#### **Report for Resolution**

Report to Norwich Highways Agency Committee Item

22 March 2012

Joint Head of City Development Services and Director of

**Report of** Environment, Transport and Development

**Subject** Norwich Area Transportation Strategy Implementation –

Dereham Road Bus Rapid Transit (BRT) Phase 1,

Dereham Road/Old Palace Road/Heigham Road junction

### **Purpose**

The purpose of the report is to inform members of the results of the further public consultation for the Dereham Road Bus Rapid Transit (BRT) Phase 1 scheme at the junction with Old Palace Road/Heigham Road. It seeks approval to implement the proposed changes at the junction in order to improve bus journey times along Dereham Road.

#### Recommendations

Members are recommended to approve for implementation the proposals to modify the Dereham Road/Old Palace Road/Heigham Road junction which retain the right turns into both Old Palace Road and Heigham Road, providing improvements to bus reliability and journey times on Dereham Road, to replace the existing worn out traffic signals and enhance the pedestrian crossing facilities on all arms of the junction if possible.

## **Financial Consequences**

The scheme development and implementation of this element of the Dereham BRT will be jointly funded by the Greater Norwich Development Partnership (GNDP), using Department of Communities and Local Government Growth Point funding, and the County Council's traffic signal upgrade programme. The overall cost of the scheme is estimated to be £300k to £400k, dependent on underground services that are affected by the changes; there will be a £100k contribution from the traffic signals upgrade programme with the remainder from the GNDP.

#### **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 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.

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

#### Corporate Objectives:

- To assess people's need 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 coordination and provision of transport in Norfolk
- Adapt to and mitigate the impacts of climate change

The project helps deliver the City Council corporate priorities of a safe, clean and prosperous city.

#### **Contact Officers**

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Barry Lloyd, Project Engineer, Norfolk County Council	01603 223248

#### **Background Documents**

Norwich/Costessey: Dereham Road Bus Corridor, Dereham Road/Old Palace Road/Heigham Road Junction – Effects of Banning Right Turns from Dereham Road March 2011 – Prepared by the Director of Environment, Transport and Development

Norwich/Costessey: Dereham Road Bus Corridor, Dereham Road/Heigham Road/Old Palace Road Junction – Junction Layout Changes: A Review of Options July 2011 – Prepared by the Director of Environment, Transport and Development

Norwich/ Costessey Dereham Road Bus Corridor, Corridor Length Impact Assessment May 2010 – Prepared by the Director of Environment, Transport and Development

Dereham Road BRT Placemaking and Landscape Strategy: February 2010

#### References

Report to Norwich Highways Agency Committee of 15 September 2011 on the Norwich Area Transportation Strategy (NATS) Implementation Plan – Dereham Road Bus Rapid Transit (BRT) Phase 1 by the Head of Transportation and Director of Environment, Transport and Development

Report to Norwich Highways Agency Committee of 24 March 2011 on the Norwich Area Transportation Strategy (NATS) Implementation Plan – Dereham Road Bus Rapid Transit (BRT) Phase 1 by the Head of Transportation and Director of Environment, Transport and Development

Report to Norwich Highways Agency Committee of 25 November 2010 on the Norwich Area Transportation Strategy Implementation – Dereham Road Bus Rapid Transit (BRT) Phase 1 by the Head of Transportation and Director of Environment, Transport and Development

Report to Norwich Highways Agency Committee of 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

### Report

### **Background**

- 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 has identified a network of BRT routes, including Dereham Road.
- 2. 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. Dereham Road is currently a high frequency bus corridor with in excess of 20 buses per hour during peak periods. The bus corridor serves growth and employment areas at Longwater, Lodge Farm, West Costessey (Queens Hills) and Bowthorpe. Improving the bus working on Dereham Road would make it more attractive for buses, making the route more reliable and cutting journey times.
- 3. Initial consultation on the Dereham Road BRT route included the proposal for the Old Palace Road/ Heigham Road junction which banned the right turns, but no other options. Following significant levels of public concern, officers investigated alternative solutions.
- 4. At your meeting on 15 September 2011, you considered a report that set out a number of alternative options for the Old Palace Road/Heigham Road junction, including an option that would retain the right turns from Dereham Road, whilst still reducing bus journey times and making the route more reliable for buses on Dereham Road.
- 5. At this meeting it was agreed that two of the options discussed in the report would be subject to further public consultation. This would consist of two drop in sessions, to be held in December 2011, enabling members of the public to meet with the project team, followed by a workshop and formal consultation in January 2012. It was subsequently agreed not to hold the workshop but to go straight to formal consultation after the drop in sessions.
- 6. The two options consulted on were:
  - An option that would ban right turns from Dereham Road into both Heigham Road and Old Palace Road combined with a change to the traffic signals to allow the inbound and outbound traffic to run together, helping to reduce delays to buses and other traffic. Note that this is the original proposal as consulted on in January 2011.
  - The second option was a revised layout that would include some road widening at the junction and changes to the phasing of the traffic signals so that the right turns into Heigham Road and Old Palace Road could be retained while still providing improvements to buses on Dereham Road.
- 7. A technical report that examined the traffic effects of banning right turns from

- Dereham Road was prepared in March 2011.
- 8. A technical report that reviewed the junction options was prepared in August 2011.
- 9. This report discusses the responses received to the consultation.
- 10. A copy of the consultation material is provided in Appendix A.

#### Consultation

- 11. Two drop in sessions were held on Tuesday 6th December between 8.00 a.m. and 7 p.m. at the Belvedere Centre, Dereham Road and on Thursday 15th December between 2.00 p.m. 8 p.m. at City Church, Nelson Street.
- 12. Approximately 160 people attended the two drop-in sessions at which attendees were able to discuss the proposals with members of the project team; there was also the opportunity to leave written comments.
- 13. The drop-in sessions were followed by the public consultation commencing 10<sup>th</sup> January 2012 with the closing date for comments on 6<sup>th</sup> February 2012.
- 14. Approximately 2,600 copies of the letter were distributed to stakeholders and residents and businesses in the vicinity of the Old Palace Road/Heigham Road junction.

