



Asset Management Plan - Transport

Strathfield Council

June 2025

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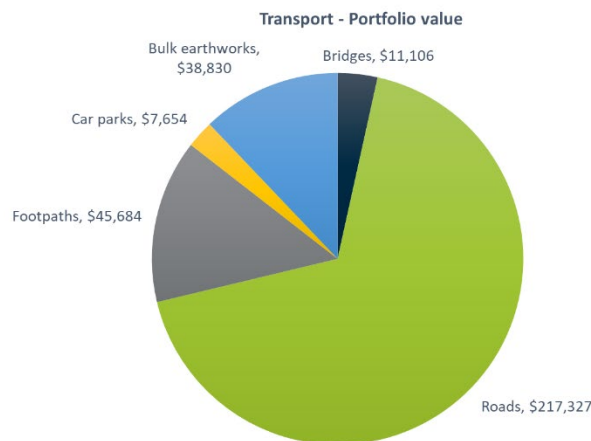
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Appendix 1 Asset Management Plan – Transport Assets

Council’s transport assets provide an essential service for the ratepayers, residents and visitors to Strathfield, enabling efficient and safe movement of people and goods around and through the area. Transport assets include roads, footpaths, kerb and gutter, car parks, bulk earthworks, bridges, and roadside assets such as traffic control devices and road signs.

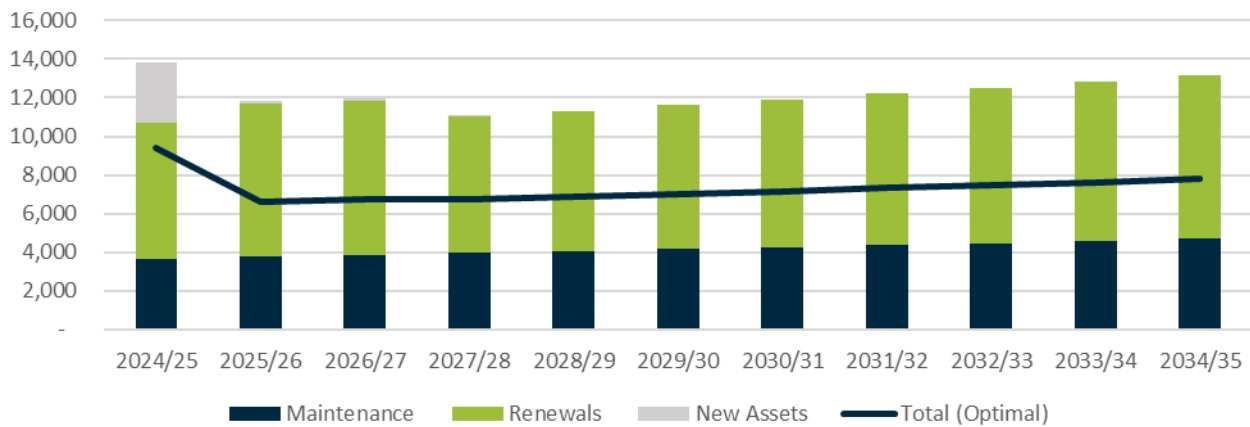
The total asset value is \$320,601,000 as shown below.

Figure 1 Transport Asset Dashboard (as at 30 June 2024)



Infrastructure ratio	Actual 2024/25	Estimated 2033/34	Funding position (\$,000s)	
Infrastructure renewals ratio	207.36%	198%	Year 1 (2024/25)	+\$3,650
			10-year average	+\$3,871
			10-year total	+\$38,715
Infrastructure backlog ratio	5.32%	1.8%		
Maintenance ratio	127.5%	132.3	Year 1	\$788
			10-year average	\$946
			10-year total	\$9,461
Total funding gap			Year 1	+\$4,439
			10-year average	+\$4,818
			10-year total	+\$48,176

Roads Expenditure Profile



A. 1.1 Main Findings

The planned forecast has a split of 63% renewals, 3% new and 34% maintenance where the optimal forecast has a split of 52% renewals, 5% new and 43% maintenance. Forecasts predict reaching a backlog of 2% by 2032/33. The transport network is in moderate to good condition overall, however there are a high percentage of assets sitting in the condition 3 band that will need to be monitored.

