Item 6

25th November 2025

Glasgow City Council

Environment and Liveable Neighbourhoods City Policy Committee

Report by George Gillespie, Executive Director of Neighbourhoods, Regeneration and Sustainability

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ROADS INFRASTRUCTURE STATUS & OPTIONS REPORT 2025

Purpose of Report:

To advise Committee of the status of Glasgow's roads infrastructure and present investment requirements and scenarios.

Recommendations:

It is recommended that committee notes the issues and investment options detailed in the Annual Status & Options Report 2025 (Appendix 1) as this information feeds into both the Council's budget setting process and programme monitoring.

Ward No(s): N/A	Citywide: ✓
Local member(s) advised: Yes ☐ No ✓	consulted: Yes ☐ No ✓

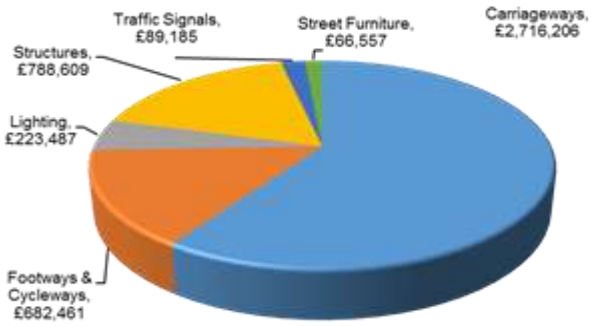
1. Introduction

1.1 Glasgow City Council is responsible for the operation and maintenance of a significant road network and associated infrastructure. Effective management of this asset is of vital importance as the transport of people and goods is essential to the economic and social wellbeing of the City and its citizens.

1.2 As part of the management of this significant asset, an annual review of the current condition is undertaken along with identifying options for investment. This is undertaken in line with national best practice produced by the Scottish Collaboration of Transportation Specialists (SCOTS).

1.3 The Annual Status and Options Report (ASOR), Appendix 1, sets out the condition of our road-related assets and provides a means of identifying and prioritising the overall funding needs of each of the asset categories. The options and scenarios presented aim to assist with the budget setting process and identify where investment should be prioritised.

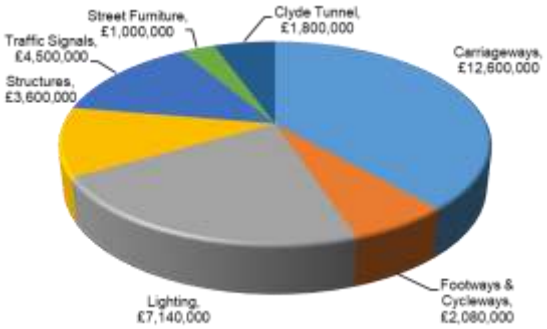
1.4 The cost of replacing all road infrastructure assets is currently estimated at £4.57bn. The pie chart below details the value of the assets broken down by asset type.



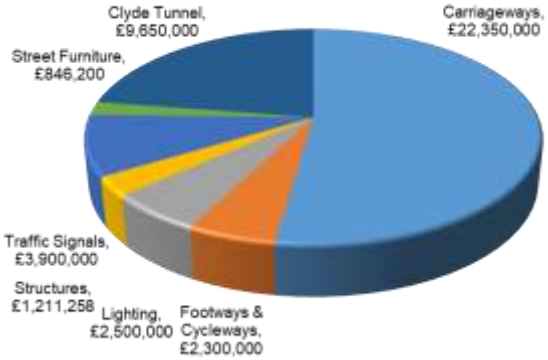
Gross Replacement Cost per Asset (£'000)

1.5 The level of investment required to maintain our roads infrastructure in its current condition (steady state) is estimated at £32.7m per year; this equates to an annual investment of 0.72% of the total asset value.

1.6 The pie charts below illustrate and compare the annual level of investment required to maintain the asset in its current condition against the current level of investment. It should be noted that the current investment only includes the additional budget allocation for the current year that can be attributed to work that will improve the condition of the asset and not cyclic or reactive maintenance budgets. For information, the total Street Lighting budget is currently £28.93m, but the chart below only shows the allocation for this financial year.



Steady State Investment - £32.7m



Current Investment - £42.8m

2. Asset Condition and Investment Options

2.1 The ASOR contains details of current asset condition and investment options for all the road infrastructure asset categories. The following sections summarise the current condition indicators and preferred investment options for each of the main asset categories.

2.2 Carriageways:

- The latest condition data indicates that the condition of our carriageways slightly deteriorated to 69.4% of our carriageways in acceptable condition, however, this does mean that 30.6% or 593km of carriageway should be considered for maintenance treatment. Despite this deterioration of 1.4%, Glasgow continues to be one of the best performing Road Authorities in the country.

- There is a direct correlation between customer satisfaction and public pothole reports. Extreme winter weather and more frequent summer rain events have a detrimental impact on the number of public pothole reports received and, therefore, customer satisfaction. The latest data indicates that satisfaction with roads maintenance has increased slightly to 15% and we saw a decrease in public pothole reports to approximately 15,000.

