

Transportation Asset Management Webinar Series

Webinar 78

2026 TAMP Developments

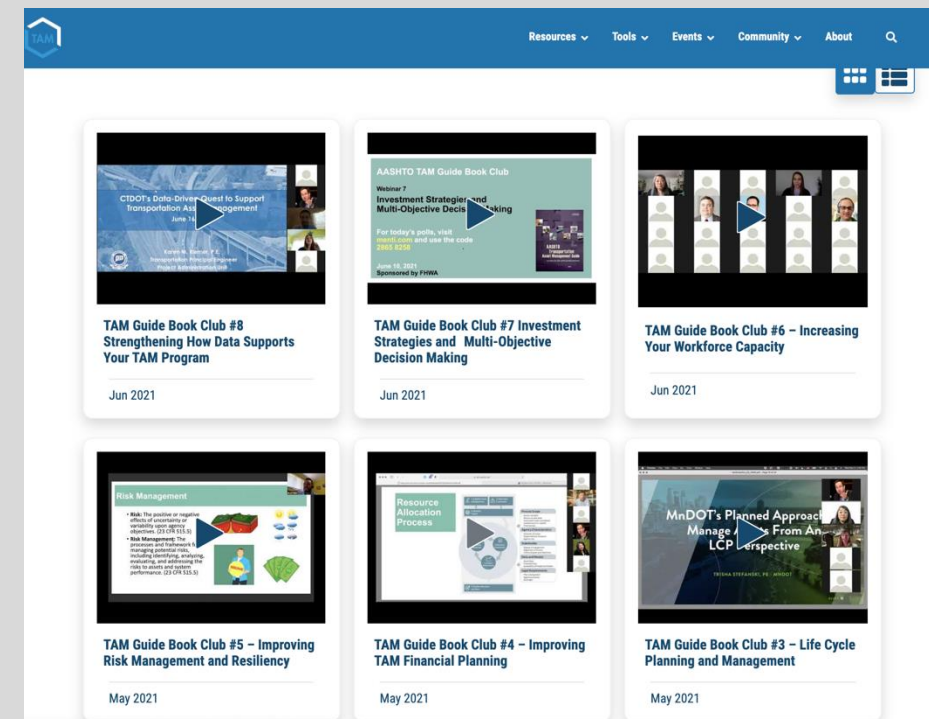
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December 17, 2025

FHWA/AASHTO Asset Management Webinar Series

- This is the **78th** in a webinar series that has been running since 2012
- Webinars are held every two months, on topics such as off-system assets, asset management plans, asset and risk management, and more
 - Usually, the 3rd Wednesday of the month, 2PM Eastern
- We welcome ideas for future webinar topics and presentations
- Submit your questions using Zoom's chat feature



Welcome!

FHWA and the AASHTO Subcommittee on Asset Management are pleased to cosponsor this webinar series

- Sharing knowledge is a critical component of advancing asset management practice
- FHWA Asset Management Hub:
<https://www.fhwa.dot.gov/asset/pubs.cfm>

Webinar Objectives

- Explore the relationship between organizational structure and effective asset management
- Highlight the incorporation new asset classes, their lifecycle planning, and tools for lifecycle cost analysis
- Feature DOT initiatives to improve data visualizations within the TAMP and make it more useful
- And as always, **share lessons-learned, ideas, and knowledge!!!**

Webinar Agenda

- 2:00 Welcomes, Overview, and Agenda**
Anna McLaughlin, AASHTO
Tashia Clemons, FHWA
Hyun-A Park, Spy Pond Partners
- 2:10 Next Level Asset Management**
Laura Heckel, P.E., Illinois Department of Transportation
- 2:25 Minnesota TAMP Update**
Shaker Rabban, Minnesota Department of Transportation
- 2:40 2026 TAMP Development: Asset Fact Sheets and Additional Assets**
Miguel Simon, Connecticut Department of Transportation
- 3:10 Q&A Discussion and Wrap Up**
Hyun-A Park, Spy Pond Partners

NEVAT LEVEL ASSET MANAGEMENT

TAM/TPM Webinar 78
December 17, 2025

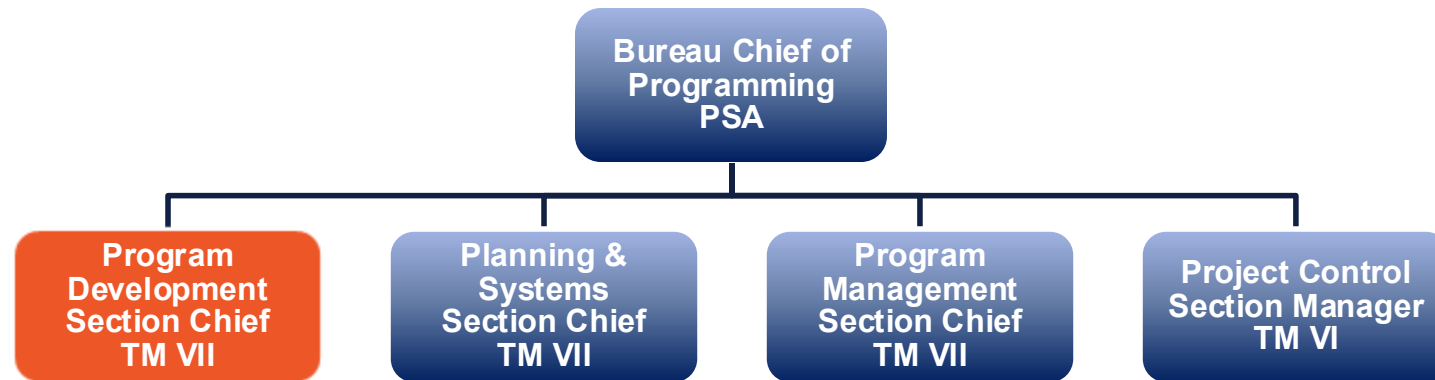
Asset Management Organization

- ❖ Background
- ❖ Review of current IDOT organization
- ❖ Suggested asset management organization
- ❖ Peer state review summary
- ❖ Discussion

