Report to

Norwich highways agency committee

21 January 2016

Joint report of

Executive Head of Service, Regeneration and Development (county) and head of city development services (city)

Subject

Transport for Norwich - Catton Grove Road - Woodcock Road roundabout and 20mph speed limit.

#### **Purpose**

To consider the responses to Catton Grove Road - Woodcock Road roundabout improvement and 20mph area statutory consultation and approve the proposals for implementation.

#### Recommendation

To;

- (1) acknowledge the responses to the consultation;
- (2) approve the implementation of the proposals for improvements to Catton Grove Road Woodcock Road roundabout and extension of the 20mph restrictions along Catton Grove Road, consisting of
  - a) A reduction of carriageway space on the roundabout by realigning outer kerbline radii and widening of the perimeter footways, converting these footways to unsegregated shared-use cyclist and pedestrian cycleways on each quadrant.
  - b) The provision of shared-use pedestrian cyclist zebra 'tiger' crossings on each of the four approach arms to the roundabout, of Woodcock Road and Catton Grove Road. Each of these zebra crossings are to be constructed on speed reducing raised tables. These shared-use zebra crossings on raised tables together with the adjacent converted footways will create a continuous gyratory for cyclists and pedestrians, based on an adaption of "Dutch-style" roundabouts.
  - c) An extension of the existing 20mph zone restrictions along the southern extent of Catton Grove Road, to replace the existing 30mph speed limit between the crossroads junction of Angel Road, Elm Grove Lane/Philadelphia Lane heading northwards to Lilburne Avenue adjacent to the Woodgrove Parade shopping precinct just south of the roundabout.
  - d) The provision of four pairs of traffic calming speed cushions within this new 20mph speed zone extension.
- (3) Complete the necessary statutory processes associated with the installation of the 20mph Speed Restriction Order.

#### Corporate and service priorities

The report helps to meet the corporate priority of a safe, clean and low carbon city and the service plan priority to implement the Local Transport Plan and Norwich Area Transportation Strategy.

## Financial implications

£300,000 is available from the Transport for Norwich programme budget to implement this project.

Ward/s: Catton Grove; bordering neighbour Sewell

Cabinet member: Councillor Bremner, environment and sustainable development

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## Report

#### **Policy Background**

- Norwich and its surrounding area is becoming an increasingly popular area to live, work and visit. It is the number one shopping destination in the Eastern Region and becoming one the Nation's premier cultural centres. To ensure the Greater Norwich Area continues to be popular and grow, the transport systems need to be able to cope with the increased demand.
- 2. Norwich is a medieval city with a narrow road system; incorporating a 21st century transport system to cope with the increased demand without sacrificing highway space for a particular transport mode or at the expense of green space and historic buildings is challenging.
- 3. The Norwich area Transportation Strategy (NATS) now more widely known as Transport for Norwich (TfN), is the adopted strategy which will deliver the transport improvements needed over the next 15 plus years. The strategy recognises everybody's journeys are different and does not look to force people to use one particular mode. It does look to give people viable options on how they choose to travel and actively promote sustainable transport. To do this in some areas of the network there needs to be a re-balance of the highway space available.
- 4. The Strategy details the plan for future delivery of improvements in order to develop sustainable transport, reduce congestion and improve air quality within the Greater Norwich area. The strategy has already delivered key improvements such as the award winning Norwich Bus Station, St Augustine's Gyratory, a network of Park & Ride facilities, St Stephens and Chapel Field North and various Bus Rapid Transit (BRT) improvements. It also includes the recently completed Postwick hub and the Northern Distributor Road which is due for completion late 2017.
- 5. The implementation plan for the Norwich Area Transportation Strategy (NATSIP) was agreed by Norfolk County Council in April 2010 and updated in November 2013 (see link for updated implementation plan http://www.norfolk.gov.uk/view/NCC158241)
   The plan sets out the range of transport measures, together with their general intended phasing, for delivery over the short to medium term. The plan has now been updated to take account of what has been delivered since 2010, and to reflect the latest position on future scheme delivery, given progress with implementation, and now that the growth plans for the area are more clear (see joint core strategy document: http://www.greaternorwichgrowth.org.uk/dmsdocument/1953).
- 6. Cycling is on the increase for both recreation and commuting nationally and the area has a thriving cycling community. The implementation of a citywide cycling network (see link to cycle map <a href="http://www.norwich.gov.uk/TransportAndStreets/Transport/Cycling/Documents/CyclingMapFront.pdf">http://www.norwich.gov.uk/TransportAndStreets/Transport/Cycling/Documents/CyclingMapFront.pdf</a>) is a key part of the Transport for Norwich Strategy as by delivering a comprehensive city network this reduces a number of short distance car journeys removing pressure on the network, as well as offering improving quality of life and the health benefits that have been well documented.
- 7. The Greater Norwich area is one of 8 urban areas across the country that has been successful in bidding for Cycle Ambition funding from the Department for Transport to

