



Asset Management Planning at Grey County

Presentation to Council | April 2021 | Israr Ahmad, Jordan Gonda P. Eng., John Murray

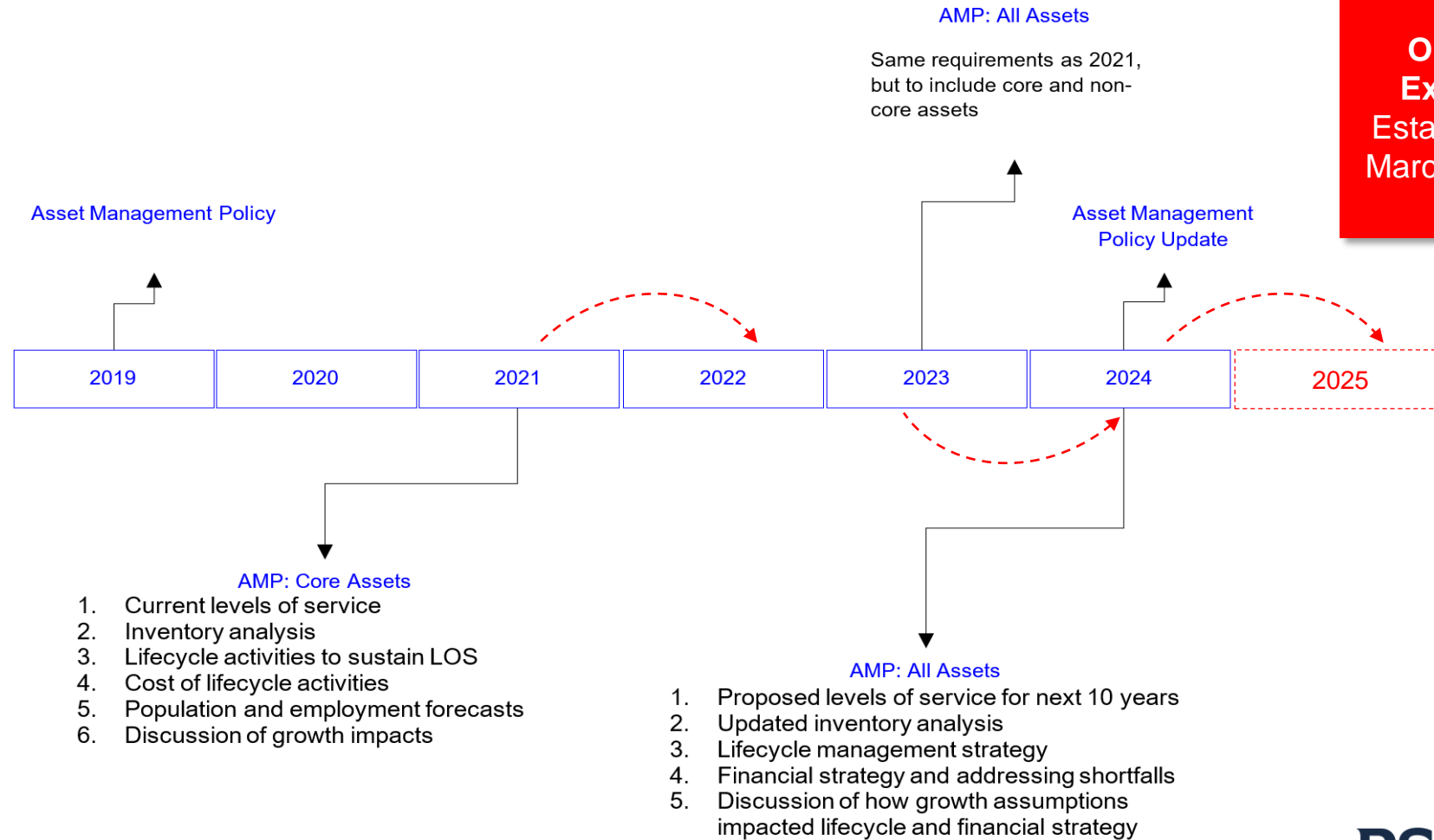
Project Background

- Primary deliverable
 - Asset Management Strategy
- Supporting deliverables
 1. Asset management policy review
 2. Current state assessment and asset management maturity levels
 3. Data gap analysis
 4. State of the Infrastructure
 5. Risk and criticality analysis, lifecycle, and levels of service
 6. Financial analysis and strategy

