

## Report for Resolution

**Report to** Norwich Highways Agency Committee  
24 March 2011

**Item**

**7**

**Report of** Head of city development services

**Subject** Proposed improvements to Newmarket Road / Leopold Road / Eaton Road Junction

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### Purpose

To inform members of the response to statutory public consultation carried out for the necessary Traffic Regulation Orders included in the proposed improvements to the signalled junction of Newmarket Road / Leopold Road / Eaton Road.

### Recommendations

The Committee is recommended to:

- (1) Consider whether the proposed improvements at the Newmarket Road / Eaton Road junction are appropriate and represent value for money at the current time.
- (2) If members are minded to proceed with the scheme then they should, subject to the funding being made available as a result of item 9 on this agenda;
  - (a) approve the installation of the improvements to the above junction as detailed on Plan No. TAB1886-TA-012 with the amendment as detailed on Plan No. TAB 1886-TA-014
  - (b) ask the head of city development services to complete the necessary statutory processes to implement the advertised Traffic Regulation Orders for:
    - (i) The prohibition of right turn from Newmarket Road (outbound) to Leopold Road.
    - (ii) Shortening the inbound bus lane west of the junction of Newmarket Road with Leopold Road and Eaton Road by 45 metres as shown on Plan No. TAB1886-TA-012 .
- (3) If members are minded not to proceed with the scheme at the current time they should ask the head of city development services to defer the introduction of the improvement measures at the junction until budgets are increased.

### Financial Consequences

The complete scheme will cost £170,000. £70,000 of this is funded by Norfolk County Council from their traffic signal replacement programme and the remaining

£100,000, which represents the value of the improvements, could be funded from the Local Transport Plan budget, subject to member approval.

### **Strategic Priority and Outcome/Service Priorities**

The report helps to meet the strategic priority “Safe and healthy neighbourhoods – working in partnership with residents to create neighbourhoods where people feel secure, where the streets are clean and well maintained, where there is good quality housing and local amenities and where there are active local communities” and the service plan priority to implement the Local Transport Plan.

### **Contact Officers**

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### **Background Documents**

Consultation Returns

## **Report**

### **Background**

1. The existing traffic signals at the Newmarket Road/Leopold Road/Eaton Road junction were installed in 1989. The equipment is now obsolete, if the signals do need maintenance, the availability of replacement parts can no longer be guaranteed. Consequently the signals are due to be replaced in 2011/12 under the signal replacement programme.
2. As with other signal replacement schemes the opportunity was taken to investigate whether improvements could be made to the junction as part of the upgrade scheme, as this is the most cost effective way of introducing changes at signalled junctions. 2 issues were identified; During peak traffic flows, there is often congestion on the Newmarket Road / Outer Ring Road roundabout caused by queuing back from this junction, and the pedestrian facilities at the junction are inadequate to cope with the number of school children who use the junction.

### **Congestion**

3. Congestion on the Newmarket Road / Outer Ring Road roundabout is a regular occurrence, both in the morning and evening peak and mid afternoon, at school finishing time. These roads and roundabout are part of the strategic road network and a stated aim of the NATS strategy is to reduce congestion on the strategic network.
4. One of the main sources of congestion at the Newmarket Road / Ring Road roundabout is the Newmarket Road / Eaton Road junction. Currently there are two exit lanes off the roundabout on the county side, but these quickly merge into one to allow for a right turn lane into Leopold Road. As such drivers tend not to make full use of both lanes and instead queue across the roundabout.
5. Along with general traffic, outbound buses are affected by the congestion that impinges on journey time reliability.
6. As a result of this congestion many drivers try not to get caught up in this congestion and cut through residential streets in an attempt to avoid this roundabout, causing problems on smaller residential streets not designed for through traffic.

### **Pedestrian facilities**

7. There is an existing pedestrian crossing on the north east arm of this junction (Newmarket Road). This crossing, along with an all red period to vehicles operates only in response to a push button demand, there are no additional pedestrian sensors. The capacity of this crossing is not sufficient at school closing times when children try to cross Newmarket Road at this junction en mass.

8. Through earlier discussions with CNS and Ward Councillors, it was hoped to provide a second crossing on the south west arm of this junction to align pedestrians with the recently improved footpath on Leopold Road. However, due to the limited space on footways, position of private accesses and the position of underground services it is not possible to achieve without obtaining land outside of the existing highway boundaries of the junction, which would be prohibitively expensive.

### **Cycling facilities**

9. At present there is no provision to facilitate cyclists at this junction. On the outbound side of Newmarket Road the pavement is a shared use facility for pedestrians and cyclists. On the inbound side of Newmarket Road, cyclists are able to use the bus lane.

### **Proposals**

10. It was decided to combine a signal replacement with a junction improvement to combat congestion and give better facilities to both pedestrians and cyclists.
11. To improve traffic capacity at this junction and reduce congestion problems at the Daniels Road roundabout it is necessary to create two outbound traffic lanes on Newmarket Road from the roundabout to the junction with Eaton Road. The traffic can then merge together after the Leopold Road junction, increasing the throughput of the junction. Traffic modelling shows that this approach will enable a larger amount of traffic to pass through the junction at each green traffic light phase, reducing congestion.
12. The introduction of a dynamic control system (SCOOT), informed by new vehicle detectors will also increase the efficiency of the traffic signals.
13. However, to enable these two traffic lanes in the available road space, it is not possible to provide a right turn lane to facilitate vehicles turning into Leopold Road. Also to enable traffic sufficient time to merge into one lane south west of the junction, the existing inbound bus lane will need to be shortened by 45 metres.
14. To provide better facilities for the pedestrians, the existing pedestrian crossing will be widened to increase capacity, the 'green man' will be modernised in the style of a Puffin crossing. It is intended that pedestrian sensors will be installed to control the duration of the pedestrian crossing time, along with the associated all red phase. The retention of the all red phase will continue to provide protection to pedestrians who choose to cross the other arms of the junction.
15. To protect cyclists at this junction, cycle advanced stop lines have been included on three arms where cyclists are expected to be on the carriageway. On the outbound Newmarket Road approach cyclists are presumed to be on the cycle/footpath. If cyclists need to turn from the outbound Newmarket Road to Leopold Road they could either dismount and use the pedestrian crossing or join the traffic on Eaton Road and cross straight over to Leopold Road. Since

consulting the public, a new layout of the cycle/footpath connection with Eaton Road has been produced bringing the cyclist more inline with the advanced stop line on Eaton Road. This layout is detailed on Plan No. TAB 1886-TA-014 attached as appendix 3.