comprehensively improve the quality of cycling infrastructure across the Norwich cycle network a copy of the application documents can be found here <a href="http://www.norwich.gov.uk/TransportAndStreets/Transport/Cycling/Pages/CycleCityAmbitionGrant2015.aspx">http://www.norwich.gov.uk/TransportAndStreets/Transport/Cycling/Pages/CycleCityAmbitionGrant2015.aspx</a>.

### **Background**

- 8. The Catton Grove Road Woodcock Road Roundabout scheme is part of the CCAG2 strategy which aims to improve walking and cycling infrastructure in the Norwich area. The Catton Grove Road Woodcock Road Roundabout relates to the yellow pedalway which passes through the roundabout in a north-south direction along Catton Grove Road.
- 9. This report focusing on Catton Grove Road Woodcock Road Roundabout seeks to improve the cycling provision at this location along the yellow Pedalway. These cycling improvements are aimed at i) confident on-carriageway cyclists, as well as ii) providing an off-carriageway facility for vulnerable or less confident cyclists, which caters for a wide age range, from unaccompanied youngsters to elderly cyclists.
- 10. Within the last five years there have been 10 slight severity accidents at the Catton Grove Road Woodcock Road roundabout, of which seven involved cyclists.

|   | Accident Date.            | Accident Type  |
|---|---------------------------|--|
| 1 | September 2011, daytime.  | Collision between car and cyclist. Car driver at fault, failed to look properly. Also failed to stop at scene of accident (hit and run). |
| 2 | January 2012,<br>daytime. | Collision between car and cyclist. Car driver error : failed to look properly.   |
| 3 | September 2012, daytime.  | Collision between car and cyclist. Head-on collision as car was overtaking another moving vehicle.                                       |
| 4 | October 2013, daytime.    | Collision between car and cyclist. Car driver error : failed to look properly.   |
| 5 | November 2013, daytime.   | Collision between car and cyclist. Car driver error : failed to look properly; failed to judge speed of cyclist.                         |
| 6 | April 2014,<br>daytime.   | Collision between cyclist and Van/goods vehicle. Bicycle had defective brakes.   |
| 7 | May 2014,<br>daytime.     | Collision between cyclist and car. Car driver failed to look properly; driver failed to give way.  |

11. Five of the seven accidents were recorded as driver error of 'failure to look properly', indicating a trend pattern issue of excessive speeds on approach to the roundabout junction.

