

# MDOT Update

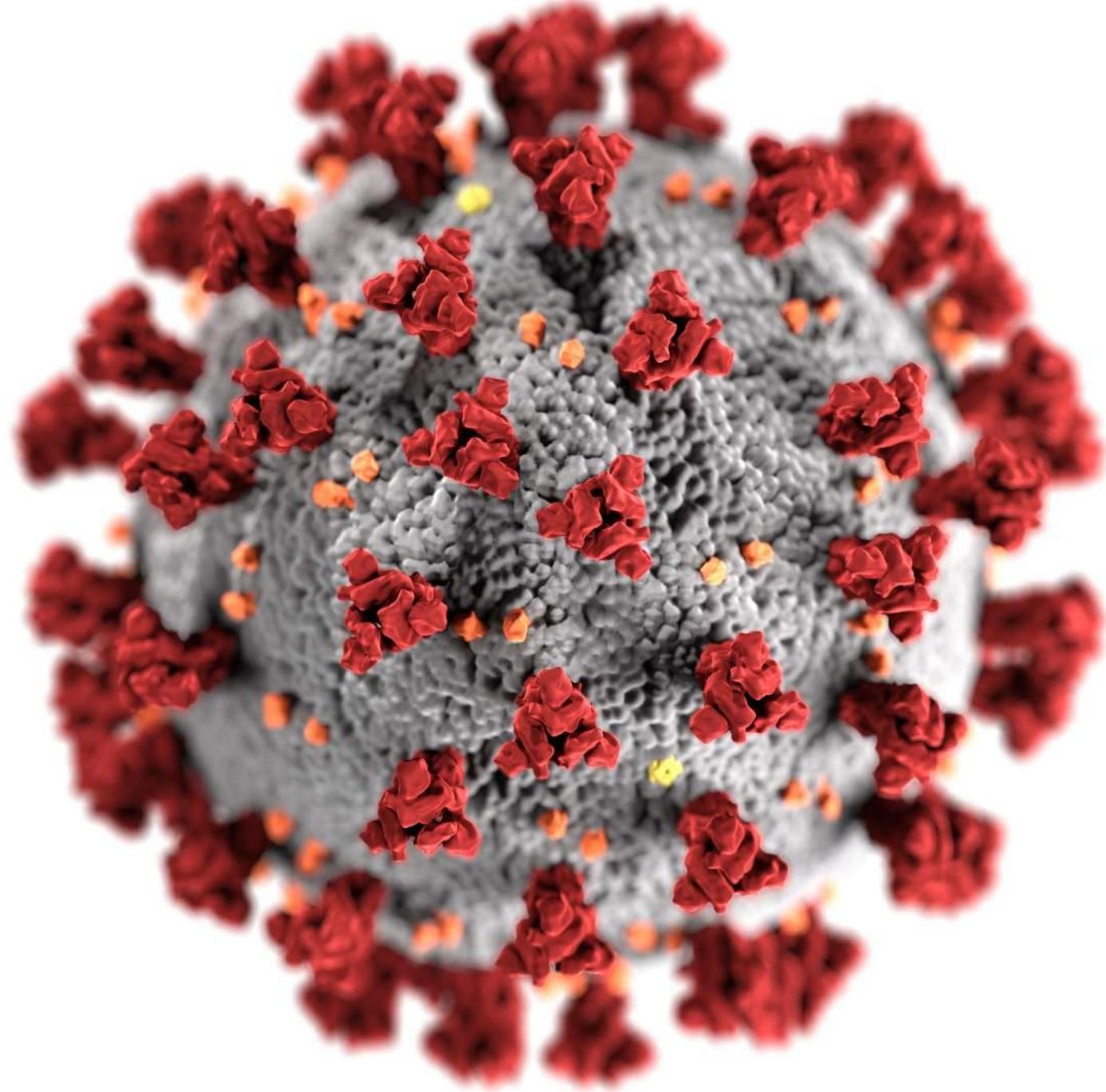
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MICHIGAN CONCRETE ASSOCIATION

FEBRUARY 9, 2021

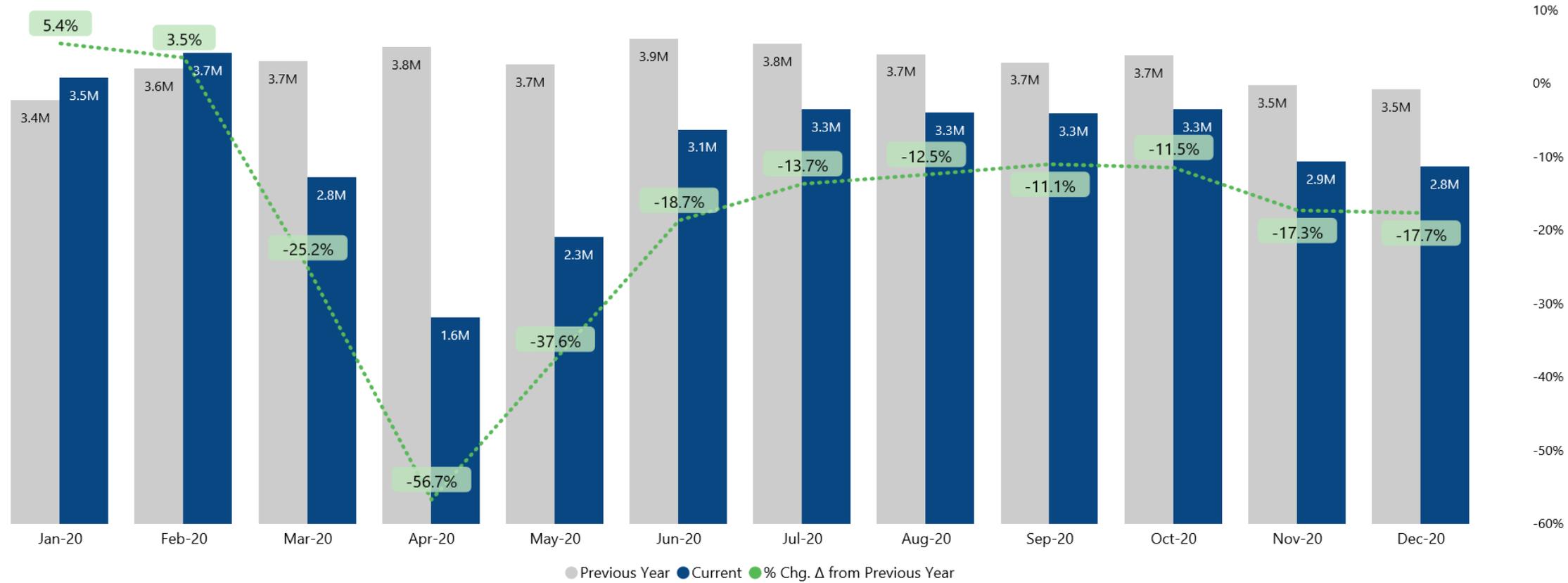
TONY KRATOFIL, PE

CHIEF OPERATING OFFICER & CHIEF ENGINEER



[Back to report](#)