#### **Consultation Responses**

- 15. In total, 608 responses were received from 479 individual respondents. These responses were received in a number of ways; at the drop in sessions, via the consultation pro forma, by e-mail, via Norwich City Council or comments received via the local MP.
- 16. The consultation asked for residents and stakeholder to express a preference for which option they would prefer. The outcome from all responses was as follows:
  - Retain right turns into Old Palace Road and Heigham 86%
  - Ban right turns into Old Palace Road and Heigham Road 8%
  - Do nothing leave the junction as it is 5%
- 17. A do nothing option was not offered as a choice as this would not provide any benefits for buses, however some respondents asked for the junction to be left as is. Some respondents voted to either retain right turns or do nothing and the percentages above have been rounded.
- 18. As per the original consultation that was reported on 24 March 2011, the new consultation has reiterated the strong local feeling against any option that proposes right turn bans from Dereham Road into both Old Palace Road and Heigham Road. This issue has dominated the consultation responses and the main points raised are:
  - a) That right turn bans from Dereham Road would result in unacceptable amounts of additional traffic using the side roads near the junction as

alternative routes:

- b) That the side roads either side of Dereham Road already suffer from congestion and rat running and could not cope with any more;
- That the residential roads either side of Dereham Road are not suitable for any increase in traffic with cars parked on both sides of the road, effectively making it a single carriageway;
- d) That any increase in traffic on the side roads caused by bans would endanger the lives of residents of the side streets including the elderly and young children - there are 3 schools and sheltered housing in the area;
- e) That there would be increased damage to parked cars in the area;
- f) That the right turn ban would cause an increase in noise, dust and pollution;
- g) That the impact on the local community is not worth the gain offered to buses by the right turn ban;
- h) That the right turn ban would impact negatively on house prices;
- i) That the relative costs for the options are misleading;
- j) That the whole scheme is a waste of money which could be better spent elsewhere;
- k) That the traffic modelling that looked at the impact on the side roads of a right turn ban is wrong;
- I) That the consultation was biased towards the right turn ban option.
- 19. Some of the responses received that were in favour of the right turn ban option cited the improvements for sustainable transport, including the enhanced cycling and substantial crossing facilities which could be provided at the junction with this layout. In the option that retains the right turns, cycling improvements would be limited to the addition of cycle advanced stop lines on the side road junctions; these could not be provided on Dereham Road due to the phasing of the signals.

#### Discussion

- 20. Both options would provide significant improvements for buses on Dereham Road. Although the right turn ban option would provide the maximum benefit for bus journey times with an AM peak delay of 35 seconds through the junction, the option which retains the right turns also provides significant improvements with an AM peak delay of 49 seconds. These figures compare with an average delay through the existing junction of 335 seconds in the same peak period.
- 21. Both options would provide improved crossing facilities at the junction for pedestrians. With the right turn ban option, it would be possible to introduce controlled pedestrian crossings on all four arms of the junction together with a diagonal crossing. This compares with the retain right turn option which would

- only have controlled crossings on Dereham Road to the west of the junction and on Heigham Road, with uncontrolled crossings on the other two arms.
- 22. However following the comments received during the consultation from residents in the area and local councillors, the possibility of installing controlled pedestrian crossings on all four arms of the junction has been discussed and it is possible that this could be achieved without significant impact on the benefits of the proposals. The cost and impact on the benefits of these changes have not yet been quantified.
- 23. It would not be possible to introduce such comprehensive benefits for cyclists in the layout that retains right turns, compared to the option that bans turns, due to available road space. With the retained right turn option, it would be possible to provide advanced stop lines on the two minor arms but not on Dereham Road due to the proposed signal phasing. In the ban right turn layout, there would be advanced stop lines on all arms, with on-carriageway cycle lanes on three of the approaches to the junction apart from on Heigham Road.
- 24. In both options, the existing worn out traffic signal equipment at the junction would be renewed.
- 25. A detailed summary of the issues raised by consultees together with Officer comments is provided in Appendix B. Copies of the responses received will be available for inspection prior to the meeting.
- 26. For information, the January 2011 consultation received 177 objections and also three petitions of 124, 38 and 18 signatures from residents of Gladstone Street, Nelson Infant School and traders from Dereham Road which were opposed to a right turn ban at the junction with some opposing the Dereham BRT Phase 1 proposals in general.

#### **Conclusions**

- 27. Both options would provide significant improvements to bus journey times and reliability on Dereham Road, but the layout retaining right turns is not quite as effective, and doesn't provide the same level of cycling facilities offered by the scheme that bans the turns.
- 28. The consultation exercise again highlighted the very strong local opposition to a proposal that would ban right turns into Old Palace Road and Heigham Road, with overwhelming support for the option to retain right turns in the responses received.
- 29. The option that would retain right turns at the junction could be constructed by localised widening of the carriageway on the southern side of the junction, within available highway land.
- 30. It is suggested that the proposal that retains the right turns is progressed as shown on plan PA0002-MP-005 in Appendix A, but the potential to provide signal controlled crossing facilities on all four arms to be implemented if possible.

#### **Timescales**

31. The scheme could be implemented on site prior to the Christmas traffic management embargo, provided construction work commenced no later than autumn 2012.

#### **Resource Implications**

- 32. Finance: Scheme development and implementation of the changes at the junction will be jointly funded by the Greater Norwich Development Partnership, using Department of Communities and Local Government Growth Point funding, and the County Council's traffic signal upgrade programme.
- 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: None.
- 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, including Dereham Road BRT 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.

## Appendix A



Environment, Transport, Development County Hall Martineau Lane Norwich NR1 2SG

NCC general enquiries: 0344 800 8020 Owner/Occupier

Textphone: 0344 800 8011

Your Ref: My Ref: HI/MP/PA0002/MA

Tel No.: Date: 10 January 2012 01603 223248

Dear Sir/Madam

## A1074 Dereham Road Bus Rapid Transit (BRT) Phase 1 Consultation on changes to Dereham Road/Heigham Road/Old Palace Road junction

Further to my previous letter in December, I am now writing to you to update you on the next stage of the consultation on the proposed changes at the Dereham Road/Heigham Road/Old Palace Road junction.

