Norwich Western Link
Sustainable Transport Strategy

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Foreword

This Sustainable Transport Strategy (STS) has been prepared to accompany the planning application for a new link road scheme being proposed to the west of Norwich, known as the Norwich Western Link (NWL).

Glossary of Abbreviations and Defined Terms

A

A47 TUD - The A47 North Tuddenham to Easton dualling scheme, promoted by National Highways

AADT - Annual Average Daily Traffic

ATC - Automatic Traffic Count

ATE - Active Travel England

B

BR - Bridleway

BSIP - Bus Service Improvement Strategy

C

Classified Road - the mainline of the new proposed dual carriageway as part of the Proposed Scheme

CO_2e - Carbon Dioxide equivalent

CSTM - Complementary Sustainable Transport Measures

CWIS - Cycling and Walking Investment Strategy

D

DCO - Development Consent Order

DfT - Department for Transport

DM - Do Minimum Scenario

DMRB - Design Manual for Roads and Bridges

DS - Do Something Scenario

E

EAST - Early Appraisal Sifting Tool

EqIA - Equality Impact Assessment

F

FP - Footpath

G

GIS - Geographical Information System

H

HGV - Heavy Goods Vehicle

J

JtW - Journey to Work

L

LGV- Light Goods Vehicle

LHA - Local Highway Authority

LLG - Local Liaison Group

LTN - Local Transport Note

LTP - Local Transport Plan

M

MCC - Manual Classified Count

MP - Member of Parliament

N

NATS - Norwich Area Transport Strategy Model

NCC - Norfolk County Council

NCC (LHA) - Norfolk County Council (acting as Local Highway Authority)

NCC (CPA) - Norfolk County Council (acting as County Planning Authority)

NCN - National Cycle Network

NCN1 - National Cycle Network Route 1

NDR - Norwich Northern Distributor Road (now the Broadland Northway)

NH - National Highways

NMU - Non-Motorised User

NNUH - Norfolk and Norwich University Hospital

NRP - Norwich Research Park

NTS - National Travel Survey

NWL - Norwich Western Link

O

OAR - Options Assessment Report

OBC - Outline Business Case

ONS - Office for National Statistics

OSR - Option Selection Report

P

PCT - Propensity to Cycle Tool

PROW - Public Rights of Way

PandR - Park and Ride

R

RB - Restricted Byway

S

SAC - Special Area of Conservation

SOBC - Strategic Outline Business Case

STS - Sustainable Transport Strategy

T

TA - Transport Assessment

TCF - Transforming Cities Fund

TfN - Transport for Norwich

The Applicant - Norfolk County Council in their role as the promoter of the Proposed Scheme

ToR - Terms of Reference

TRO - Traffic Regulation Order

U

UEA - University of East Anglia

W

WCHAR - Walking, Cycling and Horse Riding Assessment Report

WCHR - Walking, Cycling and Horse Riding (National Highways Assessment)

1 Executive Summary

1.1.1 This Sustainable Transport Strategy (STS) has been prepared to accompany the planning application for a new link road scheme being proposed to the west of Norwich, known as the Norwich Western Link (NWL).

1.1.2 The NWL (hereafter referred to as the 'Proposed Scheme') is a new highway scheme linking the A1270 Broadland Northway (previously known as the Norwich Northern Distributor Road) from its junction with the A1067 Fakenham Road to the A47 trunk road junction with B1535 Wood Lane near Honingham ('the Classified Road').

1.1.3 The Proposed Scheme, will comprise the following elements listed below:

- Construction of a new roundabout where the Classified Road meets the existing A1067;
- A new dual carriageway link from the new A1067 roundabout to a new junction with the A47 near Honingham; and
- A dual carriageway upgrade of the A1067 Fakenham Road westwards from its existing junction with the A1270 to a new roundabout located approximately 350m to the north west.

1.1.4 A more detailed description of the Proposed Scheme is contained in **Chapter 3 Scheme Description** of the Environmental Statement (Document Reference 3.03.00).

1.1.5 The Proposed Scheme will cross the River Wensum and its floodplain by means of a viaduct. Four existing minor roads will also be crossed by overpass or underpass bridges. Of these, Ringland Lane will remain open to all users including motorised vehicle traffic. Other roads which cross the Proposed Scheme will be restricted to Non-Motorised Users (NMUs). The Proposed Scheme includes works such as provision for NMUs, necessary realignment of the local road network and the provision of environmental mitigation measures.

1.1.6 As part of a separate planned scheme, National Highways (NH) proposes to upgrade the A47 from the existing roundabout at Easton to join the existing dual carriageway section at North Tuddenham, referred to in this document as the 'A47 TUD' scheme. The A47 TUD Scheme, being a nationally significant infrastructure project, received development consent under the Planning Act 2008 in August 2022, and it is expected that NH will construct a new grade separated junction at B1535 Wood Lane, Honingham. The Proposed Scheme will connect via a new arm to be added on the north-eastern edge of the junction.

1.1.7 A strategic transport model has been used to predict future travel patterns with and without the Proposed Scheme and this work is described in the **Transport Assessment** (Document Reference 4.01.00). It is predicted that existing strategic traffic which currently uses the minor rural roads in the west of Norwich between the A47 and A1067 will re-route and alter their existing journey patterns to use the new road once built. Hence minor rural roads through the study area will be alleviated from through-traffic, making them more attractive for walking, cycling and other forms of active travel.

1.2 STS Proposals

1.2.1 The STS is an umbrella term which encompasses a package of local transport improvements which are proposed to support sustainable travel patterns within the study area west of Norwich once the Proposed Scheme is in place.

1.2.2 In this document:

- The mainline of the new proposed dual carriageway comprised in the Proposed Scheme is referred to as the "Classified Road";

- The interventions in the surrounding highway network, including the provision of new public rights of way (PROW), the diversion and reclassification of existing roads and rights of way and improvements to side roads that will enhance NMU provision as an integral part of the Proposed Scheme and in relation to which planning permission is sought. These measures are referred to as the "Proposed Scheme's Non-Motorised User Provision"; and
- A package of Complementary Sustainable Transport Measures (CSTM) – which comprise two categories of measure – the cycle friendly routes and the bus strategy. The cycle friendly routes would be brought forward by the Applicant outside of the Proposed Scheme for which planning permission is ought and would be enabled by traffic reduction on local rural roads as a result of the Proposed Scheme coming into operation. The bus strategy would be supported by redistribution of traffic due to the Proposed Scheme and will be implemented by the Applicant in partnership with bus operators.

1.3 Overview of Proposed Interventions

1.3.1 This STS has been developed alongside the Proposed Scheme's highway design proposals for the Classified Road. The STS provides a package of interventions to support the sustainable travel objectives of the Proposed Scheme. The proposals also fit well with the aspirations of the Transport for Norwich (TfN) Strategy and Local Transport Plan 4 which seeks a mode shift away from private cars and improvement in air quality. There are opportunities for geographical linkage where the Proposed Scheme and TfN projects interface at the western fringe of Norwich. This offers good synergy with wider sustainable transport proposals across Norwich.

1.3.2 The CSTM proposals would encourage mode shift away from private car use by providing the means to travel sustainably by cycle, on foot or by bus, as well as linking up the existing network of PROW to maximise local connectivity for pedestrians, cyclists and equestrians.

1.3.3 An Equalities Impact Assessment has been carried out at each stage of the project to ensure that the proposals have regard to the requirements of the Equality Act 2010.

Key Benefits

1.3.4 The STS has been shaped by extensive public consultation and stakeholder liaison to generate a package of measures that will maximise benefit to a range of local users. The proposals will extend and improve the PROW network in the immediate vicinity of the Classified Road, with the standard of routes improved and the existing fragmented network joined up with the Proposed Scheme in place.

1.3.5 At the northern extent of the scheme a new cycleway would be installed on the north side of the A1067 where the carriageway is to be dualled. This would connect with the existing Public Bridleway BR3 route which runs alongside the Broadland Northway at its western edge where it interfaces with the Proposed Scheme. At the southern end of the Proposed Scheme Honingham Restricted Byway 1 would be improved and diverted east of the Classified Road to connect with National Highways proposed routes crossing under the A47. This would offer more direct connectivity between the villages of Honingham and Weston Green. The NMU provision will also connect Weston Longville, Weston Green, Attlebridge and Morton on the Hill as well as providing onward connectivity to the Marriott's Way which offers a strategic segregated NMU route into central Norwich. The Marriott's Way is a former disused railway line which is part of the National Cycle Network (NCN1) route 1.

1.3.6 The side road proposals are intended to maintain east-west connectivity for NMUs but close all existing public vehicle access routes which cross the Classified Road alignment (save for certain private means of access), with the exception of Ringland Lane which would remain open to all users. This has been tested via a Local Access Consultation in July 2020 which also indicated good levels of support for the closure to vehicular traffic of existing roads (other than Ringland Lane) crossing the Classified Road.

1.3.7 The NMU Provision aims to increase the number of walking and cycling trips across the study area by making the routes more attractive and safe for users, and logically placed to connect key amenities. The local roads across the wider area are also expected to receive levels of traffic reduction which would help to make walking and cycling on the carriageway more attractive (supported by additional speed management measures where appropriate).

1.3.8 The Complementary Sustainable Transport Measures (CSTM) have been developed to further encourage active travel and mode shift away from private car use in the wider area by providing the means to travel sustainably by cycle, on foot or by bus, for shorter distance local journeys, as well as linking with existing and future PROW and key facilities. These are additional measures that can be implemented within the public highway extents post planning once the Proposed Scheme is in place.

1.4 Meeting Scheme Objectives

1.4.1 As set out within the Transport Assessment (TA), this STS contributes to meeting the Project Objectives and enables the Proposed Scheme to satisfy the full range of high level and strategic objectives alongside a package of Complementary Sustainable Transport Measures that offer opportunities for travel by active modes and public transport.

2 Sustainable Transport Strategy

2.1 Introduction

2.1.1 This Sustainable Transport Strategy (STS) has been prepared to accompany the planning application by Norfolk County Council for a new link road scheme being proposed to the west of Norwich, known as the Norwich Western Link (NWL) (hereafter the 'Proposed Scheme').

2.1.2 To provide clarity, where Norfolk County Council (NCC) are operating within their role as the promoter of the Proposed Scheme it is referred to as 'The Applicant', and where NCC are operating as the Local Highway Authority

(LHA) they are referred to as 'NCC (LHA)'. NCC also have a role as County Planning Authority – this is referred to as NCC (CPA).

2.2 STS Proposals

2.2.1 The STS is an umbrella term which encompasses a package of local transport improvements which are proposed to support sustainable travel patterns within the study area (the study area for the STS includes the area beyond the immediate vicinity of the Classified Road) west of Norwich once the Proposed Scheme is in place. In this document:

- The mainline of the new proposed dual carriageway comprised in a Proposed Scheme is referred to as the "Classified Road";
- The interventions in the surrounding highway network, including the provision of new PROWs, the diversion and reclassification of existing roads and rights of way and improvements to side roads that will enhance non-motorised user provision as an integral part of the Proposed Scheme and in relation to which planning permission is sought (within the red line boundary). These measures are referred to as the "Proposed Scheme's Non-Motorised User Provision"; and

- The package of Complementary Sustainable Transport Measures (CSTM) are a range of complementary sustainable transport measures that would be brought forward in the wider west of Norwich region complementary to, but distinct from, the Proposed Scheme. The CSTM comprises two categories of measures; the cycle friendly routes described in section 7.2 of this STS and the bus strategy described in sections 7.3 and 7.4 of this STS. The cycle friendly routes would be brought forward by the Applicant within the bounds of existing highways under its highway authority powers and seek to take advantage of the reduction in traffic on local roads as a result of the operation of the Proposed Scheme to make such routes more attractive for journeys by bicycle. The bus strategy comprises the promotion of bus routes and bus stop enhancements to the west of Norwich which would be supported by the redistribution of traffic arising from the operation of the Proposed Scheme. The bus strategy would be implemented by the Applicant in partnership with bus operators. The CSTM do not form part of the Proposed Scheme but are complementary measures that would be brought forward to maximise the sustainable transport benefits flowing from the redistribution of traffic from local roads.

