MARCH 2019

FINAL REPORT

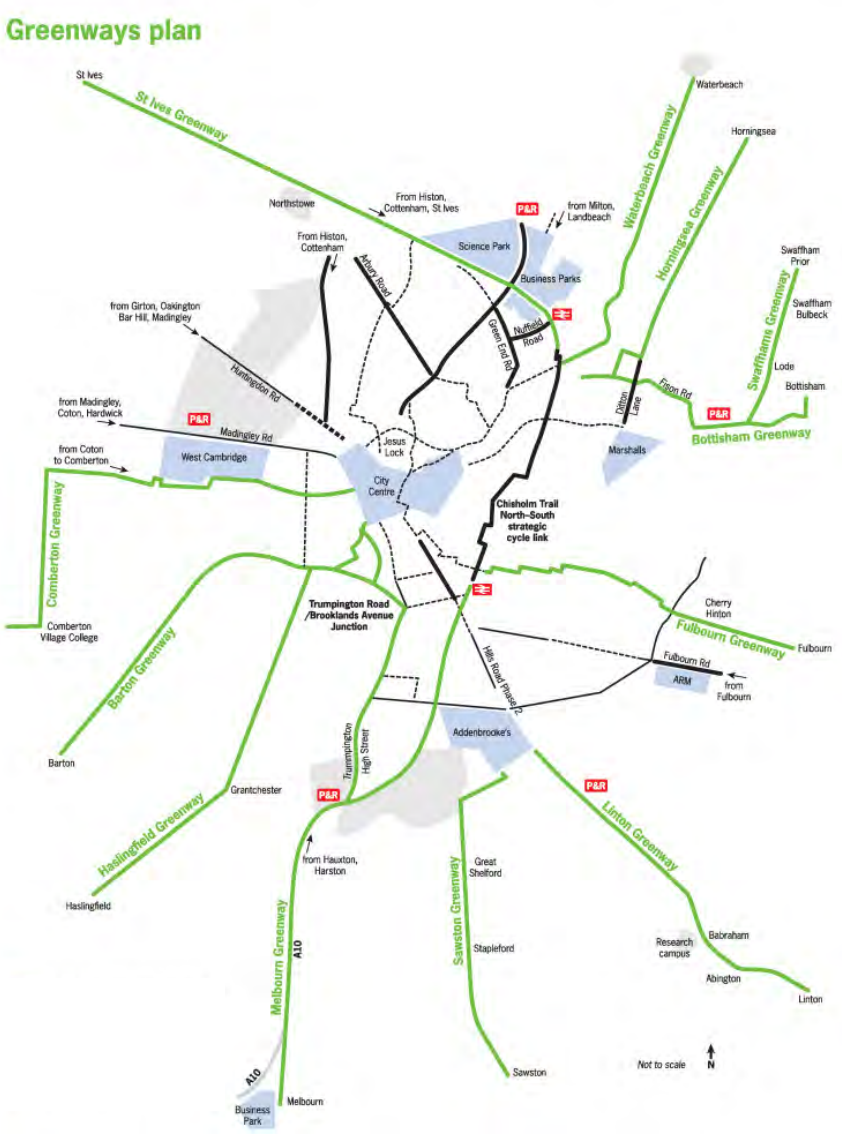
CAMBRIDGE GREENWAYS

PRODUCED BY 5TH STUDIO FOR CAMBRIDGESHIRE COUNTY COUNCIL

HORNINGSEA, BOTTISHAM & SWAFFHAM

5th studio

CONTENTS



The twelve indicative Greenways routes, to be finalised after public consultation.

INTRODUCTION

The Greater Cambridge Partnership is looking to establish a high quality Greenway network of cycling routes from Local villages into Cambridge. Some of these routes already exist in part or require improvements. Other sections are new, and may be subject to agreement with landowners.

The team, comprising 5th Studio, with support from JCLA (landscaping) and Allan Tyler (cost), has been appointed by Cambridgeshire County Council to prepare outline concept drawings for public consultation, and to inform future funding bids.

This study follows on from earlier consultation carried out by the council, and a series of reports completed in October 2016. In these it is recognised that:

'Cambridge has the highest level of cycling in the UK and without this it is hard to see how the city could function efficiently and maintain its high quality of life. A successful Greenways Network around Cambridge is likely to be a key part of the future success of the Greater Cambridge area.'

There are 12 Greenways planned in total:

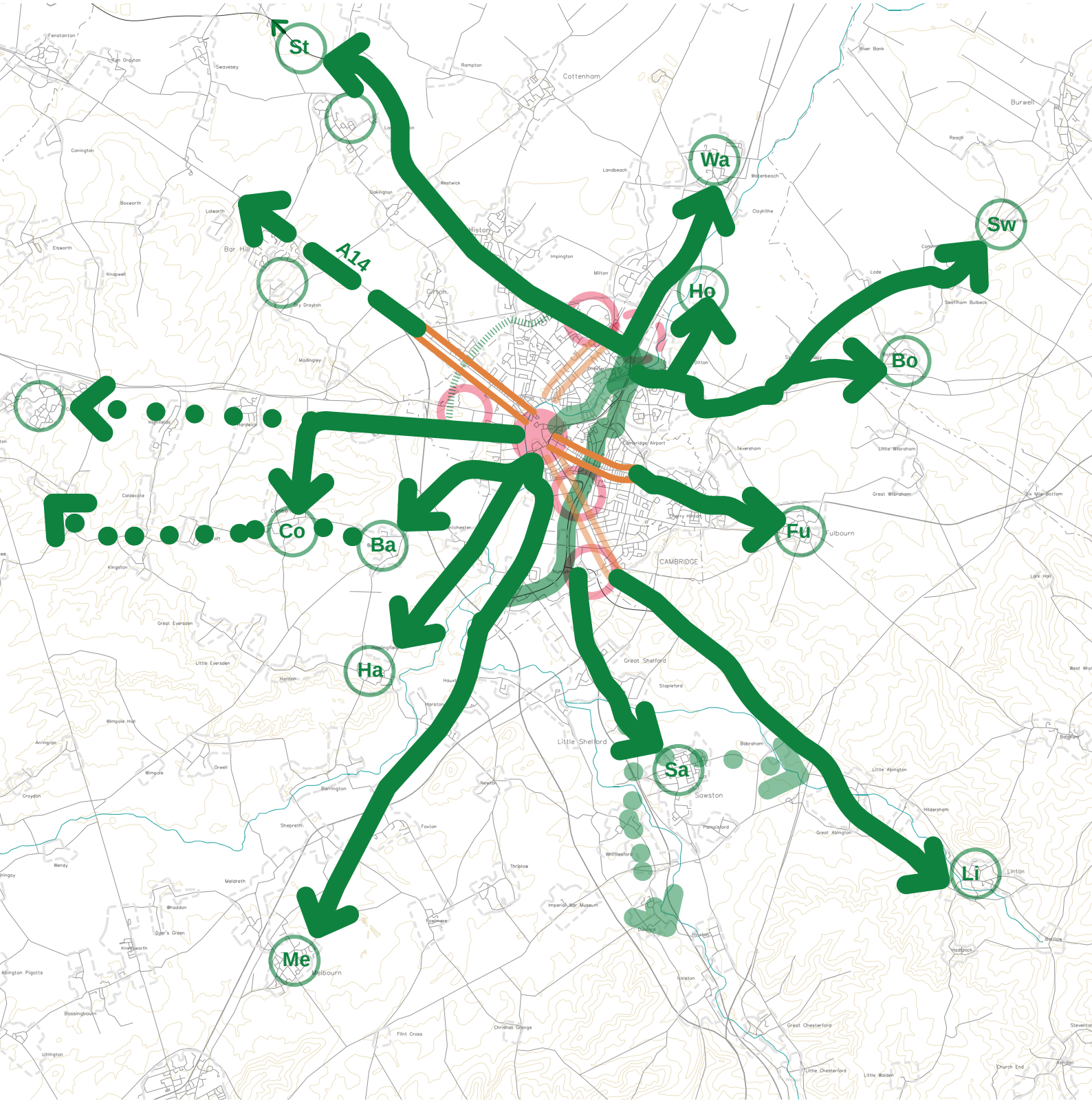
Waterbeach Greenway
Horningsea Greenway
Swaffham Greenway
Bottisham Greenway
Fulbourn Greenway
Linton Greenway
Sawston Greenway
Melbourn Greenway
Haslingfield Greenway
Barton Greenway
Comberton Greenway
St Ives Greenway

The approach illustrated in this document, builds on the findings of the previous study by Nigel Brigham and an earlier round of public engagement (both of which are summarised later in this document) and starts with a establishing a thorough understanding of the context and condition of the routes gained by visiting and cycling the area.

Using this understanding a targeted approach has been used to develop initial concept designs. We have concentrated on:

1. Key locations - crossings, moments of orientation/redirection,
2. A variety of common linear conditions through exploring a range of representative cross sections,
3. The definition of a series of high-level landscape approaches for different sections of the broad route corridors.

This report summarises our work on the Melbourn Greenway route, and concludes with initial cost estimates based.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CAMBRIDGE
Cottenham
Histon
Impington
Milton
Girton
Madingley
Fulbourn
Sawston
Melbourn
Linton

Above: a 3m wide cycle lane,

Right: 2m wide cycle lane,

Right below: 4m wide cycle lane,

Mock-ups of paths/tracks at different widths

What is a Greenway?

- A high-quality, direct, continuous and legible route connecting local villages with the city.
- In this project the Greenways are particularly aimed at providing facilities likely to increase cycle commuting and thereby encourage modal shift out of the motor vehicle for journeys in their respective corridors, but should also provide good facilities for pedestrians, wheelchair and mobility scooter users and, where appropriate, horseriders – and cater for both leisure and utility users.
- An all weather, hard surface (generally tarmac) of width of at least two metres, but wider where possible.
- Generally the routes should be free from vehicular traffic - either entirely away from roads, or segregated from them.
- Where the routes utilise existing roads these should preferably have less than 2,000 motor vehicle movements per day, and preferably be subject to 20mph speed limits.
- Where busy roads are crossed, there should be a suitably safe means of crossing the road.
- While there is necessarily a limit to the scope what can be delivered as part of this specific project, which is focused on delivering a series of radial Greenway routes connecting the city and outlying villages, the ultimate goal is to create a seamless network of high quality routes (including orbital routes around Cambridge, extensions of routes to villages and other destinations further afield (e.g. Wimpole Hall) and a denser network of high quality routes within the city) and potential of this wider network should be considered when developing the initial Greenway proposals.

4 TYPES OF ROUTE

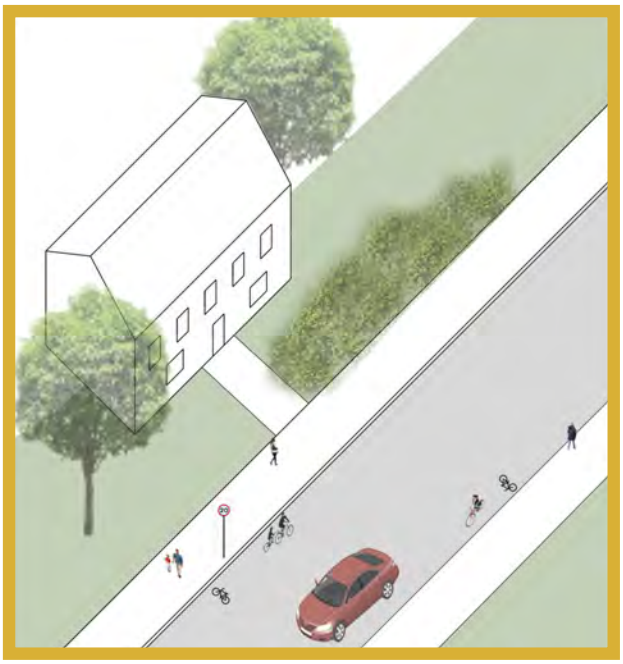
Below is a description of the four standard route types that will form the basis of the Greenway routes.

There may be small sections of path where it is not possible to meet these standards and in these situations bespoke solutions that aim to meet the standards above are to be applied.

Other elements are to be proposed on a location specific basis and need not be common to the Greenways route. These include lighting, seating, local signage, trees, planted verges. The colour of cycle surface may be varied in sensitive locations.

Quiet road

Cycle route on carriageway with speed limit reduced to 20mph. White painted signage on carriageway. Generally no centre line. Direction and repeater signage likely to be best integrated with existing signs/posts.



Shared cycle path

Two-way cycle path, shared with pedestrians. Preferred width is 3m (2m may be acceptable on quiet rural stretches, and 4m may be required in busy areas). Shared path to have a machine laid hot-rolled black asphalt surface.

Where the path is located along an existing bridleway route, the bridleway is to run parallel on grass. Where the path runs alongside the carriageway a separating planted verge is recommended, to be as wide as possible.

Sign marker posts at regular intervals and at junctions.

Segregated cycle path

Two-way segregated cycle path (i.e. for cycles only) parallel to the carriageway with, where possible, a planted verge between. The planted verge is to be made as wide as possible.

Preferred width for cycle path is 3.5m (with footpath alongside at 3.5m). An acceptable minimum width for cycle path is 2.5m (with 2.5m footpath). Machine laid hot-rolled asphalt surface.

Sign marker posts at regular intervals and at junctions.

High Street

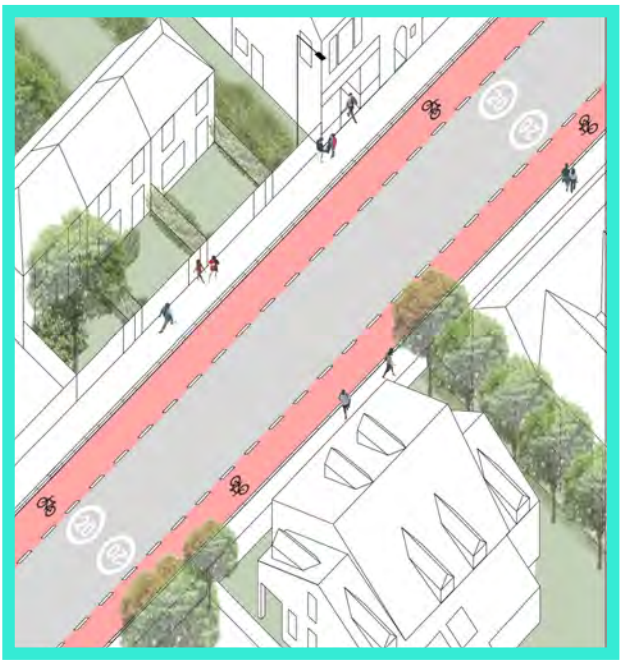
Depending on available carriageway width either:

i. Hybrid/stepped cycle lane (with a load-bearing, wide kerb edge dividing the carriageway form the cycle lanes) where the residual carriageway would be at least 6m wide.

or

ii. Wide advisory cycle lanes where the residual carriageway would be less than 6m. The cycle lane surface should be differentiated from the vehicle area (could be red of buff coloured machine laid hot-rolled asphalt surface).

Minimum cycle lane width is 1.5m but extra width should be sought wherever practical, especially in busy sections. The centre line should be removed and a 20mph limit be in place. Direction signage likely to be best integrated with existing signs/posts.



SUMMARY OF PREVIOUS FINDINGS

Nigel Brigham Associates Report

In 2016, the Greater Cambridge Partnership commissioned Nigel Brigham Associates (NBA) to scope out a potential network of Greenway routes. That report is publicly available on the GCP website. It recommends the following sections of a Cambridge to Horningsea, Bottisham and Swaffham route be progressed as a priority:

Horningsea

- Upgrades to a route alongside Ditton Lane and Horningsea Road . These are already underway as part of the GCP's Cross City Cycle Routes scheme named 'Ditton Lane and Links to East Cambridge'
- Improvements to the Wadloes Footpath. This too is underway.
- Path widening at the confluence of routes at the south end of the Wadloes Path and raised tables on Howard Road.
- Further investigation of Horningsea to Lode link (this is outside the scope of this study)
- Investigation of a bridge over the Cam (this is outside the scope of this study, although preliminary options scoping has been conducted - and is summarised here)

Bottisham

- Upgrade existing route through Newmarket Road Park & Ride site and near the Ditton Lane/ Fison Road junction.
- Minor upgrades to existing good quality route
- Widen and resurface the existing narrow path in highway verge to link with the Wilbraham Road (outside the scope of this study)

Swaffham

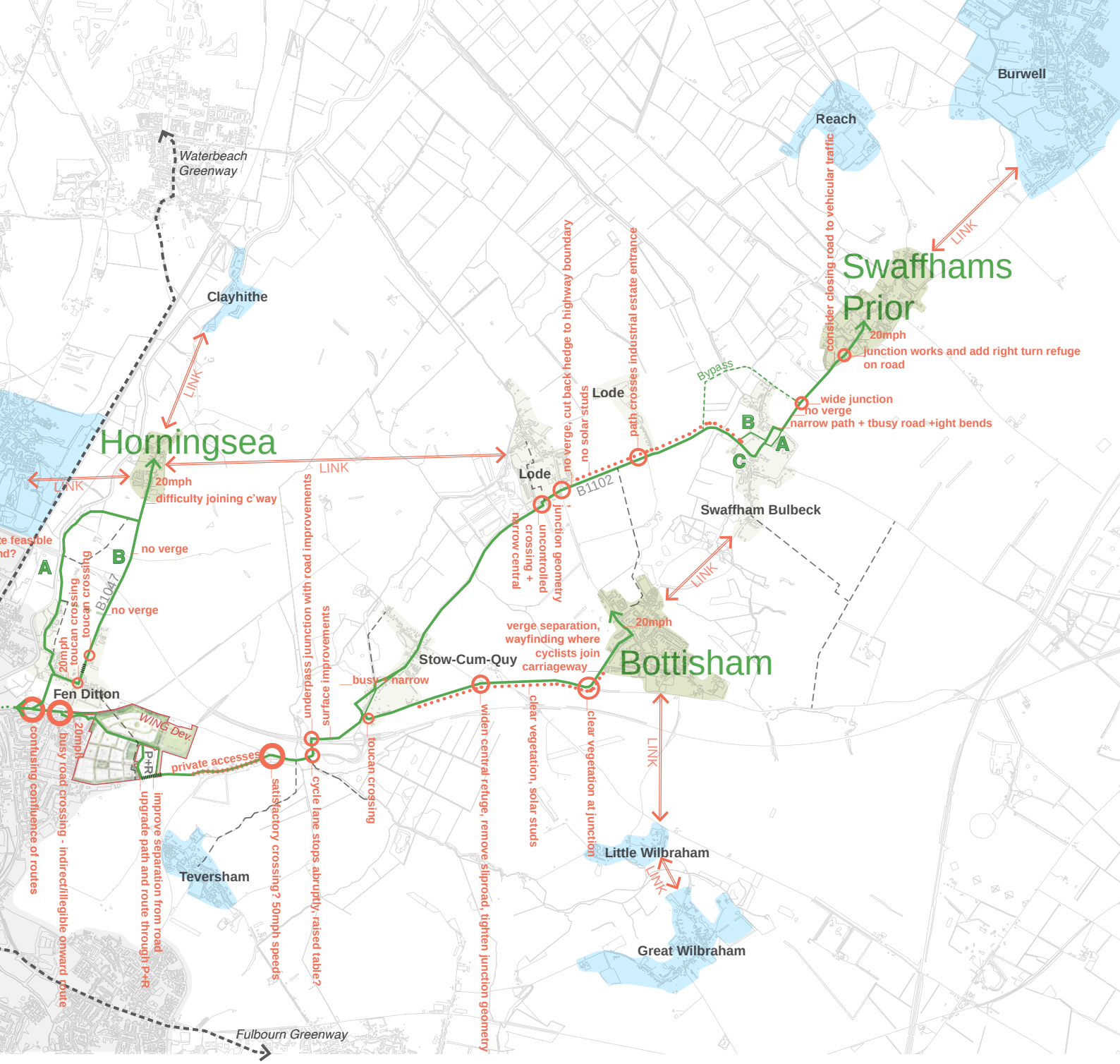
- construct new off-road route between Stow-cum-Quy and Lode (now complete)
- construct new off-road route through Stow-cum-Quy
- upgrade substandard sections between Lode and Swaffam Prior
- construct new off-road route through Swaffham Bulbeck

Community Feedback

Following the completion of the NBA report the GCP undertook a series of public engagement exercises and collated and analysed the results to inform the brief for the next stage of development of the route proposals.

The sample sizes were relatively small, but nonetheless give some indication of the key issues. There was support for the old railway connection to Lode to be opened as an accessible route (this was not carried forward into the Greenways brief – given the recenlty completed route along, but segregated from, the main road – but is highlighted as a separate potential project. Improvements to the A14 crossing near Quy Mill where also highlighted. For Horningsea, the riverside and High street options were equally favoured. Improvements to links to Waterbeach and Milton (e.g. surfacing existing tracks and ramps to Baits Bite Lock bridge) were also identified.

Above: Preliminary route options defined after first round of public consutlation by the GCP (green) with a selection of the issues raised by the public or by the public noted in red



A number of other issues, or priorities for any design to address, were highlighted:

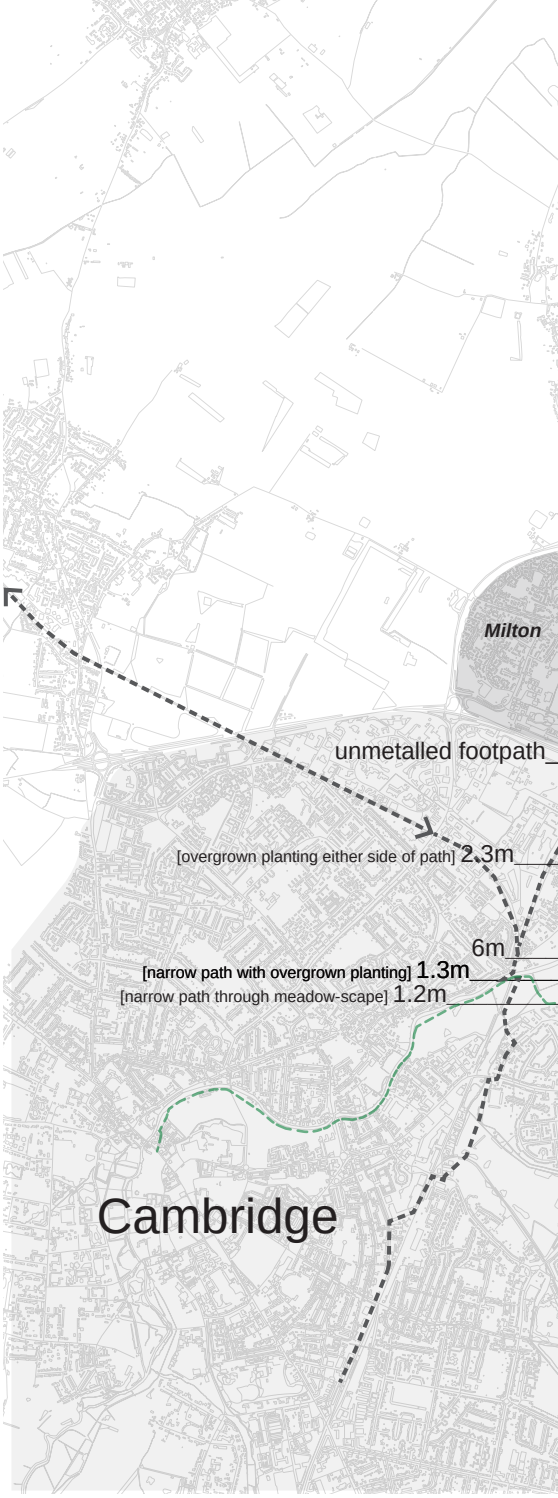
- improve and maintain path surfaces
- cycle priority over private entrances
- Widen Wadloes path

The routes identified by the client team at the end of this process – forming the initial brief for this study – are shown in green on the plan above, with identified issues, including desirable additional links to nearby villages, shown in red.

Above: Cambridge Greenways community engagement timetable

EXISTING CONDITIONS

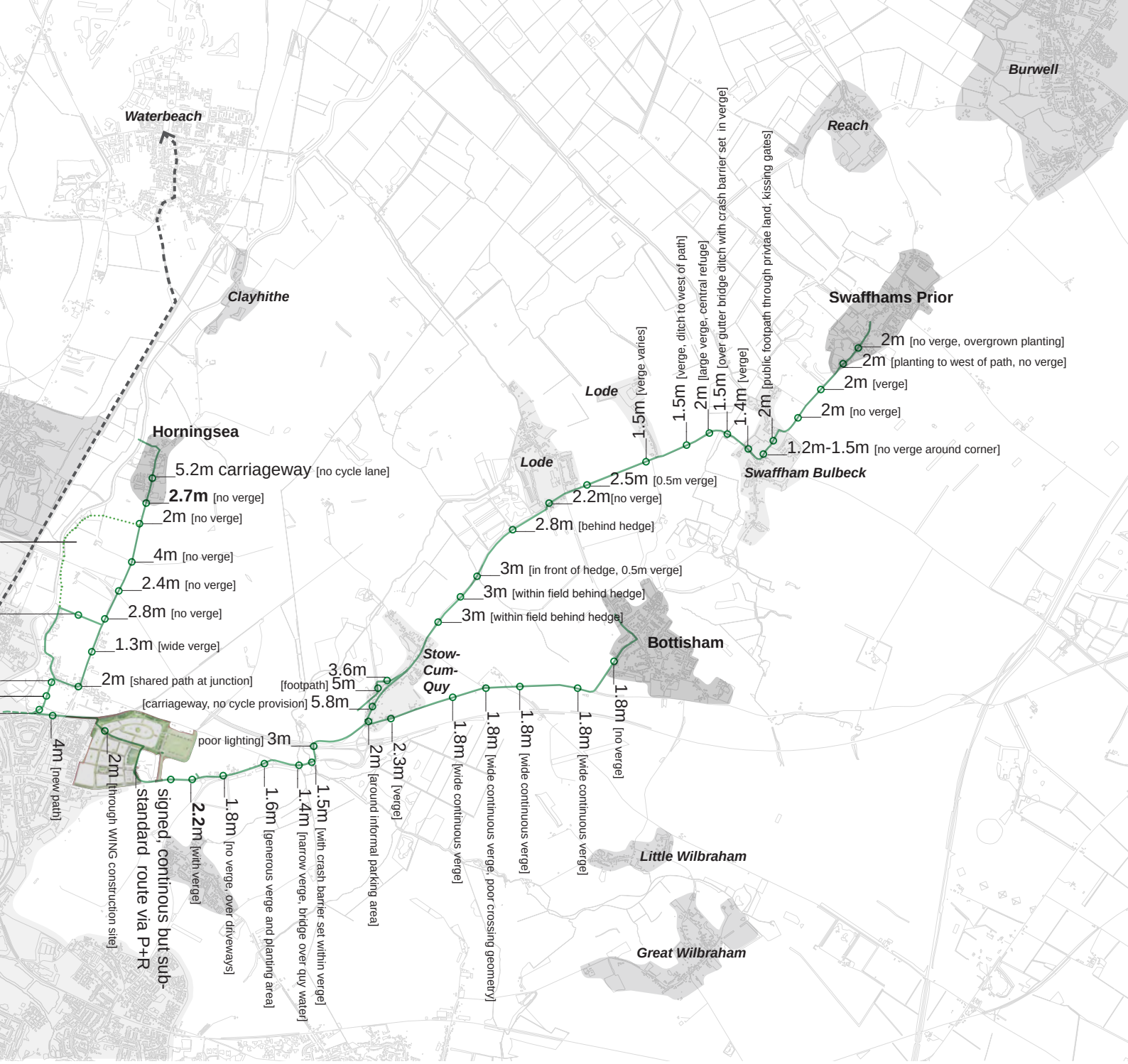
Our design process began with the team travelling the routes and documenting the condition of the existing footways and cycleways (where these existed). The plan drawing on the following page records the nominal width of existing paths in key locations.



