7. Cycle Network Proposals

7.1. Design Tools and Best Practice Examples

7.2. Phase 1 Proposed Cycling Improvements

7.3. Assessment of Proposals

7.1. Design Tools and Best Practice Examples

7.1.1. Introduction

Following the identification of the high scoring cycle corridors, proposals or high-level infrastructure improvements were developed. The following section gives a summary of the type of tools that can be used in the schemes developments.

7.1.2. Design Outcomes

Potential improvements for cycling were developed following a set of desired core design outcomes, informed by LTN 1/20. These desired design outcomes have been identified to make cycling more attractive and encourage more users to make journeys within the town by cycle.

7.1.2.1. Directness

Cycle corridors which serve key origins and destinations directly - and preferably not significantly longer than the route a vehicle would take.

7.1.2.2. Comfort

Cycle corridors that are comfortable to use with a surfacing that is smooth and a width that supports the expected volume of cyclists whilst also considering other road users.

7.1.2.3. Gradient

Cycle corridors which do not have an excessive gradient, which could potentially put off everyday cycling trips.

7.1.2.4. Safety

Cycle corridors that are in areas which have speeds and traffic volumes that support and encourage cycling of people of all ages and abilities.

7.1.2.5. Coherence

Cycle networks should be planned and implemented to enable users to reach their desired destinations, should be easy to navigate and be of a consistent high quality.

7.1.2.6. Attractiveness

Cycle corridors should provide an environment that is welcoming for users so that cycling can be an enjoyable activity and contribute to public realm enhancements.

7.1.2.7. Context Sensitive Design

Improvements should complement and enhance the character of urban and rural environment. The high-level concepts developed in the LCWIP should be suitable for the setting, and design guidance should be adapted to fit the local context and space constraints.

7.1.2.8. Adaptability

Cycle infrastructure should be developed to accommodate all types of users, and potential growth in demand. The provided facilities should be accessed and used by as many people as possible, regardless of age, gender and disability.

7.1.2.9. Inclusive Design

Facilities for cycling should provide equal access for people with disabilities and ensure that streets meet the requirements for all users. To facilitate these cycling improvements they will follow several general principles, which can be applied throughout Guildford Borough.

Examples of design elements that support these principles are shown on the following pages.

» Cycle facility hierarchy - The type of cycle facility appropriate for a given street is highly dependent on its context, including vehicle flows and speeds, carriageway space, surrounding development, and general character. However, as a general principle, selection of an appropriate cycle facility should consider the following hierarchy: segregated facilities, quiet corridors, shared-use paths/ footways, mixed traffic.

» The hierarchy follows the cycle design principles of segregation from traffic and low traffic speeds/volumes. Segregated facilities are typically preferred, creating a comfortable and attractive facility for users of all ages and abilities and providing the greatest potential to encourage mode shift to cycling. Alternatively, cycle corridor alignments or design measures to support low traffic speeds (≤20mph) and flows may provide an attractive option if the corridor is direct.

» Access to schools - Safe cycle corridors are essential to encourage more children to cycle to school. Several primary cycle corridors seek to accomplish this, while additional secondary corridors may be developed in future.

» Lower traffic speeds - High vehicle speeds reduce comfort and safety for people cycling. Motor vehicle speeds of 20mph or lower are preferred to minimise speed differential with people cycling[1]. Design elements such as vertical deflection (e.g. speed cushions, raised tables/raised junctions) or horizontal deflection (e.g. kerb build-outs, tight kerb radii, priority working) may be used, as appropriate, to support the desired vehicle speeds and create an environment where the speed limit is self-regulating. Traffic calming measures should also be considered for people cycling, such as providing cycle bypasses at kerb build-outs to manage potential conflicts with other road users.

» Reduce motor vehicle flows - Strategies to reduce motor vehicle flows (e.g. local access only restrictions, time restrictions, or modal filters) should be considered on cycle corridors where segregation is not feasible to improve comfort for people cycling and create a more attractive cycle corridor.

