Rural Travel Hubs Feasibility Study Report





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Rural Travel Hubs

Feasibility Study Report

Cambridgeshire County Council

November 2017

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Executive Summary

Cambridge and South Cambridgeshire continue to grow both geographically and economically. With the predicted level of growth it is deemed unsustainable for the car to continue as a primary transport mode into Cambridge city. The demand for a frequent and reliable transport system is increasing, especially from the rural locations surrounding the city. The rural communities in South Cambridgeshire represent a proportion of society that should be able to take full advantage of the transport networks available, whether they are bus, walking or cycling networks, and not have to rely on car journeys to access the city.

Skanska has been commissioned by The Greater Cambridge Partnership and South Cambridgeshire District Council to prepare a feasibility study into the potential for Rural Travel Hubs to be developed within South Cambridgeshire.

The Rural Travel Hub concept seeks to increase bus and cycle patronage into Cambridge from the outlying rural areas in order to reduce the number of car journeys into the city.

Through a consultation and engagement process the term 'Rural Travel Hub' has been defined as:

'a transport facility that serves as an interchange, close to existing transport corridors (that are served by a reliable and relatively frequent public transport service), where residents in rural areas can walk, cycle or drive to and continue their onward journey using a sustainable mode of travel'.

The consultation and engagement process also assisted with the identification of services, infrastructure and facilities that could be provided at the hub location.

There are no existing designated Rural Travel Hubs in the South Cambridgeshire District. However, an existing transport facility at Swavesey has been reviewed as part of the feasibility study. The Swavesey Guided Busway Stop has evolved into something akin to a Rural Travel Hub, and perhaps best represents what a hub may look like and consequently was used as a case study.

A detailed review of national, regional and local transport policy applicable to rural travel and the Rural Travel Hub concept was undertaken. This review concluded that the development of infrastructure similar to that of Rural Travel Hubs, should be supported at all levels.

A district-wide review resulted in the identification of 10 parishes that could be considered for a Rural Travel Hub in South Cambridgeshire.

The report has considered the baseline situation in South Cambridgeshire in terms of typical movements of people and the mode of transport that they currently use. This has shown that, as may be expected, a number of people living in the vicinity of the potential hub sites work in Cambridge, and as a result of this are making journeys into Cambridge on a regular basis.

The feasibility study concluded that the operation of Rural Travel Hubs in South Cambridgeshire is potentially viable and that they are likely to be supported by local communities, serving to encourage more use of sustainable travel for journeys into Cambridge from outlying parishes.

An appraisal process was undertaken which reviewed each of the 10 parishes against identified factors, considering the opportunities and constraints at each. Adopting this approach a priority list was established to aid the identification of the two parishes that could progressed as pilot sites as detailed below:

- a) Oakington Guided Busway Stop
- b) Whittlesford Railway Station

Subject to the approval of the Greater Cambridge Partnership's Assembly and Board the two identified pilot sites should be taken forward to preliminary design, local consultation and planning permission/consent, and (subject to approval) construction.



It is recommended that the two pilot sites are monitored to establish usage patterns. The results of this monitoring process would then dictate whether further Rural Travel Hubs should be provided throughout South Cambridgeshire.

1.0 Introduction

1.1 Background

Cambridge is a city that has experienced huge growth since the 1960s in technology, innovation and life sciences to become the UK's leading city in these areas. This growth has made Cambridge an ideal place for foreign investment into the UK economy. This growth is now contributing to a shortage of housing and a transport network that grows more congested each year.

The Greater Cambridge Partnership (GCP) is a partnership between Central Government, Council leaders, businesses and the University of Cambridge, which aims to secure hundreds of millions of pounds in the years leading up to 2031. Part of the investment plan of the GCP is focussed on transport. The importance of transport has been recognised as a key factor in the continued success of the Cambridge Phenomenon and economic success in this area.

The GCP's vision is "Working together to grow and share prosperity and improve quality of life, now and in the future" and its transport ambition is "Creating better and greener transport networks, connecting people to homes, jobs, study and opportunity".

As Cambridge continues to grow both geographically and economically the need to access the city on frequent and reliable transport is increasing, especially from the rural locations surrounding Cambridge. There is a need for the people living in these rural locations to have increased access to the existing and planned transport services into the city centre. The rural communities in South Cambridgeshire represent a proportion of society that should be able to take full advantage of the public transport networks available, whether they are bus, walking or cycling networks, and not have to rely on car journeys to access the city.

"In South Cambridgeshire, the level of car traffic generated by travel to work trips grew by 9.8%, but the proportion of employed residents of the district who drove to work dropped from 62.7% to 60.2%. For stability in car trips to be seen in the period 2031 with the population growth envisaged in the Local Plans, this proportion would need to fall to around 47%" (Transport Strategy for Cambridge and South Cambridgeshire, 2014).

This project has been funded after a decision made by the GCP Executive Board to progress a feasibility study of Rural Travel Hubs in South Cambridgeshire. In response to a letter sent to all South Cambridgeshire District Council (SCDC) Parishes in 2016 from the SCDC Portfolio Holder for the GCP, six parishes of South Cambridgeshire have put forward their interest in being involved with this project.

Swavesey is an example of an existing project that has seen the development of a 'travel hub' aiming to increase bus and cycle patronage, whilst reducing the number of people travelling into Cambridge by car. Details from the Swavesey project will be used within the study to determine the benefits and physical aspects of a Rural Travel Hub.

The project will feed into the wider objectives of the Transport Strategy for Cambridge and South Cambridgeshire (2014) to:

- Enhance accessibility to, from and within Cambridge and South Cambridgeshire
- Ensure good transport links between new and existing communities
- Prioritise sustainable alternatives to the private car and reduce the impacts of congestion on sustainable modes of transport;
- Ensure the strategy encourages healthy and active travel, supporting improved well-being.

The Rural Travel Hubs project will need to inter-relate with other local transport projects and their aims. These include the following:

City Access – Greater Cambridge Partnership

City Access is a package of eight measures to tackle congestion within Cambridge by the creation of a transport system that meets the needs of our growing, vibrant city. It plans to achieve a reduction in peak-time traffic levels in Cambridge by 10-15% by 2031.

It aims to help more people get into, out of and around the city by sustainable means, offer better alternatives to travel by car and boost economic growth and quality of life.

The City Access package of eight measures are:

- pedestrian and cycling infrastructure provision
- Improved public space and air quality
- better bus services and expanded use of Park and Ride
- travel planning
- smart technology
- traffic management
- workplace parking levy
- on-street parking management (including Controlled Parking Zones)

Greenways – Greater Cambridge Partnership

The Greenways project aims to establish a high-quality network of 12 separate routes into Cambridge from surrounding towns and villages, from approximately five to ten miles away. They will primarily be commuter cycle paths, but with additional benefits for pedestrians, horse riders and leisure.

A 'Greenway' will be an attractive route segregated from traffic or on quiet roads. The aim is to increase levels of cycling and walking, to reduce congestion as the city grows and to improve the health of the population. Parts of each route exist already, but some may need significant improvement or have missing links.

Cambourne to Cambridge Better Bus Journeys – Greater Cambridge Partnership

The Cambourne to Cambridge scheme aims to deliver improved, faster and more reliable bus services, together with high quality cycling and walking facilities and a new Park & Ride site, for people travelling into Cambridge from towns and villages to the west.

The project will provide improved public transport links - connecting people to places of employment, study and key services - and help existing and new communities along the A428 grow sustainably in the coming years.

Between now and 2031, 8,800 new homes and 15,000 new jobs are planned between Cambridge and St Neots along this route as part of the Local Plans, with 3,500 more houses to the east of St Neots due by 2036.

By providing new travel choices, and as an alternative to the car, the Cambourne to Cambridge scheme will help manage growing congestion on the A428 and ensure people have good access to opportunities in the Cambridge area.

The scheme is ear-marked for completion within the next five to 10 years.

Cambridge South East Travel Study – Greater Cambridge Partnership

The Cambridge South East Travel Study aims to provide better bus, walking and cycling options for commuters that currently travel along the A1307, linking communities and employment sites between Haverhill and Cambridge.

The preferred options include:

- improved public transport corridors along the A1307 in Linton as well as improved non-motorised user routes between Babraham and Cambridge
- a public transport corridor from Babraham Road Park & Ride to the Cambridge Biomedical Campus
- new Park & Ride site near the A11
- high-quality cycle routes



- safe walking routes
- road safety improvements between Horseheath and Linton

Western Orbital – Greater Cambridge Partnership

A Western Orbital would provide a fast and reliable bus link near to or on the M11 between major housing sites and the big employment areas avoiding the busy city centre. These employment sites include: Cambridge Biomedical Campus and the West Cambridge site as well as the North West Cambridge site.

The Western Orbital could turn a section of the M11 into a three-lane 'smart motorway', which could ensure better bus journeys between Cambourne and Addenbrooke's, which could take under half an hour on a traffic-free route.

A10 Royston to Cambridge Foot & Cycleway – Greater Cambridge Partnership

The A10 Foot and Cycleway is a shared vision of local residents, councillors, campaigners and project officers alike.

The aim is to ultimately see a high quality, consistent foot and cycle link extend from Cambridge all the way through to Royston, aligning with the A10 route.

The Greater Cambridge Partnership has overseen the creation of a local link within this vision that links Frog End to Melbourn via a foot and cycleway.

Following the resolutions of the Executive Board on Wednesday 22nd November, it has been asked that Cambridgeshire and Hertfordshire County Councils undertake a joint study for the completion of the final stretch of the A10 Royston to Cambridge pedestrian and cycle route, to feed into the GCP's future investment strategy prioritisation process.

1.2 Purpose

The population of South Cambridgeshire in 2001 was approximately 130,000 which grew to just under 150,000 in 2011 and is estimated to reach over 180,000 by 2031.

The number of dwellings in South Cambridgeshire in 2001 was 53,600 growing to 61,700 in 2011. Significant growth is predicted with the number of dwellings expected to reach 80,600 by 2031 representing a 35% increase in the number of dwellings since 2001.

With this level of growth in South Cambridgeshire it is unsustainable for the car to continue as a primary transport mode into Cambridge City. The residents of South Cambridgeshire should have easy access to the transport networks available into the city with some communities residing within a few miles but being served poorly by the existing public transport, cycling and walking networks.

The purpose of this study is to take a community-led approach to determine what a Rural Travel Hub is and determine possible locations that would maximise the benefits seen by rural communities in South Cambridgeshire. The study will establish the needs of local communities when determining these locations.

The study will ensure that any recommended Rural Travel Hubs will provide rural communities with improved access to jobs and services in and around Cambridge whilst considering the impacts of localised motor traffic resulting from use of the hubs.

The study will provide criteria to establish feasibility and prioritisation of Rural Travel Hubs within South Cambridgeshire that would benefit from further funding and establish a case for project development. The study will be used to inform a report that will go to the Executive Board for a recommendation to progress the project to implementation.

1.3 Study Objectives

The following objectives for this feasibility study will help to achieve the aim of the City Access Project, and therefore the Greater Cambridge Partnership, of 'making it easier to travel in, out and around Cambridge and



South Cambridgeshire by public transport, cycle or on foot, and reduce and maintain lower traffic levels to ease congestion'.

- a) To provide a community-led understanding of what a Rural Travel Hub is and their purpose.
- b) Identification of rural communities' travel connections to Cambridge.
- c) Develop an outline specification and criteria for Rural Travel Hubs based on community views.
- d) Identify locations within South Cambridgeshire that may benefit from the provision of a Rural Travel Hub by undertaking a district-wide review.
- e) Provide a recommendation to establish at least two sites that could be used as a pilot study for Rural Travel Hubs (RTH).
- f) Consider the high-level planning issues that would be relevant to any planning application.

1.4 Study Outcomes

The principal outcomes of the study include:

- A clearer understanding of the community view of benefits and dis-benefits of Rural Travel Hubs.
- A number of options with high level costs of the possible locations and layouts of Rural Travel Hubs that will suit the different geographical locations of South Cambridgeshire.
- Understand localised impacts of motor traffic on rural areas resulting from Rural Travel Hub usage.
- Recommendations of suitable areas within South Cambridgeshire that would benefit from further investigation of Rural Travel Hubs.

1.5 Methodology

This feasibility study will be undertaken in the following stages:

- a) Undertake a detailed review of pertinent policies and guidance related to Rural Travel Hubs (to include sustainable travel, active travel and public transport), assessing the relevance of Rural Travel Hubs and their compliance with governmental and societal aspirations and targets.
- b) Carry out a baseline review of the transportation and socio-economic characteristics of the South Cambridgeshire District Council Area using 2011 Census data.
- c) Undertake a case-study of the informal travel hub that has developed at the Swavesey guided busway stop, including user counts and a questionnaire survey.
- d) Hold a community engagement event to obtain local feedback on the Rural Travel Hub concept, establish a definition of what 'Rural Travel Hubs' are and their objective.
- e) Determine the benefits and dis-benefits of Rural Travel Hubs.
- f) Identify rural communities that would most benefit from a Rural Travel Hub through review of existing public transport provision.
- g) Undertake a detailed appraisal of all 10 potential hub sites. This includes the 6 sites identified following a 2016 consultation as detailed in section 3.0, considering:
 - Proximity to existing public transport network (bus and/or rail).
 - Proximity to designated cycle routes, other major Non-Motorised User (NMU) routes and any planned schemes (including Greenways).
 - Proximity to intended users.
 - Review of Public Transport Service levels (e.g. frequency of buses/trains).
 - Access to and from the sites (for both car drivers and NMUs).
 - Future development in the locality which could increase demand.
 - Planned infrastructure improvements nearby.

- Availability and suitability of land.
- Review local census data to better understand the local demographic and travel patterns.
- The need for public transport improvements to service the sites, including increased frequency & capacity.
- The attractiveness of the site and NMU routes to it.
- h) Propose appropriate facilities for each site including:
 - Car parking.
 - Access for both vehicles and NMUs (including availability of suitable NMU routes to the hubs).
 - Cycle parking/security (including cycle lockers).
 - Bus stop provision.
 - Drop-off provision.
 - Bus shelters.
 - Public information and Real Time Information.
 - Lighting (possibly low level in rural locations).
- i) Calculate high level construction cost estimates for each site (excluding land costs).
- j) Undertake site visits, preliminary measurements and site photographs as required.
- k) Score sites and rank in priority order to identify the two sites most suitable for pilot schemes. Scoring will consider:
 - Population served.
 - Frequency of bus and rail services.
 - Cost of travel.
 - Car journeys saved.
 - Proximity to a suitable cycleway.
 - Land availability and suitability.
 - Site access.
 - Proximity to an existing Park & Ride site.
 - Cost per space.
- I) Prepare conceptual layouts for each site showing access arrangements for both car user and NMUs.
- m) Conclusion
- n) Recommendations

1.6 Study Outputs

A feasibility report on the definition of Rural Travel Hubs, defining the opportunities and risks they could provide within South Cambridgeshire with recommendations of sites for a pilot scheme.

The report considers the potential options for travel hub provision including presenting a selection of types, facilities and locations which might be suitable, and outlining the benefits and potential issues associated with each. Consideration will also be given to the overall scheme benefits and factors such as budgetary constraints.

2.0 Policy & Guidance Review

This section provides an overview of the various national and local transport policies pertinent to the concept of a Rural Travel Hub. The policies and guidance reviewed within this study include transport plans and strategy produced by Central Government as well as the more regional/local policies adopted by Cambridge, Cambridgeshire and South Cambridgeshire District Council.

2.1 National Policy & Guidance regarding Transport

2.1.1 National Planning Policy Framework – 2012 (Department for Communities and Local Government)

The National Planning Policy Framework (NPPF) 2012 outlines the requirement for local authorities to promote sustainable development, including sustainable transport (Section 4). The Rural Travel Hub concept would contribute toward the following objectives:

"...Transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives. Smarter use of technologies can reduce the need to travel. The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. However, the Government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural areas..."

"...Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. In preparing Local Plans, local planning authorities should therefore support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport..."

"...Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to..."

- "...give priority to pedestrian and cycle movements, and have access to high quality public transport facilities..."
- "...create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones..."
- "...incorporate facilities for charging plug-in and other ultra-low emission vehicles..."
- "...consider the needs of people with disabilities by all modes of transport..."

2.1.2 Transport Investment Strategy (DfT July 2017)

One of the Governments core objectives is to "create a more reliable, less congested and better connected transport network for the users who rely on it" with the Investment Strategy commenting that "our intensively used networks are ageing and face increasing demands, creating delays and undermining reliability. In places they don't provide the connections people and business need" (Paragraph 3.1).

Paragraphs 3.10, 3.11 and 3.12 of the Strategy, under the heading of "expanding existing capacity to ease congestion", explain the importance of tackling congestion:

"...3.10 In many cases we need to invest to upgrade and enhance the existing network, making it better able to cope with demand by adding capacity to reduce congestion and crowding. This not only makes journeys more comfortable and reliable, but can make possible new trips that were previously impractical due to frequent or unpredictable delays.

3.11 On the road network, congestion creates delays and bottlenecks on heavily-used routes. And because the network is congested, incidents have a much greater impact, meaning longer recovery times and lower reliability. Managing congestion needs to be environmentally sustainable, and solutions are not limited to adding extra miles of tarmac, but can also include making road layouts more efficient, or investing in the way the network is managed.



3.12 Upgrades which tackle congestion typically have high returns. Schemes in our Road Investment Strategy, which included new sections of smart motorway, junction improvements, widening and bypasses show high rates of return, with £1 spent leading to an average return of at least £4.5..."

Paragraphs 3.14 to 3.18, under the heading of 'enhancing connectivity by adding new capability' explain the importance of connectivity within the transport system:

"...3.14 The connectivity of our transport system – the ease with which places and people are linked together – is a fundamental component of the positive economic contribution it can make. In many cases, we need to invest to add new capability to the network, which transforms travel in a particular corridor or provides opportunities for the travelling public to make journeys in a new way. This may involve creating entirely new routes, investing to better integrate different parts of the network, or delivering step-changes in capacity by bolstering existing routes with stretches of new infrastructure.

3.15 These schemes can create new links between communities and workplaces to deepen local labour markets, connect housing developments to the network or provide new routes on city and commuter networks.

3.16 They can also include improving access to our ports and airports, integrating the network through hubs, and making possible new and improved journeys between economic centres.

