2022	2023	2024	2025
153	701	Salaries	70,360	71,767	73,202	74,666	76,159
153	703	Longevity	610	610	610	790	790
153	715	FICA	4,362	4,450	4,539	4,630	4,723
153	716	Medicare	1,020	1,041	1,062	1,083	1,105
153	717	LTD & U.B. Life Insurance	1,486	1,516	1,546	1,577	1,609
153	718	Dental	1,591	1,623	1,655	1,688	1,722
153	719	Vision	179	183	187	191	195
153	721	Hospitalization	18,338	18,705	19,079	19,461	19,850
153	722	Workers Compensation	493	503	513	523	533
153	724	Retirement	4,578	4,670	4,763	4,858	4,955
153	725	OPEB	25,092	25,594	26,106	26,628	27,161
Total 153 - Executive Secretaries			128,110	130,662	133,262	136,095	138,802
158	728	Supplies	2,156	2,199	2,243	2,288	2,334
158	729	Postage	1,000	1,020	1,040	1,061	1,082
158	733	Periodicals	-	-	-	-	-
158	734	Memberships	4,000	4,080	4,162	4,245	4,330
158	807	Advertising	1,750	1,785	1,821	1,857	1,894
158	816	Salary Administration MDOT	7,653	7,806	7,962	8,121	8,283
158	820	Commutation Debit Accts	-	-	-	-	-
158	856	Audit Fees	16,407	16,735	17,070	17,411	17,759
158	858	Accounting Fees	12,108	12,350	12,597	12,849	13,106
158	865	Travel & Meeting Expense	-	-	-	-	-
158	902	Printing	-	-	-	-	-
158	914	Liability / Auto Insurance	3,600	3,672	3,745	3,820	3,896
158	923	Telephone	9,750	9,945	10,144	10,347	10,554
158	936	Contract Service Purchased	4,551	4,642	4,735	4,830	4,927
158	964	Software Purchase	4,100	4,182	4,266	4,351	4,438
158	965	Miscellaneous	891	909	927	946	965
158	966	Software Support	3,400	3,468	3,537	3,608	3,680
158	979	Equipment	155	158	161	164	167
158	989	Computer Equipment	1,509	1,539	1,570	1,601	1,633
158	990	Service Contract MDIT	5,172	5,275	5,381	5,489	5,599

SAULT STE. MARIE BRIDGE AUTHORITY

REVENUE FUND

ANNUAL BUDGET SCHEDULE BY ACCOUNT

ADMINISTRATION DEPARTMENT

DECEMBER 31, 2021

<u>Account</u>			<u>Proposed Budgets</u>				
<u>Dept</u>	<u>Acct</u>	<u>Name</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
Total 158 - Departmental Expenditures			<u>78,202</u>	<u>79,765</u>	<u>81,361</u>	<u>82,988</u>	<u>84,647</u>
159	980	Office Furniture	<u>962</u>	<u>981</u>	<u>1,001</u>	<u>1,021</u>	<u>1,041</u>
Total 159 - Departmental Capital Outlays			<u>962</u>	<u>981</u>	<u>1,001</u>	<u>1,021</u>	<u>1,041</u>
Total Administration Expenditures			<u>\$ 538,252</u>	<u>\$ 548,996</u>	<u>\$ 559,954</u>	<u>\$ 571,310</u>	<u>\$ 582,839</u>

SAULT STE. MARIE BRIDGE AUTHORITY

REVENUE FUND

ANNUAL BUDGET SCHEDULE BY ACCOUNT

OTHER EXPENDITURES

DECEMBER 31, 2021

Account			Proposed Budgets				
Dept	Acct	Name	2021	2022	2023	2024	2025
188	820	Commutation Debit Accts	197	201	205	209	213
188	828	Bridge Bus Toll Subsidy	17,500	17,850	18,207	18,571	18,942
188	840	Property Tax-Canadian	50,000	51,000	52,020	53,060	54,121
188	845	Property Tax-American PILT	50,000	51,000	52,020	53,060	54,121
188	856	Audit Fees	2,400	2,448	2,497	2,547	2,598
188	865	Travel & Meeting Expense	27,500	28,050	28,611	29,183	29,767
188	914	Liability / Auto Insurance	280,000	285,600	291,312	297,138	303,081
188	970	Other Leases & Rentals	1,000	1,040	1,061	1,082	1,104
Total Other Expenditures			<u>\$ 428,597</u>	<u>\$ 437,189</u>	<u>\$ 445,933</u>	<u>\$ 454,850</u>	<u>\$ 463,947</u>

SAULT STE. MARIE BRIDGE AUTHORITY
COMBINED CAPITAL FUNDS
ANNUAL BUDGET SCHEDULE BY DEPARTMENT
DECEMBER 31, 2021

Department	Proposed Budgets				
	2021	2022	2023	2024	2025
220 - Operations and Services department expenditure: \$	-	\$ 331,628	\$ 338,260	\$ 345,025	\$ 351,926
230 - American plaza expenditures	41,914	61,274	72,652	69,416	59,054
232 - Bridge deck expenditures	54,122	55,204	-	-	-
236 - Bridge maintenance and studies	109,140	120,686	158,507	198,191	118,138
238 - Capital expenditures	145,280	132,389	321,118	296,469	205,496
Total Capital Expenditures	\$ 350,456	\$ 701,181	\$ 890,537	\$ 909,101	\$ 734,614

SAULT STE. MARIE BRIDGE AUTHORITY

**CAPITAL FUND
ANNUAL BUDGET SCHEDULE BY DEPARTMENT
DECEMBER 31, 2021**

Department	Proposed Budgets				
	2021	2022	2023	2024	2025
220 - Operations and Services department expenditure:	\$ -	\$ 331,628	\$ 338,260	\$ 345,025	\$ 351,926
230 - American plaza expenditures	\$ 41,914	\$ 61,274	\$ 72,652	\$ 69,416	\$ 59,054
232 - Bridge deck expenditures	54,122	55,204	-	-	-
236 - Bridge maintenance and studies	109,140	120,686	158,507	198,191	118,138
238 - Capital expenditures	145,280	132,389	321,118	296,469	205,496
Total Capital Expenditures	\$ 350,456	\$ 701,181	\$ 890,537	\$ 909,101	\$ 734,614

SAULT STE. MARIE BRIDGE AUTHORITY

CAPITAL FUND
ANNUAL BUDGET SCHEDULE BY ACCOUNT
DECEMBER 31, 2021

Account	Proposed Budgets				
	2021	2022	2023	2024	2025
979 - Equipment	\$ 145,280	\$ 464,017	\$ 659,378	\$ 641,494	\$ 557,422
936 - Contract Service Purchased	151,054	181,960	231,159	267,607	177,192
258 - Capital administration expenditures	54,122	55,204	-	-	-
Total Capital Expenditures	\$ 350,456	\$ 701,181	\$ 890,537	\$ 909,101	\$ 734,614

SAULT STE. MARIE BRIDGE AUTHORITY

ASSET MANAGEMENT PLAN
2021—2025

ASSET MANAGEMENT PLAN

Asset Management Plan

Program Overview

The International Bridge Administration (IBA) utilizes an Asset Management Plan (AMP) to strategically manage the bridge in a cost-effective and efficient manner.

Asset Management as defined in Michigan is “an ongoing process of maintaining, upgrading and operating physical assets cost-effectively, based on a continuous physical inventory and condition assessment.” [MCL 247.659a(1)(a)] It consists of five major tasks:

1. Developing policy goals and objectives
2. Data collection
3. Planning and programming
4. Program delivery
5. Monitoring and reporting results

The IBA AMP document is a comprehensive formalized process guidance document used for generating the annual Asset Management Report of maintenance performed on assets maintained by IBA.

The annual Asset Management Report is an executive summary report generated from program delivery data, and is presented to the Sault Ste. Marie Bridge Authority Board each November following the previous year’s activities. The annual report is compiled by the Bridge Engineer and Asset Manager.

The Asset Management Plan (AMP) consists of the following components:

- Operational Model
- Inspections & Studies
- Bridge Asset Elements
- Facilities Asset Elements
- Administrative Asset Elements
- Safety & Security
- Long Range Capital Plan

Bridge Asset Elements include:

- Bridge Deck
- Expansion Joints
- Pedestrian Rail
- Curb Rail
- Catwalk Plates
- Structural Paint Systems
- Utilities

Facilities Asset Elements Include:

- Building Roofs
- Paved Surfaces
- Flooring
- Heating, Ventilation & Air Conditioning (HVAC)
- Furniture, Fixtures, & Equipment (FFE)

Administrative Asset Elements include:

- Capital Equipment
- Non-Capital Equipment
- Information Technology

The Asset Management process involves four steps:

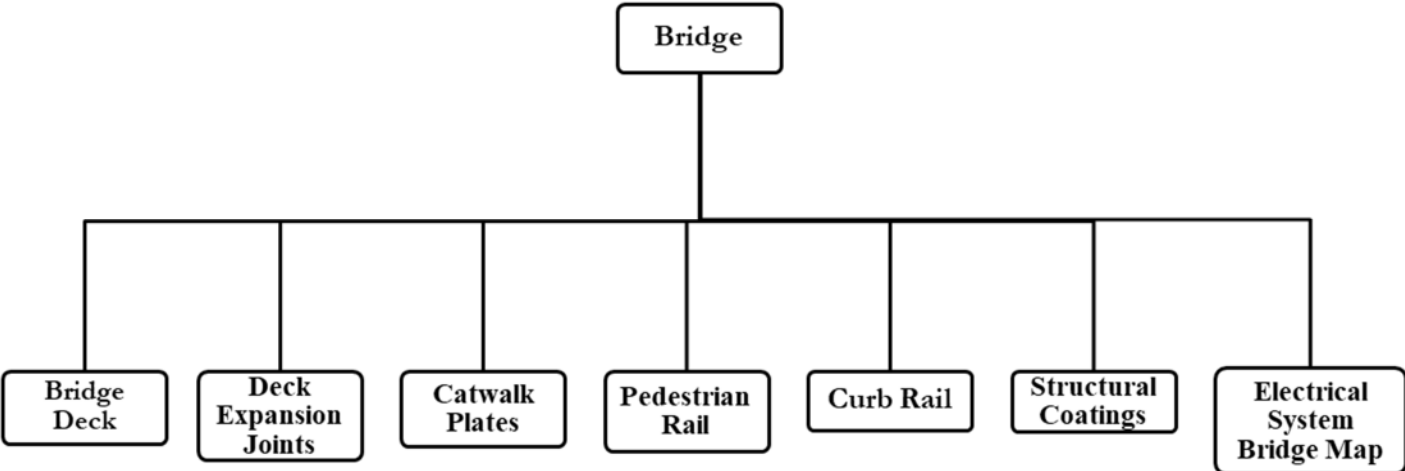
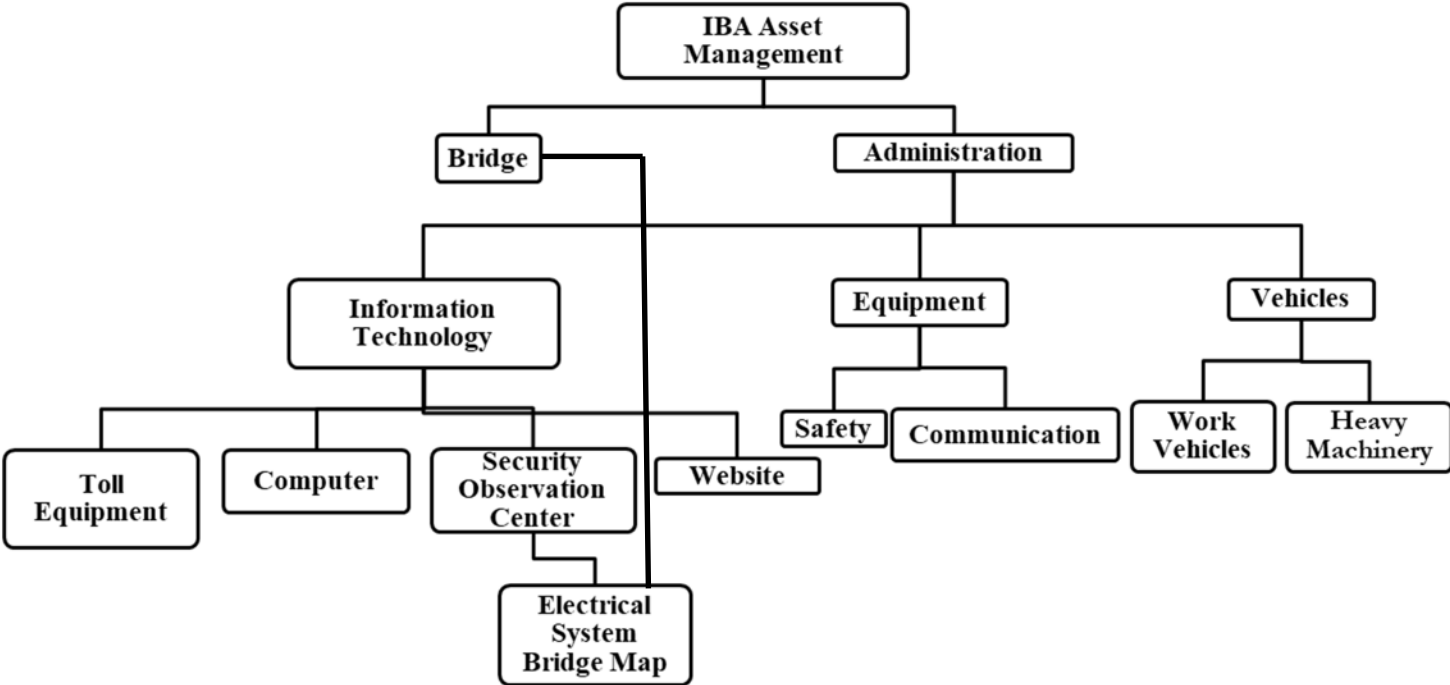
1. Evaluate element condition and prioritize repairs
2. Plan the work and create a program budget
3. Complete the work
4. System monitoring and performance evaluation

Asset Management Plan

Operational Model

Asset Management Flow Chart

The asset management flow chart depicts the organization and interactive relationships between the Bridge Asset Elements and the Administrative Asset Elements.



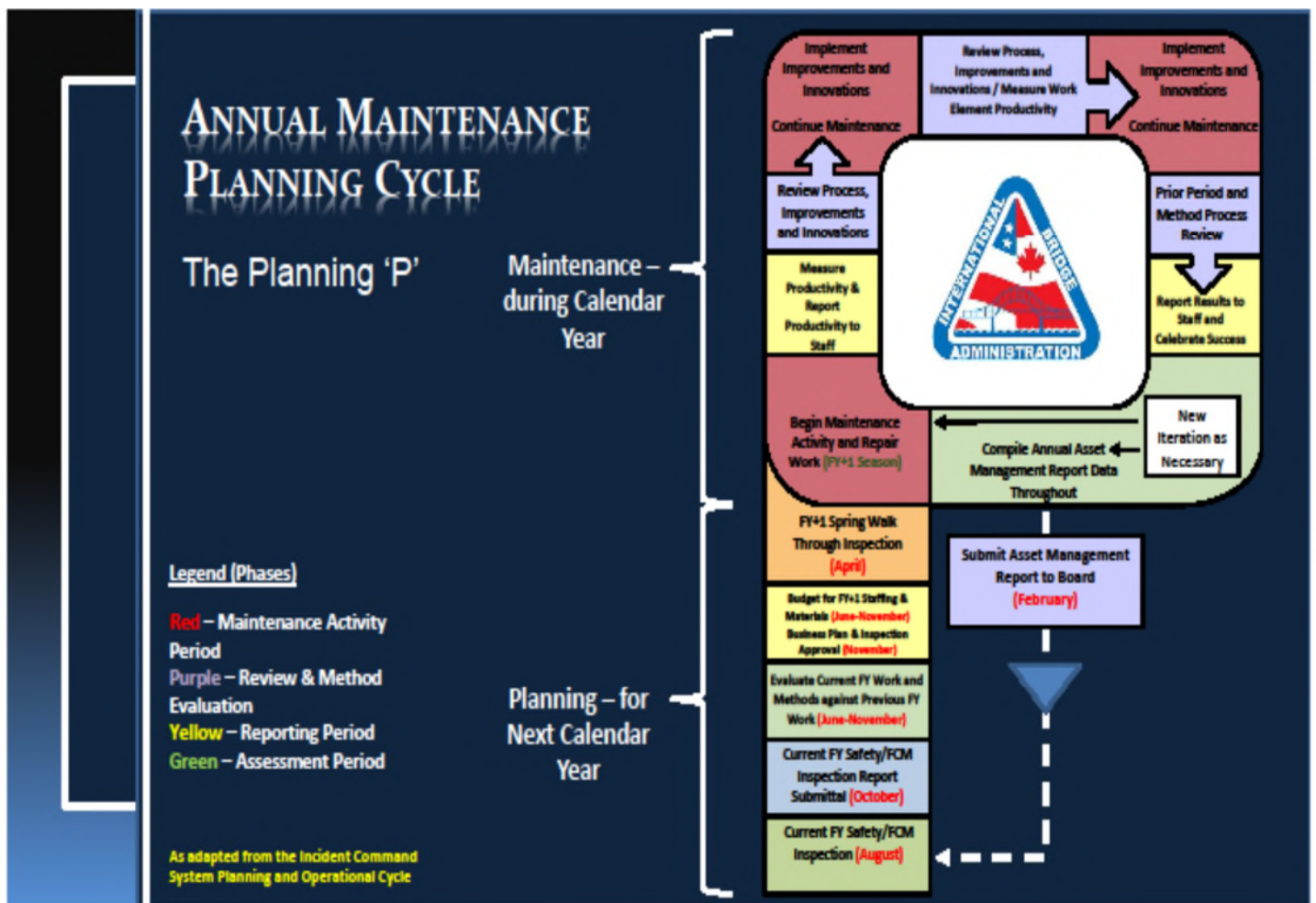
ASSET MANAGEMENT PLAN

Asset Management Plan

Planning “P”

The Planning “P” is an innovative singular graphic which completely details the IBA’s cyclical asset management process. Developed in-house by IBA staff, the planning “P” is modeled on the US Department of Homeland Security Incident Response system.

The tail of the “P” begins with the yearly inspections, which are the catalyst for entering the cyclical loop. Once in the loop, asset management principles such as data gathering, planning, analysis of products and processes, and implementation are followed around the loop until goals are reached. The loop ends with the annual asset management report to SSMBA Board.