» Review on-street parking - On-street parking provisions can create potential conflict points between people cycling and motor vehicles, particularly where there is a high parking turnover. Conflicts can arise from either vehicles entering/leaving a parking space or opening of vehicle doors, or when parking obstructs visibility. Reducing parking could free carriageway space to be reallocated for active uses, such as improvements for people walking or cycling. Where parking is retained, providing parking on raised pads can provide wider, more flexible footway space and encourage slower speeds by reducing the carriageway width. To inform further design development, parking surveys will be undertaken to estimate the demand for parking and consider the need for alternative parking locations.

» Junction and crossing improvements - Improvements should seek to improve priority for people cycling and visibility at junctions, enhancing safety and continuity of the cycle corridor. At uncontrolled junctions and side road crossings, improvements should seek to reduce motor vehicle speeds (e.g., tighten junctions, reduce bellmouth at side roads, increase vehicle deflection at roundabouts).

» Wayfinding - Good sight lines and visibility of destinations and of cycle corridors are important elements that affect how easy a corridor is to navigate, how many people cycling use the corridor, and perceived personal security. Wayfinding signage should be used to aid navigation and encourage use of the designated corridors. Appropriate signage can improve confidence in using the corridor and encourage more cycling trips, particularly for those unfamiliar with the area. Signage that includes a distance and estimated travel time can also help avoid overestimating the time it takes to make a trip by cycle, encouraging increased cycle use for short journeys. A consistent Wayfinding system should be applied on cycle corridors throughout the county.

» Avoid potential conflict with pedestrians - Cyclists should ideally be physically separated from pedestrians and should not share space[2].

1 Studies shown that 20 mph zones would be beneficial to encourage cycling particularly by women.

2 Shared use facilities are generally not favoured by either pedestrians or cyclists, particularly when flows are high. It can create difficulties for visually impaired people. Actual conflict may be rare, but the interactions between people moving at different speeds can be perceived to be unsafe and inaccessible, particularly by vulnerable pedestrians. This adversely affects the comfort of both types of users, as well as directness for the cyclist. However, LTN 1/20 does accept that Shared use may be appropriate in some situations such as alongside interurban and arterial

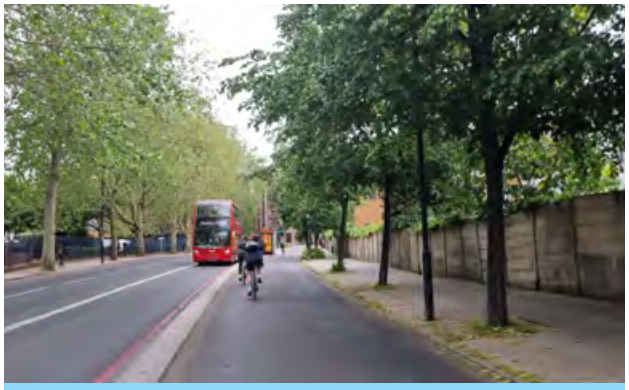
Shared routes away from streets and at areas where pedestrian flows are low if there are space constraints may be considered. Conversion of existing footways to shared use may be considered when options that reuse carriageway or other (e.g. verge) space have been rejected as unworkable, or in situations where a length of shared use may be acceptable to achieve continuity of a cycle corridor.

