



MDOT LEADERSHIP UPDATE

MITA Annual Conference

January 18, 2024

TODAY'S SPEAKERS

Director

Bradley Wieferich, P.E.

Chief Administrative Officer

Laura Mester, CPA

Chief Operations Officer

Gregg Brunner, P.E.

Chief Culture, Equity, and Inclusion Officer

Terri Slaughter



Highway Program Accomplishments FY 2023

Total Highway Program Investment
\$2.8 B

Economic Impact
34,176
 Jobs were supported by the Highway Program.

Highway Program Delivery:
2,101 Miles of improved roads (lane miles), along with:
227 Bridges repaired or replaced.

Road Rehabilitation and Reconstruction (R&R)

\$1,413 M
 Preconstruction and construction investment (Includes Non-Freeway Resurfacing Program and Freeway Resurfacing Program)

1,187 Miles
 of improved roads (lane miles).

\$644 M
 Rebuilding Michigan Investment

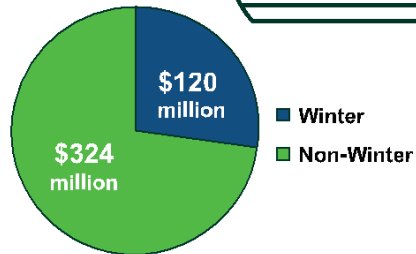
Road Capital Preventive Maintenance (CPM)

\$107 M
 Preconstruction and Construction Activities

914 Miles
 of improved roads (lane miles).

Routine Maintenance

\$444 M
 Includes winter, surface, structure/bridge, sign, signal, shoulder, and roadside maintenance.



Bridges

\$476 M
 Preconstruction and Construction Activities

96 Bridge replacement and rehabilitation.
131 Preventive maintenance, scheduled maintenance, and modernization.

Trunkline Modernization

\$7 M
 Preconstruction and Construction Activities

System Operations

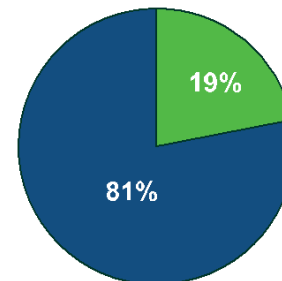
\$89 M
 Includes intelligent transportation systems, traffic signals, commercial vehicle enforcement, traffic operation centers, Michivan, and Freeway Courtesy Patrol.

Other Programs
\$201 M
 Includes miscellaneous programs (see back page for full list).

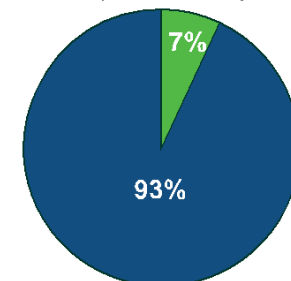
Traffic and Safety
\$72 M
 Includes signs, pavement markings, safety programs, traffic signals, and delineators.

System Condition

■ Good or Fair ■ Poor
2022 Trunkline Pavement Condition
 (Based on RSL*)



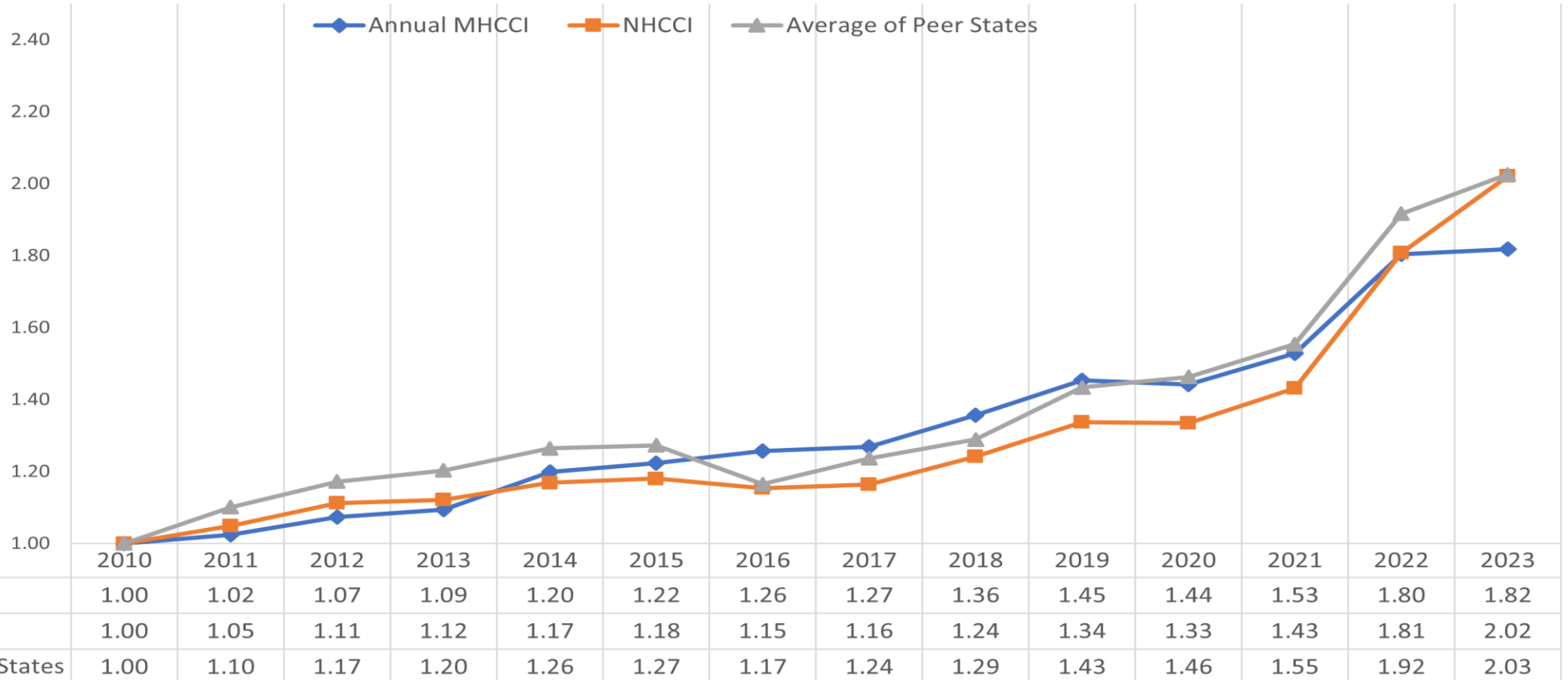
2022 Freeway and Non-Freeway Bridge Condition
 (Based on NBI*)