ASSET MANAGEMENT PLAN

Inspections & Studies

2018-2021 Indefinite Delivery of Services Contract

IBA has an IDS contract in place with the firm of Hardesty and Hanover (H&H), from Okemos, Michigan, to provide professional engineering services. The contract has a 3-year term and was awarded for the fourth time for the period 2018-2021. The professional services in past years included an element level annual condition inspection and a partial fracture critical member (FCM) inspection each year. The purpose of the inspections are to ensure the continued safe structural condition of the bridge as required by federal law, and to identify prioritized bridge maintenance needs and capital project recommendations.

The inspections include written reports which document the inspection findings and recommendations.

In addition to inspection services, the IDS contract may provide for structural engineering services for emergency incidents, design oversight of other consultants engaged in bridge projects, and design services for maintenance projects identified by the regular inspections. The total IDS contract authorization is not to exceed \$1,000,000 (US), with necessary individual service authorizations issued on a cost plus fixed fee basis.

Hardesty and Hanover has teamed with WSP (formerly MMM Corporation of Mississauga, Ontario), to perform annual and fracture critical member inspections in Canada, and provide the required Engineer licensed in the province of Ontario. In addition, Hardesty & Hanover is performing the U.S. Fracture Critical Member inspections during the term of the contract.

The current IDS expires in March, 2021. It is anticipated that the term for the next contract will be a multi-year contract; however, the IDS contract will no longer be used by MDOT contracting services. Future work which was covered by the IDS in the past will now be administered through a “Terms and Conditions” (TAC) contract. TAC contracting will treat each project as a contract, whereas the IDS contract administered projects authorizations.

Annual Inspection

In past years, the condition inspections performed by the bridge’s Engineer-of-Record were performed annually. The annual inspections have exceeded both US and Canadian guidelines, which mandate that these inspection be performed every two years minimum. Over the years, costs for these inspections have increased substantially. It is also worth noting that the bridge continues to be rated as good condition and well-maintained. Given the bridge’s condition and inspection costs, a decision was made to

adjust the inspection frequency to the minimum mandate of every two years, with the next inspection scheduled for 2021. In addition, the Fracture Critical Member (FCM) inspection will revert back to having the entire bridge inspected every two years. The annual and FCM inspections will be performed in staggered years, such that the Authority will continue to receive a report each year at its regularly scheduled November meeting. The implementation of the inspection frequency adjustment will result in savings in excess of \$500,000 US over a ten-year period, with continued conformance to US and Canadian federal inspection guidelines.

Fracture Critical Member (FCM) Inspection

FCM inspections are defined as examination of these bridge elements whose failure could compromise the structural integrity of the bridge, or a portion of the bridge. The FCM inspection were initially done every two years; however, beginning in 2010 the inspection frequency was changed to staggered inspection of halves of the bridge each year. This was done for cash flow concerns present at that time. As previously stated, the FCM inspection will revert to its two year frequency beginning in 2020.

IBA Annual Walkthrough Inspection

IBA maintenance staff conducts an annual spring walkthrough inspection to visually identify any other maintenance concerns that need to be addressed. The annual IBA walkthrough inspection is a general inspection of the bridge deck, substructure, and superstructure.

Underwater Inspection

Underwater inspections of bridge piers is mandated for completion every five years. Fourteen of the bridge’s 62 bridge piers are located in the St. Mary’s River.

The inspection must be performed by a pre-qualified underwater engineering inspection firm. The 2019 underwater inspection was completed in June.

The next required inspection will be in 2024.

Deck Study Update and Infrared Inspection

An updated deck and infrared thermography study in 2018, determined negligible change in deck deterioration conditions have occurred between 2013 and 2018. Updated deck/infrared studies will be performed every five years.

Engineering Studies

Engineering studies are the first phase of major capital improvements and operational assessments. The study phase is typically followed by the design phase and ultimately the construction phase.

ASSET MANAGEMENT PLAN

Redundant Fiber System Study

The bridge's fiber optic system (used to operate the bridge security system) currently runs through a network of sidewalk-encased conduits, and externally mounted cable trays and conduit racks. The existing network is old, cumbersome, and does not allow for expansion of the number of conduit strands because the conduits are full. Of the 24 strands currently in place, 20 are owned by IBA and used for the security system, while four strands are leased to Great Links Interlink (GLI). IBA is currently realizing a small revenue stream from GLI's strands; however, market interest in an expanded fiber system on the bridge is present and could be a potential source of significant future revenue.

In addition, while the existing network has met past needs, it is singular, and should it be interrupted for any reason the security system would be inoperable. It is therefore advisable to build a new fiber network composed of two mutually redundant conduits capable of significant increased fiber expansion. The new conduit system will be structurally engineered and appropriately sized for current needs and future expansion, with increased capacity also allowing for future leasing to private companies. Once complete, the US plaza, the Canadian Plaza, and the bridge will all be networked, with system operational capability from both the IBA administration building and the McIntyre maintenance facility in Ontario.

2019 Asset Management Report**Bridge Deck**

The Bridge Deck serves as the platform for trucks and automobiles to cross the International Bridge. The deck is currently on a schedule that requires the maintenance crew to maintain the bridge deck until its complete replacement in the late 2040's.

At the beginning of the 2019 summer construction season, IBA maintenance staff walked the bridge and identified/sealed individual cracks. IBA maintenance staff sealed 11,306 feet at a rate of 17 feet per man hour.

A flood coat was performed on the US arch span in 2019. The flood coat will be effective for 10 years and will eliminate the need for individual crack sealing during that time period. Previous flood coats were applied to the mid-spans in 2018 and the Canadian arch in 2016.

In 2021-22, flood-coating will be performed on the north and south bridge approaches, which will complete the entire bridge.

Expansion Joints

There are 137 expansion joints located in the deck of the International Bridge in 69 locations. Each location consists of one road surface joint and one set of sidewalk joints, with the exception that the south abutment has a road joint only. There are seven different types of joints: Sliding Plate, Finger, Open, Poured, Compression Seal Diaphragm, and EMSEAL.

IBA maintenance staff conducted a 2019 inspection and recorded the condition of the bridge expansion joints in a condition track spreadsheet. Four EMEALs were installed in 2019.

In June 2015, a product called Bridge Expansion Joint System (BEJS) from EMSEAL was tested on Joint 8. Inspection of the test joint in 2016, showed positive results. To date a total of ten expansion joints have been fitted with the Bridge Expansion Joint system.

The goal for 2020, is to install five more of these joints. It should be noted that the EMSEAL joints have a life expectancy of ten years, and are being used to replace poured joints, which were seeing life expectancies of 1-2 years.

Pedestrian Rail

Both the pedestrian and curb rails are on a preventative maintenance schedule and schedule until complete deck replacement in the late 2040's.

The bridge pedestrian rail provides the outer barrier on the bridge deck, and provides a secondary means to redirect an out-of-control vehicle back into the driving lane. Structural components such as posts that transfer crash force to the deck are critical to its functionality and are of particular importance.

IBA maintenance staff replaced 17 green rail uprights in 2019, on the pedestrian rail. The lack of focus on this area of bridge maintenance was the direct result of priority being shifted on utilizing IBA maintenance staff on projects that are typically contracted. The long term goal is to continue monitoring all posts, making repairs on posts and spindles as needed.

The 2020 goal is to maintain the average productivity rate of 5 posts per week, and a yearly goal of 20 posts. This translates into a mid-term (five year) goal of 100 posts, which should address all current posts needing repair, plus allow for future deterioration.

ASSET MANAGEMENT PLAN

Curb Rail

The bridge curb rail provides the primary means to re-direct an out-of-control vehicle. The curb rail's structural components also transfer crash force to the deck and are critical to proper functionality of the curb rail. The annual inspection has reported that the curb rail needs repairs to continue its proper function. In 2019, IBA staff completed two repairs to the curb rail.

Cleaning and coating of the curb rail commenced in the summer of 2018. Cleaning was performed utilizing a 7000 psi pressure washer, and the cleaned surface was then coated with a High Ratio Calcium Sulfonate Alkyd (HRCSA) one coat paint system that has shown similar performance characteristics to a traditional three coat paint system, at much less cost. 560 feet of curb rail was coated in 2019. To date approximately 4,292' has been cleaned and coated.

HRCSA coating of the curb rail will be postponed for 2020 due to large scale scheduled bridge projects and delays caused by the COVID-19 pandemic.

Catwalk Plates

The bridge catwalk provides maintenance crew access to the underside of the bridge. Without proper maintenance the plates will rust or heave and become unsafe for the crew to walk on. Plate repair entails plate removal, pack rust removal, cleaning/recoating, and reinstallation. There are three different types of fasteners used on the catwalk plates: rivets, carriage bolts and hex bolts. In extreme cases, plates are entirely replaced.

During the 2019, summer construction season, IBA maintenance staff conducted a visual inspection of the 2,523 catwalk plates. A total of 6 catwalk plates were replaced in 2019.

There are no repairs or replacements scheduled for 2020 as large scale projects will be focused on.

Structural Paint Systems

During each annual inspection, the bridge's coating systems are inspected. Protective paint coatings are crucial to maintaining the structure and functionality of the structural steel elements.

The yearly plan is to continue the preventative maintenance strategy of spot painting using HRCSA. The area of focus also continue to be the US arch and curb rail.

HRCSA spot painting will also commence on the lower half of the Canadian arch, and the pedestrian rail.

Utilities

Bridge utilities consist of four components:

- Electric
- Fiber Optic
- Dry Risers
- Storm Sewer

The electrical system on the International Bridge consists of three nodes (platform mounted power equipment) that provide power to the bridge lighting, security system, and power supply for bridge maintenance activities. These nodes are inspected every fall and spring, checking for failed cable connections, dirt and grime, camera operability, and operability of various ancillary components. The entire bridge has been upgraded to LED lighting. A security system upgrade was also recently performed; however, the conduits, boxes, and other various hardware in many cases are original to the bridge's construction and in need of replacement at some point in the future. In-house monitoring of this hardware is on-going, with replacements made as necessary.

Fiber optic lines on the bridge currently consist of 24 strands, 20 of which service the bridge's security system, and four of which are owned by Great Lakes Interlink (GLI) for private use. GLI leases the airspace provided by IBA, which provides a small revenue stream to the bridge.

The bridge's dry risers are stand pipes which are at pier 18R on the US side and pier 40 on the Canadian side. The risers are in effect dormant water mains which may be actuated by opening a valve at ground level at each location. The risers, which are fed by city water main, may thus be utilized to bring water up the bridge's deck in the event of a fire, or for use in construction activities. The Canadian riser was last used by contracted services during the Canadian arch deep overlay in 2009. Each riser is inspected and tested yearly by bridge staff and the respective city's fire departments.

The bridge's deck is drained through a system of curb drains and scuppers. Drainage flows through this system and down via a series of vertical spouts which then feed a series of dedicated storm sewer mains built in 1962 as a component of the bridge's construction. Outfalls from the storm sewer mains then empty into the St. Mary's river at various points in the crossing canals. Periodic maintenance of these mains includes vactoring (cleaning) of sand and debris from the mains and associated manholes. While this treatment has

ASSET MANAGEMENT PLAN

been adequate, these mains are approaching 60 years old and a video inspection utilizing a remotely operated vehicle (ROV) is currently being planned.

Facilities

The necessity for facilities asset management as a component of a bridge asset management plan was made apparent during several recent facilities upgrade projects.

In 1962, the International Bridge was built at a cost of approximately \$21 million. It is roughly estimated that the cost of the supporting facilities built at the time was \$500K. Thus, the facilities accounted for about 2.3 percent of the total asset.

In 2016 the US Toll Plaza upgrade was completed at a cost of \$9M. In 2018, the CBSA Plaza upgrade was completed at a final cost of approximately \$45M in US funds. The 2017 bridge replacement cost is estimated at \$115M. Thus, facilities now account for approximately 32 percent of the total asset.

In light of this substantial shift in asset values, IBA in 2016, created and filled a full time position for a Bridge and Facilities Asset Manager. The position is not only responsible for managing bridge asset elements, but also facility elements such as scheduled maintenance, warranties, and upkeep of the following facilities:

- Toll Plaza Administration Building
- Toll Plaza Maintenance Building

Facilities Asset Elements

Building Roofs

All building roofs are inspected yearly and on a 30 year replacement cycle.

Paved Surfaces

Asphalt paved surfaces are on a 20 year replacement cycle, and will be given preventative maintenance treatments including crack sealing, chip sealing, and mill/replace. Concrete paved surfaces are on a 50 year replacement cycle, and will be given preventative maintenance treatments including crack sealing, flood-coating, and overlay treatment.

Flooring

Facility flooring is on a 20 year replacement cycle.

Heating, Ventilation & Air Conditioning (HVAC)

HVAC is on a 20 year replacement cycle.

Furniture, Fixtures, & Equipment (FFE)

FFE is on a 20 year replacement cycle.

Administrative Asset Elements

Capital Equipment

Capital equipment is defined as any piece of equipment which required a capital outlay in excess of \$5,000 (US funds). Capital equipment is typically characterized by vehicles and construction equipment.

A schedule of this equipment is maintained and includes assigned equipment number, year purchased, and projected year of replacement. As the projected year of replacement approaches, the equipment is evaluated and either continues in service (with an updated year of replacement), or it is replaced. The old equipment is then typically auctioned.

The capital equipment schedule is updated in each year's business plan.

Non-Capital Equipment

Non-capital equipment may be defined as any equipment which does not cost in excess of \$5,000, but which must still be maintained and replaced on a scheduled basis. Some examples of this include safety equipment, communications equipment such as handheld radios, and smaller maintenance equipment such as mowers, snow blowers, etc.

Information Technology (IT)

IT elements consist of the bridge's toll equipment, servers/computers, the Security Observation Center (SOC), and the bridge's www.saultbridge.com website.

The Toll Bridge Software 10-year project with Conduent (previously Xerox/ACS) under a \$6.9 million contract which replaced obsolete toll software used by the Sault Ste. Marie International Bridge and Blue Water Bridge.

ASSET MANAGEMENT PLAN

IBA has completed the deployment of the software and is waiting for agreement on the maintenance and warranty document between Conduent and Department of Technology Management and Budget for system hosting and routine maintenance.

The Bridge Administration website continues to provide camera views of bridge lines, wait times, and construction views for public monitoring and use.

- Toll Booths and Plaza Site
- James McIntyre Maintenance Building
- CBSA Traffic Building
- CBSA Commercial Building
- CBSA PIL Booths and Site

Safety and Security

Safety

- Safety is the top priority at the bridge, and in 2019 bridge staff received several training opportunities, including attendance by two staff at the state wide safety conference. In engaging all employees on enhancing a safe work environment, a number of accomplishments were noted.
- The IBA in-house safety committee continues to meet on a regular basis to advance IBA culture of safety.
- The IBA continues to be represented with a seat on MDOT's state wide safety committee.
- In the last 10 years, IBA staff have recorded only 13 days lost time due to work related injuries. The longest period without injury was noted on March 4, 2017 when IBA staff celebrated 6 consecutive years without an incident. Currently, IBA has surpassed a year-and-a-half to day, and has no active workers compensation injury cases

Management will continue to partner with employees to improve and enhance the culture of safety at the bridge.

Security

The security of the International Bridge and support facilities continues to be of utmost importance in the face of continued terrorist threat. Many additional security measures have been implemented since the September 11, 2001, terrorist attack on the United States.

In 2002 IBA procured the services of an Infrastructure Security Consultant team who conducted a security assessment of the International Bridge to assess the long-term security needs. In November 2002, the final report on the Security Assessment Study was issued. The study and report are classified as security sensitive information (SSI) and the content is confidential. The purpose of the study was to evaluate the existing bridge structure for potential weaknesses against threats and to systematically develop options to enhance the security of the facility. The methodology utilized involved several phases including: Information gathering; on-site assessments and reconnaissance; detailed assessment of weaknesses and plausible threat scenarios; identify, investigate and cost mitigation measures; and a cost benefit analysis for each mitigation option.

A security system design contract for a system as recommended in the study was executed with a consulting engineering firm on September 3, 2003. The design and bid documents were completed and qualified system installation contractors were allowed to bid, in a secure bidding environment, and bids were opened on July 20, 2004. A contract in the amount of \$1.3 million for installation of the system was executed with the lowest qualified bidder. Grants in the amount of \$835,000 from the U.S. Department of Homeland Security, with the assistance of MDOT Safety and Security Division, were applied to the system cost. The work on the system installation contract was complete and accepted in 2005. The system continues to provide essential bridge security surveillance as well as traffic management functionality.

Great progress has been made to engage bridge security stakeholders and first responders, such as U.S. Custom and Border Protection offices, the U.S. Army Corps of Engineers, and both U.S. and Canadian local and regional law enforcement and emergency response staff, by providing full remote monitoring capability of the bridge security system.

All IBA operational staff are trained to operate the security system and are on a semi-annually recurring training program.

In 2010, IBA was successful in securing \$517,000 in federal Homeland Security Funding through the Michigan Homeland Security Division of the Michigan State Police needed for additions and upgrades to maintain the IBA security system. This upgrade was completed in April 2012.

ASSET MANAGEMENT PLAN

Security (Continued)

Annual routine maintenance, servicing, and equipment replacement is included in the asset management plan for the IBA. Cost to maintain the system is dependent on the life cycle of the system components and fluctuates with an average annual maintenance cost of \$54,000.

System software patches and updates are performed monthly, system servicing is contracted semi-annually, and equipment replacement is averaging approximately 3 cameras annually.

Critical Infrastructure Protection and Emergency Response Activities

Critical infrastructure protection and emergency response by bridge staff is tested every year. IBA works closely with federal, state, provincial, and local border security stakeholder agencies, as well as emergency response law enforcement agencies on both side of the border, on a number of initiatives to enhance the ability to deter, detect, and mitigate risk and response to a terrorist threat.

SAULT STE. MARIE BRIDGE AUTHORITY

LONG RANGE CAPITAL PLAN
2021—2050

CAPITAL PROJECT DESCRIPTIONS

Capital Plan Executive Summary

The International Bridge has retained the firm of Hardesty and Hanover, Engineering Consultants, to conduct annual inspections of the bridge on both the U.S. and Canadian sides, and to make recommendations on bridge maintenance and capital improvements to ensure the continued structural integrity and safety of the bridge.

Recommendations for maintenance and capital projects have been documented by the International Bridge Administration in the annual Business Plan, specifically within the Asset Management Plan and the Long Range Capital Plan, which are components of the Business Plan. Revisions, additions, or other changes to prior capital plans have been identified and detailed with the use of footnotes in applicable sections. All revisions, additions, or changes are based upon recommendations coming from the annual inspection report, or based upon input from bridge owners, and have been implemented in a continuing effort to manage capital expenditures and cash flow in the best interests of the bridge and its owners.

It should be noted that 2017 marked a major shift in strategy for certain capital projects. IBA in-house maintenance efforts have begun to increase focus on preventative maintenance strategies in order to defer major capital projects. IBA staff have previously employed these preventative maintenance strategies with regard to the bridge deck with yearly crack sealing efforts. These efforts have resulted in significant deferral of deck overlay and replacement projects, and it is expected that future crack sealing and flood coating will continue to defer these projects.

