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Huntingdon and St Ives Transport Study

Options Appraisal Report

Cambridgeshire and Peterborough Combined Authority

15 September 2021

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1. Introduction

1.1. About the Study

Atkins has been commissioned by the Cambridgeshire and Peterborough Combined Authority (CPCA) to undertake the Huntingdon and St Ives Transport Study, including the development of a Strategic Outline Business Case (SOBC). This study follows on from previous work undertaken by Skanska on behalf of Cambridgeshire County Council (CCC).

The CPCA Local Transport Plan (2020)[1] recognises that the A141 is "*heavily congested*"[2] and there is a "*need for investment to help create faster, more reliable journeys for cars*" and identifies capacity issues as a threat to local growth as congestion increases journey times, reduces reliability and worsens air quality. Furthermore, Huntingdonshire Local Plan identifies the need for 20,100 new homes and 14,400 new jobs[3] in the period to 2036, which are to be located across four spatial planning areas, two of which are Huntingdon and St Ives. The CPCA Local Transport Plan states that future development is "*dependant on securing significant upgrades to the regions' highway and public transport infrastructure*"[4]. Furthermore, by positioning the levels of congestion and high levels of car ownership in Huntingdonshire against the UK Government's target of net-zero carbon emissions by 2050, it is evident that significant improvement in the sustainable transport offering in the area is required.

The study includes preparation of this document, an Options Appraisal Report (OAR), which outlines the methodology for generating and assessing options for intervention within the study area. This OAR should be read in conjunction with:

- A141 Existing Conditions Report[5];
- St Ives Existing Conditions Report[6];
- A141 Engagement Report[7]; and
- St Ives Engagement Report[8].

Prior to this point of the study the A141 Huntingdon Northern Bypass Study and the St Ives Transport Study were running concurrently but as separate studies. Given the close proximity of the study areas and the shared transport network, which means that changes in one area impact the performance of the network in the other, the two studies have been combined within this report and will continue as one study.

[1] Cambridgeshire and Peterborough Combined Authority (2020) *The Cambridge and Peterborough Local Transport Plan*
[2] Cambridgeshire and Peterborough Combined Authority (2020) *The Cambridge and Peterborough Local Transport Plan,* Page 109 Para 3.106
[3] Huntingdonshire District Council (2019) *Huntingdonshire's Local Plan to 2036,* Page 31
[4] Cambridgeshire and Peterborough Combined Authority (2020) *The Cambridge and Peterborough Local Transport Plan*, Page 106 Para 3.98
[5] Atkins (2021) *A141 Huntingdon Northern Bypass Existing Conditions Report*
[6] Atkins (2021) *St Ives Transport Study Existing Conditions Report*
[7] Atkins (2021) *A141 Huntingdon Northern Bypass Transport Study Pre-Consultation Engagement Analysis Report*
[8] Atkins (2021) *St Ives Transport Study Pre-Consultation Engagement Analysis Report*

1.1.1. Study Objectives

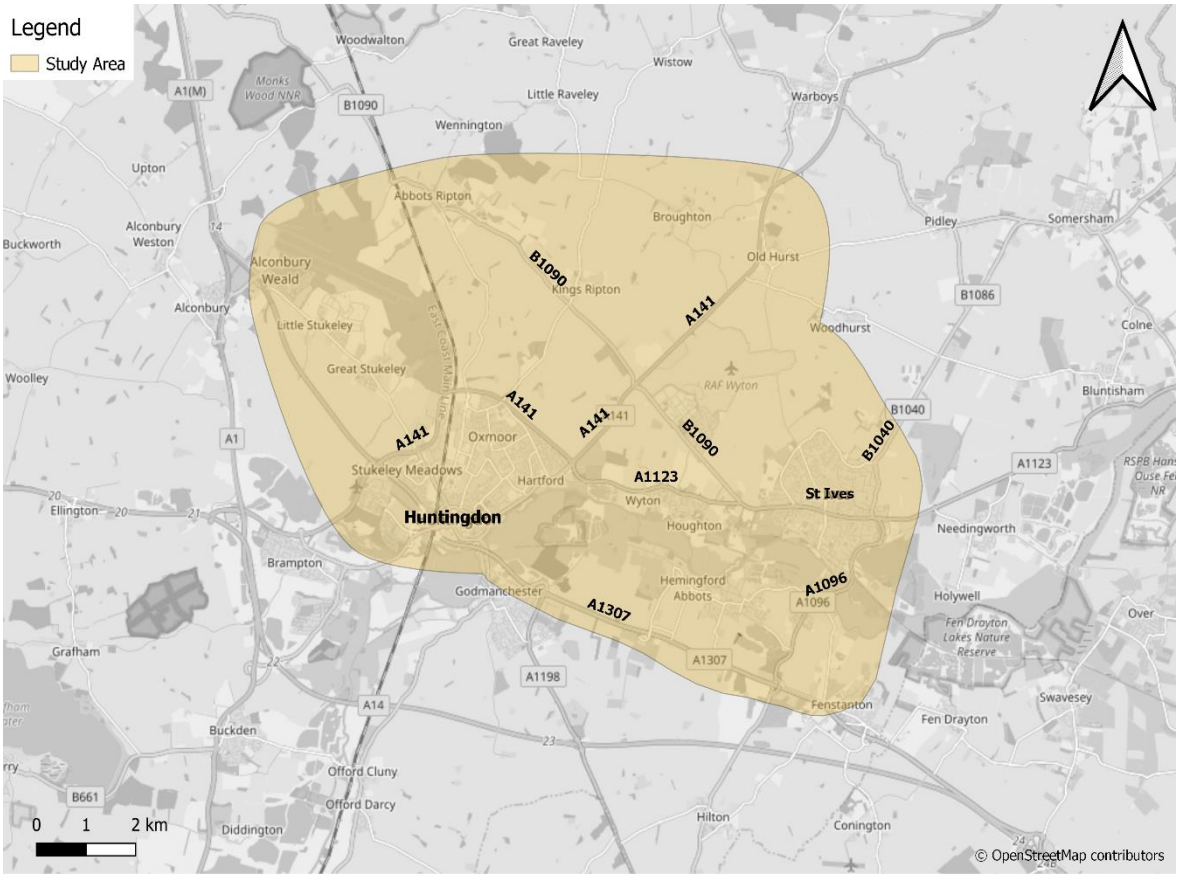
The study objectives set by CPCA are as follows:

1. Scheme Specific Outcomes
    a. Address current congestion and delay in the study area, thus reducing journey times and improving reliability, and relieving local routes affected by traffic re-routing from the A141 and A1096/A1123.
    b. Ensure sufficient transport capacity to accommodate transport demand in the study area from new growth sites in the region.
    c. Contribute to improving connectivity and quality for walking and cycling along and across the study area, by i) incorporating appropriate provision within the scheme and/or ii) enabling the existing A141 and St Ives transport network to better support these modes.
    d. Contribute to improving bus service routing, access and reliability across the corridor and through St Ives Town Centre.
    e. Ensure any future route of strategic public transport infrastructure is taken into consideration.
2. Wider Policy Goals
    a. Socio-economic outcomes:
        i. Provide conditions that encourage inward investment in higher-value employment sectors.
        ii. Improve access around Huntingdon, to/from the strategic road and rail networks, and to/from London.
        iii. Reduce spatial inequalities across Cambridgeshire, including by sharing and expanding the benefits of Greater Cambridge's success.
    b. Transport outcomes:
        i. Contribute to a coordinated package of investment in the area to increase capacity, reliability and speed for public transport, pedestrians, cyclists and equestrians.
        ii. Minimise the amount of rat-running.
        iii. Maintain traffic levels at or below 2018 levels.
        iv. Minimise vehicle mileage whilst providing for increased travel demand.
        v. Intercept or substitute car trips with alternative transport modes.
    c. Environmental outcomes:
        i. Contribute to the reduction of emissions to 'net-zero' by 2050, to minimise the impact of transport and travel on climate change.
3. Scheme Deliverability
        i. Engineering constraints and feasibility.
        ii. Acceptability to stakeholders.
        iii. Delivery timescales.
        iv. High level cost estimates.

1.2. Study Area

The study area was determined in coordination with CPCA and is shown in Figure 1-1. The study also takes account of schemes across a wider area where these could affect the selection of options for connections within the study area.

Figure 1-1 - Study Area



1.3. Impacts of Covid-19

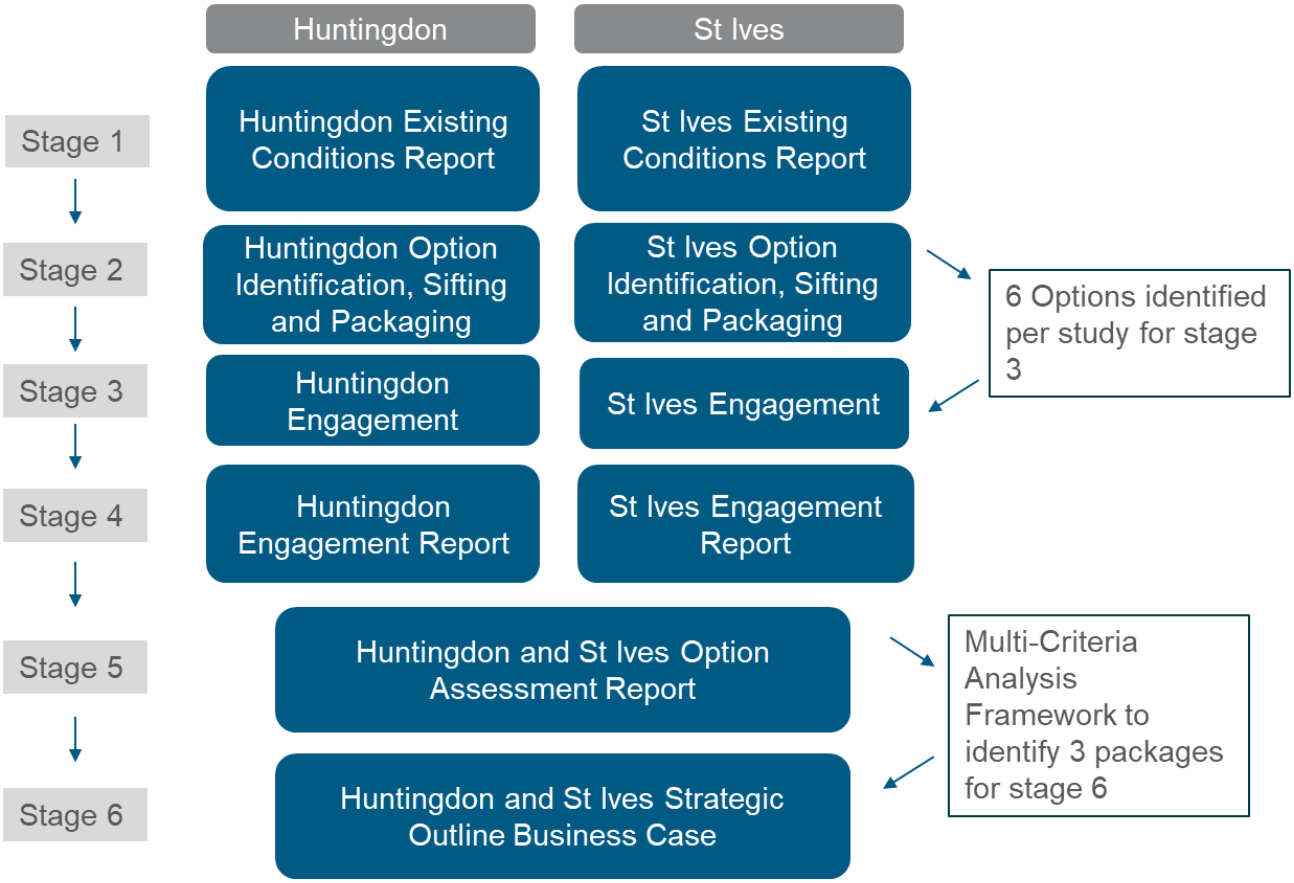
The Covid-19 pandemic has changed current travel behaviours, and as the UK recovers from the pandemic some of these changes may continue into the future. Significant growth population in the study area is nevertheless still planned, which will require improved transport infrastructure to support the forecast increased levels of travel. Therefore, there remains a need for a transport solution for the study area in the longer term, irrespective of the short to medium term impacts of Covid-19 on travel demand.

Further technical development and assessment will continue to take account of the impact of Covid-19 on travel, both as their eventual nature and scale become clearer, and by use of scenario testing to reflect any continuing uncertainties.

1.4. Project Overview

Figure 1-2 shows the Huntingdon and St Ives Transport Study overview.

Figure 1-2 - Huntingdon and St Ives Transport Study Overview



Stages 1-4 of each study were run separately but concurrently through the same process. From Stage 5 onwards, the project is run as the combined Huntingdon and St Ives Transport Study.

The purpose of the OAR (Stage 5) is to report on stages 2, 3 and 4 of the project. It covers the initial Options Identification and Option Sifting (stage 2), Engagement (Stage 3 and 4) and Multi-Criteria Analysis Framework (MCAF) stages of a project (part of Stage 5). It then outlines the packages that will be taken forward for further analysis and reviewed in the Strategic Outline Case (SOC); formerly known as the Strategic Outline Business Case (SOBC).

Due to the reasons given above, this OAR presents the two projects separately when setting out work undertaken so far, before combining the two projects to determine which packages will be taken forward to the SOC.

1.5. Structure of this Report

The remainder of this report is structured as follows:

- Chapter 2 describes the problems, challenges and need for intervention within the study area;
- Chapter 3 describes the future 'without scheme' case and potential scenarios;
- Chapter 4 describes the study objectives and intended outcomes;
- Chapter 5 describes the A141 long listing, sifting and engagement;
- Chapter 6 describes the St Ives long listing, sifting and engagement;
- Chapter 7 describes the assessment process for the study;
- Chapter 8 provides conclusions and recommendations.

2. Problems, Challenges and Need for Intervention

2.1. Introduction

This chapter summarises the existing and potential future transport issues which were first identified in the respective Existing Conditions Reports (ECRs) (stage 1) for the Huntingdon and St Ives Transport Study. It outlines the need for intervention within the study area, drawing on an evidence base consisting of previous studies and policy documents, as follows:

- Previous work undertaken by Skanska and Capita, namely the 'A141 and St Ives Transport Study Option Assessment Report' (July 2020), referred to hereafter as the A141 Stage 1 Report and the draft 'Stage 1: Existing Conditions and Data Collection Report' (April 2019), referred to hereafter as the A141 Stage 1 Existing Conditions Report;
- Huntingdonshire Local Plan to 2036 (adopted May 2019) and supporting evidence base including the Strategic Transport Study and Infrastructure Delivery Plan;
- The Cambridgeshire and Peterborough Local Transport Plan (2020);
- Cambridgeshire and Peterborough Independent Economic Review (CPIER) (September 2018);
- Cambridgeshire and Peterborough Local Industrial Strategy (July 2019);
- Cambridgeshire and Peterborough Skills Strategy (June 2019);
- Cambridgeshire and Peterborough Strategic Spatial Framework;
- Doubling Nature: A Vision for the Natural Future of Cambridgeshire and Peterborough in 2050 (Natural Cambridgeshire);
- Net Zero Cambridgeshire (Cambridgeshire County Council and CUPSE) (October 2019);
- Huntingdon: A Prospectus for Growth (Huntingdon Masterplan) (Metro Dynamics in partnership with Huntingdonshire District Council and CPCA);
- Magic Map, produced by the Department for Environment, Food and Rural Affairs (DEFRA); and
- National Planning Policy Framework (February 2019).

The respective Existing Conditions Reports produced by Atkins for the Huntingdon and St Ives Transport Study summarises these studies, including the evidence base they provide and their findings[9].

2.2. Existing Transport Networks

2.2.1. Local Highway Network

The local Highway network is shown in Figure 1-1.

A141

At a local level, the A141 is a distributor road that follows the northern perimeter of Huntingdon from west to east. It not only connects Huntingdon and local villages to the Strategic Road Network (A14 / A1), but also provides a connection between the west of Huntingdon, east of Huntingdon, the wider Fenland area to the north east and St Ives to the south east.

The A141 connects to the A1123 leading to/from St Ives as a direct route between the two towns. Once the Huntingdon town centre links to the A1307 are completed, these will provide an alternative option.

The A141 is congested during peak periods. The CPCA recognise that there is an issue with capacity along this section of the A141 and have safeguarded an alignment for a possible bypass to alleviate these issues[10].

A1123

[9] Atkins (2021) *A141 Huntingdon Northern Bypass Existing Conditions Report;* Atkins (2021) *St Ives Transport Study Existing Conditions Report.*
[10] Cambridgeshire and Peterborough Combined Authority (2020) *The Cambridgeshire & Peterborough Local Transport Plan.* Page 112.