Existing shared surface path along Horningsea Road, B1407

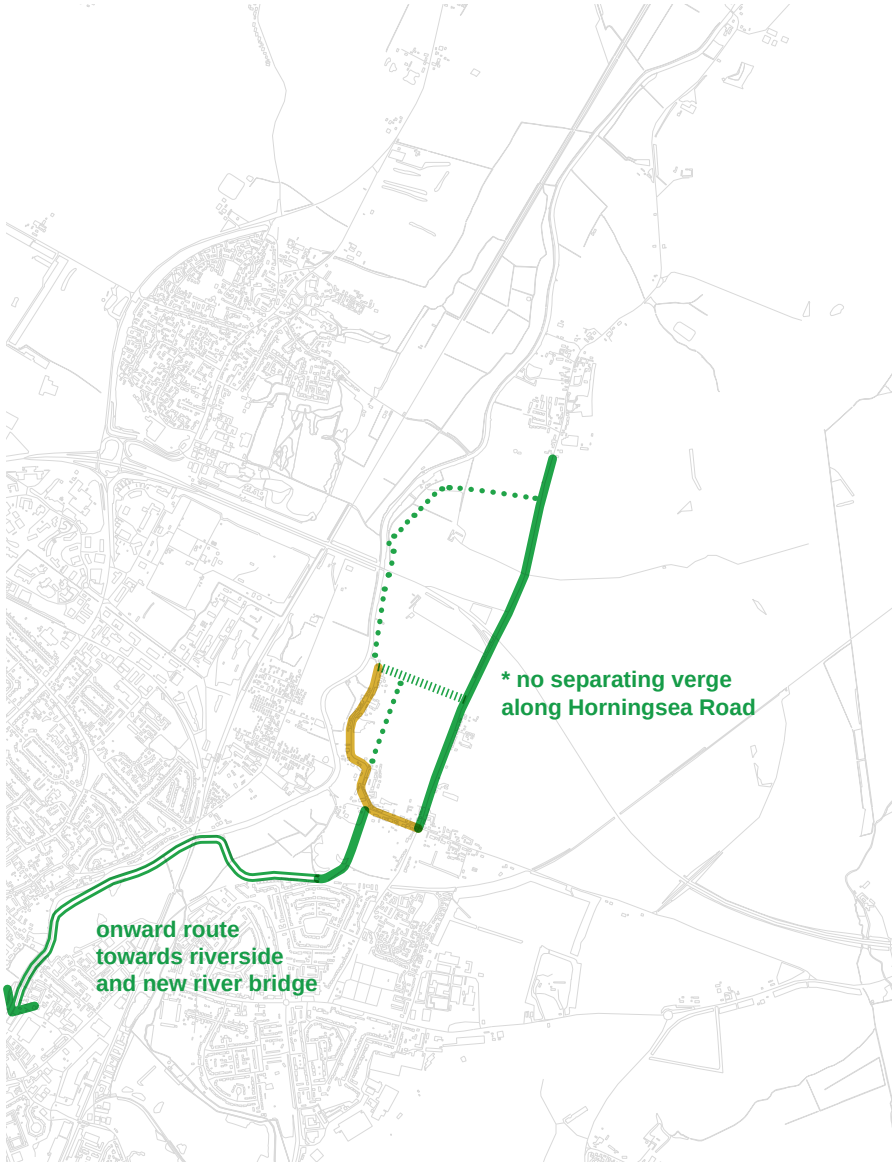
Existing shared surface path along Newmarket Road, A1303 at the junction with High Ditch Road

Existing shared surface path along the Jubilee Cycleway within the Wing Development Site



Existing shared surface path along Horningsea Road, B1047, Bridge over the A14

Existing quiet road along Green End, Fen Ditton



Existing good quality shared off-road cycle path

Existing quiet road route

unmetalled byway

unmetalled footpath

THE ROUTE - SCOPING & ANALYSIS

HORNINGSEA

The drawing above provides an initial appraisal of the generic route type (as per pp8-9) that would be applicable to the various links that might form a part of a final Greenway route based on the site visits undertaken and a review of the outcomes of the previous community engagement and Greenways report by NBA.

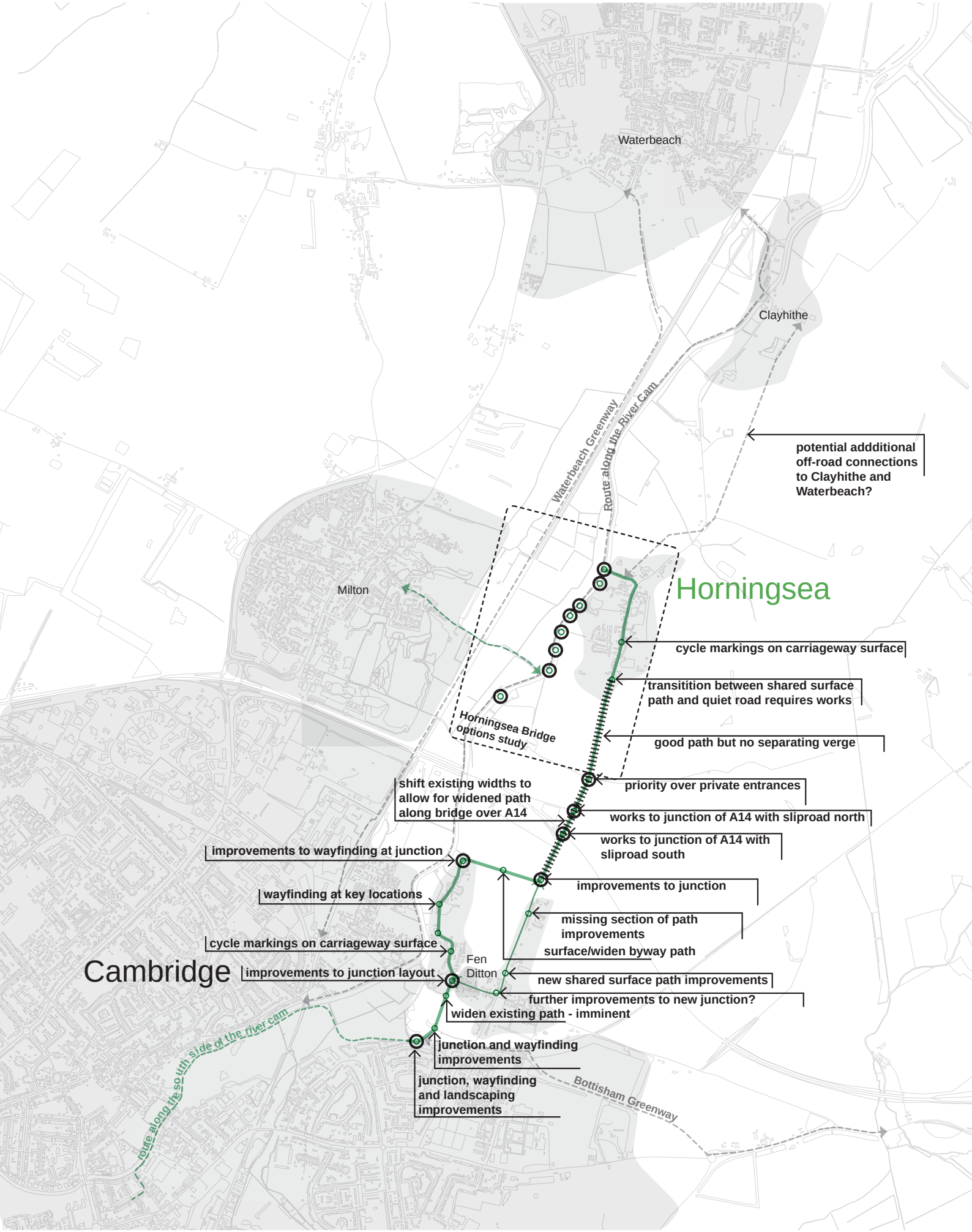
The drawing on the following page highlights areas where further option appraisal was required and key locations where more specific responses need to be developed in contrast to the standard conditions outlined above.

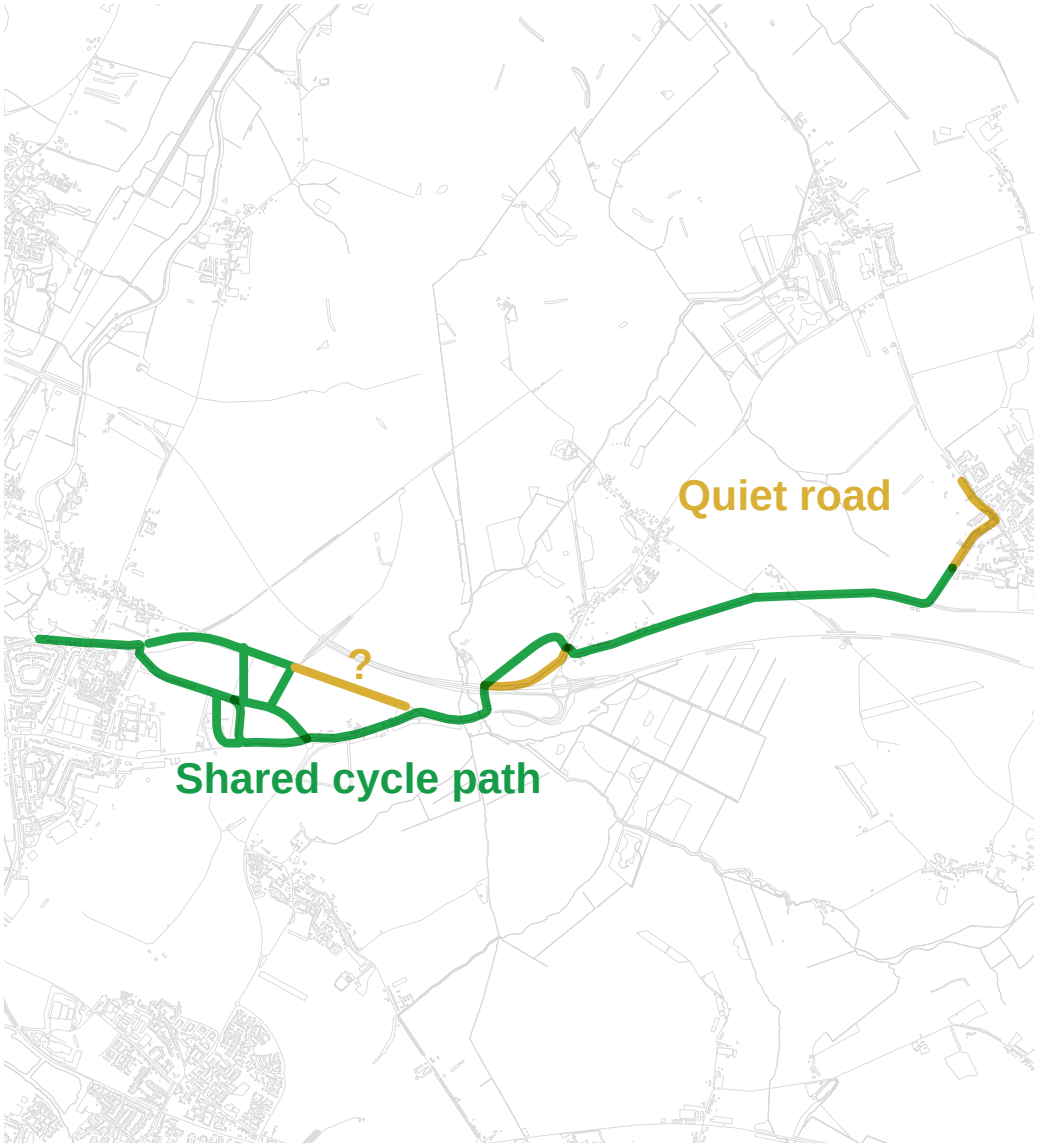
After an initial review with the client it was agreed that the focus of the study should be on a route via the existing path alongside Hornisingsea Road between Horningsea and the northern extent of Fen Ditton, and then via the byway and Green End to the end of the Wadloes path. This choice was made on the basis that:

a. this would form a quieter, 'greener' alternative that would complement the recently completed improvements that provide a shared-use path along Horningsea Road through the village

b. a new cross country route alognside the the river would not justify the additional cost/land acquisition required, and would have a detrimental effect on the character of this low key riverside footpath

While not part of the initial brief for this route a further alternative has been investigate in outline, whereby a new bridge over the Cam to the west of Horningsea would link to the Waterbeach Greenway provising a connection to Cambridge via that route as well as facilitating orbital movements (e.g. Horningsea to Milton),


Waterbeach
Clayhithe
Waterbeach Greenway
Route along the River Cam
potential addditional off-road connections to Clayhithe and Waterbeach?
Milton
Horningsea
cycle markings on carriageway surface
transitition between shared surface path and quiet road requires works
Horningsea Bridge options study
good path but no separating verge
priority over private entrances
shift existing widths to allow for widened path along bridge over A14
works to junction of A14 with sliproad north
works to junction of A14 with sliproad south
improvements to wayfinding at junction
improvements to junction
wayfinding at key locations
missing section of path improvements
cycle markings on carriageway surface
surface/widen byway path
Cambridge
improvements to junction layout
Fen Ditton
new shared surface path improvements
further improvements to new junction?
widen existing path - imminent
junction and wayfinding improvements
junction, wayfinding and landscaping improvements
route along the south side of the river cam
Bottisham Greenway



Generic route types to the Bottisham Greenway route sections, based on previous community engagement and Greenways report by NBA

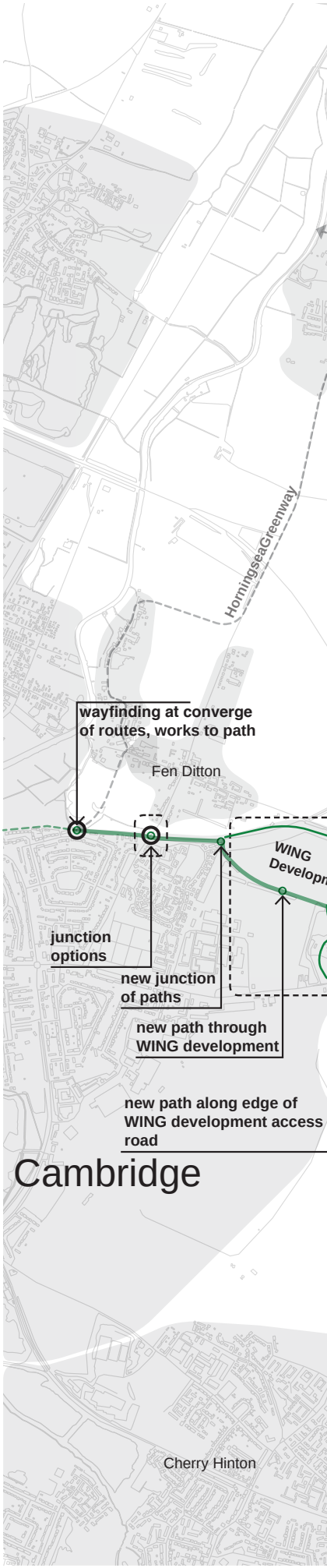
THE ROUTE - SCOPING & ANALYSIS

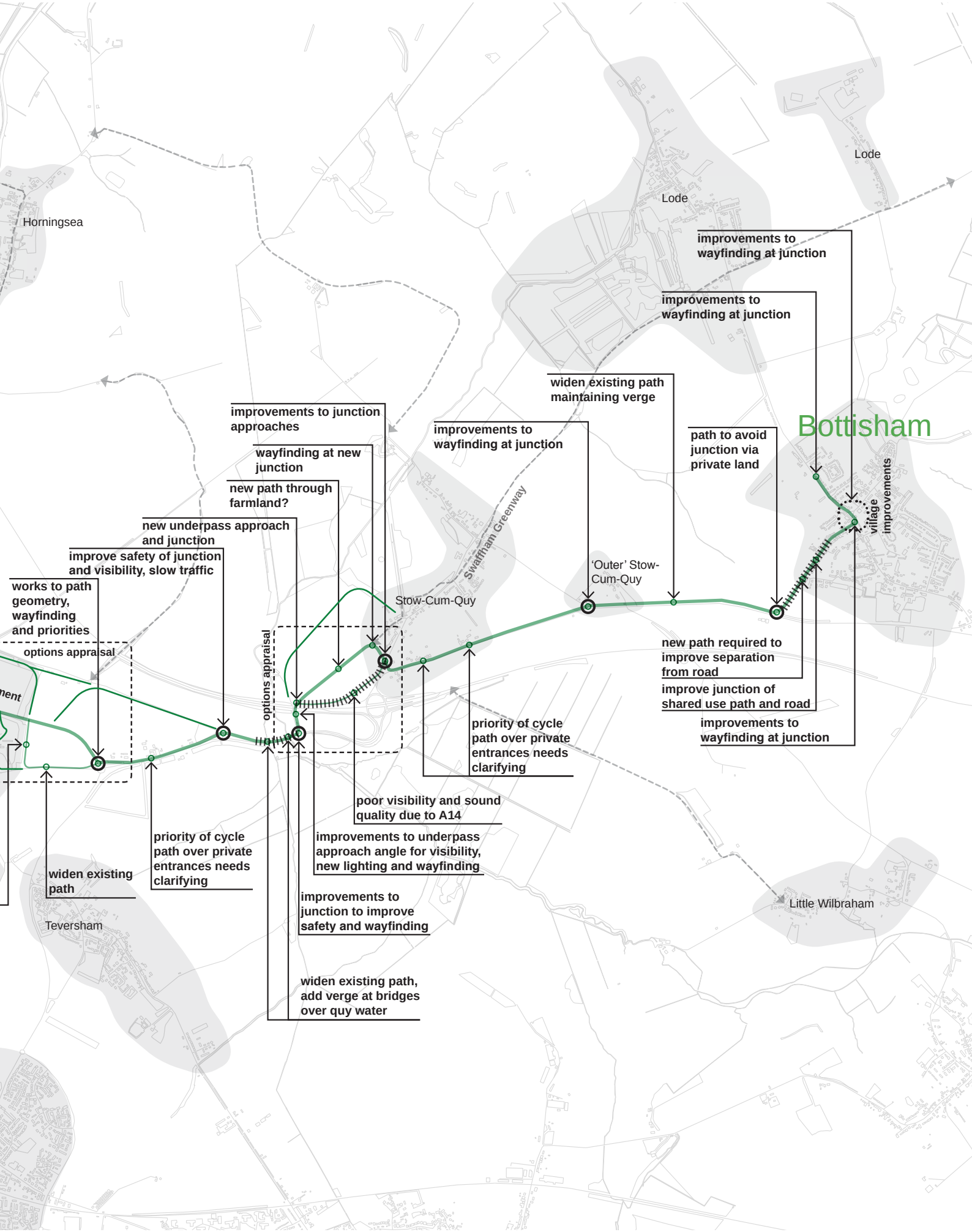
BOTTISHAM

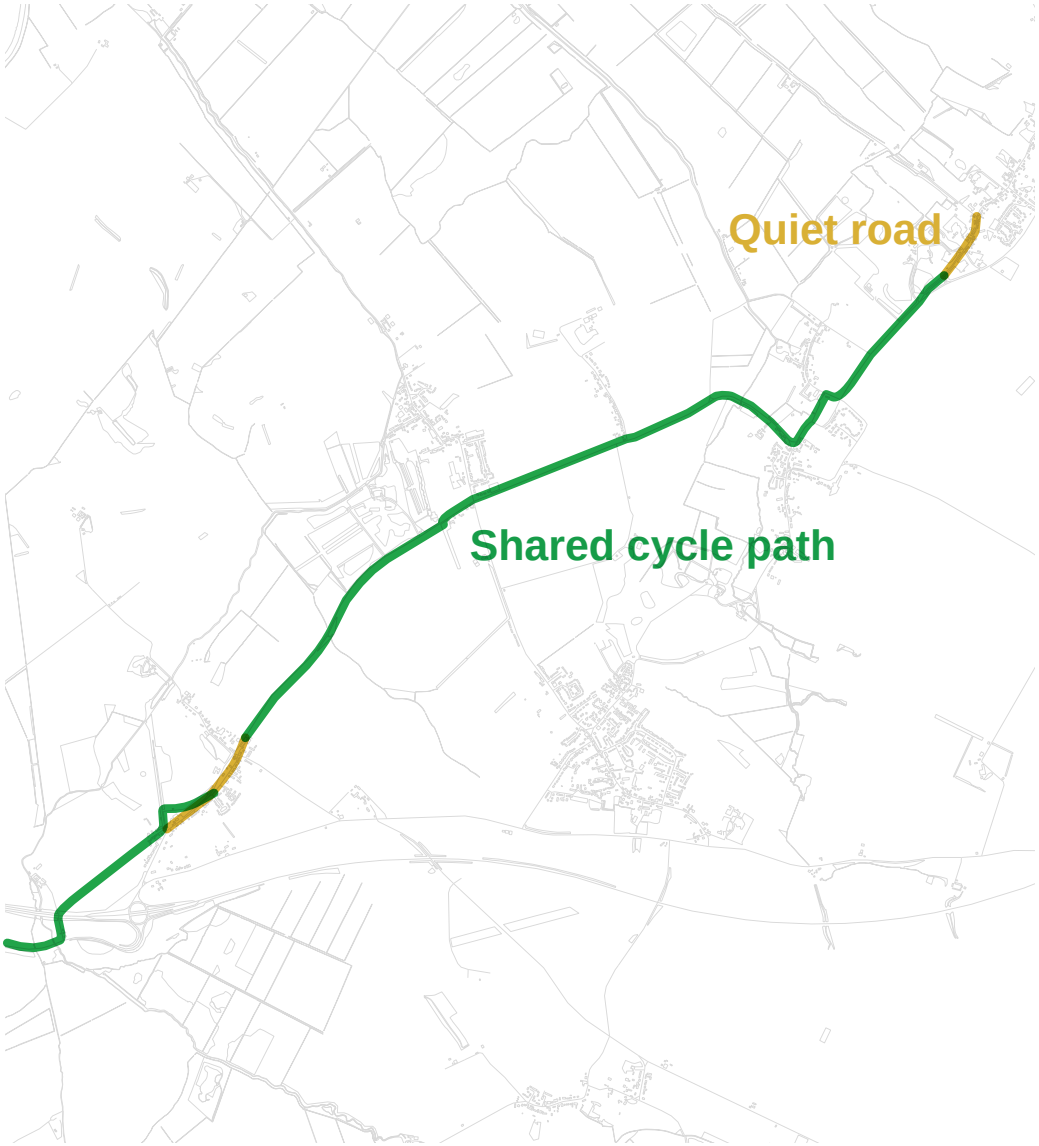
The drawing above provides an initial appraisal of the generic route type (as per pp8-9) that would be applicable to the various links that might form a part of a final Greenway route based on the site visits undertaken and a review of the outcomes of the previous community engagement and Greenways report by NBA, and an initial scoping of potential options in key locations.

The drawing on the right highlights areas where further option appraisal is needed and key locations where more specific responses need to be developed.

The preferred route that emerged from the initial scoping and client review follows NCN 51 with a number of on-line improvements to upgrade the existing good quality path. In two locations - around the P+R site/Wing Development and between the A14 and Stow-Cum-Quy alterantive route options have been examined - resulting in the recommended route outlined later in this document.




Horningsea
Lode
Lode
improvements to wayfinding at junction
improvements to wayfinding at junction
widen existing path maintaining verge
improvements to junction approaches
wayfinding at new junction
new path through farmland?
improvements to wayfinding at junction
path to avoid junction via private land
Bottisham
village improvements
new underpass approach and junction
improve safety of junction and visibility, slow traffic
works to path geometry, wayfinding and priorities
options appraisal
Swaffham Greenway
'Outer' Stow-Cum-Quy
Stow-Cum-Quy
options appraisal
new path required to improve separation from road
improve junction of shared use path and road
improvements to wayfinding at junction
priority of cycle path over private entrances needs clarifying
poor visibility and sound quality due to A14
priority of cycle path over private entrances needs clarifying
improvements to underpass approach angle for visibility, new lighting and wayfinding
widen existing path
improvements to junction to improve safety and wayfinding
Teversham
Little Wilbraham
widen existing path, add verge at bridges over quy water



Generic route types to the Swaffham Greenway route sections, based on previous community engagement and Greenways report by NBA

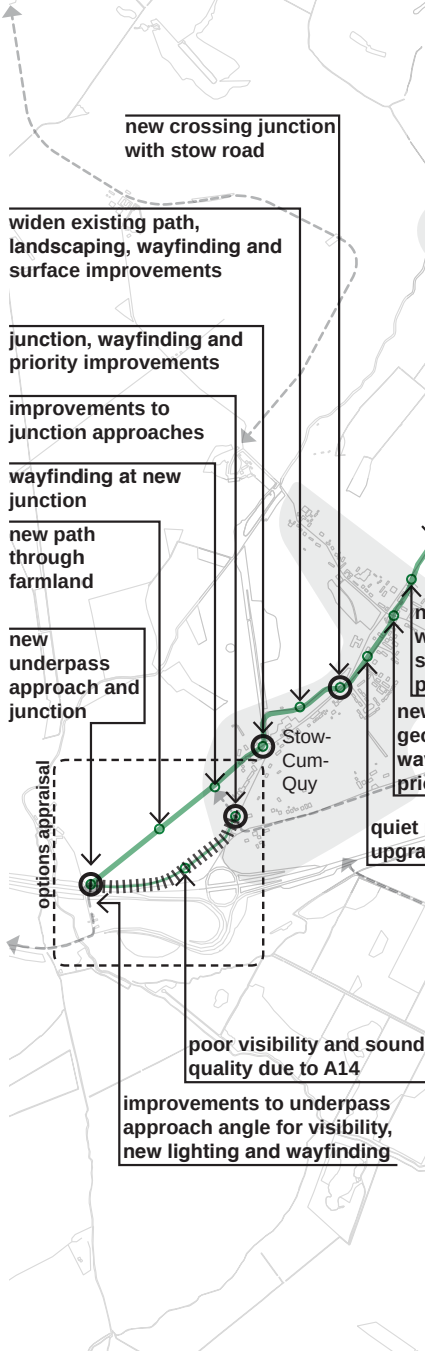
THE ROUTE - SCOPING & ANALYSIS

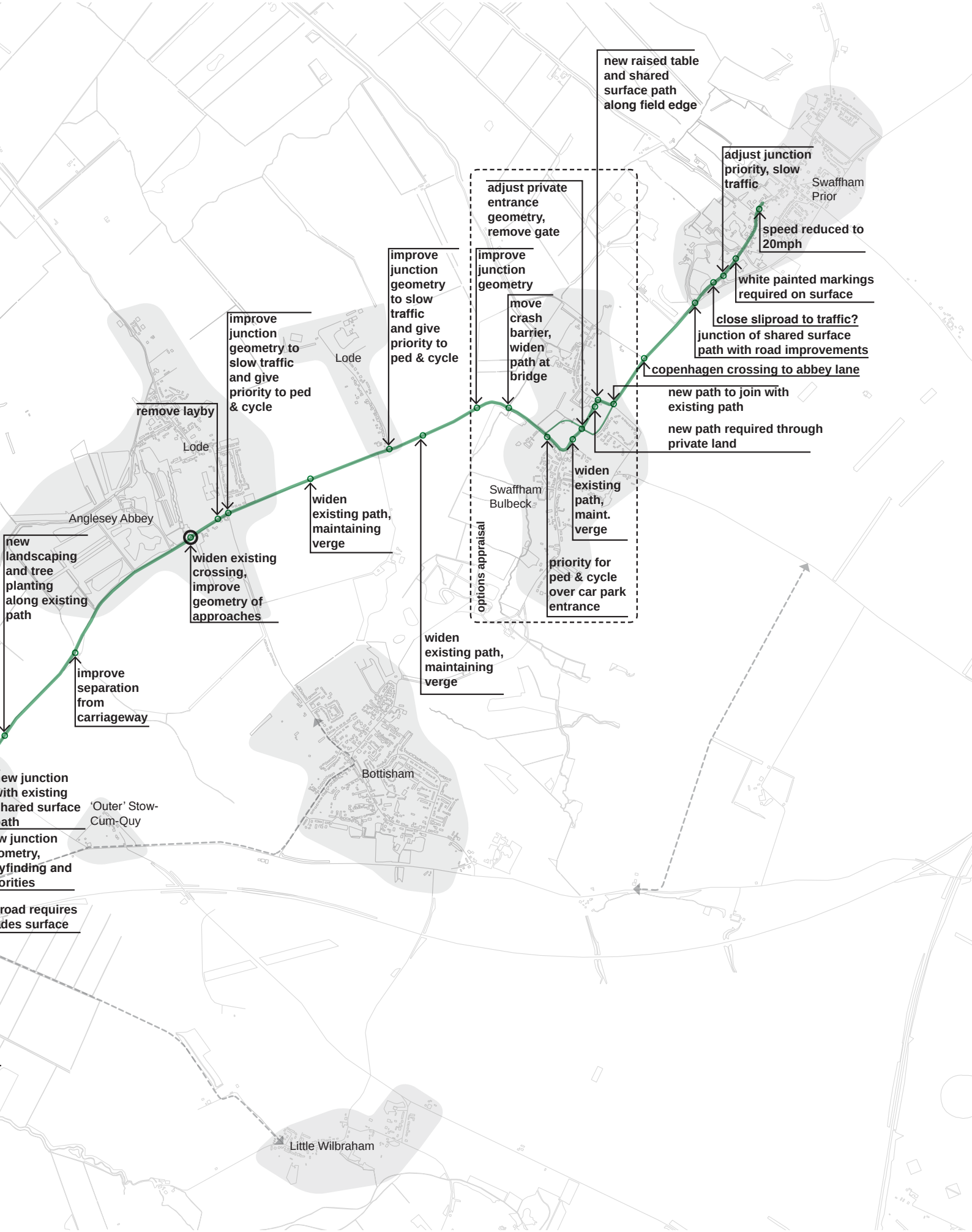
SWAFFHAM

The drawing above provides an initial appraisal of the generic route type (as per pp8-9) that would be applicable to the various links that might form a part of a final Greenway route based on the site visits undertaken and a review of the outcomes of the previous community engagement and Greenways report by NBA, and an initial scoping of potential options in key locations.

The drawing on the right highlights areas where further option appraisal is needed and key locations where more specific responses need to be developed.