Similarly, maintenance staff in 2017 began employing preventative maintenance strategies with regard to coatings systems. With concurrence from Hardesty & Hanover, spot painting of the bridge's coatings systems are done in order to defer capital paint projects. In particular, the U.S. arch will be spot painted in order to defer the planned capital contract to 2029, and spot painting will be employed on other coatings systems as well.

The IBA maintenance department performs a wide range of tasks throughout the course of the year. These include:

- Bridge repairs: including repairs to the bridge deck, bridge rails, curb rails, and drainage systems;
- Winter maintenance; snow plowing, sanding bridge and plazas, shoveling sidewalks;

- Maintenance and janitorial services on IBA and CBSA facilities;
- Janitorial maintenance of both U.S. toll plaza and Canadian CBSA plazas including grounds and buildings;
- Maintenance of all IBA equipment;
- Bridge and facility electrical and lighting maintenance;
- Touch-up painting;
- Minor road maintenance and repairs;
- Bridge security patrols.

The International Bridge Administration (IBA) continues to expand in-house asset management systems, including implementation of MDOT's SIGMA timekeeping system for use in tracking maintenance work and expenditures.

The activity-based costing system plays an important role in tracking costs and schedules for maintenance projects and activities performed by IBA maintenance staff. The maintenance recommendations in the Annual Inspection Report, such as bridge joint replacement, spot painting, and deck patching, form the basis for the project list in the system.

As a component of the asset management effort underway at the bridge, process improvement in scheduling and tracking of projects have been implemented which will result in greater efficiency in completing all projects. While the activity-based SIGMA system will be used for tracking project labor and equipment costs, completion of projects will continue to be tracked with the annual inspection report itself. As projects are completed, completion dates and final costs will be denoted within the table of projects and reported back to the engineer-of-record, as well as SSMBA.

CAPITAL PROJECT DESCRIPTIONS

Capital Plan Executive Summary

GASB 34 defines infrastructure assets as long-lived capital assets that normally are stationary in nature and can be preserved for a significantly greater number of years than most other capital assets. Capital plan projects are grouped based upon projects designed to maintain the existing infrastructure (maintenance projects and asset management projects), or improvements that are permanent and add significantly to the site or structure that extends the life of the asset (construction projects).

At this time, the following projects are presented within the 40-year, long-range capital plan:

Maintenance Projects

- Contractual Bridge Painting
- Acquisition of New Equipment
- Rocker Link Monitoring
- Pier 20 & 21 Monitoring

Construction Projects

- Electrical Lighting Upgrade
- Redundant Fiber System

Inspections and Studies

- Annual Inspection
- Fracture Critical Inspection
- Underwater Inspection
- Deck Study and Infrared Inspection
- Redundant Fiber System Study

Asset Management Projects

- Bridge Expansion Joint Replacement
- Bridge Deck Overlay
- Bridge Deck Replacement
- Curb Rail and Bridge Rail Repair
- Catwalk Plates
- Bridge Security System
- Toll Lane Software Replacement

CAPITAL PROJECT DESCRIPTIONS

MAINTENANCE PROJECTS

Contractual Bridge Painting

Project Description

Full containment coating removal and repainting of all bridge superstructures and substructure elements.

Project Background

The bridge requires regular cleaning and painting of the structural steel. This work is typically done by an outside contractor who performs full coating removal and repainting with an MDOT/FBCL approved bridge paint system. With the exception of the American Approach (spans 1 and 2), curb rail, and the top part of the Canadian arch, all spans have been cleaned of the original lead paint and have been recoated.

Project Status

Next scheduled project: US Arch 2029

Timeline and Cost

Design Engineering

Included in Cost

Construction Engineering

Included in Cost

Construction Cost		3 Coat Zinc	HRCSA
US Arch Tail Spans	2029 2030	\$7.7M	\$3.7M
US Arch Spans	2031 2032	\$15.0M	\$7.2M
US Power Canal Span	2033	\$4.9M	\$2.3M
US Approach Spans	2041	\$9.8M	\$4.7M
Center Girder Spans	2042 2043	\$31.7M	\$15.2M
CDN Approach Spans	2043	\$9.8M	\$4.7M
Full CDN Arch Span	2047	\$15.2M	\$7.3M
Total Cost (2018 US Dollars)		\$94.1M	\$45.1M

Acquisition of New Equipment

Project Description

Regular replacement of equipment is required. This includes trucks, snow plows, generators, street sweeper, toll equipment, electric generators, bridge lighting, welding equipment, computers, and other planned equipment in excess of \$5,000 per asset.

Project Background

Major equipment expenses (greater than \$5,000) are borne by the Capital Reserve Maintenance Fund rather than the operations budget. A variable yearly budget based upon a replacement schedule created from the expected equipment service lives has been established. As time progresses it is possible to provide a more accurate approximation on a 10 year basis based upon contemporaneous equipment costs.

Project Status

Capital equipment replacement schedule is established and reviewed/updated yearly.

Timeline and Cost

Equipment Cost

2021 - 2029	\$1,533,555
2030- 2039	\$2,681,538
2040- 2049	\$2,569,912

Total Cost

\$86,785,005 (2021 - 2050)

CAPITAL PROJECT DESCRIPTIONS

MAINTENANCE PROJECTS

Rocker Link Monitoring

Project Description

Monitoring rotational movement of two remaining rocker links in the U.S. arch and four remaining link arms in the Canadian arch.

Project Background

Rocker link pin and link arm movement in eight locations on the bridge arches have been monitored since 2008. The rocker links allow the arches to move longitudinally with fluctuations in seasonal temperature.

Monitoring initially consisted of seasonal field measurements of arm movement. In 2010 all eight link pins were ultrasonically tested and strain gauges were placed on the link arms at the south end of the U.S. arch. Gauges were placed at this location after field measurements indicated decreasing rotational capability of the links there. The other six locations showed (and continue to show) normal rotational capacity. Ultrasonic testing determined all pins to be structurally sound.

In 2015 the strain gauges on the US arch south link arms indicated that stresses were beginning to approach maximum allowable limits. The two link arms at this location were accordingly replaced with disc bearings in 2017, at a cost of approximately \$500,000.

The remaining six link arms and pins will now continue to be monitored through seasonal field measurements. At such time as stresses begin to increase, it will be due to the inability of the arm to rotate on the pin. This will be evident in the field measurements gathered, at which point strain gauges will again be placed on arms in question for more precise monitoring.

Project Status

The remaining six links will be monitored by taking steel tape measurements at summer and winter temperature extremes. This data is typically gathered with use of the state reach-all. New data is then compared to past data at each link arm to monitor changes in rotational capacity.

The newly installed disc bearings will also continue to be monitored as they are a newly deployed technological innovation to the US arch.

Timeline and Cost (Future Link Replacement in Six Locations)

Design Engineering	
2015	\$0 (Plans Complete)
Construction Engineering	
	\$ 225,000
Construction Cost	
	\$1,500,000
Total Cost	
	\$1,725,000

CAPITAL PROJECT DESCRIPTIONS

MAINTENANCE PROJECTS

Pier 20 & 21 Monitoring

Project Description

Monitor seismic and vibratory conditions in piers 20 and 21 during US Army Corps of Engineers (USACOE) north channel blasting project from 2020 through 2021.

Project Background

The USACOE, in preparation for the upcoming lock construction, will be deepening the west approach's north channel by blasting and dredging 315,000 cubic yards of material from the channel bed. Piers 20 and 21 are in proximity to the construction zone and must be monitored during construction activities.

Pier monitoring is being performed via four Remote Monitoring Stations (RMS), which were installed by MDOT's Construction & Technology (C & T) group and IBA staff. The RMS units gather and transmit data to C & T in Lansing, where it is compiled and sent to the bridge's engineer-of-record for regular analysis. The engineer-of-record also performed a pre-construction condition survey of the piers, and a final re-port will be delivered in 2021.

Project Status

Project issued under IDS authorization.

Timeline and Cost

Study

2019	\$48,395 requires FY 2019 budget amendment.
2020	\$46,936
2021	\$53,739

Total Cost

\$149,070

CAPITAL PROJECT DESCRIPTIONS

CONSTRUCTION PROJECTS**Electrical Lighting Upgrade****Project Description**

Upgrade and replace the existing lighting appurtenances on the International Bridge structure.

Project Background

A 2007 consultant study reported that existing lighting on the bridge is in fair condition, but there are some deficiencies that will need to be addressed during future projects.

Project Status

All lighting has been upgraded to LED. Light hardware, electrical boxes, conduit, and other appurtenances remain serviceable but in need of future replacement. The construction phase of lighting upgrades will run concurrently with scheduled bridge projects.

Timeline and Cost**Design Engineering**

Included in Cost

Construction Engineering

Not needed

Construction Cost

2049	Canadian and US Deck Lights	\$ 31,077
2049	Canadian and US Light Standards	\$ 24,426
2049	Replace all deck conduit and pull boxes*	\$ 471,000

*Completed at time of deck replacement

Total Cost

\$ 526,503 (USD) (2013 Dollars)

CAPITAL PROJECT DESCRIPTIONS

INSPECTIONS & STUDIES

Annual Inspection

Project Description

Yearly inspection of the entire bridge structure to ensure acceptable conditions of all structural components, will now be done bi-annually.

Project Background

An annual inspection of the bridge has been performed every year since the bridge was built in 1962. The 58th inspection was conducted in 2019, and the inspection report states "the bridge is in good condition." Items that should be addressed to adequately maintain the bridge are identified and reported as part of the inspection. The maintenance items are addressed by IBA and contracted forces as recommended in the inspection report and per the IBA AMP.

Project Status

Scheduled bi-annually.

Timeline and Cost

Design Engineering

Not Necessary

Construction Engineering

Not Necessary

Inspection Cost

Bi-annual \$130,000

Total Cost

\$ 2,600,000 (2018 Dollars)

Fracture Critical Inspection

Project Description

Periodic inspection of fracture critical elements of the bridge.

Project Background

The Federal Highway Administration requires a biannual inspection of all fracture critical elements on the bridge. The IBA contracts with Hardesty and Hanover (H&H) to inspect the Canadian portion and the American portion of the bridge on alternating years. H&H has identified a total of 1,600 fracture critical elements on the bridge. Bi-annual inspection of the entire structure will begin in 2020.

Project Status

Scheduled annually.

Timeline and Cost

Design Engineering

Not Necessary

Construction Engineering

Not Necessary

Inspection Cost

Half of bridge is inspected every year.
Annual \$ 110,000

Total Cost

\$4,400,000 (2018 Dollars)

CAPITAL PROJECT DESCRIPTIONS

INSPECTIONS & STUDIES

Underwater Inspection

Project Description

Periodic inspection of all piers below the water line.

Project Background

The Federal Highway Administration requires an in-depth inspection of the underwater portions of the piers. These inspections are done at 5 year intervals. The last in-depth underwater inspection was done in 2019 and showed no major findings.

Project Status

Next scheduled inspection in 2024.

Timeline and Cost

Design Engineering

Not Necessary

Construction Engineering

Not Necessary

Inspection Cost

Every 5 years, next inspection:
2024 \$ 65,782

Total Cost

\$ 526,256 (2019 Dollars)

Deck Study & Infrared Inspection ¹

Project Description

Follow-up deck study and infrared thermography (IR) survey which will compare contemporaneous deck data to data gathered for previous IR and deck studies.

Project Background

Updated deck and infrared thermography studies completed since the initial 2008 study give a five year comparative analysis to data gathered since 2008, thus quantifying the change in deck deterioration conditions which have occurred during that time frame. The data analysis continues to validate the ability to move the deep overlay deck resurfacing to 2031 - 2034, and possibly further.

Project Status

The most recent study was performed in 2018 and is subsequently scheduled in five year increments. The 2018 study was performed in conjunction with the 2018 annual inspection, and showed negligible increases in deck deterioration since 2008.

Timeline and Cost

Design Engineering

Not Necessary

Construction Engineering

Not Necessary

Inspection Cost

Every 5 years, next inspection:
2023 \$ 40,719

Total Cost

\$325,752 (2018 Dollars)

¹ Done in conjunction with annual inspection.

CAPITAL PROJECT DESCRIPTIONS

INSPECTIONS & STUDIES

Redundant Fiber System Study

Project Description

Perform a feasibility analysis of best means and methods for a future construction project to update/improve the security system fiber optic capability. The study will create a conceptual design of a new fiber conduit network to enable system redundancy and increased capacity. It will also create a high level estimate of construction costs including design engineering and construction engineering.

Project Background

The existing network is old, cumbersome, and does not allow for expansion of the number of conduit strands because the conduits are full. In addition, portions of the various conduit carrying structures are 15 years old and in need of life-cycle structural analysis.

Project Status

Assessment of the existing system structural condition will begin in 2021 as a component of the annual inspection. A scoping and financial planning phase will run concurrently beginning in 2021. Following the existing condition structural assessment, the study project will be prepared for issue under IDS authorization. The study project start date is currently unknown. The timeline for the future construction project is also currently unknown.

Timeline and Cost

Study

Year Unknown Cost Unknown

Total Cost

Unknown

CAPITAL PROJECT DESCRIPTIONS

ASSET MANAGEMENT PROJECTS

Bridge Expansion Joint Replacement

Project Description

Develop an effective seal for the various expansion/contraction pour joints on the bridge to prevent water and contaminants from the deck to collect on underlying structural steel. The work consists of removing old, deteriorated material in the bridge's joints and installing the new joint sealant.

Project Background

Each pour joint on the bridge is approximately 1-2 inches wide and allows for the bridge's minor expansion and contraction. The joint openings must be filled with a flexible material (EMSEAL) to prevent water from running through the joint and onto the steel below. Water on the steel contributes to corrosion. The EMSEAL joint seal replacement strategy incorporates repair/replacement prioritization of each joint, and is a component of the overall asset management plan.

Project Status

Asset Management prioritized repair/replacement commenced in 2010. During the spring of each year a joint condition inventory is completed and the service life of different joint types is evaluated and trends identified. Replacement and repairs are completed in the summer/fall based on a prioritized rating system.

Timeline and Cost

Design Engineering

Not Necessary

Construction Engineering

Not Necessary

Construction Cost

2020-2024	\$ 47,500
2025-2029	\$ 47,500
2030-2024	\$ 47,500
2035-2039	\$ 47,500
2040-2044	\$ 47,500
2045-2049	\$ 47,500
2050-2054	\$ 47,500
2055-2059	\$ 47,500

Total Cost
\$380,000 (2019 Dollars)

Bridge Deck Overlay

Project Description

Remove the top portion of the Bridge Deck, and then replace with a special, low permeable, concrete mixture. Only the portion of the bridge deck surface between the curb rails will be removed. The curb and bridge rail will not be impacted.

Project Background

The IBA has on file the final results of the 2008, 2013, and 2018 bridge deck studies from the study consultant, Hardesty & Hanover. The study results indicate that due to intensive crack sealing efforts, the bridge deck condition is such that the existing surface will remain serviceable for 10-15 years, after which a deck overlay may be required. The deck overlay would delay a complete deck replacement for at least 20 years.

Project Status

Financial planning phase underway, and project moved to 2031 - 2034.

Timeline and Cost

Design Engineering

2029	Canadian Bridge Deck	\$508,000
2029	US Bridge Deck	\$524,000

Construction Engineering

2031	Canadian Arch & Center Span	\$244,000
2032	Canadian Approach	\$264,000
2033	US Approach	\$232,000
2034	US Arch & Center Span	\$292,000

Construction Cost

2031	Canadian Arch & Center Span	\$2,440,000
2032	Canadian Approach	\$2,640,000
2033	US Approach	\$2,320,000
2034	US Arch & Center Span	\$2,920,000

Total Cost

\$ 12,384,000 (2013 Dollars)

CAPITAL PROJECT DESCRIPTIONS

ASSET MANAGEMENT PROJECTS

Bridge Deck Replacement

Project Description

The project involves the removal and replacement of the existing concrete deck. Deck replacement in the girder spans may require a new center beam to accommodate the half width construction staging. Complete deck replacement will require the replacement of the existing curb rail and the bridge rail.

Project Background

The bridge deck is 55 years old and received an overlay in the 1990's. Bridge decks historically have a service life of 50 - 60 years. A 2008 deck condition study has shown that the condition of the bridge deck is in good condition for its age and a complete deck replacement will not be needed for 30-40 years. In keeping with asset management and planning principles, the existing deck will be monitored each year during the annual inspection.

Project Status

Financial planning phase underway.

Timeline and Cost

Design Engineering

2048	CDN Bridge Deck	\$ 2,485,750
2048	US Bridge Deck	\$ 2,485,750

Construction Engineering

2049	CDN Bridge Deck	\$ 2,485,750
2050	US Bridge Deck	\$ 2,485,750

Construction Cost

2049	CDN Bridge Deck	\$ 24,857,500
2050	US Bridge Deck	\$ 24,857,500

Total Cost
\$59,658,000

Curb Rail and Bridge Rail Repair

Project Description

Repair/replace all structurally deficient bridge rail components.

Project Background

Bridge curb and outer bridge rails are 55 years old.

The goal of the bridge rail asset management plan is to extend the service life of the rail until the mid-2040's, at which time the rail will be removed as part of the bridge deck replacement, with deferred replacement costs below.

Bridge and curb rail condition assessment survey has been completed. The rail inventory is in good structural condition considering its age and corrosion susceptible location.

Project Status

Repair of rail deficiencies ongoing.

Timeline and Cost

Design Engineering

2044	CDN Curb Rail	\$ 18,895
	US Curb Rail	\$ 18,895
2044	CDN Bridge Rail	\$ 134,832
	US Bridge Rail	\$ 119,568

Construction Engineering

2045	CDN Curb Rail	\$ 37,790
	US Curb Rail	\$ 37,790
2045	CDN Bridge Rail	\$ 269,664
	US Bridge Rail	\$ 239,136

Construction Cost

2045	CDN Curb Rail	\$377,902
	US Curb Rail	\$377,902
2045	CDN Bridge Rail	\$ 2,696,640
	US Bridge Rail	\$ 2,391,360

Total Cost

Curb Rail: \$869,175
Bridge Rail: \$5,851,200 (2008 Dollars)

CAPITAL PROJECT DESCRIPTIONS

ASSET MANAGEMENT PROJECTS

Catwalk Plates

Project Description

Inspect and inventory all bridge catwalk plates, with each plate to be rated and replaced as necessary.

Project Background

Catwalks were installed underneath the bridge deck in various areas of the bridge at the time of the bridge’s original construction. The steel plate catwalks are used by maintenance staff to access the bridge’s sub-structure and perform maintenance activities. There are a total of 2,523 plates which comprise the catwalk system, and as a moisture rusts the plates they must be replaced. The catwalk asset management plan incorporates repair/replacement prioritization of each plate.

