

GREAT YARMOUTH TRANSPORT STRATEGY

DRAFT FOR CONSULTATION





Norfolk County Council

GREAT YARMOUTH TRANSPORT STRATEGY – DRAFT FOR CONSULTATION

TRANSPORT STRATEGY (VERSION 4) DRAFT

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WSP

62-64 Hills Road
Cambridge
CB2 1LA

Phone: +44 1223 558 050

Fax: +44 1223 558 051

WSP.com



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Prepared by	E. Shortridge	E. Shortridge	E. Shortridge	E. Shortridge	A. Potter
Signature					
Checked by	N. Poulton	N. Poulton	N. Poulton	N. Poulton	E. Shortridge
Signature					
Authorised by	N. Poulton	N. Poulton	N. Poulton	N. Poulton	N. Poulton
Signature					
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EXECUTIVE SUMMARY

Great Yarmouth is one of the UK's most popular seaside destinations and the principle retail, service and employment centre within the borough. The economy of Great Yarmouth has historically been built on fishing and tourism; however, in recent decades it has grown to serve and support offshore natural gas industries, and more recently, offshore wind power. Despite this growth, parts of Great Yarmouth contain some of the most deprived neighbourhoods in the UK¹; with higher levels of unemployment than the average for both the East of England and Great Britain².

To support continuing economic development and the needs of residents, the adopted Local Plan Core Strategy identifies a need to deliver 7,140 dwellings within the Borough of Great Yarmouth over the course of the plan period (2013 to 2030)³. The majority of the planned growth is focused in the borough's main towns of Great Yarmouth and Gorleston-on-Sea, and the key service centres of Bradwell and Caister-on-Sea.

Transport improvements are fundamental to achieving sustainable housing and economic growth in Great Yarmouth, tackling inequality, improving health and supporting regeneration. Improving walking, cycling and public transport will enable existing and future residents, visitors and employees to choose cleaner and healthier ways to travel. A Transport Strategy is therefore required to enhance the existing transport networks to support existing and new communities.

This document sets out the transport vision for Great Yarmouth, highlighting the challenges and opportunities along with the transport infrastructure that needs to be delivered within the short and medium-term to enable growth to come forward sustainably as well as supporting the existing local communities.

The transport infrastructure presented in this strategy has been sifted from an initial long-list of options which have been subject to stakeholder engagement, appraisal and prioritised using a bespoke Strategic Assessment tool and the Department for Transport's (DfT) Early Assessment and Sifting Tool (EAST), which compares the Strategic, Economic, Managerial, Financial and Commercial case for each transport option. An Action Plan has then been produced to take forward the identified options along with a series of recommended next steps.

¹ Ministry of Housing, Communities and Local Government Indices of Multiple Deprivation 2015

² Office for National Statistics Annual Population Survey 2017

³ Great Yarmouth Borough Council is currently consulting on a lower housing target which considers the Government's latest policy and guidance on this matter. There is a possibility that the Council's housing target may be revised down to 5,139 dwellings for the same plan period at the point of adoption of the Local Plan Part 2

1 TRANSPORT STRATEGY CONTEXT

1.1 INTRODUCTION



Great Yarmouth. Photograph: Mike Page.

- 1.1.1. This Transport Strategy sets out the vision, objectives and short, medium and long-term transport infrastructure required to support existing and new communities in Great Yarmouth.

Vision: To support sustainable economic growth in Great Yarmouth by facilitating journey reliability and travel mode choice for all, whilst contributing to improved air quality and safety.

- 1.1.2. The Transport Strategy focuses on the main urban area of Great Yarmouth, Gorleston-on-Sea, Bradwell and Caister-on-Sea, but recognises the importance of the local rural communities and the wider Norfolk sub-region.
- 1.1.3. The development of this Transport Strategy was led by WSP and has been produced through engagement with a wide range of stakeholders, including Great Yarmouth Borough Council and Norfolk County Council.
- 1.1.4. This Transport Strategy has been developed to support the vision, strategic objectives and planned growth set out in the Great Yarmouth Local Plan (2013 to 2030) and the vision and objectives of the Great Yarmouth Town Centre Regeneration Framework & Masterplan and Norfolk's Local Transport Plan for 2026.
- 1.1.5. This Transport Strategy shares a common set of transport policy objectives including:
- Reducing the impact on the environment
 - Promoting sustainable developments / growth
 - Maintaining and improving Great Yarmouth's infrastructure
 - Promoting accessibility improvements at a local and strategic level
 - Promoting a reduction in car use
 - Promoting road safety
- 1.1.6. This Transport Strategy builds on the work undertaken by Norfolk County Council, Great Yarmouth Borough Council and New Anglia Local Enterprise Partnership to support economic growth within the town.

The main transport infrastructure and regeneration schemes currently being progressed include:

- *The Great Yarmouth Third River Crossing⁴*
- *Growth Fund Congestion Relief Schemes*
- *Growth Fund Sustainable Transport Schemes*
- *Great Yarmouth Town Centre Masterplan*
- *Regeneration of underutilised land particularly in South Denes*

1.2 THE OPPORTUNITIES

- 1.2.1. As the principal service centre in the Borough, good transport connectivity is fundamental to sustainable housing and economic growth and the future success of the town.
- 1.2.2. Enhancing local and strategic transport connections to and within Great Yarmouth are critical to supporting the development of the port industries (including offshore natural gas and wind power), facilitating tourism and enabling sustainable housing and economic growth.
- 1.2.3. Improvements to local and strategic transport networks can help address social exclusion, by providing all residents of Great Yarmouth with access to jobs, education and leisure opportunities.

- 1.2.4. The compact nature of the town means that sustainable transport options have the potential to provide attractive alternatives to the use of a private car for shorter journeys. In turn helping residents, workers and visitors have more active lifestyles and reduce the emission of harmful air pollutants.

In summary, there is the opportunity for transport infrastructure solutions to:

- *encourage economic growth and regeneration by improving access to labour markets*
- *promote social inclusion by providing improved access to jobs and services*
- *help residents, workers and visitors have more active lifestyles through improvements to walking and cycling infrastructure*
- *reduce the emission of harmful air pollutants*

⁴ The Third River Crossing is currently going through the planning process and is being treated as a Nationally Significant Infrastructure Project. The Project, which is subject to Public

Examination, will ultimately be determined by the Secretary of State for Transport with a decision expected later in 2020.

Characteristics of a good transport network that support sustainable growth are:

- *connecting people with jobs*
- *connecting businesses with their local, regional and global markets*
- *reducing social exclusion by providing access to everyday services, education and leisure opportunities*
- *providing attractive alternatives to the use of the car*
- *encouraging the use of sustainable modes of transport for shorter journeys*
- *limiting the emission of harmful air pollutants*

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1.3 THE CHALLENGES

1.3.1. There are a number of challenges that impede the deliverability of transport infrastructure solutions in Great Yarmouth, and in turn, the deliverability of sustainable housing and economic growth in the town. These challenges are associated with both physical constraints and socio-economic conditions within the town.

1.3.2. The main challenges are:

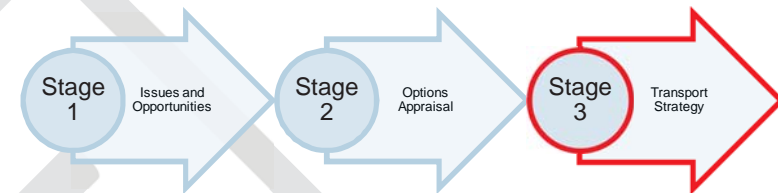
- the perceived remoteness of Great Yarmouth because of its coastal location and rural surroundings
- severance of Great Yarmouth and Gorleston-on-Sea by the River Yare
- high reliance upon the car for commuting outside the main urban area of Great Yarmouth and Gorleston-on-Sea⁵
- high levels of social and economic deprivation⁶
- a borough unemployment rate that is higher than the average for the East of England⁷
- education attainment rates of residents that are lower than the average for the East of England⁸
- lower than national average life expectancies of residents⁹
- a local workforce that lacks the skills and education to fill jobs in the off-shore growth sectors

⁵ 2011 Census Car or Van Driver Mode Share – Usual Residents Journey to Work

⁶ Ministry of Housing, Communities and Local Government Indices of Multiple Deprivation 2015

1.4 STUDY STAGES

1.4.1. The Transport Strategy is the final part of a suite of reports covering the three stages of the Study. A summary of the two previous stages of the Study is provided below:



- **Stage 1** of the Study was the production of an issues and opportunities report. This set out the existing transport situation in Great Yarmouth and served as an evidence base for the development of a long list of options for appraisal
- **Stage 2** of the Study was an options appraisal report. This was the appraisal of the long list of options using a three-step process, as outlined in **Section 5** of this Transport Strategy

1.4.2. The appraisal identified a shortlist of 56 non-committed transport infrastructure solution schemes for inclusion within this Transport Strategy (**Stage 3**).

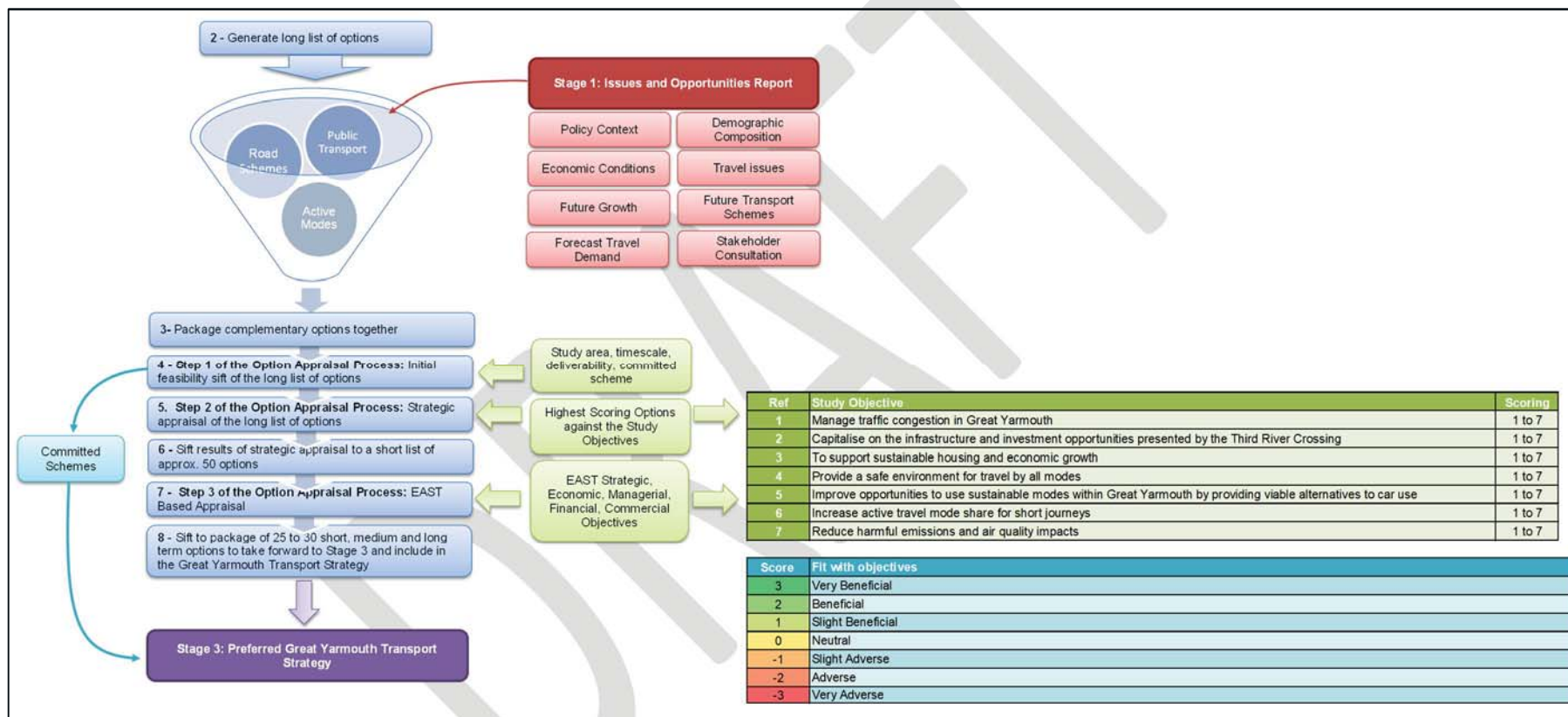
⁷ Office for National Statistics Annual Population Survey 2017

⁸ 2011 Census Qualifications Gained

⁹ Office for National Statistics National Life Tables

1.4.3. Any option identified as “committed” – a scheme with funding and a clear delivery timetable – has been taken forward for direct inclusion in this Transport Strategy and is summarised in **Section 4**.

1.4.4. The diagram below summarises the Study Stages and options appraisal process:



1.5 TRANSPORT STRATEGY PURPOSE

- 1.5.1. The purpose of this Transport Strategy is to support regeneration and to help unlock the significant potential of Great Yarmouth.
- 1.5.2. It sets out a focus and direction for addressing transport issues and opportunities in the town by understanding the transport barriers to sustainable housing and economic growth and identifying the short, medium and long-term infrastructure requirements to address these barriers.
- 1.5.3. The Transport Strategy concludes by setting out a high-level Action Plan to deliver improved transport infrastructure that addresses existing transport barriers and supports sustainable housing and economic growth.



Haven Bridge and Hall Quay

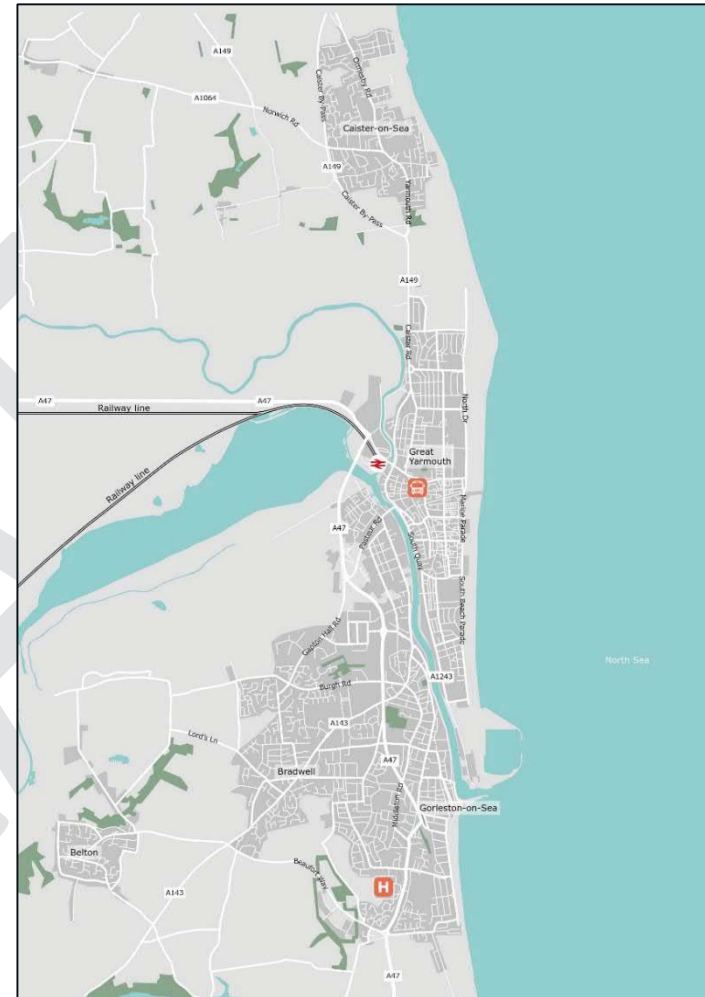
2 SPATIAL SCOPE & OBJECTIVES

2.1 SPATIAL SCOPE

- 2.1.1. The study area for the Transport Strategy is the main urban area of Great Yarmouth, Gorleston-on-Sea, Bradwell and Caister-on-Sea.
- 2.1.2. Whilst the focus for the Transport Strategy is the main urban area of Great Yarmouth, consideration has been given to the wider local and strategic transport network that connects Great Yarmouth with surrounding settlements. This includes consideration of Great Yarmouth's bus and rail service catchment areas and the A47, A143 and A149 corridors.

2.2 OBJECTIVES

- 2.2.1. The objectives of this Transport Strategy are to:
- Manage traffic congestion in Great Yarmouth
 - Capitalise on the infrastructure and investment opportunities presented by the Great Yarmouth Third River Crossing¹⁰
 - Support sustainable housing and economic growth
 - Provide a safe environment for travel by all modes
 - Improve opportunities to use sustainable modes within Great Yarmouth by providing viable alternatives to car use
 - Increase active travel mode share for short journeys
 - Reduce harmful emissions and air quality impacts



Transport Strategy Study Area

¹⁰ The Third River Crossing is currently going through the planning process and is being treated as a Nationally Significant Infrastructure Project. The Project,

which is subject to public Examination, will ultimately be determined by the Secretary of State for Transport with a decision expected later in 2020.

3 TRANSPORT ISSUES

3.1 GREAT YARMOUTH AS A PLACE TO LIVE AND WORK

- 3.1.1. This section sets out the case for short, medium and long-term transport infrastructure interventions based on the existing transport issues in Great Yarmouth.

SUB-REGIONAL ACCESSIBILITY

- 3.1.2. Great Yarmouth is situated on the east coast of Norfolk, within the rural surroundings of the Norfolk Broads, approximately 35km (21 miles) west of Norwich and 17km (11 miles) north of Lowestoft.
- 3.1.3. The main strategic connections to the town by car and rail are the A47 (towards Norwich and Lowestoft) and the Great Yarmouth to Norwich section of the Wherry Line respectively.
- 3.1.4. Norwich is the primary service centre in Norfolk and is a major centre for housing and job growth. The centre of Norwich is accessible from Great Yarmouth Town Centre within a 40-minute drive via the A47 or 50-minutes by public transport.
- 3.1.5. To the south, Lowestoft, also has a strong synergy with Great Yarmouth, with both towns being recognised as national Centres for Offshore Renewable Engineering. Lowestoft is accessible within a 20 to 25-minute drive via the A47 or 40 to 50-minutes by public transport.

A47

- 3.1.6. The A47 forms part of the Strategic Road Network managed by Highways England. The road connects Peterborough to Lowestoft via Norwich and Great Yarmouth.



A47 Acle Straight

- 3.1.7. Between Norwich and Acle, the road is principally dual carriageway; however, between Acle and the Vauxhall Roundabout to the north-west of Great Yarmouth, the A47 is single carriageway.

- 3.1.8. At peak periods varying levels of delay and congestion occur along the Acle Straight, this is largely attributable to delays at the Vauxhall Roundabout, but also because of the numerous minor access roads that connect with the A47 along this link.
- 3.1.9. The strategic importance of this link and single carriageway nature of the route means that a minor accident, most typically rear end shunts, can lead to significant disruption. This gives rise to unreliable journey times with the route often being closed for hours at a time when incidents occur that block the road.
- 3.1.10. In 2017, to address safety issues along the A47 Acle Straight, Highways England implemented a package of safety improvement measures. This consisted of improvements to signage and road markings, installation of hazard posts and kerb re-alignment.
- 3.1.11. Whilst there are a number of committed improvement schemes for A47 junctions in the centre of Great Yarmouth, Highways England have no further improvement schemes planned for the A47 Acle Straight.
- 3.1.12. Stakeholders continue to lobby for improvements to the A47 Acle Straight, with the A47 Alliance identifying the dualling of this link as their top priority for inclusion in Highways England's Road Investment Strategy 2 (RIS2) which covers the period 2020 to 2025.

- *high levels of congestion and delay occur at peak periods along A47, particularly along the Acle Straight and on approach to the Vauxhall Roundabout*
- *the A47 Acle Straight is single carriageway. As a result, minor accidents can lead to significant disruption*
- *Highways England have committed improvement schemes for Vauxhall and Garton Hall Roundabouts, but there are currently no improvement schemes for the A47 Acle Straight*

Accessibility: the A47

- *the A47 is the sole strategic road network connection to Great Yarmouth*

Rail Services

- 3.1.13. Great Yarmouth Station is one of three terminuses on the Wherry Line¹¹. The station is situated approximately 600m (0.4 miles) from the town centre, or a 5-10-minute walk via Vauxhall Bridge.



Great Yarmouth Railway Station

- 3.1.14. Currently, the absence of a regular bus service serving the station, limits the potential for users to interchange between bus and rail, or make use of integrated ticketing such as 'PLUSBUS'. Greater Anglia operate a "Bike & Go" cycle hire from the station; however, the uptake of this service is understood to be low.



Recently improved bus stop and bus shelter at Great Yarmouth Railway Station

¹¹ Lowestoft and Norwich are the other terminuses on the Wherry Line.

- 3.1.15. Outside of the peak hours an hourly service operates between Great Yarmouth and Norwich with the majority of these services operating via the Acle branch of the line. The high cost and low frequency of rail services between Great Yarmouth and Norwich, means that there is strong competition with the X1 and X11 express bus services.



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Rail:

- Anytime Day Return is £10.90
- journey time between Great Yarmouth and Norwich is 45 minutes
- typically, one service per hour off-peak

Bus:

- Explorer Zone Adult First Day is £7.00

- journey time between Great Yarmouth and Norwich is typically 40 to 45 minutes
 - X1 and X11 operate up to every 15 minutes
- Prices correct as of May 2019

- 3.1.16. The main station building in Great Yarmouth serves as a poor gateway feature to the town. The building does not reflect the current aspirations of the town as a thriving seaside town or global centre for off-shore energy. Furthermore, the restricted operating hours of the main station building means that the limited facilities available at the station are unavailable to most commuters¹².



Great Yarmouth Main Station Building

¹² Works to improve the railway station forecourt were completed in September 2018. However, this work did not include improvements to the main station building

- 3.1.17. The line is reliant upon Victorian signalling infrastructure and uses old rolling stock. This infrastructure is less reliable than new technologies and restricts the potential to provide faster and more reliable journeys¹³.

Accessibility: Rail

- *limited potential to interchange between rail and local bus services*
- *low usage of “Bike & Go” cycle hire scheme*
- *rail services compete with express bus services. Rail services between Great Yarmouth and Norwich are less frequent and more expensive than the X1 and X11 express bus services*
- *Victorian railway infrastructure and older rolling stock is less reliable than newer technologies*
- *the existing station building is a poor gateway feature to the town*
- *commuters are poorly served by the limited facilities and restrictive operating hours of the station building*

UNDERSTANDING THE LOCAL ECONOMY



Great Yarmouth Seafront

- 3.1.18. The economy of Great Yarmouth has historically been built on fishing and tourism; however, in recent decades it has grown to service and support offshore natural gas industries and more recently offshore wind power. This has been supported by a new Great Yarmouth and Lowestoft Enterprise Zone, with locations at South Denes Peninsula and Beacon Park.

¹³ The signalling infrastructure of the Wherry Line is currently being upgraded by Network Rail as a part of their railway upgrade plan. Greater Anglia are currently in the process of delivering new rolling stock across the Greater Anglia Region. Further details are provided in Chapter 4 of this Transport Strategy

3.1.19. To support sustainable housing and economic growth, it is important that high quality sustainable transport links are provided between main residential areas and major employment destinations.

