

24 November 2016

**Joint report of** Head of city development services and Executive director of community and environmental services

12

**Subject** Transport for Norwich – Angel Road / Waterloo Road cycling Improvements

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### **Purpose**

To seek approval to consult on the proposals for the Shipstone Road / Angel Road / Waterloo Road project. Members are also asked to approve the advertisement of Traffic Regulation Orders that would be required to enforce the final scheme.

### **Recommendation**

That the committee:

1. approves for consultation the proposals for the Shipstone Road/Angel Road/Waterloo Road project, including:
  - a) Two options to reduce traffic speeds and improve pedestrian/cycle facilities at the Angel Road/Shipstone Road/ Waterloo Road junction:
    - (i) The removal of the signalled crossing and the provision of 2 parallel cycle / zebra crossing on Waterloo Road to the immediate north and south of the Angel Road junction;
    - (ii) The replacement of the existing signalled pedestrian crossing with a Toucan crossing;
  - b) Introduction of a 20mph speed restriction along Waterloo Road, Eade Road, Patteson Road, Buxton Road, Alma Terrace, Albany Road, Temple Road, Long Row, Traverse Street, Clare Road, Taylors Building, the western end of Shipstone Road with associated traffic calming features. Extend the existing 20mph zone on Angel Road southwards from where it terminates just south of Angel Road Infant School to its junction with Waterloo Road including the installation of a sinusoidal speed hump;
  - c) Introduction of an advisory cycle lane between Magpie Road and Angel Road.
  - d) Reconfiguration of the Angel Road/Catton Grove Road/Elm Grove
  - e) Lane/Catton Grove Road junction and implement a raised table to reduce speeds and improve pedestrian/cycle facilities.
  - f) Provide a flat top hump in Shipstone Road and extend the existing 'At Any Time' waiting restrictions in Shipstone Road by approximately 5 metres to ease the movement of cyclists in and out of the junction.

- g) Install no waiting 'At any time' restrictions outside 61 Angel Road, opposite the junction with Rosebery Road for a length of approximately 14m to ease the movement into and out of Rosebury Road.
  - h) Replacing two groups of speed cushions outside 163 & 182 Angel Road with sinusoidal humps that span the full width of the carriageway.
  - i) Reconfiguration of the Shipstone Road closure point to remove the narrow two-way cycle path and allow the installation of two one-way cycling paths either side of a central planting strip with an additional 2m wide segregated footway.
  - j) Extend the existing shared use facility on the north side of Waterloo Road near its junction with Magpie Road by approximately 20 metres.
  - k) Shorten bus cage south of Elm Grove Lane.
- 2) asks the transportation and network manager at Norwich City Council to carry out the necessary statutory procedures associated with advertising any traffic regulation and speed restriction orders and notices that may be required for the implementation of the scheme as described in this report
- 3) agrees that the outcome of the proposed consultation will be reported to a future meeting of the committee.

### **Corporate and service priorities**

The report helps to meet the corporate priority to provide a safe, clean and low carbon city and the service plan priority to implement the Transport for Norwich Plan.

### **Scheme Timescales**

- A 4 week public consultation of scheme proposals in January 2017
- Consideration of consultation feedback in February 2017
- Refine the proposals where necessary and present the scheme to committee for approval on 16 March 2017
- Subject to legal processes and the outcome of consultation the scheme is planned to be constructed in quarter 2 of 2017-18.

### **Financial implications**

The scheme has been allocated funding of £320,000 from the Department for Transport (DfT) and £20,000 of Local Transport Plan (LTP), Local safety funds.

### **Wards**

Sewell, Mile Cross and Catton Grove

**Cabinet member:** Councillor Bremner – Environment and sustainable development

**Contact Officers**

Joanne Deverick, Transportation and network manager – Norwich City Council 01603 212218

Mike Auger, Projects Engineer – Norfolk County Council 01603 228853

**Background documents**

None

**Cabinet member for Environment and sustainable development**

Bert Bremner

**Contact Officers**

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# REPORT

## Strategic Objectives

1. 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 of 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. 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.
3. 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 and 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.
4. The implementation plan for the Norwich Area Transportation Strategy (NATSIP) was agreed by Norfolk County Council in April 2010 and updated in November 2013: <https://www.norfolk.gov.uk/-/media/norfolk/downloads/roads-and-transport/tfn/nats-ip-update.pdf?la=en>  
The plan sets out the range of transport measures, together with their general intended phasing, for delivery over the short to medium term.
5. 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\)](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 city wide cycling network (see link to cycle map - [https://www.norwich.gov.uk/downloads/file/3107/map\\_illustrating\\_our\\_proposed\\_cycling\\_ambition\\_programme](https://www.norwich.gov.uk/downloads/file/3107/map_illustrating_our_proposed_cycling_ambition_programme)) 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 improved quality of life with well documented health benefits.
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:



## **Scheme Objectives and Benefits**

8. This scheme covers all of Waterloo Road and Angel Road from the Elm Grove Lane junction to its junction with Waterloo Road. Please see drawing PE4122-MP-006 in Appendix 1 for a Site Location Plan.
9. The scheme is a key part of the yellow pedalway which links the airport at the north, with Lakenham, to the south. The yellow pedalway runs along Heath Road, Shipstone Road where it crosses Waterloo Road to continue along Angel Road and Catton Grove Road.
10. The orange pedalway also combines with the yellow pedalway along part of the route between Roseberry Road and Eade Road.
11. A neighbourhood route crosses Angel Road at the junction with Philadelphia Lane and Elm Grove Lane. Another one uses the southern section of Waterloo Road connecting Bakers Road and St Augustine Street to the yellow pedalway at Angel Road.
12. The map included in Appendix 2 shows the route of the pedalways through the project area.
13. The objectives of the scheme cover three distinct areas, Angel Road and its junction Catton Grove Road / Elm Grove Lane / Philadelphia Lane, the junction of Angel Road / Waterloo Road / Shipstone Road and Waterloo Road itself.
14. The Angel Road / Catton Grove Road / Elm Grove Lane / Philadelphia Lane junction has seen 6 injury accidents in 6 years involving a high proportion of vulnerable road users but none recorded since November 2014 . The objective of the scheme is to therefore to reduce vehicle speeds through the two junctions and improve the facilities for cyclists and pedestrians to make crossing the junction easier.
15. At the Angel Road/Waterloo Road and Shipstone Road junction vehicles approach the junction too quickly from the south due to the width of the carriageway on Waterloo Road south of the junction, endangering cyclists and pedestrians. Parked cars in the entrance to Shipstone Road also make it difficult for cyclists travelling on the yellow pedalway from Angel Road into Shipstone Road across Waterloo Road. The objective of the scheme is to therefore to reduce vehicle speeds as they approach and travel through the two junctions and improve the facilities for cyclists and pedestrians to make crossing the junction easier, especially for cyclists on the yellow pedalway between Angel Road and Shipstone Road.
16. Following a recent increase in the number of accidents on Waterloo Road between its junction with St Augustine's Gate and Angel Road, an accident investigation study was undertaken in August 2015. The findings of the report highlighted that the accident trend showed a sharp recent rise, a disproportionate amount of accidents involved cyclists (89%), the cyclist accidents occur during the evening peak in the months of autumn winter and the highway corridor is wide and open and may encourage inappropriate speed.

17. The report therefore proposed measures to improve cyclist provision and visibility along this stretch on Waterloo Road which this scheme aims to deliver as part of the proposed works.

## **Design Proposals**

### **Angel Road / Catton Grove Road / Elm Grove Lane / Philadelphia Lane junction**

18. A reduction in vehicle speeds through the junction should be partially achieved through the extension of the existing 20mph zone on Angel Road to north of the junction delivered as part of the Woodcock Lane/Catton Grove Road roundabout scheme. However, to further reduce manoeuvring speeds through the junction, it is proposed to install a raised table through the junction and reduce junction radii as shown in drawing PE4122-MP-001 included in Appendix 3.

### **Angel Road**

19. To provide greater comfort for cyclists and avoid encouraging them to ride in the dooring zone of parked cars, it is proposed to replace the two groups of speed cushions outside 163 & 182 Angel Road with sinusoidal humps that span the full width of the carriageway.
20. To ease turning movements into and out of Rosebery Road from Angel Road it is proposed to install a no waiting restriction preventing car parking over a length of 14m outside 61 Angel Road opposite the junction with Rosebery Road.

### **Angel Road / Waterloo Road / Shipstone Road junction**

21. For the Angel Road / Waterloo Road / Shipstone Road junction a number of options have been investigated to reduce speeds and improve conditions for pedestrians and cyclists. These include tightening the radius of the south-west corner of the Waterloo Road and Angel Road to reduce the speeds of northbound vehicles making and extending the existing no waiting restrictions on Shipstone Road 10m away from the junction.
22. In addition to these changes it is proposed to consult on the following two options to help ease the movement of pedestrian and cyclists through the junction.
23. Option 1 is shown in drawing number PE4122-MP-001 & 002 included in Appendix 4 and would involve:
  - Installing a raised table through the extents of the junction
  - Installing a zebra crossing south to the south of the junction
  - Replacing the existing signal controlled pedestrian crossing to the north of the junction with a combined pedestrian and cycle 'Tiger' crossing linking into a 2.5m wide shared use facility on the east of Waterloo Road between the crossing and Shipstone Road.
24. Option 2 is shown in drawing number PE4122-MP-003 & 004 included in Appendix 5 and would involve:
  - Installing speed cushions to the north and south of the junction to slow vehicles speed

