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| <b>Report to</b>       | Norwich Highways Agency Committee<br>26 July 2012   | <b>Item</b><br><b>7</b> |
| <b>Joint Report of</b> | Director of Environment, Transport and Development<br>(Norfolk County Council) and Head of City Development<br>Services(Norwich City Council) |                         |
| <b>Subject</b>         | Norwich Area Transportation Strategy Implementation Plan<br>–Grapes Hill Southbound (uphill) Bus Lane   |                         |

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## **Purpose**

To seek approval to consult on the proposals to provide a southbound (uphill) bus lane on Grapes Hill.

## **Recommendations**

That members:

- (1) approve for local community and stakeholder's consultation on the detailed proposals to introduce an uphill bus lane on Grapes Hill which would provide an important element of the Dereham Road Bus Rapid Transit corridor, detailed in Appendix A;
- (2) ask the Head of City Development Services and the Head of Law and Governance to progress the statutory procedures associated with advertising the traffic regulation orders to create the uphill bus lane on Grapes Hill, for use by Buses, Taxis and Pedal Cycles, operating 24 hours a day, 7 days a week;
- (3) ask the Head of City Development Services and the Head of Law and Governance to progress the statutory procedures associated with advertising the traffic regulation orders to create the on-carriageway cycle lane on Wellington Lane including a contra-flow cycle lane on the section between Pottergate and St Benedict's Street.

## **Financial Consequences**

The scheme development and implementation of the bus lane up Grapes Hill will be funded by Central Government under the Better Bus Area (BBA) initiative.

The overall cost of the bus lane scheme is estimated to be £920,000.

## **Strategic Objective/Service Priorities**

The scheme is part of the Norwich Area Transportation Strategy (NATS) Implementation Plan, which was approved at County Council Cabinet in April 2010, and reported to the Norwich Highways Agency Committee on 25 March 2010. The plan outlines the transport elements of the Joint Core Strategy (JCS) and aims to build on the significant success of NATS to date.

One of the key elements of the NATS Implementation Plan is the development of a Bus Rapid Transit (BRT) network. BRT is a holistic approach to the delivery of high quality public transport. It combines high quality vehicles with high quality services, supported by physical infrastructure and a campaign of marketing and branding.

The project 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. The project also helps meet the City Council priorities 'To make Norwich a Safe and Clean City' and 'To make Norwich a Prosperous City'.

This project supports the following County Council Service Plan objectives (2011-14):

**Corporate Objectives:**

- To assess people's needs and commission efficient, responsive and cost effective services to meet them
- To signpost people to the services they need and provide good quality information to help people choose services relevant to them
- To support, develop and maintain the infrastructure that helps our economy

**Service Objectives:**

- Provide services that listen to and reflect the needs and expectations of, local communities
- Provide consistently high levels of customer service across the Council
- Manage, maintain and improve Norfolk's transport infrastructure to support sustainable economic growth
- Improve journey reliability
- Continuously improve the co-ordination and provision of transport in Norfolk
- Adapt to and mitigate the impacts of climate change

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**Background Documents**

Report to Norwich Highways Agency Committee 22 July 2010 on the Norwich Area Transportation Strategy (NATS) Implementation Plan – Dereham Road Bus Rapid Transit (BRT) Corridor by the Head of Transportation and Director of Environment, Transport and Development

Report to Norwich Highways Agency Committee 25 March 2010 on the Norwich Area Transportation Strategy (NATS) Implementation Plan by the Director of Environment, Transport and Development

Dereham Road BRT Placemaking and Landscape Strategy: February 2010

# Report

## Background

1. High quality public transport improvements in the Norwich area are an important element in ensuring Norwich's good reputation for public transport is maintained. Continued significant investment in public transport has led to more buoyant bus patronage in the City, when compared to similar sized cities elsewhere. The most recent Passenger Focus survey has indicated that satisfaction amongst bus users is one of the highest in the country.
2. 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 the bus operator First.
3. At the end of March 2012, Norfolk County Council secured £2.6m of Government funding through the Better Bus Area (BBA) fund for a series of major public transport improvements in Norwich that will bring benefits for visitors and commuters in Norwich as well as reducing pollution, improving bus punctuality and delivering a boost to the city's economy in the process. The package will deliver over 30 projects in total.
4. The funding worth £2.9m in total allows the authority to deliver a range of transport improvements previously agreed in the Norwich Area Transportation Strategy (NATS), which covers the entire Norwich Policy Area and has been successful so far in reducing traffic flows crossing the city. However, our transport system is under strain and the pressure will increase over time and without action, the transport system will be a barrier to realising the economic growth potential of the city.
5. The BBA package was enthusiastically backed by a range of stakeholders including the City Centre Retail Partnership, Norwich City Council and all of Norwich's bus operators.
6. In order to facilitate the growth planned for Greater Norwich, Norfolk County Council has developed an Implementation Plan for the Norwich Area Transportation Strategy. This work, which identified a network of BRT routes, including Dereham Road, was approved by Norfolk County Council Cabinet in April 2010.
7. The roll-out of the BRT programme across the area will provide essential transport links to new and existing communities, reduce peak travel times and the need for private motor vehicle usage. This modal shift will be encouraged through providing a fast, reliable and cost-effective service along dedicated routes.
8. Dereham Road is already a high frequency bus corridor with up to 20 buses