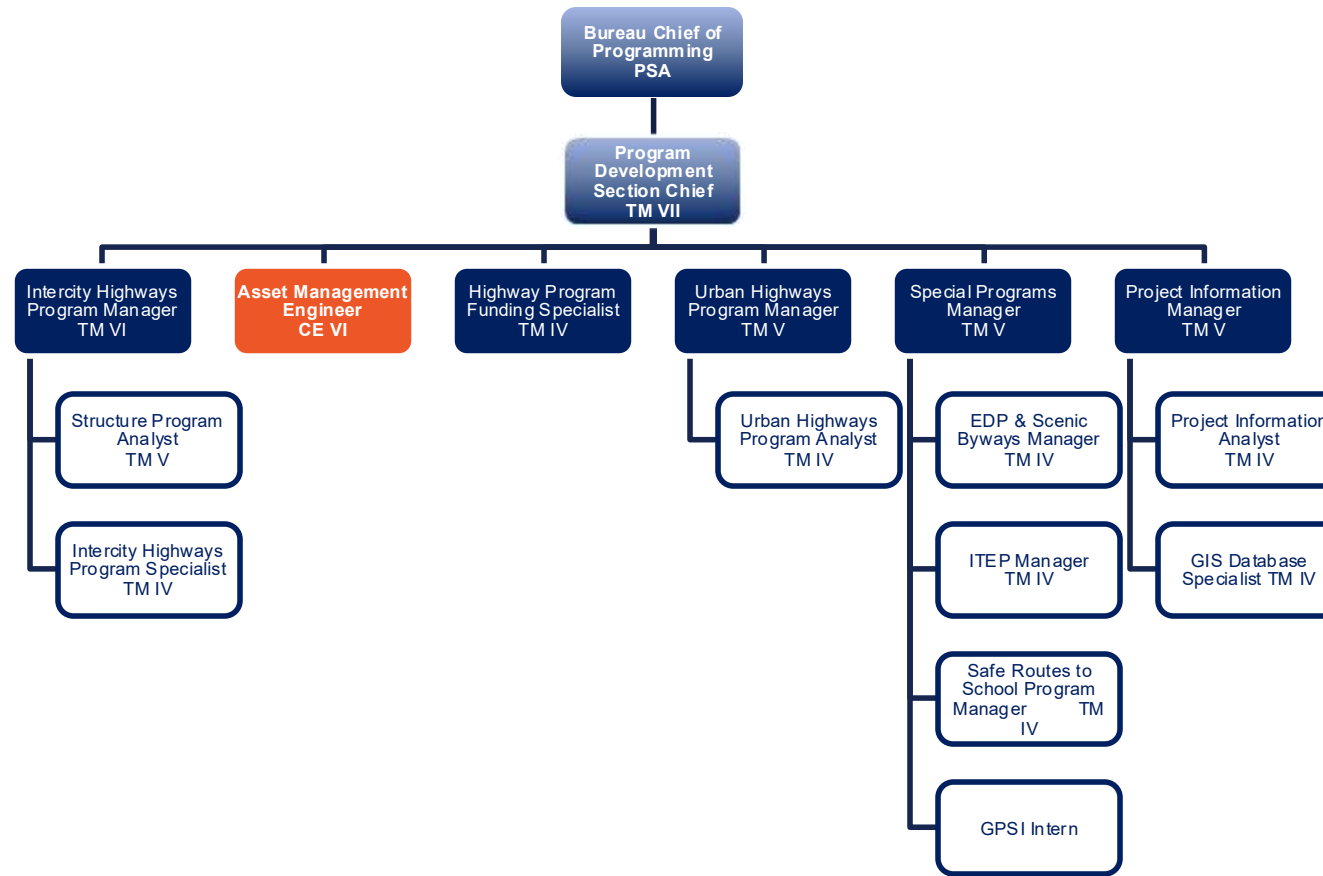
Background - 2011 Process Review

- ❖ 2011 IDOT-FHWA Joint Process Review “Programming System Pavement Condition Improvement Projects”
- ❖ Observation: IDOT lacks centralized support of pavement management activities
- ❖ Recommendations for implementing changes:
 - Create Pavement Management Engineer position
 - Provide training and professional development opportunities
 - Encourage engagement in regional and national activities
 - Develop a committee or working group to share practices, develop needs, and provide input for advancements related to pavement management
- ❖ Title was revised to Asset Management Engineer to coincide with Federal rules

Current Bureau of Programming Sections



Current Program Development Section



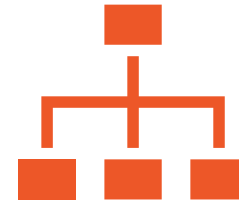
Background – Asset Management Engineer Current Job Description

- ❖ Current list of principal accountabilities of Asset Management Engineer
 - Develops, manages and oversees the implementation of the department's TAMP
 - Coordinates with various central office bureaus to ensure programs are developed in accordance with TAMP goals
 - Coordinates management of the asset management system
 - Provides decision-making tools and guidance to various central office bureaus and OHPI regional offices, to assist with project selection and appropriate highway and bridge treatments, in accordance with TAMP principals
 - Develops reports in compliance with all federally mandated reporting requirements related to the TAMP

The Problem(s)



Any one of the items in the job description could be a full-time job



Not sustainable without the proper structure

A unit of one cannot be sustained

Asset management is the responsibility of the entire organization not just one person

Successes that have been achieved will unravel without the proper organizational structure to maintain the momentum as staffing changes

What's Missing or Needs Expansion

Champion for advancement of Asset Management throughout department

- High level of responsibility for a VI grade classification
- High level of accountability for a VI grade classification

Asset Management System Support

- Conduct analyses of various funding scenarios
- Maintain system configuration: performance models, treatment types and costs, decision trees
- Provide district support and MPO/local agency if needed

Lead and coordinate with various committees and working groups

Peer State Review Summary

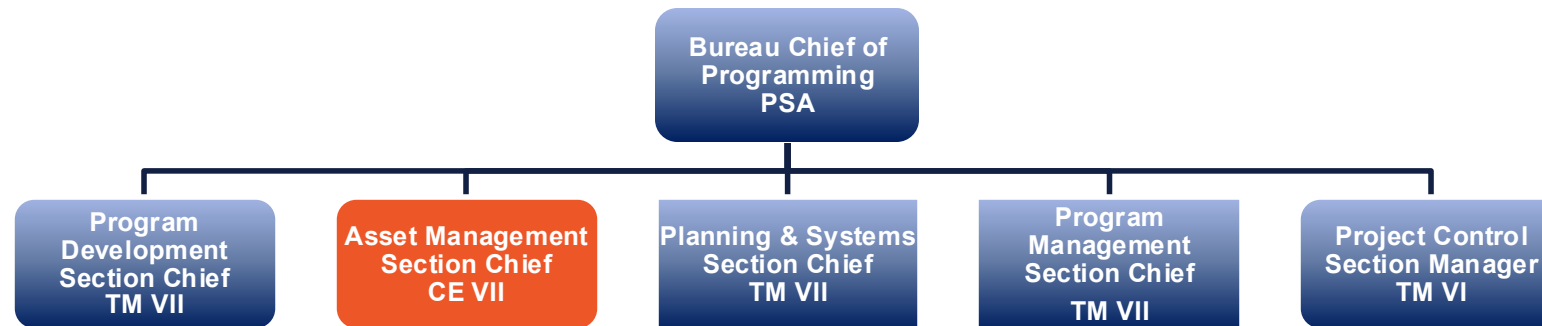
Decentralized, similar in size, more mature asset management organizations

Indiana, Ohio, Pennsylvania

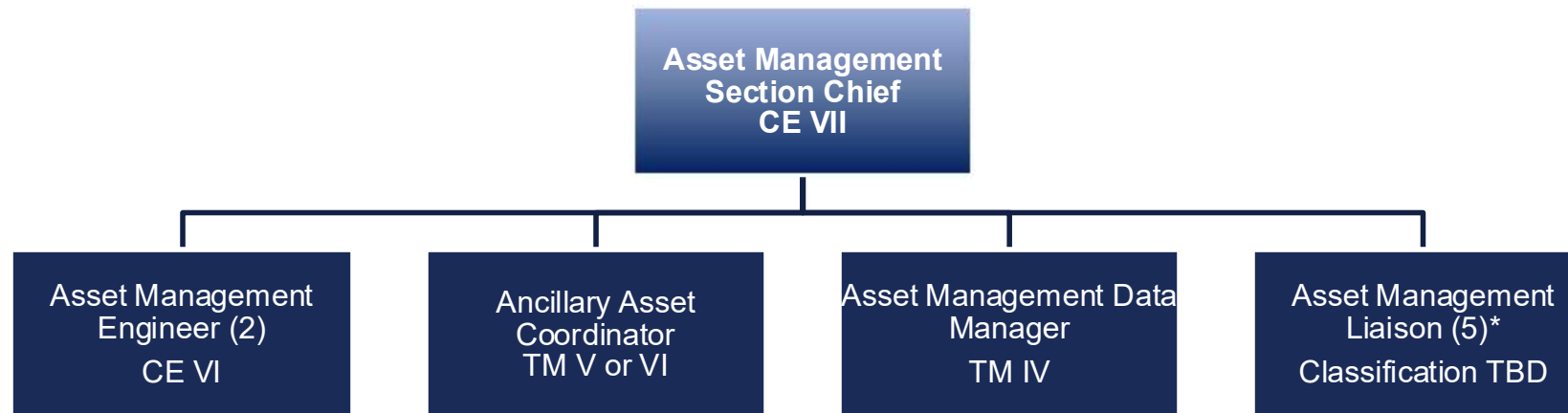
The gist:

- Asset management organization should be located where it can influence funding according to AM principles
- Separate pavement and bridge asset management engineers/directors
- Ancillary asset manager
- Data-focused position
- District support personnel, either in central office or in the districts

Proposed Bureau of Programming Sections



Asset Management Organization – Recommended (Minimum)



* These positions may be located in each region.

Asset Management Section Chief



Section stays in the Bureau of Programming

Where the funding is
Where the data for the asset management system is



Promoting it to a section sets authoritative tone



Civil Engineer classification, given the strong technical expertise necessary for setting pavement and bridge management policies

Asset Management Engineers (2)

- ❖ One focused on pavements, one focused on bridges.
- ❖ Coordinate with the Pavement Policy Working Group and Bridge Policy Working Group.
- ❖ Run budget scenarios through asset management system to optimize condition of the network as a whole and recommend needed funding to achieve targets.
- ❖ Assist district staff with life-cycle planning to develop annual and multi-year programs.

Ancillary Asset Coordinator

- ❖ No ancillary assets managed now, but interest predominantly from Operations: traffic signals, guardrail, signs posts & signs, etc.
- ❖ Operations not in capital program budget, so management will look a little different.
- ❖ Collaborates with other offices when other assets are added to asset management program.

Asset Management Data Manager

- ❖ Focused on the functionality of the asset management system.
- ❖ Set up analysis sets, budget scenarios, filters, maps, etc.
- ❖ Understand the inputs to the asset management system to be able to discern if the outputs are accurate/logical.
- ❖ Support the asset management engineers, ancillary asset manager, and asset management liaisons in their use of the asset management system.

Asset Management Liaisons (5)

- ❖ Develops new projects for the multi-year program based on projects recommended by the asset management system.
- ❖ Identifies projects requiring an exception request to life-cycle planning guidelines.
- ❖ Compares district program to the output from asset management system.
- ❖ Amasses unit cost data for a specific district to ensure a more accurate output from asset management system.

