MARCH 2019

FINAL REPORT

CAMBRIDGE GREENWAYS

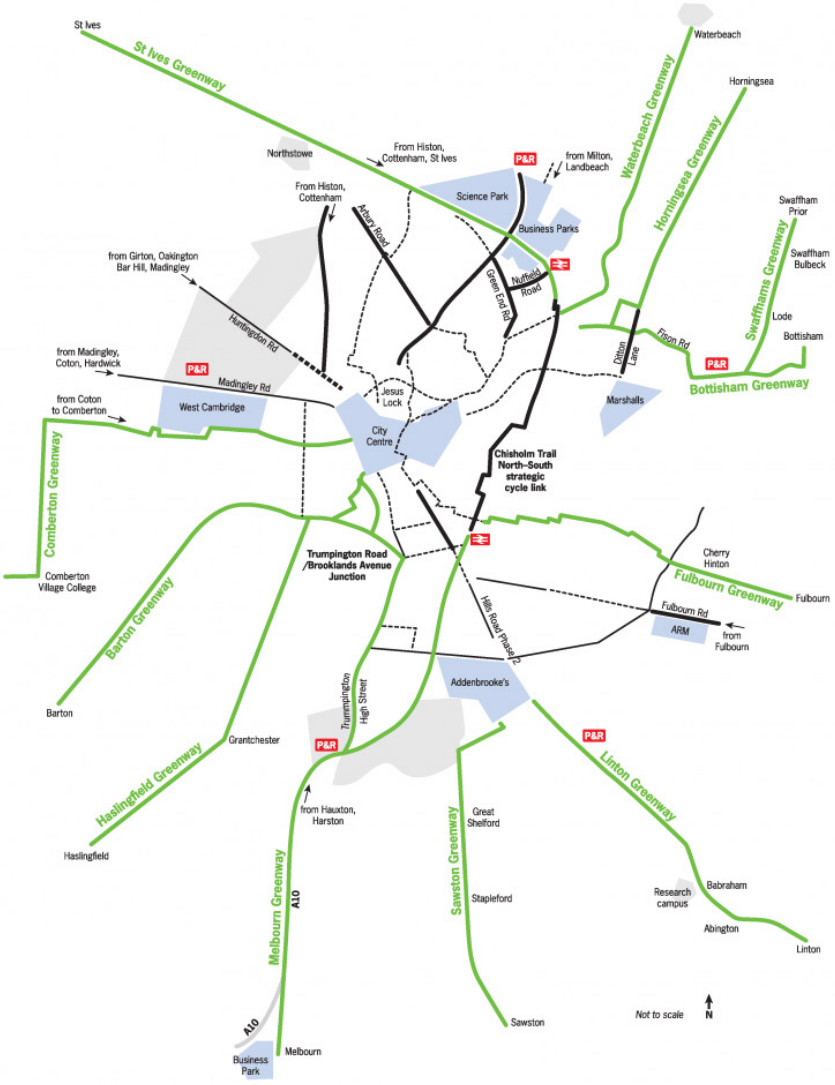
PRODUCED BY 5TH STUDIO FOR CAMBRIDGESHIRE COUNTY COUNCIL

MELBOURN

5th studio

CONTENTS

Greenways plan



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:

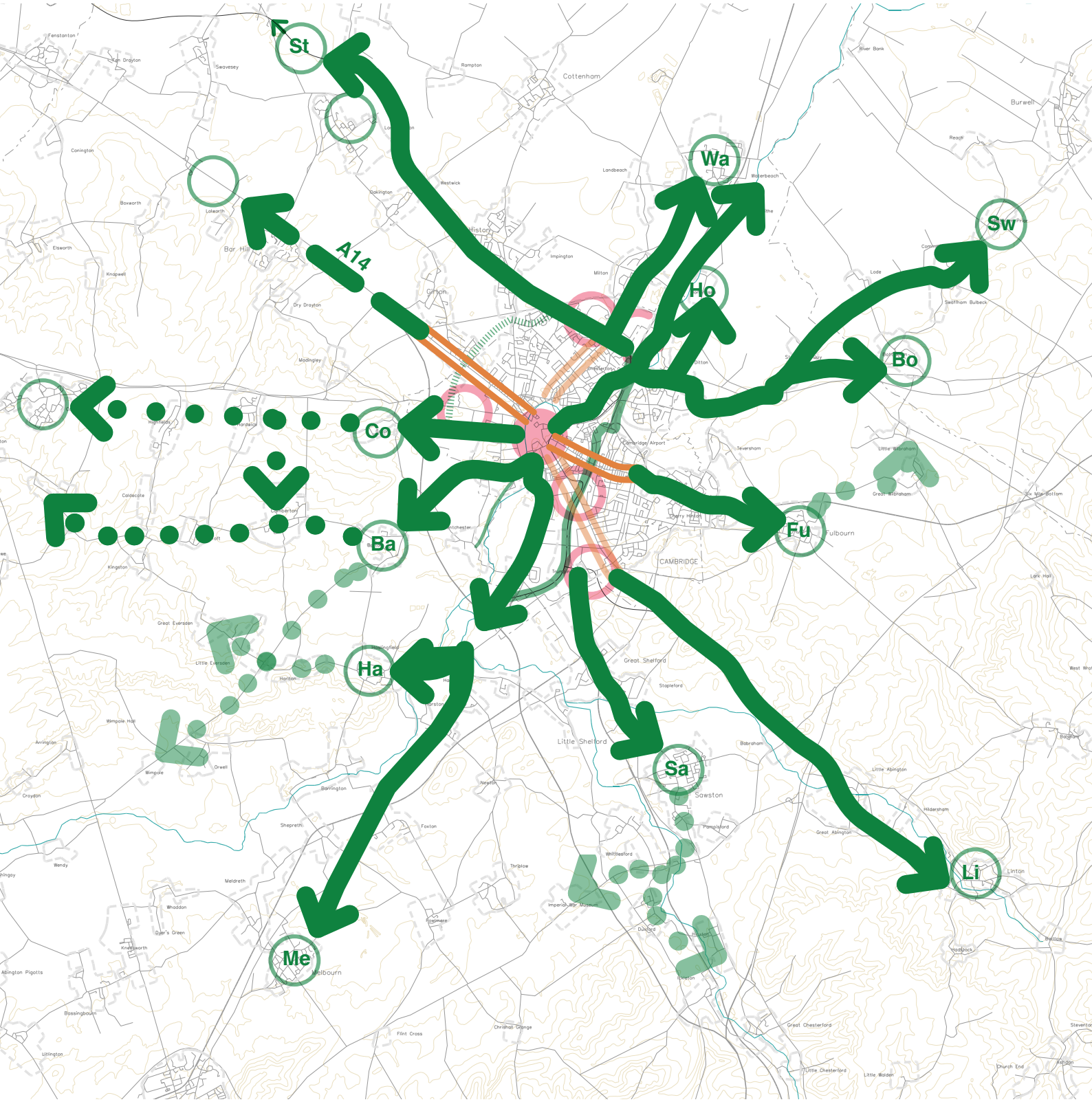
Waterbeach Greenway
Horningsea Greenway
Swaffham Greenway
Bottisham Greenway
Fulbourn Greenway
Linton Greenway
Sawston Greenway
Melbourn Greenway
Haslingfield Greenway
Barton Greenway
Comberton Greenway
St Ives Greenway

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.


St
Wa
Sw
A14
Ho
Bo
Co
Ba
Fu
Ha
Sa
Li
Me
CAMBRIDGE

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

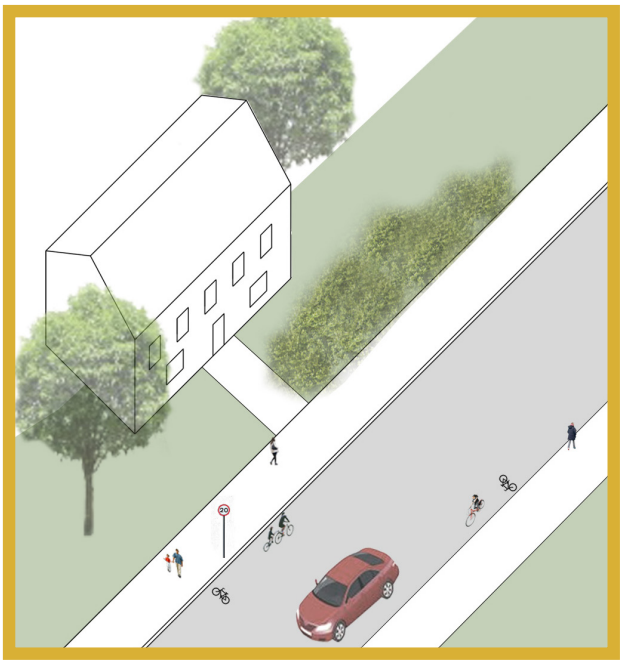
Below is a description of the four standard route types that will form the basis of the Greenway routes.

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.

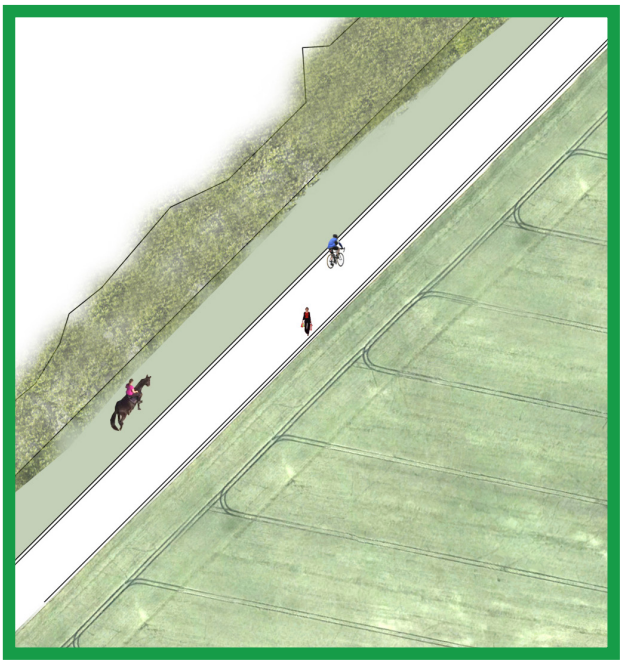


Shared cycle path

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

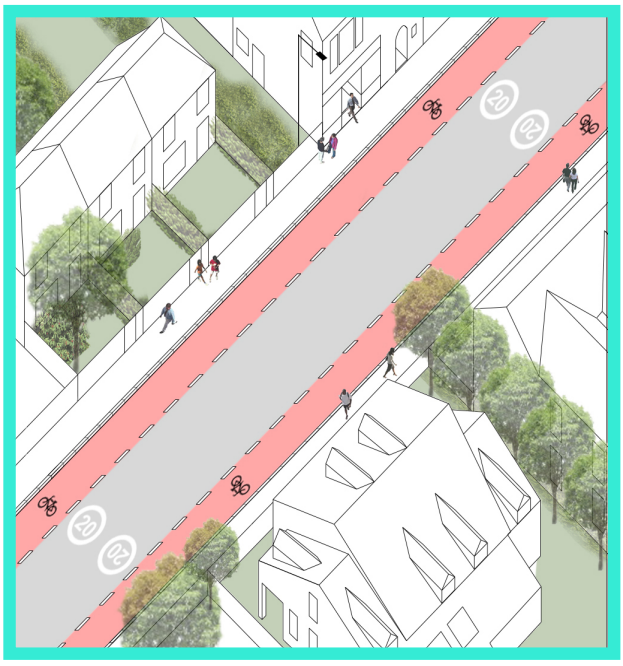
Depending on available carriageway width either:

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 FINDINGS FROM THE PREVIOUS CONSULTATION

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 Melbourn route be progressed as a priority:

- new route into Cambridge to the west of Harston from Church Lane junction with A10, via field edges End, the former Treatment Works site and a new bridge over the River Cam
- improve sub-standard sections of path besides the A10 through Hauxton, including re-allocation of road space
- complete route from A10 through Melbourn as a combination of off-road paths and 20mph through village itself
- improvements to Meldreth-Melbourn connection
- new path beside A10 from south of Melbourn to Royston, via a new bridge over the A505
- new path on the eastern side of the A10 between Shepreth Rd, south of Foxton and Dunsbridge Turnpike in the longer term