## **Consultation**

16. The Traffic Regulation Orders for the necessary right turn ban and shortening of the bus lane were advertised in February 2011. Plan No. TAB1886-TA-012 shows the proposed lay-out consulted on and is attached as appendix 1.
17. Residents in a large area surrounding the junction and in roads leading off Leopold Road were written to with the proposals. Norwich transport groups and other stakeholders were consulted. The closing date for consultation was officially 22<sup>nd</sup> February, however, comments received after this were accepted until this report was drafted.
18. Sixty five letters and emails were received. A summary of each one and officers comments can be found as appendix 2.
19. The main area of concern from residents was for the right turn ban. Concerns were expressed of drivers cutting through other narrow residential streets such as Melrose Road and Waldeck Road which has parking on both sides of the road, or turning right from Newmarket Road into Upton Road and blocking traffic on Newmarket Road. In total 28 people objected to the ban on vehicles turning right into Leopold Road.
20. Local ward members forwarded the concerns of residents and expressed a concern for the balance between benefit and disadvantage to local residents. With the knowledge of reduced budgets some questioned the value for money achieved from this scheme. County Councillor Bearman is concerned with the loss of bus lane on the inbound approach to this junction and the impact on cyclists safety.
21. Living Streets supports the improvements for pedestrians but objects to the shortening of the bus lane. Norwich Cycling Campaign supports the pedestrian improvements and the Advanced Stop Lines for cycles, however they also object to the loss of bus lane and road safety for cyclists. Norwich Bus Watch also objected to the reduction in bus lane.
22. Norfolk Constabulary gave their support for the proposed improvements at this junction and suggested a publicity campaign to encourage drivers to use the new merger lanes appropriately and merge in turn.
23. Both First and Konnect who operate bus services on Newmarket Road have broadly welcomed the proposals, particularly the fact that journey time reliability for outbound buses will be improved. However they have expressed reservations about the removal of 45m of inbound bus lane and the message that sends to other road users about bus priority.

## **Discussion**

24. During a recent survey, a maximum flow of 12 vehicles per hour was observed

turning right from Newmarket Road into Leopold Road. A copy of the turning count data is attached as appendix 3. Drivers who make this manoeuvre have 5 different alternative routes. These are

- Continuing along Mile End Road and turning left into Melrose Road
- Continuing along Mile End Road and turning left into Waldeck Road
- Continuing along Mile End Road and turning left into Unthank Road
- Continuing along Newmarket Road and turning right into Upton Road
- Turning off the ring road at Ipswich Road and turning into Eaton Road to go straight ahead at the junction

25. Given the low number of vehicles making the right turn and the number of different alternative routes available to drivers it is considered that any additional traffic on alternative routes will not be significant
26. The proposal of loss of 45m of bus lane is necessary to allow two merger lanes on the outbound side as this will increase capacity at the junction. It is common for bus lanes to end before junctions and vehicles need to converge with the buses and cyclists. This happens in many places in the City and has not proved to be a safety issue. In this case, buses will not have a priority at this junction, but will gain benefit along with general traffic at this junction. If the 2 exit lanes were not provided then it is likely that drivers would be put off from using the second ahead lane as merging would then take place within the limit of the junction. Experience suggests that even short exit lanes encourage drivers to use 2 ahead lanes at signalled junctions.
27. Following the consultation officers have looked again at whether it is possible to retain the existing length of the bus lane. However this would result in lane widths well below the minimum standard and there are significant safety concerns given the number of large vehicles that use the A11.
28. The modelling suggests that the reduction of the bus lane may introduce a delay of a few seconds for city bound buses. However this is more than offset by the predicted improvement for outbound buses that would be achieved if the roundabout was not congested. Journey time reliability for outbound buses would also be improved.
29. The introduction of a dynamic control strategy (SCOOT) would better equip the junction to respond to traffic congestion.
30. As stated earlier it is not possible to install a second pedestrian crossing on the south west arm of the junction as was initially suggested. However, with the proposed widening of the existing crossing to give a greater capacity and the retention of the associated all red phase, the improvements will ensure that pedestrians can cross at the junction in safety.
31. Concern has been expressed for the right turn ban from Newmarket Road into Leopold Road affecting cyclists. However, with the two approaching lanes from

the city direction needed for capacity at this junction, it is not physically possible to provide a safe waiting area for cyclists to facilitate a right turn. Cyclists should be encouraged to use the existing off road cycle/pedestrian path when exiting the city on Newmarket Road. With the proposed alterations to the cycle/pedestrian path as it meets Eaton Road, cyclists will be able to access Leopold Road with the Eaton Road traffic. It should also be noted that in a traffic survey carried out in 2010, only 7 cyclists took this right turn in a 12 hour period.

