

# Greater Cambridge Greenways

## Sawston Greenway: Outline Business Case

Greater Cambridge Partnership

17 February 2023

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# Notice

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# 1. Introduction

Greater Cambridge Partnership (GCP) has a programme of Greenways. A Programme Outline Case (POC), covering the whole Greenways programme, has been produced and was approved by the GCP Executive Board on 28 September 2022.

The POC envisaged that each Greenway would have a scheme-specific annex to the POC, acting as a proportionate Outline Business Case (OBC), covering mainly the economic appraisal of that scheme plus certain other scheme-specific matters. Table 1-1 shows what the OBCs will cover.

**Table 1-1 - OBC content**

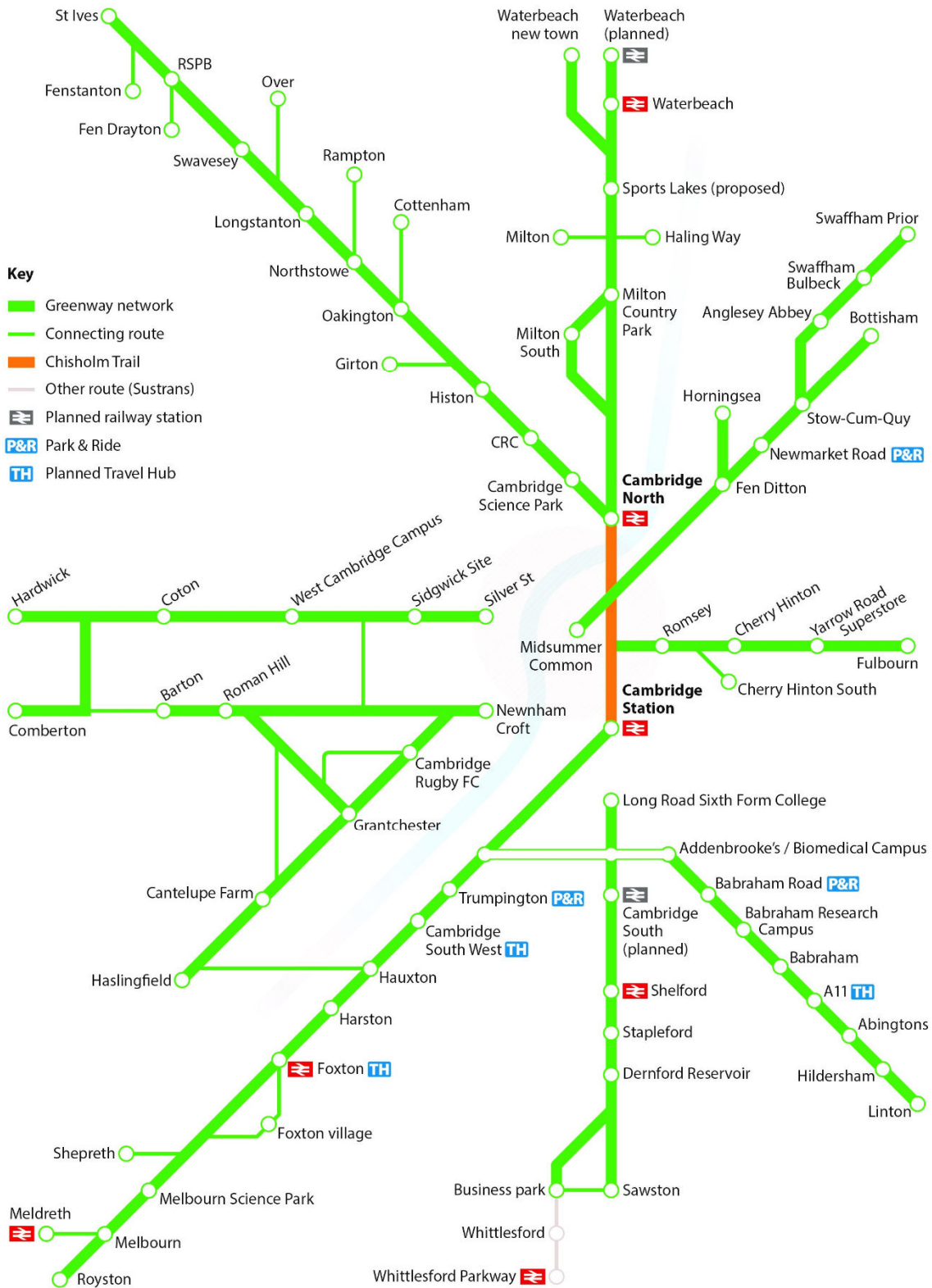
<b>Dimension</b>	<b>OBC content</b>
Strategic	<ul style="list-style-type: none"> <li>• Scheme-specific engagement/consultation results (will apply to all schemes)</li> <li>• Any major changes to scheme definition since the description given in the POC</li> <li>• Any major elements of the specific case that are unique to a particular scheme</li> </ul>
Economic	<ul style="list-style-type: none"> <li>• The economic appraisal (will apply to all schemes)</li> </ul>
Financial	<ul style="list-style-type: none"> <li>• Scheme costs (will apply to all schemes)</li> <li>• Any scheme-specific differences from the generic position given in the POC – e.g. if a scheme has developer contributions</li> </ul>
Commercial	<ul style="list-style-type: none"> <li>• Any scheme-specific differences from the generic position given in the POC</li> </ul>
Management	<ul style="list-style-type: none"> <li>• Any scheme-specific differences from the generic position given in the POC – e.g. involving land agreements, risk profile, the consents strategy, or future ownership of the infrastructure</li> </ul>

This document is the OBC for the Sawston Greenway. It forms an annex to, and should be read in conjunction with, the POC which covers programme-wide matters.

Figure 1-1 – The Greenways network

# Greenways network

Summer 2021



Source: GCP Greater Cambridge Greenways website

## 2. Strategic case

### 2.1. Introduction

The strategic case sets out a case for change that demonstrates how the proposal fits with GCP's priorities, government ambitions and the area being served by the scheme. Most of the strategic case is common to the whole programme and is set out in the POC. The scheme-specific OBCs therefore cover the following:

- Any major changes to scheme definition since the description given in the POC;
- Summary of the scheme's contexts;
- Scheme-specific engagement/consultation results (will apply to all schemes); and
- Any major elements of the strategic case that are unique to a particular scheme.

### 2.2. Changes to scheme definition since the POC

The scheme definition remains in line with the description given in the POC.

### 2.3. Contexts

This section outlines the policy and local contexts of the Sawston Greenway. Further details can be found the POC.

#### 2.3.1. Policy context

Planning and transport strategy at all levels focuses on the need to ensure and future development is sustainable and contributes to wider objectives around the protection, enhancement and conservation of environment, cultural and societal assets. They address the need to tackle climate change and meet Net Zero targets. Strategies also outline the need to ensure future developments contribute to a good quality of life and the health and wellbeing of local communities.

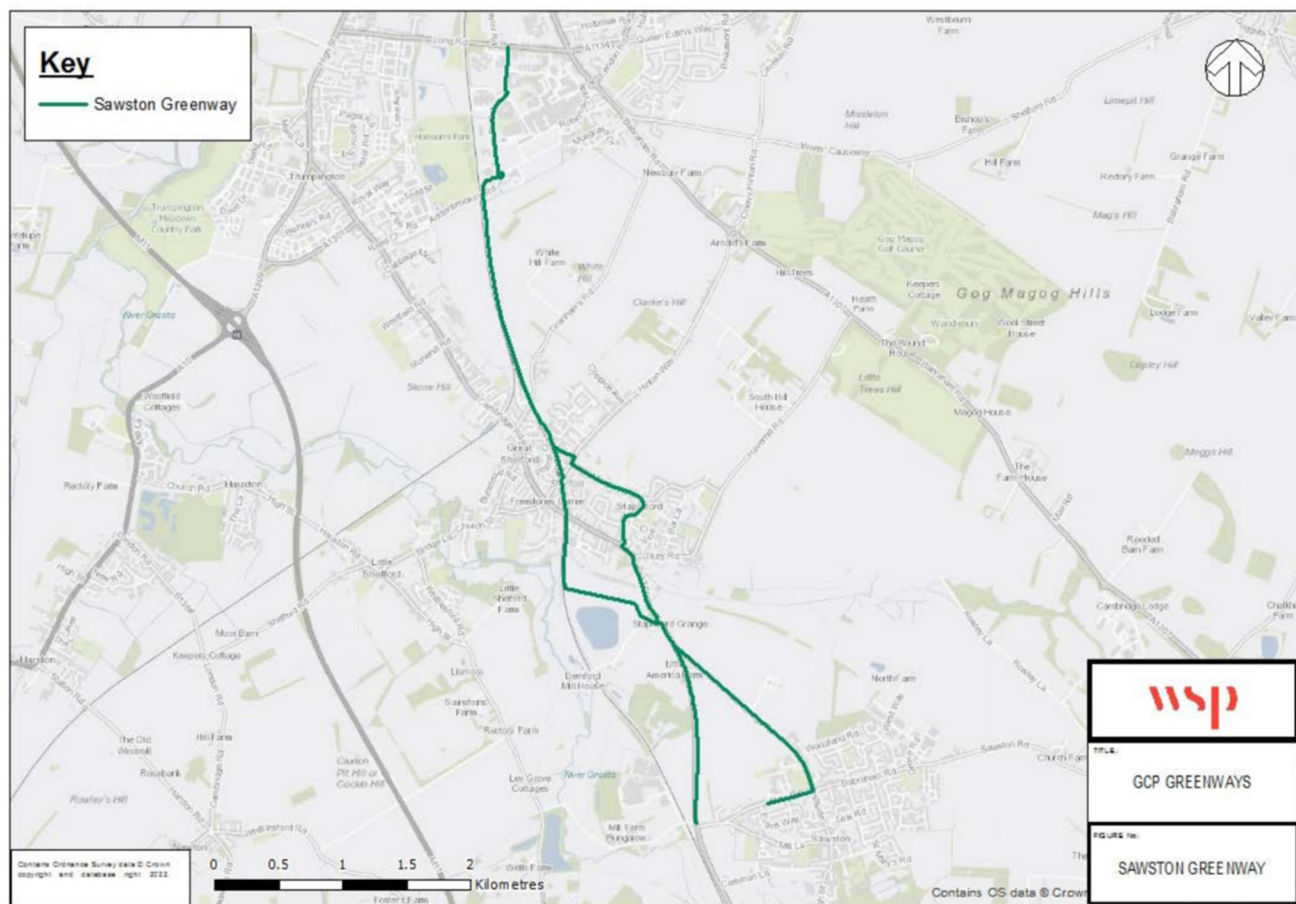
Delivery of the Sawston Greenway will contribute to these key strategic policies, through delivering an active and sustainable mode of travel via a green infrastructure network which will encourage a modal shift away from cars. In doing so, the programme will deliver multiple environmental, social, and economic benefits, and contribute to the reduction on greenhouse gas emission required to meet Net Zero targets by 2050.

#### 2.3.2. Geographical Scope of the Scheme

The Sawston Greenway (Figure 2-1) will provide a continuous link from Sawston to the Cambridge Biomedical Campus, and also connect to the Chisolm Trail, Linton Greenway, and Melbourn Greenway. It will also connect to the national cycle network route 11 to provide a link to Whittlesford Parkway.

The planned route begins with two spurs, with wide shared-use paths alongside highways. One begins in Sawston Village and runs north alongside Cambridge Road, and the other goes from the A1301 junction with the Sawston business park to the meeting of the A1301 and Cambridge Road. The Route continues north until Dernford Reservoir where it diverges. One route here is an off-road shared path which will run alongside the railway over a new bridge over the river Granta and on to Shelford station. The other continues on a shared path alongside the A1301 until it reaches Great Shelford, where it follows quiet road which will be traffic calmed. The two routes meet again on a quiet road north of Shelford station, and then go onto the Genome Path, which will be widened to 4m. At the North end of the Genome Path the route will travel up Francis Crick Avenue, where work will be coordinated with the CSET2 scheme, and join a separated cycleway and footpath along Robinson Way. The route will end at an improved junction with Long Road, which will have a high-quality cycle and pedestrian crossing installed.

**Figure 2-1 – The Sawston Greenway**



Source: Greenways paper to Joint Assembly 16 Feb 2023

### 2.3.3. Economic, Social, and Environmental Context

Cambridge is home to one of the fastest growing economies in Europe and is renowned for being a leading centre for research, innovation, and technology. The centre of Cambridge has the largest share of jobs in Cambridgeshire. The presence of the Green Belt means recent growth has had to ‘leapfrog’ the protected zone into physically separate urban areas, and as such and many of those employed in Cambridge commute from the surrounding area.