3.1.20. In Great Yarmouth the major employment destinations are:

- **James Paget University Hospital**
serves a population of 230,000 residents and employs more than 3,000 staff
- **Harfreys Industrial Estate**
a mixture of industrial and commercial units
- **Great Yarmouth Town Centre**
a variety of independent and chain restaurants, retail stores and cafes
- **Gorleston-on-Sea High Street**
variety of independent and chain restaurants, retail stores and cafes. The area is also surrounded by a number of light industrial and commercial units
- **South Denes Peninsula**
characterised by large offshore energy, port and logistic industries in addition to a number of smaller and medium sized industries. It also forms part of the Great Yarmouth and Lowestoft Enterprise Zone
- **Beacon Park**
25 acres of mixed office, industrial and leisure development. Established in 2012 it forms part of the Great Yarmouth and Lowestoft Enterprise Zone



Beacon Park. Photograph: Mike Page.

The main economic drivers in Great Yarmouth are:

- energy and engineering
- electronics
- offshore gas exploration
- service and supply
- hydrographic survey
- geoscience
- engineering
- logistics
- port and logistics
- deep water harbour

UNDERSTANDING THE PEOPLE WHO LIVE IN THE BOROUGH



Market Place

- 3.1.21. Great Yarmouth borough is home to a population of approximately 99,150, of which about 68,500 live within the study area of this Transport Strategy (Great Yarmouth, Gorleston-on-Sea, Bradwell and Caister-on-Sea)¹⁴.

- 3.1.22. In recent years, population growth in Great Yarmouth has been lower than the average for Norfolk, the East of England and England as a whole. Between 2012 and 2016, the population of the borough grew by 1.6% compared to an average of 3.8% for the East of England.
- 3.1.23. Use of mobility scooters within the town is high and likely to be associated with the high proportion of elderly residents¹⁵. Despite the average age of residents of the Transport Strategy study area being lower than the average for the borough, 21% of residents are aged over 65.
- 3.1.24. Even with the growth associated with the off-shore energy sector in recent years, Great Yarmouth remains home to some of the most deprived neighbourhoods in England¹⁶, suggesting that much of the economic growth associated with these industries has not filtered down to residents.
- 3.1.25. Within the Transport Strategy Study area, the highest levels of social and economic deprivation have been recorded within the main urban area of Great Yarmouth, Gorleston-on-Sea and Bradwell.

¹⁴ Office for National Statistics 2016 Mid-Year Population Estimates

¹⁵ High use of mobility scooters and potential conflict with pedestrians reported by Members of Great Yarmouth Borough Council at a Stakeholder Consultation Event

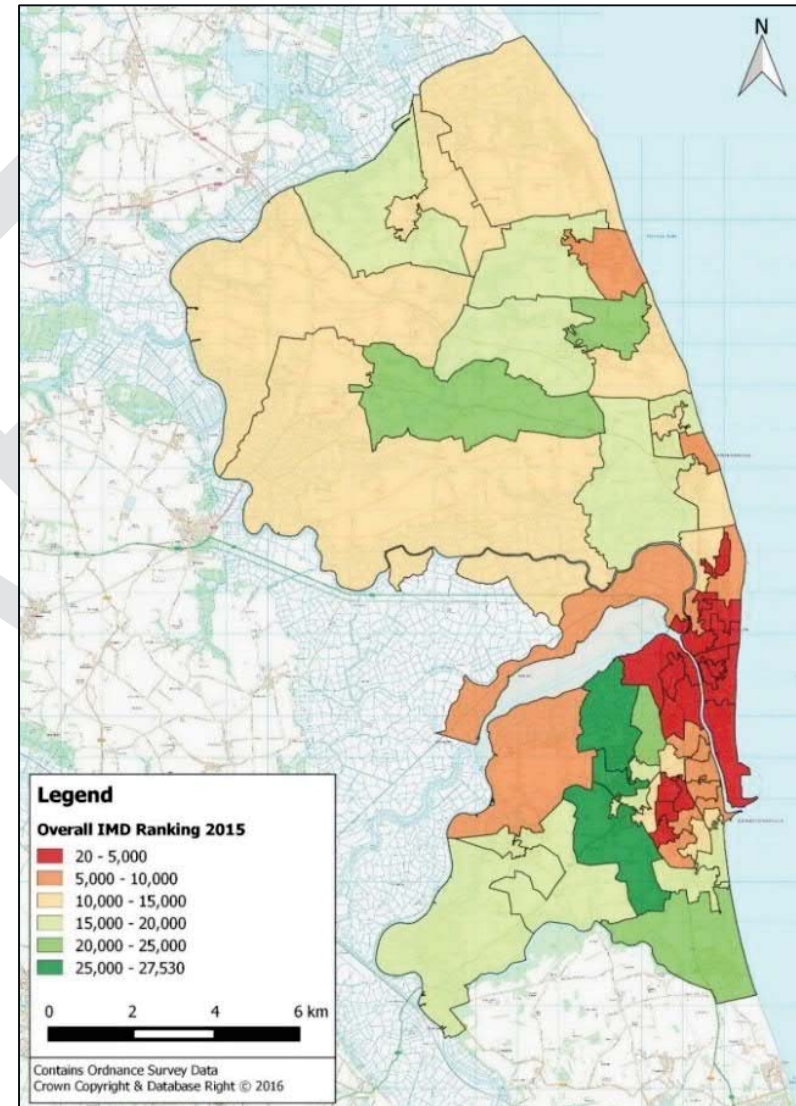
¹⁶ Great Yarmouth borough has the highest concentration of neighbourhoods within the most deprived 10% of neighbourhoods nationally. The Index of Multiple Deprivation considers seven domains of deprivation: income, employment, education, health, crime, barriers to housing and services, and living environment. (Ministry of Housing, Communities and Local Government Indices of Multiple Deprivation 2015)



Mobility Scooters at Hall Quay

The people of the borough:

- *most of the population of Great Yarmouth borough lives within the settlements of Great Yarmouth, Gorleston-on-Sea, Bradwell and Caister-on-Sea*
- *a significant proportion of residents are aged 65+ and is likely to be correlated with the high use of mobility scooters within the town*
- *neighbourhoods in Great Yarmouth are some of the most socially and economically deprived in England*



2015 Indices of Multiple Deprivation

3.2 ROLE OF GREAT YARMOUTH WITHIN THE WIDER REGIONAL ECONOMY



Great Yarmouth Outer Harbour: Photograph: Mike Page

3.2.1. The town has a local economy dominated by tourism, energy and engineering, and port and logistics which plays a pivotal role in supporting the wider regional economy of Norfolk:

- It is one of the global leaders in the off-shore energy sector
- It is the largest sea-side resort in Norfolk
- The Great Yarmouth and Lowestoft Enterprise Zone has already led to significant investment and business growth in the East Anglia region and has potential to encourage further growth



Great Yarmouth Outer Harbour



Wind Turbine on Great Yarmouth Outer Harbour

- 3.2.2. The town is a global centre for the off-shore energy sector. For over 50-years it has been the main operations and maintenance base for gas extraction in the southern North Sea. Today, it is at the forefront of the delivery of off-shore renewable energy with the world's largest wind farm, East Anglia ONE, being built from Great Yarmouth. This is part of a £39 billion energy investment over the next 20-years¹⁷.
- 3.2.3. Whilst some of the jobs in off-shore energy are the highest paying in Norfolk, many local residents earn less than the regional and national averages, suggesting many workers of these higher skilled jobs live outside the Borough.
- 3.2.4. Great Yarmouth is Norfolk's largest sea-side resort, an industry estimated to be worth more than £600 million each year¹⁷. The town is a gateway to the Norfolk Broads and a highly attractive destination for day trippers visiting from other parts of the county and further afield.



Great Yarmouth Seafront

- 3.2.5. Despite new job opportunities emerging in the offshore-energy sector unemployment rates in the borough of Great Yarmouth remain higher than the average for the East of England and Great Britain¹⁸. Whilst the tourism industry provides a large number of jobs for local residents, this work can be seasonal, with data showing an increase in Jobseeker Allowance and Universal Credit Claimants during the winter months¹⁹.
- 3.2.6. In 2012, the New Anglia Local Enterprise Partnership established the Great Yarmouth and Lowestoft Enterprise Zone to encourage further investment and business growth in the East Anglia region.
- 3.2.7. This enterprise zone is comprised of 121 hectares of employment land across six sites. Two of these sites are situated within Great Yarmouth, at South Denes and Beacon Park. By the end of March 2018 the Enterprise Zone had led to:
- 32 companies in situ
 - £33.4 million of private capital investment
 - 832 jobs
 - 33,289 sqm of new floorspace
 - 3,635 sqm of refurbished floorspace

¹⁷ Great Yarmouth Borough Council Estimate May 2018

¹⁸ Office for National Statistics Annual Population Survey 2017

¹⁹ Office for National Statistics 2016-2018 Claimant Count



Regent Street

Economy of Great Yarmouth:

- global leader in off-shore energy sector, providing high-skill and high-paid jobs
- point of delivery for the world's largest wind farm
- the Great Yarmouth and Lowestoft Enterprise Zone has the potential to encourage new businesses to the region
- Great Yarmouth is Norfolk's largest seaside resort
- tourism is an important part of Great Yarmouth's economy, but can lead to seasonal fluctuations in employment

3.3 CURRENT LOCAL TRANSPORT PROVISION

ACTIVE TRAVEL



Temple Road / Regent Road Pedestrian Crossing

- 3.3.1. The compact nature of the main urban area of Great Yarmouth means that for short journeys walking and cycling are highly attractive alternatives to the use of a private car.
- 3.3.2. The walking network in Great Yarmouth is generally good, with wide footways and streetlighting. An exception to this is the A143 south of Burgh Road.
- 3.3.3. An audit undertaken in August 2017 found this link to have:

- poor wayfinding infrastructure
- few opportunities to cross the carriageway
- sub-standard and poor-quality footway surfaces
- characterised by minor littering and vandalism

3.3.4. One of Great Yarmouth's unique features is 'The Rows'. These historic streets help to enhance east-west connectivity by providing a pedestrian cut through between the River Yare and Town Centre. However, the narrow nature of these streets, combined with poor lighting and graffiti has the potential to make these spaces unattractive and discourage their use, particularly at night²⁰.



The Rows



3.3.5. Great Yarmouth is connected to an extensive network of long-distance footpaths which converge on the railway station. Whilst they provide connectivity to nearby settlements, none of these connect Great Yarmouth with Lowestoft.

Long distance footpath network in Great Yarmouth:

- Norfolk Coastal Path (Hunstanton to Hopton on Sea)
- Angles Way (Great Yarmouth to Thetford)
- Weavers Way (Cromer to Great Yarmouth)
- Cross-Norfolk Trail (King's Lynn to Great Yarmouth)
- Wherryman's Way (Norwich to Great Yarmouth).

3.3.6. A large number of cycle routes run through Great Yarmouth. These comprise local pedal-ways and National Cycling Routes. Whilst the existing cycle routes in the town provide relatively good north-south connectivity, the network is generally disjointed and characterised by an absence of signage at key decision points.

3.3.7. East-west cycle connectivity is relatively weak, particularly within Gorleston-on-Sea. The weak east-west cycle connectivity between Gorleston-on-Sea and Great Yarmouth is attributable to all cycle routes having to cross the River Yare via Haven Bridge. This crossing has no dedicated cycling provision and cyclists are either required to dismount and walk across the bridge on foot, or cycle on carriageway.

²⁰ To address this Great Yarmouth Borough Council is currently progressing an improvement scheme as a part of their Town Centre Masterplan

- 3.3.8. A number of strategic cycle routes connect Great Yarmouth with surrounding settlements (such as National Cycle Route 517 between Great Yarmouth and Beccles via Lowestoft). However, outside of the main urban area of Great Yarmouth the majority of routes are on-road.

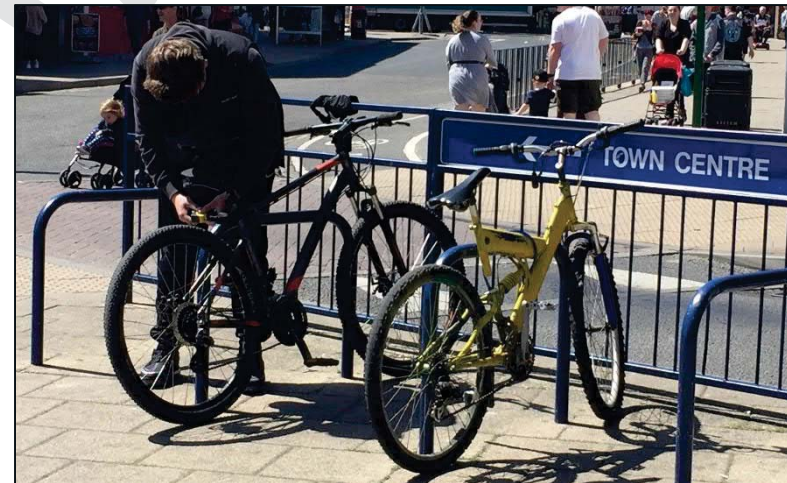


Regent Street – Advisory on-road cycle lane (Cycle Route 7 – Town Centre Orbital)

- 3.3.9. Cycle parking provision within the centre of Great Yarmouth and along the seafront is generally limited and unlikely to be convenient for residents, visitors and workers travelling to key trip attractors within the town.



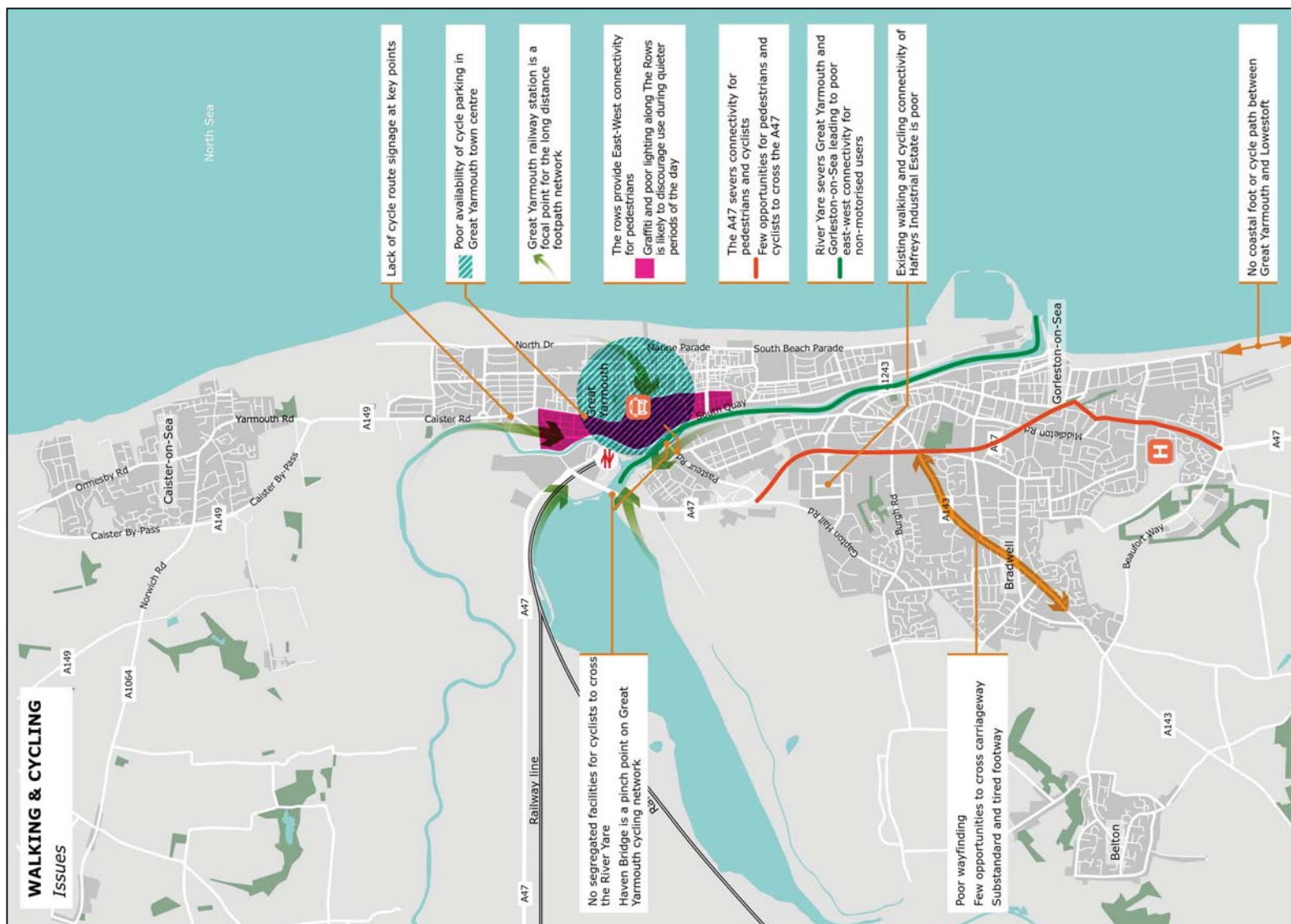
New cycle crossing between Great Yarmouth Railway Station and Vauxhall Bridge



Sheffield Stand Cycle Parking in the Town Centre

Active travel provision:

- *The Rows enhances east-west connectivity in the Town Centre; however, the amenity of these links is likely to discourage their use*
- *there is no continuous coastal path for pedestrians and cyclist between Great Yarmouth and Lowestoft*
- *the existing cycle network in the town is disjointed*
- *Haven Bridge has no segregated provision for cyclists and is a pinch point for cycle routes*
- *the River Yare severs Gorleston-on-Sea and South Denes Peninsula, restricting the potential to make journeys between these two locations on foot*
- *strategic cycle routes connecting Great Yarmouth with the wider surrounding area are principally on-road*
- *there is limited cycle parking near key trip attractors*

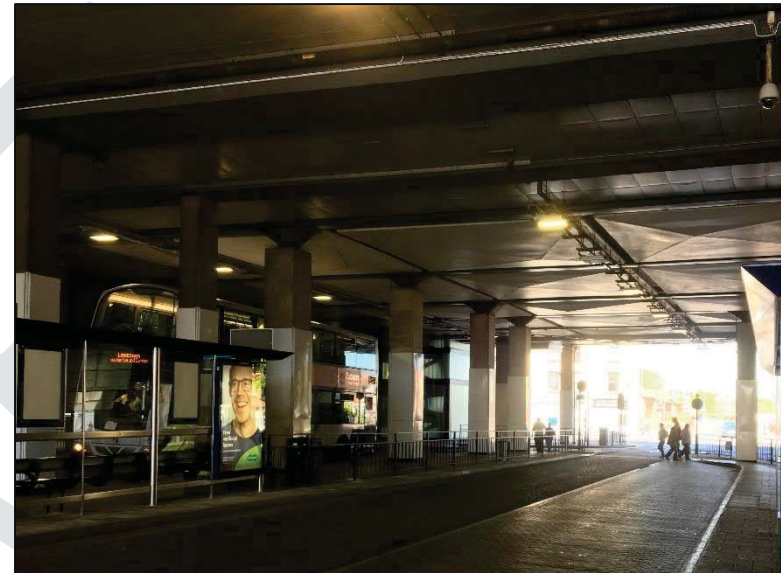


BUS & COACH SERVICES

- 3.3.10. Bus services cover the main corridors through Great Yarmouth, with all routes from outlying areas serving the town centre and Market Gates bus station.
- 3.3.11. Market Gates bus station is situated in the centre of the town beneath Market Gates Shopping Centre. Whilst recent improvements to lighting, barriers and signage have sought to enhance the amenity of the bus station, its general amenity remains poor and uninviting with a lack of natural surveillance.



Market Gates Bus Station



Market Gates Bus Station

- 3.3.12. Most bus services run in a north-south direction connecting Great Yarmouth with Caister-on-Sea to the north and / or Gorleston-on-Sea to the south, with many of these services continuing onto Lowestoft.
- 3.3.13. The majority of bus services route between Great Yarmouth and Gorleston-on-Sea via Haven Bridge which results in the South Denes Peninsula being poorly served by public transport.

- 3.3.14. A number of bus services serve the rural settlements that surround the town; however, many of these operate on a frequency of one bus per hour or less, making these services unattractive for regular commuting journeys.
- 3.3.15. Despite many bus services to and from Norwich routing past Great Yarmouth Railway Station, none of them stop there. This limits the potential for users to interchange between bus and rail or make use of “PLUS BUS” integrated tickets.
- 3.3.16. Except for the Fullers Hill right turn facility to the north of the town centre²¹, there are no dedicated bus priority measures in Great Yarmouth. The absence of bus priority measures, such as bus lanes, results in poor journey time reliability and buses being delayed in traffic along the main strategic routes within the town.



Bus travelling along Regent Street

- 3.3.17. Beach Coach Station is situated on the outskirts of the town centre and has parking for 100 coaches and HGVs. It is the principle parking location for coach trips to the town as there are no other formal coach drop off facilities in the town centre or along the sea front. The coach station has limited waiting facilities for passengers and is approximately a 10-minute walk from the town centre.

Bus and coach provision:

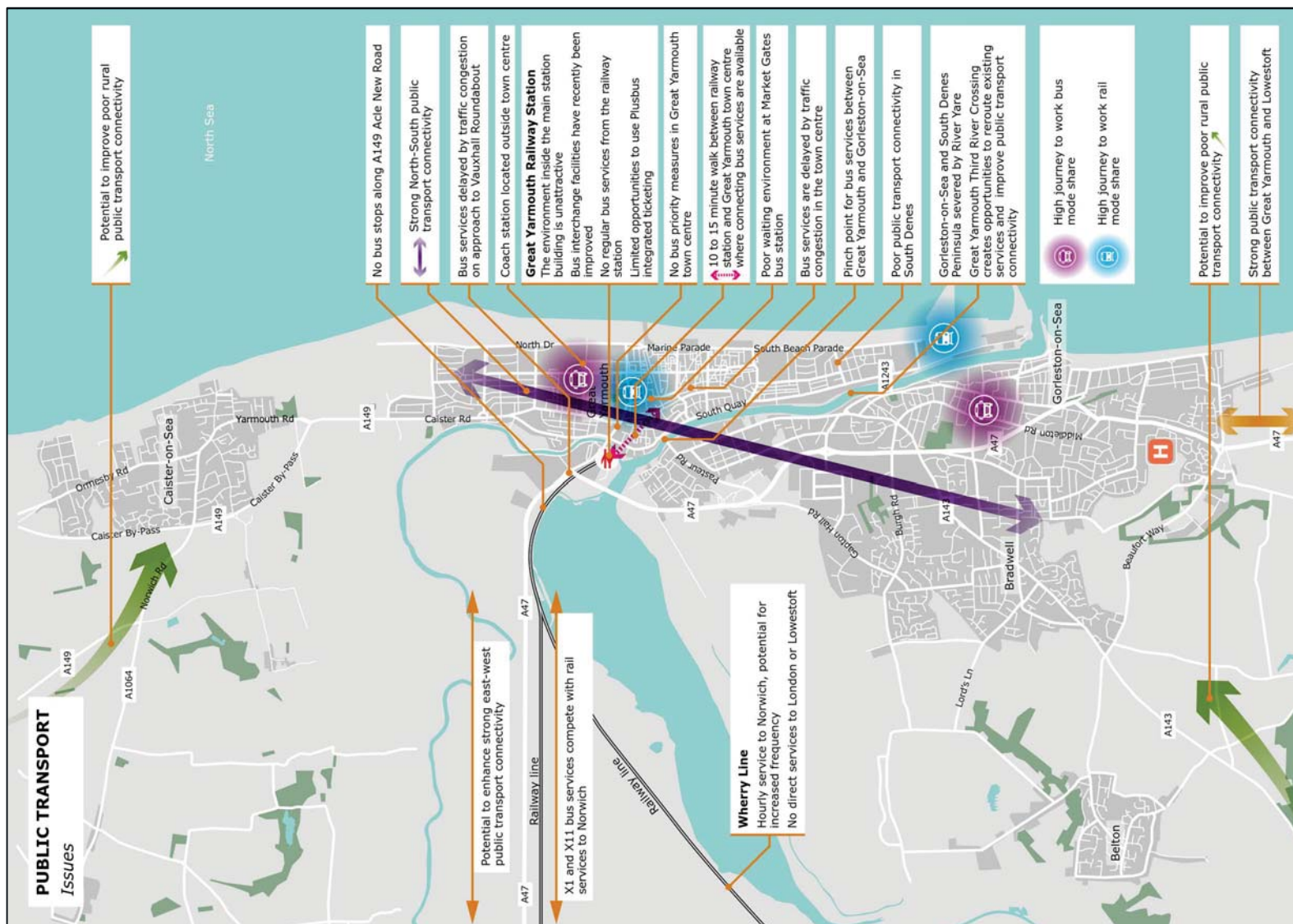
- *poor amenity of Market Gates Bus Station*
- *strong north-south public transport connectivity*
- *South Denes Peninsula is poorly served by existing bus services*

²¹ The bus only right turn restriction on Fullers Hill has been temporarily removed as a part of one-year trial.