3.17 They can range in scale, from small projects which might improve cycle access to a new housing development, through to a new station providing rail access to a whole community, and right up to mega-projects like Crossrail and HS2. These larger connectivity-enhancing schemes can have much more significant wider economic impacts than smaller schemes and help unlock economic benefits on a much larger scale. To unlock growth in productivity, industrial capability and employment, global competitiveness and housing we will need to continue to invest in new or transformed connections.

3.18 These three investment priorities – addressing the condition, capacity and connectivity of the network – represent the core ways we can create a more reliable, less congested and better connected network that supports growth and housing..."

Paragraph 3.21, under the heading of 'adapting the network to safeguard our environment, safety and health' states:

"...3.21 Our investment can also deliver positive outcomes for health and the environment. Providing new cycleways and road networks that accommodate the needs of cyclists and walkers can encourage people to shift from cars to more sustainable and healthy forms of travel, particularly for short local trips that make up the bulk of personal trips..."

2.1.3 Cycling and Walking Investment Strategy (DfT 2017)

It is the Governments ambition to make "cycling and walking the natural choices for shorter journeys, or part of a longer journey". The document sets out the following objectives:

Government objectives by 2020 (according to Paragraph 1.14) are to:

- "...increase cycling activity, where cycling activity is measured as the estimated total number of cycle stages made
- increase walking activity, where walking activity is measured as the total number of walking stages per person
- reduce the rate of cyclists killed or seriously injured on England's roads, measured as the number of fatalities and serious injuries per billion miles cycled
- increase the percentage of children aged 5 to 10 that usually walk to school..."

Further to this, the Government have set the following aims and target, respectively, to 2025 (Paragraph 1.15):

- "...aim to double cycling, where cycling activity is measured as the estimated total number of cycle stages made each year, from 0.8 billion stages in 2013 to 1.6 billion stages in 2025, and will work towards developing the evidence base over the next year.
- ...aim to increase walking activity, where walking activity is measured as the total number of walking stages per person per year, to 300 stages per person per year in 2025, and will work towards developing the evidence base over the next year...



• ...increase the percentage of children aged 5 to 10 that usually walk to school from 49% in 2014 to 55% in 2025..."

Paragraph 3.39, under the heading 'Bus Services Bill', states that:

"...The Bus Services Bill will give authorities the option to take more control of their local services, through implementing Quality Partnerships, new 'Enhanced Partnerships', or through adopting a franchising approach. These approaches will provide authorities with the ability to better integrate bus services with wider public transport networks, and with sustainable travel options such as cycling and walking facilities. Ensuring a seamless transition from public transport to and from walking and cycling routes and networks is key to increasing the number of walking and cycling stages to bus stops and other transport interchanges..."

2.2 Local Policy & Guidance

2.2.1 CCC Local Transport Plan (LTP3) – 2014

The third Local Transport Plan (LTP3) is a statutory document which sets out Cambridgeshire County Council's transport objectives, policies and strategy for the county. LTP3 was updated in 2014 to reflect new data and changing context with regard to funding and development plans, to cover the period to 2031. The objectives and policy direction remain unchanged since first being adopted in 2011.

The overarching strategy as outlined in Section 4 states that Cambridgeshire County Council will:

"widen choice by encouraging more sustainable and environmentally friendly forms of transport including walking, cycling and public transport and will make it easier for people to interchange between different modes of transport".

The LTP3 sets out objectives relating to journey time reliability, reduction of private car journeys, making sustainable transport more attractive, improving accessibility and minimising environmental impact.

2.2.2 Transport Strategy for Cambridge & South Cambridgeshire

The Transport Strategy for Cambridge and South Cambridgeshire (TSCSC) was adopted by Cambridgeshire County Council on 4 March 2014 and ensures that local councils plan together for sustainable growth and continued economic prosperity in the area.

Eight objectives have been set for this strategy, as detailed below:

- "To ensure that the transport network supports the economy and acts as a catalyst for sustainable growth
- To enhance accessibility to, from and within Cambridge and South Cambridgeshire (and beyond the strategy area)
- To ensure good transport links between new and existing communities, and the jobs and services people wish to access
- To prioritise sustainable alternatives to the private car in the strategy area, and reduce the impacts of congestion on sustainable modes of transport.
- To meet air quality objectives and carbon reduction targets, and preserve the natural environment.
- To ensure that changes to the transport network respect and conserve the distinctive character of the area and people's quality of life.
- To ensure the strategy encourages healthy and active travel, supporting improved well-being.
- To manage the transport network effectively and efficiently".

2.2.3 Transport Investment Plan 2016

The Transport Investment Plan (TIP) sets out the transport infrastructure, services and initiatives that are required to support the growth of Cambridgeshire. The schemes included in the TIP are those that the County

Council has identified for potential delivery to support growth. These range from strategic schemes identified through the County Council's transport strategies, to those required to facilitate the delivery of Local Plan development sites for which Section 106 contributions will be sought, through to detailed local interventions. The TIP is used to identify and prioritise projects to be added to the Transport Delivery Plan (TDP). The TDP is the County Council's implementation plan for the delivery of transport and highway schemes to address existing transport problems while at the same time catering for the transport needs of new communities and enhancing the environment.

2.2.4 Greater Cambridge Partnership

The Greater Cambridge Partnership has an overarching objective to make *"it easier to travel in, out and around Cambridge and South Cambridgeshire by public transport, cycle or on foot, and reduce and maintain lower traffic levels to ease congestion".*

2.3 Local & National Transport Policy Summary

In summary the Rural Travel Hub concept could potentially contribute towards achieving the following local and national transport policy objectives:

- Enhancing connectivity/accessibility to, from and within Cambridge and South Cambridgeshire.
- Providing viable sustainable travel options for those living in rural areas.
- Easing congestion in Cambridge by encouraging more sustainable travel into the city.
- Reducing air pollution and carbon emissions by promoting more sustainable travel.
- Encouraging healthy and active travel, supporting improved wellbeing
- To generate economic opportunities better connections between rural communities and Cambridge will increase the employment and educational opportunities available.

2.4 Policy & Guidance regarding Planning

This section provides an overview of the various national and local planning policies pertinent to the suitability of the proposed locations and layout and design of the Rural Travel Hubs. The policies and guidance reviewed within this study include national, regional and local policies adopted by Cambridgeshire County Council, Cambridge City Council, and South Cambridgeshire District Council.

2.4.1 National Planning Policy Framework – 2012 (Department for Communities and Local Government)

The NPPF 2012 outlines the requirement for local authorities to promote sustainable development, The Rural Travel Hub concept should contribute towards the following planning objectives:

"At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking.

For decision-taking this means:

- Approving development proposals that accord with the development plan without delay; and
- Where the development plan is absent, silent or relevant policies are out-of-date, granting permission unless:
 - any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or
 - specific policies in this Framework indicate development should be restricted.

The NPPF also identifies the fundamental aim of the Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence. As such, the Green Belt serves five purposes:

- To check the unrestricted sprawl of large built-up areas;
- To prevent neighbouring towns merging into one another;
- To assist in safeguarding the countryside from encroachment;
- To preserve the setting and special character of historic towns; and
- To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. 'Very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations.

Certain other forms of development are also not inappropriate in Green Belt provided they preserve the openness of the Green Belt and do not conflict with the purposes of including land in Green Belt. These include

• Local transport infrastructure which can demonstrate a requirement for a Green Belt location. South Cambridgeshire Development Plan

When considering the location and design of the Rural Travel Hubs a further planning assessment will need to be undertaken to determine whether the proposed sites would be acceptable in accordance with Local Development Framework or Local Plan policies. This would involve assessing the Rural Travel Hubs impact on the wider area, such as those impacting the Countryside, Green Belt, Heritage Assets, Conservation or Biodiversity and so on.



3.0 Consultation & Engagement

Local input was sought in order to establish views on rural travel and the identification of facilities that will enhance the experience for those living in rural areas.

In the summer of 2016, all Parish Councils in South Cambridgeshire were contacted for initial feedback on the Rural Travel Hub concept. Of the 96 parishes contacted, six were initially identified as potentially feasible and therefore required further investigation. These sites were Shepreth, Meldreth, Whittlesford, Oakington, Foxton and Swavesey. In addition to these sites, and following a district wide review, four further locations have been identified for consideration. These locations are Cambourne, Linton, Sawston and Comberton. Initial liaison has been undertaken with Parish Councils who expressed an interest, as outlined in 3.1.

Separately local stakeholders, specialist interest groups and all Parish Councils were invited to a wider engagement event to discuss concept and record community views. The results of the event are outlined in Section 3.2.

3.1 Initial Parish Liaison

Many of the Parishes identified for consideration as hub sites have been consulted directly.

3.1.1 Oakington

The Parish Council are supportive of a small scheme that would enable the Citi6 to turn around at the guided busway, enabling more people from the village to access those routes. They felt there needed to be a solution to the current on street parking and this may include parking restrictions. They would like to see provision of a small drop off/pick up area and improved access for pedestrians and cyclists to the bus hub, as the current narrow kerbside footpath is very dangerous. With new homes planned for Cottenham the guided bus stop in Oakington will be very popular with commuters. The Parish Council were keen to stress that any proposal should not increase the traffic through their village

3.1.2 Linton

Linton Parish Council was not one of the initial six sites suggested through the parish consultation in 2016. Linton is not a hub site that has been prioritised for investigation as a potential pilot, given the ongoing work to improve the A1307 and the projects looking at this. However, if priorities change the Parish Council will be consulted and their views recorded

3.1.3 Shepreth

The Parish Council proposed three sites as potential hubs as part of the initial consultation on this project. On speaking with them, they are keen that any proposals for these sites would have to demonstrate that traffic would not be increased through the village. Local landowners wanted to see more details of any proposals before they could comment. The Parish Council also wanted assurances regarding the management and maintenance of any proposed hub.

3.1.4 Swavesey

The Parish Council agree that the car park alongside the guided bus had served local residents well and had developed into an informal hub. They liked that it was not a widely advertised busway car park and therefore was able to primarily serve local residents. There are few issues with on street parking in the vicinity of the hub. They would like to see the surface replaced with a more hard wearing permeable material. They commented that if the local bus service which links with the guided bus was able to run more frequently and reach all parts of the village, it would help more residents to access better services. They stressed that better cycle storage facilities were required to prevent bike thefts and were keen to explore the potential for the parish to manage their use for local residents. Any proposals to increase the hub at Swavesey would have to address the Parish Council's concerns about increased traffic through the village, which at peak times is a very real issue especially given the amount of on street parking through the village.



3.1.5 Foxton

The Parish Council are keen to resolve the parking issues on Station Road, which regularly cause problems with residents living there and traffic passing through the village. They would not support a large scheme as they do not believe it would be appropriate for Foxton. Any proposal would have to avoid the long term plans of Network Rail, which indicate moving the current crossing resulting in the A10 being routed over or under the railway line.

3.1.6 Meldreth

The Parish Council are keen to make improvements to the station access and reduce the amount of on-street parking which regularly impacts on residents. The roads and pavements are very narrow and there are limited options to improve this. There is a path from Melbourn to Meldreth that is regularly used to access the station, but there is no lift to enable wheelchair or pushchair access to the Cambridge bound platform. Improved cycling opportunities from the surrounding villages would help, but this would require investment. A planning application is being considered for land adjacent the station to build 27 properties and resident parking.

3.1.7 Whittlesford

The Parish Council are very supportive of any plan to improve the station area and reduce on-street parking in the village and are keen to be considered a pilot for this project. They have set up a neighbourhood plan group to look at the redevelopment of the station. The station draws a lot of people from a large geographical area and the passenger numbers cannot be compared to that of the smaller stations on the Kings Cross line. Access to the station is an issue, with nowhere for buses to turn around and increased pressure on the 500 space car park. There is currently no access to the Cambridge bound platform for wheelchair or pushchairs as no lift is in place. One resident suggested that if there were better cycleways into Cambridge from Whittlesford (particularly from Whittlesford to Great Shelford) then more people may take to their cycles. It was clear from the discussion that a plan for the whole station area needs to be produced which incorporates the hub concept and addresses a number of the other issues.

3.1.8 Sawston

The Parish Council are supportive of the idea to improve transport links, reduce congestion and link villages to train, bus or cycle ways but asked that the project team look more widely at all the proposals locally to improve transport, including the A1307 proposals, options for Spicers station, greenways and Cambridge South before drawing any conclusions. In particular they would like to see improvements to the cycleway/footpath from Sawston to Whittlesford station, along with an agreed maintenance and management plan for any new paths to ensure they are fit for purpose over the long term. They were also keen to stress the importance of addressing access issues for the elderly, disabled and families

3.1.9 Comberton

Comberton Parish Council was not one of the initial six sites suggested through the parish consultation in 2016. Comberton is not a hub site that has been prioritised for investigation as a potential pilot. However, if this changes the Parish Council will be consulted and their views recorded.

3.1.10 Cambourne

The Parish Council are very keen for a travel hub having been on the list before for such a proposal. They would prefer a hub to be in the vicinity of the High Street, given its location in the centre, near car parking and the routes of current buses. Cycle storage at the Parish Council office could also be extended and car parking already exists at the PC office and at Morrison's/other shops.

There are good cycle links within. There are a number of bus routes coming through the village and scope to make a fast link through to Cambridge, linking with other GCP projects such as the Cambourne to Cambridge Better Buses. A few DRT (Demand Responsive rTansport) schemes also operate into Morrison's and could be extended to take in other villages and link to a bus hub in Cambourne.

3.2 Stakeholder Event

A stakeholder engagement event was held on the evening of Wednesday 6th September 2017 at the South Cambridgeshire District Council office in Cambourne, with 47 attendees present. The evening's agenda comprised the following:

- Welcome, Concept and Background Cllr Burkitt
- Procurement and Governance The Project Team
- Feasibility Study Skanska
 - a) Introduction to the Feasibility Study
 - b) Key objectives of the Rural Travel Hubs concept
 - c) Study methodology
 - d) Travel patterns in South Cambridgeshire
 - e) The Swavesey Model
 - f) Site criteria (size, spaces, access, location, availability of land etc.)
 - g) Potential facilities at Rural Travel Hub locations.
 - h) Purpose of the workshop Why we need your help.
- Engagement and Next Steps The Project Team
- Workshop Interactive group discussions on the issues affecting rural travel and an evaluation of the Rural Travel Hub concept.
- Scoring Exercise To establish the level of support for the Rural Travel Hub concept.

3.2.1 Workshop Summary

Attendees were invited to participate in a group discussion, considering the following questions:

- a) What are the factors that influence public transport usage in rural areas?
- b) What are the factors that influence cycle usage in rural areas?
- c) What services and facilities would you like to be provided at Rural Travel Hubs?
- d) Identify the strengths and weaknesses of the Rural Travel Hub concept.

A record of the discussions can be found in Appendix C. The feedback received has been considered when developing the definition and determining the requirements of Rural Travel Hubs.

3.2.2 Scoring Exercise

A scorecard was developed for the event as a means of gauging the level of support for the Rural Travel Hub concept. All attendees were asked to complete the scorecard at the end of the evening. A copy of a blank scorecard can be found in Appendix D1.

The scorecard asked two questions (as detailed below) and asked attendees to provide a score of between 1 and 5, with 1 being 'would not support' and 5 being 'fully support'. A comments box was also provided to allow attendees to include a justification for their answer.

- a) Do you support the Rural Travel Hub concept?
- b) Would you support a Rural Travel Hub in your Parish?

Not all of the attendees completed a scorecard. 28 scorecards were collected at the end of the evening.

The results of the scorecard exercise are shown on Charts A & B.





Fully Support Likely to Support Neither Support Unlikely to Support Would Not Support nor Oppose



Chart B: Would you support a Rural Travel Hub in your Parish?



The results indicate a high level of support with 75% of respondents supportive of the Rural Travel Hub concept compared to 14% who were not supportive.

Similarly 66% would support a Rural Travel Hub in their own parish compared to 23% who not supportive.

A summary of the scorecard results and associated comments can be found in Appendix D2.

3.3 South Cambridgeshire District Council Planning Liaison

South Cambridgeshire District Council Planning Department undertook a high-level review and commentary of the potential hub locations, highlighting potential planning constraints and requirements. A summary of their informal feedback has been included for each site within the detailed site reviews in Section 9. Further consultations would have to be undertaken due to constraints on various sites, should they be taken forward. The planning constraints have also been used to inform the scores relating land availability and access in the site Prioritisation Matrix detailed in Section 11.

4.0 Rural Travel Hub Definition

4.1 What is a Rural Travel Hub?

Through the consultation and engagement process the following definition of a 'Rural Travel Hub' has been developed. The term 'Rural Travel Hub' is defined as a 'transport facility that serves as an interchange, close to existing transport corridors (that are served by a reliable and relatively frequent public transport service), where residents in rural areas can walk, cycle or drive to and continue their onward journey using a sustainable mode of travel'.

4.2 How do Rural Travel Hubs Operate?

The Rural Travel Hub is essentially a form of integrated transport enabling users to walk, cycle or park their vehicles at a designated facility and access Cambridge via a sustainable mode of transport, thus relieving congestion on the arterial routes into and within the city centre.

Whilst a key objective of the Rural Transport Hub concept is to reduce the number of private car journeys into Cambridge, it was clear during the consultation and engagement process that there is a strong desire for more general public transport service improvements in rural areas, for example better interconnectivity between neighbouring towns and villages. The hub facilities will enable users to travel to locations other than Cambridge where located on transport routes. They would also be able to be used as stops for Demand Responsive Transport services and Community Transport.

The Rural Travel Hub differs subtly from other forms of integrated transport facilities such as Park & Ride. Traditionally, a Park & Ride facility predominantly targets private motorised users, encouraging them to park their vehicles at the designated facility before continuing their onward travel by means of the public transport network. Such sites are usually situated on the outskirts of cities; the objective being to minimise the volume of private vehicles in inner city areas.

Rural Travel Hubs could be seen as a form of hybrid facility. Whilst generally small scale car parking facilities will be provided at each hub location for motorists, there will be a bias towards encouraging active travel to and from the sites by making them attractive to cyclists and pedestrian users once at the hub.

Each hub will be bespoke. It is not a case of 'one size fits all', but rather that the Rural Travel Hub will be designed to suit the community it serves taking into consideration its location, the available transport links and planning constraints This report highlights conceptual site layouts in Appendix B. In further stages of this project more detailed design options for each site will be provided to suit the requirements of the specific location.

5.0 Case Study

Whilst there are no existing designated Rural Travel Hubs in the South Cambridgeshire District, an existing transport facility at Swavesey has been reviewed as part of the Feasibility Study. The Swavesey Guided Busway Stop has evolved into something akin to a Rural Travel Hub, and perhaps best represents what a hub may look like.