Shameless Plug

- ❖ Job descriptions willing to share?
- ❖ Experiences in support of or against this proposed organizational structure?
- ❖ If so, contact:

Laura Heckel

Laura.heckel@illinois.gov

(217) 785-2791

QUESTIONS?



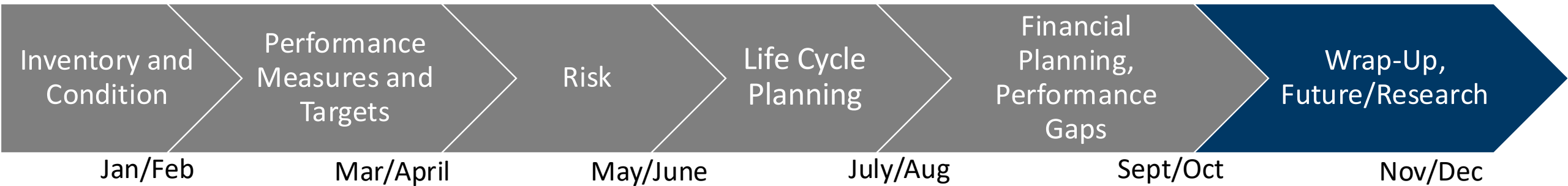


TAM Webinar #78 TAMP Update

December 17, 2025

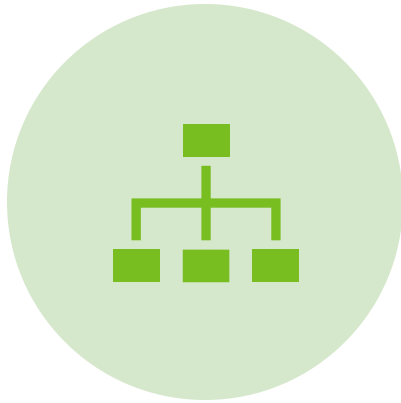
- **TAMP Timeline**
- **Risk Workshop Debrief**
- **Life Cycle Planning**
- **Asset Valuation**
- **Part 667**
- **What's next**

TAMP Timeline



- Winter 2025: Target Workshops
- Winter 2025/2026: Emergency Response Analysis
- Spring 2026: Document Writing, Review, and Approval
- June 26th 2026: Submit to FHWA

Risk Workshop



AGENCY-LEVEL
RISKS/PRIORITIES



RISK SCORING METHODOLOGY
AND APPROVAL



AGENDA

TAMP Risk Workshop Debrief

Short Term Outcomes and Approval for TAMP

- Risk Register and Tiers
- Risk Scoring Process
- Prioritized Agency Risks

Long Term Post TAMP

- Breakout groups and discussion
- Synthesis and action items
- Post TAMP Implementation

TAMP Risk Workshop Debrief

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Asset Class	Risk ID	Risk / Uncertainty	Ideal Response Strategies	Current Likelihood	Current likelihood score	Ideal Strategy - Likelihood	Ideal strategy - likelihood score	Significant Risk Score	Reduce Likelihood of another Risk? (No=0, Yes=1)	Likelihood Risk Reduction Score	Cost Estimate (5=No Cost; 1=1-2M+)	Overall Risk Score
Pavements	53	Losing construction experience through attrition Not identifying an appropriate responsible party for ownership, maintenance/operations and funding	Create a vocational program f	High	4	Very Low	1	3	1	12	5	23
ITS	37	Incomplete inventory and condition data.	Develop work flows. Identify a	Medium	3	Very Low	1	5	1	6	5	19
Pedestrian	60	Technology shifts, premature end of life of electronics, incompatibility, and obsolescence	Improve mobile LiDAR and/or	High	4	Low	2	5	1	8	3	19
Signals/Lighting	75	Difficult to appropriately manage tunnels (no dedicated funding, projects don't consider entire drainage area)	Identify dedicated and consis	Signals Very High	5	signals - Medium	3	2	1	10	4	18
DST	27	(ideal strategy is what we are		Very High	5	Medium	3	1	1	10	3	17
ITS	33	Construction issues, or system flaws (e.g. did not build what was designed) (Two sides to the risk: the installation was wrong, the construction inspection did not identify the installation error)	(Strategy for risk 1 and 7) Upd	High	4	Medium	3	4	1	4	5	16
ITS	38	Staffing retirements and turnover, and lack of documentation	Develop internal processes dt	Medium	3	Low	2	7	1	3	3	16
Pavements	57	Uncertainty in predictive models and scenario analysis (life cycle cost, deterioration, investment)	Use various tools to communi	Medium	3	Low	2	5	1	3	5	16
Pedestrian	63	Poor planning, design and/or construction	Incorporate 3D modeling to in	High	4	Low	2	4	1	8	1	16
Signals/Lighting	71	Lack of consistent dedicated funding/staffing	Documenting and communi	High	4	Medium	3	4	1	4	5	16

TAMP Risk Workshop Debrief

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- **Risk Scoring Process**
- Prioritized Agency Risks

Long Term Post TAMP

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Does Strategy Reduce Likelihood of another Risk?	Score
No	0
Yes	1
Current Likelihood score	
Very low	1
Low	2
Medium	3
High	4
Very High	5
Ideal strategy - likelihood score	
Very low	1
Low	2
Medium	3
High	4
Very High	5

Cost Estimate (5=No Cost; 1=1-2M+)	Score
\$\$\$\$ = \$1M to \$2M and over	1
\$\$\$ = about \$500K	2
\$\$ = \$50K to \$250K	3
\$ = Less than \$50K	4
No Cost	5
Significant Risks	
Funding and financial constraints	1
Infrastructure resilience/aging infrastructure	2
Staffing and workforce constraints	3
Decision-making gaps/unclear roles & responsibilities	4
Lack of data/quality of data	5

TAMP Risk Workshop Debrief

Short Term Outcomes and Approval for TAMP

- Risk Register and Tiers
- Risk Scoring Process
- **Prioritized Agency Risks**

Long Term Post TAMP

- Breakout groups and discussion
- Synthesis and action items
- Post TAMP Implementation

Asset Class	Risk ID	Risk / Uncertainty	gaps/unclear roles & responsibilities	Funding and financial constraints	Infrastructure resilience/aging infrastructure	Lack of data/quality of data	Staffing and workforce constraints	Total
Bridges	1	Bridge replacement needs are increasing due to aging infrastructure and increase in number of bridges reaching end of service life (inability to respond due to staffing and cost)				2	3	5
Bridges	2	Damage due to man made events (e.g., crashes (vessel and vehicle), fire, damage from construction activities, terrorism, etc.)						0
Bridges	3	adverse weather, extreme temperatures, landslides)				2		2
Bridges	4	Existing bridge does not meet functional needs (e.g. accommodate increased traffic volumes and multimodal transportation needs (bike, ped, transit))				2		2
Bridges	5	Inability to perform maintenance at the right time (e.g., preventive activities not performed on a timely basis due to funding and staffing, size of system, traffic volumes, weather)			1	2	3	6
Bridges	6	Lack of, deferred, or inconsistency of funding (e.g., unexpected budget cuts or increase in bridge funding)			1			1
Bridges	7	Legislation increases legal load truck weights						0
Bridges	8	Poor inspection data and improper data stewardship					5	5
Bridges	9	Premature deterioration of the asset (e.g., service lives 10 to 20 percent shorter than expected, material defects, quality of initial construction, choice of material type, designs, freeze/thaw, snow and ice materials, lack of maintenance, fatigue, etc.)				2		2

TAMP Risk Workshop Debrief

Short Term Outcomes and Approval for TAMP

- Risk Register and Tiers
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Long Term Post TAMP

- **Breakout groups and discussion**
- Synthesis and action items
- Post TAMP Implementation

MnDOT 2026 Asset Management Plan – Risk Workshop

Risk Monitoring Plan Worksheet

Asset Class:

Risk ID:

Risk/Uncertainty:

Risk Statement:

Mitigation Strategies:

Risk Score:

Please propose a monitoring strategy your group thinks would be most effective for the risk above:|

Who (or what office) should be responsible for the development and tracking of any monitoring metrics or measures?