Above: Cambridge Greenways community engagement timetable

Community Feedback

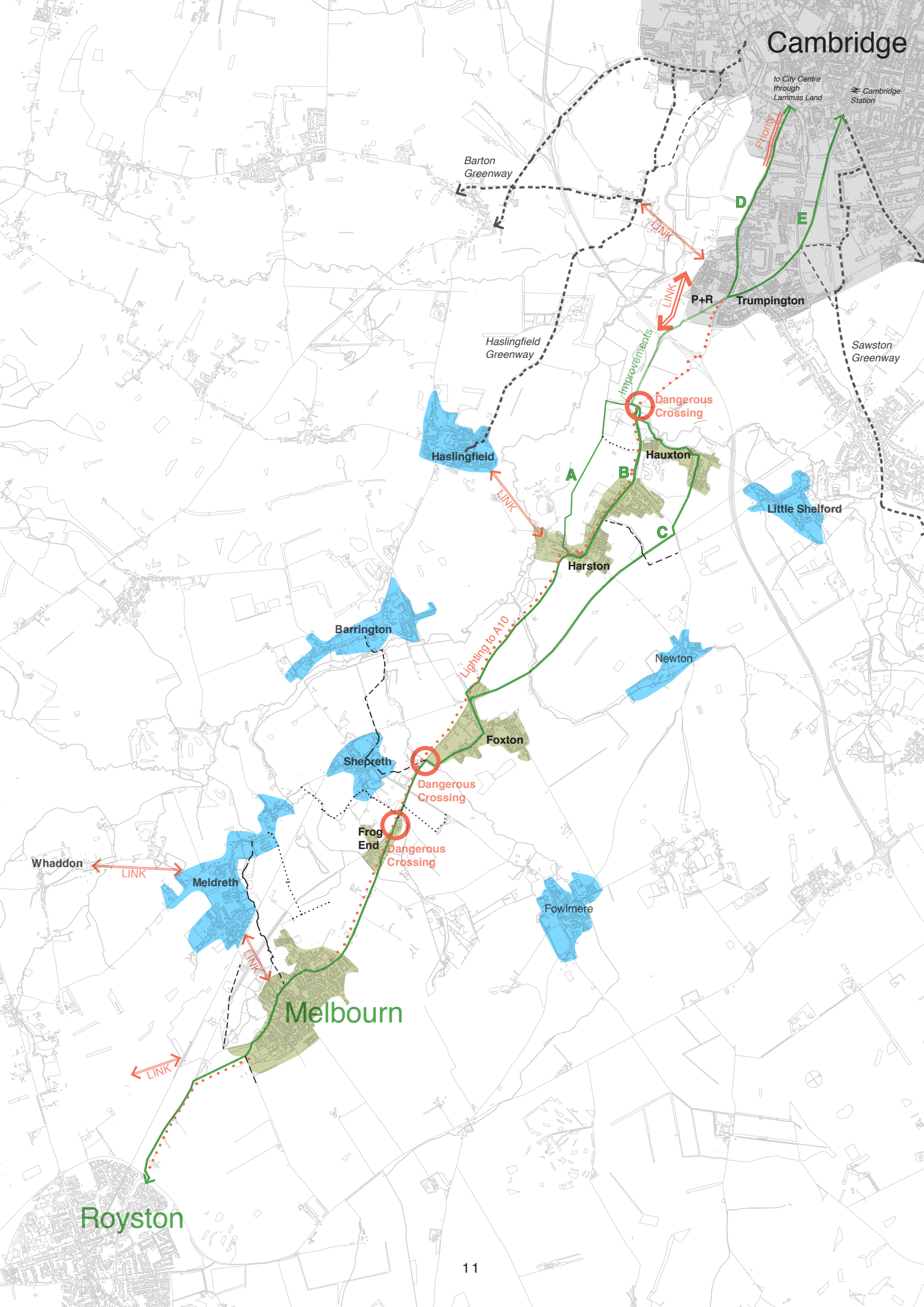
Following the completion of the NBA report the GCP undertook a series of public engagement exercises and collated and analysed the results to inform the brief for the next stage of development of the route proposals.

The scope of this exercise was fairly limited, and the sample size relatively small, but the results nonetheless provide a sense that there is no clear consensus for a choice between further improvements to the route through Harston, or a new route around Harston (perhaps reflecting NBA's suggestion that both should be prioritised), with each having a useful and perhaps slightly distinct function.

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

- the use of solar studs
- cycle priority over private entrances
- clear signage
- link to Trumpington Country Park
- safety on M11 to Hauxton Mill
- safety at Hauxton Road crossings
- lines of sight
- cycle markings
- safety at A10 crossings
- speed limits
- lighting

The routes identified by the client team at the end of this process (including a more-or-less discounted route option C to the east of Harston) are shown in green on the plan on the following page, with other issues raised by the community, including additional links to nearby villages, shown in red.


Cambridge
to City Centre through Lammas Land
Cambridge Station
Priority
Barton Greenway
LINK
D
E
LINK
P+R
Trumpington
Haslingfield Greenway
Improvements
Sawston Greenway
Dangerous Crossing
Haslingfield
Hauxton
A
B
LINK
Little Shelford
C
Harston
Barrington
Lighting to A10
Newton
Foxton
Shepreth
Dangerous Crossing
Frog End
Dangerous Crossing
Whaddon
LINK
Meldreth
Fowlmere
LINK
Melbourn
LINK
Royston

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 widths of existing cycle paths in key locations.

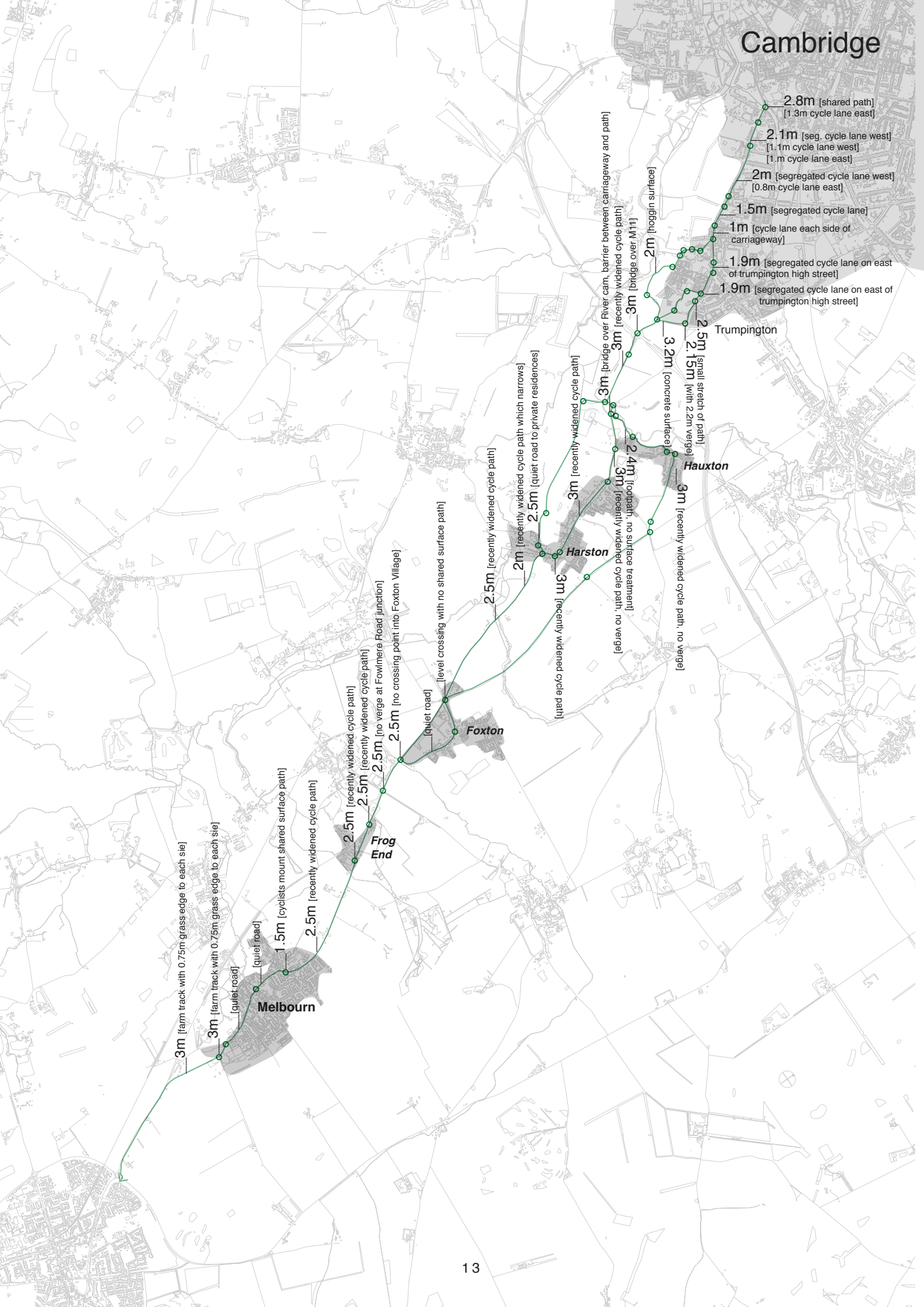
Along the A10, before junction with Foxton (Shepreth Road)

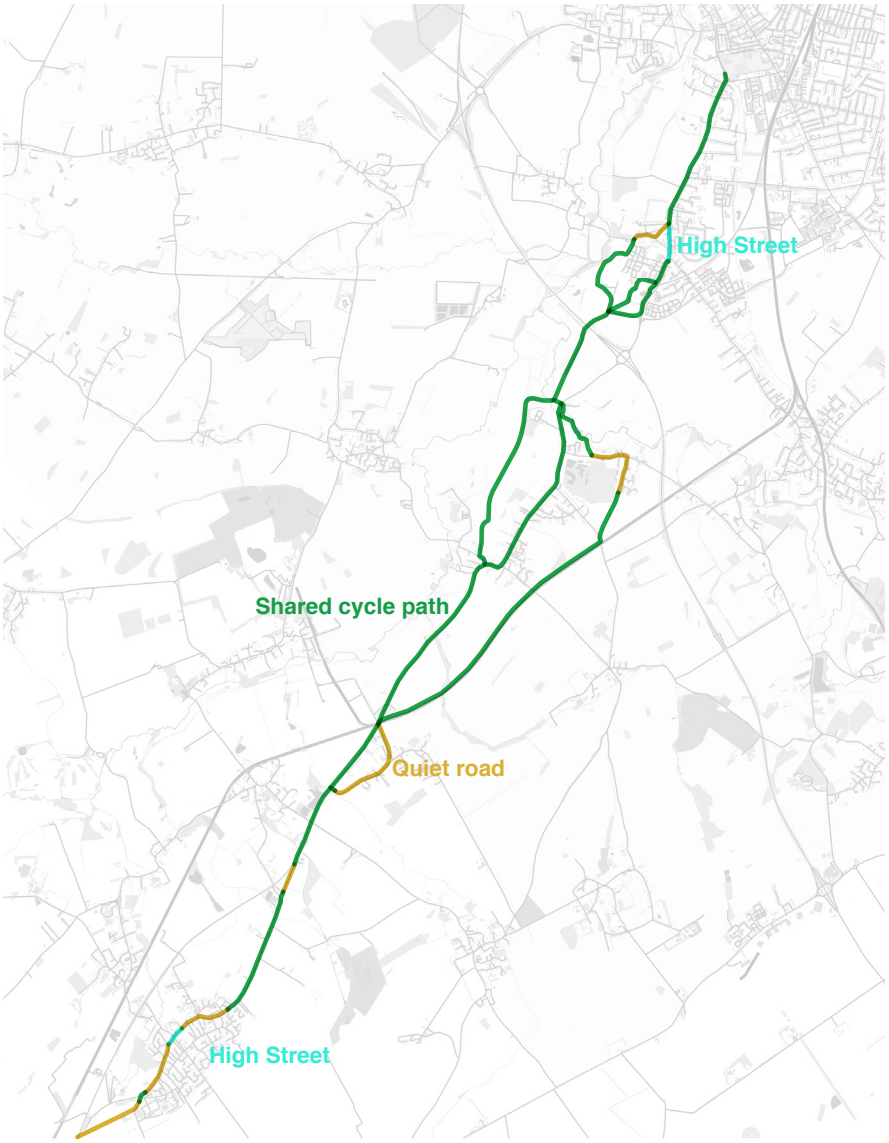
Existing farm track from the A10 to Melbourn High Street

Existing shared cycle path at Winchmore Drive

Existing shared cycle path from Hauxton towards the M11 Bridge

Existing shared surface path along the A10 to Foxton station and level crossing


Cambridge
2.8m [shared path]
[1.3m cycle lane east]
2.1m [seg. cycle lane west]
[1.1m cycle lane west]
[1.m cycle lane east]
2m [segregated cycle lane west]
[0.8m cycle lane east]
1.5m [segregated cycle lane]
1m [cycle lane each side of carriageway]
1.9m [segregated cycle lane on east of trumpington high street]
1.9m [segregated cycle lane on east of trumpington high street]
Trumpington
2.5m [small stretch of path]
2.15m [with 2.2m verge]
3.2m [concrete surface]
2m [hoggin surface]
3m [bridge over River cam, barrier between carriageway and path]
3m [recently widened cycle path]
3m [bridge over M11]
3m [recently widened cycle path]
2.4m [footpath, no surface treatment]
Hauxton
3m [recently widened cycle path, no verge]
3m [recently widened cycle path]
3m [recently widened cycle path]
Harston
2m [recently widened cycle path which narrows]
2.5m [quiet road to private residences]
2.5m [recently widened cycle path]
[level crossing with no shared surface path]
Foxton
[quiet road]
2.5m [no crossing point into Foxton Village]
2.5m [no verge at Fowlmere Road junction]
2.5m [recently widened cycle path]
2.5m [recently widened cycle path]
Frog End
2.5m [recently widened cycle path]
1.5m [cyclists mount shared surface path]
[quiet road]
Melbourn
[quiet road]
3m [farm track with 0.75m grass edge to each sie]
3m [farm track with 0.75m grass edge to each sie]