- 32. There have been some requests for the proposed pedestrian crossing to be made into a Toucan. This is not possible as the path on the north west side of Newmarket Road at this junction is not wide enough to provide a cycle path or encourage cyclists to share space with pedestrians.
- 33. Some residents and members questioned the wisdom of spending money at the junction at a time when budgets are under great pressure. It is essential that the replacement scheme goes ahead, as the existing equipment at the end of its' life and any failure of the equipment could result in the signals being out of commission for a significant period. The £70k for the replacement element is confirmed.
- 34. The scheme could go ahead without the improvement element, however if this were to happen the opportunity to introduce the pedestrian and cycle improvements, to improve journey time reliability for outbound buses and to relieve the congestion on the outer ring road would have to be deferred
- 35. If the improvements were not implemented as part of the replacement scheme but introduced at a later date, it is likely that the cost of such a scheme would be similar to the cost of the combined scheme. This is because although the new signal equipment could be re-used it would have to be moved, the controller would need to be modified. By combining the replacement and improvement scheme the best value for money is achieved.

### **Ward Member Comments**

- 36. The scheme has been discussed with the ward members and a meeting was held on site with two of them. The issues raised by residents were discussed and the members broadly understood the need for the scheme. However concerns remained about the value for money of the scheme in the current climate.

### **Conclusion**

- 37. At present all turning movements are allowed at the Newmarket Rd / Eaton Rd junction. A small number of drivers turn right from Newmarket Road to Leopold Road. If that movement is prohibited, road-space can be reallocated to allow 2 ahead lanes outbound from the city. It is estimated that by changing the layout in this way will result in a significant reduction in congestion at this junction, along with the Newmarket Road / Outer ring road roundabout. The numbers of drivers making the proposed banned turn is small enough not to have a significant impact on the roads that will be used as alternative routes, and those routes are not believed to be lengthy enough to cause major inconvenience to

local residents.

38. In previous years when overall budgets have been higher officers would not have hesitated in recommending that this scheme should be progressed as it addresses several key elements of NATS; improving facilities for pedestrian, cyclists and public transport users and relieving congestion on the strategic network. However, it is recognised that the improvement element of the scheme is almost 50% of the 2011/12 budget for improvement schemes in Norwich. As stated in the report on Highway Capital Improvement Programme which is also on the agenda, Members need to decide whether they wish to allocate half the available funding to one scheme.



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## Appendix 2 – Responses to the consultation

Respondant	Objects to right turn ban	Objects to bus lane change	Summary of respondents comments	Officer comments
Colin Page Norfolk Constabulary	Support overall	Support overall	Supports the proposal and suggests some publicity to encourage drivers to use both lanes on Newmarket Road outbound.	Support welcome, we shall consider some publicity.
John Woods Norfolk Bus Watch	Not stated	Objection	Objection from Norfolk Buswatch about shortening of inbound bus lane and effect on city bound bus services.	The shortening of the bus lane is unavoidable to enable the capacity improvements at the junction. At many junctions such as the Daniels Road roundabout the bus lane is stopped before the junction to allow all vehicles to use the left hand lane. The extra capacity at this junction will improve transport for buses as well as the general traffic.
Lucy Burrows Norwich Cycling Campaign	Not stated	Objection	Objection to the shortening of the bus lane and its negative effect on cyclists but support for proposed advanced stop lines. Suggests that lead in lane needs to be provided to make these more effective for cyclists. Supports the widening of the pedestrian crossing and the all red phase.	Support for pedestrian improvements acknowledged. The lane widths are being considered again to limit the effect on the bus lane and also see if it is possible to provide a cycle lane up to the advanced stop line on Newmarket Road inbound.
Paul Martin From First Bus and Julian Patterson from Konectbus	Agreement overall	Objection	Broadly in favour of the scheme however, the reduction of the bus lane is a step backwards, bus priority needs to be increased. Suggests making a bus lane from the roundabout to the Eaton Road junction, with other traffic on one outbound lane and increase the green time for outbound traffic.	A model has shown if the green time for Newmarket Road was increased, there would be unacceptable delays on Eaton Road and Leopold Road. A bus service runs on Eaton Road and this would be disadvantaged. The proposed approach of two lanes for general traffic would mean buses benefit from the greater capacity at the junction and less congestion, along with other vehicles.

## Appendix 2 – Responses to the consultation

Respondant	Objects to right turn ban	Objects to bus lane change	Summary of respondents comments	Officer comments
Belevedere Place residents association	Objection	Not stated	Objection to right turn ban. Concerned with traffic impacts on local streets. Concerned about the safety of drivers who would turn right into Upton Road crossing oncoming traffic on Newmarket Road. Believes that a bus layby on Newmarket Road would assist with traffic flow and reduce congestion.	It is anticipated that most traffic would use Unthank Road to access Leopold Road and would not cause traffic problems. There are no funds available to consider a bus stop layby on Newmarket Road. All emergency vehicles during an emergency would be except from this right turn ban.
Chair of Belvedere Place Residents Association	Objection overall	Not stated	Concerned about safety of right turn into Upton Road. Believes that congestion is caused by buses on Newmarket Road and suggests bus layby. Concerned about speeding of vehicles on Leopold Road if there is no oncoming traffic.	It is anticipated that most traffic would use Unthank Road to access Upton Road. If a vehicle is turning right into Upton Road from Newmarket Road there will be enough space for other vehicles to pass. We do not have funds to provide laybys for buses on Newmarket Road. Vehicles will still be able to access Leopold Road from Eaton Road or as inbound traffic from Newmarket Road.
Resident Belvedere Place	Objection overall	Not stated	Concerned about traffic congestion which may be caused at the junction. Specifically concerned that the existing pedestrian crossing is not inadequate for needs, that congestion is peak hours only and is due to the merging tapering of the filter lane.	Congestion is always at peak traffic flow times and any junction design must be designed to cope with this. The existing pedestrian facility is outdated and needs to be modernised to work efficiently with the traffic.
Resident Belvedere Place	Objection overall	Not stated	Objection to proposal on grounds of cost and impact on local roads. Believes funds should be spent on road maintenance, queries why the existing pedestrian crossing requires change. Concerned with road safety with traffic having to turn right into Upton Road from Newmarket Road.	the cost of improvements is reduced by working with the County Council on their replacement programme. The existing pedestrian crossing needs modernisation and also to provide greater capacity.

