

RURAL ECONOMY AND CONNECTIVITY COMMITTEE

PRE-BUDGET/FINANCIAL SCRUTINY ON ROADS MAINTENANCE IN SCOTLAND

SUBMISSION FROM GLASGOW CITY COUNCIL

Background

Glasgow City Council is responsible for maintaining 1,906 km of carriageways, 3,126 km of footways, 277km of cycleways along with associated infrastructure including over 70,000 street lights, over 75,000 drainage gullies, around 2,500 km of drainage pipes, nearly 900 traffic signal installations, and over 400 structures. In addition, the Council operates and maintains the 762m long Clyde Tunnel, which is the busiest non-trunk road in Scotland carrying around 65,000 vehicles per day.

Funding for operating, maintaining and improving the various roads assets comes mainly from Scottish Government Grant funding through the Grant Aided Expenditure formula. This is supported by locally raised revenue from council tax.

In line with best practice, Glasgow City Council has a well developed roads asset management plan and considers an Annual Status and Options Report (ASOR) covering all of the roads asset categories to inform budgeting decisions. However, with funding for education and social care being prioritised, councils have to make increasingly difficult choices and this has resulted in disproportionate funding reductions for other services including roads. A recent report from the Road Maintenance Strategic Action Group identified that spending on local roads has declined by 26% in real terms across the past five years. On current forecasts, this is likely to worsen in the foreseeable future.

1. How have recent spending decisions on roads maintenance affected the quality of Scotland's roads, road users, businesses, public services, and the economy?

Summary

Decades of under investment in roads infrastructure has resulted in deterioration of all roads asset groups. In particular, there has been significant deterioration of street lighting assets, drainage systems, traffic signals and critical infrastructure such as bridges.

As a result, road users and businesses have seen reduced levels of service and increased disruption, congestion and costs through reactive unplanned repairs.

Public services have been depleted, expertise has been lost through staff cuts, it is increasingly difficult to attract new talent into the roads sector and in some specialist areas, there is no longer enough expertise to maintain a resilient service.

Carriageways

Carriageway condition is measured by the Scottish Road Maintenance Condition Survey (SMRCS).

Whilst measured carriageway condition in Glasgow has improved steadily in recent years, there remains an underlying risk from structural deterioration. As road surfaces age, the bitumen degrades and begins to crack. Initially, these cracks are not visible but they allow water ingress and through time they increase in size and depth. In winter, the water in these cracks freezes, expands and causes accelerated damage to the surface. Eventually, the surface breaks up and potholes appear. So aging road surfaces are more likely to suffer from accelerated deterioration in winter.

This accelerated deterioration was most recently illustrated by the severe winter conditions in 2017/18 where ageing road surfaces suffered badly from repeated freeze/thaw events leading to a dramatic increase in potholes in a short space of time.

It is estimated that to maintain carriageway condition at current levels in Glasgow would require annual investment of £12.9 million (the so called 'steady state' value). However, expenditure on carriageways in Glasgow is currently around 80% of the required steady state value meaning that condition will start to deteriorate.

This will particularly impact motorists, bus users and cyclists as running surfaces become poorer. The deterioration will lead to an increased requirement for reactive and emergency repairs, particularly if there is a bad winter. This in turn will lead to increased disruption as such works cannot be planned in advance.

Footways and Cycleways

The focus on carriageway condition can mean that other asset groups can receive less attention. However, Glasgow City Council has attempted to maintain the same level of funding in terms of the proportion of steady state for maintenance of footways/cycleways. Footways are of vital importance to all - every journey begins and/or ends on a footway. Whilst it is true that footways deteriorate more slowly than carriageways, defects can have a disproportionate effect on the most vulnerable people in society. In particular, disabled people and elderly people can have significant issues with poor condition of footways.

The steady state value to maintain footways in current condition is estimated to be £1.9 million per annum.