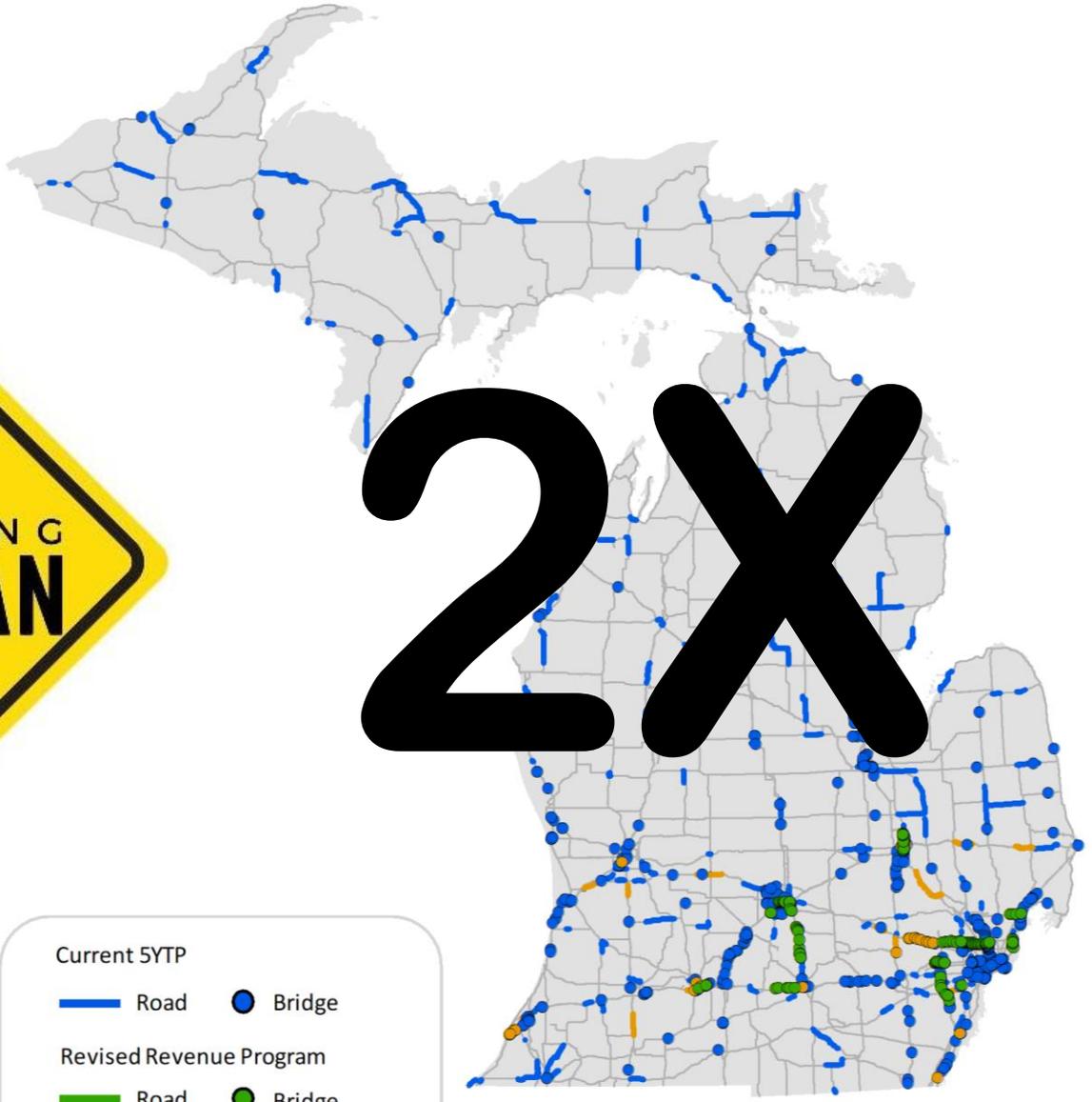
MONTHLY ADT AND % CHG. Δ FROM PREVIC US YEA



### Michigan Traffic Crash Deaths

	Urban	Rural	Total	Commercial Vehicle	Motorcycle	Pedestrian	Bicycle
2019	581	404	985	106	122	149	21
2020	595	409	1004	73	140	160	39
Change	2.4%	1.2%	1.9%	-31.1%	14.8%	7.4%	85.7%

Source: Michigan Department of Transportation, Transportation Data Management System

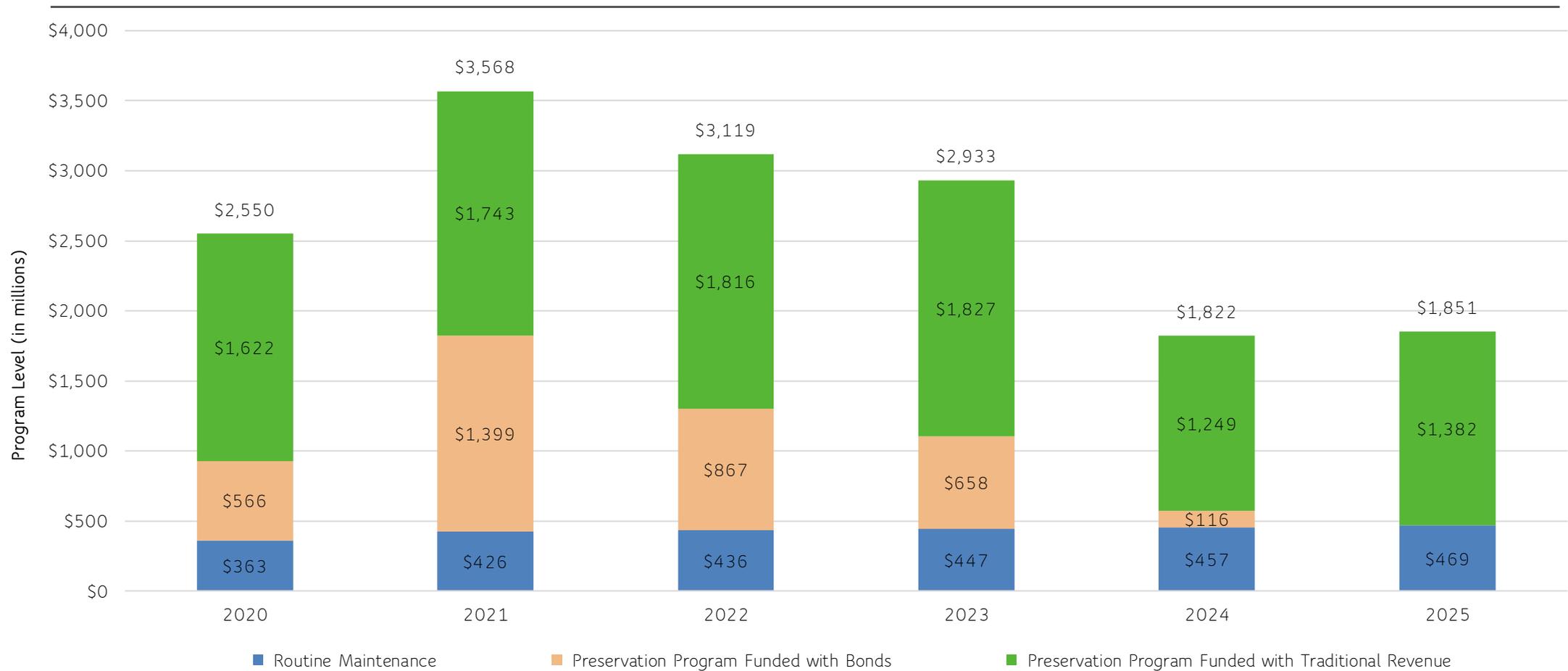


- Current 5YTP
  - Road
  - Bridge
- Revised Revenue Program
  - Road
  - Bridge
- Bonded Revenue Program
  - Road
  - Bridge