The preferred route that emerged from the initial scoping and client review connects to the Bottisham Greenway near Stow-Cum-Quy, with that route providing the final link into Cambridge. In general between villages the route follows upgraded existing paths within the Highway boundary (the Swaffams to Lode) or existing high-quality links (Lode to Stow-Cum-Quy). Within each of the villages along the route more substantial and bespoke changes are proposed - tailored to the specific layout and challenges of each diverse place.




new raised table and shared surface path along field edge
adjust junction priority, slow traffic
Swaffham Prior
adjust private entrance geometry, remove gate
improve junction geometry
move crash barrier, widen path at bridge
improve junction geometry to slow traffic and give priority to ped & cycle
improve junction geometry to slow traffic and give priority to ped & cycle
Lode
speed reduced to 20mph
white painted markings required on surface
close sliproad to traffic?
junction of shared surface path with road improvements
copenhagen crossing to abbey lane
new path to join with existing path
new path required through private land
remove layby
Lode
Anglesey Abbey
widen existing path, maintaining verge
widen existing crossing, improve geometry of approaches
new landscaping and tree planting along existing path
Swaffham Bulbeck
widen existing path, maint. verge
options appraisal
priority for ped & cycle over car park entrance
widen existing path, maintaining verge
improve separation from carriageway
Bottisham
ew junction
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'Outer' Stow-Cum-Quy
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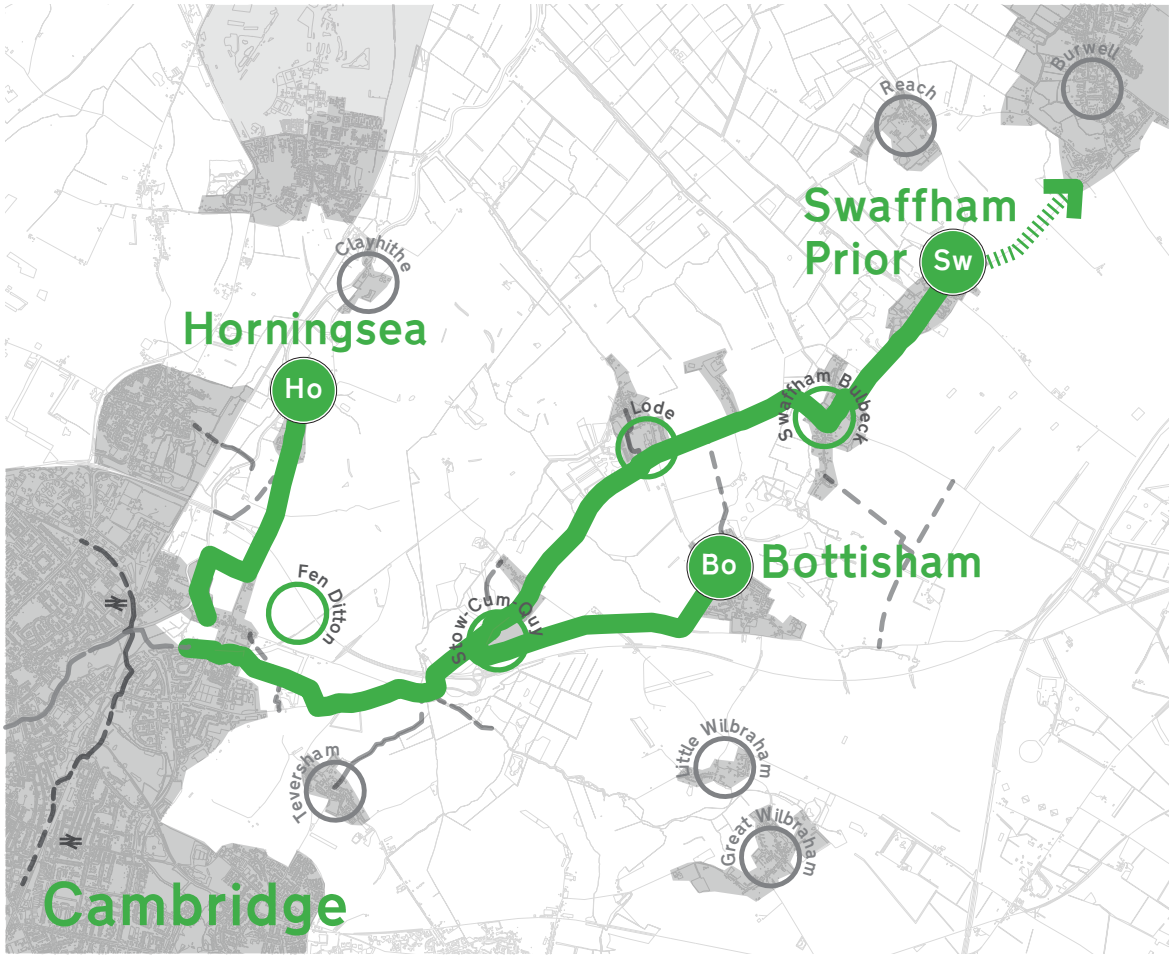
Little Wilbraham



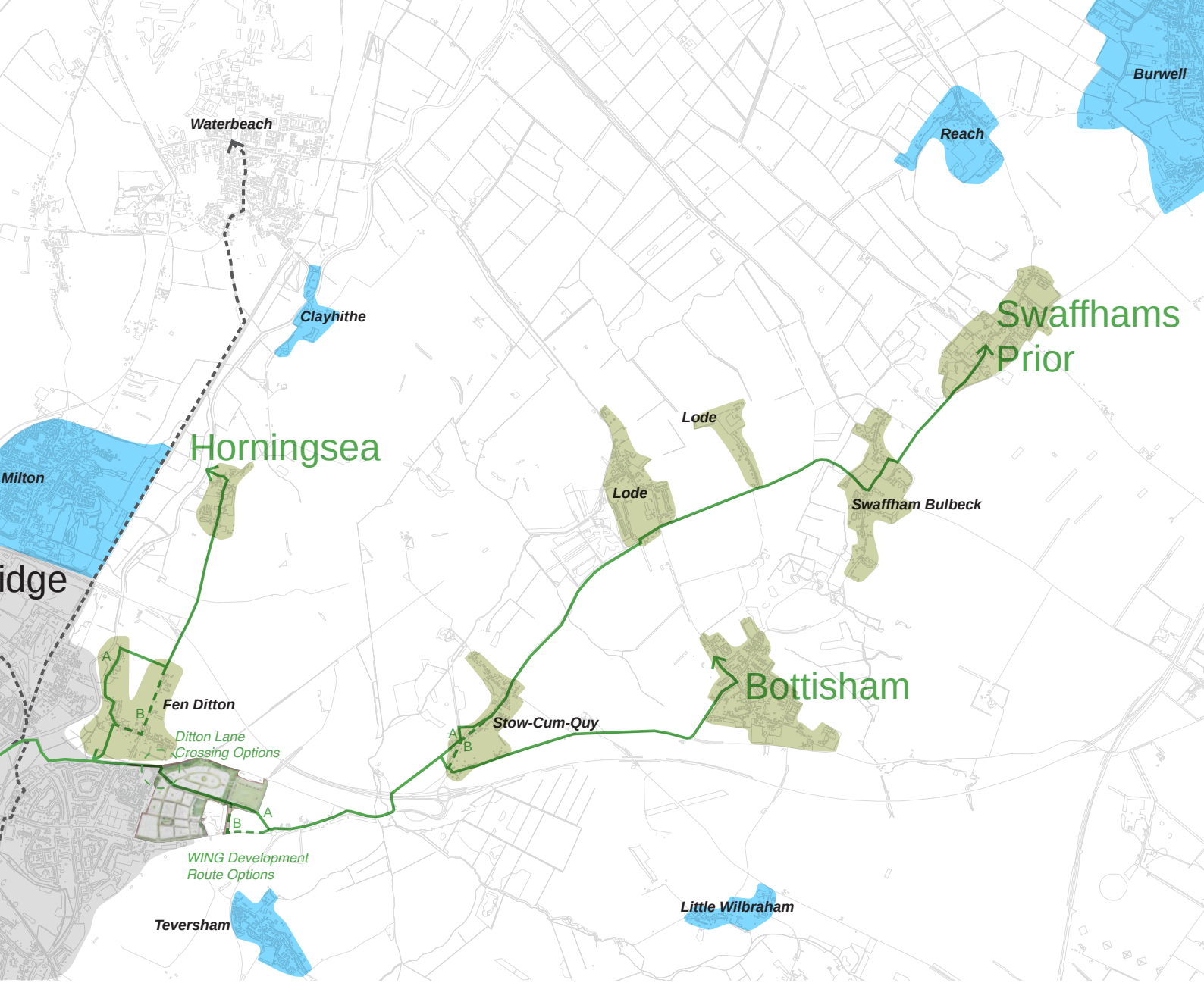
THE ROUTES - SELECTED

The route map above shows the recommended core Greenway routes providing direct, fast routes between Horningsea, Bottisham, and the Swaffhams, and Cambridge.

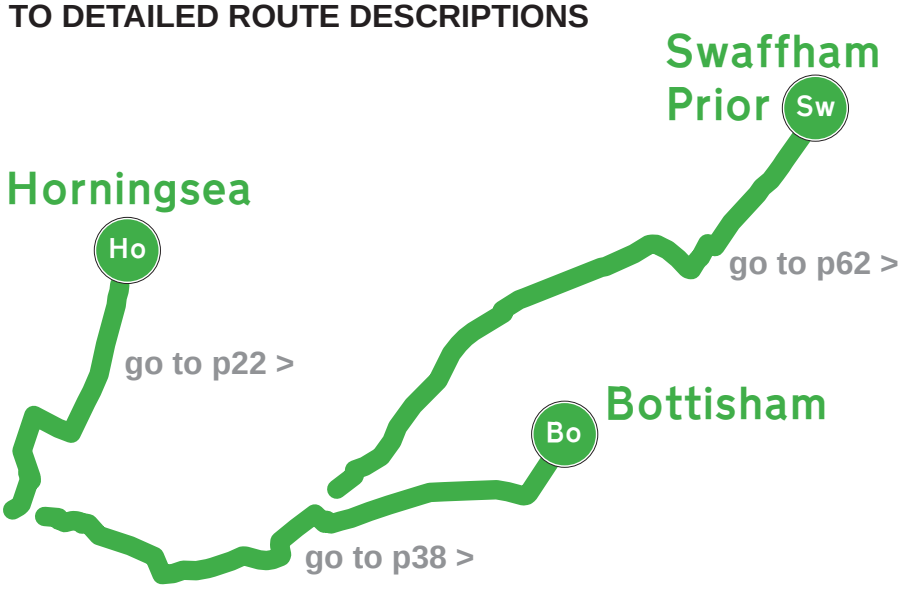
To avoid duplication the Swaffhams route is presented in the remainder of this document as running between Swaffham Prior and Stow-Cum-Quy, from where it follows the Bottisham route towards Cambridge.

The plan on the at the top of the following page shows the route that was selected in discussion with the client group for consultation, including areas where multiple 'front-runner' options were to be presented to the public following an initial short-listing completed through the design process.

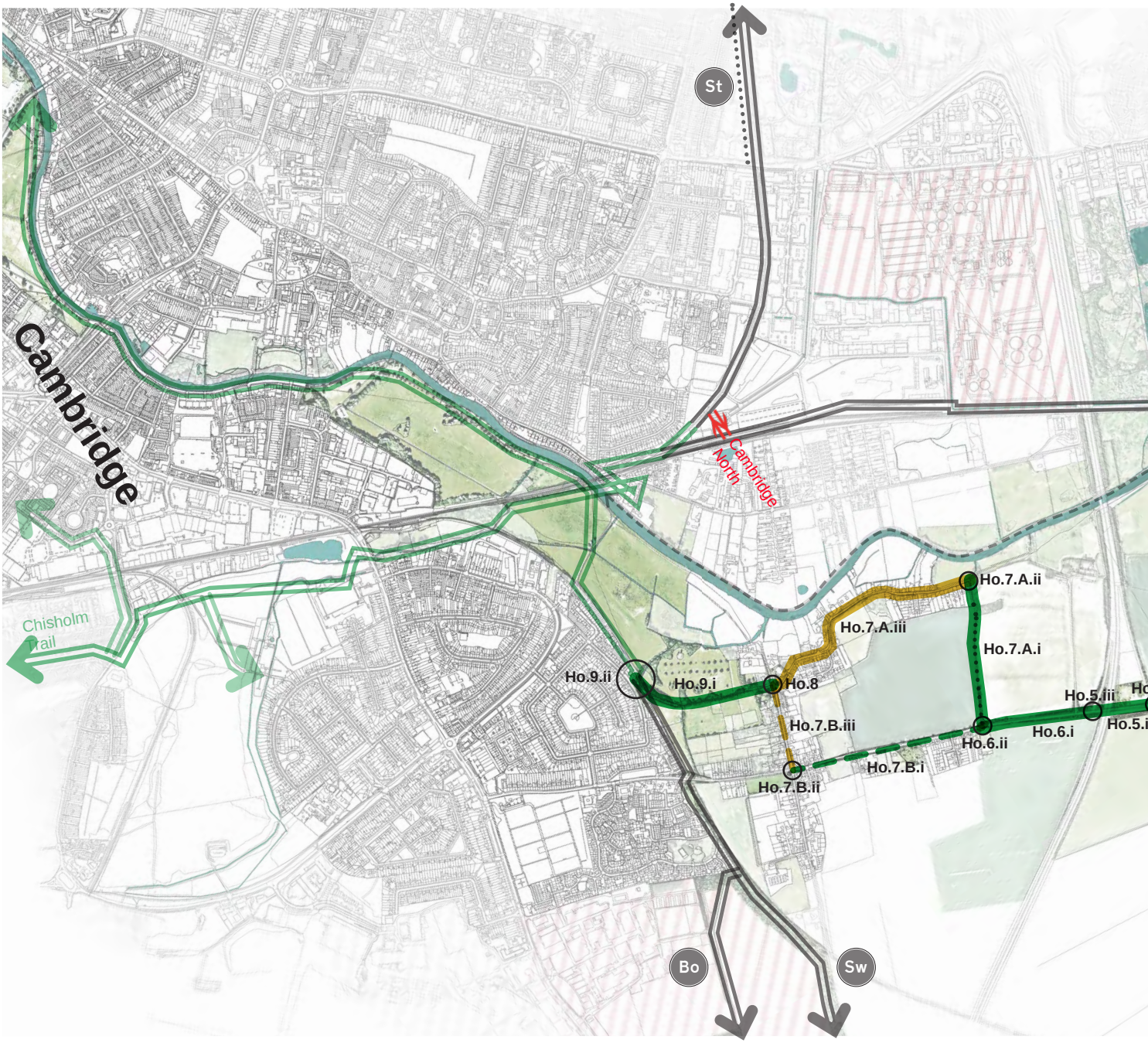
Each of the routes is examined in turn in the remainder of this document. At the start of each section - as identified in the key diagram on the following page - there is an overall plan that identifies the route type (by colour) and locationally specific proposals (by reference number) that are then presented (selectively) in detail thereafter.



KEY TO DETAILED ROUTE DESCRIPTIONS

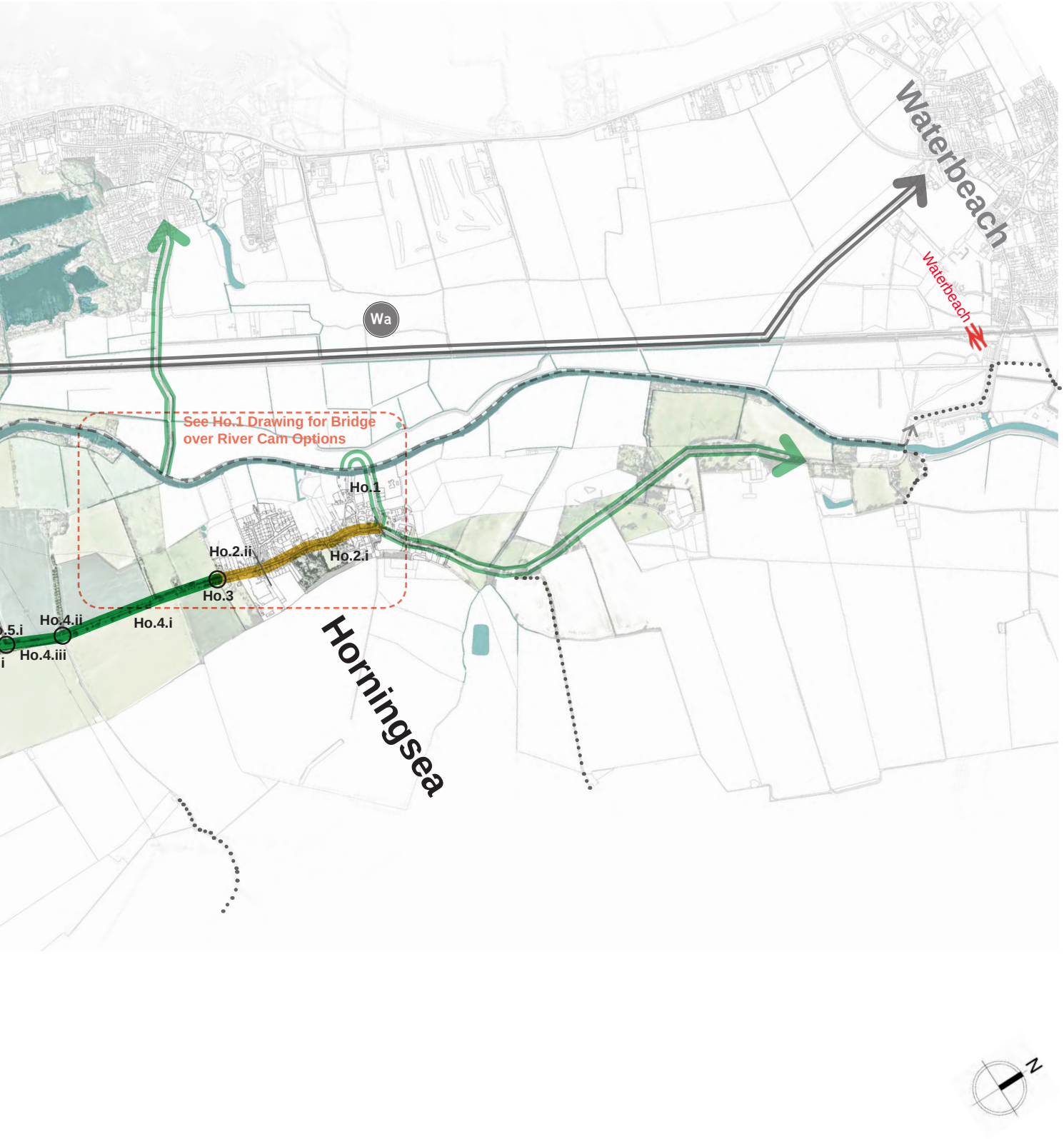


HORNINGSEA GREENWAY
INITIAL PROPOSALS



Shared cycle path

Quiet road


Waterbeach
Waterbeach
Wa
See Ho.1 Drawing for Bridge over River Cam Options
Ho.1
Ho.2.ii
Ho.2.i
Ho.3
Ho.4.ii
Ho.4.i
Ho.4.iii
Horningsea
N

Ho.1.A-K - Bridge over River Cam Options Scoping

This drawing provides an initial indication of potential river bridge locations and associated approach routes for a new walking and cycling route between Horningsea and the riverside path on the west side of the Cam, and, by extension, Fen Road and the potential Waterbeach Greenway on the west side of the railway line. The objective of such a link would be to provide a high quality links towards Cambridge (as an alterantive to a route alongside Horningsea Road) and Milton.

This drawing is only an initial scoping exercise, and is intended to form the basis of discussions with the local community/stakeholders as the first step towards understanding the appetite and techinical feasibility for such a route.

Key

A - Bridge over River Cam via Dock Lane
B - Bridge over River Cam via St John's Lane
C - Bridge over River Cam via Private Lane
D.1 - Bridge over River Cam via Jubilee Green and the Edge of Goose Green Play Area
D.2 - Bridge over River Cam via Jubilee Green, Abbots Way and Priory Road
E - Bridge over River Cam via Private Land, Local Allotments and Priory Road
F - Bridge over River Cam via Edge of Private Land and Plough and Fleece Car Park
G - Bridge over River Cam via Private Land and Plough and Fleece Car Park
H - Bridge over River Cam via Edge of Brickafields
I - Bridge over River Cam via Edge of Horningsea Cemetary along Private Land
J - Bridge over River Cam via Footpath to Baits Bite Lock
K - Bridge over River Cam via Baits Bite Lock

Existing photograph of Horningsea Village Junction with Shared Use Path

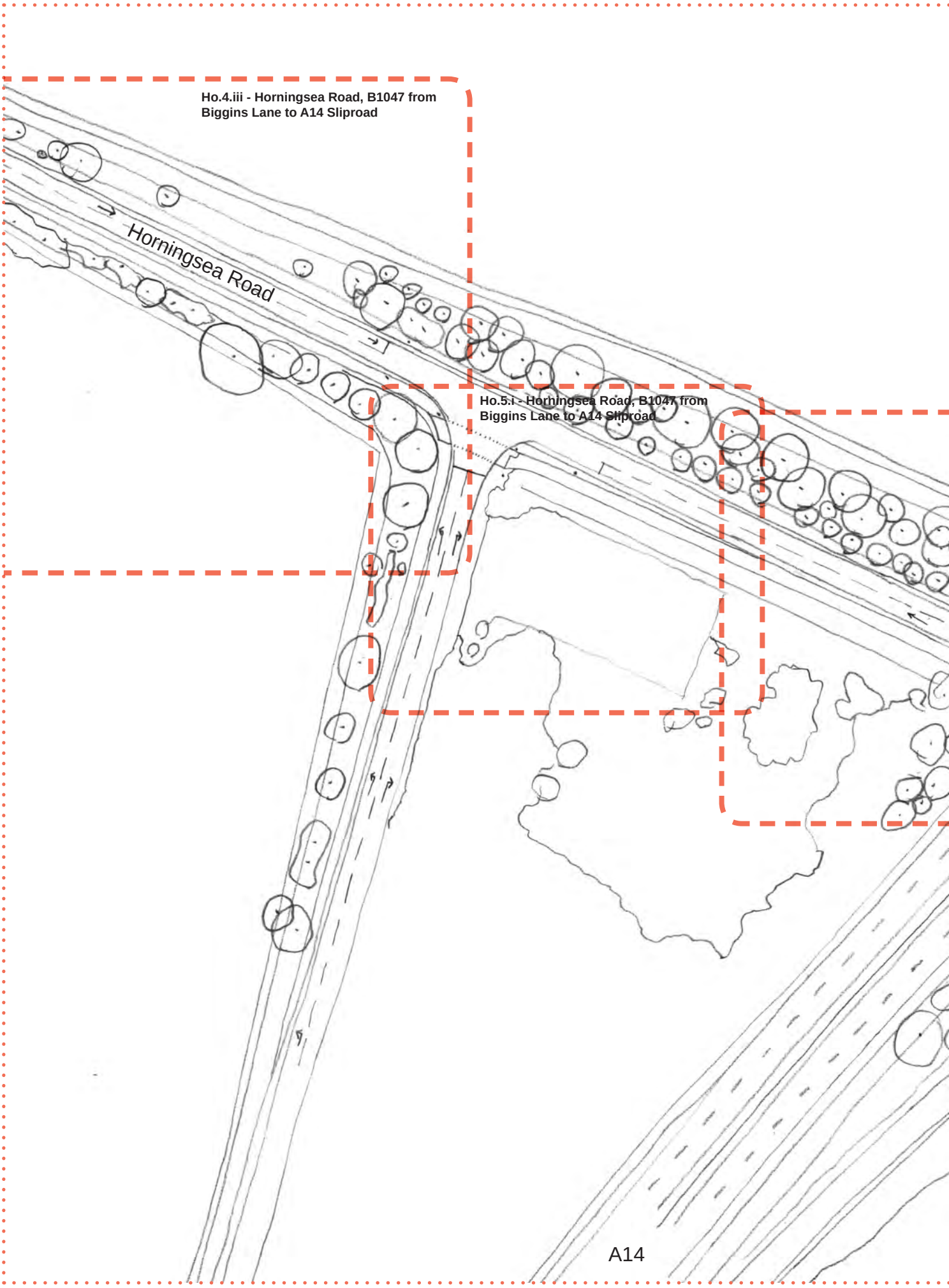
Ho.3 - Horningsea Village Junction with Shared Use Path

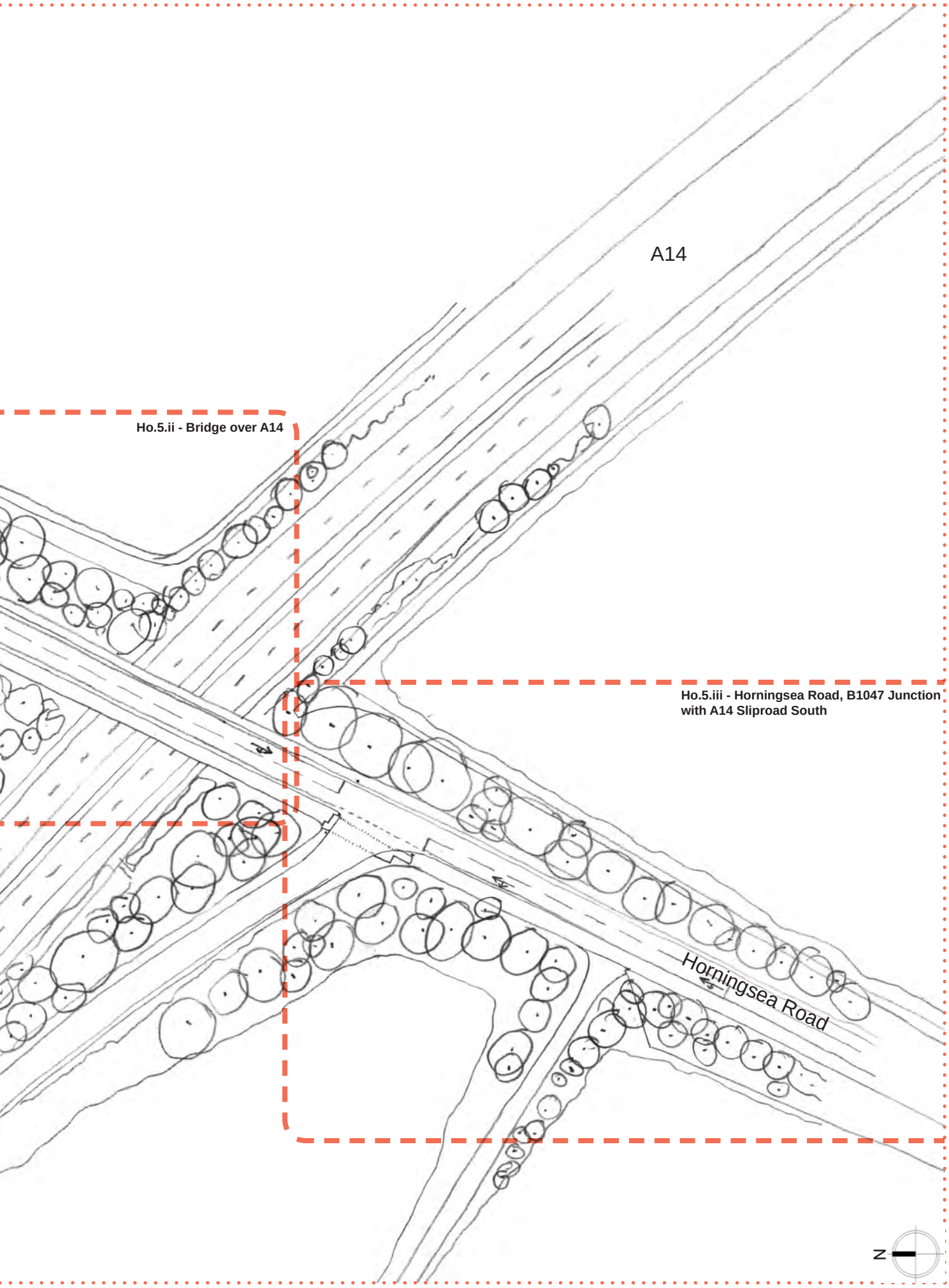
Maintenance required to quiet road surface with white painted cycle markings on carriageway surface to highlight road type. Speed limit reduced to 20mph through village. At junction with village entrance, a raised table provides a transition for cyclists to mount the shared use path from the quiet road treatment. For cycles traveling southbound towards Cambridge, a jug handle allows them to cross Horningsea Road using the raised table, safely. The village entrance is built out with a new tree, additional fencing to mirror the existing gateway feature, and give way markings painted on the carriageway surface allow priority to cyclists joining or leaving Horningsea Road, and for vehicles existing the village - over vehicles entering the village. Solar studs required to signal the greenway route.

Ho.4.i - Horningsea Road, B1047 from Horningsea Village Gateway to Biggins Lane

The existing shared use path is extended to align with works to the village entrance. Introduce a soft landscaped verge 0.5m minimum in the currently sealed asphalt margin between the shared-use path and the road, with potential for further widening of the path on the west Junction of the Byway and Horningsea Road side to accommodate this. Solar studs required to signal the greenway route.