Having a renewals ratio of over 100% should counter the effect that the maintenance ratio is just below 60%. This will help with safety, availability, and customer satisfaction results.

Council's funding will see significant investment in:

- improving disability access to bus stops, bus shelters, and car parks,
- renewing and upgrading footpaths
- other renewals programs including bridges, road resheeting, and kerb and gutter renewals
- improvements to active transport through renewing and upgrading traffic facilities and shared paths.

Overall, Council's data is considered "reliable". The improvement plan is focussed on improving the documentation and frameworks around roles and responsibilities, condition data collection and affordable levels of service.

A. 1.2 Asset Inventory, Values and Condition

Table 1 Transport assets inventory, values and condition (as at June 2024)

Asset Class	Asset Component	Gross Replacement Cost (GRC) (\$,000)	Written Down Value (WDV) (\$,000)	Annual Depreciation Expense (\$,000)	Condition				
					1	2	3	4	5
Roads	Roads	\$217,327	\$126,025	\$2,619	0.8%	36.6%	49.4%	11.8%	1.4%
	Bulk earthworks	\$38,830	\$38,830	-	100.0%	0.0%	0.0%	0.0%	0.0%
Bridges	Bridges	\$11,106	\$7,916	\$91	19.6%	0.0%	80.4%	0.0%	0.0%
Footpaths	Footpaths/Cycleways	\$45,684	\$2,848	\$534	9.6%	20.7%	61.6%	8.0%	0.1%
Car parks	Car parks	\$7,654	\$5,938	\$73	49.6%	20.4%	21.8%	7.2%	1.0%
Grand Total		\$320,601	\$181,557	\$3,317	35.92%	15.53%	42.65%	5.39%	0.51%

Overall, the portfolio is in fair condition as shown in the table above. The assets in conditions 4 and 5 need to be addressed to keep the assets safe and functional, specifically the roads, footpath and carpark asset group. The assets in condition 3 in the bridges group should also be monitored as it is a large amount at 80.4%.

A. 1.3 Asset Based Levels of Service

Table 2 Transport levels of service

Key Performance Indicator	Level of Service	Performance Measurement Process	Target Performance (2024/25)	Current Performance (2023/24)
Customer				
Safety	Transport assets are safe	No. of reportable incidents due to asset defects per year	<= 2	
Quality	Transport assets are built and maintained at a high level of quality	Requests per annum in relation to maintenance requests.	<1000	
		Requests per annum in relation to renewal and maintenance requests.	<100	
Availability and Accessibility	Transport assets will be available and accessible during normal operating business hours	No. of hours roads closed per year	TBD	
Customer Satisfaction	Transport assets meet community needs	Community survey satisfaction score	>=65%	
Responsiveness	Response time to customer requests	Requests adequately responded to within target	> 70%	
Technical				
Safety	Transport assets comply with all relevant regulatory requirements	Regular compliance audits completed	TBD	
Safety	Transport assets are routinely inspected for hazards and risk	Safety inspections completed on schedule	TBD	
Quality	Maintenance is carried out to a high standard	Quality audits of maintenance work performed; no. of non-conformances found	TBD	
	Rate of deterioration is in line with expected useful life	No. of customer requests for renewal or maintenance each year is steady or decreasing	TBD	
Accessibility	Transport assets comply with relevant minimum	Compliance of available facilities with current standards	TBD	

Key Performance Indicator	Level of Service	Performance Measurement Process	Target Performance (2024/25)	Current Performance (2023/24)
	accessibility standards relative to Transport function			
Condition	Assets are in an acceptable condition	Average network condition as measured every four years	2.5 or better	2.7
		Percentage of assets assessed as being in condition 5	5% or less	0.51%

