

Transport and Environment Committee

10.00am, Thursday, 22 April 2021

Intelligent Traffic Signals – Variable Message Signs

Executive/routine
Wards
Council Commitments

1. Recommendations

- 1.1 It is recommended that Transport and Environment Committee:
 - 1.1.1 Notes the current status of the Variable Message Signs (VMS) and Car Parking Guidance Signs (CPGS) across the city;
 - 1.1.2 Notes the plans being developed to remove and upgrade VMS as part of the Council's Smart Cities programme and to remove the CPGS as part of the Spaces for People programme; and
 - 1.1.3 Discharges the motion by Councillor Webber from Transport and Environment Committee on 12 November 2020.

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Executive Director of Place

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Intelligent Traffic Signals – Variable Message Signs

2. Executive Summary

- 2.1 This report summarises the existing arrangements for Variable Message Signs (VMS) across the city and Car Parking Guidance Signs (CPGS) in the city centre. The report also sets out plans to remove all of the CPGS, as part of the Spaces for People programme, and to remove or upgrade existing VMS signs. Alongside the upgrade of some existing signs, a new Common Database will support the dissemination of travel information in a variety of ways.

3. Background

- 3.1 On 12 November 2020, Transport and Environment Committee approved the following motion by Councillor Webber:
- 3.1.1 Committee notes:
- 3.1.1.1 As part of its traffic information system a series of large Variable Message Signs throughout Edinburgh;
 - 3.1.1.2 Some do not appear to be working and many appear underused;
 - 3.1.1.3 The contribution these installed Variable Message Signs can make to traffic flow, limiting unnecessary journeys and improving the visitor experience in Edinburgh; and instructs
 - 3.1.1.4 A report in two cycles clarifying the extent, use, condition and plans for the Variable Message Sign system in Edinburgh. The report should clarify, where appropriate, reasons for lack of use of these signs.
- 3.2 VMS are road signs strategically placed on the road network which display text that can be altered remotely to alert drivers of various conditions on the road ahead. The intention of these signs is to inform the travelling public and assist them in finding optimum routes through the city.
- 3.3 CPGS display real time information on the number of car parking spaces available within the city's car parks, informing and directing car drivers.
- 3.4 The Council's policy is to promote travel options in line with the Transport Hierarchy, but the provision of VMS and CPGS systems mainly benefits motorised

vehicle users with these signs being generally unused by those that use more active modes of transport or public transport.

4. Main report

Existing VMS

- 4.1 There are currently 32 VMS and 20 CPGS in the city. The first of these were installed in 2006, with the most recent additions being installed in 2011.
- 4.2 The VMS were installed with the intended purpose of alerting drivers to conditions on the road ahead such as roadworks, congestion, hazards and weather warnings. This enables drivers to change their route or modify their driving behaviour. This type of travel information has potential benefits such as reduced local vehicle emissions, reduced travel times for drivers and improved safety.
- 4.3 Unfortunately, the maintenance period was only for 12 months from installation of the VMS and it has not been possible to extend the maintenance as there have been numerous faults with the light-emitting diode (LED) boards and power supplies. These faults coupled with the lack of maintenance means that it is not possible to operate the VMS across the city.

Existing CPGS

- 4.4 Similar issues, relating to the LED boards and power supplies were also encountered when the CPGS were installed in the city centre, and there were also issues with the receipt of third party data relating to the number of car parking spaces.
- 4.5 The location of the CPGS, which are positioned exclusively within the city centre, means they can have a negative impact on the flow of pedestrians in areas of busy footfall.
- 4.6 The Council, as part of the Spaces for People programme, in partnership with Living Streets, will be removing all 20 CPGS within the city to free up footway space. Therefore, their removal will provide great benefits in terms of the promotion of active travel modes whilst not adversely affecting car drivers.

Next Steps

- 4.7 Since these signs were installed in 2006, technology has advanced significantly, particular for in-car information and guidance systems, and alerts to smartphones. This provides an opportunity to modernise the way that traffic information is shared and to also to expand the service to cater for all other transport users, including active travel.
- 4.8 As part of the Smart Cities programme it is planned to conduct an assessment of the current VMS stock and to remove the least useful of the signs, while retaining a small number of strategically placed signs. The VMS will be removed if they are not considered to be located at a significant driver decision point on the network.

- 4.9 The Smart Cities programme has received funding from the European Regional Development Fund (ERDF) to upgrade the VMS which are strategically located. These can then be linked to a new common database system.
- 4.10 The Common Database is a digital platform which brings together all traffic/environmental sensors/data and travel information systems and provides greater opportunities to optimise the journeys of Edinburgh's citizens and visitors. Procurement of this new Common Database system gives the Council an opportunity to modernise and expand the Travel Information System, prioritise active travel and better engage with all road users to enable them to plan their journeys more effectively and will allow automatic alerts to be sent to the VMS and to smartphones and in-car information systems across the city at the same time.
- 4.11 This system will also enable facilities such as text to speech to transmit travel information in the future via digital communication systems, reaching more road users and not relying upon travellers passing a specific location on the road network.
- 4.12 The technology available to assist motorised vehicle users in finding car parking spaces has also changed significantly since 2006. It is now common practice to book a car parking space on a smartphone and to be able to receive directions to the car park via the same device. This technology effectively replaces all the functionality intended by the CPGS and makes the associated physical infrastructure redundant.
- 4.13 The Edintravel Travel Information Service operates from 7am to 7pm on Twitter every weekday and travel information updates are sent from this service to all followers. It is envisaged that this service will continue to support the dissemination of travel information for the city.

5. Next Steps

- 5.1 The removal of the CPGS is planned to be completed by mid-May 2021.
- 5.2 The system changes, as part of the ERDF Smart Cities programme, are due to be completed by September 2022.

6. Financial impact

- 6.1 There are cost implications in removing the existing VMS and also in terms of upgrading and refurbishing the remaining VMS sites.
- 6.2 To progress with the removal and upgrading of the VMS as part of the Smart Cities programme, 60% of the funding must be in place, to be matched by 40% funding from the ERDF.
- 6.3 The total cost of this work is estimated to be £30,000, therefore a budget of £18,000 would be required. Council officers are working to identify potential funding sources to meet these costs.

- 6.4 If secured, the match funding of £12,000 from ERDF can be applied.
- 6.5 The funding for the removal of the CPGS has already been secured under the Spaces for People programme, therefore no additional funding is necessary.

7. Stakeholder/Community Impact

- 7.1 Living Streets have been consulted as part of the removal of the CPGS and will be involved in decisions relating to rationalisation of the VMS.
- 7.2 The removal of these large signs will have a significant positive benefit in terms of enhanced footway space and will also have a positive visual impact.

8. Background reading/external references

- 8.1 None.

9. Appendices

- 9.1 None.