2.2.2 The CSTM and NMU Provision have been identified as supporting measures in accordance with the Transport for Norwich (TfN) Strategy, paragraph 5.11, which includes a statement of policy in relation to strategic connections which confirms that "*strategic connections and hinterland access will be promoted to enhance the role of Norwich as the regional capital*". One of the '*supporting actions to that statement of policy confirms that Norfolk County Council will carry out strategic assessments of the consequence of completing the committed strategic schemes (including improvements to the A47, the committed Transforming Cities programme and the Norwich Western Link) to identify the opportunities to deliver enhanced sustainable transport measures to support public transport and active travel*'.

2.3 Project Objectives

2.3.1 A range of project objectives have been developed to align with the current overarching themes presented in national, regional and local policy, as well as associated guidance. The objectives are in two tiers as high-level and specific local objectives; the specific objectives are shown in Table 2.1.

2.3.2 The high-level objectives that the Proposed Scheme will follow reflect issues and opportunities to support the principal aim of a modern and efficient transport system, which include:

- H1 - Support sustainable economic growth;
- H2 - Improve the quality of life for local communities;
- H3 - Promote an improved environment; and
- H4 - Improve strategic connectivity with the national road network.

Table 2.1 Norwich Western Link specific objectives

Specific Objective	Strategic Outcomes
S1 Improve connectivity and journey times on key routes in Greater Norwich	i. Improve journey time and journey time reliability, on routes through the area west of Norwich ii. Reduce congestion and delay through the area west of Norwich iii. Reassignment of traffic away from existing routes reducing delay and congestion improving existing accessibility iv. Reduce emergency response times v. Improve network resilience vi. Provide a more suitable direct route for HGV/LGV vehicles vii. Reduce trips on local minor roads for vehicular traffic

Specific Objective	Strategic Outcomes
S2 Reduce the impacts of traffic on people and places within the western area of Greater Norwich	i. Reassignment of trips onto appropriate routes ii. Reduce noise in local communities overall in the western area of Greater Norwich iii. Reduce net emissions of CO_2 and other greenhouse gases in local communities overall in the area west of Norwich iv. Improve Non-Motorised User connectivity v. Improve air quality, especially in the built-up areas of west Norwich vi. Minimise traffic impacts on local residents during construction
S3 Encourage and support walking, cycling and public transport use	i. Increase in number of trips taken by walking, cycling and public transport ii. Increased access to public transport, walking and cycling facilities
S4 Improve safety on and near the road network, especially for pedestrians and cyclists	i. Reduced overall network accident rate ii. Reduce the number of people killed or seriously injured on roads in the area west of Norwich iii. Minimise highway safety impacts and severance during construction

Specific Objective	Strategic Outcomes
S5 Protect the natural and built environment, including the integrity of the River Wensum SAC.	i. Biodiversity Net Gain ii. Minimised impact on landscape iii. Minimised impact on heritage iv. Not affect the integrity of the River Wensum SAC v. Reduce carbon emissions to contribute to the Council's net zero aspiration by 2030 vi. Minimise impact of the scheme on climate change vii. Minimise adverse environmental impacts arising from construction
S6 To improve accessibility to key sites in Greater Norwich	i. Improved accessibility to Norwich International Airport, Norfolk and Norwich University Hospital and key employment, housing and education sites ii. Improved accessibility to green areas iii. Improved access to the cycle and Public Rights of Way network

3 Context – Policy and Guidance

3.1.1 This section considers the relevant transport policy that relates to the proposed active travel and public transport interventions.

3.2 Cycle Infrastructure Design Local Transport Note LTN 1/20 (2020)

3.2.1 Published in July 2020, the updated national guidance aims to help cycling become a realistic form of everyday transport in more places across the UK. The guidance offers more prescriptive guidance on design than previously available and places emphasis on increased priority to be given to cyclists.

3.2.2 Five core design principles are included to achieve a greater increase in the number of people walking or cycling:

- Coherent - cycle networks should be planned and designed to allow people to reach destinations easily, along simple and high-quality routes;
- Direct - routes should be direct and preferably more direct than those available for private motor vehicles;
- Safe - infrastructure should also be perceived to be safe so that more people feel able to cycle;
- Comfortable - routes require good quality well-maintained surfaces, adequate widths for the volume of users, minimal stopping/starting and avoiding steep gradients; and
- Attractive - help to deliver public spaces that are well designed and finished in attractive materials, so that they become places people want to spend time using.

3.2.3 With the exception of the Broadland Northway (A1270) and the A47 TUD scheme being developed by National Highways, the majority of routes close to and within the Proposed Scheme are rural lanes through small hamlets and villages, many of which currently carry more traffic than is suitable for the scale of existing highway infrastructure and constrained network conditions.

3.2.4 However, with the Proposed Scheme in place, traffic relief will be provided to those local villages, with traffic flows on many links reduced to below 2,000-2,500 vehicles per day AADT in the opening year of 2029. This enables existing infrastructure to be re-purposed to prioritise cycling and walking without building extensive extra new links (albeit with speed management measures to control speeds to low levels where appropriate). The sentiment of the guidance is indicated below in Figure 3.1 – Chapter 7 of the guidance applies to rural lanes. However, a proportionate approach is needed given the more sparse population catchment and opportunity to re-use existing

infrastructure, rather than increasing scheme environmental effects with extensive new construction.

Figure 3.1 LTN1/20 Chapter 7 Overview

Source: Local Transport Note 1/20 - Cycle Infrastructure Design, Department for Transport (July 2020)

3.3 Gear Change: A Bold Vision for Walking and Cycling (2020)

3.3.1 The document produced by the Department for Transport, sets out a bold vision for the future of transport across England. The policy notes that cycle routes must join together (isolated routes of good provision are of little value), and routes must feel direct and logical so they can be easily understood by users.

3.3.2 Gear Change responds to the climate change agenda emphasising the environmental and health benefits of encouraging and supporting sustainable

travel, with a target to double cycling and increase walking in the surrounding area. This ambition has been partly derived from direct experience during the COVID-19 Pandemic in 2020, with over a 100% increase in cycling observed and close to 300% in some locations across the UK.

3.4 Decarbonising Transport: A Better, Greener Britain (Department for Transport, 2021)

3.4.1 The report published in 2021, follows 'Decarbonising Transport: Setting the Challenge' (March 2020), which set out the scale of reductions needed in the transport sector to meet the net zero target by 2050. The report sets out the commitment the UK Government will make to decarbonise all forms of transports, this includes:

- Increasing walking and cycling;
- Zero emission buses and coaches; and
- A zero-emission fleet of cars, vans, motorcycles and scooters.

3.4.2 To enable these commitments to be met, there will be investment into sustainable travel, low carbon fuels, electric vehicles and providing the funding and tools for local authorities to invest in local priorities.

3.4.3 The strategic priorities along the path to net zero include:

- Accelerating modal shift to public and active transport;
- Decarbonising road transport;
- Decarbonising the freight system; and
- Place-based solutions to emissions reduction.

3.4.4 Increasing the number of journeys undertaken by sustainable modes will improve the number of travel modes available, the report notes that continued investment in the road network is still necessary "*to ensure the functioning of the nation*", to improve resilience and to reduce congestion, which is a major source of carbon.

3.4.5 The Proposed Scheme would seek to remove traffic from the existing local roads, making the roads lower trafficked and more suitable for increasing journeys by walking and cycling. The traffic reduction would also support public transport use, by facilitating improved opportunities for bus travel and enabling a new route to connect key residential and employment areas to the west of Norwich.

3.5 Transforming Cities Fund / Transport for Norwich

3.5.1 NCC (LHA), in partnership with Norwich City Council, Broadland District Council and South Norfolk Council, have successfully made an application to the Department for Transport as part of the Transforming Cities Fund (TCF), securing £32 million funding to support new walking, cycling and public transport infrastructure and services be delivered through Transport for Norwich (TfN). The fund aims to make it easier for people to access jobs, education and retail, whilst also seeking to improve air quality.

3.5.2 Through the TCF programme, a number of highway and public transport service improvements are to be delivered over the period up to end March 2023. The Thickthorn Park and Ride (PandR) site is proposed to be expanded to provide an additional circa 600 parking spaces and NCC (LHA) is in discussion with Norwich Research Park to provide a new bus service to the site from Thickthorn PandR, which would be in addition to the existing service to the city centre.

3.5.3 The TCF programme is also seeking to extend the Beryl bike share scheme, which now provides electric bikes and scooters in addition to standard bikes, to the PandR sites across Norwich, which would provide greater flexibility in terms of transport choices for local people and visitors.

3.5.4 First Eastern Counties, who provide around 80% of the bus services in Greater Norwich, are also committing £18 million of investment in new buses, refurbished buses and increased service frequencies as part of the Transforming Cities programme.

3.6 Transport for Norwich Strategy 2021

3.6.1 The Transport for Norwich Strategy includes a statement of policy in relation to strategic connections which confirms that *"strategic connections and hinterland access will be promoted to enhance the role of Norwich as the regional capital"*. One of the *'supporting actions to that statement of policy confirms that Norfolk County Council will carry out strategic assessments of the consequence of completing the committed strategic schemes (including improvements to the A47, the committed Transforming Cities programme and the Norwich Western Link) to identify the opportunities to deliver enhanced sustainable transport measures to support public transport and active travel'*. This STS is a key foundation to that work by identifying the Proposed Scheme's Non-Motorised User Provision that can be delivered as part of the Proposed Scheme for which planning permission is sought and by identifying the wider Complementary Sustainable Transport Measures that could be delivered outside of the Proposed Scheme which would be supported by the reduction of vehicular traffic on local routes.

3.7 Norfolk Local Transport Plan 4 and Implementation Plan

3.7.1 The fourth Local Transport Plan was adopted in July 2022 which covers the period of 2020-2036 and replaces the previous version adopted in 2011. The Implementation Plan sets out the proposals for the implementation of the policies within the adopted strategy for the period up to 2036.

3.7.2 The LTP was updated to include new priorities, such as the Norwich Western Link, A140 Long Stratton Bypass, A10 West Winch Relief Road, and full dualling of the A47.

3.7.3 The objectives of the new LTP are to:

- Embrace the future;
- Deliver a sustainable Norfolk;
- Enhance connectivity;

- Enhance Norfolk's quality of life;
- Increase accessibility;
- Improve transport safety; and
- Create a well manged and maintained transport network.

3.7.4 The LTP4 notes that the Norwich Western Link would provide a route that would significantly improve travel between the A47 and the Broadland Northway and notes that the completion of the Norwich Western Link will be complemented by sustainable transport measures.

3.8 Cycling and Walking Investment Strategy (CWIS2), 2023

3.8.1 The statutory Cycling and Walking Investment Strategy (CWIS) (required to be produced by the Secretary of State pursuant to the Infrastructure Act 2015) sets a clear ambition to make cycling and walking the natural choices for short journeys or as part of a longer journey with supporting objectives to increase active travel.

3.8.2 Consistent with the CWIS, this STS sets out how the Proposed Scheme seeks to improve the existing walking and cycling facilities within the red line boundary as part of the NMU Provision. Wider Complementary Sustainable Transport Measures in the surrounding area (outside of the red line boundary) are also identified that the Proposed Scheme would facilitate by redirecting traffic from local roads. The Proposed Scheme includes green bridges, improved walking and cycling infrastructure and crossing facilities. It will also tie in to existing walking and cycling infrastructure to the north and the south of the scheme.

3.9 Bus Service Improvement Plan, 2021

3.9.1 NCC (LHA) have published a Bus Service Improvement Plan (BSIP) covering a five-year period from 2022 to 2027. NCC (LHA) have also received funding of £49.55m to deliver the measures outlined in the BSIP over a 3-year period from April 2022 - March 2025. The improvements are to include the following:

- Fares offer for those under 25 years old;
- Contactless payment and next stop announcement displays on all buses;
- Better bus stop standards; and
- More modern buses and the introduction of zero emission buses.

4 Existing Conditions

4.1 Public Highways and Public Rights of Way

4.1.1 There are five existing public highways, including one unsurfaced highway which cross the Classified Road, as shown in **Figure 4.1** and listed below:

- Ringland Lane - public highway;
- Weston Road / Church Hill Lane - public highway;
- Breck Road/Breck Lane - public highway;
- The Broadway - public highway; and
- Blackbreck Lane - unsurfaced public highway.

4.1.2 There are two existing public rights of way which cross the Proposed Scheme, as shown in **Figure 4.1** and listed below:

- Honingham Restricted Byway 1 – PROW; and
- Ringland Footpath 1 – PROW.