The A1123 is the main road through St Ives, from the A141/B1514 (Hartford Road) roundabout in Huntingdon connecting to the A10 at Stretham and continuing to the A142 near Fordham. This is the main through-route for those travelling from St Ives to Huntingdon. However, once the Huntingdon town centre links to the A1307 are completed they will provide an alternative option for car journeys between St Ives and Huntingdon and beyond to the north and west of Huntingdonshire.

At a local level, the A1123 is a distributor road running through the centre of St Ives from west to east. It connects St Ives to Huntingdon and local villages to the Strategic Road Network (via the A141). It also provides a connection between the east of St Ives (including traffic from Bluntisham and Earith) and the west towards Huntingdon (including traffic from Houghton, Wyton and RAF Wyton). The A1123 is congested during peak periods[11] particularly at its junction with Harrison Way (A1096) and its junction with the B1040. The speed limit varies along the A1123, however the main section through St Ives is subject to a 30mph limit.

A1096

The A1096 is the main route into St Ives from the south which connects to the A1307. This route links further destinations such as Cambridge and St Ives. There is a shared use path along the A1096 which runs from Elizabeth Crescent to the ESSO garage, before accessing St Ives town centre via London Road and St Ives Bridge, where it connects with the St Ives footpath and cycle network. A shared use path also runs between the guided busway junction and the Harrisons Way/Parsons Green junction. The speed limit varies along the A1096, from 40pmh to 60mph.

The St Ives Park and Ride is situated just off the A1096. A bus gate to the north of the River allows priority for the Cambridgeshire Guided Busway services to cross the A1096, to access the Park and Ride and guided busway. General traffic accesses the Park and Ride site from the Meadow Lane (east) arm of the A1096/Meadow Lane junction.

The CPCA recognise the importance of the A1096 in enabling growth in Huntingdonshire and specifically St Ives. The CPCA Local Transport Plan identifies capacity enhancements on the A1096 around St Ives as key to mitigating the impact of development[12].

B1040

The B1040 connects St Ives to the north of Huntingdonshire, including villages such as Warboys, Somersham and Pidley. There is a narrow path along the B1040 from the A1123 junction to Nuffield Road. The road is subject to a 40mph speed limit from the A1123 junction to the Marley Road junction, and then becomes subject to a 60mph speed limit until it reaches Pidley.

B1090

The B1090 connects the A1123 to the A141 near RAF Wyton and provides access to the RAF Base and Wyton on the Hill. It continues north to the A1 at Sawtry, through Abbots Ripton. There is a narrow path along the B1090 from the A1123 past RAF Wyton, but this stops before the junction with the A141 and would not be wide enough for cycles and pedestrians to pass comfortably.

A14 Cambridge to Huntingdon Improvement Scheme

The recently completed A14 Huntingdon Southern Bypass is now accessed via Brampton Hut Interchange to the west of Huntingdon, providing access to the Midlands and onward travel to the M1 and M6 motorways. The A14 Improvement Scheme was designed to increase the capacity of the highway between Cambridge and Huntingdon and also the capacity of the strategic freight route which has a national role connecting the port of Felixstowe with the Midlands, its distribution centres, and much of the UK beyond.

The A1096 connects to the ‘old A14’ alignment, now renamed the A1307. This route is now largely used by local traffic travelling between St Ives, Fenstanton, Godmanchester and into Huntingdon town centre.

The impact of opening the new section of the A14 on traffic flows in and around St Ives, and on this project, has not yet been fully reflected because the section around Huntingdon was only fully opened (all lanes running) during the Covid-19 pandemic, which is known to have changed travel habits and the number of vehicles on the highway network. In addition, the new link roads in Huntingdon, to be delivered as part of the A14 scheme, have not yet been completed.

[11] Atkins (2021) *St Ives Transport Study Existing Conditions Report.* Pages 34-36
[12] CPCA (2020) *The Cambridgeshire and Peterborough Local Transport Plan*. Page 112

2.2.2. Local Bus Network

Huntingdon and St Ives can be accessed by numerous bus routes, from a variety of areas. These bus routes help connect residents to employment centres in Cambridge and Peterborough. Table 2-1 shows bus, coach and guided busway routes serving Huntingdon and St Ives.

Table 2-1 – Bus, coach and guided busway routes serving Huntingdon and St Ives[13]

Service	Operator	Route Description
30	Stagecoach East	Huntingdon – Chatteris on A141 corridor
35	Stagecoach in the Fens Ltd.	Via the A141 corridor between Huntingdon and Chatteris
46A	Dews Coaches	Hampton - Sawtry - Huntingdon
66	Stagecoach in the Fens Ltd.	Huntingdon, Brampton, St. Neots
400	Whippet	Spaldwick, Kimbolton, Grafham, Ellington and Huntingdon
401	Whippet	Leighton Bromswold, Hamerton, Alconbury Weston, Woolley and Huntingdon
478	Whippet	Romans' Edge, Godmanchester, Huntingdon
X2	Whippet	Huntingdon, Godmanchester, Papworth Everard, Lower Cambourne, Cambourne, Cambridge
X3	Whippet	Huntingdon, Godmanchester, Papworth Everard, Lower Cambourne, Cambourne, Cambridge
The busway route A	Stagecoach East	Ramsey, Warboys, St Ives, Huntingdon (via Hartford roundabout)
The busway route B	Stagecoach East	Huntingdon, St. Ives (via the A1123 and Hartford roundabout) and to Cambridge
010	National Express	Peterborough to London (via Huntingdon)
Orbital Route 22	Stagecoach East	St Ives bus station – Marley Road St Ives
Route 1A	Dews Coaches	St Ives to Bar Hull
Route 9	Dews Coaches	St Ives to Hilton
Route 15	Dews Coaches	St Ives to Over
Route 21	Dews Coaches	St Ives to Somersham and Ramsey
Route 22	Dews Coaches	St Ives to Warboys
Route 45A	Dews Coaches	St Ives to Houghton, Wyton and Huntingdon
V1	Stagecoach East	St Ives to Ramsey
V2	Stagecoach East	St Ives to Chatteris
V3	Stagecoach East	St Ives to Somersham
V4	Stagecoach East	St Ives to Boxworth
902	Stagecoach East	Peterborough, Sawtry, The Stukeleys, Huntingdon, St Ives
904	Stagecoach East	St Ives to Huntingdon
VL14	Villager Community Bus (Beds & Bucks)	Felmersham to Huntingdon and St Ives

[13] St Ives, Cambs – bustimes.org and Skanska (May 2019) Stage 1: Existing Conditions and Data Collection Report, St Ives Area Transport Study, Table 4.11 page 44

It is notable that currently there are no bus priority measures on the A141 or the A1123. There is a short section of busway (Approximately 400 metres) that runs from Hartford to the Hartford Marina (there is also a public footbath running alongside the busway). This enables buses to bypass the Hartford roundabout.

The Cambridgeshire Guided Busway (CGB) runs between St Ives and Cambridge North Station. It is currently used by two Stagecoach services from Huntingdon (The Busway route A and B) providing links to Cambridge Regional College, Cambridge Science Park, Cambridge Business Park and Cambridge North Station.

2.2.3. Local Rail Network

Huntingdon Station, which is also the nearest rail station to St Ives (located approximately 9km to the west of St Ives), is served by Thameslink and Great Northern rail services, providing frequent and direct services to Peterborough, London and Gatwick. From Huntingdon, it takes approximately 15 minutes to reach Peterborough by train, and approximately 1 hour to reach London. Rail services travel direct to Gatwick Airport in 120 minutes[14]. From Peterborough or London passengers can interchange to access the wider national rail network, including services bound for other key destinations such as Birmingham, Cambridge and Manchester.

2.2.4. Local Active Travel Network

Alongside the A141 between the A1307 junction and the Washingley Road / Latham Road roundabout, shared-use footways of a reasonable quality are provided. Beyond this, there are several areas where there is no provision for active travel modes and overall, there is no dedicated cycling infrastructure provision. In addition, there is a lack of safe crossing opportunities for pedestrians and cyclists across the A141.

Walking and cycling infrastructure within the main corridors of St Ives are disconnected with sporadic sections of marked cycle lane in a poor state of maintenance. One example of the problems with cycling infrastructure was a response taken from the St Ives public engagement relating to the A1123 Huntingdon Road. The comment read "*The bicycle path here stops, forcing you to cross a busy road with speeding cars, before recrossing less then 200metres down. This path should connect Huntingdon to Wyton, and then St Ives via the Thicket*[15]". A shared-use path runs adjacent to the guided busway that runs between St Ives and Cambridge as part of the National Cycle Network (NCN) route 51.

2.3. Policy Background

A policy review has been conducted to understand the wider policy context and support for interventions within the study area. The respective ECR summarises the relevant policies[16]. Key policy areas are as follows:

- Growth;
- Higher growth aspirations; and
- Transport projects to enable growth.

2.3.1. Growth

The first key policy area is the extensive proposed growth in the study area. The Huntingdonshire Local Plan identifies a requirement for 14,400 additional jobs and 20,100[17] additional homes by 2036 and the study area has been identified as a key area in which to contribute towards this growth. The locations of planned allocations are shown in Figure 2-1.

- Strategic Expansion Location at Alconbury Weald consisting of:
  - Former Alconbury Airfield and Grange Farm (SEL 1.1) – 5,000 homes and at least 290,000m2 of employment floorspace;
  - RAF Alconbury (SEL 1.2) – 1,680 homes;
- Ermine Street (HU 1) – 1,440 homes;
- St Ives West (SI 1) – 400 homes; and
- Giffords Farm (SI3) – floorspace for up to 600 jobs.

[14] https://ojp.nationalrail.co.uk/service/planjourney/search

[15]

[16] Atkins (2021) *A141 Huntingdon Northern Bypass Existing Conditions Report.* Pages 47-55; Atkins (2021) *St Ives Transport Study.* Pages 50-58

[17] https://huntingdonshire.gov.uk/media/3872/190516-final-adopted-local-plan-to-2036.pdf

Figure 2-1 - Location of Key Allocation/Policy Sites

Impact of Local Plan Growth

The Stage 1 Options Appraisal Report (OAR)[18] summarises the future forecast year (2036) road network conditions including the Local Plan Growth and the completed A14 Cambridge to Huntingdon Improvement Scheme.

The 2036 projections are based on modelling carried out using the Cambridge Sub-Regional Model 2 (CSRM2). These predict an increase in vehicles on the A141 of 33% during the AM peak hour and 29% in the PM peak hour. This would result in an increase in demand at key junctions including the A141 Spittals Way / Kings Ripton Road and the A141 / A1123 Houghton Road / B1514 Main Street. As a result, journey times between Spittals Interchange and the B1090 Sawtry Way Roundabout are anticipated to increase by up to 45% in both directions in the AM and PM peak hours[19].

Within St Ives, 2036 projections indicate increased demand at key junctions within during peak hours. Traffic volumes are predicted to increase by 56% on Harrison Way travelling southbound during PM peak hours. In addition, traffic volumes are predicted to increase on the B1040 Somersham Road and A1123 St Audrey Lane with a 74% increase in traffic volume on A1123 St Audrey Lane eastbound in AM peak hour.

2.3.2. Higher Growth Aspirations

The devolution settlement between Central Government and the CPCA is based on the commitment for the CPCA to double the size of the economy over the next 25 years[20]. The CPIER, published in September 2018, recognised that in order to achieve this the area would need to go beyond where it has before and beyond the levels of growth currently envisaged in the Local Plans.

[18] Skanska/Capita (2020) *Options Assessment Report A141 St Ives Transport Study*
[19] Atkins (2021) *A141 Huntingdon Northern Bypass Existing Conditions Report.* Page 46
[20] CPIER - Section 2.1 Continued High Economic Growth (Page 33)

The CPIER recommended that housing requirements across the Combined Authority should be reviewed "*based on the potential for higher growth in employment than currently forecast by the EEFM*[21]"[22]. The report stresses the importance of assessing the impact of the Cambridge – Milton Keynes – Oxford Arc and using this to set new housing targets for the region.

Based on this, the CPCA aims to deliver higher growth than is currently set out in the Huntingdonshire Local Plan. Two scenarios, High Growth and High Growth Plus, were tested in the Stage 1 Report[23] as follows:

- High Growth:
  - 4,500 dwellings at Wyton Airfield (north east of Huntingdon); and
  - 2,200 dwellings at Gifford's Park (to the east of St Ives).
- High Growth Plus:
  - 4,500 dwellings at Wyton Airfield (north east of Huntingdon);
  - 2,200 dwellings at Gifford's Park (to the east of St Ives); and
  - An additional 4,500 dwellings to the north of Huntingdon.

The developments in the High Growth and High Growth Plus are in addition to the sites shown in Figure 2-1.

2.3.3. Need for transport solutions

A third key policy direction is the need for transport solutions to address existing congestion and connectivity issues within the area. The CPCA LTP recognises that as a result of the rural geography and strategic highway connections within the district, many journeys will continue to take place by road. As a result, CPCA recognise the need to invest in both highway and sustainable solutions to "*tackle key 'pinch-points', alleviate local traffic congestion and improve safety*"[24].

Also included in the LTP are the A141 capacity enhancements, improved public transport connections between St Ives and Huntingdon and district-wide walking and cycling improvements.

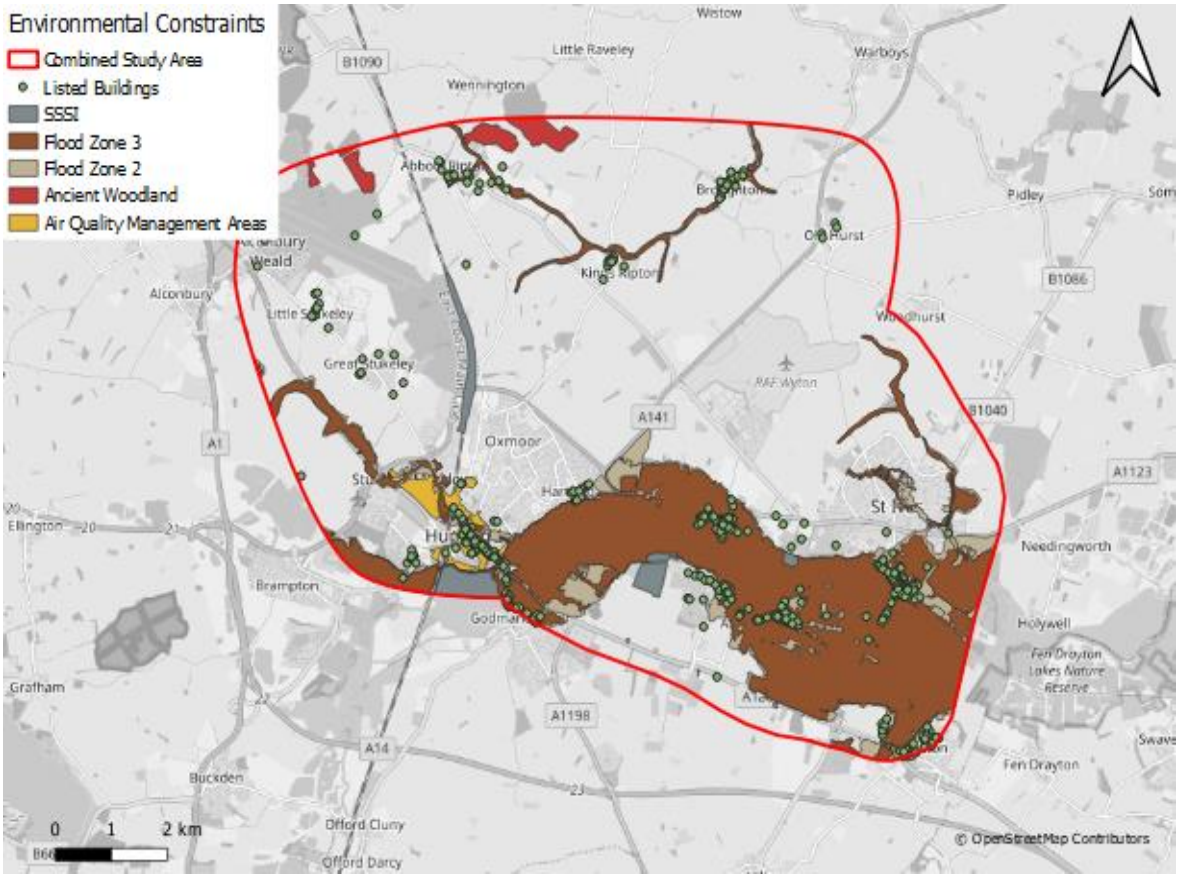
2.4. Existing Corridor Constraints

Existing constraints in the corridor have been identified through assessment of previous studies. Figure 2-2 shows the existing constraints in and around the study area.