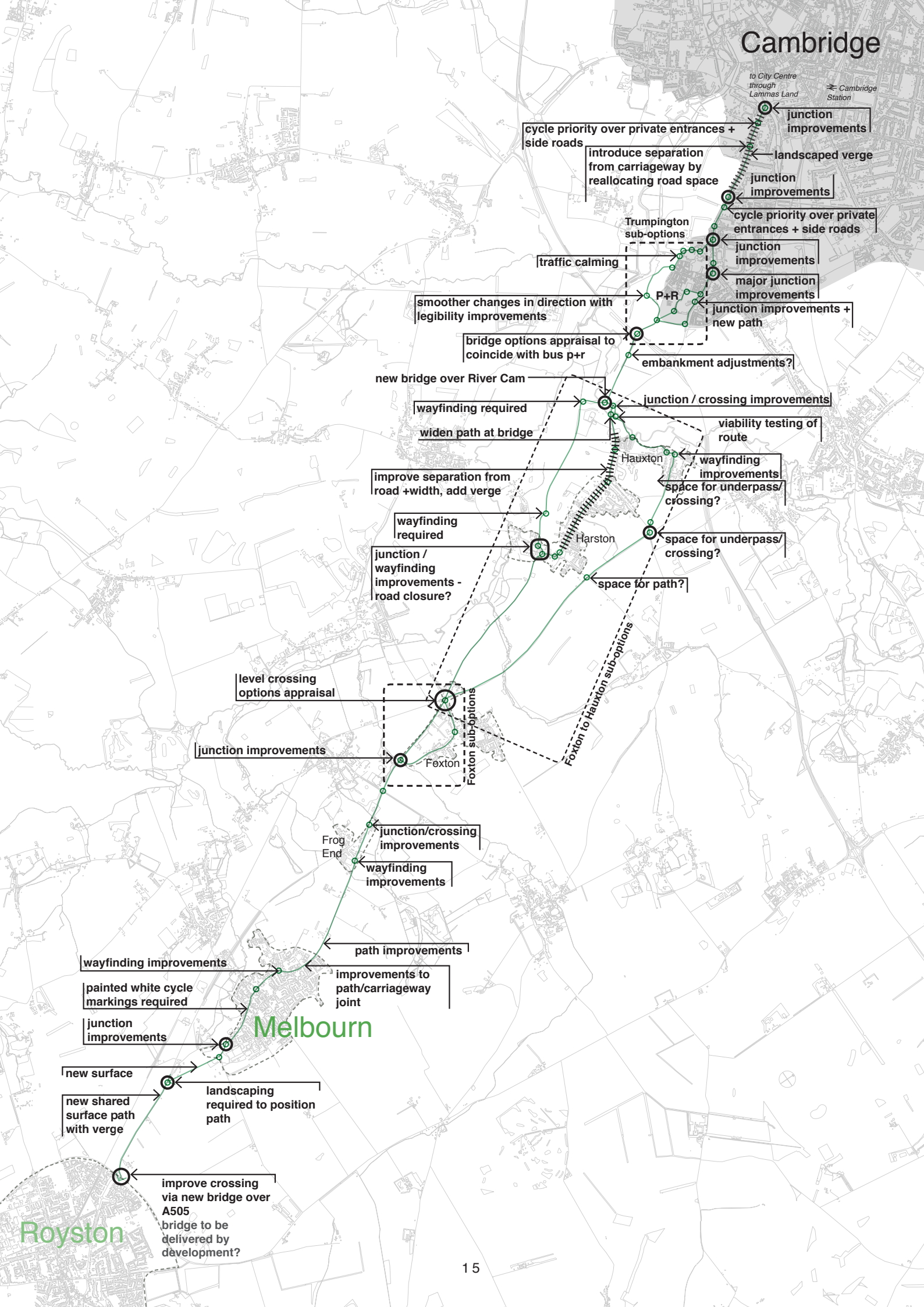


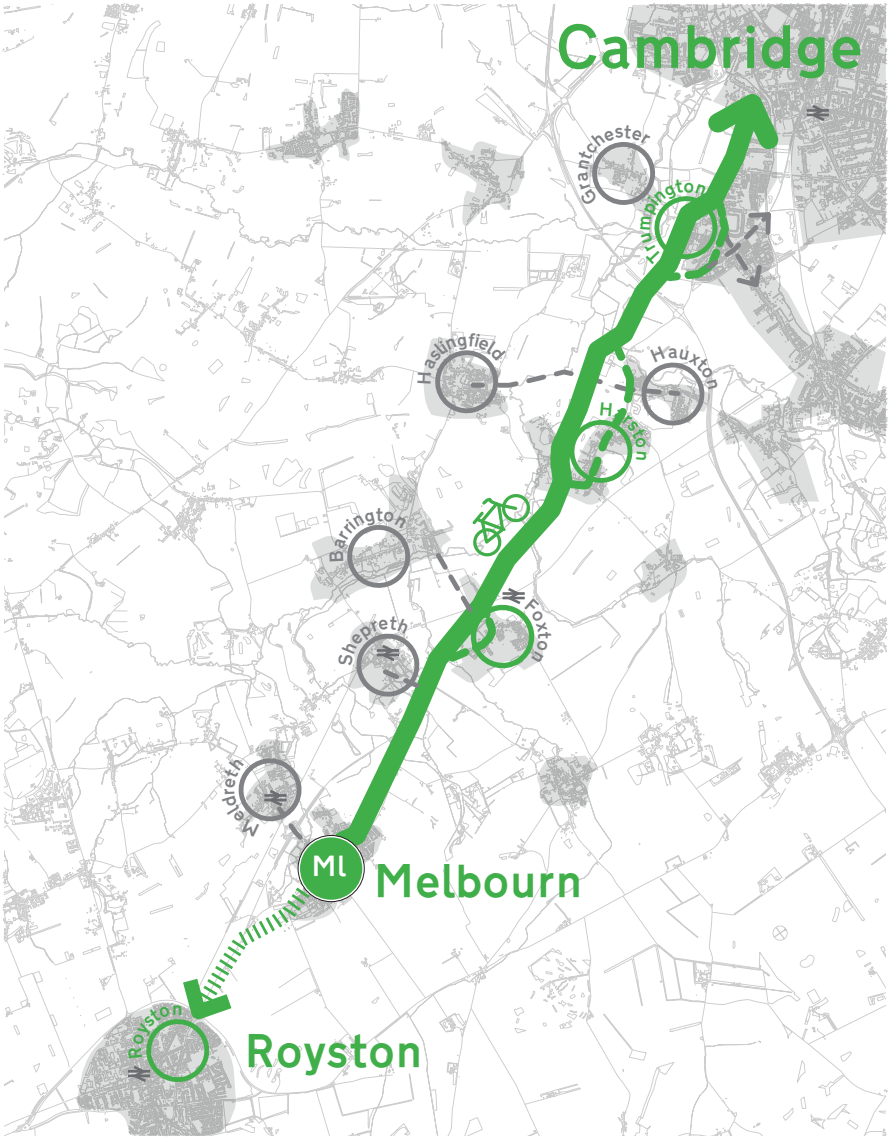
THE ROUTE - SCOPING & ANALYSIS

The drawing above provides an initial appraisal of the generic route type (as per pp8-9) that would be applicable to each stretch of the overall route, based on the site visits undertaken and a review of the outcomes of the previous community engagement and Greenways report by NBA.

In contrast the drawing on the following page highlights areas where further option appraisal is needed (i.e. where a single preferred solution is not obvious)and locations (typically junctions and crossings) where more specific responses need to be developed requiring further more detailed design investigation.

A parallel stream of work - summarised in the separate ‘Trumpington Road Review’ document - has involved engaging with other GCP projects that overlap geographically with the scope of this project, in particular relation to proposals for the P+R site and potential bus priority measures on the Trumpington Road corridor. The findings of that report are integrated into Greenway proposals.


Cambridge
to City Centre through Lammas Land
Cambridge Station
junction improvements
cycle priority over private entrances + side roads
introduce separation from carriageway by reallocating road space
landscaped verge
junction improvements
cycle priority over private entrances + side roads
Trumpington sub-options
junction improvements
traffic calming
major junction improvements
P+R
smoother changes in direction with legibility improvements
junction improvements + new path
bridge options appraisal to coincide with bus p+r
embankment adjustments?
new bridge over River Cam
junction / crossing improvements
wayfinding required
viability testing of route
widen path at bridge
Hauxton
wayfinding improvements
improve separation from road +width, add verge
space for underpass/ crossing?
wayfinding required
Harston
space for underpass/ crossing?
junction / wayfinding improvements - road closure?
space for path?
Foxton to Hauxton sub-options
level crossing options appraisal
junction improvements
Foxton
Foxton sub-options
Frog End
junction/crossing improvements
wayfinding improvements
path improvements
wayfinding improvements
painted white cycle markings required
improvements to path/carriageway joint
junction improvements
Melbourn
new surface
landscaping required to position path
new shared surface path with verge
improve crossing via new bridge over A505
bridge to be delivered by development?
Royston



THE ROUTE - SELECTED

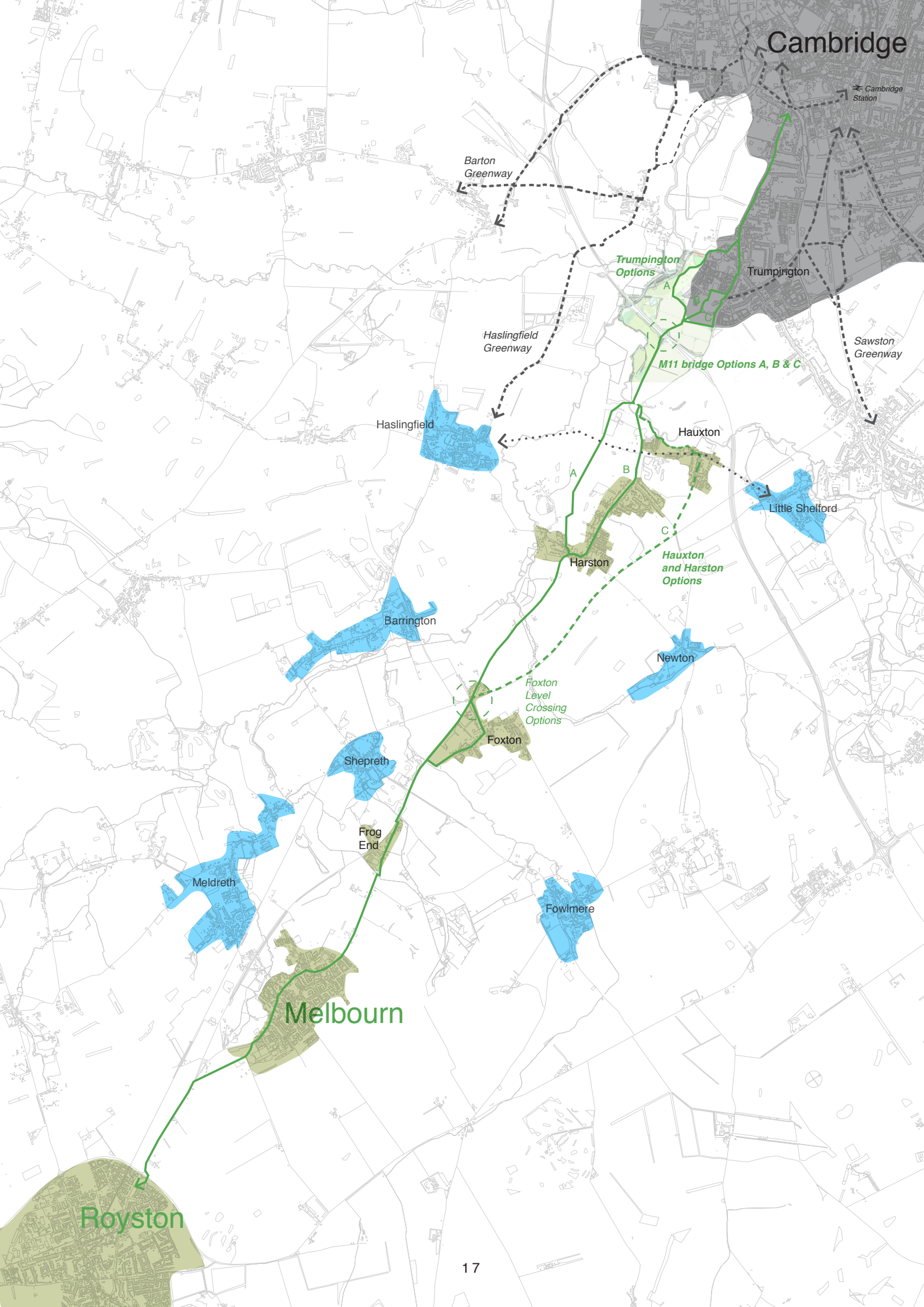
The route map above shows the recommended core Greenway route, providing a direct, fast route between Cambridge and Royston (by extending the route beyond the original Melbourn-Cambridge scope).

The narrower, dashed green lines indicate routes that loop off to serve villages that lie adjacent to the core alignment (Trumpington, Harston and Foxton) and these alignments could either supplement or serve as an alternative to the recommended core route (for instance if funding is limited).

Grey lines show potential links to adjacent villages where further improvements may encourage still greater use of the main Greenway spine route.

The plan on the following page shows the route that was selected in discussion with the client group for more detailed investigation at the end of the initial review and scoping stage, including areas where multiple options were to be investigated to allow for an appraisal of alternatives.

The pages after that (pp18-21) identify the route type (by colour) and locationally specific proposals (by reference number) that are then presented (selectively) in detail in the rest of the report.


