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## 4a Anderson Drive – Locking in the Benefits Study

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- Purpose of Report

The purpose of this report is to inform members of the Anderson Drive Locking in the Benefits Study, which has been completed and a draft report submitted for consideration. The full draft study report can be viewed on the Nestrans Member's site and approval is being sought to finalise the study and publish it on the Nestrans website.

- Background

The Regional Transport Strategy notes the importance “that the connectivity and accessibility benefits that the [Aberdeen Western Peripheral Route] AWPR will bring are fully realised, and that the opportunity is taken to ‘lock-in’ improvements to congestion and journey times to ensure that these are not eroded through additional traffic growth”.

A consultants' report entitled “Optimising the Benefits of the AWPR” was previously considered by the Nestrans Board in February 2008. This study identified measures that are only achievable with the AWPR in place and suggested others for further investigation that could be progressed to achieve a more sustainable network for the longer term. Since that time further detailed consideration has been given to specific measures that could be implemented and this has included:

- A90/A96 Haudagain Junction improvement (STAG agreed by Board in June 08 and preferred option agreed with ACC and commitment given by S Gov for implementation)
- Park & Choose sites being progressed on A96 and A90 (S)
- Trial HOV lane identified for Stonehaven Road northbound between Charleston and Cairngorm Road (study agreed by Board in Oct 09 and remitted to ACC and Transport Scotland)
- Infrastructure measures implemented in support of Union Street Pedestrianisation proposals, including VMS and car park guidance system, College Street and South Market Street improvements and footway widening on south side of Union Street
- Aberdeen City Air Quality Action Plan developed

The current study has been funded through the Nestrans revenue budget and has looked at the opportunities for measures that could be implemented on Anderson Drive as a result of the relief afforded by the AWPR to ensure that it is protected from future traffic growth.

- Consideration

The study has investigated opportunities at 2 sections of the corridor where there are existing traffic signal controlled junctions. Options have been tested using

Paramics microsimulation models. The Great Western Road model has been used to investigate opportunities at the A90 Anderson Drive/A93 Great Western Road junction and the Westburn Road Model has looked at opportunities on Anderson Drive at the junctions with Mid Stocket Road, the A944 Westburn Road/Lang Stracht and Ashgrove Road West. The aim of the work was to investigate the feasibility of providing greater priority for east – west traffic on the radial routes to and from the City Centre that cater for public transport given the relief to the north – south flows on Anderson Drive as a result of vehicles diverting to the AWPR. The potential to improve pedestrian safety and encourage active travel through the introduction of crossing facilities where they do not currently exist was also examined.

Base models were created that were validated to 2010 network flow levels and a future year scenario was informed by link flow data from the Aberdeen Sub Area Model (ASAM) to reflect strategic routing changes as a result of the AWPR and proposed signal changes within the modelled areas to lock in the benefits.

Incremental changes to increase the green time to the east – west routing traffic whilst decreasing the green time given to north – south traffic were tested on the Great Western Road model until traffic queuing and delay on Anderson Drive reached a point that was no worse than that occurring within the 2010 base model. The results showed that lower east-west journey times of approximately 60-120 seconds could be achieved in the AM and 75-100 seconds in the PM peak periods as a result of the amended signal times, with improvements also being made to bus journey times.

The Westburn Road model was used to test the impact of providing a pedestrian crossing phase at the Westburn Road/Anderson Drive junction as well as incremental increases to east-west green time. This would be a significant safety improvement for pedestrians at this location as there is currently no pedestrian provision across any of the arms at this junction. An all round pedestrian crossing can be achieved along with westbound journey time savings in the PM peak period. An alternative walk-with pedestrian facility was also tested. This would require infrastructure changes, but would provide slightly higher traffic capacity at the Westburn Road/Anderson Drive junction although some of the benefits on the Anderson Drive corridor are reduced due to the all-round pedestrian crossing stages at the Ashgrove Road West and Mid Stocket Road junctions.

A test was undertaken to look at the effect of introducing bus lanes on Anderson Drive. It was predicted that this would cause significant delay within the area of the Anderson Drive/Great Western Road junction, but there is network capacity and more potential for this to be introduced on the Westburn Road model, although traffic queue levels would be higher than experienced within the 2010 base model.

It is suggested that further assessment be undertaken and the optimum signal time settings from this study be incorporated into the strategic ASAM model to assist in further development of a full Anderson Drive corridor strategy. It is therefore proposed that funding to continue with the identification of measures to lock in the benefits of the AWPR will be included when draft budgets for 2013/14 are prepared for future consideration by the Nestrans Board.

- Recommendations

It is recommended that the Board:

1. Note and approve the principle of the findings within the draft study to allow the report to be finalised and published.
2. Remit the study to Aberdeen City Council for consideration along with a recommendation that the proposed changes to the existing signalised junctions on Anderson Drive at Great Western Road and Westburn Road be progressed for implementation so that they are in place for the opening of the AWPR.

JA/30 November 2012