Key expected outcomes of the project

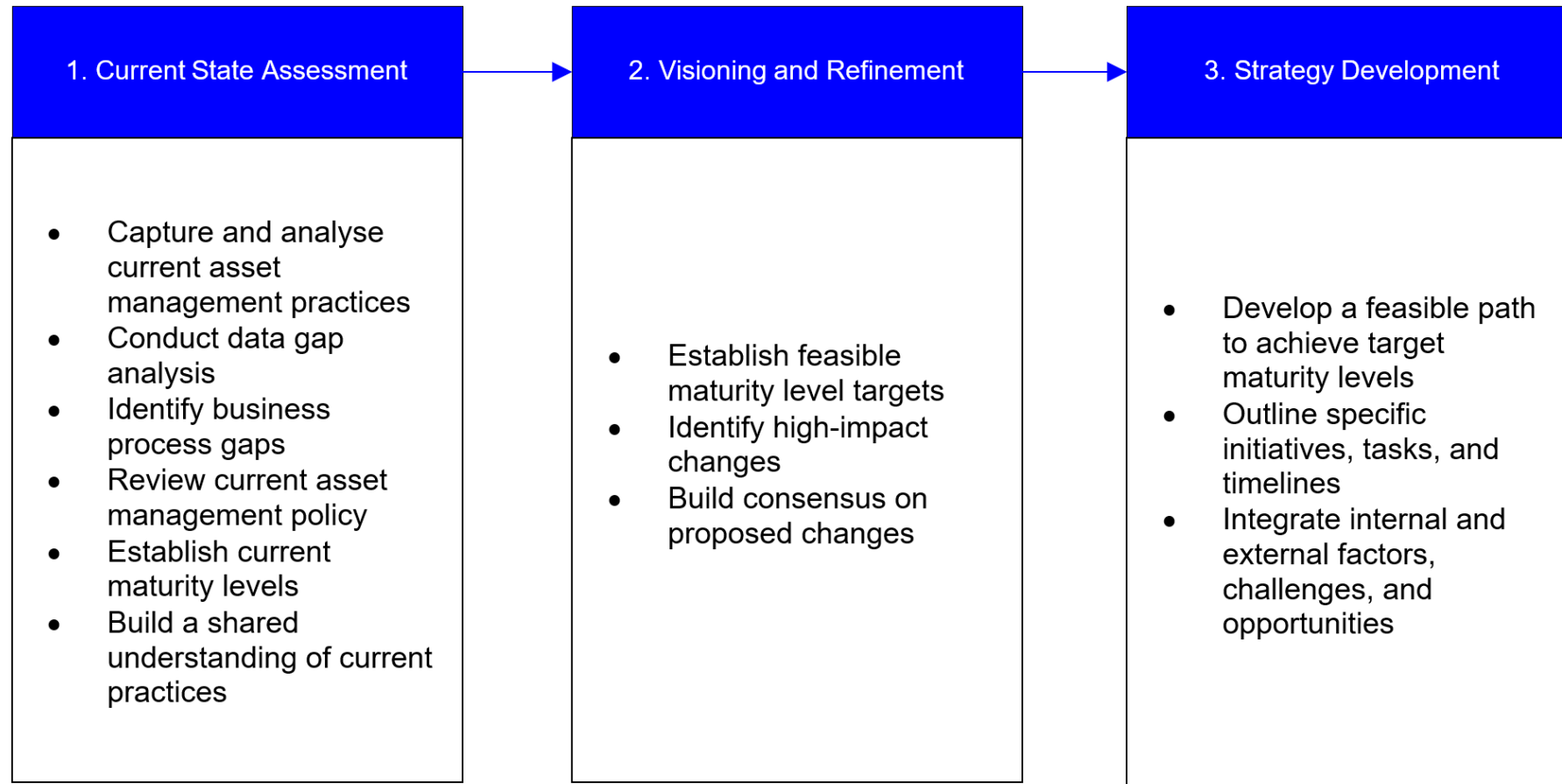
- Improve Grey County's asset management program
 - Better data and higher staff confidence
 - Improved forecasting and planning
 - Improved decision-making and project selection
 - Risk management
 - Delivery of acceptable and affordable service levels
- Compliance with O. Reg 588/17