# Rebuilding Michigan

## Highway Program Investment FY 2020-25 (in millions)

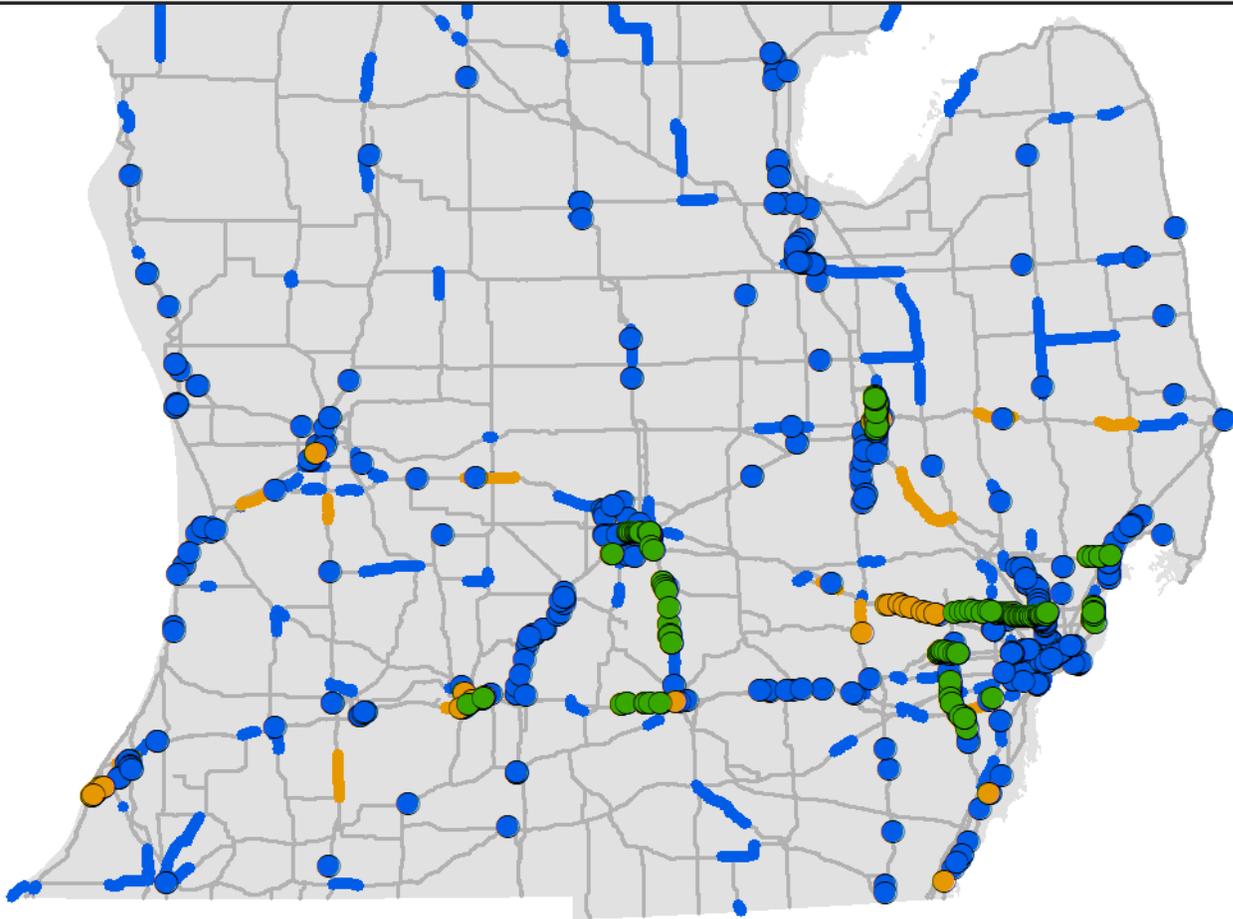


\*This slide shows investment by obligation year while the previous slide shows construction phase investment only

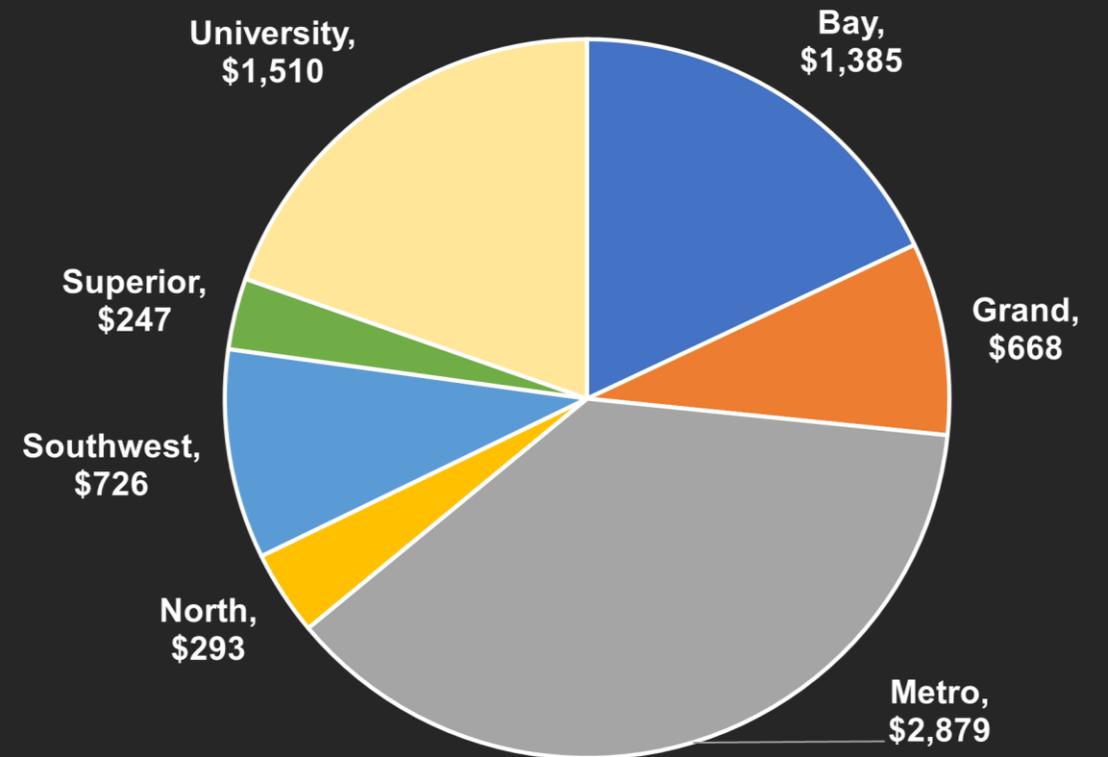


# Rebuilding Michigan

Highway Program Investment by Region (in millions)