Cambridge
Cambridge Station
Barton Greenway
Trumpington Options
A
B
C
Trumpington
Haslingfield Greenway
Sawston Greenway
M11 bridge Options A, B & C
Haslingfield
Hauxton
A
B
Little Shelford
C
Harston
Hauxton and Harston Options
Barrington
Newton
Foxton Level Crossing Options
Foxton
Shepreth
Frog End
Meldreth
Fowlmere
Melbourn
Royston

MELBOURN GREENWAY - SOUTH
ROYSTON TO FOXTON

Shared cycle path

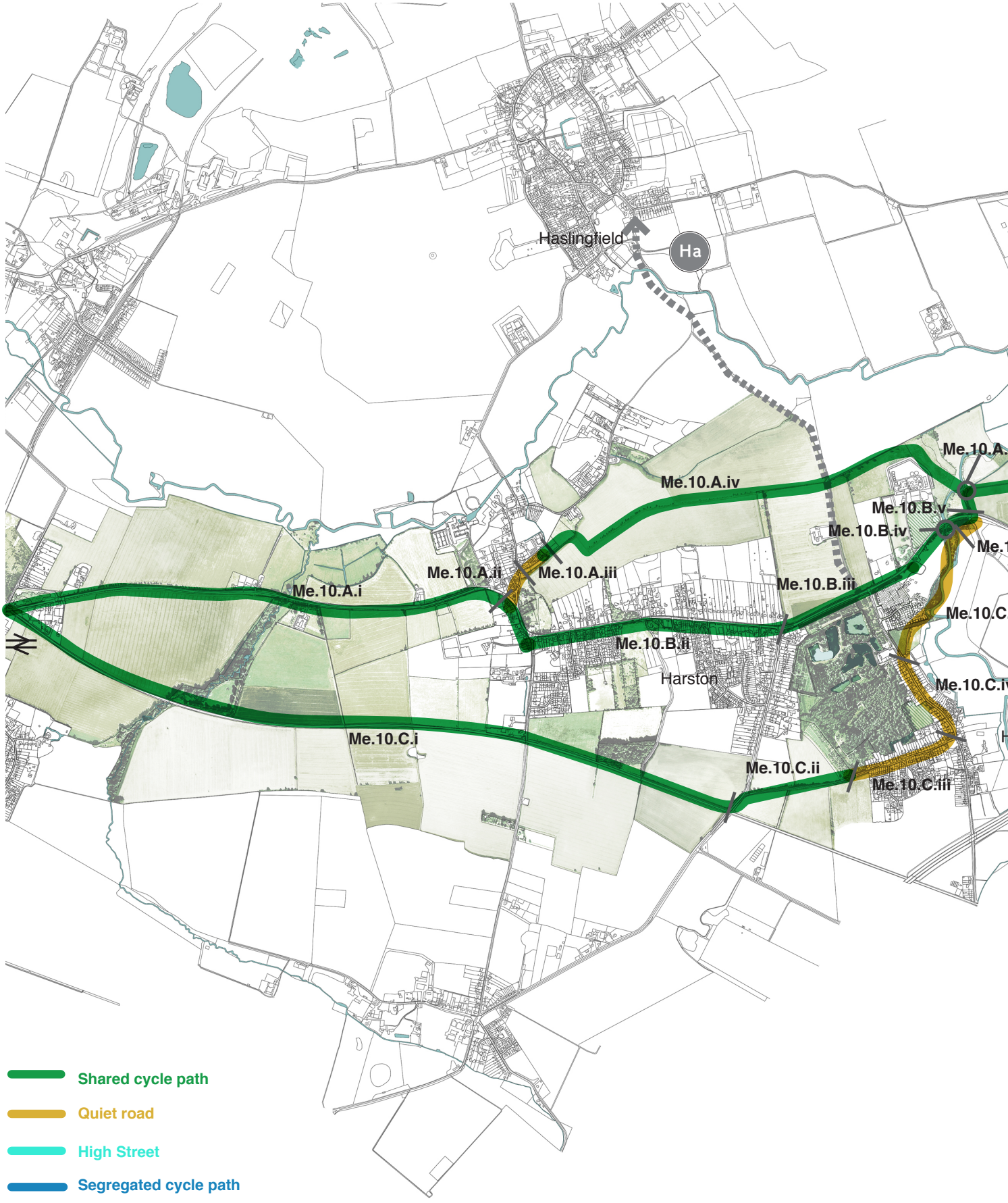
Quiet road

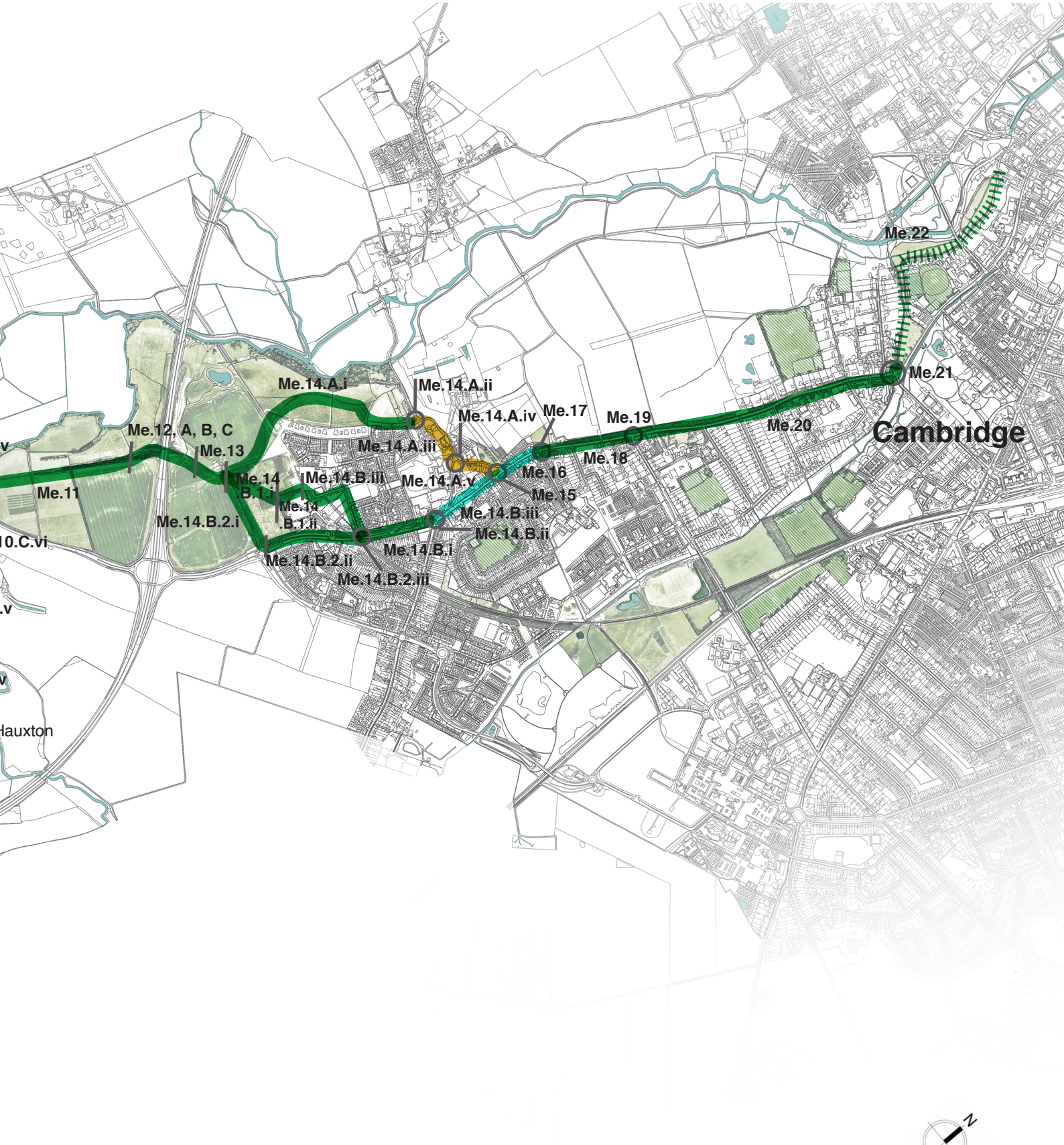
High Street

Segregated cycle path


th
Shepreth
Me.9.B
Me.8.A
Me.7
Me.8.B.i
Me.9.A
Foxton
Me.6
Me.5
Me.8.B.ii
iv

MELBOURN GREENWAY - NORTH
ROYSTON TO FOXTON




Me.22
Me.21
Me.14.A.i
Me.14.A.ii
Me.14.A.iv
Me.17
Me.19
Me.20
Cambridge
Me.12, A, B, C
Me.13
Me.14.A.iii
Me.18
Me.14
.B.1.i
Me.14.B.iii
Me.14.A.v
Me.16
Me.11
Me.15
Me.14
.B.1.ii
Me.14.B.iii
Me.14.B.2.i
Me.14.B.ii
Me.14.B.i
Me.14.B.2.ii
Me.14.B.2.iii
10.C.vi
Hauxton
N

Existing photograph of A10 Roundabout, Royston

Me.1 - A10 Roundabout, Royston

Bridge. New bridge over A505 (as proposed / drawn by Hertfordshire County Council) to link new shared path and existing cycle path in Royston. The bridge spans the Cambridgeshire - Hertfordshire county borders. Subject to discussions with Hertfordshire.

1. Path along field edge (subject to agreement/acquisition) behind existing hedge.
2. Footbridge
3. Greenway bollard indicating start of Melbourn Greenway
4. Adjustments to landscape
5. Widened radii to path geometry

N

Scale 1-2000

Me.2 - A10 from roundabout to Melbourn turning

Shared surface path, 2m wide. New shared cycle path on the eastern side of the A10. Greenways signage/marker posts highlighting the Greenway route at junction with A10, approximately 300m length of excavation to low embankment slope to create a 45 degree soil slope to accommodate the new path and a grass verge to the road within the existing highway boundary.

Existing photograph of A10 Roundabout, Royston

Existing photograph of A10 Roundabout, Royston

Me.3.i - London Way, byway

Bespoke path treatment comprising 0.8+0.8m concrete tracks. Install two narrow concrete (or light coloured asphalt product) tracks separated by a permeable vegetation strip to match pattern of existing byway track. New landscaping to edge of shared surface path acting as a new foraging edge to the track such as sloes and blackberries. Intervention to protect and enhance the setting of the Tumula adjacent to the track, including information/interpretation.

Me.4.i - Junction of London Way, Back Lane and Melbourn High Street

Junction/crossing, 3m wide. Short length of 3m wide shared path connecting High Street and London Way via two raised table crossings. Additional planting in verge spaces and Greenway signage.

1. Raised table
2. Adjustments to landscape
3. Adjustments to existing path
4. On-road cycle lane
5. Quite road - resurfaced

Existing photograph of Junction of London Way, Back Lane and Melbourn High Street

N

Scale 1-1000

Existing photograph of Melbourn Science Park

Me.5 - Melbourn Science Park

Junction and transition to off road shared path. Add dropped kerbs, realign existing path to provide perpendicular approach to a new raised table crossing with priority over the Science Park access road. Add 2+ m wide central refuge on High Street and shared path on south/east side to connect to Russet Way. Planting + Greenways signage and road markings.

Me.5 - Melbourn Science Park

Junction and transition to off road shared path. Add dropped kerbs, realign existing path to provide perpendicular approach to a new raised table crossing with priority over the Science Park access road. Add 2+ m wide central refuge on High Street and shared path on south/east side to connect to Russet Way. Planting and Greenways signage and road markings.

1. Raised table
2. Adjustments to landscape
3. Adjustments to existing path
4. Central refuge
5. On-road cycle lane
6. Shared surface path
7. Connection to Russet Way
8. Verge
9. Bollard

Existing aerial photograph of Melbourn Science Park

Existing photograph of A10 junction with Foxton

Me.7 - A10 junction with Foxton

Junction/Crossing, 2m wide. New crossing with central refuge and short length of shared path on the eastern side of the A10 to connect to Shepreth Road towards Foxton village. New planting and Greenways signage.

Me.7 - A10 junction with Foxton

Junction/Crossing, 2m wide. New crossing with central refuge and short length of shared path on the eastern side of the A10 to connect to Shepreth Road towards Foxton village. New planting and Greenways signage.