#### **Proposals**

- 12. The proposals at this roundabout looks to address three key areas i) reduce danger to cyclists posed by traffic driving too quickly through the roundabout; ii) improve provision of segregation between cyclists and traffic; and iii) provide pedestrian crossing facilities at the roundabout on each approach arm.
- 13. Currently there are no pedestrian crossing facilities on any of the approach arms to the roundabout in this light-to-moderate trafficked location. It is to be noted that this location is a major pedestrian junction for school children and also for the adjacent local shopping precinct, Woodgrove Parade. The scheme proposals will provide a shared-use cycle and pedestrian crossing on each approach arm.
- 14. Traffic speeds will be reduced on all of the four approaches to the roundabout, by the installation of raised tables to accommodate the shared-use cyclist and pedestrian crossings. Additional traffic calming speed cushions are being proposed along the southern extents of Catton Grove Road between Lilburn Avenue and Angel Road together with amendment to the speed limit from 30mph to 20mph.
- 15. Wider ranging responses received during the consultation have requested extensions to the existing 20mph areas with traffic calming measures. Whilst these requests sit outside of the direct scope of this project, these measure are seen as successful.
- 16. In April 2015, a project brief for the scheme was issued to Norfolk County Council's Highway Projects design team, with one objective within the brief being to determine whether fully segregated cycle lanes around the roundabout perimeter, known as a Dutch-style roundabout, could be introduced in this location. Photographic examples of a Dutch-style roundabout trialled by the Transport Research Laboratory (TRL, Wokingham, Berkshire) is shown in Appendix 1 of this report. The preliminary design concluded that it was not possible to construct a "Dutch-style" roundabout with fully segregated cycle lanes in this location due to site constraints without the purchase of adjacent residential land.
- 17. A variation in the design was subsequently developed, and considered by the design team to meet the objectives of the scheme brief.
- 18. In September 2015, following the preliminary design, approvals were obtained from the Local Member and Ward Members to carry out statutory consultation on the following proposals:
  - (a) Widening of the four existing footways surrounding the roundabout, converting each to shared-use for cyclists and pedestrians;
  - (b) Installation of four shared-use Zebra 'tiger' pedestrian and cyclist crossings, each on speed reducing crossing raised tables for cyclists and pedestrians travelling around the outer gyratory shared-use footways of the following side roads: Catton Grove Road (both North and South approaches) and Woodcock Road (both East and West approaches);
  - (c) Install four pairs of speed cushions on Catton Grove Road, adjacent to numbers 7/9, 10, 24/26 and 34, each cushion with a height of 75mm.

(d) Amend the Norwich City Council Speed Restriction (Consolidation) Order 2005 to introduce a 20mph zone on Catton Grove Road between 5m north of its junction with Lilburne Avenue to its junction with Angel Road, which will join up two existing 20mph zones to the north and south of this section of road.

#### Consultation

- 19. The statutory consultation for Catton Grove Road Woodcock Road roundabout project including the extended 20mph zone was advertised in the local press on 18 November 2015. Street notices were placed on site and local businesses and residents were written to.
- 20. The statutory consultation was advertised, listed as i) (Catton Grove Road and Woodcock Road) Road Humps, Pedestrian Crossings and Cycle Order Notice 2015; and ii) (Catton Grove Road) (20 MPH ZONE) Speed Restriction Amendment Order 2015. The closing date for responses was 11 December 2015.
- 21. Consultation Plan CCAG/PH/09/CON/1 showing the roundabout proposals consulted is attached as Appendix 2. It is to be noted here that following an independent Road Safety Audit of these proposals, the layout for the pedestrians and cyclists across each of the four shared-use cyclist/pedestrian crossings has been switched from what is shown on the plan in Appendix 2. Cyclists will now be guided on to the outer perimeter of the roundabout, with the pedestrians being on the inner perimeter of the crossing. The updated proposal is shown on Plan CCAG/PH/09/CON/1A included in Appendix 4. This will enable cyclists to access and egress the crossing points as they make the transition from on-carriageway to off-carriageway.
- 22. Eight formal responses were received from the consultation. The table below summarises these responses, split into three elements to which they relate; i) Catton Grove Road Woodcock Road roundabout; ii) 20mph Speed Restriction Order and traffic calming; and iii) Other wider comments.

23.

|  | Agree with proposals.  | Disagree with proposals.  |
|--|--|---|
| Catton Grove Road<br>Woodcock Road<br>roundabout | Four in agreement.  From a resident of Woodcock Road.  From a resident of Catton Grove Road            | Two objectors.  One objector, with 5 points of comment, from a resident of Catton Grove Road. |
|  | From a resident of Lilburne<br>Avenue  From Norfolk and Norwich<br>Association for The Blind<br>(NNAB) | One objector, with 5 points of comment, from Norwich Cycle Campaign.                          |

|   | Agree with proposals.                        | Disagree with proposals.   |
|---|--|--|
| 20mph Speed Restriction Order and traffic calming | Four in agreement.                           | Two objectors.   |
| Graci and traine saming                           | From a resident of Catton<br>Grove Road      | 1 objector, with 1 point of comment, from a resident of Catton Grove |
|   | From a resident of Woodcock Road             | Road.  |
|   | From Norwich Cycling<br>Campaign             | From a resident of Lilburne Avenue                                   |
|   | From a resident of Catton<br>Grove Road      |  |
| Other wider comments.                             | N/A, not directly relating to our proposals. | N/A, not directly relating to our proposals.                         |