Following the two drop in sessions held in December to enable members of the public to discuss the proposals with the project team, we are now undertaking a formal consultation on the two options that were presented at the sessions.

A plan and the relative benefits of each scheme have been set out over the page.

A feedback form has been enclosed with this letter to allow you to express your preference for either option and make any comments you may have.

Please could you return your responses by 6 February 2012 to:

**Dereham Road BRT Consultation Environment, Transport and Development** Norfolk County Council County Hall Martineau Lane **NORWICH** NR1 2SG.

Alternatively you can complete the electronic version of form which can be found on our website www.norfolk.gov.uk/derehamroadbrt and email the completed form to norwich.transport@norfolk.gov.uk. If you would like to talk to someone regarding the proposals and provide your feedback by telephone, please telephone 0344 800 8020.

All comments and responses received will be combined with the feedback from the drop in sessions and reported to the Norwich Highways Agency Committee for consideration. The Committee will then decide how to proceed with the scheme.





Dated: 10 January 2012

If you would like any further information please contact us by using the details listed above.

Further details and background information on the Dereham Road Bus Rapid Transit project can be found on our website at <a href="https://www.norfolk.gov.uk/derehamroadbrt">www.norfolk.gov.uk/derehamroadbrt</a>.

B. Lland

Project Engineer (Highways – Major Projects Team)

Dated: 10 January 2012

### The comparative advantages and disadvantages of the two options

Banned right turns from Dereham Road and major change to traffic signal staging

(see plan PA0002-MP-004 on the back of this sheet)

This is the original proposal as consulted on in January 2011. This proposal would aim to improve bus journey times on Dereham Road by banning right turns from Dereham Road into both Heigham Road and Old Palace Road. This would be combined with a change to the traffic signals to allow the inbound and outbound traffic to run together, therefore helping to reduce delays to buses and other traffic.

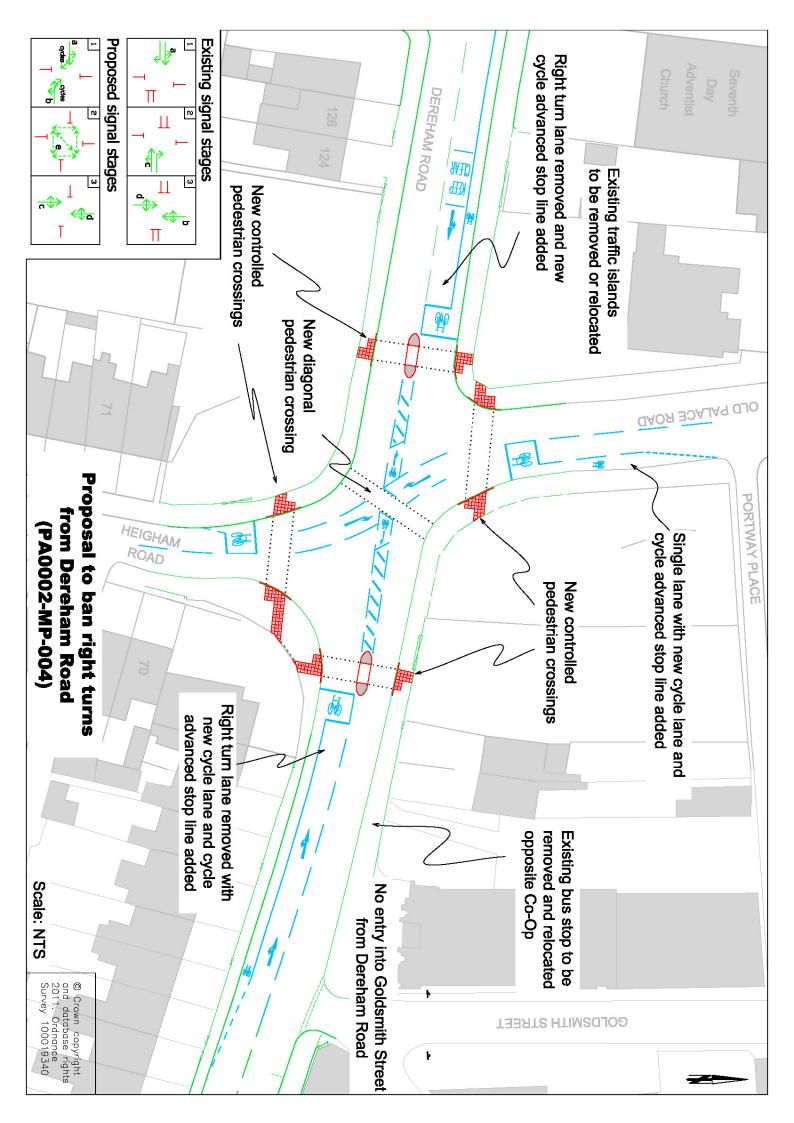
- o Indicative cost of £300,000
  - This scheme would include a commitment to monitor the traffic levels on the side streets following the implementation of the right turn bans and introduce traffic management measures considered necessary to restrict unsuitable traffic from using the side streets

#### o Positives

- Maximum benefit for bus journey times with the average delay during the AM peak reduced to 35 seconds, contributing to more reliable bus journey times
- Traffic signalled controlled pedestrian facilities on all arms of the junction with an 'all red' phase and 'diagonal' crossing option
- Cycle lane approach on three arms (not Heigham Road) with cycle advance stop lines on all arms

#### o Negatives

Concerns locally of an increase in traffic on side streets. Traffic modelling has
estimated a maximum increase of up to 26 vehicles in an hour to southern side
streets, mostly shared between Gladstone Street and Alexandra Road. The
change on northern side streets (Nelson Street) is to be considered minimal in
the modelling completed.