The area immediately surrounding the proposed Sawston Greenway is generally very affluent. Within Cambridge, there are areas of deprivation, though these are mostly clustered on the north-east side of the city and not around the Sawston Greenway. Along the proposed route, there is also a higher concentration of elderly people when compared to the national averages for England. The proportion of children living in the area is about average, though three schools are on the Greenway’s proposed route: Sawston Village College, long Road Sixth Form College, and Cambridge Academy for Science and Technology.

Cambridge city centre has had an Air Quality Management Area (AQMA) since 2004 due to high levels of Nitrogen Dioxide from excessive traffic levels. To improve air quality, a series of Air Quality Management Plans have been implemented and integrated into the local transport plans, with the latest being the Cambridge Air Quality Management Plan (2018-2023). Noise has a large impact on both the physical and mental health of those living and working in Cambridge. Traffic noise can be a significant contributor to ambient noise levels. The delivery of the Greenways will help to improve air quality and noise levels within the city centre by encouraging modal shift away from cars and towards active travel modes.



### 2.3.4. Transport Context

The proposed route for the Sawston greenway is closely aligned with the national cycle network route 11, which is a part of the national cycle network. Shared paths separated from the road already exist on some stretches of the Sawston Greenway: Between Sawston and Great Shelford. On the Cambridge Biomedical Campus, the Sawston Greenway will cross the Busway. The busway has an accompanying shared path which provides an active travel connection into Trumpington and Cambridge which is separated from roads.

There are currently two stations close to the route: Shelford and Whittlesford Parkway. Shelford station is directly on the route as it passes through Great Shelford, and Whittlesford Parkway is connected to the south extent of the route by an off-road cycle path which is a part of national cycle route 11. Another station, Cambridge South, will be built on the corridor next to the Cambridge Biomedical Campus.

Almost the entire route is served by the number 7 bus, operated by Stagecoach. On Monday to Friday, this route runs three buses an hour in each direction between the hours of 6:30am and 6pm, and one bus an hour between 6pm to 10:30pm. It connects the villages on the Sawston Greenway Corridor to Trumpington and Cambridge in the north, and other villages and Saffron Walden to the South. The Sawston Greenway crosses the Guided Busway approximately 150m from bus stops in the Cambridge Biomedical Campus which are well served by Busway routes.

The main road route into Cambridge along the corridor is the A1301. It is the only route between Sawston and Great Shelford, and drivers from Great Shelford to Cambridge Biomedical Campus, the west side of Cambridge, or the M11 will all use the A1301 driving north. Some of this traffic is alleviated by the more direct active travel route north along the Genome path, which will be upgraded as part of the Sawston Greenway.

## 2.4. Stakeholder and public engagement

The *Sawston Greenway Engagement Summary Report*, which is being issued in parallel with this OBC, sets out the stakeholder and public engagement that took place in 2022. Its key points are summarised in this section.

### 2.4.1. Stakeholder engagement

Key stakeholders associated with the Sawston Greenway were engaged with throughout 2022 and will continue to be engaged with as the project progresses. Stakeholders ranged from council members, partner authorities, representatives of walking, cycling and equestrian groups and relevant landowners whose agreement is needed in order to construct and manage the route. The *Engagement Summary Report* sets out the activities undertaken.

### 2.4.2. Public engagement

A public engagement period was held from 14<sup>th</sup> November to 9<sup>th</sup> December 2022. The *Engagement Summary Report* sets out the activities undertaken as part of this, and the survey feedback that was received.

Overall, feedback was that the vast majority were pleased with the proposals in principle and welcomed the improvements. A number of suggestions were raised that will be considered and possibly incorporated into the design of the Greenway.

For the section around Robinson Way, including the junction with Long Road, concerns were raised over the alignment of the scheme. Among those with concerns, there were two most common themes. The first is that the current designs (with the crossing of Long Road to the east of Robinson Way) do not reflect the observed desire line for the majority of users, stating that routing from the direction of Sedley Taylor Road is a more popular route. The second is that respondents felt that greenway improvements should be extended to cover both sides of Robinson Way, with specific emphasis on the western side (connecting Long Road and the Sixth Form College).

Feedback was very supportive of the improvements to the Genome path, provided that the existing artwork is retained. 53% of respondents said they were in favour of the proposals (generally). The most common suggestions (42%) from respondents were regarding lighting. Some felt that more lighting was necessary, but some had concerns that too much lighting may have a detrimental environmental effect.

For the improvements in Greater Shelford/Stapleford, many agreed that changes, particularly in terms of road condition, needed to be implemented. Many also felt that the traffic calming measures would be ineffective as the existing 20mph speed limits are not respected.

The new off-road path from Shelford station to Dernford Reservoir was viewed favourably with 48% of respondents saying they were in favour, but many seeing it as something a 'nice to have' rather than being crucial to the success of the scheme. Concerns about lighting similar to those in regard to the Genome path were also expressed.

Many respondents (46%) supported the proposals for a shared path on the A1301 south of the junction with Cambridge Road. A further 30% said that it would improve access to other villages, or suggested that route be extended, for example, south to the junction with the A505. 42% of responses about the A1301/Cambridge Road junction supported the proposals there, and those in support of the proposals generally agree that a crossing would enhance safety here, particularly for school children.

### 2.4.3. Actions taken in response

Information on actions taken in response to the engagement feedback has been provided separately, in parallel to this OBC. It outlines where the project team has acted on suggestions and made changes to the design of the Greenway, or where they have not made changes and the reasons for this.

## 2.5. Any major elements of the strategic case that are unique to the scheme

### 2.5.1. Cambridge Biomedical Campus and other key destinations

Key locations along the corridor, such as Cambridge Biomedical Campus, are likely to be largest generators of journeys along the Sawston Greenway. The increased capacity, quality of journey and safety along the route will encourage people to change mode to active travel as they commute or visit these sites. In addition to CBC, other key locations include Long Road Sixth Form College, the Cambridge Academy for Science and Technology, Sawston Village College, and Sawston business park.

### 2.5.2. Cambridge South East Transport, Phase 2 (CSET2)

Phase 2 of the Cambridge South East Transport scheme (CSET2) involves a new public transport route from the A11 via Sawston and Shelford to the Cambridge Biomedical Campus. Alongside this new public transport route will be a new path for walkers, cyclists, and horse riders, similar to the one along the existing guided busways.

CSET2 would be complementary to the Sawston Greenway scheme, offering broadly parallel active travel routes, each directly connecting different areas of Shelford, Stapleford and Sawston with each other with and Cambridge.

## 3. Economic case

### 3.1. Introduction

The economic case demonstrates the scheme's value for money.

For the greenways programme, the economic case for each scheme is wholly contained within its OBC. An overall approach to appraisal has been agreed that covers all the Greenway corridors. The detailed technical method for each corridor may vary according to the needs of each corridor but will be in line with the overall approach.

The appraisal is on a proportionate basis aimed at indicating the overall scale of benefits. Each greenway corridor is appraised in its own right, assuming that none of the other Greenways are in place apart from the committed Chisholm Trail, but any key corridor-specific synergies between corridors will be identified.

### 3.2. Approach to economic appraisal

The appraisal has been undertaken in line with the Department for Transport's *Transport Analysis Guidance* (TAG), which in turn is aligned with the Treasury *Green Book*. All costs and benefits have been converted to 2010 prices and values, using the parameters in the November 2022 TAG data book.

The scheme opening year is assumed to be 2025. The appraisal period is 20 years, reflecting the likely asset life of the main physical measures before major renewal is required.

The majority of benefits are appraised using the DfT's Active Mode Appraisal Toolkit (AMAT) (November 2022 version). Details of this methodology are explained in section 3.4. The AMAT methodology evaluates only the benefits to pedestrians and cyclists: scooters, equestrians, and any other active travel modes are not included. The number of equestrians and others are negligible, with only a handful of each recorded in the counts described in section 3.3.1. Scooters were also recorded in small numbers, though more than equestrians or others. The numbers of equestrians, scooters, and others is considered minute enough in comparison to pedestrians and cyclists that it will not have a material effect on the conclusions.

### 3.3. Demand

#### 3.3.1. Baseline demand

Baseline demand was estimated from manually classified counts made in November 2022 at a range of junctions along the corridor, which can be seen in **Figure 3-1**. Each count covered three mid-week days from 0700 to 1900. The counts included pedestrians, cyclists, equestrians, scooters, and others. At each count location, the daily totals were averaged across the three days to produce an average daily weekday demand figure.

To take account of seasonal variations in flows, an annualisation factor was derived from 2018 cycle flows over the network of fixed cycle counters installed throughout Cambridgeshire, as available from the Cambridgeshire County Council website. The factor for November was determined to be 1.23 and this was applied to the count data to produce the seasonally-adjusted final baseline (2022) demand figure.

**Figure 3-1 – Count locations for the Melbourn and Sawston Greenways**



**Melbourn and Sawston Greenways - Manually Classified Counts obtained for OBC**

**Legend**

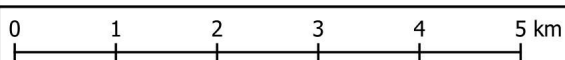
Manually Classified Counts by level of success

- No useable data returned
- Some data returned useable
- All data returned useable

Drawn: ART, 16/02/2023

Version: 1.0

Reference: "P:\GBLOW\TP\HB\PROJECTS\5209430 - Waterbeach Greenway - MATH2310\03 Technical\Business Case\GIS\Corridor shp+kmz (shapshot 27 Apr 2020)\02 Shapefiles\99 Required Count Sites\Survey Locations Workbook v0.1.ggz"



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### 3.3.2. Do-minimum demand

The do-minimum demand represents the future active travel demand along the corridor if the scheme were not to be built. It reflects background demand growth and is created by applying a growth factor to the baseline demand.

In line with the standard process in the DfT’s AMAT workbook, the do-minimum demand was input to the workbook as the annualised baseline demand and is scaled within the workbook from the scheme opening year for 20 years, in line with TAG guidance. A background growth rate in trips of 0.75% was assumed over this period based on National Travel Survey Data from 2006 to 2016.

Conservatively, no extra allowance has been made for specific sites on the corridor, such as Cambridge Biomedical Campus, which may generate a higher growth in journeys than this area average.

### 3.3.3. Do-something demand

The do-something demand represents the future active travel demand along the corridor if the scheme is built. It reflects the impacts of the scheme and is created by applying growth factors (or ‘uplifts’) to the do-minimum demand.

The uplifts are based on data in the DfT’s Cycling and Walking Investment Strategy (CWIS) Active Travel Investment Models. These involve data from the evaluation of previous walking and cycling schemes, which were categorised as either flagship, traffic calming or network (**Table 3-1**). The average of the observed uplifts in the CWIS research for each category have been used in this appraisal. The uplifts used by WSP in the Economic case of the Comberton hand Haslingfield Greenways have been included in section 3.12 as a sensitivity test.

**Table 3-1 - Uplift factor summary**

Uplift category	Representing	Uplift factors from literature source (CWIS)		Mean uplift factor (applied to Greenways)	
		Walking	Cycling	Walking	Cycling
Flagship	Sections of high-quality active travel infrastructure, such as separated cycleways/footpaths.	Reading: 11% Sustrans: 47%	Reading: 14% Sustrans: 61%	29%	37.5%
Traffic calming	Reduced speed limits and new signage and may include speed bumps or chicanes	Edinburgh: 7% Portsmouth: 9%	Edinburgh: 5% Portsmouth: 8%	8%	6.5%
Network	Sections with no active travel provision of their own, but benefit from the higher level of cycling encouraged by quality infrastructure on sections around them	Range of observed uplifts for cycling and walking: 0.5% to 6%		2.3%	2.3%

Each count arm at each count location was allocated to one of the three uplift categories, according to the nature of the intervention appropriate to that arm. The corresponding uplift was then applied, producing the do-something volumes.