1. Option A
2. Option B
3. Informal crossing using central refuge
4. Consistent landscaped verge between path and carriageway
5. Shared surface path
6. Priority for cyclists over private entrances
7. Quiet Road

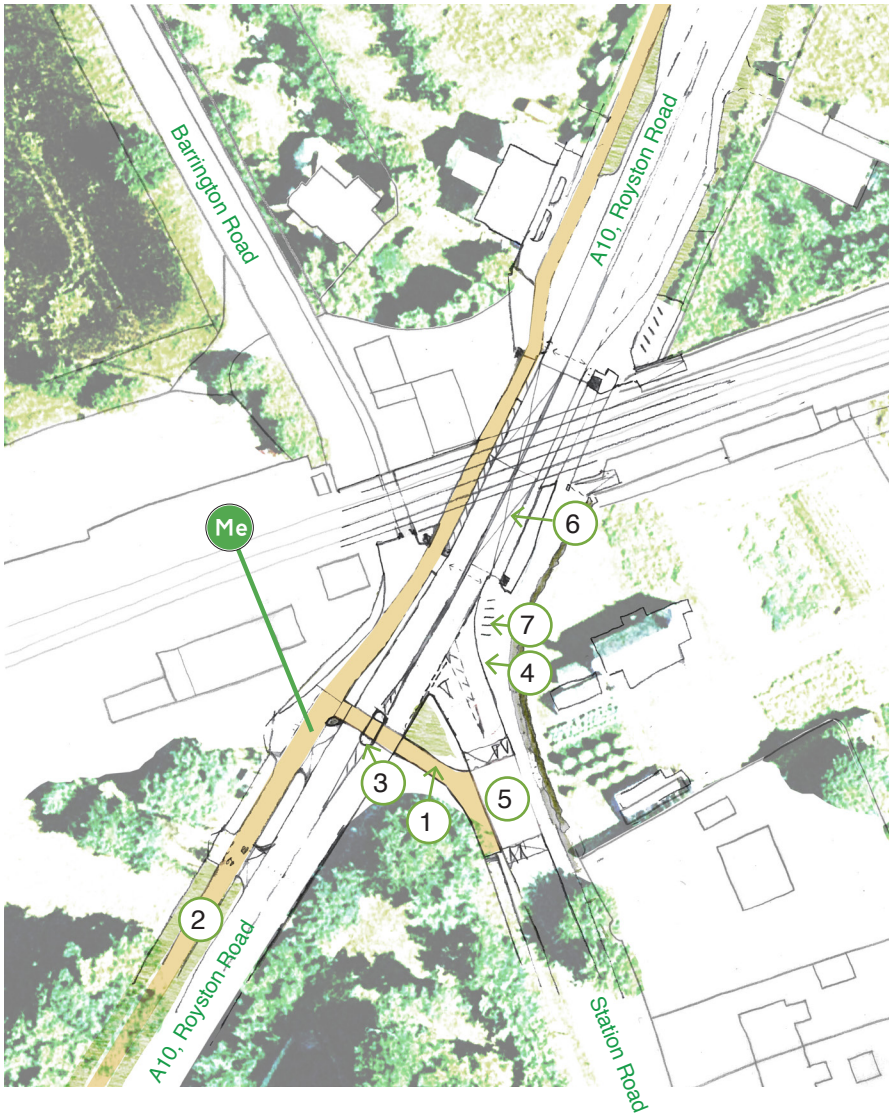
Existing aerial photograph of A10 junction with Foxton

N

Scale 1-1000

Me.9.A - Foxton Level Crossing

Junction/Crossing/Level Crossing, 2m wide. Introduce 30mph limit on approaches to crossing. Measures to join-up existing shared paths to the west of the A10 either side of the level crossing. This would involve minor realignment of kerbs on approach and re-painting lines on the carriageway at the level crossing to allow for 3m traffic lanes, plus 0.8m hatched separating strip, and 2m shared path - all within the existing barriers, approximately 130m of minimum 2m wide shared path on the west side of the A10 between the crossing and the existing (recently completed crossing with refuge near the Barrington Road junction. Junction of A10 and Station road also reconfigured to provide crossing to the village from the west side of the A10. Short-term project. Based on principal of previous NR proposal - but subject to further discussion and agreement with NR, as interim solution while bypass is delivered.



Existing aerial photograph of Foxton Level Crossing

1. Shared-use path
2. Landscaped verge
3. Central refuge
4. Junction geometry revised - right turn into and left turn out of Station Rd banned
5. Raised table
6. Level crossing - lines / hatching repainted
7. Cycle parking

N

Scale 1-1000

Me.10.A.ii - Church Street, Harston

Junction and Quiet Road. Restricting access to the western-most fork of Church Lane the junction with the A10/ Royston Road to pedestrians/cycles. Change of priority at fork in Church Street to follow Greenway route and calm vehicular traffic. White painted cycle markings on road surface and greenways signage required at all significant turning points. Raised table at junction with new shared cycle path alongside paddock/field edge (subject to agreement/acquisition). Adjustments to geometry of Church Street (eastern-most fork) to allow all-movements, calm traffic and provide a safer, more perpendicular crossing point for an improved shared surface path [Me.10.B] and link into the centre of the village. Improved route along southern edge of green includes infilling bus bay to provide protected bus stop and associated landscaping and planting.

Existing aerial photograph of Church Street, Harston

1. New path along field edge
2. Culvert at bridge over drain
3. Path along edge of paddock
4. Raised table
5. Painted white cycle markings on road surface and remove centre line
6. Priority of junction changed
7. Greenways bollard to restrict vehicular access
8. Upgrade of shared path path alongside A10 with verge, bus island, copenhagen crossings and improved side road crossings

Existing photograph of New Bridge over River Cam

Me.10.A.v - New Bridge over River Cam

Bridge, 4m wide. New pre-fabricated bridge over the river Cam, carefully installed beside/through existing riverside trees. c.16m clear span, with 4m wide deck. New landscaping, approach paths (all at grade, no approach embankments) and greenways signage. Subject to landowners agreement

Me.10.B.iii - A10, North of Harston

Shared path, 3m wide. Widen and resurface existing shared path with new planted verge separating from the carriageway. Requires narrowing of the carriageway over a distance of c.500m by narrowing lanes, removing centre hatching, or removing widened road at the Church Road junction (that currently allows traffic to undertake traffic waiting to turn right into Church Lane). Copenhagen type side-road crossing to be installed at entrance to former treatment works site.

Existing photograph of A10, North of Harston

Existing photograph of A10, Hauxton Mill Bridge

Me.10.B.iv - A10, Hauxton Mill Bridge

Shared path, 3.5m wide. Widen existing shared path at bridge by narrowing carriageway lanes to 3.5m. New planted verge separating strip between path and carriageway - incorporating vehicle containment (Trief kerb), and removal of existing railing.

Me.14.A.i - Trumpington Country Park West route

Shared path, 3m wide. Resurface existing shared cycle path in the country park to meet Greenways standards, plus up to 200 linear meters of new path to ensure smoother transition between paths and more direct alignment for the greenway route. Greenway signage at key junctions. To be co-ordinated/agreed with developer.

Existing photograph of Trumpington Country Park West route

Existing photograph of Trumpington Village, Grantchester Road and Church Lane

Me.14.A.i - Trumpington Village, Grantchester Road and Church Lane

Existing quiet road. No works required to carriageway surface treatment, white painted cycle markings on road surface. 20mph through village.

Me.14.B.2.iii - Along Hauxton Road

Shared path, 3m wide. Widen existing pavement on the east side of Trumpington Park and Ride (outside the park and ride site) to 3m wide with enhanced landscaping to the existing planted verge separating shared path from carriageway.

Existing aerial photograph of Along Hauxton Road

1. Shared surface path
2. Bus Lane 1 way
3. Bus Lane 2 way
4. On-road bus lane
5. Raised table
6. Adjusted crossing geometry
7. Adjusted geometry

Existing photograph of Parallel to Hauxton Road

Me.14.i - Parallel to Hauxton Road

Route utilises existing (currently unused) bus road, bypassing Hauxton Road (as per photo, left). In event of bus road being brought into operation or widened, then a new shared path separated by a verge should be constructed (as per sketch view, above).

Me.14.ii - Junction of Bus lane and shared surface path with Hauxton Road

Junction. Wholesale junction reconfiguration including new signals and new crossings to support the transition from a segregated facility parallel to Hauxton Road, to the on-road hybrid lanes along Trumpington High Street. See plan for detailed description.

Existing aerial photograph of Junction of Bus lane and shared surface path with Hauxton Road

1. Shared path
2. Hybrid /on-road cycle lane
3. Potential north-bound bus bypass
4. Segregated cycle track (with footway alongside)
5. Junction layout and signals altered, with right turn in and left turn out of Shelford Road banned, revised crossings and bus priority measures
6. Improved landscaping
7. New trees
8. Minor adjustment to tie-in existing paths to Waitrose

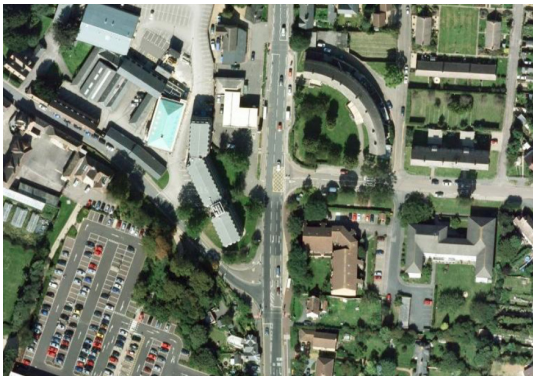
Existing photograph of Trumpington High Street between Shelford Road and Church Lane

Me.14.B.iii - Trumpington High Street between Shelford Road and Church Lane

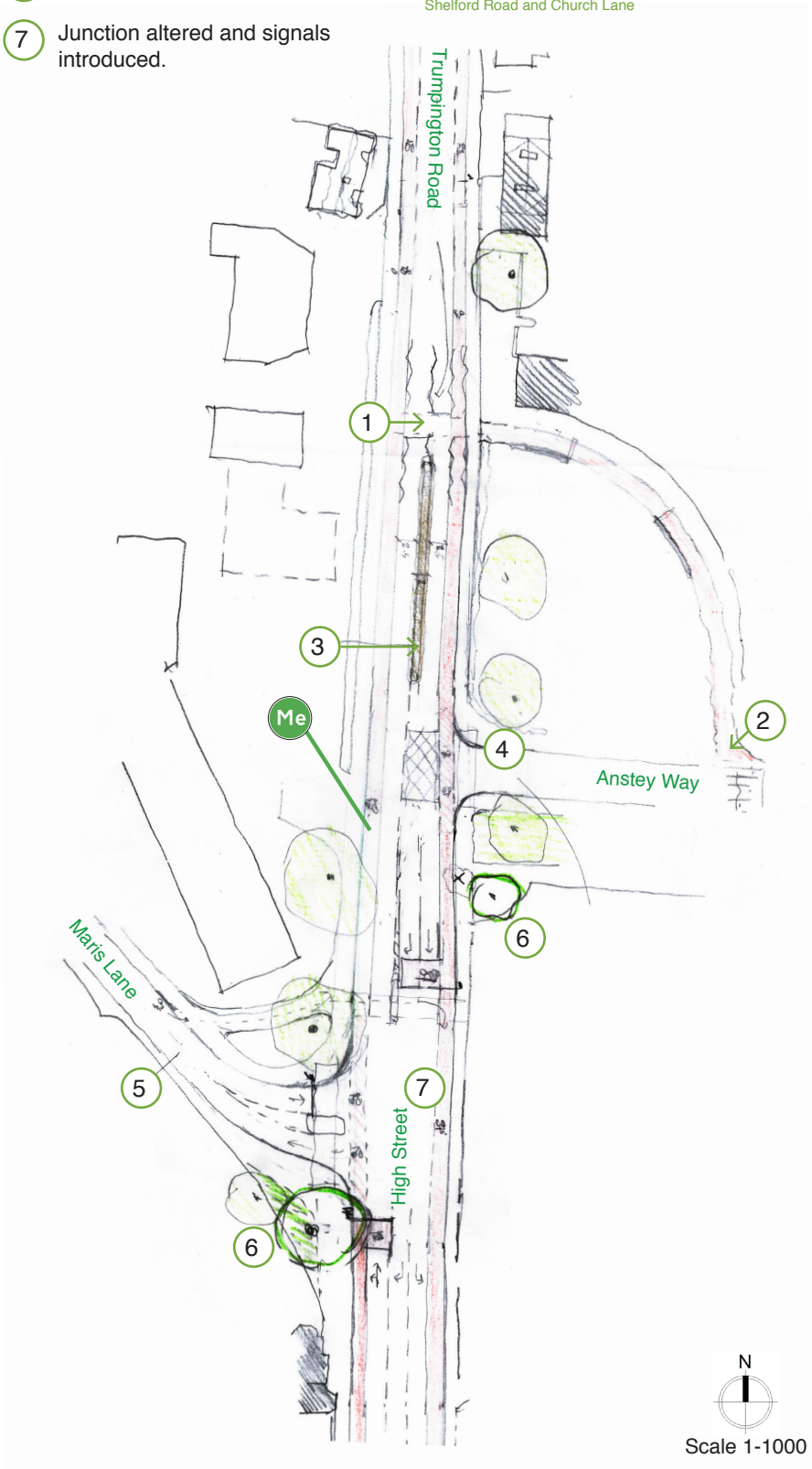
High Street. Hybrid (where there is sufficient width to maintain 6m main carriageway) or on-carriageway advisory cycle lanes (where there is not). Speed limit reduced to 20mph, and centre lines removed.

Maris Lane junction reconfigured, including new signals and crossing, to allow two-way traffic on Maris Lane / removal of one-way system.

1. Relocate crossing
2. Potential additional new cycle path to bypass junction
3. Over-runnable median strip on carriageway
4. Tighten corner geometry
5. Converted to two-way vehicular use
6. New tree
7. Junction altered and signals introduced.



Existing photograph of Trumpington High Street between Shelford Road and Church Lane



Existing photograph of Junction of Trumpington High Street and Church Lane

Me.15 - Junction of Trumpington High Street and Church Lane

Junction. Public realm led streetscape project around the War Memorial providing closure to traffic from Church Lane to Trumpington High Street, turn-around space, retained access to Trumpington Hall, and transition from segregated cycle track (see Me 17), Church Lane (see Me.14.A.v) and cycle lanes along Trumpington High Street (see Me.14.iii) New Toucan crossing, landscaping and planting, and Greenways signage. This proposal is based on the removal of the gyratory/one-way arrangement around Church Lane and Maris Lane.