per hour in each direction at the eastern end during peak periods. Several bus operators already use this corridor, which serves residential and employment areas at Longwater, Lodge Farm, West Costessey (Queens Hills) and Bowthorpe.

9. At their meeting on 22 July 2010, members considered a report on proposed public transport improvements being developed for Bus Rapid Transit (BRT) on Dereham Road as part of a whole corridor strategy. The bus lane up Grapes Hill was identified as one of the site specific measures (element 14) that could be provided as part of the implementation of BRT on the Dereham Road corridor. The scheme would bring significant benefits in terms of journey time reliability and overall bus service performance, particularly during peak times.
10. The 2010 BRT corridor report stated that the scheme relied on implementation of proposals to make Chapel Field North into a two way road for buses. However, the provision of the Chapel Field North improvement is dependent on future funding being available for this scheme. It would be possible to provide the bus lane up Grapes Hill independently of any changes to Chapel Field North by terminating the bus lane just short of Chapelfield Roundabout.
11. BRT improvements have already been implemented on Dereham Road, including the provision of a new bus lane on the approach to the Grapes Hill/Barn Road junction and changes to the junction itself. In the current financial year it is proposed to carry out an improvement to the junction of Old Palace and Heigham Road to aid the progression of buses through the junction; this has been the subject of previous reports. The Grapes Hill bus lane would provide the next link on this BRT route as far as Chapel Field Roundabout and would tie into other planned bus improvements in the City Centre.
12. Bus operators are likely to re-route services to use Grapes Hill in order to benefit from this proposal, which provides the opportunity for greater penetration of the city centre by these services.

## **Discussion**

13. Currently, the uphill carriageway on Grapes Hill has a nominal width of 7.5 metres, which is divided into two equal lanes. There is a central reserve which divides the north and southbound carriageways that varies in width from 1.0 to 9.5 metres. The nearside verge slopes up towards Wellington Lane at the bottom end and to a footway at the Chapel Field Roundabout end.
14. If the existing nearside traffic lane was taken out of use for general traffic to provide the new bus lane, the traffic capacity on the uphill carriageway of Grapes Hill would be much reduced and it is likely that the displaced traffic would use other routes, through the adjoining residential streets or city centre; there is often queuing from Chapel Field Roundabout during peak times.
15. Additionally, Grapes Hill is within the city councils declared citywide air quality management area AQMA, and has in the past been an AQMA in its' own right. Monitoring over the last few years has shown that the NO<sub>2</sub> levels have been below the objective level. The removal of one of the general traffic lanes is likely to result in more queuing, and this may raise the NO<sub>2</sub> levels. For these

reasons the conversion of one of the existing traffic lanes to a bus lane is not considered acceptable.

16. It is therefore proposed to provide the new bus lane by widening the carriageway in order to maintain two lanes for general traffic. It is proposed that the new bus lane will be operational 24 hours a day, 7 days a week. This is consistent with the treatment of the sections of bus lane on the Dereham Road corridor.
17. The new bus lane will be provided by predominantly narrowing the central reserve, with some nearside widening at the northern and southern ends. There are several benefits to providing the widening mostly within the central reserve; the nearside verge is more heavily planted so the loss of trees would be greater if the widening was on the nearside - this would result in a greater loss of tree screening for the adjacent properties. In addition, the line of the City Wall runs parallel to Grapes Hill and additional nearside widening could impact on this. Also, the nearside verge is sloping up towards Wellington Lane so additional width would be required over just the carriageway widening in order to adjust the slopes to the new layout.
18. In the proposed layout the bus lane would start at the bottom of Grapes Hill by the junction with St Benedict's Street just south of the pedestrian crossing, developing to its full width as soon as practical. The bus lane would stop just short of Chapel Field Roundabout and there would be three general traffic lanes at the roundabout give-way, with the nearside lane available for left turning traffic into Cleveland Road.
19. The two existing general traffic lanes would be narrowed from 3.75 metres width to 3.0 metre wide. The width of the bus lane has been considered in detail and it is proposed that a 3.0 metre wide lane is provided; this width has been selected to minimise the loss of trees and green space. The 3.0 metre wide bus lane will result in the probable loss of 11 trees, either because they are directly affected by the new road or their growth would be severely restricted – it will be necessary to maintain an adequate height clearance to allow for double-decker buses using the bus lane.
20. A cycle count was carried out in July 2012; this recorded a total of 157 cyclists using Grapes Hill (uphill) over a 12 hour period. There were 29 cyclists between 08:00 to 09:00 and 25 cyclists during the hours of 17:00 to 18:00.
21. The relatively narrow bus lane would mean that there would be occasions particularly in the peak periods when a bus would be held behind a cyclist; given the gradient of the hill, cyclists will be moving relatively slowly. If the adjacent general traffic lane was queued back down the hill, the bus would not be able to pull out to overtake a cyclist.
22. A wider, 4.0 metre wide bus lane would enable buses to overtake cyclists within the bus lane. However, such a layout would result in the loss of an additional metre width of the central reserve/verge and approximately 18 trees in total which would be of substantial detriment to this important Green Link which is proposed for enhancement in the Joint Core Strategy. The choice of bus lane width is therefore a balance between minimising potential delays to buses held behind cyclists using the bus lane and the strong desire to minimise