## 3.4. Benefits estimated using the Active Mode Appraisal Toolkit (AMAT)

### 3.4.1. Overview

In line with TAG Unit A5-1, the DfT’s Active Mode Appraisal Toolkit (AMAT) (November 2022 version) has been used to estimate most of the scheme’s monetised benefits from improved active travel infrastructure. The tool considers the impacts in terms of physical activity, absenteeism, journey quality, environmental, indirect tax and

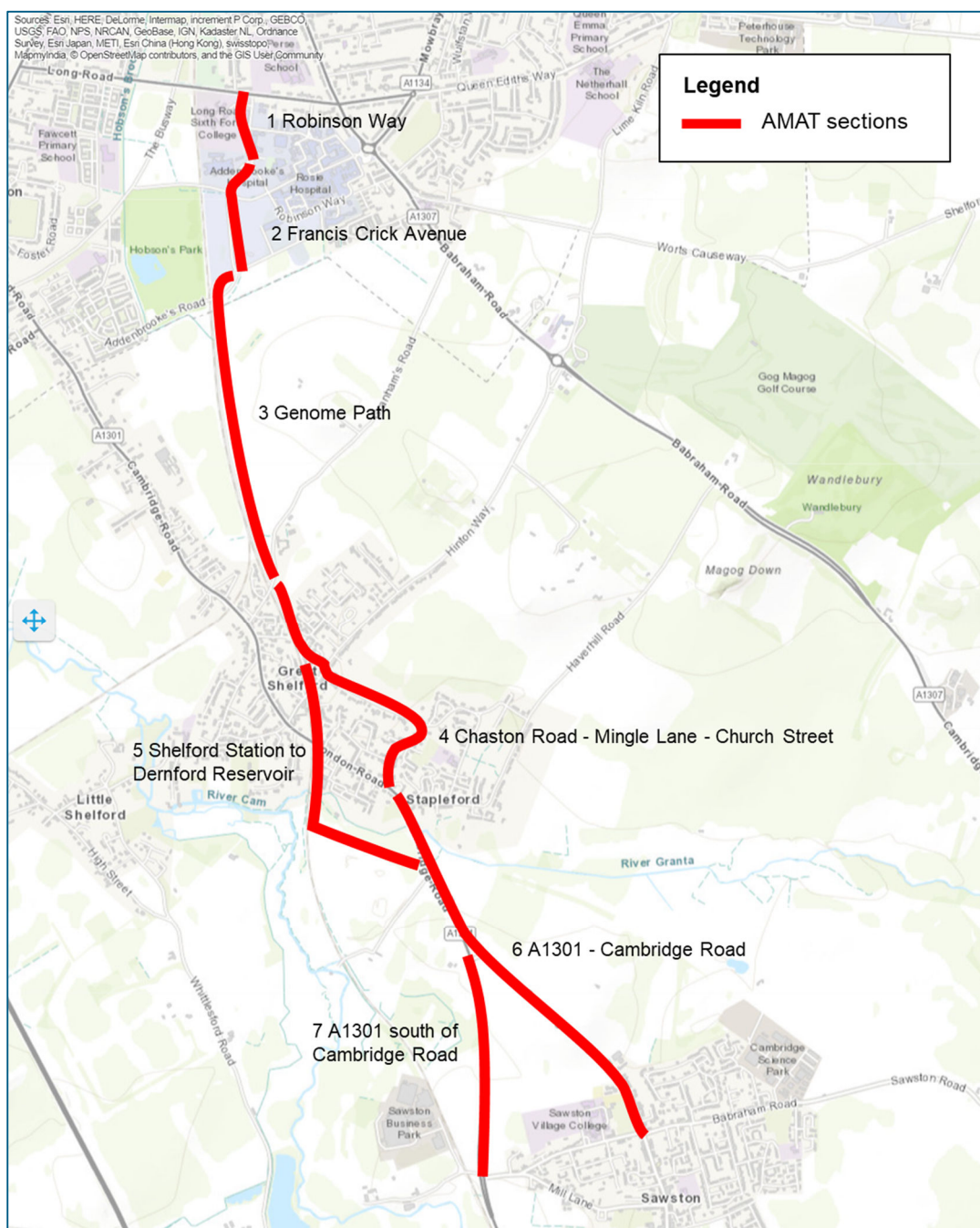
congestion. Do-minimum and do-something demands are inputted to the AMAT along with provisions for active travel with and without the scheme.

Journey quality benefits were assessed using separate AMAT workbooks for each key section of proposed intervention. Health and mode shift benefits were appraised separately in an additional corridor-wide AMAT workbook to avoid double-counting of individual users and trips. Costs were appraised separately from the AMATs to avoid the need to apply some inflation to the input values separately, as is the case in AMAT workbooks.

### 3.4.2. AMAT sections and their demand volumes (for journey quality benefits)

Figure 3-2 shows the Greenway corridor and how it has been split into individual AMAT sections corresponding to the key areas of intervention.

**Figure 3-2 - AMAT sections**



For each section, the do-minimum and do-something cycling and walking volumes were estimated by averaging the relevant volumes at the count locations along that section. **Table 3-2** summarises these, along with the intervention lengths. There are no journey quality benefits for Groups 2 and 6 as there are no upgrades on these sections as a part of the Greenways scheme.

As the route used for the AMAT group 5 does not currently exist, additional steps were taken to account for the benefits that it would produce. It was assumed that the majority of use on the group 5 upgrades would be reassignment of users from group 4, and so these could be merged for the purpose of journey quality benefits. The group 5 upgrades were applied to group 4 to get benefits, and the group 4 count data was uplifted with the flagship uplift factor. This will over-estimate the benefits on this section of the Greenway, as it assumes a 100% reassignment of those travelling south from Shelford station but is a reasonable approximation overall.

**Table 3-2 – Cycling and walking bi-directional volumes in each AMAT section**

AMAT section	Description	Length	Observed average along length		Annualised average along length		DS Average along length	
			Pedestrian	Cycling	Pedestrian	Cycling	Pedestrian	Cycling
1	Robinson Way	0.36	660	250	814	308	1,050	424
2	Francis Crick Avenue	0.68	382	475	471	587	608	807
3	Genome Path	2.1	75	870	92	1,074	119	1,477
4	Chaston Road, Mingle Lane, and Church Street	1.75	231	133	285	164	367	226
5	Shelford Station to Dernford Reservoir	1.72	3	9	4	11	5	15
4 + 5	Sum of flows on groups 4 & 5		234	142	288	175	372	241
6	A1301 and Cambridge Road	2.49	70	468	87	578	111	749
7	A1301 south of Cambridge Road	1.5	28	21	35	25	36	29

Source: Scenarios spreadsheet, 'AMAT' tab

### 3.4.3. AMAT demand volumes (for health and mode shift benefits)

A different approach for calculating demand across the whole greenway route is needed to get a more accurate result. Using a sum of flows from **Table 3-2** risks double counting pedestrians or cyclists who have travelled along more than one of the AMAT sections. There may also be pedestrians or cyclists who do not use the full length of an AMAT section, who will be better accounted for by the approach described in this section.

The count data and local knowledge were used to identify the main origin-destination walking and cycling flows along the corridor. The volume of each flow (in the baseline, DM and DS scenarios) was estimated by averaging the count data for relevant movements along the length of the flow. A typical or average trip distance was also estimated for each flow.

The total of the 10 key flows is used for the health and mode shift benefits. These flows feed into the AMAT analysis of health and mode shift benefits, but also illustrate the main current active travel uses of the corridor.

**Table 3-3** shows the main relevant pedestrian flows and **Table 3-4** shows the main relevant cyclist flows. The largest pedestrian flows are between Cambridge and CBC, and within Great Shelford; The largest cyclist flows are between Cambridge and CBC or Great Shelford; between CBC and Great Shelford; and between Great Shelford and Sawston. The estimated flows are bi-directional averages for the period 7am-7pm on typical weekdays.

**Table 3-3 – Estimated key pedestrian flows on the Greenway route**

Flow ID	Flow Definition	Distance (km)	Basis of Measured Distance	Observed Flow	Annualised Flow	DS Flow
1	Cambridge – Great Shelford	5.6	Cambridge Station - Shelford Station	19	24	31
2	Intra-Great Shelford	1.3	Genome path/Chaston Road - A1301/Church Street	186	230	273
3	Great Shelford – Sawston	3.6	Shelford Station - Cambridge Road/New Road/Babraham Road/Hillside	17	21	27
4	Intra-Sawston	1.1	Sawston Business Park - Cambridge Road/New Road/Babraham Road/Hillside	n/a	n/a	n/a
5	Great Shelford – Sawston business park	3.7	Shelford Station - Sawston Business Park	0	0	0
6	Cambridge – Sawston	9.3	Cambridge Station - Cambridge Road/New Road/Babraham Road/Hillside	1	1	1
7	Cambridge – Sawston business park	9.21	Cambridge Station - Sawston Business park	0	0	0
8	Cambridge – CBC	2.86	Cambridge Station - Robinson Way/Francis Crick Ave	690	852	1,099
9	CBC – Great Shelford	3.21	Robinson Way/Francis Crick Ave - Shelford Station	55	68	88
10	CBC – Sawston	5.89	Robinson Way/Francis Crick Ave - Cambridge Road/New Road/Babraham Road/Hillside	1	1	1

Flow 4 does not pass over any of the interventions. Source: Scenarios spreadsheet, 'flows' tab



**Table 3-4 – Estimated key cyclist flows on the Greenway route**

Flow ID	Flow Definition	Distance (km)	Basis of Measured Distance	Observed Flow	Annualised Flow	DS Flow
1	Cambridge – Great Shelford	5.6	Cambridge Station - Shelford Station	204	252	347
2	Intra-Great Shelford	1.3	Genome path/Chaston Road - A1301/Church Street	4	4	6
3	Great Shelford – Sawston	3.6	Shelford Station - Cambridge Road/New Road/Babraham Road/Hillside	250	308	424
4	Intra-Sawston	1.1	Sawston Business Park - Cambridge Road/New Road/Babraham Road/Hillside	n/a	n/a	n/a
5	Great Shelford – Sawston business park	3.7	Shelford Station - Sawston Business Park	5	6	8
6	Cambridge – Sawston	9.3	Cambridge Station - Cambridge Road/New Road/Babraham Road/Hillside	118	146	201
7	Cambridge – Sawston business park	9.21	Cambridge Station - Sawston Business park	5	6	8
8	Cambridge – CBC	2.86	Cambridge Station - Robinson Way/Francis Crick Ave	309	381	524
9	CBC – Great Shelford	3.21	Robinson Way/Francis Crick Ave - Shelford Station	435	538	739
10	CBC – Sawston	5.89	Robinson Way/Francis Crick Ave - Cambridge Road/New Road/Babraham Road/Hillside	118	146	201

Flow 4 does not pass over any of the interventions. Source: Scenarios spreadsheet, 'flows' tab

### 3.4.4. Trip distances

The default AMAT walking and cycling trip lengths were not used, as the November 2022 count data enabled local estimates to be made.

In the journey quality AMATs, the key flows relevant to that section were used to derive flow-weighted average walking and cycling trip distances for that section. These flow-weighted average trip lengths were used alongside the length of the intervention considered in the individual AMATs to determine the journey quality impacts following the standard AMAT methodology. The average trip distance itself is redundant in calculating the journey quality benefit, but this step identifies flows which may use only a part of a section of the Greenway e.g. one part of Greater Shelford to another without using the full length of interventions through Greater Shelford.

The health and mode shift AMAT used a single corridor-wide flow-weighted average trip length, based on all the key flows identified in the corridor as described in section 3.4.3. This method assumes, for simplicity, that each new pedestrian or cyclist appears on only one flow. The AMAT calculations for these benefits use the trip length and not the intervention length or the proportion of the trip using the intervention.

### 3.4.5. Estimation of journey quality benefits

The AMAT cycling journey quality benefits are based on assigning the route section to one of AMAT’s limited number of infrastructure categories for both current and proposed provision. **Table 3-5** shows the ‘real world’ current and proposed provision, and the AMAT categories to which the section has been assigned.

**Table 3-5 – AMAT cycling infrastructure classifications**

Ref	Section	Current infrastructure (actual)	Proposed infrastructure (actual)	AMAT category - current *	AMAT category - proposed *
1	Robinson Way	No provision	Off-road shared use path	No provision	Off-road segregated cycle track
2	Francis Crick Avenue	On road cycle lane	Upgraded as part of the CSET2 scheme	n/a	n/a
3	Genome Path	Off-road shared use path	Off-road shared use path	No provision (see also note below)	Wider lane (see also note below)
4	Chaston Road - Mingle Lane - Church Street	No provision	Traffic calming	No provision	Shared bus lane
5	Shelford Station to Dernford Reservoir	Route does not currently exist	Off-road shared use path	No Provision	Off-road segregated cycle track
6	A1301 - Cambridge Road	Off-road shared use path	Off-road shared use path	n/a	n/a
7	A1301 south of Cambridge Road	No provision	Off-road shared use path	No provision	Off-road segregated cycle track

\* Note: the existing provision and the scheme proposals are shown in the ‘actual’ columns. The entries in the ‘AMAT category’ columns are purely technical parameters that are used to represent (and may be proxies for) levels of journey quality enhancement; they do not necessarily correspond to the actual nature of the current or proposed provision on the ground. In particular, the AMAT categories used for the Genome path are simply proxies to approximate the incremental value of journey quality enhancement provided by the scheme.

In some cases, it is not clear what the most applicable cycling infrastructure AMAT category may be. AMAT has no category for traffic calming measures, and as such ‘Shared bus lane’ has been selected as a substitute. This provides less benefit than other categories, but still accounts for the improved experience of cycling or walking on a traffic calmed route. In the case of section 4, this ultimately does not have any effect on the AMAT benefits in the core scenario as the benefits of section 5 are applied instead, for reasons explained in section 3.4.2. However, these section 4 classifications are used in a sensitivity test.