1. New toucan crossing
2. new flush kerbs delineating turning area and cycle tracks
3. Separating strip
4. Raised table
5. Landscaping scheme preserving and enhancing the surfaces around the War Memorial
6. New tree
7. Option A route via Quiet Road
8. Option B via High Street

Existing aerial photograph of High Street and Church Lane

N

Scale 1-1000

Existing photograph of Trumpington High Street between Church Lane and Winchmore Drive

Me.16 - Trumpington High Street between Church Lane and Winchmore Drive

High Street. Two-way cycle track segregated from existing (retained footway) on west side of Trumpington High Street. Pre-cast load-bearing kerb provides separation from carriageway. Protected bus stop introduced (which may require land acquisition / adjustment of car park layout - subject to further investigation) or, alternatively, relocation of the bus stop.

Me.17 - Trumpington High Street, junction with Winchmore Drive

Junction. Segregated foot and cycle path become shared use path south of Winchmore Drive. 3m wide shared path from here, via Copenhagen-style crossing over side road (Winchmore Drive), to link to Me18. n.b. Existing cycle lane on east of Trumpington High Street maintained.

Existing photograph of Trumpington High Street between Church Lane and Winchmore Drive

1. Priority for shared use path over side-road (Copenhagen crossing)
2. Potential need for land-owner agreement/acquisition
3. New verge
4. Narrowed carriageway
5. On-road cycle lane retained

Scale 1-500

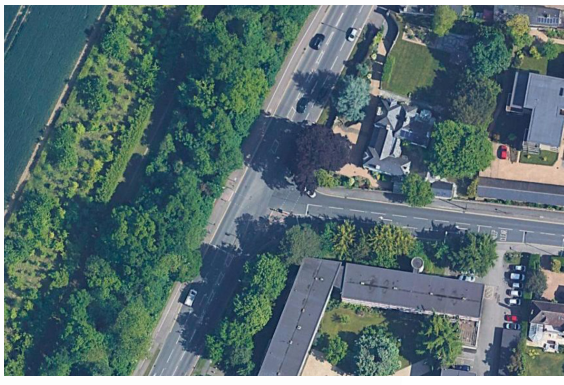
Me.19 - Long Road Junction

Shared surface path, 3m wide. Shared path northbound continues along west of Trumpington Road as per Me18/Me20. Optional wholesale reconfiguration of junction to provide improved crossings for pedestrians and cyclist, maintain/ enhance bus priority measures and to tighten junction geometry (by moving signals back) to allow a verge separating the greenway route and Trumpington Road to be maintained, and waiting areas for those crossing to be accommodated within the depth of the verge.

1. Shared path 3m wide
2. Continuous separating verge
3. Junction redesign to provide better walking/cycling connections to/from Long Road and provide width for introduction of continuous verge (item 2)

N

Scale 1-1000



Existing photograph of Long Road Junction

Me.20 - Trumpington Road - Long Road to Chaucer Road

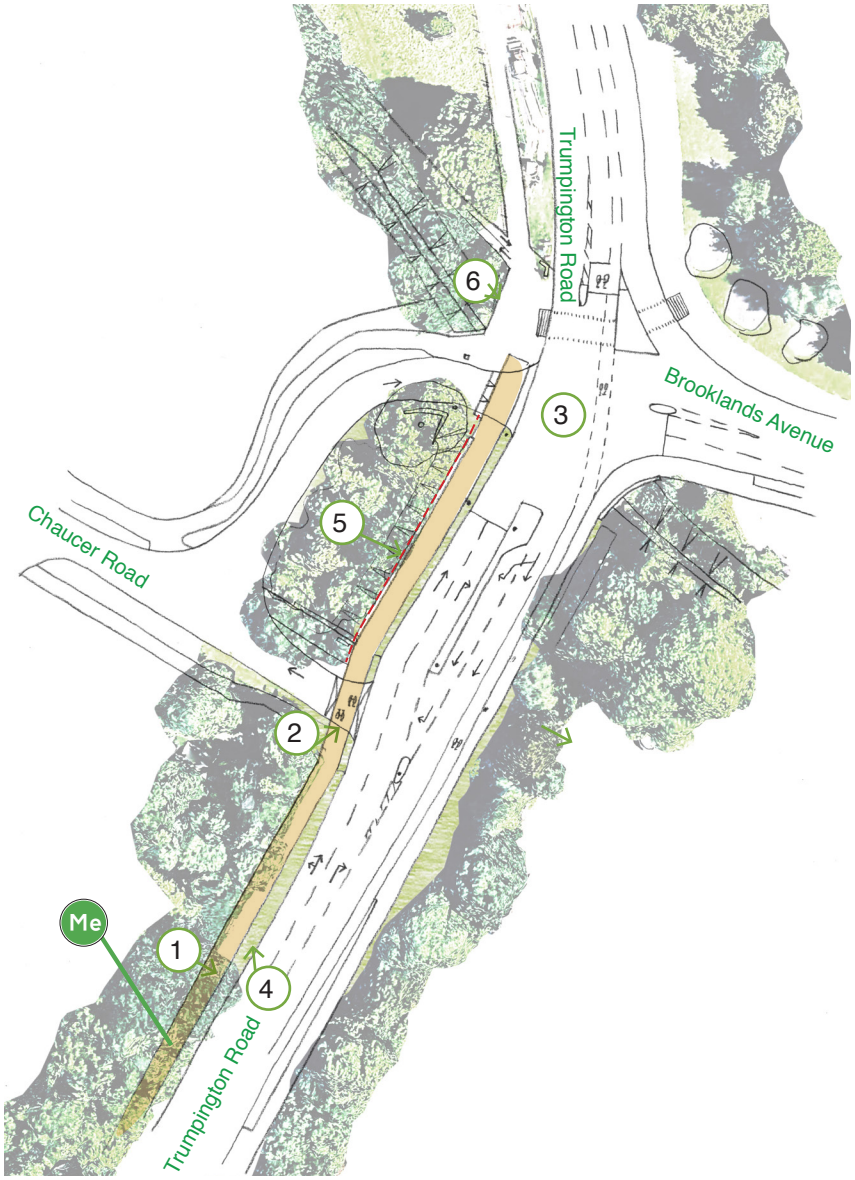
Shared path, 3m wide. Upgrade of existing path. Removal of painted line separating pedestrians and cyclists and introduction of new/widened planted verge between path and road by reducing the carriageway width where necessary. Path to have priority over all side roads and driveways with introduction of 'copenhagen' crossings. New warning symbols/corduroy paving at blind entrances to discourage cycling adjacent to hedge.

Existing photograph of Trumpington Road - Long Road to Chaucer Road

Me.21 - Brooklands Avenue junction

Shared path, 3m wide and junction. Shared path widened to 3m and relocated back slightly from its current location to better align with the road crossing at the exit from Chaucer Road and to provide additional width for both a new (narrow) planted verge to separate the path from the carriageway, and necessary filter lanes for the currently proposed signals upgrade/safety scheme.

Option to construct deck over a short section of the brook to increase waiting space area for pedestrians and cyclists waiting at the signalised crossing to minimise obstructions to flow along the greenway route.



Existing photograph of Brooklands Avenue junction

1. Shared surface path 3m wide
2. Priority to cyclists over side roads and private entrances using raised table
3. Adjustments to junction
4. Landscaped verge
5. Adjustments to landscape
6. Location of optional deck to extend foot/cycleway - with brick parapets reduced.

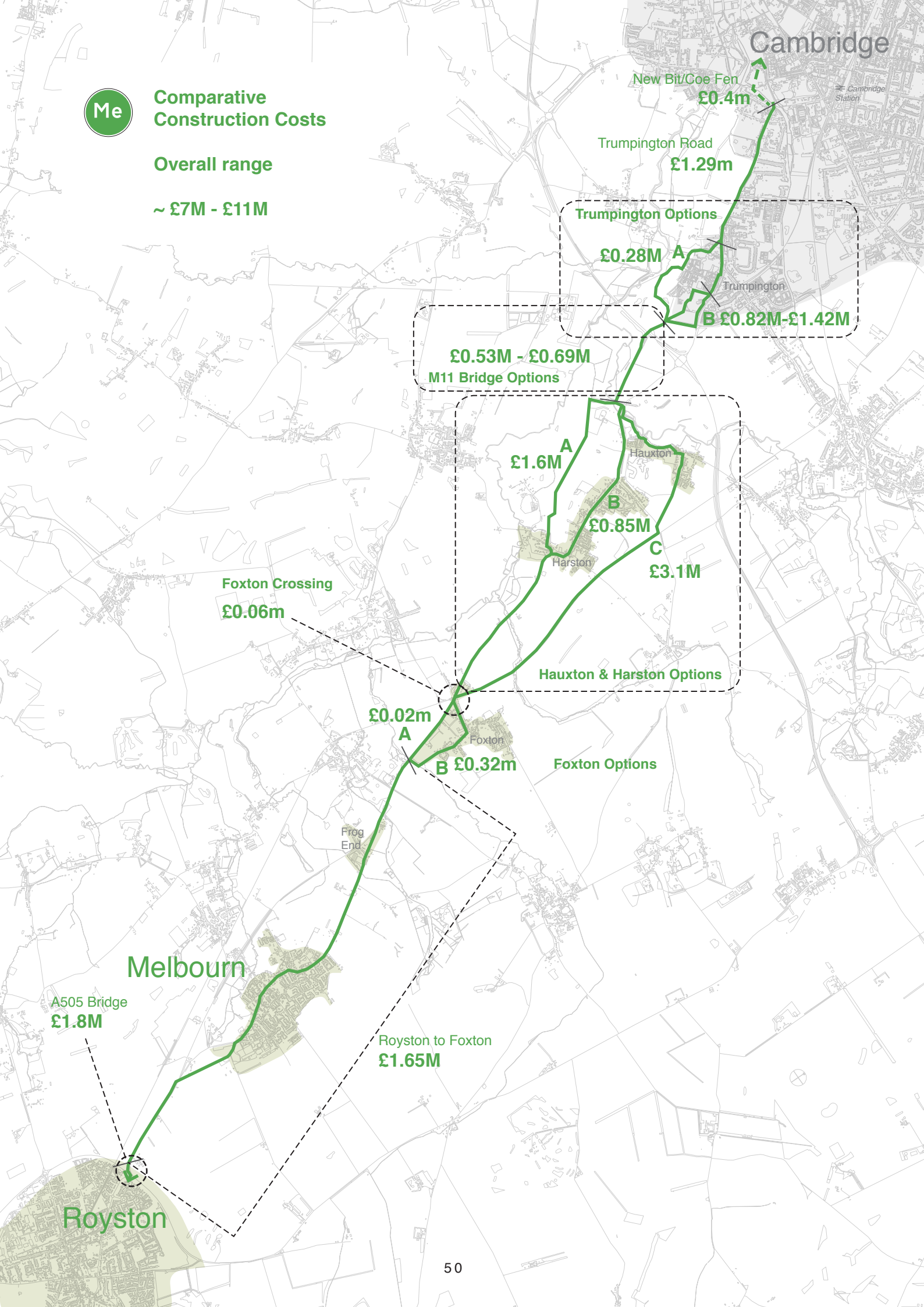
N

Scale 1-1000

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.

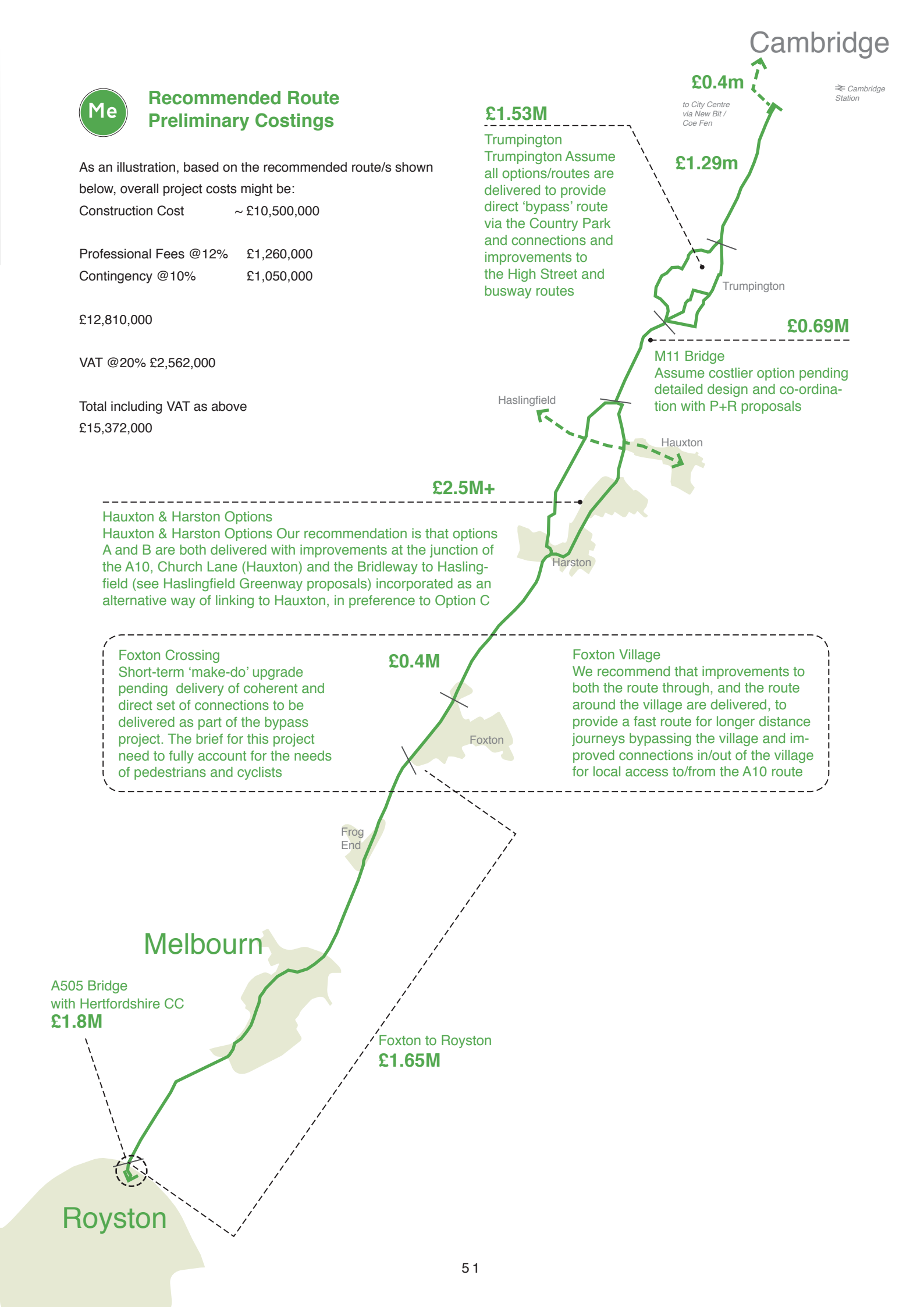
On the following page there is a summary of the overall construction costs for the various sections and options of the route, for comparison. The next page outlines the cost of our preliminary route recommendation and on subsequent pages there is a table showing the breakdown of the initial assessment of construction cost related to each area of work (including options) identified on the route plans that feature on pp18-21 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.