5.1 Swavesey Guided Busway Stop

The Cambridgeshire Guided Busway was officially opened in August 2011 and connects Cambridge, Huntingdon and St. Ives, with much of the route following a disused railway line. The Busway comprises guided tracks in both directions, with an adjacent shared use footway/cycleway, affording access for pedestrians and cyclists.

Originally the Swavesey Busway Stop consisted of bus shelters for passengers and 20 covered cycle stands. Increasing cycle usage led to an additional 35 uncovered cycle stands being provided. A compound, approximately 70m from the busway, used during construction was converted to a designated drop-off area and small car park, with space for up to 15 vehicles (including 1 disabled bay). Subsequently, again following increasing demand, the car park was extended to its current size and able to accommodate approximately 40 vehicles (see images below).



Image 5.1: Swavesey Busway car park.



Image 5.2: Swavesey Busway cycle storage.

5.1.1 Facilities

The facilities at the hub include:

- A car park for a maximum of 40 vehicles, with one designated disabled bay. The car park is located
 on Station Road approximately 70m to the north of the Busway. There is a separate 'IN' and 'OUT'
 vehicular access arrangement with 2.1m height barriers to restrict usage to cars only. The car park
 also features a designated drop-off area, which is signed from Station Road. A footway provides
 pedestrian access between the car park and Busway. Station Road is street-lit, which therefore
 illuminates the vehicular accesses and footway link to the busway stop. The car park is not street lit.
 The car park surface is unbound gravel, with the exception of the disabled bay and drop-off area which
 have a bound bituminous surface (see image 5.1).
- Cycle parking alongside the St. Ives bound track of the Busway. There are 55 'Sheffield' cycle stands in total, 20 covered and 35 uncovered. (see image 5.2)
- A pair of bus stops on Station Road, located approximately 90m to the north of the Busway. These provide a link to the Busway for local bus services, including the Citi 5 service which generally runs at 2-hourly intervals.
- CCTV at the Busway stop and cycle park, but not at the separate car park.
- Real Time Information signs at the Busway stops.

- Shelters at the Busway stops, including passenger information signs.
- Emergency help button at the Busway stops.
- Ticket machines at the Busway stops.
- Shared use footway/cycleway along the western side of Station Road/Over Road that provides a pedestrian/cycle link between the village of Over to the north (a distance of approximately 1.3 miles) and Swavesey to the south (a distance of approximately 3/4 mile).
- Bicycle tyre pump.

5.1.2 Survey

Two surveys were undertaken at the Swavesey Busway stop, one during the school summer holidays in August and the other during school term-time throughout September. These were undertaken to establish usage patterns, gauge the opinion of users on the quality of the transport infrastructure provided and additional facilities desired. Undertaking two surveys allowed comparisons to be made between usage during term-time and school holidays. The August survey also enabled indicative usage patterns to be established prior to the Consultation Event of 6th September. The results of the surveys are summarised below:

Survey 1 – School Summer Holiday (August)

Date of Survey:	Thursday 10th August 2017
Time of Survey:	06:00 – 13:00
Sample set:	87
Car park traffic count:	every 15 mins (06:00 – 13:00)

Notable findings:

- 87 people surveyed (representing majority of those using the inbound service users travelling outbound (to St Ives) were not included in the survey). Not all inbound users were captured owing to multiple users arriving simultaneously and the frequency of service.
- Majority of users from villages of Swavesey or Over; others from further afield at Fen Drayton & Fenstanton (although these represented the minority). No users were surveyed from outside these 4 areas.
- Popular destinations; Cambridge 'city centre', Railway Station, Milton Science Park & Addenbrooke's Hospital.
- Vast majority walked, cycled or used car park facility to access Swavesey Busway Stop (only one user travelled to the facility via bus)
- No vehicles present in car park at 05:30am (inference is no overnight parking issue at time of survey)
- Some users were unaware the car park was for the general use for those using the Busway (i.e. under the impression it was a drop-off point only?)
- One instance of vandalism to a vehicle parked in the car park was noted among respondents.
- Max number of vehicles in car park at any one point during survey = 32 (ponding water accounted for ~2-3 spaces)
- Reports of cycle theft users cited concerns over cycle security and noted this as the main reason for not using the cycle storage facility.
- Cycle storage capacity for 110 cycles on 55 Sheffield cycle stands (20 covered, 35 uncovered): 14 bikes present at start of survey, 11 damaged/unusable, max. net gain of +19 bikes during survey (30 spaces occupied).
- Feedback from users generally positive

- Comments on condition of surfacing & lack of drainage in car park
- Issues with automated ticket machines (often unreliable/out of order)
- Monthly pass discount is negligible/unattractive (users purchasing 'long-term' passes felt they should get more of a discount and this would act as an incentive).
- The 'free parking' was deemed a positive by those using the car park making Swavesey an attractive option. Several respondents asked if there was a plan to start charging.

Survey 2 – School Term-time (September)

Date of Survey:	Wednesday 27th September 2017
Time of Survey:	06:00 - 13:00
Sample set:	102
Car park traffic count:	every 15 mins (06:00 – 13:00)

Notable findings:

- 102 people surveyed (representing majority of those using the inbound service users travelling outbound (to St Ives) were not included in the survey, but were counted). Not all inbound users captured owing to multiple users arriving simultaneously and the frequency of service.
- Majority of users are from the villages of Swavesey or Over; others were from further afield (although these represented the minority).
- Popular destinations were; Cambridge 'city centre', Railway Station, Milton Science Park & Addenbrooke's Hospital.
- One vehicle was present in the car park at 06:00am (inference is that there is no 'general' overnight parking issue at time of survey).
- Some users were unaware the car park was for the general use of those using the Busway (i.e. under the impression it was a drop-off point only).
- The maximum number of vehicles in the car park at any one point during survey was 42 (2 vehicles parked on grass verge within extents of car parking area). The maximum capacity of designated parking area is assessed to be 40.
- Reports of cycle theft users cited concerns over cycle security and noted this as the main reason for not using the cycle storage facility.
- Cycle storage capacity for 110 cycles on 55 Sheffield cycle stands (20 covered, 35 uncovered): 16 bikes present at start of survey (9 within covered section, 7 uncovered). The maximum number of cycles recorded during survey was 65.
- Feedback from users on the transport facilities provided was generally positive.
- Comments were made on the poor condition of car park surface & lack of drainage leading to ponding in the car park.
- Users commented on disparity of the Busway fares (those traveling 1 stop had to pay full fares rather than "pro-rata" approach used in other transport system such as the London Tube zonal system).
- Issues experienced with the automated ticket machines (often unreliable/out of order).

5.1.2.1 Usage

A summary of the key findings from the surveys is presented below:



Chart 5.1 – Frequency of use (Bus Stop)

Chart 5.1 indicates that the majority of users travel on a daily basis during the week. The number of 'occasional' users is increased during the school holiday period (August), whereas there is an increased number of daily users (both 7-days and Monday-Friday) during the term-time (September) survey. This is likely to be due to the increased number of students and commuters.



Do you use the Swavesey car park to access the Guided Busway stop?



Chart 5.2 shows that marginally over one-third of those surveyed use the nearby parking facility to either park their vehicle or be dropped off at the designated set-down area (broadly similar results observed for both August and September surveys). During the September survey it was observed the vast majority of car park users (91%) were travelling on the inbound service to Cambridge.

One vehicle was present in the car park at the start of the September survey (06.00am) indicating that, on the day of the survey, overnight parking did not appear to be an issue. The car parked overnight left the car park at 08.30am and was driven by a user who alighted from the outbound service (to St Ives). No vehicles were observed in the car park at the start of the August survey.

During the September survey, the car park reached its capacity at 09.45am, a further 2 vehicles mounted the kerb within the extents of the car park and parked on the grass verge, making the total number of vehicles



within the car park 42 (including 1no. occupied disabled space). Beyond this multiple cars accessed the car park, but left due to a lack of suitable spaces. One user parked their car on the south-east verge opposite St Andrews Church, before making their way to the Busway stop. Another user was observed parking on the west side of and to the north of the busway. A number of users were dropped off in the bell-mouth of the MG Owners Club access road, rather than at the designated drop-off facility. During the August survey, the car park never reached full capacity within the survey period.

What is the purpose of your journey?



Chart 5.3 – Purpose of journey

Chart 5.3 shows that over half of those surveyed use the Swavesey Busway Stop for commuting to work (57%) during the September survey (compared with 77% recorded during August), with the majority of commuters arriving before 08.30am. A further 28% of users were travelling to educational establishments during term time (compared with 5% during the holiday period). Those accessing the facility for leisure remained broadly constant over the two surveys and tended to arrive later in the morning and many used concessionary passes that were valid after 09.30am.

What is your usual mode of transport to the Swavesey transport facilities?



Chart 5.4 – Mode of transport to the hub

Chart 5.4 indicates the most popular method of travel to the hub is on foot during both surveys (51% of users walking in August compared with 41% during September). During term-time (September survey) just over one

quarter (28%) used the car parking facility, with 11% of users being dropped-off (accounting for the 39% car park / drop-off point usage noted in Chart 5.2). There was a slight increase in the number users accessing the site by cycle in September, 19%, compared to 14% during in August. In September more single occupant vehicles were recorded using the car park, 28% compared to 18% in August.



Where was the start of your journey?



Chart 5.5 shows the vast majority of users were local residents of Swavesey and Over (92% August, 94% September). The number of users walking and cycling to the facility (shown in Chart 5.4) also suggests a predominantly local use. The combined population of Swavesey & Over is 5,325 (2011 census) which gives an indication of the population that a similar sized hub could potentially serve.



Overall how would you rate the Swavesey transport facilities?

Chart 5.6 – User opinion

Chart 5.6 shows the vast majority of respondents rate the facility as being 'Good' (on a 'Good, Fair, Poor' scale) demonstrating a generally positive view of the facility among those who use it, with results being consistent in both surveys.



6.0 Benefits & Dis-benefits of Rural Travel Hubs

As with any proposed infrastructure development, the notion of designated Travel Hubs to enhance connectivity between rural outer-lying parishes and Cambridge has a number of benefits. However, conversely there are also a number of potential dis-benefits that should be considered. These are discussed within the subsequent sections:

6.1 Benefits

The benefits associated with the installation of a Rural Travel Hub facility are presented below:

6.1.1 Congestion Reduction

One of the main objectives and indeed benefits of a Rural Travel Hub is the reduction of private vehicular traffic in and around Cambridge. The provision of a Rural Travel Hub Facility will enable commuters to travel into Cambridge using public transport and/or cycleways, thereby reducing the total number of private vehicles and easing congestion in and around the city. The success of the two pilot sites will need a measure to determine the hubs' ability to reduce traffic and provide the residents of rural South Cambridgeshire with access to provisions for sustainable travel into Cambridge.

6.1.2 Environmental Benefits

A reduction in the volume of traffic in Cambridge will have a positive impact in terms of air pollution and reducing the overall carbon emissions in these more central areas. Additionally, there would also be an opportunity to promote more sustainable travel if facilities such as charging points for electric vehicles were provided at the Hubs.

6.1.3 Public Health Benefits

In addition to the reduction in private/single occupancy vehicles and congestion, the provision of strategically located Rural Travel Hubs can have a positive benefit on public health. Such hubs could enable people to either walk or cycle to a designated point from which they could use public transport to reach the city centre.

6.1.4 Public Perception

The implementation of Rural Travel Hubs may act to heighten awareness of the public transport systems in and around Cambridge. The connectivity between more rural communities and the mainstream transport corridors can offer a degree of inclusion for areas previously isolated from the public transport network.

6.1.5 Economic

By connecting the rural communities of South Cambridgeshire to Cambridge, the employment and educational opportunities available to those living in rural areas will be improved.

The hub offers an opportunity for car users to park their vehicles and then access the city centre using existing bus or train services and/or cycleways as well as other sustainable travel modes. In addition to reducing congestion, by leaving vehicles at the Rural Travel Hub, there can be a financial benefit to motorists when considering additional fuel and parking charges within Cambridge (as it is intended that car parking at the hub sites will be free). This would be a factor in making the Rural Travel Hub a more attractive and appealing option to some commuters.

6.1.6 Outreach Activities

Rural Travel Hubs may provide inclusion to areas which may otherwise appear isolated. Hubs could be a focal point not only for a community's transportation needs, but also be pivotal in terms of outreach activities. For example, the facility may offer suitable location and amenities for cycle proficiency training, neighbourhood policing, mobile library, mobile health screening, blood donation, recycling point, Community Playbus and act as a convenient meeting point for cyclists and ramblers.



6.1.7 Transport Connections

Rural Travel Hubs could provide a vital link in the improved connectivity of communities of South Cambridgeshire with the wider County infrastructure network. Examples could include Demand Responsive Travel, Community Transport and the potential development of shuttle buses to and from the Hubs. The addition of such services in rural settings can open the door for wider accessibility to the district's other transport links which make the county and city of Cambridge a more inclusive area to live and work.

6.2 Dis-benefits

The potential dis-benefits associated with the installation of a Rural Travel Hub facility are presented below:

6.2.1 Environmental Intrusion

The location of the Rural Travel Hub is a critical consideration. They should ideally be located in an accessible area to the rural parishes they serve in order to provide connectivity to the city and other transport links within the county. However, many areas in South Cambridgeshire are likely to be considered 'Green Belt' or the open countryside and therefore potential development may be met with local opposition from the communities it is intended to serve. Consideration therefore should focus on 'Brownfield' (previously developed) sites in the first instance. The location of the Rural Travel Hub must both fit the needs of the local community but not be visually intrusive. They will also need to address planning policy requirements including Green Belt.

6.2.2 Local Traffic Congestion

A key objective of the Rural Travel Hub concept is to ease congestion in Cambridge by encouraging the use of more sustainable travel. The installation of such a hub may potentially result in a localised increase in traffic movements at the proposed sites. Whilst the level of localised congestion in the vicinity of the Hubs is anticipated to be relatively low due to their modest size, there is potential that the travelling public from outside the immediate locality may converge on the new sites. However, as established in the Swavesey case study, it is envisaged that the facilities will be mainly used by local residents, who would otherwise be travelling by private vehicle to their destination, such that any net gain in traffic volumes is likely to be minimal.

6.2.3 Maintenance

There will be a requirement to maintain the Rural Travel Hub throughout its design life. The cost associated with this ongoing maintenance regime will depend largely on the size of the hub and what facilities and amenities are provided. The design of the Rural Travel Hubs will be done in a way as to minimise the maintenance of the sites as much as possible. There is likely to be some level of maintenance required however, and this will be detailed in further stages of the project.

6.2.4 Effectiveness

The effectiveness of Rural Travel Hubs in reducing vehicle congestion in Cambridge is dependent on the number of people using them. Due to their relatively small size, it could be argued that their impact could be negligible in achieving this objective.

Where the hub sites are located close to existing chargeable parking facilities (e.g. Whittlesford Railway Station) there is the potential for the hub car parks to quickly reach capacity, with car users electing to use the free facility.

It cannot be assumed all hub users will be heading into Cambridge. It is likely the hub sites will also be used by commuters heading to other destinations. This will inhibit the effectiveness of the sites in terms of reducing the number of car journeys into Cambridge.

6.2.5 Improper / Anti-social Use

Whilst a Rural Travel Hub could represent a suitable focal point for community activities (e.g. suitable meeting place for cyclists and ramblers as identified in Section 6.1.6), it could also attract less desirable anti-social behaviour or improper use. This may be a source of opposition to the implementation of such hubs.



6.2.6 Capacity of the existing Public Transport Network

Potential users may not use hubs that are located alongside busy public transport corridors that operate at capacity at peak times because they might not be able to find a seat or even board the service. Additional services to enhance capacity may be required at certain locations to encourage use of the hubs.

6.3 **Overall Benefit to Dis-benefits (outline BCR)**

When looked at as a whole, the potential expected benefits of providing Travel Hubs in Rural South Cambridgeshire outweigh the dis-benefits as it is considered that the dis-benefits can be suitably mitigated against.



7.0 Baseline Transport & Socio-economic Impact Review

This section summarises general demographics, transport behaviours and socio-economic characteristics for the South Cambridgeshire District, based on the data captured during the 2011 Census for England & Wales. Data is also presented for the wider Cambridgeshire area, the East of England region and the overall statistics for England & Wales as a whole, enabling direct comparison between district, county, geographic region & national level.

7.1 Demographics and Socio-Economic Characteristics

7.1.1 General Demographics

South Cambridgeshire District has a total population of 148,755 according to the 2011 England and Wales Census. In the context of Cambridgeshire as a whole this represents just under one quarter (23.9%) of the total population (621,210). South Cambridgeshire District comprises of 34 electoral wards. It completely surrounds the city of Cambridge, which is administered separately from the district by Cambridge City Council.

Census Output Area	Population (2011)	Households	Average persons per household	Median Age	Mean Age
South Cambridgeshire District	148,755	59,960	2.4	41.0	40.1
Cambridgeshire	621,210	251,241	2.4	39.0	39.5
East of England	5,846,965	2,423,035	2.4	40.0	40.2
England & Wales	56,075,912	23,366,044	2.4	39.4	39.7

The table below, Table 7.1.1, shows typical demographic indicators for each designation.

Table 7.1.1 – General demographic indicators Source: 2011 Census Data (England & Wales) – Tables KS101EW, KS105EW, KS403EW & KS102EW

From Table 7.1.1 it can be seen that the South Cambridgeshire District exhibits the same average number of persons per household as Cambridgeshire, East of England and indeed England & Wales as a whole. The median age of South Cambridgeshire residents is higher than that for Cambridgeshire, East of England and England & Wales. Similarly, the mean age of those living in South Cambridgeshire is higher than the corresponding mean age for Cambridgeshire and England & Wales as a whole, but is marginally lower than that for the East region.

7.1.2 Employment

The following Table 7.1.2 summarises economic activity within the South Cambridgeshire District and compares this directly with data for the wider county of Cambridge, the East of England and England & Wales as a whole.