### The comparative advantages and disadvantages of the two options (continued)

#### Right turns retained from Dereham Road with carriageway widening

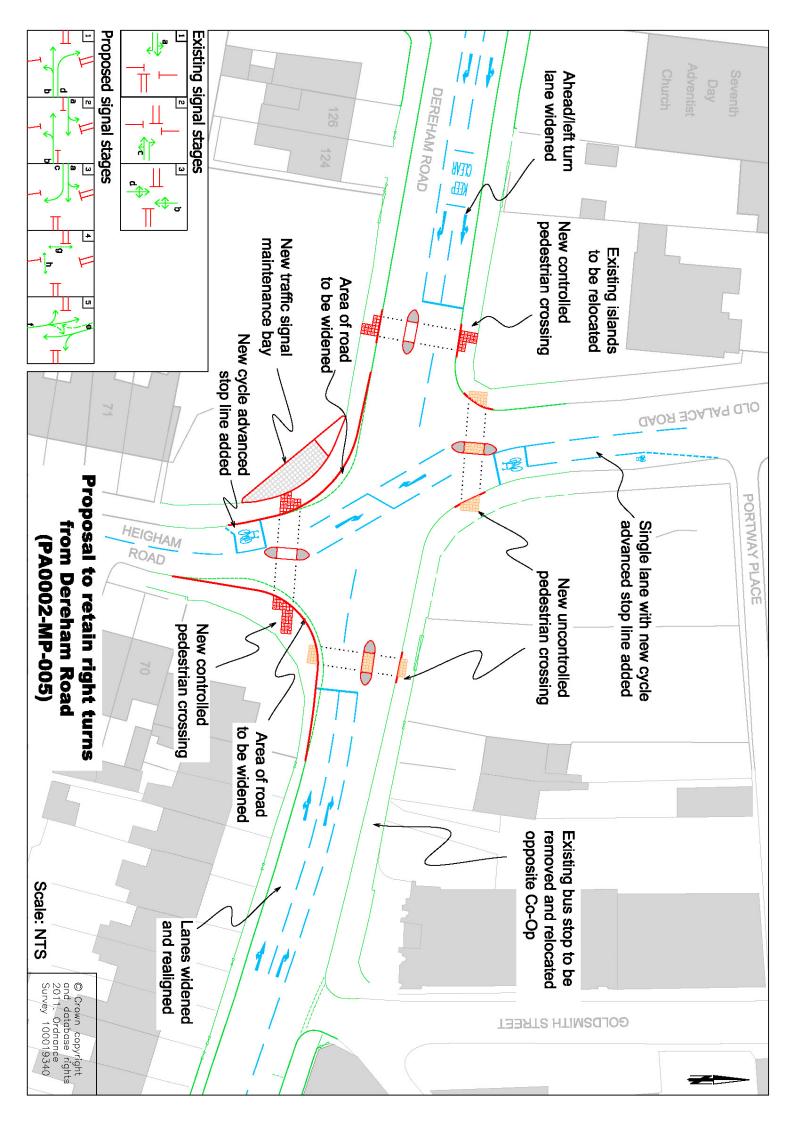
(see plan PA0002-MP-005 on the back of this sheet)

This option would involve some road widening and changes to the phasing of the traffic signals so that the right turns into Heigham Road and Old Palace Road could be retained while still providing improvements to Dereham Road.

Dated: 10 January 2012

- o Indicative cost of £300,000 £400,000
- Positives
  - Significant improvement for bus journey times with the average delay in the AM peak reduced to 49 seconds, contributing to more reliable bus journey times
  - Controlled pedestrian crossing facilities available on Dereham Road (west side) and Heigham Road.
  - Advanced stop lines for cyclists on Old Palace Road and Heigham Road
- Negatives
  - No cycle facilities on Dereham Road
  - Narrow lanes may be detrimental to cyclists
  - Uncontrolled pedestrian crossing facilities as per the existing layout would remain on 2 of the 4 arms, Dereham Road (east side) and Old Palace Road.
  - Likely to require diversions to underground utilities which would add to the scheme costs

You can view more information on the options considered, together with the latest information on our website: <a href="https://www.norfolk.gov.uk/derehamroadbrt">www.norfolk.gov.uk/derehamroadbrt</a>



## A1074 Dereham Road Bus Rapid Transit (BRT) Phase 1 Consultation on changes to Dereham Road/Heigham Road/Old Palace Road junction

From: Owner/Occupier		
I / We have considered the above Proposal to ban right turns from Dereham	Proposal to retain right turns from Dereham	(please tick as appropriate)
Road  Comments:	Road	
Signed:  Name (please print):	Dated:	
Please return by 06/2/2012 to:  Dereham Road BRT Consultation Environment, Transport and Development County Council County Hall Martineau Lane NORWICH	on	

My Ref: HI/MP/PA0002/MA

NR1 2SG.

Ref.	Issue	Officers Comments
1	The proposal to ban right turns at the Dereham Road/Old Palace Road junction will increase traffic using the side streets off Dereham Road as rat runs	
	289 comments were received commenting that the right turn ban would increase rat running in the side streets of Helena Road, Connaught Road, St Phillips Road, Alexandra Road, Gladstone Street, Edinburgh Road and Sandringham Road to the south of Dereham Road and Nelson Street and Northumberland Street to the north of Dereham Road.	In the option that bans right turns, it is expected that some of the traffic that formerly turned right into Old Palace Road would instead use Barn Road and Heigham Street as the journey time would be less than passing through the junction and then turning into, for example, Nelson Street.
		Regarding roads to the south side of Dereham Road, it has been estimated that up to 26 additional vehicles might use the southern estate roads in the peak hour to cut through to Earlham Road. The most likely roads to take this traffic would be Gladstone Street and Alexandra Road.
		Refer to technical report 'Norwich/Costessey: Dereham Road Bus Corridor Dereham Road/Old Palace Road/Heigham Road Junction - Effects of Banning Right Turns from Dereham Road', dated March 2011. This can be found on the scheme website at <a href="https://www.norfolk.gov.uk/derehamroadbrt">www.norfolk.gov.uk/derehamroadbrt</a>
2	The proposal to ban right turns at the Dereham Road/Old Palace Road junction will cause an increase in accidents	
	167 comments were received about the potential of the right turn ban to increase the risk on accidents in the side streets. Some of the problems that were frequently highlighted in the responses are listed below:	
	<ul> <li>It was felt that as the streets already suffer from a high volume of traffic any increase in traffic would make these streets more dangerous.</li> </ul>	Refer to Officers comments ref. 1.
	<ul> <li>Cars drive too fast along the residential streets with no one to enforce the speed limit. The right turn ban will encourage more cars to do this.</li> </ul>	
	<ul> <li>Due to the residential nature of the area, the schools and sheltered housing, there are a large number of families and elderly in the area resulting in a large number of children and elderly pedestrians. These would be put at danger if there were to be an increase in traffic using the side streets.</li> </ul>	
	<ul> <li>There is a high volume of residential parking, many of which use the pavement, which results in pedestrians being forced to use the road.</li> </ul>	