TAMP Risk Workshop Debrief

Short Term Outcomes and Approval for TAMP

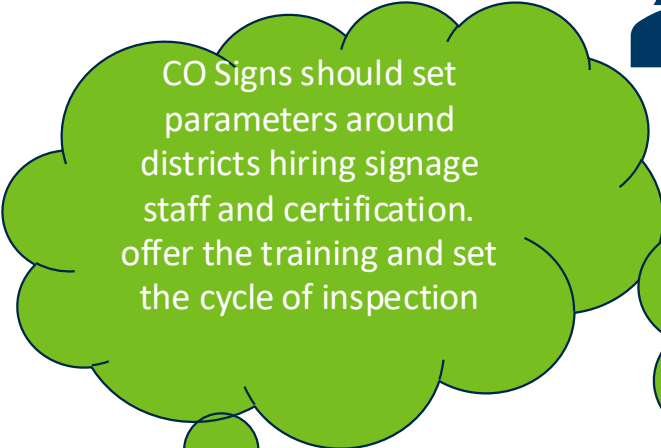

- Risk Register and Tiers
- Risk Scoring Process
- Prioritized Agency Risks

Long Term Post TAMP



- Breakout groups and discussion
- **Synthesis and action items**
- Post TAMP Implementation



How can we make sure we have proper construction and installation of signs



CO Signs should set parameters around districts hiring signage staff and certification. offer the training and set the cycle of inspection



Oh and we can measure this by # of staff hired/trained per year. # of district sign inspections/yr, or drop in % unknown.

TAMP Risk Workshop Debrief

Short Term Outcomes and Approval for TAMP

- Risk Register and Tiers
- Risk Scoring Process
- Prioritized Agency Risks







Long Term Post TAMP

- Breakout groups and discussion
- Synthesis and action items
- **Post TAMP Implementation**



2026 Risk Themes

TOP COMMON ASSET RISKS

Risks	Climate, Weather, Other Natural Events	Man-Made Events	Lack of Funding	Data Collection and Management	Asset Design No Longer Meeting Needs	Staff Retention, Workforce Shortage and Turnover	Changing Regulations, Requirements, or Technology
 Pavements	●	●	●			●	
 Bridges	●	●	●	●	●	●	●
 Culverts	●	●	●	●	●		
 DST			●	●	●		
 ITS	●	●	●	●		●	●
 Noise Walls	●	●	●	●		●	
 Sign Structures	●	●	●		●	●	●
 Pedestrian Infrastructure	●			●		●	
 Traffic Signals	●	●	●			●	●
 Lighting	●	●	●		●	●	●
 Buildings	●		●		●		●

Risk Workshop

1. Scored and ranked risks for discussion at the workshop
2. Scoring formula: Reduction to risk + cost + impact to other risk/assets + agency priority

Does Strategy Reduce Likelihood of another Risk?	Score
No	0
Yes	1
Current Likelihood score	Score
Very low	1
Low	2
Medium	3
High	4
Very High	5
Ideal strategy - likelihood score	Score
Very low	1
Low	2
Medium	3
High	4
Very High	5

Cost Estimate (5=No Cost; 1=1-2M+)	Score
\$\$\$\$ = \$1M to \$2M and over	1
\$\$\$ = about \$500K	2
\$\$ = \$50K to \$250K	3
\$ = Less than \$50K	4
No Cost	5

Significant Risks	Score
Funding and financial constraints	1
Infrastructure resilience/aging infrastructure	2
Staffing and workforce constraints	3
Decision-making gaps/unclear roles & responsibilities	4
Lack of data/quality of data	5

Risk Workshop

Asset Class	Risk ID	Risk / Uncertainty	Ideal Response Strategies	Current Likelihood	Current likelihood score	Ideal Strategy - Likelihood	Ideal strategy - likelihood score	ERM Risk score (adjusted)	Likelihood of another Risk? (No=0, Yes=1)	Risk Reduction Score	Cost Estimate (5=No Cost; 1=1-2M+)	Overall Risk Ranking
Pavements	55	Losing construction experience through attrition	Create a vocational program f	High	4	Very Low	1	2	1	12	5	20
DST	27	Difficult to appropriately manage tunnels (no dedicated funding, projects don't consider entire drainage area)	(ideal strategy is what we are	Very High	5	Medium	3	2	1	10	3	16
Signals/Lighting	41	Lack of standard design for aesthetics and specialty locations	Creation of design standards	High	4	Low	2	2	1	8	5	16
Signals/Lighting	77	Technology shifts, premature end of life of electronics, incompatibility, and obsolescence	Identify dedicated and consis	Signals Very High	5	Signals - Medi	3	1	1	10	4	16
ITS	37	Not identifying an appropriate responsible party for ownership, maintenance/operations and funding	Develop work flows. Identify a	Medium	3	Very Low	1	2	1	6	5	14
Pedestrian	62	Incomplete inventory and condition data.	Improve mobile LiDAR and/or	High	4	Low	2	2	1	8	3	14
Signs	82	Poor construction and/or installation (ex. post tilt, loose nuts)	Training for installers and cert	High	4	Low	2	2	1	8	2	13
Culverts	19	Availability of funds or inconsistency in culvert investments	Communicate funding needs.	High	4	Medium	3	2	1	4	5	12
Culverts	24	Inability to manage culverts to lowest life cycle cost	Better model and research de	High	4	Medium	3	2	1	4	5	12

Risk Workshop

Leading into the workshop

1. Asked AMSC top agency risks
2. Pre-workshop meeting to weight and prioritize top agency risks
3. Included agency scores with SME scores

Evaluate the potential impact of the threats on MnDOT's ability to effectively manage assets and ability to influence them over the next 2 to 4 years.



Two items to consider for the significant risks:

1a. Criticality - Evaluate the potential impact of the threats on MnDOT's ability to effectively manage assets.

AND

1b. MnDOT's ability to influence them over the next 2 to 4 years.

Two items to consider for the significant risks:

2. Greatest short-term risks - Prioritize the significant risks that will demand the most attention and resources from MnDOT over the next 2 to 4 years.

Risk Workshop

At the Workshop

1. Approved Tiered Risk Register for TAMP
2. Prioritized list of mitigation strategies to implement
3. Discussed ways to monitor implementation and offices/roles responsible

How can we monitor/track progress towards mitigating the risk/implementing the mitigation strategy

•**Responsible:**

•[who/what office should be responsible for the development and tracking of any monitoring metrics or measures]

•**Consulted:**

•[who may be providing input or advice – often SMEs]

•**Needs:**

•[what are the information/data needs, resources, staff or tools needed for this monitoring strategy]

•**Mechanism:**

•[where/how should the progress towards mitigation be reported]



How does the risk impact different functions of the agency and how can these functions help implement the mitigation strategy

•**Planning:**

•**Programming:**

•**Design:**

•**Construction:**

•**Maintenance:**

•**Operations:**

Risk Workshop

Outcomes of the Workshop

1. Tiered Risk Register for the TAMP
2. Validated top risks and connection to agency risk
3. Brainstormed monitoring metrics and methods
4. Identified staff and offices responsible
5. Next Steps

Asset Class	Risk ID	Risk / Uncertainty	Funding and financial constraints	Infrastructure resilience/aging	Lack of data/quality of data	Staffing and workforce constraints	Total
Bridges	3	adverse weather, extreme temperatures, landslides)		2			2
Bridges	4	Existing bridge does not meet functional needs (e.g. accommodate increased traffic volumes and multimodal transportation needs (bike, ped, transit))		2			2
Bridges	5	Inability to perform maintenance at the right time (e.g., preventive activities not performed on a timely basis due to funding and staffing, size of system, traffic volumes, weather)	1	2		3	6
Bridges	6	Lack of, deferred, or inconsistency of funding (e.g., unexpected budget cuts or increase in bridge funding)	1				1
Bridges	7	Legislation increases legal load truck weights					0
Bridges	8	Poor inspection data and improper data stewardship				5	5

Asset Class	Risk ID	Risk / Uncertainty	Ideal Response Strategies	Current Likelihood	Current score	Ideal Strategy - Likelihood	Ideal strategy - score	ERM Risk score (adjusted)	Likelihood of another Risk?	Risk Reduction Score	Estimate (5=No Cost; 1=1-2M+)	Overall Risk Ranking
Pavements	55	Losing construction experience through attrition	Create a vocational program	High	4	Very Low	1	2	1	12	5	20
DST	27	Difficult to appropriately manage tunnels (no dedicated funding, projects don't consider entire drainage area)	(ideal strategy is what we are)	Very High	5	Medium	3	2	1	10	3	16
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Life Cycle Planning

Lifecycle Cost Analysis:

- Split out capital vs maintenance cost
- Assumed straight line deterioration curves
- Projected condition and investment need
- Minimum Maintenance

Current Approach						Chance of Transition
Transition Probability Matrix						
Transition States	Years	Good	Fair	Poor	Very Poor	
Good to Fair	50	98.6%	1.4%			50%
Fair to Poor	20		96.6%	3.4%		50%
Poor to Very Poor	10			93.3%	6.7%	50%
					100.0%	

Minimum Maintenance						Chance of Transition
Transition Probability Matrix						
Transition States	Years	Good	Fair	Poor	Very Poor	
Good to Fair	40	98.3%	1.7%			50.00%
Fair to Poor	20		96.6%	3.4%		50.00%
Poor to Very Poor	10			93.3%	6.7%	50.00%
					100%	