[21] EEFM – East of England Forecasting Model
[22] CPIER Key recommendation #5 (Page 12)

[23] Skanska/Capita (2020) *Options Assessment Report A141 St Ives Transport Study,* Page 87
[24] Cambridgeshire and Peterborough Combined Authority (2020) *The Cambridgeshire & Peterborough Local Transport Plan.* Page 108.

Figure 2-2 - Environmental Constraints Map



The following constraints need to be considered:

- Environmental constraints, including:
  - Nitrogen Dioxide (NO2) levels continuing to exceed the objective level for the Huntingdonshire District;
  - A functioning flood plain (Flood Zone 3b) between Huntingdon and St Ives that is affected regularly during winter or high flows;
  - Land next to the River Great Ouse susceptible to flooding;
  - Existing habitats for protected and notable species; and
  - Sites of Special Scientific Interest (SSIs) within and near to the corridor.
- Engineering constraints, including;
  - Severance issues caused by existing highways, the East Coast Mainline, and active travel routes;
  - The presence of Grade Listed buildings in and near to the corridor; and
  - Highway and footway width issues for bus prioritisation and active travel prioritisation.

2.5. Summary of Problems, Challenges and Need for Intervention

2.5.1. Existing Problems

There are four key challenges in the study area:

- **Planned / allocated versus aspirational growth in the study area:** Commitments made by CPCA to double the size of the economy over the next 25 years and those made within the Huntingdonshire Local Plan identifying the need for 14,400 additional jobs and 20,100 additional homes by 2036 would exacerbate transport capacity issues along the A141 and within St Ives;
- **Congestion on the A141:** The A141 accommodates HGV and long-distance traffic as well as local traffic and several junctions along the A141 are congested. Evidence shows peak time congestion on the A141/ B1514/ A1123 at the Hartford roundabout which is causing ‘rat running’ onto the Kings Ripton Road/B1090 junction;

- **Congestion in St Ives:** Peak time congestion on the A1123 and A1096 is causing 'rat running' through St Ives Town Centre leading to congestion on town centre routes and impacting the reliability of bus and guided bus services; and
- **The quality of the active travel network:** Alongside the A141 there is a lack of safe crossing points for pedestrians and cyclists as well as no dedicated cycling infrastructure. Furthermore, several areas exist where there is no active travel provision. Within St Ives, local walking and cycling infrastructure is fragmented with varied quality. Where sections are marked for cycling, this is often poorly maintained.

2.5.2. Need for Intervention

There is a clear need for intervention within the study area to:

- **Accommodate additional Planned growth:** Additional growth planned in the area is likely to result in worsened congestion on the A141 and within St Ives in the future. This will likely increase instances of 'rat running' which in turn has the potential to increase journey times and reduce the reliability of public transport.
- **Improve the quality of the Active Travel Network:** The active travel routes in St Ives are of poor quality and are largely unconnected. There is also a lack of safe crossing points, which does not provide a sustainable travel alternative to private vehicle journeys.
- **Supporting local policy and strategies:** The Local Plan and policies identify a need to reduce congestion and accommodate additional growth in the study area. The Local Plan demonstrates that the growth of the North Huntingdon area and St Ives is important to economic development of Huntingdonshire and should be supported with the appropriate level of infrastructure.

2.5.3. Corridor Opportunities

To overcome the existing issues within the study area, there are opportunities to:

- Improve the quality and provision of active travel infrastructure;
- Improve reliability and journey times for long distance traffic;
- Encourage mode shift from private car to sustainable modes;
- Improve journey times and reliability within the study area by active travel and public transport;
- Mitigate against 'rat running'; and
- Accommodate growing transport demand in a sustainable way (via increased public transport, walking and cycling links) by working with developers at early stages of planning.

2.5.4. Corridor Constraints

The main constraints are:

- Environmental constraints including a functioning flood plain between Huntingdon and St Ives – along the River Ouse;
- Engineering constraints including existing highways, active travel routes and listed buildings; and
- The location of several SSSI's along / near the corridor.

3. Future 'Without Scheme' Case and Potential Scenarios

3.1. Introduction

This chapter sets out the future 'without scheme' case (Do Minimum scenario), which includes committed development and future development locations. Information in this chapter has been informed by local policy documents and baseline information, and outlines major aspirational (developments without planning permission that are not allocated within the Local Plan), planned (developments that are allocated in the Local Plan) and committed developments (developments with planning permission) and planned transport schemes that will interact with the study area and any potential options explored as part of this study.

3.2. Committed and Planned Developments

The committed and planned development sites located with the study area would increase transport demand once built out. Developments deemed significant and relevant to this study are set out in the following sections.

Washingley Farm, Huntingdon (20/00847/OUT)

Outline planning application for the phased development of up to 648 dwellings associated with public open space, services and other ancillary infrastructure on Land North West of Ermine Business Park, Ermine Street Great Stukeley. This application is still in progress.

A Transport Assessment has been carried out by WSP on behalf of the developers[25]. Within their conclusions, the traffic impact of the development is thought to be small in nature and will largely be localised. As a result, the following measures are proposed to mitigate localised traffic impacts:

- Contribution pro-rata to the Ermine Street/ A141 roundabout upgrade (including a 'toucan' crossing of the A141 east);
- Upgrade of a section of the existing Public Bridleway along the north-eastern boundary of the site (east of the proposed internal spine road through the Washingley Farm site) to the A141;
- Passive provision of land for a possible A141 Relief Road;
- A 'toucan' crossing of Ermine Street to the north of the proposed access;
- Improvements to the NCN12 route passing through the site frontage (localised widening and street lighting); and
- Establishment of a Residential Travel Plan.

A site masterplan is included within Appendix A.

Grange Farm Alconbury Weald (19/01341/OUT)

Outline planning permission for a mixed-use phased development to include residential development of up to 1,500 dwellings, local centre including retail and community facilities, primary school, open space, play areas recreation facilities, landscaping associated demolition, ground works and infrastructure. This application is still in progress.

[25] WSP (2020) *Washingley Farm, Huntingdon Transport Assessment*. Page 70.

A Transport Assessment has been carried out by Stantec on behalf of the developers[26]. Within their conclusions, it is stated that up to 1,500 dwellings could be delivered without any severe residual culminative impacts being anticipated. However, the following transport network considerations have been proposed:

- A Minor improvement scheme to the A141/ Ermine Street/ B1044 Roundabout;
- A Minor improvement scheme to the A141/ Washingley Road Roundabout;
- Diversion of Busway B committed to serve Key Phase 1/Key Phase A operating every 60 minutes, Monday-Friday daytime;
- The diversion of the Alconbury Weald Local Service;
- Deployment of bus stops; and
- A Travel Plan Framework.

Murketts Garage, London Road, St Ives (18/02726/FUL)

The proposed phased residential development of 49 dwellings with access, parking, landscaping and associated works on the site of a former car showroom. This application is still in progress.

A Transport Statement was conducted by Transport Planning Associates on behalf of the developer[27]. Overall, the development is expected to generate less traffic than existing car dealership usage and therefore is predicted to have no impact on surrounding traffic levels. Within the development, cycling and car parking provision is to be made.

3.2.1. Other Planned Developments

Spittals Way, Huntingdon (20/01671/FUL)

The erection of a building to be used for industrial (B1c), general industrial (B2) and/or storage or distribution (B8) uses and associated works including accesses, parking and landscaping. This application is still in progress.

A Transport Statement has been published by Stantec on behalf of the developers.[28] Conclusions within the Transport Statement find that the proposed development would have a negligible impact on the existing road network and sustainable transport infrastructure is expected to meet demands. However, the Framework Workplace Travel Plan aims to reduce the need to travel to the site by private car through the following:

- Walking and Cycling measures;
- Public Transport Measures; and
- Car sharing and parking.

Broad Leas, St Ives

Ten 1 and 2 bed apartments with associated landscape, parking and access arrangements, following demolition of existing building. This application is still in progress.

A Transport Statement was carried out by SLR on behalf of the developers[29]. Overall, the assessment carried out for the site concludes the site is appropriate for residential development noting its proximity to local services and public transport links. It is planned that secure cycle parking provision in the site will be made available to ensure that occupiers of the site can make more regular cycle trips in the future.

Compass Point Business Park, St Ives (20/0194/FUL)

Erection of 2 blocks comprising 8 units for general industrial use/storage or distribution together with car parking and service areas. This application is still in progress.

Land North of Old Houghton Road Hartford (18/02239/OUT)

Residential development with new access, open space and infrastructure (27 dwellings). This application is still in progress.

[26] Stantec (2021) *Grange Farm Transport Assessment.* Page 129.
[27] Transport Planning Associates (2018) *Transport Statement*. Page 22.
[28] Stantec (2020) *Spittals Way, Huntingdon Transport Statement & Framework Workplace Travel Plan.* Page 33.
[29] SLR (2020) *8 Broad Leas St Ives Proposed Residential Redevelopment Transport Statement.* Page 17.

A Highways Statement has been made by MTC Engineering on behalf of the developers.[30] It is predicted that the development will generate 16 vehicular movements during the AM and PM peak periods. The site's proximity to local services and public transport links was noted. Consequently, it is considered that the development will not have a significant impact on the existing local highway network. As part of the development, a new footway link is proposed to link to bus stops on Main Street as well as a crossing point to connect to the existing footway network.

Aspirational Developments

In addition to currently planned or committed developments, there are several sites that have been identified by Huntingdonshire District Council as potential sites for further development that have been factored into the higher growth scenarios in the Stage 1 OAR. These include:

- Wyton Airfield – An aspirational development of up to 4,500 dwellings on the former RAF Wyton site north east Huntingdon;
- Giffords Park – An aspirational development of up to 2,200 dwellings east of St Ives; and
- An additional 4,500 dwellings north of Huntingdon.

These developments are not considered within the Do Minimum scenario of this study but will be considered as part of sensitivity testing in the SOBC.

3.3. Transport Demand

Whilst at this stage of the project the absolute transport demand for the corridor has not been quantified, it is important to consider the potential impact of future developments on the existing transport network.

Although measures to mitigate potential transport impacts have been included within some of the planned development proposals, the overall long-term trend for the area still predicted that traffic volumes will increase significantly on key roads and junctions by 2036 particularly during peak times. This is due to the amount of growth that is outlined in section 2.3.1.

3.4. Transport Improvements

Several major transport schemes are proposed for the local area to improve transport connectivity in the study area and beyond. These are summarised in sections 3.4.1 to 3.4.4.

3.4.1. A14 Cambridge to Huntingdon Improvement Scheme

Following the completion of the A14 Cambridge to Huntingdon improvements in May 2020, works on the old A14 (A1307) are planned to be completed in 2022 and include improvements and new links to and from Huntingdon as follows:

- Pathfinder Link Road, to tie the Huntingdon Ring Road to the A1307 in the area to the west of the Mill Common underpass;
- Mill Common Link Road to join Edison Bell Way junction to the new Pathfinder Link Road;
- Views Common Link Road to connect Hinchingbrooke Park Road to the A1307, via a roundabout, to the north of the police and fire headquarters; and
- A new public transport hub at Huntingdon Railway Station, removal of the A14 viaduct and provision of a new access from Mill Common Link Road to the train station car park.

[30] MTC Engineering (2018) *Highways Statement for the Proposed Development of 27 Residential Dwellings on Land Off Main Street, Hartford, Huntingdon.* Page 15.

3.4.2. St Ives Schemes

The following three studies were published in Spring 2020 outlining recommendations for improving access to St Ives Town Centre. Below is a brief outline of the findings from the studies. A full review is presented in the St Ives ECR.

- Town Centre Parking Review;
  - The St Ives Town Centre Parking Review undertook an on-street parking review to ascertain highway pinch points which contribute to congestion and lead to an increase in journey times. The study focuses on areas in St Ives town centre, namely, North Road, East Street, The Quadrant, Cromwell Place, Oliver Road and Station Road. It identified a number of measures to improve congestion such as widening of the carriageways, changing of priorities at junctions and changing single yellow lines to double yellow lines. The estimated cost for implementing all recommendations was £413,000.
- Bus Service Accessibility Review; and
  - Out of the 51 bus stops reviewed in St Ives, 45% were deemed to be in poor condition and 27% had an outdated timetable on display. Recommendations were made to improve provision.
- Pedestrian and Cycle Wayfinding audit.
  - The St Ives Pedestrian and Cycling Wayfinding Audit identified insufficient, fragmented or inconsistent provision of wayfinding signage across the St Ives pedestrian and cycling network and made recommendations for improvement.

3.4.3. Active Travel schemes

St Ives Greenway

The St Ives Greenway is a planned 12-mile active travel route with 4.6 miles of additional path between Cambridge North Railway Station and St Ives. Developed by the Greater Cambridge Partnership, it is currently in the process of detailed design[31]. The Greenway aims to provide an active route for walkers, cyclists and horse riders. The Greenway will broadly follow the existing busway but will also include new links to local centres.

Huntingdonshire Local Cycling and Walking Infrastructure Plan (LCWIP)

The Huntingdonshire LCWIP is a strategic approach to developing high standard active travel routes across the district. There are 16 routes that Cambridgeshire County Council are looking to improve, of which five run through St Ives and three interact with the A141. The LCWIP usually considers main corridors for improvement which should result in upgrades to existing walking and cycling routes across St Ives and Huntingdonshire. LCWIP schemes of relevance to this study include:

- St Ives: Harrison Way/Parsons Green – Stocks Bridge Way/Compass Point Business park;
- St Ives north to town centre;
- St Ives west to town centre;
- St Ives north east to town centre;
- Stocks Bridge Way/ Compass Point business park – Needingworth;
- A141: Along the Ermine Street corridor into the town centre from Alconbury;
- A141: At the Kings Ripton Road junction from a link to Sapley Way; and
- A141: Between A141 / Washingley Road / Latham Road roundabout and the A141/ Huntingdon Road / Abbots Ripton Road roundabout from a footpath over the rail lines.

To see a full list of the planned transport schemes, see the Huntingdon or St Ives ECR.

3.4.4. Covid-19 Schemes

In response to the Covid-19 pandemic, the following measures have been implemented or are in progress to support active travel and help meet transport demand whilst public transport capacity is reduced due to social distancing requirements. This has been done through Experimental Traffic Regulation Orders (ETROs) and Temporary Traffic Regulation Orders (TTROs). Implemented or in-progress schemes are shown in Table 3-1. These schemes, however, have been experimental and/or temporary and as a result may be subject to future removal or modification.

[31] As of 23 July 2021

Table 3-1 - Experimental Covid-19 Measures Located in or near the Study Area

Location	Measure	Timescale
Across the Study Area	Bus timetables have been altered to reflect reduced demand	Implemented
George Street, Huntingdon	Permit contraflow cycling along one way section of George Street between High Street and Ring Road	In progress
Huntingdon: Brampton Road, Huntingdon, outside Huntingdon Dental Practice	Close lay-by and use space to provide more room adjacent to sub-standard shared use cycle path Between Huntingdon and Hinchingbrooke	In progress
Ambury Road, Huntingdon	Review lining / parking to facilitate two way cycling on one way section of Ambury Road between Ring Road and Avenue Road	In progress
Quayside, Bridge Street and Market Hill, St Ives	Suspend parking in order to widen footpath with barriers in line with measures to support Town Centre Recovery Programme	Implemented

Source: Online webpage by Cambridgeshire County Council (as at time of compilation, late August 2021)

3.5. Summary

This chapter outlines the proposed developments within the study area that represent the 'without scheme' case (or Do Minimum scenario). **Table 3-2** summarises the Do Minimum Scenario that will be taken forward to test the study options as they evolve.

Table 3-2 - Do Minimum Scenario

Intervention / assumption	In Do Minimum?
A14 Cambridge to Huntingdon Improvement Scheme	Included
St Ives Greenway	Included
Huntingdonshire LCWIP	Not Included
St Ives Schemes	Not Included
Local Plan Growth Sites	Included
Higher Growth Scenario	Not Included
Bus network changes and policies	Not Included

4. Required Outputs and Outcomes

4.1. Introduction

This chapter sets out the scheme objectives and intended outcomes of the project, which have been agreed by CPCA. The scheme objectives were developed following the review of the current conditions in the study area which are outlined in the Huntingdon and St Ives ECRs. This formed stage 1 of the project as shown in Figure 1-2. Following stage 1, CPCA set the scheme objectives and outcomes which then fed stage 2 of the study (the options identification stage), where all potential options that could meet or partially meet the scheme objectives and outcomes were listed.