- Upgrade the existing signal controlled pedestrian crossing to a Toucan crossing to incorporate cyclists and link into a new shared use facility between the crossing and Shipstone Road junction

### **Shipstone Road**

25. To improve the Shipstone Road closure point for cyclists, it is proposed to convert the existing narrow two way path into a one-way path with another one-way path on the other side of the planted median strip. A pedestrian only path would also be provided along this section by remove the raised the cobble areas as shown in plan included in Appendix 6.

### **Waterloo Road**

26. To address the safety problems for cyclists identified in the accident study for Waterloo Road, it is proposed to implement the recommendations identified in the study and shown in drawing PE4122-MP-003 included in Appendix 3.
27. To help reduce vehicles speeds along Waterloo Road it is proposed to extend the 20mph zone at St Augustine's gate through to its junction with Magdalen Road. It is proposed that traffic calming takes the form of speed cushions.
28. To improve the cyclist provision and improve their visibility it is proposed to install a northbound advisory cycle lane from St Augustine's Gate to Angel Road. Ideally a southbound facility would also be provided however there is inadequate width to provide this facility that would not be continually overrun by vehicles.

### **20 mph Zones**

29. In addition to the changes to the 20mph zones on Waterloo Road and Angel Road, it is also proposed to introduce 20mph zones on Eade Road, Patteson Road, Buxton Road, Alma Terrace, Albany Road, Temple Road, Long Row, Traverse Street, Clare Road, Taylors Building, the western end of Shipstone Road as shown in drawing PE4122-MP-005 included in Appendix 7.

### **Traffic Regulation Orders and notices**

30. Legal processes will be required to convert pedestrian only routes to shared use, additional waiting restrictions and an area wide 20mph speed limit zone with associated traffic calming in the form of raised tables and road humps. The roads proposed to be covered by a 20mph speed limit zone are listed in Appendix 5 along with a plan, drawing PE4122-MP-005.

### **Traffic impacts**

31. Traffic management will be required during the work and delays to traffic are likely. It is intended to issue a press release for information closer to the start of construction. Work will be programmed to minimise impact on the road network where possible.

### **Environment**

32. The city council's landscape architect has offered advice in relation to the proposed design. Further advice will be sought in relation to areas Angel Road/Waterloo road/Shipstone Road junction and the Shipstone Road Closure point.

## **Accident reduction**

33. There have been 17 accidents in the area of the proposed scheme in the last 3 years, 1 categorised as serious and 16 categorised as 'slight'. The proposed measures are expected to reduce the accident rate in the future meeting of this committee.

## **Public Consultation**

34. A four week public consultation of scheme proposals is planned to go ahead during January 2017. Consultation will also be carried out for any TROs or Notices required. The consultation feedback and any objections will be reported to a future meeting for consideration on how to proceed with the scheme.

## **Timescales**

35. Subject to legal processes the scheme is planned to be constructed between July and September 2017.

## **Stakeholder views**

36. Stakeholders, including businesses in the area, local residents and local interest groups, will be included in the consultation.

## **Conclusion**

37. The project is rooted in strategy documents that have been adopted by Norwich City and Norfolk County Councils and the proposals will meet the requirements of the brief by providing benefits to cyclists and pedestrians. The proposals as presented would provide the next phase of improvement on the yellow Pedalway and will improve connectivity to the city centre.

## **Resource Implications**

38. Finance: The TfN programme forms an integral part of strategic infrastructure as set out in the Joint Core Strategy. The delivery of this work is funded by government grants by way of the City Cycle Ambition programme and mainstream capital LTP, Local safety funds.
39. Staff: The project will be delivered through joint team working involving both County Council and City Council officers.
40. Property: The proposals can be provided within the existing highway boundary.
41. IT: None.

## **Other implications**

42. Legal Implications: None
43. Human Rights: None.
44. Equality Impact Assessment (EqIA): An EqIA has been completed for the NATS Implementation Plan (TfN). An Equality Impact Assessment for this scheme will be

carried out as part of the detailed development, after discussions with the appropriate groups.