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A. 1.4 Demand Management

Table 3 Transport future demand

Demand Factor	Impact on Assets	Demand Management Plan
Population	Increase of population and population density.	- General increase in demand for all Transport services. - Use of appropriate signage wherever practical, to make safe critical intersections or alignments instead of complete redesign and reconstruction.
Climate change	Climate change will see an increased risk of extreme weather events including storm events, heatwaves, floodings, sea-level rises and fire events.	- There will be an increase in structural damage caused by extreme events and an increase in deterioration rates of Transport assets. - Introducing climate risk assessments will determine the impact on Transport performance and useful lives.
Access	Improved access to services required	Upgrade existing Transport network over time and ensure new or upgraded Transport assets are accessible/compliant.
Accessibility	Changing service needs and changing Transport requirements, particularly relating to accessibility.	Plan new projects to incorporate best practice and review compliance and accessibility needs for existing sites. Prioritise upgrade projects which have the most positive impact.
Expectation	Community expectations	Monitor community expectations through annual and targeted community surveys or deliberative engagement.
E-mobility	Capacity and safety	Engage with the community and other stakeholders to identify solutions to enable e-bikes and e-scooters to be used legally and safely in the LGA

A. 1.5 Life Cycle Management

The following section of the AMP identifies the processes required to effectively manage, maintain, renew and upgrade Council's Transport assets.

Improvements in technology will have a positive effect on the transport network and its assets, such as:

- Materials and techniques – Improved materials and techniques will reduce the extent of structural damage caused by extreme events and reduce in deterioration rates.
- Vehicle safety – Improved vehicle design and quality will mean that the road condition will become less important as the vehicles will be able to accommodate minor shape loss/deformations better.
- Bitumen quality – Bitumen manufacturers are constantly developing new products to suit modern day applications to cope with increased traffic volumes, increased solar radiation and environmental cracking. These improvements may mean roads have a longer useful life and require less maintenance over their life.
- Trenchless Technologies – Using trenchless methodologies will have a better impact on Council's

assets as the soundness of the road and footpath pavements is not compromised by new services within the road reserve.

- Sustainability – Introducing new sustainability technology when renewing and upgrading Transport assets can reduce lifecycle costs, meaning the cost savings can be put towards improving additional Transport assets.
- Asset Information Systems – Improving information systems for mapping, recording information and managing assets can lead to faster and more agile decision making, for example adjusting inspection regimes to match the amount of public usage and deterioration on certain components.
- Recycled materials – Exploring the option of using recycled materials will have a dual impact in terms of reduction in greenhouse gas emissions and reduction in initial asset construction costs, thereby enabling more assets to be renewed with the same allocation of annualised funds.
- New transport solutions – Will provide opportunities for active transport proposals to expand footpaths and cycleways to facilitate walking and cycling (including e-mobility devices).
- Artificial intelligence – AI systems can be used to monitor condition and defects in real time via vehicles, drones, or street cameras. AI systems can also predict assets' future condition, maintenance, functionality or safety.

1.5.1 Acquisition Strategies

New asset growth is limited within Strathfield, aside from Transport-Oriented Developments (TODs), which primarily impact public domain areas, traffic management, and open space areas, due to an influx of new residents and businesses around public transport hubs. It is important to note that when new assets are acquired, or assets are expanded or upgraded, this results in an increase in commitment of annual operational and maintenance funding to ensure continued service delivery of the asset over its lifecycle. All new assets must conform to Council specifications and standards, including data and information.

1.5.2 Renewals Strategies

The most current asset condition data is used to determine the amount of capital expenditure that is required to be spent on renewal in the next ten years. Renewal activities such as renewal of the road's surface, replacement of a footpath segment, bridge deck or barrier replacement will return the degraded service capability of the asset back to its original designed capability or modern-day equivalent.

Council's road assets are in reasonable condition overall.

The renewal of Transport assets will always be provided in accordance with Council's design standards, relevant Australian Standards and industry guidelines and best practices.