» Secure cycle parking - Offer a variety of cycle parking to improve convenience and security, including parking facilities for non-standard cycles, which can include trailers, tricycles, and adapted cycles.
» Green buffers - Where possible, provide green buffers between motor vehicle traffic and people cycling and walking. This increases safety and comfort, and provides opportunities for planting or sustainable drainage systems (SuDs). Minimum width of the buffer is dependent on traffic speeds, as per LTN 1/20. (Refer to Share Use Path image below).
» Context sensitive design - Improvements should complement and enhance the character of urban and rural environments. The high-level proposals for infrastructure improvements developed in the LCWIP should be suitable for the setting, and design guidance should be adapted to fit the local context and space constraints. Particular attention will be paid to the treatment of heritage assets.
» Inclusive design - Cycle infrastructure should be accessible to everyone, regardless of age, gender, ethnicity, or disability, and should not create hazards for vulnerable pedestrians.
» Adaptability - Improvements should be developed to accommodate all types of users, including bikes with trailers, cargo bikes and other, and anticipate potential growth in the numbers of people cycling.
» Design Standards - As proposed cycle improvements are advanced, design stages should utilise the latest best practice design guidance and standards available at the time, such as:
  – London Cycle Design Standards (TfL).
  – The Highway Code (DfT)
  – Cycle Infrastructure Design (LTN 1/20)
  – London Cycle Design Standards (TfL)
  – Manual for Streets (Chartered Institution of Highways & Transportation)
  – Inclusive Mobility (Department for Transport)
» Protected cycling facilities - These will be best aligned to national design guidance and help to reduce collisions involving people cycling.
» Compete with motor vehicle journey times. By considering the alignment of the corridor and the nature of the interventions it can help to promote the mode of travel as an equal to motorised modes.
» Continuity of typology: Cycle corridors should be continuous and coherent. Frequent change of cycling infrastructure typology can cause delay to travel and discourage potential users who are not willing to switch between multiple infrastructure types.

roads where there are few pedestrians or in situations where high cycle and high pedestrian flows occur at different times. For more information, refer to Cycle Corridor Typology on page 99.

7.1.3. Examples of Cycle Infrastructure

The following pages provide examples of types of cycle facilities that could be considered in the Guildford Borough LCWIP proposals.



Segregated Cycle Lane / Cycle Track

Provides raised, physical separation between people cycling and motor vehicles, providing a more comfortable, more attractive, and safer facility for people cycling of all ages and abilities. A segregated cycle track can be one-way or two-way and can be used to accommodate contraflow cycling on one-way streets. Side road treatments are required to provide continuity of the facility and priority at junctions.

Lightly Segregated Cycle Lane

Provides some physical barrier from motor vehicles to improve comfort for people cycling. May be applicable where space constraints limit segregation options. Types of segregation could include kerbing, bollards (as shown above), planters, or armadillo humps / orcas. Side road treatments are required to provide continuity of the facility and priority at junctions.

Mandatory Cycle Lane

Provides a dedicated space for people cycling within the carriageway, separated by road markings only. Motor vehicles are not permitted to enter the cycle lane.

Off-carriageway Cycle Track

Motorised-traffic free corridors away from the highway can form important links for everyday trips. They are attractive to those who prefer to avoid traffic and can provide more direct corridor options than the road network. They need to be designed and maintained to a high quality, particularly in terms of surfacing, accessibility, clearance of vegetation, and lighting.

Shared Use Path

Provides an off-carriageway facility shared with people walking. While segregated from motor vehicles, conflicts between people walking, wheeling and cycling may arise, depending on the relative flows of each. If space allows, light segregation may be considered to encourage separation of people walking and cycling (e.g., raised trapezoidal strip). Side road treatments are required to provide continuity of the facility and priority at junctions.

Advisory Cycle Lane

Delineates an area intended for cyclists within the carriageway where the street is too narrow to accommodate dedicated cycle facilities. Advisory lanes should only be used when limitations on the overall space available mean that motor vehicles will sometimes need to enter the cycle lane.

‘Dutch-Style’ Cycle Street Facilities

Seeks to prioritise people cycling over motor vehicles. Elements may include advisory cycle lanes to delineate space for people cycling, 20mph speed limit, and removal of the centre line to narrow the apparent space for motorists and prioritise the outside of the carriageway for people cycling. The design elements should make it understood that the streets are principally for cycling.

Contraflow Cycle Lane

Improves the convenience, directness, and attractiveness of cycling by accommodating contraflow cycling on one-way streets, shortening cycle trips and improving cycle access. Contraflow cycle lanes may be segregated or non-segregated, depending on context and available width.

Side Road Entry Treatment

Encourages motorists to reduce speeds, indicates pedestrian and cycle activity, and encourages driver compliance with the (updated) Highway Code. Also enhances priority for people wheeling, walking and cycling and makes the side road crossing easier and more convenient for people by maintaining the continuity of the corridor at footway level.

