



SHEFFIELD CITY COUNCIL Cabinet Highways Committee

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Report of: EXECUTIVE DIRECTOR, PLACE

Date: 10th February 2011

Subject: Meadowhead Traffic Scheme Review

Author of Report: Dick Proctor, Tel. 0114 273 5907

Summary:

This paper reviews the continuing concerns regarding the operation of the A61 Meadowhead main road as it approaches Woodseats. It concludes that the current traffic control arrangements are too complex and not supported by residents and drivers; and that the available space on Meadowhead is not being used effectively. Changes are proposed which will not materially affect bus operations but which will be much more acceptable to the public

Reasons for Recommendations:

The current layout does not “feel right” to drivers because it is unconventional and seems to artificially restrict traffic at a location where there is plenty of road space. Changes are proposed which will not materially affect bus operations but which will be much more acceptable to the public.

Recommendations:

Members are recommended to:

- 1) Endorse the review work undertaken to date, including assessing the feasibility and implications of providing a “continuous” second traffic lane from Abbey Lane back to the Morrisons junction and beyond, removing the pre-signals and providing speed activated warning sign(s) and other modifications;
 - 2) Support seeking Local Transport Plan funding to make the proposed changes as part of ongoing transport capital programme discussions.
 - 3) Receive a further future paper on the parking and side road arrangements within Woodseats district shopping centre.
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Background Papers: N/A

Category of Report: OPEN

Statutory and Council Policy Checklist

Financial Implications
YES Cleared by:
Legal Implications
NO Cleared by:
Equality of Opportunity Implications
NO Cleared by: Ian Oldershaw
Tackling Health Inequalities Implications
NO
Human rights Implications
NO
Environmental and Sustainability implications
NO
Economic impact
NO
Community safety implications
NO
Human resources implications
NO
Property implications
NO
Area(s) affected
Woodseats/Meadowhead/Abbeydale
Relevant Cabinet Portfolio Leader
Cllr Ian Auckland
Relevant Scrutiny Committee if decision called in
Culture, Economy & Sustainability
Is the item a matter which is reserved for approval by the City Council?
NO
Press release
NO

MEADOWHEAD TRAFFIC SCHEME REVIEW

1.0 SUMMARY

- 1.1 This paper reviews the continuing concerns regarding the operation of the A61 Meadowhead main road as it approaches Woodseats. It concludes that the current traffic control arrangements are too complex and not supported by residents and drivers; and that the available space on Meadowhead is not being used effectively. Changes are proposed which will not materially affect bus operations but which will be much more acceptable to the public.

2.0 WHAT DOES THIS MEAN FOR SHEFFIELD PEOPLE

- 2.1 The process involved has recognised the ongoing concerns of Sheffielders for how a busy main road operates. Changes are proposed which will be more conventional and less restrictive, and hence much more acceptable to the travelling public. This review has aimed to genuinely determine the best way forward.

3.0 OUTCOME AND SUSTAINABILITY

- 3.1 The proposal described here aims to contribute to the following priorities in the Council's Corporate Plan:
- Local voice – priorities influenced by local people.
 - Customers as individuals – needs of individuals within communities will be considered.
 - Tackling congestion – by providing a more flexible, more understandable form of traffic control
 - Public Transport that is easier to use – by providing more transparent operating conditions and priority systems which are available to all operators.

4.0 REPORT

- 4.1 The current arrangements were designed as part of an overall package of proposals for A61 Chesterfield Road, to contribute to a range of improvements including bus operations; general traffic operations; improvements for pedestrians, road safety and drainage within Woodseats shopping centre; and general maintenance improvements to the Corridor.
- 4.2 This corridor is part of the Council's strategic road network and it serves as a major gateway into Sheffield from Derbyshire and the South. It is also one of South Yorkshire's Congestion Target Routes which form the core of how 'congestion performance' has been monitored for the last five years as part of the Council's Corporate Plan.
- 4.3 The main constraint on traffic capacity is the "pinch-point" effect of Woodseats shopping centre. Without a drastic impact on the centre itself, the biggest improvements to journey times could only be achieved by bypassing the centre. A bypass for Woodseats was considered by the Council in the 1980s but not supported due to concerns raised by traders. The idea is still theoretically an option but is extremely unlikely to be affordable in the foreseeable future, and was discounted from the Target Route work.