4.1.3 The type of users entitled to use each category of PROW are listed below:

- Footpath – for use by pedestrians only;
- Shared Footway / Cycleway – for use by pedestrians and cyclists only;
- Bridleway – for use by pedestrians, cyclists and equestrians only;

- Restricted Byway – for use by pedestrians, cyclists, equestrians and non-motorised vehicles only; and
- Byway Open To All Traffic – for use by pedestrians, cyclists, equestrians, non-motorised vehicles and motorised vehicles.

4.1.4 An assessment of the existing routes that cross the Classified Road was carried out to inform the design of the Proposed Scheme which is discussed within this STS in Chapter 6.

4.1.5 To understand existing usage of the Public Highways and unsurfaced highway routes which cross the Classified Road, traffic surveys were carried out in October 2019 (during school term time), as shown in **Table 4.1**. This indicates that existing minor roads crossing the Classified Road are in low usage by motor vehicles with less than 1,000 vehicles per day using all of the east-west routes in total. Ringland Lane is wider and better quality, so is naturally more well used. This route links the two parishes of Weston Longville and Ringland. There is also evidence of existing use by Non-Motorised Users with Ringland Lane also being more well used than other routes.

Figure 4.1 Existing public rights of way/highways which cross the proposed scheme

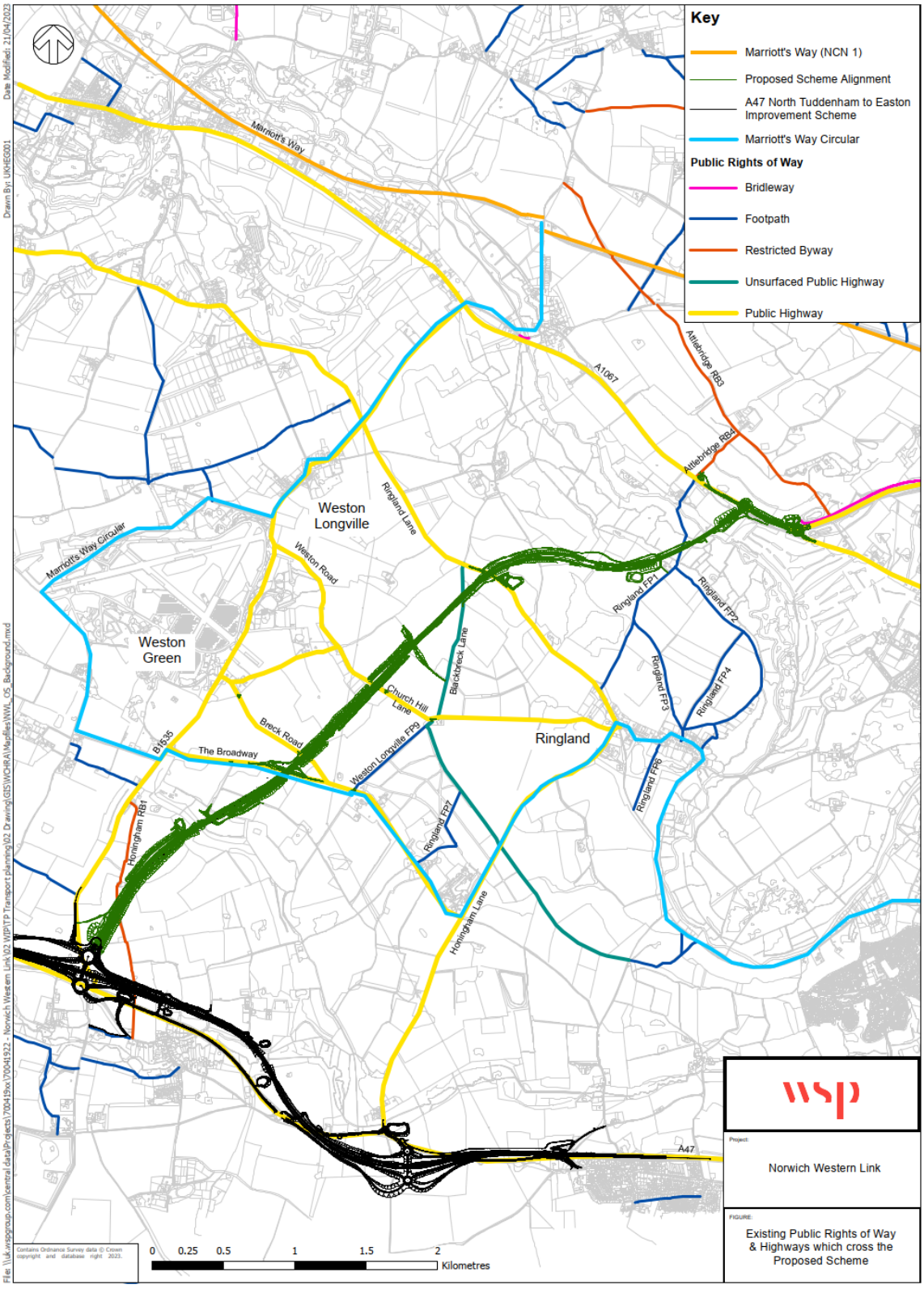


Table 4.1 October 2019 traffic surveys

Mode	The Broadway	Breck Rd/Lane	Church Hill Lane	Blackbreck Lane	Ringland Lane
Pedal Cycle	0	5	7	0	32
Equestrian	0	0	3	1	0
Motorcycle	0	0	1	0	2
Car	13	66	60	0	260
LGV, OGV and PSV	6	13	17	0	63
Pedestrians – lone adult	1	3	4	0	2
Pedestrian – adult with dog	1	0	1	1	0
Pedestrian – adult with child	0	0	0	0	0
Wheelchair / mobility scooter	0	0	0	0	0

Note: The figures above show the average daily two-way flows over a four-day survey period. PROWs were not surveyed during this survey period.

4.2 Existing Public Transport Services

Rail

4.2.1 The nearest railway station is located at Wymondham, approximately 11km to the south of B1535 Wood Lane junction with A47. This is served by hourly trains in each direction between Cambridge and Norwich. Norwich Railway Station is also located approximately 14km south-east of Wood Lane, and to

the south-east of the city centre. Norwich is generally well placed on the rail network, with Norwich Railway Station located on the Great Eastern Mainline and served by several secondary railway lines such as the Breckland Line, Bittern Line and Wherry Line. The station is served by two rail operators (Abellio Greater Anglia and East Midlands Railway) providing access to destinations within the Norfolk area as well as further afield. Whilst Norwich Railway Station can be accessed by bus services from Costessey (Queen's Hills) and Taverham, access to the station by public transport from more rural towns or villages to the west of Norwich is challenging.

Bus and Coach

4.2.2 The bus network in the study area is largely radial, providing routes to and from Norwich city centre along key corridors. The eastern part of the study area is well connected with Norwich city centre, particularly during the day. First Bus provides several services connecting Queen's Hills, Costessey, Easton, Hellesdon and Taverham with destinations within and around Norwich city centre. Bus services also operate within the study area, connecting residential areas to major employment sites. There is, however, a lack of traditional bus services within the identified gap to the west of Norwich, including Weston Longville, Weston Green and Ringland.

4.2.3 There are bus stops located on the radial routes into central Norwich (i.e. A1067 and A47). These are within walking distance from a small catchment of residential dwellings. There is limited pedestrian access between villages and bus stops, so access on foot from some hamlets and rural villages is less viable. However, due to the sparsely distributed rural nature of the study area, it is not expected that every dwelling would have a bus stop within 400m as would typically be the case in densely populated urban areas. The majority of dwellings in the less dense areas are beyond walking distance of the radial routes currently served. Despite this, diverting bus services away from the main arterial corridors has been tried previously and led to increased journey times and patronage reductions. Hence services through the rural roads to the west of Norwich have been previously discontinued as they were showing

poor viability. Therefore, the emphasis for developing a viable bus strategy will focus upon the areas in the western urban fringe of Norwich which have more dense population catchments.

Park and Ride

4.2.4 Currently, there are six PandR sites located around Norwich, providing a total of almost 5,000 parking spaces on the urban fringe. Of the six sites, Thickthorn, the Airport and Costessey PandR sites are located on the western edge of the city. The Airport PandR serves the city centre and the Costessey PandR serves the Norfolk and Norwich University Hospital (NNUH) and the University of East Anglia (UEA).

4.2.5 Residents in the west of Norwich or users arriving from the west currently have the option to use Thickthorn PandR or the Airport PandR sites to access the city centre. The Thickthorn PandR site is currently proposed to be expanded as part of the Transforming Cities programme to provide around 600 additional parking spaces.

4.2.6 Accessing the Airport and Costessey PandR sites from the A1067, A140 and A47 radial routes results in a range of journeys crossing through the rural lanes to the west of Norwich. With the Proposed Scheme in place, there are enhanced opportunities for vehicles accessing the PandR sites more efficiently to best serve their chosen destination.

4.2.7 First Eastern Counties, who provide around 80% of the bus services in Greater Norwich, are committing £18m of investment in new buses, refurbished buses and increased service frequencies as part of the Transforming Cities programme. Recent investment by First saw the introduction of new, high specification buses on the Excel service operating from west Norfolk into Norwich, with fast, limited stop services and up to three buses per hour from Dereham.

4.3 Existing Cycling Facilities

4.3.1 While cycling could provide a sustainable alternative means for short to medium length journeys, the infrastructure available to do so in the west of Norwich is currently limited. The National Cycle Network Route 1 (NCN1) runs north of the A1067, past Lenwade and Attlebridge. This section of the NCN1, also known as Marriott's Way, is a 42km footpath, bridleway and cycle route, following the alignment of two disused railway lines. The route passes through Norwich city centre, Costessey, through Drayton crossing the A1067 and the A1270, and goes westward towards Lenwade. From there the route goes north towards Reepham and beyond.

4.3.2 More widely, the Norwich Cycle Network is made up of seven colour-coded routes, known as 'Pedalways', which cross the city in all directions, and converge at St Andrews Plain in the city centre. Since 2013, Norwich has been awarded two significant Cycle City Ambition grants from the DfT and, with additional contributions from local partners, the cycle network has seen £14.1 million of investment by 2019.

4.3.3 The Pedalways in Norwich are as follows:

- Green - between Bowthorpe and Broadland Business Park;
- Red - between Drayton and Whitlingham (NCN1);
- Yellow - between Lakenham and Aviation Academy;
- Pink - between NNUH and Heartsease;
- Blue - between Wymondham and Sprowston;
- Orange - Inner circuit; and
- Purple - Outer circuit.

4.3.4 The Wensum Valley Cycling group, which operates within the Weston Longville and Ringland parishes, was contacted to help understand which

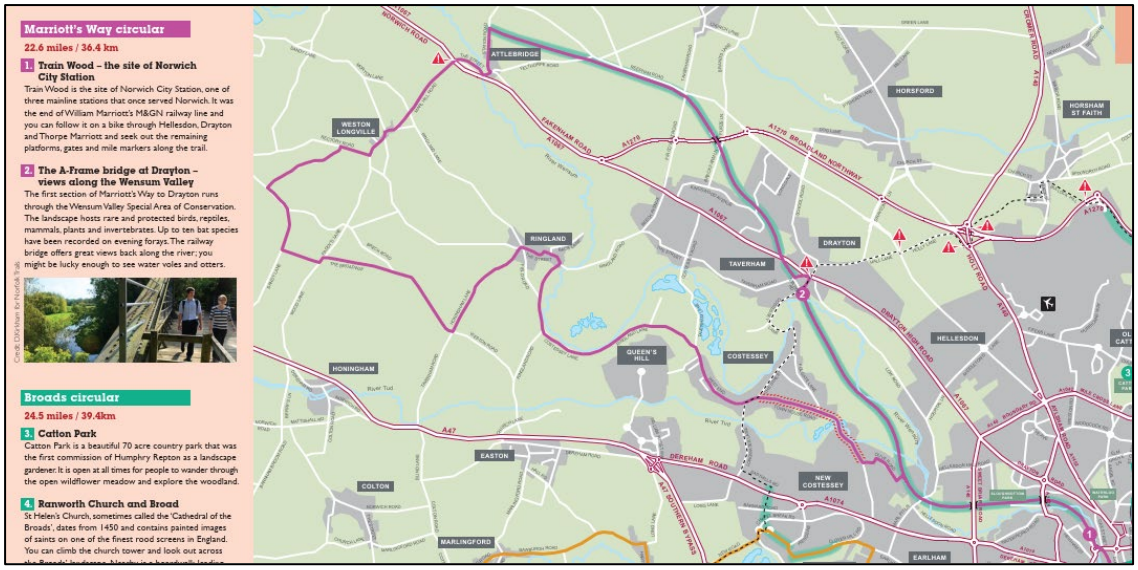
routes are currently used and how the Proposed Scheme may affect them. The cycling routes currently used by the group are shown in Figure 4.2**.**

Figure 4.2 Wensum Valley Cycling – routes currently used

4.3.5 The group noted that since the introduction of the Broadland Northway, there has been limited opportunity to leave Norwich and travel north without using a roundabout, making it less attractive for users. Following review of the Local Access Consultation material, the group would like to see improved crossing facilities on the A1067 where the above routes intersect. A copy of the consultation brochure is included as **Appendix 2** of the TA (Document Reference 4.01.02).