Desired Approach						Chance of Transition
Transition Probability Matrix						
Transition States	Years	Good	Fair	Poor	Very Poor	
Good to Fair	50	98.6%	1.4%			50%
Fair to Poor	20		96.6%	3.4%		50%
Poor to Very Poor	10			93.3%	6.7%	50%
					100.0%	

Resilience Based Approach						Chance of Transition
Transition Probability Matrix						
Transition States	Years	Good	Fair	Poor	Very Poor	
Good to Fair	50	98.6%	0.8%	0.4%	0.1%	50%
Fair to Poor	20		96.6%	2.7%	0.7%	50%
Poor to Very Poor	10			93.3%	6.7%	50%
					100.0%	

Capital and maintenance costs splits by activities		
	Maintenance	Capital
Structural Inspection	0.00%	100.00%
Reactive Maintenance	94.00%	6.00%
Out of Cycle Inspection	100.00%	0.00%
Minor Rehab	0.00%	100.00%
Splash Zone Sealing	0.00%	100.00%
Replacement	0.00%	100.00%
Graffiti Removal	100.00%	0.00%
Concrete Staining/Painting Application	0.00%	100.00%
Placeholder - 3	0.00%	0.00%
Placeholder - 4	0.00%	0.00%

Note: Hide cells below. Temp outputs for determining maint. Fraction to achieve targets.					
%Poor and Very Poor					
	Minimum Maintenance	Current Approach	Worst-First	Desired Approach	Resilience Based Approach
Year 10	20.62%	18.87%	20.62%	14.98%	16.60%
10-yr Investments (Maint.)		\$180,950		\$401,027	\$401,672
10-yr Investments (Cap.)		\$62,040		\$6,489,677	\$6,575,907
10-Yr Investments (Total)		\$242,990		\$6,890,704	\$6,977,578

Minimum Maintenance

Current Approach

Desired Approach

Resilience Based Approach

10-Year Outlook

20-Year Outlook

Comparison Page

Culverts

Culverts are inspected on an interval based on condition and risk—new assets are inspected every six years, while those in poor condition may be inspected every year or every other year. MnDOT reports annually the percent of on-time inspections. MnDOT also maintains a culvert inventory, including inspection records and condition information in TAMS. The department has developed treatment decision trees based ...

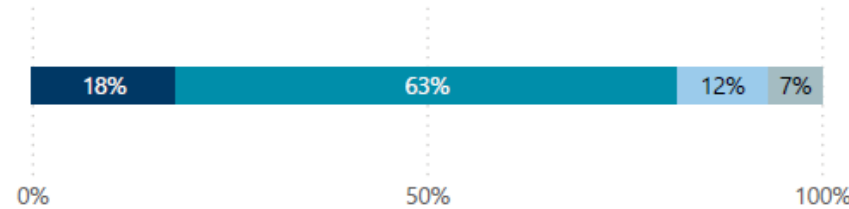


Total Asset Count

38,519

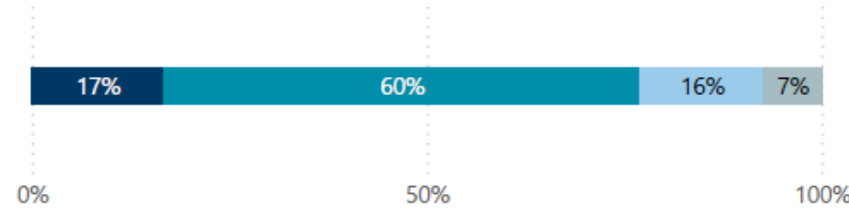
Asset Current Condition, Year 0

Rating ● Good ● Fair ● Poor ● Very Poor



Asset Condition Year 10

Rating ● Good ● Fair ● Poor ● Very Poor



Current Approach

Impact of following MnDOT's current approach to managing these assets.

10-Year Total Cost

\$257.5M

10-Year Capital Cost

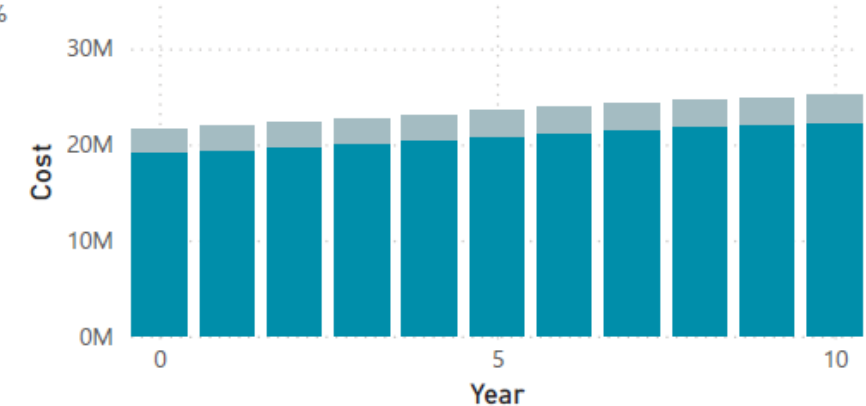
10-Year Maintenance Cost

\$228.9M

\$28.6M

Annual Cost Breakdown

Cost Type ● Total Capital Cost ● Total Maintenance Cost



Statewide

District 1

District 2

District 3

District 4

Metro

District 6

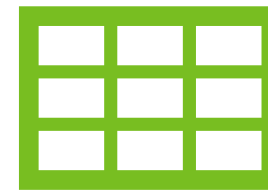
District 7

District 8



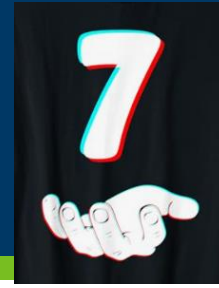
Assets from 2022 TAMP

Pavement, Bridge, Culverts, Deep Stormwater Tunnels, Buildings



Additional Assets

Overhead Sign Structures, Signals, and Lighting



23 CFR PART 667—PERIODIC EVALUATION OF FACILITIES REPEATEDLY REQUIRING REPAIR AND RECONSTRUCTION DUE TO EMERGENCY EVENTS

§ 667.1 Statewide evaluation.

Each State, acting through its department of transportation (State DOT), shall conduct statewide evaluations to determine if there are reasonable alternatives to roads, highways, and bridges that have required repair and reconstruction activities on two or more occasions due to emergency events.



What's Next

December – Part 667 Analysis, Non-state Owned NHS, worksheet clean up, document writing prep

January – Begin writing draft TAMP

January 30 – Performance Measures and Targets Workshop

February to May – Draft Plan

May – Internal review of plan

June – Submit to FHWA

Thank You!