Project Status

All catwalk plates were initially inspected in 2013. Condition monitoring is on-going each year

Timeline and Cost

Design Engineering

Not Necessary

Construction Engineering

Not Necessary

Construction Cost

2020-2024	\$1,500
2025-2029	\$1,500
2030-2024	\$1,500
2035-2039	\$1,500
2040-2044	\$1,500
2045-2049	\$1,500
2050-2054	\$1,500
2055-2059	\$1,500

Total Cost
\$12,000 (2018 Dollars)

Bridge Security System

Project Description

Maintain the security system equipment, hardware, software, and upgrade remaining analog cameras.

Project Background

The Bridge security system was installed in 2005 on the International Bridge. Major server and software replacements have been performed in April 2012 and 2020.

This system incorporates several advanced features, including automated camera systems, motion detecting sensors, firewalled web-based traffic cameras, building access and security. The current system is an effective tool to monitor bridge traffic and security. Maintenance of the system along with system improvement is now a recurring preventative maintenance expenditure.

Project Status

Maintenance yearly. Maintenance of the security system is presented as an asset management project in the 2020-2058 Capital Plan.

Timeline and Cost

Design Engineering

Included in construction cost

Construction Engineering

Included in construction cost

Construction Cost

2019 7 Year Upgrade Project \$ 158,914

Total Cost

\$158,914 (2012)

CAPITAL PROJECT DESCRIPTIONS

ASSET MANAGEMENT PROJECTS**Toll Lane Software Replacement****Project Description**

The IBA is partnered with the Blue Water Bridge (MDOT) and The Federal Bridge Corporation Limited on a public software procurement for a new software vendor at or prior to the completion of the current Conduent (formerly Xerox) Vector4 software contract in 2022. The software accommodates current and future projected traffic and funds management as a fully supported tolling software package.

Project Background

The software in the toll booths is a critical and nonredundant part of the toll collection process that allows the IBA to function effectively.

The IBA partnered with MBA, BWB(MDOT), and DTMB and after a cost benefit analysis, approved the one 3-year renewal option for Conduent until 2022, while a replacement Toll Study Assessment was evaluated for options and recommendations for a software vendor at the end of the current contract in 2022.

Project Status

A portion of the project is stalled between deployment and maintenance. Deployment was successfully completed at the IBA on August 4, 2016. The Digital Video Auditing System (DVAS) remains pending integration with Vector4. Remaining deliverables remain the subject of negotiation between Conduent, DTMB, MDOT, MBA, (MDOT) and IBA. Funds for undelivered project elements has been withheld from the contractor pending resolution.

The IBA is partnered with BWB (MDOT), DTMB, FBCL, and other stakeholders and has completed scoping for toll replacement software package. An RFP is expected before the end of fiscal year 2020 with recommendations for possible vendor approvals to the SSMBA in early 2021.

Timeline and Cost**Design Engineering**

Contracted to Installer, Included in cost

Construction Engineering

Under Evaluation

Software Cost

Under Evaluation

SAULT STE. MARIE BRIDGE AUTHORITY

LONG RANGE FINANCIAL PLAN
2021-2050

Capital Construction

Base Year 2008
 Construction Factor 3.5%
 Inflation Factor 2.0%

<https://www.usinflationcalculator.com/inflation/current-inflation-rates/>

Revenue Fund Sheet (Green)
 Interest Rate 1.65%
 Lease Rate % 1.0%

Budget Summaries (Blue)
 Budget Inflation Rate 2.0%

Crossing Rates

Exchange Rate 0.7700
 Annualized Traffic 1.38% *
 Truck Fee \$ -

* (2.2% historical increases with average historical 4.76% declines every 4 years)

Financing Options

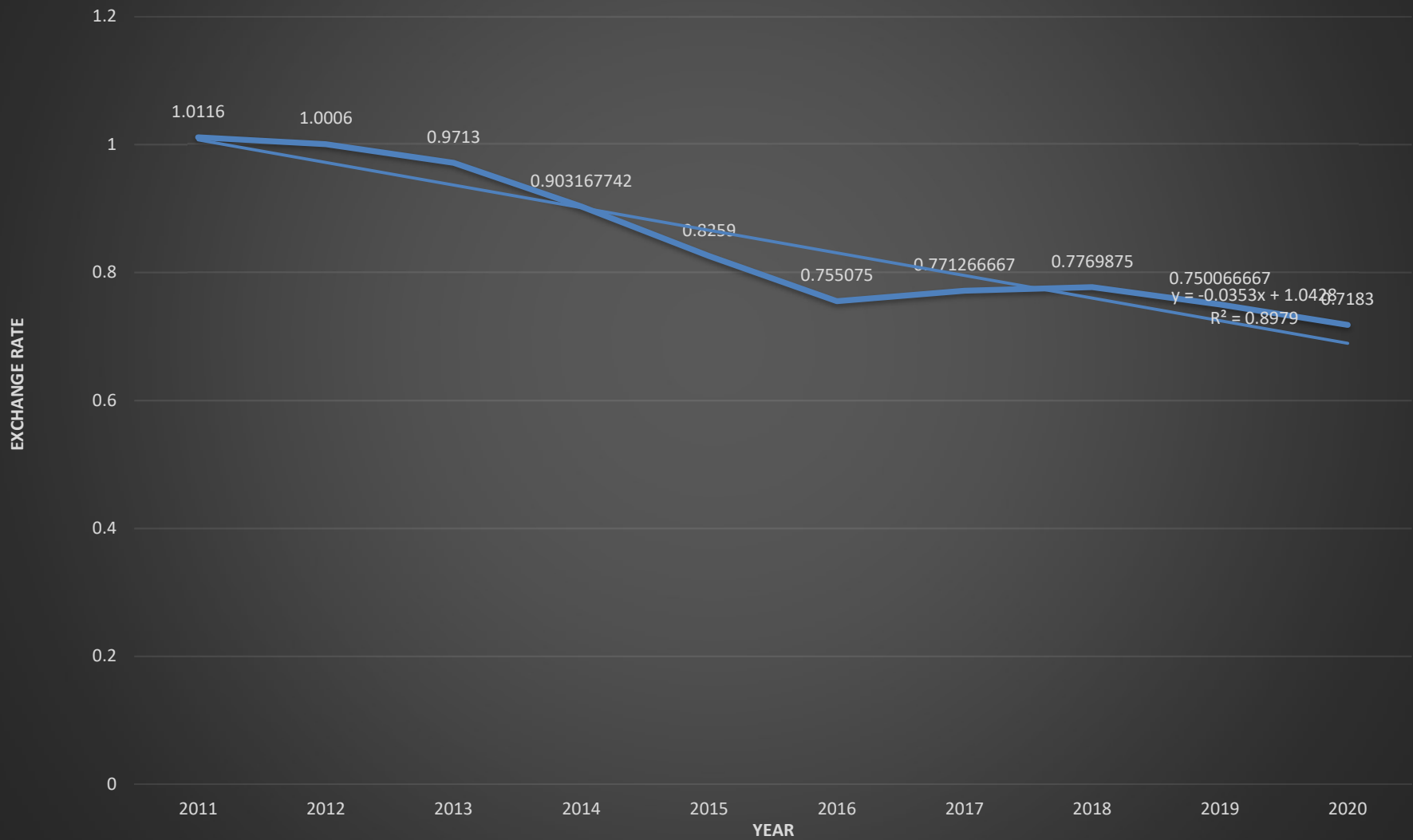
Credit Line % 3.28%

Credit Line Year 2011 * - Pending removal from SSMBA Statements in 2018
 Credit Line % 3.28%
 Financed amount \$ - (millions)
 Payment Schedule 20 (years)

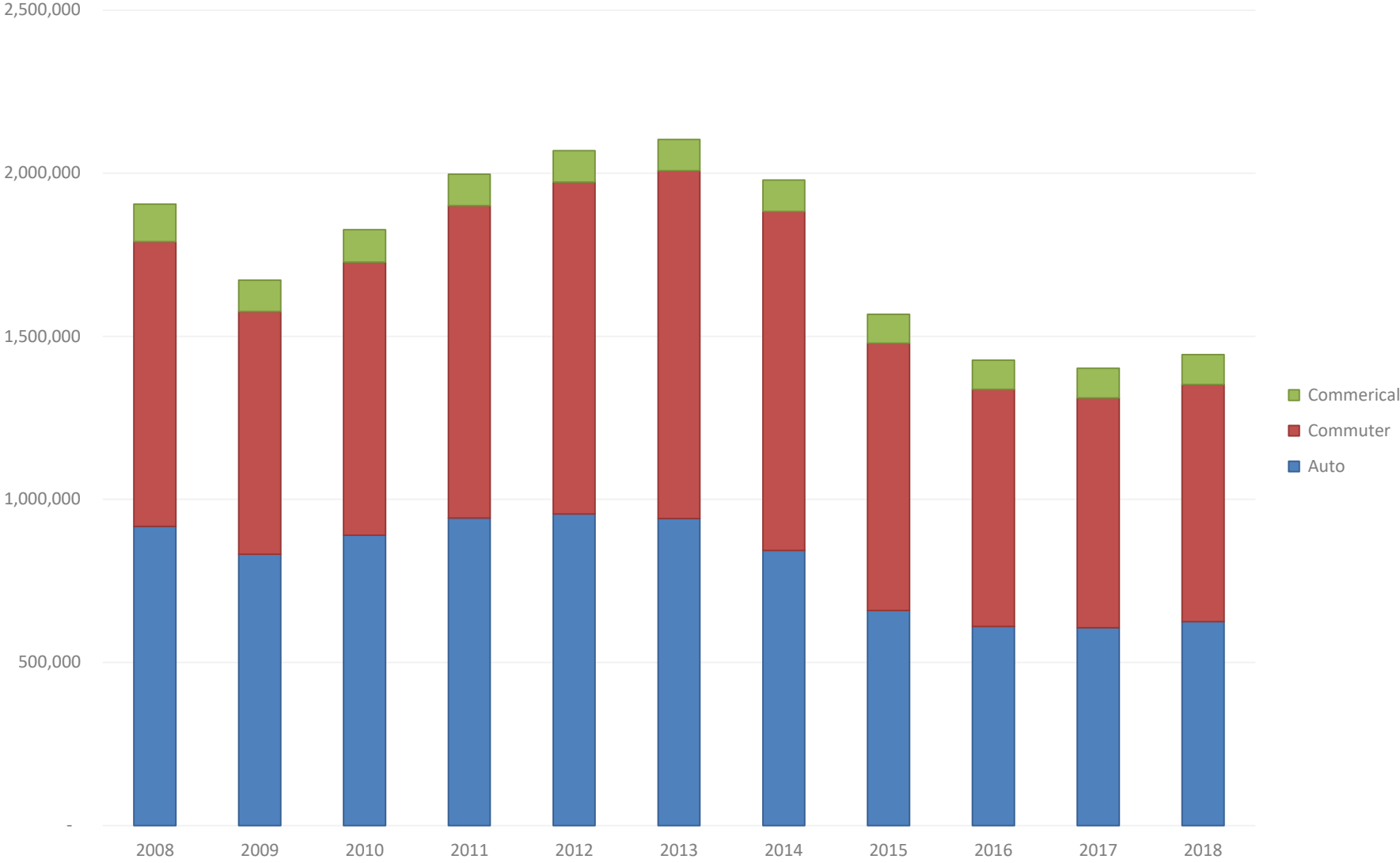
5 Year Toll Rate Changes

	<u>Year</u>	<u>2014</u>	<u>2019</u>	<u>2024</u>	<u>2029</u>	<u>2034</u>	<u>2039</u>
Auto Rate(Per Vehicle)	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50

International Bridge Administration Canadian/U.S. Exchange Rate 2011-2020



International Bridge Administration Annual Bridge Traffic 2008-2018



SAULT STE MARIE BRIDGE AUTHORITY
 COMPARATIVE STATEMENT OF REVENUES,
 EXPENDITURES, AND CHANGES IN FUND BALANCE
 ALL GOVERNMENTAL FUND TYPES
 CAPITAL PROJECT SCHEDULE - BASELINE PLAN X
 2021 - 2050

	2021	2022	2023	2024	2025
REVENUES					
Toll revenues	\$ 3,820,535	\$ 5,730,807	\$ 5,845,420	\$ 6,534,014	\$ 6,664,690
Interest income	63,039	64,079	65,136	66,211	67,304
Lease income	100,000	101,000	102,010	103,030	104,060
MDOT Owner Funds	-	2,500,000	-	-	-
FBCL Owner Funds	360,000	-	-	-	-
Service fees	53,456	55,594	57,818	60,131	62,536
Total revenue	<u>\$ 4,397,030</u>	<u>\$ 8,451,480</u>	<u>\$ 6,070,384</u>	<u>\$ 6,763,386</u>	<u>\$ 6,898,590</u>
EXPENDITURES					
Operational expenditures					
Operations and Services	1,650,372	1,684,546	1,821,955	1,858,947	1,896,858
Maintenance	2,525,177	2,625,118	2,667,085	2,721,684	2,770,795
Administration	\$ 538,252	\$ 548,996	\$ 559,954	\$ 571,310	\$ 582,839
Other expenditures	428,597	437,189	445,933	454,850	463,947
Total operational expenditures	<u>5,142,398</u>	<u>5,295,849</u>	<u>5,494,927</u>	<u>5,606,791</u>	<u>5,714,439</u>
Capital Expenditures					
Capital fund expenditures	<u>350,456</u>	<u>701,181</u>	<u>890,537</u>	<u>909,101</u>	<u>734,614</u>
Total capital expenditures	<u>350,456</u>	<u>701,181</u>	<u>890,537</u>	<u>909,101</u>	<u>734,614</u>
Total expenditures	<u>5,492,854</u>	<u>5,997,030</u>	<u>6,385,464</u>	<u>6,515,892</u>	<u>6,449,053</u>
Excess (deficiency) of revenues over expenditures	<u>\$ (1,095,824)</u>	<u>\$ 2,454,451</u>	<u>\$ (315,080)</u>	<u>\$ 247,494</u>	<u>\$ 449,537</u>
Net change in fund balances	<u>\$ (1,095,824)</u>	<u>\$ 2,454,451</u>	<u>\$ (315,080)</u>	<u>\$ 247,494</u>	<u>\$ 449,537</u>
Fund Balance					
Fund Balance-Beginning	\$ 1,932,100	\$ 836,275	\$ 3,290,726	\$ 2,975,646	\$ 3,223,141
Revenue fund (unreserved)	330,495	290,157	248,408	205,198	160,474
Capital fund	1,152,507	1,192,844	1,234,594	1,277,805	1,322,528
MDOT Capital fund (owner reserve)	388,409	1,615,634	1,458,094	1,581,841	1,806,610
FBCL Capital fund (owner reserve)	<u>(1,035,135)</u>	<u>192,090</u>	<u>34,550</u>	<u>158,297</u>	<u>383,066</u>
Fund Balance-Ending	<u>\$ 836,275</u>	<u>\$ 3,290,726</u>	<u>\$ 2,975,646</u>	<u>\$ 3,223,141</u>	<u>\$ 3,672,678</u>

SAULT STE MARIE BRIDGE AUTHORITY
COMPARATIVE STATEMENT OF REVENUES,
EXPENDITURES, AND CHANGES IN FUND BALANCE
ALL GOVERNMENTAL FUND TYPES
CAPITAL PROJECT SCHEDULE - BASELINE PLAN X
2021 - 2050

	2026	2027	2028	2029	2030	2031	2032
REVENUES							
Toll revenues	\$ 6,797,987	\$ 6,933,947	\$ 7,072,626	\$ 7,845,260	\$ 8,002,168	\$ 8,162,212	\$ 8,325,452
Interest income	68,414	69,543	70,690	71,857	73,042	74,248	75,473
Lease income	105,101	106,152	107,214	108,286	109,369	110,462	111,567
MDOT Owner Funds	-	-	-	-	-	-	-
FBCL Owner Funds	-	-	-	-	-	-	-
Service fees	65,037	67,639	70,344	73,158	76,085	79,128	82,293
Total revenue	\$ 7,036,539	\$ 7,177,281	\$ 7,320,874	\$ 8,098,561	\$ 8,260,663	\$ 8,426,050	\$ 8,594,784
EXPENDITURES							
Operational expenditures							
Operations and Services	1,935,186	1,974,146	2,013,696	2,054,099	2,095,197	2,137,148	2,179,689
Maintenance	2,998,594	2,846,809	2,932,119	2,965,632	3,092,370	3,130,026	3,172,493
Administration	\$ 594,977	\$ 606,840	\$ 618,943	\$ 631,461	\$ 644,089	\$ 657,180	\$ 670,278
Other expenditures	473,225	482,689	492,342	502,190	512,234	522,478	532,928
Total operational expenditures	6,001,982	5,910,484	6,057,100	6,153,382	6,343,890	6,446,832	6,555,388
Capital Expenditures							
Capital fund expenditures	1,072,359	702,029	902,849	2,710,252	1,413,975	14,545,642	10,587,761
Total capital expenditures	1,072,359	702,029	902,849	2,710,252	1,413,975	14,545,642	10,587,761
Total expenditures	7,074,341	6,612,513	6,959,949	8,863,634	7,757,865	20,992,474	17,143,149
Excess (deficiency) of revenues over expenditures	\$ (37,801)	\$ 564,768	\$ 360,925	\$ (765,074)	\$ 502,798	\$ (12,566,424)	\$ (8,548,364)
Net change in fund balances	\$ (37,801)	\$ 564,768	\$ 360,925	\$ (765,074)	\$ 502,798	\$ (12,566,424)	\$ (8,548,364)
Fund Balance							
Fund Balance-Beginning	\$ 3,672,678	\$ 3,634,876	\$ 4,199,644	\$ 4,560,570	\$ 3,795,497	\$ 4,298,294	\$ (8,268,130)
Revenue fund (unreserved)	114,186	66,277	16,692	(34,629)	(87,746)	(142,723)	(199,622)
Capital fund	1,368,816	1,416,725	1,466,310	1,517,631	1,570,748	1,625,724	1,682,625
MDOT Capital fund (owner reserve)	1,787,709	2,070,093	2,250,556	1,868,019	2,119,418	(4,163,794)	(8,437,976)
FBCL Capital fund (owner reserve)	364,165	646,549	827,012	444,475	695,874	(5,587,338)	(9,861,520)
Fund Balance-Ending	\$ 3,634,876	\$ 4,199,644	\$ 4,560,570	\$ 3,795,497	\$ 4,298,294	\$ (8,268,130)	\$ (16,816,494)