Existing photograph of Horningsea Road, B1047 from Horningsea Village Gateway to Biggins Lane


Ho.4.iii - Horningsea Road, B1047 from Biggins Lane to A14 Sliproad
Horningsea Road
Ho.5.i - Horningsea Road, B1047 from Biggins Lane to A14 Sliproad
A14

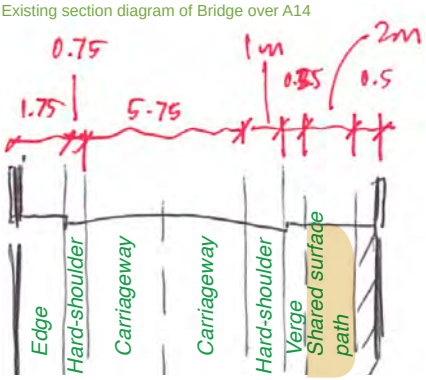

A14
Ho.5.ii - Bridge over A14
Ho.5.iii - Horningsea Road, B1047 Junction with A14 Sliproad South
Horningsea Road
N

Existing photograph of Horningsea Village Junction with Shared Use Path

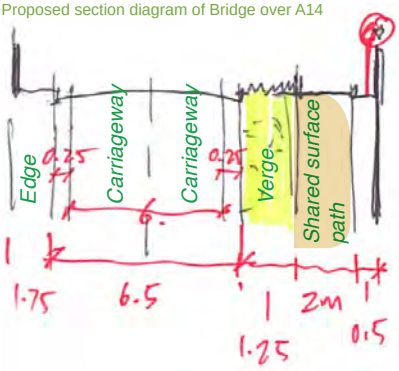
Ho.5.ii - Bridge over A14

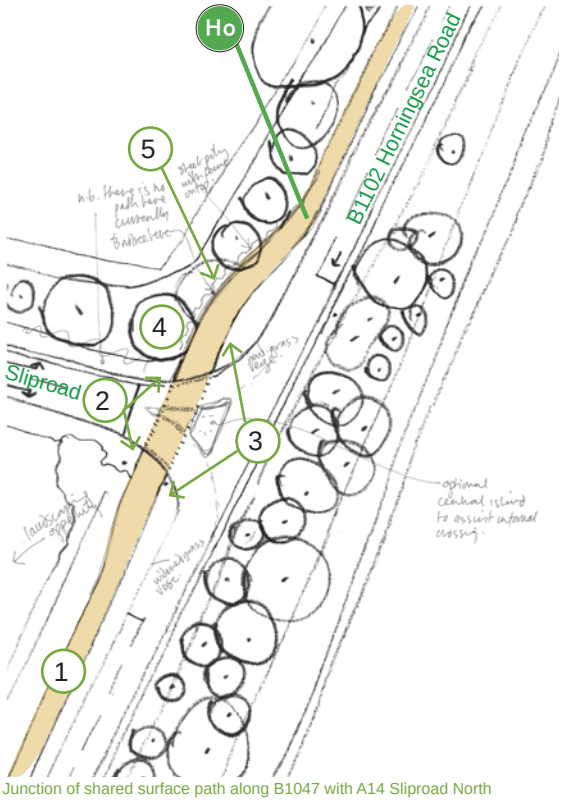
Shared use path curves from the existing signalised crossing to provide a widened and safer crossing point for pedestrians and cyclists. Widen verge at junction of shared use path with A14 sliproad, using land to the west. Landscaping required to align with existing signalised crossing. Introduction of a planted verge between the shared-use path and the roadway, and installation of a screening device to provide a greater degree of visual and sound protection at the bridge edge. New planting and landscaping required along bridge. White painted carriageway markings shuffled to provide adequate space for shared surface path and verge along bridge. No works required to east side of bridge. Solar studs required to signal the greenway route.

Existing section diagram of Bridge over A14



Proposed section diagram of Bridge over A14

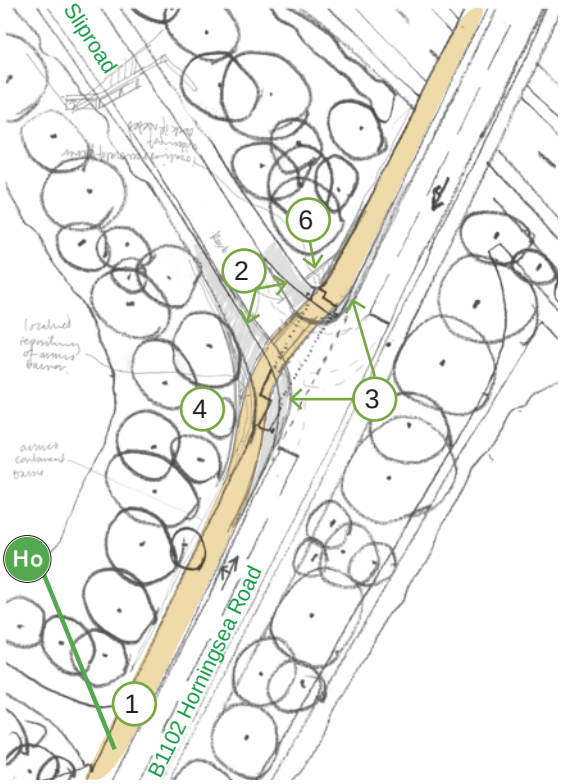




Junction of shared surface path along B1047 with A14 Sliproad North

Ho.5.i - Horningsea Road, B1047 from A14 Sliproad North to Bridge over A14

Continue soft landscaped verge 0.5m minimum in the currently sealed asphalt margin between the shared-use path and the road to separate cycles from carriageway. At the junction, the shared use path curves to the existing crossing point to provide a widened and safer crossing point for pedestrians and cyclists. Widen verge at junction of shared use path with A14 sliproad, using land to the west, landscaping required to the land to the west to align with existing shared use path. Two bollards required to signal the greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.



Junction of shared surface path along B1047 with A14 Sliproad North

Ho.5.iii - Horningsea Road, B1047 Junction with A14 Sliproad South

Tightened geometry along A14 Sliproad (south of A14 Bridge) uses kerb build-outs to reduce the carriageway width and increase shared surface path width. Shared surface path is shifted slightly to the west to allow for a better crossing position over the A14 sliproad. At the south side of the crossing, the path is shifted further west to allow for sufficient length for a cyclist to be positioned at 90' to the junction. Localised repositioning and lengthening of the existing barriers, and possible widening of deck are required. Two bollards required to signal the greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.

1. Shared surface path 3m wide
2. Tightened geometry to sliproad
3. Landscaped verge
4. Adjustments to landscape
5. Deck to extend foot/cycleway - with sheet piling
6. Repositioned crash barrier

N

Scale
1-1000

Ho.6.ii - Horningsea Road, B1047 Junction with Fen Ditton Byway

At the junction of Horningsea Road with the Fen Ditton byway, landscaping works are required to open up the geometry to clarify the turning point. Prominent ‘milepost’ markers to be installed to highlight turn into the Byway [route A] and widening of the shared-use path on the west side of Horningsea Road towards the school [route B]. Ensure proposals align with current and future works to Fen Ditton. Solar studs required to signal the greenway route.

Existing photograph of Horningsea Road, B1047 Junction with Fen Ditton Byway

Existing photograph of Fen Ditton Byway

Ho.7.A.i - Fen Ditton Byway

New shared-use path along the existing Byway, with careful pruning of existing trees and hedgerows to maintain clear width. Bespoke treatment, with surface width, use of over run areas and material to be designed to respect rural character of existing Byway. Leave 0.5m either side of 2m wide shared surfaced path for grassy verge to allow for vehicular and bridleway uses. Adjustments required to landscaping and planting to enhance the existing byway. Solar studs required to signal the greenway route.

Ho.8 - Church Street, Junction with High Street and Wadloes Path through Ditton Meadows

Close west arm of the junction to provide a larger green by the war memorial and a direct cycle link between Wadloes path and Church Street. Path alongside the war memorial joins via a raised table with white painted give way markings on carriageway surface to High Street allowing shared surface path to have priority over traffic and seamlessley continue through to Ditton Meadows. New cycle parking, an improved entrance to the churchyard, and new planting to enhance the war memorial are required. Two bollards are required to signal the greenway route.

Existing photograph of Church Street, Junction with High Street and Wadloes Path through Ditton Meadows

Existing photograph of Wadloes Path 'Bow-Tie'

Ho.9.ii - Wadloes Path 'Bow-Tie'

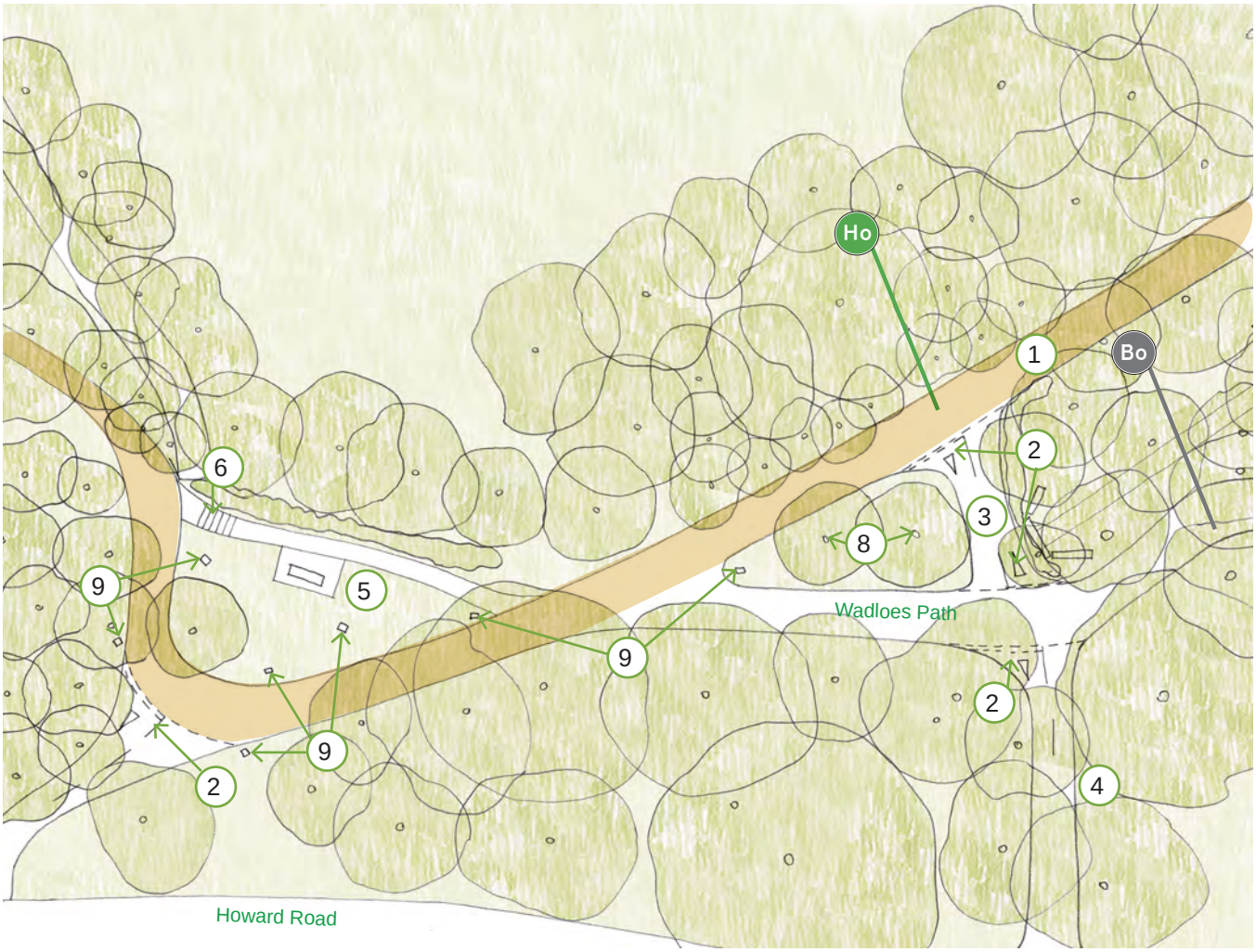
Selective path widening, new signage and landscaping improvements around multiple converging routes. Careful pruning and crown lifting in key locations is required to ensure a clear route along the paths. Decluttering and bins to be relocated to a better location. New planting and bench on the western green with new sleeper steps, references the history of the site as a crossing on railway line to Mildenhall, on the east - but also forms a peaceful seating area. Two new trees to the eastern green enhance the landscape. Two short sections of new shared-use path on existing desire lines, linking up Ditton Lane to Howard Road, and the Horningsea Greenway with the Bottisham Greenway routes. Six bollards required to signal the greenway route. Solar studs required to signal the greenway route.

1. Shared surface path 3m wide
2. Priority to cyclists along greenway using white painted give way markings on path surface
3. New section of path joining Horningsea and Bottisham greenway
4. Adjustments to path geometry
5. New planting and seating
6. Sleeper steps
7. Adjustments to landscape
8. New tree
9. Bollard

Existing plan drawing of Wadloes Path 'Bow-Tie'

N

Scale
1-1000

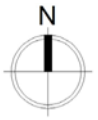


BOTTISHAM GREENWAY

Shared cycle path

Quiet road


Sw
Stow
Cum-
Quy
Bo
Bo.8.i
Bo.7
Bo.6.ii
Bo.6.i
Bo.5
Bo.4.ii
The
Missing
Sock
A1303
Bo.4.i
A14
Bo.3.iv
Bo.3.iii
Bo.3.ii
Bo.3.i
Bo.2
Bo.1.ii
Bo.1.i
Bottisham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Existing photograph of Bottisham Village Green

Bo.1.ii - Bottisham Village Green

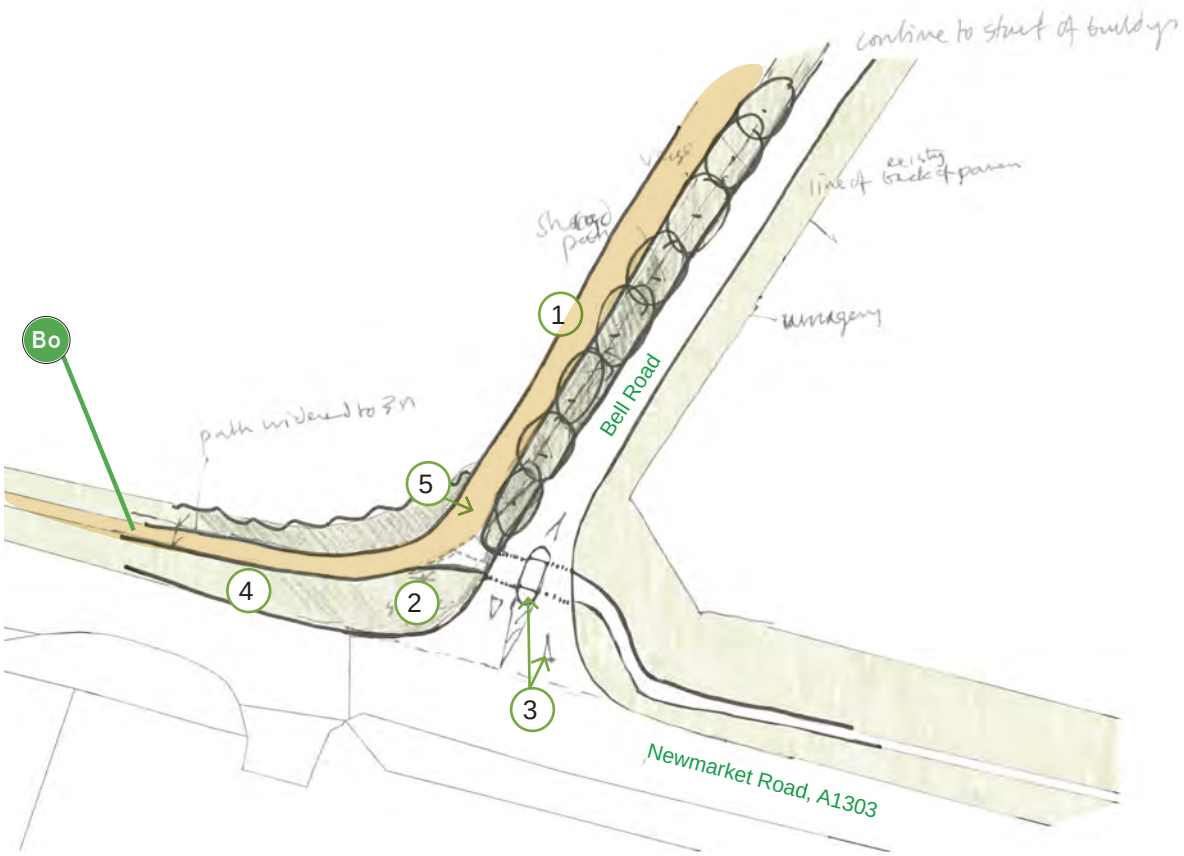
Lode Road alongside Village Green and village shops to be made one way to vehicular traffic traveling south-east on a large-scale raised table. This upgraded path is a coloured shared surface giving priority to pedestrians and cyclists over vehicles. A new village sign and seating is positioned outside of the post office. Three new trees and additional landscaping works are required to slightly alter the Village Green geometry and indicate the centre of the village. Four greenway bollards indicate the walking and cycling routes, alongside signage for ‘no entry’ and ‘one way’ signals. Paking area is indicated via hatched area in drawing for approximately 5-6 bays for deliverys and disabled parking. Remaining vehicles are to travel around the village green via Trunbridge Lane.

1. Shared surface zone, coloured surface
2. New village sign and seating
3. New tree
4. Parking / delivery area
5. Adjustments to landscape including new planting

Bo.3.iii - Shared Surface Path Parallel to Bell Road

Shared surface path alongside Bell Road, 3m wide with minimum 0.5m grassy strip separating path with farmland. Existing pavement to be replaced with planted edge, with between 8-10 new trees. Short section in front of pumping/sub-station route utilises existing footway widened to full width available between fence and kerb. Solar studs required to signal the greenway route. Land acquisition may be required, subject to landholders agreement.

Existing photograph of Shared Surface Path Parallel to Bell Road



N

Scale
1-1000

Existing photograph of Bell Road Junction with Newmarket Road, A1303

Bo.3.iv - Bell Road Junction with Newmarket Road, A1303

Shared surface path alongside Bell Road cuts through trees and landscaping to the west of Bell Road to join with existing shared surface path along Newmarket Road. Tightened junction geometry required to allow for safer crossing over Bell Road, with new central refuge. White painted give way signs required minimum 10m away from junction for vehicles to give way to pedestrians and cyclists travelling east-west. Planting widened to accommodate change in geometry. One bollard required to signal greenway route. Solar studs required to signal the greenway route. Land acquisition required as per Bo.3.iii, subject to landholders agreement.

1. New shared surface path 3m wide
2. Tightened junction geometry
3. New central refuge and give way signs to prioritise ped and cycle over vehicles
4. Landscaped verge
5. Adjustments to landscaped edge to allow new path to join existing shared surface path alignment

Bo.5 - Albert Road junction with Newmarket Road, A1303

Changes to existing junction geometry required to allow for safer crossing over Albert Road. Albert Road carriageway curves more to the west to allow the carriageway to meet Newmarket Road at a 90' angle. Shared surface path has ample space to approach the Albert Road crossing point at 90' angle for improved visibility and a smoother transition. A new central refuge 4m wide allows for safe interim crossing. White painted give way markings on carriageway set back from junction for vehicles to give way to pedestrians and cyclists travelling east-west, and slow down vehicular traffic exiting or joining Newmarket Road. Planting widened alongside The Missing Sock pub provides an improved entrance, and accommodates this change in junction geometry. Two bollards required to signal greenway route. Solar studs required to signal the greenway route. Land acquisition required, subject to landholders agreement.

1. New shared surface path 3m wide
2. Wholesale junction geometry alterations
3. New central refuge 4m wide and give way signs to prioritise ped and cycle over vehicles
4. Landscaped verge
5. Adjustments to landscaped edge to redefine field boundary
6. New tree
7. Bollard

Existing photograph of Albert Road junction with Newmarket Road, A1303

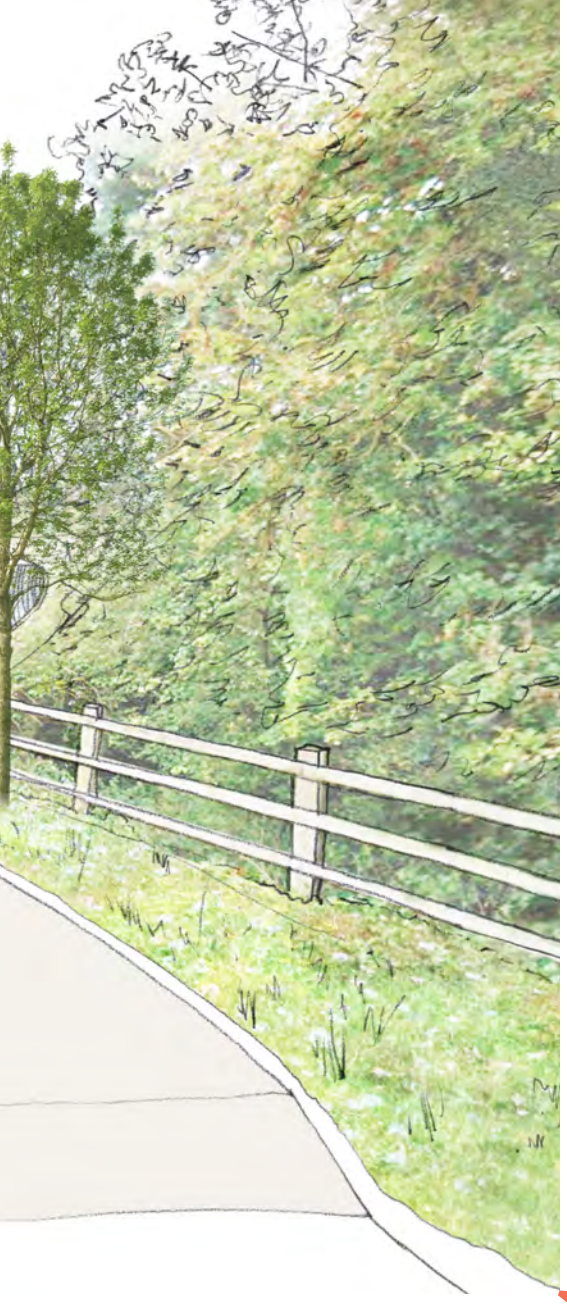
N

Scale 1-500

Existing photograph of Northern Approach to A14 Underpass, Junction with Private Road

Bo.9.i - Northern Approach to A14 Underpass, Junction with Road to Quy Hotel

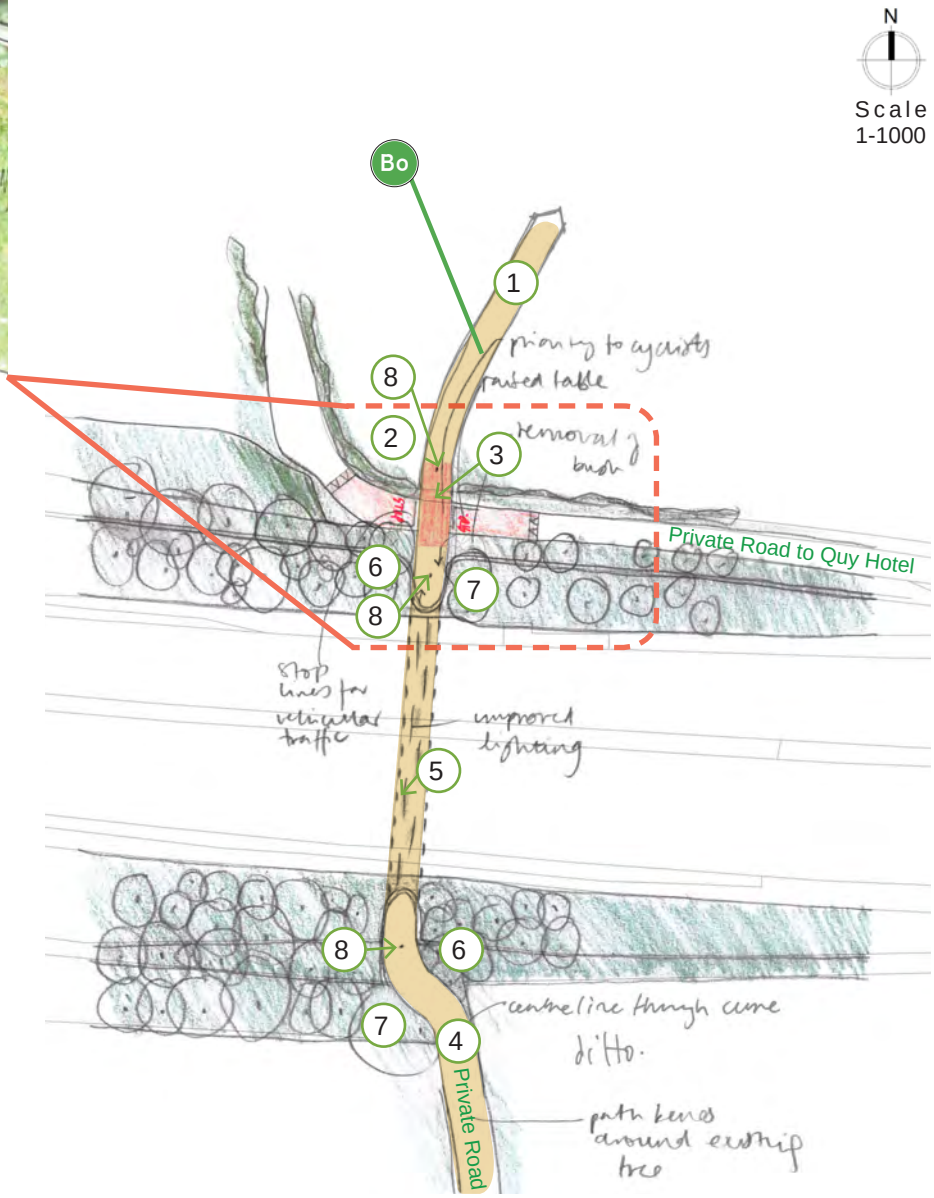
New shared surface path, 3m wide, through farmland crosses road to Quy Hotel using coloured raised table. White painted give way markings on carriageway surface indicates priority to cycles and pedestrians crossing the road. Two greenway bollards required to signal the greenway route.



Bo.9.ii - A14 Underpass

New lighting to existing underpass to improve safety and visibility. Two greenway bollards to either side of the underpass to prevent motorised vehicles from entering the underpass. Land acquisition required, subject to landholders agreement.

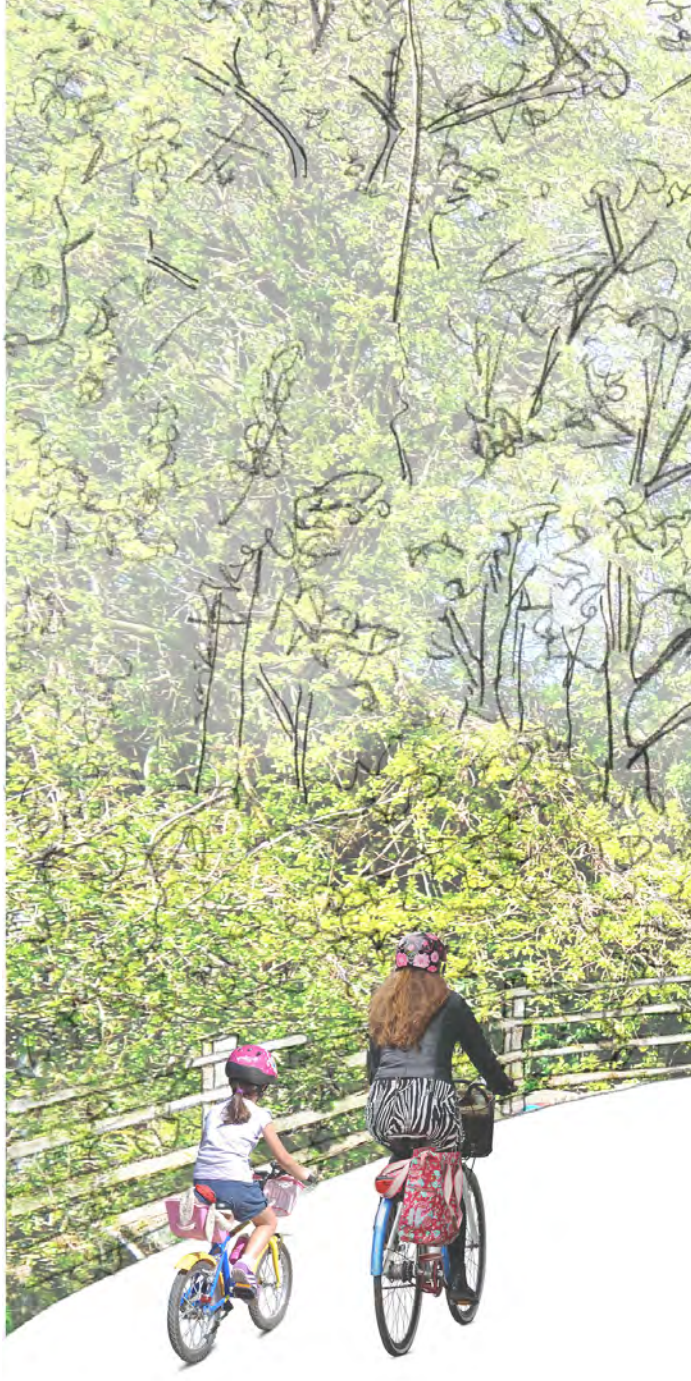
Existing aerial photograph of A14 Underpass



1. Shared surface path 3m wide
2. Priority to cyclists over private road using coloured raised table and painted stop signs on carriageway surface
3. Coloured surface
4. Adjustments to underpass approach
5. New lighting to underpass
6. Adjustments to landscaped embankments
7. Adjustments to planting
8. Bollard

Bo.9.iii - Southern Approach to A14 Underpass along Road to A14 Underpass

Adjusted geometry to underpass approach to improve visibility and form a smoother angle of approach to the underpass entrance. Works to existing landscape and trees according to the new alignment, new landscaping and tree planting required along the eastern edge to clarify angle of approach to the underpass, and prevent car parking at the end of the road. Land acquisition required, subject to landholders agreement.



