

## Report for Resolution

<b>Report to</b>	Norwich Highways Agency Committee 22 January 2009
<b>Joint Report of</b>	Head of Transportation and Landscape and Director of Planning and Transportation
<b>Subject</b>	Norwich Area Transportation Strategy Implementation – Newmarket Road Bus Lane Extension

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Item  
**7**

### Purpose

To ask members to approve the proposal to extend the existing bus lane from the City boundary to Unthank Road and to approve the formal advertisement of scheme related Traffic Regulation Orders.

### Recommendations

Members are recommended to:

- (1) approve for consultation the proposal to extend the existing bus lane from the City boundary to Unthank Road (Option 1) as shown on the plan provided in Appendix A.
- (2) agree to local community and stakeholder's consultation on the detailed proposals.
- (3) ask the Head of Transportation and Landscape and Head of Legal and Democratic Services to progress the necessary statutory procedures associated with advertising:
  - (a) the proposed change of use of the nearside inbound lane of Newmarket Road from the City boundary to Unthank Road for use by Buses, Taxis and Pedal Cycles, operating 24 hours a day, 7 days a week;
  - (b) the proposed change of operational time of the existing bus lane on Newmarket Road from Unthank Road to St. Stephens Roundabout to 24 hours a day, 7 days a week ;
- (4) discuss the merits of changing the 40mph speed limit on Newmarket Road.

### Financial Consequences

Scheme development and implementation will be funded by the Greater Norwich Development Partnership, using Department of Communities and Local Government Growth Point funding.

### Strategic Objective/Service Priorities

The scheme is part of the Norwich Area Transportation Strategy (NATS) implementation plan.

The report helps to achieve the corporate objective to make Norwich safe and secure, building strong and proud local communities and the service plan priority of improving safety on roads and providing realistic sustainable transport options.

This project supports the following County Council Service Plan objectives (2008-11):

**Corporate Objectives:**

- To improve travel and transport
- To protect and sustain the environment
- Customer focus

**Service Objectives:**

- Provide safe, reliable, accessible and affordable transport
- To promote the use of sustainable modes of travel for journeys to school and workplaces
- Reduce and adapt to the impacts of climate change
- Ensure easy access to information and services, however people choose to get in touch

**Contact Officers**

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**Background Documents**

West Norwich Bus Priority Study: July 2007 – Prepared by Mott MacDonald

Newmarket Road Proposed Bus Lane Assessment: December 2008 – Prepared by Mott MacDonald

# Report

## Background

1. At their meeting on 27 November 2008, members considered a report which informed them of the Norwich Growth Point schemes three-year programme up to 2010/11.
2. High quality public transport improvements in the Norwich area are an important element of the Greater Norwich Development Partnership Programme of Development. Improving public transport is also one of the major elements of the Norwich Area Transportation Strategy. Continued significant investment in public transport has resulted in greatly improved conditions for bus services and passengers, which has led to increases in bus patronage in the city. This is against a backdrop of general decline in patronage across the rest of the country.
3. There remain a number of pinch points across Norwich for buses, and continued investment will maintain the momentum in delivering the transport strategy. Several public transport improvements were identified during 2006/7 that would have a significant impact on improving journey time reliability along key radial routes in Norwich. These schemes have been included as part of the Joint Investment Plan (JIP) between the City Council, Norfolk County Council and First Group. The JIP provides an important opportunity to secure significant investment in public transport provision in Norwich by First.
4. At present, there are up to 26 buses per hour along the inbound section of Newmarket Road between the City boundary and Unthank Road, and this is set to increase with the possible proposed growth south west of the City. The majority of buses travelling inbound from the west of Norwich continue into the City Centre, but are delayed due to queues extending on the Cringleford side of the start of the bus lane at Unthank Road and thus imposing delays on buses before they reach the bus lane.
5. While this problem manifests itself mainly in the AM peak, there is potential for this to worsen when the impact of the Cringleford housing development, currently under construction, is taken into account. Examination of the BusNet data confirms there is a high variability in journey times experienced along this section of Newmarket Road during the AM peak and that congestion and delay for buses has increased between 2005 and 2008.
6. At present, one lane on the inbound dual carriageway section of Newmarket Road between Colney Lane and Bluebell Road (Cringleford Bypass) is hatched out, restricting traffic to one lane on the approach to the slip road from Bluebell Road. This was introduced as part of a Local Safety Scheme (LSS) in an attempt to reduce traffic speeds, whilst improving visibility at the junction of Newmarket Road with the slip-on from Bluebell Road.
7. Two options have been developed to reduce delays and improve journey time variability.