For the Genome path, the proposed plans involve widening the existing off-road shared path. As AMAT has no category which provides greater benefit than ‘Off-road segregated cycle track’, the existing infrastructure was input as ‘No provision’, so that benefit could be calculated by inputting the proposed infrastructure as ‘Wider lane’. This category is intended for wider on-road lanes, but it is appropriate to use in this situation as the benefit provided is very similar to the benefit from reduced crowding for pedestrians.

The AMAT walking journey quality benefits are based on whether the route has, or is proposed to have, a range of infrastructure relevant to walking. The existing provision was identified from Google Street View and the proposed provision was identified from scheme drawings.

### 3.4.6. Estimation of health and mode shift benefits

As described in section 3.4.1, the health and mode shift benefits were estimated using a single corridor-wide AMAT workbook for this purpose.

As described in section 3.4.4, the sum of the cycling and walking volumes across all the flows shown in **Table 3-3** and **Table 3-4** represents the DM and DS ‘headcounts’ of people using the corridor. These headcounts

form the DM and DS volumes for health and mode shift. The average trip length is then calculated from a flow-weighted average and the total flow is the sum of all the individual flows.

**Table 3-6** shows the headcounts and their average weighted trip length. As AMAT health and mode shift benefit calculations do not require the proportion of a trip using the intervention, the intervention lengths can be ignored for this analysis. The flow is the sum of the Annualised and DS flows in **Table 3-3** and **Table 3-4**.

**Table 3-6 – Corridor attributes for health and mode-shift benefits**

Mode	Scenario	Average Trip Length (km)	Flow
Cycling	Annualised	4.3	1,788
	DS		2,458
Walking	Annualised	2.7	1,197
	DS		1,520

Source: Scenarios spreadsheet, 'flows' tab

### 3.4.7. Other AMAT parameters and costs

The AMAT default value of 253 relevant days per year (representing weekday but not weekend demand) was retained as no evidence was available to show weekend demand.

All other default AMAT parameters were retained.

Costs were appraised in a separate workbook following the DfT's TAG Unit A1-2 (Scheme Costs) guidance. This workbook was cross checked against an AMAT costs appraisal and found to return the same values for a given scheme but avoided the need to apply some inflation to the input values separately, as is the case in AMAT workbooks. The cost factors used in this costs workbook were obtained from the November 2022 DfT TAG Data Book (v1.20.1) in line with the November 2022 AMAT workbook.

### 3.4.8. AMAT results

**Table 3-7** shows the total benefits summed across all the journey quality AMATs and the health and mode shift AMAT.

**Table 3-7 – AMAT-based benefits**

Category	£'000s (2010 prices and values)
Congestion	368.27
Infrastructure maintenance (counts towards PVC not PVB)	2.04
Accidents (reductions due to mode shift)	62.54
Local air quality	8.43
Noise	4.17
Greenhouse gases	27.27
Reduced risk of premature death	4422.33
Absenteeism	753.56
Journey ambience	1081.87
Indirect taxation (e.g. loss of road tax due to mode shift)	-32.44

## 3.5. Journey time benefits for existing users

The Greenway generally provides upgrades to the quality of existing infrastructure over much of its length, rather than providing additional connectivity with shorter routeings. Minimal journey time savings are therefore expected, and these have not been monetised.

Where additional connectivity is provided, this duplicates an existing route of similar length. Thus no significant journey time savings can be claimed.

## 3.6. Safety benefits

Safety benefits from mode-shift (due to reduced motor vehicle kilometres) are estimated through the AMAT as described above.

In addition to this, the scheme is expected to improve safety through the physical measures themselves making the route safer than it is today. This has been estimated by reviewing recent collision data along the route, identifying the collisions involving active travel users, and identifying those which may have been prevented by the scheme (had it been in place) (Table 3-8). These are then converted into annual equivalents, and the TAG valuations applied to them over the appraisal period. The estimated value of this safety benefit is £1.41m, as shown in Table 3.9.

(present value). \* This analysis is in progress and will be completed in a final version of this business case.

**Table 3-8 – Safety benefits from reduced collisions**

Details	Fatal	Serious	Slight	Total
Total collisions along the route (2015-2019)	0	6	17	23
Of which, involving active travel users	0	4	7	11
Of which in areas where interventions are being made under Greenway Scheme	0	3	2	5
Of which, which may have been prevented by the scheme (2015-2019)	0	3	2	5
Annual equivalent	0	0.6	0.4	1

**Table 3.9 - Safety benefits**

Appraisal Period (Year)	Safety Benefits							Total benefit (£)	Total benefit (£m)
	Accidents/Casualty Saved			Benefits					
	Fatal	Serious	Slight	Fatal	Serious	Slight			
20	0.0	12.0	8.0	-	1,344,258.17	68,948.72	1,413,206.90	1.41	

## 3.7. Social and distributional impacts

### 3.7.1. Social Impact Appraisal

#### 3.7.1.1. Methodology

The Social Impact Appraisal was undertaken in accordance with requirements set out in Transport Appraisal Guidance (TAG) Unit A4-1 published by the Department of Transport (DfT). For the proposed interventions, a proportionate approach has been undertaken to deliver the social impact assessment. A qualitative assessment of each of the social impact indicators has been undertaken and supplemented by quantitative measures where appropriate.

#### 3.7.1.2. Safety

The scheme intends to deliver high-quality walking and cycling improvements and traffic calming along the corridor. The scheme will create a safer, continuous, and more segregated environment for walking and cycling which will encourage people away from private vehicles. These interventions are expected to contribute to reducing risk of collisions for all active modes and highway users (or at least maintain current level of risk). As a result, safety benefits are anticipated from the implementation of the scheme and, overall, it is expected that the impact of the scheme on safety and collisions will be **Moderate Beneficial**.

This is also supported by the monetised safety benefits. The safety benefits from the AMAT assessment are £62,545 in 2010 Present Value Benefit (PVB), and £1,413,206.90 from non AMAT safety benefits.

### 3.7.1.3. Physical activity

The combined effect of improved pedestrian and cycle connectivity and a mode shift from car to active travel in the area would result in a small increase in physical activity. As providing new sustainable transport infrastructure is an effective means of promoting an increase in active commuting, the overall impact assessment for Physical Activity has been appraised as **Moderate Beneficial**.

Physical activity benefits have also been monetised by the AMAT assessment, which found a 2010 PVBs of £753,564 from reduced absenteeism and £4,422,332 from reduced risk of premature death from increased cycling and walking.

### 3.7.1.4. Security

At this stage of the scheme development, security measures have not been confirmed in detail. In accordance with the requirements of TAG Unit 4-1, an indicative high-level assessment of key security indicators is shown below in **Table 3-10**.

**Table 3-10 - Summary of security appraisal**

Security Indicator	Relative Importance	Scheme Impact	Comments
Site perimeters, entrances and exits	Medium	Neutral	The scheme is not expected to have any material impact on site perimeter issues.
Formal surveillance	High	Slight beneficial	Changes to CCTV have not been confirmed as part of the scheme at this stage. However, proposals should incorporate good-quality street lighting and CCTV to improve safety and security of users.
Informal surveillance	Medium	Neutral	Information regarding informal surveillance is not available at this stage. However, it is not anticipated that the scheme will have a material impact on informal surveillance.
Landscaping	Medium	Neutral	Little/ no change to current landscaping which would impact on security.
Lighting and visibility	High	Slight beneficial	Good quality lighting will be provided in any locations where new pedestrian and cyclist routes are proposed or where better lighting is needed. A general lighting strategy is being considered at this stage.
Emergency call	Low	Neutral	There will be no changes to the provision of emergency phones as part of this scheme.

The overall assessment for security is considered to be **Neutral**. Care should be taken when considering the result of this assessment because the level of data available affecting security are limited at this stage.

### 3.7.1.5. Severance

There are currently gaps in active travel provision along this corridor, and some of the existing crossing facilities are complex and dangerous. In general, connectivity by walking and cycling is limited in places. This has resulted in a perceived severance between communities and key amenities for travel by foot or by bike, despite many being in close proximity.

Based on the interventions proposed and given the existing conditions it is likely that the effect of the Sawston Greenway on severance will be beneficial. Key reasons supporting this assessment are described below:

- Introduction of new Zebra, Toucan and Pegasus crossings in certain locations along the corridor, as well as improvements at existing crossings;
- New segregated cycle track and footpaths for example along Robinson Way to create a continuous high-quality active travel route;

- New shared use paths proposed and widening of existing paths including the Genome Path;
- Provision of grass verges for equestrians in appropriate locations including adjacent to the Genome Path and alongside a new shared use path at Stapleford Dernford reservoir;
- Improved access for active travel uses at Shelford Station, with better wayfinding; and
- Various Quiet Street measures and traffic calming to reduce vehicle speeds in some locations, with improved wayfinding and road markings where necessary.

The improved cycle and pedestrian infrastructure, particularly new and enhanced crossings and shared use paths, are expected to benefit residents in the area. Therefore, the overall severance impact of the scheme has been assessed as **Moderate Beneficial**.

### 3.7.1.6. Journey Quality

Journey quality is generally understood as the cumulative travelling experiences of the quality and ambience of a journey. As recognised in TAG Unit A4-1, it represents a measure of the real and perceived physical and social environment experienced while travelling and includes factors such as perceptions of safety, information provision and comfort. Specifically, journey quality impacts can be sub-divided into three groups:

- Traveller care (cleanliness, level of facilities, information);
- Travellers' views (the view and pleasantness of external surroundings for the duration of the journey); and;
- Traveller stress (frustration, fear of accidents and route uncertainty).

The following table presents a high-level qualitative assessment of the scheme in respect to these sub-categories.

**Table 3-11 – Journey quality assessment**

Category	Impact assessment
Traveller care	<p>The proposed interventions are expected to improve traveller care factors, resulting in a better user experience for active mode users. Examples of specific measures include the shared use paths and crossings, separated from carriageway for active travel users.</p> <p>It has been shown that providing segregated facilities has a particular strong positive effect in the user's perception. In the literature, results indicate that segregation is needed in order to achieve target levels of increased cycle use. Further to this, the greenway will widen existing paths, provide new active travel access at Shelford Station, alongside traffic calming measures and better signage for wayfinding.</p> <p>All these measures are anticipated to contribute to an improved user experience.</p>
Travellers' views	<p>Journey quality is likely to be improved for pedestrians and cyclists using the network. The improvements are expected to deliver benefits to non-motorised users by enhancing pedestrian and cycling infrastructure and improving the connectivity in the area.</p> <p>More specifically, the quality and ambience of a journey is expected to be upgraded from the traveller's viewpoint by the active travel interventions. The connectivity will be improved through new upgrades at existing crossing points benefitting the overall pleasantness of journey for users.</p>

Traveller stress

The scheme will provide active mode users with greater route certainty through dedicated and safe crossings, widening of the Genome Path, segregated cycle tracks and footways, and traffic calming measures.

Examples of specific measures include:

- New segregated shared use paths introduced, including the 3m path proposed on the west side of the A1301 between Cambridge Road and Mill Lane junctions, and the 3m path alongside the railway line at Stapleford Dernford reservoir.
- Segregated bi-directional cycle track proposed along Robinson Way to create a continuous, high-quality cycle route.
- Widening of existing paths including the Genome Path from 2m to 4m.
- Improved crossing facilities and new crossings delivered to improve connectivity of active travel infrastructure.
- Bridleway proposed alongside Genome SUP and railway SUP near reservoir.
- Improvements to the active travel access at Shelford Station.
- Traffic calming in some locations including a raised table informal crossing at the junction of Hinton Way and Leeway Avenue to reduce vehicle speeds.

The overall journey quality impact of the scheme has been assessed as **Moderate Beneficial**.

This beneficial assessment is supported by the AMAT assessment, which gives journey ambience 2010 PVB benefits of £1,081,866.

### 3.7.1.7. Option Values and Non-use Values

An option value is the benefit an individual receives from knowing a service exists should they need to use it. A non-use value stems from the knowledge that other people can use the service providing an altruistic benefit.

As indicated in the guidance (TAG unit 4-1), option values and non-use values relate to the implementation or withdrawal of a public transport service and should only be assessed if the scheme includes measures that will substantially change the availability of transport services within the study area.

As there are no changes to any public transport routes or services provided in the area, no significant impacts are anticipated on this regard. Therefore, **no further appraisal is required** for this indicator.

### 3.7.1.8. Accessibility

Most accessibility barriers relate more to public transport than they do to private vehicles. The provision of the new crossing facilities and enhancements at existing crossings may improve accessibility to bus stops along the corridor.