## Appendix 2 – Responses to the consultation

Respondant	Objects to right turn ban	Objects to bus lane change	Summary of respondents comments	Officer comments
Resident Belvedere Place	Objection overall	no	Objection based on inconvenience cause to residents due to proposed right turn ban	As above.
Resident Belvedere Place	Objection overall	Not stated	Objection overall. Concerned that the right turn ban will affect residents of Leopold Road permanently whilst the measures to help CNS pupils at limited hours of the week. Concerned about traffic impacts on residential roads caused by rerouted traffic.	The right turn ban is to accommodate greater capacity at this junction. By improving traffic flow on the main road network we will encourage drivers to keep to the main road and not rat run through the residential streets. This will be of benefit to local residents. It is anticipated that most traffic would use Unthank Road to access Leopold Road and would not cause traffic problems.
Resident Cairns Court	Objection overall	Not stated	Does not believe that a full time right turn can be justified as the problem with CNS pupils is only a morning peak problem for 30mins a day. There is insufficient information given to support the business case for this proposal to justify the inconvenience caused by the right turn ban.	The reason for the right turn ban is not for the pedestrian facilities but the necessary traffic lanes to stop congestion as stated in report.
Resident Eaton Rise	Support overall	Not stated	Support for proposals. Is a cyclist with children and concerned about road safety at this junction. Wishes there to be cycling provision on Eaton Road.	Support acknowledged, but there are no further funds available to provide cycle facilities on Eaton Road.
Resident Eaton Road	Support overall	Support overall	Support in principle. Requests work is carried out in the school holidays to minimise disruption.	Support acknowledged. If the scheme does get Member approval the installation will be carried out to minimise disruption.
Resident Eaton Road	Not stated	Not stated	Concerned that proposed vehicle detection equipment will not ease traffic flow on Newmarket Road which is severely congested.	Modelling has shown the proposed 'intelligent system' to monitor the traffic will greatly improve traffic flow at this junction and on the surrounding road network.

## Appendix 2 – Responses to the consultation

Respondant	Objects to right turn ban	Objects to bus lane change	Summary of respondents comments	Officer comments
Resident Eaton Road	Support overall	Not stated	Support overall for proposals. Concerns that the merge in turn will continue to cause tailbacks to the Daniels Roundabout. Also asks if the junction could be kept clear of queuing traffic which causes obstruction for traffic exiting Eaton Road.	Merge in turn has been used very successfully over the city. This allows a greater capacity at the junction. This proposal should improve congestion on Daniels Road roundabout, when there is less congestion, traffic is less likely to block this junction
Resident Eaton Road	Not stated	Not stated	Objection to right turn filter from Newmarket Road into Eaton Road on grounds that traffic into Eaton Road should be discouraged.	The turn right filter into Eaton Road is necessary to manage traffic at this junction and should not itself encourage more traffic to use Eaton Road than at present.
Resident Eaton Road	Support overall	Not stated	Support overall for proposals but with concern about difficulties turning right into Eaton Road.	Support acknowledged. The right turn into Eaton Road will be helped by the proposed traffic signal filter.
Resident Eaton Road	Support overall	Not stated	Support overall. Suggests that another footpath is constructed on the city side of Leopold Road to encourage use by CNS pupils and discourage rat running traffic. Concerned about use of Eaton Road for lorries.	Support acknowledged. An extra footpath on the city side of Leopold Road was proposed in the past, but residents concerns and road widths meant the existing path was improved, but an extra path on the opposite side was not installed.
Resident Kingston Square	Not stated	Not stated	Concerned that the right turn ban will increase the amount of traffic onto Upton Road and onto other unsuitable local roads to gain access to Leopold Road. Asking for traffic calming or right turn ban onto Upton Road.	The safer route to Leopold Road from the city direction would be via Unthank Road. We have no plans for further restrictions or traffic calming.



## Appendix 2 – Responses to the consultation

Respondant	Objects to right turn ban	Objects to bus lane change	Summary of respondents comments	Officer comments
Resident Kingswood Close	Not stated	Not stated	Concerned about the road safety implications of the proposal as the merge after the junction could result in driver conflict. Also concerned for the safety of cyclists who ride on the road rather than the cyclepath.	Merge in turn has been used very successfully over the city. This allows a greater capacity at the junction. When we provide a safer environment for cyclist with a cyclepath, we can only encourage it's use. Unfortunately there will always be some cyclist who prefers to ride on the road.
Resident Leopold Close	Not stated	no comment	Supports proposed advanced stop cycle lines. Concerned about right turn ban for cyclists.	Cyclists approaching the junction on the outbound cycle/footway would be directed to the advanced stop line on Eaton Road to cross into Leopold Road from Eaton Road. There is no room in the highway to enable a safe stopping area for cyclists wishing to turn right into Leopold Road.
Resident Leopold Road	Support overall	Not stated	Support in principle. Suggests that Leopold Road becomes 1 way towards Newmarket Road.	If Leopold Road was one way, traffic would travel at greater speeds and become dangerous.
Resident Leopold Road	Support overall	Not stated	Support overall for proposals. Concerns that alternative routes into Leopold Road are not suitable due to narrow single lane traffic routes through terraced streets. Suggests that an access only restriction would be suitable.	Support acknowledged. It is anticipated that most traffic would use Unthank Road to access Leopold Road and would not cause traffic problems.
Resident Leopold Road	Not stated	Not stated	Suggests that right turning traffic into Leopold Road does not cause delays to traffic on Newmarket Road. Is concerned that CNS pupils ignore the traffic signals and cross when signals are in favour of vehicles.	The right turn ban is proposed to accommodate the two lane approach to the junction to increase capacity. The all red light phase and pedestrian sensor should enhance pedestrian safety at this junction.