SAULT STE MARIE BRIDGE AUTHORITY
COMPARATIVE STATEMENT OF REVENUES,
EXPENDITURES, AND CHANGES IN FUND BALANCE
ALL GOVERNMENTAL FUND TYPES
CAPITAL PROJECT SCHEDULE - BASELINE PLAN X
2021 - 2050

	2033	2034	2035	2036	2037	2038	2039
REVENUES							
Toll revenues	\$ 8,491,965	\$ 9,358,681	\$ 9,545,858	\$ 9,736,774	\$ 9,931,511	\$ 10,130,137	\$ 11,102,151
Interest income	76,718	77,984	79,270	80,578	81,908	83,259	84,633
Lease income	112,683	113,809	114,947	116,097	117,258	118,430	119,615
MDOT Owner Funds	-	-	-	-	-	-	-
FBCL Owner Funds	-	-	-	-	-	-	-
Service fees	85,585	89,008	92,568	96,271	100,122	104,127	108,292
Total revenue	\$ 8,766,950	\$ 9,639,482	\$ 9,832,644	\$ 10,029,721	\$ 10,230,799	\$ 10,435,954	\$ 11,414,691
EXPENDITURES							
Operational expenditures							
Operations and Services	2,223,531	2,268,122	2,313,827	2,359,875	2,407,492	2,455,792	2,505,089
Maintenance	3,471,155	3,357,531	3,347,106	3,426,959	3,499,267	3,644,856	3,623,894
Administration	\$ 683,638	\$ 697,334	\$ 711,228	\$ 725,405	\$ 739,864	\$ 754,720	\$ 769,763
Other expenditures	543,586	554,458	565,547	576,857	588,394	600,162	612,165
Total operational expenditures	6,921,910	6,877,445	6,937,708	7,089,096	7,235,017	7,455,530	7,510,911
Capital Expenditures							
Capital fund expenditures	8,057,730	5,781,939	795,723	1,008,918	941,218	1,305,351	2,627,336
Total capital expenditures	8,057,730	5,781,939	795,723	1,008,918	941,218	1,305,351	2,627,336
Total expenditures	14,979,640	12,659,384	7,733,431	8,098,014	8,176,235	8,760,881	10,138,247
Excess (deficiency) of revenues over expenditures	\$ (6,212,690)	\$ (3,019,902)	\$ 2,099,213	\$ 1,931,707	\$ 2,054,564	\$ 1,675,073	\$ 1,276,444
Net change in fund balances	\$ (6,212,690)	\$ (3,019,902)	\$ 2,099,213	\$ 1,931,707	\$ 2,054,564	\$ 1,675,073	\$ 1,276,444
Fund Balance							
Fund Balance-Beginning	\$ (16,816,494)	\$ (23,029,185)	\$ (26,049,086)	\$ (23,949,874)	\$ (22,018,167)	\$ (19,963,603)	\$ (18,288,531)
Revenue fund (unreserved)	(258,515)	(319,467)	(382,554)	(447,849)	(515,428)	(585,374)	(657,767)
Capital fund	1,741,517	1,802,470	1,865,556	1,930,851	1,998,430	2,068,376	2,140,769
MDOT Capital fund (owner reserve)	(11,544,321)	(13,054,272)	(12,004,666)	(11,038,812)	(10,011,531)	(9,173,994)	(8,535,772)
FBCL Capital fund (owner reserve)	(12,967,865)	(14,477,816)	(13,428,210)	(12,462,356)	(11,435,075)	(10,597,538)	(9,959,316)
Fund Balance-Ending	\$ (23,029,185)	\$ (26,049,086)	\$ (23,949,874)	\$ (22,018,167)	\$ (19,963,603)	\$ (18,288,531)	\$ (17,012,087)

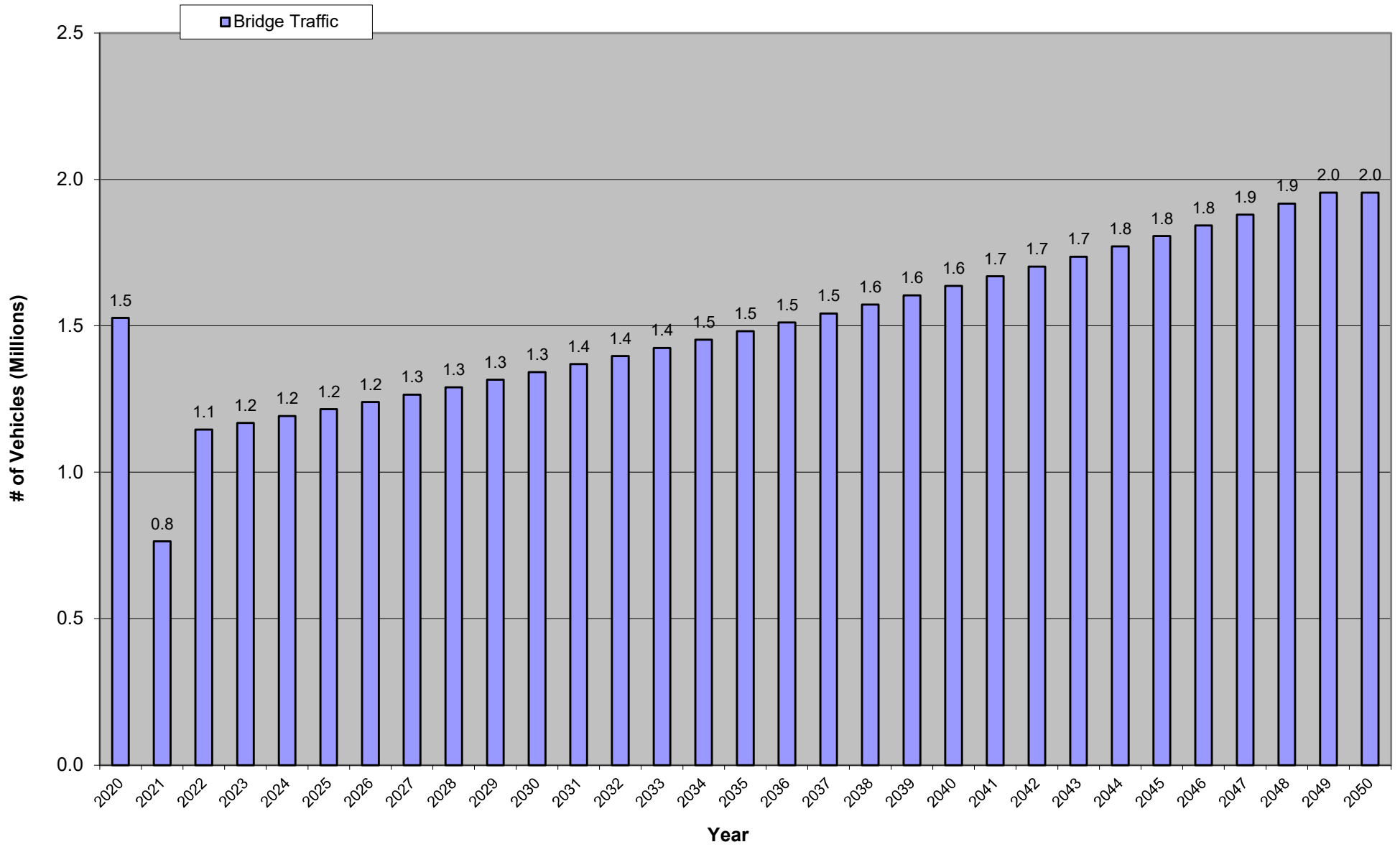
SAULT STE MARIE BRIDGE AUTHORITY
COMPARATIVE STATEMENT OF REVENUES,
EXPENDITURES, AND CHANGES IN FUND BALANCE
ALL GOVERNMENTAL FUND TYPES
CAPITAL PROJECT SCHEDULE - BASELINE PLAN X
2021 - 2050

	2040	2041	2042	2043	2044	2045	2046
REVENUES							
Toll revenues	\$ 11,324,194	\$ 11,550,679	\$ 11,781,694	\$ 12,017,325	\$ 13,107,164	\$ 13,369,307	\$ 13,636,693
Interest income	86,030	87,449	88,892	90,359	91,850	93,365	94,906
Lease income	120,811	122,019	123,239	124,472	125,716	126,973	128,243
MDOT Owner Funds	-	-	-	-	-	-	-
FBCL Owner Funds	-	-	-	-	-	-	-
Service fees	112,624	117,129	121,814	126,686	131,754	137,024	142,505
Total revenue	\$ 11,643,658	\$ 11,877,276	\$ 12,115,639	\$ 12,358,842	\$ 13,456,484	\$ 13,726,670	\$ 14,002,347
EXPENDITURES							
Operational expenditures							
Operations and Services	2,554,929	2,606,279	2,658,674	2,711,566	2,766,271	2,821,667	2,877,801
Maintenance	3,885,725	3,750,733	3,937,557	3,991,067	3,996,065	4,121,003	4,296,641
Administration	\$ 785,107	\$ 800,757	\$ 816,851	\$ 833,133	\$ 849,745	\$ 866,685	\$ 884,146
Other expenditures	624,409	636,898	649,635	662,629	675,882	689,400	703,187
Total operational expenditures	7,850,170	7,794,667	8,062,717	8,198,395	8,287,963	8,498,755	8,761,775
Capital Expenditures							
Capital fund expenditures	1,318,253	7,859,191	13,320,412	21,518,598	5,828,083	7,298,123	8,079,548
Total capital expenditures	1,318,253	7,859,191	13,320,412	21,518,598	5,828,083	7,298,123	8,079,548
Total expenditures	9,168,423	15,653,858	21,383,129	29,716,993	14,116,046	15,796,878	16,841,323
Excess (deficiency) of revenues over expenditures	\$ 2,475,236	\$ (3,776,582)	\$ (9,267,489)	\$ (17,358,152)	\$ (659,562)	\$ (2,070,208)	\$ (2,838,976)
Net change in fund balances	\$ 2,475,236	\$ (3,776,582)	\$ (9,267,489)	\$ (17,358,152)	\$ (659,562)	\$ (2,070,208)	\$ (2,838,976)
Fund Balance							
Fund Balance-Beginning	\$ (17,012,087)	\$ (14,536,851)	\$ (18,313,433)	\$ (27,580,923)	\$ (44,939,075)	\$ (45,598,636)	\$ (47,668,844)
Revenue fund (unreserved)	(732,693)	(810,243)	(890,507)	(973,580)	(1,059,559)	(1,148,549)	(1,240,654)
Capital fund	2,215,696	2,293,245	2,373,508	2,456,581	2,542,562	2,631,551	2,723,656
MDOT Capital fund (owner reserve)	(7,298,155)	(9,186,446)	(13,820,190)	(22,499,266)	(22,829,047)	(23,864,151)	(25,283,639)
FBCL Capital fund (owner reserve)	(8,721,699)	(10,609,990)	(15,243,734)	(23,922,810)	(24,252,591)	(25,287,695)	(26,707,183)
Fund Balance-Ending	\$ (14,536,851)	\$ (18,313,433)	\$ (27,580,923)	\$ (44,939,075)	\$ (45,598,636)	\$ (47,668,844)	\$ (50,507,821)

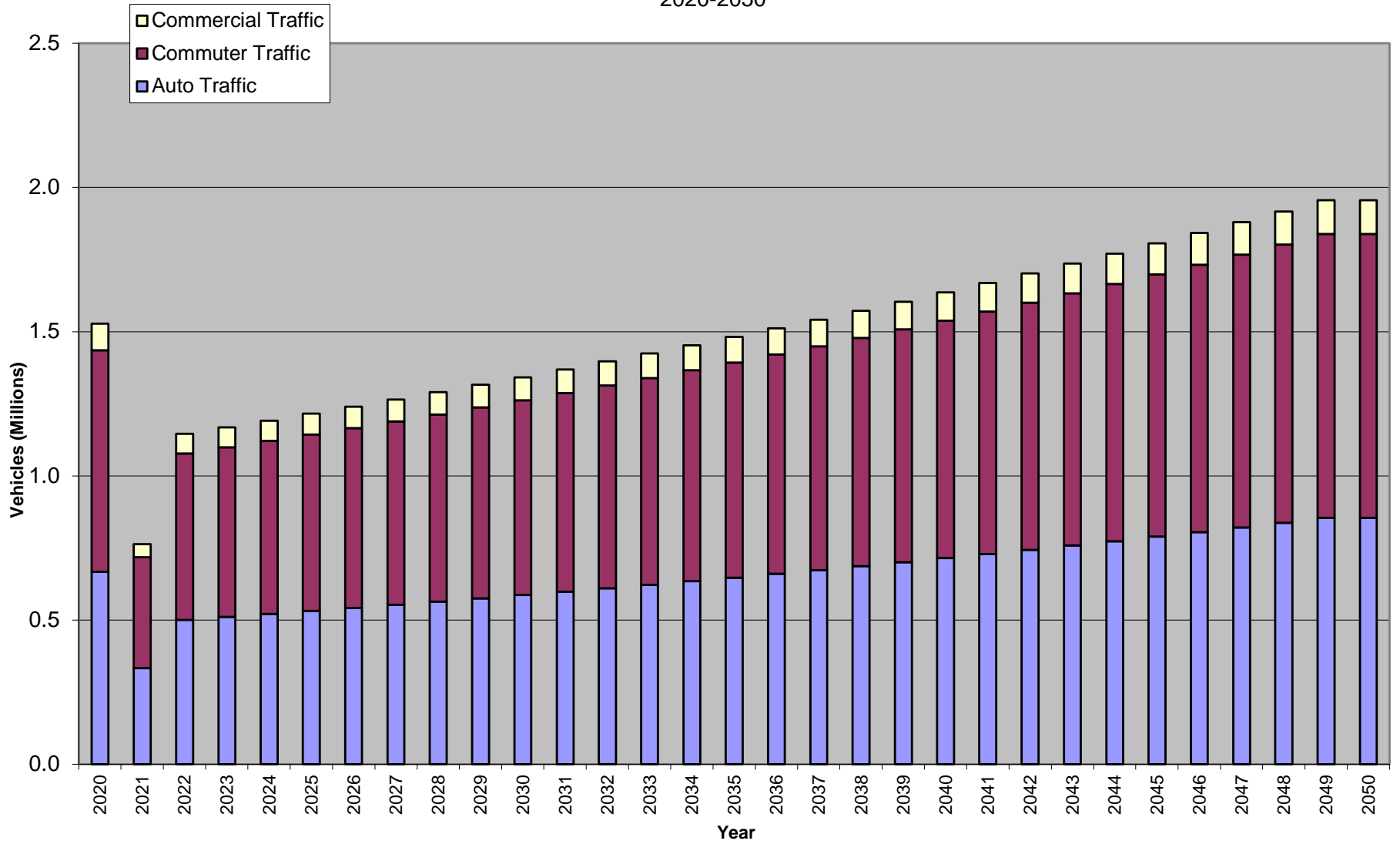
SAULT STE MARIE BRIDGE AUTHORITY
COMPARATIVE STATEMENT OF REVENUES,
EXPENDITURES, AND CHANGES IN FUND BALANCE
ALL GOVERNMENTAL FUND TYPES
CAPITAL PROJECT SCHEDULE - BASELINE PLAN X
2021 - 2050

	2047	2048	2049	2050
REVENUES				
Toll revenues	\$ 13,909,430	\$ 14,187,617	\$ 15,409,279	\$ 15,409,279
Interest income	96,472	98,064	99,682	99,682
Lease income	129,526	130,821	132,129	132,129
MDOT Owner Funds	-	-	-	-
FBCL Owner Funds	-	-	-	-
Service fees	148,205	154,133	160,299	160,299
Total revenue	<u>\$ 14,283,633</u>	<u>\$ 14,570,635</u>	<u>\$ 15,801,388</u>	<u>\$ 15,801,388</u>
EXPENDITURES				
Operational expenditures				
Operations and Services	2,935,552	2,993,952	3,053,522	3,053,522
Maintenance	4,431,077	4,314,694	4,422,413	4,422,413
Administration	\$ 901,769	\$ 919,995	\$ 938,332	\$ 938,332
Other expenditures	717,250	731,594	746,227	746,227
Total operational expenditures	<u>8,985,648</u>	<u>8,960,235</u>	<u>9,160,494</u>	<u>9,160,494</u>
Capital Expenditures				
Capital fund expenditures	<u>15,015,199</u>	<u>11,493,686</u>	<u>64,243,452</u>	<u>63,738,119</u>
Total capital expenditures	<u>15,015,199</u>	<u>11,493,686</u>	<u>64,243,452</u>	<u>63,738,119</u>
Total expenditures	<u>24,000,847</u>	<u>20,453,921</u>	<u>73,403,946</u>	<u>72,898,613</u>
Excess (deficiency) of revenues over expenditures	<u>\$ (9,717,214)</u>	<u>\$ (5,883,287)</u>	<u>\$ (57,602,558)</u>	<u>\$ (57,097,225)</u>
Net change in fund balances	<u>\$ (9,717,214)</u>	<u>\$ (5,883,287)</u>	<u>\$ (57,602,558)</u>	<u>\$ (57,097,225)</u>
Fund Balance				
Fund Balance-Beginning	<u>\$ (50,507,821)</u>	<u>\$ (60,225,035)</u>	<u>\$ (66,108,321)</u>	<u>\$ (123,710,880)</u>
Revenue fund (unreserved)	(1,335,982)	(1,434,646)	(1,536,764)	(1,642,456)
Capital fund	2,818,984	2,917,648	3,019,766	3,125,457
MDOT Capital fund (owner reserve)	(30,142,246)	(33,083,890)	(61,885,169)	(90,433,781)
FBCL Capital fund (owner reserve)	(31,565,790)	(34,507,434)	(63,308,713)	(91,857,325)
Fund Balance-Ending	<u>\$ (60,225,035)</u>	<u>\$ (66,108,321)</u>	<u>\$ (123,710,880)</u>	<u>\$ (180,808,104)</u>