1.5.3 Maintenance Strategy

Operations can be described as activities that are delivered on a day-to-day basis necessary to meet levels of service delivery requirements. Operational activities can include street sweeping, roadside mowing, bridge coating, linemarking, and cleansing. Operational activities also include proactive and reactive inspections, undertaken by in-house technical staff and/or specialist contractors.

Over time, minor faults can occur within the Transport portfolio. Council addresses the repairs and maintenance of these faults (e.g. trip hazards) on the basis of defined intervention levels and response times. The intervention level defines the condition, state or risk level associated with an asset or asset component, i.e. the point in time at which the asset is considered to be below an acceptable level of service. Maintenance is scheduled as soon as the asset reaches this point.

Operations and maintenance activities do not improve the condition of the assets but rather enable the network to deliver the expected customer service levels.

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A. 1.6 Financial Outlook

The table below shows planned forecast (what Council is planning to fund) versus optimal forecast (what Council should consider funding to meet financial benchmarks). Over the 10-year period, there is a \$48,176,000 funding excess when compared to the optimal forecast.

Table 4 10-year expenditure projection – Transport

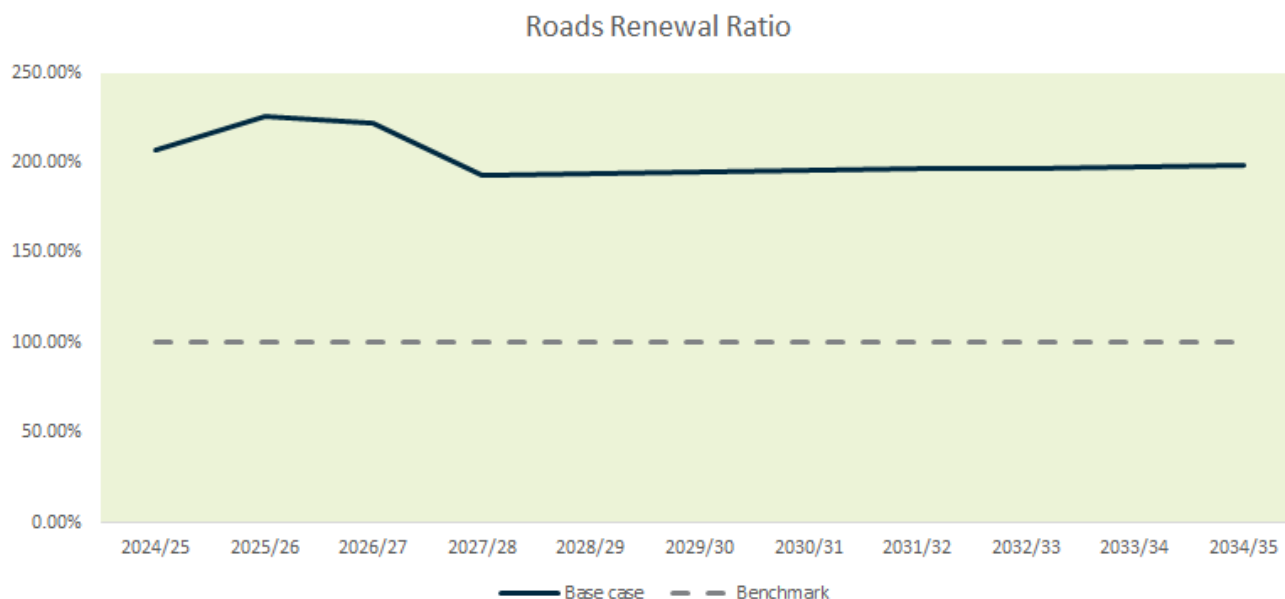
Budget Gap by Asset Group			2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	10-year total
Transport	Planned *	Renewal	7,050	7,949	7,990	7,113	7,291	7,473	7,660	7,851	8,048	8,249	76,673
		New and Expanded Assets	3,110	133	137	32	0	0	0	0	0	0	3,412
		Maintenance and Operations	3,661	3,753	3,846	3,942	4,041	4,142	4,246	4,352	4,461	4,572	41,016
		Total Planned Expenditure	13,821	11,835	11,973	11,088	11,332	11,615	11,905	12,203	12,508	12,821	121,100
Optimal** (as per SS7)		Required Renewal	3,400	3,400	3,517	3,605	3,680	3,757	3,836	3,916	3,998	4,082	4,167
		New and Expanded Assets	3,110	133	137	32	0	0	0	0	0	0	3,412
		Required O&M	2,872	2,931	2,991	3,054	3,118	3,183	3,249	3,316	3,385	3,456	31,554
		Total Optimal Expenditure	9,382	6,581	6,733	6,766	6,875	7,019	7,165	7,315	7,467	7,622	72,924
		Funding gap	4,439	5,254	5,240	4,321	4,457	4,596	4,740	4,889	5,041	5,198	48,176