Me
Comparative Construction Costs
Overall range
~ £7M - £11M
Cambridge
New Bit/Coe Fen
£0.4m
Cambridge Station
Trumpington Road
£1.29m
Trumpington Options
£0.28M
A
Trumpington
B £0.82M-£1.42M
£0.53M - £0.69M
M11 Bridge Options
A
£1.6M
Hauxton
B
£0.85M
C
£3.1M
Harston
Foxton Crossing
£0.06m
Hauxton & Harston Options
£0.02m
A
Foxton
B £0.32m
Foxton Options
Frog End
Melbourn
A505 Bridge
£1.8M
Royston to Foxton
£1.65M
Royston

Recommended Route Preliminary Costings

As an illustration, based on the recommended route/s shown below, overall project costs might be:

Construction Cost	~ £10,500,000
Professional Fees @12%	£1,260,000
Contingency @10%	£1,050,000
	£12,810,000
VAT @20%	£2,562,000
Total including VAT as above	£15,372,000



MELBOURN COSTING

Fulkers' Constuction Cost Estimate - March 2019

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

Ref.	Name.	Route Type:	Path width	Works	Cost (£)
Me.1	A10 Roundabout, Royston	Bridge	n/a	New bridge over A505 (as proposed / drawn by Hertfordshire County Council) to link new shared path and existing cycle path in Royston. The bridge spans the Cambridgeshire - Hertfordshire county borders. Subject to discussions with Hertfordshire.	1,758,750
Me.2	A10 from roundabout to Melbourn turning	Shared surface path	2m	New shared cycle path on the eastern side of the A10. Greenways signage/marker posts highlighting the Greenway route at junction with A10. approx. 300m length of excavation to low embankment slope to create a 45 degree soil slope to accommodate the new path and a grass verge to the road within the existing highway boundary.	400,125
Me.3.i	London Way, byway	Bespoke condition	0.8m + 0.8m	Install two narrow concrete (or light coloured asphalt product) tracks separated by a permeable vegetation strip to match pattern of existing byway track. New landscaping to edge of shared surface path acting as a new foraging edge to the track such as sloes and blackberries. Intervention to protect and enhance the setting of the Tumula adjacent to the track, including information/interpretation.	428,938
Me.3.ii	London Way, roadway	Quiet Road	6m	Resurface existing two-way access road between junction with Back Lane and the byway towards Melbourn. Signage and prominent cycle markings on the carriageway.	91,125
Me.4.i	Junction of London Way, Back Lane and Melbourn High Street	Junction/ Crossing	3m	Short length of 3m wide shared path connecting High Street and London Way via two raised table crossings. Additional planting in verge spaces and Greenway signage.	130,875
Me.4.ii	Melbourn High Street - south	Quiet Road	n/a	Reduce speed limit to 20mph through the whole village and remove centre line where it exists. Adjust kerb line at side road junctions to tighten corner geometry.	30,500
Me.4.iii	Melbourn High Street - War Memorial	Junction	n/a	Public realm led scheme at the junction of the Station Road, High Street and Mortlock Street to calm traffic and facilitate easier/safer crossing of road for pedestrians and cyclists. Assume removal of signal control and introduction of raised table over junction.	228,625

Me.4.iv	Melbourn High Street - north	Quiet Road	n/a	Reduce speed limit to 20mph through the whole village and remove centre line where it exists. Adjust kerb line at side road junctions to tighten corner geometry.	30,500
Me.5	Melbourn Science Park	Junction and transition to off road shared path	n/a	Add dropped kerbs, realign existing path to provide perpendicular approach to a new raised table crossing with priority over the Science Park access road. Add >2m wide central refuge on High Street and shared path on south/east side to connect to Russet Way. Planting, Greenways signage and road markings required.	186,250
Me.6	Alongside Cambridge Road, along Dunsbridge Turnpike, alongside A10	Shared path / Quiet Road	n/a	Existing route including recently widened shared paths, quiet road and A10 crossing with central refuge. No works to path surface. Improve priority over 5no. accesses / side roads with Copenhagen-style crossings (see Me19 - view for example). New planting in grass verge, and Greenways signage.	118,500
Me.7	A10 junction with Foxton	Junction/ Crossing	2m	New crossing with central refuge and short length of shared path on the eastern side of the A10 to connect to Shepreth Road towards Foxton village. New planting and Greenways signage.	78,488
Me.8.A	A10 between Shepreth road and Foxton level crossing	Shared surface path	n/a	Recently widened shared path. No works to path surface. New planting in grass verge, and Greenways signage.	21,500
Me.8.B.i	Shepreth Road	Shared surface path	2m	New shared path in the highway verge from junction with the A10 to the edge of the village. Signage and planting in separating verge.	150,875
Me.8.B.ii	Foxton High Street	Quiet Road	n/a	Reduce speed limit to 20mph through the whole village and remove centre line where it exists. Adjust kerb line at side road junctions to tighten corner geometry. Implement public realm led scheme at the junction of Station Road and High Street, for instance a raised table across the junction, reduced carriageway area, and new planting and seating.	93,625

Me.9.A	Foxton Level Crossing	Junction/ Crossing/ Level Crossing	2m	Introduce 30mph limit on approaches to crossing. Measures to join-up existing shared paths to the west of the A10 either side of the level crossing. This would involve minor realignment of kerbs on approach and re-painting lines on the carriageway at the level crossing to allow for 3m traffic lanes, plus 0.8m hatched separating strip, and 2m shared path - all within the existing barriers. approx. 130m of minimum 2m wide shared path on the west side of the A10 between the crossing and the existing (recently completed crossing with refuge near the Barrington Road junction. Junction of A10 and Station road also reconfigured to provide crossing to the village from the west side of the A10. Short-term project. Based on principal of previous National Rail proposal - but subject to further discussion and agreement with National Rail, as interim solution while bypass is delivered.	61,688
Me.9.B	Foxton Crossing bypass	Bridge	3m	New highway bridge over the railway to replace Foxton Level crossing. Need to ensure that proposals incorporate minimum 3m shared path, with separation from traffic, across bridge and approaches along western edge. Also need to ensure replacement walking/cycling facilities to/ from village and station at location of existing level crossing. Medium/Long-term project - by others - see GRIP 2 report by Greater Cambridge Partnership, Jan 18.	n/a
Me.10.A.i	A10 between Foxton and junction with Church Street, Harston	Shared surface path	n/a	Recently widened shared path. No works to path surface. New planting in grass verge, and Greenways signage.	52,313
Me.10.A.ii	Church Street, Harston	Junction/ Quiet Road	n/a	Closing the junction of Church Street (LHS fork) and the A10 to vehicular traffic, giving access to pedestrian and cycle use only. White painted cycle markings on road surface and greenways signage required at all significant turning points. Raised table at junction with new shared cycle path alongside field edge. Adjustments to geometry of Church Street (RHS fork) to allow vehicles traveling eastbound from the A10 to access Church Street. Change of priority of Church Street to allow cyclists right of way over vehicular traffic. Shared surface path is extended across landscaped island for improvements to option Me.10.B and general village use, replacing traditional bus stop with island bus stop. New landscaping and planting required. Subject to landowners agreement.	80,938

Me.10.A.iii	Pumping Station access track / access road to homes on 'The Footpath'	Quiet Road/ Shared surface path	3m	Short section of new 3m wide shared path linking from the existing Quiet Road ('The Footpath') via a gap created in the hedge/boundary of the allotment area, via a new culvert/bridge over the adjacent drain to the field edge. Subject to landholders agreement.	228,125
Me.10.iv	Path to the west of Harston	Shared surface path	3m	New shared use path via existing field edges between 'The Footpath' and the Haslingfield-Hauxton bridleway across St. John's College land and between the bridleway and the Cam, via the former treatment works site. Subject to landowners agreement and confirmation of preferred route.	929,000
Me.10.v	New bridge over river Cam	Bridge	4m	New pre-fabricated bridge over the river Cam, carefully installed beside/through existing riverside trees. approx.16m clear span, with 4m wide deck. New landscaping, approach paths (all at grade, no approach embankments) and greenways signage.	316,750
Me.10.B.i	as Me 10.A.i above: A10 between Foxton and junction with Church Street, Harston	Shared surface path	n/a	Recently widened shared path. No works to path surface. New planting in grass verge, and Greenways signage.	*52,313*
Me.10.B.ii	Harston High Street	Shared surface path	n/a	Recently widened shared cycle path through Harston. Junction/side road improvements at Church Street junction. New Greenways signage and planting.	20,000
Me.10.B.iii	A10, north of Harston	Shared surface path	3m	Widen and resurface existing shared path with new planted verge separating from the carriageway. Requires narrowing of the carriageway over a distance of c.500m by narrowing lanes, removing centre hatching, or removing widened road at the Church Road junction (that currently allows traffic to undertake traffic waiting to turn right into Church Lane). Copenhagen type side-road crossing to be installed at entrance to former treatment works site.	647,625
Me.10.B.iv	A10, Hauxton Mill Bridge	Shared surface path	3.5m	Widen existing shared path at bridge by narrowing carriageway lanes to 3.5m. New planted verge separating strip between path and carriageway - incorporating vehicle containment (Trief kerb), and removal of existing railing.	74,625
Me.10.B.v	Entrance to existing 'Country Park' path	Shared surface path	n/a	Adjust path geometry to make a wider and gentler corner between the A10 shared path (as above) and the existing recently delivered path via the Trumpington Meadows Country Park. No works to path from A10 to the corner beside the Cam. New signage.	50,000

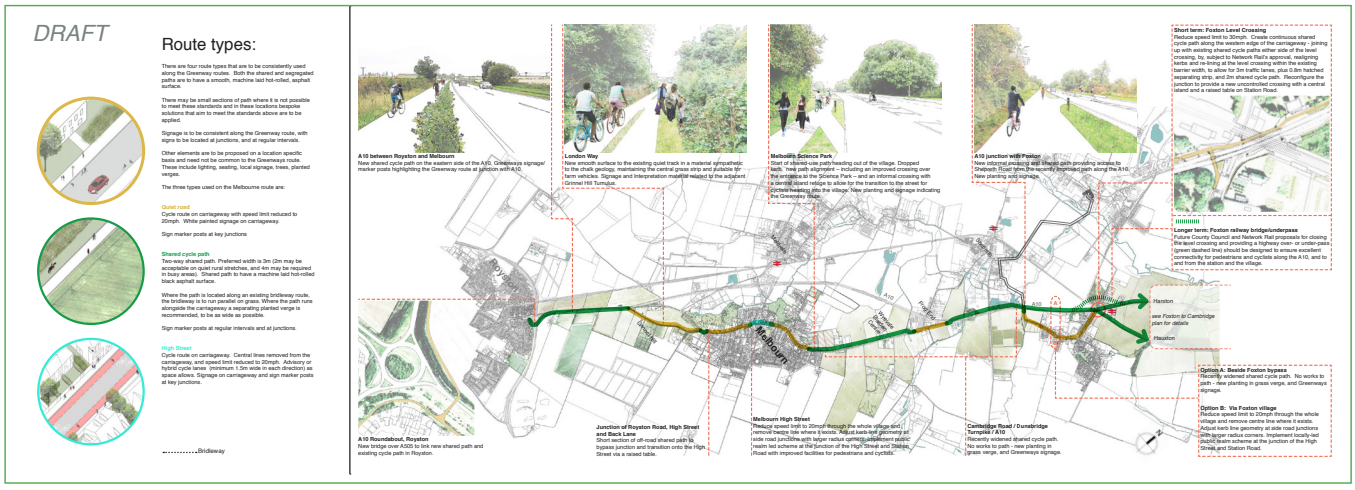
Me.10.C.i	Foxton to London Road (Hauxton)	Shared surface path	3m	New 3m wide shared path east of railway line between Foxton station, crossing to the other side of the tracks via the existing level crossing on Station Road (between Harston and Newton), before skirting the bottom of the embankment at the London Road bridge to join the road. Separating fencing and planting to full length. Subject to landholders agreement.	2,369,750
Me.10.C.ii	Donkey Lane (byway)	Bespoke condition	0.8m + 0.8m	Install two narrow concrete (or light coloured asphalt product) tracks separated by a permeable vegetation strip to match pattern of existing byway track. New landscaping to edge of shared surface path acting as a new foraging edge to the track such as sloes and blackberries. Intervention to protect and enhance the setting of the Tumula adjacent to the track, including information/interpretation.	230,500
Me.10.C.iii	The Lane	Quiet Road	n/a	Existing quiet road. New greenways signage / cycle markings.	9,000
Me.10.C.iv	Church Road, Hauxton	Quiet Road	n/a	Existing quiet road. No works required to carriageway surface treatment, white painted cycle markings required on road surface. Greenways signage to indicate turning for public footpath.	10,375
Me.10.C.v	Public Footpath from St Edmunds Church to the A10	Shared surface path	3m	Existing informal/unsurfaced footpath upgraded to shared path. Path winds through deciduous woodland and alongside the river north of the Hauxton Meadows housing development boundary. Existing bridges retained/improved.	398,250
Me.10.C.vi	Hauxton Mill entrance/ junction	Informal Crossing	n/a	New informal crossing across the A10, with 2.5m wide central island refuge, to link Hauxton Mill path with Trumpington Meadows path. Requires adjustment of informal parking. New landscaping, Greenways signage.	83,488
Me.11	Off road path between Harston and M11 bridge	Shared surface path	3m	Resurface existing shared cycle path, new planting and Greenways signage indicating turning to path.	331,750
Me.12.A	Existing accommodation bridge over M11 utilising existing approach ramps	Shared surface path, Bridge	4m	Resurface existing footbridge and ramped approaches.	159,250
Me.12.B	Existing accommodation bridge over M11 with new approach ramps	Shared surface path, Bridge	4m	Resurface existing footbridge. Construct new longer ramped approaches to the bridge with a reduced gradient for pedestrians and cyclists. New landscaping and planting required for new embankments. North bridge embankments and path should include access to existing path through the country park to the west.	317,250