The scheme specific objectives set by CPCA are as follows:

1. Address current congestion and delay in the study area, thus reducing journey times and improving reliability, and relieving local routes affected by traffic re-routing from the A141 and A1096/A1123.
2. Ensure sufficient transport capacity to accommodate transport demand in the study area from new growth sites in the region.
3. Contribute to improving connectivity and quality for walking and cycling along and across the study area, by i) incorporating appropriate provision within the scheme and/or ii) enabling the existing A141 and St Ives transport network to better support these modes.
4. Contribute to improving bus service routing, access and reliability across the corridor and through St Ives Town Centre.
5. Ensure any future route of strategic public transport infrastructure is taken into consideration.

For the purposes of assessing options for this study, these overarching objectives have been developed in more detail into a set of outcomes based on wider policy goals. These have been outlined in the following sections

4.2. Outcomes

The agreed outcomes were set out in the Appraisal Specification Report (ASR) and represent the desired infrastructure capabilities. These were presented in the form of a power point presentation. The transport outputs are:

1. Socio-economic outcomes:
    a. Provide conditions that encourage inward investment in higher-value employment sectors
    b. Improve access around Huntingdon, to/from the strategic road and rail networks, and to/from London
    c. Reduce spatial inequalities across Cambridgeshire, including by sharing and expanding the benefits of Greater Cambridge's success
2. Transport outcomes:
    a. Contribute to a coordinated package of investment in the area to increase capacity, reliability and speed for public transport, pedestrians, cyclists and equestrians
    b. Minimise the amount of rat-running
    c. Maintain traffic levels at or below 2018 levels
    d. Minimise vehicle mileage whilst providing for increased travel demand
    e. Intercept or substitute car trips with alternative transport modes
3. Environmental outcomes:
    a. Contribute to the reduction of emissions to 'net-zero' by 2050, to minimise the impact of transport and travel on climate change

5. A141 Option Identification

5.1. Introduction

This chapter sets out the option identification (stage 2) process undertaken for the A141 part of the study area and includes the option long-list, initial sifting and engagement (stage 3). This phase of the study was broken down into four tasks:

1. The option identification stage identified possible options that had the potential to meet or partially meet the objectives and deliver the outcomes of the study. Option generation was not constrained by the findings of previous studies (see section 5.2).
2. Identified options went through a sifting stage, where each was evaluated using a specific set of criteria to ensure that the transport objectives of the study could be met. Options that were unable to meet these high-level criteria were discarded at this stage (see section 5.3).
3. Options taken forward from the sifting stage were packaged into themes for the purposes of further assessment and engagement (see section 5.4).
4. Stakeholder and public engagement on the short-list of options through survey and online engagement (see section 5.5).

The following sections outline this process and the outcomes in more detail.

5.2. Option Identification (stage 2)

5.2.1. Methodology

The option identification stage was informed by, but not constrained to, the previous studies outlined in the ECRs, proposed developments outlined in section 3.2 and driven by existing policy outlined in section 2.3. All options with the potential to meet the transport objectives were considered. The first stage was an options identification workshop held by the internal project team and then shared with the client at an Option Long-list meeting on 29/01/2021.

Different concepts were considered which would address or partially address the scheme objectives. A number of methods and all transport modes were considered, such as maximising the use of existing infrastructure and providing new infrastructure. Interchanges between modes were also considered.

Options that crossed known constraints that would be too difficult to mitigate or avoid were not progressed, as they were not considered feasible. For example, no option considers a third crossing of the Ouse as this is considered out of the scope of this study.

5.2.2. Options Generated

The approach above was used to generate a wide range of options. Those identified fell into four broad categories:

- Bypass options;
- Public transport options;
- Non-motorised user options; and
- Demand management options.

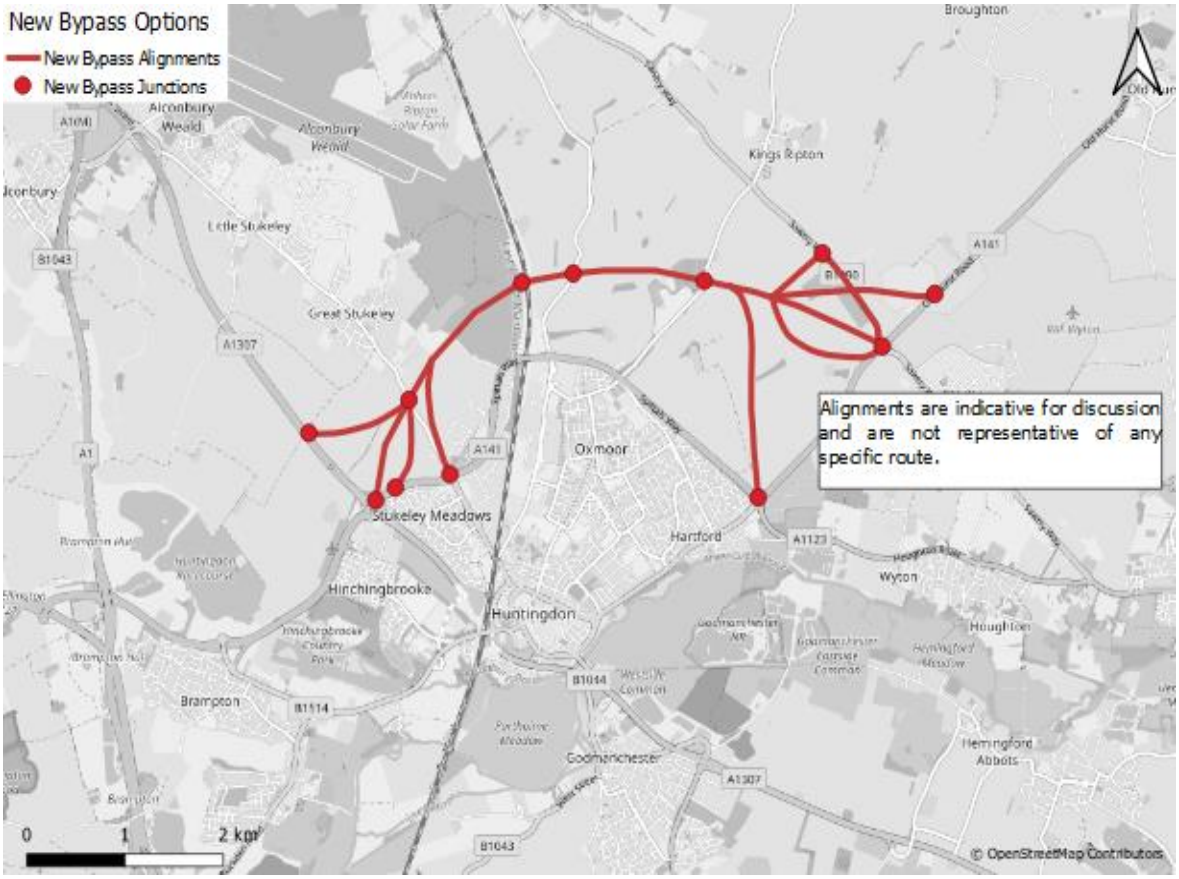
Options identified are detailed in the following figures.

Bypass Options

Figure 5-1 shows options identified for a bypass of Huntingdon.

At this stage it is considered that the links represent indicative options that would evolve and change as the project progresses and detailed assessment takes place. They do not represent any specific alignment or design.

Figure 5-1 – New Bypass Options



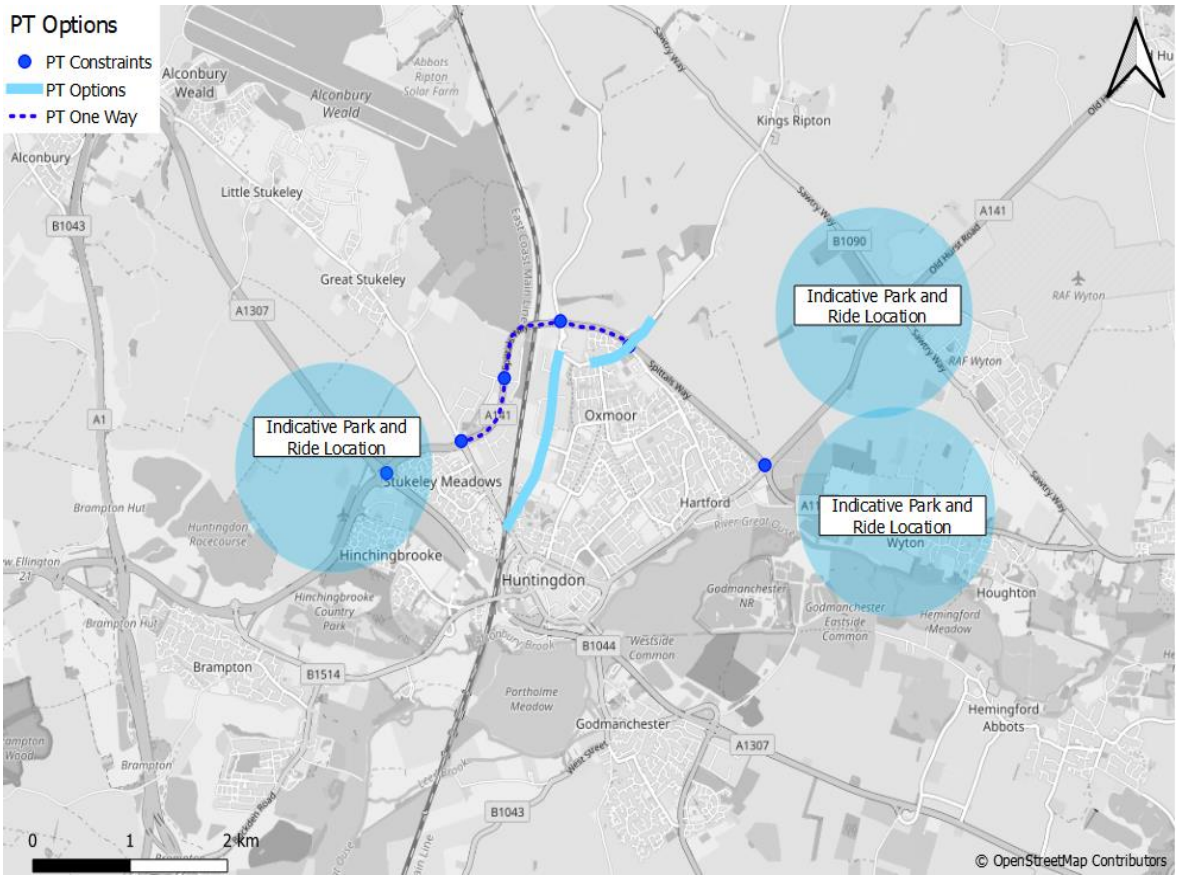
The options identified considered:

- Connections to the existing highway network;
- Alignment of the bypass within the study area;
- The potential for the new bypass to be single or dualled carriageway; and
- Known constraints within the study area, for example, the need to cross the East Coast Mainline.

Public Transport Options

Figure 5-2 shows the public transport options that were identified.

Figure 5-2 - Public Transport Options



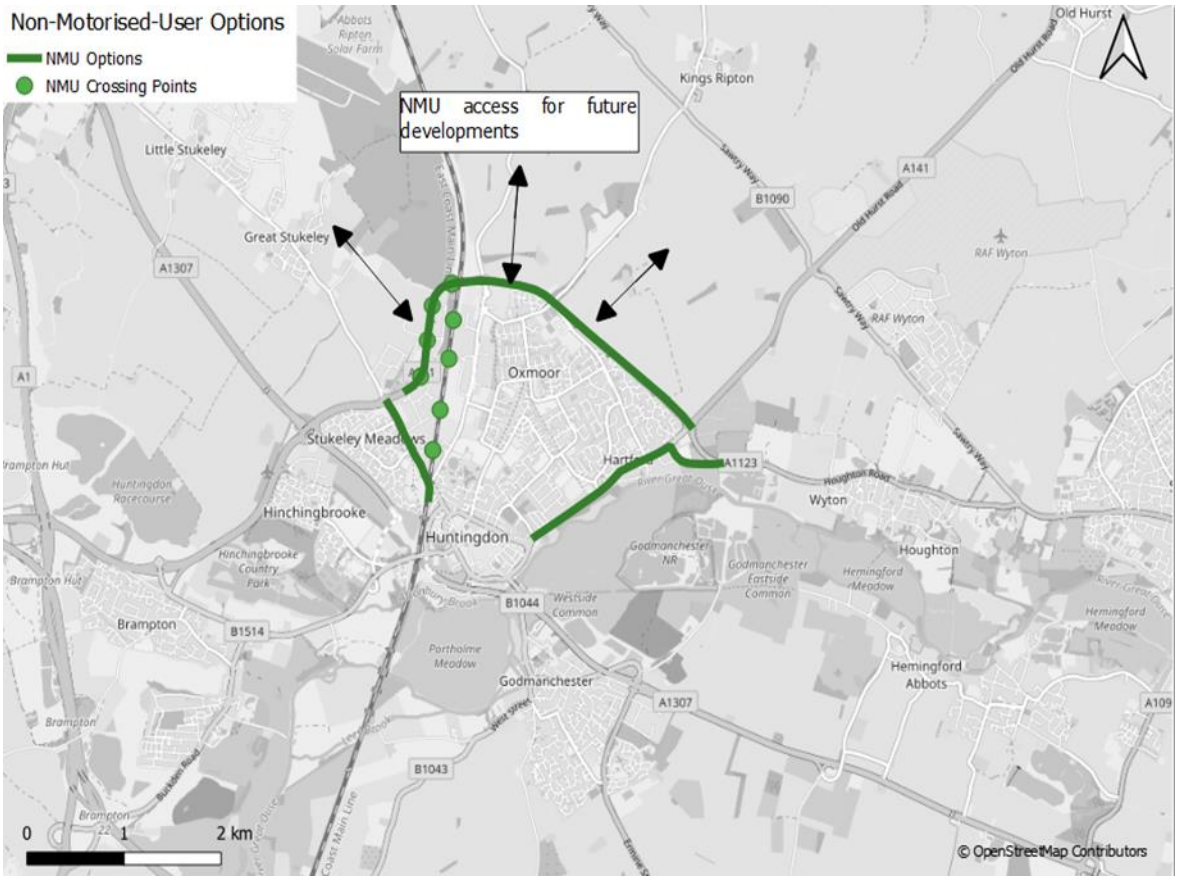
The options identified considered:

- Park and Ride locations for access into the town centre;
- The implementation of new public transport only routes;
- The possibility of turning the existing A141 into a public transport route in one direction; and
- Where the existing pinch points for public transport occur.

Non-motorised User Options

Figure **5-3** shows the Non-Motorised User (NMU) options considered.

Figure **5-3** - **Non-Motorised User Options**



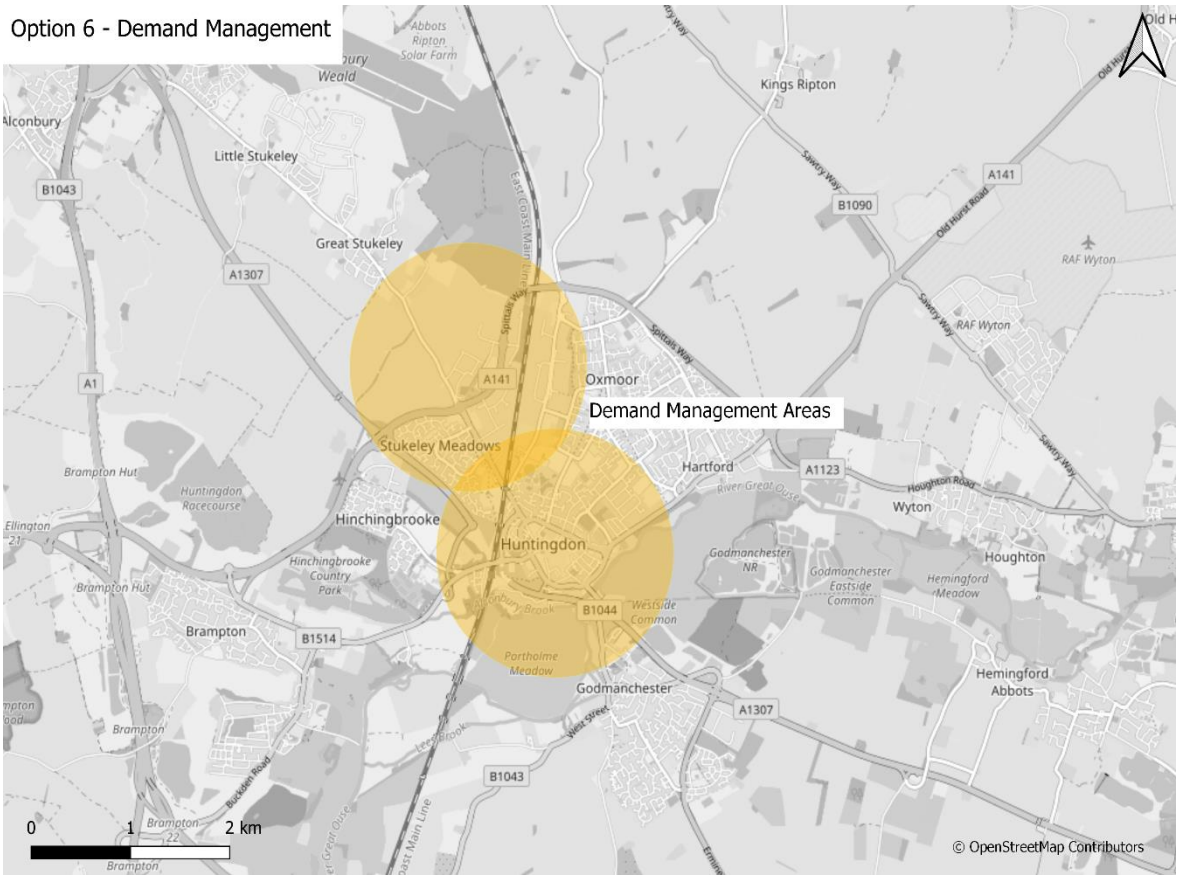
The options identified considered:

- Implementation of additional NMU crossing points over the East Coast Mainline (ECML);
- Implementation of additional NMU crossing points of the A141;
- Upgrading existing NMU paths;
- Implementation of additional NMU paths; and
- Implementing NMU links for access into new the new developments north of the existing A141.