Ontario Regulation 588/17

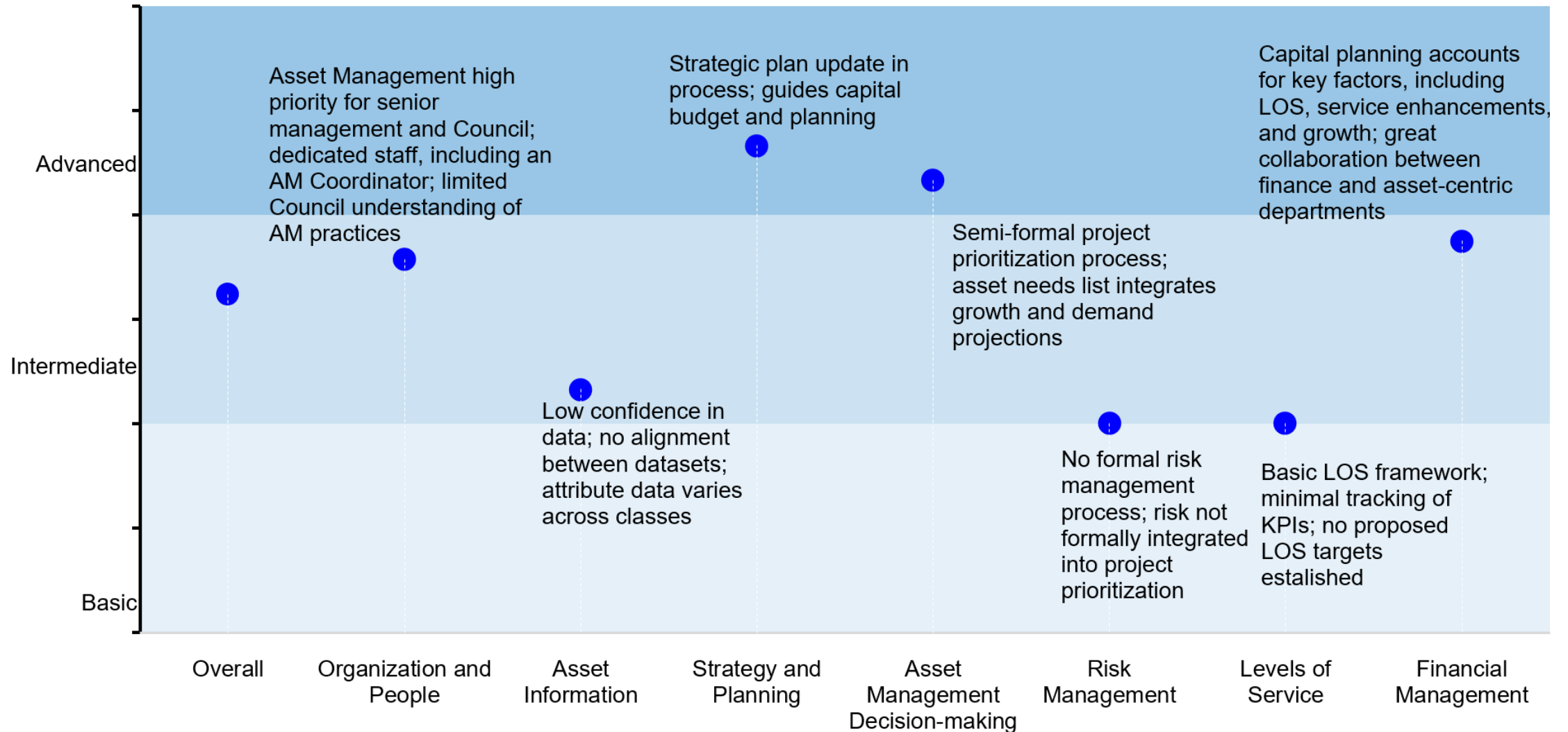


One Year Extension
Established on
March 15, 2021

Project Path



Current Asset Management Maturity Levels



Gaps in Business Processes, Practices, and General Capacity

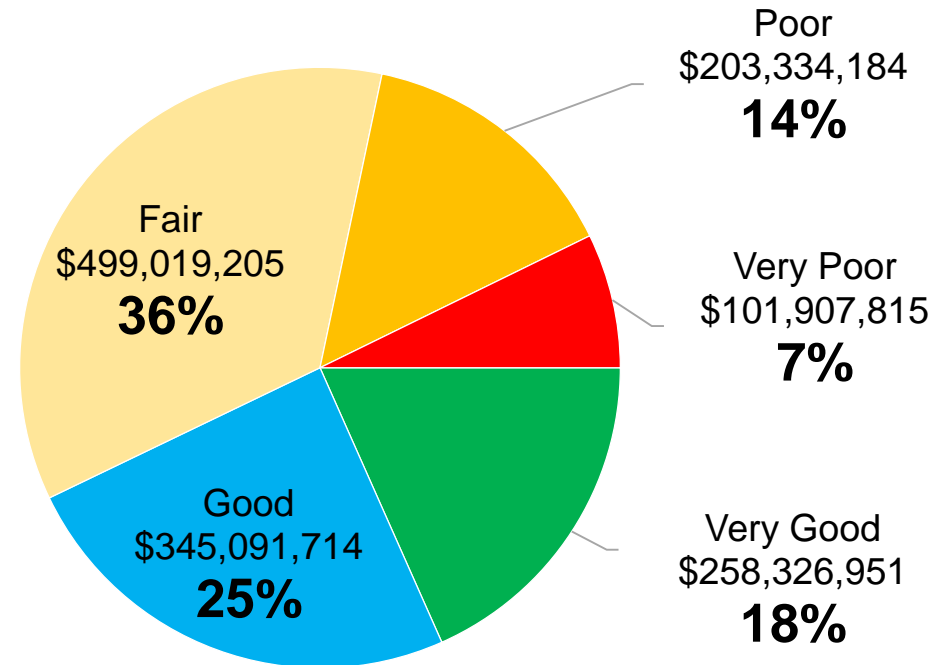
- These gaps informed the development of the strategy.
- Many gaps were addressed through the course of the project
 - Data refinement
 - Risk and criticality
 - Levels of service
 - Lifecycle frameworks