*Remaining Service Life

*National Bridge Inventory

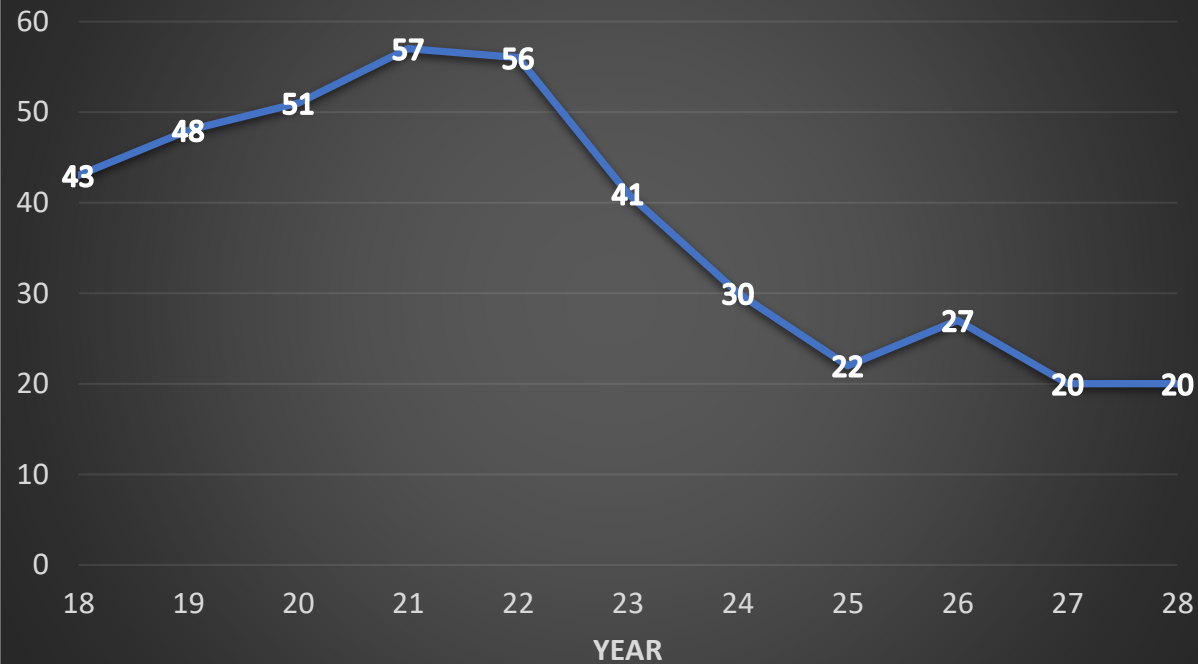
Michigan Highway Construction Cost Index (MHCCI) Comparison with Peer States & National Highway Index 2010-2023



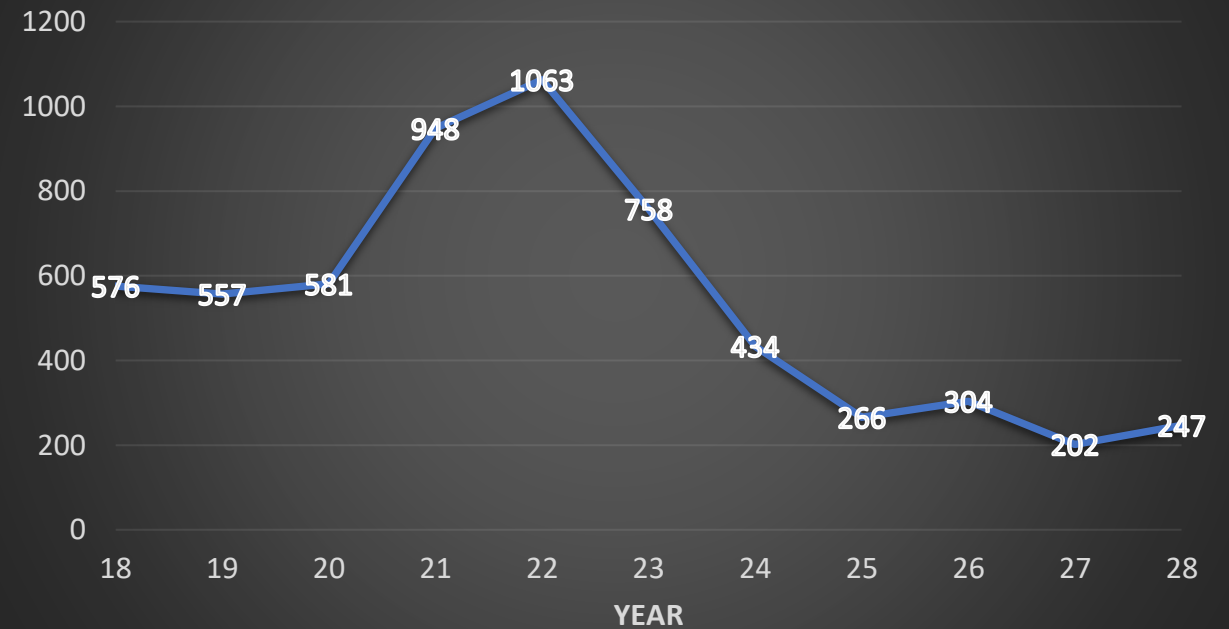
*2023 NHCCI calculations based on Qtr. 1 & 2 data only (calendar year).

Rehab & Reconstruct

of Projects by Year



Combined Projects Lane Miles



2024 Construction Projects

Trunkline Only

*This information represents the total number of projects and dollars scheduled to be let in each month.

Therefore, the sum of values will not directly correlate to program year budgets, and this information is always subject to change.

Reporting Date 18-Dec-2023 for 07-01-23 to 06-30-24

Letting Month	Projects*	Construction Costs (\$ Millions)*
July, 2023	22	\$113.10
August, 2023	24	\$235.78
September, 2023	26	\$73.00
October, 2023	30	\$154.16
November, 2023	26	\$370.68
December, 2023	58	\$380.89
January, 2024	20	\$150.97
February, 2024	17	\$74.22
March, 2024	22	\$161.72
April, 2024	10	\$24.23
May, 2024	11	\$9.62
June, 2024	4	\$8.50
Total	270	\$1,756.87

2025 Construction Projects

Trunkline Only

*This information represents the total number of projects and dollars scheduled to be let in each month.

Therefore, the sum of values will not directly correlate to program year budgets, and this information is always subject to change.

Reporting Date 18-Dec-2023 for 07-01-24 to 06-30-25

Letting Month	Projects*	Construction Costs (\$ Millions)*
July, 2024	10	\$52.92
August, 2024	41	\$211.72
September, 2024	29	\$135.75
October, 2024	38	\$401.45
November, 2024	43	\$855.96
December, 2024	65	\$411.73
January, 2025	21	\$25.12
February, 2025	18	\$352.10
March, 2025	14	\$66.99
April, 2025	9	\$10.04
May, 2025	2	\$1.41
June, 2025	2	\$0.25
Total	292	\$2,525.45

Quantity Values

Item	2024*	2025*
HMA (Tons)	1,692,495	1,987,317
Concrete (SYDs)	1,070,139	2,758,044
\$ of Bridge Work (Millions)	381,854,453	351,207,656
Aggregate (Tons)	8,912,524	6,519,385
Aggregate (SYDs)	22,217	47,780
Aggregate (CYDs)	154,386	189,182
Subbase (CYDs)	1,853,721	1,744,218

This information is draft and may change as the program is developed.

*2024 & 2025 amounts are programmed values to date. The 2024 year encompasses data from July 2023 to June 2024 and the 2025 year encompasses data from July 2024 to June 2025 to align with construction year emphasis.