Ref.	Issue	Officers Comments
	The increase in traffic on the side roads will increase the number of accidents at the junctions with Stafford Street in the side roads to the south of Dereham Road and West End Street and Armes Street to the north of Dereham Road. The junctions of Alexandra Road/Stafford Street and Nelson Street/West End Street were highlight as junctions which are already very dangerous.	
	The increase in traffic using the side roads will increase the number of accidents at the junctions of these roads with Dereham Road and Earlham Road. The Nelson Street/Dereham Road, St Phillips/Dereham Road and junctions with Earlham Road, which has 2 bus stops opposite each other with on-street parking either side of the carriageway which reduces visibility, were highlighted as existing accident spots which would likely only be made worse with an increase in traffic.	
3	There seems to be little justification for proposals/Whole scheme appears to be bad planning	
	103 comments were received relating to the lack of justification/need for the scheme.  Some of the frequently highlighted points in the responses are listed below:	
	Is the 14 seconds benefit for buses gained by banning the right turns really worth the impact on the area and residents?	The proposals at the Old Palace Road/Heigham Road junction are part of a whole corridor strategy to provide BRT on Dereham Road. A number of possible measures have been identified on the route that could be
	Are the benefits for bus journey times really worth the money? How can these costs be justified in these times of cut backs?	introduced over a number of years on the corridor, gradually building towards full BRT. These measures include changes at Sweet Briar Roundabout and Grapes Hill. Refer to committee report to Norwich
	Is there any need for a Bus Rapid Transit Scheme?	Highways Agency Committee 'Norwich Area Transportation Strategy Implementation Plan – Dereham Road Bus Rapid Transit (BRT) Corridor',
	<ul> <li>Proposals are not needed as the current layout works well – the junction should be left as it is.</li> </ul>	dated 22 July 2010.  Estimated time savings for buses on Dereham Road have been identified in the main text of the report.
	Any improvements at this junction will just speed buses on places of greater congestion for example Grapes Hill/Sweet Briar Roundabout	
	There has been a lack of understanding of the local area and planning/consideration given to impact of right turn ban and how this could be mitigated	
	How could right turn bans be considered given the inherent dangers of forcing	

Ref.	Issue	Officers Comments
	cars/trucks and other vehicles down side roads which are narrow, effectively single carriageway roads?	
	Giving cyclist priority ahead of buses at the junction will negate any benefits of the proposal as they will inevitably hinder buses.	
	Proposals only being proposed as they do not affect you as individuals as you do not live in the area.	
	<ul> <li>Welcome the creation of the BRT, but it is time for the GNDP to stop encouraging car use and withdraw its uncritical support of projects such as the Northern Distributor Road and out of town shopping centres and business parks. Unless we have proper planning controls, no amount of tinkering around the edges will solve the problems of pollution and traffic congestion that city dwellers like ourselves experience on a regular basis.</li> </ul>	
4	The proposal to ban right turns at the Dereham Road/Old Palace Road junction will impact on the character of the area/quality of life	
	Of the responses received there were 85 comments relating to impact of the right turn ban on the quality of life for residents and character of the area. These stated that the increase in traffic on the side streets would reduce the residential nature of the street to a highway for cars to and from the city making the area a less pleasant place to live and increase the amount of dust, noise, pollution in the area which could also impact on the house prices in the area.	Refer to Officers comments ref. 1.
5	The side roads are not suitable to accommodate any more traffic	
	There were 112 comments made relating to the nature of the side roads and how they are not suitable to for additional traffic including HGV's and larger vehicles. It was noted that the roads are already very congested and suffering from rat-running traffic. This is compounded by the nature of the roads which are very narrow with resident cars parked on either side of the road effectively making these roads single carriageway, therefore any increase in traffic would result in gridlock with cars not being able to pass each other and road rage incidents. Old Palace Road and Heigham Road were highlighted as being wider roads and more suited to being able cope with more traffic.	Refer to Officers comments ref. 1.
6	The proposal to ban right turns at the Dereham Road/Old Palace Road junction will increase the amount of damage to parked cars/make it more difficult to park in the area	

Ref.	Issue	Officers Comments
	76 comments were received concerning the likelihood of increased to damaged to parked cars due to the increased volume of traffic using the side streets with a number of comments asking whether the council will pay for the damaged caused to vehicles due to the changes?	Refer to Officers comments ref. 1.
	A number of comments were also received commenting on the difficulty of parking in the area, and due to the increased traffic this could cause queuing, congestion and road rage as vehicles are forced to wait for a resident to park.	
	Due to the amount of parking in the area, the need for permit parking in the area was also raised by a number of respondents.	
7	Traffic calming measures/20 mph zones	
	There were 64 comments received regarding speeding traffic and traffic calming measures on the side streets. Some of the frequently highlighted points in the responses are listed below:	
	<ul> <li>Traffic already uses the side roads at excessive speeds, a situation which would be made worse due to an increase in traffic.</li> </ul>	Refer to Officers comments ref. 1.
	<ul> <li>The side roads need speed calming measures as those Alexandra Road or a 20 mph zone as per the streets to the north of Earlham Road.</li> </ul>	The option that bans right turns from Dereham Road would include a commitment to monitor the traffic levels on the side streets following the implementation of the bans, and introduce traffic management measures considered necessary to restrict unsuitable traffic from using the side
	<ul> <li>The traffic calming measures would bring additional cost/where is the money coming from? Is there any available funding?</li> </ul>	streets. The benefit of identifying additional measures after implementing the junction scheme is that the measures can be targeted to deal with specific issues to ensure that the most appropriate solution is reached.
	<ul> <li>Happy to see commitment to monitor problems on side streets/traffic calming measures.</li> </ul>	
	<ul> <li>Commitment to monitor side streets little comfort to residents, what happens when right turns are banned and the inevitable increase in traffic on the side roads occurs? Is there a plan already in place?</li> </ul>	
	<ul> <li>What traffic calming is proposed? Alternative suggestions such as modifying the access points to residential streets to discourage rat running haven't been explored.</li> </ul>	

