Integrating ITS and other TSMO Assets into SDOT's Asset Management Program

2021 ITE Virtual Annual Meeting
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7/22/2021 Department of Transportation

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SDOT Vision, Mission, and Core Values

Vision: Seattle is a thriving equitable community powered by dependable transportation.

Mission: To deliver a transportation system that provides safe and affordable access to places and opportunities.
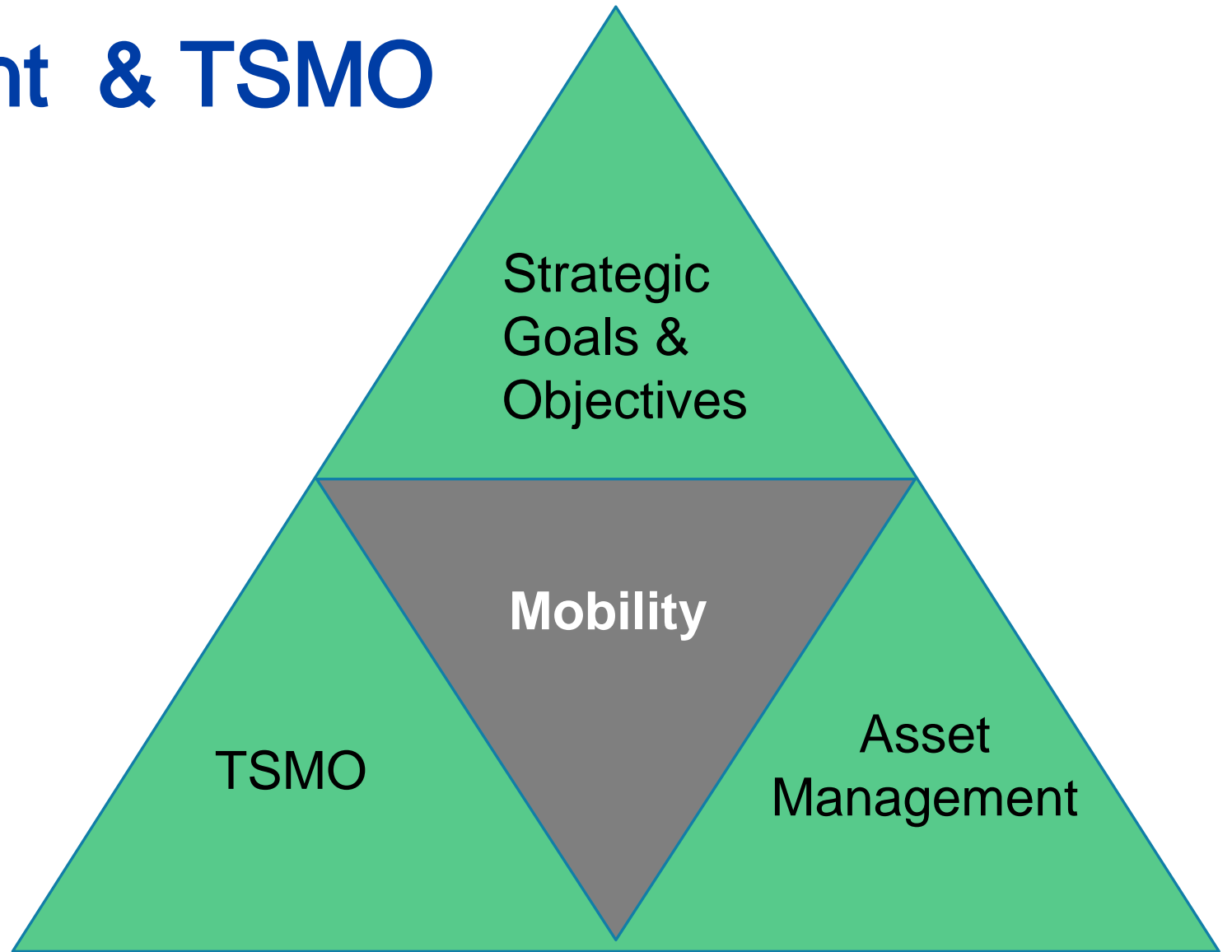
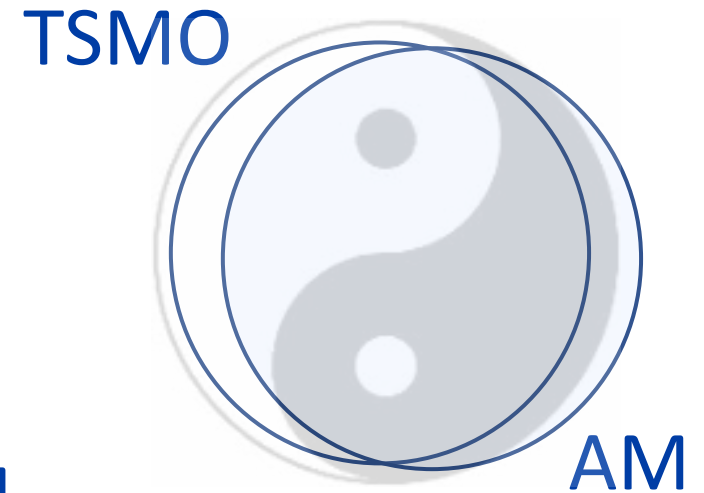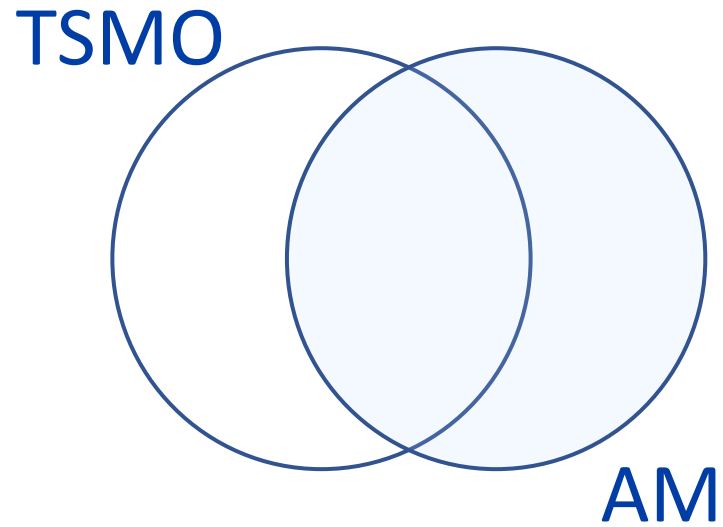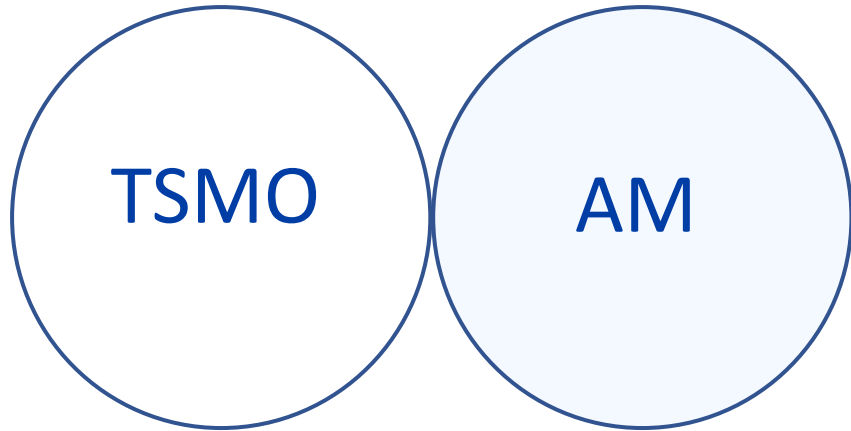We are committed to