Laura Mester, CPA

Chief Administrative Officer



Five-Year Transportation Program

Webpage Link

<https://www.michigan.gov/mdot/programs/planning/five-year-transportation-program>

MICHIGAN DEPARTMENT OF TRANSPORTATION



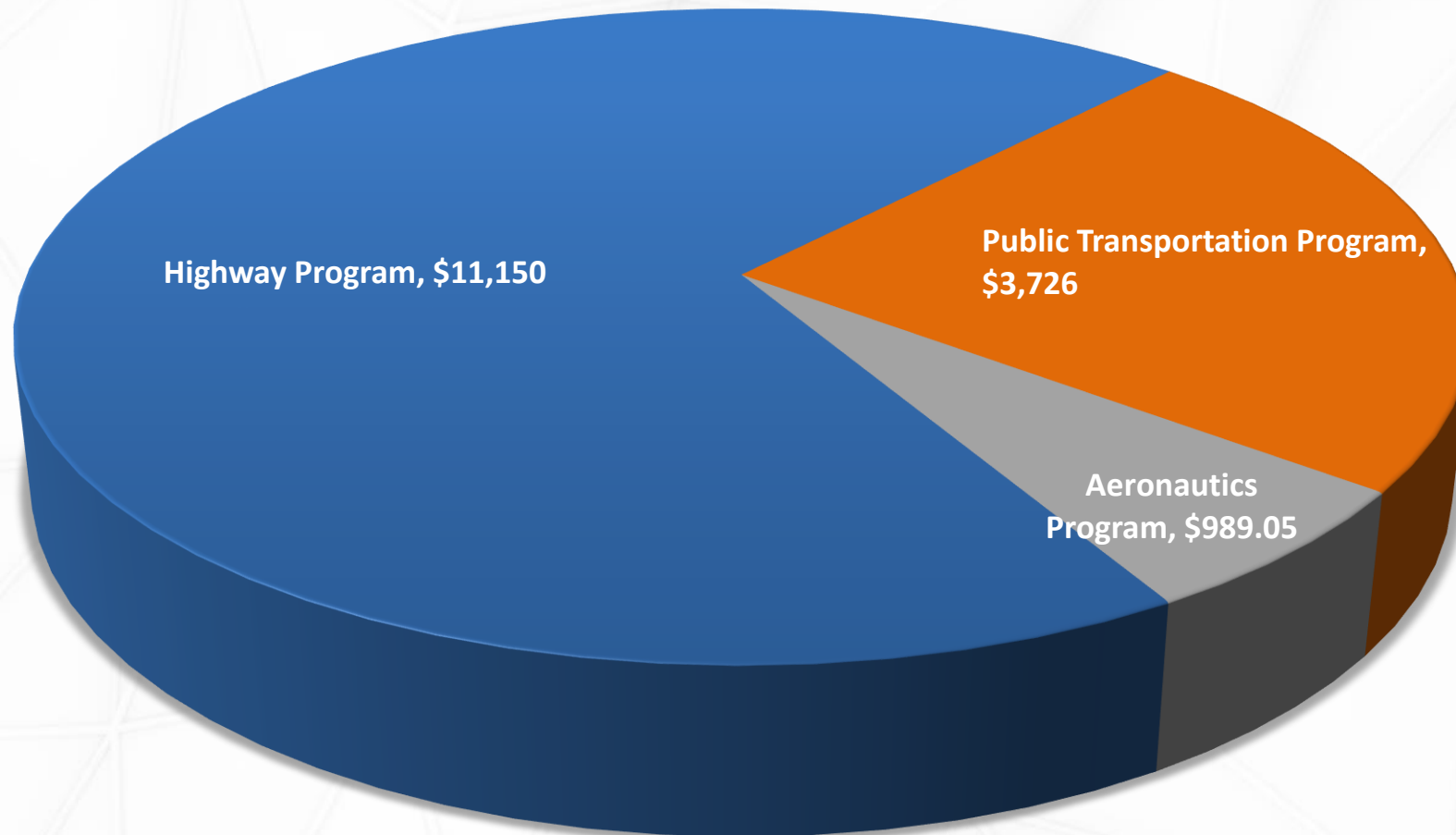
2024-2028 FIVE-YEAR TRANSPORTATION PROGRAM

Final draft presented to the State Transportation Commission on Nov. 9, 2023



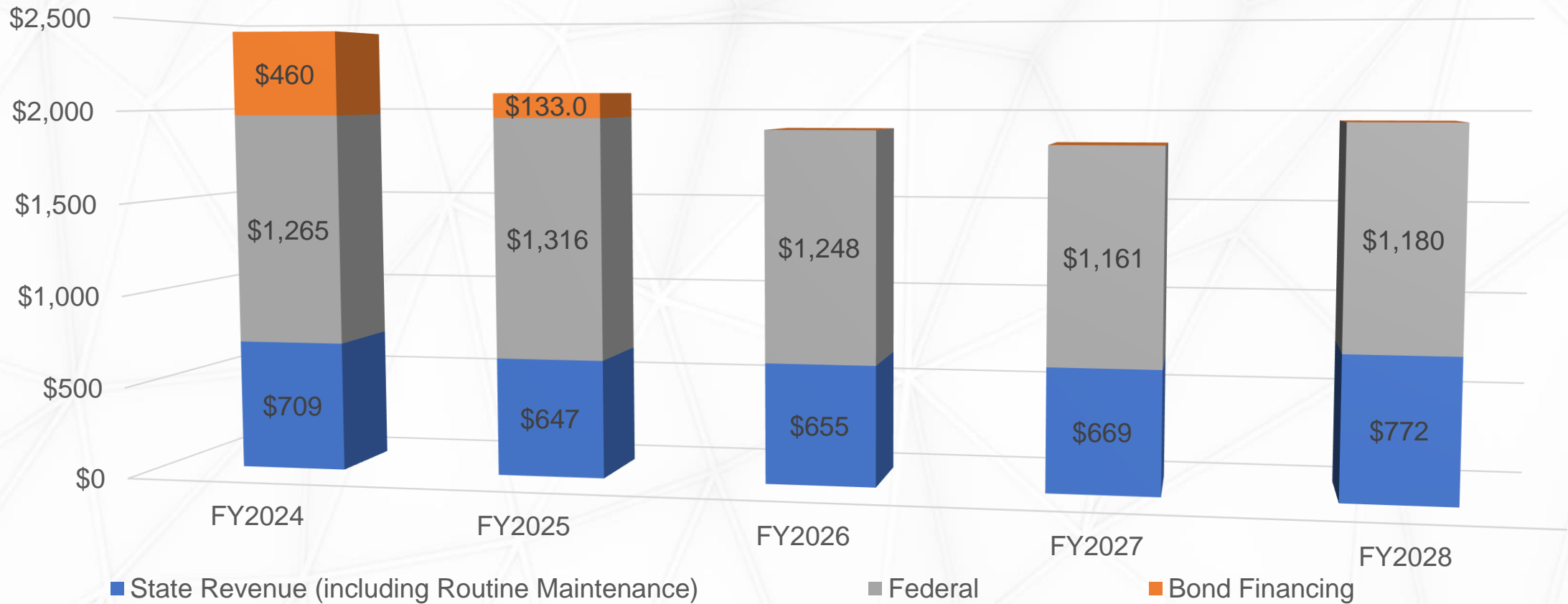
Five-Year Transportation Program (5YTP) 2024-2028