Demand Management Options

Figure 5-4 shows that the demand management options considered.

Figure 5-4 - Demand Management Options



The options generated considered:

- Demand management (Parking levy for business park for example);
- Clear Air Zones (CAZ) e.g., restrictions on vehicles accessing the town centre;
- Reductions in availability of private car parking; and
- Reductions in availability of public car parking.

All options identified were taken forward to option sifting.

5.3. Option Sifting (stage 2)

5.3.1. Methodology

An option sifting process reviewed and sifted the identified options that had been generated in the previous stage. Each option was assessed against three overarching criteria of Effectiveness, Feasibility and Acceptability.

Table 5-1 outlines the sifting assessment criteria and the key issues considered under each criterion that reflect the transport objectives and outcomes.

Table 5-1 - Sifting Assessment Criteria

Sifting Criteria	Elements Considered Within Each Criterion
Effectiveness	Address current congestion
	Increase transport capacity
	Improve connectivity and quality for walking and cycling
Feasibility	Engineering constraints
	Environmental constraints
	Planning requirements
Acceptability	Stakeholder views
	Alignment with local and regional policies

5.3.2. Results of Option Sifting

A number of options were rejected as a result of the option sifting. These are outlined in Table 5-2 along with the rationale for their exclusion.

Table 5-2 - Options Rejected During Option Sifting

Option Description	Reason for Rejection
Turning the existing A141 bypass into a public transport only road with NMU lane	Unlikely to leave enough capacity for local movements (sifted out based on effectiveness criteria)
Turning the existing A141 bypass into a one-way road with public transport lane	Unlikely to leave enough capacity for local movements (sifted out based on effectiveness criteria)
Upgrades to the existing A141	Rejected by previous work as unlikely to be able to provide enough capacity for high growth aspirations (sifted out based on effectiveness criteria)
Upgrades to existing A141 junctions	Rejected by previous work as unlikely to be able to provide enough capacity for high growth aspirations (sifted out based on effectiveness criteria)
Dedicated and segregated public transport corridor adjacent to the East Coast Main Line	Rejected as pinch-points alongside the railway are likely to be too narrow to provide a dedicated corridor without demolition (sifted out based on feasibility and acceptability criteria)

All remaining options were taken forward to option packaging and public engagement.

5.4. Option Packaging (stage 2)

5.4.1. Methodology

An option packaging process grouped the option long-list into themes for further engagement and assessment. Packaging was necessary at this stage as it is unlikely that any of the individual options identified would be implemented in isolation and therefore grouping the options into indicative packages would allow for stakeholders and the public to see the options as part of a holistic solution. Furthermore, it would allow further assessment to be undertaken to determine highest performing options based on whole solutions rather than individual elements.

5.4.2. Results of Option Packaging

Six packages were formed to take forward for engagement and further assessment. Packages are indicative and are unlikely to represent the 'final' preferred solution. In reality, the preferred solution is likely to consist of a combination of options from a variety of packages.

Figure 5-5 to Figure 5-10 show the packages taken forward. These images were captured from the A141 Public engagement microsite[32].

Figure 5-5 - Option 1: Full offline bypass

Option 1 consists of a new bypass between Spittals Interchange and Sawtry Way roundabout (B1090/A141), with no connections to existing roads or the proposed developments, directly from the bypass.

Figure 5-6 – Option 2: Full offline bypass with connections

[32]Cambridgeshire and Peterborough Combined Authority (2021) *Your A141.* Available at: https://youra141.co.uk/site

Option 2 consists of a new bypass between Spittals Interchange and Sawtry Way roundabout (B1090/A141) with three junctions providing connectivity to the existing road network at Ermine Street, Abbotts Ripton Road and Kings Ripton Road.

Figure 5-7 - Option 3: Online/Offline Bypass

Option 3 consists of a new bypass between Spittals Interchange and a point near the Tesco roundabout, and widening of the existing A141 from the Tesco roundabout to the Hartford Roundabout (A141/A1123).

Figure 5-8 - Option 4: Rural travel hubs

Option 4 consists of Rural Travel Hubs (RTHs), which aim to capture traffic from the north, east and west on the outskirts of Huntingdon. Specific site locations are to be defined and implementation is likely to require combining with bus priority towards Huntingdon.

Figure 5-9 - Option 5: Public transport and active travel

Option 5 consists of a combination of public transport and active travel measures including:

- Upgrading or extending the existing Old Houghton Road bridle path;
- Dedicated walking and cycling infrastructure from the Ermine Street Business Park to the A1123/A141 junction along the current A141, and from the Ermine Street Business Park to St. Peters Road;
- Additional walking and cycling crossing points over the ECML;
- Public transport infrastructure along St. Peters Road and opening access at the old Sapley Road crossroads for public transport; and
- Public transport and active travel connections between new developments and Huntingdon town centre.

Figure 5-10 - Option 6: Transport network management

Option 6 consists of potential areas to implement measures to discourage car travel. These measures could include:

- A CAZ where targeted action is taken to improve air quality, in particular by discouraging the most polluting vehicles from entering the zone;
- Environmental weight limits which would prevent large vehicles from using inappropriate roads, routes and areas;
- Workplace Parking Levies (WPL) where a charge on employers is implemented for the number of parking places they provide that are regularly used by employees;
- Increasing parking charges; or
- Reducing parking availability.

Should these measures be taken forward, they would need to be combined with measures to provide sustainable travel alternatives.

5.5. Engagement (stage 3)

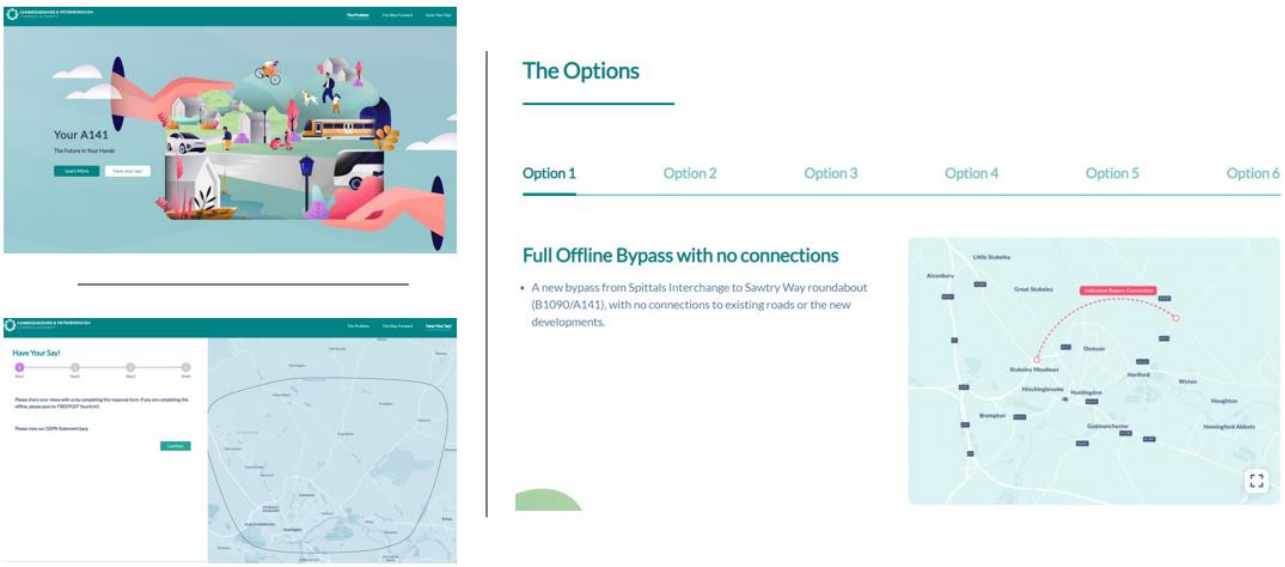
A series of public and stakeholder engagement and consultation will be undertaken throughout the study, the first of which was undertaken in early 2021 and looked to gain opinions on the six packages, and their component parts, identified in the previous sections. The following sections outline the public and stakeholder engagement undertaken at this stage of the study and the outcomes.

5.5.1. Public Engagement

Methodology

A public engagement exercise was conducted for the A141 area between 22nd February and 15th March 2021. This engagement focussed on presenting the problems, issues and challenges for the area and the early emerging option concepts that could come forwards to address these. Engagement was undertaken virtually, utilising a website guiding the public through the engagement material, with a questionnaire and map where the public could drop pins with specific comments on the option concepts or problems and challenges in the area.

Figure 5-11 - A141 Public Engagement Microsite



Results of Public Engagement

A total of 464 survey responses were received through the microsite during the engagement period. An additional 2 survey responses were received by post. Combined, there was a total of 466 survey responses.

The survey results and comments from the public will be taken into consideration as the study progresses and options are refined to be taken forward into the Strategic Outline Business Case.

The following results were found from the survey:

- On issues around the A141 neighbourhood, respondents were most concerned with keeping lorries away from residential areas; reducing congestion; and increasing road safety. A fewer but significant number of respondents were concerned with improving air quality and improving journey times respectively.
- On the issue of reducing road traffic in their local town, a majority of respondents strongly agreed that there is a need to reduce road traffic.
- On the issue allocating road space for dedicated public transport vehicles, most responses for a dedicated bus and coach lane were provided for the disagree option with slightly fewer for the agree option. For dedicated space for a minibus, taxi, minicab lane, responses were skewed towards ‘disagree’ and ‘strongly disagree’.
- On the issue of allocating road space for NMUs, responses were heavily skewed towards ‘strongly agree’ and ‘agree’ for walking space and cycling space respectively. Responses for bridle paths were more evenly distributed with most respondents answering ‘agree’ and similar numbers answering, ‘strongly agree’ and ‘disagree’.
- On issues within their village or residential street, respondents felt most strongly about ‘vehicles speeding’ with 61% ‘strongly agreeing’ that vehicles speeding was an issue.
- On the issue of what matters in the future development of the local transport network, most respondents found ‘safeguarding villages and residential streets from rat-runs’ and ‘improving road safety’ to be ‘very important’.
- On preferred options, option 2 for the bypass was most commonly ranked as the ‘highest’ favoured option.
- On the preferred combination of options, options 2 and 5 made the highest proportion of all suggestions.

In addition to the survey, a pin-map feature was also available to allow respondents to make comments regarding locations within the map. One of the most prevalent comments was in relation to improving walking and cycling infrastructure and routes for pedestrians. Linked to this, a significant number of comments also related to the improvement of infrastructure for equestrians.

A significant number of comments across all areas were in relation to the speed of vehicles and the volume and speed of HGVs, with some referencing the noise and air quality impacts. The majority of comments suggested the need for traffic management measures, a reduction in speed limit or traffic calming as a solution to these issues. In specific areas, particularly around Huntingdon, a number of respondents made suggestions for alternative routes for a bypass or other improvements[33].

5.5.2. Stakeholder Engagement

Methodology

Atkins and CPCA held two online stakeholder meetings during the engagement period, one with Members, and one with landowners and their representatives. The meetings included an overview of the scheme aims and objectives and set out the initial concepts for consideration. Stakeholders were then welcomed to comment on the options presented and were encouraged to respond to the online engagement survey and/or submit responses to the team. A number of written responses were received.

Results of Stakeholder Engagement

Generally, responses were consistent in favouring a bypass option (1, 2 or 3) in conjunction with sustainable transport measures (4, 5 and 6), particularly from new developments. Option 2 was the most favoured bypass option with one response favouring option 3. One of the responses favoured widening the existing A141 rather than a bypass. Reasons for support of option 2 included better integration with the road network, with planned and existing developments and reducing the barrier effect of the A141. Concerns with the full bypass options (1 and 2) related to construction costs, land and environment impacts, and the encouragement of infill development (the process of developing vacant or under-used parcels within existing urban areas that are already largely developed).

[33] A141 Huntingdon Northern Bypass Transport Study Engagement Report 2.0

6. St Ives Option Identification

6.1. Introduction

This chapter sets out the option identification (stage 2) process undertaken for the St Ives part of the study area and includes the option long-list, initial sifting and engagement (stage 3). As with the A141 area, this phase of the study was broken down into four tasks:

1. The option identification stage identified possible options that had the potential to meet the objectives and deliver the outcomes of the study. Option generation was not constrained by the findings of previous studies (see section 6.2).
2. Identified options went through a sifting stage, where each was evaluated using a specific set of criteria to ensure that the transport objectives of the study could be met. Options that were unable to meet these high-level criteria were discarded at this stage (see section 6.3).
3. Options taken forward from the sifting stage were packaged into themes for the purposes of further assessment and engagement (see section 6.4).
4. Stakeholder and public engagement on the short-list of options through surveys (see section 6.5).

6.2. Option Identification (stage 2)

6.2.1. Methodology

The initial option generation stage was informed by, but not constrained to, the previous studies outlined in the ECRs, proposed developments outlined in section 3.2 and driven by existing policy outlined in section 2.3. All options with the potential to meet the transport objectives were considered.

The first stage was an options identification workshop held by the internal project team and then shared with the client at the long list meeting on 16/04/2021.

Different concepts were considered which would address or partially address the scheme objectives. A number of methods and modes were considered, such as maximising the use of existing infrastructure and providing new infrastructure. Interchanges between modes were also considered.

6.2.2. Options Generated

The approach above was used to generate a wide range of options. Those identified fell into five broad categories:

- Bypass options;
- Junction improvement options;
- Speed reduction measures;
- Public transport options; and
- Non-motorised user options.

Options identified are detailed in the following figures.

Bypass Options

Figure 6-1 shows the bypass options identified.

At this stage it is considered that the links represent indicative options that would change as the project progresses and detailed assessment takes place. They do not represent any specific alignment or design.