Total 2021-2025 Five Year Construction Plan  
\$7.70B



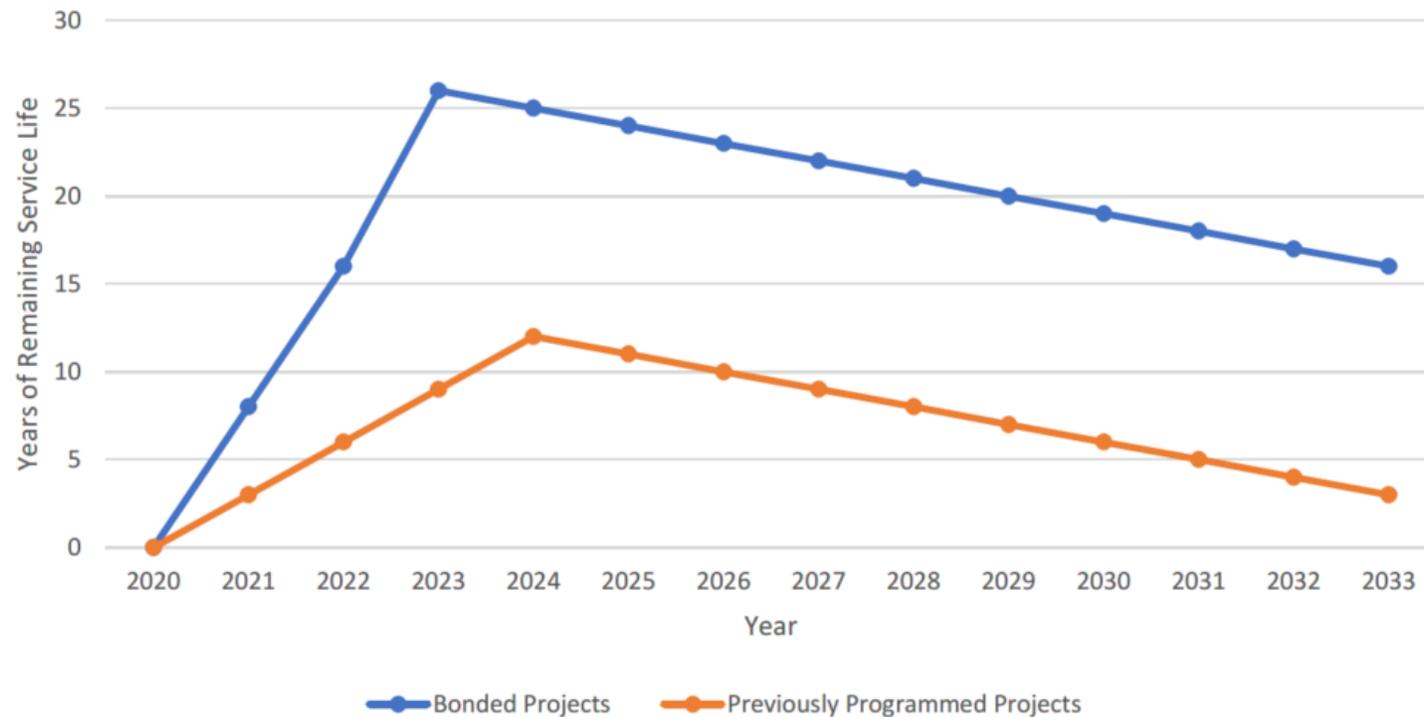
■ Bay ■ Grand ■ Metro ■ North ■ Southwest ■ Superior ■ University



# Rebuilding Michigan

## Focuses on Long Term Fixes

Pavement Life Cycle Comparison Rebuilding Bonded Projects vs  
Previously Programmed Projects  
2020-2033