4.3.6 The routes identified are broadly similar to the Marriott's Way Circular route, which is a leisure route on the Norwich Cycling Map, which connects Weston Longville, Attlebridge, Ringland, Taverham, Drayton and Costessey to the Marriott's Way NCN1. This route is shown in Figure 4.3.

Figure 4.3 Marriott's Way circular route



Source: Norwich Cycle Map, Norfolk County Council, 2022

4.4 Local Issues and Opportunities

4.4.1 A review of the existing conditions has highlighted that there are issues and opportunities that the Proposed Scheme could seek to address, these are explored below.

Issues

- The existing local PROW network is fragmented which makes it difficult to connect nearby rural communities;
- There is also rat-running observed on local routes, exacerbating the issue of severance, making it less attractive to travel by sustainable modes;
- There is a gap in service provision between residential areas in the north-western fringe of Norwich (such as Taverham, Drayton, Queens Hills, Costessey) and employment areas in the southwest (including Norwich Research Park/UEA and Norfolk and Norwich University Hospital). Residents of Taverham and Thorpe Marriott travelling to the Norfolk and Norwich University Hospital (NNUH) by public transport currently have to catch two buses, changing in the city centre and involving journey times from the centre of Taverham of between 56 and 65 minutes;

- A new bus service would need to be commercially viable to be a long term sustainable transport solution, with bus companies usually attracted to routes which have higher density development which would maximise patronage. Since the Proposed Scheme is located away from residential dwellings, and not coupled directly with new development, it is unlikely that the Proposed Scheme itself would support new local bus service routes directly; and
- As an outcome of the COVID-19 pandemic, bus patronage was severely impacted due to travel restrictions imposed by UK Government and revised travel patterns post pandemic, with more reluctance for use of public transport in general.

Opportunities

- There are local routes, such as The Broadway and Breck Lane which have low traffic flows and would be suitable to convert to PROW routes for increased use by pedestrians, equestrians and cyclists;
- As an outcome of the COVID-19 pandemic, there has been an increased trend in the use of walking and cycling modes, this momentum should be maintained, and enhanced connections provided to accommodate trips by walking and cycling;
- Large new developments are proposed within Easton and Taverham which could provide suitable patronage for a new bus service, reducing the need to interchange in Norwich to access facilities in the west of Norwich; and
- There are opportunities for developer funding to deliver public transport improvements which should be explored to help kick-start a bus service.

5 Public and Key Stakeholder Engagement

5.1 Engagement Timeline

5.1.1 Stakeholder and local user group engagement has been a core part of the Proposed Scheme from conception, allowing for local residents, other interested parties and professionals to comment on the emerging proposals and provide local insights. The following engagement on the Sustainable Transport Strategy has been undertaken to date as shown in Table 5.1.

5.1.2 Further information on the engagement carried out as part of the wider Proposed Scheme is included within the Statement of Community Involvement (Chapters 3-7, Document Reference 1.03.00).

Table 5.1 Stakeholder engagement timeline

Date	Activity
February 2017 - onwards	Local Liaison Group (LLG) Meetings with local Parish Councils
May - July 2018	Transport Issues Public Consultation
November 2018 - January 2019	Options Public Consultation
August 2019 - onwards	Working with NH for joined up delivery of the Proposed Scheme and A47 North Tuddenham to Easton dualling scheme
October 2019	Sustainable Transport Stakeholder Workshop 1
January 2020	Sustainable Transport Stakeholder Workshop 2
July - September 2020	Local Access Public Consultation
August 2020	Sustainable Transport Stakeholder Workshop 3 - Briefing on content of Local Access Consultation

Date	Activity
August 2020 – onwards	Joint Local Liaison Group meetings with both NH and the Applicant
March 2021	Sustainable Transport Stakeholder Workshop 4
July 2022	Active Travel England NMU provision discussion
August-September 2022	Pre-application public consultation
April 2023	Active Travel England engagement

5.1.3 Additional ad-hoc meetings have also been held with parish councils, organisations, local user groups and NCC (LHA) to discuss additional topics, outside of the planned events above.

5.2 Working with National Highways

5.2.1 Since August 2019, when Highways England (now known as National Highways) confirmed their appointment of a main contractor for the delivery of their A47 North Tuddenham to Easton dualling scheme (A47 TUD), The Applicant has been working closely with National Highways (NH), and will continue to do so as the two schemes are implemented.

5.2.2 Regular meetings have been held with NH and discussions have focussed on achieving a joined-up approach to delivery of the two projects as they are closely linked and have a key interface at the Wood Lane junction with Berry's Lane and A47. The A47 TUD proposed northern dumbbell roundabout at Wood Lane will provide grade separated access to the Proposed Scheme, with an additional arm to be added to the roundabout by the Applicant (Norfolk County Council).

5.2.3 In relation to the Proposed Scheme's Non-Motorised User Provision and Complementary Sustainable Transport Measures, the NCC (LHA) PROW team and the NCC (LHA) Highways Teams have provided guidance on local preferences and the Applicant has sought to achieve connectivity of the

Proposed Scheme's Non-Motorised User Provision with the NH proposals particularly in the vicinity of Honingham and Easton, where NH are providing grade separated NMU crossings as part of their A47 North Tuddenham to Easton dualling scheme amongst others:

- A new underpass to be provided at Honingham to create a NMU connection to St Andrew's Church;
- A new overbridge to be provided in Easton to allow NMUs to cross the A47 and improve access to Church Lane;
- A highway underpass to be provided where the A47 TUD scheme crosses Mattishall Lane with NMU provision; and
- Closure of Berry's Lane and new NMU provision via an underpass at Hall Farm, to connect into the Proposed Scheme's Non-Motorised User and Side Road Provision.

6 The Proposed Scheme's Non-Motorised User and Side Road Provision

6.1 Introduction

6.1.1 This section sets out the measures to be provided as an integral part of the Proposed Scheme for which planning permission is sought.

6.2 Non-Motorised User (NMU) and Side Road Provision

Background

6.2.1 The intention of the NMU Provision included in the planning application is to offer increased opportunities for recreational walking, cycling and horse riding in the immediate vicinity of the Proposed Scheme, as well as improving connectivity of existing Public Rights of Way (PROW) and encouraging healthy and active travel by non-car modes on trips within shorter distance bands.

6.2.2 To inform the development of Non-Motorised User interventions, a Walking, Cycling and Horse Riding Assessment and Review (WCHAR) was undertaken

in accordance with DMRB GG142. This guidance is prepared in line with NH Strategic Business Plan and Roads Investment Strategy, as well as the Infrastructure Act 2015. This identified opportunities for improving connectivity and quality of existing Public Rights of Way in the vicinity of the scheme, which are currently fragmented and do not function as a joined-up network. The NMU proposals associated with the Proposed Scheme aim to address these issues, seeking to connect the existing routes and make them more usable whilst also mitigating potential severance issues caused by the provision of the new classified road which crosses several existing side roads including PROWs.

6.2.3 The Local Access Consultation proposals presented in 2020 were generally well received, with good levels of public support evident for the closure of existing public highways that cross the Proposed Scheme at The Broadway, Breck Road, Weston Road/Church Hill Lane and Blackbreck Lane. These routes are therefore proposed to be closed to motor vehicles ('except for access' where local land access is required). Turning facilities will be installed to enable errant users to turn around and where sections of carriageway are no longer required there would be a reduction in highway maintenance costs.

6.2.4 However, it was also evident that it would be practical for one route to remain open to all traffic to facilitate local access between nearby communities (for example Weston Longville and Ringland). This would enable residents to access key facilities in the two villages such as pubs, shops and village halls, as well as avoiding long diversion routes via A47 or A1067. The feedback from consultation was considered for each route that crosses the Proposed Scheme below to inform a decision on the preferred option.

6.2.5 Working with local transport stakeholders, Active Travel England (ATE) and the established Local Liaison Group to help generate ideas, initial options for enhancing Non-Motorised User provision were discussed and developed via a series of workshops. Key themes emerging from the workshops highlighted a desire to avoid closing existing Public Rights of Way (PROWs) but it was recognised that some localised diversions would be necessary, and this may

also be helpful in joining up the Proposed Scheme with existing PROWs and responding to the Proposed Scheme highway design.

Proposed Measures

6.2.6 The Proposed Scheme includes a mix of over-bridges and underpasses to provide grade separated crossings of the Classified Road's dual carriageway. This enables the PROW network to be preserved and enhanced as part of the scheme.

6.2.7 The Proposed Scheme's NMU and Side Roads Provision is shown on a plan included in **Appendix A** and the proposals are explained in more detail below.

Route 1a: Honingham Restricted Byway 1

6.2.8 Diversion of the existing Honingham Restricted Byway 1 to run parallel with the Classified Road, on the east side of the Proposed Scheme. At its southern most extent where the new Classified Road will tie-in to the National Highways A47 North Tuddenham to Easton scheme from where an underpass of the A47 that is to be provided by National Highways will create a non-motorised user link to further onward routes. The route will link up to Dereham Road to the south.

6.2.9 Public access rights over the remnants of the original Honingham RB1 south of the former A47 will be extinguished by National Highways as part of the A47 TUD.

Route 1b: Honingham Restricted Byway 1

6.2.10 Route 1b is intended to mitigate severance of the existing Honingham RB1 a consequence of the Proposed Scheme. Route 1b comprises the creation of a new diversionary route linking Route 1a and the old A47 to the south, with The Broadway to the north. The new route will closely follow the Classified Road along the highway boundary to minimise the extent of land take, with adequate separation from the highway to minimise disturbance to users of the new route. To the north, this route will connect with The Broadway, with onward connection to Weston Green and Ringland.

6.2.11 Public access rights over the remnants of the original Honingham RB1 north of the former A47 will be extinguished as part of the A47 TUD.

Route 2: The Broadway (Public Highway)

6.2.12 This route is to be stopped up and replaced with a bridleway and restricted byway on the same alignment, to create a tranquil green lane for NMU access and ecology. The route will benefit from an overbridge crossing the Classified Road to retain access and avoid severance over this route. Although access to motor vehicles will be prohibited, access will be preserved for motor vehicles serving adjacent land, including agricultural land holdings. Appropriate measures, for example vehicle gates with the inclusion of an NMU bypass, will be introduced to deter unauthorised access by motor vehicles.

Route 3: Breck Road (Public Highway)

6.2.13 Breck Road will be closed to all traffic, except for access to adjacent private land, to the west of the Classified Road, and will be replaced with a restricted byway on the same alignment until it reaches the Classified Road, where it will be diverted to the south to connect to The Broadway restricted byway (route 2). It will be subject to a private means of vehicular access over it to serve adjacent land.

Route 4: Church Hill Lane / Weston Road (Public Highway)

6.2.14 Church Hill Lane is to be stopped up and, to the west of the Classified Road, will be replaced with a bridleway on the same alignment until it reaches the Classified Road, at which point it is diverted northwards to run parallel and adjacent to the Classified Road (Route 9). Users will then be diverted to Route 9 alongside the Classified Road and over the proposed Morton Green Bridge for onward connections towards Ringland and Attlebridge.

Route 5: Blackbreck Lane (unsurfaced highway maintained by Norfolk County Council)

6.2.15 Blackbreck Lane is an existing unsurfaced public highway that provides connectivity between Church Hill Lane and Ringland Lane. Blackbreck Lane

will be stopped up from its junction with Church Hill Lane/Weston Road and replaced with restricted byway on the same alignment. Where it meets the Classified Road it will be diverted to re-join Ringland Lane to the east of the Classified Road. The replacement restricted byway will be subject to private rights of vehicular access to benefit adjacent land.