Concue Output Area	Economically Active -	En	Employed		Unomployed	Full Time
Census Output Area	Working (Aged 16-74)	Part Time	Full Time	FT & PT	Unemployed	Student
South Cambridgeshire District	74,393	12,877	47,627	16%	3.95%	2.56%
Cambridgeshire	315,206	61,668	196,182	14%	5.14%	3.90%
East of England	2,650,835	592,403	1,524,201	16%	7.13%	3.83%
England & Wales	26,414,207	5,634,988	15,733,446	15%	8.09%	4.06%

Table 7.1.2 – General demographic indicators

Source: 2011 Census Data (England & Wales) – Tables WP601EW & DC6107EW

South Cambridgeshire has a higher rate of employment than both the East of England region (79.85%) and England & Wales average (80.90%) with 81.33% of all economically active residents of South Cambridgeshire in some form of employment. The rate of employment is marginally less than that for Cambridgeshire (81.80%). Unemployment levels are relatively low in South Cambridgeshire at 3.95% which compares favourably to Cambridgeshire (5.14%), East of England (7.13%) and overall England & Wales figures of 8.09%.
7.2 Existing Travel Behaviour

7.2.1 Method of Travel to Work

The 2011 census data was interrogated to establish peoples' method of travel to work. The table below compares residents' primary mode of transport to their place of work.

	METHOD OF TRAVEL TO WORK / STUDY - TOTAL (%)												
Census Output Area	All categories: Method of travel to work	Work mainly at or from home	Underground, metro, light rail, tram	Train	Bus, minibus or coach	Taxi	Motorcycle, scooter or moped	Driving a car or van	Passenger in a car or van	Bicycle	On foot	Other method	Not in employment (not travelling)
South Cambs District	107,779	5.7%	0.1%	2.7%	3.2%	0.1%	0.7%	46.9%	2.9%	5.8%	4.9%	0.4%	26.6%
Cambridgeshire	461,380	4.5%	0.1%	2.6%	2.4%	0.2%	0.5%	41.4%	3.1%	6.6%	6.6%	0.4%	31.5%
East of England	4,245,544	3.8%	0.8%	4.8%	2.5%	0.3%	0.5%	41.4%	3.4%	2.4%	6.8%	0.4%	32.9%
England & Wales	41,126,540	3.5%	2.5%	3.3%	4.7%	0.3%	0.5%	37.1%	3.3%	1.9%	6.9%	0.4%	35.5%

 Table 7.2.1 – Primary method of travel to work (Age 16-74)

 Source: 2011 Census Data (England & Wales) – Table QS701EW

Table 7.2.1 shows that the number of residents travelling to work by car/van in South Cambridgeshire (46.9%) is higher than that for Cambridgeshire as a whole and the East region (both 41.4%) and significantly higher than the total percentage for England & Wales (37.1%). The number of people travelling to work by bicycle in South Cambridgeshire (5.8%), whilst lower than Cambridgeshire as a whole (6.6%), is significantly higher than the corresponding proportions for the East of England (2.4%) and England & Wales (1.9%).

7.2.2 Motorised vehicle movements on key radials

The Traffic Monitoring Report is a collation of data taken from various locations throughout Cambridgeshire and is summarised in a single report produced once a year. Appendix J shows data taken from some of the radial cordon sites surrounding Cambridge. These cordon site are Babraham Road, Shelford Road, Hauxton Road, Barton Rd, Madingley Rd, Huntingdon Road, Girton Road, Histon Road, Busway North and Milton Road. This data is able to provide information on traffic flows for a 12hr period between 7am-7pm.

As Appendix J shows, there is potential for Rural Travel Hubs to remove some of the traffic on these radials. It is important to note that the Rural Travel Hub concept is intended to provide those living in rural communities the ability to access sustainable modes of travel into Cambridge and is not solely focussed on reducing commuter numbers.



7.2.3 Car ownership

The following Table 7.2.2 shows the proportion of households with access to a car or van

Census Output Area	Percentage of Households with Access to a Car or Van
South Cambridgeshire District	89.0%
Cambridgeshire	82.6%
East of England	81.5%
England & Wales	74.4%

 Table 7.2.2 – Percentage of households with access to a car or van

 Source: 2011 Census Data (England & Wales) – Table KS404EW

The proportion of households with access to a car or van in South Cambridgeshire (89.0%) is significantly higher than that for the Cambridgeshire area as a whole (82.6%), the East of England (81.5%) and the overall figure for England & Wales (74.4%).

7.2.4 Distance travelled to place of work

Table 7.2.3 shows the average distances travelled to work for residents of the South Cambridgeshire District, Cambridgeshire, East of England and England & Wales

	DISTANCE TRAVELLED TO WORK - TOTAL (%)										
Census Output Area	Less than 2km	2km to less than 5km	5km to less than 10km	10km to less than 20km	20km to less than 30km	30km to less than 40km	40km to less than 60km	60km and over	Work mainly at or from home	Other	Average distance (km)
South Cambs District	9.5%	11.9%	20.5%	21.7%	5.7%	2.3%	2.7%	5.4%	13.2%	7.1%	17.4
Cambridgeshire	16.3%	14.6%	13.2%	16.6%	8.5%	3.2%	2.6%	5.8%	11.8%	7.4%	18.1
East of England	16.5%	15.4%	12.7%	14.8%	8.4%	4.5%	4.4%	3.7%	10.7%	8.9%	17.3
England & Wales	16.6%	18.3%	17.3%	15.3%	5.8%	2.6%	2.3%	3.1%	10.3%	8.4%	15.3

Table 7.2.3 – Distance travelled to work Source: 2011 Census Data (England & Wales) – Table QS702EW

The majority (54.1%) of South Cambridgeshire residents travel between 2km and 20km to their place of work. This is higher than the overall figure for Cambridgeshire (44.4%), the East of England (42.9%) and England & Wales (50.9%). The average distance travelled to work for those in South Cambridgeshire (17.4km) is marginally less than that for Cambridgeshire as a whole (18.1km), broadly similar to East of England average (17.3km), but more than the average for England & Wales (15.3km).

7.2.5 Location of Place of Work

Based on the 2011 census data, and using the *DataShine Commute* online tool, it is possible to determine origin-destination information for those commuting to work. In terms of the Rural Travel Hub project the number of persons travelling into Cambridge is of particular interest. As such those who work from home, work within the same Super Output Area (SOA), have no fixed place of work or work outside of the UK have been excluded from the summary. For each hub location a percentage has been derived which indicates the number of people whose work is based outside the hub SOA and travel into Cambridge from the given location. This information is presented in Table 7.2.4 below.



Hub Location	Nearest Super Output Area (SOA)	Percentage Travelling to Cambridge SOA	Selected Other	
Oakington	SC 003 Swavesey, Longstanton, Cottenham	47%	Milton SOA (6%)	
Linton	SC 016 Linton	41%	Duxford SOA (10%)	
Shepreth	SC 018 Fowlmere and Foxton, Melbourn, Meldreth	30%	London SOA (5%)	
Swavesey	SC 003 Swavesey, Longstanton, Cottenham	47%	Milton SOA (6%)	
Foxton	SC 018 Fowlmere and Foxton, Melbourn, Meldreth	30%	London SOA (5%)	
Meldreth	SC 018 Fowlmere and Foxton, Melbourn, Meldreth	30%	London SOA (5%)	
Whittlesford	SC 017 Duxford, The Abingtons, Whittlesford	45%	London SOA (6%)	
Sawston	SC 015 Sawston	47%	Duxford SOA (19%)	
Comberton	SC010 Caldecote, Comberton, Hardwick, Haslingfield and The Eversheds	54%	Milton SOA (6%)	
Cambourne	SC 020 Bourn	45%	Milton SOA (6%)	

 Table 7.2.4 – Work Destination from Hub Location

 Source: 2011 Census Data (England & Wales)

In all cases, Cambridge represented the most popular single destination from each of the hub locations. This shows that, as may be expected, a significant number of people living in the vicinity of the potential hub sites work in Cambridge, and as a result of this make journeys into Cambridge on a regular basis.

8.0 Services, Infrastructure & Facility Requirements

The services, infrastructure and facilities provided at each hub site will differ, with each hub being bespoke and individually designed and tailored to the community it serves and the available transport links. Below are some examples of the sort of facilities & amenities that could be offered.

8.1 Cycling

Cycling represents a transport mode which could be used both to and from a hub location. For example, users could travel to the hub on their cycles and then continue their onward journey by another transport mode, say, bus or rail – leaving their cycle at the hub. Alternatively, as in the case of a designated 'park & cycle' scheme, users may travel to the hub facility by car, bus etc. before continuing their onward travel by cycle.

8.1.1 Cycle Storage Facilities

Where cycles are left or stored at hub sites, there is obviously the requirement for designated and secure storage facilities. Such facilities will act to encourage cyclists to use the hub and provide confidence that their cycles will be adequately protected from theft and/or vandalism.

8.1.2 Secure Cycle Lockers

Cycle lockers provides a storage solution that offer enhanced security compared with traditional cycle storage facilities, such as cycle stands. Use of the fully enclosed and lockable unit is generally chargeable on a monthly basis for a small sum and offers robust protection for cycles. The units come in a variety of sizes to accommodate single or double occupancy. Where secure cycle lockers are provided, due consideration will need to be given to the costs associated with the administration, management and maintenance of the units. It is envisaged that these costs would be covered by the revenue generated from the secure cycle lockers.

8.1.3 Covered Cycle Stands

Covered cycle stands provide protection for cycles against inclement weather. Some users may be reluctant to use their cycle if only uncovered storage provision is made.

8.2 Pedestrian/Cycle Links

Non-motorised user links between transport modes require consideration - i.e. how pedestrians and cyclists move between the hub and the desired transport mode. Footways/Cycleways should be provided which link to existing non-motorised user routes to provide continuous connectivity. Where hub sites are located close to the proposed Greenway routes there may be the opportunity for access improvements to be delivered as part of Greenways project.

Pedestrian routes to and from car parks with bays for disabled people should be free from steps, bollards and steep slopes which many disabled people find difficult to negotiate.

8.3 Car Parking

Car parking facilities are required for those users travelling to hub site by private vehicle. Facilities could also be incorporated to cater for users to be dropped off at the hub site.

8.3.1 Size

The size of the car park will be determined by the level of envisaged use and will be established through community engagement. Whilst the number of spaces is not set, it is anticipated that these will be 'modest' in size and aimed predominantly for local use by those residents travelling from nearby parishes.

Due to the predicted population growth within South Cambridgeshire it may be appropriate to acquire additional land to facilitate future expansion of the hub. Hubs would only be extended where there is sufficient demand and following local consultation. Planning considerations would also need to be taken into account.



8.3.2 Access

Suitable vehicular access to the car park should be afforded from the existing highway. This could comprise an 'In/Out' arrangement or a more conventional junction. A number of considerations are required, including; visibility splay, designated lanes and swept-path analysis for larger vehicle movements. Access must also be provided for non-motorised users and pedestrian traffic in the form of footways to connect the car parks to the existing pedestrian routes and/or other facilities (bus stop / rail station). Some minor improvement works may be required to the existing highway to accommodate the accessibility arrangement.

8.3.3 Height Barriers

Access control measures can be achieved by the implementation of vehicle height barriers. Such barriers would permit car & motorcycle access only and prohibit access for larger/commercial vehicles.

8.3.4 Disabled Parking Provision

Suitable parking spaces for disabled users must be provided. In accordance with the *Department for Transport's Traffic Advisory Leaflet 5/95 – Parking for Disabled People (1995)* it is recommended that, for car parks with a capacity up to 200 bays,3 bays or 6% of the total capacity (whichever is greater) should comprise of disabled bays. The location of the disabled bays needs to be considered. They should be ideally placed as close as possible to the main facility to be accessed (i.e. bus stop / rail station).

8.3.5 Signing

The parking facility should be suitably signed, although some parishes may prefer this to be understated in order not to attract large volumes of users from outside the immediate locality.

8.3.6 Drop-off/Pick-up Points

In addition to those leaving their private vehicles at the car park, provision should be allowed for a designated drop-off / set down area.

8.3.7 Landscaping

Due to the predominantly rural nature of the proposed hub locations it is important that aesthetics are considered at design stage. The car park should be visually attractive, not obtrusive and so a site-specific and sympathetic design approach is required. Natural screening from trees and shrubs could be incorporated to help the facility blend in to the surroundings. If so, it would be advisable that the species are native and correspond with the advice provided in South Cambridgeshire District Council's Landscape in New Developments SPD Adopted March 2010.

8.3.8 Charging

It is intended that car and cycle parking at the hub sites will be free of charge, although there will be a charge for cycle lockers.

8.3.9 Maintenance

It may be beneficial to provide litter bins at hub sites, however, this would likely incur cost and require a strategy for maintaining the collections. Therefore the requirement for litter bins needs to be discussed and agreed locally. Similarly the provision of grit bins could be considered and require similar consultation and agreement.

General maintenance responsibility for the hub site will need to be locally considered and agreed.

8.4 **Public Transport**

The hubs will be located close to existing public transport infrastructure or designated cycling routes. In some instances minor improvements may be required as detailed below.



8.4.1 Shelters

Shelters will be required with seated areas, allowing users to shelter from inclement weather and provide a degree of comfort.

8.4.2 Bus Stops

In some areas bus stops may require relocation, designated pull-in areas or even additional stops to be included within the given routes. As a result of any relocated/additional bus stops it may be necessary to revise bus timetable(s) to capture the new or relocated stop.

8.4.3 Real Time Information

Real time passenger information boards can be installed at bus stops to provide users with current information on service and assist with planning their journeys.

8.4.4 Ticketing

Automated ticket machines can be provided at hub facilities to enable users to purchase advanced tickets where the most probable mode of transport used would require one.

8.5 Lighting

New or additional road and footway lighting can have a major impact upon the character and appearance of an area. In rural locations high levels of night-time illumination are visually and environmentally undesirable, as is the impact of numerous lights and lighting columns. However, this has to be balanced against the advantages in terms of highway safety and personal security.

Low-level lighting may be preferable in car park areas to reduce the environmental impact. Part-night lighting and/or motion sensitive lighting could also be considered as a means of reducing the environmental impact.

Lighting schemes should be designed to limit obtrusive light using directional luminaires and light controlling attachments.

8.6 Technology (Smart Cambridge)

The Smart Cambridge initiative seeks to make travel easier, reduce congestion and explore intelligent mobility. The Rural Travel Hub facilities could assist with the promotion of this Smart Cambridge concept by providing better travel & transport information (e.g. real time displays) and making payment options easier for users (e.g. integrated ticketing machines).

8.7 Security

Security at the Hub locations is critical and the hub should be a safe and secure location for users and to park their cycles and cars. In addition to secure cycle lockers consideration should be given to closed-circuit television surveillance cameras to act as a deterrent. Furthermore, the location and layout of the Rural Travel Hubs needs to be considered to ensure it is not isolated or poorly overlooked preventing natural surveillance.

8.8 Materials

The rural nature of the hubs means it is important they are designed sympathetically, in keeping with their surroundings and using materials obtained from sustainable sources. Materials selection in terms of street furniture (e.g. shelters, litter bins, cycle stands, bollards etc.), paved surfaces and fencing, as well as landscaping, will be key in meeting this objective.

General considerations should include:

- Use of local materials wherever possible.
- Use of environmentally sustainable materials from a known source.
- Use of recycled materials from a known source.

- The weathering characteristics and life expectancy of the material.
- Ease of future maintenance and reinstatement.
- Availability of replacement materials.
- Keeping the number of signs to a minimum.

All materials, particularly with regard to paved surface specification, must provide a satisfactory level of safety, for example using textured paved surfaces to avoid slippery surfaces.

Sustainability issues must be properly addressed. This includes the whole life cost of the materials, the source, the distance they have to be transported and the method of delivery. Potential for re-use on site, recycling and methods of disposal have to be considered.

The flexibility around materials selection means that where a number of materials options are available, local consultation can be undertaken to aid selection of the most acceptable material.

9.0 Potential Hub Locations

Ten hub locations have been identified and reviewed as part of the feasibility study. The location map shown in Appendix H shows the location of all the potential hub sites.

9.1 Oakington Guided Busway Stop

The parish of Oakington is located to the north-west of Cambridge, approximately 5 miles from the city centre with a direct footpath .

9.1.1 Location & Site Description

The proposed location of the Oakington Rural Travel Hub is adjacent to the Cambridgeshire guided busway route which runs generally north to south, bisecting the parishes of Oakington & Westwick (see Figure 9.1). A small parcel of agricultural land has been identified to the west of the guided busway, immediately south-west of the busways junction with Station Road. The site is accessible from Station Road which is a two-way single carriageway road, subject to a 30mph speed limit and is street-lit. A footway on the northern side of Station Road provides pedestrian access to the site from Oakington and Westwick. See Appendix A1 for existing site photographs.



Figure 9.1: Oakington Location Plan (© Crown Copyright. All Rights Reserved. License Number 100023205.2017).

9.1.2 Demographics

A Rural Travel Hub at Oakington would predominantly serve the parishes of Oakington & Westwick, Girton and Cottenham which had a combined population of 12,251 at the time of the 2011 Census.

9.1.3 Travel Options to the City Centre

The sections below describe the travel options from the proposed location of the Oakington Rural Travel Hub to the city centre (for the purposes of this study defined as intersection of Sidney Street, Hobson Street and St. Andrews Street). By way of comparison the corresponding journey made by car would be approximately 8.4 miles and take approximately 25 minutes.

9.1.3.1 Guided Busway

The Oakington Busway Stop is served by Routes A (St. Ives to Cambridge), B (Peterborough to Cambridge), C (St. Ives to Cambridge) & N (Longstanton to Cambridge) which afford access to Cambridge, with services departing every 12 minutes. Routes A, C & N are 5.8 miles via the guided route with a typical journey time of 22 minutes. Route B is marginally more direct at 5.6 miles but takes fractionally longer (25 minutes) due to the nature of route taken. The cost of a return ticket from Oakington Busway Stop to the city centre is £4.30. However, Busway services can be busy at peak times, with limited capacity.



9.1.3.2 Bus (Citi 6 Service)

Oakington village is also served by the Citi 6 service (Cambridge to Oakington) which affords access to the city centre with a typical journey time of 27 minutes following a route that is 6 miles long with services departing every 30 minutes. The cost of a return ticket from Oakington village to the city centre is also £4.30.

9.1.3.3 Cycle

A designated cycle facility runs adjacent to the guided busway, which will form the future St. Ives Greenway. The most direct cycle route to the city centre is via a combination of the cycle track and the use of local roads and represents a journey distance of 5.1 miles and is anticipated to take 28 minutes. Cycle improvements are being considered between Oakington Village and the busway as part of the proposed St. Ives Greenway Project.

9.1.4 Facilities

The existing and proposed facilities are presented below:

9.1.4.1 Existing

The existing facilities at the Oakington Busway Stop include:

- Bus shelters.
- Real Time Information.
- 15 no. covered cycle stands.
- CCTV.
- Emergency help points.
- Service information signs.
- Street lighting at Busway Stop and on Station Road.