# Responses to Catton Grove Road Woodcock Road roundabout

- 24. The following table contains six response comments all were received from one individual, a resident of Catton Grove Road. Five of the comments were disagreeing to the roundabout proposals, the sixth disagreeing to the 20mph traffic calming proposals.
- 25. An additional letter was received from a resident of Woodcock Road, in agreement with the proposals, also listed in the table below.

|                                       | Consultation Response comments   | Number of respondents   | Officers response to Respondent.  |
|---------------------------------------|--|---|---|
| Disagree<br>(roundabout<br>proposals) | <ul> <li>There is only a low pedestrian throughput on these four roads, even during school time there is very rarely more than a few people waiting to cross the road at any one time. Adding in four zebra crossings to help people cross seems overly excessive. Especially as there is already a central crossing area on Woodcock Road west. Why not add another central crossing area on Catton Grove Road south as this is where the majority of the school children go after visiting the shops.</li> <li>The widening of the paths is likely to make the road more dangerous to pedestrians as it will be more difficult for buses/lorries to pass one another, leading them to potentially have to mount the kerbs in order to pass.</li> <li>Adding in these zebra crossings is likely to cause traffic to back up onto the roundabout, again making it more difficult/dangerous for pedestrians/cyclists to cross the road/rejoin.</li> <li>Encouraging cyclists to use an unsegregated cycle path, while laudable, will mean that cyclists will be leaving and joining traffic at a junction which will be made more congested by the introduction of zebra crossings. This seems much more</li> </ul> | 1 objector,<br>with 6 points<br>of comment,<br>from a<br>resident of<br>Catton Grove<br>Road. | The Council officer's response (on 30 November 2015) to the one objector with six comments of disagreement stated that the "comments would be considered and reported to Norwich Highways Agency Committee for Members to make an informed decision".  The officer's response concluded by adding "this roundabout has a large proportion of accidents that involve cyclists and pedestrians, mainly caused by traffic speeds. We have also been contacted in the past by residents requesting facilities to safely cross the road at this location, especially to visit the local shops or on way to Sewell Park College. A recent pedestrian survey found a high number of people crossing in this area". |

|                                       | Consultation Response comments  | Number of respondents   | Officers response to Respondent.                  |
|---------------------------------------|---|---|---|
|                                       | <ul> <li>dangerous than just leaving cyclists on the road or adding an advanced cycle box to the roundabout itself.</li> <li>Three of the zebra crossings (Woodcock Road east, and both Catton Grove Road ones) are extremely close to peoples driveways. This will add another hazard when entering exiting driveways and could potentially cause more accidents.</li> </ul>       |   |   |
| Disagree<br>(roundabout<br>proposals) | The expensive shared paths/cycle tracks which are difficult for cycling. They create a new danger for cycling in that re-joining the carriageway just past the roundabout is a well-documented hazard. It also creates a new conflict between cyclists and pedestrians where it is difficult to negotiate angles.   |   | Officers response covered in paragraph 29 (below) |
|                                       | <ul> <li>Making the middle of the roundabout<br/>smaller will give the impression that cars can<br/>go faster and more directly across it. This<br/>would make the situation worse for<br/>cyclists. Whereas the current design does<br/>encourage the majority of vehicles to take a<br/>wider curve around it, it allows buses and<br/>large vehicles to negotiate it.</li> </ul> | 1 objector,<br>with 5 points<br>of comment,<br>from Norwich<br>Cycle<br>Campaign. |   |
|                                       | <ul> <li>An unpopular and indirect 'cycle provision'<br/>avoided by cyclists will lead to more hostility<br/>by vehicle drivers believing that cyclists</li> </ul>  |   |   |