In a few locations, the scheme proposes to relocate bus stops (short distances) to reduce conflict between cyclists and bus passengers, for example, this is proposed to bus stops on Hinton Way, on Church Street and on Francis Crick Avenue/ Robinson Way. However, other than the relocation of some bus stops, it is not expected that the scheme will have any noticeable impact on public transport services.

The greenway is expected to improve connectivity between the settlements along the corridor, and accessibility to local services and amenities.

As discussed in the Strategic Case, the Sawston Greenway will provide connections to key locations in the area including the Cambridge Biomedical Campus, which is likely to be a key generator of trips along the greenway. The improvements in quality of journey and safety along the route will encourage uptake of active travel for users accessing this site. In addition to the Biomedical Campus, the scheme is expected to improve accessibility to schools including Long Road Sixth Form College and Sawston Village College, the Cambridge Academy for Science and Technology, and Sawston business park.

The scheme will also provide better access to other transport services including Shelford rail station, the planned Cambridge South station and other walking and cycling routes in the area. The overall connectivity of the corridor, between settlements and into Cambridge, will be improved through the delivery of the Sawston Greenway.

Overall, improvements in accessibility are attributed to the improved walking and cycling access to key employment, transport and leisure sites along the route. Building on this analysis whilst taking into account that

the scheme does not propose major improvements or changes to public transport provision or service in the area, the overall impact assessment for accessibility has been appraised as **Slight Beneficial**.

### 3.7.1.9. Personal Affordability

Monetary costs of travel can be a major barrier to mobility for certain groups of people, impacting their ability to access key destinations. Consideration of personal affordability issues should take place throughout the appraisal process in cases where the following changes occur:

- Parking charges
- Car fuel and non-fuel operating costs (where, for example, rerouting or changes in journey speeds and congestion occur resulting in changes in costs)
- Road user charges
- Public transport fare changes; and
- Public transport concession availability

The Sawston Greenway provides options for modal shift away from private vehicles and public transport to walking and cycling, creating affordability benefits, as people will be able to shift away from other modes towards active travel. The greenway is expected to generate affordability benefits from reduced car fuel and non-fuel operating costs (fuel and non-fuel) as well as decreasing costs of travel (bus fares) for those switching from public transport, as a result introducing a new, direct and accessible walking and cycling route.

Based on the above, the overall impact assessment for personal affordability has been appraised as **Slight Beneficial**. This beneficial assessment is supported by the AMAT assessment, which gives congestion benefit totalling £368,270.

## 3.7.2. Distributional Impact Appraisal

### 3.7.2.1. Methodology

Distributional impacts (DI) relate to the extent to which there are differences in the way impacts affect different groups in society. For example, the noise impacts of an intervention will affect different groups of households, with some experiencing increases, and others experiencing decreases.

This distributional impact appraisal was undertaken in accordance with requirements set out in Transport Appraisal Guidance (TAG) Unit A4-2 published by the Department of Transport (DfT). A proportionate three-step approach has been applied to undertake the analysis – see **Table 3-12**.

**Table 3-12 – Overview of the DI process**

Step	Description	Output
Screening	<b>1</b> Identification of likely impacts for each indicator	Screening Results
Full appraisal	<b>2</b> Assessment: <ul style="list-style-type: none"> <li>• Confirmation of the area impacted by the transport intervention (impact area),</li> <li>• Identification of social groups in the impact area (such as transport users, people living in those areas affected by the scheme),</li> <li>• Identification of amenities in the impact area,</li> </ul>	DIs social groups statistics and amenities affected within the impact area
	<b>3</b> Appraisal of impacts: <ul style="list-style-type: none"> <li>• Core analysis of the impacts (including providing an assessment score for each indicator based on a seven-point scale – large beneficial to large adverse).</li> </ul>	Appraisal tables

Source: DfT (2020). TAG unit A4-2 Distributional Impact Appraisal.

The following DI appraisal will consider impacts to vulnerable groups living in proximity to the corridor; in this case a 1km assessment area has been defined as the scheme’s impact area to capture characteristics of the local population. The socio-economic, social, and demographic characteristics of social groups in the impact



area have been considered against the indicators. Supporting socio-demographic mapping for the study area has been included within Appendix A.

### 3.7.2.2. Accessibility

There will be some new crossings and upgrades to existing crossing facilities which could improve access to bus stops along the corridor and improve severance. The scheme also proposes to relocate bus stops to reduce conflict between cyclists and bus passengers, for example, this is proposed to bus stops on Hinton Way, on Church Street and on Francis Crick Avenue/ Robinson Way. The relocation distance is short and therefore it is not expected to impact accessibility of these services.

As discussed previously, the scheme is expected to generate wider accessibility benefits for vulnerable groups in proximity to the corridor, in terms of providing better walking and cycling access to services and amenities along the corridor.

Different social groups have different transport needs and priorities, and are particularly vulnerable to the effects of poor accessibility. These groups include children and elderly people, those with a disability, deprived households, and households without access to a private vehicle.

The scheme's 1km impact area has a higher concentration of elderly people and households without access to a car within it when compared to the national average for England. The proportion of children is mostly in line with the national average. In terms of deprivation, the impact area is generally very affluent, with no households within income quintile 1 or 2, and likewise the proportion of disabled residents within the population is significantly lower than the national average.

The vulnerable groups present in the area, in both the resident and day-time populations, are expected to benefit from the interventions proposed and experience improved access to local services and amenities.

Whilst there will be minimal to no impact to the frequency, routings, or timings of current public transport services, the greenway will create opportunities and benefits when it comes to accessibility to services in the local and wider area. As such the overall appraisal of safety is **Slight Beneficial**.

### 3.7.2.3. Safety

There was a total of 174 casualties from 150 collisions that occurred within the scheme impact area between 2016 and 2020. Notably, the rate of collisions involving cyclists is almost 30% greater than nationally at 46.6%. The rate of collisions involving pedestrians, motorcyclists, elderly people and children is broadly in line with the national rate, whilst collisions involving young male drivers (between 16 and 24 years) is much higher than it is nationally at 10.9%.

There are no LSOAs captured within the impact area which are classified within the 20% most deprived LSOAs nationally.

The scheme proposes active travel improvements and measures that are expected to benefit the safety of users and vulnerable groups that either live or visit the local area, including the high concentrations of elderly people and children in proximity to the scheme. As such the overall appraisal of safety is **Moderate Beneficial**.

### 3.7.2.4. Air Quality

In the scheme's 1km impact area has a slightly higher concentration of children when compared to the national average for England. Children are particularly vulnerable to air quality issues, as are highly deprived households. The impact area is generally very affluent, with a no within income quintile 1 or 2.

The scheme intends to introduce a number of sustainable and active travel measures which will create a safer and better-connected environment for active mode uses and support all types of sustainable travel. Some of the measures are likely to benefit air quality in the long-term, including the introduction of new crossing points and active travel paths, traffic calming measures and improved existing facilities to encourage modal shift from private cars.

Whilst the impact on deprived households is considered neutral, due to the lack of presence of income deprived households in the impact area, the higher concentration of children in proximity to the scheme alignment means the overall appraisal for air quality is considered **Slight Beneficial**.

### 3.7.2.5. Noise

In the scheme's 1km impact area has a higher concentration of elderly people within it when compared to the national average for England. The proportion of children is mostly in line with the national average. Older people and children are particularly vulnerable to noise, as are more deprived households. The impact area is generally very affluent, with no households within income quintile 1 or 2.

The scheme intends to introduce a number of sustainable and active travel measures which will create a safer and better-connected environment for active mode users and support all types of sustainable travel. Some of the measures are likely to benefit noise, including traffic calming measures through the villages, alongside other interventions designed to create a continuous, high-quality and safer active travel network to encourage modal shift from private cars.

Whilst the impact on deprived households is considered neutral, due to the lack of presence of income deprived households in the impact area, the higher concentration of children and elderly people in proximity to the scheme means the overall appraisal for noise is considered **Slight Beneficial**.

#### 3.7.2.6. Personal Affordability

As discussed in the Social Impacts section, the Sawston Greenway provides opportunity for modal shift away from private vehicles and public transport to walking and cycling, creating affordability benefits in the form of reduced car fuel and non-fuel operating costs (fuel and non-fuel) as well as decreasing costs of travel (bus fares).

Personal affordability has been assessed qualitatively based on the distribution of population per income group, with the primary group of interest in this case being people on low incomes. Income quintiles 1 and 2 have no presence across the assessment area and therefore will receive no affordability benefits/disbenefits from the scheme, as such these have been appraised as neutral. The other three quintiles receive net benefits overall as the scheme is expected to instigate some mode shift from car to cycling and walking, as more people choose to walk or cycle rather than drive. The distribution of benefits is indicative only and is solely proportional to the overall distribution of population. It demonstrates the distribution of benefits for the scheme to be assessed as **Slight Beneficial**.

#### 3.7.2.7. Security

There will be some upgrades to the relocated bus stops, however there are no significant planned changes to public transport waiting/ interchange services as part of this scheme. Similarly, there are no significant changes to pedestrian access. However, proposed measures including the proposed new crossings are assumed to have a positive impact on the level of security for transport users to a certain level.

The scheme will introduce interventions to create a high-quality active travel environment. The route is expected to be well-lit and will provide enhancements to lighting, visibility and CCTV in areas where lighting is not of good quality. Locations where enhancements might be required have not been confirmed or proposed at this stage.

Based on available information at this stage, a security assessment based on the design element was undertaken as part of the Social Impacts Appraisal (see Section 2.2.3). At this stage in the assessment, it is not known how vulnerable groups in terms of security (children, older people, people with a disability and BME) will be impacted. The DI security impacts have not been appraised in this section.

#### 3.7.2.8. Severance

The scheme has been assessed as **Moderate Beneficial** for this DI appraisal of severance. There are high concentrations of vulnerable groups both living in the area and visiting in daytime population. As there are high concentrations of vulnerable groups in the impact area (particularly elderly residents and no car households) it is expected they will benefit from the interventions proposed including new crossing points, segregated shared use routes and traffic calming in locations along the corridor, and hence experience a reduction in both actual and perceived severance.

#### 3.7.2.9. User Benefits

In line with the personal affordability assessment, user benefits have been assessed qualitatively based on the distribution of population per income group. Income quintiles 1 and 2 have no presence across the assessment area and therefore will receive no benefits/disbenefits from the scheme, as such these have been appraised as neutral. The other three quintiles receive net benefits overall as the scheme is expected to instigate some mode shift from car to cycling and walking, as more people choose to walk or cycle rather than drive. The distribution of benefits is indicative solely to be proportional to the overall distribution of population and demonstrates the distribution of benefits for the scheme to be assessed as **Slight Beneficial**. A slight beneficial assessment is expected in the absence of a monetary value for overall user benefits. This should be considered a conservative approach and is based on a hypothetical distribution of user benefits.

### 3.7.3. Summary of Findings

A summary of findings for the Social Impact Appraisal (**Table 3-13**) and Distributional Impact Appraisal (**Table 3-14**) is outlined below. This provides a final assessment for each indicator as a result of the scheme.

**Table 3-13 - Summary of findings from the Social Impact Appraisal.**

Social Impact Appraisal indicators	The Sawston Greenway corridor
Safety	Moderate Beneficial
Physical Activity	Moderate Beneficial
Security	Neutral
Severance	Moderate Beneficial
Journey Quality	Moderate Beneficial
Option Values and Non-use Values	No assessment required
Accessibility	Slight Beneficial
Personal Affordability	Slight Beneficial

**Table 3-14 - Summary of findings from the Distributional Impact Appraisal.**

Distributional Impact Appraisal indicators	The Sawston Greenway corridor
Safety	Moderate Beneficial
Noise	Slight Beneficial
Air Quality	Slight Beneficial
Security	No assessment required
Severance	Moderate Beneficial
Accessibility	Slight Beneficial
User Benefits	Slight Beneficial
Affordability	Slight Beneficial

### 3.8. Other environmental impacts

The scheme is expected to produce mode shift from motorised to active modes, and hence a reduction in motorised vehicle-kilometres. This in turn results in reduced noise, improved local air quality and reduced greenhouse gas impacts (carbon emissions). The monetised benefits from these have been reported in **Table 3-7** above.

Other environmental impacts are assessed qualitatively. These assessments are in progress and will be reported in a future update to the business case.