6 core values:

- Equity
- Safety
- Mobility
- Sustainability
- Livability
- Excellence

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Asset Management & TSMO

- How do you see their relationship?

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Asset Management & TSMO

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Six Steps Towards TSMO Integration into AM

1. Identify the assets you own or maintain.

2. Know where your assets are located.

3. Assess the condition of your assets.

4. Identify and communicate your asset needs.

5. Develop AM lifecycle plans.

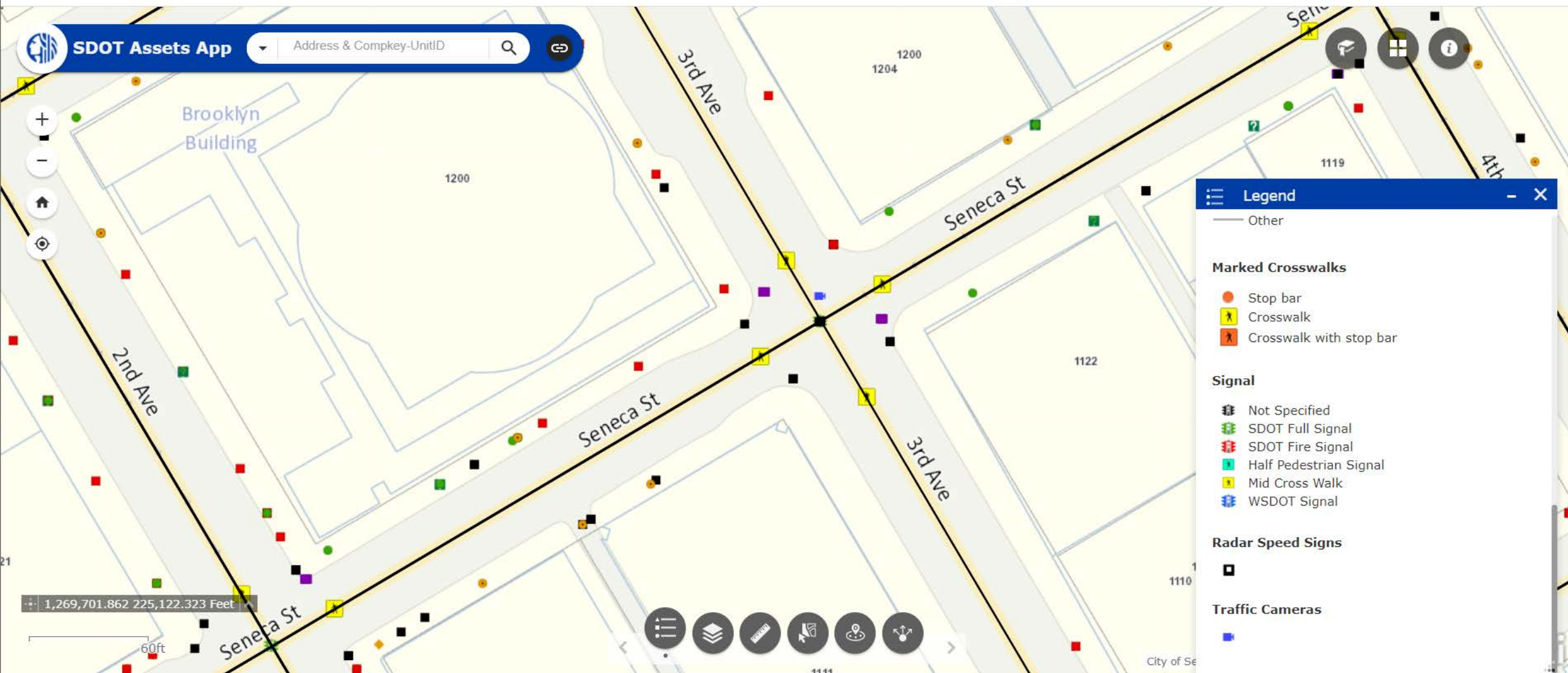6. Coordinate maintenance work and capital investments.

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1. Identify the assets you own or maintain.

SDOT ITS Asset Inventory	
Beacons	550
Cameras	293
Comms Network	150 miles
Counters	211
DMS	66
Network Hubs	14
Radar Speed Signs	51
Radio Towers	38
TOC	1
Traffic Signal Assemblies	1,118

ASSET & PERFORMANCE MANAGEMENT
STATUS & CONDITION REPORT
2020
Seattle Department of Transportation

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2. Know where your assets are located.

3. Assess the condition of your assets

INTELLIGENT TRANSPORTATION SYSTEM								
Asset Inventory		**Replacement Value ($M)**	**Current Value ($M)**	**Data Confidence**	**Condition**			
					Good	**Fair**	**Poor**	**Unk.**
Beacons	550	$19.2	$10.9	Medium	23.5%	4.7%	0.7%	71.1%
Cameras	293	$4.1	$3.3	Medium	99%		0.3%	0.7%
Comms Network	150 miles	$82.1	$41.1	Low				100%
Counters	211	$7.7	$3.8	Medium				100%
DMS	66	$6.7	$5.4	Med-High	100%			
Network Hubs	14	$1.1	$0.5	Medium				100%
Radar Speed Signs	51	$1.3	$0.8	Medium	43.1%			56.9%
Radio Towers	38	$1.2	$0.3	High	13.2%		86.8%	
TOC	1	$1.1	$0.9	High	100%			
Traffic Signal Assemblies	1,118	$293.5	$132	Med-High	26.1%	34.1%	39.8%	