Figure 6-1 - Indicative Bypass Alignment Options

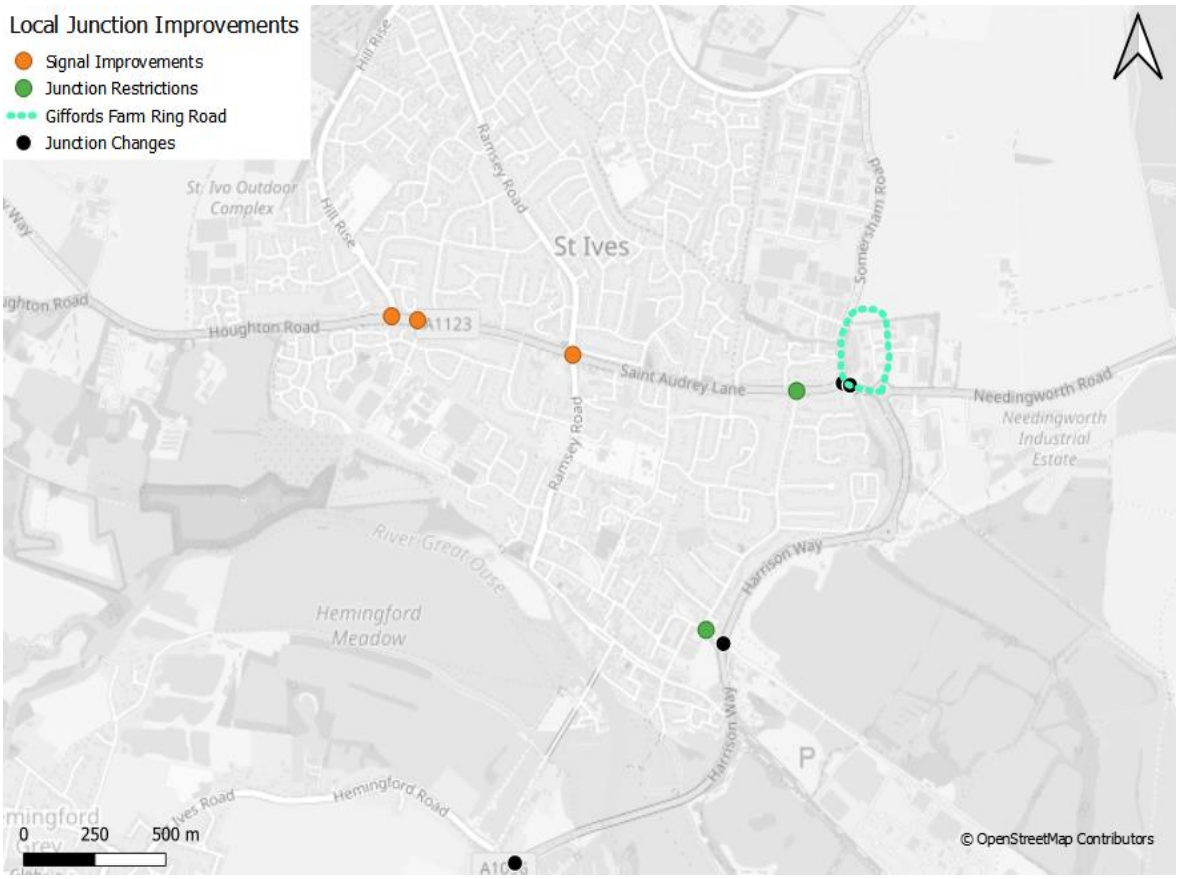
Options generated considered:

- Connections to the existing highway network;
- Alignment of the bypass within the study area;
- The potential for the new bypass to be single or dualled carriageway; and
- Known constraints within the study area, particularly in relation to the various lakes and waterways around St Ives and existing junctions that are particularly congested.

Junction Improvement Options

Figure 6-2 shows the junction improvement options identified.

Figure 6-2 - Junction Improvement Options

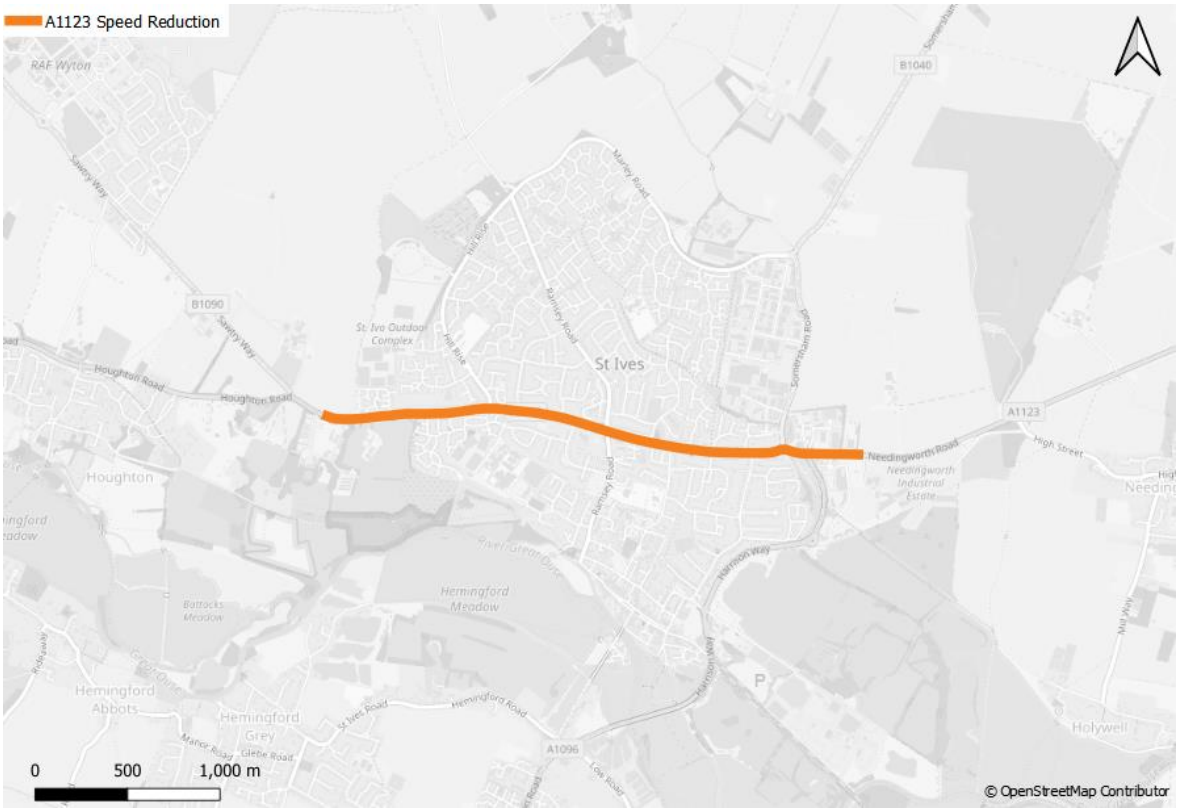


Options generated considered:

- Junction signal improvements along the A1123;
- Access restrictions and a bus gate at either end of Needingworth road in order to prevent rat running;
- Junction geometric improvements; and
- A ring road system at the A1123/B1040/B1096 junction.

Speed Reduction Option

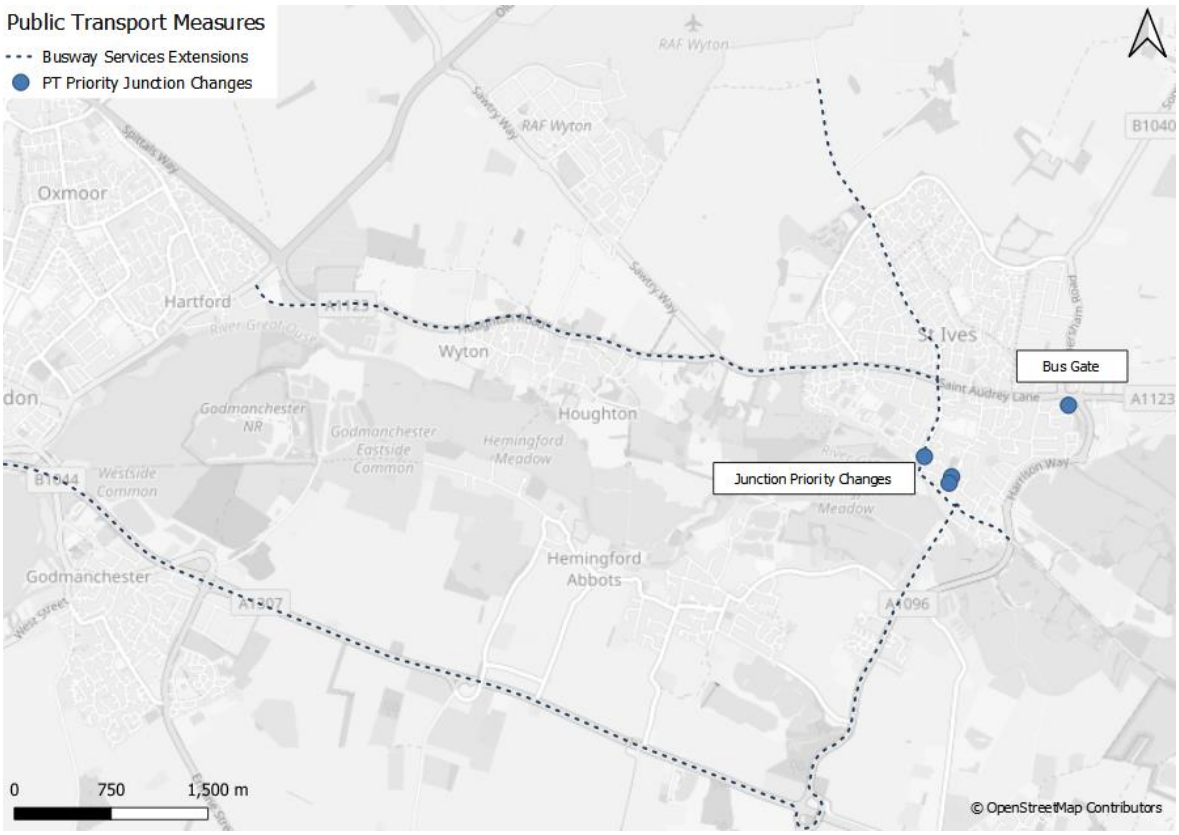
Figure 6-3 - Speed Reduction Option



Public Transport Options

Figure 6-4 shows the public transport options identified.

Figure 6-4 - Public Transport Options



Options identified considered:

- Extensions to the current busway services along:
  - The Old Ramsey Road serving the aspirational Wyton Airfield development;
  - The A1123 towards Hartford (with the aim of providing priority to existing services); and,
  - The A1307 serving Huntingdon directly.
- Junction priority changes in St Ives to favour public transport.

NMU Options

Figure 6-5 shows the NMU options identified.

Figure 6-5 - NMU Options

Options identified considered:

- Improvement to existing NMU routes;
- Additional NMU routes; and
- Linking of the Fenstanton NMU route and the Guided busway.

6.3. Option Sifting (stage 2)

6.3.1. Methodology

An option sifting process reviewed and sifted the identified options that had been generated in the previous stage. Each option was assessed against three overarching criteria of Effectiveness, Feasibility and Acceptability.

Table 6-1 outlines the sifting assessment criteria and the key issues considered under each criterion that reflect the transport objectives and outcomes.

Table 6-1 - Sifting Assessment Criteria

Sifting Criteria	Elements Considered Within Each Criterion
Effectiveness	Address current congestion
	Increase transport capacity
	Improve connectivity and quality for walking and cycling
Feasibility	Engineering constraints
	Environmental constraints
	Planning requirements
Acceptability	Stakeholder views
	Alignment with local and regional policies

6.3.2. Results of Option Sifting

A number of options were rejected as a result of the option sifting. These are outlined in Table 6-2 along with the rationale for their exclusion.

Table 6-2 - Options Rejected During Option Sifting

Option Description	Reason for Rejection
Widening/dualling the A1123	Constraints regarding width and need to retain 'local road' where houses front on
Bypass from the A1123 to the east of the B1090 junction to connect with Marley Ray or the B1040	Hill Rise particularly not suitable as strategic route and unlikely to remove significant vehicles from the A1123 due to journey time impact
Third River Crossing	Discounted by Skanska – not part of this study
Demand responsive public transport from rural villages	Out of project scope – CPCA/DRT trial ongoing in West Hunts
Workplace parking levy	A141 engagement has shown that these are not publicly acceptable
Wider policy considerations	Being picked up by CPCA as part of LTP refresh – also needs a region wide approach
Bypass from the B1090 north towards Marley Way	Unlikely to remove significant vehicles from A1123 due to journey time impact. Technically challenging to upgrade and increase capacity of the B1090 due to frontages and accesses

All remaining options were taken forward to option packaging and public engagement.

6.4. Option Packaging

6.4.1. Methodology

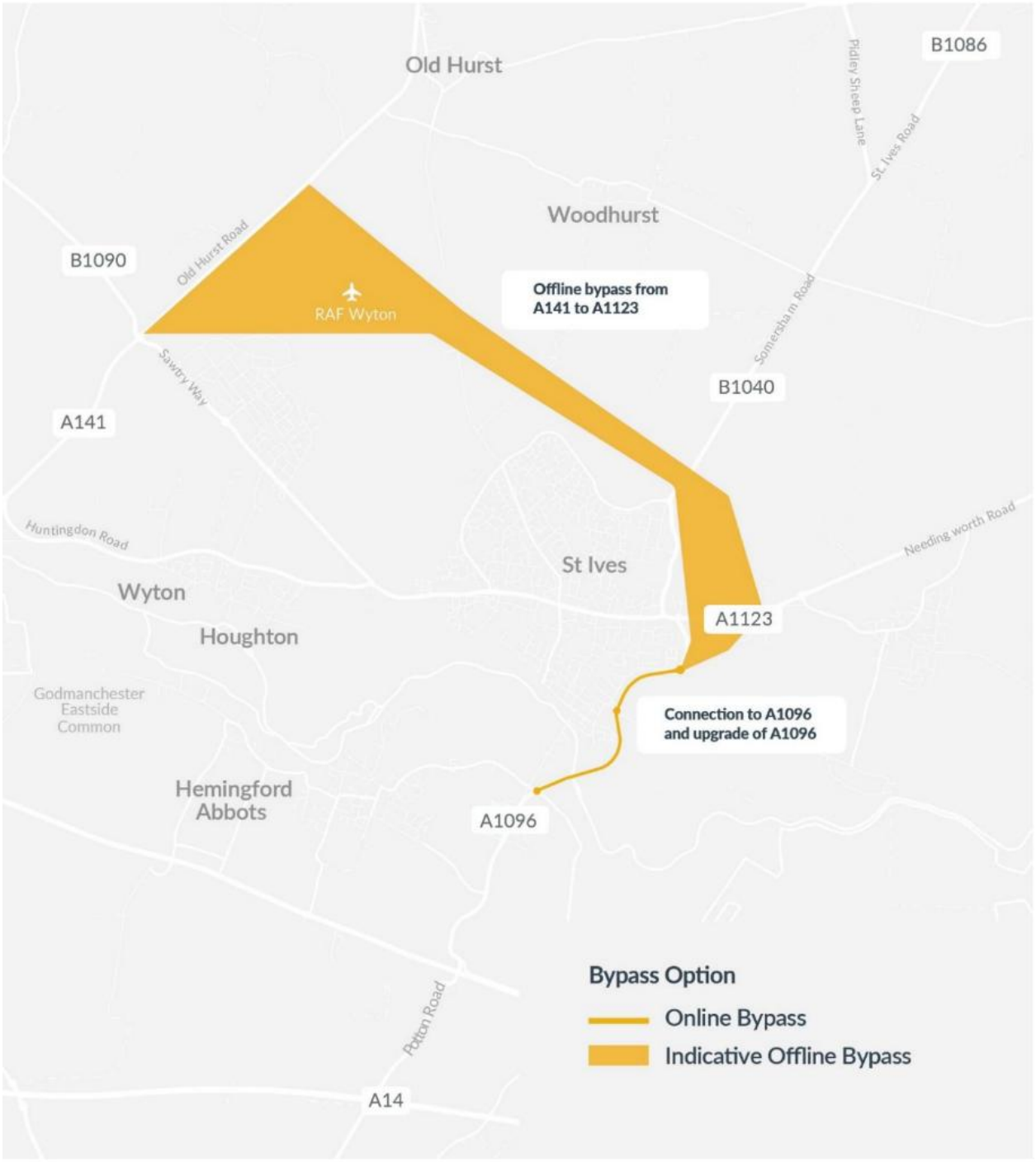
An option packaging process grouped the option long-list into themes for further engagement and assessment. Packaging was necessary at this stage as it is unlikely that any of the individual options identified would be implemented in isolation and therefore grouping the options into indicative packages would allow for stakeholder and the public to see the options as part of a holistic solution. Furthermore, it would allow further assessment to be undertaken to determine highest performing options based on whole solutions rather than individual elements.

6.4.2. Results of Option Packaging

Six packages were formed to take forward for engagement and further assessment. Packages are indicative and are unlikely to represent the 'final' preferred solution. In practice, the preferred solution is likely to consist of a combination of options from a variety of packages. Figure 6-6 to Figure 6-11 show the packages taken forward. These images were captured from the St Ives public consultation microsite[34].

[34] Cambridgeshire and Peterborough Combined Authority (2021) *Your St Ives.* Available at: Your St Ives (your-stives.co.uk)

Figure 6-6 - Option 1: Offline Bypass from A141 to A1096



Option 1 consists of an offline bypass from the A141 around the north of St Ives, to the A1123 to the east of St Ives. A new connection would be made between the A1123 and the A1096. The A1096 would be upgraded with its junction to Low Road.

Figure 6-7 - Option 2: Offline into Online Bypass

Option 2 consists of an offline bypass from the A141, around the north of St Ives, which connects with an upgraded Marley Road. Online upgrades in the form of junction and capacity improvements would be made to the B1040, A1123, and A1096 including the Low Road Junction.

Figure 6-8 - Option 3: Hybrid Bypass

Option 3 consists of an offline bypass from the A141, around the north of St Ives, which connects with an upgraded Marley Road. From the B1040, an offline link would be provided to connect the B1040 with the A1123. A new connection would be made between the A1123 and the A1096 upgraded including the Low Road junction.