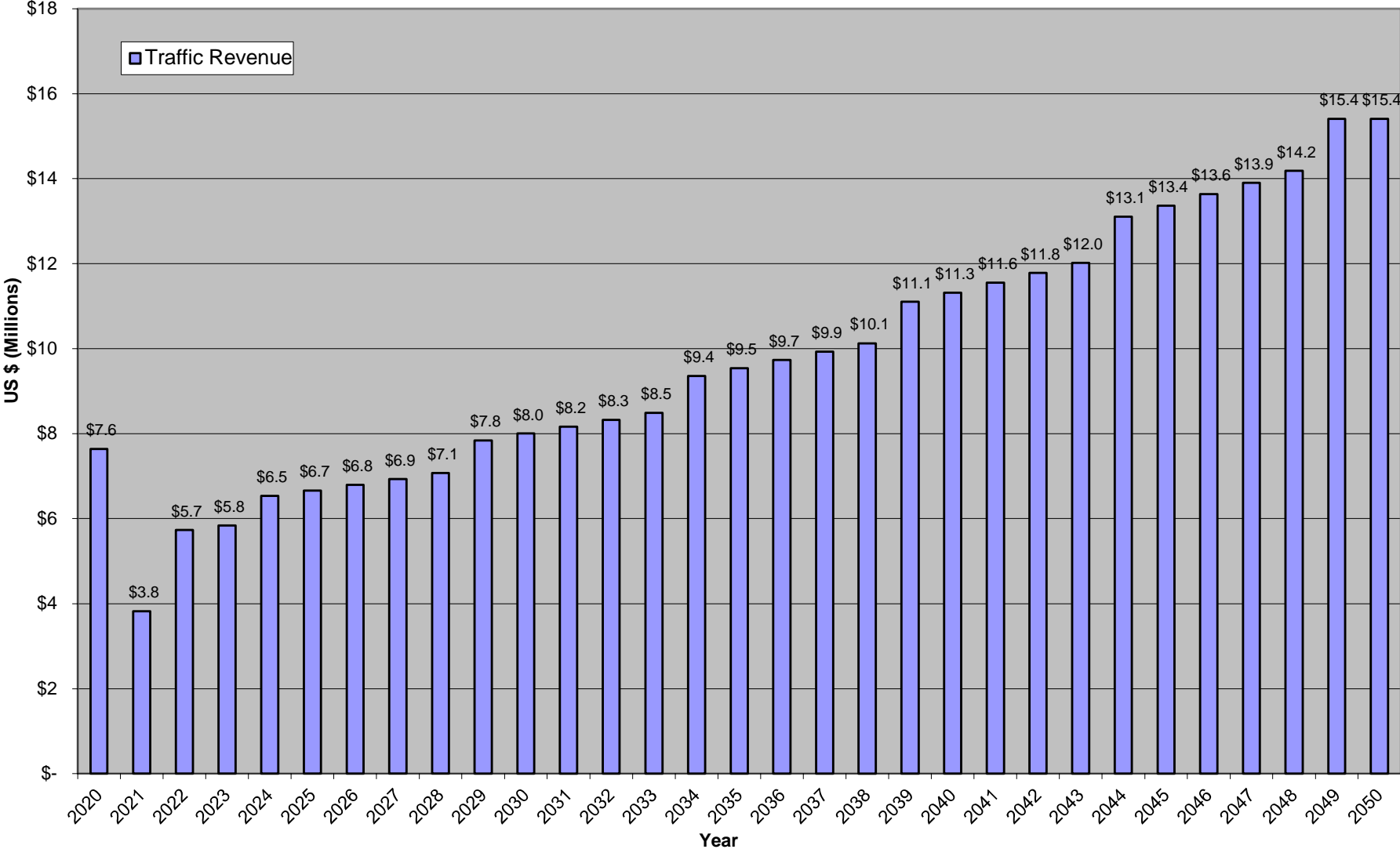
International Bridge Administration
Total Bridge Traffic
2020-2050



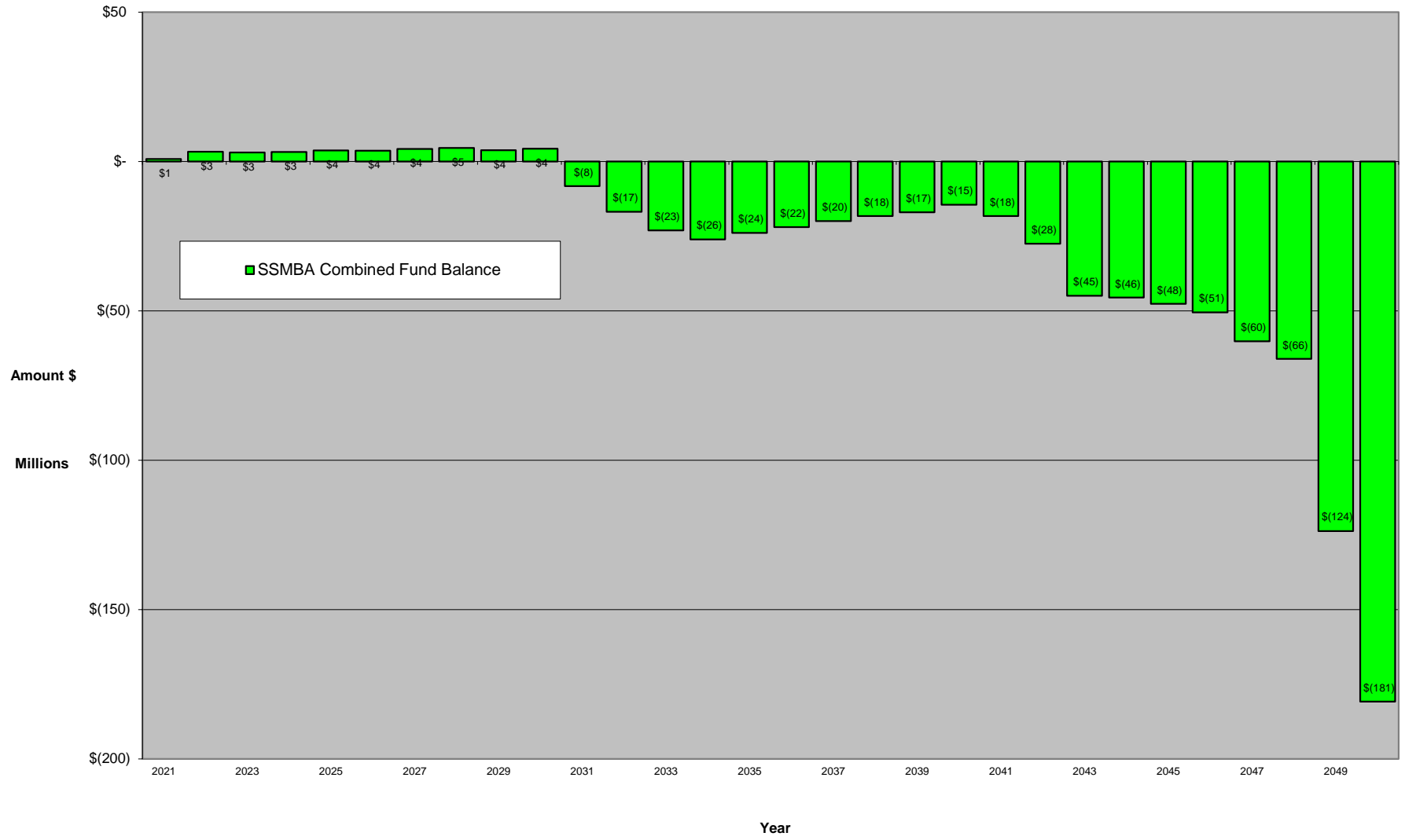
International Bridge Administration
 Total Traffic by Vehicle Type
 2020-2050



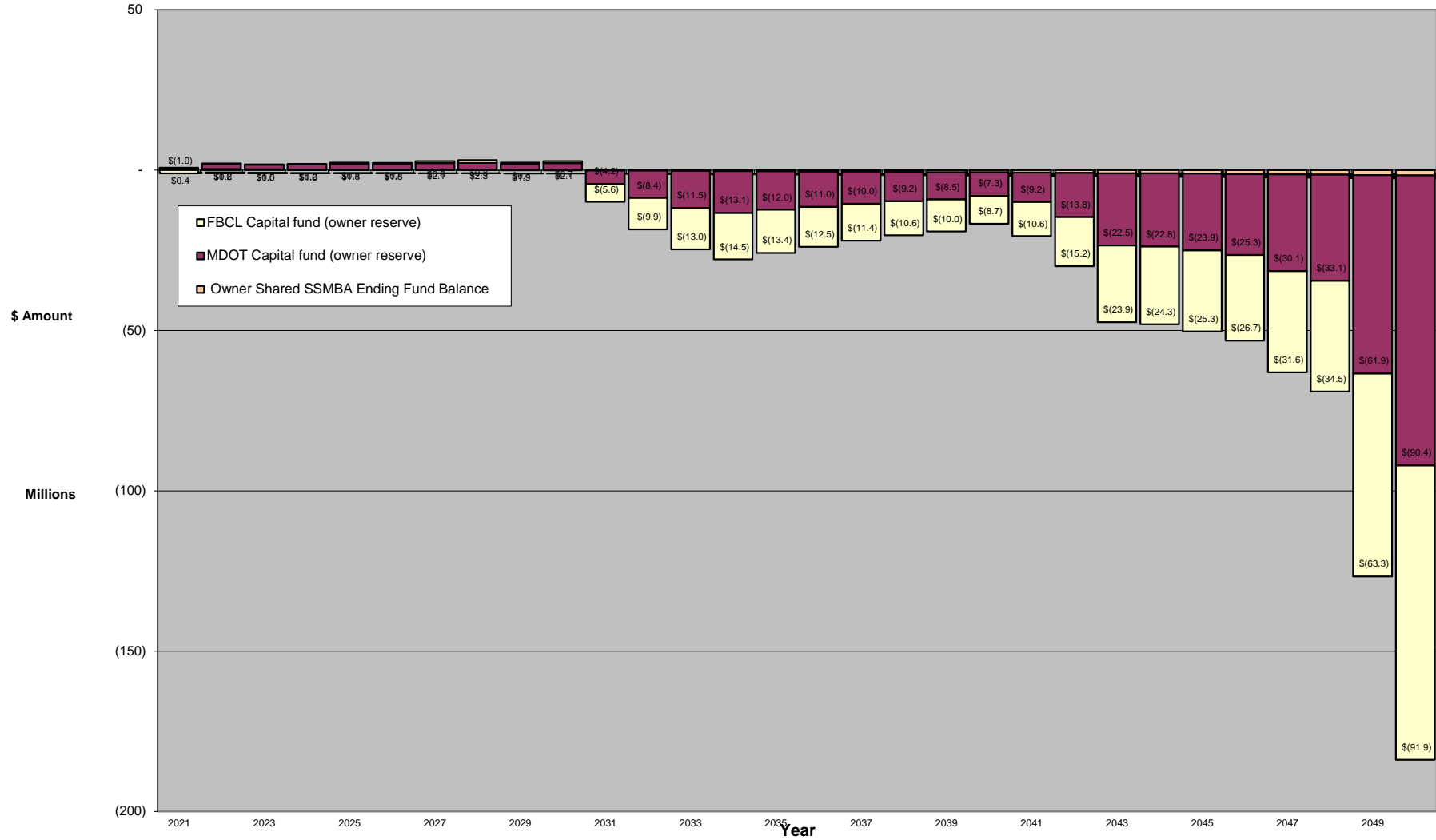
International Bridge Administration
Toll Revenue Forecast
2020-2050



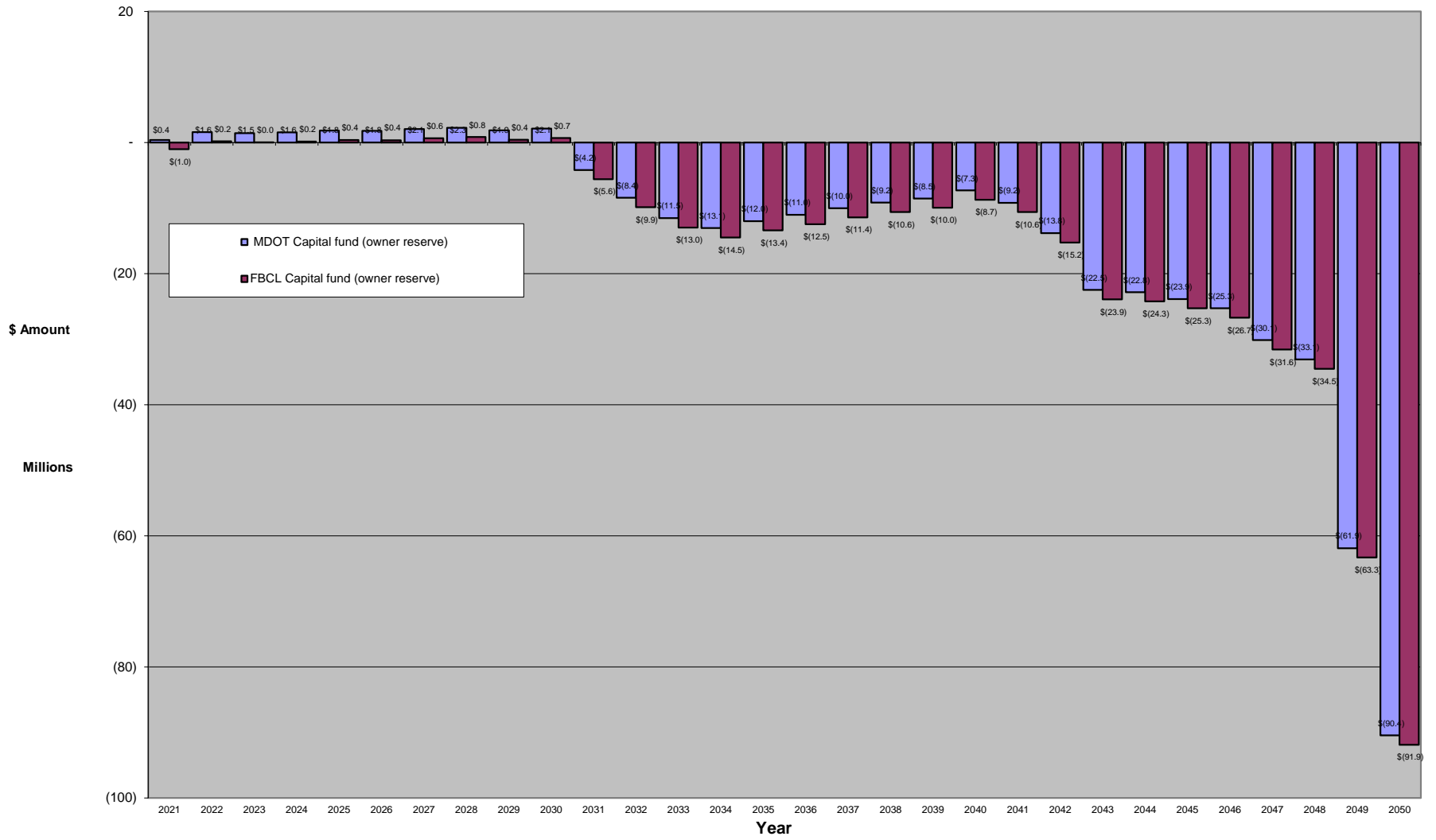
Sault Ste. Marie Bridge Authority Combined Fund Balance 2021-2050



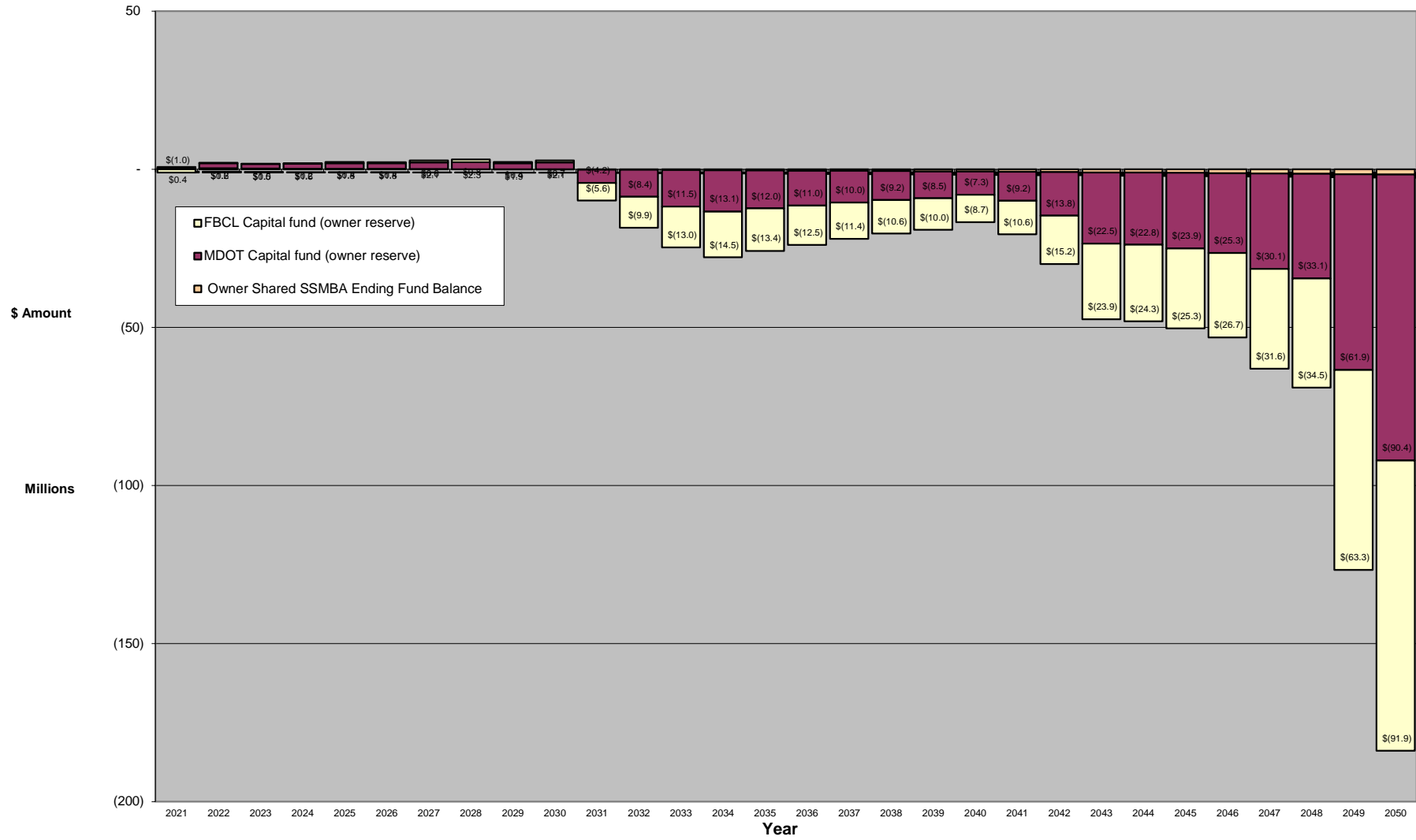
Sault Ste. Marie Bridge Authority
Fund Balances - Operational and Owner Reserves
100% Shared Projects
2021-2050