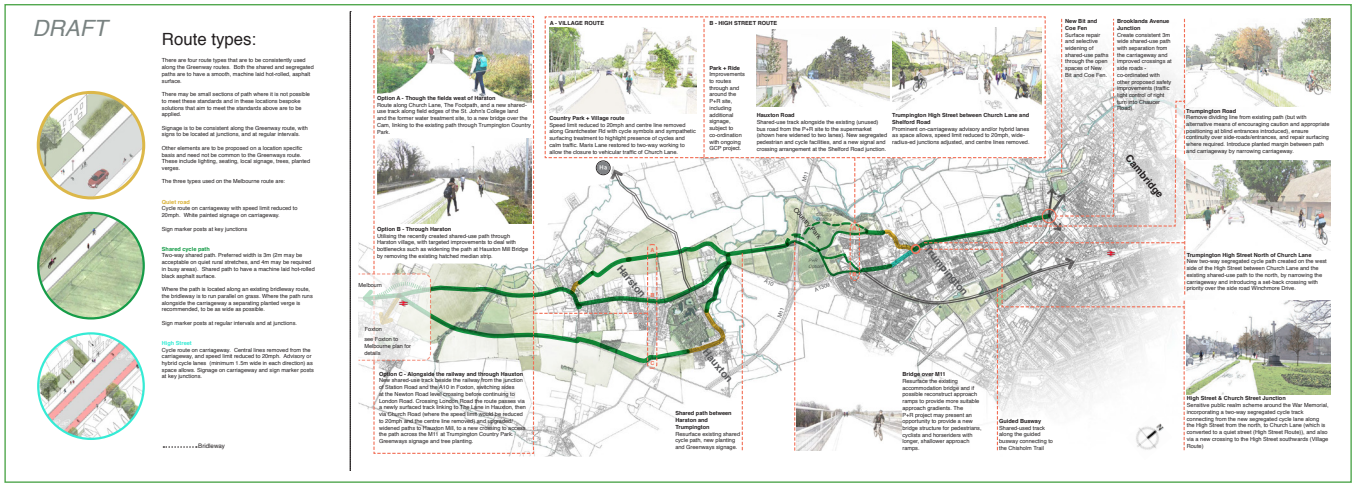
Me.12.C	New lightweight shared use bridge over M11 with new approach ramps	Shared surface path, Bridge	4m	New parallel bridge, new approach ramps, new shared path, new landscaping and planting required for new embankments. North bridge embankments and path should include access to existing path through the country park to the west. Proposals require agreements with Cambridgeshire County Council Park + Ride Teams.	n/a
Me.13	Trumpington Country Park north/east of bridge over M11	Shared surface path	3m	Resurface existing shared cycle path in the country park to meet Greenways standards. At junction of multiple paths, new greenways signage is required.	37,250
Me.14.A.i	Trumpington Country Park West route	Shared surface path	3m	Resurface existing shared cycle path in the country park to meet Greenways standards, plus up to 200 linear meters of new path to ensure smoother transition between paths and more direct alignment for the greenway route. Greenway signage at key junctions. To be co-ordinated/agreed with developers.	190,375
Me.14.A.ii	Trumpington Country Park junction with Grantchester Road	Junction	n/a	Resurface existing shared cycle path in the country park through to Grantchester Road. Move speed reduction sign to 30mph further west towards entrance to Byron's Pool, and 20mph speed with rumble strips at entrance to vehicular entrance to Country Park. White painted cycle markings on road surface. Greenways signage required. To be co-ordinated/agreed with developers.	63,500
Me.14.A.iii	Grantchester Road	Quiet Road	n/a	Existing quiet road. No works required to carriageway surface treatment, white painted cycle markings on road surface. 20mph through village.	4,625
Me.14.A.iv	Grantchester Road, Church Lane Junction	Junction	n/a	Church Lane closed to through traffic (see Me 15) so signage changed to indicate through-route for general vehicular traffic via Maris Lane, although priority markings to remain as existing. Cycle markings and greenway signage to indicate cycle route Grantchester Road to Church Lane.	23,438
Me.14.A.v	Church Lane	Quiet Road	n/a	Resurfacing and cycle markings on road.	1,000
Me.14.B.1.i	Trumpington Country Park middle route	Shared surface path	3m	Resurface (upgrade to asphalt) surface of projected path leading to the edge of the new (under construction) neighborhood. Greenways signage. To be co-ordinated/agreed with developer.	44,750
Me.14.B.1.ii	Trumpington Meadows neighbourhood	Quiet Road / Shared surface path	n/a	Signed route via existing (currently under construction) streets and paths of Trumpington Meadows development. Allowance for Greenways signage and minor adjustments to existing streetscape to support continuous and legible route. To be co-ordinated/agreed with developer.	15,000

Me.14.B.1.iii	Trumpington Park and Ride	Quiet road / cycle lane / shared surface path	3m	Route via existing car park circulation roads indicated with painted lanes/cycle symbols on the carriageway, and greenway signage at key locations, plus creation of 3m cycle track across existing paved/grass areas between the P+R facilities building and the end of the busway path. Requires relocation of bike lockers and greenways signage at key junctions. Subject to additional design development in conjunction with Park and Ride proposals.	52,375
Me.14.B.2.i	Trumpington Country Park east route	Shared surface path	3m	Resurface (upgrade to asphalt) surface of projected path leading to the edge of the country park adjacent to Hauxton Road, plus up to 200 linear meters of new path to ensure provide more direct route along the line of the existing (but projected to be removed) temporary cycle path. Greenway signage at key junctions.	115,375
Me.14.B.2.ii	Hauxton Road Junction	Junction/ Crossing	n/a	Improvements to crossing at entrance to Trumpington Meadows neighborhood (under construction) at the Hauxton Road junction.	75,000
Me.14.B.2.iii	Along Hauxton Road	Shared surface path	3m	Widen existing pavement on the east side of Trumpington Park and Ride (outside the park and ride site) to 3m wide with enhanced landscaping to the existing planted verge separating shared surface path from carriageway.	373,875
Me.14.B.2.iv	Trumpington Park and Ride link	Shared surface path	3m	Widen existing shared path to 3m on the west side of Hauxton Road, maintaining existing grass verge separation and reconstructing to avoid/ overcome tree root heave/damage. Improve crossing at entrance to P+R site by straightening approach paths and converting to 'straight across' crossing (with retained/widened central island to support uncontrolled crossing). New 3m wide shared path between P+R entrance crossing and new crossing of the busway (at the existing traffic light location) with re-profiling of existing embankment (east side) and verge (west side) to facilitate route. Enhanced landscaping to the re-profiled embankment and existing planted verge separating shared surface path from carriageway. Greenway signage at key changes of direction/crossings. Subject to additional design development in conjunction with Park and Ride Team.	148,363
Me.14.i	Parallel to Hauxton Road	Quiet Road	n/a	Route utilises existing (currently unused) bus road, bypassing Hauxton Road. In event of bus road being brought into operation or widened, then a new shared path separated by a verge should be constructed. In event of bus road being brought into operation or widened, then a new shared path separated by a verge should be constructed.	n/a

Me.14.ii	Junction of Bus lane and shared surface path with Hauxton Road	Junction	n/a	Wholesale junction reconfiguration including new signals and new crossings to support the transition from a segregated facility parallel to Hauxton Road, to the on-road hybrid lanes along Trumpington High Street.	317,875
Me.14.iii	Trumpington High Street between Shelford Road and Church Lane	High Street	n/a	Hybrid (where there is sufficient width to maintain 6m main carriageway) or on-carriageway advisory cycle lanes (where there is not). Speed limit reduced to 20mph, and centre lines removed. Maris Lane junction reconfigured, including new signals and crossing, to allow two-way traffic on Maris Lane.	389,500
Me.15	Junction of Trumpington High Street and Church Lane	Junction	n/a	Public realm led streetscape project around the War Memorial providing closure to traffic from Church Lane to Trumpington High Street, turn-around space, a retained access to Trumpington Hall, and transition from segregated cycle track parallel to (see Me 17), Church Lane (see Me.14.A.v) and cycle lanes along Trumpington High Street (see Me.14.iii) New Toucan crossing, landscaping and planting, and Greenways signage. *This proposal is based on the removal of the gyratory/on-way arrangement around Church Lane and Maris Lane. An alternative where this is not the case is also illustrated in plan - but is not to be costed (similar in scope to the preferred option).*	197,125
Me.16	Trumpington High Street between Church Lane and Winchmore Drive	High Street	n/a	Two-way cycle track segregated from existing (retained footway) on west side of Trumpington High Street. Pre-cast load-bearing kerb provides separation from carriageway. Protected bus stop introduced. *Protected (floating) bus stop arrangement may require land acquisition / adjustment of car park layout - subject to further investigation.*	100,250
Me.17	Trumpington High Street, junction with Winchmore Drive	Junction	n/a	Segregated foot and cycle path become shared use path south of Winchmore Drive. 3m wide shared path from here, via Copenhagen-style crossing over side road (Winchmore Drive), to link to Me18. Existing cycle lane on east of Trumpington High Street maintained.	61,500
Me.18	Trumpington Road - Winchmore Road to Long Road	Shared surface path	3m	Upgrade of existing path. Removal of painted line separating pedestrians and cyclists and introduction of new/widened planted verge between path and road by reducing the carriageway width.	230,250

Me.19	Long Road Junction	Shared surface path	3m	Shared path northbound continues along west of Trumpington Road as per Me18/Me20. Optional wholesale reconfiguration of junction to provide improved crossings for pedestrians and cyclist, maintain/enhance bus priority measures and to tighten junction geometry (by moving signals back) to allow a verge separating the greenway route and Trumpington Road to be maintained, and waiting areas for those crossing to be accommodated within the depth of the verge. See plan for details. Optional - provides links to Long Road for those joining/leaving the greenway route	121,500
Me.20	Trumpington Road - Long Road to Chaucer Rd	Shared surface path	3m	Upgrade of existing path. Removal of painted line separating pedestrians and cyclists and introduction of new/widened planted verge between path and road by reducing the carriageway width. Path to have priority over all side roads and driveways with introduction of 'copenhagen' crossings. New warning symbols/ corduroy paving at blind entrances to discourage cycling adjacent to hedge.	495,438
Me.21	Brooklands Avenue junction	Shared surface path/ Junction	3m	Shared path widened to 3m and relocated back slightly from its current location to better align better with the road crossing at the exit from Chaucer Road and to provide additional width for both a new (narrow) planted verge to separate the path from the carriageway, and necessary filter lanes for the currently proposed signals upgrade/safety scheme. (Adjustments to junction/ signals not costed).	40,250
		Optional additional decking over Vicar's Brook	n/a	Reduce existing brick parapet to below pavement level and construct lightweight steel deck spanning diagonally between exciting concrete abutments. Kerb or bollard containment to ensure no access for vehicles. *Subject to detailed design / engineering feasibility. Milestone needs to be accommodated.*	35,375
Me.22	Path via New Bit and Coe Fen	Shared surface path	3m	Existing shared use paths to be widened and resurfaced. Greenways signage required. Coloured (e.g. buff) asphalt may need to be specified for this section.	408,688





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 route between Royston and Cambridge (via Melbourn) 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.

5th
studio