Figure 6-9 -Option 4: Local Junction Improvements Package

Option 4 consists of a package of local junction improvements.

Signal improvements would be made to the A1123/Hill Rise/High Leys Junction and the A1123/ Ramsey Road junction where possible in order to improve traffic flow on the A1123.

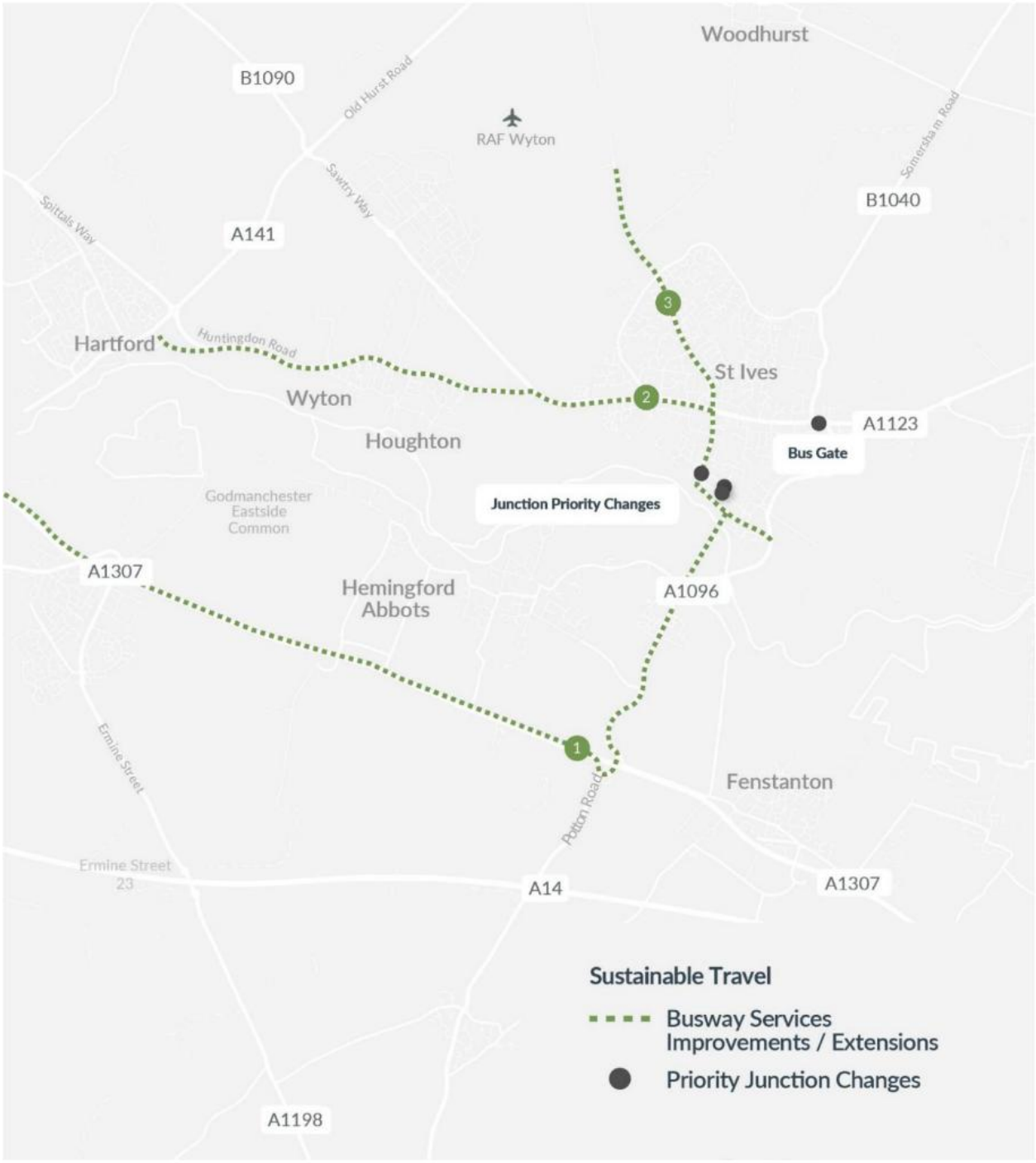
A ‘no-right turn’ access restriction would be considered on vehicles turning into Needingworth Road from the A1123 west as well as access restrictions during peak times to the Meadow Lane approach to the A1096 roundabout (except for vehicles accessing the Cattle Market Car Park) in order to reduce rat-running.

Geometric improvements to the A1096/Low Road roundabout, the A1096/Meadow Lane roundabout, A1123/B1040 roundabout and the A1123/A1096 roundabout would be considered in order to assist movements of vehicles and to increase capacity.

A larger scale road layout change would be considered for the A1123/B1040 roundabout and the A1123/A1096 roundabout to help traffic flow within this area. This may consist of one-way or two-way circular connection via the B1040/A1123/Compass Point.

Speed reduction measures on the A1123 would be considered to help reduce the speeds of vehicles along this corridor. Measures could include public realm enhancements, narrowing of the carriageway, installation of sustainable travel measures to make this section of the A1123 more representative of the 30mph speed limit.

Figure 6-10 - Option 5: Sustainable Travel Package



Option 5 consists of a package of sustainable travel measures.

Junction priority changes would be made at the Ramsey Road/North Road, North Road/Broad Leas and Globe Place/West Street/East Street junctions to help the movement of buses through St Ives Town Centre.

A bus gate between the A1123/B1040 roundabout and the A1123/A1096 roundabout would be considered alongside other measures to improve traffic flow and pedestrian and cycle connectivity in this area.

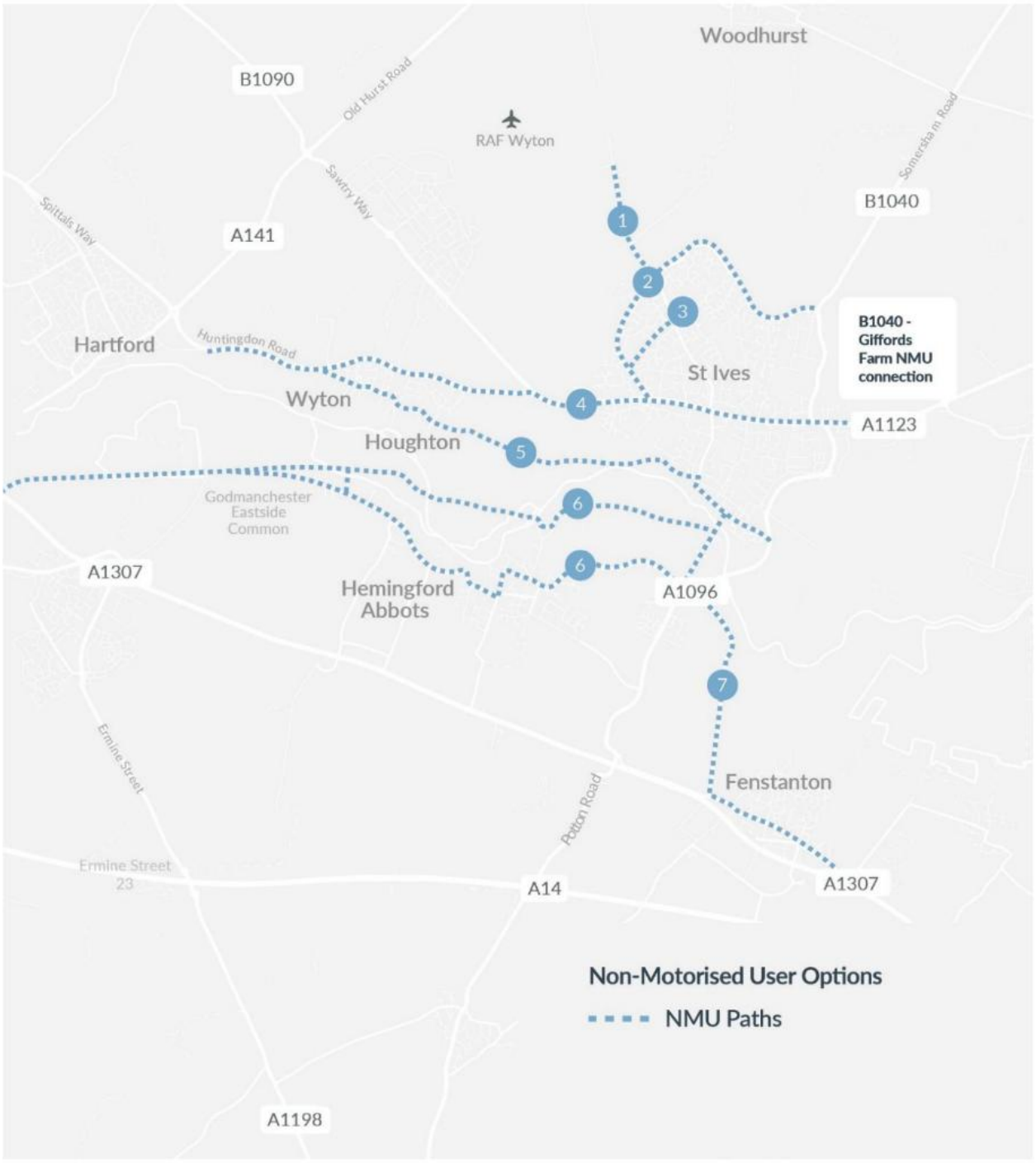
This option would also include options to work with bus operators to improve and extend the existing Cambridgeshire Guided Bus Services and coordinate with work on future public transport schemes including:

1. Along the A1096 and A1307 into Huntingdon Town Centre;
2. Along the A1123, as with current services, but with additional bus priority where possible; and

3. Along Ramsey Road and Old Ramsey Road to connect to potential new development at RAF Wyton, Warboys and Chatteris.

Option 5 also includes measures identified through previous study work to improve accessibility of bus stops, and to reduce the delay experienced by buses in St Ives town centre by rationalising on-street parking.

Figure 6-11 - Option 6: Non-Motorised User Options



Option 6 consists of a package of options aimed at improving infrastructure provision, safety and route choice for pedestrians, cyclists and equestrians. Specific route considerations include:

1. Reconnecting Old Ramsey Road and St Ives Road between Old Hurst and St Ives to provide an off-road connection from north of St Ives;
2. Connection and upgrade of the Hill Rise footway to the B1040 via Marley Way to connect leisure uses off Hill Rise and also provide a connection to the Nuffield Road industrial estate and to the east of the B1040 to the proposed Gifford's Farm development;

3. Localised improvements to the network to the north of the A1123 to improve safety and perceptions of safety, connect existing route and provide new routes along desire lines;
4. Improvements to the consistency of NMU route along the A1123 through St Ives and between St Ives and Huntingdon;
5. An upgrade of The Thicket between St Ives town centre and Houghton, on-road improvements through Houghton and Wyton and improved off-road provision between Huntingdon Road, Wyton, and Old Houghton Road, Huntingdon;
6. A connection from London Road, south of the River, along the route of the old railway line, to The Avenue, between Godmanchester and Huntingdon. An alternative route has been identified should this not be feasible, via Hemingford Gray and Hemingford Abbots; and
7. Improvements to Low Road to make the route more friendly for pedestrians, cyclists and equestrians to connect through Fenstanton to the new NMU route alongside the A1307 into Cambridge.

6.5. Engagement

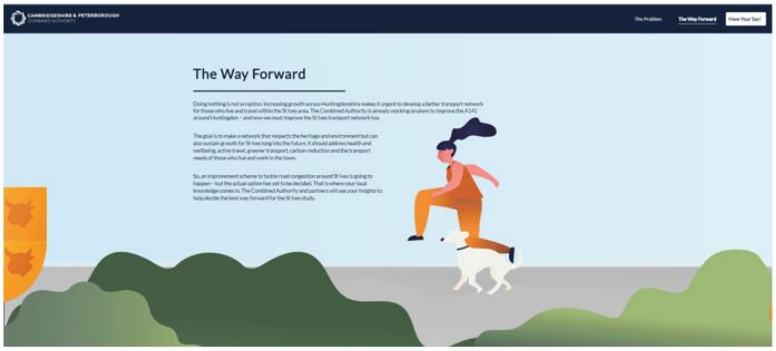
A series of public and stakeholder engagement and consultation will be undertaken throughout the study, the first of which was undertaken in June 2021 and looked to gain opinions on the six packages, and their component parts, identified in the previous sections. The following sections outline the public and stakeholder engagement undertaken at this stage of the study and the outcomes.

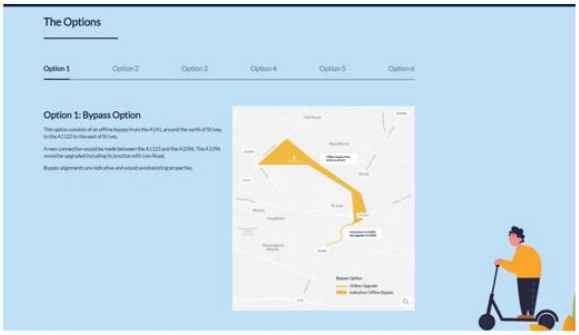
6.5.1. Public Engagement

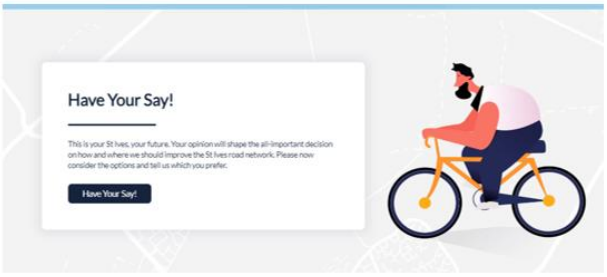
Methodology

A public engagement exercise was carried out between 14th June 2021 and 5th July. The engagement focussed on presenting the problems, issues and challenges for the area and the early emerging option concepts that could come forwards to address these. Engagement was undertaken virtually, utilising a website guiding the public through the engagement material, with a questionnaire and a map where the public could drop pins with specific comments on the option concepts or problems and challenges in the area.

Figure 6-7 – St Ives Public Engagement Microsite







Results of Public Engagement

A total of 469 responses were received to the online survey and 3 responses were received by post. Combined there was a total of 472 responses.

Most respondents were residents of St Ives. The majority of trips taken by respondents in the local area were made by foot, cycle and car. Respondents felt most strongly about issues relating to congestion and road safety. Respondents also felt that providing reduced journey times, increased travel options and connecting the area to growth opportunities was very important.

For the pin map findings, 268 comments were attached to pin locations on the interactive map. Comments were dropped around the following areas:

- The amount of congested that has been created following the development of Aldi, Tesco, Morrison's and McDonalds adjacent to the roundabout for converging traffic from the A1123, B1040 and A1096;
- Safety concerns for NMU, surrounding Harrison Way area including the access to Meadow Park and route into St Ives, these were related to the lack of visibility, poor condition of the cycle / footpath and dangerous crossing points;
- The A1123 was highlighted in pin comments for two main reasons. These were in relation to congestion along the length of the A1123 as well as the lack of connectivity between walking and cycle infrastructure between St Ives and Huntingdon;
- London Road and the Low Road were also highlighted due to the congestion levels and volumes of traffic;
- There were concerns in the town centre regarding accessibility for wheelchair users. Also, in the town centre many respondents felt that pedestrian access only would improve the current feel of the town;
- The side of the town north of Ramsey Road was highlighted numerous times, again this was due to the lack of a well-connected and safe active travel network. The need for better provision was also highlighted around local schools;
- The B1040 was commented for similar active travel reasons, particularly between St Ives and Somersham;
- The guided busway only received a small number of comments from the pin analysis. These comments pointed towards addressing the issues of flooding which often affects the cycle path alongside the busway; and
- Some residents also felt that rat running was an issue within the study area. One of the areas affected by rat running is Fenstanton. Users cut off the A1307 earl, travel through Fenstanton and along the Low Road to access St Ives.

6.5.2. Stakeholder Engagement

Methodology

CPCA and Atkins held a Members meeting on Friday 11th June, prior to the engagement period, to present the six options. The meeting included an overview of the scheme aims and objectives and set out the initial option concepts for consideration. Members were then invited to comment on the options presented and encouraged to respond to the online engagement survey and/or submit responses to the project team via the St Ives email address. Several responses were received.

Results of Stakeholder Engagement

In general, responses were consistent in that they did not think a bypass on its own would solve the problem at all or entirely. It should be noted that most comments stated that constructing a bypass (option 1, 2 or 3) would only have a positive impact on the transport network if considered in conjunction with the other options (4, 5 or 6). Most responses favoured bypass option 1 in conjunction with sustainable transport measures 5 and 6. However, it should be noted that some responses were sceptical as to whether a bypass, be that option 1, 2, or 3, would improve current transport issues or increase them. Instead, respondents suggested there should be greater emphasis on assisting active transport mode users to encourage more people to use non-motorised modes of transport, thus reducing the need for a new bypass due to a reduction in motorised traffic on the roads.