Shaker Rabban

Shaker.rabban@state.mn.us

651-234-7783



2026 TAMP Development: Asset Fact Sheets and Additional Assets

Miguel Simon – Asset Management Group
Connecticut Department of Transportation

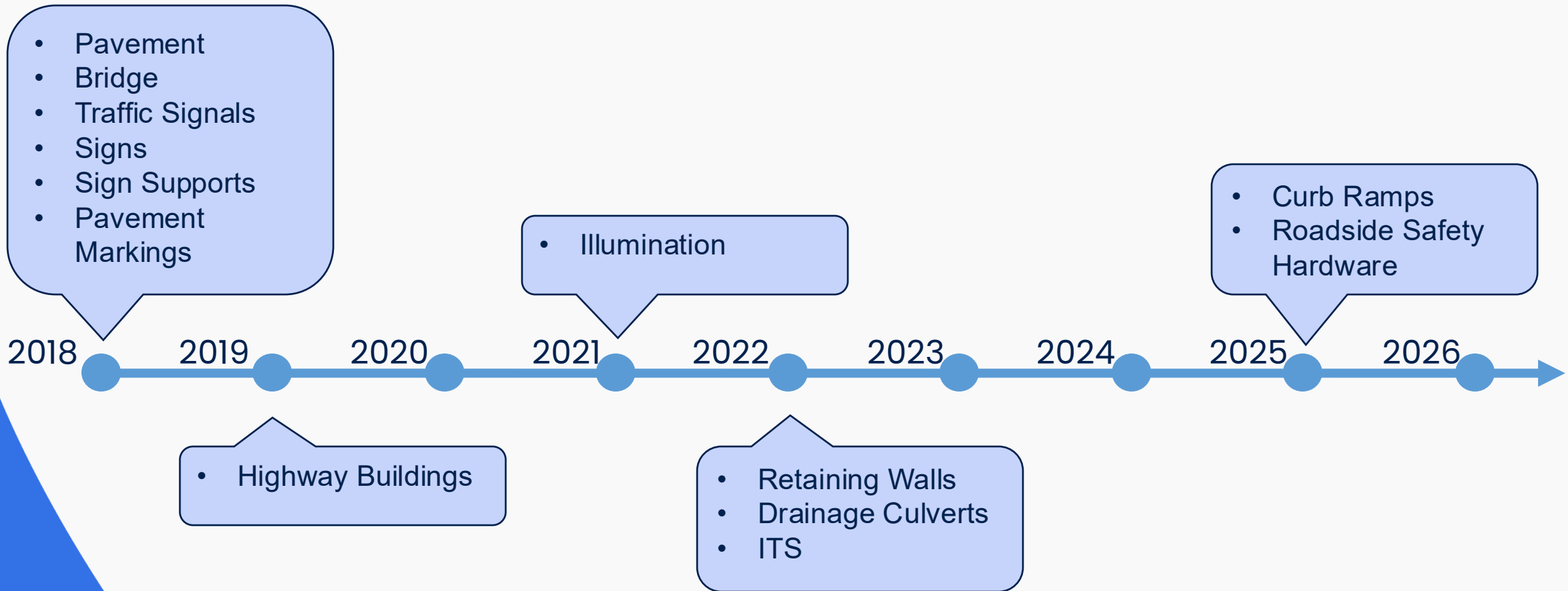
December 17, 2025



Asset Management at CTDOT














Timeline of Assets in the TAM Program



Assets in the 2026 TAMP

2026 TAMP will include 13 asset classes:

-  Bridge
-  Pavement
-  Traffic Signals
-  Signs
-  Sign Supports
-  Pavement Markings
-  Highway Buildings
-  Illumination
-  Retaining Walls
-  Drainage Culverts
-  ITS
-  Curb Ramps
-  Roadside Safety Hardware

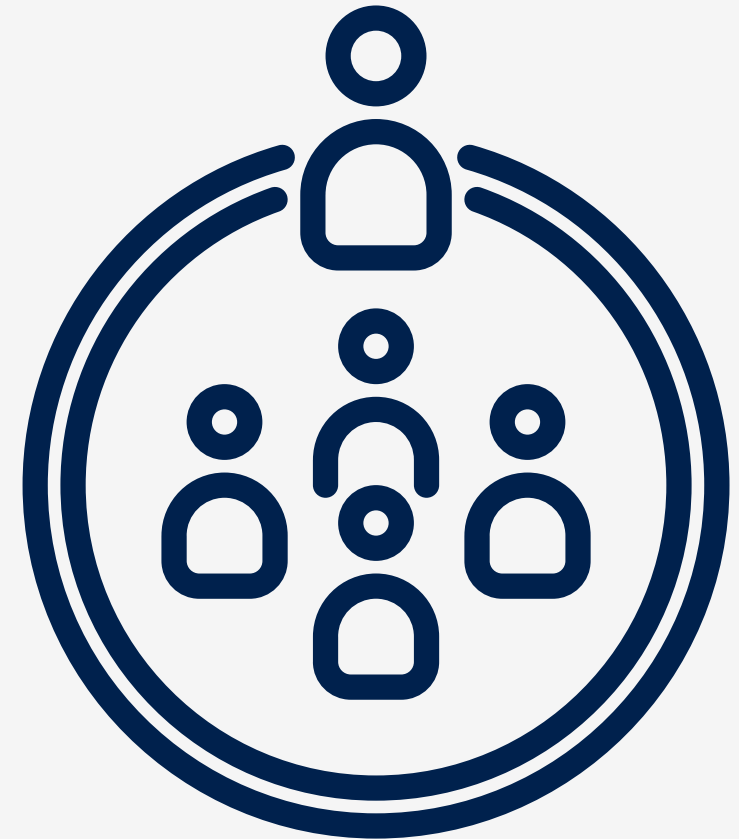


2022 Highway TAMP Assets



Asset Steward Program

- Asset stewards are DOT staff responsible for a given asset. Responsibilities include:
 - Gathering data for annual fact sheets, consistency reporting and TAMP updates
 - Identifying and prioritizing risks
 - Identifying and executing process improvements
 - Being a champion for the asset!





Asset Fact Sheets



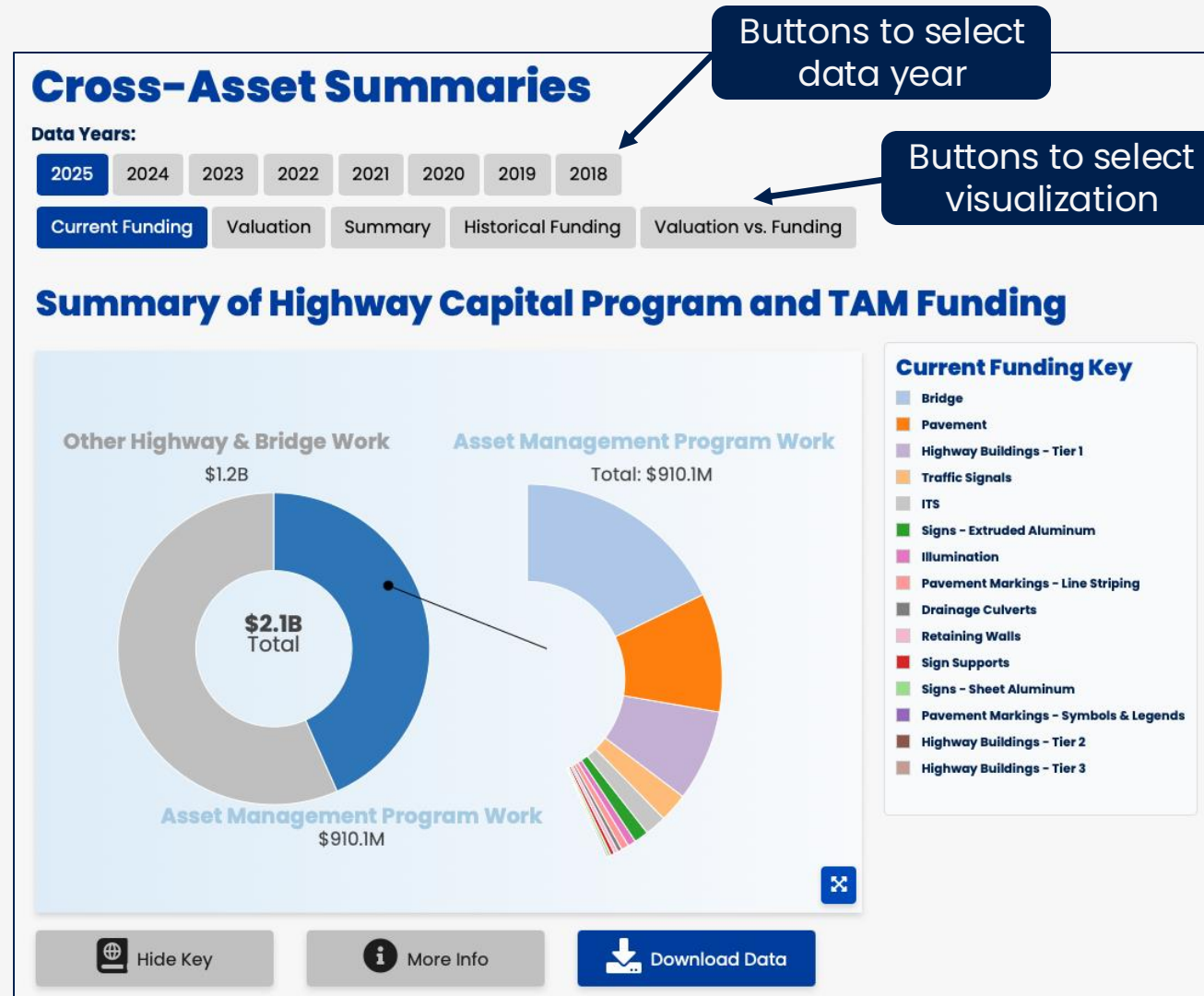
Asset Fact Sheets

- Supplement CTDOT's TAMP
- Annual communication tool for highways (and transit)
 - What have we got?
 - What condition is it in?
 - Where are we headed?
- Online fact sheets developed for highway assets and in development for transit assets