*Actual expenditure is the expenditure planned by Council and adopted in its long-term financial plan.

**Optimal expenditure is the expenditure as defined in the Office of Local Government's financial sustainability ratios and reported in Special Schedule 7. For renewals, the required spend is equal to the annual depreciation. For operations and maintenance, the required spend is determined by Council.

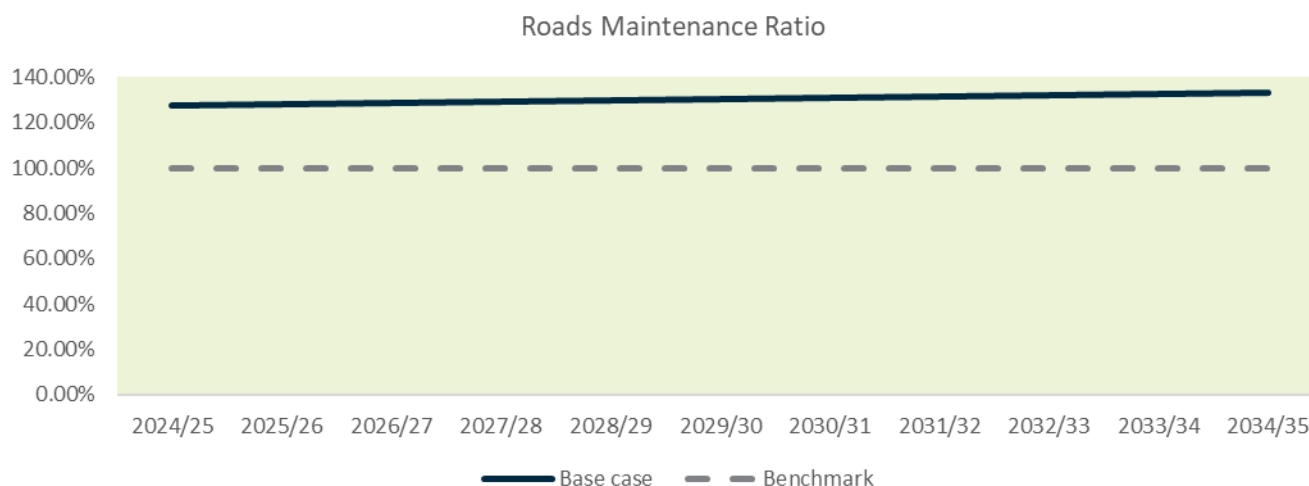
Over the 10-year period Council plans to spend 63% of its budget on renewals, 3% on new/expanded assets and 34% on maintenance and operations. To reduce the backlog ratio, Council should consider the optimal budget to ensure the funding is utilised effectively in the right place and at the right time.