Existing photograph of Southern Approach to A14 Underpass along Private Road

Existing photograph of Bell Road Junction with Newmarket Road, A1303

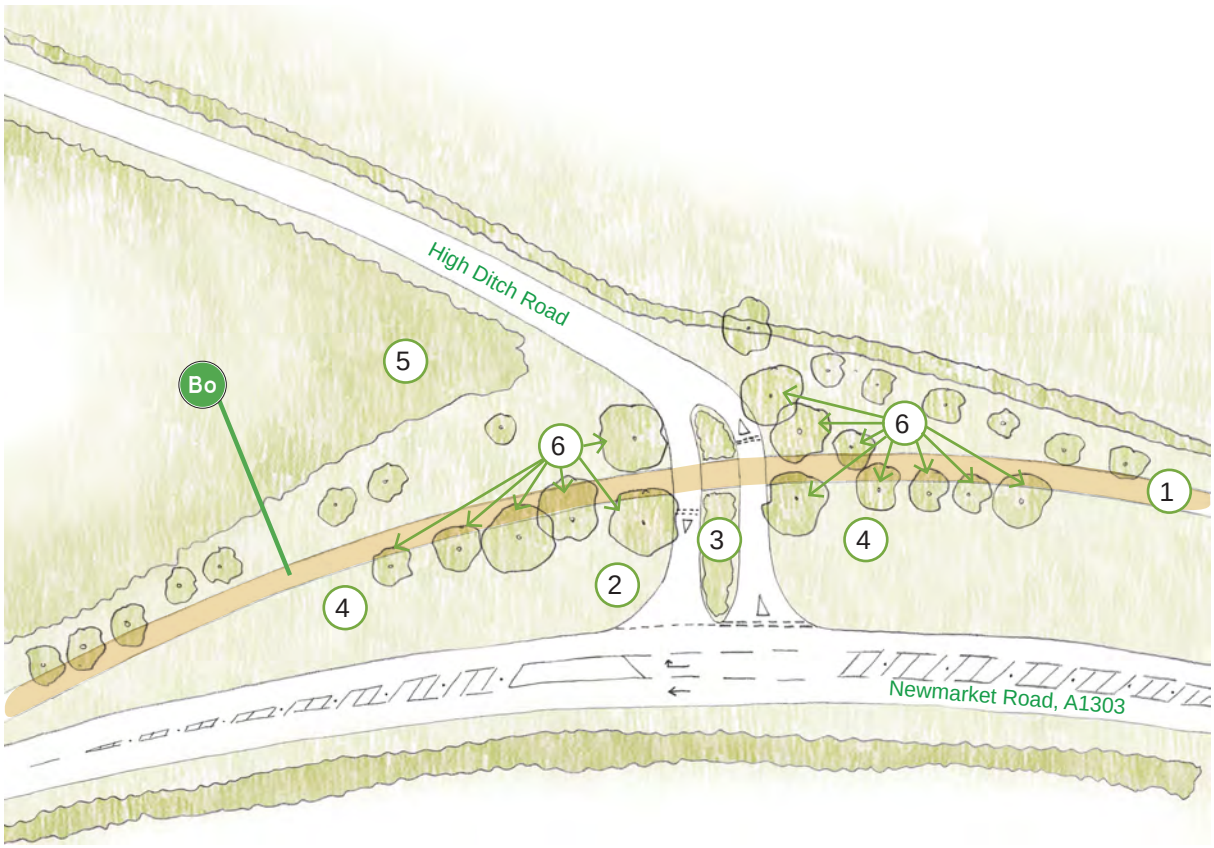
Bo.11 - Road to A14 Underpass Junction with Newmarket Road, A1303

Tightened corner geometry to the road to A14 underpass gives priority to cycles and pedestrians over vehicles. A steep dropped kerb reduces the vehicle speeds to a minimum, so as to improve the safety of cycles and pedestrians. Shared surface path is widened to 3m, allowing for a minimum 0.7m verge separating path from busy road. At the edge of the path where turning onto the road, the verge increases in size to clearly indicate a turning point to the shared surface path. Existing footpath remains. Two bollards required on either side of the junction approaches to signal the greenway route. Solar studs required to signal the greenway route.

Bo.12.ii - Newmarket Road East Bridge over Quy Water

Shared surface path crosses Quy Water over existing bridge. Bridge path widening from 2m to 3m to take place through the removal of the existing crash barriers (65m long). Crash barriers are to be replaced with new planted verge 1m wide, bounded by a high-profile safety kerb. Carriageway width reduced to 6.5m, and vehicles are encouraged to slow speed from 50mph to 30mph. Solar studs required to signal the greenway route.

Existing photograph of Newmarket Road East Bridge over Quy Water



N

Scale
1-1000

Existing photograph of Bell Road Junction with Newmarket Road, A1303

Bo.13 - High Ditch Road Junction with Newmarket Road, A1303

Changes to existing junction geometry required to allow for safer crossing over High Ditch Road. High Ditch Road carriageway curves more to the west to allow the carriageway to meet Newmarket Road at a 90’ angle. Shared surface path has ample space to approach the High Ditch Road crossing point at 90’ angle for improved visibility and directness. A new central refuge 5m wide allows for safe interim crossing. White painted give way markings on carriageway set back from junction for vehicles to give way to pedestrians and cyclists travelling east-west, and slow down vehicular traffic exiting or joining Newmarket Road. Adjustments to the existing landscaping to allow for more direct shared surface path, and landscaping required to replace the existing shared surface path. New tree planting long the edge of the shared surface path and a large area of low planting required to the north of the east side of the path to highlight the change in geometry for vehicles traveling southbound towards Newmarket Road. Two bollards required to signal greenway route. Solar studs required to signal the greenway route.

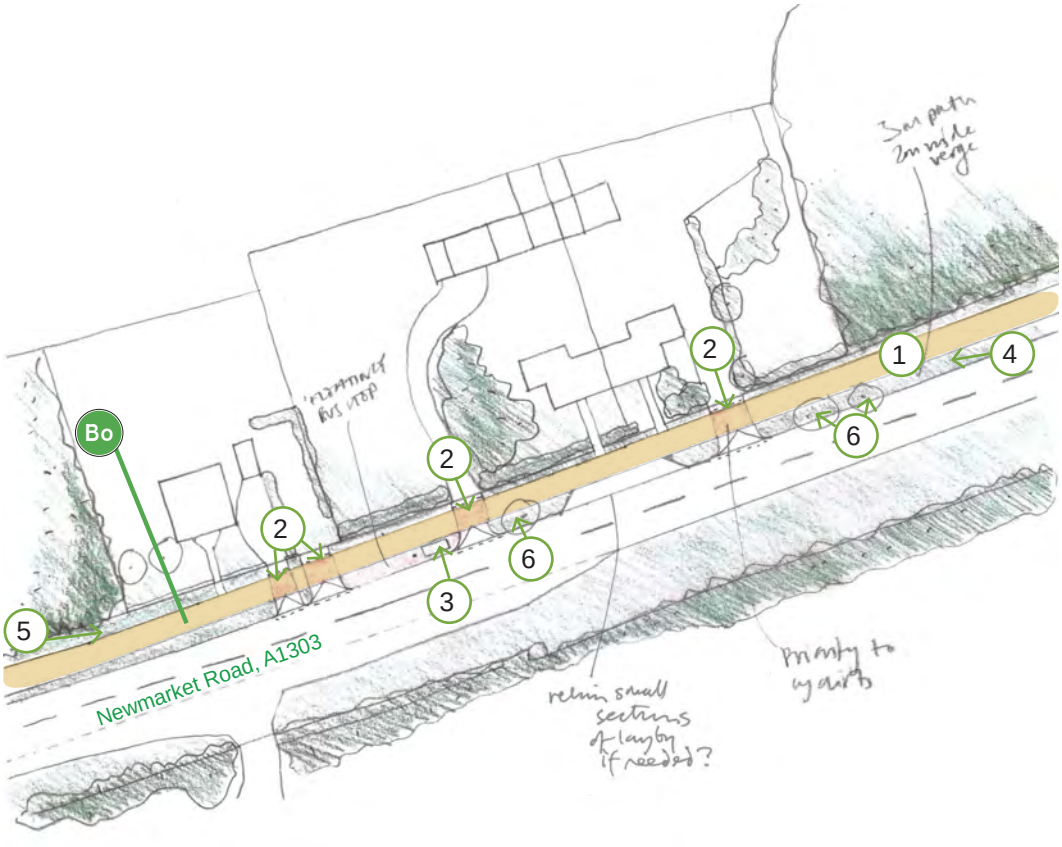
1. New shared surface path 3m wide
2. Wholesale junction geometry alterations
3. New central refuge 4m wide and give way signs to prioritise ped and cycle over vehicles
4. Landscaped verge
5. Adjustments to landscaped edge for visibility and redefine field boundary
6. New trees to define edge of path

Bo.14 - Newmarket Road, A1303 from High Ditch Road to Roundabout

Widen existing 2m wide path to 3m, allowing for sufficient remaining verge of minimum 0.5m wide. Where the path crosses over private entrances, a coloured surface and white painted give way lines (where appropriate) are required to give priority to cyclists and pedestrians over vehicles. Changes to the geometry of existing private entrance and exit to the Darwin Farm Shop and Nurseries are required to slow vehicular speeds, and allow for safer cycle and pedestrian crossing. Laybys may be closed where appropriate to prevent doors opening onto the shared surface path. Where laybys are required, a sufficient hatched or planted width must be provided for safe exit and entrance to vehicles occupying the space. Existing bus stop is adjusted to form a floating bus island to allow for safe exit and entrance to buses along Newmarket Road. Solar studs required to signal the greenway route.

1. Shared surface path 3m wide
2. Priority to cyclists over side roads and private entrances using coloured surface and white painted dashes along path edge
3. Floating bus island instead of layby, one layby kept for necessity
4. Landscaped verge
5. Adjustments to landscape
6. New tree

Existing photograph of Newmarket Road, A1303 from High Ditch Road to Roundabout



N

Scale 1-1000

Bo.15 - Path Options through Wing Development Site


Key
Option A, Through The Plains
Option B, Along dedicated cycle way
Jubilee Cycleway
Land in Marshalls Ownership
Dedicated cycle ways
Pedestrian Footpath
Bridleway
Wing Development Site Boundary
Dismantled Railway towards Lode
Low Fen Drove Way towards Horningsea
High Ditch Road
AIRFIELD LIGHTING STRIP
Airport Way
Airport
N
Scale
1-5000

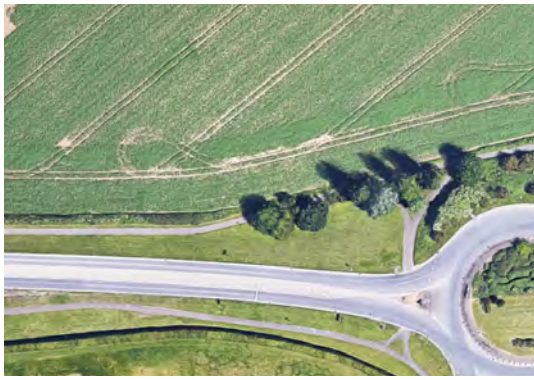

Bo.15 - Path Options through Wing Development Site
Allotments
PARKING
Adventure Play
Bo.15.ii
The Pla
SPORTS PAVILLION
Bo.15.i.A.ii
Jubilee Cycleway
Newmarket
Park and Ride
BUND
Bo.15.i.B.ii
Bo.15.i.B.ii
Ice Rink
Cambridge International Airport


Key
Option A, Through The Plains
Option B, Through Park and Ride
Fixed Greenway Route
Land in Marshalls Ownership
Wing Development Site Boundary
Local Facilities, Existing and Proposed
ins, Sports Pitches
AIRFIELD LIGHTING STRIP
Bo.15.i.A.i
As seen in Bo.15.i.A.i
Newmarket Road, A1303
Airport Way
N
Scale
1-2000

Existing photograph of Newmarket Road Roundabout - Option A - Through Field towards Wing Development

Bo.i.15.A.i - Newmarket Road Roundabout - Option A - Through Field towards Wing Development

Widen existing 2m wide path to 3m wide. New path through farmland 3m wide towards the eastern edge of the Wing Development Site. Allow for grassy verge 0.5m minimum either side of path to separate path from surrounding farmland. Two bollards to be provided along the north and south edges of the path to signal the greenway route. Two new trees line the start of the turning point at the Newmarket Road roundabout. White painted markings on path surface to indicate which routes give way to the other. Landscaped ‘triangle’ in the centre of the paths is adjusted to allow easier turning for cycles joining the greenway. An additional bollard is required at the base of the ‘triangular’ landscaped section to indicate the Bottisham Greenway route. Solar studs required to signal the greenway route. Land acquisition required, subject to landholders agreement.



Existing photograph of Newmarket Road Roundabout

1. Shared surface path 3m wide
2. New tree
3. Adjustments to landscape
4. Bollard

N

Scale
1-1000

Existing photograph of Copenhagen Crossing to Fison Road

Bo.17.A.ii - Copenhagen Crossing to Fison Road

Shared surface path, 3m wide along Mildenhall dismantled railway line, curving towards the junction of Fison Road and Ditton Lane. At junction with Ditton Lane shared surface path, landscape adjustments required to provide sufficient turning space for cycles travelling towards Bottisham. Copenhagen-style crossing to the junction of Fison Road and Ditton Lane with an improved shared-use link via a continuous foot/cycleway across the entrance of Fison Road (6m x 6m). A steep dropped kerb and tightened junction geometry reduces the vehicle speeds to a minimum, so as to improve the safety of cycles and pedestrians. White painted give way markings on road surface indicate priority over junction. Shared surface path is widened to 5m - 6m, allowing for a minimum 0.7m verge separating path from busy road. Improvements to the existing signalised crossing over Ditton Lane is required to widen the crossing and create a toucan crossing for cyclists traveling along the Bottisham Greenway. Adjustments to existing landscaping required to accommodate expanded path width.

1. Shared surface path 3m wide
2. Priority to cyclists over Fison Road using continuous footway / copenhagen crossing
3. Adjustments to junction geometry
4. Steep dropped kerb
5. White painted give way markings on road surface
6. Landscaped verge
7. Adjustments to landscape
8. Relocated tree and electrical boxes
9. Toucan crossing

Bo.17.B.ii - Raised Table to Fison Road

Shared surface path, 3m wide along Mildenhall dismantled railway line, curving towards the junction of Fison Road and Ditton Lane. At junction with Ditton Lane shared surface path, landscape adjustments required to provide sufficient turning space for cycles travelling towards Bottisham. Using the existing raised table on Fison Road, a new shared-use link 4m wide via a raised table with priority over Fison Road improves the safety of cycles and pedestrians. White painted give way markings on road surface indicate priority over junction. Adjustments to the existing landscape surrounding private residences is required to form a new path alignment. An electrical box and a lighting colomn needs moving to a new landscaped area at the southern corner of the Fison Road, Ditton Lane junction. Improvements to the existing signalised crossing over Ditton Lane is required to widen the crossing and create a toucan crossing for cyclists traveling along the Bottisham Greenway.

1. Shared surface path 3m wide
2. Priority to cyclists over Fison Road using raised table
3. Adjustments to junction geometry
4. White painted give way markings on road surface
5. Landscaped verge
6. Adjustments to landscape
7. Relocated tree and electrical boxes
8. New hedge
9. Toucan crossing

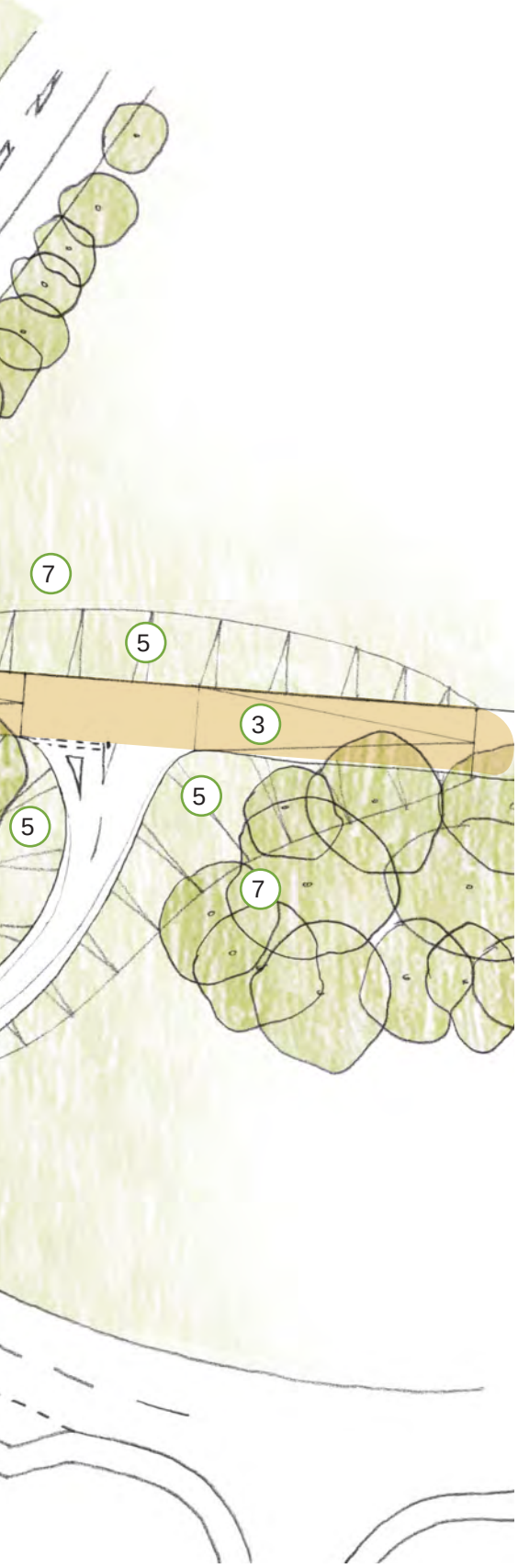
Existing photograph of Raised Table to Fison Road

N

Scale
1-1000

N

Scale
1-500



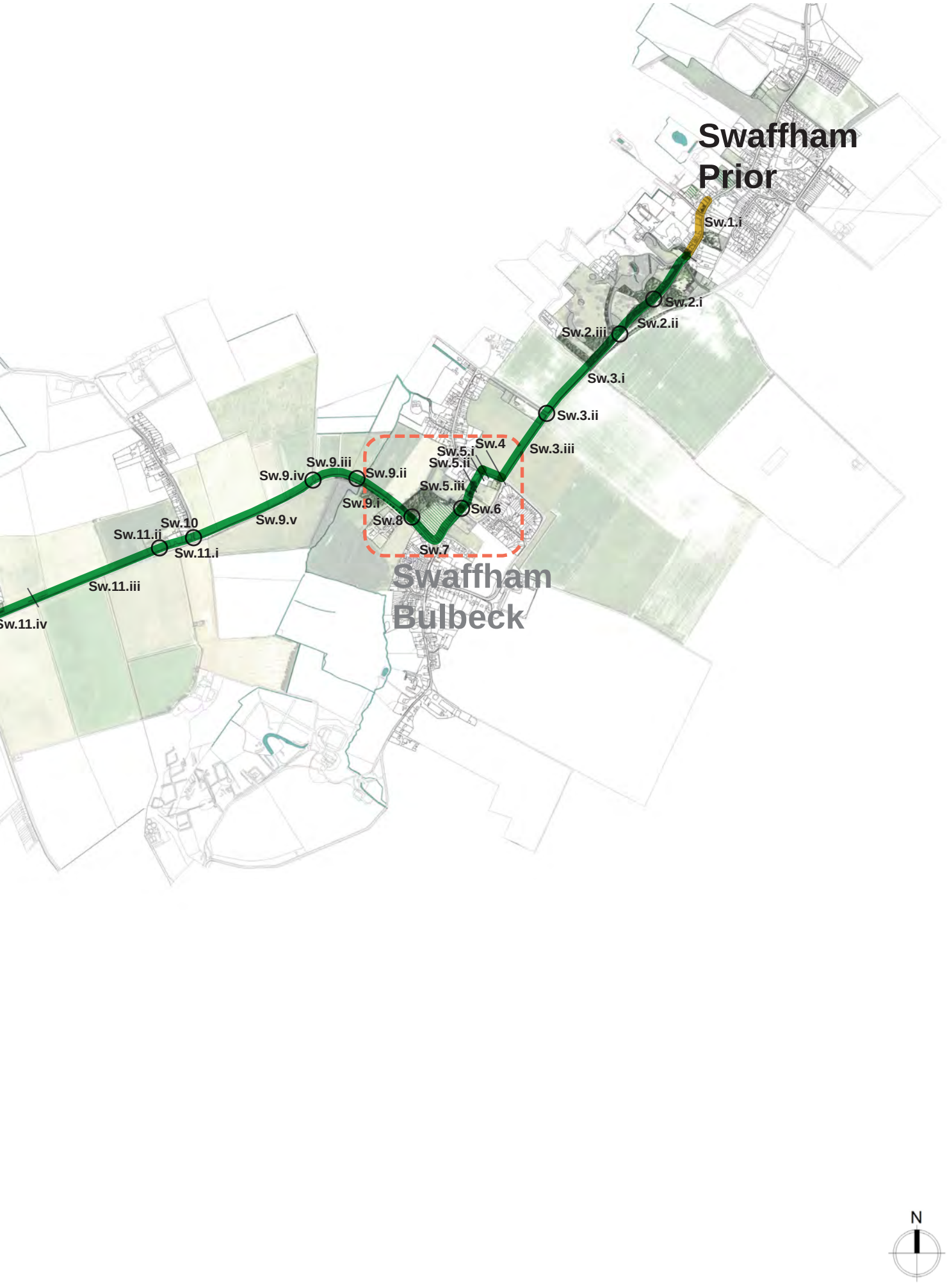
Bo.17.C - Ditton Lane Underpass

New box-jacked underpass to Ditton Lane, 4.5m wide, 15m long, 2.6m deep (excluding structural depth). New approach ramps utilise the existing slight elevation of the road level (1.5m) above lowest ground level along the dismantled railway. Two two-stage ramp of 40-45m length form 1:20 ramps to allow for 3.5m depth between the road surface and the underpass finished floor level. Works required for ground excavation, and embankment construction, alongside works to the existing landscaping. Additional ramp up to Fison Road 25-30m long to allow pedestrians and cyclists to continue along Ditton Lane shared surface path towards Fen Ditton. Solar studs required to signal the greenway route. Land acquisition required, subject to landholder agreements, and further technical studies are required.

Existing photograph of Ditton Lane Underpass

1. Shared surface path 3m wide
2. New box-jacked underpass
3. New approach ramp
4. Additional ramp up to Fison Road
5. Landscaped embankment
6. Adjustments to existing shared surface paths along Ditton Lane
7. Adjustments to landscape
8. New Tree

SWAFFHAM GREENWAY
INITIAL PROPOSAL


Swaffham Prior
Sw.1.i
Sw.2.i
Sw.2.ii
Sw.2.iii
Sw.3.i
Sw.3.ii
Sw.3.iii
Sw.4
Sw.5.i
Sw.5.ii
Sw.5.iii
Sw.6
Sw.7
Sw.8
Sw.9.i
Sw.9.ii
Sw.9.iii
Sw.9.iv
Sw.9.v
Sw.10
Sw.11.i
Sw.11.ii
Sw.11.iii
Sw.11.iv
Swaffham Bulbeck
N

Existing photograph of Swaffham Prior High Street Junction with B1102 Sliproad

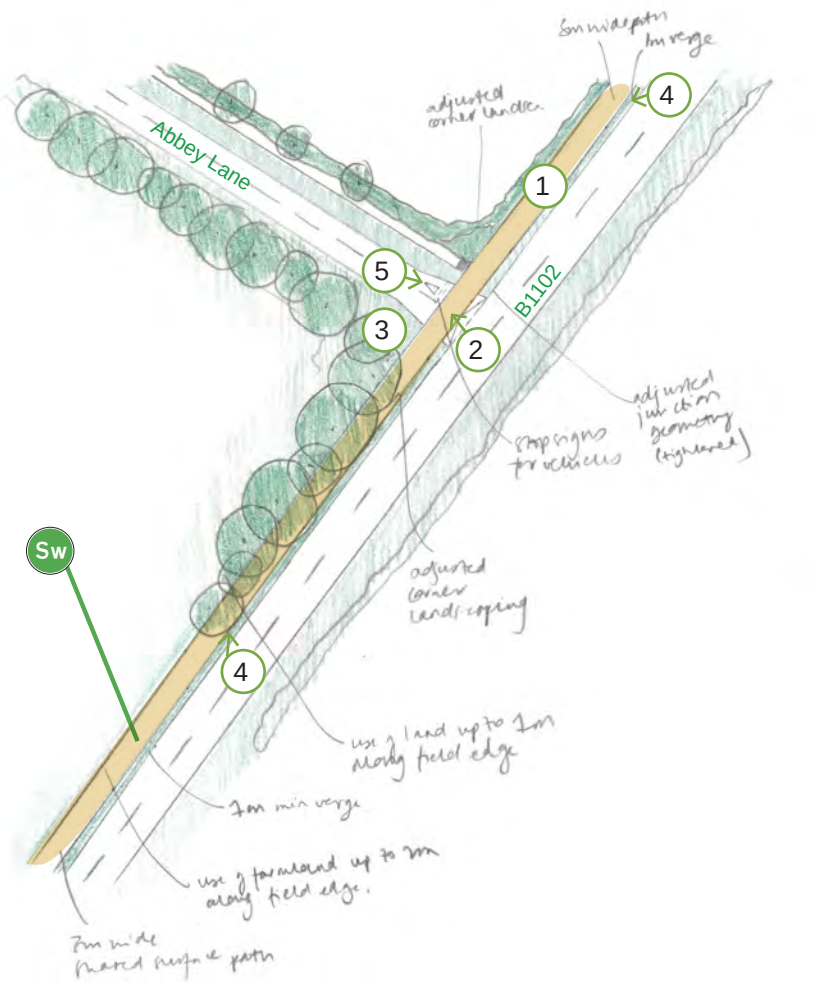
Sw.2.ii - Swaffham Prior High Street Junction with B1102 Sliproad

Remove existing cycle lane infrastructure at junction of High Street and B1102 sliproad on each side of the carriageway, works to existing landscaping where necessary. Closure of sliproad to vehicular traffic, allowing for two way segregated cycle path in place of the existing carriageway, with pedestrian path remaining as is. New give way markings at newly formed 'T' junction'. Extend carriageway at junction with B1102 to allow vehicles to run left (in lieu of slip road) with corresponding changes to signage. Village sign and speed limit sign required for vehicles existing the B1102 and entering Swaffham Prior Village. Greenway bollard marks the closure to vehicular traffic of the former sliproad and signals the greenway route, white painted cycle markings highlight presence of cycles at junction and reinforce route.

Sw.3.ii - B1102 Junction with Abbey Lane

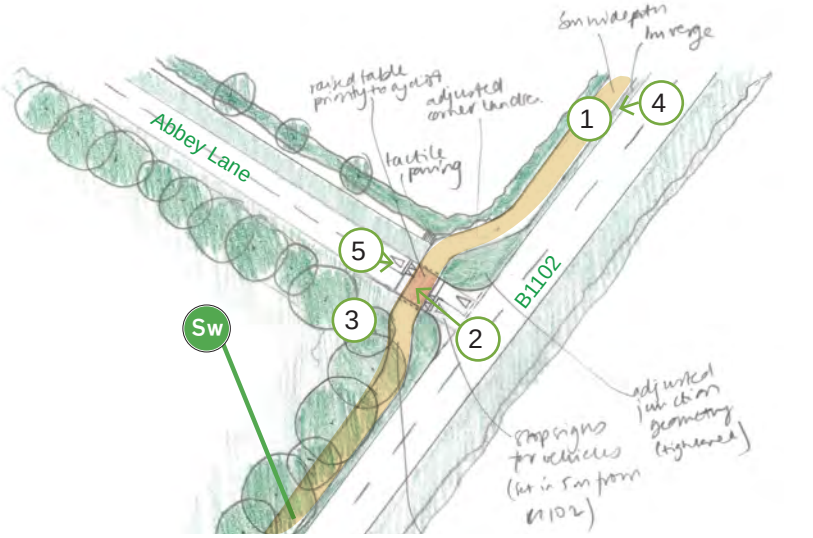
Extend existing shared surface path to 3m, maintaining an existing strip of verge, 1m wide. Allow for grassy verge 0.5m wide minimum to separate farmland from carriageway. Subject to landholder agreement. Solar studs required to signal the greenway route. As Abbey Lane is a low trafficked road, a continuous footway and tightened corner geometry gives priority to cycles and pedestrians over vehicles. A steep dropped kerb reduces the vehicle speeds to a minimum, so as to improve the safety of cycles and pedestrians. White painted give way markings on carriageway surface enforce shared path priority. Subject to landholder agreement.