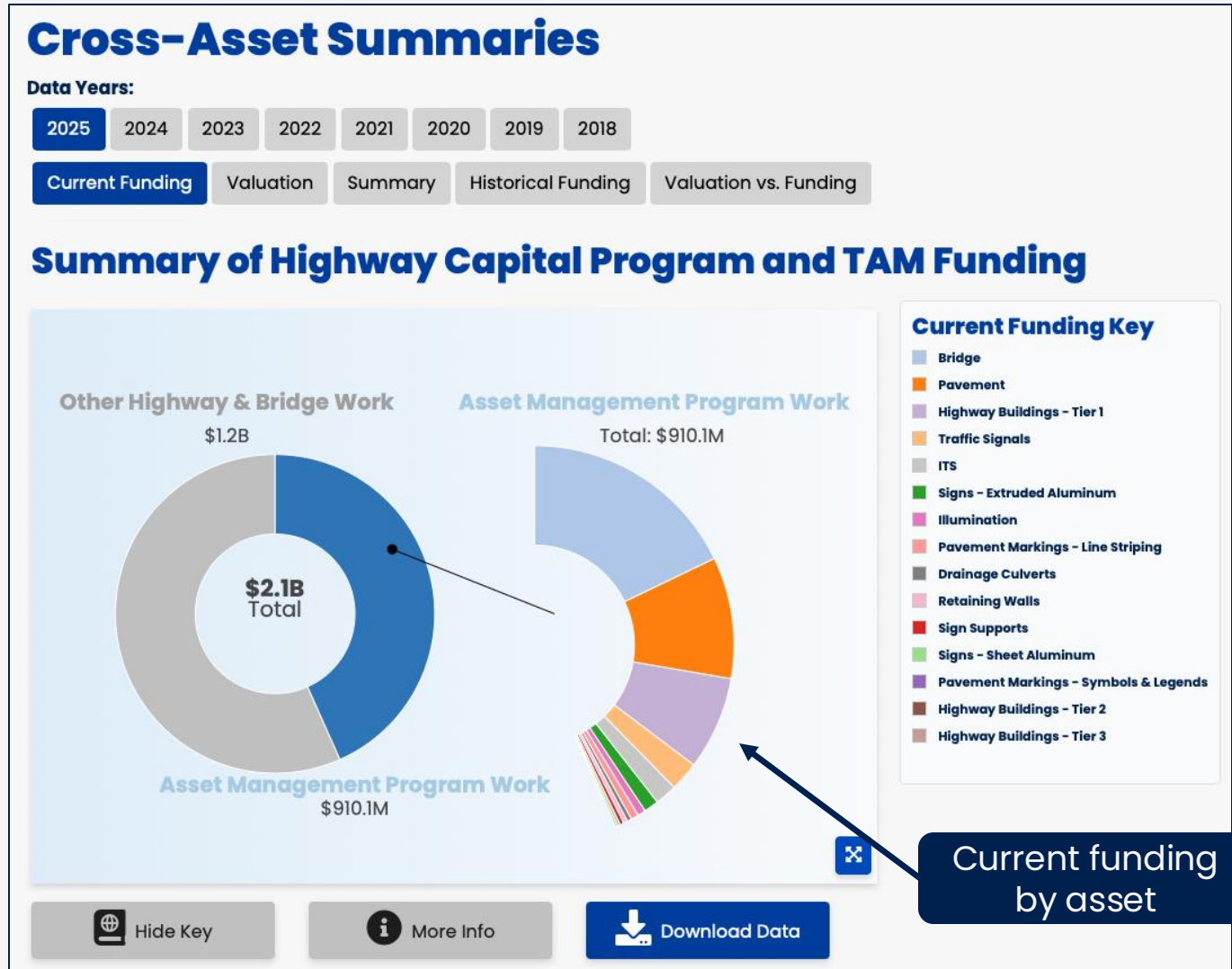
Online Fact Sheets: Cross-Asset Summaries

- Added visualizations which summarize key information across all assets
- The visualizations can be seen for each year of available data back through 2018



Current TAM Funding

- Donut chart summarizing highway capital program and TAM funding
- Asset funding levels shown are used to predict future asset conditions for the TAMP and fact sheets
- Available for each year starting in 2018



Asset Value

- Donut chart summarizing asset value
- Asset value calculated as a replacement value
- Gives a sense of the relative magnitude of the different asset classes
- Available for each year starting in 2018



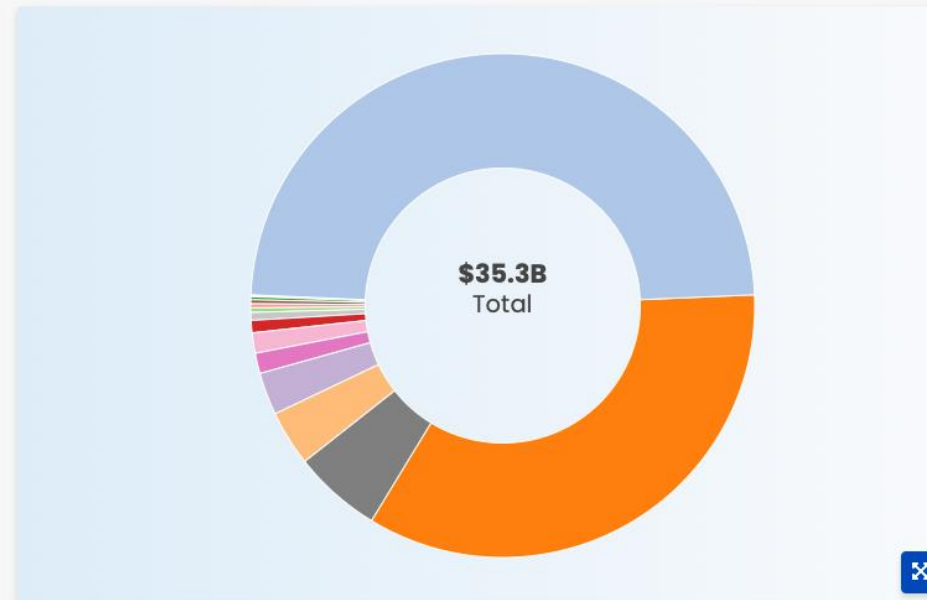
Cross-Asset Summaries

Data Years:

2025 2024 2023 2022 2021 2020 2019 2018

Current Funding Valuation Summary Historical Funding Valuation vs. Funding

Summary of Highway Asset Value



Asset Valuation Key

- Bridge
- Pavement
- Drainage Culverts
- Traffic Signals
- Highway Buildings - Tier 1
- Illumination
- Retaining Walls
- Sign Supports
- ITS
- Signs - Sheet Aluminum
- Pavement Markings - Line Striping
- Highway Buildings - Tier 2
- Signs - Extruded Aluminum
- Highway Buildings - Tier 3
- Pavement Markings - Symbols & Legends

Hide Key

More Info

Download Data

Summary Table

- Table summarizing the assets in the TAM program
- Ability to sort and/or filter by asset
- Sparkline shows the historical condition trend and predicted future conditions
- Available for each year starting in 2018