Grey County's Asset Portfolio

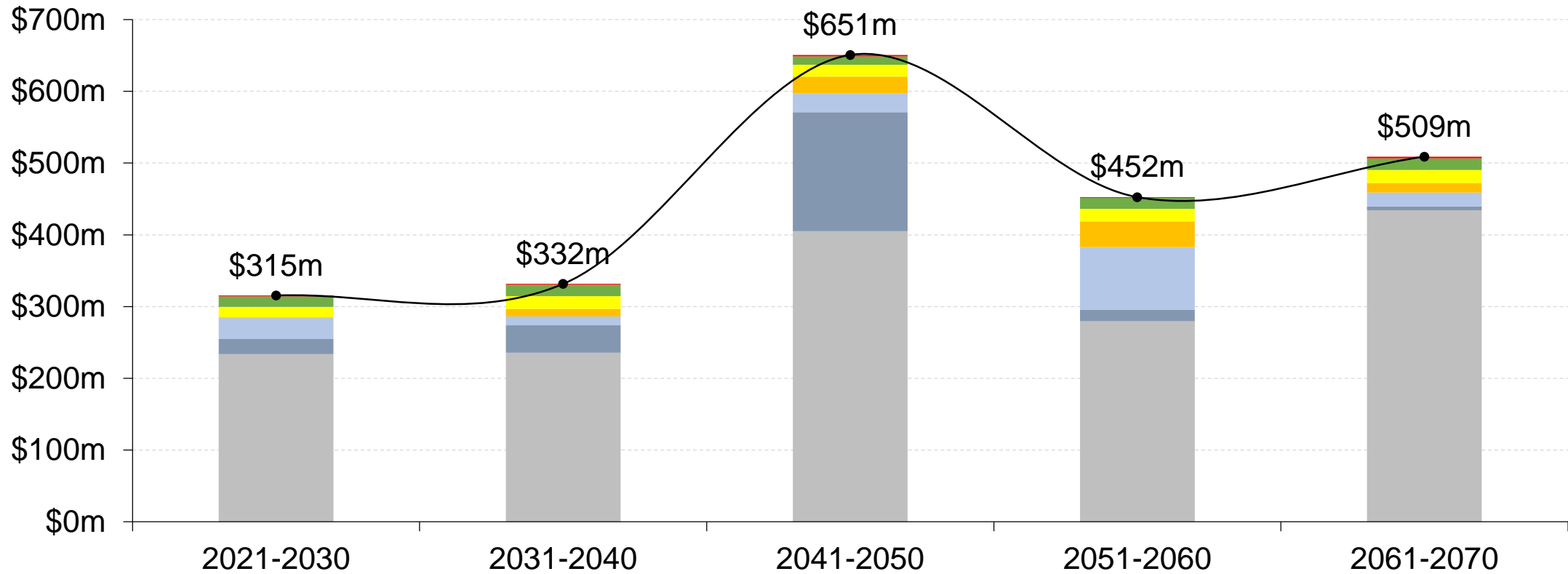
Asset Category	Replacement Cost 2020	Assets In-Service Since 2017	Replacement Cost 2016	Change in Value	Percentage Change
Roads	\$885,375,708	\$9,780,941	\$510,486,393	\$374,889,315	73%
Bridges and Culverts	\$289,336,247	\$6,716,835	\$162,209,201	\$127,127,046	78%
Buildings and Facilities	\$129,298,018	\$25,357,592	\$117,948,271	\$11,349,747	10%
Social Housing	\$72,957,685	\$12,640,570	\$50,930,188	\$22,027,497	43%
Machinery and Equipment	\$15,632,476	\$4,247,777	\$11,108,082	\$4,524,394	41%
Vehicles	\$11,759,701	\$4,487,948	\$10,208,103	\$1,551,598	15%
Land Improvements	\$3,320,034	\$866,302	\$2,776,500	\$543,534	20%
Total	\$1,407,679,870	\$64,097,965	\$865,666,738	\$542,013,132	63%

Portfolio Overview: Condition

- 79% of assets are in fair or better condition
- Age was used for several major assets, including road base and buildings
- Forthcoming building condition assessments will provide more accurate estimates for buildings and social housing assets