9.1.4.2 Proposed

The facilities proposed for the Rural Travel Hub at Oakington comprise:

- A car park with 41 spaces including 3 designated disabled bays to ensure the facility is accessible for all users. This will be similar to the facility at Swavesey.
- Additional secure cycle parking including cycle lockers. These could be located on the guided busway, dependent on planning and space constraints.
- Drop-off/pick-up facility.
- Street lighting within the car park requirements/specification to be agreed locally.
- Bus turn around/stop to allow the Citi 6 service to be extended up to the busway stop, including a shelter and raised 'bus boarder' kerbs. Local services including Demand Responsive Transport, Community Transport and future shuttle buses would also be able to utilise this facility.
- Widening of the existing footway between Oakington Village and the busway to improve pedestrian safety and accessibility.

9.1.5 Availability of Land & Planning Considerations

The small parcel of agricultural land that lines the western side of the Busway offers a potential location for the Rural Travel Hub car park. Initial Land Registry enquiries indicate the Title Absolute on the Proprietorship Register is listed as Cambridgeshire County Council.

Potential Planning Constraints (Summary of comments from SCDC Planners)

• The site is within Flood Zone 3, meaning that there is a high probability of flooding. A flood risk assessment must be carried out prior to any development.



- The proposed site is outside of the village framework and therefore falls within the countryside.
 - The site located on land classified as **Green Belt.** Strong justification for this site will be required in order for this site to be considered. NPPF Paragraph 90 Certain other forms of development are also not inappropriate in Green Belt provided they preserve the openness of the Green Belt and do not conflict with the purposes of including land in Green Belt. These include *local transport infrastructure which can demonstrate a requirement for a Green Belt location*
- Sufficient information will need to identify why a Green Belt location has been chosen, and whether
 impact on openness and green belt purposes have been considered. Unless these tests are met, the
 development would be considered inappropriate development, and very special circumstances would
 need to be demonstrated.
- A Conservation Area is located to the eastern edge of the guided busway, but the proposed site is not within it.
- Westwick Hall is a grade II listed building in close proximity to the site, heritage impact upon the setting
 of the listed building will need to be considered and assessed. The SCDC Historic Buildings Officer
 recommends that careful consideration is given to the design of a Rural Travel Hub at this site to
 mitigate any significant harm to the Listed Building or Conservation Area.
- The layout and access of the proposed rural hub would need to be developed further, due to the
 potential for conflict between buses turning & vehicles / NMUs accessing site and the lack of safe
 access for pedestrian and cyclists. The proximity of the proposed vehicular access to the Guided
 Busway was also raised as a concern. This is something that could be addressed through a preapplication and preliminary design stage.

9.1.6 Access & Conceptual Layout

Conceptual layouts for the proposed hub site can be found in Appendix B1. Two options have been developed. Option A includes a car park, bus turn around and cycle storage facility. A second option (Option B), excluding the bus turn around has also been developed which may be more economically viable and less visually intrusive, due to less extensive construction being required.

Vehicular access to the hub site would be constructed at the location of the existing maintenance hard standing on Station Road with a separate in/out arrangement. Minor vegetation clearance will be required to ensure adequate visibility splays are provided at the new access. It is encouraged that any new vegetation is replaced by native species.

It is advised that minimal tarmac be introduced to the front of the site, as identified on the conceptual drawing to mitigate any impact upon the rural character of the area.

The existing signal controlled pedestrian crossing on Station Road to the west of the busway facilitates pedestrian movements to the proposed hub site and the existing busway stops. However, the narrow footway (approximately 1m wide) linking Oakington village to the Busway requires widening to improve access to the site, particularly for wheel chair users and those pushing prams. Consideration will need to be given to a ditch that runs adjacent to the existing footway. Potential widening will require suitable piping or local diversion.

Cycle improvements are being considered between Oakington Village and the busway as part of the proposed St. Ives Greenway Project. This would improve cycle access to the busway cycle route and may encourage increased cycle usage.

Consideration will need to be given to the layout and location of various transport modes within the site. For example, cyclists should not have to ride across motorised access or through the site to access the cycle lockers. Nor should they have to ride across pedestrian access to the bus stops. This would ensure cyclists and pedestrian safety.

9.1.7 Oakington Site Summary

There is currently no parking facility at the Oakington guided busway stop. Providing a car park would follow the Swavesey model, allowing access to those in the locality who are unable to walk or cycle to the stop. The small size of the proposed car park means the impact on traffic levels locally would be minimal. The car park



may also result in a reduction in the number of motorists who currently park on-street in the village to access the busway as they will have a designated facility, improving the flow of traffic through the village.

The guided busway offers frequent services into Cambridge with bus journey times being comparable to journeys made by car. The reasonable cost of a return ticket (£4.30) is an advantage, particularly if users who would otherwise drive have to pay city centre parking charges. The busway services can be busy at peak times, with limited capacity. Oakington is one of the last stops before reaching Cambridge and users may be deterred if they cannot find a seat or even board the service. Additional services will need to be considered.

The close proximity of the site to Cambridge means, as found at Swavesey, the majority of users are likely to travel to and from Cambridge, with those living on the western side of the village most likely to use the proposed car park facility.

The provision of secure cycle lockers will encourage more people to cycle to or from the busway stop, who as at observed at Swavesey, may be currently deterred by cycle theft and vandalism.

The provision of a bus turn around would improve connectivity between the Citi 6 service and the guided busway services. This improved arrangement could be utilised for Demand Responsive Transport, Community Transport and facilitate the development of future shuttle buses between villages. However, the high cost associated with this improvement means further investigation and consultation is required to ascertain whether the potential benefits justifies the increased cost.

Widening the footway between Oakington Village and the busway stop would improve pedestrian safety and accessibility when walking to the site, particularly for wheelchair users and those pushing prams. Such improvements are also being considered within the scope of the proposed St. Ives Greenway project.

In regards to planning there are also numerous constraints adjacent to or on the site, such as the Green Belt, Listed Building and Conservation Area. As such, the Rural Travel Hub would need to give particular consideration to these matters.

Cambridgeshire County Council are the proprietor of the land identified for the hub site. This is likely to assist with land acquisition and aid delivery.

9.2 Linton

The parish of Linton is located to the south-east of Cambridge, approximately 10.5 miles from the city centre (direct path).

9.2.1 Location & Site Description

The proposed location of the Linton Rural Travel Hub is on Bartlow Road, to the east of Linton village centre, adjacent to the existing Bus Route No. 13 bus stops located close to The Ridgeway (see Figure 9.2). Bartlow Road is a single two-way carriageway, subject to a 30mph speed limit and is street-lit. A footway runs along the southern side of the road providing pedestrian access to the site from the village centre and the A1307. A small parcel of land has been identified to the west of Bartlow Roads junction with the A1307. See Appendix A2 for existing site photographs.



Figure 9.2: Linton Location Plan (© Crown Copyright. All Rights Reserved. License Number 100023205.2017)

9.2.2 Demographics

A Rural Travel Hub at Linton would predominantly serve the parishes of Linton, Hadstock, Bartlow & Horseheath and Balsham which have a combined population of 6,558 at the time of the 2011 Census.

9.2.3 Travel Options to the City Centre

The sections below describe the travel options from the proposed location of the Linton Rural Travel Hub to the city centre (for the purposes of this study defined as intersection of Sidney Street, Hobson Street and St. Andrews Street). By way of comparison the corresponding journey made by car would be approximately 11.7 miles and take roughly 33 minutes.

9.2.3.1 Bus

The Bartlow Road bus stops are served by Stagecoach Route 13, 13A & B (Cambridge to Haverhill) which afford access to Addenbrooke's Hospital and the city centre. These follow the A1307 along a route that is 11.4 miles long towards the city centre, with a journey typical time of 38-40 minutes. Services generally run every 30 minutes, with services increasing in frequency during morning peak times. The cost of a return Dayrider Plus ticket (purchased on-board) to the city centre is £6.70. Service improvements are likely to be delivered as part of the A1307 Three Campuses to Cambridge Project, speeding up journey times and making services more reliable.

9.2.3.2 Cycle

The most direct cycle route to the city centre is via the A1307, being approximately 11.2 miles in distance and is anticipated to take 58 minutes. There are no designated off-carriageway cycle facilities on the section of the A1307 between Linton and the Babraham Research Campus. Beyond the Babraham Research Campus a shared footway/cycleway follows the northern side of the A1307, affording cyclists access to Addenbrooke's Hospital and the city centre. It is likely that improved cycle infrastructure from Linton will be provided as part of the Greenways project and/or the A1307 Three Campuses to Cambridge Project.

9.2.4 Facilities

The existing and proposed facilities are presented below:

9.2.4.1 Existing

The only existing facilities close to the proposed hub site are the bus stops on Bartlow Road. These are marked with flag signs but no other facilities are provided for example hard standings, bus shelters or raised 'bus boarder' kerbs. Pedestrian access from the village and the A1307 to the bus stops is provided by a footway on the southern side of Bartlow Road.

9.2.4.2 Proposed

The facilities proposed for the Rural Travel Hub at Linton comprise:

- Car park with 41 spaces including 3 designated disabled bays.
- Drop-off/pick-up facility.
- Low level lighting within the car park requirements/specification to be agreed locally.
- Bus stop improvements on Bartlow Road, including shelters, raised 'bus boarder' kerbs, hardstandings and Real Time Information signs.
- An uncontrolled pedestrian crossing on Bartlow Road to enable bus users to cross between the inbound and outbound bus stops.
- Secure cycle parking including cycle lockers.

9.2.5 Availability of Land & Planning Considerations

The small envelope of land identified appears to follow a previous alignment of Bartlow Road. Following initial Land Registry enquiries, no titles were found and further investigation is required. It may be that this area of land is considered to be Highway as located on an old alignment of Bartlow Road and appears to have been used previously as an area to store chippings for surface dressing operations.

Potential Planning Constraints (Summary of comments from SCDC Planners)

- The site is located within Flood Zone 1 classified area, meaning that there is a low probability of flooding. There is no requirement for a flood risk assessment for a development in flood zone 1 where it is smaller than one hectare; is not affected by sources of flooding other than rivers and the sea, for example surface water drains.
- The proposed site is outside of the village framework and therefore falls within the countryside.
- Due to its isolated location it may become an area for anti-social behaviour.
- The location of the proposed bus stops and pedestrian crossing on Bartlow Road may need to be revised/reviewed. This is something that could be addressed through a pre-application and at preliminary design stage.
- A key issue for this site is the relationship with developments recently permitted by the Council. North and South of Bartlow Road S/1963/15 was permitted in September 2017 for 55 dwellings. Developments were designed to include a landscape buffer between the sites and the A1307.

9.2.6 Access & Conceptual Layout

A conceptual layout showing the proposed hub car park, drop-off area and cycle storage facility is shown in Appendix B2.

Access to the proposed hub site will be directly off Bartlow Road. The access point would be constructed at the location of the existing field access/junction where the old alignment joins the new alignment of Bartlow Road. A separate in/out arrangement is proposed to allow an internal drop off area to be provided. Some vegetation clearance will be required to ensure visibility splays are adequate.

An uncontrolled pedestrian crossing will be required on Bartlow Road to enable bus users to cross between the inbound and outbound bus stops. The limits of the 30mph zones may need to be altered to accommodate the crossing and access at the proposed located.

9.2.7 Linton Site Summary

Providing a car park at the Linton Rural Travel Hub would allow access to Route 13 bus services for those in the locality who do not live directly on the bus route. The small size of the proposed car park (maximum 41 spaces) means the impact on traffic levels locally would be minimal. Many of the potential users are likely to travel from the parishes to the east of Linton, therefore the hub's location to the east of the village means it is unlikely to generate a significant increase in traffic in the village.



Route 13 buses offer frequent services into Cambridge with bus journey times being approximately 5-8 minutes longer compared to journeys made by car. However, the relatively high cost of the return ticket (£8.00) may deter some potential users, unless ticketing costs can be reduced or subsidised in some way.

For keen cyclists parking and cycling to Cambridge may be attractive, with the provision of secure cycle lockers providing peace of mind if leaving their cycle on-site overnight. The high speed sections of the A1307 where no off-carriageway cycle currently exist may deter less confident cyclists. Cycle infrastructure improvements as part of the Greenways and/or A1307 projects are therefore important in the success of this site as a Park & Cycle facility.

Improvements to the existing bus stops on Bartlow Road will make them more accessible to users.

If it is confirmed that the land identified is considered Highway, this is likely to reduce costs associated with land acquisition.

A hub at this site could be delivered as part of the A1307 Three Campuses to Cambridge Project which aims to provide better bus, walking and cycling options for commuters along the A1307, linking communities and employment sites between Haverhill and Cambridge.

9.3 Shepreth Railway Station

The parish of Shepreth is located to the south-west of Cambridge, approximately 7.5 miles from the city centre (direct path).

9.3.1 Location & Site Description

The proposed location of the Shepreth Rural Travel Hub is at Shepreth railway station, located to the north of the village centre (see Figure 9.3). An area of land has been identified approximately 150 metres to the north of the railway station and is accessible from Barrington Road. Barrington Road is a single two-way carriageway, subject to a 30mph speed limit and is street-lit. See Appendix A3 for existing site photographs.



Figure 9.3: Shepreth Location Plan (© Crown Copyright. All Rights Reserved. License Number 100023205.2017)

9.3.2 Demographics

A Rural Travel Hub at Shepreth would predominantly serve the parishes of Shepreth, Barrington, Fowlmere and Orwell which have a combined population of 4,002 at the time of the 2011 Census.



9.3.3 Travel Options to the City Centre

The sections below describe the travel options from the proposed location of the Shepreth Rural Travel Hub to the city centre (for the purposes of this study defined as intersection of Sidney Street, Hobson Street and St. Andrews Street). By way of comparison the corresponding journey made by car would be approximately 9.2 miles and take roughly 30 minutes.

9.3.3.1 Train

Shepreth railway station affords access to the city centre via the Great Northern Route (London Kings Cross to Kings Lynn), with a typical journey time of 33 minutes, including a 13 minute train ride to Cambridge Station and a 20 minute walk to the city centre. Rail services generally run hourly, although more frequent services are provided during the morning peak period. The cost of return travel is £5.00.

9.3.3.2 Bus

The city centre can be accessed by bus via Route 26 and the Trumpington Park & Ride from the bus stops. However, there are no buses starting from the village centre, with users having to walk 0.7 miles to the A10 to reach the nearest bus stop. The bus journey time is typically 60 minutes with an hourly service provided. The cost of a return Dayrider Plus ticket (purchased on-board covering both services) to the city centre is £6.70.

9.3.3.3 Cycle

The recently constructed off-carriageway cycle facilities alongside the A10 provide cycle access to the city centre. The A10 cycle route will form part of the Melbourn Greenway, therefore further improvements for cyclists are likely to follow. The route is approximately 8.8 miles in distance and is anticipated to take 42 minutes.

9.3.4 Facilities

The existing and proposed facilities are presented below:

9.3.4.1 Existing

The existing facilities at Shepreth railway station include:

- A small car park with 12 spaces (including 1 disabled bay).
- 24 cycle stands (15 uncovered and 9 covered).
- Shelters on the platforms for train users.
- Real Time Information on the train platforms.
- Bus stops on Barrington Road, outside the railway station.

9.3.4.2 Proposed

The facilities proposed for the Rural Travel Hub at Shepreth comprise:

- A car park with 51 spaces including 3 designated disabled bays.
- Drop-off/pick-up facility.
- Street lighting within the car park requirements/specification to be agreed locally.
- Bus stops outside the main station building that could be used by Demand Responsive Travel, Community Transport and local shuttle buses.
- Secure cycle parking including additional covered cycle stands and cycle lockers at the main station building.
- Widening of the existing footway between the Railway Station and the proposed car park (a distance of approximately 150 metres) to ensure pedestrian safety and accessibility.

9.3.5 Availability of Land & Planning Considerations

The area of land identified to the north of the Railway Station is an industrial site (believed to be the site of the old Rhee Valley Cement Works) and now appears to be used as a hard-standing area for material storage. Initial Land Registry enquiries appear to show that this land is owned privately and that development may be subject to restrictive covenants. Further investigation is required.

Potential Planning Constraints (Summary of comments from SCDC Planners)

- The site is located within a Flood Zone 1, meaning that there is a low probability of flooding. There is no requirement for a flood risk assessment for a development in flood zone 1 where it is smaller than one hectare; is not affected by sources of flooding other than rivers and the sea, for example surface water drains.
- The proposed site is outside of the village framework, and therefore falls within the countryside
- The planning history for the site is detailed below, demonstrating its use for industrial purposes:
 - S/0070/91/F Use as coach park with ancillary storage Approved
 - S/2430/89/F Use for Class B2 (General Industrial) Approved
 - S/0775/83/F Change of use to coal stacking ground and store Approved
- The use of a brownfield site is likely to make a proposal at this site more favourable than other greenfield locations in the vicinity.
- Tree Preservation Orders several Elms forming a shelter belt are located in the vicinity of the site.
- SSSI Impact Risk Zone Area radius of SSSI L Moor, Shepreth,

9.3.6 Access & Conceptual Layout

A conceptual layout showing the proposed hub car park and drop-off area facility is shown in Appendix B3.

Access to the proposed hub site will be directly off Barrington Road. A separate in/out arrangement is proposed to allow an internal drop off area to be provided. Some vegetation clearance will be required to ensure visibility splays are adequate.

The existing footway between the Railway Station and the proposed car park would need to be widened for a distance of approximately 150m to ensure pedestrian safety and accessibility.

9.3.7 Shepreth Site Summary

A Rural Travel Hub at Shepreth Railway Station would provide increased parking provision, allowing more residents of the village and neighbouring parish's access to rail services into Cambridge.

The small size of the proposed car park means the impact on traffic levels locally would be minimal. Many of the potential users are likely to travel from the parishes to the north of Shepreth (i.e. Barrington and Orwell), therefore the hubs location to the north of the village means it is unlikely to generate a significant increase in traffic in the village centre.

The railway offers frequent services into Cambridge with journey times being comparable to journeys made by car. The railway also offers reasonably priced travel which is likely to be attractive to users.

Improvements to the cycle parking, including secure cycle lockers at the main station building will encourage more people to cycle to the station.

Travelling to Cambridge from Shepreth via bus is not a viable option due to the lack of services to/from the village centre. However, the provision of bus stops outside the station would mean the site could be serviced more easily by future Demand Responsive Transport, Community Transport and local shuttle buses to improve connectivity with Shepreth and surrounding parishes.