FY 2024-2028 MDOT Multimodal Transportation Program
\$15.86 Billion (in millions)



Five-Year Transportation Program (5YTP) 2024-2028

Estimated Highway Program Revenue for 2024-2028 After Pre-Capital Uses
\$10.2 billion



Five-Year Transportation Program (5YTP) 2024-2028

FY 2024-2028 MDOT Highway Program (in millions)
\$11.15 Billion Total

Program	FY 2024	Five-Year Total	Annual Avg.
Repair and Rebuild Roads*	\$1,577	\$5,192	\$1,038
Repair and Rebuild Bridges**	\$558	\$1,963	\$393
Routine Maintenance	\$476	\$2,499	\$500
Safety and System Operations	\$239	\$949	\$190
Additional State and Federally Funded Programs	\$111	\$547	\$109
Total Five-Year Trunkline Program	\$2,961	\$11,150	\$2,230

*Including Trunkline Modernization

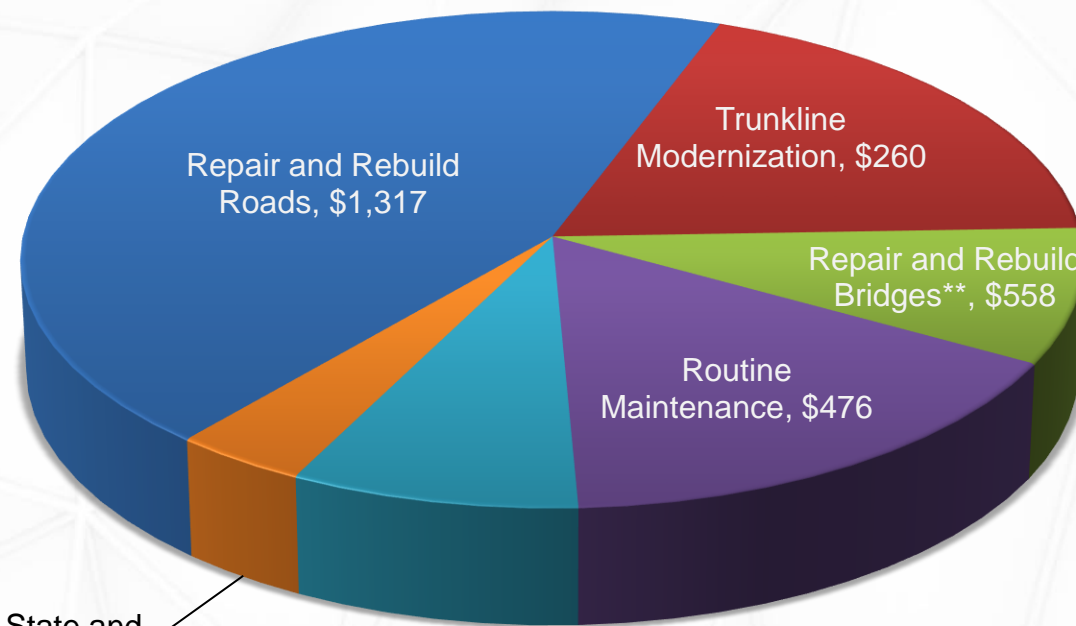
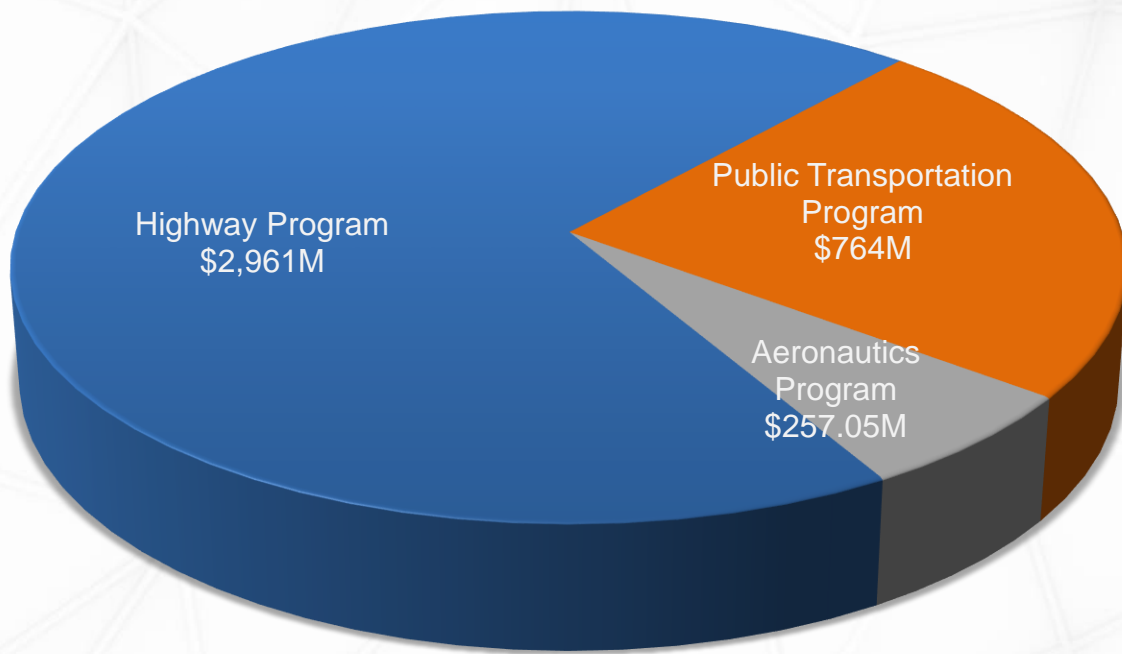
**Includes \$40 million in FY24 and \$600 million total from FY24 to 2028 for ongoing Blue Water Bridge (BWB) Plaza work accounted for in previous years.

FY 2024 Budget

Program Description	FY 2024 Amount
Road and Bridge Programs **	\$ 3,903,573,600.00
Modal Programs	\$ 706,132,400.00
Trunkline Programs	\$ 510,661,100.00
Highway Maintenance	\$ 466,088,700.00
Other Capital Outlay	\$ 289,354,000.00
Debt Service	\$ 343,740,100.00
One Time Funding	\$ 407,000,000.00
Gross Appropriations	\$ 6,219,549,900.00