- 4.4 The overall package of improvements was therefore designed around Woodseats continuing to be a constriction on the operation of Chesterfield Road. Most key radial routes into the city employ peak hour clearways to maximise capacity of the corridor, this had previously not proved successful within Woodseats. A secondary issue was a history of speed-related accidents occurring at and around the Abbey Lane junction.
- 4.5 The solution that was adopted in the scheme which was completed in 2007 aims to control the amount of traffic travelling through the centre of Woodseats at busy times. Traffic signals are used at each end with timings which vary by time of day and in response to how busy traffic is. The aim is to keep traffic moving through the centre (albeit slowly at busy times), to permit pedestrians to cross the road and shoppers to park throughout the day. In each direction buses are able to bypass queuing traffic. For northbound traffic a set of “pre-signals” hold back vehicles that otherwise would form a queue from the traffic signals at Abbey Lane, at a point where buses can get to the head of the queue by means of a second, bus-only lane. Between the pre-signals and the Abbey Lane junction the carriageway was reduced to a single lane to allow all day parking, a cycle lane, and a pedestrian refuge to be installed near the Church. This system is known as Queue Relocation and was recommended to the Council by consultants employed in developing traffic proposals for the corridor. The system has been used successfully at other locations across the UK. These pre-signals are coordinated with the traffic signals at the Morrisons supermarket, and linked to those at the Abbey Lane junction, giving the same amount of green time at both sets of signals.

Performance Review

- 4.6 As part of the broader Transport & Highways Service Review, three “critical friends” were asked to review the Meadowhead system – representatives from the Government Office for Yorkshire and the Humber (GOYH), the Highways Agency (HA), and the Sheffield branch of the Institute of Advanced Motorists (IAM). The HA asked their consultant Aecom to participate and provide technical expertise to the review. They visited the site and observed a morning peak period and the following inter-peak period, during which they spoke with drivers, shoppers and local business people. Aecom staff observed operation of the traffic management elements of the scheme and carried out a customer satisfaction survey.
- 4.7 Aecom produced a comprehensive document representing the views of all three critical friends, together with more detailed suggestions for some changes to the scheme. This review concluded as follows:
- the three signalised junctions were all functioning satisfactorily and the equipment was in good condition;
 - the bus gate operated effectively during observation and seemed to offer improved conditions for buses using the facility, but that press reports had indicated some erratic operation;
 - the five signalled crossings (within Woodseats) provided improved crossing facilities for pedestrians but impacted on the flow of inbound traffic, creating a stop/start situation and causing increased congestion.
 - there was queuing within the Woodseats district centre, which could be attributed to loading issues for both buses and delivery vehicles, overuse of the parking and delivery facilities and the contributory effects from the signalled crossings.

- 4.8 It was suggested by Aecom that two broad areas should be addressed in the future:
- A review of the signal timings and detection at the bus signals on Meadowhead to ensure they operate at their full potential and in order to isolate the cause of the reported erratic behaviour.
 - A review into the reduction of right turning and emerging traffic from minor roads within Woodseats District Centre, together with a review of the parking / loading areas to ensure adequate space for manoeuvrability for bus drivers and to reduce the impact on main route traffic flow (plus a further review of the scope for off-street parking for shoppers and businesses within a suitable distance from the centre in order to reduce conflicts that currently occur on Chesterfield Road within Woodseats).
- 4.9 Since then, despite the qualified conclusion from Aecom that overall the scheme has achieved the majority of the objectives it was designed to meet, it is clear that the arrangements on Meadowhead have remained very unpopular with the travelling public (to the point where they are seen as a key reputational issue for the Council). We have failed to explain properly how the arrangements are supposed to work, and because of this, drivers believe that queues are longer than previously, worsened by the two traffic lanes being reduced to one at Abbey Lane. It is not clear how the bus pre-signals work, or why both lights can be at red at the same time, and this is often made worse because the lights often do not work for Stagecoach buses (which are not fitted with detectors to trigger the lights on the bus lane to green).
- 4.10 It is now recognised that the traffic control is too complex, and that the available space on Meadowhead is not being used effectively. Specifically, the public are asking why have red signals for both buses and cars at the same time and why reduce the road down to one lane when there used to be two?
- 4.11 As described above, there was a history of speed-related accidents at the Abbey Lane junction before it was signalised, with a safety camera located on the downhill section of Meadowhead. The Queue Relocation signals were therefore set up so that when traffic flows are lower, both signals normally show red. When an approaching vehicle is detected as it is travelling past the Morrisons junction the signals begin to turn to green. Vehicles travelling within the 30mph speed limit reach the pre-signals as they change to green, those travelling faster have to slow down. The effect of this is to slow down fast moving traffic before it reaches the bend at Abbey Lane.
- 4.12 However, it is now felt that the nature of the corridor as a whole, and particularly the introduction of traffic lights at Abbey Lane, has changed the 'feel' of the downhill approach such that safety has improved and the "both lights at red" case could now be replaced by speed-activated warning signs.
- 4.13 Although traffic still needs to be managed as it approaches Woodseats, the reduction from two lanes to one - at a location where there is plenty of space - has not worked. The road layout does not "feel right" to drivers because it is unconventional and, it has to be said, it seems an unnecessary restriction.
- 4.14 Recent changes to the Abbey Lane junction have provided a short length of second lane for left turning traffic. Feedback from the local community is that this has been a great improvement. Left-turners have been delayed less without causing extra delays to buses or general traffic continuing straight on. The short length of single lane remaining between the pre-signals and the Abbey Lane junction has not changed the