|       | Consultation Response comments  | Number of respondents                           | Officers response to Respondent.  |
|-------|---|---|---|
|       | <ul> <li>should be 'off the road'</li> <li>There is an urgent need for pedestrian crossings for the children going to school, but this should not be the main 'improvement' in a cycle scheme.</li> <li>Cyclists who do not want to negotiate the roundabout could dismount and use the pedestrian crossings but they should not be encouraged to re-join the carriageway by</li> </ul>   |   |   |
| Agree | riding into the road at a dangerous point.  Personally I am delighted by the proposals. This road had become a major cut through (rat run) was very pleased when speed bumps put in not moment to soon even they do not slow a lot of traffic but crossings certainly would. I've watched kids coming out of school downhill crossing opposite Wood Grove Parade for may years, thought there should be a crossing there, at least one but 4 brilliant. Crossings standard or controlled? As for cyclists I'd like them off any path I've been hit 3 times stepping out of my gate! (freewheeling down hill). I fully support the plan. | In agreement, from a resident of Woodcock Road. | The officer's response (on 8 December 2015) to the comment of agreement thanked the resident for their response to the consultation, adding that Members will decide at the January 2016 Norwich Highways Agency Committee whether to implement the scheme. |

- 26. It is to be noted that, due to the high number of accidents involving cyclists together with vehicular speed factors, these proposed shared-use cyclist/pedestrian crossings contribute to the success of the proposals. The proposed solution reduces traffic speeds whilst providing controlled cyclist and pedestrian crossing facilities within the highway parcel.
- 27. The level of usage/demand for the pedestrian crossings will not cause an adverse impact to traffic flows on the network or hinder access to adjacent properties.
- 28. The officer leading on the consultation had been contacted by a couple of residents by phone concerned about the proposals affecting their driveway accesses onto the roundabout. They have been assured that the proposals would not block any existing access to their property.
- 29. The response to Norwich Cycling Campaign, from the Council officer gave clarity to a couple of questions asked, and the response also stated that
  - i) an option for traffic signals at this location had been discounted as unfeasible due to the associated costs of installation and long-term operational and maintenance costs:
  - ii) a Dutch-style roundabout with fully segregated cycle lane was not possible in this location due to site constraints of residential accesses, the local shopping precinct and parking areas in the service road, and the highway land available. The proposal however based on Dutch design guides, incorporating shareduse paths to replicate a Dutch-style roundabout concept as near as practicable;
    - Whilst the central island is being adjusted in diameter, the carriageway width is also being reduced, however, the central island will retain an outer kerbed over-run area with a contrasting paving material not too dissimilar to as existing. The proposed visual appearance of the Woodcock Road Catton Grove Road roundabout will not appear smaller than its present form, however, the over-run proposals will reduce vehicle speed entering and exiting the roundabout to aid the reduction of the current accident history.
  - iii) The proposed raised tables with pedestrian/cycle zebra crossings will aid the existing speed reduction measures of the surrounding area.
  - iv) The roundabout proposals with the shared-use cyclist and pedestrian crossings will provide a more balanced flow for all users.

## Responses to the 20mph speed restriction order and traffic calming

- 30. The area covered by the advertised 20mph speed restriction Order can be seen on Plan No. CCAG/PH/09/CON/2, attached as Appendix 3.
- 31. Six formal responses were received relating to the 20mph element. Four responses were in support, two were of disagreement. The table below lists the disagreement response.

|   | Consultation Response comments  | Number of respondents                                    | Officer Response to Respondent.                   |
|---|---|--|---|
| Disagree<br>(20mph traffic<br>calming<br>proposals) | The addition of speed cushions, while again a good idea to attempt to slow traffic is not doing the job due to the nature of the speed cushions. As they are not the full width of the road the majority of cars can drive over them with only a minimal reduction in speed - this is from watching cars use the ones that were installed a few months ago on Catton Grove Road and Woodcock Road. Why not place speed tables so that cars have to slow down?   | 1 objector,<br>from resident<br>of Catton<br>Grove Road. | Officers response covered in paragraph 32 (below) |
|   | <ul> <li>What is not needed are the extra speed cushions on Catton Grove Road, within the proposed extension of the 20m.p.h. zone. The reason is that the recently installed cushions at Catton Grove Road, Woodcock Road and Wall Road are not successful in reducing the speed of vehicles and one in Wall Road is being avoided by vehicles partially driving on the grass verge. Several of the cushions appear to be too high and bare scars of vehicle damage which must surely expose the Council open to claim?</li> <li>Another point with these cushions is that when and if a parked vehicle is masking a cushion and for a vehicle to complete the overtake that vehicle obviously you have to go on the offside of the road to complete the overtake and there is then no visible</li> </ul> | 1 objector,<br>from resident<br>of Lilburne<br>Avenue.   | Officers response covered in paragraph 32 (below) |