**This line item includes Act 51 Distribution payments

Draft Five-Year Transportation Program (5YTP) 2024-2028



Rebuilding Michigan Program Status

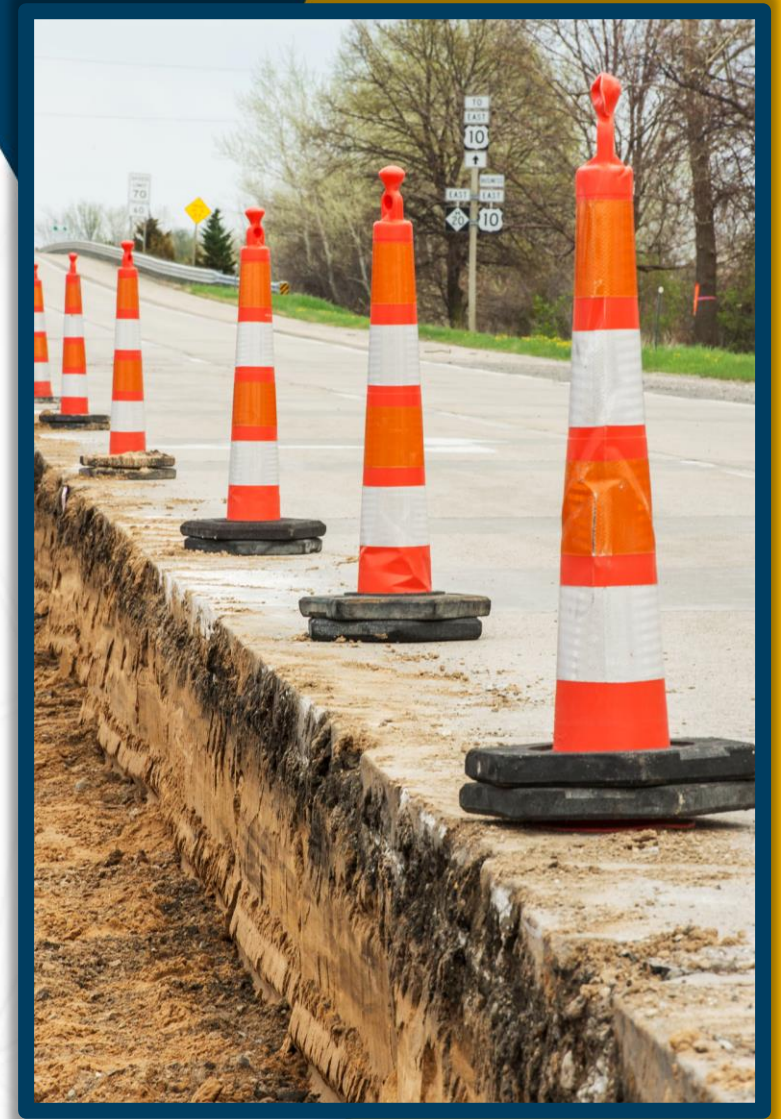
Authorized - \$3.5 Billion

Issued @ Par - \$2.8 Billion

Cash Proceeds from Issuance - \$3.3 Billion

Obligated for Construction - \$3.0 Billion

7 Projects remaining to be awarded in 2024 and 2025



Gregg Brunner, P.E.

Chief Operations Officer



Ryan Mitchell

Office of Major Projects Administrator

- For the past 13 years, Ryan has focused solely on developing and delivering successful alternative delivery projects and programs across the United States, many of them major projects, totaling more than \$500 million.
- Ryan led MDOT's Innovative Contracting Unit, overseeing project identification, selection, development, procurement, implementation, and performance monitoring on all MDOT alternative delivery projects.
- Ryan chairs MDOT's Innovative Contracting Committee and serves as a voting member of MDOT's Engineering Operations Committee.



Jason Gutting

Bureau Director of Field Services

- Gutting has served as the engineer of Construction Field Services since February 2016 and brings more than 24 years of experience and leadership with the State of Michigan to his new role.
- Gutting has a Bachelor of Science in civil engineering from Michigan State University and is a licensed professional engineer with the state of Michigan.



Lindsey Renner

Construction Field Services
Division Administrator

- Lindsey brings with her more than 18 years of experience and leadership from her time at MDOT and the consultant industry, previously serving as the Construction Operations engineer and Field Operations engineer prior to that.
- Lindsey possesses a Bachelor of Science in civil engineering from Michigan State University. She is a licensed professional engineer with the state of Michigan.



Jason Bodell

ITS & Signals Program Office
Engineering Manager

- Jason previously held the role of TSMO Maintenance Unit Engineer. Prior to coming to TSMO - Maintenance, Jason held the position of Statewide Transportation Operations Center (STOC) Engineer. Additionally, Jason has held the roles of Gaylord TSC Traffic & Safety Engineer, and Gaylord TSC Design Engineer.
- Jason possesses a Bachelor of Science in Civil Engineering from U of M and is a licensed professional engineer with the states of Michigan and Hawaii.



What is Integrated Program Management?



Project Controls expertise for effective program and project delivery and management.



Project Controls is data gathering, data management and analytical processes used to predict, understand and constructively influence the time and cost outcomes of a project and/or program;



Communication of that information and data to assist effective management and more informed decision making.

Material Demand Example for HMA (tons)

MDOT
Resource Demand Tool v4.0

Region
No Region Selected

TSC
No TSC Selected

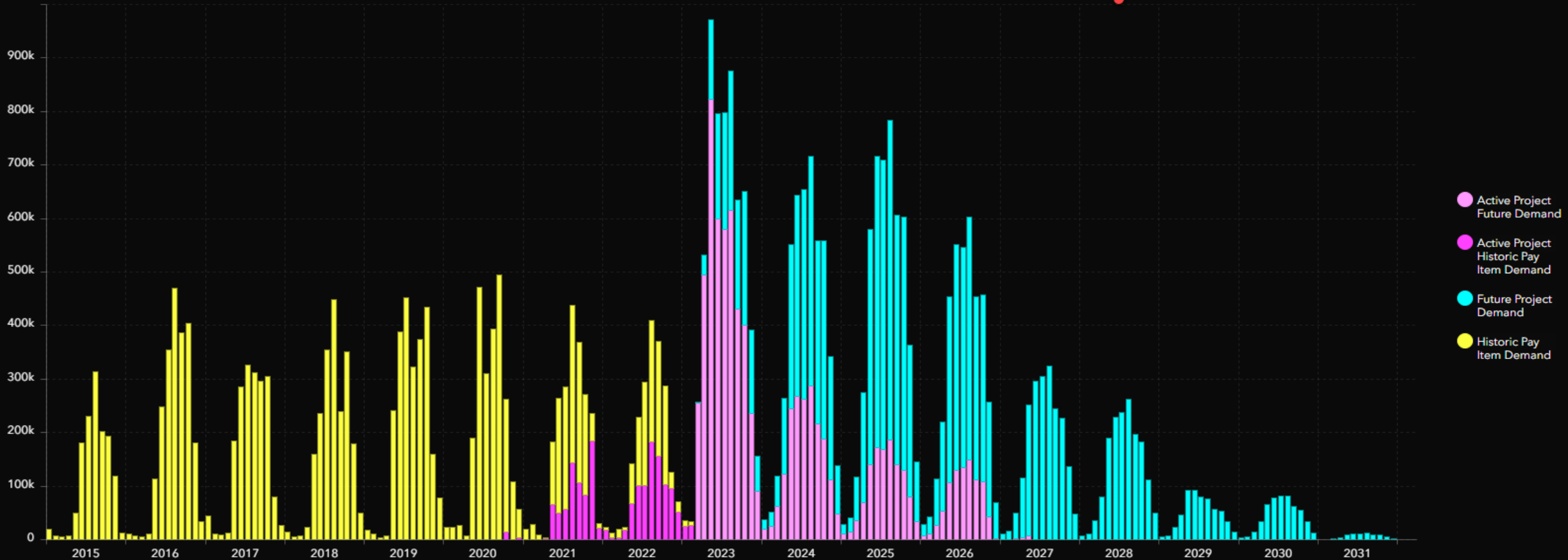
Work Type
All

Forecast Type
Materials

Resource
HMA

Project Years
All Years

Monthly Demand: Selected Material



OK, but what does this really mean?