sense of “it doesn’t feel right”, it has perhaps served to highlight it. Over this section of road there is therefore still scope for improvement, and this should now be explored.

Proposal

- 4.15 It is therefore recommended that the principle of providing a “continuous” second lane be investigated, for left turners and buses, from Abbey Lane back to the Morrisons junction and beyond, plus speed activated warning sign(s) and other modifications. Some early feasibility work has recently taken place and confirmed the basic scope for a second lane.
- 4.16 The outcome would be a road layout seen by drivers as being more conventional and less restrictive. This could be achieved without a material reduction in bus priority. It would assist those buses which do not have on-board selective detection equipment and get held by the lights, adding to the sense that “they don’t work properly”. The existing pedestrian refuge by the church may have to be removed (it was installed as part of the scheme) but work continues to explore options for retention of an island. A new speed management device would be installed. The downhill cycle lane would be replaced in its entirety by the extended left turn lane.

Relevant Implications:

- 4.17 **Financial:** The cost of the initial feasibility work (staff time) has been covered from Transport and Highways revenue budget. The detailed design and implementation would be funded from the 2011/12 Local Transport Plan funds. The allocation for 2011/12 has not yet been confirmed.
- 4.18 **Equality of Opportunity:** An Equality Impact Assessment has been conducted and concludes that the proposal will be of universal positive benefit to all local people regardless of age, sex, race, faith, disability, sexuality, etc. No negative equality impacts have been identified.

5.0 ALTERNATIVE OPTIONS CONSIDERED

- 5.1 Many alternative options have been considered over the years. As part of the current review of the approach to Woodseats, the options have been:
- 1) to investigate the principle of providing a “continuous” second traffic lane from Abbey Lane back to the Morrisons junction and beyond, leaving the existing pre-signals and speed management strategy in place;
 - 2) to investigate the principle of providing a “continuous” second traffic lane from Abbey Lane back to the Morrisons junction and beyond, removing the pre-signals and providing alternative speed management in the form of speed activated warning sign(s) together with other modifications;
 - 3) to leave the situation as it is after investigating the operation of the pre signals and the lights at the Morrison’s junction;
 - 4) leave the road layout as it is; remove the pre signals and have buses give way to general traffic at the end of the bus lane at the pre signal location.

6.0 REASONS FOR RECOMMENDATIONS

- 6.1 The current layout does not “feel right” to drivers because it is unconventional and seems to artificially restrict traffic at a location where there is plenty of road space. Priority has not been able to be given to buses which do not carry operating detector equipment. Changes are proposed which will not materially affect bus operations but which will be much more acceptable to the public.

7.0 RECOMMENDATIONS

- 7.1 Endorse the review work undertaken to date, including assessing the feasibility and implications of providing a “continuous” second traffic lane from Abbey Lane back to the Morrisons junction and beyond, removing the pre-signals and providing speed activated warning sign(s) and other modifications;
- 7.2 Support seeking Local Transport Plan funding to make the proposed changes as part of ongoing transport capital programme discussions.
- 7.3 Receive a further future paper on the parking and side road arrangements within Woodseats district shopping centre.

Simon Green
Executive Director, Place

11th January 2011