## Appendix 2 – Responses to the consultation

Respondant	Objects to right turn ban	Objects to bus lane change	Summary of respondents comments	Officer comments
Resident Leopold Road	Objection overall	Not stated	Objection overall. Concerned that the merge in turn will cause more congestion than at present and worsen road safety. Concerned about the possible increase in traffic on Leopold Road and other side roads. Request traffic calming on these residential roads.	Merge in turn has been used very successfully over the city. This allows a greater capacity at the junction. There are no funds to consider traffic calming on these residential roads
Resident Leopold Road	Objection overall	Not stated	Objection overall. Suggests that road could be widened to accommodate the right turn lane. Does not accept that the pedestrian crossing could not be installed on the western arm of the junction.	All schemes must give value for money. The cost involved in widening the road to allow right hand turns and an extra pedestrian crossing on the western arm would be well beyond our budget and would not be effective use of public money.
Resident Leopold Road	Objection overall		Objection overall. Believes traffic would use Upton Road if could not turn into Leopold Road. Concern about impact of traffic upon residential roads.	With the existing road width, the only way two outbound lanes on Newmarket Road can be accommodated is to completely ban the right turn into Leopold Road. This will have an effect on local residents but by improving traffic flow on the main road network which will encourage drivers to keep to the main road and not rat run through the residential streets.
Resident Leopold Road	Objection overall	Not stated	Concerned that right turn ban would force traffic into Upton Road which would cause danger for drivers on Newmarket Road. Suggests that a PCSO manages CNS pupils at the junction. Believes that spending funds on this proposal is unacceptable and residents should not be inconvenienced for the benefit of CNS pupils.	It is anticipated that most traffic would use Unthank Road to access Upton Road. If a vehicle is turning right into Upton Road from Newmarket Road there will be enough space for other vehicles to pass. Police resources do not allow for daily support at this junction and it is paramount that journeys to school are made as safe as possible as we need to protect vulnerable road users in our society.

## Appendix 2 – Responses to the consultation

Respondant	Objects to right turn ban	Objects to bus lane change	Summary of respondents comments	Officer comments
Resident Leopold Road	Objection overall	Not stated	Objection to right turn ban. Believes this has a disproportionate effect on residents. Suggests a peak only right turn ban as a compromise.	With the existing road width, the only way two outbound lanes on Newmarket Road can be accommodated is to completely ban the right turn into Leopold Road. This will have an effect on local residents but will greatly increase the capacity of the junction and ease congestion on the outer ring road.
Resident Melrose Road	Not stated	Not stated	Main concern is rat running in residential streets due to congestion at Daniels roundabout.	By improving traffic flow on the main road network we will encourage drivers to keep to the main road and not rat run through the residential streets.
Resident Melrose Road	Objection overall	no comment	Concerned that congestion is caused at Daniels Roundabout which needs more attention and the impact the proposed right turn ban would have on local roads. Suggests that the crossing should be for cyclists and pedestrians.	This junction improvement will alleviate congestion on the Daniels roundabout. The pedestrian crossing could not be made into a toucan crossing as the north pavement is not wide enough for cyclists and pedestrians.
Resident Melrose Road	Not stated	Not stated	Support for vehicle detection equipment but concerned of increased traffic on Waldeck and Melrose Roads.	It is anticipated that most traffic would use Unthank Road to access Leopold Road and would not cause traffic problems.
Resident Address Unknown	Not stated	Not stated	Main concern is traffic on Leopold Road not the junction. Believes that proposal would only push congestion further up Newmarket Road.	In this scheme we have no scope to consider restrictions on Leopold Road itself. Traffic merging after junctions have shown to work well at other junctions of the city such as at the Aylsham Road/ Woodcock Road junction, enabling more traffic to pass through on a green light.
Resident Address Unknown	Not stated	Not stated	Concerned that the proposals do not prevent the main cause of the problem which is CNS pupils not using the designated crossing point.	There are two main concerns at this junction. Congestion on the main road network and pedestrian safety. This proposal will help alleviate the congestion and the build up of traffic on the ring road. The pedestrian safety will be enhanced by the larger capacity of the crossing, pedestrian sensors and the all red light phase at the junction to allow safe crossing of all arms.



## Appendix 2 – Responses to the consultation

Respondant	Objects to right turn ban	Objects to bus lane change	Summary of respondents comments	Officer comments
Resident Address Unknown	Objection overall	Not stated	Objection to right turn ban due to inconvenience to local residents and impact on side roads but in support of improved crossing facilities for pedestrians and cyclists.	By improving traffic flow on the main road network we will encourage drivers to keep to the main road and not rat run through the residential streets. This will be of benefit to local residents.
Resident Address Unknown	Support overall	Not stated	Support for proposals. Support for advanced stop lines and pedestrian crossing improvements. Concern about driver behaviour and safety at the junction.	Support acknowledged.
Resident Address Unknown	Support overall	Not stated	Support for proposals. Suggests longer cycle lanes to the approach of the junction especially on Eaton Road as there can be long queues of traffic. There are road safety and delay issues with the current traffic signals at the junction.	Support acknowledged. There is insufficient road width on Eaton Road to provide a cycle lane up to the junction. The existing congestion at the junction will be improved by the proposals.
Resident Address Unknown	Support overall	Not stated	Support for proposals. Suggests that a PCSO observes the junction at school times to ensure pupils comply with the crossing.	Support acknowledged. Road safety at the junction will be monitored, we may be able to get assistance from a PCSO, but that would not be permanent.
Resident Address Unknown	Support overall	Not stated	Support for proposals. Some concern about traffic merging after the junction	Support acknowledged. Traffic merging after junctions has shown to work well at other junctions of the city such as at the Aylsham Road/ Woodcock Road junction, enabling more traffic to pass through on a green light with little problems. Merge in turn signs help.
Resident Leopold Road	Objection (implicitly made but not explicitly stated)	Not stated	Several concerns about the merits of the proposals and value for money. Concerns about the effect of the right turn ban on traffic and questions if congestion would be reduced.	The Norfolk County computer model has shown that the designed layout and staging of the traffic signals will reduce congestion. The small number of vehicles who presently turn right at this junction into Leopold Road would not cause a traffic problem on the local roads if using a different route.