Figure 2 Transport renewal ratio



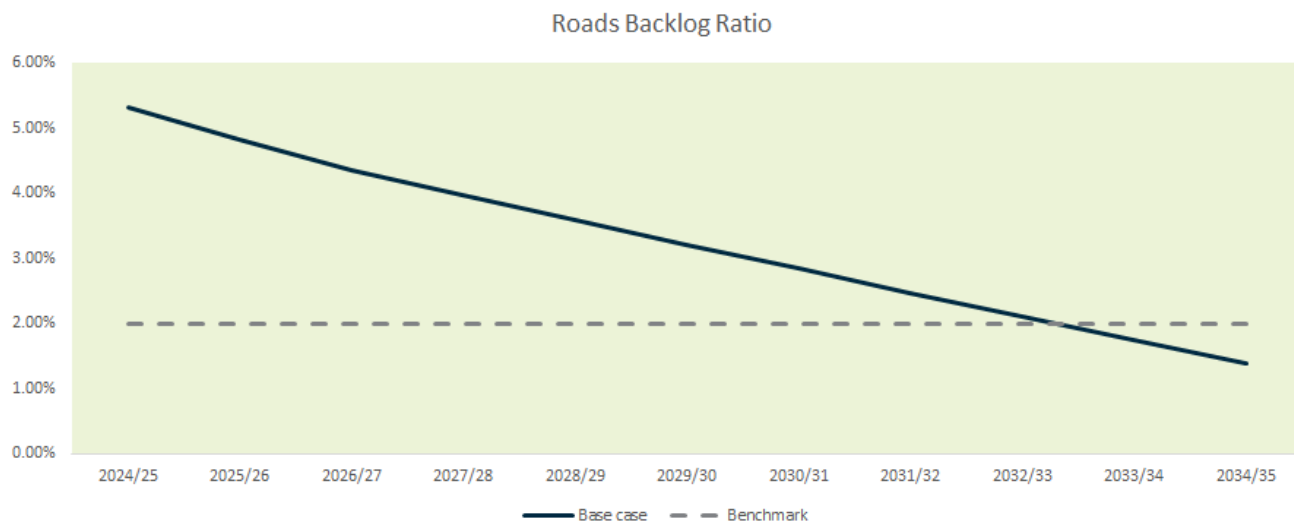
The renewal ratio indicates whether Council is allocating sufficient funding for the renewal/replacement of transport assets in its Long-Term Financial Plan. The benchmark is 100% and as indicated above, Council is funding consistently above the benchmark.

Figure 3 Transport maintenance ratio



This ratio compares proposed versus required annual maintenance funding. A ratio of above 100% indicates that Council is increasing its maintenance budget compared to earlier years. Council should improve the way it defines maintenance and operations activities to ensure consistency from year to year so that trends can be monitored.