Ref.	Issue	Officers Comments
	Lack of detail on traffic calming illustrates a lack of commitment to undertaking traffic calming measures.	
	Any traffic calming needs to be installed before installation of scheme.	
	I there any reason why roads cannot be for access only or made one way?	
	Traffic calming not wanted/will reduce parking spaces/cause disruption.	
	<ul> <li>Most forms of traffic calming will be detrimental to cyclists (e.g. speed humps, one way streets or stopping up roads) and inconvenience local residents as much as those rat running.</li> </ul>	
	<ul> <li>Traffic calming measures introduced after you have caused the problem are unlikely to solve it. Banning turns into our streets would cause chaos. One way streets encourage drivers to speed up and increase traffic. Humps are a waste of time. Speed limits are not enforced.</li> </ul>	
	The Council should be looking at calming/slowing down existing traffic on side roads rather than encouraging more.	
8	Cycling facilities	
	There were 57 comments relating cycling facilities. The most frequently highlighted points in the responses are listed below:	In the option that retains the right turns, it would not be possible to have an on-carriageway cycle lane as there is not enough available road width. In this option, it would also not be possible to have cyclist advanced stop lines
	Why is it not possible to have cycle lane/advanced cycle stop lines on Dereham Road in the option to retain right turns?	on Dereham Road as the vehicle lanes would not be stopped at the same time; these can only be used when all lanes are signalled the same.
	Giving cyclists priority ahead of buses at junctions will negate any benefit of proposals as they will inevitable hinder the progress of buses.	The right turn ban option would allow for improved cycle facilities on Dereham Road as there would only be a single through lane so the remainder of the carriageway could be used for an on-carriageway cycle
	<ul> <li>Cycle lanes are a waste of time as cyclists just use the paths/jump red lights anyway.</li> </ul>	The right turn facility for cycles in the option that bans right turns for other
	Support the inclusion of the cycling facilities in the right turn ban proposal.	vehicles would be a similar layout to that at Charing Cross into St John Maddermarket.

Ref.	Issue	Officers Comments
	Are there any accident statistics to indicate need for cycle lanes?	
	<ul> <li>It is a published policy of the Council to promote walking and cycling, therefore these should be giving these priority over bus/junction improvements.</li> </ul>	
	<ul> <li>Already dangerous to use side roads like Stafford Street with cars cutting across along Alexandra Road/Gladstone Street, would only be made worse with increase in traffic from right turn ban.</li> </ul>	
	<ul> <li>With right turn ban proposal, how is proposal to allow cyclists to turn right going to work? They will be at risk while they wait stationary in the middle of the junction with vehicles passing on both sides. Are there any other examples in Norwich where this arrangement is in place?</li> </ul>	
	Any proposals should include continuation of cycle lanes along Dereham Road to alleviate problems of pinch points for cyclists on approaches to the junction.	
	Cycle improvements at the junction are not needed at the junction/worth the impact to the side streets.	
	Improving cycle facilities along Dereham Road shouldn't be a priority as there several safer alternatives to using Dereham Road available already.	
	<ul> <li>Any scheme that brings benefits to public transport/pedestrians/cyclists must be favoured option - these are the modes that need to be prioritised.</li> </ul>	
	Right turn ban proposal would greatly improve safety for cyclists.	
	<ul> <li>Route for cyclists into city is via West Pottergate, A right hand turn into Wymer Street and further minor cycle path improvements to West Pottergate would be a much greater help.</li> </ul>	
	<ul> <li>Instead of short lanes on approach to junction, integrated plan for Norwich offering connected safe routes anywhere through the city.</li> </ul>	
	Cycle lane on Old Palace Road will mean right turn traffic will block the junction.	

Ref.	Issue	Officers Comments
9	Proposals are an inappropriate use of public money	
	During the consultation there were 37 comments received which suggested that the costs of proposals were too expensive for the expected benefits and an inappropriate use of public money which could not be justified during times of cuts to public spending. It was suggested the money would be better spent more important things like repairing pot holes, the NHS, police, schools, the roads to the west of the city, improvements elsewhere on Dereham Road, making roads safer, improving the quality of life of residents, keeping street lights on, providing bus passes and job creation schemes.	Refer to Officers comments ref. 3 regarding the context of this scheme within the Dereham Road corridor.  The changes to the junction would include an upgrade to the traffic signals, which is due for replacement due to worn out equipment.
10	Consultation Process	
	50 comments were received relating to the consultation process. Some of the frequent comments are listed below:	
	The consultation is biased towards the option to ban right turn.	The two options have been presented without the intention of favouring one over the other.
	The consultation hints that if right turn ban option not chosen, the area won't get the much needed pedestrian crossings on all arms of the junction.	
	The Councils argument for right turn ban is deliberately misleading and suggests it will cost more to leave the junction with minor changes than implement the right turn ban.	
	Benefits of right turn ban have been massively overstated.	
	<ul> <li>Decision has already been made to install right turn ban and this consultation process is purely an exercise for management to indulge in.</li> </ul>	
	There have been unexplained changes to the information presented (for example the costs of the right turn ban) over the last 21 months, with even the latest consultation document contains contradictory statements.	
	The representative I spoke to at the drop in session could not answer my question and the plans on the board did not show the latest information.	
	<ul> <li>Please take note of feedback from residents, often find comments are ignored and the Council take no notice of it and continue with its own agenda and hair</li> </ul>	