## **Option 1 – Continuous Bus Lane**

8. This proposal provides for an extended bus lane by realigning a section of both the inbound and outbound carriageway. Inbound buses would be able to bypass the end of the traffic queue by using the new bus lane. The hatched out inbound carriageway would be reinstated as a bus lane with a 3.65m traffic lane; the outbound dual carriageway would be reduced to a single lane width and the central reserve realigned to accommodate the inbound bus lane between Bluebell Road and Poplar Avenue. This option provides a continuous bus lane between the City boundary and St Stephens Roundabout as shown on the plan provided in Appendix A. A detailed scheme plan will be displayed at the meeting.
9. There would be benefits for 24 scheduled buses for 545 metres and 26 scheduled buses for 145 metres in the AM peak hour with reduced delays and reduced journey time variability. BusNet data for 2008 shows that average inbound bus journey times are typically 0.4 minutes (24 seconds) higher in the AM peak compared to the inter-peak and PM peak hours. This figure is considered to be a good indicator of the level of journey time savings that would be delivered by the bus lane under current traffic conditions. The potential time savings in future years are likely to exceed this figure due to the traffic impact of the housing development currently underway at Roundhouse Way, Cringleford.
10. The proposed bus lane extension would see the removal of the existing right turn lane into Unthank Road. The number of vehicles making the right turn are very low. Manual Classified Turning Counts undertaken on Tuesday, 9 December and Wednesday, 10 December 2008 indicate that in the AM peak (07:30-09:00) 10 cars made the right turn into Unthank Road, and in the PM peak (16:30-18:00) no cars made this manoeuvre.
11. The existing pedestrian refuge located close to the junction with Unthank Road would be relocated some 70 metres westwards close to Poplar Avenue. The refuge would be wider than the existing to accommodate crossing cyclists, and minor alterations would be made to off carriageway pedestrian and cycle facilities. Observations indicate the existing refuge is narrow and where cyclists wait to cross the carriageway, their rear wheel often extends beyond the refuge.
12. The order of cost estimate for Option 1 is £365,000.00 (Works and Fees)

## **Option 2 – Bus Gate**

13. This option was developed from an initial concept identified in the West Norwich Bus Priority Study. The proposal introduces 480 metres of bus lane and traffic signals on the inbound carriageway to create a bus gate which would give buses priority over vehicular traffic on the immediate approach to the slip-on from Bluebell Road. The bus lane would operate 24 hours a day, 7 days a week. Unlike Option 1 the bus lane is not continuous with the start of the existing bus lane at Unthank Road as shown on the plan provided in Appendix B. A detailed scheme plan will be displayed at the meeting.

14. The creation of the bus gate would require a new set of signals for inbound general traffic on Newmarket Road. The signals would briefly stop general traffic as buses approach the bus gate in the bus lane. This would be controlled through the use of Selective Vehicle Detection which would recognise an approaching bus and activate the signals accordingly, thus minimising delay to general traffic. A short stretch of segregated cycle lane would be constructed around the bus gate for cyclists.
15. There would be benefits for 24 scheduled buses for 480 metres in the AM peak hour with reduced delays and reduced journey time variability. As the bus lane would not be continuous, the benefits for Option 2 would not be quite as good as Option 1.
16. The order of cost estimate for Option 2 is £215,000.00 (Works and Fees)

## **Discussion**

17. There are benefits and disbenefits for both options.
18. Both options have been submitted for independent Safety Audit. The Safety Audit Team considers that Option 2 would increase the likelihood of vehicular conflicts over and above that of Option 1.
19. Option 1 would reduce delays and journey time variability for buses over and above Option 2
20. Removal of the LSS scheme may increase approach speeds for Option 1 outside the times of operation of the bus lane. This could however be mitigated by converting the entire bus lane along Newmarket Road to 24 hours a day, 7 days a week. This would have no significant effect on congestion for road users.
21. Option 1 would require the removal of the right turn lane into Unthank Road and the relocation of the refuge. The refuge island would be wider in its new location.