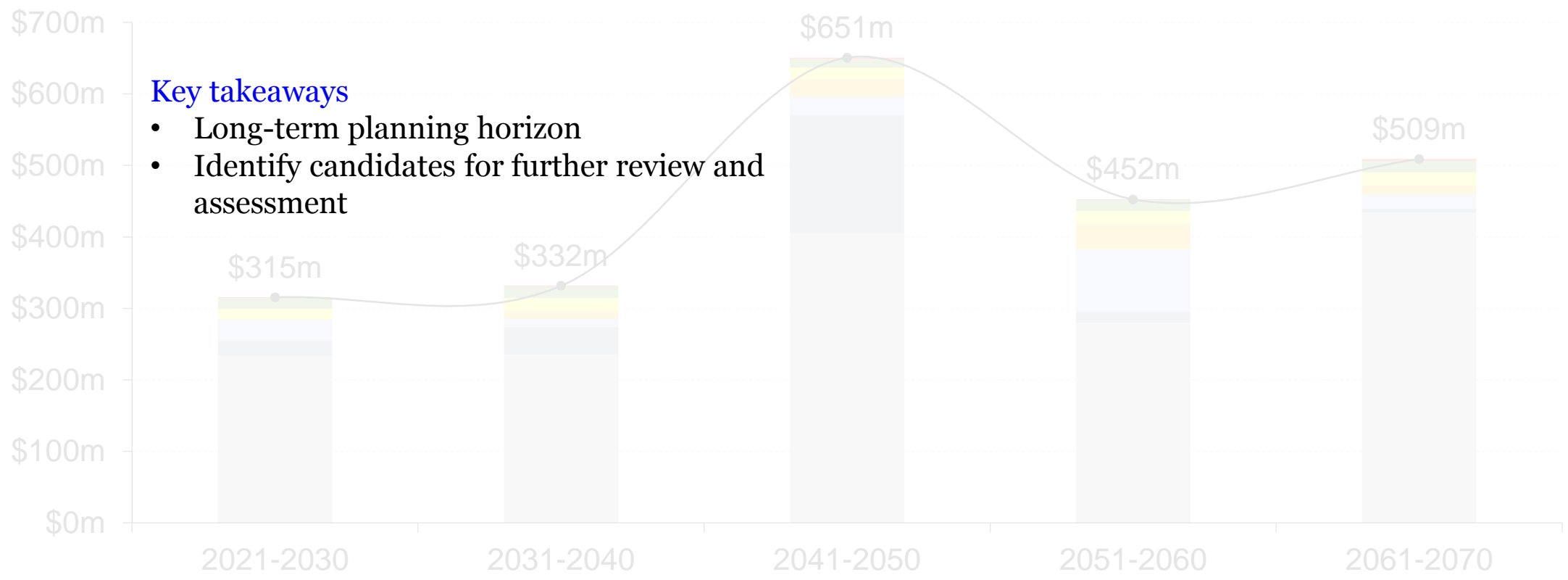


Portfolio Overview: Projected Capital Replacement Needs



- Roads
- Bridges and Culverts
- Buildings and Facilities
- Social Housing
- Machinery and Equipment
- Vehicles

Portfolio Overview: Projected Capital Replacement Needs



Key takeaways

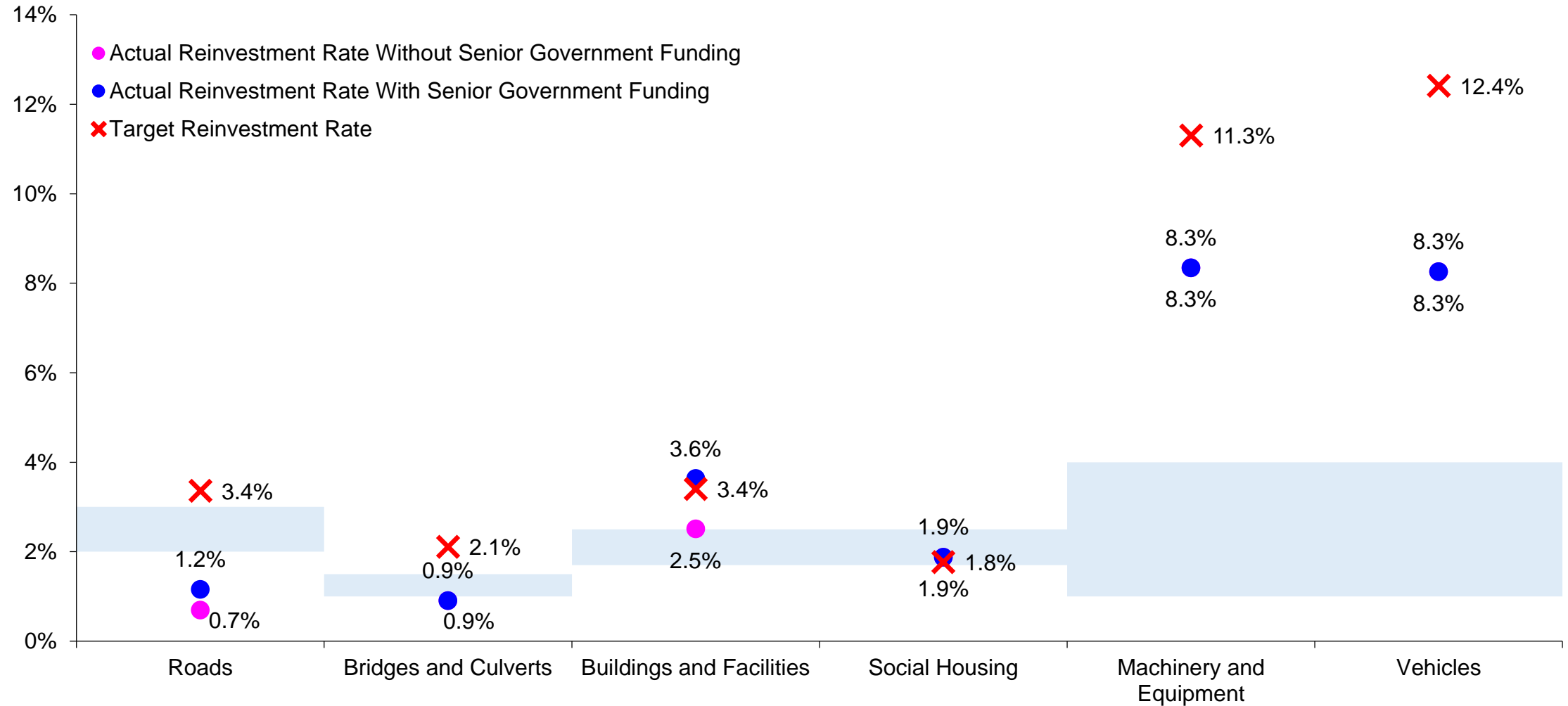
- Long-term planning horizon
- Identify candidates for further review and assessment