It cannot be assumed that all hub users will be heading into Cambridge. It is likely that the hub site will also be used by commuters heading to other destinations by train, including London. This will inhibit the effectiveness of the site in terms of reducing the number of car journeys into Cambridge.

Further investigation of the land identified for the hub car park is required to determine if it is suitable for development.

9.4 Swavesey Guided Busway Stop

The parish of Swavesey is located to the north-west of Cambridge, approximately 9 miles from the city centre (direct path).

9.4.1 Location & Site Description

The proposed location of the Swavesey Rural Travel Hub is adjacent to the Cambridgeshire guided busway route which runs west to east, bisecting the parishes of Swavesey and Over (see Figure 9.4). A small parcel of agricultural land has been identified to the south of the guided busway. The site is accessible from Station Road which is a two-way single carriageway road, subject to a 30mph speed limit and is street-lit. A shared use footway/cycleway on the western side of Station Road provides pedestrian/cycle access to the site from Swavesey and Over. See Appendix A4 for existing site photographs.



Figure 9.4: Swavesey Location Plan (© Crown Copyright. All Rights Reserved. License Number 100023205.2017)

9.4.2 Demographics

A Rural Travel Hub at Swavesey would predominantly serve the parishes of Swavesey and Over which have a combined population of 5,325 at the time of the 2011 Census.

9.4.3 Travel Options to the City Centre

The sections below describe the travel options from the proposed location of the Swavesey Rural Travel Hub to the city centre (for the purposes of this study defined as intersection of Sidney Street, Hobson Street and St. Andrews Street). By way of comparison the corresponding journey made by car would be approximately 11.9 miles and take roughly 28 minutes.

9.4.3.1 Guided Busway

The Swavesey Busway Stop is served by Routes A (St. Ives to Cambridge), B (Peterborough to Cambridge) and C (St. Ives to Cambridge) which afford access to the city centre, with services departing every 12 minutes. The journey time is typically 28 minutes. The cost of a return ticket from the Swavesey Busway Stop to the city centre is £6.70. However, busway services can be busy at peak times, with limited capacity.

9.4.3.2 Bus (Citi 5)

Bus stops located on Station Road to the north of the Busway serve Citi 5 services (Cambridge to Fenstanton) which afford access to the city centre with a typical journey time of 60 minutes following a route that is



approximately 14 miles long with services departing every 2 hours. The cost of a return Dayrider Plus ticket (purchased on-board) to the city centre is £6.70.

9.4.3.3 Cycle

A designated cycle facility runs adjacent to the guided busway, which will form the future St. Ives Greenway. The most direct cycle route to the city centre is via a combination of the cycle track and the use of local roads and represents a journey distance of 9.8 miles and is anticipated to take 50 minutes. Cycle access to the site from Swavesey and Over may be improved as part of the St. Ives Greenway Project.

9.4.4 Facilities

The existing and proposed facilities are presented below:

9.4.4.1 Existing

The existing facilities at the Swavesey Busway stop include:

- A car park with approximately 40 spaces (including 1 disabled bay).
- Drop-off/pick-up facility.
- 55 cycle stands (35 uncovered and 20 covered).
- Shelters at both inbound and outbound Busway stops.
- Real Time Information at both inbound and outbound Busway stops.
- Bus stops on Station Road, close to the existing Busway car park.
- CCTV at the Busway stops.
- Emergency Help points at the Busway stops.
- Busway ticketing machine.

9.4.4.2 Proposed

The proposed improvements to the existing facilities at Swavesey comprise:

- An additional car park to the south of the busway, with 35 spaces including 3 designated disabled bays. As detailed in Section 5.0, the existing car park is at capacity, with bus users parking on-street in the village when the car park is full.
- Low level lighting within the car park requirements/specification to be agreed locally.
- Additional secure cycle parking including cycle lockers. As detailed in Section 5.0, the fear of cycle theft and/or vandalism may deter some users from cycling to/from the site.
- Drainage improvements and lighting at the existing car park located to the north of the Busway.

9.4.5 Availability of Land & Planning Considerations

A parcel of agricultural land is located to the south of the Busway, bounding its southern perimeter. This site would provide direct access to the Busway for car park users, with vehicular access being provided off Station Road. Following initial Land Registry enquiries, no titles were found therefore further investigation is required.

Potential Planning Constraints (Summary of comments from SCDC Planners)

- The site is located within a Flood Zone 3, meaning that there is a high probability of flooding. A flood risk assessment must be carried out prior to any development.
- The proposed site is outside of the village framework, and therefore located in the countryside
- A Conservation Area is located immediately west of the proposed site (which lies east of Station Road), The proposed location would be in close proximity to Church and Manor House, both Grade 1 Listed Buildings, and also located adjacent to Priory Earthworks Scheduled Monument.



• The area proposed forms the entrance to the village, and these fields provide an open and rural setting. It is also located close to the grade 1 listed church and grade 1 manor house, with clear views between the church and this site, with potential for significant harm to the setting of heritage assets.

9.4.6 Access & Conceptual Layout

A conceptual layout showing the proposed additional car park and cycle storage facility is shown in Appendix B4.

Vehicular access to the hub site would be provided directly off Station Road with a simple T-junction arrangement. Station Road is subject to a 30mph speed limit and is street-lit. Vegetation clearance will be required to ensure adequate visibility splays are provided at the new access.

The shared use footway/cycleway along the western side of Station Road/Over Road provides off-carriageway cycle access for those heading to the site from both Swavesey and Over. The signal controlled pedestrian crossings on Station Road facilitate pedestrian movements to the busway stops.

9.4.7 Swavesey Site Summary

A scheme at Swavesey would look to improve and provide additional hub facilities (as detailed in Section 5.0), including increased car parking provision and improved/more secure cycle parking, allowing more residents of Swavesey and Over to access to the Guided Busway services into Cambridge.

Whilst the number of car park spaces at Swavesey would effectively double with the new car park, the local usage of the existing car park (as detailed in Section 5.0) means there is unlikely to be a significant increase in traffic within the locality, as these local users would otherwise be driving to alternative transport facilities (e.g. the Longstanton Park & Ride) or directly to their destination. The additional car park may also result in a reduction the number of motorists who currently park on-street in the village (when the car park is full) to access the busway as there will be more spaces available.

The guided busway offers frequent services into Cambridge with bus journey times being comparable to journeys made by car. However, the busway services can be busy at peak times, with limited capacity. Potential users may be deterred if they cannot find a seat or even board the service, therefore additional services will need to be considered.

The provision of secure cycle lockers will encourage more people to cycle to the busway stop, who as at observed at Swavesey, are currently deterred due to incidents of cycle theft and vandalism (as detailed in Section 5.0). The cycle lockers will also encourage people to park at the facility and cycle to Cambridge. Cycle access improvements from Swavesey and Over may also be delivered as part of the St. Ives Greenway Project.

The site is subject to a number of planning constraints which could make delivery of site in this location challenging in planning terms.

Following initial Land Registry enquiries, no titles were found therefore further investigation is required.

9.5 Foxton Railway Station

The parish of Foxton is located to the south-west of Cambridge, approximately 6.5 miles from the city centre (direct path).

9.5.1 Location & Site Description

The proposed location of the Foxton Rural Travel Hub is at Foxton railway station, which is located to the northwest of the village centre (see Figure 9.5). An area of land has been identified approximately 50 metres to the north the railway station and is accessible from the A10 Cambridge Road. The A10 is a single two-way carriageway, subject to a 50mph speed limit and is street-lit. See Appendix A5 for existing site photographs.



Figure 9.5: Foxton Location Plan (© Crown Copyright. All Rights Reserved. License Number 100023205.2017)

9.5.2 Demographics

A Rural Travel Hub at Foxton would predominantly serve the parishes of Foxton, Barrington, Fowlmere and Thriplow, which have a combined population of 4,595 at the time of the 2011 Census.

9.5.3 Travel Options to the City Centre

The sections below describe the travel options from the proposed location of the Foxton Rural Travel Hub to the city centre (for the purposes of this study defined as intersection of Sidney Street, Hobson Street and St. Andrews Street). By way of comparison the corresponding journey made by car would be approximately 7.6 miles and take approximately 22 minutes.

9.5.3.1 Train

Foxton railway station affords access to the city centre via the Great Northern Route (London Kings Cross to Kings Lynn), with a typical journey time of 30 minutes, including a 10 minute train ride to Cambridge Station and a 20 minute walk to the city centre. Rail services generally run hourly, although more frequent services are provided during the morning peak period. The cost of return travel is £5.00.

9.5.3.2 Bus

The city centre can be accessed by bus via the hourly Stagecoach Route 26 service to the Trumpington Park & Ride site, with users having to change to access the city centre via the Park & Ride service. The total journey time is typically 43 minutes. The cost of a return Dayrider Plus ticket (purchased on-board covering both services) to the city centre is £6.70.

9.5.3.3 Cycle

A shared use off-road cycleway runs alongside the A10 providing a traffic free route towards the city centre, with the shortest cycle route to the city centre being 7.4 miles. It is anticipated that this journey would take approximately 36 minutes. The A10 will form part of the Melbourn Greenway, therefore further cycle improvements are likely in the future as part of the Greenways project.

9.5.4 Facilities

The existing and proposed facilities are presented below:



9.5.4.1 Existing

The existing facilities at Foxton railway station include:

- 4 uncovered cycle stands, with pedestrian guard railings also being used for cycle storage due to a lack of capacity.
- Real Time Information at both inbound and outbound train platforms.
- Bus stop lay-bys for (Route 26 services) on either side of the A10, approximately 50 metres north of the railway station.

9.5.4.2 Proposed

The proposed hub facilities at Foxton railway station comprise:

- A car park to the north of the railway station, with 35 spaces including 3 designated disabled bays.
- Street lighting within the car park requirements/specification to be agreed locally.
- Bus stop improvements (including shelters, raised kerbs and Real Time Information) at the bus stops on the A10 to improve connectivity between the rail station and local services including the No. 26 service as well as Demand Responsive Transport and Community Transport services.
- Area for secure cycle parking. These would be located on the small triangle of land immediately north of the railway station.

9.5.5 Availability of Land & Planning Considerations

A parcel of land is located to the north of the railway station and is currently owned privately, being used commercially as a hand car wash. The site has been particularly chosen because it is located on the eastern side of the A10 and would therefore not affect or be affected by any future schemes to remove the level crossing and replace with a bridge. Such a scheme would utilise the vacant land on the western side of the A10.

Potential Planning Constraints (Summary of comments from SCDC Planners)

• The site is located within a Flood Zone 1, meaning that there is a low probability of flooding. There is no requirement for a flood risk assessment for a development in flood zone 1 where it is smaller than one hectare; is not affected by sources of flooding other than rivers and the sea, for example surface water drains.

9.5.6 Access & Conceptual Layout

A conceptual layout showing the proposed car park and cycle storage facility is shown in Appendix B5.

Vehicular access to the hub site would be provided directly off the A10 with a simple T-junction arrangement.

The shared use footway/cycleway along the eastern side of the A10 provides off-carriageway cycle access for pedestrians and cyclists heading to the site from both from the north and south.

The relatively small size of the car park means any increase in local traffic is likely to be negligible. The car park would allow a reduction the number of motorists who currently park on-street in the village on Station Road as there will be a designated car park available.

The conceptual layout identifies a cycle store which would appear quite open in the wider area. To ensure the development remains in keeping with the street scene, it is advised that landscaping should be implemented to the front of the cycle stores.

9.5.7 Foxton Site Summary

A scheme at this location would improve and expand upon the current transport facilities at the railway station. The provision of a car park and improved/more secure cycle parking will allow more residents of the village and neighbouring parishes to access the rail services.



The small size of the proposed car park (maximum 35 spaces) means the impact on local traffic levels would be minimal, particularly as the hub is located on the A10 away from the village centre.

The railway offers frequent services into Cambridge with train journey times being comparable to journeys made by car. The reasonable cost of a return ticket (£5.00) is an advantage, particularly if users who would otherwise drive have to pay city centre parking charges.

It cannot be assumed that all hub users will be heading into Cambridge. It is likely that the hub site will also be used by commuters heading to other destinations by train, including London. This will inhibit the effectiveness of the sites in terms of reducing the number of car journeys into Cambridge.

Improvements to the cycle parking, including secure cycle lockers, will encourage more people to cycle to the station. The ongoing cycle improvements along the A10 together with planned improvements as part of the Melbourn Greenway Project will further encourage cycle usage.

Travelling to Cambridge from Foxton via bus is not a viable option due to the lack of direct services into Cambridge, longer journey times and higher travel costs. The provision of improved bus stops outside the station would mean the site can be serviced by future Demand Responsive Transport, Community Transport and local shuttle buses. This will improve connectivity with surrounding parishes.

9.6 Meldreth

The parish of Meldreth is located to the south-west of Cambridge, approximately 9 miles from the city centre (direct path).

9.6.1 Location & Site Description

Meldreth railway station is located at the southern end of the village and is accessible from the High Street (see Figure 9.6). An area of land has been identified adjacent to the existing station car park and is accessible from the existing car park access. See Appendix A6 for existing site photographs.



Figure 9.6: Meldreth Location Plan (© Crown Copyright. All Rights Reserved. License Number 100023205.2017)

9.6.2 Demographics

A Rural Travel Hub at Meldreth would predominantly serve the parishes of Meldreth, Melbourn, Fowlmere and Bassingbourn, which have a combined population of 11,261 at the time of the 2011 Census.

9.6.3 Travel Options to the City Centre

The sections below describe the travel options from the proposed location of the Meldreth Rural Travel Hub to the city centre (for the purposes of this study defined as intersection of Sidney Street, Hobson Street and St. Andrews Street). By way of comparison the corresponding journey made by car would be approximately 10.7 miles and take approximately 28 minutes.



9.6.3.1 Train

Meldreth railway station affords access to the city centre via the Great Northern Route (London Kings Cross to Kings Lynn), with a typical journey time of 36 minutes (similar to the travel time by car), including a 16 minute train ride to Cambridge Station and a 20 minute walk to the city centre. Rail services are generally every 30 minutes. The cost of return train travel is £5.00, plus a £1.50 daily charge for car park users.

9.6.3.2 Bus

The bus stops on the High Street outside the station are only serviced by a local service (Route 128 Shepreth to Royston) which runs at infrequent intervals. The city centre can be accessed by bus via the Route 26 Melbourn to Trumpington Park & Ride service, with onward travel to city centre via the Park & Ride services. Bus users from Meldreth are required to walk 0.8 miles to Melbourn in order to access the Route 26 services. The total journey time is typically 1 hour 13 minutes. The cost of a return Dayrider Plus ticket (purchased on-board covering both services) to the city centre is £6.70.

9.6.3.3 Cycle

Cyclists from Meldreth are able to use shared use footway/cycleway that starts in Melbourn, running alongside Cambridge Road and then up the A10, providing a traffic free route towards the city centre. The shortest cycle route to the city centre is 10.6 miles and would take approximately 50 minutes. Future cycle improvements are likely as part of the Melbourn Greenways project.

9.6.4 Facilities

The existing and proposed facilities are presented below:

9.6.4.1 Existing

The existing transport facilities at the Meldreth station include:

- Car park for 46 vehicles (including 2 disabled bays), chargeable at a daily rate of £1.50.
- 6 uncovered cycle stands.
- Real Time Information at both inbound and outbound train platforms.
- Bus stops for Route 128 on the High Street near the access to the station car park.

9.6.4.2 Proposed

The proposed improvements to the existing transport facilities at Meldreth comprise:

- Additional car parking area next to the existing station car park, with 34 spaces including 3 designated disabled bays.
- Additional secure cycle parking including covered cycle stands and cycle lockers. These would be best located near to the station building within the footprint of the existing car park. Further investigation with the operators of the car park is required.
- Pedestrian route from the new area of parking and existing station car park.
- Street lighting within the car park requirements/specification to be agreed locally.
- Investigate how to improve connectivity between the rail station and local bus services to improve accessibility to the station for those who do not drive. This could include Demand Responsive Transport, Community Transport and/or the provision of local shuttle bus services.

9.6.5 Availability of Land & Planning Considerations

A parcel of privately owned land is located to the south of the railway station and appears to have been previously used commercially, although the site is currently vacant. This site would be accessed off the existing station car park access.

Potential Planning Constraints (Summary of comments from SCDC Planners)

- The ste is located within a Flood Zone 1, meaning that there is a low probability of flooding. There is no requirement for a flood risk assessment for a development in flood zone 1 where it is smaller than one hectare; is not affected by sources of flooding other than rivers and the sea, for example surface water drains.
- Site lies within the development framework and is on a brownfield site.
- The planning application for the site (Former GoCold Building, Station Yard, High Street, MELDRETH, SG8 6JR). The status of this application is noted as "Out for Consultation"; details below:
 - S/1502/17/FL Demolition of existing factory building and office, and construction of 27No. dwellings with associated landscaping.

9.6.6 Access & Conceptual Layout

A conceptual layout showing the proposed car park and cycle storage facility is shown in Appendix B6.

Direct access would be provided off the existing car park entrance, using the existing vehicular access off of the High Street. A simple T-junction is likely to be acceptable due to the low number of vehicles using the car park and low speeds. A designated pedestrian route would need to be provided for car park users to safely access the station.

The small scale of the proposed car park means the impact of additional traffic on the local network is likely to be minimal. The additional parking would allow a reduction in the number of motorists who park on-street in the village as there will be a designated car park available.

9.6.7 Meldreth Site Summary

A scheme at this location would look to improve and expand upon the current transport facilities at Meldreth Station, including additional car parking provision and improved/secure cycle parking, allowing more residents of the village and neighbouring parishes access to rail services.

The small size of the proposed additional car park means the impact on local traffic levels would be minimal.

The railway offers frequent services into Cambridge with train journey times being comparable to journeys made by car. The reasonable cost of a return ticket (£5.00) is also an advantage, particularly if users who would otherwise drive have to pay city centre parking charges.

The proposed hub car park is located close to existing chargeable parking facilities at Meldreth Railway Station. There is the potential for the proposed hub car park to quickly reach capacity, with car users electing to use the free facility.

It cannot be assumed that all hub users will be heading into Cambridge. It is likely that the hub site will also be used by commuters heading to other destinations by train, including London. This will inhibit the effectiveness of the sites in terms of reducing the number of car journeys into Cambridge.