Existing photograph of B1102 Junction with Abbey Lane

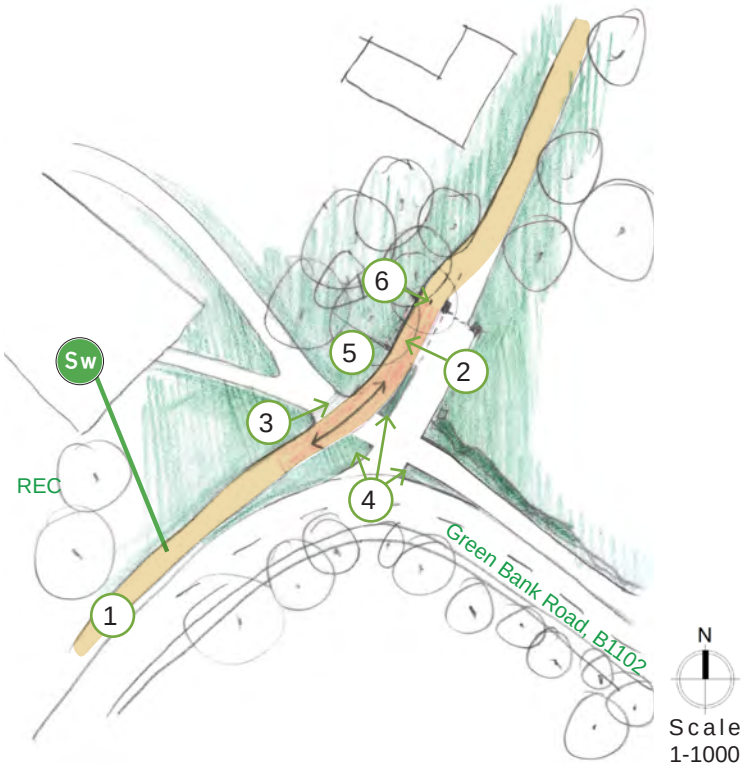


1. Shared surface path 3m wide
2. Priority to cyclists over side roads and private entrances using continuous path and steep dropped kerb
3. Adjustments to junction geometry
4. Landscaped verge
5. Give way signs for vehicular traffic

Possible Alternative principle



1. Shared surface path 3m wide
2. Priority to cyclists over side roads and private entrances using set back raised table
3. Adjustments to junction geometry
4. Landscaped verge
5. Give way signs for vehicular traffic



Sw.6 - Shared surface path Junction with Private Driveway and Swaffham Bulbeck Recreation Ground

New coloured surface from gateway to 10m within the recreation ground to clarify priority over private entrances. White painted cycle and give way markings on carriageway surface reinforce priorities. A planted verge between the shared surface path and driveway entrances separate the path from vehicular trafficked areas, and dissuades parking over the shared use path. One greenway bollard required to signal the greenway route through Swaffham Bulbeck recreation ground. Solar studs required to signal the greenway route. Subject to landholder agreement.

1. Shared surface path 3m wide
2. Priority to cyclists over private entrances using coloured surface and white painted cycle markings
3. Adjustments to path junction
4. Landscaped verge
5. Adjustments to landscape
6. Bollard

Existing photograph of Shared surface path Junction with Private Driveway and Swaffham Bulbeck Recreation Ground

Sw.7 - Around Swaffham Bulbeck Recreation Ground

Extend existing pedestrian path around recreation ground from 1m to 3m wide, with 1m minimum planted verge. May require small amount of land excavation to create a level path, due to raised level of recreation ground. Five lighting colomns to be relocated to verge, alongside two telegraph poles, and three road signs.

Existing photograph of Around Swaffham Bulbeck Recreation Ground

Existing photograph of B1102 Junction with White Droveway

Sw.9.iv - B1102 Junction with White Droveway

Changes to existing junction geometry required to allow for safer crossing over White Droveway. Reformed as single 'T'-junction with ped/cycle path gently curving back away from the junction to meet a priorty crossing over the side road with white painted give way markings set back from junction. Planting widened to accommodates this change in junction geometry. Two bollards required to signal greenway route. Possible land aquisition required, subject to landholders agreement.

1. Shared surface path 3m wide
2. Priority to cyclists over side roads through white painted give way markings on carriageway surface
3. Adjustments to junction position
4. Landscaped verge
5. Widened planted landscape

Sw.10 - B1102 Junction with Longmeadow

Changes to existing junction geometry required to allow for safer crossing over Longmeadow. Longmeadow carriageway curves around to the east to allow for more space at Sun and Gate House, 1 Longmeadow , avoiding existing telecommunications poles. Shared surface path has ample space to smoothly approach the Longmeadow crossing point at 90’ angle for improved visibility. A new raised table alongside white painted give way signs allow clear priority of pedestrians and cyclists over vehicles, and alows vehicles down joining or existing the B1102. Planting widened alongside Sun and Gate House provides an improved pedesitran and cycle route off the greenway and accommodates this change in junction geometry. Two bollards required to signal greenway route. Land aquisition required along the eastern plot, subject to landholders agreement.

Existing photograph of B1102 Junction with Longmeadow

Existing photograph of Lode Road Junction with Swaffham Road and Quy Road

Sw.12.i - Lode Road Junction with Swaffham Road and Quy Road

Wholesale junction reconfigured to reduce vehicle speeds through Lode Village by tightening all corner geometries to improve the safety for pedestrians and cyclists. A widened shared surface path curves around existing alignment, and along existing driveway to Lode Road. A new raised table, 6m wide set back from junction, provides a safe uncontrolled crossing over Lode Road. White painted cycle markings on carriageway surface to reinforce priorities. A new section of shared surface path cuts across the corner of farmland to provide a wide planted area with new trees marking the entrance to Lode Village. Each green area is landscaped with new trees and new planting to celebrate the village green. Four greenway bollards required to signal the Swaffham greenway route. Land aquisition required, subject to landholders agreement. Allowance for locally-led public realm improvements around village sign.

1. Shared surface path 3m wide
2. Priority to cyclists over side roads using raised table
3. Adjustments to junction geometry
4. White painted cycle markings on carriageway surface
5. Landscaped verge
6. Adjustments to landscape
7. New Tree
8. Additional raised table to give priority to school children crossing Lode Road

Sw.13 - Quy Road Crossing at Anglesey Abbey

Widen existing shared surface path from 2m to 3m with a 1m minimum verge separating the path from the carriageway. Remove layby along Quy Road and allow path to continue unobstructed to Anglesey Abbey. May require repositioning of hedge along Anglesey Abbey land slightly north to allow for appropriate width. Crossing aligned to entrance of Anglesey Abbey. Widen existing central refuge to 3m x 4m wide. Adjustments to road geometry required to increase width of road from 8m to 9m, to allow for 3m wide road width either side of 3m wide island. Use additional width to introduce right-turn filter lane into Anglesey Abbey. On north side, path to be removed on west side of crossing, and entrance to Anglesey Abbey to be improved with a widened entrance for cyclists. On south side of crossing, realignment and extension required to for a 90' angle to existing path through woodland to follow alignment of felled tree. Landscaping adjustments required. Two greenway bollards required to signal the greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.

Existing photograph of Quy Road Crossing at Anglesey Abbey

Existing photograph of Lode to Stow-Cum-Quy Existing Path Junction with Quy Court

Sw.15.i - Lode to Stow-Cum-Quy Existing Path Junction with Quy Court

Reconfiguration of the access road, adjustments to the geometry and parking relocation at the northern end of Quy Court, to allow continual and clear shared surface path through Quy Court. Removal of the existing unnecessary 'in only' access to be replaced with new planting and landscaping adjustments with a continual wrap around pedestrian footpath to allow a direct and legible cycle connection through and around Quy Court. Adjustments to existing path to Lode required to join with proposed changes to Quy Court junction, with a new section of pedestrian footway to wrap around east side of path to allow clear pedestrian route to recreation ground.

Pedestrian footpaths to join with shared surface path, north of landscaped area, with priority to shared surface path users. White painted cycle markings at junction to indicate cycles should look two ways before joining quiet road. Six new trees to the north of the junction required. One bollard required at northern end to signal the greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.

1. Shared surface path 3m wide
2. Priority to cyclists on quiet road
3. Adjusted geometry to Quy Court to form direct route
4. Relocated parking bays x 3
5. Closed secondary entrance to Quy Court
6. Adjustments to existing path to join with new path
7. New pavement
8. Adjustments to landscaping
9. New Trees
10. Possible location for future access
11. Bollard

Existing photograph of Lode to Stow-Cum-Quy Existing Path Junction with Quy Court

N

Scale 1-500

Existing photograph of Quy Court Junction with Main Street and Albert Road

Sw.16.i - Quy Court Junction with Main Street and Albert Road

Wholesale junction improvements to Main Street, Albert Road and Quy Court Junction. Tightened junction geometry along Main Street to provide a defined carriageway and additional public realm. On the east, spill-out space outside The White Swan pub allows for a forecourt for pub seating and additional space for a tree to be planted. On the west, a new area of planted landscaping acts as a village green. A raised table across the junction forms clear priority over the junction to Main Street and Quy Court. White painted cycle and give way markings on the carriageway surface enforce this priority. Parking is relocated to a designated area on the west side of Main Street, and to the north edge of the pub for local residents. Two bollards are required to signal the greenway route. Two new trees, planting and landscaping required.

1. Tightened junction geometry
2. New public realm seating for The White Swan pub
3. New planted landscaping
4. Raised table across junction gives priority to cyclists to Quy Court
5. White painted cycle and give way markings on carriageway surface
6. Designated parking bays
7. New tree

Sw.1.A.i - Main Street, Stow Road and Herring's Close Junction - Option 1

Closure of existing junction of Stow Road and Main Street to vehicular road users, allowing new areas of landscaping and the creation of a new pedestrian and cycle crossing point providing access to the two onward route options. A bollard set within the centre of the path prevents vehicules using the access route. Priority is given to Herring's Close which curves into Main Street. New landscaping enforces change in geometry and enhances landscaping of Stow-Cum-Quy village green. Closure of layby used for Herring's Close Bus Stop along Main Street allows for an on-road bus stop, with a new landscaped area, enforcing the closure of Main Street and Stow Road junction. Stow Road speed reduction from 30mph to 20mph through village. A shift in Stow Road layout and white painted markings is required to form a new central refuge, 12m x 3m providing safe crossing to the northern side of Stow Road. A new path through highway and private woodland aligns with central refuge. Requires landscaping and wayfinding improvements including five bollards and twelve trees.

1. Closure of Main Street junction with Stow Road
2. New central refuge
3. New landscaping to enforce change in geometry
4. Floating bus stop
5. Shifted road layout to make space for central refuge
6. Shared surface path through woodland
7. New tree
8. Bollard

Existing photograph of Main Street, Stow Road and Herring's Close Junction

Existing photograph of Main Street, Stow Road and Herring's Close Junction

Sw.1.A.i - Main Street, Stow Road and Herring's Close Junction - Option 2

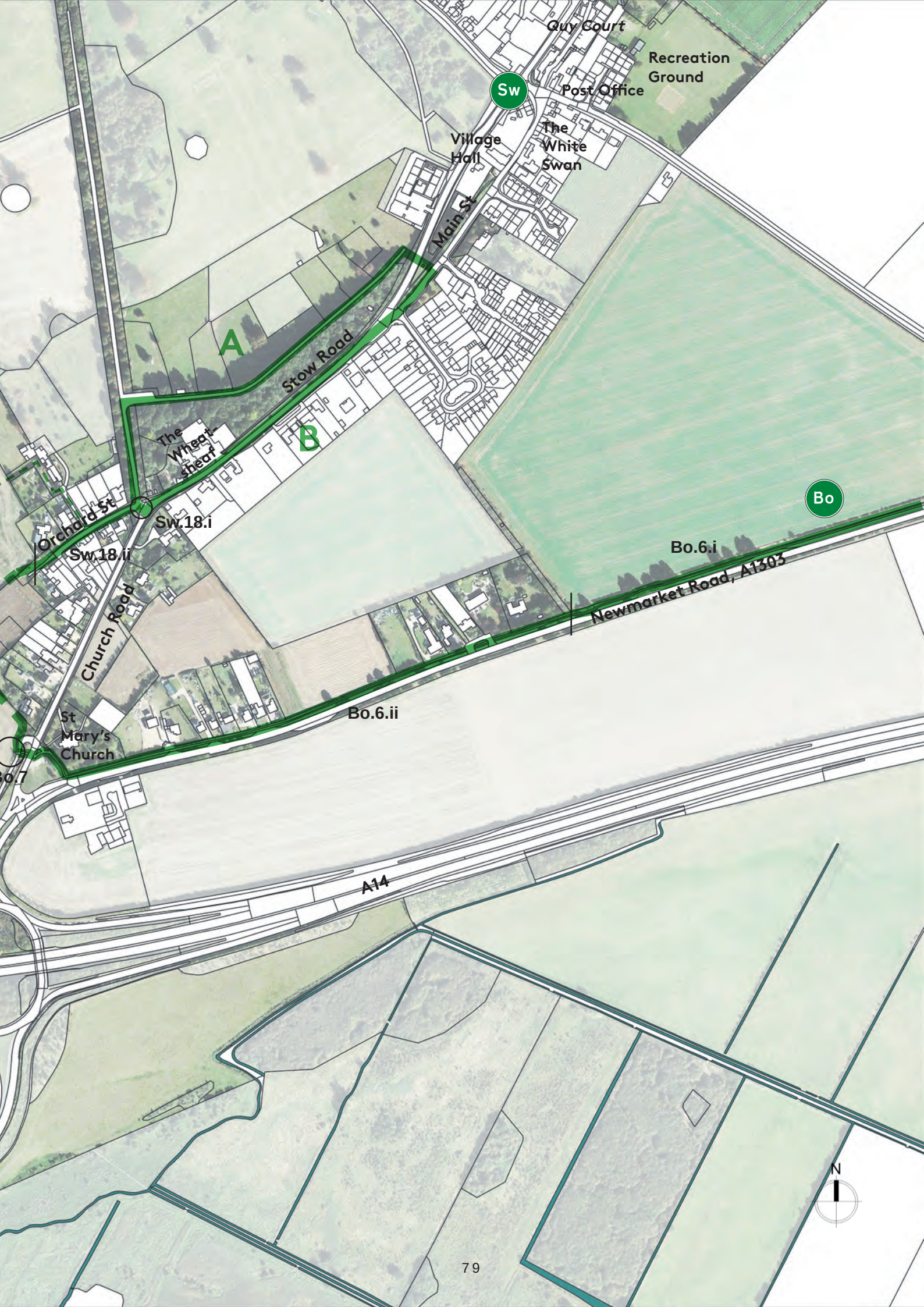
Main Street junction with Herring's Close to remain as is, with the minor adjustments to areas of landscaping. Stow Road speed reduction from 30mph to 20mph through village. A shift in Stow Road layout and white painted markings is required to form a new central refuge, 12m x 3m providing safe crossing to the northern side of Stow Road. A new path through highway and private woodland aligns with central refuge. A bollard set within the centre of the path prevents vehicules using the access route. Requires landscaping and wayfinding improvements including five bollards and eleven trees.

1. New central refuge
2. Landscaping adjustments
3. Bus stop
4. Adjustments to road layout
5. Shared surface path through woodland
6. New trees
7. Bollard

Sw.1.A.i - Main Street, Stow Road and Herring's Close Junction - Option 3

Adjusted geometry to existing junction of Stow Road and Main Street, allowing new areas of landscaping and the creation of a new pedestrian and cycle crossing point providing access to the two onward route options. A bollard set within the centre of the path prevents vehicules using the access route. Vehicular priority is given to Herring's Close which curves into Main Street. New landscaping enforces change in geometry and enhances landscaping of Stow-Cum-Quy village green. Closure of layby used for Herring's Close Bus Stop along Main Street allows for an on-road bus stop, with a new landscaped area, enforcing the closure of Main Street and Stow Road junction. Stow Road speed reduction from 30mph to 20mph through village. A shift in Stow Road layout and white painted markings is required to form a new central refuge, 12m x 3m wide. A new path through highway and private woodland aligns with central refuge. Requires landscaping and wayfinding improvements including four bollards and thirteen trees.


Stow-Cum-Quy
Existing Public Footpath Alignment
Bo.8.i
Bo.8.ii /
Sw.19.i
Quy Mill
Hotel
A14
Bo.9.i
Bo.9.ii
Bo.9.iii


Quy Court
Recreation Ground
Sw
Post Office
Village Hall
The White Swan
Main St
A
Stow Road
B
The Wheat-sheaf
Bo
Orchard St
Sw.18.i
Sw.18.ii
Bo.6.i
Newmarket Road, A1303
Church Road
Bo.6.ii
St Mary's Church
A14
N

Existing photograph of Stow Road junction with Church Lane, Orchard Street and Shared Surface Path

Sw.18.i - Stow Road junction with Church Lane, Orchard Street and Shared Surface Path

Wholesale junction reconfigured to reduce vehicle speeds through Stow-Cum-Quy village centre. A new planted roundabout sits on a raised table (approx 40m x 8m) in the centre of Orchard Street, Church Road and Stow Road junction. The raised table material highlights the moment of entering the heart of the village. A line of contrasting paving stones indicate priority to continue along Stow Road and Church Road over Orchard Lane. Adjusted geometry required to the existing landscaped edges of the roads to match these changes in geometry. Two new trees, and three new bollards are required to signal the greenway route.

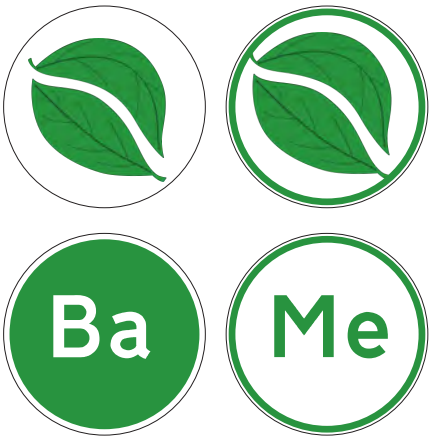
Sw.19.i - Path Through Farmland

New shared surface path along field edge, 3m wide with minimum 1m grassy strip on either side to allow for hedgerow and tree planting along path length. Where the path along the field edge converges with the Bottisham Greenway route (see Bo.8.i) two bollards are required to signal the Swaffham Greenway route. Solar studs required to signal the greenway route. Land acquisition required, subject to landholders agreement.

Existing photograph of Path Through Farmland

Path through farmland without trees and additional planting

SIGNAGE



All twelve currently proposed Greenway routes could be signified with a two letter contraction of the full Greenway origin village name.

Could the naming of key junctions within the emerging network - in the manner of a ‘knooppunt’ (trans: button node) signage/ network map - be based on village names rather than the dutch practice of allocated each node a number?

Ba	Barton
Bo	Bottisham
Co	Coton
Fu	Fulbourn
Ha	Haslingfield
Ho	Horningsea
Li	Linton
Me	Melbourn
Sa	Sawston
St	St Ives
Sw	Swaffhams
Wa	Waterbeach

Timber Posts

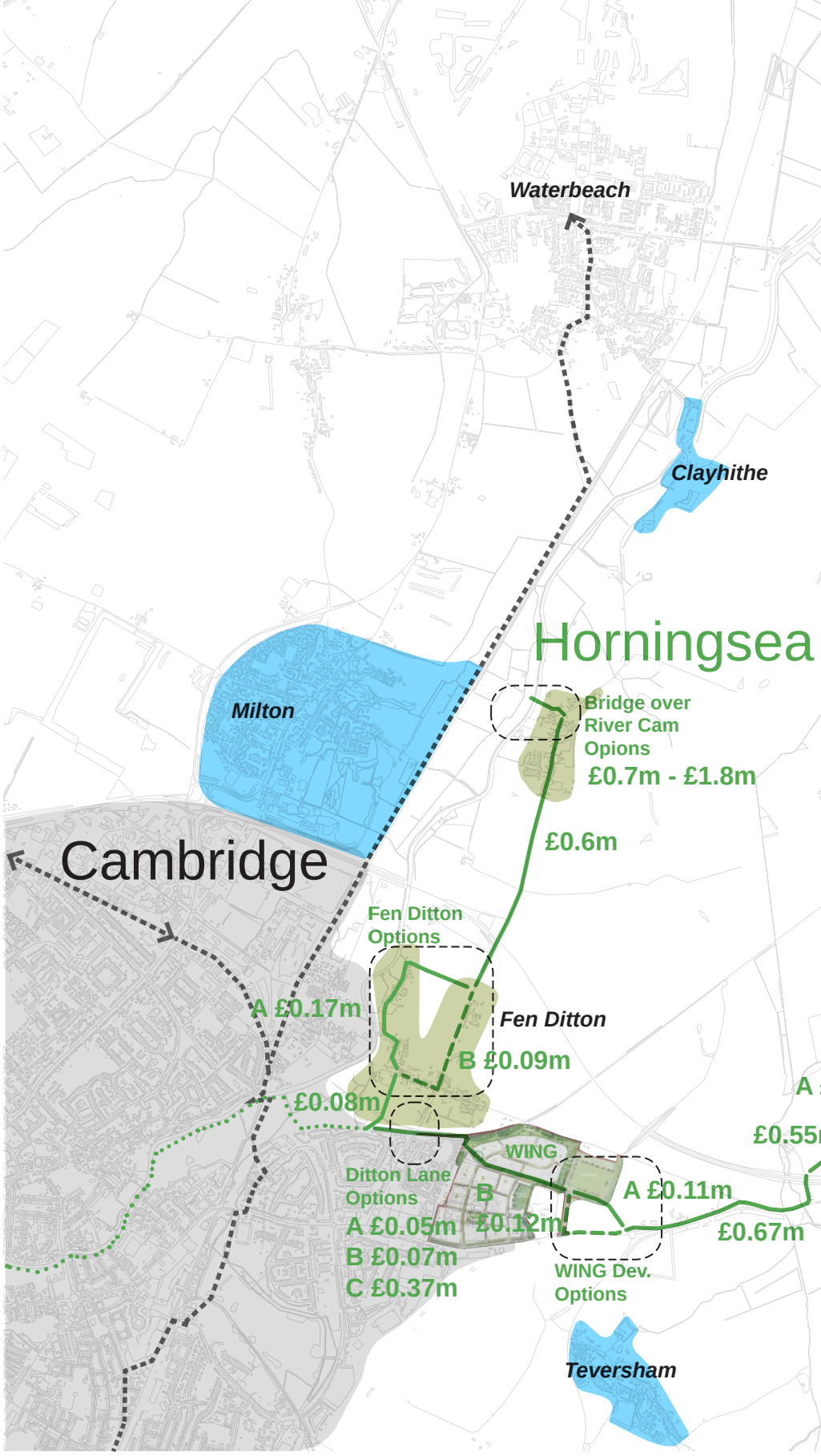
- Natural material - appropriate to mostly rural setting.
- Subtly distinctive. Round profile - related to logo shape - distinguishes it from the usual square profile timber posts.
- If sign-face also curved, the sign is visible for longer as one passes by, suitable for passing by at greater speed - i.e. on a bike.
- Standard product - cost effective - easily replaced.
- Can be fitted with recess/reflective strip at top.

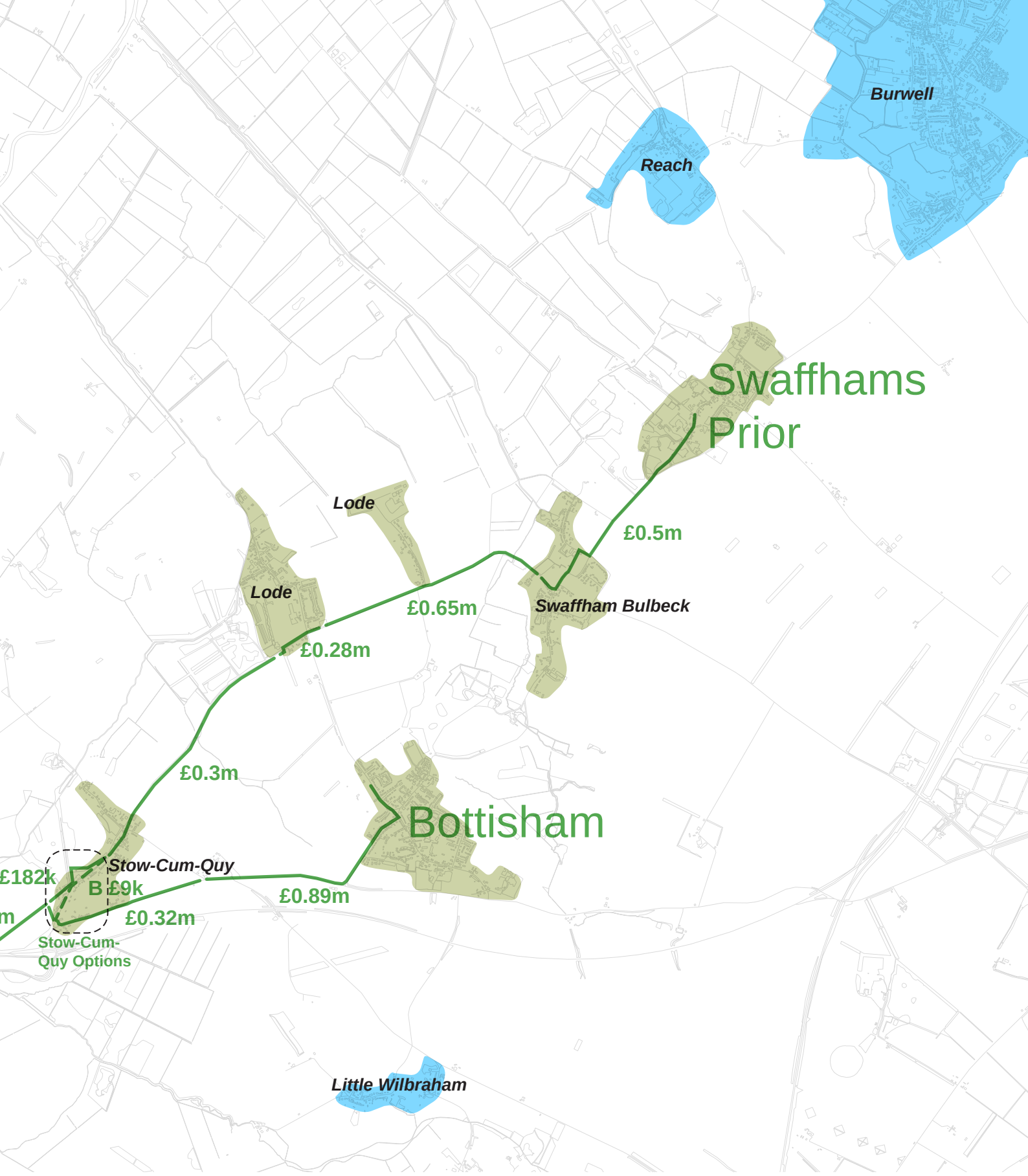
Above: Broxap BX17 https://www.broxap.com/bx17-flat-round.html

PRELIMINARY COSTINGS

Fulkers have calculated high level costs, based on the preliminary designs outlined here. These are intended to assist the GCP in establishing initial project budgets. We recommend that these costings are reviewed and updated following concept design work after public consultation.

On the following page there is a summary of the overall construction costs for the various sections and options of the route, for comparison. The next page outlines the cost of our preliminary route recommendation and on subsequent pages there is a table showing the breakdown of the initial assessment of construction cost related to each area of work (including options) identified on the route plans that feature on pp22-23, 38-39 and 62-63 of this report. The costs included in that table are for the basic construction cost only and do not include Professional Fees, any Contingency allowance, including any major works to re-route utilities, or VAT.





Ho Comparative Construction Costs

Overall range

~ £1.4M - £2.7M

Bo Comparative Construction Costs

Overall range

~ £2M - £2.4M

Sw Comparative Construction Costs

Overall range

~ £2.2M - £2.5M

HORNINGSEA COSTING

Fulkers' Constuction Cost Estimate - August 2019
Construction Cost only - excludes Professional Fees, Contingency or Risk Allowances, VAT and Inflation.