**Table 3-15 – Environmental impacts**

Impact	Assessment
Noise	See AMAT results
Local air quality	See AMAT results
Greenhouse gases	See AMAT results
Landscape	Assessment in progress – to be reported in Full Business Case
Townscape	Assessment in progress – to be reported in Full Business Case
Historic environment	Assessment in progress – to be reported in Full Business Case
Biodiversity	Assessment in progress – to be reported in Full Business Case
Water environment	Assessment in progress – to be reported in Full Business Case

### 3.9. Other qualitative assessments

In addition to the benefits covered in the sections above, some other potential benefits of the greenway schemes have been identified. These are assessed, for this greenway, as follows:

- **Capacity:** Existing shared paths will be widened to at least 3m where possible, allowing a higher capacity of users. New shared paths will also be built to this width. The genome path will be widened to 4m.
- **Ability to unlock growth:** The greenway is not anticipated as ‘unlocking’ any individual growth sites. However, it should be seen as part of the overall package of transport measures necessary to deliver sustainable growth in Greater Cambridge, as described in the strategic case within the POC.
- **Ease of interchange with public transport:** At the south end the greenway connects to a path which provides a safe route into Whittlesford, improving the quality of journeys to Whittlesford Parkway station. Shelford station is on the greenway route and is supported by widened shared paths and traffic calming to the north and south. At the north end of the greenway, the planned Cambridge South station will be on the greenway route, supported by the widened genome path and new separated cycleway through the biomedical campus. Improvements to the crossings at the junction of Long Road and Robinson way will also improve connectivity to Cambridge South station and also to Cambridge station.

### 3.10. Costs

The scheme capital costs, and what they include, are described in the financial case. These have been converted to present value costs (PVC) for use in economic appraisal, in accordance with the guidance in TAG unit 1.2.

The PVC has been calculated assuming that the costs of design and construction will be incurred in the year in which the majority of design and construction are scheduled to be undertaken in a draft programme. **Table 3-16** shows the costs incurred in each year for each of these sections.

**Table 3-16 - Costs incurred per year**

Year	Base Cost (Q4 2022 prices)
2023	£2,197,368
2024	£2,801,858
2025	£7,083,928

An annual real cost inflation of 2.1% between the base cost year and the years the costs will be incurred has been applied in accordance with TAG unit A1.2. An optimism bias uplift of 46% has been applied to the base costs. 46% has been chosen rather than the 23% typically used at OBC stage to reflect the higher uncertainty given in the cost estimates (see **Table 4-1**). The costs have been converted to market prices, deflated and discounted to represent 2010 prices and values. **Table 3-17** shows the PVC for the capital costs.

**Table 3-17 – Present value of capital costs**

Metric	Value
Base cost (2022 prices)	£12,083,155
Annual real cost inflation applied	2.1% annually
Base cost total (years incurred prices)	£12,442,643
Optimism bias uplift	46%
Base + OB cost (years incurred prices)	£18,166,258
Deflated to 2010 prices	£13,618,828
Discounted to 2010 values	£8,296,612
Market price conversion factor	1.19
Present value of costs	£9,872,968

Operational and maintenance costs are not yet confirmed and have not yet been incorporated in the PVC.

Infrastructure maintenance cost savings on the wider highway network, as estimated by the AMATs, also count towards the PVC.

### 3.11. Appraisal results (core scenario)

**Table 3-18** summarises the monetised benefits and costs described above and shows the net present value (NPV) and benefit-cost ratio (BCR).

**Table 3-18 – Summary of monetised benefits, costs and BCR (core scenario)**

Category	£'000s (2010 prices and values)
<b>Benefits</b>	
Congestion	368.27
Safety benefits – from mode shift (AMAT)	62.54
Safety benefits – from collisions addressed	1,413.21
Local air quality	8.43
Noise	4.17
Greenhouse gases	27.27
Reduced risk of premature death	4422.33
Absenteeism	753.56
Journey ambience	1081.87
Indirect taxation	-32.44
<b>Present value of benefits (PVB)</b>	<b>8109.21</b>
<b>Costs</b>	
Infrastructure maintenance saving (negative cost – from AMAT)	2.04
Investment costs	9872.97
Operating costs	0.00
Private sector contributions	0.00
<b>Present value of costs (PVC)</b>	<b>9870.93</b>
<b>Net present value (NPV)</b>	<b>-1761.72</b>
<b>Benefit-cost ratio (BCR)</b>	<b>0.82</b>

Appendix B provides the Public Accounts (PA) and Analysis of Monetised Costs and Benefits (AMCB) tables. The Transport Economic Efficiency (TEE) has not been included as the user benefits were estimated using the DfT's AMAT congestion benefit which does not split the benefits by commuter, business and leisure users.

Appendix C provides the Appraisal Summary Table (AST).

### 3.12. Sensitivity tests

Sensitivity tests have been carried out to demonstrate the sensitivity of the appraisal results to a range of changes to the inputs.

The sensitivity tests undertaken are:

1. Using the demand uplift figures used by WSP on some other Greenway corridors;
2. Higher background growth;
3. No railway route;
4. 20% more cost;
5. 30 year appraisal period; and,
6. Halved non-AMAT safety benefits.

The pedestrian and cycling uplifts used by WSP on other Greenway corridors were 10% for walking and 25% for cycling. These uplifts rates were applied evenly across all count data regardless of upgrade type.

The background growth used for the higher background growth sensitivity test was 1.3% annually, in comparison to the 0.75% AMAT default. This was derived from the CSRM2 GCP High Growth Land Use assumptions, as used in the GCP Busway Corridors CSRM2 Modelling.

The No railway route test excludes the benefits from and cost of the route which runs alongside the railway from Shelford station and ends at a junction with the A1301. For this the section 4 AMAT had the upgrades and

DS flows of section 5 removed: upgrades were input to the AMAT with the classification for section 4 as in **Table 3-5**, and the DS flows used were only those of section 4. Demand was also recalculated using the traffic calming uplift in place of the flagship uplift factor.

The 20% more cost test assumes that additional cost is accrued evenly across investment. For this test, the PVC (not including infrastructure maintenance saving) has been uplifted by 20% and used against the core scenario benefits.

In the core scenario, a 20-year appraisal period was used in line with TAG guidance. A 30-year appraisal period has been included as a sensitivity test. For this scenario it has been assumed that no additional renewal costs are incurred, i.e. that the asset life reaches 30 years rather than 20 before needing renewal.

For the halved non-AMAT safety benefits sensitivity test, the safety benefits from section 3.6 were halved before being combined with the AMAT benefits, which were taken from the core scenario.

**Table 3-19** Shows the results of these tests alongside the Core scenario.

**Table 3-19 – Sensitivity tests**

Test	PVB £m	PVC £m	NPV £m	BCR
Core scenario	8.11	9.87	-1.76	0.8
WSP uplifts	5.61	9.87	-4.26	0.6
Higher Background growth	8.49	9.88	-1.39	0.9
No railway route	7.68	5.31	2.37	1.5
20% higher cost	8.11	11.85	-3.74	0.7
30 Year Appraisal Period	11.12	9.87	1.25	1.1
Halved non-AMAT safety benefits	7.40	9.87	-2.47	0.8

### 3.13. Value for money statement

The core scenario BCR represents poor value for money (VfM) in terms of the VfM categories set out in the DfT guidance. This should be seen in the context of the inevitable approximations and limitations when appraising schemes such as this one. The low BCR may largely be due to the low baseline demand on sections of the Greenway, particularly at its southern end and between Greater Shelford and Sawston. The baseline demand in this appraisal does not consider the transformative effect of new connectivity, e.g. to Sawston Business Park, which may be undervaluing the monetised benefits which the scheme provides.

Sensitivity tests generally show the BCR remaining in the poor VfM category, with most not resulting in significant change. However the test using a 30-year appraisal period showed that the BCR increases to 1.1. The sensitivity test excluding the new 'railway route' path from Shelford station to Dernford Reservoir confirms that this element of the scheme may have a significant influence on the BCR.

BCR alone is not a complete measure of VfM, non-monetised impacts, differential impacts, and the extent to which the scheme meets local and national strategic objectives are all factors which are not captured in the BCR. The assessment of non-monetised impacts has shown that the scheme has particular benefits to certain disadvantaged or vulnerable groups, particularly those most reliant on walking or cycling. For example, children and elderly people, who may have less access or ability to use other modes of travel.

The social and distributional impacts show the scheme to have beneficial impacts. Of the 14 social and distributional factors which could be appraised, the Sawston Greenway has moderate beneficial impact on 6 of them, and slight beneficial to a further 7. The appraisal found no adverse social or distributional impacts.

The strategic case within the POC has set out the wider policy objectives and transport strategy, and how the Greenways programme supports these. The Sawston Greenway is in line with those objectives, even if its individual contribution is modest. Furthermore, although the appraisal considers the Greenway as a standalone scheme, it can also be seen as part of the broader programme of Greenways and other measures that may together offer broader synergies towards achieving those objectives.

## 4. Financial case

### 4.1. Introduction

The financial case sets out the scheme's affordability, funding arrangements and any technical accounting issues.

The outline budgets for each Greenway, and the overall programme funding arrangements, are set out in the POC. The scheme-specific OBCs therefore cover only the following:

- Scheme costs
- Any scheme-specific differences from the generic position given in the POC – eg if a scheme has developer contributions

### 4.2. Scheme costs

The scheme costs were estimated by Faithful & Guild based on the concept designs. The following allowances and exclusions have been made:

- VAT has been excluded.
- Contaminated material assumed not present.
- Client direct costs including management and finance excluded.
- Land purchase, leasing and compensation excluded.
- Sunk Costs excluded.
- Allowances have been assumed as 7% (contractor overhead and profit (OHP)), 2% (insurance), 15% (design), 20% (contingency) and 7.5% (client supervision)
- Q4 2022 prices

**Table 4-1** summarises the cost estimate. The estimated total cost in Q4 2022 prices is £20.95 million. The outturn, allowing for inflation to the date of construction, is forecast to be higher as set out in **Table 4-1**. This can be compared to the £9.0m budget value for the scheme previously set out in the POC.

Operation and maintenance costs have not yet been estimated.

**Table 4-1 – Scheme costs (£, Q4 2022 prices)**

Item	£
100 Prelims	1,807,549.87
200 Site Clearance	280,830.00
300 Fencing	300,360.00
400 Road Restraint Systems	0
500 Drainage	16,000.00
600 Earthworks	402,416.33
700 Paving	183,410.75
1100 Kerbs, Footways and paved areas	930,255.00
1200 Traffic Signs and Road markings	588,297.00
Series 1300 - Road Lighting Columns and Brackets,	30,250.00
Series 1400 - Electrical work for road lighting and traffic Signs	7,500.00
Series 1700 - Structural Concrete	0
Series 2400 Brickwork and blockwork	0
Series 2500 Special Structures	1,550,000.00

Item	£
Series 3000 - Landscaping and ecology	92,620.00
Night Working	438,193.91
Stats	1,446,039.90
Traffic Management	964,026.60
OHP	632,642.45
Insurance	193,407.84
Design Team	1,479,569.95
Contingency	2,268,673.92
Inflation to Q3 2022	0
Site Supervision	739,784.97
Optimism Bias @46%	6,601,841.10
<b>Total</b>	<b>20,953,669.58</b>
Inflation to 2Q23 (BCIS TPI 370)	0
Inflation to 2Q24 (BCIS TPI 378)	453,052.32
Inflation to 2Q25 (BCIS TPI 388)	1,019,367.71
Inflation to 2Q26 (BCIS TPI 399)	1,642,314.64

*Note: The Optimism Bias and contingency line items for financial case purposes are a further contingency allowance and this Optimism Bias does not necessarily correspond to the Optimism Bias used in the economic case.*

### 4.3. Scheme-specific differences from the generic position

No developer contributions have been confirmed for the Sawston Greenway. However, there is potential for developer contributions to be made. Negotiations with housing developers and Huawei are ongoing; these have not been included in the appraisal of this scheme as they are not certain.

No other scheme-specific differences from the generic position set out in the POC have been identified.



## 5. Commercial case

### 5.1. Introduction

The commercial case sets out the commercial viability of the proposal and the procurement strategy that will be used.

The POC set out the procurement approach for the Greenways programme. The scheme-specific OBCs therefore only cover any scheme-specific differences from the generic position given in the POC.

### 5.2. Scheme-specific differences

None have been identified for this scheme.

## 6. Management case

### 6.1. Introduction

The management case assesses whether a proposal is deliverable. It tests the proposal’s planning, governance structure, risk management, communications and stakeholder management, benefits realisation, and assurance.

The GCP will deliver the Sawston Greenway as part of the Greenways Programme using delegated powers from CCC, although in some areas such as Right of Way restrictions the GCP will rely on the County Council’s statutory powers.

Most of the management case is common to the whole programme and is set out in the POC. The scheme-specific OBCs therefore only cover any scheme-specific differences from the generic position given in the POC – for example, involving land agreements, risk profile, the consents strategy, or future ownership of the infrastructure.

### 6.2. Scheme-specific risks

The main risks for the Greenways programme as a whole were set out in the POC. The main risks specific to this particular scheme are shown in **Table 6-1**.