Quiet Mixed Traffic Street

Where traffic flows are light and speeds are low, people cycling are likely to be able to cycle on-carriageway without segregation. Traffic calming and/or traffic management measures may be required to reduce traffic speeds and/or flows to provide appropriate conditions for an inclusive and attractive facility.

Pedestrian/Cycle Priority Street

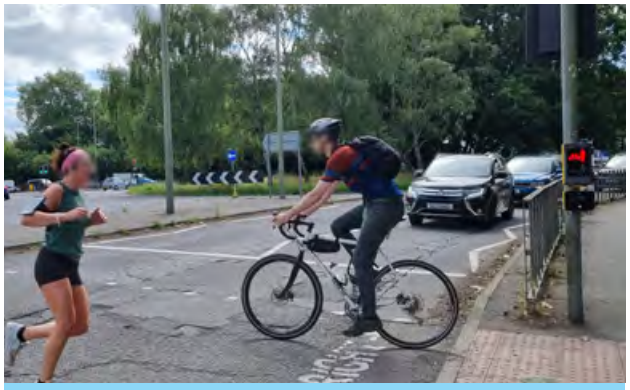
Reduces vehicle dominance of the street and prioritises people walking, wheeling and cycling. Elements may include restricted motor vehicle access, materials/markings to delineate space for different users, low traffic speeds, or features of a shared space environment.

Cycle Parking

Cycle parking is an essential component of cycle infrastructure. Sufficient capacity, convenient, and secure cycle parking enables people to choose cycling. Proximity to destinations and security concerns can be a factor. Design should consider access for all types of cycles and their passengers.

Parallel Crossing

Provides priority for people walking, wheeling, and cycling at a crossing location, minimising the delay for people cycling, improving the directness of the corridor, maintaining separation from pedestrians, and connecting off-carriageway cycle facilities.



Toucan Crossing

Provides a controlled crossing for people walking, wheeling and cycling, improving user comfort and safety, reducing delay at busy streets where there are limited gaps in traffic, and connecting off-carriageway shared use facilities.

Signal-Controlled Cycle Crossing / CYCLOPs Junction

Provides a controlled crossing, segregating cyclists from pedestrians as well as motor vehicles. A 'cycle optimised protected signals' ('CYCLOPS') junction separates people walking, cycling and wheeling from motor vehicles, reducing the risk of conflict between users.

Cycle Wayfinding

Improves the coherence of the cycle network, making it easier for people to navigate and encouraging more trips to be taken by cycle. Signage can also include indicative journey lengths or times. A consistent system should be applied county-wide.

Bus Stop Bypass

Provides a continuous cycle facility around a bus stop, maintaining separation from the carriageway. The island should be wide enough to accommodate the bus stop and people waiting, boarding, and alighting. Pedestrian crossing points should be controlled if cycle traffic speed and flows are high.

Bus Gate

A type of modal filter that allows buses (and /or other vehicles) to move through a road section but prohibits other motor vehicle traffic. It usually permits cycling and operates with ANPR cameras to enforce the access restrictions. Restrictions may be enforced during specific days or times of the day to reduce traffic volumes.

Lower Traffic Speeds

Improves safety for all road users and fosters a more comfortable environment for walking, wheeling and cycling. Should be supported by traffic calming measures, as needed, to make the speed limit self-enforcing. An area-wide policy could be considered rather than on a street by street basis.

Modal Filter

Supports a safer, more attractive environment for walking, wheeling and cycling by reducing motor vehicle traffic and permitting more direct, convenient access by foot or by cycle. Temporary or permanent highway features that may permit access by certain vehicles (e.g., emergency vehicles, buses, blue badge holders).

School Street

Implements timed vehicle access restrictions during school arrival/dismissal times to encourage more pupils to walk and cycle to school and improve the safety, comfort, and attractiveness of these modes. School streets may be configured to permit access by certain vehicles.

Mobility hubs

Highly visible, safe and accessible spaces where public, shared and active travel modes are co-located alongside improvements to public realm and, where relevant, enhanced community facilities. They help reduce the dominance of private cars, facilitate multi-modal trips, activate public realm, and support placemaking. They can include a wide range of components, such as cycle/e-bike/cargo bike parking/hire, parklets, EV car club, public transport links, parcel collection, cafe, wayfinding, etc.