- *poor rural public transport connectivity*
- *Great Yarmouth Railway station is not served by regular bus services*
- *limited potential for integrated ticketing*

- *limited bus priority measures*
- *the existing coach station is situated on outskirts of the town centre*

DRAFT



LOCAL HIGHWAY NETWORK

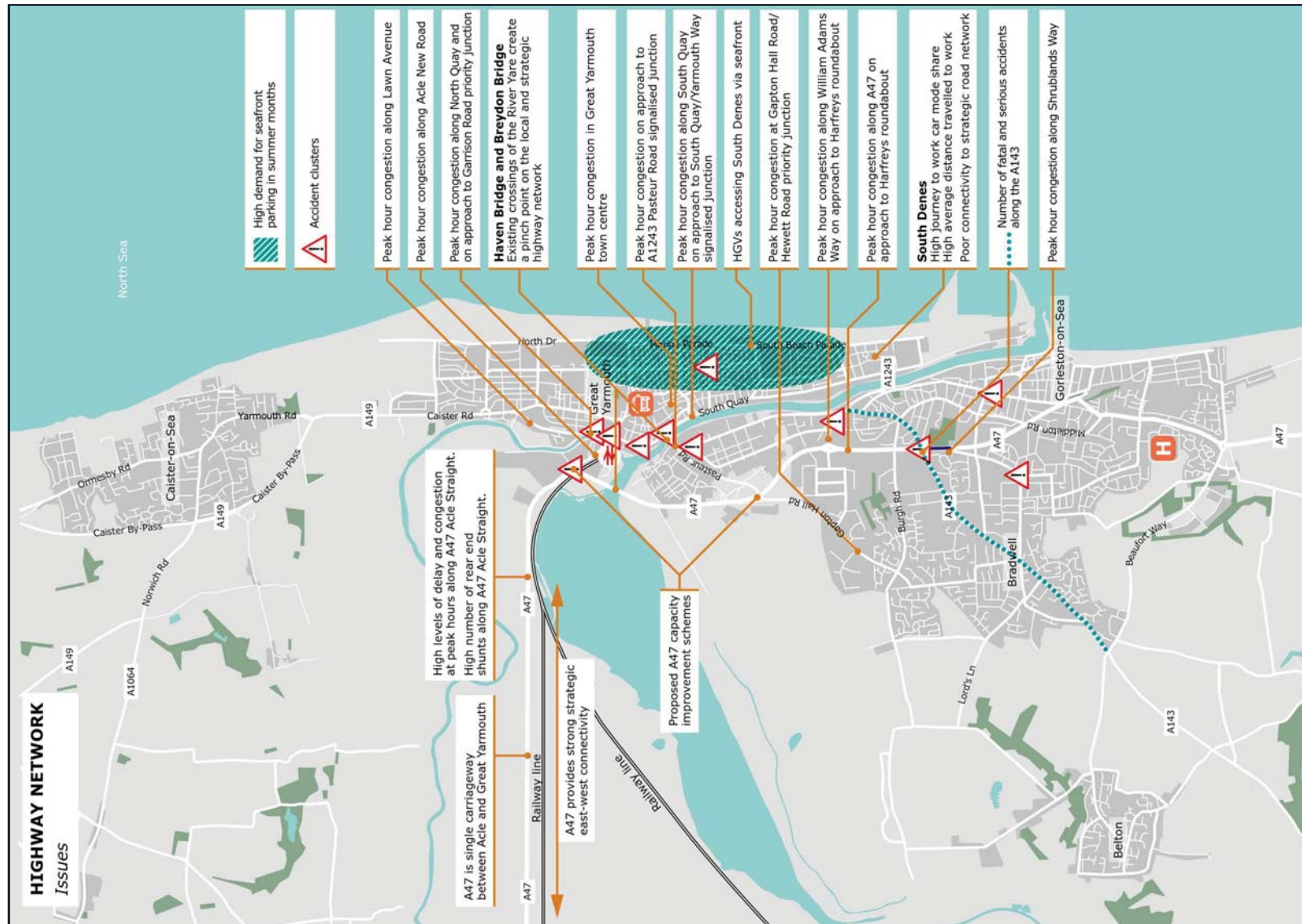
- 3.3.18. The local highway network in Great Yarmouth experiences significant delay and congestion at peak times.
- 3.3.19. Strategic modelling work undertaken for the Great Yarmouth Third River Crossing has identified a number of links and junctions in the town that experience significant levels of queuing and delay at peak periods.
- 3.3.20. The limited number of existing crossings of the River Yare create a pinch point on the local highway network. It is anticipated that the Great Yarmouth Third River Crossing will help alleviate these pinch points on the network and help reduce traffic and congestion to the north of Great Yarmouth.

Local highway network:

- *existing crossings across the River Yare create a pinch-point on the local highway network*
- *significant delay and congestion and queuing at many junctions at peak periods*



Traffic Congestion along Hall Quay



PERSONAL INJURY ACCIDENTS

3.3.21. Between July 2013 and June 2018, a total of 637 personal injury accidents were recorded in the Transport Strategy study area, of these:

- 337 occurred at a junction
- 527 were of slight severity
- 106 were of serious severity
- 4 were fatal

3.3.22. Three of the fatal severity accidents occurred along the A143 Beccles Road. A description of these fatal accidents is provided below:

- Vehicle travelling along Beccles Road towards the town centre collided with the A47 concrete flyover support
- A pedestrian stepped out into the path of an oncoming vehicle at the junction with Crab Lane
- A passenger fell from the cargo area of a car when turning around a corner

3.3.23. The fourth fatal severity accident occurred on Burgh Road and involved a pedestrian walking into the path of a vehicle.

3.3.24. The highest concentration of personal injury accidents in the Transport Strategy study area occurred in the centre of Great Yarmouth, with clusters recorded at: Hall Quay; St Peter's Road between King's Street and Nelson Road Central; North Quay; Southtown Road between Station Road and Bridge Road; Fullers Hill Roundabout; and the A47 Vauxhall Roundabout.

3.3.25. Outside of the central area of Great Yarmouth the most significant accidents clusters areas are:

- A47 / A143 signalised junction; along Lowestoft Road / High Street between Clarkes Road and Cross Road
- A47 Gapton Hall roundabout; A47 Harfreys roundabout
- Within the Magdalen Way / Trinity Way area

3.3.26. A high number of serious severity accident involving non-motorised users occurred along links with relatively poor provision for non-motorised users:

- **North Quay:** two serious severity accidents involved pedal cyclists and one involved a pedestrian
- **Haven Bridge:** two serious severity accidents involving pedal cyclists
- **Beccles Road, south of William Adam's Way:** two serious severity accidents involving pedestrians crossing the road

A47 Acle Straight

3.3.27. Outside of the main urban area of Great Yarmouth, a large number of personal injury accidents have been recorded along the A47 Acle Straight.

3.3.28. In total, 77 accidents were recorded along the A47 Acle Straight between January 2012 and December 2017. Of these 58 accidents were of slight severity, 15 serious severity and four were fatal.

- 3.3.29. Most accidents were associated with rear end shunts (44 accidents), whilst others were associated with head-on collisions, offside collisions, skidding or overtaking. Two of the fatal accidents were caused by rear end shunts, and two by head-on collisions. Only one accident involved a non-motorised user, whereby a pedal cyclist was struck by an overtaking car.
- 3.3.30. The high number of rear end shunts are reflective of the A47's single carriageway nature, high speed and frequency of side accesses which lead to stationary or slow-moving traffic.

Personal injury accidents:

- *highest concentration of personal injury accidents recorded within the centre of Great Yarmouth and at strategic junctions on the A47 and A143*
- *a number of serious severity accidents recorded along links with poor provision for non-motorised users*
- *a number of fatal severity accidents recorded along the A47 and A143*
- *a large number of rear end shunts along the A47 Acle Straight*

CAR PARKING

- 3.3.31. Car parking in the centre of Great Yarmouth comprises a combination of short and long stay car parks and on-street parking bays. At the time of the last audit in 2013, there were 2,647 public car parking spaces in the town centre and 2,778 public car parking spaces along the sea front. This was in addition to 3,098 spaces in private car parks.



Howard Street Car Park

- 3.3.32. Outside of the summer peaks there is generally a good availability of car parking within the town centre and along the sea front. However, in July and August, most car parks along the sea front are full by late morning.
- 3.3.33. No utilisation survey of car parking in Great Yarmouth has ever been undertaken, but car parking ticket sales suggest demand has remained relatively static.
- 3.3.34. Between 2014 and 2017 there was a 6% reduction in ticket sales; however, this is partly attributable to the introduction of initiatives to provide free parking at selected times; this included:

- Free car parking on selected town centre short-stay car parks every Wednesday from 12 noon
- Removal of overnight charges from 4pm on all town centre car parks

3.3.35. Great Yarmouth does not currently have a parking strategy. A parking strategy is important as it helps to balance the parking needs of residents, visitors and workers with the need to promote sustainable travel, whilst supporting local shops and businesses.

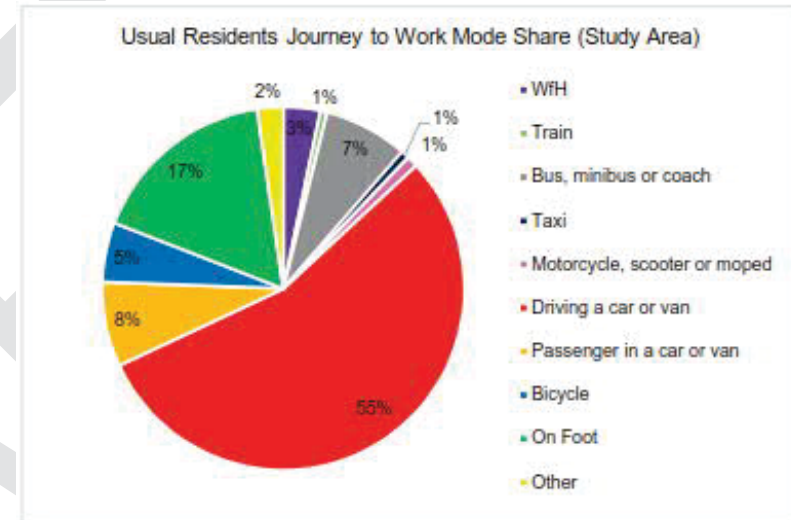
Car parking:

- *Great Yarmouth Borough Council car parking ticket sales have remained relatively static*
- *there is a high demand for sea front parking in the summer months*
- *Great Yarmouth currently does not have a car parking strategy*

3.4 CURRENT TRIP MAKING PATTERNS

- 3.4.1. The main mode of travel for journeys to work in Great Yarmouth is by car. Within the Transport Strategy study area 55% of resident's journeys to work are undertaken by car or van. This compares with an average of 61% for the Borough.
- 3.4.2. In the Transport Strategy study area active travel accounts for 22% of resident commuting trips (17% walking and 5% cycling) which is higher than the average for the Borough (13% walking and 4% cycling).

- 3.4.3. Journeys to work by public transport are predominately undertaken by bus (7%) and is in line with the average mode share for the Borough (6%).



- 3.4.4. In the Transport Strategy study area the highest car or van driver mode share was recorded in Bradwell (>50%) and the lowest was observed in Great Yarmouth town centre and the South Denes Peninsula (<10%). Outside of the Transport Strategy study area and main urban area of Great Yarmouth the car or van mode share is significantly higher at between 51% and 71%.
- 3.4.5. There is a high level of self-containment of commuting trips within Great Yarmouth with 63% of the employed population living and working in the Transport Strategy study area.

3.4.6. Furthermore, 74% of all residents living in the Transport Strategy study area and 76% of all workers working in the Transport Strategy study area live in the Great Yarmouth Borough. The high levels of self-containment support opportunities for commuting trips to be undertaken by sustainable modes of travel.

3.4.7. The relatively low journey to work car mode share is reflective of:

- the urban nature of the Transport Strategy study area
- strong north-south bus connectivity
- good availability of local services and facilities
- relatively high internalisation of commuting trips



Great Yarmouth Outer Harbour. Photograph: Mike Page.

3.4.8. The growth of the offshore-energy sector in the town has the potential to change commuting patterns to the town. The average commuting distance by Great Yarmouth workers is less than 20km; however in South Denes (where there has been a growth in off-shore energy industries) the average distance travelled to work is 31 to 41km.

3.4.9. Furthermore, the majority of workers in South Denes travel to work by car (81%-90%). To facilitate these commuting movements strong strategic road and public transport routes are essential.

Travel patterns:

- the low journey to work car mode share is reflective of the high proportion of residents living and working within the Transport Strategy study area
- the offshore energy sector appears to be changing commuting patterns with workers commuting longer distances
- longer average commuting distances suggest many jobs in the South Denes area are not being filled by local residents

3.5 SUPPORTING PLANNED GROWTH

LOCAL PLANNED GROWTH

- 3.5.1. Great Yarmouth Borough Council's Local Plan sets out the planned growth for the Borough for the period 2013 to 2030. During this period, it seeks to deliver 7,140 dwellings.
- 3.5.2. The strategy identifies two key sites for development within the main urban area of Great Yarmouth. These are the 'Waterfront Area' and the 'Land to the south of Bradwell'.



Beacon Park – Policy CS18

This development will provide approximately:

- 1,000 new dwellings
- 10-15 hectares of new employment land to the south of the A47 / A143 link road and west of the existing Beacon Business Park

Great Yarmouth's Waterfront – Policy CS17

This development will provide approximately:

- 1,000 new dwellings of mixed types
- 16,500 sqm of employment floorspace
- 14,200 sqm of retail and leisure space

Supporting Infrastructure Improvements – Policy CS16

- 3.5.5. Policy CS16 of the Local Plan relates to improving accessibility and transport within Great Yarmouth, and identifies the following high priority schemes:

- Supporting proposals to dual the A47
- Supporting proposals for a Great Yarmouth Third River Crossing over the River Yare
- Upgrading Great Yarmouth Railway and Bus Station
- Supporting the port and its future development as a passenger and freight intermodal interchange

Emerging Local Plan Part 2

- 3.5.6. A variation to the current housing target set out in Local Plan Part 1 has been proposed via the emerging Local Plan Part 2, which may revise the housing target down to 5,139 dwellings for the same plan period 2013-2030.

GROWTH FORECASTS

- 3.5.7. Between 2018 and 2030 (the end of the current local plan period) it is forecast²² that in the Transport Strategy study area:

- the population will grow by 11.24%
- the total number of households will grow by 15.29%²³
- the total number of jobs will grow by 4.54%
- the total number of workers will grow by 5.93%

²² TEMPro v7.2. This includes planning data from the Department for Transport's National Trip End Model (NTEM) and is used to forecast the growth in the trip origin-destinations (or product-attractions) up to 2050 for use in transport modelling

²³ This does not reflect the changes set out in the emerging Local Plan Part 2

- 3.5.8. The growth forecast in the Transport Strategy study area is slightly higher than the average growth predicted across the borough as a whole.

Area	Period	Population	Households	Jobs	Workers
Great Yarmouth Borough	2018	100,768	44,924	44,675	38,604
	2030	111,983 (+11,214)	51,745 (+6,821)	46,686 (+2,011)	40,809 (+2,205)
	Growth	11.13%	15.18%	4.50%	5.71%
Transport Strategy Study Area (based on MSOA boundaries ²⁴)	2018	78,005	34,888	38,983	29,239
	2030	86,776 (+8,771)	40,223 (+5,335)	40,753 (+1,770)	30,973 (+1,734)
	Growth	11.24%	15.29%	4.54%	5.93%

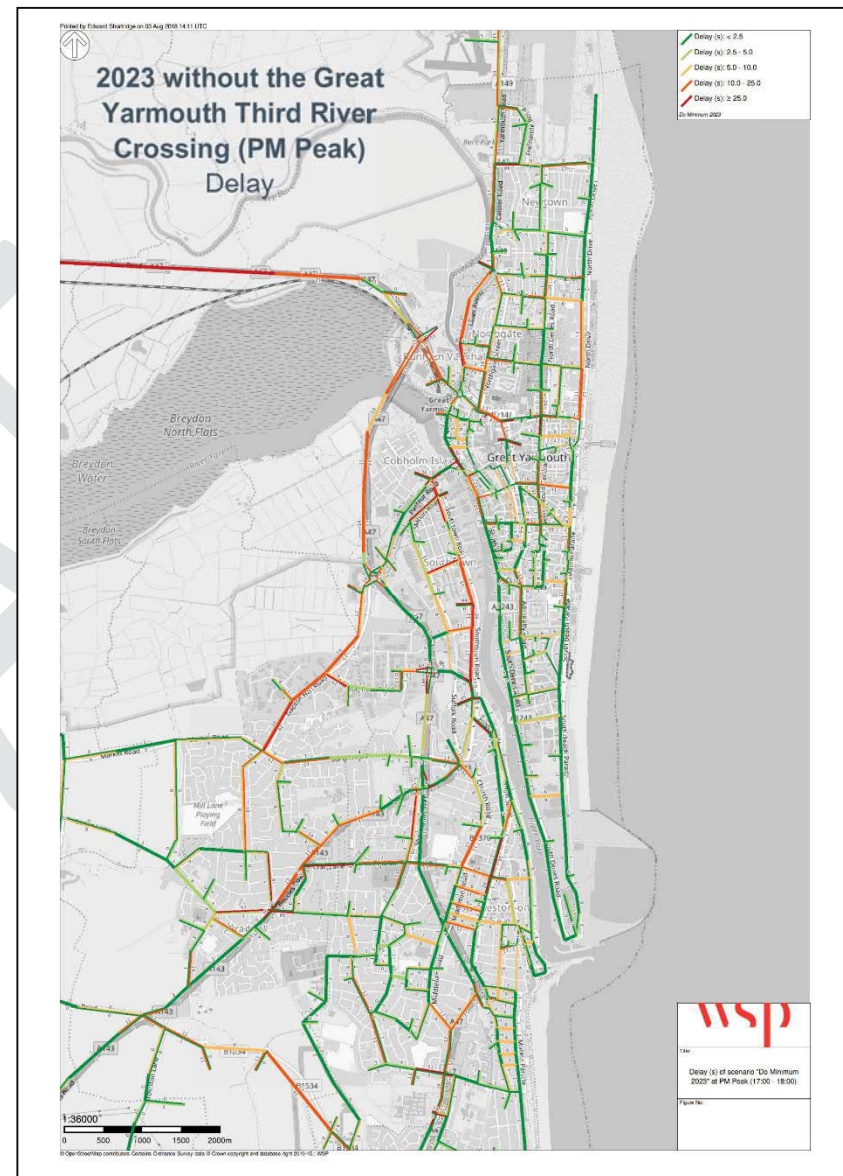
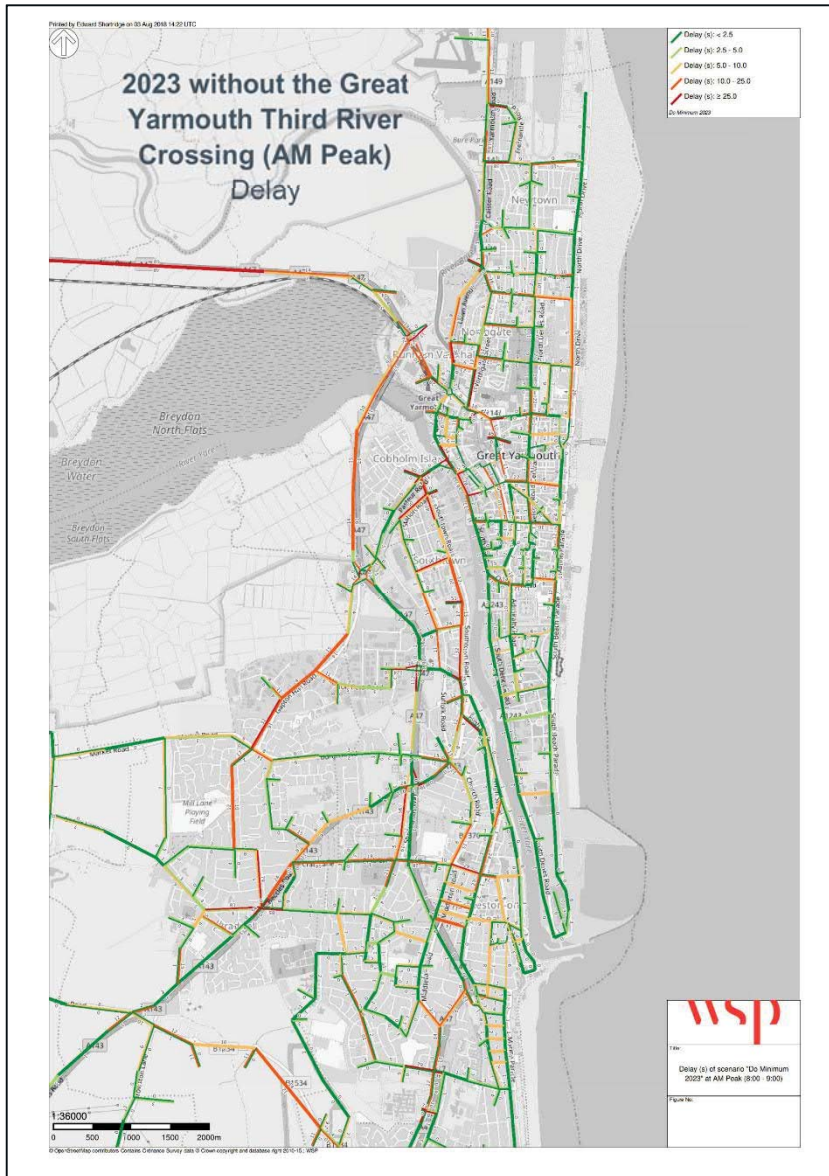
- A47 south of Vauxhall Roundabout
- Acle New Road
- Fullers Hill
- Priory Plain
- Temple Road
- Haven bridge
- Garton Hall Road
- A47 / A143 Slip Roads
- South Quay
- Southgate Road