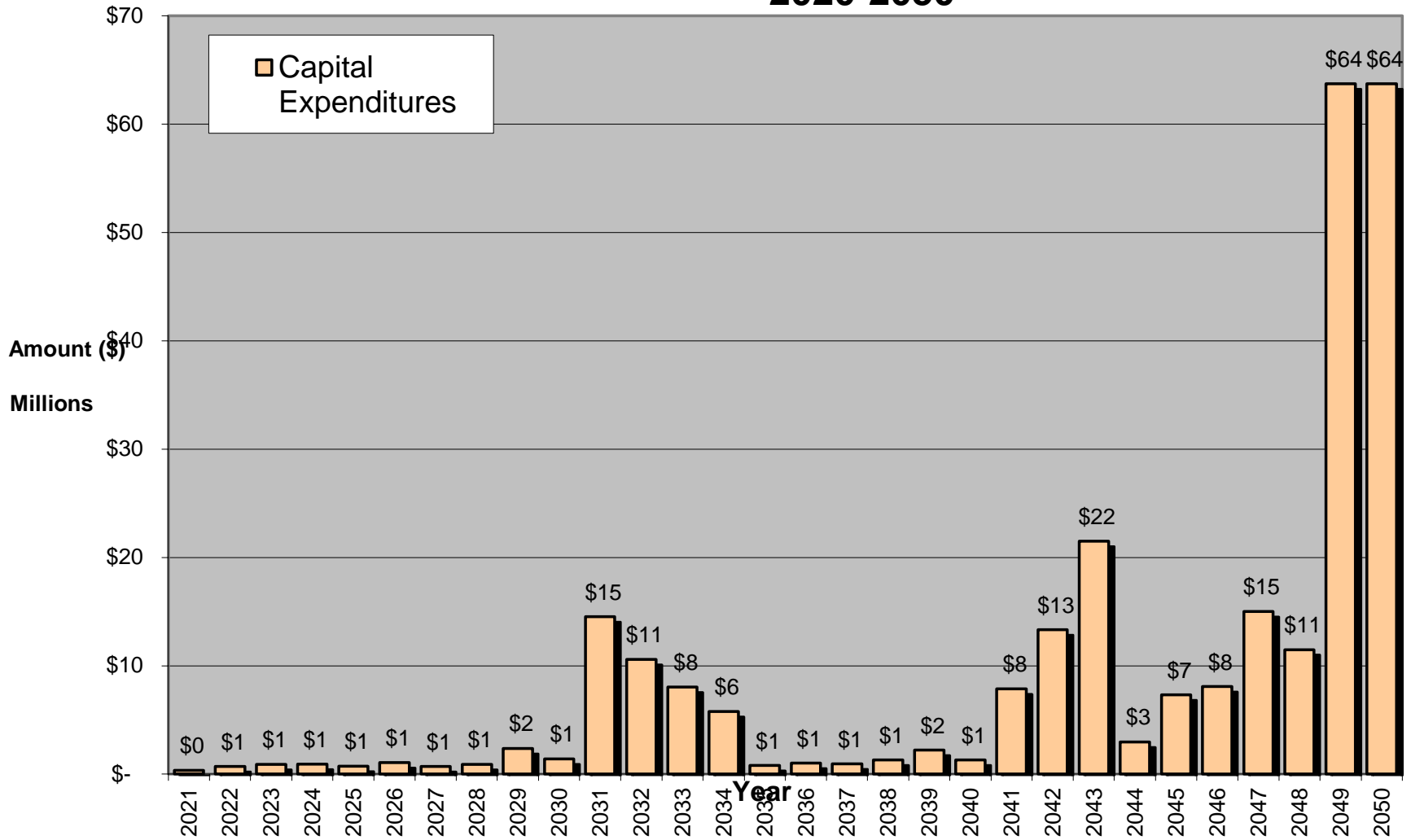
**Sault Ste. Marie Bridge Authority
MDOT and SMRBC Owners' Reserve Account
100% Shared Owner Funded Capital Projects
2021-2050**



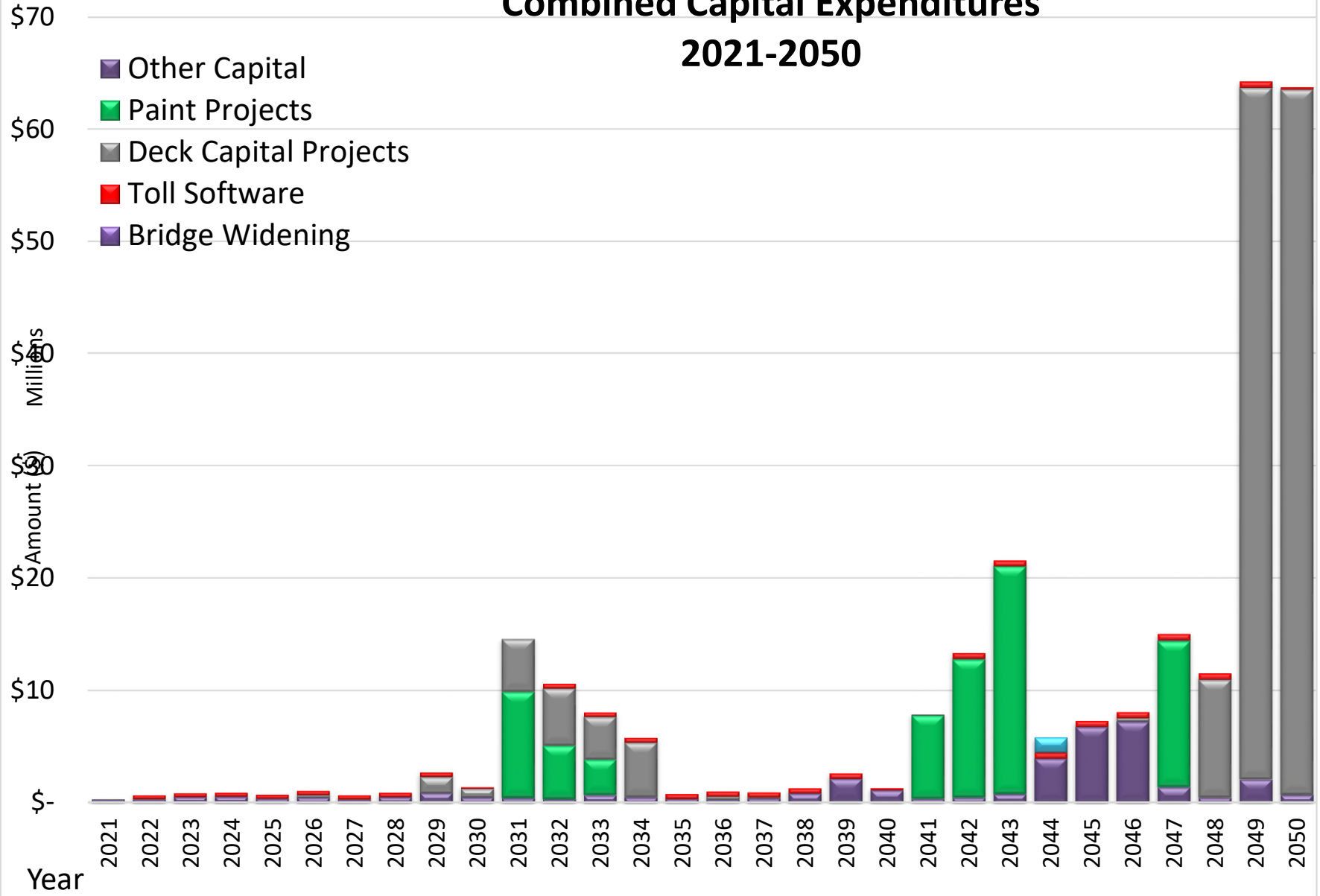
**Sault Ste. Marie Bridge Authority
Fund Balances - Operational and Owner Reserves
100% Shared Owner Funded Capital Projects
2021-2050**



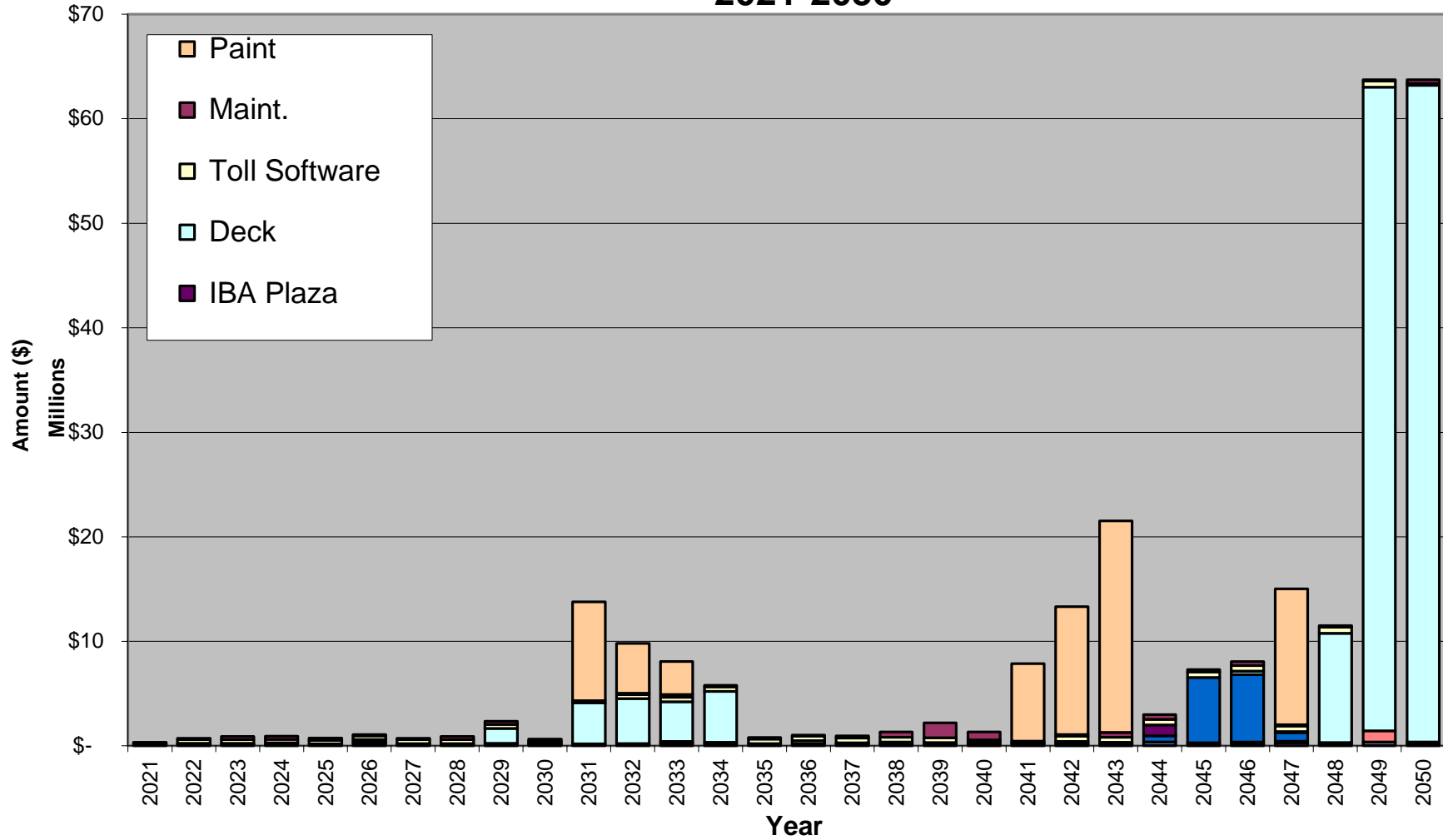
Sault Ste. Marie Bridge Authority Combined Capital Expenditures 2020-2050



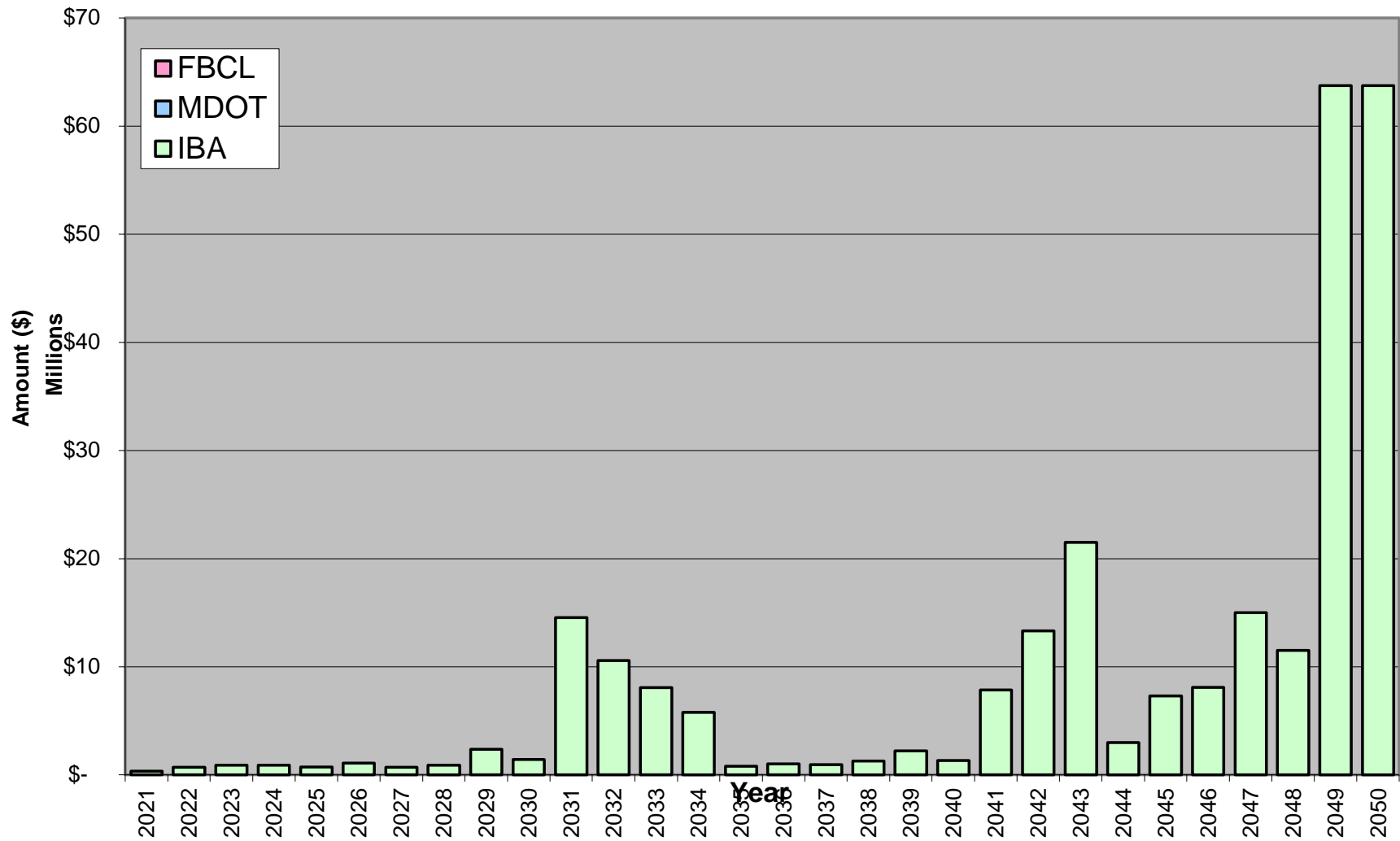
Sault Ste. Marie Bridge Authority Combined Capital Expenditures 2021-2050



Sault Ste. Marie Bridge Authority Combined Capital Expenditures 2021-2050



Sault Ste. Marie Bridge Authority Capital Expenditures (SMRBC/MDOT/IBA) 2021-2050



SAULT STE MARIE BRIDGE AUTHORITY

TRAFFIC AND EXCHANGE RATE

SENSITIVITY ANALYSIS

Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Beginning Fund Balance	\$ 3,535,580	\$ 4,004,173	\$ 2,856,482	\$ 2,483,829	\$ 2,038,047	\$ 1,584,474	\$ 1,142,807	\$ 1,269,085	\$ 1,121,585	\$ 462,696
Toll Revenue	\$ 4,484,532	\$ 4,484,532	\$ 4,484,532	\$ 4,484,532	\$ 4,680,094	\$ 4,680,094	\$ 4,680,094	\$ 4,680,094	\$ 4,680,094	\$ 4,846,878
Other Revenue	\$ 458,220	\$ 464,729	\$ 471,373	\$ 478,155	\$ 485,081	\$ 492,153	\$ 499,376	\$ 506,756	\$ 514,297	\$ 522,003
Total Revenue	\$ 4,942,752	\$ 4,949,261	\$ 4,955,905	\$ 4,962,687	\$ 5,165,175	\$ 5,172,247	\$ 5,179,470	\$ 5,186,850	\$ 5,194,391	\$ 5,368,881
Total Expenditures	\$ 5,535,320	\$ 5,761,254	\$ 5,785,742	\$ 5,892,347	\$ 6,022,731	\$ 6,187,169	\$ 6,227,585	\$ 6,384,592	\$ 6,651,272	\$ 6,663,983
Capital Expenditures	\$ 1,089,452	\$ 1,087,383	\$ 993,676	\$ 966,781	\$ 1,145,859	\$ 976,380	\$ 375,032	\$ 498,970	\$ 750,997	\$ 2,752,042
Total Expenditures	\$ 6,624,772	\$ 6,848,637	\$ 6,779,418	\$ 6,859,128	\$ 7,168,590	\$ 7,163,549	\$ 6,602,617	\$ 6,883,562	\$ 7,402,269	\$ 9,416,025
Excess (deficiency) of revenues over operational expenditures	\$ (1,682,021)	\$ (1,899,376)	\$ (1,823,513)	\$ (1,896,441)	\$ (2,003,415)	\$ (1,991,302)	\$ (1,423,146)	\$ (1,696,712)	\$ (2,207,878)	\$ (4,047,143)
Revenue fund balance (ending)	\$ 369,470	\$ (458,919)	\$ (1,305,422)	\$ (2,252,024)	\$ (3,126,800)	\$ (4,159,227)	\$ (5,225,135)	\$ (6,440,964)	\$ (7,916,231)	\$ (9,230,022)
Capital fund balance (ending)	\$ 1,113,533	\$ 1,152,506	\$ 1,192,844	\$ 1,234,594	\$ 1,277,804	\$ 1,322,528	\$ 1,368,816	\$ 1,416,725	\$ 1,466,310	\$ 1,517,631
MDOT capital fund (ending)	\$ 936,321	\$ 18,750	\$ (901,339)	\$ (1,858,030)	\$ (2,868,348)	\$ (3,872,752)	\$ (4,593,222)	\$ (5,450,621)	\$ (6,547,280)	\$ (8,580,196)
FBCL capital fund (ending)	\$ (487,223)	\$ (1,404,794)	\$ (2,324,883)	\$ (3,281,574)	\$ (4,291,892)	\$ (5,296,296)	\$ (6,016,766)	\$ (6,874,165)	\$ (7,970,824)	\$ (10,003,740)
Fund Balance-Ending COVID Traffic	\$ 1,932,100	\$ (692,456)	\$ (3,338,801)	\$ (6,157,035)	\$ (9,009,236)	\$ (12,005,747)	\$ (14,466,307)	\$ (17,349,026)	\$ (20,968,025)	\$ (26,296,327)