Ref.	Issue	Officers Comments
	brain schemes/Already said no in original consultation to right turn ban.	
	Thank you for drop in session and opportunity to speak to planners.	
	<ul> <li>Why was a pre-paid envelope not included in consultation packs? Was this a ploy to discourage respondents?</li> </ul>	
	<ul> <li>Consultation team ignored the presence of new Tesco store in consultation information, and do not seem to have taken into account its impact on the whole scheme.</li> </ul>	
	<ul> <li>We are tax payers and would have liked the huge impact of proposals on our quality of life to have been considered before any investment of public time and money was put into project.</li> </ul>	
	<ul> <li>Consultation should have included option to retain existing layout and upgrade signal equation.</li> </ul>	
	Thank you for the opportunity to comment. I think the public consultation on this scheme has been really good.	
	<ul> <li>Am concerned that cost of a scheme is being used very generally as a reason for justifying the changes.</li> </ul>	
	<ul> <li>Several addresses in Northumberland Street did not receive consultation forms, as this is one of the streets most affected by these proposed changes it strikes us as incompetent at best, or even calculatedly deliberate. It leads us to wonder whether this consultation is a fair one, and will actually take into account the views of local residents.</li> </ul>	
	<ul> <li>Seems ludicrous that a decision affecting so many people's lives will be taken by a committee of only 4 people.</li> </ul>	
	Could not access NCC website.	
11	Pedestrian Crossing Facilities	

Ref.	Issue	Officers Comments
	There were 33 comments received relating to pedestrian crossing facilities. These were as follows:	
	Am in favour of proposal to ban right turns due to improved pedestrian and cycling facilities.	The possibility of installing controlled pedestrian crossings on all four arms junction has been discussed and it is possible that this could be achieved without significant impact on the benefits of the proposals. The cost and
	Right turn ban would make it safer to cross Dereham Road.	impact on the benefits of these changes have not yet been quantified.
	Controlled crossings should be installed on all four arms with retain right turns option.	
	It is a published policy of the Council to promote walking and cycling therefore should be giving these priority over bus/junction improvements.	
	<ul> <li>Although support the improvements at the junction for pedestrians, they are not worth the impact to the side streets.</li> </ul>	
	Diagonal crossing is ill thought out and would be a hazard.	
	There isn't an issue with pedestrians crossing at the junction as pedestrian traffic is not that high at the junction and there is an existing pelican crossing at Gladstone Street, less than 100 yards away.	
	<ul> <li>Need controlled crossing across Old Palace Road at junction. This route is used for school children.</li> </ul>	
	The crossings at Earlham Fiveways, Earlham Road near the Cathedral and Unthank Road should be looked at over improvements at the junction.	
	<ul> <li>Instead of controlled crossing, install zebra crossings, set back a few metres on adjoining approach roads.</li> </ul>	
12	Traffic Modelling	
	31 comments were received regarding the traffic modelling that was completed for the scheme. A summary of the responses received are listed below:	

Ref.	Issue	Officers Comments
	The assessment that the impact on traffic on Nelson Street being minimal is just wrong. The impact will be anything but minimal. Any vehicle travelling from the city and is unable to turn right into Old Palace Road will obviously take the first alternative available right turn into Nelson Street. Suggestion that there will be minimal increase in traffic flow is not only ludicrous but shows a complete lack of common sense, ignorance and sheer stupidity.	Refer to Officers comments ref. 1.  For detailed comparison of options in traffic terms, refer to technical report 'Dereham Road/Heigham Road/Old Palace Road Junction - Junction layout changes: A review of options', dated August 2011. This can be found on the scheme website at <a href="https://www.norfolk.gov.uk/derehamroadbrt">www.norfolk.gov.uk/derehamroadbrt</a>
	<ul> <li>The prediction of 26 cars per hour using the southern streets is too low.</li> <li>What traffic model did you use? How did you come up with these figures? The model is only as good as the figures you put into it, therefore any figures you are quoting are inaccurate.</li> </ul>	The figure of 26 additional trips per hour using the southern street as a result of the right turn ban option is the maximum estimated that could occur in the peak hour.
	Are these figures predictions for the peak hour? Throughout the day?	
	Would like to see the traffic modelling made public.	
	At the public meeting in January 2011 you stated 1200 vehicles turn into Old Palace Road daily - where have these gone in your model?	
	The model doesn't take into account recent changes in area, for example school bus service to St John's Catholic School has been removed, there the amount of traffic using junction has changed. Therefore model is obsolete and inaccurate.	
	<ul> <li>There are no definite traffic figures for either option. The words likely, traffic modelling, estimated, considered minimal are guesswork and fail to inspire confidence.</li> </ul>	
	Modelling doesn't take into account parking/size of streets.	
	<ul> <li>Do not believe that delay to buses during AM peak would be reduced to 35 seconds. How can you/anyone say this with any accuracy? It is not quantifiable at this stage.</li> </ul>	
13	Changes won't encourage bus usage/existing problems with buses/Too much emphasis placed on improving buses at expense of other modes of transport	

Ref.	Issue	Officers Comments
	There were 31 comments received about the impact of the changes on bus usage or the problems with the existing bus services. These are summarised below:	
	<ul> <li>Bus usage will not increase until fares are reduced and evening services increased, not through proposed changes at junction.</li> </ul>	The County Council does not have any direct control over the fares bus operators charge. However, bus operators will be made aware of the concerns raised over this.
	<ul> <li>The buses in Norwich are scandalously expensive, inefficient, underused and poorly maintained and should not be a priority, if the buses in Norwich were cheaper, efficient, modern, smaller, more frequent and the majority of people used them like London, then I would be more in favour of encouraging bus use in Norwich.</li> </ul>	Our transport system is under strain and congestion will increase over time. We therefore need to create a step-change in transport provision to realise the full potential of NATS and cater for the transport needs of a vibrant and growing regional centre; BRT is a key feature of this plan.
	<ul> <li>Have any bus or car users insisted that a saving of 14 seconds will increase their bus usage?</li> </ul>	
	<ul> <li>The planners behind scheme have placed too much emphasis on improvements to buses at expense of everything else. Where are the improvements for car users, the majority user - who pays for this?</li> </ul>	
	<ul> <li>Question the thought behind the Council's decision to provide us with a BRT which is highly over-priced, highly under-used and I suspect will be yet another of their 'good ideas' that doesn't work (as has already been proven when they tried a similar scheme previously).</li> </ul>	
	<ul> <li>Use better ticketing systems, ticket swipe machines/books of tickets to avoid delays.</li> </ul>	
	No evidence that reduced bus times will impact on bus usage.	
	<ul> <li>Bus service in Norwich is worst option for travel in the City. It is unreliable (being late by 3/4mins is not a problem. 35sec accuracy is not needed). They have variable customer service and it is cheaper to use the car.</li> </ul>	
	<ul> <li>Could improve buses by providing new routes and using smaller buses - buses are not fully occupied currently, they would use less space and frequency can be increased during busy hours.</li> </ul>	