Route 6: Ringland Lane

6.2.16 This route will remain open to all traffic with Ringland Lane crossing under the Classified Road via a new underpass. This will preserve unrestricted access to all users. Given the low traffic use on Ringland Lane, it is expected that the majority of cycle and pedestrian users would use the main carriageway. However, the carriageway would be narrowed to about 3.5m width at the underpass with a footway constructed in the south verge, to create an off-highway link between Routes 5 and 10.

6.2.17 Ringland Lane will be improved through works such as formalising the existing informal passing bays making the route safer and more attractive to non-motorised users.

6.2.18 A cycle-friendly on-road link is proposed on Ringland Lane from the underpass of the Proposed Scheme to the junction with Marl Hill Road. This is to link in with the Proposed Scheme's provision of the improved Marl Hill Road (route 12) and improve connectivity between Ringland and Attlebridge.

Route 7: Ringland FP1 (Public Footpath)

6.2.19 Retention of this existing public footpath to preserve access over this pedestrian route. This footpath will pass under the viaduct section of the Classified Road, and so access will be preserved. However, some local disruption may be experienced during construction. The footpath will remain as unmade where it crosses through the floodplain of the Wensum Valley and wetland paddocks to minimise impact on flooding and existing habitats and protected species. The existing wooden footbridge will remain unaltered.

Route 8: Weston Longville Footpath 9

6.2.20 To improve connectivity with neighbouring PROWs, it is proposed to upgrade Weston Longville Footpath No.9, to the east of the Classified Road to a restricted byway (i.e. stop up the footpath and replace it on the same alignment with a restricted byway), with links to The Broadway and the Honingham RB1 diversionary route. This will create a continuous link from Honingham to Ringland Lane via Blackbreck Lane. As this route follows an existing agricultural access track comprised of a stoned surface, no changes to the surface construction are proposed.

Route 9: New Bridleway

6.2.21 Dedication of a new bridleway from Church Hill Lane to Blackbreck Lane via a Green Bridge over the Classified Road, together with private rights of vehicular access to adjacent land.

Route 10: New Public Footpath

6.2.22 Dedication of a new public footpath over the Proposed Scheme's maintenance track (with private rights of vehicular access) from Ringland Lane, connecting to Route 10a and Route 10b.

Route 10a: New Public Footpath

6.2.23 Dedication of a new public footpath constructed over a proposed maintenance track (with private rights of vehicular access) to link Route 10 and Route 10b with existing Ringland Footpath 1 and 2 to the east.

Route 10b: New Public Footpath

6.2.24 Dedication of a new public footpath over a proposed maintenance access (with private rights of vehicular access) with access from Ringland Lane to the south and extending to the tie-in with Ringland Footpath No.1 to the north. The existing Ringland Footpath 1 will remain and pass under the viaduct that carries the Classified Road over the River Wensum and its floodplain, for onward connections to Route 11.

Route 11: New Pedestrian / Cycle Link – A1067 to A1270

6.2.25 A new pedestrian / cycle link is proposed to the north of the A1067 Fakenham Road, linking the existing Attlebridge Restricted Byway 4 (RB4) and Bridleway 6 (BR6). The route will create a safe link for users to access existing Public Rights of Way to the north of the improved A1067 and the existing non-motorised user infrastructure provision along the Broadland Northway. The existing uncontrolled pedestrian crossing at Fakenham Road/NDR Roundabout will be removed. The alternative route would be along Route 11, then to cross at the uncontrolled crossing point on the A1067 to Attlebridge FP5.

Route 12: New Pedestrian / Cycle Link – Improved Marl Hill Road to A1067

6.2.26 A new pedestrian / cycle link is proposed along the eastern side of the improved Marl Hill Road, linking Weston Longville with Morton on the Hill and Attlebridge. The route will create a safe link for users which is segregated from traffic, on a parallel alignment with the Proposed Scheme viaduct. Where the new route connects with A1067, a new crossing will be installed to assist users accessing onward routes including the Marriott's Way. A new central island will be installed within the central reserve with localised widening of A1067 immediately east of the junction with Marl Hill Road.

Alignment to LTN 1/20

6.2.27 The Proposed Scheme's Non-Motorised User and Side Road measures have been created with LTN 1/20 principles in mind. The below sets out how this has been addressed:

- Coherent

- The NMU Proposals link in with the wider network and TfN proposals on the western fringe of Norwich and proposed new routes as part of the National Highways A47 North Tuddenham to Easton Improvement. All routes will have clear signage to direct users to onward routes. Alongside this, the Norfolk Definitive Map will be updated to accurately show the location of the proposals and how they will connect into existing facilities.

- Direct
    - The NMU Provision limits motor vehicle usage on east-west routes that cross the Classified Road so that more direct routes are offered to NMUs than for motorised vehicles.
    - A new direct link from Weston Longville to Morton-on-the-Hill and Attlebridge will be created to enhance access to the Marriott's Way and bus stops on A1067.
- Safe
    - The NMU Provision separates vulnerable users from high volumes of traffic on the Classified Road.
    - The designs include green bridges created with accessible gradients and no at-grade NMU crossing points of the Classified Road.
    - A section of the existing Honingham RB1 will be re-routed along the east side of the Classified Road to connect with the NH A47 TUD scheme and new A47 underpass so that a safe crossing is available. This route will be segregated from traffic with landscaping and bunding alongside sections of the route.

- A number of the existing roads in the vicinity will also be expected to have low vehicle flows in the future less than 2500 vehicles per day (e.g. Ringland Lane, Ringland Road, Costessey Lane, Weston Road, Honingham Lane), making it safer to cycle in mixed traffic.
- A new NMU crossing facility will assist users to cross A1067 close to the Marl Hill Road junction.

- Comfortable
  - The NMU routes that will serve cyclists will have appropriate widths for the expected number of users.
- Attractive
  - Appropriate surfacing will be provided to encourage use of the NMU Proposals, relevant to the Public Right of Way status of the routes. Where existing surfacing is sufficient, such as on existing roads that will be restricted to NMUs use, and there will be no change to surface treatment.
  - Public rights of way and side roads affected by the Proposed Scheme will continue to be maintained by Norfolk County Council.

7 Wider Complimentary Sustainable Transport Measures

7.1 Introduction

7.1.1 Within the accompanying TA, the Proposed Scheme is shown to re-route existing strategic traffic from local roads to the Classified Road, thereby creating the conditions to allow for further improvements to enhance sustainable transport options. This has provided the opportunity to identify additional Complementary Sustainable Transport Measures (CSTM) for improved walking, cycling and public transport have been identified to enhance sustainable travel, which will be brought forward by the Applicant outside of the Proposed Scheme for which planning permission is sought, with the bus strategy being implemented by the Applicant in partnership with bus operators.

7.1.2 Elements of the Non-Motorised User and Side Road Proposals support the CTSM, however they are effective in their own right (i.e. they do not require the CTSM), but the CTSM would further maximise their benefits as part of the Proposed Scheme. These would be implemented post-planning once the Classified Road is in place offering traffic reduction on the surrounding road network.

7.2 Cycle Friendly Route Options

Background

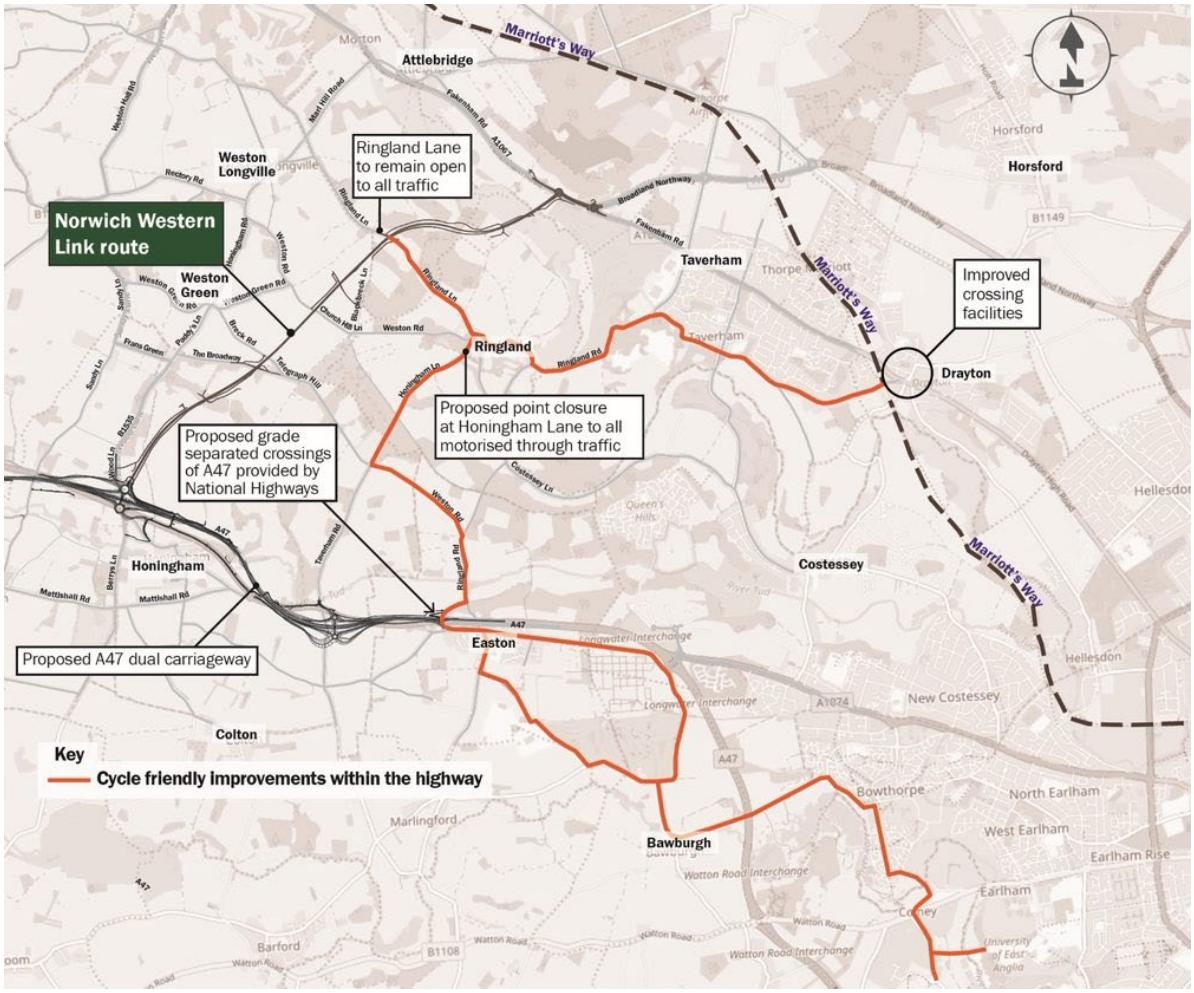
7.2.1 Building upon the opportunities identified through the WCHAR process and via stakeholder workshops, additional options for creating Cycle Friendly Routes and improved crossing facilities on A1067 were included in the 2020 Local Access Consultation (Chapter 6). The ideas for the sustainable transport improvements included suggestions from local parish councils and user groups, which were intended to support more people to walk, cycle and use public transport across the wider area around the Proposed Scheme.

7.2.2 Eight initial options were presented for the 2020 Local Access Consultation, which have been refined following the consultation feedback to identify measures to reduce severance and reallocate road space for cycling. Analysis has been undertaken to understand the existing catchment and future propensity to walk and cycle to identify proposals that are best suited to the existing and future populations. The shortlisting and sifting process is explained in **Appendix B**.

Proposed Measures

7.2.3 A shortlist of routes was prepared, taking into account the results of consultation. Further development of the scheme options took place and feasibility studies were carried out for each of the remaining route options. This included a review of the proposals in relation to LTN 1/20 requirements and also consideration of opportunities for wider connectivity. The proposed complementary measures are shown in Figure 7.1 and within **Appendix C**, presented alongside the Proposed Scheme's Non-Motorised User and Side Road Provision to illustrate how all of the STS measures (i.e the Proposed Scheme's NMU and Side Road Provision and the separate Complementary Sustainable Transport Measures) are shown.