**Table 6-1 – Main scheme-specific risks**

Risk	Risk Description	Potential Impact	Risk Mitigation Measures (to be agreed)
Network Rail objections	Network Rail may object to the scheme or to elements of the scheme as it comes in close proximity to three level crossings, and within a live rail corridor	Abortive design development work Programme delays whilst changes are made, and new data gathered	Early engagement with Network Rail to understand their requirements. Escalate to GCP Transport Lead to raise at higher level in Network Rail. As a last resort, pull out specific scheme elements where there is interaction with Network Rail assets.
Network Rail decision delays	Network Rail decisions could be delayed or behind the Greenways programme	Programme delays	Early engagement with Network Rail. Escalate to GCP Transport Lead to raise at higher level in Network Rail. Continue design at risk, but costs may change.
Construction access	Temporary access through 3 <sup>rd</sup> party land (Wedd’s Yard) would be required for construction work, and access could be delayed or rejected	Programme delays in construction	Early engagement with landowners/tenant. Discuss with landowner/tenant, further negotiation to achieve agreement. Consider alternative access. Consider CPO as a last resort.
Adjacent development	Interactions with adjacent development	Delay to programme and delivery, potential for extensive public disruption through uncoordinated programme, potential for changes to design	Work with developers and their project managers to understand interactions and dependencies. Ensure that GCP are aware of other projects along the route and have close co-ordination with the planning team.

Risk	Risk Description	Potential Impact	Risk Mitigation Measures (to be agreed)
Design changes – significant	The final detailed design requires significant changes to be made to the preliminary design that was consulted on, causing breakdown of trust with local residents	Increased likelihood of local opposition occurring, causing reputational damage and poor public relations for CCC Increased cost and programme delays, as design may need to be updated and potentially consultation/engagement re-done	Early engagement with statutory consultees and landowners. Comprehensive surveys to be undertaken. Funding to be confirmed at an early stage, in depth liaison with CCC Highways teams to ensure that all aspects of the design are accepted. Engagement with the LLF to explain why changes are necessary.
Poor ground conditions	Poor ground conditions and high water table	H&S risks Programme delays, and cost and design changes	Understand ground conditions at early stage and flag any potential issues. Carry out ground investigation in high-risk areas e.g., locations of bridges and structures. Early design to be undertaken for high-risk sites.

### 6.3. Consents

A Planning and Consents Strategy is being developed for the Greenway, setting out the optimal planning and consents approach for each individual section. The Sawston Greenway will likely require a combination of at least some of the following:

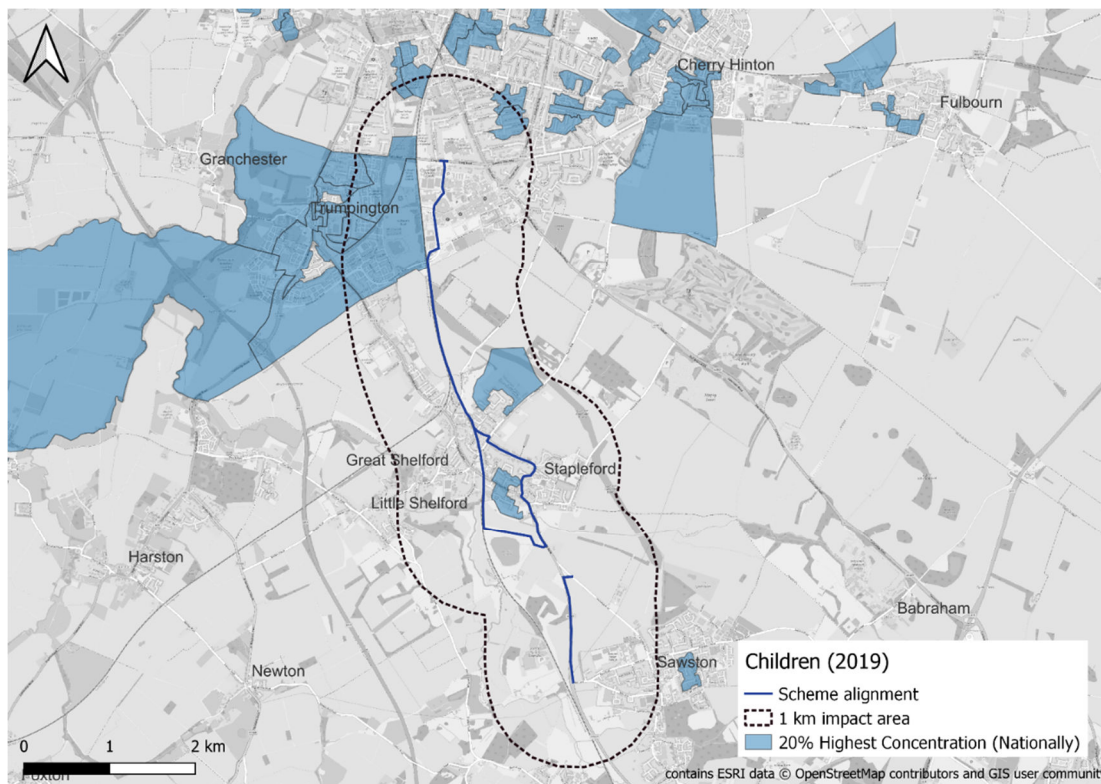
- Permitted Development Applications;
- Planning applications where permitted development is not sufficient;
- Section 25 Highways Act 1980 notices – to create Public Rights of Way (PRoW) where there is agreement from a landowner to create the rights for a bridleway;
- Section 26 Highways Act 1980 notices – to create PRoW where there is not agreement from a landowner;
- Compulsory Purchase Powers for land where section 26 powers cannot be used; and,
- Traffic Regulation Orders.

The key scheme-specific consents issue for this Greenway relates to the 'railway route' through Shelford which would require acquisition of land or rights, and consents, from Network Rail (see relevant risks in **Table 6-1**). Additionally, access through Wedd's Yard would be required for construction on this section of the Greenway.

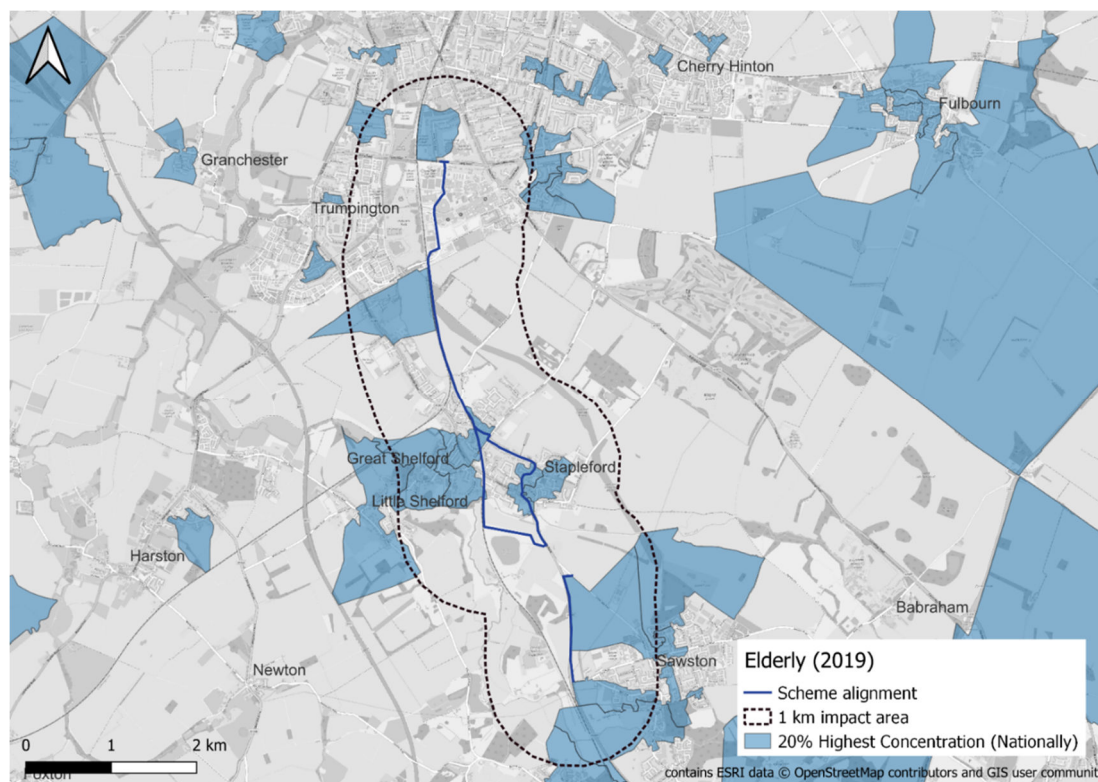
# Appendix A. Socio-demographic mapping

The figures in this Appendix support the analysis presented in the Social and Distributional Impacts Section 3.7. They show each of the vulnerable groups identified for the impact area, including the elderly people (over 70 years old), children (under 16 years old) and DLA claimants. Further income indicators have also been identified for the local population, including households with no car or van and income deprivation.

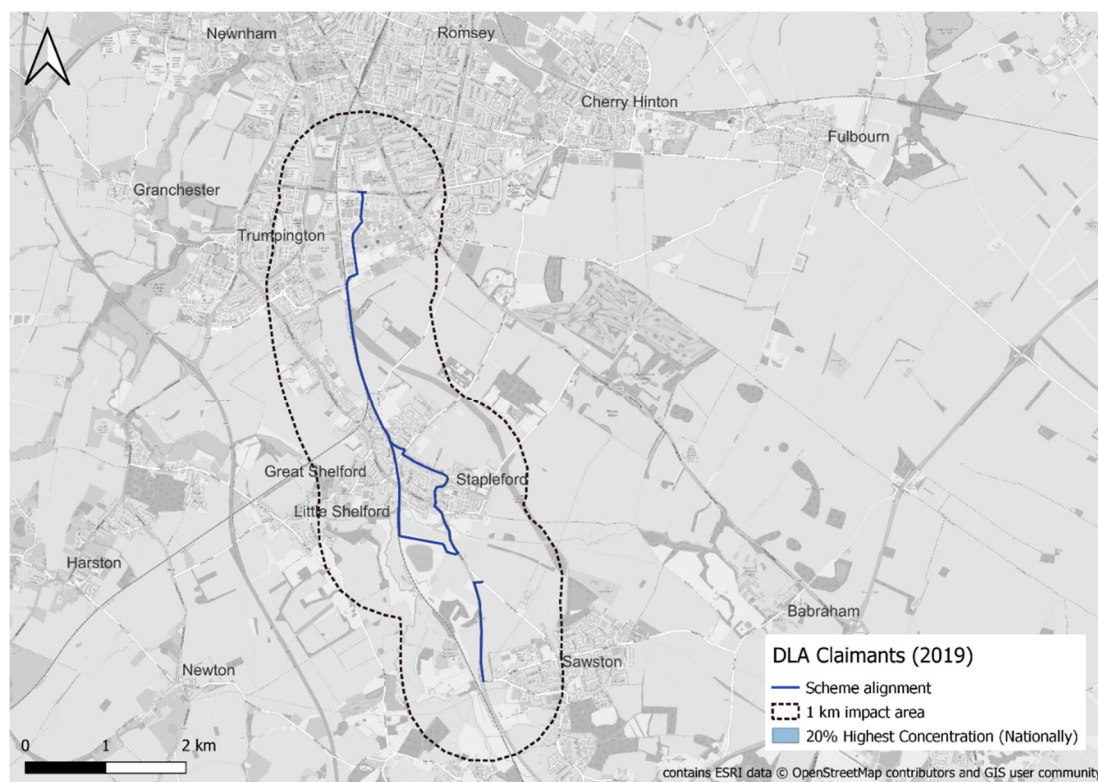
**Figure A-1 – Children (Aged 16 and under) Population - Highest 20% Output Areas (OAs) nationally**