Figure 4 Transport backlog ratio



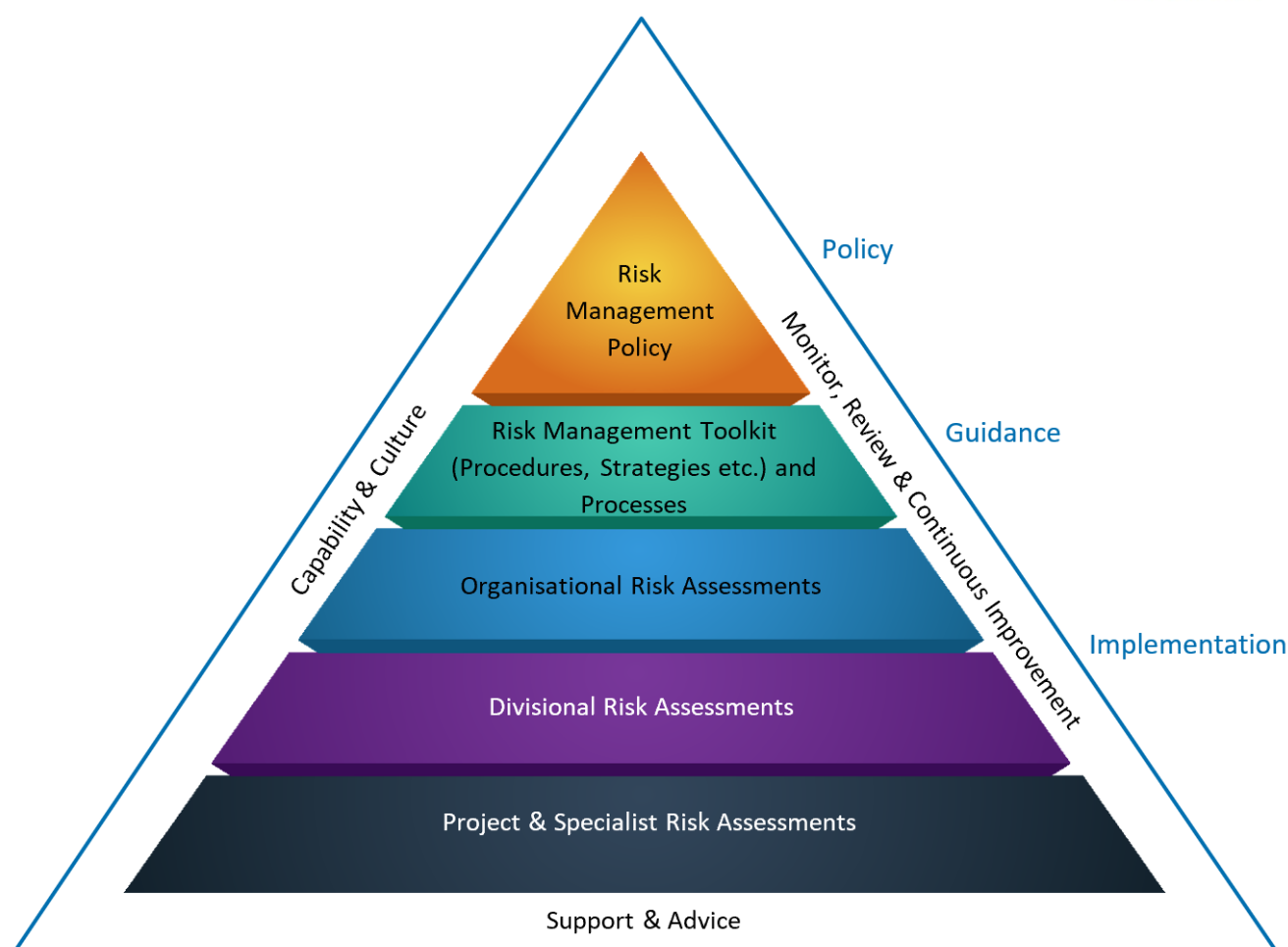
This ratio shows what proportion the infrastructure backlog is against the total value of a Council’s infrastructure. The benchmark is less than 2%. The ratio is determined by dividing the estimated cost to bring assets to a satisfactory condition by the carrying value of the transport assets. The transport backlog is brought back under 2% around FY32/33 and 33/34.

A. 1.7 Risk Management

Council has recognised the need to develop a corporate Risk Management Policy which sets the overall framework for addressing risk within the context of International Standard ISO31000-2018, Risk management – Principles and Guidelines.

Risk Management is defined in ISO31000:2018 as: ‘coordinated activities to direct and control with regard to risk’. The development and adoption of this Policy outlines Council’s commitment to manage its resources and responsibilities in a manner which is intended to minimise harm or loss. The elements of this framework are illustrated in the image below:

Figure 5 Enterprise Risk Management Framework (Council Risk Management Policy 2021)



Within the Transportation portfolio, an assessment of risks associated with service delivery from Council's Transport assets has identified the critical risks that will result in significant loss, 'financial shock' or a reduction in service. This identified:

Table 5 Transport risks

Service or Asset at Risk	Risk Event	Risk Rating	Risk Treatment Plan	Residual Risk
Footpaths & Pedestrian Bridges	Trip hazards	High	Implement proactive inspections of the footpath network in line with Council's proactive inspection regime and undertake remedial works as per the response times in Council's maintenance levels of service.	Medium
Footpath	Disabled pedestrians are not able to cross the roadway at a designated pram RAMP and hence may end up in the middle of the roadway or not able to get off the footpath.	High	Implement a proactive program over the following 5 years, whereby all footpath intersections which comprise of the footpath network are assessed for both construction of a pram crossing and compliance with the current Disability Discrimination Act	Medium
Roads	Vehicles being damaged as a result of road defects.	High	Implement proactive inspections of the footpath network in line with Council's proactive inspection regime and undertake remedial works as per the response times in Council's maintenance levels of service	Medium