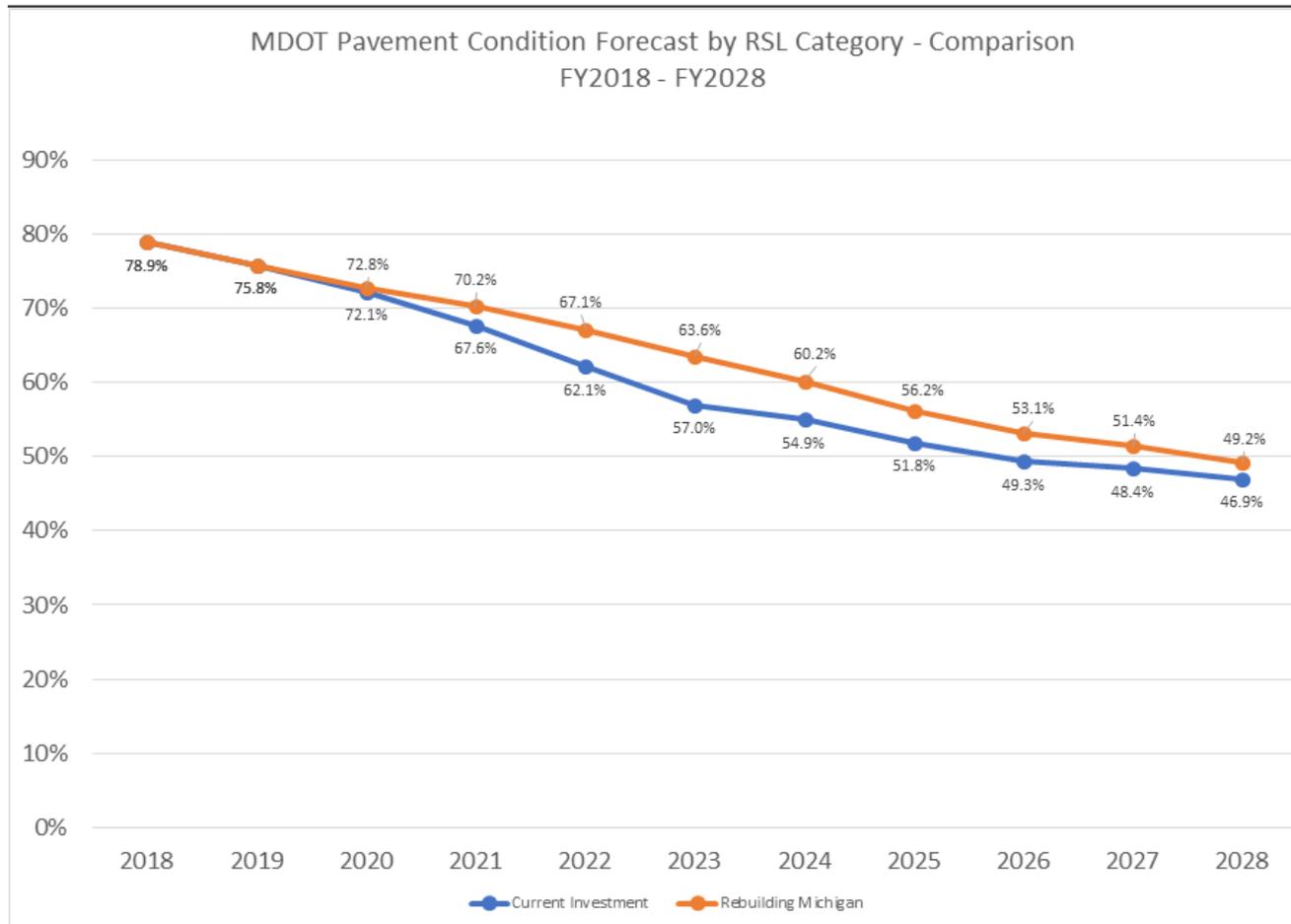


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# Rebuilding Michigan

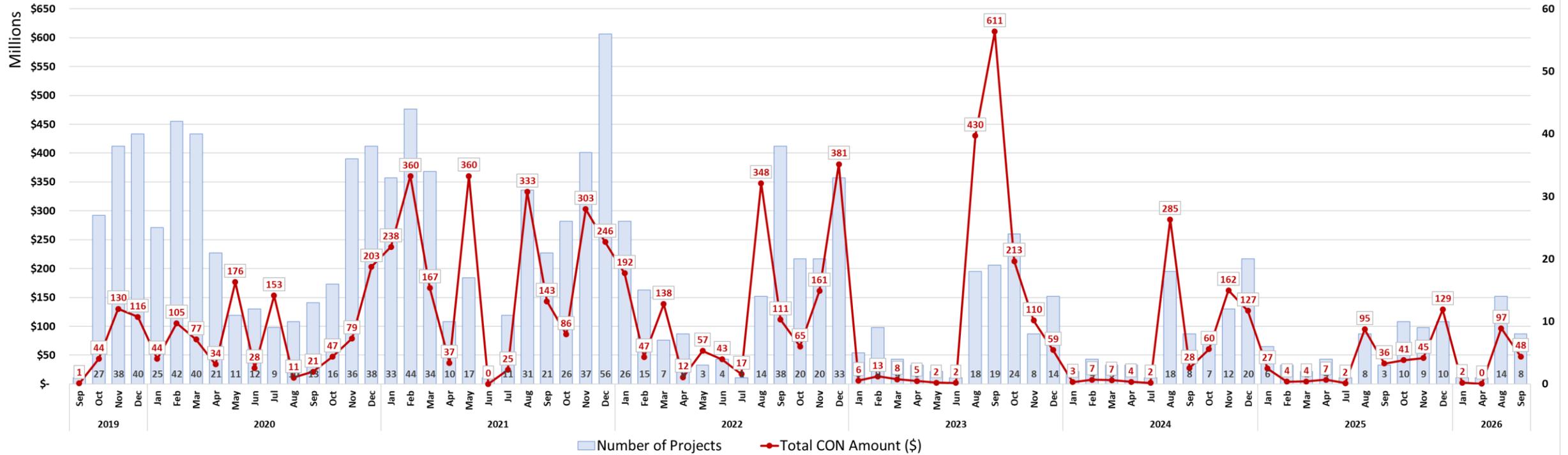
## Long Term Condition Impact



- 6.5% better than previous investment
- 569 more lane miles than previously planned
  - With backfills will address just over 1,000 lane miles
- Benefiting over 62,000 vehicles per day per project
  - 3 million vehicles per day program-wide



## PROJECTS BY LETTING DATE



Rebuilding  
Michigan  
doubled the  
program

Accelerated  
letting  
schedule  
Aug -> Dec

Addressing  
Work Zone  
Safety



COVID-19  
Pandemic  
*telework*  
*furloughs*  
*hiring freeze*

Unpredictable  
revenue,  
budget &  
spending  
restrictions

DBE Goal  
Attainment  
Challenges



# Rebuilding Michigan

## Bid Results to Date

Region	Major Route	Location	Engineer Estimate	Low Bid	Bid Difference	Percentage
University	I-496	I-96 to Lansing Road	\$52,232,908.33	\$47,817,642.22	-\$4,415,266.11	-8.45%
Southwest & University	I-69	I-69 Corridor	\$214,129,045.00	\$210,180,169.69	-\$3,948,875.31	-1.84%
Southwest	I-94 & US-31	Berrien County	\$133,130,299.00	\$121,483,900.00	-\$11,646,399.00	-8.75%
University	I-94	I-94 Near Jackson	\$97,350,893.92	\$117,137,913.01	\$19,787,019.09	20.33%
Bay	I-69	Cox Doty Drain to M-19	\$46,759,163.34	\$37,806,489.95	-\$8,952,673.69	-19.15%
Grand	I-196	130 <sup>th</sup> Ave to US-31	\$35,921,000.00	\$33,580,522.97	-\$2,340,477.03	-6.52%
Metro	M-59	Romeo Plank to I-94	\$61,688,000.00	\$60,974,226.42	-\$713,773.58	-1.16%
<b>Cumulative To Date</b>			<b>\$641,211,309.89</b>	<b>\$628,980,864.26</b>	<b>-\$12,230,445.63</b>	<b>-1.91%</b>

**2021 Significant Projects**  
**07-Jan-21**

Major CS	Route	Location	Major Work Description	HMA (Tons)	Conc (Syds)	Region	Letting
39022	I-94	East of Lovers Lane to East of Portage Road	210-Addition Of One Or More Lanes Over 0.5 Mi	19,397	107,085	Southwest	2/5/2021
39022	I-94	Portage Road to Sprinkle Road	210-Addition Of One Or More Lanes Over 0.5 Mi	0	76,500	Southwest	2/5/2021
03034	I-196 S	From 130th Avenue north to US-31	160-Reconstruction	111,728	211,485	Grand	2/5/2021
52042	US-41/M-28	from Front St to County Rd HQ	684-Mill and Two Course HMA Overlay	35,808	0	Superior	3/5/2021
31051	US-41	from Macinnes Drive to Isle Royal St.	164-Asphalt Reconstruction	10,949	0	Superior	3/5/2021
25084	I-69	Fenton Road to M-54	160-Reconstruction	20,836	196,985	Bay	3/5/2021
82293	I-275 S	S. of M-153 to 5 Mile Road	160-Reconstruction	124,472	20,642	Metro	5/7/2021
82292	I-275 S	Northline Road (S. of I-94) to M-153	160-Reconstruction	1,410	653,839	Metro	5/7/2021
82293	I-275 S	5 Mile Road & Six Mile Road over I-275 & SB to EB I-96 over I-275	424-Overlay - Deep	0	600	Metro	5/7/2021
82102	M-14 E	13 structures on I-275 from 5 Mile to Ford Rd.	418-Overlay - Epoxy	0	0	Metro	5/7/2021
82293	I-275 S	I-275 NB & Collector over M-14, I-275 SB over Schoolcraft	130-Deck Replacement	0	0	Metro	5/7/2021
82293	I-275 N	3 Railroad structures carrying I-275 over CSX RR	424-Overlay - Deep	0	0	Metro	5/7/2021
33044	I-496 E	Lansing Road to the Grand River	160-Reconstruction	0	0	University	6/4/2021

Note: Information as of 07-Jan-2021; subject to change.  
Projects represent approximately \$943.70 million of work.