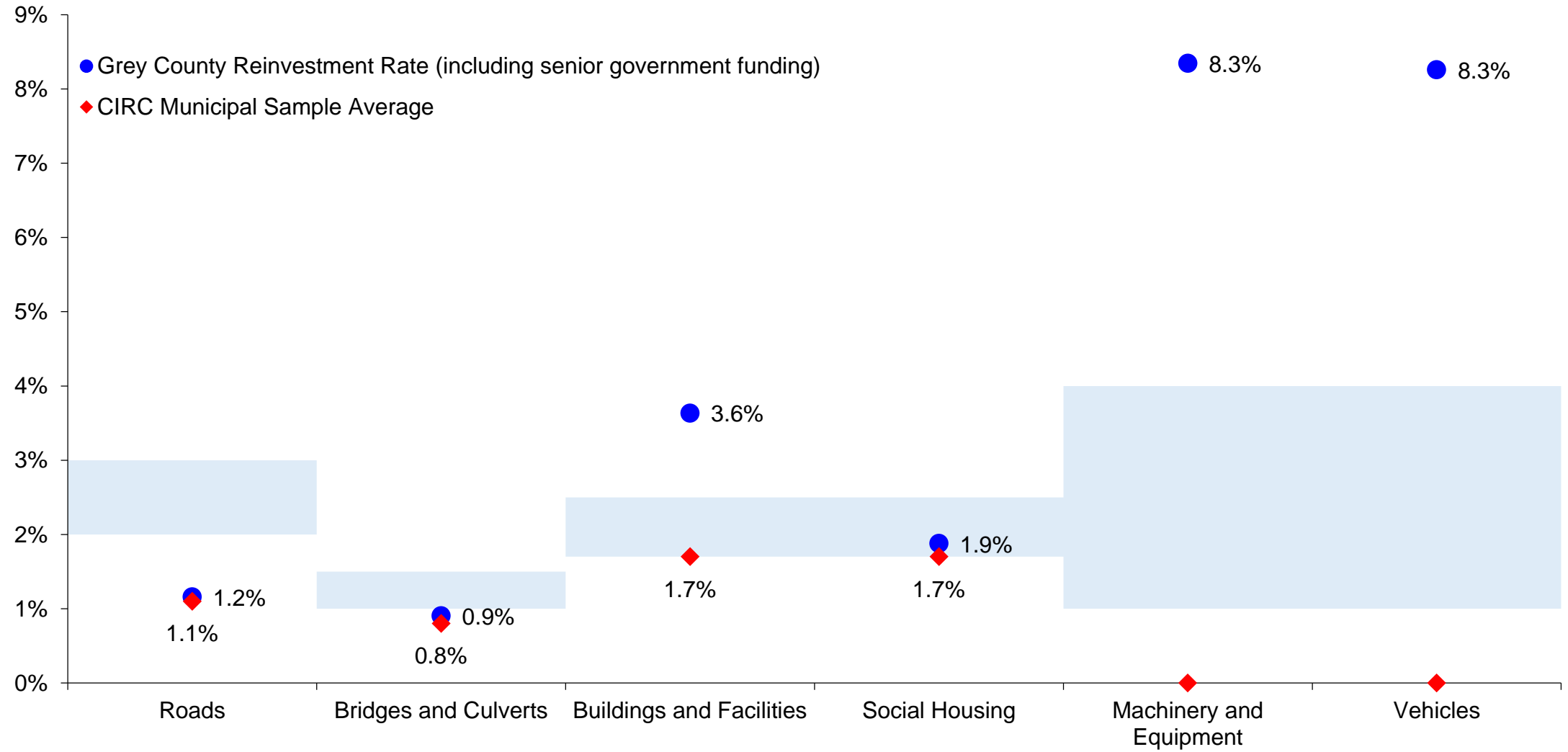
Reinvesting in Infrastructure

- No scientific consensus, but industry best practices propose reinvesting 1-4% of assets' current replacement value each year
 - Use of Canadian Infrastructure Report Card (CIRC) benchmarks
 - Joint project between FCM, Canadian Society of Civil Engineers (CSCE), and others
- Municipalities continue to face significant challenges in meeting these benchmarks
- Staying ahead of asset needs is important for making the best use of each dollar: spending \$1 today vs. \$10 tomorrow