45. Communications: The communications officer for the TfN programme will be supporting the delivery of the project.

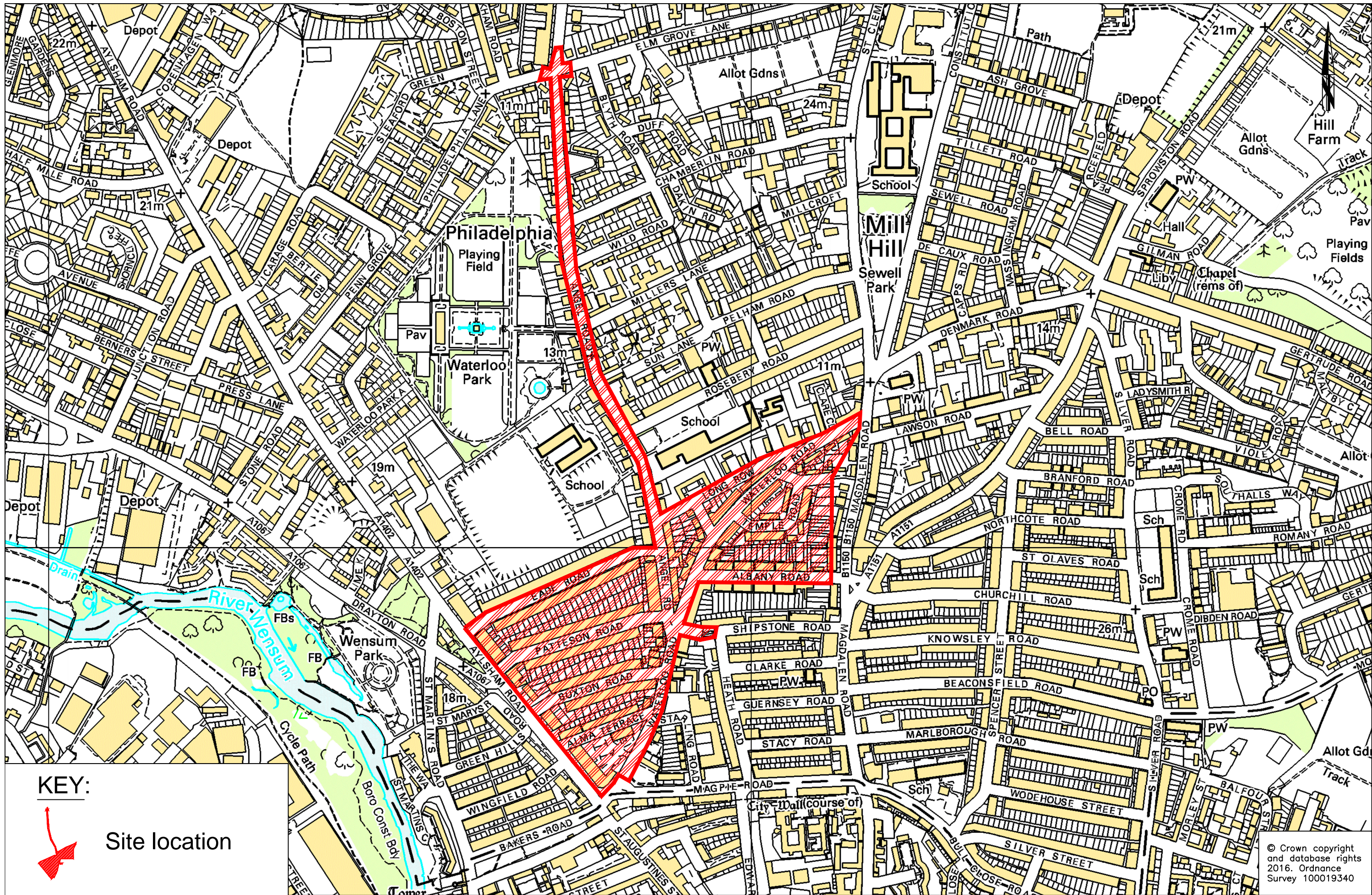
### **Section 17 - Crime and Disorder Act**

46. 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**

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





KEY:



Site location



Funded by:  
Department  
for Transport



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County Hall, Martineau Lane  
Norwich NR1 2SG