2021 Quantity Report  
07-Jan-21

This information is draft and may change as the program continues to be developed. This is developed from a listing of job numbers.

Type	2020						2021						YEAR TOTAL
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	
HMA (tons)	234,250	37,018	76,036	89,012	257,554	358,238	330,322	471,969	251,877	52,689	139,164		2,298,129
Concrete (SYDS)	466,378		1,336	17,341	31,841	30,411	1,666,734	398,368	313,211	19,639	707,382		3,652,641
Bridge work (\$M)	\$16.46	\$2.07	\$3.95	\$23.41	\$19.08	\$62.44	\$16.38	\$59.05	\$44.09	\$11.60	\$16.58	\$7.00	\$282.10
Beams Steel (LBS)					240,130	2,420,500		2,646,454					5,307,084
Beams Conc (LFT)				408	6,174	4,997		4,075	1,146				16,800
Aggregate (TONS)	870	5,437	11,276	25,674	127,369	8,522	27,922	16,125	8,048				231,243
Aggregate (SYDS)	569,378	967	1,023	62,829	131,606	376,367	412,649	517,431	313,659	3,991	1,425,418		3,815,318
Aggregate (CYDS)	100	4		636	2,283	1,177	1,001	23,059	17,896				46,156
Subbase (CYDS)	248,750		402	19,318	95,613	172,561	284,592	199,897	164,506	25,685	8,471		1,219,795



## Progress & Immediate Look Ahead

Route	Location	Work Type	Letting
I-496	I-96 to Lansing Road	Reconstruct	2020 Feb
I-94	At US-31	Reconstruct (Design/Build)	2020 Jun
I-69	I-94 to Island Hwy	Reconstruct	2020 July
I-94	At Elm, Lansing Rd, and West Ave	Reconstruct (Design/Build)	2020 Oct
I-69	Cox Doty Drain to M-19	Reconstruct	2021 Jan
I-196	From 130th Avenue north to US-31	Reconstruct	2021 Feb
M-59	Romeo Plank to I-94	Reconstruct	2021 Feb
I-69	Fenton Road to M-54 & I-475 Interchange	Reconstruct	2021 Mar
I-69	I-96 to Airport Road	Reconstruct	2021 Apr
I-275	Northline Road (S/I-94) to 5 Mile Road (N/M-14)	Reconstruct	2021 May
I-69	M-24 to Lake George Road	Reconstruct	2021 Aug
I-96	I-275 to Kent Lake Road	Reconstruct & Flex Route	2021 Aug
I-496	Lansing Road to the Grand River	Reconstruct (Design/Build)	2021 Aug
I-75	Newport Road over I-75, Monroe County	Bridge Replacement	2021 Aug
US-31	From I-196 north to Central Avenue	Reconstruct	2021 Sept
I-75	M-15 to Oakland County Line	Rehab & Resurface	2021 Sept
I-696	I-275 to Lahser	Reconstruct	2021 Nov
US-127	Ingham/Jackson County Line to M-36	Rehab & Resurface	2021 Nov
I-196	From Byron Road east to 32nd Avenue	Reconstruct	2021 Dec
I-94	Michigan Avenue to M-60	Reconstruct	2021 Dec
I-75	Erie Rd to Otter Creek	Reconstruct	2022 Feb
I-94	I-94 BL (Exit 23) to the St. Joseph River	Reconstruct	2022 Mar
US-131	M-216 north to U Avenue	Major Rehab	2022 May

A hand holding a crystal ball that reflects a landscape. The reflection shows a green field with a yellow patch, and trees in the foreground. The background of the image is a blurred natural scene with green and yellow foliage.

COVID-19 Relief

Federal Stimulus

Federal  
Reauthorization

State Infrastructure  
Initiatives

- Final draft posted for use:

[www.michigan.gov/mdot](http://www.michigan.gov/mdot) Publications

- Printed copies expected early summer 2021
- Effective with August 2021 lettings





Michigan STIC Members:

- |      |   |
|------|---|
| FHWA | MDOT  |
| MITA | County Road Association                     |
| MCA  | Michigan Municipal League                   |
| APAM | Michigan Planning Association               |
| MRPA | Michigan Legislature Members                |
| MAA  | Michigan Association of Counties            |
| ACEC | Michigan Association of Drain Commissioners |

**STIC Highlights Workshop**  
**March 17, 2021 9:30-11:30 am**  
*Series of 15 Minute Presentations on  
Innovative Products and Practices*  
**Open to everyone**



## Ultra-High Performance Concrete

**Versatility.** UHPC can generally be used anywhere other types of concrete would be used, and due to its strength and durability, it can be the optimum material for many applications.

**Durability.** UHPC-based repairs are long-lasting and require less maintenance and fewer follow-up repairs.

**Cost Savings.** UHPC repairs can outlive and outperform their conventional counterparts, resulting in life-cycle cost savings. UHPC bridge deck overlays and link slabs can extend the service life of bridges well beyond that of traditional preservation and repair strategies.

## e-Ticketing

**Safety.** e-Ticketing enhances data collection while reducing exposure to adjacent vehicular traffic and construction equipment for inspectors and work crews while retrieving paper tickets.

**Time Savings.** Real-time access, via electronic handling of tickets, reduces processing time for quality assurance and payment, decreasing the inherent delays in paper-based project administration.

**Quality.** Project documentation is more consistent and efficient using e-Ticketing platforms. Standardized data enables archiving for future reference, leading to improved design, construction, maintenance, and operations.



Marc VanTil, Give 'em A Brake  
Craig Innis, MDOT



Kim Webb, MDOT  
Rob Coppersmith, MITA



Aden Shea, PK Contracting  
Steve Brink, MDOT



Mike Malloure, CA Hull  
Tom Fox, MDOT



Ryan O'Donnell, Anlaan  
Craig Heidelberg, MDOT



Lindsey Renner, MDOT  
Mike DeFinis, Iafrate



Brian Morley, Great Lakes Eng.  
Chris Brookes, MDOT & Deven Rau, Cadillac Asphalt \*

\* Joining in 2021:  
John Osika, Operating Engineers  
Daryl Gallant, Laborers

# Significant 2019-20 Accomplishments

- ✓ Established dialogue & relationship with Prosecutors' Association
- ✓ Improvements to MDOT Work Zone Safety & Mobility Manual & plan development process
- ✓ Expanded use of Alternate Technical Concepts (ATC) for Maintenance of Traffic
- ✓ **Proposed concept for Safety Contingency Fund to be piloted in 2021**
- ✓ Completed first and second industry-wide Work Zone Safety Perception Survey
- ✓ **Developed “use statements” for high value safety technology/devices**
- ✓ **Proposed process of early industry review on constructability & safety to be piloted in 2020**
- ✓ Initiated design & procurement of Work Zone Safety awareness trailer for education efforts
- ✓ Established social media presence & **#WorkZoneWednesday** industry-wide messages
- ✓ **Held first-ever industry-wide work zone safety technology forum**
- ✓ Encouraged safety moments in all project meetings



# Pilot Initiatives



**Early industry review on  
constructability & safety**



**Work Zone Safety  
Collaboration Special  
Provision**



**Work Zone Safety  
Contingency Fund**





# Modified Approach



- ✓ Vet ideas earlier and more thoroughly to avoid the frustration of going down a path that has pitfalls.
- ✓ Get more senior MDOT leaders buy- in and sponsorship of ideas to expedite and help navigate them to implementation.