3.6 TRAFFIC GROWTH FORECASTS

- 3.6.1. Traffic flows in the Great Yarmouth area are forecast to increase by 14%-19% between 2018 and 2030²⁵. The highest levels of traffic growth are forecast within the centre of Great Yarmouth and Gorleston-on-Sea. The lowest levels of traffic growth are forecast within Bradwell.
- 3.6.2. The strategic transport model produced for the Great Yarmouth Third River Crossing shows that between 2018 and 2023, without the Great Yarmouth Third River Crossing, the highest increase in AM and PM peak hour traffic flows will be on:

²⁴ Transport Strategy Study area based on combined boundary of Great Yarmouth 003, 004, 005, 006, 007, 008, 009, 010, 011, 013 MSOAs

²⁵ TEMPro V7.2. The software calculates the traffic growth factors through the use of the National Trip End Model (NTEM) and National Transport Model (NTM) datasets (dataset AF15)



3.7 GREAT YARMOUTH THIRD RIVER CROSSING

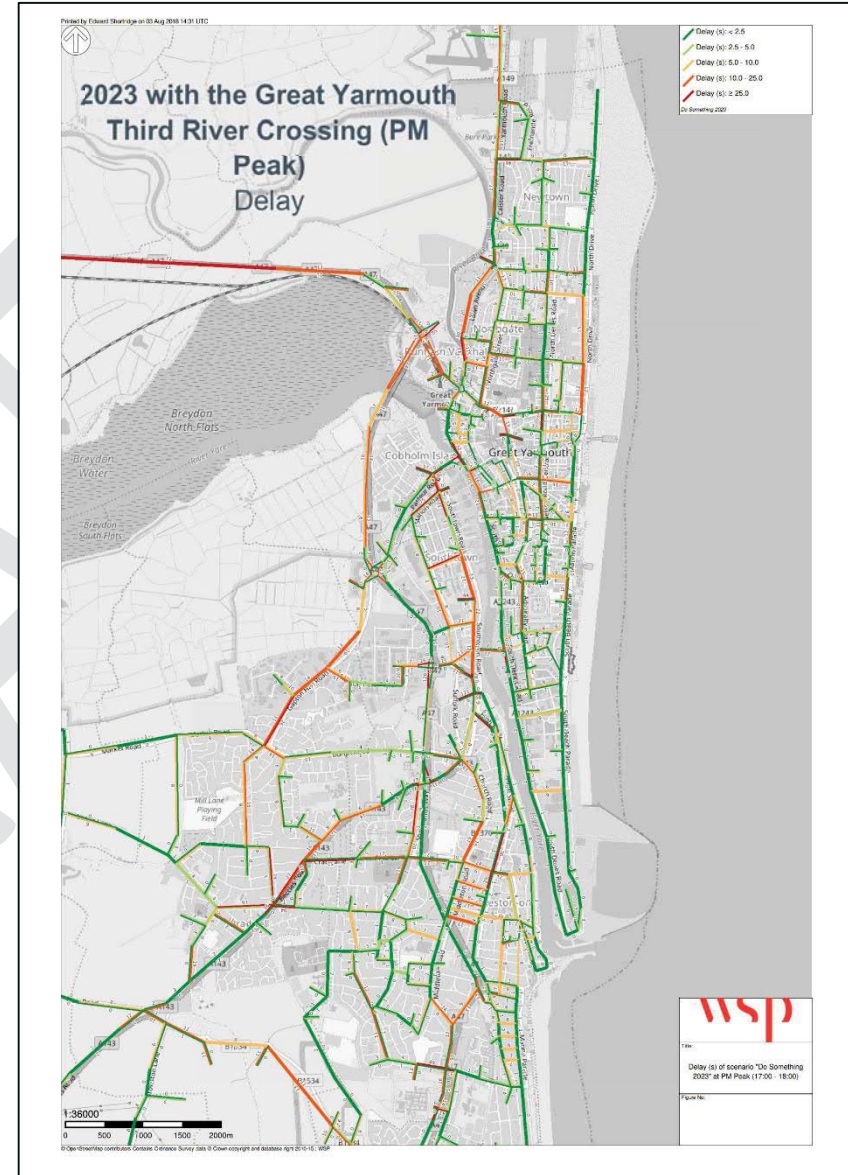
- 3.7.1. The Great Yarmouth Third River Crossing²⁶ (if consented) is expected to lead to a significant redistribution of traffic on the local and strategic road networks in Great Yarmouth.
- 3.7.2. The scheme will principally reduce the volume of traffic using routes to the west and north-west of the scheme (A47 north of Harfreys Roundabout, Hall Quay, South Quay and Fullers Hill), but lead to an increase in traffic using routes to the south, east and north-east of the scheme (A47 south of Harfreys Roundabout and residential routes to the east of the River Yare that provide access to the town centre and sea front).



Illustrative design of the Great Yarmouth Third River Crossing.



²⁶ The Third River Crossing is currently going through the planning process and is being treated as a Nationally Significant Infrastructure Project. The Project, which is subject to public Examination, will ultimately be determined by the Secretary of State for Transport with a decision expected later in 2020.



4 PLANNED INFRASTRUCTURE IMPROVEMENTS

4.1 LOCAL & STRATEGIC INFRASTRUCTURE IMPROVEMENTS

- 4.1.1. To address a number of the transport challenges and opportunities within Great Yarmouth a range of transport policy and infrastructure projects are already planned for delivery in the short and medium-terms. These schemes are being delivered by a variety of stakeholders including: Norfolk County Council, Great Yarmouth Borough Council, Highways England, Greater Anglia and Network Rail.

- 4.1.2. For the purpose of this Transport Strategy, short-term schemes are those that have either recently been completed or expected to be completed by the end of 2022, and medium-term infrastructure projects are expected to be delivered by the end of the current local plan period in 2030.

- 4.1.3. All of these schemes have a firm funding commitment from the relevant stakeholders and a clear delivery timetable. The following sections provide details on the short and medium-term policy and infrastructure improvements proposed in Great Yarmouth at a strategic and local scale. The schemes have been grouped based on the broad overarching aim of each option.

4.2 SHORT TERM (SCHEMES RECENTLY DELIVERED, OR EXPECTED TO BE DELIVERED BY 2022)

STRATEGIC IMPROVEMENTS

Schemes to encourage journeys by rail		
Reference	Scheme	Description
SC8	Improve amenity for passengers travelling on the Wherry Line	New rolling stock across the Greater Anglia Network. All of the trains will have plug and USB sockets, fast free Wi-Fi, air conditioning, accessible toilets, wheelchair spaces and bicycle spaces. The scheme is being funded by Great Anglia and all the new rolling stock should all be in service by the end of 2020.
SC9	Improve the reliability of train services on the Wherry Line	Network Rail is currently upgrading the existing Victorian signalling systems along the Wherry Line. This will improve the safety and reliability of the railway, operational flexibility, level crossing safety, sustainability and efficiency by using modern technology and reduce the duration of level crossing closures. The works are currently ongoing and a date for the new signalling system to be activated is currently unknown.


LOCAL INFRASTRUCTURE

Schemes to reduce delay and improve capacity of the local highway network		
Reference	Scheme	Description
SC1	Southtown Road / Bridge Road Area Improvement scheme	This scheme is the removal of the existing signals on the Southtown Road junction with Station Road, including the exit from Matalan car park. Along with the addition of 'right-turn' lanes, this is designed to keep traffic free-flowing and to reduce queuing and the time taken to exit the car park. A new toucan crossing and extension of existing cycle lanes will help those getting around by foot or bicycle, whilst a relocated bus stop on Southtown Road (closer to the toucan crossing) will make it easier for buses to re-join traffic lanes into town. The scheme will increase capacity of the junction and improve provision for pedestrians and cyclists. Norfolk County Council are currently consulting on this option.
SC2	Market Place / Fullers Hill Capacity Improvement Scheme	This scheme is the conversion of the existing bus only right-turn between Market Place and Fuller's Hill to all vehicles right-turn to improve the flow of traffic in the town centre area. This scheme was implemented in early 2019 on a one-year trial.


Schemes to better manage traffic on the local highway network

Reference	Scheme	Description
SC3	Traffic management measures to reduce HGV movements along the sea front	This scheme is the investigation of traffic management measures to reduce the number of HGV movements along the sea front. Possible measures could include width restrictions or new Traffic Regulation Orders (TROs). Investigative work to progress this scheme was undertaken by Norfolk County Council's Infrastructure Delivery Team in Summer 2018. This work concluded that no further action is needed at this time.

Schemes to improve bus interchange facilities and encourage travel on local bus services

Reference	Scheme	Description
SC5	Improve bus interchange facilities at Great Yarmouth railway station	<p>This scheme is to provide improvements to the rail station forecourt at Great Yarmouth railway station, including improvements to the existing bus interchange facilities (a new bus shelter and improvements to the existing bus stop).</p> <p>A railway station forecourt improvement scheme was completed in September 2018. This included improvements to the existing bus interchange facilities as well as improvements to the wider public realm in the station area and improvements to pedestrian and cycle connectivity.</p> <div data-bbox="842 957 1805 1324">  </div> <p><i>Great Yarmouth Railway Station Concourse Improvements</i></p>

Schemes to improve bus interchange facilities and encourage travel on local bus services

Reference	Scheme	Description
SC7	Upgrade and improvement works to the waiting facilities and general surroundings at Market Gates Bus Interchange	<p>This scheme is to improve waiting facilities and general surroundings at Market Gates bus station in Great Yarmouth town centre. The works include new bus shelters, replacement of pedestrian railings, additional cycle parking, cladding of concrete pillars, new information boards, improvements to lighting and retention of electronic passenger information screens. This scheme is currently ongoing.</p>  <p><i>Market Gates Bus Station</i></p>

Schemes to encourage journeys to be made on foot and bicycle

Reference	Scheme	Description
SC11	Improve pedestrian crossing facilities along Nottingham Way	This scheme is to improve pedestrian crossing facilities along Nottingham Way to make it safer and easier for pedestrians. This scheme will be delivered by Norfolk County Council's Infrastructure Delivery Team. Work on this scheme has not yet commenced.
SC12	Improve the pedestrian amenity of The Rows	This scheme considers improvements to the pedestrian amenity of The Rows, to make the area more enjoyable for pedestrians. This scheme is currently being progressed by Great Yarmouth Borough Council as a part of their Town Centre Masterplan.

Schemes to encourage journeys to be made on foot and bicycle

Reference	Scheme	Description
SC13	Simplify signalised arrangement / improve crossing facilities at junction of Fuller's Hill / Northgate Street	This scheme is the simplification of existing signalised arrangements and improvements to pedestrian crossing facilities. The previous arrangement was a pedestrian crossing for half of the Fuller's Hill / Northgate Street junction, with a full pedestrian crossing further down Northgate Street. The scheme will improve safety for non-motorised users and improve the operation of the junction. This scheme was delivered by Norfolk County Council and is now complete.
SC14	Town Centre Wayfinding Strategy to improve pedestrian connectivity between the Town Centre, Seafront, bus station, railway station and other key trip attractors	This scheme is the creation of a Town Centre Wayfinding Strategy to help improve pedestrian connectivity between the Town Centre, Seafront, bus station, railway station and other key trip attractors. This will help to direct pedestrians to their destinations more quickly and may help to make individuals more aware of the attractions on offer. This scheme is being progressed by Norfolk County Council.
SC15	Travel Planning	Norfolk County Council can already request that new expanding residential, commercial and educational premises to produce a Travel Plan.
SC20	Improve facilities for pedestrians and cyclists around Gapton Hall Retail Park	This option explores improvements to facilities for pedestrians and cyclists around Gapton Hall Retail Park. There is currently a small amount of shared access paths, but a zebra crossing could be useful to help users crossing from one side of the retail park to the other.
SC21	Improve pedestrian crossing facilities at Crab Lane / Magdalen Way signalised junction	This option considers improving pedestrian crossing facilities at Crab Lane / Magdalen Way signalised junction. There are currently no signalised pedestrian crossings – adding these would help to improve the safety for pedestrians.
SC24	Investigate reallocation of carriageway space within Great Yarmouth town centre to improve bus and pedestrian routes	This scheme is to investigate the reallocation of carriageway space for improved bus and pedestrian routes. This could include the removal of parking at the western end of Stonecutters Way to east right-turn movements for buses, realignment of the Stonecutters Way / Howard Street North junction to ease left-turn movements for buses, and improving pedestrian crossing facilities between Broad Row and Market Row. A scheme is currently being developed as a part of Norfolk County Council's Local Growth Fund Programme.
SC25	Review of existing and provision of new or upgraded cycle parking in Great Yarmouth Town Centre, along the seafront and close to large trip attractors in the wider Transport Strategy study area	This option explores assessing the current level of cycle parking and looks at adding new or upgraded parking in the town centre, along the sea front and close to large trip attractors. This would allow cyclists to leave their bikes in secure places and could encourage others to use their bikes more often.

Schemes to better manage parking

Reference	Scheme	Description
SC26	Update and improve signage of car parks in Great Yarmouth.	This scheme is the installation of new car parking signage within Great Yarmouth. The improved signage will assist residents, visitors and workers finding a car parking space in the town and help car drivers make more informed decision about where they choose to park. This scheme has recently been delivered.

4.3 MEDIUM TERM (SCHEMES EXPECTED TO BE DELIVERED BETWEEN 2022 & 2030)

STRATEGIC INFRASTRUCTURE

MC1 – Great Yarmouth Third River Crossing

4.3.1. The Great Yarmouth Third River Crossing is a new connection between the A47 and South Denes Peninsula, an area home to many businesses operating within the offshore energy sector. In the 2017 Autumn Budget the Government allocated a contribution of £98 million towards the construction of a crossing.

4.3.2. The Great Yarmouth Third River Crossing is needed to deliver the following objectives:

- to support Great Yarmouth as a centre for both offshore renewable energy and the offshore oil and gas industry, enabling the delivery of renewable energy Nationally Significant Infrastructure Projects (NSIPs) and enhancing the port's role as an international gateway

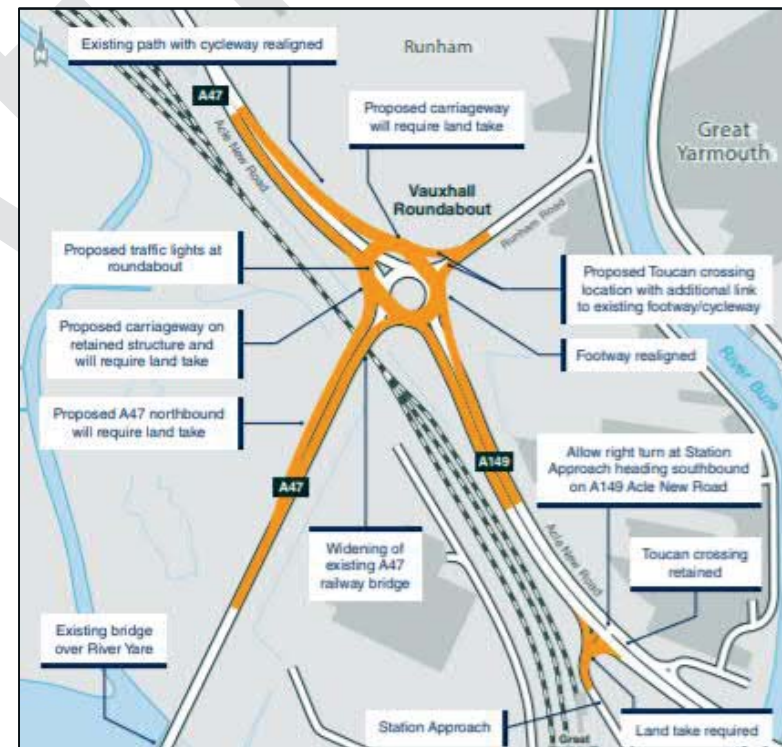
- to improve access and strategic connectivity between Great Yarmouth port and the national road network, thereby supporting and promoting economic and employment growth (particularly in the Enterprise Zone)
- to support the regeneration of Great Yarmouth, including the town centre and seafront, helping the visitor and retail economy
- to improve regional and local access by enhancing the resilience of the local road network, reducing congestion and improving journey time reliability
- to improve safety and to reduce road casualties and accidents, in part by reducing heavy traffic from unsuitable routes within the town centre
- to improve access to and from the Great Yarmouth peninsula for pedestrians, cyclists and buses, encouraging more sustainable modes of transport and also reducing community severance
- to protect and enhance the environment by reducing emissions of greenhouse gases and minimising the environmental impact of the proposed scheme

- 4.3.3. The project is expected to cost approximately £120 million, with £98 million being provided by the Department for Transport. The remaining cost will be locally funded from a range of sources.
- 4.3.4. The Third River Crossing is currently going through the planning process and is being treated as a Nationally Significant Infrastructure Project. The Project, which is subject to public Examination, will ultimately be determined by the Secretary of State for Transport with a decision expected later in 2020.
- 4.3.5. It is expected that construction of the crossing could start in late 2020 and the bridge could be operational by early 2023. Delivery of this scheme is being led by Norfolk County Council.

MC2 – A47 Junction Improvements

- 4.3.6. To address congestion and delays at junctions on the A47, Highways England have identified two improvement schemes for the Vauxhall Roundabout and Gapton Hall Roundabout junctions.
- 4.3.7. The preferred option for Vauxhall Roundabout is a new larger signalised roundabout widened over the railway line and the preferred option for Gapton Hall Roundabout is the installation of traffic signals on the existing roundabout with the potential to improve provision for non-motorised users.

- 4.3.8. Following the announcement of the Great Yarmouth Third River Crossing, Norfolk County Council is currently working with Highways England to review the proposed improvement scheme at Vauxhall and Gapton Hall roundabouts. This is to consider whether the improvement schemes need to be amended to reflect, and be more compatible with, the benefits of the Great Yarmouth Third River Crossing. A final decision on the A47 junction improvements is expected in 2019.



Proposed Improvements: Vauxhall Roundabout (Highways England)



Proposed Improvements: Gapton Hall Roundabout (Highways England)

LOCAL INFRASTRUCTURE

MC4 – Hall Quay Improvements

- 4.3.9. Norfolk County Council's Infrastructure Delivery Team are currently developing an improvement scheme for Hall Quay. The initial focus of the scheme was the provision of new right-turn facilities between the A1243 Hall Quay and A1423 Bridge Road and reallocation of highway space to improve non-motorised user provision. However, initial transport modelling work undertaken by Norfolk County Council, showed that the right-turn facilities would increase delay and congestion at the junction. As a result, the focus of the scheme has shifted towards improving the public realm along Hall Quay and movement of non-motorised users. Work on this scheme commenced in Spring 2019 and is currently ongoing.

4.4 SCHEMES READY FOR DELIVERY (SUBJECT TO FUNDING)

- 4.4.1. Following the completion of the Stage 2 Options Appraisal Report in June 2019, it has not been possible to programme the delivery of 11 planned infrastructure improvement schemes. A key funding source is the Local Growth Fund and in order to spend the full allocation a degree of over programming was made. Unfortunately, there is insufficient funding for these schemes at this time.
- 4.4.2. The Council still has a commitment to delivering these schemes as and when a new funding source is identified. As such these schemes have been retained within the Transport Strategy as short and medium-term schemes ready for delivery, subject to funding. These schemes are summarised in the following sections

SHORT-TERM

Schemes to better manage traffic on the local highway network

Reference	Scheme	Description
SC19	Introduction of urban clearways on key strategic routes	This scheme is the introduction of urban clearways or loading restrictions on key strategic routes throughout the Transport Strategy study area. An urban clearway prevents vehicles from stopping on the carriageway for sustained periods of time, typically during the peak hours. Urban clearways encourage enhanced traffic flow during the busiest periods of the day, whilst allowing overnight and daytime stopping.

Schemes to encourage journeys to be made on foot and bicycle

Reference	Scheme	Description
SC10	Improve crossing facilities at B1370 / Church Lane roundabout and outside East Norfolk Sixth Form College	This scheme is improvements to pedestrian crossing facilities at the B1370 / Church Lane roundabout, as well as outside of East Norfolk Sixth Form College as currently there are no formal pedestrian crossing facilities at the B1370 / Church Lane roundabout. This scheme is being delivered by Norfolk County Council's Infrastructure Delivery Team. Work on this scheme has not yet commenced.
SC16	Improve lighting and tactile paving along northern section of esplanade	This scheme is to improve the lighting and tactile paving along the northern section of the esplanade in Great Yarmouth. These improvements would make the area safer for individuals and more accessible to all, as well as making the area more attractive to visit the area in the evening. Investigative work has not yet commenced.
SC17	Improve pedestrian crossing facilities along the A143 Beccles Road	This scheme is improvements to pedestrian crossing facilities along the A143 Beccles Road, including minor improvements to the existing uncontrolled crossings. This would allow for safer crossing space and make it easier for pedestrians to get across Great Yarmouth. Improvements could be made to signalised crossing to ensure that pedestrians have an appropriate amount of time to cross and space to walk alongside the A143.
SC18	Improvement to the access and signage and promotion of Norfolk's long-distance footpath network from Great Yarmouth	This scheme is to improve access and signage to Norfolk's long-distance footpath from Great Yarmouth. This includes: Norfolk Coastal Path (Hunstanton to Hopton on Sea), Angles Way (Great Yarmouth to Thetford), Weavers Way (Cromer to Great Yarmouth), Cross-Norfolk Trail (King's Lynn to Great Yarmouth) and Wherryman's Way (Norwich to Great Yarmouth).

Schemes to encourage journeys to be made on foot and bicycle

Reference	Scheme	Description
SC22	Improve wayfinding for cyclists in the centre of Great Yarmouth and along existing pedalways	This option explores improving wayfinding for cyclists in the centre of Great Yarmouth and along the existing pedalways. Wayfinding includes using signage to direct users to cycle routes, to make the navigation of the routes simpler. The areas of Wherryman's Way, Weavers Way, recreational cycle routes around Great Yarmouth and Angles Way have been highlighted for improved signage; Burgh Park and Cobham park have been highlighted for accessibility improvements; and the addition of Stalham to Great Yarmouth cycle facilities.
SC27	Review use and efficiency of traffic signals along Southtown Road	This option looks to review the efficiency of the traffic signals along Southtown Road to in order to increase junction capacity and improve efficiency capacity. Improvements could include upgrade to UTC or installation of MOVA at individual junctions.

Schemes to improve bus interchange facilities and encourage travel on local bus services

Reference	Scheme	Description
SC4	Enhanced bus interchange facilities at the James Paget University Hospital	This scheme is improvements to the bus interchange and waiting facilities at James Paget University Hospital. This scheme will be delivered by Norfolk County Council. Investigative work on this scheme has not yet commenced.
SC6	New / improved coach drop-off facilities in Great Yarmouth Town Centre	Great Yarmouth's coach station is currently situated on the outskirts of the town centre. The purpose of this scheme is to provide a drop off / pick up zone in the centre of Great Yarmouth. The location has not been finalised, but could include a drop off / pick up zone along Regent Street or Howard Street within the town centre one-way system. Surveys of the existing coach station are due to commence in Summer 2019.