Setting Our Program AND
Projects Up For Success...in
Development, Design, and
CONSTRUCTION

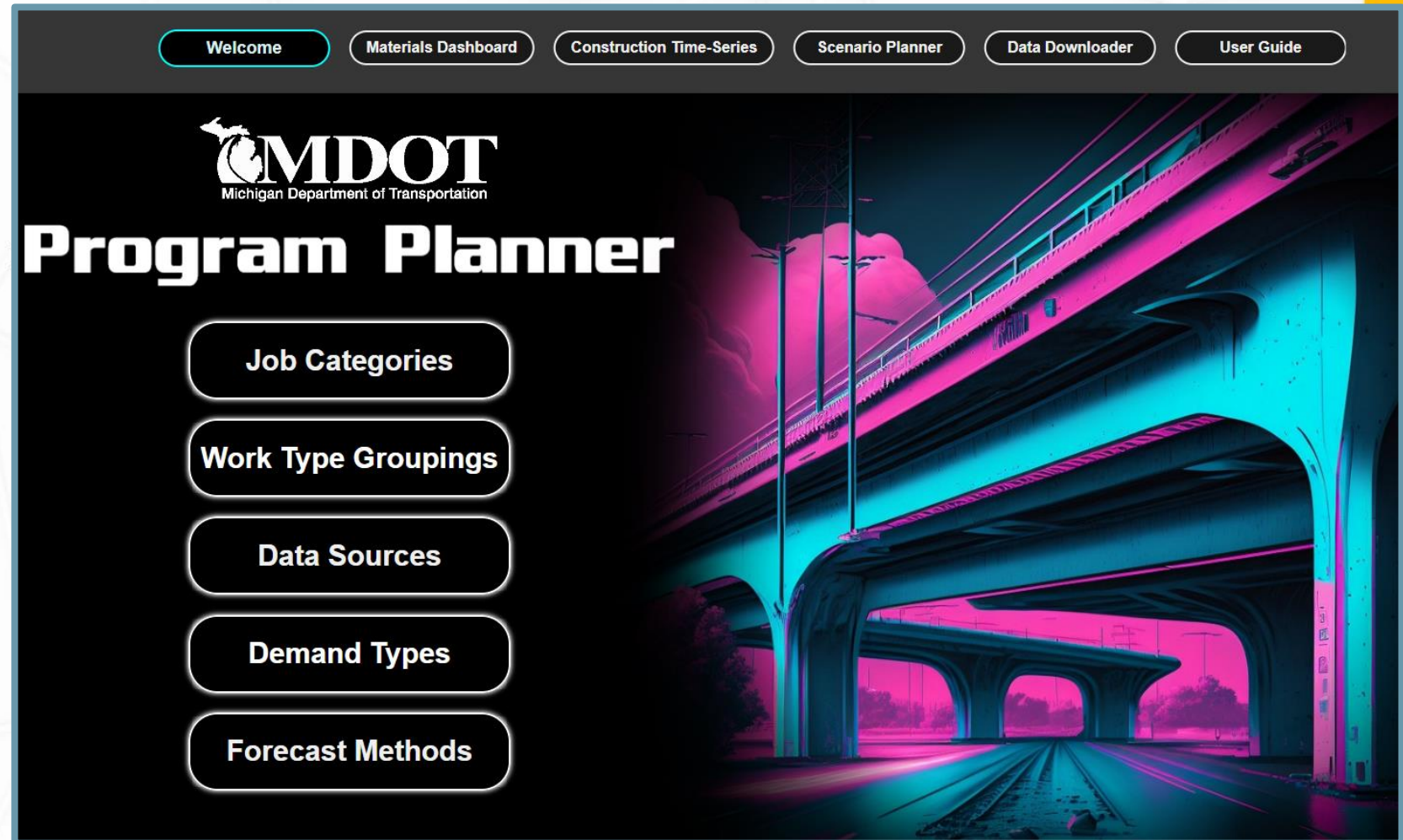


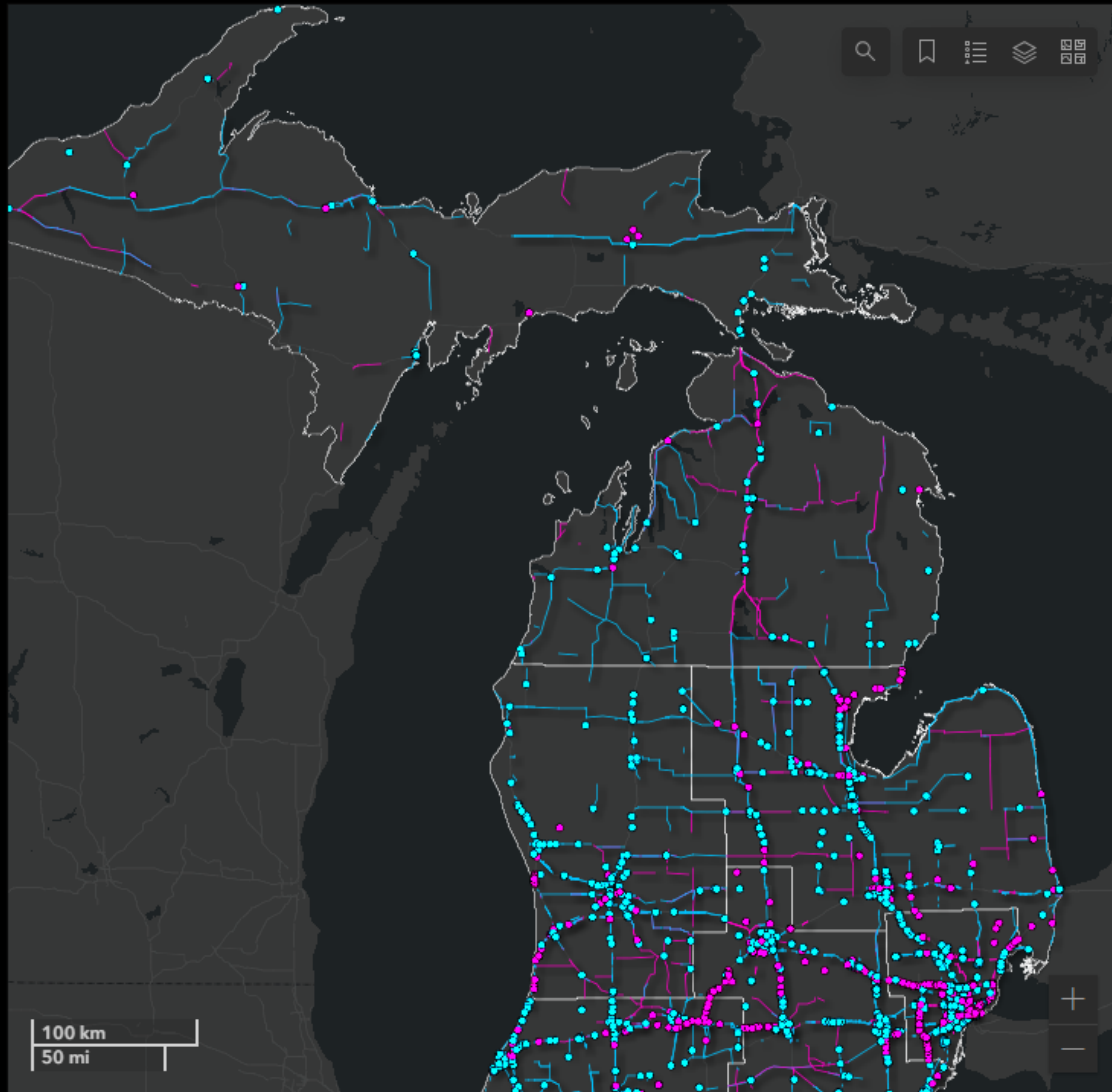
Mitigate surprises as much
as possible, **ADAPT** to new
information and
EXTERNAL FACTORS