Kim Webb – Aaron Johnson  
Gregg Brunner – Brad Wieferich  
Matt Chynoweth



*Zach Morisette*

*Jeremy Zeitz*

*Nicholas Sada*

*Davyon Rose*

*Allen Craig*

*Larry Leonarduzzi*

*St. Clair Shores*

*Gladwin*

*Lansing*

*Lansing*

*Richmond*

*Gaastra*

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*Macomb County  
Roads Department*

*Anlaan Corporation*

*C&D Hughes, Inc.*

*C&D Hughes, Inc.*

*Dan's Excavating,  
Inc.*

*Iron County Road  
Commission*



# Higher Urgency on Key Themes



Positive Protection



Night Work



High Risk Operations  
(e.g. Set-ups & Stage Changes)



Enforcement



Temporary Rumble Strips

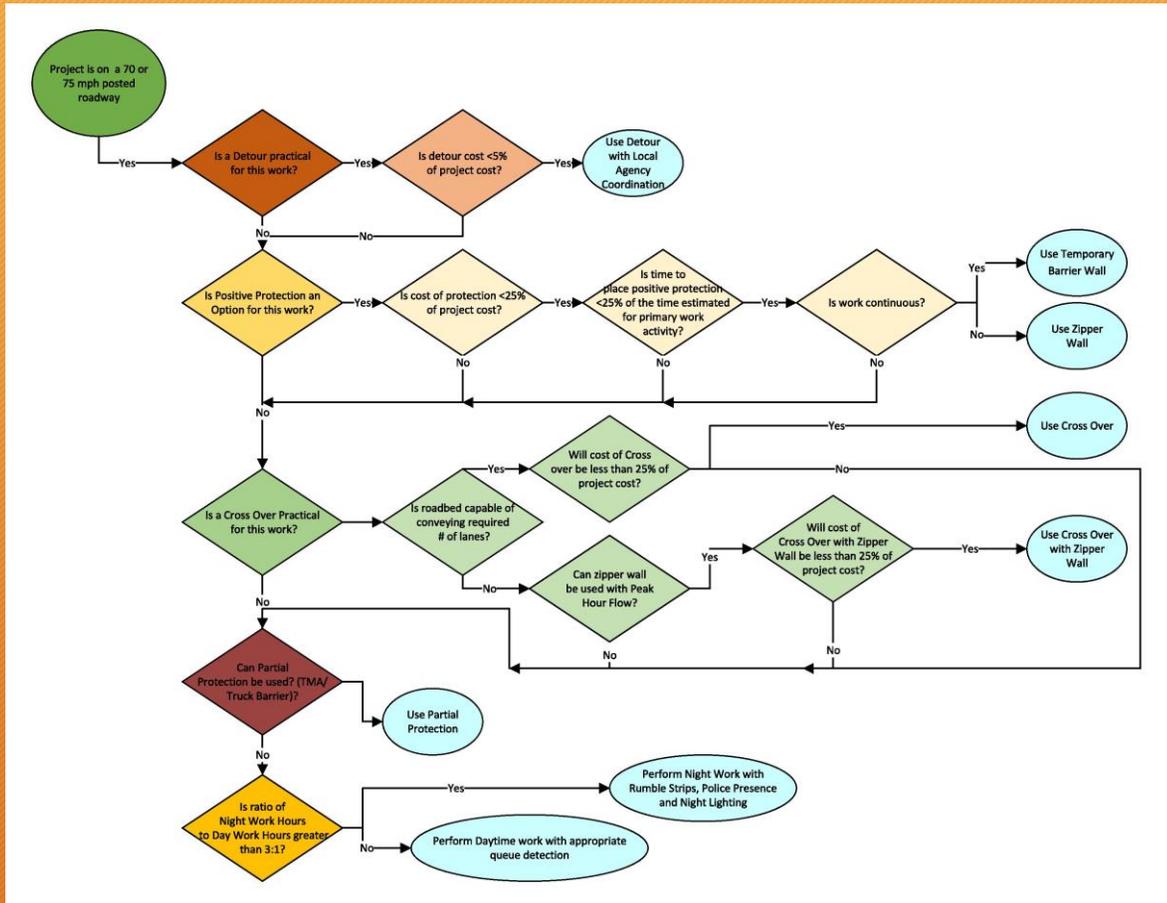


Truck Mounted Attenuators



Worker Training

# Work Zone Safety & Mobility Policy & Manual Changes



## ✓ Decision Tree

- High Speed Routes
- Evaluating Positive Protection First
  - Closure & Detours
  - Barrier Separation
- Minimizing Night Work w/o Positive Protection

## ✓ Leveraging “Menu” of Best Practices from Action Team 2



# Work Zone Safety & Mobility Culture

**POSITIVE PROJECT SAFETY COLLABORATION AWARD**



An award aimed at recognizing and celebrating the uniting of all parties on a Michigan highway construction project to achieve a positive safety culture.

**Award Details**  
The award will be presented by the Work Zone Safety Task Force to one or more project teams (MDOT, contractors, designers) that demonstrate a remarkable partnership to achieve the safest work environment possible for workers, motorists, and other stakeholders.

**Criteria for Consideration**  
Collaboration amongst all parties involved in the project.  
Innovation/implementation of new ideas and techniques for work zone safety.  
Responsiveness to change in the work zone to promote safety.  
Effective communication to maintain positive results.  
Demonstration of a collective and positive project safety culture.

**ABOUT THE WZSTF**  
The Michigan Work Zone Safety Task Force launched in October 2018 as a collaborative effort between the Michigan Department of Transportation (MDOT) and Michigan's heavy/highway construction industry. It is the goal of the task force to reduce and eliminate work zone injuries and deaths of construction workers and motorists.

**OUR MISSION**  
Working together, MDOT and the heavy construction industry are advancing our culture and practices to put safety first in Michigan's work zones.

For more information, visit our website: [Michigan.gov/WorkzoneSafety](http://Michigan.gov/WorkzoneSafety) | MichiganWZSTF



- ✓ **Collaboration** amongst all parties involved in the project.
- ✓ **Innovation** / implementation of new ideas and techniques for work zone safety.
- ✓ **Responsiveness to change** in the work zone to promote safety.
- ✓ **Effective communication** to maintain positive results.
- ✓ Demonstration of a collective and positive project **safety culture**.