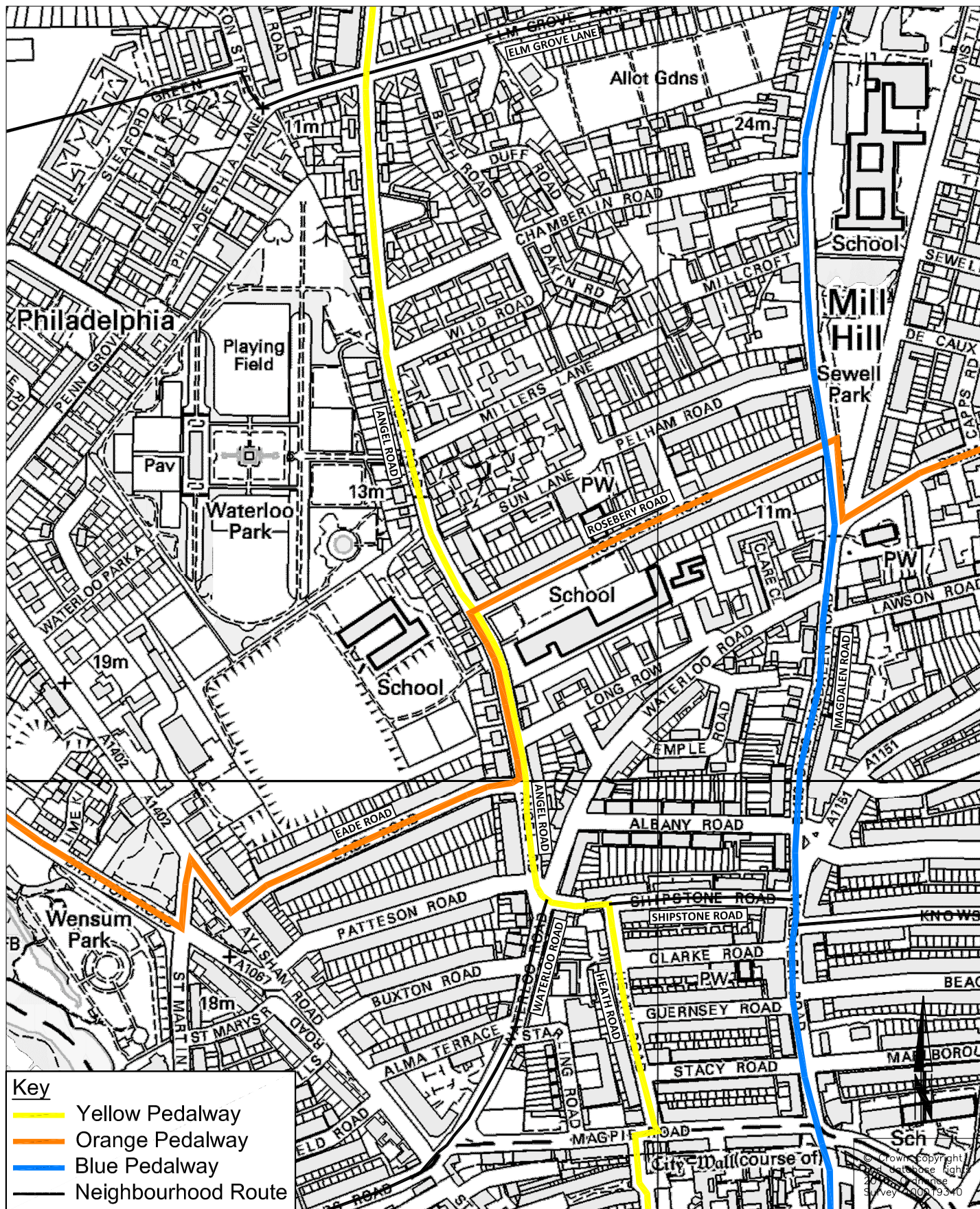
DRAWING TITLE

Transport For Norwich  
PE4122 Angel Road - Location Plan

REV.	DESCRIPTION	CHECKED	DATE

INITIALS	DATE	DRAWING No.
		PE4122-MP-005
		PROJECT TITLE
		Transport For Norwich
		Angel Road
		SCALE
		NTS
		FILE No.
		PE4122





# DRAWING TITLE

PUSH THE PEDALWAYS - PROJECT 11 - ANGEL ROAD  
PEDALWAY PLAN



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County Hall  
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REV.	DESCRIPTION	CHECKED	DATE

SURVEYED BY	OS	DATE	2016	DRAWING No.	PE4122-MP-007
DESIGNED BY	DN	11/16		PROJECT TITLE	Push The Pedways
DRAWN BY	DN	11/16			Project 11 - Angel Road
CHECKED BY	JT	11/16		SCALE	1:5000 at A4
				FILE No.	PE4122





SCALE 1:1000

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Survey 100019340

Funded by:



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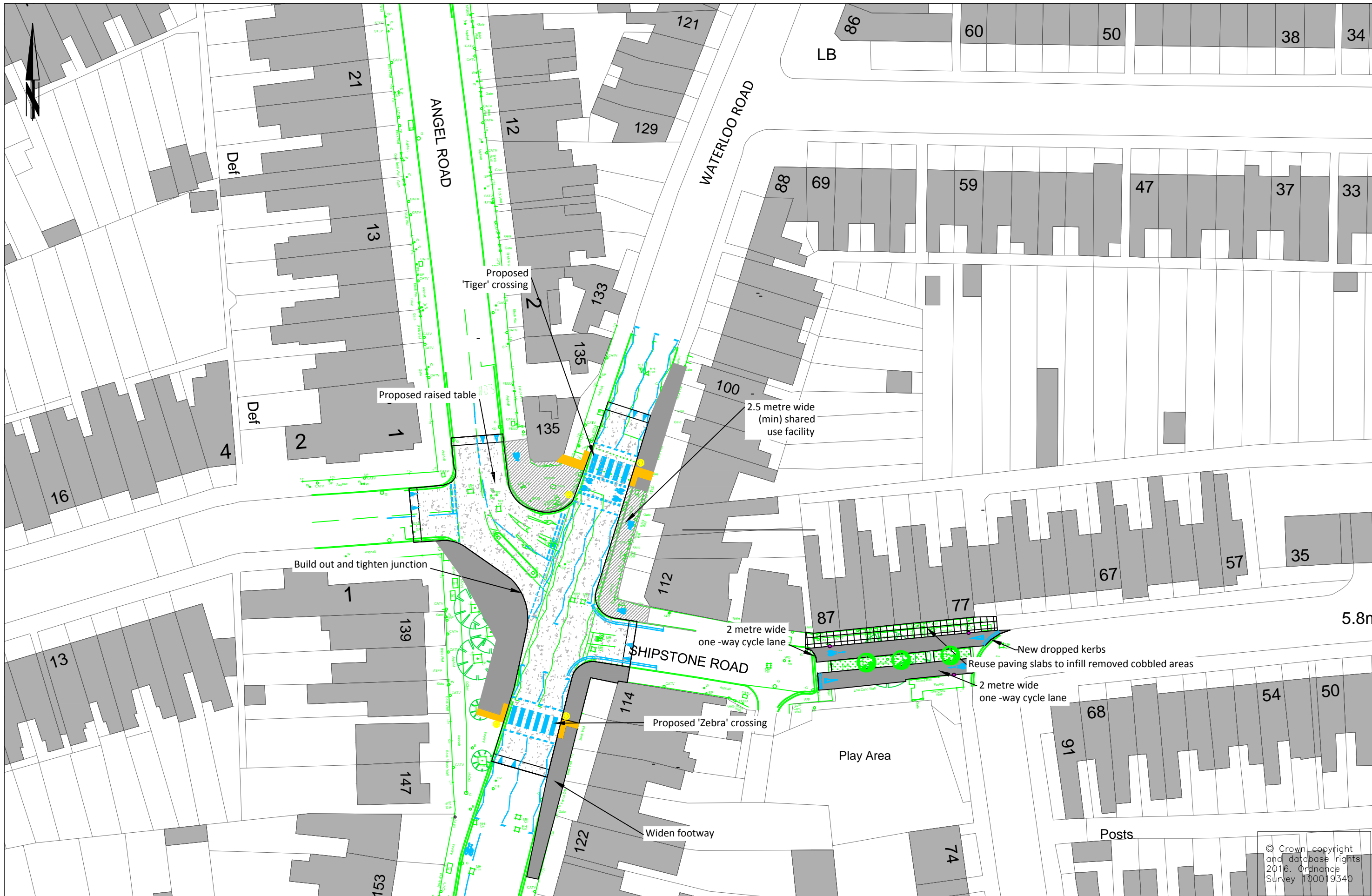
DRAWING TITLE

Transport For Norwich  
PE4122 Angel Road/Waterloo Road - Preliminary Design  
Preliminary Design - Sheet 2

REV.	DESCRIPTION	CHECKED	DATE

INITIALS	DATE	DRAWING No.
SURVEYED BY	OS	2016
DESIGNED BY	JT	07/16
DRAWN BY	JT	07/16
CHECKED BY	MA	11/16
PROJECT TITLE		Transport For Norwich Angel Road
SCALE		1:1000 @ A1
FILE No.		PE4122





Funded by:  
Department for Transport



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DRAWING TITLE

Transport For Norwich  
Angle Road/Waterloo Road Junction  
Option 2

REV.	DESCRIPTION	CHECKED	DATE

	INITIALS	DATE	DRAWING No.
			PE4122-MP-004
SURVEYED BY	OS	11/16	PROJECT TITLE
DESIGNED BY	JT	11/16	Transport For Norwich
DRAWN BY	JT	11/16	Angle Road/Waterloo Road
CHECKED BY	MA	11/16	SCALE
			1:500 @ A3
			FILE No.
			PE4122