| Consultation Response comments  | Number of respondents | Officer Response to Respondent. |
|---|-----------------------|---------------------------------|
| marking to identify the cushion, i.e. the cushions are only marked on one side. I personally think this is dangerous and if you are driving carefully with the overtake the last place you look is the road surface, so you are suddenly confronted with your vehicle hitting "something" which in turn could easily distract the driver. I have suggested that they should be marked on both sides. This is particularly applicable in darkness and poor visibility. |                       |                                 |

32. The Officer's response for Norwich Highways Agency committee: The speed cushions being proposed are designed (and will also be constructed) in accordance with the publication Traffic Calming (Local Transport Note 1/07) from the DfT (Department for Transport). These proposed cushions will therefore be constructed together with road markings in keeping with the existing traffic calming features across the surrounding roads of Catton Grove Road and Woodcock Road. By following the DfT guidance, the intention is to provide a consistent approach in this location.

#### Wider responses

33. Comments have been received from the North Neighbourhood street meeting, listed below, which mainly relate to traffic speeds along Woodcock Road towards St Clements Road, outside of the scope of this project report.

| Consultation Response comments  | Officer Response to Respondent.  |
|---|--|
| Traffic calming measures have improved the situation but the resident feels the speed limit needs to be reduced to 20mph on Woodcock Road.  | The extent of the advertised 20mph cannot now be extended without further consultation. At the moment we do not have the funds for this, but it may become possible with future cycling schemes.                                 |
| Traffic speeds along Woodcock Road / St. Clements Road end is still an issue, can something be done to resolve this, the situation greatly improved when there was a temporary speed monitor set up.  | As above. The temporary speed awareness monitor will be added to the list to return to this location in the future.  |
| Resident asked if the 20mph zone could be extended to cover the east end of Woodcock Road as traffic tends to speed along and use it as a rat run.  | As above.  |
| 2 separate residents commented on how Woodcock Road is a very busy road and there are frequent accidents at the junction of St. Clements Road, which has priority but is a considerably quieter road. Resident feels changing the priority from St. Clements to Woodcock Road would reduce the number of accidents. | There has been safety investigations carried out on this junction and improvements were made a few years ago. The accident records throughout the city are regularly assessed by the road safety team at Norfolk County Council. |

| Consultation Response comments   | Officer Response to Respondent.  |
|--|--|
| Concerns were raised that the 20mph zone along St. Clements Road were being ignored and that noise of traffic going over the humps was very intrusive. | The 20mph can be enforced by the police. It would be useful for the residents to make the police aware of their concerns over speed. The traffic calming is installed to DfT guidelines and cannot be changed. It is known that sometimes they cause traffic to brake hard which does cause more noise, or the drivers try to go over the humps too fast. We cannot stop this. |

- 34. One resident from Lilburne Avenue responded requesting that Norwich City Council takes a more overall view of the area, in particular Woodgrove Parade and the Lilburne Avenue junction. If looking to improve road safety at this location, then other important factors, not expensive need to be considered, listed below.
  - "Firstly, in inbound 'bus stop immediately opposite Lilburne Avenue junction. If the plinth marking the pickup/drop spot were to be moved just beyond the City end of the bus shelter and still compatible with the shelter and neighbouring properties, this would facilitate the buses to park just off centre of the junction of Lilburne Avenue and in doing so allow vehicles to negotiate the junction whilst the buses were parked at the stop."
  - "Secondly, we have a massive problem with parked vehicles in Lilburne Avenue road junction and up to the service road behind the shops at Woodgrove Parade. Both residents of the neighbouring flats and shoppers use Woodgrove Parade park on both sides of the road, completely covering the footpaths on both sides and making it totally impossible for pedestrians to use them."
  - The response went on to suggest "that both sides of Lilburne Avenune between Catton Grove Road and the Woodgrove Parade service road should be subject to a total parking ban before someone is seriously hurt of killed." The respondent added that they "will make separate representation on this matter but ask that it is taken into consideration in the overall picture".
- 35. Four wider responses were also received, making reference to the existing bus gate sign on Catton Grove Road not correctly operating during the in-bound ban between 07:30 09:00 morning peak-time, which is contributing to high levels of non-compliance by in-bound vehicles. The condition and operation of the bus gate sign is being investigated by City Officers to determine requirements for repair.
- 36. The issue of vehicle non-compliance with the in-bound bus gate has been raised with Norfolk Constabulary, who can only apply enforcement once the bus gate is fully operation.
- 37. Separately, vehicles (advertised for sale) have frequently been observed parked on grass verges on the approach to the roundabout, in particular on a large grass verge