MEDIUM-TERM

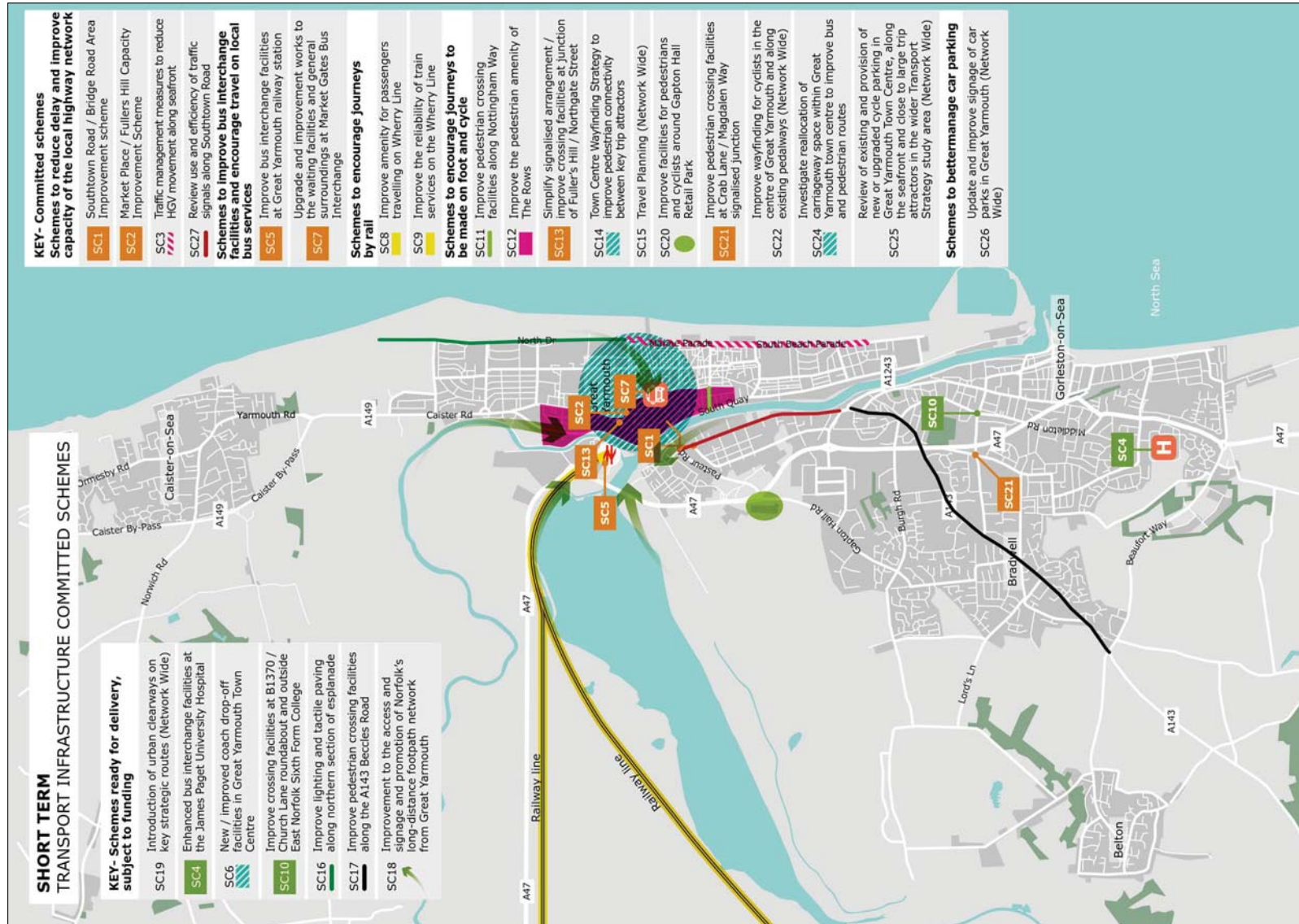
MC3 – Investigate ‘lay by’ bus stops on Acle New Road

- 4.4.3. Norfolk County Council’s Infrastructure Delivery Team are currently investigating ‘lay by’ bus stops on the Acle New Road to enable express bus services including the X1 and X11 to serve Great Yarmouth Railway Station without entering the forecourt area. Currently no buses serve Great Yarmouth railway station, as such this will provide the potential for passengers to interchange with existing bus services. Investigative works for this scheme has not yet commenced.

MC5 – Creation of an uninterrupted cycle route along the sea front between Haven Seashore Holiday Park and South Denes Peninsula via North Drive, Marine Parade and South Beach Parade

- 4.4.4. This scheme is the creation of a new long-distance cycle route that will run along the sea front between Haven Seashore Holiday Park and South Denes Peninsula. Areas for improvement include the link between the cycle lane south of Britannia Pier and the shared space cycle facility north of Britannia Pier. This scheme is currently being progressed by Norfolk County Council’s Infrastructure Delivery Team.

There are currently north-south off carriageway cycle facilities south of Britannia Pier (shared-use path) and north of Euston Road (shared-use path) on the promenade east of the bowls green. The link between these two facilities currently requires cyclists to either dismount or to ride onto the carriageway around the cinema. Near the Pleasure Beach there are a number of pay and display parking bays which could be removed to allow the introduction of a dedicated cycle lane that connects with existing cycling infrastructure.



5 THE NEED FOR PRIORITISED INVESTMENT

5.1 TRANSPORT CHALLENGES & ISSUES

- 5.1.1. The transport issues set out in Section 3 have been used to inform the development of a long list of potential transport infrastructure interventions that can support the vision and objectives of this Transport Strategy.



Breydon Bridge. One of two existing road crossings of the River Yare. © Copyright John Fielding and licensed for reuse under this Creative Commons Licence: <https://creativecommons.org/licenses/by-sa/2.0/>

- 5.1.2. The development of this long list is discussed in more detail in the subsequent sections, however in summary the main transport challenges and opportunities that need to be considered are:

- **The existing crossings across the River Yare (Breydon Bridge and Haven Bridge) creates a pinch point for all road users.**

This results in significant delay and congestion on approach to these crossings at peak times, poor reliability of bus services and a disjointed cycle network.

- **The expansion of the off-shore energy sector appears to be changing commuting patterns in the town.**

Workers in areas of the town where there is a strong presence of off-shore energy industries commute significantly further than the average for Great Yarmouth.

- **Cycling infrastructure provision in Great Yarmouth is incomplete and disjointed.**

A large number of local and national cycle routes cross the town; however, the provision for cyclists along these routes is disjointed. For instance, despite there being no dedicated provision for cyclists, all cycle routes between Great Yarmouth and Gorleston-on-Sea route via Haven Bridge.

- **Walking and cycling improvements have the potential to help make jobs and local facilities more easily accessible by non-car modes.**

The compact nature of Great Yarmouth and high level of internalisation of commuting trips within the town means that there is strong potential for shorter journeys to be undertaken by active modes of travel. Improvements to walking and cycling networks would help facilitate sustainable economic growth, encourage mode-shift, encourage more active lifestyles and improve air quality.

- **Great Yarmouth has some of the most economically and socially deprived neighbourhoods in the UK.**

The high levels of deprivation can be associated in part with poor access to jobs and other everyday services and activities. In Great Yarmouth the severance created by the River Yare is likely to play a role in attributing to this. As such any improvement to transport networks in areas of high deprivation is likely to promote social inclusion.

- **The A47 experiences high levels of congestion at peak times.**

The A47 provides strategic connectivity to Norwich and Lowestoft. Many of the junctions along the A47 in Great Yarmouth are approaching capacity. The A47 Acle Straight is a single carriageway road with frequent side accesses. This results in stop-start traffic and is likely to be attributable to the high number of rear end shunts recorded along this road. The single carriageway nature of the road means that minor incidents can lead to significant delays and disruption.

Stakeholders including Great Yarmouth Borough Council, Norfolk County Council and the A47 Alliance have identified the Acle Straight as their top priority for inclusion in Highways England's Road Investment Strategy 2 (2020-2025). Whilst there are currently no committed improvement schemes along A47 Acle Straight, stakeholders continue to lobby for them.

- **Areas identified for growth currently have poor connectivity.**

The South Denes area, which forms part of the Great Yarmouth and Lowestoft Enterprise Zone, has weak local and strategic connectivity and is poorly served by public transport. This is reflected by a high journey to work car share amongst workers of South Denes.

- **The Great Yarmouth Third River Crossing has the potential to provide significant benefit to Great Yarmouth.**

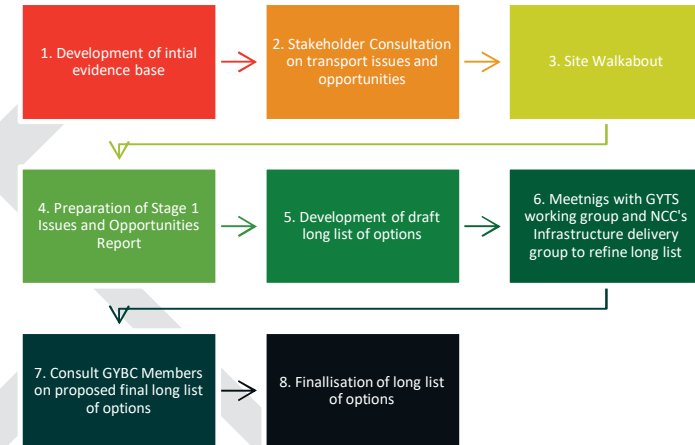
The crossing will significantly improve the local and strategic connectivity of Great Yarmouth and the South Denes Peninsula by providing improved access to the A47, helping to promote sustainable housing and economic growth. The crossing will also create new opportunities for bus, walking and cycling routes. It also has the potential to address the high levels of social deprivation experienced in the town by providing better access to jobs and services.

5.2 PRIORITISED INVESTMENT

- 5.2.1. To address the identified challenges and opportunities there is a need for prioritised investment in transport infrastructure. This can help address the reasons for social exclusion by providing better access to jobs and services, but also help promote sustainable housing and economic growth in the town by reducing the need to travel by car and improving access to supply chains and labour markets.
- 5.2.2. The investment in transport infrastructure is envisaged to be through a package of short, medium and long-term infrastructure interventions that could be delivered during, up to and beyond the current local plan period (up to 2030).
- 5.2.3. The following sections summarises the option development process used to identify a recommended shortlist of transport infrastructure schemes, currently uncommitted, that are recommended for progression over the next 10+ years.

5.3 TRANSPORT INFRASTRUCTURE OPTION DEVELOPMENT

- 5.3.1. The initial step was to develop a long list of short (0 to 3 years), medium (3 to 10 years) and long-term (10+ years) options based on the evidence base presented in the Stage 1 Transport Issues and Opportunities Report (summarised in Section 3 of this Transport Strategy), working group meetings with Norfolk County Council and Great Yarmouth Borough Council and consultation with stakeholders and Members of Great Yarmouth Borough Council.



- 5.3.2. No single option was considered capable of solving all the identified issues or achieve all the study specific objectives. Therefore, a number of overarching transport themes that are complementary to each other have been used to group the identified options. The transport themes are:



5.4 STAKEHOLDER ENGAGEMENT

- 5.4.1. A stakeholder consultation event was held on 14 June 2018. The purpose of this event was for the project team to introduce the Transport Strategy to key stakeholders and Council Members. The workshop consisted of a presentation by WSP setting out the transport issues and opportunities in the Transport Strategy study area.
- 5.4.2. The presentation was followed by a feedback session where key Stakeholders and Council Members could provide comment on the transport issues and opportunities identified in the presentation.
- 5.4.3. Comments were received in regard to:
- Walking and cycling infrastructure;
 - Travel patterns of residents;
 - Visitors and workers of Great Yarmouth,
 - Rail and bus services; and
 - The local and strategic road network.
- 5.4.4. Feedback received was incorporated into the Stage 1 Issues and Opportunities report and taken into consideration during the development of the long list of options.

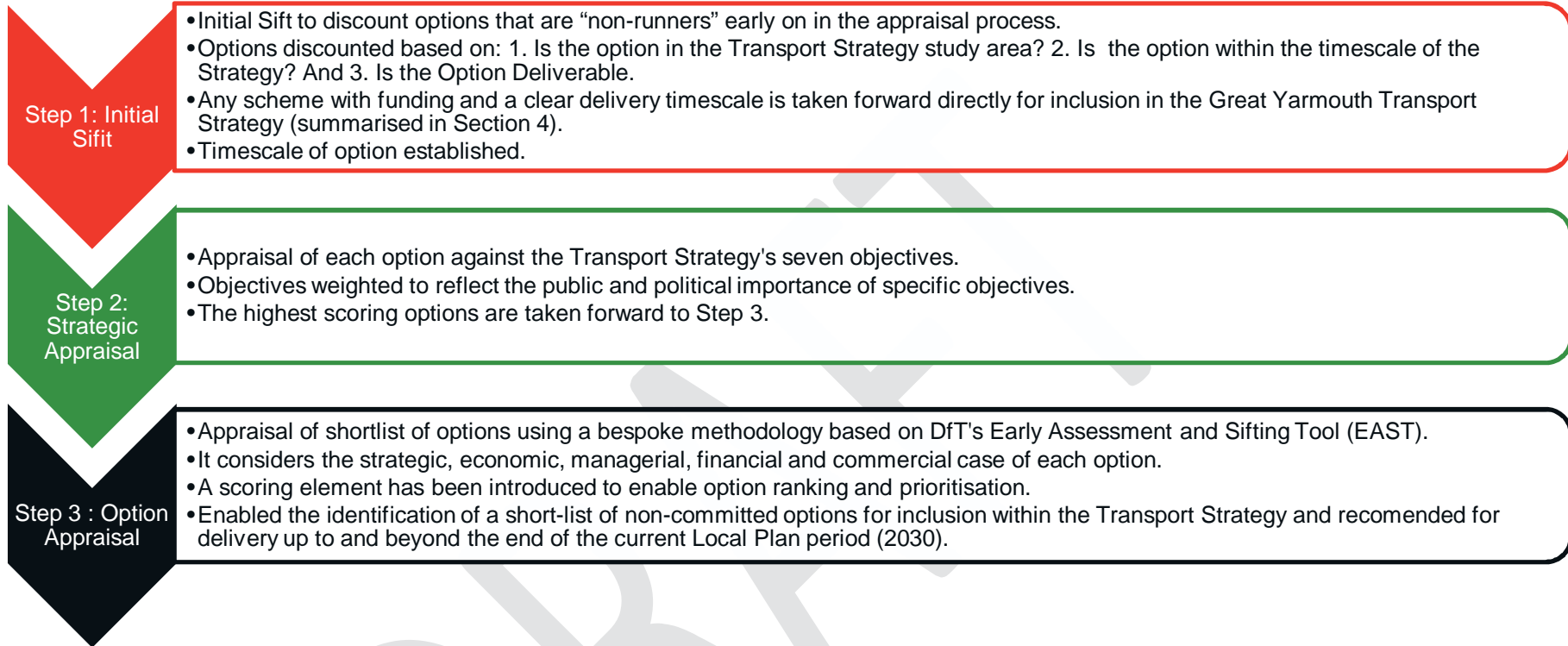
5.5 LONG LIST OF OPTIONS

- 5.5.1. In total, 118 conceptual options were identified for Great Yarmouth, this comprised:
- 12 General local highway improvement schemes;
 - 18 Local highway capacity improvement schemes;
 - 8 Strategic Road Network improvement schemes;

- 14 Bus service & associated infrastructure improvement schemes;
- 6 Heavy rail service and Great Yarmouth railway station improvement schemes;
- 16 Walking infrastructure improvement schemes;
- 32 Cycling infrastructure improvement schemes – of which 9 are area wide and 23 are area specific;
- 3 Parking policies / improvement schemes;
- 2 Electric vehicle schemes;
- 3 Car sharing / car club initiatives;
- 3 Smarter choices initiatives; and
- 1 Autonomous vehicle technology initiative.

5.6 OPTION APPRAISAL

- 5.6.1. It is not possible to deliver all of the options identified on the long list due to timescale, funding and deliverability constraints. Therefore, in order to identify a prioritised list of options for inclusion in the Transport Strategy an option appraisal of the long list of options was undertaken. This appraisal undertaken using a bespoke Strategic Assessment tool based on the Department for Transport's Early Assessment and Sifting Tool (EAST) which compares the Strategic, Economic, Managerial, Financial and Commercial case for each transport option.
- 5.6.2. The purpose of the option appraisal is to produce a shortlist of short, medium and long-term options recommended for delivery up to and beyond the end of the current local plan period (2030).
- 5.6.3. The appraisal was a three-step process:



5.6.4. The following section identifies the shortlist of short, medium and long-term options recommended for delivery by the end of the current local plan period (by 2030).

6 AN INTEGRATED TRANSPORT STRATEGY FOR GREAT YARMOUTH

6.1 OVERVIEW

- 6.1.1. This section sets out a package of short, medium and long-term options to address the transport issues in Great Yarmouth and support sustainable economic growth.
- **Short-term** options are planned for delivery by 2022;
 - **Medium-term** options are planned for delivered between 2023 and 2030 (end of the current local plan period); and
 - **Long-term** options are planned for delivery beyond 2030.
- 6.1.2. All of the options identified in this section of the Transport Strategy are non-committed, unfunded and have no confirmed timescale for delivery. As such the expected delivery should be treated as a recommendation and may change based on funding availability or following future development of the option.
- 6.1.3. It should be noted that all the options presented in the Transport Strategy are all unranked. Further detail on possible option prioritisation is provided in the Stage 2: Options Appraisal Report.

6.2 A MULTI-MODAL STRATEGY

- 6.2.1. One of the challenges faced by Great Yarmouth is its rural sub-region, whilst the compact nature of the town provides opportunities for movement by walking, cycling and public transport, access to the rural settlements that surround Great Yarmouth is more challenging by sustainable modes. As such the Transport Strategy include a range of strategic and local highway improvement schemes.
- 6.2.2. No one single mode or option can address the transport issues in Great Yarmouth. As such a package of measures are required including strategic and local car and non-car based options, that enhance:
- Local Highway Network capacity;
 - Strategic Highway Network capacity
 - The bus services and bus stops;
 - Rail services and Great Yarmouth Railway Station;
 - Walking infrastructure;
 - Cycling infrastructure;
 - Parking provisions and management; and
 - Smarter Choices (e.g. Travel Plans).

6.3 GEOGRAPHIC SCALES

- 6.3.1. The short and medium-term infrastructure options have been categorised based on geographic scale:
- **Strategic:** These options relate to the core transport corridors and networks that connect Great Yarmouth (such as the A47, Wherry Line and National Cycling Routes).

- **Area Wide:** These options relate to transport schemes or initiatives proposed across the Transport Strategy study area (e.g. transport policies, bus stop improvements etc.).
- **Local:** These options address local transport issues and are considered to have a localised benefit (e.g. local junction capacity improvement scheme or localised pedestrian infrastructure improvement scheme).

6.4 ACTION PLAN

- 6.4.1. In order to realise the ambitious aims of this Transport Strategy and help deliver the infrastructure solutions identified, an outline Action Plan has been developed. This is intended to:
- Help identify initial actions to develop each option; and
 - Identify stakeholder engagement likely to be required.
- 6.4.2. The initial actions are intended to help steer the development any business case for the programme of work as a whole as well as individual projects within the programme, and to secure funding.
- 6.4.3. The initial actions and stakeholders likely to be involved are provided alongside the description of each option in Sections 6.6, 6.7 and 6.8.

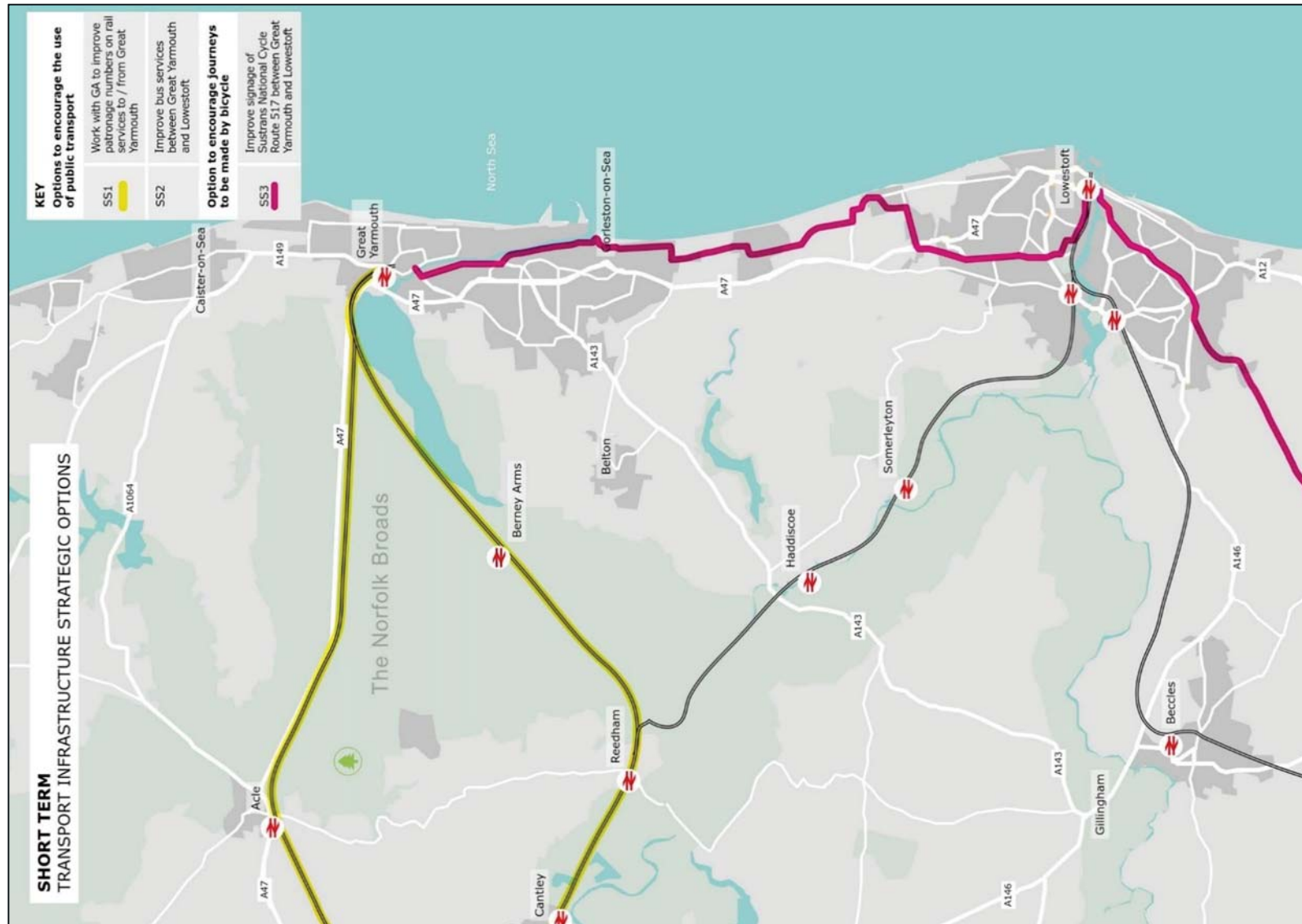
6.5 SHORT TERM (OPTIONS EXPECTED TO BE DELIVERED BY 2022)