(image: Collaborative Mobility UK)

7.1.3.1. Cycle Corridor Typology

DfT's LTN 1/20 also provides information in regards to the typology and dimensioning of cycle lanes and cycle tracks. Cycle corridor typology is based on the volume and speed of motor vehicle traffic, as illustrated in Figure 45. Further, the width of the cycle corridors is defined by peak hour cycle flows (Figure 46).

According to LTN 1/20, shared use routes in streets with high pedestrian or cyclist flows should not be used. However, shared use facilities may be appropriate in some situations, if well-designed and implemented:

- Alongside interurban and arterial roads where there are few pedestrians;
- At and around junctions where cyclists are generally moving at a slow speed including in association with toucan facilities;
- In situations where a length of shared use may be acceptable to achieve continuity of a cycle corridor; and
- In situations where high cycle and high pedestrian flows occur at different times."

Figure 45. Cycle facility typology in relation to motor vehicle traffic flows and speed (DfT LTN 1/20)

Figure 46. Cycle lane and track widths in relation to peak hours cycle flows (DfT LTN 1/20)

Cycle Route Type	Direction	Peak hour cycle flow (either one way or two-way depending on cycle route type)	Desirable minimum width* (m)	Absolute minimum at constraints (m)
Protected space for cycling (including light segregation, stepped cycle track, kerbed cycle track)	1 way	<200	2.0	1.5
		200-800	2.2	2.0
		>800	2.5	2.0
	2 way	<300	3.0	2.0
		>300-1000	3.0	2.5
		>1000	4.0	3.0
Cycle lane	1 way	All – cyclists able to use carriageway to overtake	2.0	1.5

*based on a saturation flow of 1 cyclist per second per metre of space. For user comfort a lower density is generally desirable.

7.2. Phase 1 Proposed Cycling Improvements

This chapter proposes potential design measures to enhance the selected cycle corridors in Phase 1. The proposed measures are high level and identify high-level proposed interventions for consideration in the next stage of design. They seek to address issues and deficiencies identified during the audit activities, as well as to incorporate proposals from previous studies.

For cycling, the interventions seek to improve the environment for cycling to a high standard following the LTN 1/20 technical guidance. All proposed measures would be subject to varying levels of additional analysis and future feasibility design.[1] This would involve designs with greater detail and in which further observations and measurements would be taken to continually improve the design. This would also include confirmation of land ownership boundaries as well as surveys as necessary.

As proposed cycle improvements are advanced, design stages should utilise the latest best practice design guidance and standards available at the time, such as:

» Cycle Infrastructure Design (DfT, LTN 1/20).
» Manual for Streets 1.
» Inclusive mobility (DFT, 2022).

All proposed interventions will also require further consultation in the next stages of the design following surveys to estimate the impact of the proposals. Representatives of groups of people with disabilities and mobility issues will be further engaged in the design to provide input to the proposed interventions and ensure the outcomes of the interventions will cater to their needs in the most appropriate way.

The proposed improvements are presented for each cycle corridor on the following pages. While these proposals are focused along the primary cycle corridors, they also provide examples of the types of improvements that can be implemented borough-wide as needs or opportunities arise.

It is noted that some of the desirable locations for active travel improvements are privately owned and are not within SCC's publicly maintained roads. As such, collaborative working with the respective owners will be required to explore opportunities to improve conditions for active travel.

Additionally, consideration will need to be given during subsequent development phases to review and co-ordinate future opportunities for integration with other active travel improvements, including those identified within the long-list network and those which may be progressed separate to the LCWIP proposals.

Cycle parking is proposed for all cycle corridors, as part of footway and public realm improvements. Opportunities should be considered to integrate secure cycle parking near local and key destinations, such as railway stations, commercial areas, and educational facilities.