## Appendix 2 – Responses to the consultation

Respondant	Objects to right turn ban	Objects to bus lane change	Summary of respondents comments	Officer comments
Resident Address Unknown	Support overall	Not stated	Support for proposals. Notes that cyclists use the pedestrian crossing without out conflict at present.	Support acknowledged. Cyclists often use pedestrian crossings without confrontation however, there is concern for the width of the pavement to the north of this crossing.
Resident Address Unknown	Support overall	Objects	Support for crossing improvements. Opposed to bus lane reduction as this affords benefits for buses and cyclists.	Support acknowledged, however there is insufficient room in the carriageway to extend the bus lane further due to the need for the merging traffic. Buses will not be unfairly affected due to the increase in flow of all traffic.
Resident Address Unknown	Support overall	Not stated	Support for proposals. Believes that the right turn ban would reduce vehicular traffic on Leopold Road and would improve crossing facilities for CNS pupils and traffic on Newmarket Road.	Support acknowledged
Resident Peckover Road	Not stated	Objection	Supports pedestrian improvements at this junction but objects to the loss of the inbound bus lane. Considers that bus users will suffer at the benefit of general traffic	As above. It should also be noted that buses will gain benefit from less congestion with the general traffic in this area
Resident Pine Close	Objection overall	Not stated	Concerned that Upton Road is not suited to additional traffic, especially due to commuter parking, suggests installation of double yellow lines.	It is anticipated traffic coming out of the city will find alternative ways of accessing Upton Road than from Newmarket Road. It would be safer to enter from Unthank Road.
Resident Queens Close	Not stated	Not stated	Concerned about the cost of the proposal and whether the footpath on Leopold Road could be relocated to the other side of the road as so many pedestrians use the road instead.	The cost of the proposal is minimised to the City Council as we are working with the County whilst they are carrying out essential maintenance work. Recently a proposal to install a footpath on the eastern side of Leopold Road was stopped because of concerns from residents. Leopold Road has a 20mph speed limit at the narrow point which helps with road safety, and crossing points have been added to ensure all road users can cross Leopold Road to use the pavement.

## Appendix 2 – Responses to the consultation

Respondant	Objects to right turn ban	Objects to bus lane change	Summary of respondents comments	Officer comments
Resident Queens Close	Objection	Not stated	Objection to right turn ban and the consequences this has for turning into Upton Road and other local streets. Is generally concerned with safety of traffic on Newmarket Road and local streets. Supports filter for traffic turning into Eaton Road.	It is anticipated that most traffic would use Unthank Road to access Leopold Road and would not cause traffic problems.
Resident Queens Close	Support overall	Not stated	Support overall. Some concern about ability to turn right safely into Upton Road.	Support acknowledged. Upton Road residents would be safer to access from Unthank Road when coming from the east.
Resident Unthank Road	Objection overall	Not stated	Concerned about road safety caused by the merging of lanes after the junction. Supports the widening of the pedestrian crossing and advanced cycle stop lines.	Support for pedestrians and cyclists facilities welcome. Merge in turn has been used very successfully over the city and has not shown any safety issues.
Resident Unthank Road	Not stated	Not stated	Concern that additional traffic would be sent onto Unthank Road which suffers from congestion and air pollution.	Unthank Road is a main radial road in Norwich. This road is able to take the small number of extra vehicles in the outbound lane that would use it.
Resident Unthank Road	Objection overall	Objection overall	Concerns raised that the merge of 2 lanes after the junction will simply move the problem along Newmarket Road and with the safety of puffin crossings. Concerned that city bound traffic merging before the junction will be hazardous. Opposed to right turn ban in Leopold Road as this will increase traffic on unsuitable local roads.	The aim of the proposals is to increase capacity at this junction to get traffic moving out from the outer ring road onto Newmarket Road. Public perception of puffin crossings is mixed however, there is no accident records to support any concern. Inbound traffic merging into one lane with buses and cycles happens where a bus lane ends throughout the city. These have shown no safety issues to date. It is anticipated that most traffic would use Unthank Road to access Leopold Road or Upton Road and would not cause traffic problems.