4. Identify and communicate your asset needs.

ITS Long-term Cost / Needs Forecast   [2020 dollars]
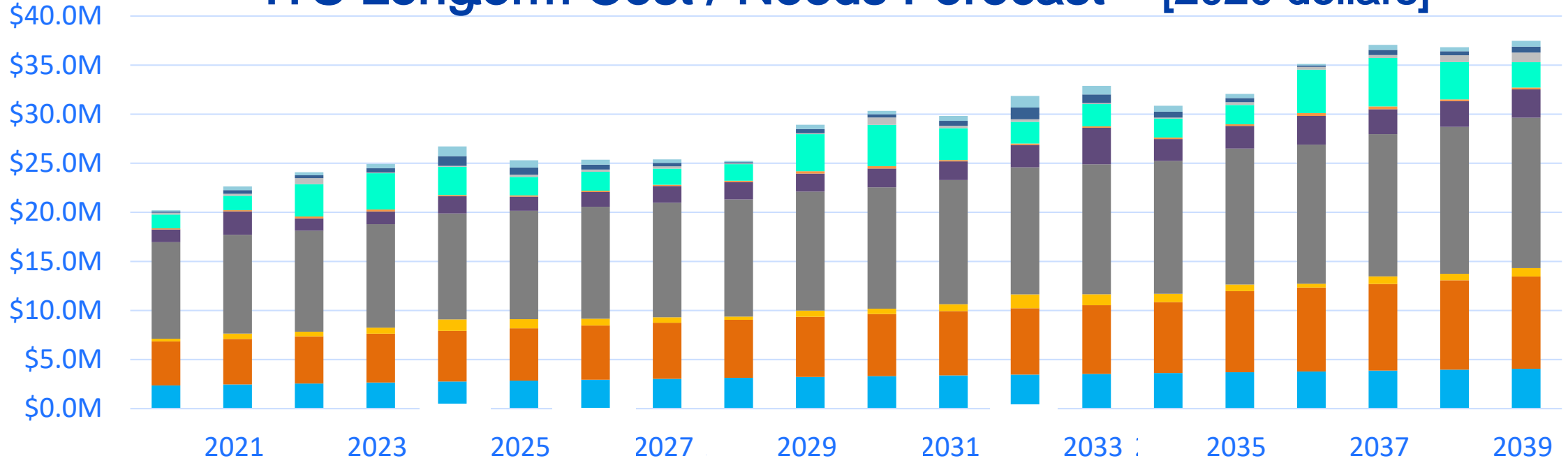
Legend:
- Annual Gen'l O&M (non-asset specific)
- Traffic Cameras
- Dynamic Message Signs
- In-Pavement Data Collection Devices
- Beacon Assembly
- Communication Network
- Transit Signal Prioritiy Lights
- Network Hubs
- TMC and Central Signal Control Software
- Radar Speed Signs

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5. Develop AM lifecycle plans

- Convey properly timed preservation and maintenance strategies.

- Track investments by work type.

- Keep assets in Good and Fair condition longer.

- Increase safety / reliability.