STRATEGIC

Options to encourage the use of public transport						
Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
SS1	Work with Greater Anglia to improve patronage numbers on rail services to / from Great Yarmouth	Working with Greater Anglia, this option looks to improve patronage numbers on rail services to / from Great Yarmouth. Greater Anglia are committed to introducing new rolling stock in 2019 / 2020, which include greater WIFI connectivity, charging points and other passenger amenity measures. Other ways to improve patronage include advertising, service frequency, service reliability, rail schemes and greater ticketing options.	Encourage modal shift through improve public transport facilities	Require wider changes (frequency / reliability) to increase patronage. Measures taken require cost with no guaranteed result.	Engage with Greater Anglia and understand existing use of train services and measures that could increase patronage.	Greater Anglia Norfolk County Council Developers
SS2	Improve bus services between Great Yarmouth and Lowestoft	This option seeks to improve the public transport connectivity between Great Yarmouth Lowestoft. This could be achieved through the introduction of a new bus service, improved frequency of existing services, inclusion of more stops between the two coastal towns and improved experience for users (journey time reliability, on-board features).	Improve public transport strategic coastal connections. Encourage modal shift through improved public transport services.	Requires support of bus operators	Engage with bus operators to establish commercial viability. Identify future development that could support new services (through Section 106Developer contributions). Identify where new bus stop infrastructure may be required to support a new service.	Bus Operators Norfolk County Council Developers

Option to encourage journeys to be made by bicycle

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
SS3	Improve signage of Sustrans National Cycle Route 517 between Great Yarmouth and Lowestoft	This option considers the improvements to signage of the Sustrans National Cycle Route 517 between Great Yarmouth and Lowestoft. This would ensure that the cycle routes meet the highest design standards and offer the best experience to users.	<p>Promotes cycling.</p> <p>Helps users to identify the route.</p> <p>Improves accessibility of the bikeway system for all users.</p>	Route only go through part of Great Yarmouth	<p>Undertake detailed review of existing wayfinding provision.</p> <p>Establish wayfinding strategy for cyclists that is coherent across Great Yarmouth.</p> <p>Identify location for new wayfinding infrastructure.</p>	Norfolk County Council



AREA WIDE

Option to encourage the use of public transport

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
SA1	Bus stop improvements throughout the main urban area of Great Yarmouth, Gorleston-on-Sea and Caister-on-Sea	This option is to provide improvements to bus stops throughout the main urban area of Great Yarmouth, Gorleston-on-Sea and Caister-on-Sea. Improvements could include the introduction of real time passenger information (RTPI), new and improved bus shelters, new and improved waiting facilities and raised kerbs.	Encourage modal shift	No improvement to bus service frequencies or capacity of the public transport network	Engage with bus operators. Understand current situation regarding bus stops that have been recently improved, or are proposed to be improved.	Bus Operators Norfolk County Council Great Yarmouth Borough



*Left: Flag and pole bus stop cut into the Quayside on Southtown Road.
Right: Flag and pole bus stop on Admiralty Road.*

Option to better manage traffic on the local and strategic highway network

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
SA2	Develop and introduce a signage strategy to inform drivers of car parking availability, congestion and, when implemented, status of the Great Yarmouth Third River Crossing	Improvements to existing signing and provision of new signage to help drivers make more informed decisions (e.g. route choice, car park etc). This could include the introduction of Variable Message Signs (VMS) to warn drivers of congestion, accidents, roadwork zones, speed limits, car park availability and status of river crossings (including the Third River Crossing once constructed). A scheme is currently being developed as a part of the Great Yarmouth Third River Crossing scheme.	Help drivers make more informed decisions on their route choices / choice of car park Improve journey time reliability and reduced congestion, particularly when crossings are closed	Signage may be ignored, especially by drivers using Satnavs. Increase rat-running if drivers have knowledge of the local road network.	Understand signage strategy proposed as a part of the GYTRC. Work with GYTRC team to Develop signage strategy that could provide drivers with information on traffic and parking issues across Great Yarmouth.	Norfolk County Council

Options to encourage journeys to be made by bicycle

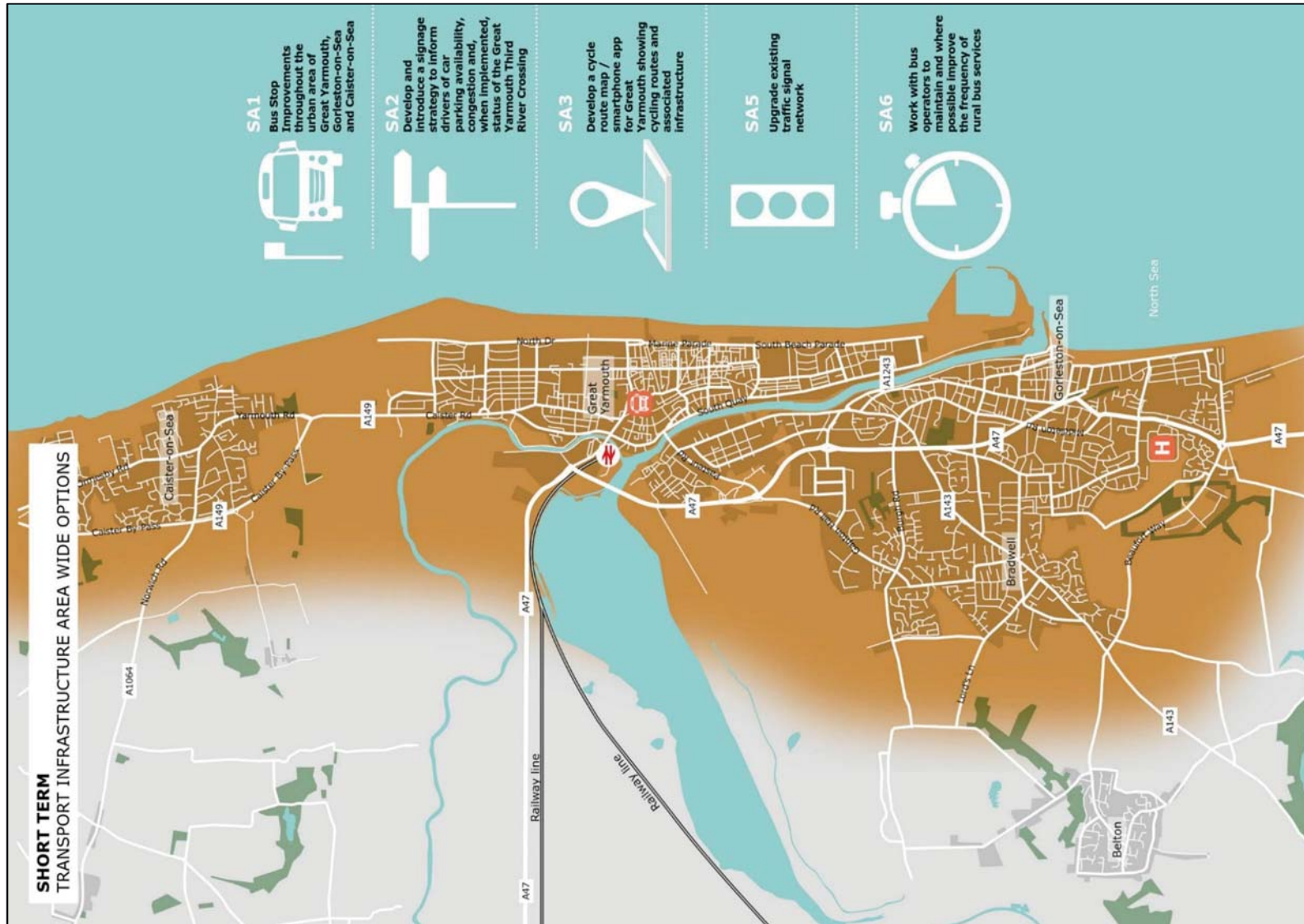
Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
SA3	Develop a cycle route map / smartphone app for Great Yarmouth showing cycling routes and associated infrastructure	The option looks at developing a cycle route map or smartphone app for Great Yarmouth to show users the standard of cycle infrastructure (e.g. shared use (segregated, advisory, on-road cycle lane and on-road). An app could be designed to calculate journey times, distance to local amenities and highlight the different types of cycle routes a user could follow.	Helps a user to plan their cycling routes more effectively. May make users aware of new routes. May reduce journey times if routes can be planned beforehand.	Would have to be updated regularly to include all route upgrades or changes.	Understand whether existing / similar apps are available and offer same functionality. Identify availability of data / additional data requirements. Engage with app developers / graphic designers to understand cost and feasibility of producing app / updated route map.	Norfolk County Council Great Yarmouth Borough Council Cycling Groups / Organisations

Option to reduce delay and traffic congestion on the local highway network

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
SA5	Upgrade existing traffic signal network within Great Yarmouth to coordinate signal times and phasing and improve the flow of traffic	This option involves upgrading and improving the traffic signal network within Great Yarmouth to coordinate signal times and phasing. Improvements could include introduction of Urban Traffic Control (UTC) to coordinate traffic signals across a network, or upgrading existing signal controllers to include MOVA.	<p>Improve connectivity and reliability on the network by improving junction efficiency and capacity.</p> <p>Improve access to goods and services through reduced journey times</p>	Provides junction capacity benefits only, no increase in physical capacity of links	<p>Develop design for an improvement scheme.</p> <p>Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models).</p>	Norfolk County Council

Option to encourage journeys by public transport

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
SA6	Work with bus operators to maintain and where possible improve the frequency of rural bus services that serve villages to the north west and south west of Great Yarmouth	Great Yarmouth has an extensive bus network, however away from residential areas in the rural villages surrounding the town, there is limited or no provision. This option looks to work with bus operators to maintain, and where possible, improve the frequency of rural bus services that connect Great Yarmouth with the villages to the north-west and south-west of the town.	Encourage modal shift through improve public transport facilities to rural locations	Dependent upon public transport operators	<p>Engage with bus operators to establish commercial viability of existing services.</p> <p>Identify future Development that could support existing / new services (through Section 106 Developer contributions).</p>	<p>Bus Operators</p> <p>Developers</p>



LOCAL

- 6.5.1. Following a review of the 2018 strategic modelling for the Great Yarmouth Third River Crossing a number of junctions have been identified as experiencing high levels of queuing and delay at peak periods. Whilst the intention of the options below is to address existing pinch points on the local highway network further work will need to be undertaken to determine the details of any highway intervention (including carrying out surveys and undertaking additional modelling).

Options to reduce delay and traffic congestion on the local highway network						
Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
SL2	Capacity improvement at A143 Beccles Road / Church Lane / Long Lane / Mill Lane signalised junction	The A143 Beccles Road / Church Lane / Long Lane / Mill Lane junction has been identified as a pinch point in the Great Yarmouth Third River Crossing transport modelling. Capacity improvements could include a review of the signalised junction arrangement including the phasing and timings, and the reallocation of carriageway space within the highway boundary to support the dominant movements.	<p>Improve journey time reliability.</p> <p>Increase junction capacity and improve efficiency.</p> <p>Improve facilities for non-motorised users.</p>	<p>Benefit limited to single junction.</p> <p>Potential to shift the problem to other junctions on the network.</p>	<p>Identify capacity improvement options.</p> <p>Develop high level option plans.</p> <p>Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models).</p>	Norfolk County Council
SL3	Capacity improvement at A143 Beccles Road / Crab Lane priority junction	The A143 Beccles Road / Crab Lane priority junction has been identified as a pinch point in the Great Yarmouth Third River Crossing transport modelling. Capacity improvements could include signalling the junction or replacing the existing priority arrangement with a small roundabout.	<p>Improve journey time reliability.</p> <p>Increase junction capacity and improve efficiency.</p> <p>Improve facilities for non-motorised users.</p>	<p>Benefit limited to single junction.</p> <p>Potential to shift the problem to other junctions on the network.</p>	Identify capacity improvement options.	Norfolk County Council

Options to reduce delay and traffic congestion on the local highway network

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
SL4	Capacity improvement at A143 Beccles Road / Shrublands Way / A147 slip road signalised junction	The A143 Beccles Road / Church Lane / Long Lane / Mill Lane junction has been identified as a pinch point in the Great Yarmouth Third River Crossing transport modelling. Capacity improvements could include a review of the signalised junction arrangement including the phasing and timings, and the reallocation of carriageway space within the highway boundary to support the dominant movements.	<p>Improve journey time reliability.</p> <p>Increase junction capacity and improve efficiency.</p> <p>Improve facilities for non-motorised users.</p>	<p>Benefit limited to single junction.</p> <p>Potential to shift the problem to other junctions on the network.</p>	<p>Identify capacity improvement options.</p> <p>Develop high level option plans.</p> <p>Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models).</p>	Norfolk County Council
SL5	Capacity improvement at A143 Beccles Road / William Adam's Way / Southtown Road signalised junction	The A143 Beccles Road / William Adam's Way / Southtown Road junction has been identified as a pinch point in the Great Yarmouth Third River Crossing transport modelling. Capacity improvements could include a review of the signalised junction arrangement including the phasing and timings, and the reallocation of carriageway space within the highway boundary to support the dominant movements. A scheme at this junction is incorporated within the Great Yarmouth Third River Crossing scheme.	<p>Improve journey time reliability.</p> <p>Increase junction capacity and improve efficiency.</p> <p>Improve facilities for non-motorised users.</p>	<p>Benefit limited to single junction.</p> <p>Potential to shift the problem to other junctions on the network.</p>	<p>Identify capacity improvement options.</p> <p>Develop high level option plans.</p> <p>Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models).</p>	Norfolk County Council
SL6	Capacity improvement at Fuller's Hill / Northgate street signalised junction	The Fuller's Hill / Northgate junction has been identified as a pinch point in the Great Yarmouth Third River Crossing transport modelling. Capacity improvements could include a review of the signalised junction arrangement including the phasing and timings, and the reallocation of carriageway space within the highway boundary to support the dominant movements. Any	<p>Improve journey time reliability.</p> <p>Increase junction capacity and improve efficiency.</p> <p>Improve facilities</p>	<p>Benefit limited to single junction.</p> <p>Potential to shift the problem to other junctions on the network.</p>	<p>Identify capacity improvement options.</p> <p>Develop high level option plans.</p> <p>Undertake option testing using existing transport models (e.g.</p>	Norfolk County Council

Options to reduce delay and traffic congestion on the local highway network

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
		scheme would tie in with the recent improvement works at this junction (Scheme SC13).	for non-motorised users.		using GYTRC Paramics & Saturn models).	
SL7	Capacity improvement at Gapton Hall Road / Hewett Road (Gapton Hall Industrial Estate) priority junction	The Gapton Hall Road / Hewett Road (Gapton Hall Industrial Estate) priority junction has been identified as a pinch point in the Great Yarmouth Third River Crossing transport modelling. Capacity improvements could include upgrading to a signalised crossing or replacing the existing priority arrangement with a small roundabout.	<p>Improve journey time reliability.</p> <p>Increase junction capacity and improve efficiency.</p> <p>Improve facilities for non-motorised users.</p>	<p>Benefit limited to single junction.</p> <p>Potential to shift the problem to other junctions on the network.</p>	<p>Identify capacity improvement options.</p> <p>Develop high level option plans.</p> <p>Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models).</p>	Norfolk County Council
SL9	Capacity improvement at Lawn Avenue / Tar Works Road / Caister Road junction	The Lawn Avenue / Tar Works Road / Caister Road junction has been identified as a pinch point in the Great Yarmouth Third River Crossing transport modelling. Capacity improvements could include a review of the signalised junction arrangement including the phasing and timings, and the reallocation of carriageway space within the highway boundary to support the dominant movements.	<p>Improve connectivity and reliability on the network by improving junction efficiency and capacity.</p>	<p>Limited impact to individual junction.</p> <p>Potential to shift the problem to elsewhere on the network.</p>	<p>Identify capacity improvement options.</p> <p>Develop high level option plans.</p> <p>Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models).</p>	Norfolk County Council

Options to reduce delay and traffic congestion on the local highway network

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
SL10	Capacity improvement at A47 Lowestoft Road / High Street / Church Lane / Baker Street signalised junction	The A47 Lowestoft Road / High Street / Church Lane / Baker Street junction has been identified as a pinch point in the Great Yarmouth Third River Crossing transport modelling. Capacity improvements could include a review of the signalised junction arrangement including the phasing and timings, and the reallocation of carriageway space within the highway boundary to support the dominant movements.	Improve connectivity and reliability on the network by improving junction efficiency and capacity	Limited impact to individual junction. Potential to shift the problem to elsewhere on the network.	Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models). Develop high level option plans. Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models).	Norfolk County Council
SL11	Highway works to improve operation of the Market Gates / Temple Road / South Market Road signalised junction	The Market Gates / Temple Road / South Market Road junction has been identified as a pinch point in the Great Yarmouth Third River Crossing transport modelling. It has been suggested that existing on-street bus stops and taxi ranking contribute to queuing and delays at this junction. The operation of this junction could be improved through a review of on-street bus stops and taxi ranks within the immediate locality of this junction and / or junction capacity improvements (e.g. a review of phasing and timings and / or reallocation of carriageway space within the highway boundary to support the dominant movements).	Improve connectivity and reliability on the network by improving junction efficiency and capacity.	Limited impact to individual junction. Potential to shift the problem to elsewhere on the network.	Identify capacity improvement options. Develop high level option plans. Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models).	Norfolk County Council

Options to reduce delay and traffic congestion on the local highway network

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
SL12	Capacity improvement at Priory Plain / St Nicholas Road / Temple Road signalised junction	The Priory Plain / St Nicholas Road / Temple Road junction has been identified as a pinch point in the Great Yarmouth Third River Crossing transport modelling. Capacity improvements could include a review of the signalised junction arrangement including the phasing and timings, and the reallocation of carriageway space within the highway boundary to support the dominant movements.	Improve connectivity and reliability on the network by improving junction efficiency and capacity.	Limited impact to individual junction. Potential to shift the problem to elsewhere on the network.	Identify capacity improvement options. Develop high level option plans. Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models).	Norfolk County Council
SL13	Provide 'OUT' movement from Lidl and B&M car parks onto A1243 Pasteur Road	This option explores providing an 'OUT' movement for vehicles from Lidl and B&M car parks onto the A1243 Pasteur Road. Currently vehicles can only enter the car parks from Pasteur Road (westbound) and Station Road, but only exit onto Station Road. To re-join the A1243 Pasteur Road users must travel through two signalised junctions. There is a pedestrian crossing along Pasteur Road outside the entrance to B&M, which could be incorporated into a signalised junction to allow vehicles to exit safely onto the A1243.	Reduced congestion onto Station Road. Improve accessibility of Lidl and B&M.	Land ownership issues. Reduced car parking. Potential for "rat running" through car park. Increase traffic congestion on A1243 Pasteur Road.	Develop design for an improvement scheme. Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models).	Norfolk County Council

Options to reduce delay and traffic congestion on the local highway network

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
SL23	Capacity improvement at Hall Quay / South Quay / Bridge Road signalised junction	The Hall Quay / South Quay / Bridge Road junction has been identified as a pinch point in the Great Yarmouth Third River Crossing transport modelling. Capacity improvements could include a review of the signalised junction arrangement including the phasing and timings, and the reallocation of carriageway space within the highway boundary to support the dominant movements.	<p>Improve journey time reliability.</p> <p>Increase junction capacity and improve efficiency.</p>	<p>Limited impact to individual junction.</p> <p>Potential to shift the problem to elsewhere on the network.</p>	<p>Identify improvement options.</p> <p>Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models, LinSig).</p>	Norfolk County Council

Options to encourage journeys by public transport

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
SL16	Improve public transport connectivity of South Denes peninsula / South Denes Enterprise Zone through introduction of new bus services / extension of existing services	This option seeks to improve the public transport connectivity between Great Yarmouth town centre and the South Denes peninsula and South Denes Enterprise Zone. This could be achieved through the introduction of a new bus service, or the extension of an existing service (for example Route 2, which currently connects Great Yarmouth Town Centre to the Barrack Estate).	<p>Encourage modal shift through improve public transport facilities.</p> <p>Improved connectivity of public transport hubs to key employment areas</p>	<p>Unlikely to be run as a commercial service.</p> <p>Likely need for services to be subsidised or externally supported.</p>	<p>Engage with bus operators to establish commercial viability.</p> <p>Identify future development that could support new services (through Section 106Developer contributions).</p> <p>Identify where new bus stop infrastructure may be required to support a new service.</p>	<p>Bus Operators</p> <p>Norfolk County Council</p> <p>Developers</p>

Options to encourage journeys by public transport

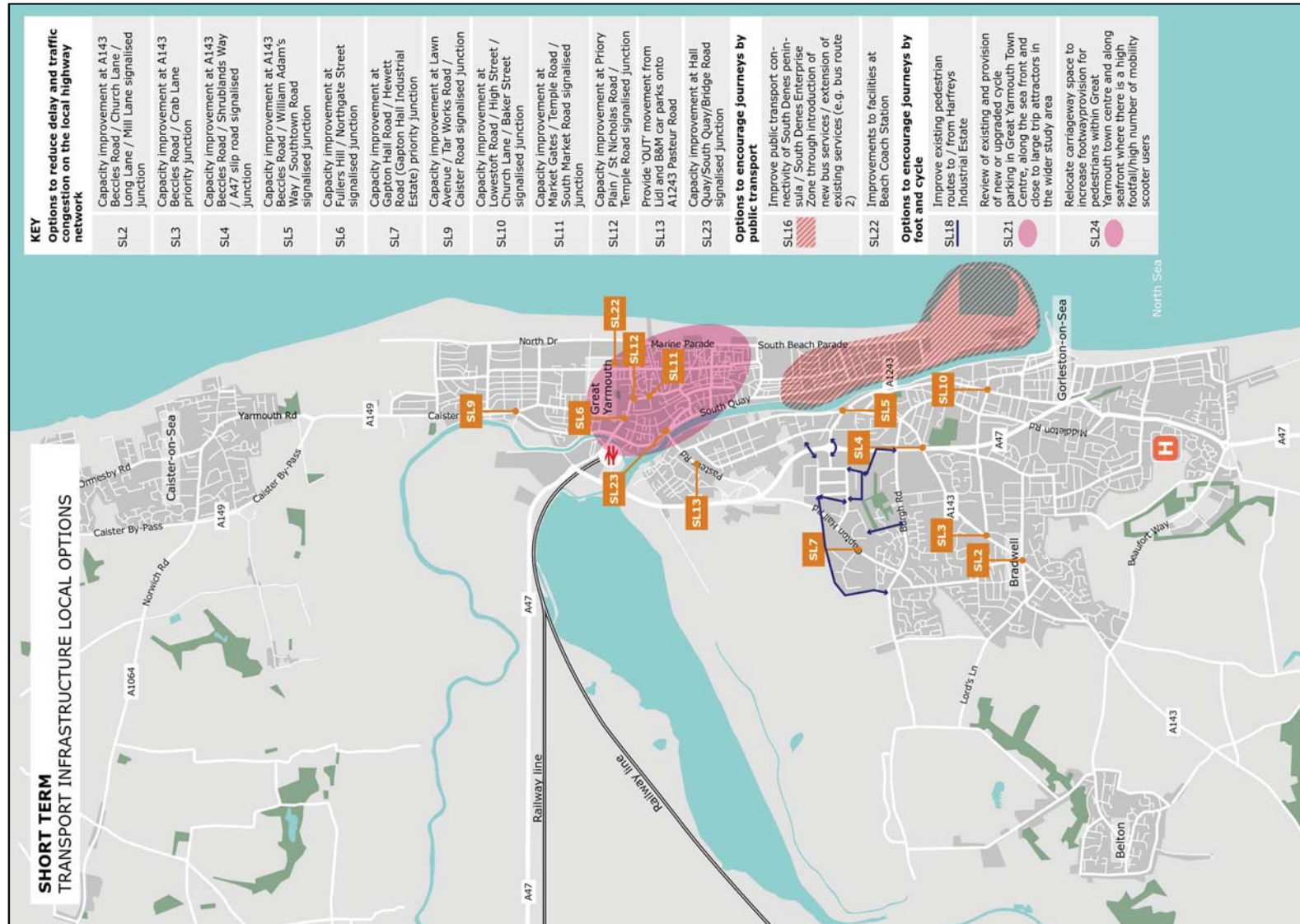
Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
SL22	Improvements to facilities at Beach Coach Station	Currently the coach park is on the outskirts of the town centre, so the purpose of this option is to provide improvements to the facilities at the Beach Coach Station. Improvements could include the introduction of real time passenger information (RTPI), new and improved bus shelters, new and improved waiting facilities, raised kerbs and improved drop off / pick up facilities.	Encourage more coach trips to Great Yarmouth. Encourage mode shift from car to coach.	Increase in coach services likely to be in summer months only.	Audit of existing coach station and NMU access	Norfolk County Council Great Yarmouth Borough Council Coach Operators