the loss of green space.

23. It is preferred that cyclists are encouraged not to use the Grapes Hill uphill route in order to minimise any delay to buses. To this end, it is proposed to provide an alternative parallel route which will connect the cycle provision at the St Benedict's Street junction to the existing cycle facilities on the east side of Chapel Field Roundabout.
24. As part of the proposed enhanced cycle provision in the area, it is planned to introduce a contra-flow cycle lane on the one way section of Wellington lane between Pottergate and St Benedict's Street. This will link to the existing westbound crossing facility to Dereham Road. In addition, the island on St Benedict's Street will be modified to allow eastbound cyclists on St Benedict's Street to access Wellington Lane. There is also an alternative route along the 'Orange' pedalway, just to the west that is already proving popular.
25. At the eastern ramp of the Grapes Hill footbridge, improvements for cyclists will be investigated; there is currently a cyclist dismount here. It is proposed to convert the section of footway between Upper St Giles Street and Chapel Field Roundabout to a shared footway/cycleway. This section requires further consideration and design work to maximise the benefit of this link.
26. Where the central reserve is narrowed, it will be hard surfaced where the width precludes maintenance of a grass strip. Where the residual reserve is of a sufficient width to maintain the grass, it will remain as a grass verge. Due to the loss of trees and other soft landscaping on Grapes Hill, the provision of replacement planting will be provided as part of the detailed design.
27. Road widening will need to be carried out over the existing pedestrian subway; although it is not considered that this will provide any particular engineering difficulties, this will be looked at as part of the detailed design.
28. The provision of the bus lane will require nearside carriageway widening on the approach to Chapel Field Roundabout over the line of the City Wall. The wall beneath the existing ground level is not a scheduled monument so Scheduled Monument Consent from the Secretary of State for Culture, Media and Sport should not be required.

## **Timescales**

29. It is suggested that the public consultation on these proposals should start in September 2012, and that the results of that consultation are brought to the November 2012 meeting.
30. The Grapes Hill scheme could start on site in April 2013, after completion of the improvement at the Old Palace Road/Heigham Road junction.

## **Conclusion**

31. The Grapes Hill scheme proposed in this report will provide a significant improvement to bus journey times and reliability along the Dereham Road corridor towards the City centre and will improve the travelling experience for passengers.

## **Resource Implications**

- 32. Finance: Scheme development and implementation will be funded by the BBA initiative, using Central Government funding.
- 33. Staff: The project will be delivered through joint team working involving County and City Officers and partners of the County Council's strategic partnership.
- 34. Property: all schemes can be provided within the existing highway boundary.
- 35. IT: None.