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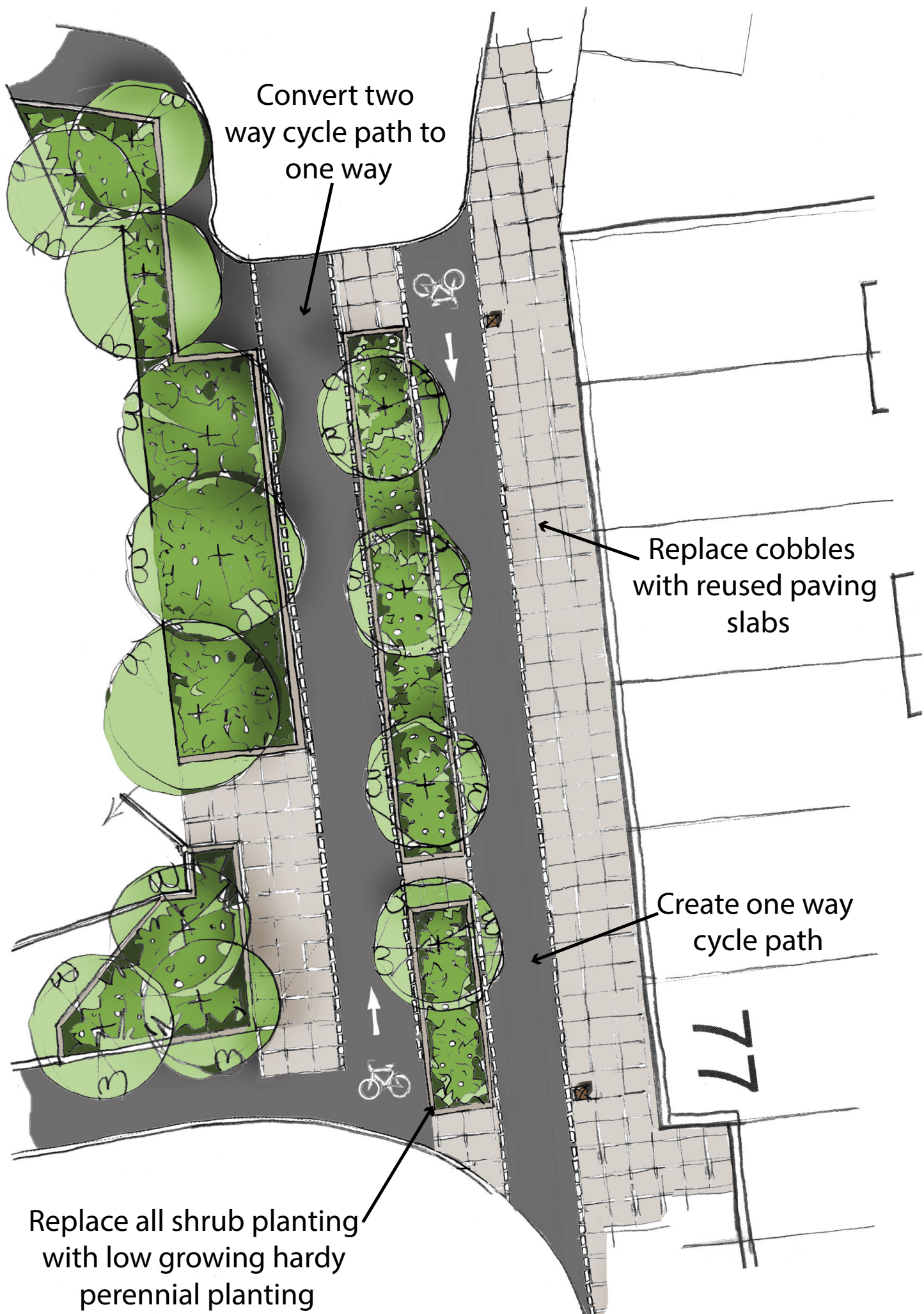
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DRAWING TITLE  
Transport For Norwich  
Angle Road/Waterloo Road Junction  
Option 1