The recent and ongoing significant investment in active travel schemes is delivering real benefits in Glasgow. For example, the number of active commuters cycling to work in Glasgow has increased by over 200% since around 2010. However, the new cycling infrastructure demands increased cyclic maintenance for example for sweeping and vegetation clearance which is rarely specifically funded. Without investment in cyclic and routine maintenance of cycling infrastructure, the benefits will be reduced.

Road Drainage Systems

Road drainage is a vital part of the road system. Failure to maintain results in compromising the integrity of the road structure and significant disruption during increasingly frequent high intensity rainfall.

Unfortunately, condition of drainage assets is not routinely collected and the scale of the problem is not quantified. However, with the constant budget reductions, there is increased pressure to reduce maintenance spend on drainage.

Street Lighting

Street lighting has suffered from ageing assets and years of under investment. In Glasgow, over 40% of columns are beyond their expected service life. Around 40% of lighting is serviced by aging cable systems and 30% employs overhead cables which are more prone to faults. Glasgow City Council is having to manage the risks and as a result is investing in column renewal targeting the most high risk column types. However, this requires significantly higher levels of investment than simply replacing the lanterns and funding is not sufficient to tackle aging cabling systems.

This inevitably means that there is an increasing risk of dark lamps which has impact on local communities from a road safety and crime prevention perspective.

This is a particular issue for urban authorities where the density of street lights is greater than in rural areas.

Traffic signal systems

The number of traffic signal installations has increased dramatically over the past 30 years or so. In Glasgow, around half of the nearly 900 signal installations are at the end of their life and require replacement. Around 17% are at a critical stage requiring immediate replacement. The steady state value to maintain at current condition is £3.2 million per annum and £11million is required to replace the assets in need of urgent replacement.

In the city environment, traffic signal and intelligent control systems provide road safety benefits and are vital to ensure that congestion is managed in a way that can minimise pollution. Many installations provide vital crossing facilities for cyclists and pedestrians.

Under investment has led to increased failures and incidents which not only cause disruption, potential safety issues but could also increase local air pollution. This is a particular issue for the larger cities and conurbations as the current funding mechanisms do not adequately reflect the much greater level of traffic control infrastructure provided in these areas.

Structures

Bridges carrying roads are critical infrastructure which, when a failure occurs, is often catastrophic both in the short term and in the longer term. Glasgow City Council inspects its structures in accordance with national guidelines and there are two key Bridge Stock Condition Indicators (BSCI) – the BSCI

Average which measures overall condition and BSCI Critical which measures the most deteriorated parts of the structures.

Glasgow's BSCI Critical indicator sits at 68 which indicates that there is potential for deterioration of elements of the structure if maintenance works are not carried out. The condition reflects the level of funding over the last few decades.

Current funding levels only permit prioritised repairs to make structures safe. Many structures cannot be fully refurbished due to lack of funding. In order to strengthen and repair only those structures in worst condition would require £20m per annum over 20 years – a total of £400m.

The end result is that there are several significant structures which have weight restrictions there is an increased risk of closure due to critical failures.

Clyde Tunnel

Glasgow has the only road tunnel in Scotland – the 762m long Clyde Tunnel. The Clyde Tunnel is the busiest stretch of non-trunk road in Scotland with approximately 64,000 vehicles using it each day. A previous independent study assessed the economic value of the Clyde Tunnel and concluded that it has local, regional and national importance. It also concluded that, if the Clyde Tunnel was closed to vehicles, there would be an unacceptable severe impact on the movement of people and goods in the Clyde Valley affecting the viability of commerce, industry and tourism.

The operational funding for Clyde Tunnel is not properly accounted for in the Grant Aided Expenditure (GAE) formula. Glasgow City Council (GCC) receives the same amount of funding for the Clyde Tunnel as a similar length of local road. This funding takes no account of the need for the Clyde Tunnel to be staffed 24/7, the maintenance of the two tunnel bores, safety equipment, the two ventilation buildings, operational control room and the office block. The current revenue funding shortfall is approximately £0.8 million per annum.