Improvements to the cycle parking, including secure cycle lockers, will encourage more people to cycle to the station.

Travelling to Cambridge from Shepreth via bus is not a viable option due to the lack of direct services into Cambridge, longer journey times and higher travel costs. The provision of improved bus stops outside the station would mean the site can be serviced more easily by future Demand Responsive Transport, Community Transport and local shuttle buses, improving connectivity with surrounding parishes.

9.7 Whittlesford

The parish of Whittlesford is located to the south of Cambridge, approximately 7.5 miles from the city centre (direct path).

9.7.1 Location & Site Description

The proposed location of the Whittlesford Rural Travel Hub is near Whittlesford railway station (see Figure 9.7). An area of land has been identified on the southern side of Royston Road, approximately 650m west of the railway station.



There are currently proposals for transport improvements and additional parking on a large scale to be provided closer to the station. It is considered that a holistic approach needs to be taken. Consultation with all stakeholders is recommended to identify the additional parking requirements. Other transport improvements will need to be included in the consultation process such as bus turn around points to enable buses to serve the station directly.

The area of land identified to the west of the station could be used as a temporary parking area to provide an immediate increase in parking capacity whilst the longer term proposals are developed. The temporary car park would be located approximately 650m from the station. However, many station users currently park along Royston Road (for free) in the location of the proposed car temporary car park. See Appendix A7 for site photographs.



Figure 9.7: Whittlesford Location Plan (© Crown Copyright. All Rights Reserved. License Number 100023205.2017)

9.7.2 Demographics

A Rural Travel Hub at Whittlesford would predominantly serve the parishes of Whittlesford, Duxford, Pampisford, Sawston and Thriplow which have a combined population of 12,588 at the time of the 2011 Census.

9.7.3 Travel Options to the City Centre

The sections below describe the travel options from the proposed location of the Whittlesford Rural Travel Hub to the city centre (for the purposes of this study defined as the intersection of Sidney Street, Hobson Street and St. Andrews Street). By way of comparison the corresponding journey made by car would be approximately 10 miles and take approximately 24 minutes.

9.7.3.1 Train

Whittlesford railway station affords access to the city centre via the West Anglia Main Line (London Liverpool Street to Cambridge), with a typical journey time of 27 minutes, including a 7 minute train ride to Cambridge Station and a 20 minute walk to the city centre. Rail services run every 15 minutes. The cost of return train travel is £6.00, plus a £7.60 daily charge for car park users.

9.7.3.2 Bus

The bus stops on Duxford Road (approximately 490m to the west of the railway station) provide an hourly service to the city centre via the Citi 7 service, with a journey typical time of 60 minutes. The cost of a return Dayrider Plus ticket (purchased on-board) to the city centre is £6.70.

The bus stop on Station Road East provides additional services towards the city centre via Route 7A at intervals between 1 hr 15 mins to 2 hours. It should be noted that bus users are required to change service at the Babraham Road Park & Ride Site for onward travel to the city centre.



9.7.3.3 Cycle

The most direct cycle route to the city centre is via a combination of local roads and the off carriageway section of NCN 11 from Great Shelford to Addenbrooke's. This represents a journey distance of 9.4 miles and is anticipated to take 50 minutes.

9.7.4 Facilities

The existing and proposed facilities are presented below:

9.7.4.1 Existing

The existing facilities at Whittlesford Railway Station include:

- 377 parking spaces (split between two car parks either side of the station) with the peak daily parking charge of £7.60. The car park is street-lit.
- 10 no. covered and 15 no. uncovered cycle stands to the western side of the station. Cycle parking is judged to be at capacity, with bicycles being locked to railings to the eastern side of the station, where there are no stands.
- CCTV
- Onward travel information signs.
- Shelters/waiting rooms on the train platforms for passengers.
- Real Time Information on both inbound and outbound train platforms.

9.7.4.2 Proposed

The facilities proposed for the Rural Travel Hub at Whittlesford comprise:

- New car park with 208 additional spaces including 12 designated disabled spaces.
- Street lighting within the car park requirements/specification to be agreed locally.
- Additional secure cycle parking including covered cycle stands and cycle lockers. These would be best located near to the station building within the footprint of the existing car park. Further investigation with the operators of the car park is required.

9.7.5 Availability of Land & Planning Considerations

The parcel of land identified is currently used for agriculture. Initial Land Registry enquiries appear to show that this land is owned privately and that development may be subject to restrictive covenants. Further investigation is required.

Potential Planning Constraints (Summary of comments from SCDC Planners)

- The site is located within a Flood Zone 1, meaning that there is a low probability of flooding. There is no requirement for a flood risk assessment for a development in flood zone 1 where it is smaller than one hectare; is not affected by sources of flooding other than rivers and the sea, for example surface water drains.
- CCC & Highways England Depots may become vacant circa 2020, with the possibility of these sites being developed. Separately Abellio Greater Anglia **may** have submitted a pre-application for increasing the capacity of the existing chargeable parking facility at Whittlesford Rail Station. Additionally, there may be proposals for a transport hub facility as part of the AgriTech development, which also includes improvements to cycle facilities and a small bus interchange.
- The proposed location is located outside of the development framework and therefore falls within the countryside.
- The location is rural in character and therefore proposed lighting will need to ensure it does not cause adverse harm to biodiversity within the area, or neighbouring properties.
- Consideration will need to be given to the impact upon residential properties nearby.



9.7.6 Access & Conceptual Layout

A conceptual layout showing the proposed car park is shown in Appendix B7.

Access to the car park would be directly off Royston Road with a simple T-junction being proposed. Some vegetation clearance will be required to ensure visibility splays are adequate. Royston Road is a single two-way carriageway, subject to a 30 mph speed limit and is street-lit.

Pedestrian access to the station will be provided by the existing footway on Royston Road that leads to the station.

The conceptual layout identifies few cycle stores, however those currently available at the station are at capacity. As such, consideration should be given to increasing more cycle facilities on the Rural Travel Hub.

9.7.7 Whittlesford Site Summary

An additional temporary car park at Whittlesford would provide an immediate increase in parking capacity, allowing more residents of the village and neighbouring parishes access to rail services.

The impact on traffic levels locally would be minimal as the car park is located close to the A505, with only a local increase in traffic likely on Royston Road.

The railway offers frequent services into Cambridge with journey times being comparable to journeys made by car. The railway also offers reasonably priced travel ($\pounds 6.00$) which is likely to be attractive to users.

The proposed hub car park is located close to existing chargeable parking facilities at Whittlesford Railway Station. There is the potential for the proposed hub car park to quickly reach capacity, with car users electing to use the free facility.

It cannot be assumed that all hub users will be heading into Cambridge. It is likely that the hub site will also be used by commuters heading to other destinations by train, including London. This will inhibit the effectiveness of the sites in terms of reducing the number of car journeys into Cambridge.

Improvements to the cycle parking, including secure cycle lockers at the main station building, will encourage more people to cycle to the station. Liaison is required over the extent and positioning of the cycle parking.

There are a number current development proposals for this location, including extension of the existing car park, cycle improvements and a small transport hub facility. Whilst none have been formally approved, if progressed each of these could potentially have implications on the travel infrastructure in the vicinity of Whittlesford Station. Consequently, there needs to be a holistic approach looking at the wider context in order to ensure improved connectivity between rail and bus services.

There is 'Master Planning Exercise' which is a piece of work in its very early stages that is intended to look at Whittlesford as a whole with a strategic approach considering projects of GCP, County Council and private organisations.

9.8 Sawston

The parish of Sawston is located to the south-east of Cambridge, approximately 6 miles from the city centre (direct path).

9.8.1 Location & Site Description

The proposed location of the Sawston Rural Travel Hub is to the north of Sawston, close to the junction of the A1301 and Cambridge Road (see Figure 9.8), with the site being accessible from Cambridge Road. A small parcel of land has been identified on what is currently a large field used for agriculture. See Appendix A8 for existing site photographs.



Figure 9.8: Sawston Location Plan (© Crown Copyright. All Rights Reserved. License Number 100023205.2017)

9.8.2 Demographics

A Rural Travel Hub at Sawston would predominantly serve the parishes of Sawston, Whittlesford, Pampisford, Duxford, Hinxton and Newton which have a combined population of 11,846 at the time of the 2011 Census.

9.8.3 Travel Options to the City Centre

The sections below describe the travel options from the proposed location of the Sawston Rural Travel Hub to the city centre (for the purposes of this study defined as intersection of Sidney Street, Hobson Street and St. Andrews Street). By way of comparison the corresponding journey made by car would be approximately 8.4 miles and take approximately 29 minutes.

9.8.3.1 Train

Hub users could park and cycle to Great Shelford railway station, with a 7 minute cycle ride to the station from the car park and then a 7 minute train ride into Cambridge. From Cambridge rail station it is then a 20 minute walk to the city centre. The total journey time is approximately 34 minutes. An hourly train service is provided to the city at a cost of £3.90 for return travel.

9.8.3.2 Bus

The Citi 7 bus passes by the proposed hub site on Cambridge Road. A service runs every 20 minutes, with a journey to the city centre taking 40 minutes. The cost of a return Dayrider Plus ticket (purchased on-board) to the city centre is £6.70. Additional bus stops would be required at the hub site as the nearest bus stops are in Sawston village adjacent to Spicers Sports Field. These serve Route 7A (Babraham Road Park & Ride – Whittlesford), 132 (Cambridge to Saffron Walden) and the Citi 7 (Cambridge to Saffron Walden).

9.8.3.3 Cycle

Hub users could park and cycle from the hub site into the city centre, following the route of NCN 11. The 8.1 mile long journey takes an estimated 41 minutes. A shared use footway/cycleway follows the A1301 from the proposed hub location toward Great Shelford, where cyclists then can continue along the route of NCN 11 towards Cambridge.

9.8.4 Facilities

The existing and proposed facilities are presented below:



9.8.4.1 Existing

There are currently no transport facilities at the hub site, but the site is on a section of NCN 11 which has good off-carriageway cycle facilities with Toucan crossings at the junction of the A1301 and Cambridge Road which assist cyclists in accessing the Cambridge bound cycleway.

Citi 7 bus services also pass the site. These provide a regular bus service into Cambridge at 20 minute intervals.

9.8.4.2 Proposed

The proposed hub facilities at Sawston comprise:

- Car park for 50 cars including 3 disabled bays. It is suggested that additional land is set aside for future expansion depending on the demand at the site.
- New bus stops with shelters, raised 'bus boarder' kerbs and Real Time Information so that the site can be serviced by the Citi 7 service, allowing users to park and ride into Cambridge.
- Secure cycle parking including cycle lockers to facilitate the site being used for parking and cycling.
- Low level lighting within the car park requirements/specification to be agreed locally. The junction of the A1301/Cambridge Road is already lit therefore a power supply would be readily available.
- Drop-off/pick-up facility.

9.8.5 Availability of Land & Planning Considerations

The parcel of land identified is currently used for agriculture and owned by Cambridgeshire County Council, being designated as a 'Rural Asset'. As Cambridgeshire County Council are the proprietor of the land identified for the hub site this is likely to assist with land acquisition and aid delivery.

Potential Planning Constraints (Summary of comments from SCDC Planners)

- The site is located within a Flood Zone 1, meaning that there is a low probability of flooding. There is no requirement for a flood risk assessment for a development in flood zone 1 where it is smaller than one hectare; is not affected by sources of flooding other than rivers and the sea, for example surface water drains.
- The site located on land classified as **Green Belt.** Strong justification for this site will be required in order for this site to be considered. NPPF Paragraph 90 Certain other forms of development are also not inappropriate in Green Belt provided they preserve the openness of the Green Belt and do not conflict with the purposes of including land in Green Belt. These include *local transport infrastructure which can demonstrate a requirement for a Green Belt location*.
- Sufficient information will need to identify why a Green Belt location has been chosen, and whether
 impact on openness and green belt purposes have been considered. Unless these tests are met, the
 development would be considered inappropriate development, and very special circumstances
 would need to be demonstrated.
- The location of the Rural Hub would be hard to mitigate, as there are vast views across agricultural fields. It may mitigate adverse impacts if the site were designed to use the land adjoining the road junction, where there is more existing landscaping and existing lighting.
- Proximity to SSSI site at Dernford Fen, Sawston,

9.8.6 Access & Conceptual Layout

A conceptual layout showing the proposed car park is shown in Appendix B8.

The site would be accessed off the western side of Cambridge Road, with a new vehicular access being required into the site. Cambridge Road is a two-way single carriageway road and subject to the national speed limit (60 mph). It is lit at its junction with the A1301.

Pedestrian and cycle access would tie-in at the existing shared use cycleway that runs along the western side of Cambridge Road.



9.8.7 Sawston Site Summary

A Rural Travel Hub at Sawston would allow access to the Citi 7 bus services for those who do not live directly on the route.

The site could also be used as a 'Park & Cycle' facility, allowing users to take advantage of the facilities provided along National Cycle Network (NCN) Route 11 in order to access Cambridge directly or Great Shelford railway station for onward travel. Cycle parking, including secure cycle lockers, should be provided to encourage this.

The site has been positioned away from the village centre to reduce adverse impact of additional car journeys into the village. However, it could be moved closer to the village if there is a local desire.

Cambridgeshire County Council is the proprietor of the land identified. This is likely to reduce costs associated with land acquisition.

9.9 Comberton

The parish of Comberton is located west of Cambridge, approximately 4 miles from the city centre (direct path).

9.9.1 Location & Site Description

The proposed location of the Comberton Rural Travel Hub is at the eastern side of the village, on a parcel of land to the southeast of the B1046 Barton Road/Long Road mini roundabout (see Figure 9.9). The land is currently used for agriculture, with tall hedgerows bounding the northern and eastern perimeter of the site. See Appendix A9 for existing site photographs.



Figure 9.9: Comberton Location Plan (© Crown Copyright. All Rights Reserved. License Number 100023205.2017)

9.9.2 Demographics

A Rural Travel Hub at Comberton would predominantly serve the parishes of Comberton, Little Eversden, Great Eversden and Bourn, which have a combined population of 4,202 at the time of the 2011 Census.

9.9.3 Travel Options to the City Centre

The sections below describe the travel options from the proposed location of the Comberton Rural Travel Hub to the city centre (for the purposes of this study defined as intersection of Sidney Street, Hobson Street and St. Andrews Street). By way of comparison the corresponding journey made by car would be approximately 6 miles and take approximately 20 minutes via the B1046 and A603.



9.9.3.1 Bus

Route 18 (Cambridge to Longstowe) follows the B1046 Barton Road past the proposed hub site. This provides an hourly service in the city centre, with the journey taking approximately 26 minutes. A return ticket costs $\pounds 4.30$.

9.9.3.2 Cycle

Cyclists could choose two routes to access the city centre by:

- (a) Following the B1046 and then the route of the future Barton Greenway alongside the A603 which equates to a distance of approximately 5.2 miles and would take approximately 25 minutes. There is an existing shared use footway/cycleway along most of this route.
- (b) Following the route of the future Comberton Greenway presents a slightly longer journey, a distance of approximately 5.7 miles with a journey time of approximately 28 minutes. The Comberton Greenway is not yet constructed and there are no cycle facilities on Long Road, heading north away from the village. This is a high speed (60mph) section of single carriageway which may deter less confident cyclists.

9.9.4 Facilities

The existing and proposed facilities are presented below:

9.9.4.1 Existing

There are currently no transport facilities at the location of the proposed hub site.

9.9.4.2 Proposed

The proposed improvements to the transport facilities at Comberton comprise:

- Car park for 50 cars with 3 designated disabled bays.
- Secure cycle parking including cycle lockers.
- New bus stops on the B1046 with raised 'bus boarder' kerbs, shelters and Real Time Information Signs so that the site can be directly serviced by the Route 18 bus.
- Low level lighting within the car park requirements/specification to be agreed locally The B1046 is lit therefore a power supply would be readily available.
- Drop-off/pick-up facility.

9.9.5 Availability of Land & Planning Considerations

The land identified for the hub site is currently used for agriculture. Initial Land Registry enquiries appear to show that this land is owned privately and that development may be subject to restrictive covenants. Further investigation is required.

Potential Planning Constraints (Summary of comments from SCDC Planners)

- The site is located within a Flood Zone 1, meaning that there is a low probability of flooding. There is no requirement for a flood risk assessment for a development in flood zone 1 where it is smaller than one hectare; is not affected by sources of flooding other than rivers and the sea, for example surface water drains. However, it is noted that Barton Road, within the confines of the carriageway is classified as Flood Zone 3. Land and property in flood zone 3 have a high probability of flooding. A flood risk assessment must be carried out.
- The site located on land classified as **Green Belt.** Strong justification for this site will be required in order for this site to be considered. NPPF Paragraph 90 Certain other forms of development are also not inappropriate in Green Belt provided they preserve the openness of the Green Belt and do not conflict with the purposes of including land in Green Belt. These include: *local transport infrastructure which can demonstrate a requirement for a Green Belt location.*



- Sufficient information will need to identify why a Green Belt location has been chosen, and whether impact on openness and green belt purposes have been considered. Unless these tests are met, the development would be considered inappropriate development, and very special circumstances would need to be demonstrated.
- The Rural Travel Hub should be screened heavily with landscaping to mitigate the impact upon the character and appearance of the wider area.

9.9.6 Access & Conceptual Layout

A conceptual layout showing the proposed car park is shown in Appendix B9.

The vehicular access would be on the road that forms the southern arm of the B1046 Barton Road/Long Road mini roundabout, with a simple T-junction being proposed. A separate pedestrian access into the car park would be provided at the northwest corner of the field.

Pedestrian access will also be required on the northern side of the site to provide access to the new bus stops on Barton Road. An uncontrolled pedestrian refuge crossing on Barton Road is required to assist pedestrians crossing between the inbound and outbound bus stops. Barton Road at this location is a two-way single carriageway, street-lit and subject to a 30/40 mph speed limit.

9.9.7 Comberton Site Summary

The site would include the provision of a car park and secure cycle parking, allowing residents of neighbouring parishes where cycle access is currently poor to access the future Greenway routes in order to head into the city centre.

A Rural Travel Hub at this location could operate as a 'Park & Cycle' facility and would be ideally located at the start of the future Comberton Greenway. The existing shared use footway/cycleway along the B1046 provides cycle access towards the city centre via Barton. The only concern would be the distance to Cambridge may still deter cyclists to use this site, and it may benefit from being closer.

The site has been positioned away from the village centre to reduce adverse impact of additional car journeys into the village.