Ref.	Issue	Officers Comments
Ref.	Bus lane should be open to general traffic after 9.30am to end long tail backs.  Banning buses would speed up traffic flow.  If priority was to be given to buses then also need incentives or penalties so that people don't take their cars into the city, e.g. a congestions charge.  Moving bus stop to Co-op could cause problems with entering/exiting car park and visibility at the pedestrian crossing. There is an existing bus stop lay-by at its current location, leave it where it is.  Use space around hoardings at the junction/alternative options  comments were received asking why the land around the junction could not be utilised to widen the carriageway to provide an extra lane/roundabout or providing other solutions. These included:  Alter the timing to give more green time to inbound/outbound traffic on Dereham Road.  Provide more green time to Old Palace Road/Heigham Road.  Allow each arm to run separately.  As bus lane on Earlham Road is barely used, should bus service not be diverted here?  Junction is not the problem. Problem is too much traffic using Dereham Road.  Banning right turns would increase flow at the junction.	The land occupied by the hoardings is privately owned. The option that retains right turns makes use of available highway land on the southern side of the junction.
15	<ul> <li>Banning right turns would increase flow at the junction.</li> <li>Install a hatched not-to-enter keep clear box in lanes where vehicles turn right into Heigham Road and Old Palace Road.</li> </ul> Scheme costs	

Ref.	Issue	Officers Comments
	There were 26 comments received relating to costs of the scheme quoted in the consultation documents. These included:	
	<ul> <li>The costs are misleading and presented in a way to make the right turn ban more attractive.</li> </ul>	The current estimate for the right turn ban option is £300,000. The £350,000 included in the earlier NHAC reports is the budget provision for the scheme, which has not changed since the report to NHAC on 22 July 2010.
	Why has cost of the right turn ban changed from £350k to £300k?	The higher relative cost of the option that retains right turns is due to an allowance for diversions that will be required to underground services as a
	<ul> <li>Proposed costs seem disproportionately, can you provide a breakdown of how these costs have been reached?</li> </ul>	result of the carriageway widening on the southwest and southeast sides of the junction.
	£300k cost for right turn ban is misleading as this will undoubtedly increase to cover costs of traffic calming measures.	These costs will be reviewed and refined as more detailed work is carried out.
	How can it cost £100k more to make less of a change to the current road layout?	
	<ul> <li>It is unclear why the option to keep the right-hand turn has increased to £400,000, without apparently any investigation being made as to the need to move utilities - do utility diversions need to be made? Are the diversions not needed for the right turn ban option as well?</li> </ul>	
16	Traffic on Old Palace Road and Heigham Road	
	There were 31 comments received which highlighted that something needs to be done to help traffic leaving Old Palace Road and Heigham Road as currently right turning traffic here can block the junction, which causes long queues and vehicles may risk going through the lights once they have turned red.	There is limited road width on the side road approaches to the junction.  Both options would provide areas within the junction for right turning traffic.
17	Tesco store on northwest side of junction	
	Of the responses received, 14 contained comments relating to the new Tesco store at the Old Palace Road/Dereham Road junction. These included comments as listed below:	
	Right turn ban would cause Tesco's deliveries and customers to use Nelson Street/West End Street.	The Tesco lorry has to pull up adjacent to the store, in line with the flow of traffic for safety reasons. In the case of right turn bans, the vehicle would have to be routed so as to avoid needing to turn right, which should not be

Ref.	Issue	Officers Comments
	Tesco deliveries park on Old Palace Road and cause problems from cars and cyclists using the junction. Whilst unloading they straddle the kerb line in order to leave the Car Park access clear, and park on a double yellow line. Could they get a ticket for this, as I'm sure a traffic warden would issue me with a ticket if I	an issue, as it makes several deliveries around the City. This is a small store and is likely to have a primarily local walk-in clientele, consistent with other stores of this type. Some diversion of traffic is inevitable, but is unlikely to be of a significant level.
	<ul> <li>The location of the Tesco car park entrance/exit is dangerous. Have seen many near misses due to shoppers not looking at traffic flow. Also seen traffic queuing on highway waiting for a space in car park.</li> </ul>	The site cannot accommodate service vehicles without extensive manoeuvring within the Dereham Road/ Old Palace Road junction which would be more dangerous than servicing from the street. Loading from Double Yellow lines is permitted, as the vehicle is being routinely attended. Parking and leaving the vehicle unattended is not permitted, and could receive a Parking Ticket.
	Right turn ban would impact on the trade of Tesco.	Tesco have taken over an existing shop unit, which always had a car park on the frontage. Previously, cars were able to exit at any point along the frontage onto Old palace Road, including straight into the junction. The new layout has placed the car park entrance as far from the junction as is practically possible, which is the safest position available. Visibility at the exit is good, so there is no excuse for drivers failing to see oncoming traffic. The car park has been laid out to achieve the maximum number of useable spaces possible.
		Comment regarding impact on trade is noted.
18	Impact on business	
	There were 17 responses received which discussed how the right turn ban would be an inconvenience to local business as it would make it more difficult to access businesses, and the increase in traffic would make it less attractive to use shops and park in the area.	It is not proposed to remove any parking spaces in either of the two options.
	Comments were also received regarding possible negative impact of any loss of parking opposite the Co-Op and Distillery Square due to the relocation of the bus stop.	
19	Impact on current journey	
	During the consultation, 9 comments were received which discussed how the right turn ban would impact on current journeys made in the area.	Noted.