## **Other implications**

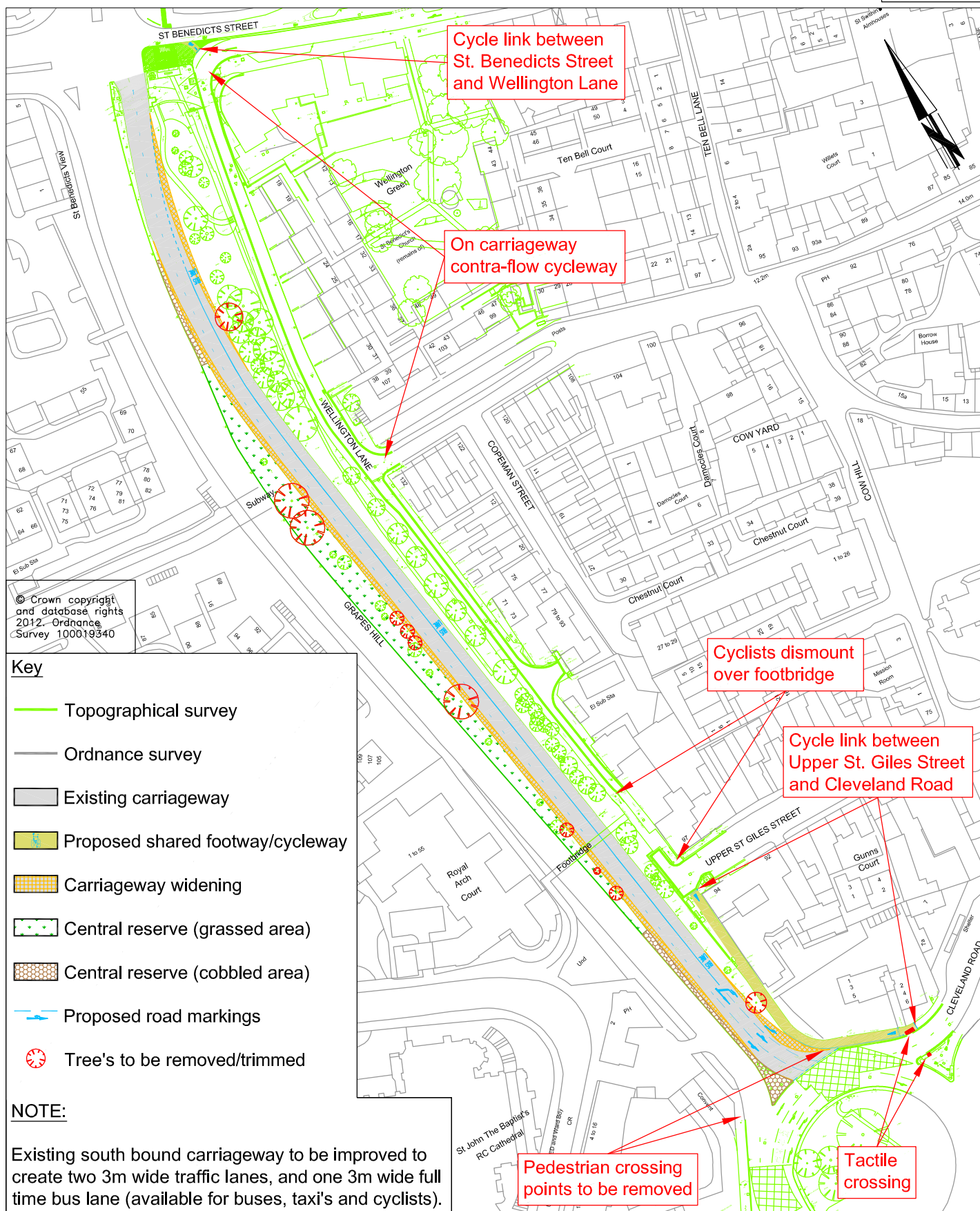
- 36. Legal Implications: None.
- 37. Human Rights: None.
- 38. Equality Impact Assessment (EqIA): An EqIA has been completed for the NATS Implementation Plan, which includes BRT. Public transport improvements are generally considered to assist social inclusion and improve access to services.
- 39. Communications: None.

## **Section 17 - Crime and Disorder Act**

- 40. The scheme will be designed to ensure it has a positive effect on crime and disorder where possible. Care will be taken during construction to minimise opportunities for crime and disorder, for instance the secure storage of construction equipment and materials.

## **Risk Implications/Assessment**

- 41. A risk assessment has been undertaken for development of the NATS Implementation Plan. The key risks for delivering this are around funding, timescales and planning. These risks are being managed through active project management and ongoing engagement with a wide range of stakeholders.
- 42. A risk register is being maintained as part of the technical design and construction delivery processes.



**Norfolk County Council**

working with

**MAYGURNEY**

**Mott MacDonald**

#### DRAWING TITLE

Grapes Hill Southbound Bus Lane, Norwich  
Layout 1  
3m Wide Bus Lane

**Mike Jackson**  
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| REV. | DESCRIPTION | CHECKED | DATE |
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| SURVEYED BY | INIT. | DATE  | DRAWING No.                                  |
| DESIGNED BY | MJL   | 05/12 | PA1009-MP-004                                |
| DRAWN BY    | MJL   | 06/12 | PROJECT TITLE                                |
| CHECKED BY  | NCS   | 07/12 | Grapes Hill - Norwich<br>Southbound Bus Lane |
|             |       |       | SCALE  |
|             |       |       | NTS  |
|             |       |       | FILE No.                                     |
|             |       |       | PA1009                                       |