Informal pedestrian crossing facilities across the A47

Options to encourage journeys by foot and bicycle

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
SL18	Improve existing pedestrian routes to / from Harfreys Industrial Estate	This option considers improvements to the existing pedestrian route to / from Harfreys Industrial Estate. Improvements could be made to: the foot/ cycle bridge across A47; footpath between Harfreys Road and Burgh Road; and the footpath between Edison Way and Burgh Road (recently delivered). This scheme would help to improve accessibility for pedestrians because they include path widening, replacing styles of barriers, reviewing pedestrian crossing points and cutting back vegetation.	Improve access in and around Harfreys Industrial Estate. Safer walking routes.	Proposed pedestrian routes may not be seen as attractive. Routes may offer no / limited journey time benefit to workers of Harfreys Industrial Estate.	Survey existing pedestrian routes. Establish proposed upgrades (e.g. lighting, surfacing, signage etc.).	Norfolk County Council Great Yarmouth Borough Council
SL21	Review of existing and provision of new or upgraded cycle parking in Great Yarmouth Town Centre, along the seafront and close to large trip attractors in the wider Transport Strategy study area	This option explores assessing the current level of cycle parking and looks at adding new or upgraded parking in the town centre, along the sea front and close to large trip attractors. This would allow cyclists to leave their bikes in secure places and could encourage others to use their bikes more often.	Increase cycle capacity. Encourages use of bicycles, which could help to reduce the need for use a car to go about town.	Requires adequate road / cycleway infrastructure to support an increase in cycle numbers.	Undertake audit of existing cycle parking provision and survey its utilisation. Review survey results to understand need for additional cycle parking provision.	Operators of large trip attractors (e.g. Britannia Pier) Norfolk County Council Great Yarmouth Borough
SL24	Reallocate carriageway space to increase footway provision for pedestrians within Great Yarmouth Town Centre and along seafront where there is a high footfall / high number of mobility scooter users	This option explores a reallocation of carriageway space to increase footway provision for pedestrians within the town centre and along the seafront. These improvements would help to mitigate the high footfall / high number of mobility scooter users and improve safety in the area.	Improve safety and amenity for pedestrians. Encourage shorter journeys to be made on foot.	May result in reduction in carriageway space for other road users.	Identify non-pedestrianised links with high footfall. Develop design for an improvement scheme.	Norfolk County Council Great Yarmouth Borough Council Town Centre Businesses and Residents



6.6 MEDIUM TERM (OPTIONS EXPECTED TO BE DELIVERED BY 2030)

STRATEGIC

Options to reduce delay and congestion on the strategic road network						
Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
MS1	A47 Acle Straight Dualling	Upgrading the A47 Acle Straight to dual carriageway standard would increase capacity and create a continuous stretch of dual carriageway from Dereham to Great Yarmouth when combined with the other A47 Highways England schemes.	<p>Improve road user safety.</p> <p>Improve journey times and journey time reliability.</p> <p>Create continuous dual carriageway between Dereham and Great Yarmouth.</p>	<p>May create new pinch points on network in Great Yarmouth.</p> <p>Requires consultation and coordination with Highways England.</p>	<p>Engage with Highways England on work undertaken to date.</p> <p>Undertake corridor study exploring possible improvement options along the A47.</p> <p>Work with Highways England to have the scheme allocated in the next Road Investment Strategy.</p>	<p>Norfolk County Council</p> <p>Highways England</p>
MS2	Capacity improvements at A47 Harfreys Roundabout	The stretch of the A47 through northern Great Yarmouth experiences heavy congestion during peak times. Capacity improvements at the A47 Harfreys Roundabout could include signalisation, reallocation of lane space and widening within the highway boundary to support the dominant movements. The A47 Harfreys Roundabout will be one of the main accesses to the Third River Crossing from the west. A scheme at this junction is currently being investigated by Highways England, but is not currently committed.	<p>Increase junction capacity.</p> <p>Reduce traffic congestion.</p> <p>Improve journey time reliability.</p> <p>Improve road user safety.</p>	<p>Benefit restricted to single junction.</p> <p>Potential to shift the problem to other junctions on the network.</p>	<p>Identify improvement options.</p> <p>Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models, LinSig).</p>	<p>Norfolk County Council</p> <p>Highways England</p>

Options to reduce delay and congestion on the strategic road network

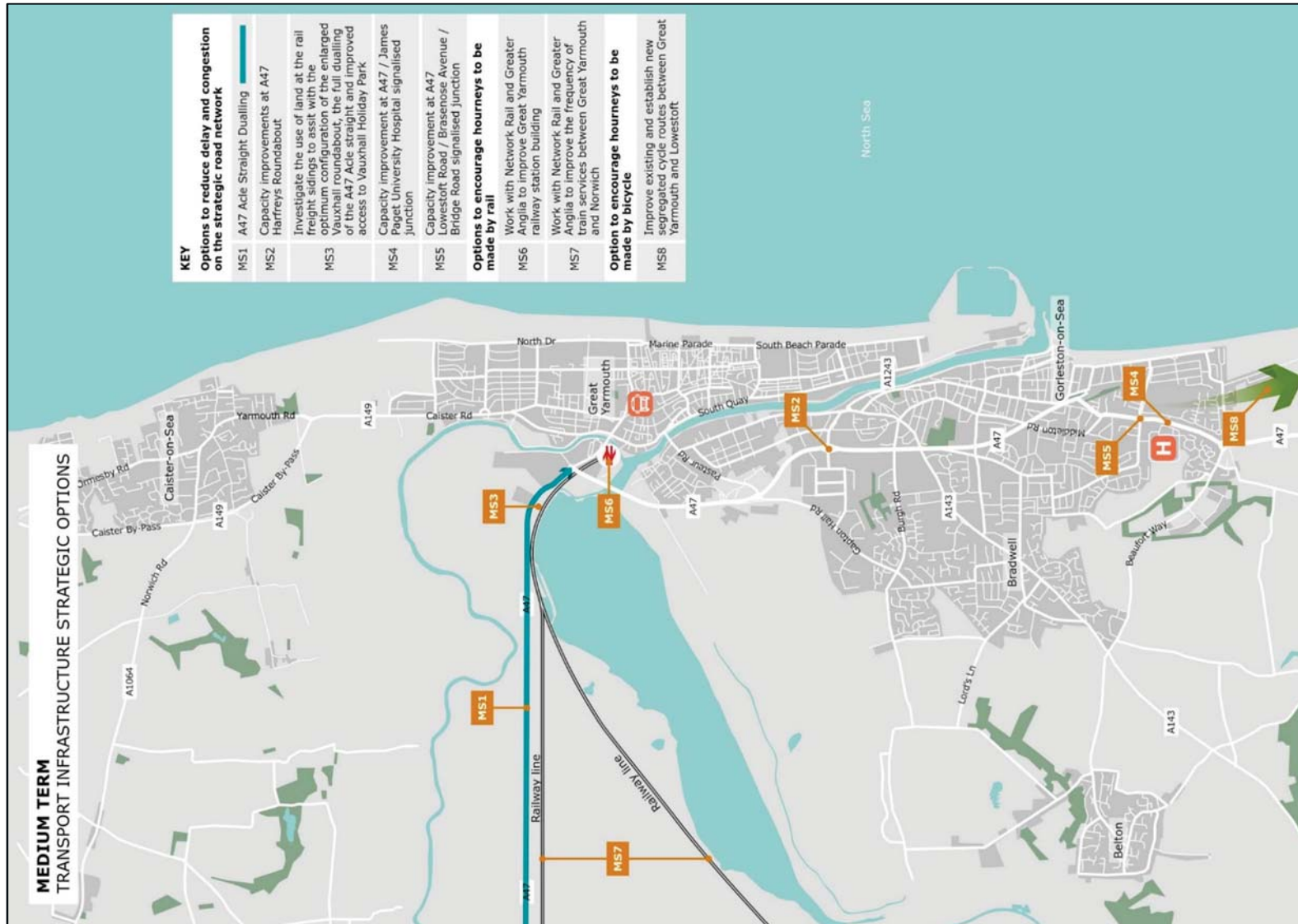
Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
MS3	Investigate the use of land at the rail freight sidings to assist with the optimum configuration of the enlarged Vauxhall Roundabout, the full dualling of the A47 Acle Straight and improved access to Vauxhall Holiday Park.	This option considers investigating the use of land at the rail freight sidings to assist with the optimum configuration of the enlarged Vauxhall Roundabout, the full dualling of the A47 Acle Straight and improved access to Vauxhall Holiday Park. Land-take will help with the re-alignment of the roundabout to improve access for pedestrians, cyclists and other road vehicles.	Improve access to Vauxhall Holiday Park. Potential to help reduce congestion on the A47 Acle Straight and at Vauxhall Roundabout.	Limit or prevent any future use of the rail sidings.	Engage with Highways England about the potential to incorporate the land into any future scheme for the A47 and Acle Straight.	Vauxhall Holiday Park Highways England Network Rail Norfolk County Council
MS4	Capacity improvements at A47 / James Paget University Hospital signalised junction	The A47 / James Paget University Hospital junction has been identified as a pinch point in the Great Yarmouth Third River Crossing transport modelling. Capacity improvements could include a review of the signalised junction arrangement including the phasing and timings and the reallocation of carriageway space within the highway boundary to support the dominant movements.	Capacity improvements at A47 / James Paget University Hospital signalised junction.	Capacity improvements at A47 / James Paget University Hospital signalised junction.	Identify improvement options. Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models, LinSig).	Norfolk County Council Highways England
MS5	Capacity improvements at A47 Lowestoft Road / Brasenose Avenue / Bridge Road signalised junction	The A47 Lowestoft Road / Brasenose Avenue / Bridge Road junction has been identified as a pinch point in the Great Yarmouth Third River Crossing transport modelling. Capacity improvements could include a review of the signalised junction arrangement including the phasing and timings and the reallocation of carriageway space within the highway boundary to support the dominant movements.	Increase junction capacity. Reduce traffic congestion. Improve journey time reliability. Improve road user safety.	Benefit restricted to single junction. Potential to shift the problem to other junctions on the network.	Identify improvement options. Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models, LinSig).	Norfolk County Council Highways England

Options to encourage journeys to be made by rail

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
MS6	Work with Network Rail and Greater Anglia to improve Great Yarmouth railway station building	Great Yarmouth Railway Station appears run down and gloomy, giving a poor impression of the town. It also seems remote and is often unmanned for long periods of time. Working with Network Rail and Greater Anglia, this option aims to improve the railway station building and create a sense of arrival to the town. This could include new mixed-use development of the railway station building, public realm improvements and greater presence of railway operator personnel.	Aesthetically pleasing gateway features create a sense of arrival into the town. Encourage modal shift through improve public transport facilities.	Does not provide any direct benefits to transport and different modes of transport.	Work with Great Anglia to establish range of possible short, medium and long-term improvement options for the railway station concourse.	Greater Anglia Norfolk County Council
MS7	Work with Network Rail and Greater Anglia to improve the frequency of train services between Great Yarmouth and Norwich	The current frequency of services between Norwich and Great Yarmouth is approximately one train per hour, with a journey time of 30-35 minutes. Working with Network Rail and Greater Anglia, this option looks to improve the frequency of services between Norwich and Great Yarmouth, subsequently improving connectivity to Norfolk and further afield.	Improved safety in the Transport Strategy study area. Improved connections between Great Yarmouth and Lowestoft.	Only possible if there is enough space, or where it's possible to close one motor vehicle lane. Does not improve connections outside of Great Yarmouth, other than Lowestoft.	Engage with Great Anglia and Network Rail. Seek to understand existing barriers to introduction of more frequent service. Work with Great Anglia and Network Rail to identify ways that rail services between Great Yarmouth and Norwich could be increased.	Greater Anglia Norfolk County Council Great Yarmouth Borough Council

Option to encourage journeys to be made by bicycle

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
MS8	Improve existing and establish new segregated cycle routes between Great Yarmouth and Lowestoft	This option considers improving existing cycle routes around Great Yarmouth and the potential to establish new routes between Great Yarmouth and Lowestoft. Segregated cycle lanes help to allocate space on roads for cycle use only and this could encourage people to switch from using their personal vehicle.	Improved safety in the Transport Strategy study area. Improved connections between Great Yarmouth and Lowestoft.	Only possible if there is enough space, or where it's possible to close one motor vehicle lane. Does not improve connections outside of Great Yarmouth, other than Lowestoft.	Identify shortlist of route options. Understand existing land ownership (including highway boundary extent). Develop design for an improvement scheme based on option proformas.	Norfolk County Council Great Yarmouth Borough Council



AREA WIDE

Options to encourage journeys to be made by foot and bicycle						
Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
MA1	New signed strategic cycle route between Great Yarmouth Town Centre and Gorleston-on-Sea that utilise Great Yarmouth Third River Crossing	This option explores the addition of a new strategic cycle link between Great Yarmouth Town Centre and Gorleston-on-Sea. This route would utilise the new Great Yarmouth Third River Crossing and provide a new route around the town that currently lacks cycle access. This option would also tie-into several existing routes (cycle route 2 to the east of the River Yare and Sustrans Route 517, cycle route 5 and cycle route 6 or existing neighbourhood links along the A143) to make sure that the cycle routes are well connected. Norfolk County Council is currently investigating a possible cycle route scheme on both sides of the River Yare, however this is not a committed scheme.	Cycling in the area becomes more connected and easier to navigate around town. Encourage use of a sustainable method of transport.	Relies on the completion of the GYTRC, any time delays will impact on the when the cycle route can be used.	Work with GYTRC team to ensure proposed layout connects with existing cycle network. Work with GYTRC to introduce cycle route signage at and on approach to the crossing.	Norfolk County Council Great Yarmouth Borough Council
MA3	Work with dock less cycle operators to introduce a cycle hire scheme in Great Yarmouth	This option explores using dock-less cycle operators to add a cycle hire scheme to Great Yarmouth, similar to Mobike Norwich. Typically cycle hire schemes require an app to be downloaded onto a smartphone and subscription set up using a credit card. Using an app helps the user to locate a bicycle.	Availability of bicycles encourages use for shorter journeys. Does not require bicycle ownership. Does not require formal cycle parking facilities (e.g. Sheffield Standard).	Parked bicycles could block footways. Commercial viability.	Monitor dockless cycle hire schemes in other towns and cities in the UK. Hold discussions with dockless cycle operators. Explore infrastructure requirements to facilitate dockless hire cycle operators.	Dockless Cycle Hire Operators Norfolk County Council Great Yarmouth Borough Council

Options to encourage journeys to be made by foot and bicycle

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
MA5	Investigate accessibility improvements throughout Great Yarmouth for vulnerable pedestrians.	This option is accessibility improvements throughout Great Yarmouth to improve accessibility for vulnerable users. Improvements could include new formalised crossings, improved street lighting, tactile paving and dropped curbs.	<p>Improves connectivity for vulnerable users.</p> <p>Encourage shorter journeys to be undertaken on foot.</p> <p>Help vulnerable users feel safer and more confident travelling in Great Yarmouth.</p>	May only be small pinch point improvement schemes and may not be able to provide any significant improvement in accessibility.	<p>Hold discussions with local action groups to identify existing issues and opportunities.</p> <p>Undertake audit of the current accessibility of the urban environment to vulnerable users.</p>	<p>Great Yarmouth Borough Council</p> <p>Norfolk County Council</p> <p>Local action groups representing vulnerable users</p>
MA6	Improve sustainable transport connectivity of Holiday Parks in Great Yarmouth.	This option is improvements to the sustainable transport connectivity of Holiday Parks in Great Yarmouth (Haven Seashore Holiday Park, Vauxhall Holiday Park and Cherry Tree Holiday Park). Improvements could include new / upgraded walking and cycling routes and provision for shuttle bus services during the summer months.	<p>Improve safety for residents, visitors and workers travelling to Great Yarmouth's Holiday Parks by active modes of transport.</p> <p>Encourage shorter journeys to be undertaken by non-car modes of transport.</p>	Funding / commercial viability of shuttle bus service.	<p>Hold discussions with representatives of the Great Yarmouth Holiday Parks to understand existing travel patterns of residents, visitors and workers.</p> <p>Undertake audit of existing pedestrian and cycle routes to / from Great Yarmouth Holiday Parks.</p> <p>Develop improvement schemes / new pedestrian and cycle routes.</p>	<p>Great Yarmouth Borough Council</p> <p>Norfolk County Council</p> <p>Great Yarmouth Holiday Parks</p>

Option to encourage travel by smarter choices

Ref	Option	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
MA2	Support and encourage non-residential developments to produce a travel plan	This option explores using a travel plan (e.g. workplace or school travel plan), that aims to encourage behaviour change which will lead to the use of more sustainable modes of travel. Where practical and feasible this should include a commitment to providing facilities for cyclists (e.g. changing areas, showers etc.), increasing walking, encouraging use of public transport and providing information on liftshare opportunities.	<p>Reducing peak time congestion.</p> <p>Reducing harmful transport emissions and energy use.</p> <p>Improving accessibility.</p> <p>Reduced cost of travel.</p>	<p>A reduction in car travel may not be possible for all people, such as a salesperson.</p> <p>The developments may not have the appropriate infrastructure to support a modal shift.</p>	<p>Review existing delivery of Travel Planning in the Transport Strategy Study Area.</p> <p>Look to understand proportion of non-residential Development that currently have a Travel Plan.</p> <p>Review success of existing Travel Plans.</p> <p>Identify particular areas / type of businesses to target as a part of a pilot study.</p> <p>Develop strategy (including marketing materials, presentations, guidance documents and templates) to help non-residential Developments produced their own Travel Plan.</p>	<p>Norfolk County Council</p> <p>Great Yarmouth Borough Council</p>

Option to better manage parking

Ref	Option	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
MA4	Develop a parking strategy for Great Yarmouth. This should include a review of visitor / residential demand and a review and re-assessment of on-street parking in the Controlled Parking Enforcement (CPE) area, particularly the use of residential permit zones in order to protect the quality of life of residents.	This option explores how Great Yarmouth Borough Council would develop a parking strategy to assess visitor / residential demand in the town, to ensure that there are adequate spaces for all. There will then be a review of the controlled on-street parking – which could include the decision to limit the amount of spaces and open up the public realm.	<p>Help better manage car parking during peak periods (summer months).</p> <p>Help ensure availability of car parking for residents of Great Yarmouth.</p>	<p>Potential for new car parking charges to be introduced.</p> <p>Potential for removal of uncontrolled on-street parking in central locations.</p>	<p>Car Parking Utilisation Survey during summer months</p> <p>Survey of existing residents to understand issues / receptibility to introduction of permits</p>	<p>Norfolk County Council</p> <p>Great Yarmouth Borough Council</p>



LOCAL

Option to reduce delay and congestion on the local highway network						
Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
ML1	New link road between Thamesfield Way and Suffolk Road	This option looks to provide a new link road between Thamesfield Way and Suffolk Road to provide an additional access into the Southtown area and to relieve Southtown Road of congestion.	<p>Relieve congestion on Southtown Road and Pasteur Road.</p> <p>Provide an additional access into the Southtown area.</p>	<p>Land will need to be acquired in order to build the scheme.</p> <p>May lead to “rat running” by non-local traffic.</p>	<p>Establish land ownership.</p> <p>Develop option.</p> <p>Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models).</p>	<p>Local land owners, residents and businesses</p> <p>Norfolk County Council</p>

Options to encourage journeys by foot and bicycle

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
ML2	Package of Cycle Improvements along A143 Beccles Road	<p>This option is the delivery of a range of cycle infrastructure improvements along the A143 Beccles Road, including:</p> <p>Widening the existing shared-use route on the A143 Beccles Road between Burnet Road and New Road. This could lead onto the opportunity for a new segregated route;</p> <p>Adding a new cycle route along the A143 Beccles Road between Primrose Way and Beccles Road / Burgh Road Roundabout. Cycle crossing facilities could also be considered to make the route much more accessible and quicker for users;</p> <p>Developing the existing neighbourhood cycle routes between Bussey's Loke and Crab Lane to improve the east-west cycle connectivity (scheme currently being progressed by Norfolk County Council); and</p> <p>Exploring how the existing neighbourhood cycle route between Burnet Road and Sun Lane can be used to improve east-west cycle connectivity. The developments would include improvements to crossing facilities for cyclists at A143 / Sun Lane priority junction.</p>	<p>Create safer environment for cyclists.</p> <p>Encourage mode shift.</p>	May lead to reduction in road space for other road users.	Develop design for an improvement scheme based on option proformas.	Norfolk County Council

Options to encourage journeys by foot and bicycle

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
ML3	Package of Cycle Infrastructure Improvements in Gorleston-on-Sea	<p>This option is the delivery of a range of cycle infrastructure improvements in Gorleston-on-Sea, including:</p> <p>Adding new or improving crossing facilities for pedestrians and cyclists along the A47 Lowestoft Road. Safer crossings could be added at major junctions to make it easier to cross the road; and</p> <p>Consideration of a new north-south cycle route along the B1370. A scheme could build upon the existing cycle route along Lowestoft Road.</p>	<p>Create safer environment for cyclists.</p> <p>Encourage mode shift.</p>	May lead to reduction in road space for other road users	Develop design for an improvement scheme based on option proformas.	Norfolk County Council