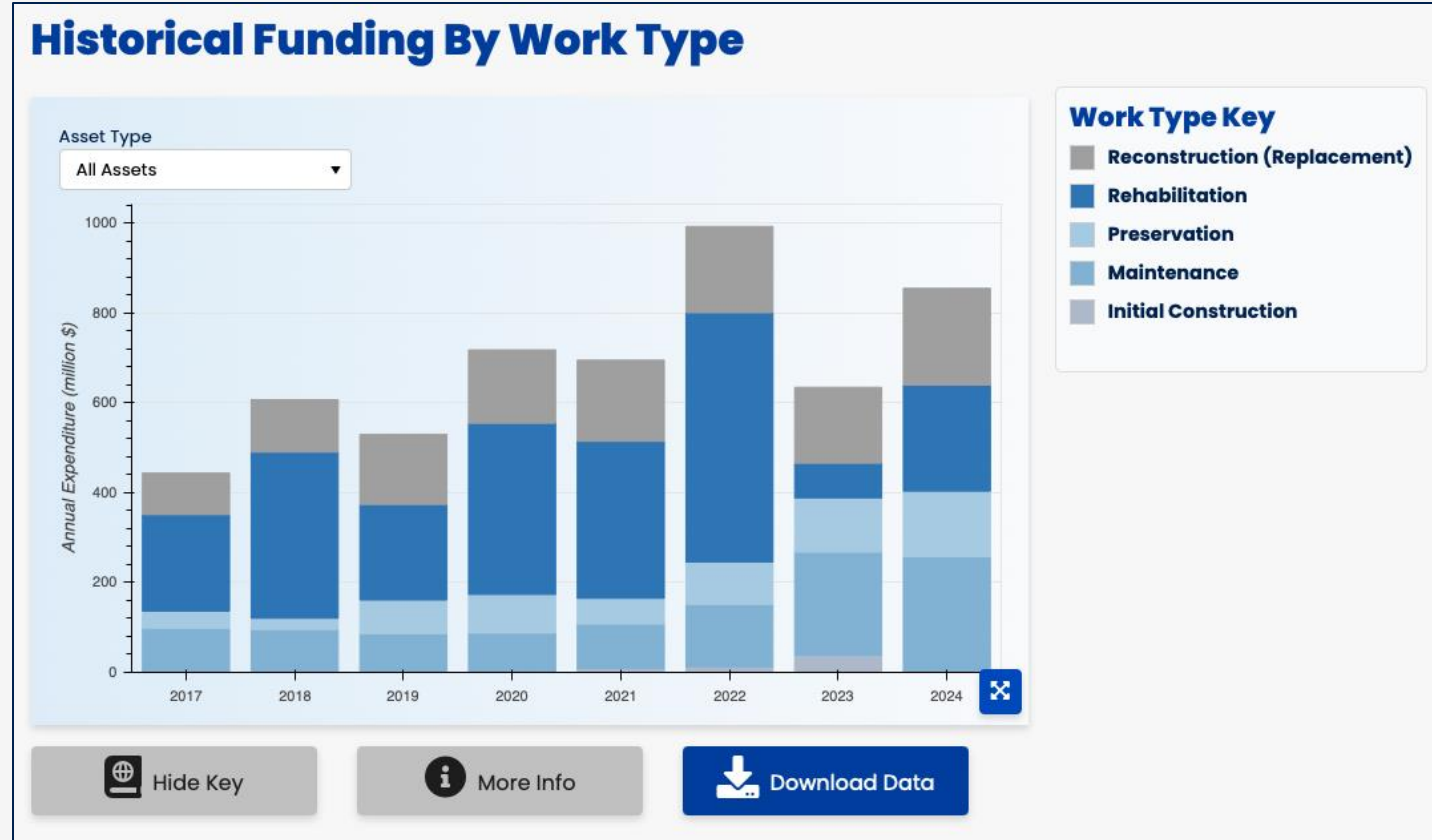


▽ CTDOT Asset	Inventory	≡ Valuation	≡ SOGR (2025)	≡ Average Investment \$M/Year	≡ Minimum Desired SOGR	≡ Investment to Achieve Min SOGR	Condition Trend (2016 - 2033)
Bridge	4,002 bridges	\$17.2B		\$375.0M		\$750.0M	
Pavement	3,716 centerline miles	\$12.1B		\$207.0M		\$300.0M	
Traffic Signals	2,797 traffic signals	\$1.3B		\$50.0M		\$50.0M	
Signs Extruded Aluminum	784,440 sq ft	\$69.0M		\$25.0M		\$25.0M	
Signs Sheet Aluminum	1,063,023 sq ft	\$101.0M		\$5.0M		\$5.0M	
Sign Supports	1,594 overhead sign supports	\$279.0M		\$6.5M		\$6.5M	
Pavement Markings Line Striping	97,000,000 linear ft	\$94.0M		\$13.0M		\$26.0M	
Pavement Markings Symbols & Legends	3,400,000 sq ft	\$15.0M		\$3.0M		\$6.0M	
Highway Buildings Tier 1	104 buildings	\$960.0M		\$159.0M		\$159.0M	
Highway Buildings Tier 2	93 buildings	\$88.0M		\$0.5M		\$0.5M	
Highway Buildings Tier 3	155 buildings	\$28.0M		\$0.1M		\$0.1M	
Illumination	24,306 light fixtures	\$462.0M		\$14.0M		\$18.5M	
Retaining Walls	1,700 retaining walls	\$461.0M		\$7.0M		\$20.0M	
Drainage Culverts	10,000 culverts	\$2.0B		\$7.5M		\$20.0M	
ITS	580 ATMS field devices	\$178.0M		\$37.5M		\$37.5M	



Historical Expenditure by Work Type

- Table summarizing actual expenditures by work type and by asset
- Expenditure values taken from the annual consistency review
- Ability to show individual asset spending or the sum of all assets
- Available for each year starting in 2018



Valuation vs. Funding

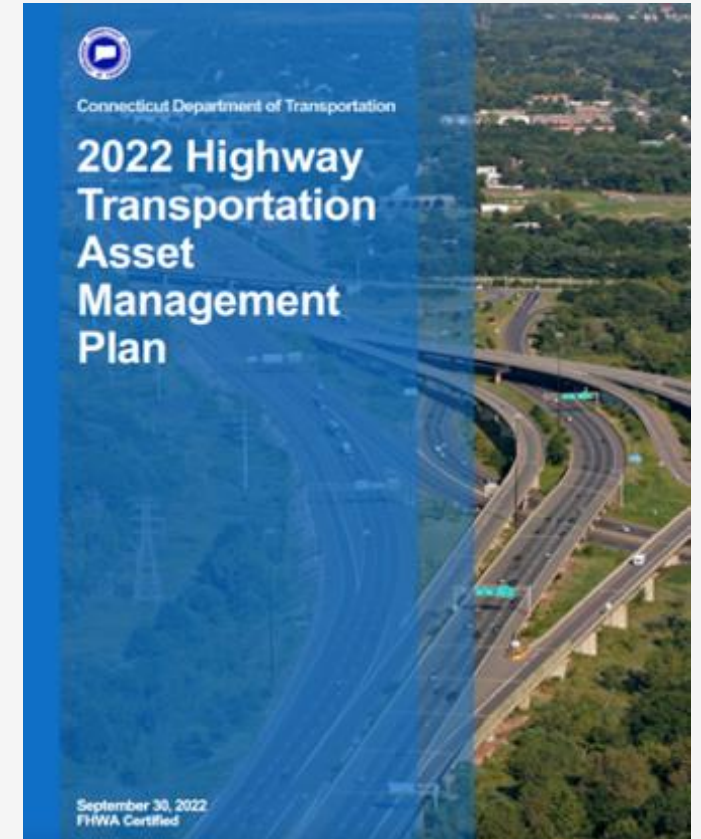
- Table summarizing the proportion of total asset value and total current funding contributed by each asset class
- This table was developed in response to a request from CTDOT management
- Available for each year starting in 2018

CTDOT Asset	≡ Valuation	≡ % Valuation (asset/total)	≡ Annual Funding	≡ % Funding (asset/total)	≡ Funding % - Asset %
Bridge	\$17.2B	48.6%	\$375.0M	41.2%	-7.4%
Pavement	\$12.1B	34.4%	\$207.0M	22.7%	-11.6%
Traffic Signals	\$1.3B	3.6%	\$50.0M	5.5%	+1.9%
Signs Extruded Aluminum	\$69.0M	0.2%	\$25.0M	2.7%	+2.6%
Signs Sheet Aluminum	\$101.0M	0.3%	\$5.0M	0.5%	+0.3%
Sign Supports	\$279.0M	0.8%	\$6.5M	0.7%	-0.1%
Pavement Markings Line Striping	\$94.0M	0.3%	\$13.0M	1.4%	+1.2%
Pavement Markings Symbols & Legends	\$15.0M	0.0%	\$3.0M	0.3%	+0.3%
Highway Buildings Tier 1	\$960.0M	2.7%	\$159.0M	17.5%	+14.7%
Highway Buildings Tier 2	\$88.0M	0.2%	\$0.5M	0.0%	-0.2%
Highway Buildings Tier 3	\$28.0M	0.1%	\$0.1M	0.0%	-0.1%
Illumination	\$462.0M	1.3%	\$14.0M	1.5%	+0.2%
Retaining Walls	\$461.0M	1.3%	\$7.0M	0.8%	-0.5%
Drainage Culverts	\$2.0B	5.7%	\$7.5M	0.8%	-4.8%
ITS	\$178.0M	0.5%	\$37.5M	4.1%	+3.6%
Total	\$35.3B	100.0%	\$910.1M	100.0%	0.0%



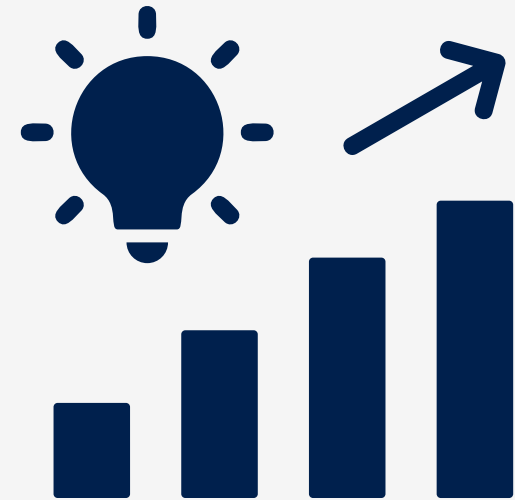
Summary

- TAM program has steadily added assets since 2018
- Asset fact sheets are a key part of the annual TAM cycle
- Online fact sheets offer additional potential for improving communication



Future

- Additional assets
 - Noise walls?
 - ...?
- Online fact sheets
 - Cross-asset comparisons
 - Visualizations across time periods
 - Meeting the needs of CTDOT asset management practitioners



Thank you

For questions, please contact:
Miguel Simon - Miguel.Simon@ct.gov



Q&A and Discussion

Submit your questions using the Zoom's chat feature or raise your hand!

All webinars available online:

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Save the Dates!

A bimonthly webinar series, Wednesdays at 2:00 PM EST

Next Webinar

February 2026

Topic: TBD

More to follow!



For more information or to register:

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