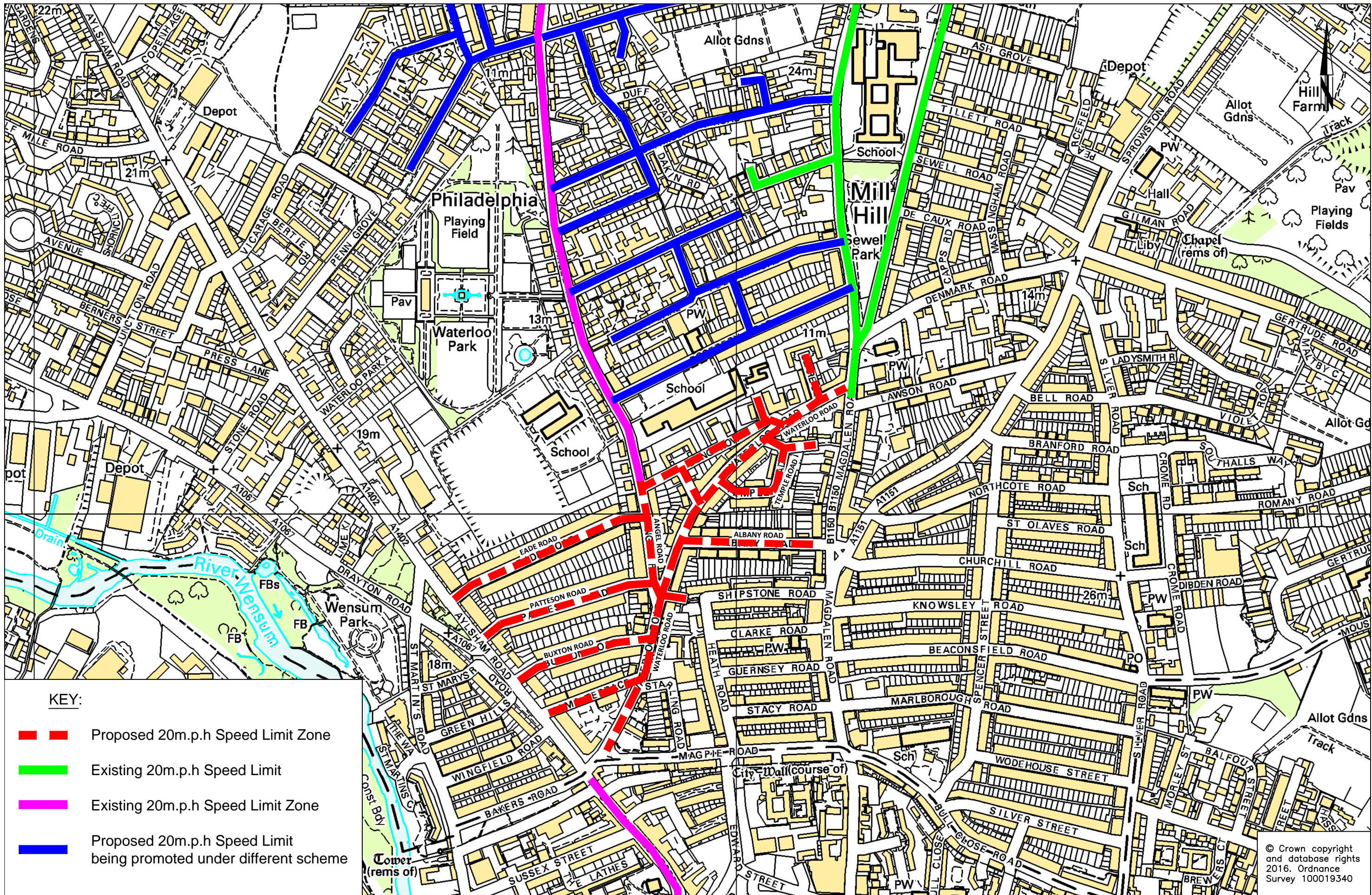
REV.	DESCRIPTION	CHECKED	DATE

	INITIALS	DATE	DRAWING No. PE4122-MP-003
SURVEYED BY	OS	11/16	PROJECT TITLE
DESIGNED BY	JT	11/16	Transport For Norwich
DRAWN BY	JT	11/16	Angle Road/Waterloo Road
CHECKED BY	MA	11/16	SCALE 1:500 @ A3
			FILE No. PE4122









**KEY:**

- Proposed 20m.p.h Speed Limit Zone
- Existing 20m.p.h Speed Limit
- Existing 20m.p.h Speed Limit Zone
- Proposed 20m.p.h Speed Limit being promoted under different scheme

Transport for Norwich

Funded by:

Department for Transport

NEWANGLIA

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Norwich NR1 2SG

**DRAWING TITLE**  
Transport For Norwich  
PE4122 Angel Road - Proposed 20mph Speed Limit Zone

REV.	DESCRIPTION	CHECKED	DATE

	INITIALS	DATE	DRAWING No.
SURVEYED BY	O.S	11/16	PE4122-MP-005
DESIGNED BY	JT	11/16	PROJECT TITLE
DRAWN BY	JT	11/16	Transport For Norwich
CHECKED BY	MA	11/16	SCALE
			NTS
			FILE No.
			PE4122