Ref.	Name.	Route Type:	Path width	Works	Cost (£)
Ho.1.A	Bridge over River Cam via Dock Lane	Quiet road / Bridge	n/a	New pedestrian and footway bridge over River Cam via Dock Lane quiet road. Bridge height to be approximately 3.2m clearance (as set by proposed downstream bridge over River Cam, Chesterton Bridge), also within range of Baits Bite Lock, approx. 3m. Exact height to be confirmed with the Conservators of the River Cam for future development stages. New bridge over River Cam to be 3m wide shared surface path. Maintenance required to existing quiet road surface. Four bollards required to signal the Horningsea greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	653,850
Ho.1.B	Bridge over River Cam via St John's Lane	Quiet road / Bridge	n/a / 3m	New pedestrian and footway bridge over River Cam via St John's Lane quiet road. Bridge height to be approximately 3.2m clearance (as set by proposed downstream bridge over River Cam, Chesterton Bridge), also within range of Baits Bite Lock, approx. 3m. Exact height to be confirmed with the Conservators of the River Cam for future development stages. New bridge over River Cam to be 3m wide shared surface path. Maintenance required to existing quiet road surface. Four bollards required to signal the Horningsea greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	652,725
Ho.1.C	Bridge over River Cam via Private Lane	Shared surface path / Bridge	3m	New pedestrian and footway bridge over River Cam via Private Lane. Bridge height to be approximately 3.2m clearance (as set by proposed downstream bridge over River Cam, Chesterton Bridge), also within range of Baits Bite Lock, approx. 3m. Exact height to be confirmed with the Conservators of the River Cam for future development stages. New bridge over River Cam to be 3m wide shared surface path. New road surface required to private road to ensure smooth cycle surface. Four bollards required to signal the Horningsea greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	690,038

Ho.1.D.1	Bridge over River Cam via Jubilee Green and the Edge of Goose Green Play Area	Shared surface path / Bridge	3m	New pedestrian and footway bridge over River Cam via Jubilee Green and the Edge of Goose Green Play Area. Bridge height to be approximately 3.2m clearance (as set by proposed downstream bridge over River Cam, Chesterton Bridge), also within range of Baits Bite Lock, approx. 3m. Exact height to be confirmed with the Conservators of the River Cam for future development stages. New bridge over River Cam to be 3m wide shared surface path. New shared surface path required around the Goose Green play area and through Jubilee Green to ensure smooth cycle surface. Five bollards required to signal the Horningsea greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	769,225
Ho.1.D.2	Bridge over River Cam via Jubilee Green, Abbots Way and Priory Road	Quiet road / Shared surface path / Bridge	n/a / 3m / 3m	New pedestrian and footway bridge over River Cam via Jubilee Green, Abbots Way and Priory Road quiet roads. Bridge height to be approximately 3.2m clearance (as set by proposed downstream bridge over River Cam, Chesterton Bridge), also within range of Baits Bite Lock, approx. 3m. Exact height to be confirmed with the Conservators of the River Cam for future development stages. New bridge over River Cam to be 3m wide shared surface path. New shared surface path required through Jubilee Green to ensure smooth cycle surface. Maintenance required to existing quiet road surfaces along Abbots Way and Priory Road. Six bollards required to signal the Horningsea greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	793,100
Ho.1.E	Bridge over River Cam via Private Land, Local Allotments and Priory Road	Quiet road / Shared surface path / Bridge	n/a / 3m / 3m	New pedestrian and footway bridge over River Cam via private land, local allotments and Priory Road. Bridge height to be approximately 3.2m clearance (as set by proposed downstream bridge over River Cam, Chesterton Bridge), also within range of Baits Bite Lock, approx. 3m. Exact height to be confirmed with the Conservators of the River Cam for future development stages. New bridge over River Cam to be 3m wide shared surface path. New shared surface path required around/through private land and alongside the village allotments to ensure smooth cycle surface. Maintenance required to existing quiet road surfaces along Priory Road. Six bollards required to signal the Horningsea greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	788,100

Ho.1.F	Bridge over River Cam via Edge of Private Land and Plough and Fleece Car Park	Quiet road / Shared surface path / Bridge	n/a / 3m / 3m	New pedestrian and footway bridge over River Cam via edge of private land and Plough and Fleece Car Park. Bridge height to be approximately 3.2m clearance (as set by proposed downstream bridge over River Cam, Chesterton Bridge), also within range of Baits Bite Lock, approx. 3m. Exact height to be confirmed with the Conservators of the River Cam for future development stages. New bridge over River Cam to be 3m wide shared surface path. New shared surface path required around/ through private land and alongside the village allotments to ensure smooth cycle surface. Maintenance required to existing quiet road surfaces along the Plough and Fleece Car Park. Six bollards required to signal the Horningsea greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	1,802,850
Ho.1.G	Bridge over River Cam via Private Land and Plough and Fleece Car Park	Quiet road / Shared surface path / Bridge	n/a / 3m / 3m	New pedestrian and footway bridge over River Cam via centre of private land and Plough and Fleece Car Park. Bridge height to be approximately 3.2m clearance (as set by proposed downstream bridge over River Cam, Chesterton Bridge), also within range of Baits Bite Lock, approx. 3m. Exact height to be confirmed with the Conservators of the River Cam for future development stages. New bridge over River Cam to be 3m wide shared surface path. New shared surface path required through private land to ensure smooth cycle surface. Maintenance required to existing quiet road surfaces along the Plough and Fleece Car Park. Five bollards required to signal the Horningsea greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	1,307,725
Ho.1.H	Bridge over River Cam via Edge of Brickafields	Shared surface path / Bridge	3m	New pedestrian and footway bridge over River Cam via edge of Brickafields. Bridge height to be approximately 3.2m clearance (as set by proposed downstream bridge over River Cam, Chesterton Bridge), also within range of Baits Bite Lock, approx. 3m. Exact height to be confirmed with the Conservators of the River Cam for future development stages. New bridge over River Cam to be 3m wide shared surface path. New shared surface path required through private land and along edge of Brickafields to ensure smooth cycle surface. Four bollards required to signal the Horningsea greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	1,266,350
Ho.1.I	Bridge over River Cam via Edge of Horningsea Cemetary along Private Land	Shared surface path / Bridge	3m	New pedestrian and footway bridge over River Cam via edge of Horningsea Cemetary along farmtrack in private land. Bridge height to be approximately 3.2m clearance (as set by proposed downstream bridge over River Cam, Chesterton Bridge), also within range of Baits Bite Lock, approx. 3m. Exact height to be confirmed with the Conservators of the River Cam for future development stages. New bridge over River Cam to be 3m wide shared surface path. New shared surface path required through private land along boundary line, and along farm track alignment. Five bollards required to signal the Horningsea greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	1,066,475

Ho.1.J	Bridge over River Cam via Footpath to Baits Bite Lock	Shared surface path / Bridge	3m	New pedestrian and footway bridge over River Cam via existing public footpath to Baits Bite Lock. Bridge height to be approximately 3.2m clearance (as set by proposed downstream bridge over River Cam, Chesterton Bridge), also within range of Baits Bite Lock, approx. 3m. Exact height to be confirmed with the Conservators of the River Cam for future development stages. New bridge over River Cam to be 3m wide shared surface path. New shared surface path surface required along existing public footpath alignment. Five bollards required to signal the Horningsea greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	1,148,975
Ho.1.K	Bridge over River Cam via Baits Bite Lock	Shared surface path / Bridge	3m	Works to existing Baits Bite Lock footbridge over River Cam via existing public footpath to Baits Bite Lock. Footbridge to have improved....????? New shared surface path surface required along existing public footpath alignment. Four bollards required to signal the Horningsea greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	630,500
Ho.2.i	Horningsea High Street	Quiet road	n/a	Maintenance required to quiet road surface with white painted cycle markings on carriageway surface to highlight road type. Speed limit reduced to 20mph through village.	13,750
Ho.2.ii	Horningsea Road, B1047	Quiet road	n/a	Maintenance required to quiet road surface with white painted cycle markings on carriageway surface to highlight road type. Speed limit reduced to 20mph through village.	8,750
Ho.3	Horningsea Village Junction with Shared Surface Path	Junction	n/a	Maintenance required to quiet road surface with white painted cycle markings on carriageway surface to highlight road type. Speed limit reduced to 20mph through village. At junction with village entrance, a raised table provides a transition for cyclists to mount the shared use path from the quiet road treatment. For cycles traveling southbound towards Cambridge, a jug handle allows them to cross Horningsea Road using the raised table, safely. The village entrance is built out with a new tree, additional fencing to mirror the existing gateway feature, and give way markings painted on the carriageway surface allow priority to cyclists joining or leaving Horningsea Road, and for vehicles existing the village - over vehicles entering the village. Solar studs required to signal the greenway route.	34,875
Ho.4.i	Horningsea Road, B1047 from Horningsea Village Gateway to Biggins Lane	Shared surface path	3m	The existing shared use path is extended to align with works to the village entrance. Introduce a soft landscaped verge 0.5m minimum in the currently sealed asphalt margin between the shared-use path and the road, with potential for further widening of the path on the west Junction of the Byway and Horningsea Road side to accommodate this. Solar studs required to signal the greenway route.	48,750
Ho.4.ii	Horningsea Road, B1047 Junction with Biggins Lane	Junction	n/a	Introduce a soft landscaped verge 0.5m minimum in the currently sealed asphalt margin between the shared-use path and the road, and use verge to tighten private entrance to Biggins Lane to lower speeds of vehicles turning into and existing private road. Solar studs required to signal the greenway route.	15,313

Ho.4.iii	Horningsea Road, B1047 from Biggins Lane to A14 Sliproad North	Shared surface path	3m	Introduce a soft landscaped verge 0.5m minimum in the currently sealed asphalt margin between the shared-use path and the road, with potential for further widening of the path towards the east to take up some of the existing carriageway spill-over zone. Widen verge at junction of shared use path with A14 sliproad, using land to the west. Landscaping required to the land to the west to align with existing shared use path level, using sheet puling with fence on top. Shared use path curves to the existing signalised crossing point to provide a widened and safer crossing point for pedestrians and cyclists. One bollard required to signal the greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	105,125
Ho.5.i	Horningsea Road, B1047 from A14 Sliproad North to Bridge over A14	Shared surface path / Crossing	3m	Continue soft landscaped verge 0.5m minimum in the currently sealed asphalt margin between the shared-use path and the road to separate cycles from carriageway. At the junction, the shared use path curves to the existing crossing point to provide a widened and safer crossing point for pedestrians and cyclists. Widen verge at junction of shared use path with A14 sliproad, using land to the west, landscaping required to the land to the west to align with existing shared use path. Two bollards required to signal the greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	127,751 (66,813 required cost, 60,938 optional additional cost)
Ho.5.ii	Bridge over A14	Shared surface path / Bridge	3m	Shared use path curves from the existing signalised crossing to provide a widened and safer crossing point for pedestrians and cyclists. Widen verge at junction of shared use path with A14 sliproad, using land to the west. Landscaping required to align with existing signalised crossing. Introduction of a planted verge between the shared-use path and the roadway, and installation of a screening device to provide a greater degree of visual and sound protection at the bridge edge. New planting and landscaping required along bridge. White painted carriageway markings shuffled to provide adequate space for shared surface path and verge along bridge. No works required to east side of bridge. Solar studs required to signal the greenway route.	95,875
Ho.5.iii	Horningsea Road, B1047 Junction with A14 Sliproad South	Junction	n/a	Tightened geometry along A14 Sliproad (south of A14 Bridge) uses kerb build-outs to reduce the carriageway width and increase shared surface path width. Shared surface path is shifted slightly to the west to allow for a better crossing position over the A14 sliproad. At the south side of the crossing, the path is shifted further west to allow for sufficient length for a cyclist to be positioned at 90' to the junction. Localised repositioning and lengthening of the existing barriers, and possible widening of deck are required. Two bollards required to signal the greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	67,563
Ho.6.i	Horningsea Road, B1047 from A14 Sliproad South to Fen Ditton Byway	Shared surface path	3m	Introduce a soft landscaped verge 0.5m minimum in the currently sealed asphalt margin between the shared-use path and the road, with potential for further widening of the path on the west side of the shared surface path alonh Horningsea Road side to accommodate this. The upgraded shared use path is extended to align with existing and proposed works to Fen Ditton. Solar studs required to signal the greenway route.	70,500

Ho.6.ii	Horningsea Road, B1047 Junction with Fen Ditton Byway	Junction	n/a	At the junction of Horningsea Road with the Fen Ditton byway, landscaping works are required to open up the geometry to clarify the turning point. Prominent 'milepost' markers to be installed to highlight turn into the Byway [route A] and widening of the shared-use path on the west side of Horningsea Road towards the school [route B]. Ensure proposals align with current and future works to Fen Ditton. Solar studs required to signal the greenway route.	8,188
Ho.7.A.i	Fen Ditton Byway	Shared surface path / Byway	2m	New shared-use path along the existing Byway, with careful pruning of existing trees and hedgerows to maintain clear width. Bespoke treatment, with surface width, use of over run areas and material to be designed to respect rural character of existing Byway. Leave 0.5m either side of 2m wide shared surfaced path for grassy verge to allow for vehicular and bridleway uses. Adjustments required to landscaping and planting to enhance the existing byway. Solar studs required to signal the greenway route.	166,375
Ho.7.A.ii	Fen Ditton Byway junction with Green End	Junction	n/a	Two bollards required at west side of byway to signal the greenway route.	2,750
Ho.7.A.iii	Green End and Church Street	Quiet road	n/a	No works required to carriageway surface material along Green End and Church Street. White painted cycle markings on carriageway surface to highlight use by cyclists. Four bollards required along stretch of quiet road to indicate greenway route.	4,625
Ho.7.B.i	Horningsea Road, B1047, from Fen Ditton Byway to Fen Ditton Primary School	Shared surface path	2.5m	Proposed Works by GCP only commence at Fen Ditton Primary School. From Fen Ditton Primary School to Fen Ditton Byway, there are no proposed works to the existing path of 350m. Shared use path along Horningsea Road, B1047 is extended from 2m to 2.5m wide minimum with 0.5m verge minimum. Extended path to join up with proposed path changes along Ditton Lane. New planting, and signage required. One bollard required to signal the greenway route.	91,688
Ho.7.B.ii	Horningsea Road, B1047, from Fen Ditton Primary School to Horningsea Road Junction to High Street	Shared surface path	2.5m	Selective path upgrades to route required to link up recent Fen Ditton improvements with proposed greenway route. See GCP website for works to Fen Ditton Cycleway Improvements: https://www.greatercambridge.org.uk/transport/transport-projects/cross-city-cycling/ditton-lane-&-links-to-east-cambridge/	N/A
Ho.7.B.iii	Horningsea Road, B1047 Junction with High Ditch Road, Ditton Lane and High Street	Junction	n/a	Upgrades to junction. See GCP website for works to Fen Ditton Cycleway Improvements: https://www.greatercambridge.org.uk/transport/transport-projects/cross-city-cycling/ditton-lane-&-links-to-east-cambridge/	N/A
Ho.7.B.iv	High Street from Horningsea Road Junction to Wadloes Path	Quiet road	n/a	Selective junction upgrades affecting east side of quiet road. General maintenance required to surface of carriageway with white painted markings to indicate cycle use. Speed limit reduction from 30mph to 20mph. See GCP website for works to Fen Ditton Cycleway Improvements: https://www.greatercambridge.org.uk/transport/transport-projects/cross-city-cycling/ditton-lane-&-links-to-east-cambridge/	N/A

Ho.8	Church Street, Junction with High Street and Wadloes Path through Ditton Meadows	Junction	n/a	Close west arm of the junction to provide a larger green by the war memorial and a direct cycle link between Wadloes path and Church Street. Path alongside the war memorial joins via a raised table with white painted give way markings on carriageway surface to High Street allowing shared surface path to have priority over traffic and seamlessley continue through to Ditton Meadows. New cycle parking, an improved entrance to the churchyard, and new planting to enhance the war memorial are required. Two bollards are required to signal the greenway route.	35,781
Ho.9.i	Wadloes Path Through Ditton Meadows	Shared surface path	3m	Remove existing white painted line down the middle of the path and transform to shared surface path. Selective path widening along Wadloes Path (approximately 2/3 of length specified) towards Fen Ditton, requiring careful pruning of existing landscape and areas of 'tree tunnel' along path stretch. One bollard required to signal the greenway route. Solar studs required to signal the greenway route.	N/A
Ho.9.ii	Wadloes Path 'Bow-Tie'	Junction	n/a	Selective path widening, new signage and landscaping improvements around multiple converging routes. Careful pruning and crown lifting in key locations is required to ensure a clear route along the paths. Decluttering and bins to be relocated to a better location. New planting and bench on the western green with new sleeper steps, references the history of the site as a crossing on railway line to Mildenhall, on the east - but also forms a peaceful seating area. Two new trees to the eastern green enhance the landscape. Two short sections of new shared-use path on existing desire lines, linking up Ditton Lane to Howard Road, and the Horningsea Greenway with the Bottisham Greenway routes. Six bollards required to signal the greenway route. Solar studs required to signal the greenway route.	44,188

BOTTISHAM COSTING

Fulkers' Constuction Cost Estimate - August 2019

Construction Cost only - excludes Professional Fees, Contingency or Risk Allowances, VAT and Inflation.

Ref.	Name.	Route Type:	Path width	Works	Cost (£)
Bo.1.i	Lode Road	Quiet road	n/a	Quiet road treatment to Lode Road from Bottisham Village College to the village green. Speed reduced to 20mph, white painted cycle markings on carriageway surface with Bottisham Greenway bollard marking the start of the greenway route.	7,000
Bo.1.ii	Bottisham Village Green	Quiet road / Shared surface zone	n/a	Lode Road alongside Village Green and village shops to be made one way to vehicular traffic traveling south-east on a large-scale raised table. This upgraded path is a coloured shared surface giving priority to pedestrians and cyclists over vehicles. A new village sign and seating is positioned outside of the post office. Three new trees and additional landscaping works are required to slightly alter the Village Green geometry and indicate the centre of the village. Four greenway bollards indicate the walking and cycling routes, alongside signage for 'no entry' and 'one way' signals. Paking area is indicated via hatched area in drawing for approximately 5-6 bays for deliverys and disabled parking. Remaining vehicles are to travel around the village green via Trunbridge Lane.	164,813
Bo.2	High Street junction with Bell Road	Junction	n/a	Tightened corner geometry to Bell Road with raised table to give priority to pedestrians, slow vehicular traffic and allow for better quality public realm outside of The Bell pub. Cycles travel along shared surface and join carriageway along Bell Road. One bollard required to indicate turning point at Bell Road Junction.	29,281
Bo.3.i	Bell Road	Quiet road	n/a	Quiet road treatment to Lode Road from High Street junction with Bell Road. White painted cycle markings on carriageway surface, speed reduced to 20mph at field edge south of Wisbeach Close.	5,938
Bo.3.ii	Bell Road junction with Shared Surface Path	Quiet road / Shared surface path	n/a	Small raised table (approx 6m x 4m) at shared surface path edge to allow cycles to join the shared surface path. Two bollards on either side of the carriageway required to signal greenway route.	10,200
Bo.3.iii	Shared Surface Path Parallel to Bell Road	Shared surface path	3m	Shared surface path alongside Bell Road, 3m wide with minimum 0.5m grassy strip separating path with farmland. Existing pavement to be replaced with planted edge, with between 8-10 new trees. Short section in front of pumping/sub-station route utilises existing footway widened to full width available between fence and kerb. Solar studs required to signal the greenway route. Land acquisition may be required, subject to landholders agreement.	206,375

Bo.3.iv	Bell Road junction with Newmarket Road, A1303	Junction	n/a	Shared surface path alongside Bell Road cuts through trees and landscaping to the west of Bell Road to join with existing shared surface path along Newmarket Road. Tightened junction geometry required to allow for safer crossing over Bell Road, with new central refuge. White painted give way signs required minimum 10m away from junction for vehicles to give way to pedestrians and cyclists travelling east-west. Planting widened to accommodate change in geometry. One bollard required to signal greenway route. Solar studs required to signal the greenway route. Land acquisition required as per Bo.3.iii, subject to landholders agreement.	28,125
Bo.4.i	Newmarket Road, A1303 from Bell Road to outer Stow-Cum-Quy	Shared surface path	3m	Widen existing 2m wide path to 3m to the south, allowing sufficient remaining verge. In areas where trees restrict widening, path should be widened to the maximum possible on the northern grassy edge. Solar studs required to signal the greenway route.	200,000
Bo.4.ii	Newmarket Road, A1303 from outer Stow-Cum-Quy to Albert Road Junction	Shared surface path	3m	Widen existing 2m wide path to 3m to the south, allowing sufficient remaining verge. Where the path crosses over private entrances, a coloured surface and white painted give way lines (where appropriate) are required to give priority to cyclists and pedestrians. Solar studs required to signal the greenway route.	78,125
Bo.5	Albert Road junction with Newmarket Road, A1303	Junction	n/a	Changes to existing junction geometry required to allow for safer crossing over Albert Road. Albert Road carriageway curves more to the west to allow the carriageway to meet Newmarket Road at a 90' angle. Shared surface path has ample space to approach the Albert Road crossing point at 90' angle for improved visibility and a smoother transition. A new central refuge 4m wide allows for safe interim crossing. White painted give way markings on carriageway set back from junction for vehicles to give way to pedestrians and cyclists travelling east-west, and slow down vehicular traffic exiting or joining Newmarket Road. Planting widened alongside The Missing Sock pub provides an improved entrance, and accommodates this change in junction geometry. Two bollards required to signal greenway route. Solar studs required to signal the greenway route. Land acquisition required, subject to landholders agreement.	156,125

Bo.6.i	Newmarket Road, A1303 from Albert Road Junction to Stow-Cum-Quy main village	Shared surface path	3m	Widen existing 2m wide path to 3m to the south, allowing sufficient remaining verge. Where the path crosses over private entrances, a coloured surface and white painted give way lines (where appropriate) are required to give priority to cyclists and pedestrians. The layby may be closed and replaced with a planted verge, to prevent doors opening onto the shared surface path. Solar studs required to signal the greenway route.	159,375
Bo.6.ii	Newmarket Road within Stow-Cum-Quy, A1303	Shared surface path	3m	Widen existing 2m wide path to 3m to the south, allowing sufficient remaining verge. Where the path crosses over private entrances, a coloured surface and white painted give way lines (where appropriate) are required to give priority to cyclists and pedestrians. Laybys may be closed where appropriate to prevent doors opening onto the shared surface path. Where laybys are required, a sufficient hatched or planted width must be provided for safe exit and entrance to vehicles occupying the space. Existing bus stop is adjusted to form a floating bus island to allow for safe exit and entrance to buses along Newmarket Road.	87,500
Bo.7	Church Road Crossing	Crossing	3m	Improvements to the Church Road crossing approach to make a smoother transition to the 90' angle crossing point. Shared surface path over informal car parking entrance is to be coloured with white painted markings to indicate cycle and pedestrian priority over vehicles. Path around field edge (Bo.8.i) joins private road to access crossing point. Two bollards required to signal greenway route.	5,875
Bo.8.i	Path Along Field Edge	Shared surface path	3m	New shared surface path along field edge, 3m wide with minimum 0.5m grassy edge separating path from farmland and boundary fences. Where the path along the field edge converges with the Swaffham Greenway route (see Sw.19.i) two bollards are required to signal the Bottisham Greenway route. Solar studs required to signal the greenway route. Land acquisition required, subject to landholders agreement.	65,563
Bo.8.ii (as seen in Sw.19)	Path Through Farmland	Shared surface path	3m	New shared surface path through farmland, 3m wide with minimum 1m grassy strip on either side to allow for hedgerow and tree planting along path length. Land acquisition required, subject to landholders agreement. Solar studs required to signal the greenway route. Land acquisition required, subject to landholders agreement.	N/A (Included in Sw.19)
Bo.9.i	Northern Approach to A14 Underpass, Junction with Road to Quy Hotel	Shared surface path	n/a	New shared surface path through farmland crosses road to Quy Hotel using coloured raised table. White painted give way markings on carriageway surface indicates priority to cycles and pedestrians crossing the road. Two greenway bollards required to signal the greenway route.	27,188
Bo.9.ii	A14 Underpass	Underpass	n/a	New lighting to existing underpass to improve safety and visibility. Two greenway bollards to either side of the underpass to prevent motorised vehicles from entering the underpass.	12,125

Bo.9.iii	Southern Approach to A14 Underpass along Road to A14 Underpass	Quiet Road	n/a	Adjusted geometry to underpass approach to improve visibility and form a smoother angle of approach to the underpass entrance. Works to existing landscape and trees according to the new alignment, new landscaping and tree planting required along the eastern edge to clarify angle of approach to the underpass, and prevent car parking at the end of the road. Land acquisition required, subject to landholders agreement.	15,938
Bo.10	Road to A14 Underpass	Quiet Road	3m aver-age	Minor maintenance required to even out road surface. Subject to landholders agreement.	6,875
Bo.11	Road to A14 Underpass Junction with Newmarket Road, A1303	Junction	n/a	Tightened corner geometry to the road to A14 underpass gives priority to cycles and pedestrians over vehicles. A steep dropped kerb reduces the vehicle speeds to a minimum, so as to improve the safety of cycles and pedestrians. Shared surface path is widened to 3m, allowing for a minimum 0.7m verge separating path from busy road. At the edge of the path where turning onto the road, the verge increases in size to clearly indicate a turning point to the shared surface path. Existing footpath remains. Two bollards required on either side of the junction approaches to signal the greenway route. Solar studs required to signal the greenway route.	13,438
Bo.12.i	Newmarket Road, A1303 from Road to A14 Underpass to East Bridge over Quy Water	Shared surface path	3m	Shared surface path along Newmarket Road widened from 2m to 2.5m with grassy verge separating path from carriageway. Solar studs required to signal the greenway route.	10,000
Bo.12.ii	Newmarket Road East Bridge over Quy Water	Bridge	3m	Shared surface path crosses Quy Water over existing bridge. Bridge path widening from 2m to 3m to take place through the removal of the existing crash barriers (65m long). Crash barriers are to be replaced with new planted verge 1m wide, bounded by a high-profile safety kerb. Carriageway width reduced to 6.5m, and vehicles are encouraged to slow speed from 50mph to 30mph. Solar studs required to signal the greenway route.	76,188
Bo.12.iii	Newmarket Road, A1303 from East to West Bridge over Quy Water	Shared surface path	3m	Shared surface path along Newmarket Road widened from 2m to 3m with grassy verge separating path from carriageway. Solar studs required to signal the greenway route.	30,000
Bo.12.iv	Newmarket Road West Bridge over Quy Water	Bridge	3m	Shared surface path crosses Quy Water over existing bridge. Bridge path widening to take place through the removal of the existing wide kerb edge (10m long). Kerb edge to be replaced with new planted verge 1m wide, bounded by high-profile safety kerb. Carriageway width reduced to 6.5m - localised relining. Solar studs required to signal the greenway route.	19,563

Bo.12.v	Newmarket Road, A1303 from West Bridge over Quy Water to High Ditch Road Junction	Shared surface path	3m	Shared surface path along Newmarket Road widened from 2m to 3m, maintaining existing grassy verge separating path from carriageway. New tree planting required where adjustments to match proposals for High Ditch Road, Newmarket Road Junction crossing - see more information on Bo.13.i). Solar studs required to signal the greenway route.	70,000
Bo.13	High Ditch Road Junction with Newmarket Road, A1303	Junction / Crossing	n/a	Changes to existing junction geometry required to allow for safer crossing over High Ditch Road. High Ditch Road carriageway curves more to the west to allow the carriageway to meet Newmarket Road at a 90' angle. Shared surface path has ample space to approach the High Ditch Road crossing point at 90' angle for improved visibility and directness. A new central refuge 5m wide allows for safe interim crossing. White painted give way markings on carriageway set back from junction for vehicles to give way to pedestrians and cyclists travelling east-west, and slow down vehicular traffic exiting or joining Newmarket Road. Adjustments to the existing landscaping to allow for more direct shared surface path, and landscaping required to replace the existing shared surface path. New tree planting long the edge of the shared surface path and a large area of low planting required to the north of the east side of the path to highlight the change in geometry for vehicles traveling southbound towards Newmarket Road. Two bollards required to signal greenway route. Solar studs required to signal the greenway route.	180,813
Bo.14	Newmarket Road, A1303 from High Ditch Road to Roundabout	Shared surface path	3m	Widen existing 2m wide path to 3m, allowing for sufficient remaining verge of minimum 0.5m wide. Where the path crosses over private entrances, a coloured surface and white painted give way lines (where appropriate) are required to give priority to cyclists and pedestrians over vehicles. Changes to the geometry of existing private entrance and exit to the Darwin Farm Shop and Nurseries are required to slow vehicular speeds, and allow for safer cycle and pedestrian crossing. Laybys may be closed where appropriate to prevent doors opening onto the shared surface path. Where laybys are required, a sufficient hatched or planted width must be provided for safe exit and entrance to vehicles occupying the space. Existing bus stop is adjusted to form a floating bus island to allow for safe exit and entrance to buses along Newmarket Road. Solar studs required to signal the greenway route.	211,250