of Woodcock Road (eastern side). These parked cars will create forward visibility restrictions and impairment towards the cyclist/pedestrian crossing, and it is therefore proposed to install extra bollards within the grass verge to prevent vehicular parking.

#### Conclusion

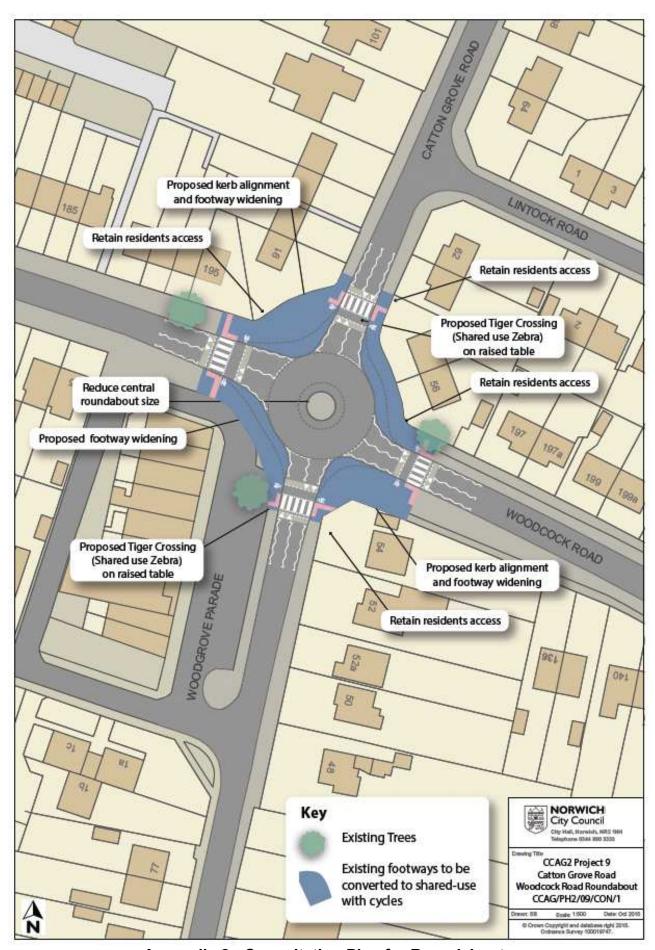
- 38. Members are requested to agree to the implementation of the Catton Grove Road Woodcock Road roundabout proposals, as shown on Plan CCAG/PH2/09/CON/1A contained in Appendix 4.
- 39. Members are requested to note that a Dutch-style roundabout with fully segregated cycle lane is not possible in this location due to site constraints and highway boundary restrictions, for the reasons previously laid out within this report under items 10, 11 and 23.ii).
- 40. Members are requested to agree the amendment to the Norwich City Council Speed Restriction Order (with traffic calming) as advertised, as shown on Plan CCAG/PH/09/CON2 contained in Appendix 3.
- 41. If the committee grants approval for the scheme, the Catton Grove Road Woodcock Road roundabout scheme is programmed for implementation starting early April 2016.