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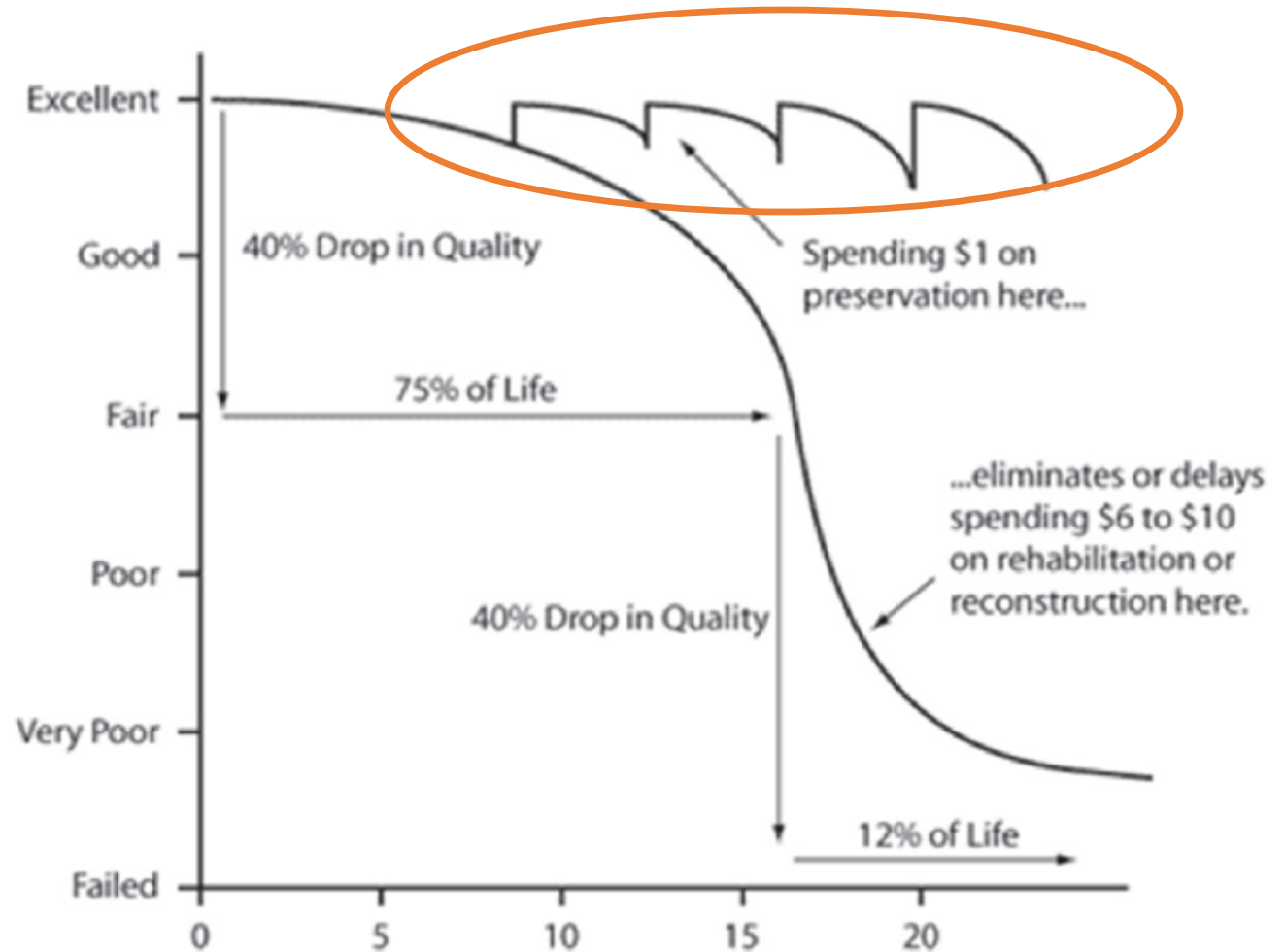
6. Coordinate maintenance work and capital investments

- Active corridor planning to maximize transportation benefits

- Minimize community impacts

- Trade-off discussions

- Optimize network level performance

- Complete Streets

- Community Engagement

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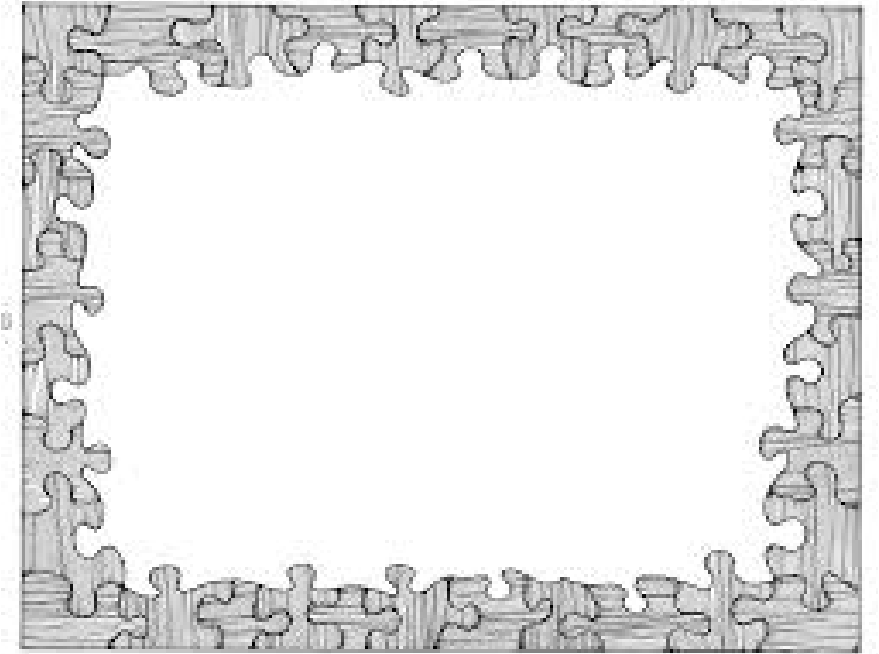
SDOT TSMO Asset Risk Register

Develop a risk register to monitor and report on risks that impact performance.

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TAM RoadMap

- Develop schedule of future AM initiatives.

- Maintain our asset data & grow our data confidence.

- Right size TSMO asset funding.

- More proactive, less reactive.

- Reduce maintenance backlog.

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Questions?

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www.seattle.gov/transportation

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