Options to encourage journeys by foot and bicycle

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
ML4	Package of Cycle Infrastructure Improvements in Great Yarmouth Town Centre	<p>This option is a range of cycle infrastructure improvements in Great Yarmouth Town Centre, including:</p> <p>Consideration of a new cycle route between The Conge and Regent Street to improve north-south connectivity. Initial improvements have been made to the Conge and it has been noted that there is a missing link between The Conge and The Minster. Cycle links between The Conge and the town centre could be improved either along Hall Quay and Georges Street, along Howard Street South or a north-south link across the edge of the Market Place from King Street to The Conge;</p> <p>Exploration of a new north-south cycle route between Fuller's Hill roundabout, The Conge and The Minster. The improvements to the roundabout would allow users to cross safely and could build upon the existing pathway around the roundabout; and</p> <p>Consideration of a new east-west cycle route between the town centre, Hall Quay and the Seafront. A contraflow cycle lane exists along most of the Transport Strategy study area, however there are some sections that could be improved. These improvements could be made to: junctions of King Street (both with Regent Road and with Regent Street), pedestrian crossings and eastern and western tie-in points to the network.</p> <p>All of these links are currently being investigated by Norfolk County Council, however none of these are committed schemes.</p>	<p>Create safer environment for cyclists.</p> <p>Encourage mode shift.</p>	May lead to reduction in road space for other road users	Develop design for an improvement scheme based on option proformas.	Norfolk County Council

Options to encourage journeys by foot and bicycle

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
ML5	Improve east west pedestrian and cycle connectivity between Vauxhall Holiday Park, residential areas to the west of the River Yare and Fullers Hill Roundabout	This option considers cycle improvements and bus stop locations along the New Acle Road, as well as cycle tie-in points on the eastern side of the bridge to Fuller's Hill roundabout and Tar Works Road. Improvements to these areas would encourage modal shift for users that visit the Vauxhall Holiday Park. Part of this scheme is currently being delivered between Vauxhall Roundabout and Acle New Road Bridge. The section at Vauxhall Roundabout will need to be delivered by Highways England and is not currently a committed scheme.	Create safer environment for cyclists. Encourage mode shift.	May lead to reduction in road space for other road users	Develop design for an improvement scheme based on option proformas.	Norfolk County Council
ML6	Improve facilities for pedestrians and cyclists between Caister-on-Sea and Great Yarmouth Town Centre	This option considers improvements to facilities for pedestrians and cyclists between Caister-on-Sea and Great Yarmouth Town Centre. These improvements would allow for improved accessibility and improved journey times for users. There are currently shared use and segregated access for cyclists and pedestrians into Caister-on-Sea, but these could be improved so that the cycle lanes are segregated from the main road more frequently. A number of possible improvements are being investigated by Norfolk County Council, however none of these are committed schemes.	Create safer environment for cyclists. Encourage mode shift.	May lead to reduction in road space for other road users	Develop design for an improvement scheme based on option proformas.	Norfolk County Council
ML7	New on-road cycle facilities along South Quay / Southgates Road, to tie-up with Great Yarmouth Third River Crossing	This option considers measures to add new on-road cycle facilities along the South Denes Peninsula. The new measures would link up with the Great Yarmouth Third River Crossing, so that there is cycle access across the town. The on-road cycle facilities can include; cycle lanes, controlled crossings, advisory routes and traffic calming etc. A number of possible improvements are being investigated by Norfolk County Council, however none of these are committed schemes.	Create safer environment for cyclists. Encourage mode shift.	May lead to reduction in road space for other road users	Develop design for an improvement scheme based on option proformas.	Norfolk County Council

Options to encourage journeys by foot and bicycle

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
ML8	Package of Cycle Infrastructure Improvements in North Quay	<p>This option is a range of cycle infrastructure improvements in the North Quay area, including:</p> <p>Improvements to the east-west cycling connectivity between Lawn Avenue and North Drive. Salisbury Road could provide a connecting route, but due to cars parking on both sides of the road, it may be difficult to fit in a cycle lane. Barnard Avenue (with a link to the A149 Caister Road) could provide a suitable platform, but the current road will need to be reduced to fit in the cycle lanes; and</p> <p>Improvements to the east-west route along Fuller's Hill and St Nicholas Road for use by pedestrians and cyclists. Existing highway boundary could be used to accommodate a new cycle lane and make it safer to cross the busy junctions.</p>	<p>Create safer environment for cyclists.</p> <p>Encourage mode shift.</p>	May lead to reduction in road space for other road users	Develop design for an improvement scheme based on option proformas.	Norfolk County Council

Options to encourage journeys by foot and bicycle

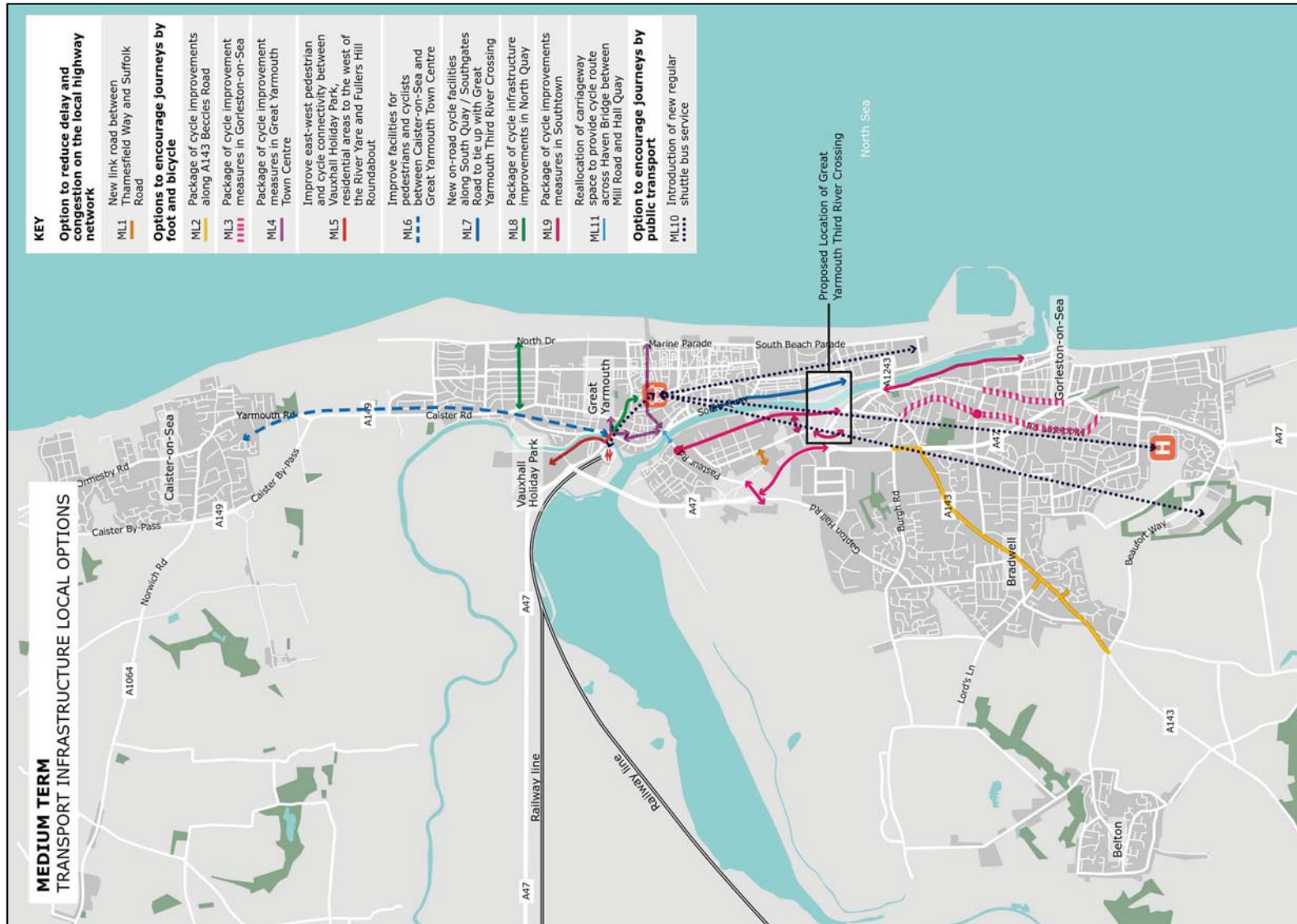
Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
ML9	Package of Cycle Infrastructure Improvements in Southtown	<p>This option is a range of cycle infrastructure improvements in the Southtown area, including:</p> <p>Exploring improving cycle route and crossing facilities along Southtown Road. Particularly between the signalised and priority junctions;</p> <p>Exploring the measures that could be employed to improve cycling connectivity between Suffolk Road and Southtown Road. Improvements could involve adding dedicated cycle lanes on the road or on the pedestrian walkway.</p> <p>Consideration of the opportunities to improve cycling connectivity across William Adam's Way;</p> <p>Provision of a cycle bridge at Gapton Hall roundabout or a segregated cycleway running alongside the A47 that connects with the overbridge north of Harfreys Roundabout;</p> <p>Improvements to the 1.5km route along Riverside Road for cyclists between Pier Walk and Williamson's Lookout (this has recently been delivered).</p> <p>Improvements to the pedestrian and cycling crossings at the B1370 / Church Lane roundabout. There are currently three uncontrolled crossings outside of East Norfolk Sixth Form College, however, due to how busy this road is, especially when the college opens and closes, a controlled crossing may be more beneficial.</p> <p>All of these improvements are currently being investigated by Norfolk County Council, however none of these are committed schemes.</p>	<p>Create safer environment for cyclists.</p> <p>Encourage mode shift.</p>	May lead to reduction in road space for other road users	Develop design for an improvement scheme based on option proformas.	Norfolk County Council

Options to encourage journeys by foot and bicycle

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
ML11	Reallocation of carriageway space to provide cycle route across Haven Bridge between Mill Road and Hall Quay.	This option considers the reallocation of carriageway space to provide for cycle route access across Haven Bridge between Mill Road and Hall Quay. This would allow for faster journeys for cyclists and safer journeys if the cycle route is segregated. This option would be implemented after the construction of the GYTRC and the traffic impacts of the scheme are known.	Create safer environment for cyclists. Encourage mode shift.	May lead to reduction in road space for other road users. Potential to increase congestion on approach to Haven Bridge.	Develop design for an improvement scheme based on option proformas.	Norfolk County Council Great Yarmouth Borough Council

Option to encourage journeys by public transport

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
ML10	Introduction of new regular shuttle bus service	This option looks to introduce a new shuttle bus service at regular intervals between Great Yarmouth railway station and Great Yarmouth town centre with a possibility to extend the shuttle bus service to include key employment sites to the south of Great Yarmouth including: James Paget University Hospital, Beacon Park Enterprise Zone and South Denes Enterprise Zone.	Increase capacity of public transport network. Provide new direct public transport connection between rail station and major employment sites.	Unlikely to be run as a commercial service. Likely need for services to be subsidised or externally supported	Engage with bus operators to establish commercial viability. Identify future Development that could support new services (through Section 106Developer contributions). Identify where new bus stop infrastructure may be required to support a new service.	Bus Operators Norfolk County Council Great Yarmouth Borough Council



6.7 LONG TERM (OPTIONS EXPECTED TO BE DELIVERED AFTER 2030)

STRATEGIC

Options to encourage journeys by bicycle

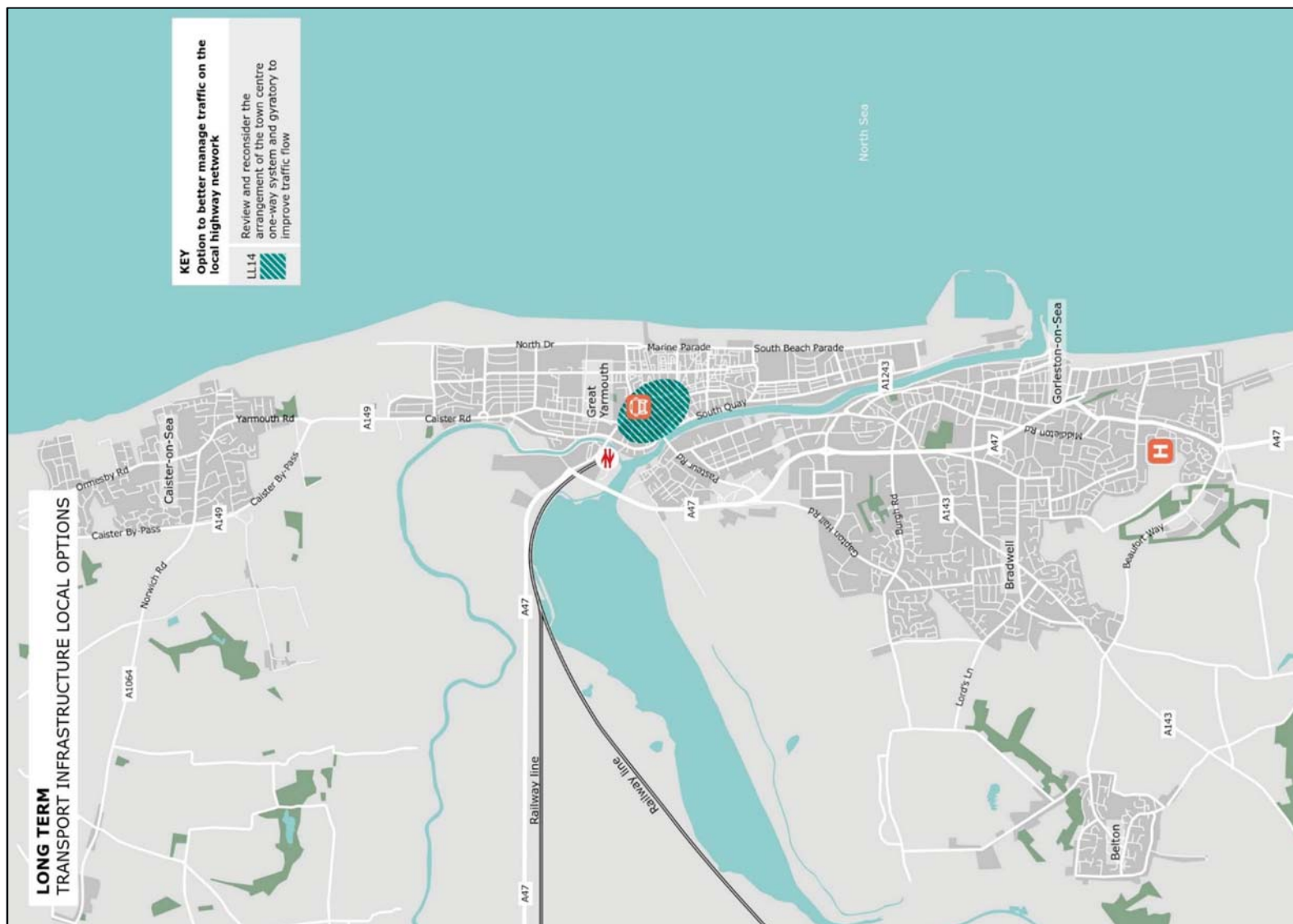
Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
LS1	Comprehensively join up and fill in the gaps in Great Yarmouth's cycling network to create a coherent network that allows uninterrupted journeys across the town by bicycle	This option is to comprehensively join up and fill in the gaps on Great Yarmouth's cycling network. This would allow the town to create a coherent network that enables uninterrupted journeys by bicycle. Norfolk County Council are currently investigating / working on a number of schemes in Great Yarmouth to help deliver this option.	Create safer environment for cyclists. Encourage mode shift.	May lead to reduction in road space for other road users	Identification of gaps in cycle network. Packaging of cycle schemes that address gaps in the network.	Norfolk County Council Great Yarmouth Borough Council

LOCAL

Option to better manage traffic on the local highway network

Ref	Summary	Description	Benefits	Dis-Benefits	Initial Actions	Stakeholders
LL14	Review and reconsider the arrangement of the town centre one-way system and gyratory to improve traffic flow	This option looks to review and reconsider the arrangement of the one-way system and gyratory in order to improve traffic flow throughout the town centre. This could include generic directional traffic management schemes such as changing two-way sections of road altered to one-way only sections and vice versa. This could be achieved through the reallocation of the carriageway within the highway boundary and could accommodate provision for other modes of transport.	Improve traffic flow by reconsidering the one-way system and gyratory. Improve connectivity and reliability on the network by improving efficiency and capacity.	Increase rat-running if drivers have knowledge of the local road network. Shifting traffic onto other areas of the local road network.	Identify improvement options. Undertake option testing using existing transport models (e.g. using GYTRC Paramics & Saturn models).	Norfolk County Council Great Yarmouth Borough Council Town Centre Residents, & Businesses





7 NEXT STEPS

7.1 OVERVIEW

- 7.1.1. This Transport Strategy has identified a short-list of about 50 non-committed transport infrastructure options to address the transport challenges and opportunities in Great Yarmouth and support the overarching vision and objectives.
- 7.1.2. Most of these options are at a very early stage of development and very high level, although a few are actively being developed by Norfolk County Council. The options identified in this Transport Strategy are intended to steer the development of more detailed options at a variety of spatial scales.
- 7.1.3. This section sets out the work required to progress the options presented in this Transport Strategy further.

7.2 COLLABORATIVE ACTION

- 7.2.1. One of the first actions will be to broaden the dialogue and engagement with local and strategic partners. A Great Yarmouth Working group should be established to help guide the development and delivery of options and include a range of Stakeholders. This should include:
 - Great Yarmouth Borough Council
 - Norfolk County Council
 - Highways England
 - New Anglia Local Enterprise Partnership
 - Network Rail
 - Greater Anglia

- 7.2.2. The level of collaboration required will depend on the scale of the options being progressed. Local options are likely to be developed by Norfolk County Council and Great Yarmouth Borough Council. Whereas strategic road or rail options, such as the dualling of the A47 Acle Straight will require greater collaboration with Highways England, Network Rail and Greater Anglia.

- 7.2.3. The priority of the working group meetings will be to establish the delivery priority of options, progress the development of options and identify possible funding options.

7.3 POLICY INTEGRATION

- 7.3.1. In order for the Great Yarmouth Transport Strategy to be successful, local and regional economic, transport and land use policies will need to be integrated and aligned.
- 7.3.2. Ensuring that policies support future developments in the Transport Strategy study area, be they in urban or rural settings, and deliver strong transport links is an imperative for sustainable economic growth in Great Yarmouth.

7.4 EVIDENCE BASE

- 7.4.1. To deliver as many of the options in the Transport Strategy as possible, a number of options will require a more detailed evidence base.
- 7.4.2. The strategic and microsimulation models produced for the Great Yarmouth Third River Crossing provide a robust tool for assessing the impact of highway interventions in Great Yarmouth, but this has a number of limitations:

- The microsimulation model is focused around the Great Yarmouth Third River Crossing and does not cover the entirety of the town; and
- The strategic model does not fully cover the route of the A47.

7.4.3. As such, new traffic surveys and new traffic models may need to be created to help develop a number of the local highway capacity improvement options.

7.5 SCHEME DEVELOPMENT

7.5.1. The Transport Strategy has presented a high-level list of short and medium-term options recommended for delivery by the end of the current local plan period (by 2030). However, before the options can be delivered, further work will be needed to develop the design and detail.

7.5.2. At this stage it is anticipated that this work will include:

- **Engagement with Stakeholders**, including:
 - New Anglia Local Enterprise Partnership
 - Norfolk County Council
 - Great Yarmouth Borough Council
 - Highways England
 - Network Rail
 - Great Anglia
 - Local bus operators
 - Local businesses
- **Ensure that the options align with Stakeholder's existing and emerging strategies**, including:

- Highways England's East of England Route Strategies;
- Norfolk County Council's Local Transport Plans;
- Great Yarmouth Borough Council's Local Plan; and
- Great Yarmouth Borough Council's Town Centre Masterplan.

- **Developing the design of the option** (e.g. identifying possible routes, alignments, layouts etc.).
- **Undertaking further feasibility assessments to ensure the option is deliverable.** This will be particularly important for strategic transport infrastructure schemes such as dualling the A47 Acle Straight.
- **Undertake a high-level costing exercise** to assist with identifying and securing option funding.
- **Option Assessment to understand the impact of the proposed option** (e.g. e.g. impact on other junctions, environmental impacts etc.).

Development of Highways Schemes

7.5.3. It is recommended that highway options are developed and assessed using Norfolk County Council's strategic and micro-simulation models of Great Yarmouth. These models cover large parts of Great Yarmouth and were developed to assess the traffic impacts of the Great Yarmouth Third River Crossing.

7.5.4. For Strategic Highway Schemes such as dualling the A47 Acle Straight, new traffic models may be required. This however should be established early on during stakeholder engagement with Highways England.

7.6 FUNDING

- 7.6.1. All the options identified in the Transport Strategy are currently un-funded. Critical to the delivery of the options in this Transport Strategy is the identification of possible funding sources.
- 7.6.2. There is the potential for options to be funded by both the public sector (Local Government and Central Government funding allocations and initiatives) and private sector (through other funding mechanisms and avenues).
- 7.6.3. Potential sources of funding include:
- **New Anglia Local Enterprise Partnership:** In 2017 the LEP was awarded £8.875 million from a Government Growth Deal to deliver a package of measures to improve public transport, walking and cycling links in Great Yarmouth.
 - **Highways England:** Funding allocation in their next Road Investment Strategy.
 - **Network Rail:** Funding allocation in their next Control Period.
 - **Central Government Funds:** Local Sustainable Transport Fund, National Productivity Investment Fund etc.
 - **Norfolk County Council**
 - **Great Yarmouth Borough Council**
 - **S106 Contributions / Planning Conditions**
 - **Private Operators:** (e.g. Greater Anglia, bus operators etc.).
 - **Social Enterprises:**

- 7.6.4. To identify and secure funding for the options outlined in this Transport Strategy it is recommended that relevant stakeholders are engaged early on during the scheme development.

7.7 BUSINESS CASE DEVELOPMENT

- 7.7.1. To access public funding streams and attract private funding business cases for the short and medium-term options will need to be developed.
- 7.7.2. This will build on the evidence base presented in the Stage 1 Issues and Opportunities Report and Stage 2 Options Appraisal Report.
- 7.7.3. It is expected that the business case will follow DfT guidance and set out the following:
- **A case for the scheme**, the strategic case
 - **The value for money**, the economic case
 - **Commercial viability**, the commercial case
 - **The financial affordability**, the financial case
 - **Achievability**, the management case
- 7.7.4. The decision-making process typically takes place in three phases:
1. Strategic Business Case
 2. Outline Business Case
 3. Full Business Case
- 7.7.5. After each stage is an investment decision point on whether to proceed to the next stage.

- 7.7.6. Critical to the business cases will be identifying funding sources including innovative funding streams across all modes.

7.8 CONTINUED REVIEW OF THE INTEGRATED TRANSPORT STRATEGY

- 7.8.1. The Transport Strategy has presented a package of high-level short and medium-term options for delivery at a strategic, area wide and local scale.
- 7.8.2. It is recognised that as options are developed and further studies are undertaken there is the potential for the scope, deliverability, funding options and delivery timescale of the options to change.
- 7.8.3. For this reason, the Transport Strategy will be a 'living plan' that will be regularly reviewed throughout the plan period as further studies are undertaken and as more detail on proposed option becomes available. This will include:
- Additional clarity and detail on the option proposals
 - Updates to the list of planned improvement schemes,
 - Updates to the delivery timescale, and
 - Updates to option funding sources



62-64 Hills Road
Cambridge
CB2 1LA

wsp.com