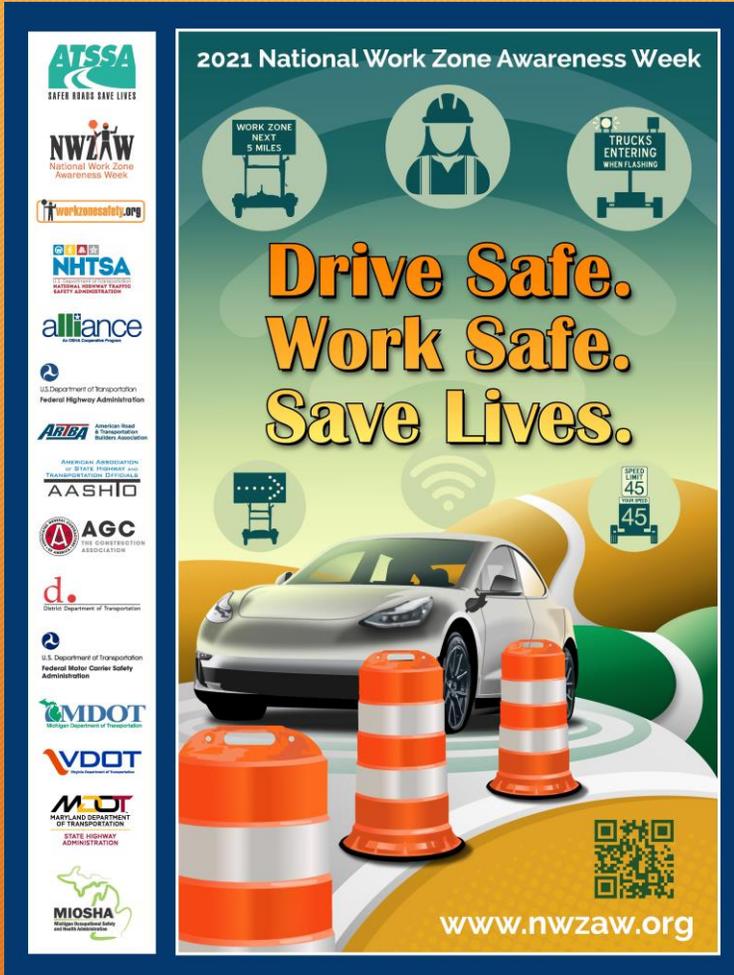
# Work Zone Safety & Mobility Culture

**National  
Work Zone Safety  
Awareness Week  
April 26-30, 2021**

Smaller statewide event due to the pandemic

Consider safety standdowns:

- ✓ On projects
- ✓ At each company
- ✓ Reach out to your local media



2021 National Work Zone Awareness Week

WORK ZONE NEXT 5 MILES

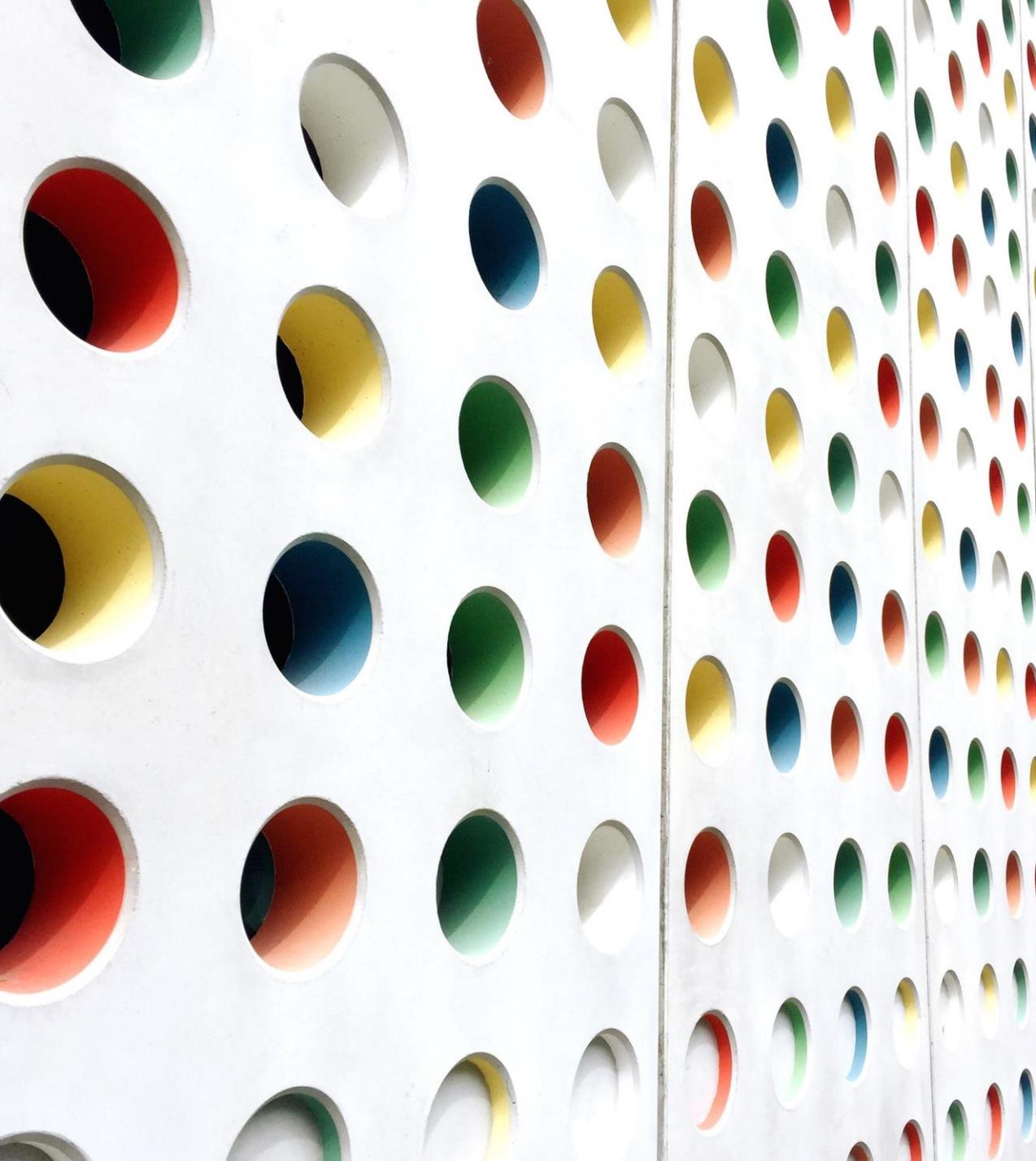
TRUCKS ENTERING WHEN FLASHING

**Drive Safe.  
Work Safe.  
Save Lives.**

www.nwzaw.org

The poster features a central image of a silver car driving on a road with orange and white traffic barrels. Above the car are icons for a worker, a Wi-Fi signal, and a speed limit sign. The top left corner contains logos for ATSSA, NWZAW, workzonesafety.org, NHTSA, alliance, ARIBA, AASHIO, AGC, d., MDOT, VDOT, MDT, and MIOSHA. The text '2021 National Work Zone Awareness Week' is at the top, and 'www.nwzaw.org' is at the bottom.





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