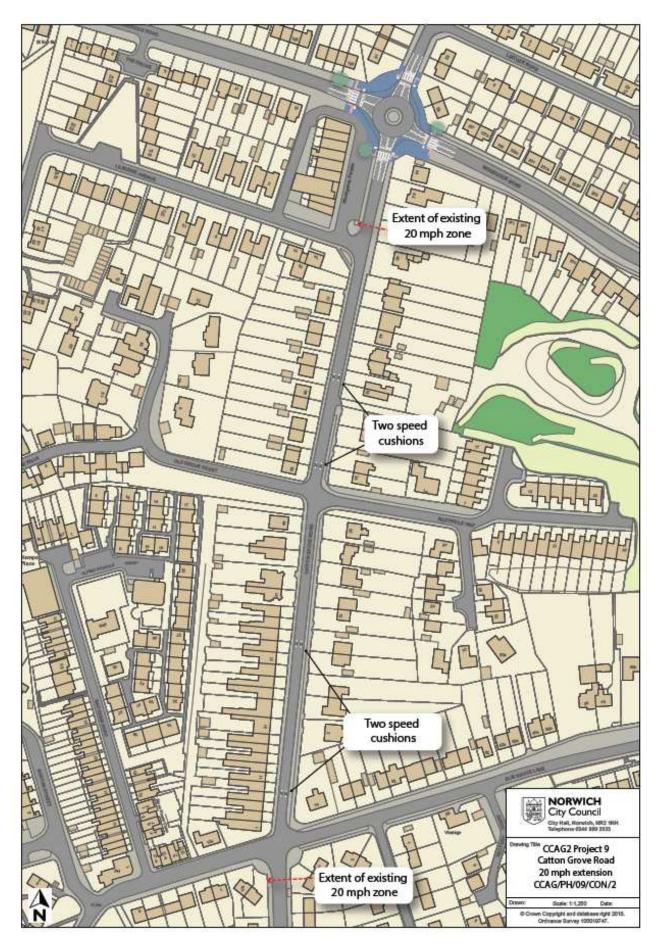
Images of Dutch-Style Roundabout at TRL (Transport Research Laboratory, Wokingham, Berks)



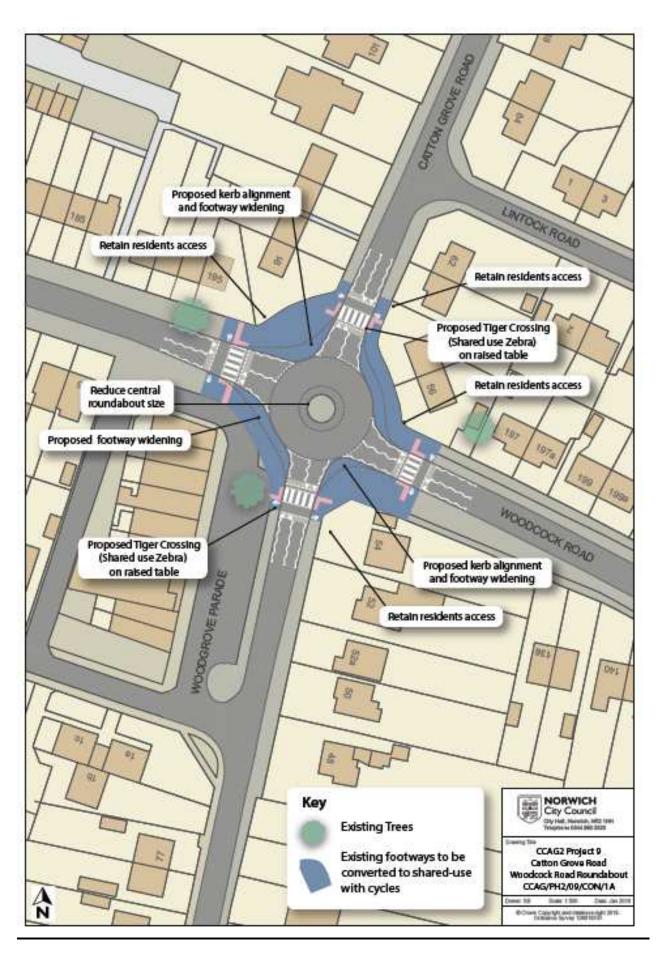
Appendix 1



**Appendix 2: Consultation Plan for Roundabout** 



Appendix 3 : Consultation Plan for 20mph Zone extension.



Appendix 4: Scheme Proposals Plan for Roundabout