Figure 7.1 Future Cycle Friendly Routes Network



Cycle-friendly improvements within the highway

7.2.4 A cycle-friendly on-road link is proposed from Ringland to Easton. Once the Easton roundabout is removed as part of the NH A47 North Tuddenham to Easton improvements, this route would have lower traffic. Cycle safety could also be improved at key junctions and pinch points. This would help to improve access to educational sites, such as Easton College and Costessey Park and Ride.

7.2.5 A cycle-friendly on-road link is proposed to connect Ringland to Taverham, with cycle priority at junctions and on bridges. This would enhance access to schools and workplaces on the western edge of Norwich and improve connectivity to the Marriott's Way.

7.2.6 A cycle-friendly on-road link is proposed south of the A47 from Mattishall to the Norfolk and Norwich University Hospital and the University of East Anglia. This route would benefit from reduced traffic once the nearby A47 is dualled. The introduction of cycle priority measures would improve access between residential areas, medical facilities, and employment areas, including the Food Enterprise Zone at Easton, Norwich Research Park and Costessey Park and Ride.

Improved crossing facilities

7.2.7 An improved pedestrian and cyclist crossing facility is proposed for Drayton High Road to improve connectivity with the Marriott's Way.

Synergy with Wider Schemes

7.2.8 The way in which the cycle friendly route options fit with other transport proposals and developments in the surrounding areas has been taken into account. There are no new developments immediately interfacing. However, the routes connect with National Highways and TfN proposals.

7.2.9 The cycle-friendly routes between Ringland, Easton and the UEA offer good synergy with the A47 North Tuddenham to Easton dualling scheme and the Food Enterprise Park, plus potential new housing developments at Easton (considered as part of the GNLP). The cycle-friendly routes between Ringland and Drayton will provide a link for the future housing development in Taverham to access services and facilities to the west of Norwich.

7.2.10 All options fit well with TfN strategic objectives by improving opportunities for walking and cycling, reducing air quality impacts of transport and reducing congestion. Those with higher concentrations of non-residential land uses and more densely populated catchments are likely to have the greatest synergy with the TfN aspirations. However, for recreational walking and cycling, the more rural routes benefitting from traffic reduction as a result of the Proposed Scheme are also able to contribute by opening up new opportunities for walking and cycling on parts of the network that are currently intimidating for more vulnerable users (such as NMUs) due to the presence of through-traffic.

The Proposed Scheme will help to unlock this opportunity by providing a strategic road that alleviates pressure on minor rural routes.

Anticipated Active Travel Benefits

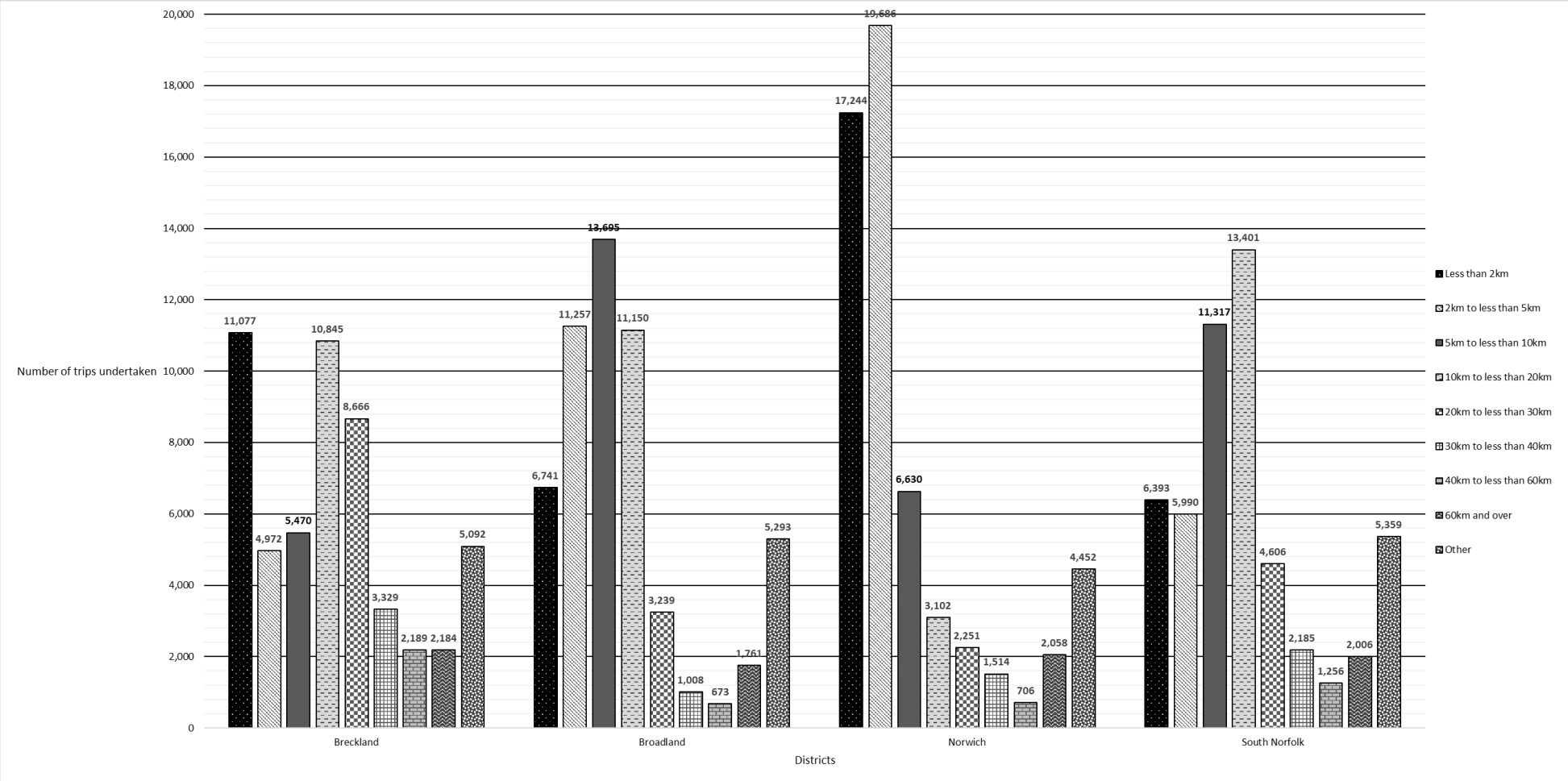
7.2.11 Existing mode shares from the UK Census 2011 data on Method of Travel to Work has been interrogated to understand existing travel patterns within the area to the west of Norwich. The mode share for all usual residents aged 16 to 74, excluding those who work from home or are unemployed shows that three-quarters (75.1%) of residents within the study area travel to work by car, as either a driver (69.3%) or a passenger (5.8%). 5.3% of the usual residents travel by bicycle, 8.6% walk and 7.8% use public transport (bus and train).

7.2.12 Due to the rural nature of the study area, it is understandable that a high proportion of trips are currently made by car, with sparsely populated settlement patterns which are often difficult and inefficient to serve by public transport and more than 60% of trips in longer distance bands (as shown below in Figure 7.2) beyond easy walking and cycling distance.

7.2.13 Distance travelled to work 2011 Census data has been gathered from ONS for the four administrative boundaries of Breckland, Broadland, Norwich and South Norfolk, to establish the current travel patterns across the study area, as shown in Figure 7.2. The category ‘work mainly at or from home’ has been removed from our analysis.

7.2.14 Updated 2021 Census data for method of travel to work is now available, however it was recorded during the COVID-19 restrictions, so it may not reflect the usual travel habits of respondents. Therefore, the 2011 Census data has been used as the basis for the STS.

Figure 7.2 Distance travelled to work



Source: Table QS702EW, Office for National Statistics, 2011

7.2.15 The above graph shows that in total 38% of residents travel no more than 5km to work. This distance can easily be travelled by bicycle, indicating that there is potential for mode shift in the shorter distance bands. The measures proposed within the Sustainable Transport Strategy are intended to encourage and support travel by non-car means to travel more sustainably. Therefore, increased access to safe walking routes, joined up cycling routes, combined with more direct and frequent bus services as proposed within this document, should allow for a reduction in personal vehicle use for shorter trips. Assumptions consistent with the Norfolk dataset for the PCT (Propensity to Cycle Tool) indicate that a mode shift to walking and cycling in response to the proposed Cycle Friendly Route options and NMU Provision could help reduce the car driver percentage mode share within the study area by up to 3% in the government target scenario which is equivalent to delivering the Gear Change strategy. The potential benefits of the Non-Motorised User provision were considered using the DfT Active Mode Appraisal Tool which indicated a positive Benefit Cost Ratio. This was based on 1,125 trips potentially able to shift to the new routes provided.

7.3 Complementary Bus Improvement Measures

Background

7.3.1 With the Proposed Scheme in place, which would support a redistribution of traffic, there are opportunities to improve bus services. As a result of this, it may be viable for a bus operator to provide a new bus service, serving area west of Norwich. A new service could connect communities to medical facilities and employment areas, such as the Norwich Research Park, UEA and NNUH, without the need to travel into central Norwich and change buses.

7.3.2 The Proposed Scheme is also envisaged to support important existing bus services such as the X29/29 service from the northwest of the County (serving Fakenham, Bawdeswell, Thorpe Marriott and Norwich city centre) by intercepting some of the traffic that currently uses routes parallel with the Proposed Scheme such as the outer ring road. This would potentially assist

with improving bus journey time reliability on existing routes by freeing up road space and capacity on the edge of the City e.g. Costessey Lane, Fakenham Road west of the Proposed Scheme and B1108 Watton Road. Coupled with the A47 dualling scheme from North Tuddenham to Easton and removal of existing roundabouts on A47, the two schemes could also assist with speeding up bus journey times for 23/23A (serving Longwater Retail Park, Roundwell Medical Centre, Norwich city centre and Heartsease) and 24/24A (serving Queens Hills, Norwich city centre and Thorpe St Andrew) which operate on A1074 Dereham Road.

7.3.3 With improved reliability, existing services would be more likely to attract patronage and investment, leading to improved frequency. However, with the Proposed Scheme providing traffic relief to the nearby existing route between Taverham and Costessey which connects a more densely populated area, there was identified to be scope for a potentially viable bus service.

7.3.4 A route linking the Hospital to Thorpe Marriott had first been considered in the initial 2014 study carried out by Mott MacDonald and the concept of an orbital bus route had also been suggested by local residents in response to the summer 2018 consultation. The bus route would offer significant journey time savings for public transport trips to the NNUH and NRP, from the north-western suburbs of Norwich, as it would remove the need to travel into and out of Norwich. The route would also support delivery of the GNLP (Greater Norwich Local Plan) housing allocations for example major development at Taverham.

7.3.5 Engagement with local bus operators, Konectbus and First Bus, was undertaken so that any improvements proposed would be appropriate and supported.