## Appendix 2 – Responses to the consultation

Respondant	Objects to right turn ban	Objects to bus lane change	Summary of respondents comments	Officer comments
Resident Uplands Court	Objection overall	Not stated	Objection to right turn ban as this is convenient way to enter Leopold Road, concerned that would have to turn into Upton Road from Newmarket Road instead. Suggestion to make Leopold Road one way towards Newmarket Road.	It is anticipated traffic coming out of the city will find alternative ways of accessing Upton Road than from Newmarket Road. It would be safer to enter from Unthank Road. If Leopold were made one way, traffic speeds would increase.
Resident Upton Close	Support overall	Support overall	Support given	Support acknowledged
Resident Upton Close	Not stated	Not stated	Concern that the right turn ban will increase rat running through Upton Road and believes that congestion on A11 is due to sheer weight of traffic	Modelling carried out by the County engineers shows this proposed arrangement will alleviate congestion, with less congestion, drivers will be encouraged to stick to main roads.
Resident Upton Close	Objection overall	Not stated	In support of widened pedestrian crossing, vehicle detection equipment and advanced stop lines however opposed to the right turn ban as this will negatively affect Upton Road and the merge after the junction is more problematic than the current situation.	This proposed arrangement will alleviate congestion and encourage drivers to stick to main roads. Traffic merging after junctions has shown to work well at other junctions of the city such as at the Aylsham Road/ Woodcock Road junction, enabling more traffic to pass through on a green light with little problems. The merge in turn signs help.
Resident Upton Close	Objection overall	Not stated	Concerned about right turn ban and traffic implications for Upton Road and local residential streets. Road safety concerns about turning right into Upton Road from Newmarket Road.	It is anticipated that most traffic would use Unthank Road to access Upton Road and would not cause traffic problems. Cycle access into Leopold Road will be accommodated from Eaton Road.

## Appendix 2 – Responses to the consultation

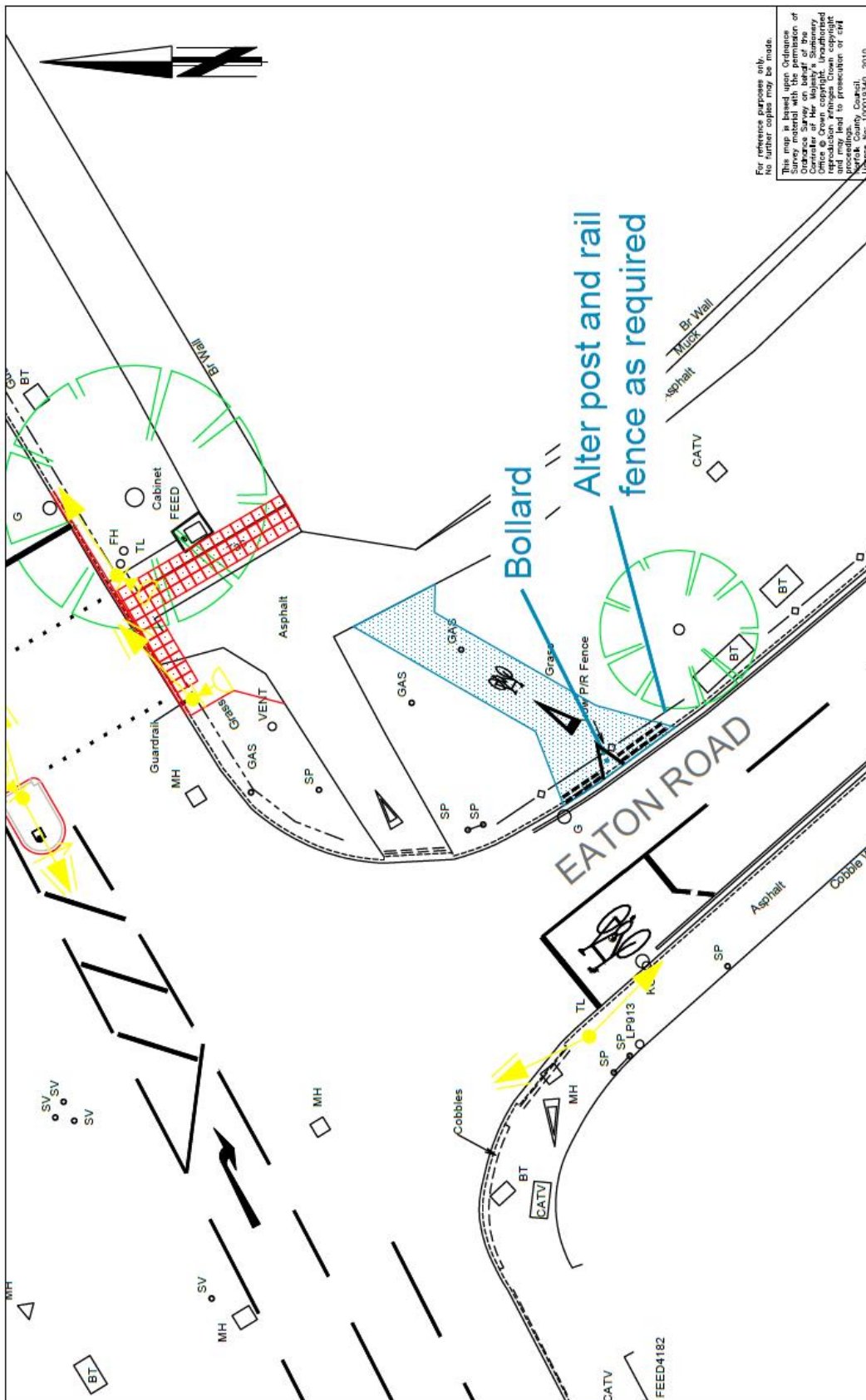
Respondant	Objects to right turn ban	Objects to bus lane change	Summary of respondents comments	Officer comments
Resident Upton Road	Objection overall	Not stated	Objection to proposals due to concerns about inconvenience of having to turn into Upton Road from Newmarket Road. Believes resources should be spent on making CNS pupils use the pavements.	It is anticipated traffic coming out of the city will find alternative ways of accessing Upton Road than from Newmarket Road. It would be safer to enter from Unthank Road. CNS are very pro-active in engaging with their pupils over road safety. However, teenagers generally are the least compliant group of road users and it is very difficult to change their behaviour
Resident Upton Road	Objection overall	Not stated	Asks if scheme is affordable and is concerned about traffic impact on Upton Road if right turn ban goes ahead. Asks for traffic calming on Upton Road. Questions rationale of advanced stop lines for cyclists, need for right turn lane into Eaton Road and observes that CNS pupils continue to walk in the middle of Leopold Road despite a pavement being provided.	The cost of the proposal is minimised to the City Council as we are working with the County whilst they are carrying out essential maintenance work. However, there is no money available for traffic calming schemes that would only benefit a small section of residents. The improvements at this junction would benefit all road users, drivers, pedestrians and cyclists.
Resident Upton Road	Not stated	Not stated	Concerned of traffic impacts upon residential road caused by the right turn ban. Believes that outbound congestion is a peak evening occurrence only and that the all red phase should be a school times only. Considers that traffic will be held up by right turning traffic attempting to turn into Upton Road.	It is anticipated that most traffic would use Unthank Road to access Leopold Road or Upton Road and would not cause traffic problems. The all red phase would only work when the pedestrian crossing is used.
Resident Upton Road	Objection	Not stated	Concerned that consequence of right turn ban will be hazardous for turning right into Upton Road and impact on local streets. Notes that vehicles do not use both lanes from Daniels Roundabout. Concerns about cycle access.	It is anticipated that most traffic would use Unthank Road to access Upton Road and would not cause traffic problems. Cycle access into Leopold Road will be accommodated from Eaton Road.