Further, a separate freight strategy may be required in selected areas, for example for servicing Guildford Town Centre. This would investigate opportunities to manage HGV flows in the area, improve road safety and improve cycling in Guildford Town Centre. Opportunities could involve the use of LGVs and cargo bikes for servicing, and consideration of time restrictions on freight movements. Such measures have been identified in parallel workstreams, including the Guildford Town Centre Air Quality Action Plan. Consideration of freight activity in this way could support modal shift to cycling, by improving safety and cycling facilities. Furthermore, such an approach supports the strategic priorities set out in the DfT's Decarbonising Transport: Setting the Challenge, which highlights the need to decarbonise how goods are delivered.

1 This is a concept design. All the proposed interventions are subject to topographic survey, traffic modelling, parking surveys, utilities' survey, environmental surveys and availability of land.

7.2.1. Cycle Corridors Typology

As indicated in pages 98 and 99, the proposed measures consist of a mix of facility typologies, indicative of the varying contexts and constraints across Guildford. As noted previously, future feasibility planning, assessment, and design stages will review local constraints and cycle facility options in more detail.

At this initial stage of option assessment, the proposals aim to include segregated facilities where there is potential to accommodate them. This is reflective of the LCWIP objectives, LTN 1/20 standards and high local aspirations for cycling. In significantly constrained areas, it includes proposals to improve cycling with mixed traffic, reducing traffic speeds[1], restricting motor vehicle access, tightening side road junctions, and/or redesigning streets to enhance cycle and pedestrian priority.

Design proposals are presented separately for each corridor. However there are a number of interventions that are applicable to all or most routes (wide-area measures) and are summarised below:

- Introduce 20mph zones with additional improvements for crossings at junctions and further traffic calming measures to be reviewed in the next stages of design following speed surveys.
- Wayfinding: Review and update area-wide wayfinding system. Consider measures such as wayfinding totems at key locations (e.g., railway stations, High Street/town centre) to help cyclists (as well as pedestrians) navigate the area, illustrate the locations of local destinations and potential routes between them.
- Cycle parking: As part of footway and public realm improvements, consider opportunities to integrate secure cycle parking near local destinations.
- Mobility hubs: Consider a network of mobility hubs across the area to encourage uptake of active travel modes and support place-making.

The proposed interventions for the cycle corridors will be presented according to their geographical location, as follows (Figure 47);

Guildford town urban / suburban area: 4 cycle corridors

- Cycle Corridor 1: Guildford High Street and North Street
- Cycle Corridor 3: Stoke Road to Town Centre and Cycle Corridor 4: High St A3100 combined
- Cycle Corridor 11: Guildford to Woking
- Cycle Corridor 27: Eastern Spoke - Epsom Road

Ash and Tongham urban area: 1 cycle corridor

- Cycle Corridor 18: Ash Street

Rural areas: 2 cycle corridors

- Cycle Corridor 28: Epsom Road East
- Cycle Corridor 47: Shalford to Chilworth

1 Additional measures to support speed limit changes to be considered in future design stages, such as traffic calming measures, reduction of carriageway width, etc.