Bus and cycle journey times are comparable with car journey times. Bus fares are reasonably priced (£4.30). This is likely to attract usage of the site. However, bus services, which depart every 60 minutes, may not be frequent enough to attract local 'park and ride' usage. Additional bus services need to be considered at peak times.

The proposal would have to identify clearly why green belt land is required.

9.10 Cambourne

The parish of Cambourne is located to the west of Cambridge, approximately 8 miles from the city centre (direct path).

9.10.1 Location & Site Description

The proposed location of the Cambourne Rural Travel Hub is on the small parcel of land to the east of Broadway, situated between St. Neots Road and the A428 (see Figure 9.10). The land is currently used for agriculture, with tall hedgerows bounding the site perimeter. See Appendix A10 for existing site photographs.



Figure 9.10: Cambourne Location Plan (© Crown Copyright. All Rights Reserved. License Number 100023205.2017)

9.10.2 Demographics

A Rural Travel Hub at Cambourne would predominantly serve the parishes of Cambourne, Elsworth & Conington, Knapwell, Boxworth, Papworth Everard, Caxton and Bourn which have a combined population of 13,697 at the time of the 2011 Census.

9.10.3 Travel Options to the City Centre

The sections below describe the travel options from the proposed location of the Cambourne Rural Travel Hub to the city centre (for the purposes of this study defined as intersection of Sidney Street, Hobson Street and St. Andrews Street). By way of comparison the corresponding journey made by car would be approximately 9.3 miles and take approximately 30 minutes, via St. Neots Road and the A1303 Madingley Road.

9.10.3.1 Bus

The Citi 4 service (Cambridge to Cambourne) follows St. Neots Road past the proposed hub site. This provides a service every 20 minutes into the city centre, with the journey along the 7.6 mile route taking approximately 26 minutes. The cost of a return Dayrider Plus ticket (purchased on-board covering both services) to the city centre is £6.70.

9.10.3.2 Cycle

Following St. Neots Road and then Madingley Road presents a cycle route of approximately 7.5 miles in length, with a journey time of approximately 36 minutes. There are currently no off-carriageway cycle facilities along the high speed (60mph) single carriageway sections. This may deter less confident cyclists.

9.10.4 Facilities

The existing and proposed facilities are presented below:

9.10.4.1 Existing

A pair of bus stops located on St. Neots Road to the west of the proposed hub site. These serve the Citi 4 service. The Cambridge bound stop has a bus shelter and bus layby, whereas the Cambourne bound bus stop is unmarked (i.e. no sign, shelter or layby).

A footway follows the southern side of St. Neots Road providing pedestrian access to/from the site.



9.10.4.2 Proposed

The proposed transport facilities at Cambourne comprise:

- Car park for 41 cars including 3 disabled spaces (with additional land being set aside for future expansion depending on the demand at the site).
- Secure cycle parking including cycle lockers.
- Uncontrolled pedestrian refuge crossing on St. Neots Road to enable bus users to cross between the bus stops.
- Real Time Information at Cambridge bound bus stop lay-by.
- Low level lighting within the car park requirements/specification to be agreed locally The B1046 is lit therefore a power supply would be readily available.
- Drop-off/pick-up facility.

9.10.5 Availability of Land & Planning Considerations

The land identified as a potential hub site is currently used for agriculture and is under private ownership. The site has been selected because it is outside the proposed route of the Cambourne to Cambridge Busway and will therefore not be affected by this scheme in the future.

Potential Planning Constraints (Summary of comments from SCDC Planners)

The site is located within a Flood Zone 1, meaning that there is a low probability of flooding. There is no requirement for a flood risk assessment for a development in flood zone 1 where it is smaller than one hectare; is not affected by sources of flooding other than rivers and the sea, for example surface water drains.

The proposed site is outside of the village framework, and therefore located in the countryside

9.10.6 Access & Conceptual Layout

A conceptual layout showing the proposed car park is shown in Appendix B10.

There are no private properties within the immediate vicinity of the site therefore the impact of additional traffic accessing the site will be minimal.

The existing access to the area of land identified will be used as the main vehicular access. A ghost island right turn lane is provided on St. Neots Road which assists vehicular movements into the site, which utilises a standard T-junction arrangement.

Pedestrian access to/from the site is via the existing footway on the southern side of St. Neots Road.

An uncontrolled pedestrian refuge crossing is required to assist pedestrians crossing between the inbound and outbound bus stops. St. Neots Road at this location is a two-way single carriageway, street-lit and subject to the national speed limit (60mph).

9.10.7 Cambourne Site Summary

A Rural Travel Hub at this location would provide a park & cycle facility to the northeast of Cambourne on St. Neots Road.

Long distance cycle commuters regularly use St. Neots Road to head into Cambridge. The numbers of cyclists are likely to increase with the proposed cycle improvements on St. Neots Road being delivered as part of the Cambourne West development. Improvements will include a shared use footway/cycleway along St. Neots Road between Cambourne and the Madingley Mulch Roundabout, with cyclists then re-joining the carriageway and following the on-carriageway cycle lanes towards the city centre. Until these proposals are delivered, less confident cyclists may be deterred from using the facility.

There are no private properties within the immediate vicinity of the site therefore the impact of additional traffic accessing the site will be minimal.



Bus and cycle journey times are comparable with car journey times. Bus services are frequent. However, fares are relatively expensive (£6.70). This may deter those wishing to park & ride.

The proposed location may not be beneficial if/when the Cambourne to Cambridge Busway is implemented. Therefore the rural hub may only be a temporary solution.

The Parish Council are keen for a travel hub. They would like a hub to be in the vicinity of the High Street, given its location in the centre, near car parking and the routes of current buses. However, there are good cycle links into the centre of Cambourne and there are a number of bus routes passing through the village (including fast services for Cambridge). DRT (Demand Responsive Transport) schemes also operate into Morrison's car park. It is not felt that a hub in the centre of Cambourne would be a high priority given the nature of the existing facilities.

10.0 Preliminary Costings

Preliminary construction cost estimates have been produced for each of the 10 sites assessed (see Appendix G).

10.1 Summary of Costs

Typical construction costs have been used to calculate high level cost estimates for each site.

Due to uncertainty over how the land at each site would be acquired, costs associated with land acquisition have not been included.

Site	Cost Estimate (£)
Oakington - Option A (with bus turn around)	£368,107
Oakington - Option B (without bus turn around)	£217,664
Linton	£300,528
Shepreth	£226,590
Swavesey	£224,125
Foxton	£232,176
Meldreth	£144,933
Whittlesford	£599,933
Sawston	£377,253
Comberton	£355,875
Cambourne	£273,914

Table 10.1 – High-level Cost Estimates
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11.0 Site Appraisal

In this section a strategy to produce an effective system for prioritising the proposed sites is presented. Key factors are identified which enables each site to be assigned a score resulting in an overall ranked order.

11.1 Site Prioritisation Methodology

A Site Appraisal Ranking (SAR) has been developed to facilitate the prioritisation of the proposed sites. The equation below has been used to calculate the individual site score and includes various factors for the different individual components considered. The coefficients and importance for each factor have been agreed following a review by the Project Team. The equation thus yields an overall weighted score for each site:

 $Total Score = 2R_{pop} + 3R_{br} + 3R_c + 3R_{cjs} + 3R_{cy} + 2R_{la} + 2R_{acc} + R_{pr} + R_{cps}$

A matrix has been set-up using the 9 factors identified in the prioritisation criteria, namely;

- Population (R_{pop}) the total population of the surrounding parishes that the hub location is likely to serve. This indicates the approximate number of people who would feasibly benefit from the hub.
- Frequency of bus/rail (*R_{br}*) the frequency of public transport services (bus/rail) serving the hub location. The frequency of service is deemed a key factor in the attractiveness of a particular site.
- Cost of travel (R_c) the cost of return travel using public transport (bus/rail) from the hub location. Cost of travel is likely to have an impact on the amount of people using a hub at a given location.
- Car journey saving (*R_{cjs}*) measured as the number of car parking spaces provided at the hub. This is one of the key objectives of the Rural Travel Hub concept.
- Proximity to safe cycle route (*R_{cy}*) distance to the nearest off-carriageway cycle route that provides safe access to Cambridge.
- Land availability (*R_{la}*) considers high level planning issues such as proximity to Green Belts, Conservation Areas, flood risk etc. Land availability constraints may dictate the suitability of a site.
- Access (R_{acc}) considers the availability and suitability of highway access.
- Proximity to P&R (*R_{pr}*) distance to the nearest Cambridge Park & Ride facility. Close proximity to an existing major transport hub (such as a park & ride) may compromise the effectiveness of the Rural Travel Hub.
- Cost per space (*R_{pr}*) the cost per space is a measure of the minimum monetary cost per car journey saving. This is governed by the facilities provided and the potential number of people using the hub. This represents a basic 'cost-benefit' summary for the given site.

The above nine factors are considered on an individual basis for the 10 potential hub sites detailed in Section 9, before being combined for each site to yield an overall score. Prior to assigning scores, it is necessary to apply a weighting coefficient to each of these factors, as some are more influential than others in terms of determining the suitability of a given site. Consequently, the above list of principal factors is further split into three sub-categories, presented in order of importance. This represents a hierarchical categorisation which places a greater emphasis on certain factors relative to others. Details of this hierarchy are given below:

Sub-category 1 (Higher Priority):

- Car journey saving (*R*_{cjs})
- Proximity to safe cycle route (*R_{cy}*)
- Frequency of bus/rail (*R*_{br})
- Cost of travel (*R_c*)



Sub-category 2 (Medium Priority):

- Population (*R_{pop}*)
- Land availability (R_{la})
- Access (Racc)

Sub-category 3 (Lower Priority):

- Proximity to P&R (*R*_{pr})
- Cost per space (*R*_{pr})

Sub-category 1 comprises four of the nine principal factors which are considered to be highest priority. Among the primary drivers for the Rural Travel Hub concept is the reduction of car journeys into Cambridge and the promotion of more sustainable modes of transport (e.g. cycling). Therefore, it follows that car journey saving and proximity to a safe cycling route should feature within the highest priority factors. Additionally, the frequency of sustainable transport modes from that location and the associated cost are critical in assessing suitability of the hub location. The weighting coefficient associated with car journey saving, proximity to safe cycle route, frequency of bus/rail and cost of travel has been set to 3.

Sub-category 2 factors are those that are not the highest priority, but nonetheless are still considered sufficiently important to warrant an elevated weighting factor (i.e. medium priority). These include, population served, land availability and access. The population served is obviously key in terms of providing the maximum number of people to an accessible facility. Land availability and access are also deemed medium priority as there may be implications in terms of planning consent and existing infrastructure which may affect the feasibility of a given location. The weighting coefficient associated with population, land availability and access has been set to 2.

Sub-category 3 factors are those considered lower priority in terms of identifying suitable sites for the Rural Travel Hub facility, but still affect the prioritisation. These include proximity to existing Park & Ride sites and the cost of the facility on cost per space basis.

The above scoring framework has been developed by considering the primary factors that are deemed most important for identifying the most suitable locations for a Rural Travel Hub in the South Cambridgeshire District.



Based on the above methodology, the contribution for each element/factor to the overall SAR score is shown in Chart 11.1:

Contribution to Total Site Score

Chart 11.1 – Contribution of each element to total site score.



Having established this scoring mechanism, a matrix was set up enabling direct comparison between the 10 proposed sites from which an overall ranked order could be determined. The formula produces a score for each hub site between 20 (min) and 100 (max) – the results of which are shown below in Table 11.1. A full version of the prioritisation matrix, including individual site scores for each factor, is given in Appendix F1. Appendix F2 provides details of the scoring criteria, including the bandings for each factor. Appendix F3 comprises the site details that formed the basis of the score for each factor.

11.2 Site Prioritisation List

Individual scores for each site were determined and then the sites were ranked in order of descending score, the final order is shown in Table 11.1:

Parish	Location of RTH	Overall Score
Oakington B	Guided Busway Stop (without bus turn around)	80
Oakington A	Guided Busway Stop (with bus turn around)	76
Whittlesford	Whittlesford Railway Station	68
Sawston	A1307 j/w Cambridge Road	67
Swavesey	Guided Busway Stop	63
Meldreth	Meldreth Railway Station	62
Cambourne	St. Neots Road near its junction with Broadway	62
Comberton	B1046 Comberton Road	61
Shepreth	Shepreth Railway Station	60
Foxton	Foxton Railway Station	59
Linton	Bartlow Road	53

Table 11.1 – Prioritised list of potential Rural Travel Hub sites.

Table 11.1 indicates a ranked order of the potential hub sites based on the prioritisation criteria outlined in Section 11.1. Appendix F gives a breakdown of the site prioritisation matrix and gives a rationale of the overall scores for each of the 11 locations featured in table 11.1. Appendix F2 provides details of the scoring criteria, including the bandings for each factor. Appendix F3 comprises the site details that formed the basis of the score for each factor.

The scores indicate that the Oakington B (without the bus turn around) appears most suitable hub site overall. This is due to its close proximity to the guided busway, which offers frequent services at relatively low cost. The cycleway which runs adjacent the busway provides a safe and convenient cycle route into Cambridge, allowing users to park and cycle. The site is easily accessible from Oakington village. A hub facility here would broadly follow the Swavesey model which has proven to be successful.

Oakington Option A, including a bus turn around would offer additional connectivity compared to Option B, but the high cost associated with the construction of a bus turning circle means this option does not score as well Option B.

The site at Whittlesford Railway Station would serve a large population in an area where there is high demand for interconnectivity between transport modes. The land availability and potential for access at this location mean that a substantially larger facility could be considered, potentially saving a significant number of car journeys.

It is recommended that Oakington Guided Busway Hub (Option B) and Whittlesford Railway Station hub warrant further evaluation as the two potential pilot sites. However, All ten sites considered have their merits and would be suitable for consideration should the Rural Travel Hub concept be expanded to include more locations.

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12.0 Conclusion

Through the consultation and engagement process the following definition of a 'Rural Travel Hub' has been developed. The term 'Rural Travel Hub' is defined as:

'a transport facility that serves as an interchange, close to existing transport corridors (that are served by a reliable and relatively frequent public transport service), where residents in rural areas can walk, cycle or drive to and continue their onward journey using a sustainable mode of travel'.

Whilst the above definition outlines what the concept of a Rural Travel Hub is, the facilities provided at each site are likely to be different. Each hub site will be individually tailored to suit the community it serves, in terms of its location and the available transport links, with facilities being focussed on the predominant forms of transport to and from the site. It is not a case of 'one size fits all'.

The study included a detailed review of national, regional and local policy applicable to rural travel and the Rural Travel Hub concept. This has concluded that the concept and development of this type of infrastructure is supported at all levels.

Analysis of the Census data showed that car ownership and the number of residents travelling to work by car/van in South Cambridgeshire is higher than the Eastern region and significantly higher than that for England & Wales as a whole. Similarly, the number of people travelling to work by bicycle in South Cambridgeshire is significantly higher than the corresponding figure for both the East of England and England & Wales. It was also established that, as may be expected, a significant number of people living in the vicinity of the potential hub sites work in Cambridge, and as a result of this are making relatively short journeys into Cambridge on a regular basis. Improvements to public transport and greater provision for cyclists is likely to increase the potential for modal shift towards more sustainable forms of transport.

Whilst there are no existing designated Rural Travel Hubs in the South Cambridgeshire District, an existing transport facility at Swavesey has been reviewed as part of the Feasibility Study. The Swavesey Guided Busway Stop has evolved into something akin to a Rural Travel Hub, and perhaps best represents what a hub may look like. The usage survey at Swavesey was undertaken to understand how the hubs might work in practice. The findings have been used to inform the study and make suggestions of the type of services and infrastructure that could be included at hub sites.

As established in the Swavesey case study, it is envisaged that the proposed hub facilities will be mainly used by local residents, who would otherwise be travelling by private vehicle to their destination, such that any net gain in local traffic volumes is likely to be minimal.

A widespread consultation exercise across South Cambridgeshire has been conducted with potential stakeholders, community representatives and partners who will be involved in the development of the Rural Travel Hubs. This has been encouraging and revealed a high level of support for the concept of Rural Travel Hubs and their implementation. Consultees have actively engaged in the process and made useful and proactive suggestions for services and infrastructure. However, a number of general concerns were made by stakeholders during the engagement activities about the perceived frequency, capacity and connectivity of public transport in rural areas. Some of the issues may partly be addressed by the implementation of Rural Travel Hubs. Further detailed investigation and consideration is recommended particularly where there is strong local desire for better interconnectivity between outlying parishes, rather than improved links into Cambridge.

A district-wide review resulted in the identification of 10 sites that could be considered for a Rural Travel Hub in South Cambridgeshire. An appraisal process was then undertaken which reviewed each of the sites against the identified factors, considering the opportunities and constraints at each site. Adopting this approach a priority list was established to aid the identification of the two pilot sites.

The report has drawn on community views, a policy review and the review of the existing facilities at Swavesey to identify potential services, facilities and infrastructure that each hub site could contain. It has also identified the potential benefits and dis-benefits of Rural Travel Hubs.



High level cost estimates have been produced for the development Rural Travel Hub facilities at each site identified. These are designed to assist with the future allocation of budgets.

The feasibility study has found that the operation of Rural Travel Hubs in South Cambridgeshire is viable and that they are likely to be supported by the local community, serving to encourage more use of sustainable travel for journeys into Cambridge from outlying parishes.

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13.0 Recommendations

Based on the site prioritisation process outlined in Section 11 it is recommended that the following sites are progressed as pilot sites:

- a) Oakington Guided Busway Stop
- b) Whittlesford Railway Station

The two proposed pilot sites, along with Swavesey, could then be monitored to establish usage patterns. The results of this monitoring process would then dictate whether further Rural Travel Hubs should be provided throughout South Cambridgeshire.

Subject to the approval of the Greater Cambridge Partnership's Assembly and Board the two identified pilot Rural Travel Hub sites should be taken forward to preliminary design, local consultation and planning permission/consent, and (subject to approval) construction.

Due to the relatively high costs it may be prudent for the construction at the pilot sites to initially be more temporary in nature. Following the monitoring period, if deemed successful, a permanent design solution could be developed



Appendix A – Site Photographs



Appendix B – Conceptual Layouts



Appendix C – Workshop Summary



Appendix D – Scoring Exercise Analysis



Appendix E – Swavesey Survey (Blank)



Appendix F – Prioritisation Matrix



Appendix G – Cost Estimates



Appendix H – Sites Location Plan



Appendix I – National and Local Planning Policies to consider



Appendix J – Traffic Flows

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