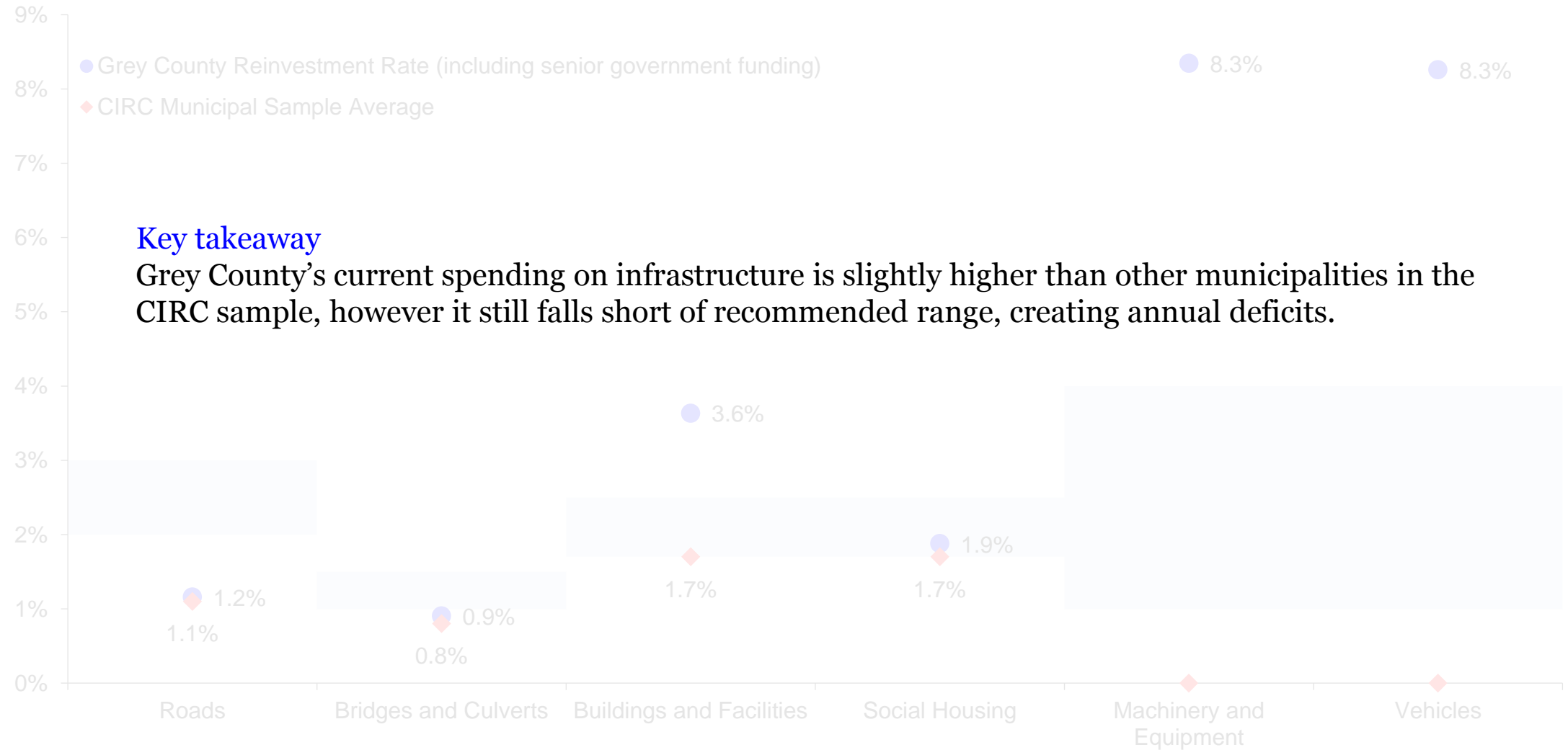
Target vs. Current Grey County Reinvestment Rates



Comparative Analysis of Reinvestment Rates



Comparative Analysis of Reinvestment Rates



Key takeaway

Grey County's current spending on infrastructure is slightly higher than other municipalities in the CIRC sample, however it still falls short of recommended range, creating annual deficits.