- The level of investment has been continually under the steady state value. 2025/26 is the first year since 2013/14 that allocated investment has been above the steady state value. Sustained increased investment will provide greater network resilience and resistance to potholes.

- To enable Glasgow City Council to further improve its performance, an investment to £12.35 million per annum, sustained over a ten-year period, would improve condition, reducing the ongoing cost of maintenance to £10.8 million per annum thereafter.

- It is significant to note that the overall cost of the recommended improvement plan is less than the cost to preserve steady state. It is cheaper to intervene early in the material lifecycle than to wait until more extensive repairs are

required and a fairly small increase in investment now will save a substantial amount of money in the future.

2.3 Active Travel Infrastructure:

- Significant investment has been made in footways and cycleways through City Deal projects and active travel schemes throughout the City.

- Footways are vital for nearly all journeys but are particularly important for the most vulnerable in society who may not have easy access to private or public transport. The most recent footway condition data indicates that 87% of our footways are in either good or fair condition. 0.4% (approximately 13km) of our footways exhibit major or structural deterioration and 12.6% (approximately 393km) exhibit minor deterioration such as cracking.

- An annual investment of £2.08m per annum would maintain the existing condition of our footway network. This is comparable to the current investment of £1.95m for 2025/26.

- Latest condition data indicates that 94% of the primary cycle network is in good or fair condition.

- This new infrastructure requires increased inspection, maintenance and winter gritting as well as different plant and machinery to maintain it. The bespoke routine and cyclic maintenance, including more frequent sweeping and gritting, along with the use of more expensive materials, adds a significant burden to existing resources and revenue budgets. As the cycle network continues to grow it is essential to increase future revenue budgets to meet maintenance requirements.

- An annual revenue investment of £80k would enable the required levels of gritting, sweeping and surface maintenance to be carried out. Investment under this level would lead to a reduction in the condition of the cycle network.

2.4 Road Drainage:

- Our road drainage systems comprise of approximately 74,000 gullies (stanks), 2,500km of road drains, countless manholes, pumps, kerb drains and a variety of Sustainable Drainage Systems (SUDS). These assets form an integral part of the public road and are a vital component in preventing costly damage to our road network, ensuring public safety on our roads and preventing property damage due to flooding.

- Our neighbourhood gully programme has been hugely successful and has been well received where it has been delivered. These neighbourhoods have seen a reduction in flood reports, supporting resident mobility, whilst also improving the look and cleanliness of the local environment.

- An increase in revenue investment to £1.4m is required to deliver cyclic maintenance of our flood and arterial gully routes at the existing frequency as well as the neighbourhood gully programme on a 2 yearly cycle.

2.5 Street Lighting:

- Approximately 49% of Glasgow's 74,000 street lighting columns remain beyond their Expected Service Life (ESL). This is a significant issue as the deteriorating condition of the infrastructure poses an increasing risk to public. To mitigate this risk an increased inspection regime has been implemented to identify and pro-actively remove columns in the poorest condition.

- A Risk Management Strategy has been implemented to ensure that ongoing maintenance (electrical and structural) is prioritised in accordance with the risk it poses and that those columns most at risk of failure are identified and replaced.

- Although the recent Street Lighting investment has been significant in comparison to previous years and the current level of investment of £28.93m is enabling replacement of our poorest condition assets. The average level of investment is still below the £7.14m steady state figure required to maintain the infrastructure in its current condition on an ongoing basis. There is a need for increased long term investment to address the ageing profile of the lighting assets. If we continue at the current level of investment, the age profile of the columns will continue to deteriorate and the risk of injury by column collapse or exposure to electrical wiring will increase as over 60% of lighting columns will exceed their expected service life by 2033.

- Investment of approximately £10.6 million per annum over 15 years is required to replace up to 37,000 'at-risk' columns and associated cabling which will result in a substantial improvement in infrastructure condition.

2.6 Traffic Signals:

- There are over 913 traffic signal installations in Glasgow with approximately 49% assessed as needing replacement.

- Current level of investment remains below the steady state value. An annual investment of £4.5m is required to maintain the current condition of the asset.

- An investment of £27.5 million over 5 years should be considered to replace all ageing installations and provide modern low energy LED lights along with fully compliant tactile paving and indicators to support vulnerable road users.

2.7 Traffic Signs, Lines & Street Furniture:

- The Council is responsible for the maintenance of a substantial signs, lines and street furniture asset.

- Our bus corridors require the refreshment of road markings and associated signage to enforce contraventions, reduce congestion and improve journey times for passengers which will support the delivery of sustainable transport and travel.

- An investment of £2.9m, over a period of 5 years, would enable the refresh of road markings and the replacement of all signs and poles on the 20 bus corridors within the City.

2.8 Structures:

- The Council is responsible for maintaining 408 bridges and other structures throughout the City. Overall condition is rated as 'Good', but the most critical elements are rated as 'Poor' which indicates that there is risk of deterioration if maintenance work is not undertaken.

- Maintenance priorities are targeted to ensure structures remain safe, serviceable and useable.