## **Use of bus lane by Norwich Freight Consolidation Centre vehicles**

22. At their meeting on 22 May 2008, members supported the introduction of a 12 month experimental Traffic Regulation Order (TRO) allowing the use of the inbound Newmarket Road bus lanes and the bus/loading only route through Castle Meadow/Red Lion Street by the Norwich Freight Consolidation Centre vehicles. The outcome of the experiment will be reported to members in September/November 2009.
23. If either Option 1 or Option 2 is implemented, it would not be before early 2010; therefore any TRO modification necessary for the bus lane extension to allow use by Norwich Freight Consolidation Centre vehicles could be dealt with when the outcome of the experiment is reported to members.

## **Extension of the 30mph Speed Limit**

24. There has been a desire among local members for some time to extend the existing 30mph speed limit from Eaton Road further out along Newmarket

Road. At their meeting on 25 September 2008, members considered a letter from the Chair of the City Council's Planning Committee asking for a reduction in the speed limit, following the grant of planning consent for additional houses in Wentworth Green.

25. Traffic speeds in both directions were measured between Judges Walk and Unthank Road in 2005 with mean average speeds of 35.4mph both eastbound and westbound and 85%ile speeds of 40.3mph eastbound and 39.6mph westbound recorded. This shows good compliance with the existing 40mph speed limit.
26. To obtain compliance with a reduced 30mph speed limit it would be necessary to introduce additional measures such as Vehicle Activated Signs to encourage reduced traffic speeds.
27. A reduction in the speed limit from 40mph to 30mph between Eaton Road and say Bluebell Road would increase journey times for buses in each direction by approximately 23 seconds per bus. It is recognised that the effect on overall journey times may be slightly less than this.
28. There are 18 personal injury accidents (pias) recorded in the most recent 3 year period in the 40mph section of Newmarket Road. Of these, 3 of the pia's were either serious or fatal giving a severity index in line with that expected nationally. The accident rate within the section is 36 pias per 100 Million vehicle kilometres which is lower than expected nationally for urban A-Roads (59pias/100mvehkm).

## **Conclusion**

29. The total number of bus movements (local buses and Park and Ride) during the AM peak hour that would currently be able to make use of the proposed bus lane is a minimum of 24. This represents an average of one bus every 2.5 minutes.
30. Assuming an average occupancy of 36 passengers per bus on with-flow peak journeys, and that the bus lane would deliver benefits during the period 07:30 to 09:30 on weekdays, the bus lane would be of benefit to over 1,700 bus users on a daily basis.
31. The scheme would also demonstrate a commitment to improve public transport alternatives and is consistent with the emerging proposals for a Bus Rapid Transit (BRT) network as part of the Joint Core Strategy for Greater Norwich.
32. Both options would provide benefits to inbound bus journey times on Newmarket Road. Whilst Option 1 is more expensive it would provide the safer scheme with further safety benefits if the bus lane is made 24 hours a day, 7 days a week. Option 1 would also provide greater benefits to bus journey times. It is therefore recommended that Option 1 is taken forward.
33. There is currently good compliance with the existing 40mph speed limit along Newmarket Road. The technical assessment indicates a finely balanced decision between 40mph and 30mph but there appears to be no strong case at present to reduce this limit to 30mph.

## **Appendices**

The following appendices are attached:-

### **Appendix A**

DWG PA1003-GP-21

### **Appendix B**

DWG PA1003-GP-22