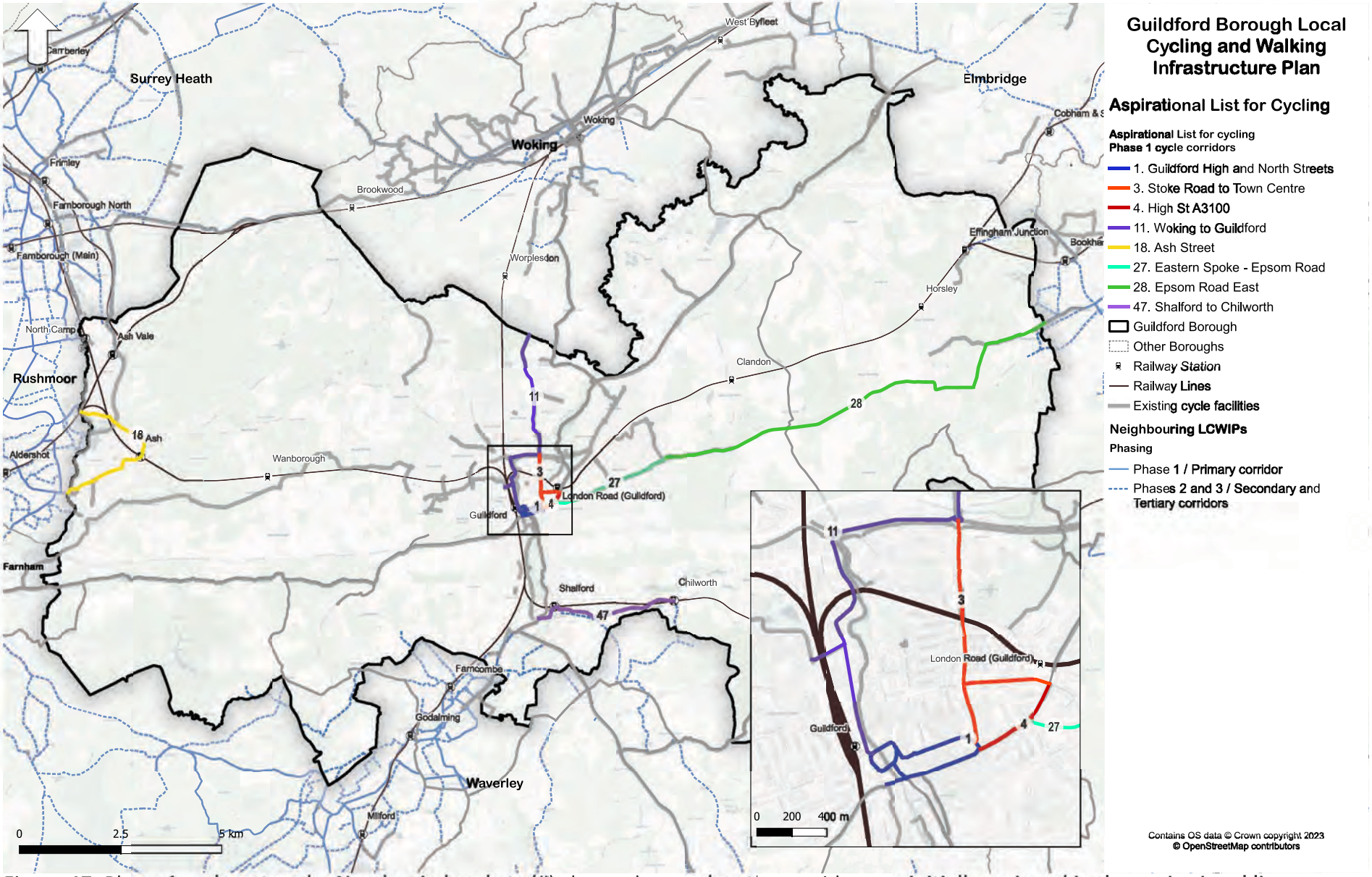


Figure 47. Phase 1 cycle network - Number in brackets (#) shows the number the corridor was initially assigned in the aspirational list

7.2.2. Cycle Network Typology

The proposed cycle facility typologies across the cycle corridor network selected for Phase 1 are illustrated in Figure 48 and Figure 49 (following pages). The proposed facilities reflect the design principles, local aspirations for cycling, and anticipated potential constraints along each route at this initial stage of option assessment.

Future feasibility design stages will be required along some routes to review constraints and cycle facility options in more detail. The proposed cycle network comprises a mix of facility typologies, indicative of the varying facility contexts and constraints across the Borough. It includes, for example sections of segregated cycle facilities where there is potential to reallocate space within the public highway or during future development. In significantly constrained areas, it includes proposals to improve cycling with mixed traffic, reducing traffic speeds[1], providing advisory cycle lanes, restricting motor vehicle access, tightening side road junctions, providing cycle markings, or redesigning streets to enhance cycle and pedestrian priority.

Alternative alignments are proposed in selected locations where LTN 1/20 compliant infrastructures are likely not feasible. Additionally, short links within the local road network , that do not require any improvements are proposed as 'connector routes', to provide access to key destinations that are not along the main corridor, and between sections of the main alignment.

1 Additional measures to support the speed limit change to be proposed in the feasibility stage, such as traffic calming measures, CCTV, reduction of carriageway width, etc.