Proposed Measures

7.3.6 Discussions and workshops have been held with bus operators Konectbus and First Bus, which led to two sub-loop options emerging. Both options were taken forward to public consultation in July 2020 as part of the Local Access

proposals. The two potential route options presented for consultation in 2020 are below (although both routes could potentially be taken forward by operators once the Proposed Scheme has been implemented, in line with the TfN Strategy):

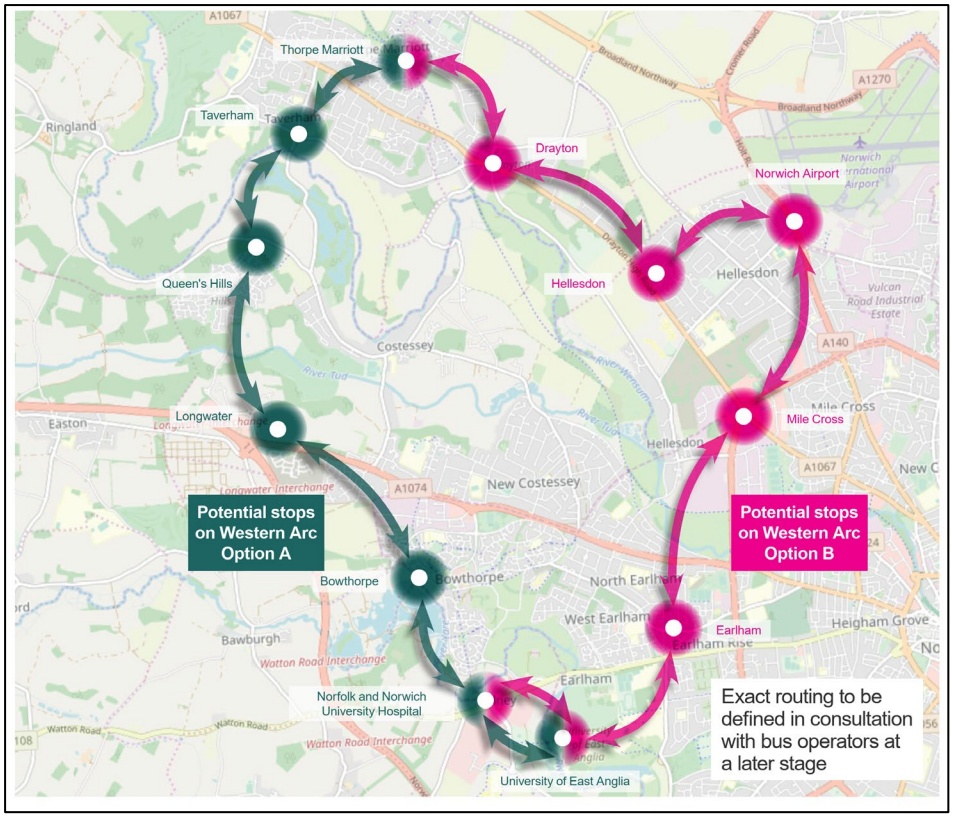
- Western Arc Bus Service Option A – Thorpe Marriott to NNUH via Longwater; and
- Western Arc Bus Service Option B – Thorpe Marriott to NNUH via Outer Ring Road.

7.3.7 The two 'Western Arc' bus route options are shown in Figure 7.3.

7.3.8 To accompany the new 'Western Arc' service, to be taken forward by public transport operators (enabled by the Proposed Scheme), it is proposed that facilities at bus stops on the A1067 Fakenham Road are improved and along the rest of the route, such as raised kerbs, shelters and electronic display boards to help make bus services more attractive to users.

7.3.9 Strategic modelling indicates approximately a 20% reduction in traffic on the Option A bus route via Taverham with the Proposed Scheme in place, with traffic diverting to the new road. Therefore, this could encourage bus operators to implement part of the 'Western Arc' service through the more densely populated western suburbs of Norwich. The route would connect communities to shops, medical facilities and employment areas (for example the University of East Anglia, Norfolk and Norwich University Hospital and Norwich Research Park) without the need to travel into central Norwich to change buses.

Figure 7.3 Proposed 'western arc' service route alignment



7.3.10 Further discussions have been held between the Proposed Scheme project team and NCC (LHA) Head of Public Transport and Development Management team to consider opportunities further and facilitate a new service to be introduced by bus operators.

Option A Route

7.3.11 Following the results gathered from the Local Access Consultation, the 'Western Arc' Service Option A route was the most popular choice from respondents and was explored in more detail to assess for suitability, viability and economic sustainability.

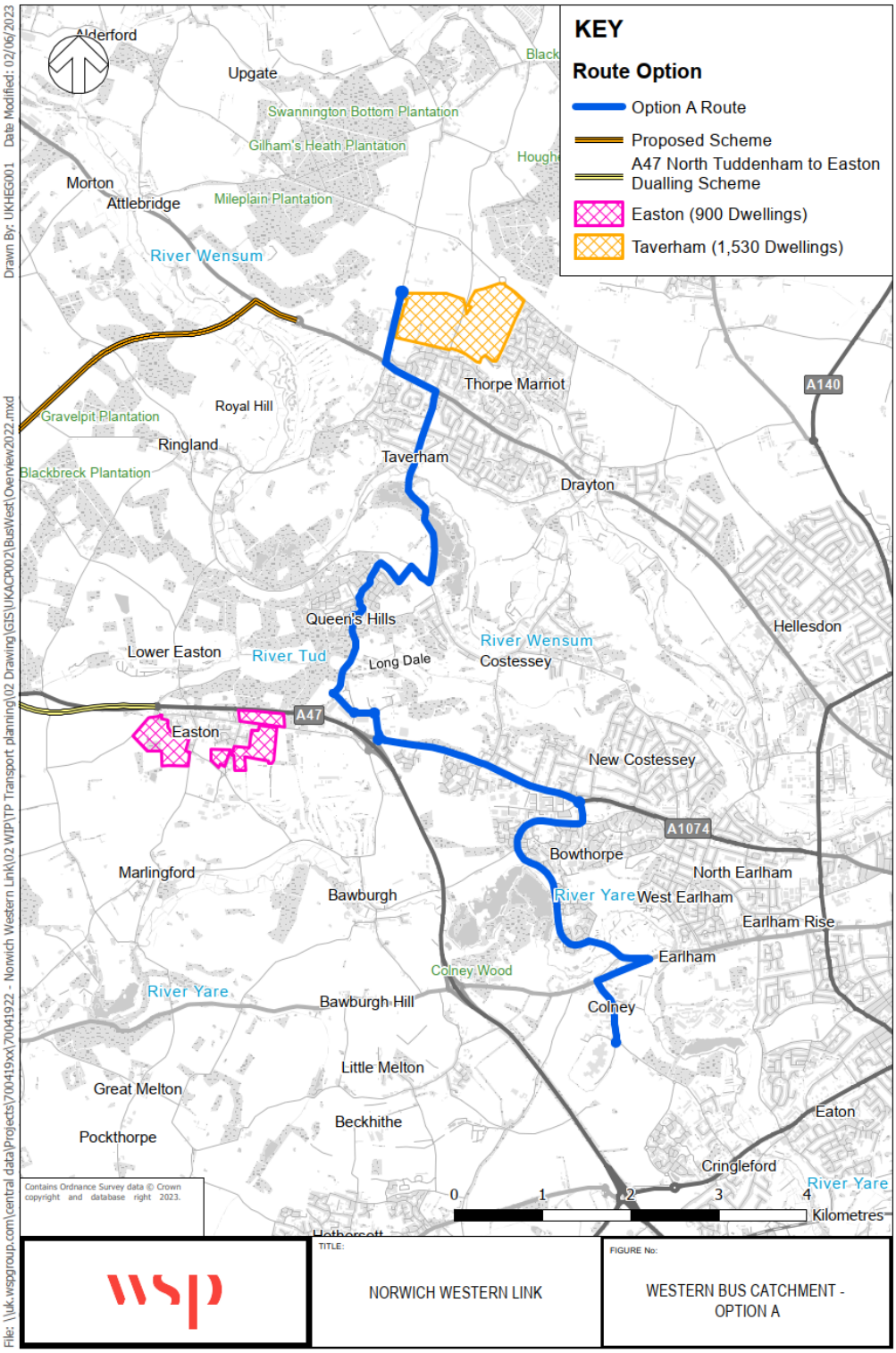
7.3.12 There are two large areas of growth in Taverham and Easton, totalling around 2,500 homes combined (as allocated within the GNLP). An Option A route could serve the future developments, boosting the number of potential passengers using the service.

7.3.13 Option A could potentially support housing growth by accommodating trips by bus which form part of planned future growth identified within the Greater Norwich Local Plan.

7.3.14 It is proposed that bus operators could introduce a 'Western Arc' service that could begin its journey at the Tesco Express on the A1067 Fakenham Road (using Fir Covert Road and the A1270 Broadland Northway roundabout to turn-around between runs), before routing down Sandy Lane, through Taverham, along Taverham Lane, then heading west along Ringland Road to enter Queens Hill via the modal filter access. The bus would continue through Queens Hill, southbound along Sir Alfred Munnings Road, through Longwater Retail Park, before continuing eastwards along the A1074 Dereham Road. The bus would then route south through Bowthorpe via Chapel Break Road, turning west onto the B1109 Watton Road for a short section (600m) before heading southbound along Colney Lane to a southern terminus at the Edith Cavell Building (utilising the Colney Lane / Hospital Ring Road roundabout to turn around before returning). Feedback from Costessey Town Council during LLG meetings and throughout the pre-application public consultation in summer 2022 indicates that there would be local support for bus service improvements through Costessey. The proposed route map is shown below in Figure 7.4**,** alongside the identified housing allocations in Easton and Taverham, which a new bus route could serve.

7.3.15 It should be noted that a route through Queens Hills is dependent on access through the bus gate – this is currently in the final stages of the adoption process.

Figure 7.4 Proposed western arc service – Option A



7.3.16 It is recognised that terminating the proposed service on the edge of the NNUH Campus increases the walking distance for access to the hospital but initially it is intended to be more of a commuter service, and if successful, it could potentially be expanded to provide services targeting patients. This location minimises journey time for buses to enter and exit the hospital site and also connects within easy walking distance of the Norwich Research Park and UEA campus as well as the northern part of the hospital site.

7.3.17 In order to assess the potential viability of this route, a viability calculation has been undertaken over a five-year period (2024-2028), taking into consideration the potential existing catchment, the additional catchment from committed developments (namely Marriott's Park, located at the northern extent of the route, between the A1270 Broadland Northway and Kingswood Avenue), typical travel days, typical journey to work mode share (noting that the bus service would be used for a variety of additional trip types, for example, leisure, healthcare and education), and typical bus ticket prices and annual operating costs of a bus. Further details on how each factor has been calculated is outlined in the following paragraphs.

Existing catchment

7.3.18 The yearly total person trips are based on extracting the number of households within Output Areas that are within 400m (typical walking distance) of a bus stop on the route (7,842) and multiplying this by a typical residential person daily trip rate (5.858 – taken from the Marriott's Park Transport Assessment), multiplied by the anticipated yearly travel days (251 typical working days in 2022) – 11,529,842.

7.3.19 Using 2011 Census origin-destination data, the proportion of journeys that had origins and destinations along the bus route was extracted (20%), alongside the bus modal share for the surrounding area (initially 7%, with a 20% modal share reduction applied to reflect the ongoing impact of the Covid-19 pandemic on bus patronage, which results in an expected 6% post-pandemic bus mode share). These proportions were applied to the yearly total person trips to ascertain the number of annual trips that may be undertaken by bus along the new route (174,232). As it is difficult to amend travel behaviours of existing residents and workers from the outset, it was assumed that the initial uptake would be around 10%, with this increasing by adding a further 10% each year (up to 50% by the year 5 calculation).

Proposed development catchment

7.3.20 New passengers would also be generated by the adjacent Marriott's Park development at Taverham where a major development is allocated within the Greater Norwich Local Plan. The yearly total person trips to/from the Marriott's Park development, using the proposed construction build out rate and daily person trip rate (obtained from the Transport Assessment that supported the current planning application – Ref: 2022/0455), and the anticipated yearly travel days (251 typical working days in 2022). As with the existing catchment, the existing journey to work origin-destination (20%) and mode share data (6%) was used to estimate the number of forecast development-induced bus trips that could use the new service over the assessment period (2024-2028).

7.3.21 As Marriott's Park will be a new development, with a supporting Residential Travel Plan in place, it has been assumed that uptake of the new service would be from occupation, as moving house is a key time to embed travel behaviour changes and the new bus route would be well advertised to new residents prior to moving in. A five year build out profile for the development has been applied as not all houses would be built and occupied simultaneously.

Anticipated Bus Patronage – Option A

7.3.22 A bus viability assessment has been carried out to understand if an Option A route would be successful and the likely patronage that would be attracted if this was created, as shown in Table 7.1. The following assumptions have been used in this assessment:

- The existing residential catchment (from the 2011 Census) has been used as a baseline
- The proposed Taverham (Marriott's Park) dwellings have been included to account for future trips within the catchment area
- The 2011 Census Journey to Work mode share has been used to forecast future trip numbers

Table 7.1 Option A bus viability assessment

Year	Catchment Trips – bus, yearly
2024	362
2025	1,877
2026	4,712
2027	8,058
2028	11,404

7.3.23 The above table shows that within a 5-year period, the proposed service could be operating with approximately 1,000 passengers per month. This suggests that if a bus operator was to operate the service it would achieve viability within the 5 year period and achieve suitable patronage to continue running on a self-supporting basis.