Service or Asset at Risk	Risk Event	Risk Rating	Risk Treatment Plan	Residual Risk
Bridges	Bridges being damaged because of road defects	High	Implement proactive inspections of the Bridge network in line with Council's proactive inspection regime and undertake remedial works as per the response times in Council's maintenance levels of service.	Medium
All Transport	Structural failure.	High	Adopt a systematic inspection regime to regularly assess the structural integrity of critical Transport elements.	Medium
All Transport	Flooding.	High	Adopt a systematic inspection regime to regularly assess the structural integrity of critical Transport elements. Plan for remediation works where possible and/or prepare evacuation plans.	Medium

A. 1.8 Critical Assets

The following asset attributes should be considered when looking at critical Transport assets. These factors include:

Table 6 Transport critical asset attributes

Attribute	High	Medium	Low
Road Classification	Arterial Roads	Collector Roads	Local/Lanes
Emergency Services	Police, Ambulance, Hospital	Council depot RFS, SES, animal shelter	No
Schools	40km zones		No
Bus routes	School bus route		No
Accident history	Fatality	Accidents (hospitalisation)>5	
Isolated facilities	Only one road providing access to or from a critical facility	Only one road providing access to or from a non-critical facility	

Critical assets are assets that have a high consequence of failure, but not necessarily a high likelihood of failure. The attributes in the above table should be considered in identifying critical assets. To be considered a critical asset, the asset must meet several high or medium attributes. It does not need to meet all attributes.

Council has not yet identified critical assets. This has been noted as a high priority action in the improvement plan.

A. 1.9 Confidence Levels

The confidence in the asset data used as a basis for the forecasts has been assessed using the following grading system.

Confidence Grade	General Meaning
Highly Reliable	Data based on sound records, procedure, investigations, and analysis that is properly documented and recognised as the best method of assessment.
Reliable	Data based on sound records, procedures, investigations and analysis which is properly documented but has minor shortcomings; for example, the data is old, some documentation is missing, and reliance is placed on unconfirmed reports or some extrapolation.
Acceptable	Data based on sound records, procedures, investigations and analysis with some shortcomings and inconsistencies.
Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported or extrapolation from a limited sample.
Very Uncertain	Data based on unconfirmed verbal reports and/or cursory inspection and analysis.

Each of the individual transport asset classes have different reliability rating as shown in the table below.

Table 7 Roads and transport data confidence

Asset class	Inventory	Condition	Age	Overall
Roads	Reliable	Reliable	Uncertain	Reliable
Footpaths	Reliable	Reliable	Uncertain	Reliable
Bridges	Reliable	Reliable	Uncertain	Reliable
Carparks	Reliable	Reliable	Uncertain	Reliable

The overall confidence level of the plan is considered to be '**Reliable**'.

A. 1.10 Improvement Plan

Table 8 Improvement Plan

Ref	Improvement action	Priority	Timeframe	Effort
T1	Develop a Transport responsibility matrix with a view to identify and streamline roles and responsibilities.	H	26/27	M
T2	Review and formally document the current operations and maintenance levels of service for all Transport assets owned or maintained by Council. These activities should take into account the Transport function, legislative requirements and utilisation needs when documenting activities and response times.	H	26/27	H
T3	Review and formally document Council's Transport condition assessment manual methodology framework. Review should incorporate an assessment of Transport assets to assist with long-term strategic planning outcomes.	M	27/28	M
T4	Ensure that new asset strategies, are reflected in future TAMP and the LTFP.	M	26/27	L
T5	Implement and schedule network wide Transport condition assessments on a 4-year cycle, to coincide with Council's Transport revaluation schedule.	M	27/28	M
T6	Formalise the critical assets criteria and identify critical assets.	H	26/27	L
T7	Develop service-based intervention levels for consultation with the community	M	26/27	M
T8	Develop weighted criteria for prioritising capital works expenditure	H	26/27	M