Bo.15.i.A.i	Newmarket Road Roundabout - Option A - Through Field towards Wing Development	Junction of Paths / Path through field towards Wing Development	3m	Widen existing 2m wide path to 3m wide. New path through farmland 3m wide towards the eastern edge of the Wing Development Site. Allow for grassy verge 0.5m minimum either side of path to separate path from surrounding farmland. Two bollards to be provided along the north and south edges of the path to signal the greenway route. Two new trees line the start of the turning point at the Newmarket Road roundabout. White painted markings on path surface to indicate which routes give way to the other. Landscaped 'triangle' in the centre of the paths is adjusted to allow easier turning for cycles joining the greenway. An additional bollard is required at the base of the 'triangular' landscaped section to indicate the Bottisham Greenway route. Solar studs required to signal the greenway route. Land acquisition required, subject to landholders agreement.	113,125
Bo.15.i.A.ii	Path Through the Wing Development Site, East	Shared surface path	3m mini-mum	New shared surface path, through Wing Development site, east side. Path continues along the 'dedicated cycleway' past 'The Plains' sports pitches towards the edge of the 'adventure play' woodland area. Solar studs required to signal the greenway route. Subject to landholder agreement.	N/A
Bo.15.i.B.i	Newmarket Road Roundabout - Option B - Along Newmarket Road to Wing Construction Access Road	Junction of Paths / Path along Newmarket Road to Newmarket Park and Ride	3m	Widen existing 2m wide path to 3m wide. Maintain existing grassy verge to separate path from carriageway. Two bollards to be provided along the east and west edges of the path to signal the greenway route. Landscaped 'triangle' in the centre of the paths is adjusted to allow easier turning for cycles joining the greenway. An additional bollard is required at the base of the 'triangular' landscaped section to indicate the Bottisham Greenway route. Widen existing 2m wide path to 3m wide along Newmarket Road. Solar studs required to signal the greenway route. Subject to landholder agreement.	123,250
Bo.15.i.B.ii	Wing Construction Access Road	Shared surface path	3m mini-mum	New shared surface path, around Wing Development site parallel to existing construction access road. Path continues along the 'designated cycleway' and towards the edge of the 'adventure play' woodland area. Solar studs required to signal the greenway route. Subject to landholder agreement.	N/A
Bo.15.ii	Path Through the Wing Development Site	Shared surface path	3m mini-mum	New shared surface path, along the 'designated cycleway', through 'Gregory Park' to the edge of the dismantled railway, as seen in the Wing Development planning proposals. Two bollards required to signal the greenway route. Solar studs required to signal the greenway route. Subject to landholder agreement.	N/A
Bo.16	Path Along Dismantled Railway	Shared surface path	3m	New shared surface path along the Mildenhall dismantled railway line, 3m wide. Path consdiered a 'dedicated cycleway' as seen in the Wing Development planning proposals. Solar studs required to signal the greenway route. Subject to landholder agreements.	N/A

Bo.17.A.i	Path Along Dismantled Railway Towards Fison Road	Shared surface path	3m	Path along Mildenhall dismantled railway line, curving towards the junction of Fison Road and Ditton Lane. At junction with Ditton Lane shared surface path, landscape adjustments required to provide sufficient turning space for cycles travelling towards Bottisham. Two bollards required to signal the greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	6,688
Bo.17.A.ii	Copenhagen Crossing to Fison Road	Crossing / Shared surface path	3m	Copenhagen-style crossing to the junction of Fison Road and Ditton Lane with an improved shared-use link via a continuous foot/cycleway across the entrance of Fison Road (6m x 6m). A steep dropped kerb and tightened junction geometry reduces the vehicle speeds to a minimum, so as to improve the safety of cycles and pedestrians. White painted give way markings on road surface indicate priority over junction. Shared surface path is widened to 5m - 6m, allowing for a minimum 0.7m verge separating path from busy road. Improvements to the existing signalised crossing over Ditton Lane is required to widen the crossing and create a toucan crossing for cyclists traveling along the Bottisham Greenway. Adjustments to existing landscaping required to accommodate expanded path width.	40,813
Bo.17.B.i	Path Along Dismantled Railway Towards Fison Road	Shared surface path	3m	Path along Mildenhall dismantled railway line, curving towards the raised table at the junction of Fison Road and Ditton Lane. At junction with Ditton Lane shared surface path, shared sruface path adjustments are required to provide sufficient turning space for cycles travelling north on Ditton Lane. Solar studs required to signal the greenway route. Subject to landholders agreement.	6,688
Bo.17.B.ii	Raised Table to Fison Road	Crossing / Shared surface path	4m	Using the existing raised table on Fison Road, a new shared-use link 4m wide via a raised table with priority over Fison Road improves the safety of cycles and pedestrians. White painted give way markings on road surface indicate priority over junction. Adjustments to the existing landscape surrounding private residences is required to form a new path alignment. An electrical box and a lighting colomn needs moving to a new landscaped area at the southern corner of the Fison Road, Ditton Lane junction. Improvements to the existing signalised crossing over Ditton Lane is required to widen the crossing and create a toucan crossing for cyclists traveling along the Bottisham Greenway.	58,250

Bo.17.C.i	Ramp to Ditton Lane Underpass	Shared surface path	4.5m	New wide underpass beneath Ditton Lane and approach ramps utilises the existing slight elevation of the road level (1.5m) above lowest ground level along the dismantled railway. Two-stage ramp of 40-45m length forms a 1:20 ramp to allow for 3.5m depth between the road surface and the underpass finished floor level. Works required for ground excavation, and embankment construction, alongside works to the existing landscaping. Additional ramp up to Fison Road 25-30m long allows pedestrians and cyclists to continue along Ditton Lane. Solar studs required to signal the greenway route. Land acquisition required, subject to landholder agreements, and further technical studies are required.	72,188
Bo.17.C.ii	Ditton Lane Underpass	Underpass	4.5m	New cut and cover or box-jacked underpass to Ditton Lane, 4.5m wide, 15m long. Accounted for structural depth between road surface and underpass finished ceiling level is 0.9m, allowing underpass ceiling to floor level to be 2.6m. New lighting, new landscaping, new signage. Subject to landholders agreement and further technical studies are required.	257,563
Bo.17.C.iii	Ramp from Ditton Lane Underpass	Shared surface path	4.5m	New wide underpass beneath Ditton Lane and approach ramps utilises the existing slight elevation of the road level (1.5m) above lowest ground level along the dismantled railway. Two-stage ramp of 40-45m length forms a 1:20 ramp to allow for 3.5m depth between the road surface and the underpass finished floor level. Works required for ground excavation, and embankment construction, alongside works to the existing landscaping. Additional ramps required to re-align existing paths running parallel to Ditton Lane with lowered underpass path level and location. Solar studs required to signal the greenway route. Land acquisition required, subject to landholder agreements, and further technical studies are required to confirm feasibility of this approach.	44,688
Bo.18	Path from Ditton Lane Crossing / Underpass to Wadloes Path 'Bow Tie' (see Ho.9.ii)	Shared surface path	4m	Recently widened and improved shared surface path along Paddock edge. No works required to path.	N/A

SWAFFHAM COSTING

Fulkers' Constuction Cost Estimate - August 2019

Construction Cost only - excludes Professional Fees, Contingency or Risk Allowances, VAT and Inflation.

Ref.	Name.	Route Type:	Path width	Works	Cost (£)
Sw.1	Swaffham Prior High Street	Quiet road	n/a	Quiet road treatment to High Street from Swaffham Prior Village Hall to the sliproad junction. Speed reduced to 20mph, white painted cycle markings on carriageway surface. One Swaffham Greenway bollard marking the start of the greenway route.	10,125
Sw.2.i	Swaffham Prior High Street Junction with B1102 Sliproad	Junction	n/a	Remove existing cycle lane infrastructure at junction of High Street and B1102 sliproad on each side of the carriageway, works to existing landscaping where necessary. Closure of sliproad to vehicular traffic, allowing for two way segregated cycle path in place of the existing carriageway, with pedestrian path remaining as is. New give way markings at newly formed 'T' junction'. Extend carriageway at junction with B1102 to allow vehicles to run left (in lieu of slip road) with corresponding changes to signage. Village sign and speed limit sign required for vehicles existing the B1102 and entering Swaffham Prior Village. Greenway bollard marks the closure to vehicular traffic of the former sliproad and signals the greenway route, white painted cycle markings highlight presence of cycles at junction and reinforce route.	54,313
Sw.2.ii	B1102 Sliproad	Segregated cycle path	4m	Closure of sliproad to vehicular traffic, allowing for two way segregated cycle path, 2 x 2m cycle lanes in place of the existing carriageway, with pedestrian path remaining as is. New planting (generally 1m wide) to reduce the width of the total carriagway to 4m and enhance existing green landscape. Solar studs required to signal the greenway route.	20,000
Sw.2.iii	B1102 Sliproad Junction with Shared Surface Path along B1102	Junction	n/a	Closure of sliproad to vehicular traffic requires a clearly defined planted area, with a reinforced kerbstone to prevent traffic mounting the green verge. New trees and low level planting to ensure clarity of closure. Two way segregated cycle track (on former sliproad) merges with shared surface path. Tactile paving indicate to both cyclists and pedestrians of the change in path use.	9,000

Sw.3.i	B1102 from Swaffham Prior to Abbey Lane	Shared surface path	3m	Extend existing shared surface path to 3m, maintaining an existing strip of verge, 1m wide. Allow for grassy verge 0.5m wide minimum to separate farmland from carriageway. Subject to landholder agreement. Solar studs required to signal the greenway route.	96,000
Sw.3.ii	B1102 Junction with Abbey Lane	Junction	n/a	As Abbey Lane is a low trafficked road, a continuous footway and tightened corner geometry gives priority to cycles and pedestrians over vehicles. A steep dropped kerb reduces the vehicle speeds to a minimum, so as to improve the safety of cycles and pedestrians. White painted give way markings on carriageway surface enforce shared path priority. Subject to landholder agreement.	9,975
Sw.3.iii	B1102 from Abbey Lane to Commercial End	Shared surface path	3m	Extend existing shared surface path to 3m with 1m minimum verge separating shared surface path from carriageway. Solar studs required to signal the greenway route. Subject to landholder agreement.	70,125
Sw.4	Along Field Edge Parallel to Commercial End	Shared surface path	n/a	New shared surface path, 3m wide with 0.5m minimum grassy strip either side of path, connects to existing shared surface path along B1102. Path positioned behind field hedge, running parallel to Commercial End, connecting via a newly formed gap in the hedge, to Commercial end opposite the existing footpath. Solar studs required to signal the greenway route. Land acquisition required, subject to landholders agreement.	45,000
Sw.5.i	Commercial End Junction with Public Footpath (on Private Land)	Junction	n/a	At the junction of Commercial End with the current public footpath, a raised table is required to allow cycles to safely cross Commercial End from one side to the other. Raised table aligned with nw shared surface path, at 90' to the cariageway. Removal of kissing gate, and introduction of two bollards in the centre of the each side of the new shared surface path (3m wide), to dissuade vehiclular users from accessing the path. Works to existing landscape required. Land acquisition required, subject to landholders agreement.	11,938

Sw.5.ii	Shared surface path (on Private Land)	Shared surface path	3m	New shared surface path, 3m wide along the existing grassy public footpath alignment. Solar studs required to signal the greenway route. Subject to landholder agreement.	36,000
Sw.5.iii	Shared surface path (on Private Land)	Shared surface path	3m	Greenway route runs along existing private driveway (which is a public footpath). No works required to driveway surface. A small extension to the current driveway surface of approximately 15m2 required to allow a continuous surface at entrance gateway. Existing kissing gate at entrance to be removed and replaced with a centrally placed greenway bollard precenting vehicles accessing the greenway route. Solar studs required to signal the greenway route. Subject to landholder agreement.	4,563
Sw.6	Shared surface path Junction with Private Driveway and Swaffham Bulbeck Recreation Ground	Junction	n/a	New coloured surface from gateway to 10m within the recreation ground to clarify priority over private entrances. White painted cycle and give way markings on carriageway surface reinforce priorities. A planted verge between the shared surface path and driveway entrances separate the path from vehicular trafficked areas, and dissuades parking over the shared use path. One greenway bollard required to signal the greenway route through Swaffham Bulbeck recreation ground. Solar studs required to signal the greenway route. Subject to landholder agreement.	11,313
Sw.7	Around Swaffham Bulbeck Recreation Ground	Shared surface path	3m	Extend existing pedestrian path around recreation ground from 1m to 3m wide, with 1m minimum planted verge. May require small amount of land excavation to create a level path, due to raised level of recreation ground. Five lighting colomns to be relocated to verge, alongside two telegraph poles, and three road signs.	116,375
Sw.8	Swaffham Recreation Ground Car Park Junction with Shared Surface Path	Junction	n/a	At the informal parking entrance, the path surface changes to a coloured surface. Tightened junction geometry slows traffic speed and a new raised table to the car parking entrance with white painted cycle markings on the path surface reinforce priorities. A planted verge along the shared surface path follows the tightened geometry, leaving a minimum width for vehicles to access the car park entrance. A planted verge along the shared surface path separates the path from vehicular traffic. One bollard required to signal the greenway route.	14,938

Sw.9.i	B1102 from Swaffham Bulbeck Recreation Ground to Gutter Bridge Ditch	Shared surface path	3m	Widen existing path from 2m to 3m with a planted verge of minimum 0.5m separating path from carriageway. Solar studs required to signal the greenway route. Approximately 1m land acquisition required along length of path, subject to landholders agreement.	69,563
Sw.9.ii	B1102 Gutter Bridge Ditch	Shared surface path / Bridge	3m	Shared surface path extended to 2.5m wide for length of bridge over Gutter Bridge Ditch (approx. 20m). Carriageway speed reduction from 60mph to 50mph. Existing crash barrier (approx. 60m long) moved closer to the southern edge of the verge to allow for more generous width.	28,500
Sw.9.iii	B1102 from Gutter Bridge Ditch to White Droveway	Shared surface path	3m	Widen existing path from 2m to 3m with a planted verge of minimum 0.5m separating path from carriageway. Approximately 1m land acquisition required along length of path, subject to landholders agreement.	39,313
Sw.9.iv	B1102 Junction with White Droveway	Junction	n/a	Changes to existing junction geometry required to allow for safer crossing over White Droveway. Reformed as single 'T'-junction with ped/cycle path gently curving back away from the junction to meet a priorty crossing over the side road with white painted give way markings set back from junction. Planting widened to accommodates this change in junction geometry. Two bollards required to signal greenway route. Possible land acquisition required, subject to landholders agreement.	70,500
Sw.9.v	B1102 from White Droveway to Longmeadow	Shared surface path	3m	Widen existing path from 2m to 3m with a planted verge of minimum 0.5m separating path from carriageway. Solar studs required to signal the greenway route. Approximately 1m land acquisition required along length of path, to allow for grassy verge between path and farmland. Subject to landholders agreement.	120,063
Sw.10	B1102 Junction with Longmeadow	Junction	n/a	Changes to existing junction geometry required to allow for safer crossing over Longmeadow. Longmeadow carriageway curves around to the east to allow for more space at Sun and Gate House, 1 Longmeadow , avoiding existing telecommunications poles. Shared surface path has ample space to smoothly approach the Longmeadow crossing point at 90' angle for improved visibility. A new raised table alongside white painted give way signs allow clear priority of pedestrians and cyclists over vehicles, and alows vehicles down joining or existing the B1102. Planting widened alongside Sun and Gate House provides an improved pedesitran and cycle route off the greenway and accommodates this change in junction geometry. Two bollards required to signal greenway route. Land acquisition required along the eastern plot, subject to landholders agreement.	100,750

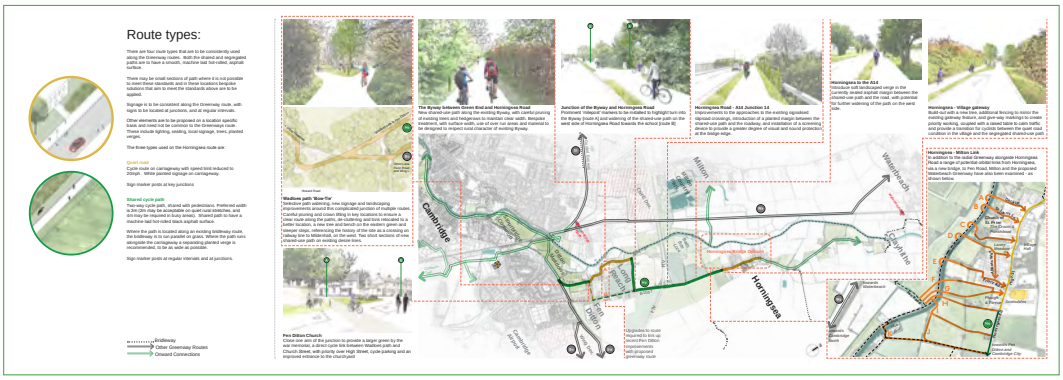
Sw.11.i	B1102 from Longmeadow to Heynes J J and Sons Industrial Site	Shared surface path	3m	Widen existing path from 2m to 3m with a planted verge of minimum 0.5m separating path from carriageway, and allowing for a small planted verge between private property and shared surface path. Solar studs required to signal the greenway route.	13,813
Sw.11.ii	Heynes J J and Sons Industrial Site Private Entrance	Shared surface path	3m	New coloured surface over private entrance boundary to 3m within the each side of the shared surface path surface to clarify priority over private entrances to pedestrians and cyclists. White painted cycle markings on carriageway surface to reinforce priorities. Solar studs required to signal the greenway route.	4,063
Sw.11.iii	From Heynes J J and Sons Industrial Site to Lode Village	Shared surface path	3m	Widen existing path from 2m to 3m to the north, maintaining the existing planted verge of minimum 0.5m separating path from carriageway, and allowing for a small planted verge between farmland and shared surface path. Solar studs required to signal the greenway route. Possible land acquisition required, subject to landholders agreement.	176,375
Sw.11.iv	Lode Village, East	Shared surface path	3m	Widen existing path from 2m to 2.5 - 3m to the north, with a new verge of minimum 0.5m separating path from carriageway, allowing for a small remaining verge between private property and shared surface path. Where the path crosses over private entrances, a coloured surface and white painted give way lines (where appropriate) are required to give priority to cyclists and pedestrians. Speed reduction sign needs relocating.	20,550
Sw.12.i	Lode Road Junction with Swaffham Road and Quy Road	Junction	n/a	Wholesale junction reconfigured to reduce vehicle speeds through Lode Village by tightening all corner geometries to improve the safety for pedestrians and cyclists. A widened shared surface path curves around existing alignment, and along existing driveway to Lode Road. A new raised table, 6m wide set back from junction, provides a safe uncontrolled crossing over Lode Road. White painted cycle markings on carriageway surface to reinforce priorities. A new section of shared surface path cuts across the corner of farmland to provide a wide planted area with new trees marking the entrance to Lode Village. Each green area is landscaped with new trees and new planting to celebrate the village green. Four greenway bollards required to signal the Swaffham greenway route. Land acquisition required, subject to landholders agreement. Allowance for locally-led public realm improvements around village sign.	167,375 (163,000 required cost, 4,375 optional additional cost)

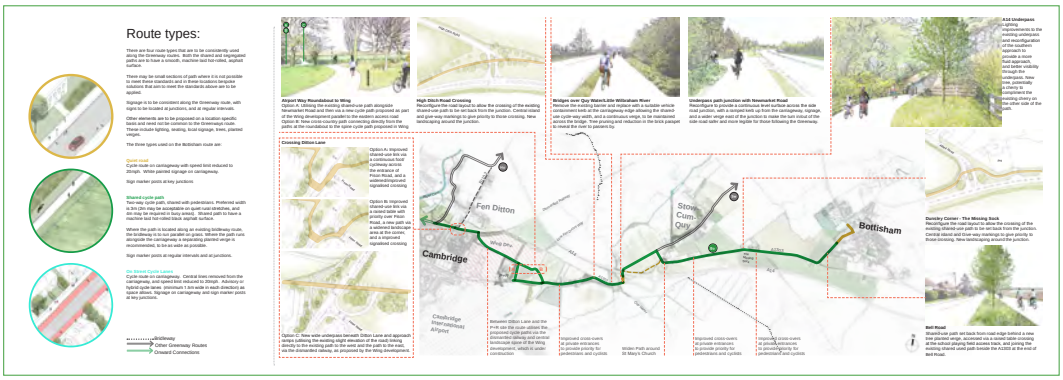
Sw.12.ii	Quy Road	Shared surface path	3m	Widen existing shared surface path from 2m to 3m with a 1m minimum verge separating the path from the carriageway. Remove layby along Quy Road and allow path to continue unobstructed to Anglesey Abbey. May require repositioning of hedge along Anglesey Abbey land slightly north to allow for appropriate width. Solar studs required to signal the greenway route. Land acquisition required, subject to landholders agreement.	54,875
Sw.13	Quy Road Crossing at Anglesey Abbey	Shared surface path / Crossing	n/a	Crossing aligned to entrance of Anglesey Abbey. Widen existing central refuge to 3m x 4m wide. Adjustments to road geometry required to increase width of road from 8m to 9m, to allow for 3m wide road width either side of 3m wide island. Use additional width to introduce right-turn filter lane into Anglesey Abbey. On north side, path to be removed on west side of crossing, and entrance to Anglesey Abbey to be improved with a widened entrance for cyclists. On south side of crossing, realignment and extension required to for a 90' angle to existing path through woodland to follow alignment of felled tree. Landscaping adjustments required. Two greenway bollards required to signal the greenway route. Subject to landholders agreement.	54,500
Sw.14.i	Lode to Stow-Cum-Quy Existing Shared Surface Path	Shared surface path	3m	No works to existing path. Pollarded trees such as Salix Alba Chermesina along the south side of the path can be combined with companion trees and wild planting to shield and protect the shared cycle path users and wildlife.	11,625
Sw.14.ii	Lode to Stow-Cum-Quy Existing Shared Surface Path	Shared surface path	3m	No works to existing path surface. New planting and landscaping works required to existing verge separating path from carriageway.	3,500
Sw.14.iii	Lode to Stow-Cum-Quy Existing Shared Surface Path	Shared surface path	3m	No works to existing path. Pollarded trees such as Salix Alba Chermesina along the south side of the path can be combined with companion trees and wild planting to shield and protect the shared cycle path users and wildlife.	8,250

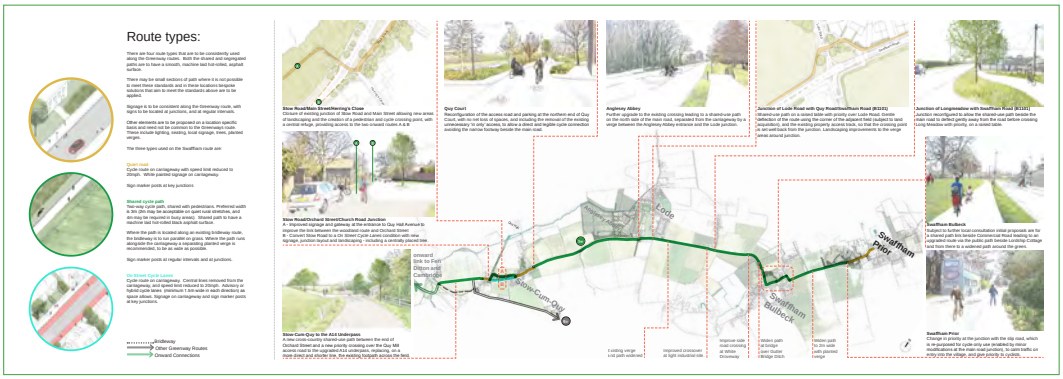
Sw.15.i	Lode to Stow-Cum-Quy Existing Path Junction with Quy Court	Junction	n/a	Reconfiguration of the access road, adjustments to the geometry and parking relocation at the northern end of Quy Court, to allow continual and clear shared surface path through Quy Court. Removal of the existing unnecessary 'in only' access to be replaced with new planting and landscaping adjustments with a continual wrap around pedestrian footpath to allow a direct and legible cycle connection through and around Quy Court. Adjustments to existing path to Lode required to join with proposed changes to Quy Court junction, with a new section of pedestrian footway to wrap around east side of path to allow clear pedestrian route to recreation ground. Pedestrian footpaths to join with shared surface path, north of landscaped area, with priority to shared surface path users. White painted cycle markings at junction to indicate cycles should look two ways before joining quiet road. Six new trees to the north of the junction required. One bollard required at northern end to signal the greenway route. Solar studs required to signal the greenway route. Subject to landholders agreement.	31,688
Sw.15.ii	Quy Court	Quiet Road	n/a	White painted cycle markings along Quy Court to indicate priority to cyclists over vehicles. No works required to carriageway surface. Subject to landholders agreement.	1,875
Sw.16.i	Quy Court Junction with Main Street and Albert Road	Junction	n/a	Wholesale junction improvements to Main Street, Albert Road and Quy Court Junction. Tightened junction geometry along Main Street to provide a defined carriageway and additional public realm. On the east, spill-out space outside The White Swan pub allows for a forecourt for pub seating and additional space for a tree to be planted. On the west, a new area of planted landscaping acts as a village green. A raised table across the junction forms clear priority over the junction to Main Street and Quy Court. White painted cycle and give way markings on the carriageway surface enforce this priority. Parking is relocated to a designated area on the west side of Main Street, and to the north edge of the pub for local residents. Two bollards are required to signal the greenway route. Two new trees, planting and landscaping required.	170,250
Sw.16.ii	Main Street	Quiet Road	n/a	White painted cycle markings along Main Street to indicate priority to cyclists over vehicles. Maintenance required to carriageway surface.	3,750

Sw.17.i.A	Main Street, Stow Road and Herring's Close Junction	Junction	n/a	Closure of existing junction of Stow Road and Main Street to vehicular road users, allowing new areas of landscaping and the creation of a new pedestrian and cycle crossing point providing access to the two onward route options. A bollard set within the centre of the path prevents vehicules using the access route. Priority is given to Herring's Close which curves into Main Street. New landscaping enforces change in geometry and enhances landscaping of Stow-Cum-Quy village green. Closure of layby used for Herring's Close Bus Stop along Main Street allows for an on-road bus stop, with a new landscaped area, enforcing the closure of Main Street and Stow Road junction. Stow Road speed reduction from 30mph to 20mph through village. A shift in Stow Road layout and white painted markings is required to form a new central refuge, 12m x 3m providing safe crossing to the northern side of Stow Road. A new path through highway and private woodland aligns with central refuge. Requires landscaping and wayfinding improvements including five bollards and twelve trees.	71,750
Sw.17.i.B	Main Street, Stow Road and Herring's Close Junction	Junction	n/a	Raised table to Main Street to allow cyclists to join and leave the new shared surface path. A shift in Stow Road layout and white painted markings is required to form a new central refuge, 10m x 3m providing safe crossing to the northern side of Stow Road. A new path through highway and private woodland aligns with central refuge. Requires landscaping and wayfinding improvements including four bollards and twelve trees.	N/A
Sw.17.ii.A	Shared Surface Path Through Woodland	Shared surface path	3m	Extension (c.20m) and upgrade/resurfacing of existing (c.3m wide) track through woodland, and inbetween woodland and paddock. Path continues along avenue of trees of the original Quy Hall Entrance. Removal of existing concrete blocks at the south of the entrance gate, maintenance required to road surface. Main entrance gate to be removed and replaced with a larger side gate to allow for a wider space between the gatehouse front wall and main gate for cyclists to travel two-way. A bollard is required to prevent any vehicular traffic from gaining access to the private property. Two bollards required to signal the greenway route. Solar studs required to signal the greenway route. Land acquisition required, subject to landholder agreement.	181,813

Sw.17.ii.B	Along Stow Road	Quiet Road	n/a	Stow Road speed reduction required from 30mph to 20mph. Cycle markings on road surface to highlight cycle-friendly route to vehicle users. Two bollards required to signal the greenway route.	9,000
Sw.18.i	Stow Road junction with Church Lane, Orchard Street and Shared Surface Path	Junction	n/a	Wholesale junction reconfigured to reduce vehicle speeds through Stow-Cum-Quy village centre. A new planted roundabout sits on a raised table (approx 40m x 8m) in the centre of Orchard Street, Church Road and Stow Road junction. The raised table material highlights the moment of entering the heart of the village. A line of contrasting paving stones indicate priority to continue along Stow Road and Church Road over Orchard Lane. Adjusted geometry required to the existing landscaped edges of the roads to match these changes in geometry. Two new trees, and three new bollards are required to signal the greenway route.	203,406
Sw.18.ii	Orchard Street	Quiet Road	n/a	Minor maintenance to Orchard Street. Two bollards required to indicate greenway route.	4,625
Sw.19 (as seen in Bo.8.ii)	Path Through Farmland	Shared surface path	3m	New shared surface path along field edge, 3m wide with minimum 1m grassy strip on either side to allow for hedgerow and tree planting along path length. Where the path along the field edge converges with the Bottisham Greenway route (see Bo.8.i) two bollards are required to signal the Swaffham Greenway route. Solar studs required to signal the greenway route. Land acquisition required, subject to landholders agreement.	341,813 (287,438 required cost, 54,375 optional additional cost)







Above: the drawings laid out for the Council's communications team to edit with their preferred graphic style/ leaflet format.

STUDY OUTPUT /NEXT STEPS

We have generated feasible initial proposals for the Greenway routes between Horningsea, Bottisham, the Swaffham, and Cambridge - based on the output of the previous report by NBA, an initial round of public engagement, site visits, a series of design explorations, and input from the client team through review of the emerging proposals.

We have provided illustrative material in the form of a comprehensive route map, and sketch plans and views of an agreed series of locations, sufficient to allow the GCPs's communications / graphics team to assemble a leaflet or leaflets to present the initial designs to the public. This material also forms the basis of an initial costing exercise which Fulkers have undertaken, providing indicative costs for the proposed interventions needed to create the featured Greenway route/s.

Following on from this study we recommend that consultation with existing landowners continue where the proposals are on, or impact, private land, preferably ahead of public release of these proposals. Following public consultation, and collation of the responses, detailed designs should be developed in response to this feedback, to include, at that stage, input on engineering, road safety auditing and the development of a more detailed cost plan.

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studio