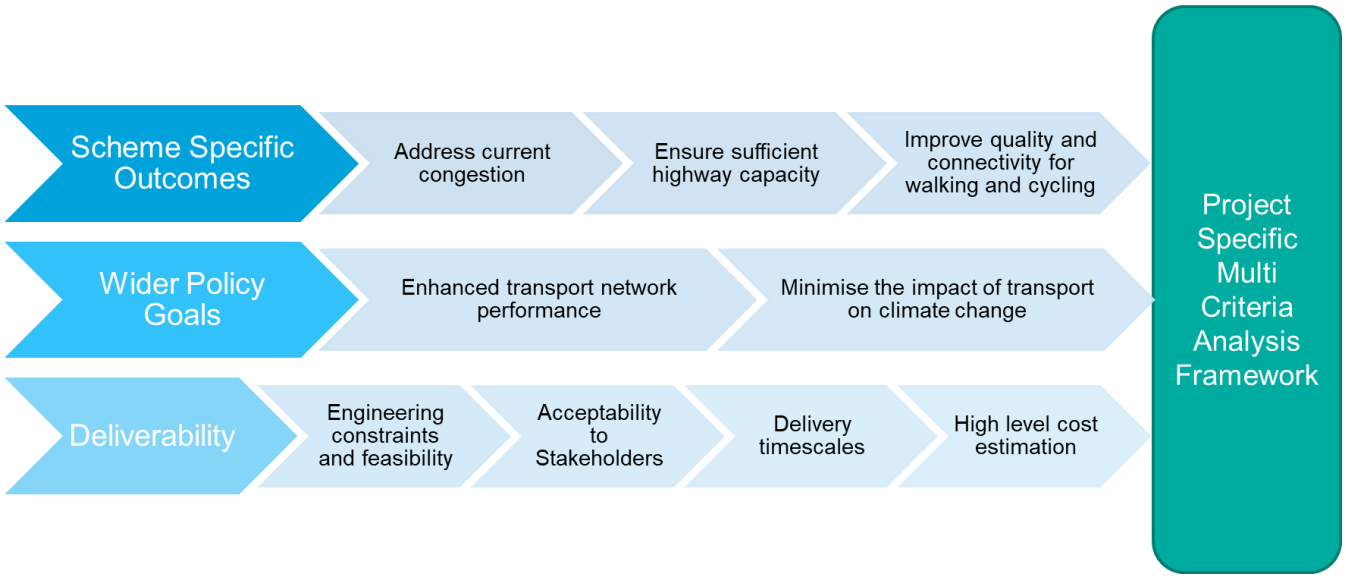
7. Further Option Assessment

Following the option identification, sifting, packaging and initial engagement on all of the Huntington and St Ives packages, all 12 options were taken forward for more detailed assessment in the form of a Multi-criteria Analysis Framework (MCAF).

7.1.1. Methodology

The MCAF considered all 12 options as presented at the engagement stage that best met the objectives and outcomes discussed in section 4. A summary of the assessment criteria is provided in Figure 7-1.

Figure 7-1 - MCAF Criteria



Options were assessed using the criteria outlined in Figure 7-1 through desktop studies by specialists in each discipline who were as follows:

- Planning Lead: feasibility;
- Environment Lead: environmental constraints and acceptability;
- Highway Design Lead: engineering constraints, feasibility, and high-level cost estimation; and
- Transport Planning Lead: transport objectives.

As a summary of the assessments and to allow intuitive comparison of relative performance, each option was scored against the 9 criteria outlined in Figure 7-1 using a six-point scale from 0, low performing, to 5, high performing. **It is noteworthy that the scores themselves are not representative of a "numbered score" against the criteria. The scores serve the purpose of ranking each option against one another on a per criteria basis.** The scoring criteria were tailored to the specific assessment being undertaken and are detailed in Table 7-1.

Scores were aggregated across the criteria for ease of assessment and followed by a sense-check.

Table 7-1 - MCAF Scoring Criteria

Assessment Criterion	Assessment Metric	Definition
Scheme Specific Outcomes	Address current congestion	How do options improve on current network performance?
		How many existing pinchpoints are improved/bypassed?
		How much strategic traffic can be moved away from local roads?
		Are there any wider benefits elsewhere in Huntingdon and/or St Ives?
	Ensure sufficient highway capacity	How much additional capacity is offered by infrastructure?
		Is there any reduction in capacity of existing infrastructure (e.g., through reallocation of roadspace)?
		What is the net change of capacity?
	Improve quality and connectivity for walking and cycling	How much additional active mode capacity is offered by infrastructure?
		Are any new direct connections offered by new infrastructure that align to current or future desire lines not currently served?
Wider Policy Goals	Enhanced transport network performance	How much does the option increase capacity, improve reliability and speed for public transport, pedestrians, cyclists and equestrian users?
		How much does the option help minimise rat-running?
		How much does the option help to keep traffic levels at or below 2018 levels?
	Minimise the impact of transport on climate change	How much does the option contribute towards reducing emissions to 'net zero' by 2050 and minimise the impact of climate change?
Deliverability	Engineering constraints and feasibility	Are there any blockers to construction from an engineering perspective?
	Acceptability to stakeholders	What is the perception of environmental impacts?
		What is the expected level of stakeholder support?
	Delivery timescales	What is the timescale for the delivery of the option?
		What are the risks to the delivery timescale including other dependencies?
	High level cost	What is the overall high-level cost of the option?

7.1.2. Results

The full findings of the MCAF are provided in Table 7-2 and the following sections provide some high-level commentary on the general findings of the assessment.

Table 7-2 - MCAF Results Summary

Assessment Criterion	Assessment Metric	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
St Ives Transport Study							
Scheme specific objectives	Address current congestion	18	10	15	7	6	11
	Ensure sufficient highway capacity	10	9	9	7	5	4
	Improve quality and connectivity for walking and cycling	6	2	4	0	4	10
Wider Policy Goals	Enhanced transport network performance	8	4	6	6	9	9
	Minimise the impact of transport on climate change	0	0	0	3	9	9
Deliverability	Engineering constraints and feasibility	2	2	2	5	4	4
	Acceptability to stakeholders	7	3	3	6	6	6
	Delivery timescales	1	2	1	5	3	4
	High level cost	1	2	1	5	3	2
Total		**53**	**34**	**41**	**44**	**44**	**55**

Assessment Criterion	Assessment Metric	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
A141 Huntingdon Northern Bypass							
Scheme specific objectives	Address current congestion	17	14	8	6	10	8
	Ensure sufficient highway capacity	10	10	9	4	4	5
	Improve quality and connectivity for walking and cycling	2	6	4	1	10	0
Wider Policy Goals	Enhanced transport network performance	7	3	5	8	9	9
	Minimise the impact of transport on climate change	0	0	0	2	5	4
Deliverability	Engineering constraints and feasibility	1	1	3	3	3	5
	Acceptability to stakeholders	5	6	3	5	7	7
	Delivery timescales	1	1	3	4	4	5
	High level cost	1	1	3	4	5	5
Total		**44**	**42**	**38**	**37**	**57**	**48**

7.1.3. Analysis of MCAF results

A141 Huntingdon Northern Bypass

For the MCAF results of the A141 Huntingdon Northern Bypass, option 5 scored the highest whilst option 4 scored the lowest. Options 1 and 2 scored greater in addressing current congestion and ensuring sufficient highway capacity.

Options 1-3 all scored zero on minimising the impact of transport on climate change. Options scoring zero under any criteria were not discounted at this stage as they may have benefits across other criteria. However, these options would need to be delivered as part of a wider package that provides overall benefit across the criteria assessed, including options that do minimise the impact of transport on climate change.

Option 5 also scored highest in improving quality and connectivity in walking and cycling as well as minimising the impact of transport on climate change. However, as option 4 scored the lowest, this demonstrated that not all sustainable options were high performing. For option 4, this may have been in part due to its poor performance on meeting the scheme specific objectives.

St Ives Transport Study

For the MCAF results of the St Ives Transport Study, option 6 scored the highest whilst option 2 was the lowest scoring. Options 1-3 consistently scored low on their overall deliverability whilst also scoring zero on minimising the impact of transport on climate change. However, options 1-3 scored higher than options 4-6 in addressing current congestion and ensuring highway capacity. Overall, options 1-3 performed better in scoring more favourably in addressing road-related objectives as these options are based on expanding road infrastructure. However, in doing so, they do not address the objective of improving the quality and connectivity of active travel modes and do not serve well in improving sustainable mode share to reduce the impact of transport on climate change. Therefore, it appears more sustainable options that promoted active travel performed better within the MCAF.

From the MCAF results, it can be seen that a package of options needs to be developed that can meet not only the criteria of sustainability but also the scheme specific objectives whilst also being deliverable. The MCAF results do not represent the final answer but rather what must be considered when collating options together that will work effectively as a package.

7.1.4. Summary of Key Differentiators Between Options

The following items have been found to be the key differential factors between options:

- The extent to which they minimise the impact of transport on climate change;
- The extent of engineering constraints and feasibility;
- The extent of high-level cost; and
- The extent of enhanced transport network performance.

7.1.5. Identification of best performing options

Following the MCAF, combinations of options were drawn together combining better performing options from both studies in order to create coherent and mutually distinct packages that bring together the option assessment work of the A141 Huntingdon bypass and the St Ives Transport Study. The three combined packages identify the best performing options that can be proceed onto further testing. These are shown in Table 7-3.

Table 7-3 - Packages to be taken forward for further testing

Package	Highway element	Active Travel element	Public Transport element
A	Full bypass between Spittals Interchange and the A1096. No junctions along the route with the exception of the existing A141 near the B1090.	Huntingdon and St Ives pedestrian, cycling and equestrian measures.	Huntingdon and St Ives Public Transport Measures.
B	Full bypass between Spittals Interchange and the A1096. Junctions along the route where the bypass crosses the existing highway.	Huntingdon and St Ives pedestrian, cycling and equestrian measures.	Huntingdon and St Ives Public Transport Measures.
C	Hybrid bypass of Huntingdon with junction improvements in St Ives.	Huntingdon and St Ives pedestrian, cycling and equestrian measures.	Huntingdon and St Ives Public Transport Measures.

Table 7-3 shows that all three packages contain the same active travel and public transport elements. The highway element varies between the packages from a full bypass with no connections to the existing network in package A to a hybrid bypass of Huntingdon with junction improvements in St Ives in package C. By testing a range of bypass options the results will show to what extent a significant highway intervention is required to mitigate against the challenges identified within this OAR. It is considered that the active travel and public transport elements complement each package and must be provided to offer a viable alternative to private vehicle travel in the study area.

8. Conclusions and Recommendations

8.1. Options for Further Assessment

Based on a robust identification, sifting, engagement and assessment process, the better-performing options that are recommended to be progressed to SOBC stage are shown are outlined in Table 8-1.

Table 8-1 - Summary of Options Taken Forward for Further Consideration

Option Name	Description
Option Package A	Package 1 for further testing comprises of an offline bypass with no junctions other than the existing A141. In addition, there are NMU connections as well as public transport connections.
Option Package B	Package 2 for further testing contains an offline bypass with connecting junctions to the existing road network along with NMU connections and public transport connections.
Option Package C	Package 3 for further testing consists of a hybrid bypass of Huntingdon with junction upgrades in St Ives. In addition, NMU connections are present as well as public transport connections.

8.2. Next Steps and Recommendations

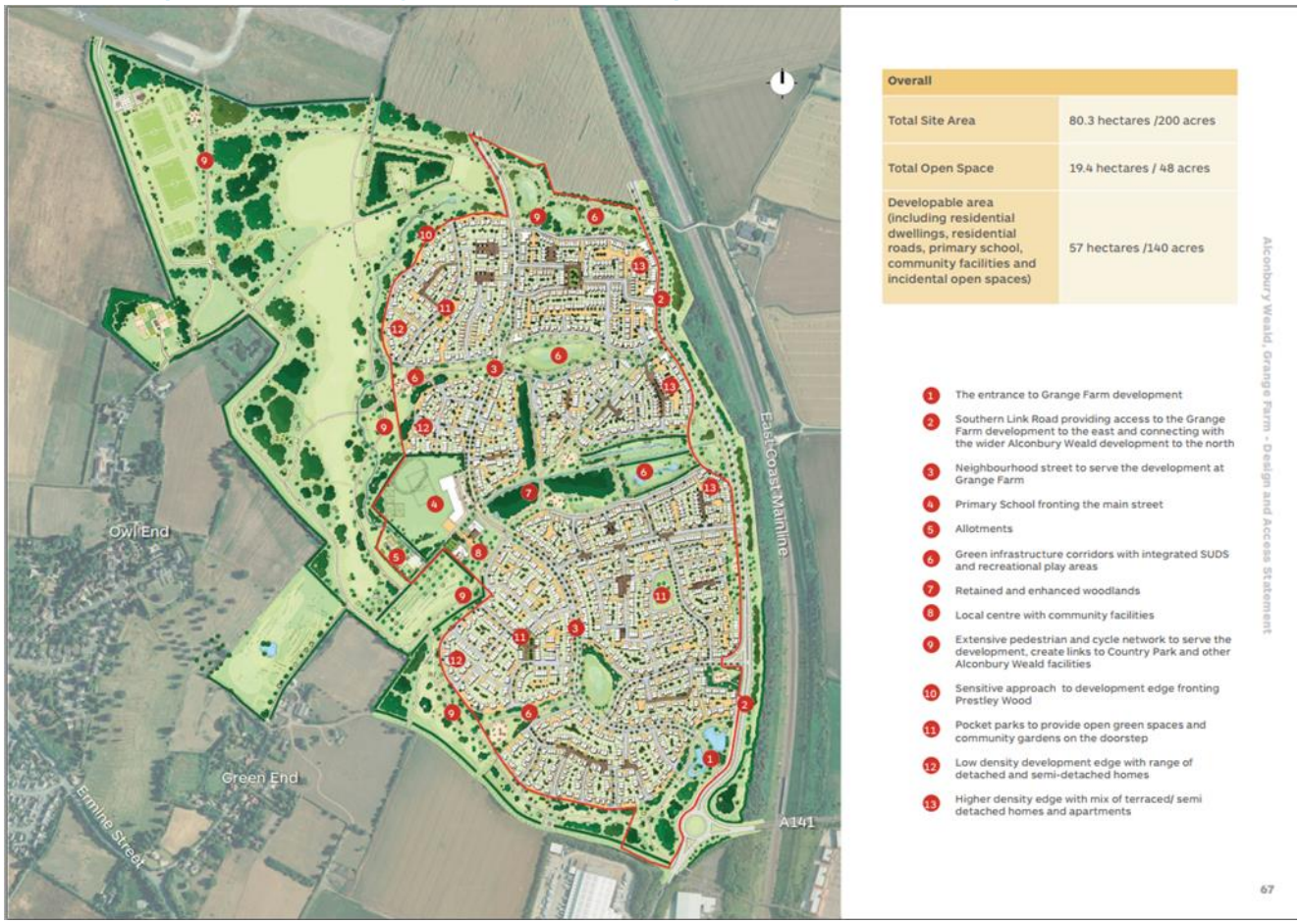
CPCA is recommended to take forward, for further assessment, the three options identified in Table 8-1. Further work will consist of design, costing and transport modelling to feed into the Strategic Outline Business Case for the scheme.

Appendices

Appendix A. Development Masterplans

A.1. Washingley Farm Development Masterplan (Savills)

A.2. Masterplan for Grange Farm Development



Overall	
Total Site Area	80.3 hectares /200 acres
Total Open Space	19.4 hectares / 48 acres
Developable area (including residential dwellings, residential roads, primary school, community facilities and incidental open spaces)	57 hectares /140 acres

1. The entrance to Grange Farm development
2. Southern Link Road providing access to the Grange Farm development to the east and connecting with the wider Alconbury Weald development to the north
3. Neighbourhood street to serve the development at Grange Farm
4. Primary School fronting the main street
5. Allotments
6. Green infrastructure corridors with integrated SUDS and recreational play areas
7. Retained and enhanced woodlands
8. Local centre with community facilities
9. Extensive pedestrian and cycle network to serve the development, create links to Country Park and other Alconbury Weald facilities
10. Sensitive approach to development edge fronting Prestley Wood
11. Pocket parks to provide open green spaces and community gardens on the doorstep
12. Low density development edge with range of detached and semi-detached homes
13. Higher density edge with mix of terraced/ semi detached homes and apartments

Alconbury Weald, Grange Farm - Design and Access Statement

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