IPM Program Planner

(still in development)

- Forecast future material, spending, labor demand based off historical averages
- Scenario planning
- Model impacts of shifted projects
- Allow for more insight to help “balance” lettings and overall program





Total Spend

\$10.1b

100%

Projects

1,257

100%

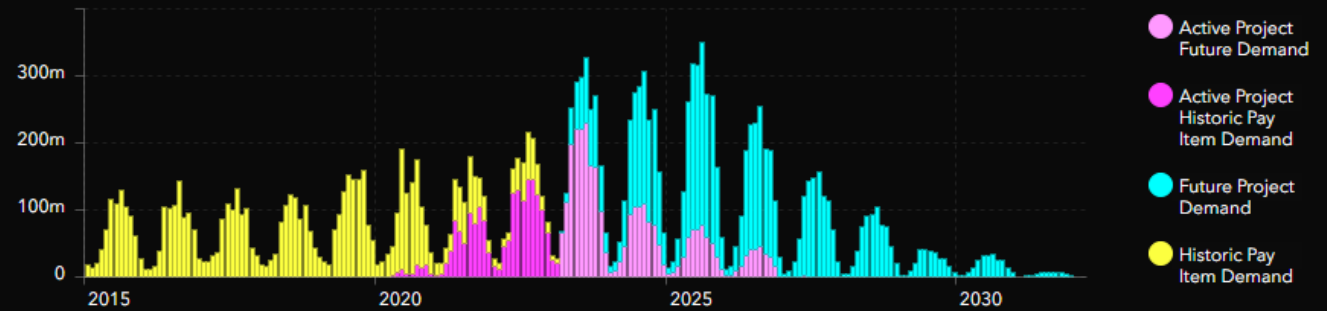
Material Forecast

10.1b

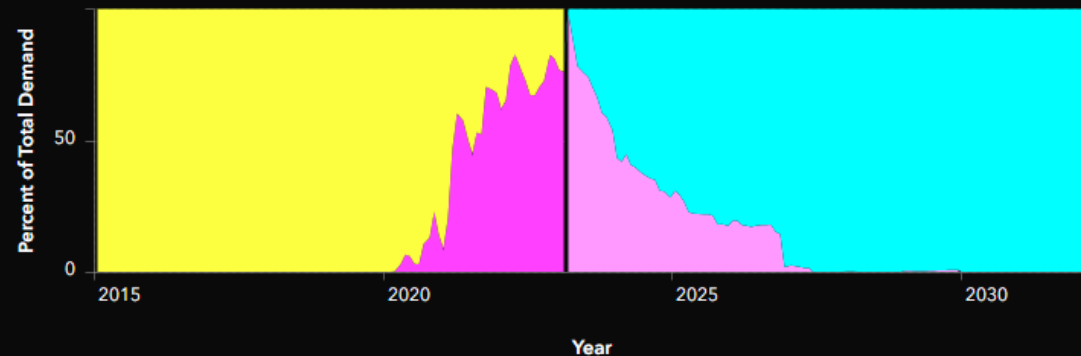
71%

**Selected
Resource
Spend**
in Dollars

Monthly Demand: Selected Material



Monthly Demand Composition



Construction Scheduling

Continue to develop tools, provide guidance, and perform services to assist in the determination and development of feasible and reasonable construction schedules (Progress Clauses)

- Advanced schedule discussions in Development stages
- Long lead item considerations
- Production Rate evaluations



Safety Updates

A photograph of a construction worker from behind, wearing a white hard hat and a high-visibility yellow and orange safety vest. The vest features the Michigan Department of Transportation (MDOT) logo, which includes a silhouette of the state of Michigan and the text "MDOT Michigan Department of Transportation". The worker is standing on a construction site with various pieces of machinery and equipment visible in the background. The image is partially obscured by a dark blue diagonal shape and a yellow diagonal shape.

MDOT
Michigan Department of Transportation

Work Zone Safety Task Force

New Focus of Task Force

- Focus on a few key topics
 - New Positive Protection Team
 - Work Zone Enforcement/Presence
 - Implement New Technology
- Continued use of Special Provisions
 - Work Zone Safety Contingency Fund
 - Work Zone Collaboration



WORKZONE
SAFETY
— TASK FORCE —



Work Zone Safety *Task Force Members*

Trevor Block

Mike Malloure

Chris Brookes

Rob Coppersmith

Gregg Brunner

Ryan O'Donnell

Deven Rau

Kim Zimmer

Aaron Johnson

Jason Gutting

Mike DeFinis

Justin Peyerk

Governor Signs Freeway Barrier Requirements Into Law

Michigan Public Act 164 of 2023

- If a freeway is partially closed at night, this requires barrier to be used between workers and traffic.
- Not required if less than three days for an emergency repair, utility crossing, maintenance, or other short-duration operation.
- Allows MDOT to exercise engineering judgement for safety of road users and workers



Governor Signs Freeway Barrier Requirements Into Law

Michigan Public Act 164 of 2023

- Updating Work Zone Safety and Mobility Manual and Work Zone Decision Tree
- Final Language will go to EOC for approval

After EOC approval, additional updates to the following:

- Maintenance of Traffic Typicals
- Special Provision for Maintaining Traffic Boilerplate
- Supplemental Guidance for definitions of sunrise and sunset



Automated Work Zone Enforcement

House Bill 4132

- Vehicle Code Revisions
- Defines Automated Speed Enforcement System
- Requires Posted Signage
- Locations (MSP and MDOT Coordination)

Violations

- First offense: Written Warning.
- Second offense: \$150 fine
- Third or subsequent offense: \$300 fine