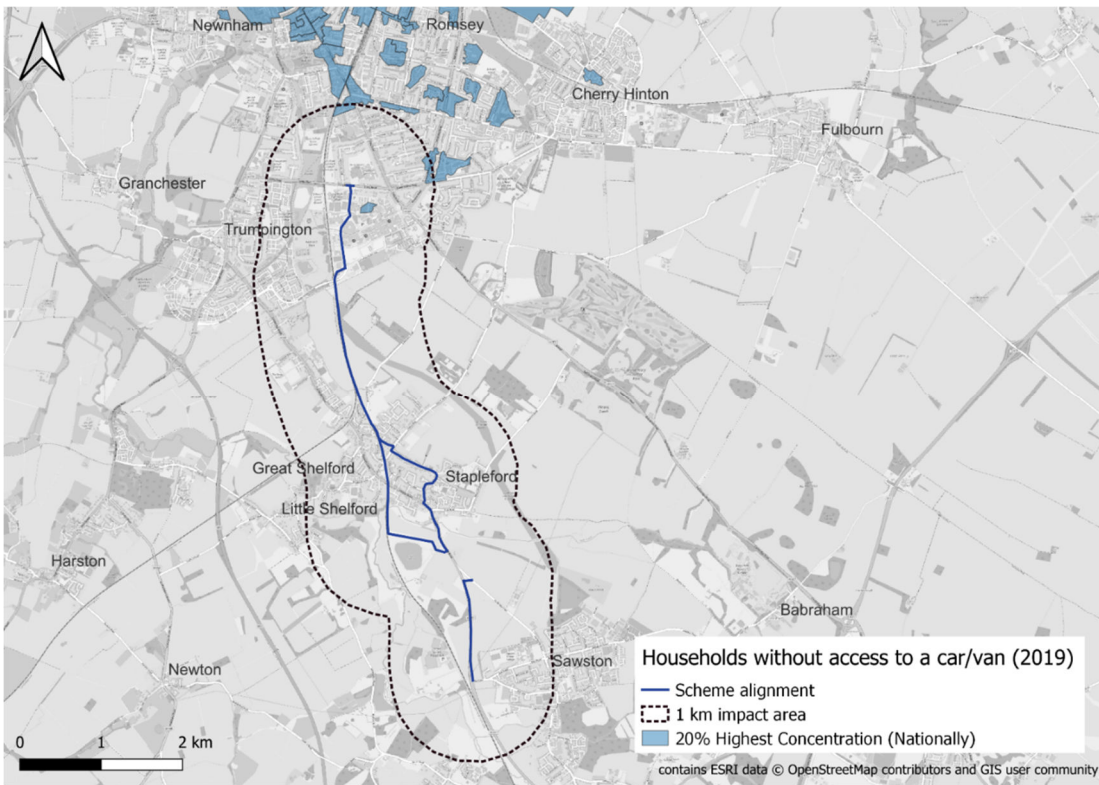
**Figure A-2 – Elderly People (aged 70 and over) Population - Highest 20% Output Areas (OAs) nationally**



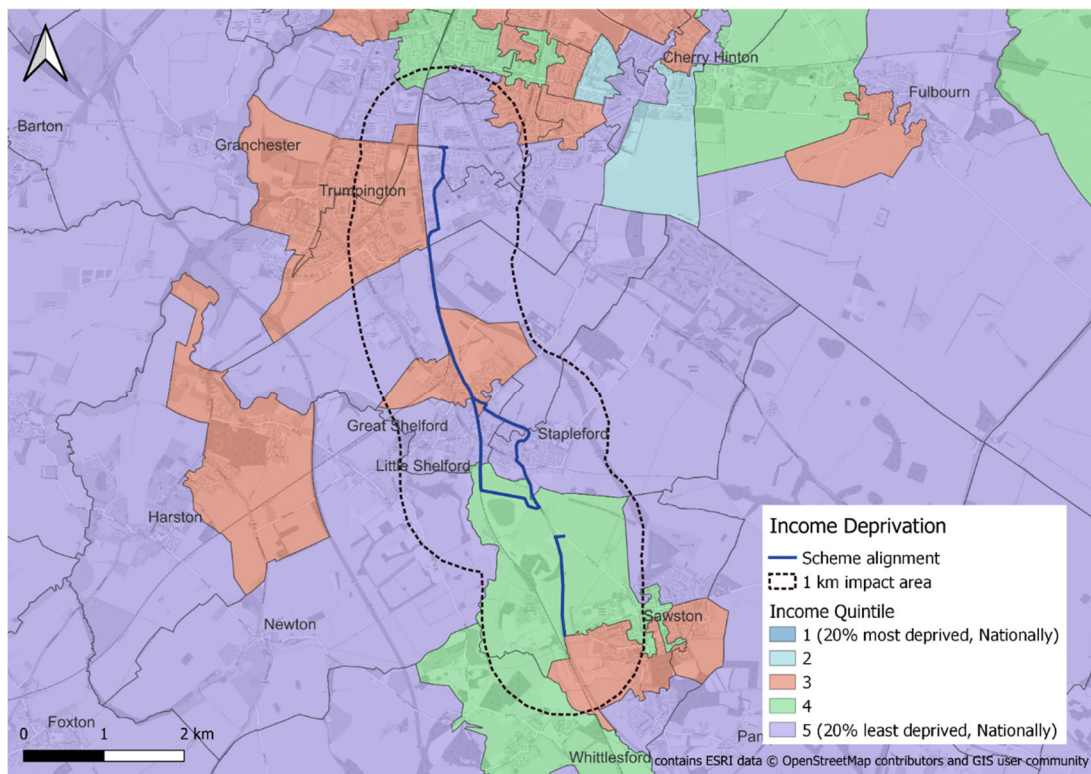
**Figure A-3 - DLA Claimants - Highest 20% Lower Super Output Areas (LSOAs) nationally**



**Figure A-4 - Households with No Car/Van – Highest 20% Output Areas (OAs) nationally**



**Figure A-5 –Income Deprivation (LSOAs)**



## Appendix B. PA and AMCB tables

The Transport Economic Efficiency (TEE) able has not been included as the user benefits were estimated using the DfT's AMAT tool which does not split the benefits by commuter, business and other users.

Public Accounts (PA) Table - Sawston Greenway					
	ALL MODES	ROAD	BUS and COACH	RAIL	OTHER
<b>Local Government Funding</b>	<b>TOTAL</b>	<b>INFRASTRUCTURE</b>			
Revenue	0				
Operating Costs	-2,040		-2,040		
Investment Costs	0				
Developer and Other Contributions	0				
Grant/Subsidy Payments	0				
<b>NET IMPACT</b>	<b>-2,040 (7)</b>				
<b>Central Government Funding: Transport</b>					
Revenue	0				
Operating costs	0				
Investment Costs	9,872,970		9,872,970		
Developer and Other Contributions	0				
Grant/Subsidy Payments	0				
<b>NET IMPACT</b>	<b>9,872,970 (8)</b>				
<b>Central Government Funding: Non-Transport</b>					
Indirect Tax Revenues	-32,440 (9)				
<b>TOTALS</b>					
<b>Broad Transport Budget</b>	<b>9,870,930 (10) = (7) + (8)</b>				
<b>Wider Public Finances</b>	<b>-32,440 (11) = (9)</b>				
Notes: Costs appear as positive numbers, while revenues and 'Developer and Other Contributions' appear as negative numbers. All entries are discounted present values in 2010 prices and values.					

**Analysis of Monetised Costs and Benefits (AMCB) Table - Sawston Greenway**

Noise	4,170	(12)
Local Air Quality	8,430	(13)
Greenhouse Gases	27,270	(14)
Journey Quality	1,081,866	(15)
Physical Activity	5,175,896	(16)
Accidents	1,475,842	(17)
Economic Efficiency: Consumer Users (All Users)	368,270	(1a + 1b + 5)
Wider Public Finances (Indirect Taxation Revenues)	32,440	- (11) - sign changed from PA table, as PA table represents costs, not benefits
Present Value of Benefits (see notes) (PVB)	8,109,304	(PVB) = (12) + (13) + (14) + (15) + (16) + (17) + (1a) + (1b) + (5) - (11)
Broad Transport Budget	9,870,930	(10)
Present Value of Costs (see notes) (PVC)	9,870,930	(PVC) = (10)
<b>OVERALL IMPACTS</b>		
<b>Net Present Value (NPV)</b>	-1,761,626	NPV=PVB-PVC
<b>Benefit to Cost Ratio (BCR)</b>	0.82	BCR=PVB/PVC

Note : This table includes costs and benefits which are regularly or occasionally presented in monetised form in transport appraisals, together with some where monetisation is in prospect. There may also be other significant costs and benefits, some of which cannot be presented in monetised form. Where this is the case, the analysis presented above does NOT provide a good measure of value for money and should not be used as the sole basis for decisions.



# Appendix C. Appraisal Summary Table (AST)

Appraisal Summary Table

Date produced: 17 2 2023

Contact:

Name of scheme:		Sawston Greenways	Assessment			Name	Thomas Fitzpatrick	
Description of scheme:		Sawston Greenway is one the twelve Greater Cambridge Greenways that aim to make journeys easier, cheaper, healthier, greener and pleasant into and out of Cambridge as well as to enjoy the countryside for leisure purposes. Sawston Greenway provides improvements to walking and cycling facilities between the corridor between Sawston to Cambridge.	Quantitative			Qualitative	Organisation	GCP
						Monetary	Role	Promoter/Official
						£(NPV)	Distributiveal 7-pt scale/ vulnerable grp	
Impacts		Summary of key impacts						
Economy	Business users & transport providers	The scheme will result in decongestion benefits to road users as a result of modal shift to active modes. This impact has been estimated using the DT's AMAT congestion benefit, and covers business, commuting and other users.	Value of journey time changes (£)			Slight Beneficial	368270 (all users)	Slight beneficial
			Net journey time changes (£)					
			0 to 2min	2 to 5min	> 5min			
	Reliability impact on Business users	Not assessed	-					
	Regeneration	Not assessed	-					
	Wider Impacts	Not assessed	-					
Environmental	Noise	The scheme is expected to produce mode shift from motorised to active modes, and hence a reduction in motorised vehicle-kilometres. This in turn results in reduced noise.	-			Slight Beneficial	4,170	Slight beneficial
	Air Quality	Modal shift to cycling and walking and the associated reduction in road traffic due to the improvements and introduction of facilities is expected to result in improved air quality.	-			Slight Beneficial	8,430	Slight beneficial
	Greenhouse gases	The scheme is expected to produce mode shift from motorised to active modes, and hence a reduction in motorised vehicle-kilometres. This in turn results in reduced greenhouse gas impacts (carbon emissions).	Change in non-traded carbon over 60y (CO2e)			-	27,270	
			Change in traded carbon over 60y (CO2e)					
	Landscape	Assessment in progress - to be reported in future update	-					
	Townscape	Assessment in progress - to be reported in future update	-					
	Historic Environment	Assessment in progress - to be reported in future update	-					
	Biodiversity	Assessment in progress - to be reported in future update	-					
Water Environment	Assessment in progress - to be reported in future update	-						
Social	Commuting and Other users	The Greenway generally provides upgrades to the quality of existing infrastructure over much of its length, rather than providing additional connectivity with shorter routings. Minimal journey time savings are therefore expected, and these have not been monetised.	Value of journey time changes (£)			Not assessed	See under 'business users'	See under 'business users'
			Net journey time changes (£)					
			0 to 2min	2 to 5min	> 5min			
	Reliability impact on Commuting and Other users	As above the greenway will not provide any additional reliability on the route, and has not been monetised.	-			Not assessed		
	Physical activity	The improvement to active mode facilities will encourage more walking and cycling, and a mode shift from car to active travel. This will result in a small increase in physical activity and promote active commuting.	-			Moderate Beneficial	5,175,896	
	Journey quality	The improvements to the cycling and walking infrastructure will reduce traveller stress, and improve pleasantness of the journey and user experience.	-			Moderate Beneficial	1,081,866	
	Accidents	The scheme is expected to result in a mode shift. Users switching from motorised vehicles to active modes will result in a reduction in motor vehicle kilometers and highway accidents. As set out in the economic case, the scheme is expected to improve safety through physical measures along the active travel route making it safer than it is today.	-			Moderate Beneficial	1,475,842	Moderate beneficial
	Security	The improved lighting provision will increase the feeling of safety for pedestrians and cyclists. Changes to CCTV have not been confirmed, but proposals should incorporate good-quality street lighting and CCTV to improve safety and security of users.	-			Neutral		Neutral
	Access to services	New crossing facilities and enhancements may improve accessibility to bus stops along the corridor, with stops relocated to reduce cyclists and bus passenger conflicts. The scheme is expected to generate wider accessibility benefits for various social and vulnerable groups. The Sawston Greenway is expected to improve connectivity to schools and other transport services.	-			Slight Beneficial		Slight beneficial
Affordability	Those switching to walking or cycling from bus or car will have a lower cost of transport as they will no longer pay fares or fuel and no-fuel vehicle operating costs.	-			Slight Beneficial		Slight beneficial	
Severance	Introduction of the Sawston Greenway will reduce the perceived severance between communities and key amenities, currently created due to gaps in active travel provision along this corridor.	-			Moderate Beneficial		Moderate beneficial	
Option and non-use values	The proposed scheme does not introduce new travel options and is therefore not assessed.	-			Not assessed			
Public Accounts	Cost to Broad Transport Budget	The scheme requires funding from the Greater Cambridge Partnership City Deal Allocation.	-				9,870,930	
	Indirect Tax Revenues	The scheme will have a negative impact on indirect tax revenues through mode shift from cars to active modes.	-				32,440	

Graham James

Contains sensitive information  
- | 1.1 | 17 February 2023

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