* Based upon 885,253 crossings

SAULT STE MARIE BRIDGE AUTHORITY

TRAFFIC AND EXCHANGE RATE
SENSITIVITY ANALYSIS

Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Beginning Fund Balance	\$ 3,535,580	\$ 4,004,173	\$ 2,856,482	\$ 2,483,829	\$ 2,038,047	\$ 1,584,474	\$ 1,142,807	\$ 1,269,085	\$ 1,121,585	\$ 462,696
Toll Revenue	\$ 6,635,146	\$ 6,635,146	\$ 6,635,146	\$ 6,635,146	\$ 7,001,993	\$ 7,001,993	\$ 7,001,993	\$ 7,001,993	\$ 7,001,993	\$ 7,318,882
Other Revenue	\$ 458,220	\$ 464,729	\$ 471,373	\$ 478,155	\$ 485,081	\$ 492,153	\$ 499,376	\$ 506,756	\$ 514,297	\$ 522,003
Total Revenue	\$ 7,093,366	\$ 7,099,875	\$ 7,106,519	\$ 7,113,301	\$ 7,487,074	\$ 7,494,146	\$ 7,501,369	\$ 7,508,749	\$ 7,516,290	\$ 7,840,885
Total Expenditures	\$ 5,535,320	\$ 5,761,254	\$ 5,785,742	\$ 5,892,347	\$ 6,022,731	\$ 6,187,169	\$ 6,227,585	\$ 6,384,592	\$ 6,651,272	\$ 6,663,983
Capital Expenditures	\$ 1,089,452	\$ 1,087,383	\$ 993,676	\$ 966,781	\$ 1,145,859	\$ 976,380	\$ 375,032	\$ 498,970	\$ 750,997	\$ 2,752,042
Total Expenditures	\$ 6,624,772	\$ 6,848,637	\$ 6,779,418	\$ 6,859,128	\$ 7,168,590	\$ 7,163,549	\$ 6,602,617	\$ 6,883,562	\$ 7,402,269	\$ 9,416,025
Excess (deficiency) of revenues over operational expenditures	\$ 468,593	\$ 251,238	\$ 327,101	\$ 254,173	\$ 318,484	\$ 330,597	\$ 898,753	\$ 625,187	\$ 114,021	\$ (1,575,139)
Revenue fund balance (ending)	\$ 369,469	\$ 330,496	\$ 290,158	\$ 248,408	\$ 205,197	\$ 160,474	\$ 114,186	\$ 66,278	\$ 16,692	\$ (34,629)
Capital fund balance (ending)	\$ 1,113,533	\$ 1,152,506	\$ 1,192,844	\$ 1,234,594	\$ 1,277,804	\$ 1,322,528	\$ 1,368,816	\$ 1,416,725	\$ 1,466,310	\$ 1,517,631
MDOT capital fund (ending)	\$ 1,972,358	\$ 2,097,977	\$ 2,261,527	\$ 2,388,614	\$ 2,547,856	\$ 2,713,154	\$ 3,162,531	\$ 3,475,124	\$ 3,532,135	\$ 2,744,565
FBCL capital fund (ending)	\$ 548,814	\$ 674,433	\$ 837,983	\$ 965,070	\$ 1,124,312	\$ 1,289,610	\$ 1,738,987	\$ 2,051,580	\$ 2,108,591	\$ 1,321,021
Fund Balance-Ending	\$ 4,004,173	\$ 4,255,412	\$ 4,582,512	\$ 4,836,685	\$ 5,155,169	\$ 5,485,766	\$ 6,384,519	\$ 7,009,707	\$ 7,123,727	\$ 5,548,588

* Based upon 1,429,389 crossings

SAULT STE MARIE BRIDGE AUTHORITY

TRAFFIC AND EXCHANGE RATE
SENSITIVITY ANALYSIS

Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Beginning Fund Balance	\$ 3,535,580	\$ 5,463,825	\$ 7,174,894	\$ 8,962,008	\$ 10,676,381	\$ 12,540,678	\$ 14,417,281	\$ 16,862,233	\$ 19,033,819	\$ 20,694,439
Toll Revenue	\$ 8,083,932	\$ 8,083,932	\$ 8,083,932	\$ 8,083,932	\$ 8,536,206	\$ 8,536,206	\$ 8,536,206	\$ 8,536,206	\$ 8,536,206	\$ 8,927,106
Other Revenue	\$ 469,085	\$ 475,774	\$ 482,600	\$ 489,568	\$ 496,682	\$ 503,945	\$ 511,363	\$ 518,941	\$ 526,683	\$ 534,593
Total Revenue	\$ 8,553,017	\$ 8,559,706	\$ 8,566,532	\$ 8,573,500	\$ 9,032,888	\$ 9,040,151	\$ 9,047,569	\$ 9,055,147	\$ 9,062,889	\$ 9,461,699
Total Expenditures	\$ 5,535,320	\$ 5,761,254	\$ 5,785,742	\$ 5,892,347	\$ 6,022,731	\$ 6,187,169	\$ 6,227,585	\$ 6,384,592	\$ 6,651,272	\$ 6,663,983
Capital Expenditures	\$ 1,089,452	\$ 1,087,383	\$ 993,676	\$ 966,781	\$ 1,145,859	\$ 976,380	\$ 375,032	\$ 498,970	\$ 750,997	\$ 2,752,042
Total Expenditures	\$ 6,624,772	\$ 6,848,637	\$ 6,779,418	\$ 6,859,128	\$ 7,168,590	\$ 7,163,549	\$ 6,602,617	\$ 6,883,562	\$ 7,402,269	\$ 9,416,025
Excess (deficiency) of revenues over operational expenditures	\$ 1,928,245	\$ 1,711,069	\$ 1,787,114	\$ 1,714,372	\$ 1,864,298	\$ 1,876,602	\$ 2,444,953	\$ 2,171,585	\$ 1,660,619	\$ 45,675
Revenue fund balance (ending)	\$ 369,469	\$ 330,495	\$ 290,158	\$ 248,409	\$ 205,198	\$ 160,475	\$ 114,186	\$ 66,278	\$ 16,692	\$ (34,629)
Capital fund balance (ending)	\$ 1,113,533	\$ 1,152,506	\$ 1,192,844	\$ 1,234,594	\$ 1,277,804	\$ 1,322,528	\$ 1,368,816	\$ 1,416,725	\$ 1,466,310	\$ 1,517,631
MDOT capital fund (ending)	\$ 2,702,184	\$ 3,557,718	\$ 4,451,275	\$ 5,308,461	\$ 6,240,610	\$ 7,178,911	\$ 8,401,388	\$ 9,487,180	\$ 10,317,490	\$ 10,340,328
FBCL capital fund (ending)	\$ 1,278,640	\$ 2,134,174	\$ 3,027,731	\$ 3,884,917	\$ 4,817,066	\$ 5,755,367	\$ 6,977,844	\$ 8,063,636	\$ 8,893,946	\$ 8,916,784
Fund Balance-Ending	\$ 5,463,825	\$ 7,174,894	\$ 8,962,008	\$ 10,676,381	\$ 12,540,678	\$ 14,417,281	\$ 16,862,233	\$ 19,033,819	\$ 20,694,439	\$ 20,740,113

*Based upon 1,828,524 crossings

SAULT STE MARIE BRIDGE AUTHORITY

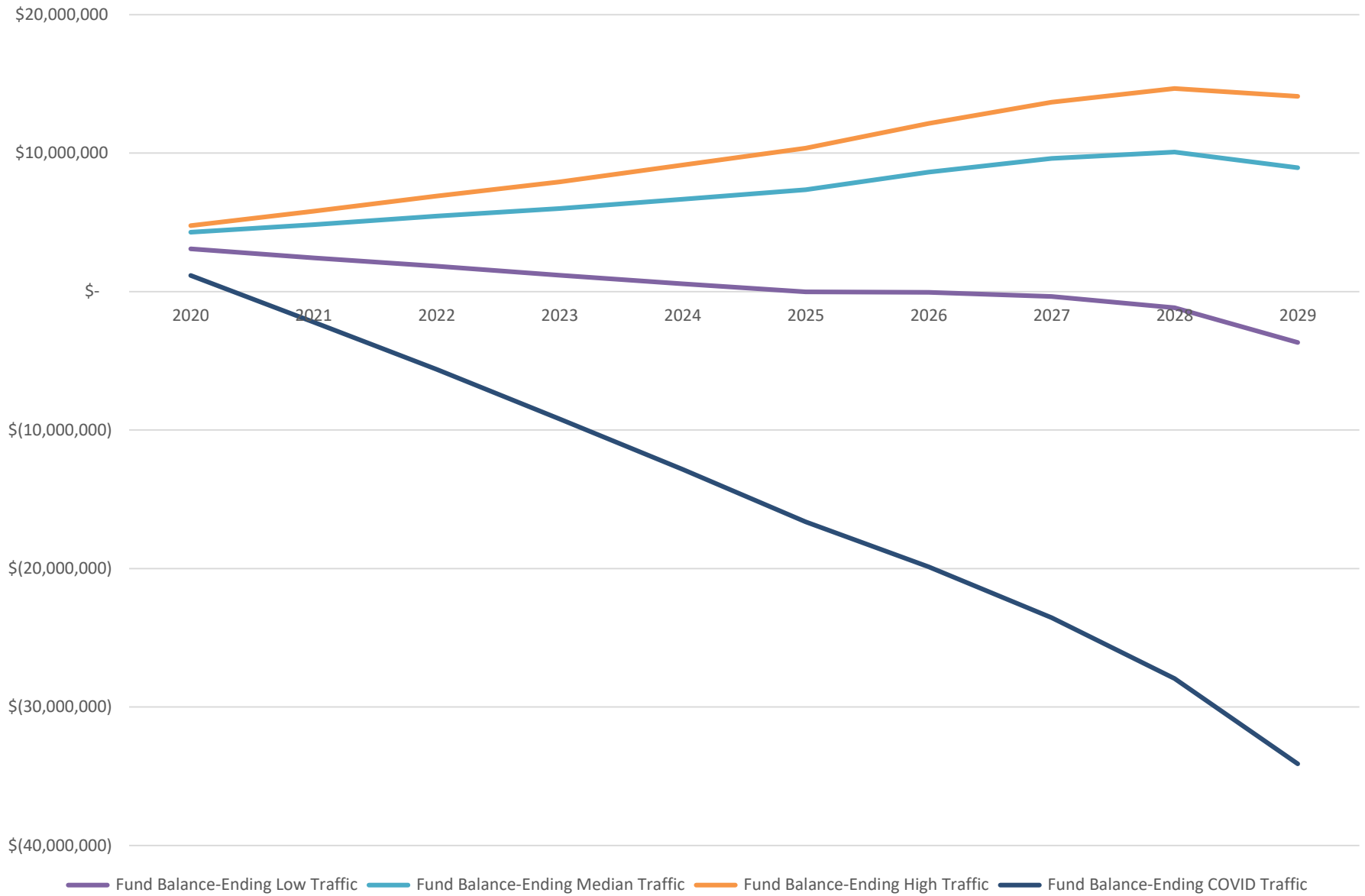
TRAFFIC AND EXCHANGE RATE

SENSITIVITY ANALYSIS

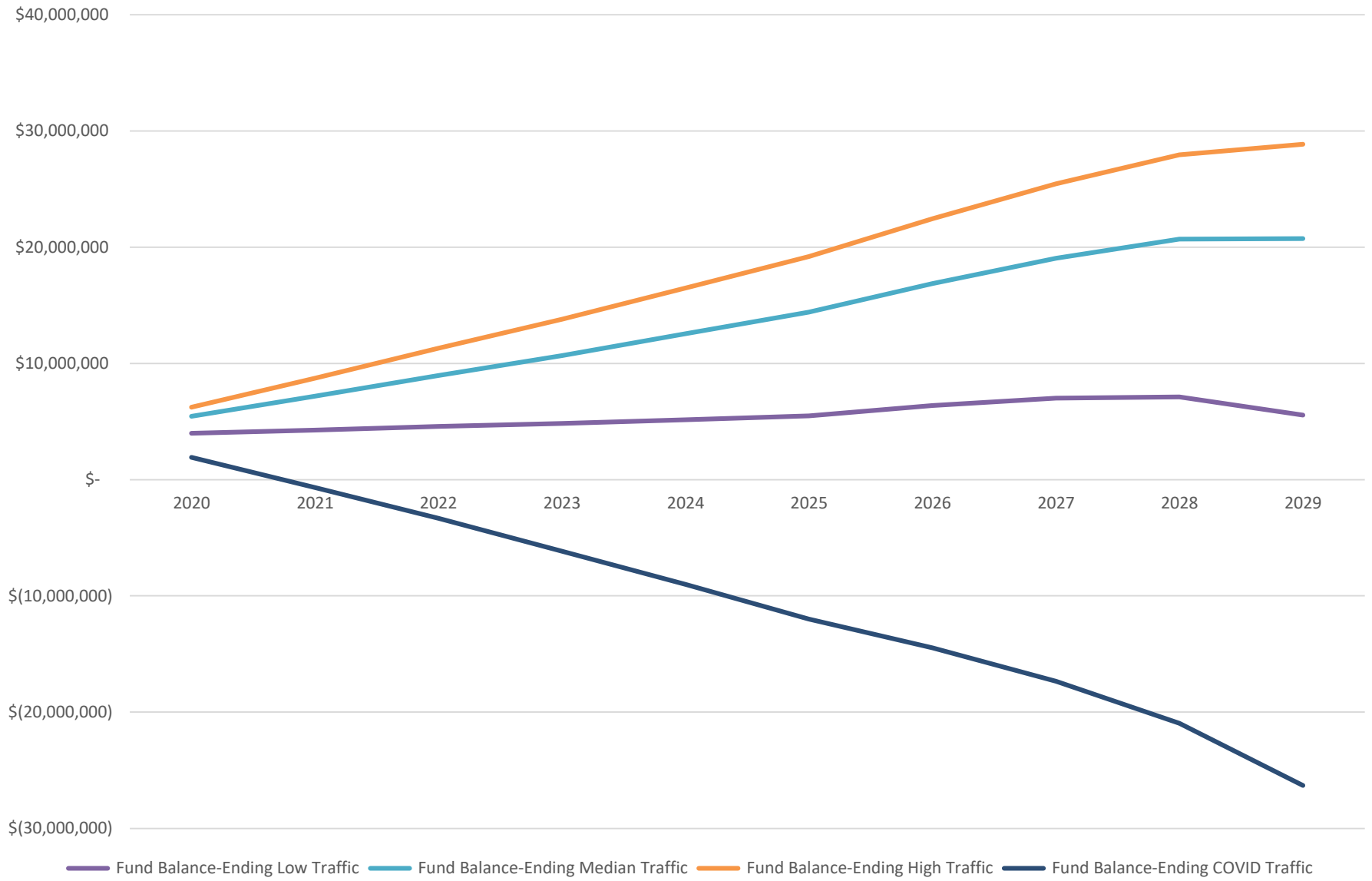
Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Beginning Fund Balance	\$ 3,535,580	\$ 6,241,571	\$ 8,730,484	\$ 11,295,537	\$ 13,787,947	\$ 16,479,931	\$ 19,184,320	\$ 22,457,163	\$ 25,456,745	\$ 27,945,468
Toll Revenue	\$ 8,855,889	\$ 8,855,889	\$ 8,855,889	\$ 8,855,889	\$ 9,357,710	\$ 9,357,710	\$ 9,357,710	\$ 9,357,710	\$ 9,357,710	\$ 9,791,693
Other Revenue	\$ 474,875	\$ 481,659	\$ 488,583	\$ 495,649	\$ 502,863	\$ 510,229	\$ 517,750	\$ 525,433	\$ 533,282	\$ 541,302
Total Revenue	\$ 9,330,764	\$ 9,337,548	\$ 9,344,472	\$ 9,351,538	\$ 9,860,573	\$ 9,867,939	\$ 9,875,460	\$ 9,883,143	\$ 9,890,992	\$ 10,332,995
Total Expenditures	\$ 5,535,320	\$ 5,761,254	\$ 5,785,742	\$ 5,892,347	\$ 6,022,731	\$ 6,187,169	\$ 6,227,585	\$ 6,384,592	\$ 6,651,272	\$ 6,663,983
Capital Expenditures	\$ 1,089,452	\$ 1,087,383	\$ 993,676	\$ 966,781	\$ 1,145,859	\$ 976,380	\$ 375,032	\$ 498,970	\$ 750,997	\$ 2,752,042
Total Expenditures	\$ 6,624,772	\$ 6,848,637	\$ 6,779,418	\$ 6,859,128	\$ 7,168,590	\$ 7,163,549	\$ 6,602,617	\$ 6,883,562	\$ 7,402,269	\$ 9,416,025
Excess (deficiency) of revenues over operational expenditures	\$ 2,705,992	\$ 2,488,911	\$ 2,565,054	\$ 2,492,410	\$ 2,691,983	\$ 2,704,390	\$ 3,272,844	\$ 2,999,582	\$ 2,488,723	\$ 916,970
Revenue fund balance (ending)	\$ 369,469	\$ 330,496	\$ 290,158	\$ 248,409	\$ 205,198	\$ 160,475	\$ 114,186	\$ 66,277	\$ 16,692	\$ (34,628)
Capital fund balance (ending)	\$ 1,113,533	\$ 1,152,506	\$ 1,192,844	\$ 1,234,594	\$ 1,277,804	\$ 1,322,528	\$ 1,368,816	\$ 1,416,725	\$ 1,466,310	\$ 1,517,631
MDOT capital fund (ending)	\$ 3,091,057	\$ 4,335,513	\$ 5,618,039	\$ 6,864,244	\$ 8,210,236	\$ 9,562,431	\$ 11,198,853	\$ 12,698,644	\$ 13,943,005	\$ 14,401,490
FBCL capital fund (ending)	\$ 1,667,513	\$ 2,911,969	\$ 4,194,495	\$ 5,440,700	\$ 6,786,692	\$ 8,138,887	\$ 9,775,309	\$ 11,275,100	\$ 12,519,461	\$ 12,977,946
Fund Balance-Ending	\$ 6,241,571	\$ 8,730,484	\$ 11,295,537	\$ 13,787,947	\$ 16,479,931	\$ 19,184,320	\$ 22,457,163	\$ 25,456,745	\$ 27,945,468	\$ 28,862,439

* Based upon 2,070,449 crossings

Sensitivity Analysis .70 Exchange Rate



Sensitivity Analysis .81 Exchange Rate



Sensitivity Analysis 1.00 Exchange Rate