Option B Route

7.3.24 In August 2020, Konectbus announced that they would be operating a new bus route, service 521, from the 14th September between Norwich Airport and

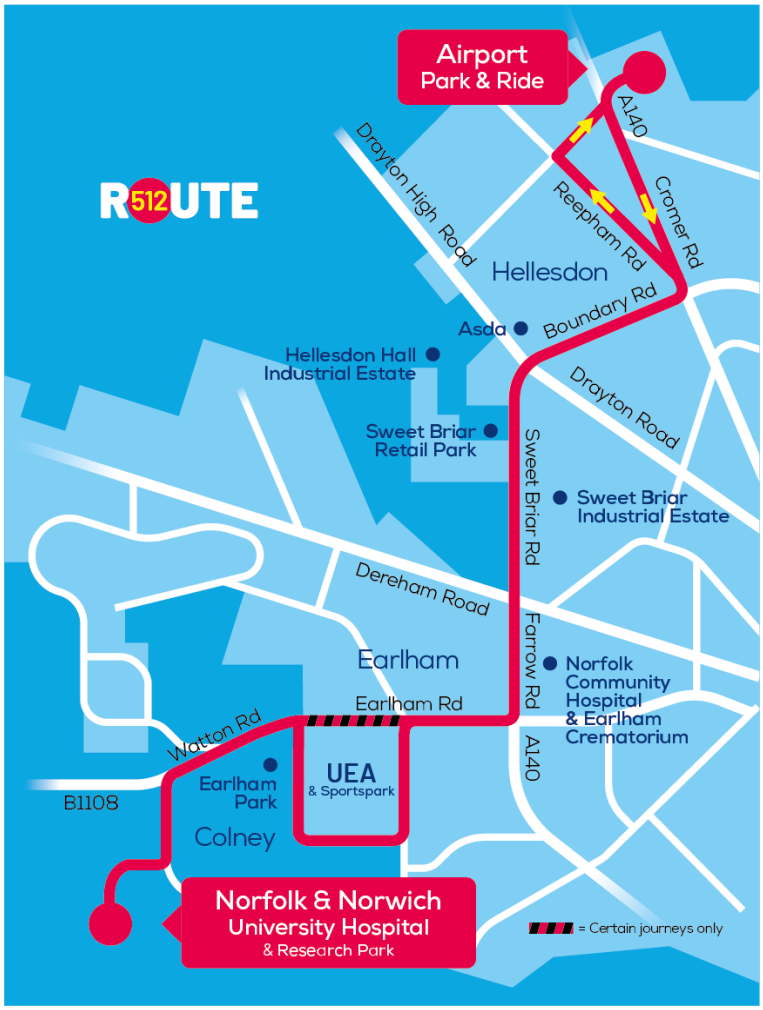
the University of East Anglia / Norfolk and Norwich University Hospital, serving the northern ring road. This route would serve the retail area around Sweetbriar Road, Hellesdon, Cromer Road, Mile Cross, Boundary Road and Earlham Road, as shown in Figure 7.5.

Figure 7.5 Konectbus 521 service overview

7.3.25 After a short trial period in December 2020, Konectbus announced that the route had been withdrawn due to low passenger numbers under Coronavirus restrictions. The limited period of operation had shown signs that the route would potentially be viable under normal circumstances and would have potentially had a higher uptake. Due to uncertainty on future bus patronage due to the impacts of COVID-19, both options are being considered in more detail to enable a decision to be made regarding possible future uptake.

7.3.26 This route has now been reinstated from February 2023 as route 512, travelling to the previous destinations above, as shown in Figure 7.6. This route covers much of the Option B route, allowing more focus to be given to Option A and that both options could be delivered, substantially improving bus access to the west of Norwich.

Figure 7.6 Konectbus 512 service overview



7.4 Bus Stop Enhancements

7.4.1 A bus stop audit was carried out for the proposed Option A and B routes. This identified that many of the stops along the route, especially in the inbound (towards Norwich City Centre) direction already have good waiting facilities, with shelters and raised kerbs in most cases. There is an opportunity to enhance stops where electronic displays or shelters are not currently provided on the Option B route.

- A shelter could be added at the stop adjacent to Holly Close on A1067, Fakenham Road and outside 265 and 303 Drayton High Road.

- Stops on Sweet Briar Road adjacent to the Retail Park have poor waiting facilities and could be enhanced with shelters, seating and electronic displays.
- There is space to place a shelter outside 114 Fakenham Road. The nearest stop to the west on the north side of the road is barely identifiable and could be relocated here.
- New stops could be added at the Silver Fox pub and Tesco Express on A1067 Fakenham Road, with a shelter on the north side of the road.
- There is opportunity to relocate stops on part of the Option A route so that they are closer to key facilities.
- At Sandy Lane, the existing bus stop has poor waiting facilities and could be relocated closer to the existing medical surgery and village hall.
- At Norwich Research Park, the southbound stop could be relocated closer to the site entrance at the top of the hill – currently bus users alighting need to walk up the hill to access the NRP.

7.4.2 At Bowthorpe Southern Car Park there is an opportunity for a travel hub by improving access to the bus stop from the car park. Cycle parking could be added plus an EV charging space and parcel delivery lockers.

7.4.3 At Costessey a new stop and cycle parking could be added at the West End junction with Ringland Lane and Taverham Lane. There is already a bench a post box and street lighting at this location.

7.4.4 The outbound stops (away from the city centre) generally have lower levels of provision, as passengers tend to alight buses and walk away from these stops without waiting. These stops are therefore not proposed for enhancement.

7.5 Summary

7.5.1 The above viability assessment has demonstrated that there is potentially a viable service option available in the west of Norwich from Taverham to NNUH.

7.5.2 The measures identified within Option A also has potential and could support housing growth at Taverham. The Applicant is continuing to work with operators to facilitate a new service to be introduced. The Option A route is dependent on access through the bus gate, to provide a service through Queens Hills. However, this is already constructed and undergoing adoption so is expected to be open by the time the Proposed Scheme opens to traffic in 2027.

7.5.3 The Option B route is already partially in place as part of the 512 service operated by Konectbus, following an initial trial service in 2020.

8 Conclusion

8.1 Summary

8.1.1 This Sustainable Transport Strategy has been developed alongside the main Proposed Scheme highway design proposals and presents a range of measures within the Proposed Scheme red line boundary in the immediate vicinity of the Proposed Scheme and within a suitable radius of the new road at a more strategic level. The proposed measures provide a complementary package of interventions to support the sustainable travel objectives of the Proposed Scheme.

8.1.2 The proposals also complement the Transport for Norwich (TfN) Strategy, 2021 which seeks a mode shift away from private cars and improvement in air quality with a study area interfacing with the wider area of influence of the Proposed Scheme considered within the WCHAR assessment report.

8.1.3 The CSTM have been identified as supporting measures in accordance with the TfN Strategy, paragraph 5.11, which includes a statement of policy in relation to strategic connections which confirms that "*strategic connections and hinterland access will be promoted to enhance the role of Norwich as the regional capital*". One of the '*supporting actions to that statement of policy confirms that Norfolk County Council will carry out strategic assessments of the consequence of completing the committed strategic schemes (including improvements to the A47, the committed Transforming Cities programme and the Norwich Western Link) to identify the opportunities to deliver enhanced sustainable transport measures to support public transport and active travel'*.

8.1.4 This STS is a key foundation to that work by identifying the Proposed Scheme's Non-Motorised User Provision that can be delivered as part of the Proposed Scheme for which planning permission is sought and by identifying the wider Complementary Sustainable Transport Measures that could be delivered outside of the Proposed Scheme which would be supported by the reduction of vehicular traffic on local routes. TfN also seeks for enhanced strategic connections to improve access across the county, especially for public transport and active travel. There are opportunities for geographical linkage where the Proposed Scheme and TfN projects interface at the western fringe of Norwich. This offers a combined strategy which offers good synergy with wider sustainable transport proposals across Norwich.

8.1.5 The STS package of measures would encourage mode shift away from private car use by providing the means to travel sustainably by cycle, on foot or by bus, as well as linking up the existing network of Public Rights of Way to maximise local connectivity for pedestrians, cyclists and equestrians.

8.2 Input from Stakeholders and Local Residents

8.2.1 The STS has been shaped by on-going public and stakeholder liaison to generate a package of complementary measures that will be of the greatest benefit to local users. This includes regular meetings with the LLG, monthly dialogue with the National Highways team delivering the A47 North

Tuddenham to Easton Dualling scheme, and other meetings/workshops with the Sustainable Transport Stakeholder group, Member Steering Group of Norfolk County Council members, and the Project Board for the Proposed Scheme.

8.2.2 Discussions have been held with Active Travel England (ATE) in July 2022 and April 2023 in relation to the scheme, as the new industry regulator for active travel. Their initial feedback on the NMU Proposals was extremely positive.

8.2.3 Further engagement events are to be held as the project continues to evolve through detailed design prior to implementation to maximise buy-in from the local community and stakeholders.

8.3 Key Benefits

8.3.1 The Proposed Scheme's Non-Motorised User and Side Road Provision will provide enhanced access to the Public Rights of Way network, with the standard of routes improved and the existing fragmented network would be joined up. Routes would connect to the Broadland Northway at the northern end, and to routes crossing the A47 at the south, connecting the villages of Honingham, Ringland and Weston Longville; the Marriott's Way; Costessey Park and Ride; Norwich Research Park; Taverham; and Drayton. The measures are forecasted to increase the number of walking and cycling trips across the study area by making the routes more attractive and safer for users, as well as logically placed to connect key amenities. The local roads across the wider area are also expected to receive levels of traffic reduction which would help to make walking and cycling on the carriageway more attractive (supported by additional speed management measures where appropriate).

8.3.2 The Proposed Scheme's Non-Motorised User and Side Road Provision will make use of routes that will experience lower traffic levels following construction of the Proposed Scheme, making sustainable travel more attractive for use and improving journey time reliability.

8.3.3 The Proposed Scheme's Non-Motorised User and Side Road Provision is to offer increased opportunities for recreational walking, cycling and horse riding in the immediate vicinity of the Proposed Scheme, as well as improving connectivity of existing Public Rights of Way (PROW) and encouraging healthy and active travel. This has been tested with local residents via a Local Access Consultation in July 2020 which indicated good levels of support for the closure of existing roads crossing the Proposed Scheme, other than Ringland Lane, which will be retained for all users to retain local connectivity between the villages of Weston Longville and Ringland.

8.3.4 In accordance with the core design principles set out within LTN1/20, the proposed Non-Motorised User Provision offers a coherent joined up network with good links to existing and proposed routes and more direct routes available for NMUs in comparison with vehicles in the immediate vicinity of the routes. The routes are segregated from traffic and designed to be safe and comfortable for users offering vastly increased opportunities for active travel and recreational movement as a result of the Proposed Scheme.

8.3.5 The NMU provision offers a significant expansion of the Public Rights of Way network and upgrades to several existing rights of way to increase the availability of routes to include other users such as equestrians, cyclists and non-motorised carriage drivers.

8.3.6 The Proposed Scheme includes a new direct NMU link between the communities of Weston Longville, Morton on the Hill with new crossing facilities on A1067 to minimise severance and offering connections to Attlebridge and the Marriott's Way strategic NCN1 Sustrans cycle route into central Norwich. This can also enhance to existing bus stops on A1067.

8.3.7 This study has additionally identified a range of Complementary Sustainable Transport Measures that can also be implemented once the Classified Road is in place to improve active mode and public transport travel choices in the west of Norwich. This includes a wider network of Cycle Friendly Routes

connecting residential areas to key land uses such as the NNUH, UEA and villages of Ringland, Easton and Weston Longville.

8.3.8 There are also opportunities for more direct bus services in the urban fringe of Norwich which have good prospects of becoming viable within a five-year period.

8.4 Next Steps

8.4.1 The measures within the Sustainable Transport Strategy have been developed with input from key stakeholders, including affected landowners. Advice has been sought from Active Travel England and Sustrans, plus other local stakeholder groups on the application of LTN 1/20 guidance to the rural context. It will be important to continue this dialogue going forward to maximise buy-in from the local communities and to launch various aspects of the STS, to raise awareness amongst users.

8.4.2 It is anticipated that the NMU provision and Side Road Proposals will be secured through the Town and Country Planning Act process and Side Road Orders for elements of the scheme within the red line boundary, as a vital component of the Proposed Scheme. The Complementary Sustainable Transport Measures will be further developed with input from stakeholders seeking to provide additional enhancement post-planning.