## Appendix 2 – Responses to the consultation

Respondant	Objects to right turn ban	Objects to bus lane change	Summary of respondents comments	Officer comments
Resident Upton Road	Objection	Not stated	Concern that residents of Upton Road would have to turn across dangerous traffic on Newmarket Road or approach from Eaton Road passing CNS. Believes that alternative routes will increase traffic on local residential roads which are not suited to extra traffic.	Residents of Upton Road could easily access their road off Unthank Road if coming from the east.
Resident Upton Road	Objection overall	Not stated	Does not believe that the scheme has any benefits. Does not believe that having the merge after the junction would change traffic flow. Does not believe that the pedestrian crossing should be widened or advanced cycle stop lines. Concerned about road safety of turning right into Upton Road. Suggests yellow box marking for roundabout.	The two lanes from the roundabout to the junction with merge lanes after the junction has been shown by modelling to create greater capacity at this junction. It is important to provide adequate provisions for vulnerable road users such as pedestrians and cyclists. Under traffic signs regulations, Daniels Road roundabout is not suitable for a yellow box to be installed.
Resident Wakehurst Close	Objection overall	Not stated	Objection overall. Concerned about the right turn ban and its consequences and inconvenience especially upon Upton Road, local residents and businesses of Leopold Road. Makes suggestion about sequencing of traffic lights to improve traffic flow.	The right turn ban is to accommodate greater capacity at this junction. By improving traffic flow on the main road network we will encourage drivers to keep to the main road and not rat run through the residential streets. This will be of benefit to local residents.
Anon	Not stated	Objection	Objection to loss of length of in bound bus lane and impact this will have on cyclists in heavy traffic and believes the two lanes of outbound traffic is not necessary. Advanced stop lines for cyclists on side roads is welcome but require lead in lane. Larger space for cyclists on Eaton Road behind the advanced stop line is needed.	Support for pedestrian improvements acknowledged. The lane widths are being considered again to limit the effect on the bus lane and also see if it is possible to provide a cycle lane up to the advanced stop line on Newmarket Road inbound. The area provided for cyclists behind the advanced stop line on Eaton Road is the maximum allowed under traffic regulations.



# Appendix 3 – Amendments to cycle lane



INIT.	DATE	DRAWING NO.
		TAB1886-TA014
SURVEYED BY	DESIGNED BY	PROJECT TITLE
	DAS	1110 Newmarket Road / Eaton Road
DRAWN BY	CHECKED BY	FILE NO.
DW		1210
		SCALE
		1:200
		TAB1886

REV.	DESCRIPTION	CHECKED DATE

DRAWING TITLE
Proposed Eaton Road Cycle Link Preliminary Layout

Mike Jackson Director of Environment, Transport and Development Norfolk County Council County Hall Marineau Lane Norwich NR1 2SG
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**Norfolk County Council**  
working with  
**MAY GURNEY**

**Mark MacDonald**

#### Appendix 4 – Right turn count from Newmarket Road into Leopold Road

Time	Pedal Cycle	Car / Taxi	Goods Vehicle	15 minTotal	Rolling Hour Total	Time	Pedal Cycle	Car / Taxi	Goods Vehicle	15 minTotal	Rolling Hour Total
07:00				0	2	13:00		2		2	7
07:15			1	1	3	13:15		3		3	5
07:30				0	3	13:30		2		2	3
07:45		1		1	5	13:45				0	3
08:00		1		1	8	14:00				0	4
08:15		1		1	9	14:15		1		1	6
08:30		1	1	2	8	14:30		1	1	2	6
08:45		3	1	4	8	14:45		1		1	5
09:00		2		2	6	15:00		2		2	6
09:15				0	4	15:15		1		1	6
09:30		1	1	2	8	15:30		1		1	5
09:45		2		2	11	15:45		2		2	7
10:00				0	12	16:00		2		2	8
10:15		4		4	12	16:15	1			0	7
10:30		5		5	10	16:30		3		3	7
10:45		3		3	8	16:45		3		3	6
11:00	1			0	5	17:00		1		1	3
11:15		1	1	2	6	17:15	1			0	5
11:30		2	1	3	4	17:30	1	2		2	5
11:45				0	2	17:45	1			0	4
12:00			1	1	4	18:00	1	3		3	4
12:15				0	5	18:15	1			0	
12:30		1		1	8	18:30		1		1	
12:45		2		2	9	18:45				0	
<b>12 Hour Total</b>							<b>7</b>	<b>61</b>	<b>8</b>	<b>76</b>	