- To strengthen and repair the structures in the worst condition, an annual investment of £4.5m is required for a 20 year cycle. Medium and long term programmes would allow the removal of lane and weight restrictions throughout the City and improve the condition of the asset.

2.9 Clyde Tunnel:

- The Clyde Tunnel and its approaches require significant investment to address necessary repairs to operational infrastructure and structural issues.

- The funding Glasgow receives for the operation and maintenance of the Clyde Tunnel is the same amount per kilometre as for a standard stretch of local road. Due to the operational and regulatory requirements of the Tunnel this equates to annual shortfall of approximately £860,000.

- The ASOR identifies the key prioritised investment needs for the Tunnel currently totaling £8.53m.

3. Carbon Reduction

3.1 Several investment options and initiatives in the different asset categories have carbon reduction benefits;

- We are aiming to reduce the environmental impact of road surfacing operations. Much of the material removed is already recycled back into road materials and officers are actively pursuing the use of new 'warm mix' asphalts which significantly reduce the carbon footprint, potentially reduce disruption and improve road worker safety (through materials having reduced temperatures) whilst having no negative effect on long term durability.

- LED streetlights consume significantly less energy than traditional incandescent lamps. All column replacements will include the installation of new LED lanterns. This will improve the efficiency of the lighting network and contribute towards the Council's corporate sustainability objectives by reducing energy consumption and carbon emissions. However, it is worth noting that due to continually increasing energy costs, the reduction in energy consumption is not expected to lead to a reduction in energy costs. It is predicted that energy costs will continue to rise for the foreseeable future, therefore the installation of LED lanterns will result in an element of cost avoidance

- Investment in LED traffic signals will similarly reduce energy consumption.

- New dual fueled low carbon interchangeable Winter Fleet.

- Trial of a Hydrogen fueled multifunctional tractor used for planing and de-icing.

4. Climate Adaptation

4.1 Flood risk and climate change present a significant environmental risk to the City. Glasgow City Council is proactively working in partnership with key stakeholders in the Metropolitan Glasgow Strategic Drainage Partnership (MGSDP) to deliver a programme of drainage schemes targeting areas of the city where rainfall adversely impacts communities. These schemes will reduce flood risks and impacts on homes, businesses and travel corridors, improve water quality, bring greenspace improvements and increase drainage capacity.

4.2 It should also be noted that floods are not always due to blocked gullies. During periods of intense rainfall, the underlying capacity of the sewer network may be insufficient to cope with the volume of water and sewers may back up through the gullies. Seasonal leaf fall is also a common source of complaints when leaves clog up gully grates preventing floodwater from draining. This is an issue which can be greatly reduced with the assistance of the residents themselves by clearing leaves in the vicinity of their property and we are pleased to offer advice and assistance to any residents wishing more information and even basic equipment to do this.

4.3 Sustainable Drainage Systems (SUDS) provide an environmentally friendly method to manage surface water and aim to control the flow, volume and frequency of surface water and prevent pollution by intercepting silt and runoff. New SUDS infrastructure, such as; rain gardens, swales, basins, ponds or tree pits, have been installed as part of the expansion of the cycle network and the continued City Deal programme. This infrastructure requires increased inspection and maintenance as well as different plant and machinery to maintain it. We are monitoring the maintenance costs of early schemes to more accurately quantify the increased costs of maintenance and expect to include this in a future ASOR.

5 Policy and Resource Implications

Resource Implications:

Financial:	Investment options are detailed within the report.
Legal:	None
Personnel:	None
Procurement:	None
Council Strategic Plan:	Investment in road infrastructure supports the delivery of sustainable transport and travel, becoming a net zero carbon city and the creation of safe, clean and thriving neighbourhoods. This report is aligned to CSP Grand Challenge 3 Mission 1 and Mission 2 as well as Grand Challenge 4 Mission 1.

Equality and Socio-Economic Impacts:

Does the proposal support the Council's Equality Outcomes 2021-25? Please specify.	Yes
What are the potential equality impacts as a result of this report?	No significant impact, positive impact or negative impact.
Please highlight if the policy/proposal will help address socio-economic disadvantage.	The preferred investment options presented within the report are expected to have a positive impact, particularly on those with physical disability and sensory impairment.

Climate Impacts:

Does the proposal support any Climate Plan actions? Please specify:	The proposal supports the Climate Plan through the improvement of infrastructure for walking and cycling. Under Theme 3 of the plan, the proposal will support decarbonisation of transport systems by helping to improve infrastructure for walking, cycling, wheeling and reducing the need to travel.

What are the potential climate impacts as a result of this proposal?	The impacts of this proposal will have a positive impact in assisting the Council in addressing climate issues.
Will the proposal contribute to Glasgow's net zero carbon target?	Yes, the proposal will contribute to Glasgow's net zero carbon target.
Privacy and Data Protection Impacts:	None

6 Recommendations

6.1 It is recommended that committee notes the issues and investment options detailed in the Annual Status & Options Report 2025 (Appendix 1) as this information feeds into both the Council's budget setting process and programme monitoring.