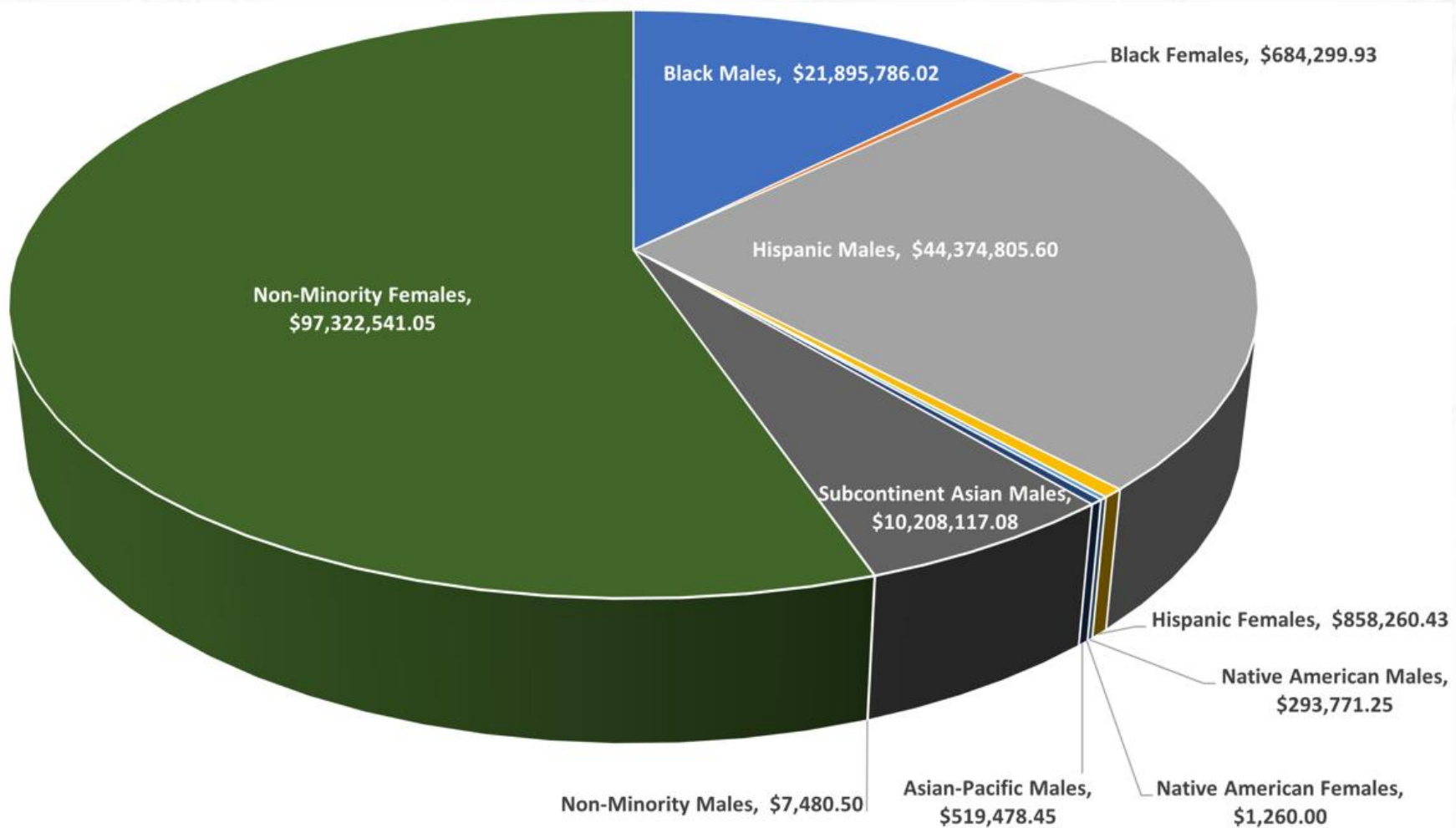
Terri Slaughter

*Chief Culture, Equity, and
Inclusion Officer*



FY23 Total DBE Dollars by Ethnicity/Gender

\$176,165,800.31



DBE Goal Attainment

MDOT's DBE goal for FY2023-FY2025 is 9.50%.
FY23 goal attainment was 7.67%, leaving a participation shortfall of 1.83%

	Race Conscious	Race Neutral
Goal Set	6.90%	2.90%
Goal Attained	5.22%	2.45%
Shortfall	1.38%	.045%

DBE Goal Corrective Action Plan Highlights

Factors contributing the shortfall:

- Major Projects/Design Build Projects with large financial disincentives
- Increase in the number of Good Faith Effort (GFE) received.
- Bond Funds which cannot count towards DBE participation

MDOT Remediation Efforts include:

- Updated DBE goal setting algorithm now includes ALL DBEs in project work categories
- Increases in Office of Business Development staff to provide a greater presence within the regions
- Revised GFE process requiring information from all bidders within 5 days
- Creation of a DBE/Small Business Lending Program
- Creation of a Small Business Incubator program, which will serve as small businesses development program to grow the capacity of Michigan based DBEs and small businesses through training and construction mentor protégé opportunities.



Faith Effort Process Changes

- ALL bidders must provide their GFE information within 5 days of the bid letting.
- DBEs must sign “Commitment Confirmation for DBE Subcontractors” forms for ALL prime bidders within 5 days of the bid letting.
- GFEs are either determined sufficient or insufficient.
- MDOT can no longer contact the prime vendor other than to clarify possible errors or missing information.
- The GFE Reconsideration Committee will not consider information or documentation that was not included in the original GFE submittal.
- Post-Award GFEs must now be submitted within 7 calendar days of the prime vendor being made aware of their inability to meet the DBE participation goal.



Good Faith Effort Tools for Success

- Early documented solicitation of DBEs.
- Clearly identify which work categories you are soliciting DBEs
- Solicit DBEs with work classifications required for the project
- Consider subcontracting work that could be self-performed
- Request subcontractors to solicit and use DBEs
- Providing concise apples-to-apples comparisons between bidders
- Clear communication about the work that is available for subcontracting on each specific project.
- Documentation of communications with non-DBE subcontractors regarding efforts to include DBEs in their work.
- Consideration of quotes that extends beyond price alone.



Transportation Workforce Challenges



FACT

37.5 million workers will retire in the next decade, yet only 21 million workers will enter the workforce to replace them.

Source: Michigan Works!

Eligibility to retire at MDOT



2018 - 40% of MDOT's workforce was eligible to retire in the next 5 years



2021 - 31% of MDOT's workforce is eligible to retire in the next 5 years

Additional Examples Difficult to Fill Positions

- ❖ Land surveyors
- ❖ Mid-level engineers
- ❖ Bridge workers
- ❖ Steeplejacks
- ❖ Location-based challenges



Metrics Illustrating Workforce Challenges

MDOT &
MI
Industry
Needs

Area	Occupation Code & Title	Total Annual Openings*	Degrees**	Gap
Michigan	171022 - Surveyors	100	15	85
Michigan	172051 - Civil Engineers	520	343	177
Michigan	173022 - Civil Engineering Technicians	140	49	91
	*Bureau of Labor Market Information - 2022 Q2 - 2023 Q2 Short Term Projections		**Center for Education Performance Data 21-22 School Year, "Degrees" for Civil Engineers represents both Civil and Environmental Engineering majors	

Questions to Consider

- How can we attract younger generations to our industry?
- How can we attract diverse populations to our industry?
- How can we create more inclusive work environments?
- What additional investment can we make promoting our industry to elementary, middle and high school students?
- How can we enhance on the job training and create more pathways to our industry?
- How can we partner even more as an industry to address workforce challenges?



Ways to Partner with MDOT



FHWA Partnership





QUESTIONS?