Current Infrastructure Funding

Asset Category	Funding Available in 2020					
	Taxes (Average 2018-2020)	Gas Tax	OCIF	LTC Grants	Disposal of Assets	Total Funding Available
Roads	\$6,120,045	\$2,846,449	\$1,279,946	\$0	\$0	\$10,246,440
Bridges and Culverts	\$2,615,268	\$0	\$0	\$0	\$0	\$2,615,268
Buildings and Facilities	\$3,322,663	\$0	\$0	\$1,493,000	\$3,387	\$4,819,050
Social Housing	\$1,369,668	\$0	\$0	\$0	\$0	\$1,369,668
Machinery and Equipment	\$1,201,455	\$0	\$0	\$0	\$103,012	\$1,304,467
Vehicles	\$697,643	\$0	\$0	\$0	\$273,396	\$971,039
Total	\$15,326,742	\$2,846,449	\$1,279,946	\$1,493,000	\$379,795	\$21,325,931
Percentage of Total Funding	71.9%	13.3%	6.0%	7.0%	1.8%	100%

Estimating Annual Deficits

Asset Category	Replacement Cost	Recommended Reinvestment Rate	Funding Needed		Funding Available	Annual Deficit		
Roads	\$885,375,708	2.0%	\$17,707,514	>	\$10,246,440	\$7,461,074		
Bridges and Culverts	\$289,336,247	2.1%	\$6,126,317	>	\$2,615,268	\$3,511,049		
Buildings and Facilities	\$132,618,052	3.4%	\$4,513,334	<	\$4,819,050	-\$305,716		
Social Housing	\$72,957,685	1.8%	\$1,287,079	<	\$1,369,668	-\$82,589		
Machinery and Equipment	\$15,632,476	11.2%	\$1,753,937	>	\$1,304,467	\$449,470		
Vehicles	\$11,759,701	12.4%	\$1,459,671	>	\$971,039	\$488,632		
	Total		\$1,407,679,870		\$32,847,852	>	\$21,325,931	\$11,521,921

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Although a surplus is indicated for buildings and Social Housing, the forthcoming building condition assessments may reveal additional funding needs.

Eliminating Annual Deficits: Approach

- Relying primarily on County's tax revenues
- Other stable funding sources also incorporated
 - Federal Gas Tax Fund
 - Ontario Community Infrastructure Fund (OCIF)
 - Long-term Care Grants
- Rely on the longest useful life estimates for each asset, especially roads

Eliminating Annual Deficits

Measurement	2019 Actual	2016 Actual	5-Year Change	Percentage Change
Tax Revenues	\$58,254,078	\$52,900,000	\$5,354,078	10.1%
Increase needed to close annual deficit	\$11,521,921	\$8,997,000	\$2,524,921	28.1%
Effective tax Increase required	19.8%	17.01%	2.77%	16.3%
Annual tax increase required over:				
	10 years	1.82%	1.7%	
	15 years	1.21%	1.1%	
	20 years	0.91%	0.9%	

Strategic Priorities

- Four Strategic Priorities
 - Strategic Priority 1: The Next Three Months
 - Strategic Priority 2: Build Asset Management Culture and Capacity
 - Strategic Priority 3: Enhance Data Quality
 - Strategic Priority 4: Adopt Customer-centric View of Asset Management and Financial Planning
- 20 strategic recommendations; 19 data-related recommendations
- Based on current state assessment

Strategic Priority 1: The Next Three Months

- Focuses on ensuring compliance with O. Reg 588/17
- Verification and update of datasets, particularly BCA data and storm
- Review financial strategies and consider feasibility of increasing tax revenues by 1.21% annually over a 15-year phase-in period

Strategic Priority 2: Build Asset Management Culture and Capacity

- Complete asset management-related business process mapping
 - 46 asset management processes that should be mapped by each department
 - Critical for ensuring continuity of asset management, clarity in roles and responsibilities, and for identifying inefficiencies and hidden problems
 - Also important for maintaining momentum amidst any staff turnover
- Improve staff understanding of asset management
 - Cross-departmental knowledge exchange
 - Include front-line staff when feasible

Strategic Priority 3: Enhance Data Quality

- Formalize data management through data governance framework
- Conduct semi-annual data audit and gap analysis
- Continue to refine inventory
 - Asset attributes to improve risk and criticality models

Strategic Priority 4: Adopt Customer-centric View

- Identify trends and influencers and how they may affect infrastructure services
 - Grey is expected to add 11,000 new residents by 2036; employment is forecasted to grow by 3,000
 - The structure of the population will also impact services
 - Impact of Covid-19?

Strategic Priority 4: Adopt Customer-centric View

- Improve understanding of public affordability
- Balancing the quality of infrastructure services with cost and risk

Needed Annually for Infrastructure	Number of Household	Requirements per Household	Average After-tax Household Income 2015	Percentage of Income Needed for Full Funding
\$32,847,852	39,560	\$830	\$68,737	1.2%

- Is this too high?
- Just right?
- Are constituents willing to give up more for better service levels?