The Shieldhall overpass links the A739 Clyde Tunnel Expressway and the M8. The overpass is in very poor condition with wide spread and highly visible deterioration to significant parts of the structure, in particular the bridge deck supporting columns. The overpass is being closely monitored and it is currently restricted with no HGVs or buses permitted but there is a current emergency vehicle exemption. However, if the required £13.6M strengthening and refurbishment repairs are not undertaken timeously, the time will come when the overpass will need to be further restricted or eventually closed to all traffic.

GCC has serious and urgent concerns over the risk of major traffic congestion, the inadequate funding arrangement for the Clyde Tunnel, the need to secure capital funding for Shieldhall Overpass and for a national and local partnership approach to resolving these transport matters. GCC has invested significantly over the past 20 years to ensure the Clyde Tunnel's future is secured. However, recent budget settlements call into question whether or not GCC remains best positioned to provide a sustainable platform for this to continue.

2. If spending on roads maintenance continues at current levels, what could be the likely effects on the above groups?

As detailed above, current spending levels are not sufficient to maintain existing infrastructure in its current condition. Deterioration of infrastructure in all roads asset groups will lead to more reactive repairs, more disruption and congestion, potential safety issues and in the case of critical infrastructure, potential closures with widespread and lasting negative impacts on all of the identified groups.

There are particularly acute problems associated with years of under investment in Structures, Street Lighting and Traffic Signal systems which are at increased risk of critical failure. These are likely to have significant impacts on all road users, on local communities and the economy and, in the case of failure of critical infrastructure, the effects could be severe and long lasting.

3. How could any negative effects of reduced road spending best be addressed?

Reduced spending on road infrastructure cannot be sustained. The backlog of maintenance, considering all assets, is increasing along with the risks of critical failure. The questions should therefore be around how more funding could be provided and how funding can be more effectively targeted at key priorities.

The effective protection of budgets for Education and Social Care creates pressures for local authorities which make prioritising expenditure on critical infrastructure difficult. The focus on carriageway condition over the past decade or so has tended to mean that other asset groups are disproportionately underfunded. Consideration should be given to ring fenced funding for critical infrastructure maintenance.

At the national level, significant funding has been available for new infrastructure over the past decade. The draft National Transport Strategy now accepts that we should prioritise maintaining the infrastructure we already have. The time has come to shift the balance of available funding to prioritising maintenance of critical roads infrastructure, much of which is on local roads.

Consideration should be given to the differing funding requirements of urban and rural authorities, particularly in relation to the amount of traffic and resulting damage to roads, the density of street lighting and traffic control infrastructure, and any critical infrastructure.

The current system of annual budget setting creates considerable uncertainty and significantly hampers planning and resourcing in the roads sector. This creates problems both within local roads authorities and throughout the supply chain and is a major disincentive to invest in new technology which could improve efficiencies and quality. These issues have been recognised for a long time in the roads sector and Highways England has moved to a five year budget in order to address this.

4. Is the current model of funding and delivering roads maintenance, which is split between Transport Scotland and local authorities, the most economic and efficient option?

Motorways and trunk roads make up just 6% of the Scottish road network length but receive over 38% of the total spend on road maintenance in Scotland. The spend per kilometre on trunk roads is nearly 10 times the spend per kilometre on local roads (Audit Scotland, 2016).

Our estimates suggest that to maintain carriageways in Glasgow to the same level as trunk roads (i.e. aiming for 13% requiring maintenance treatment), expenditure would have to increase by over 300% to £24million per annum. The imbalance between trunk road funding and local road funding needs to be urgently addressed.

The Scottish Road Research Board has commissioned research into the value of local roads and the results of that research, due to be available later this year, are eagerly anticipated.

The draft National Transport Strategy contains a commitment that further work should be undertaken to develop a regional model for transport governance. SCOTS and CoSLA support the view that the current arrangements are not optimal. Glasgow City Council has not yet considered this nor adopted a formal position in regards to this issue.