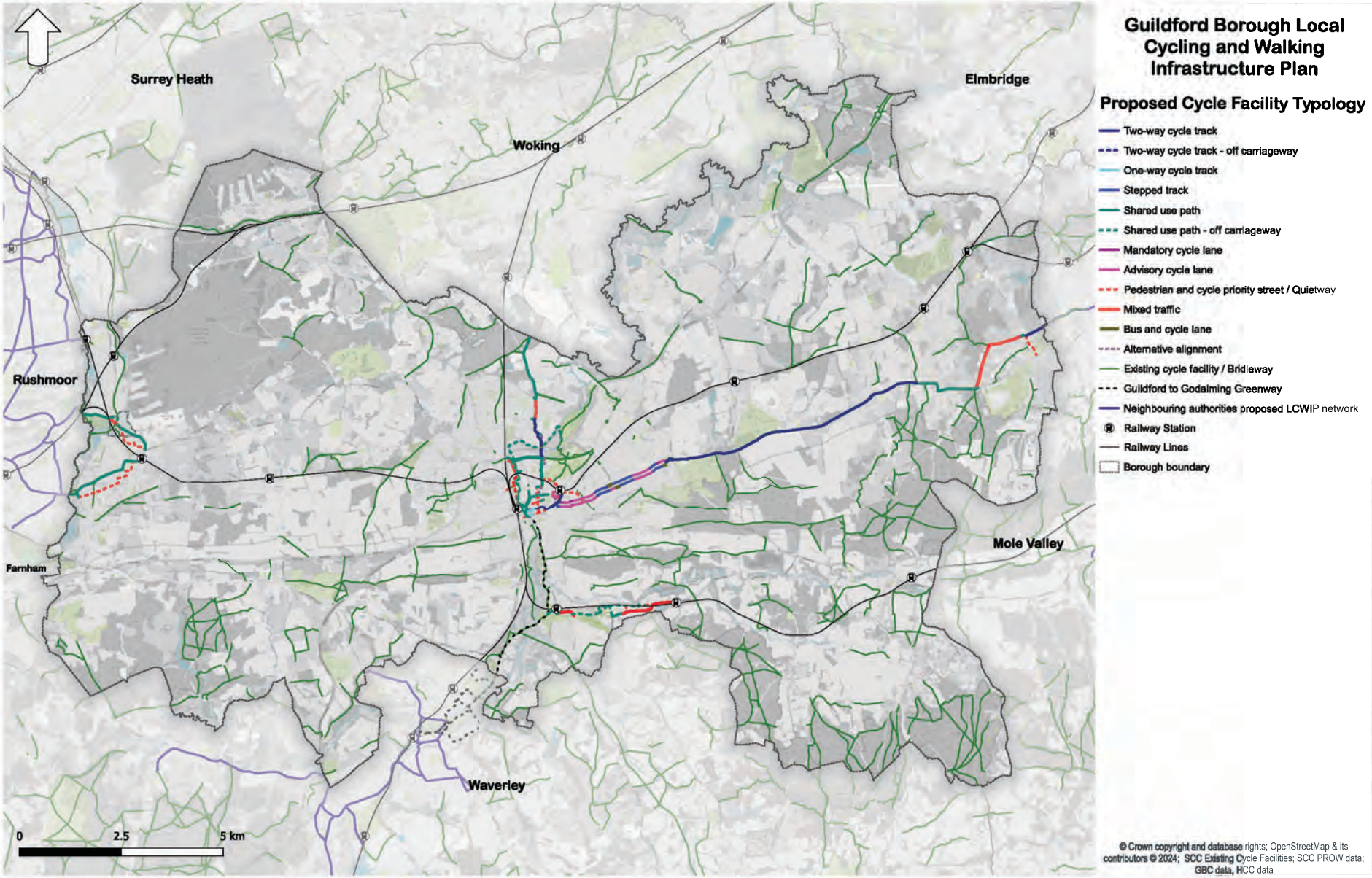


Figure 48. Overview network map of proposed Phase 1 cycle typologies

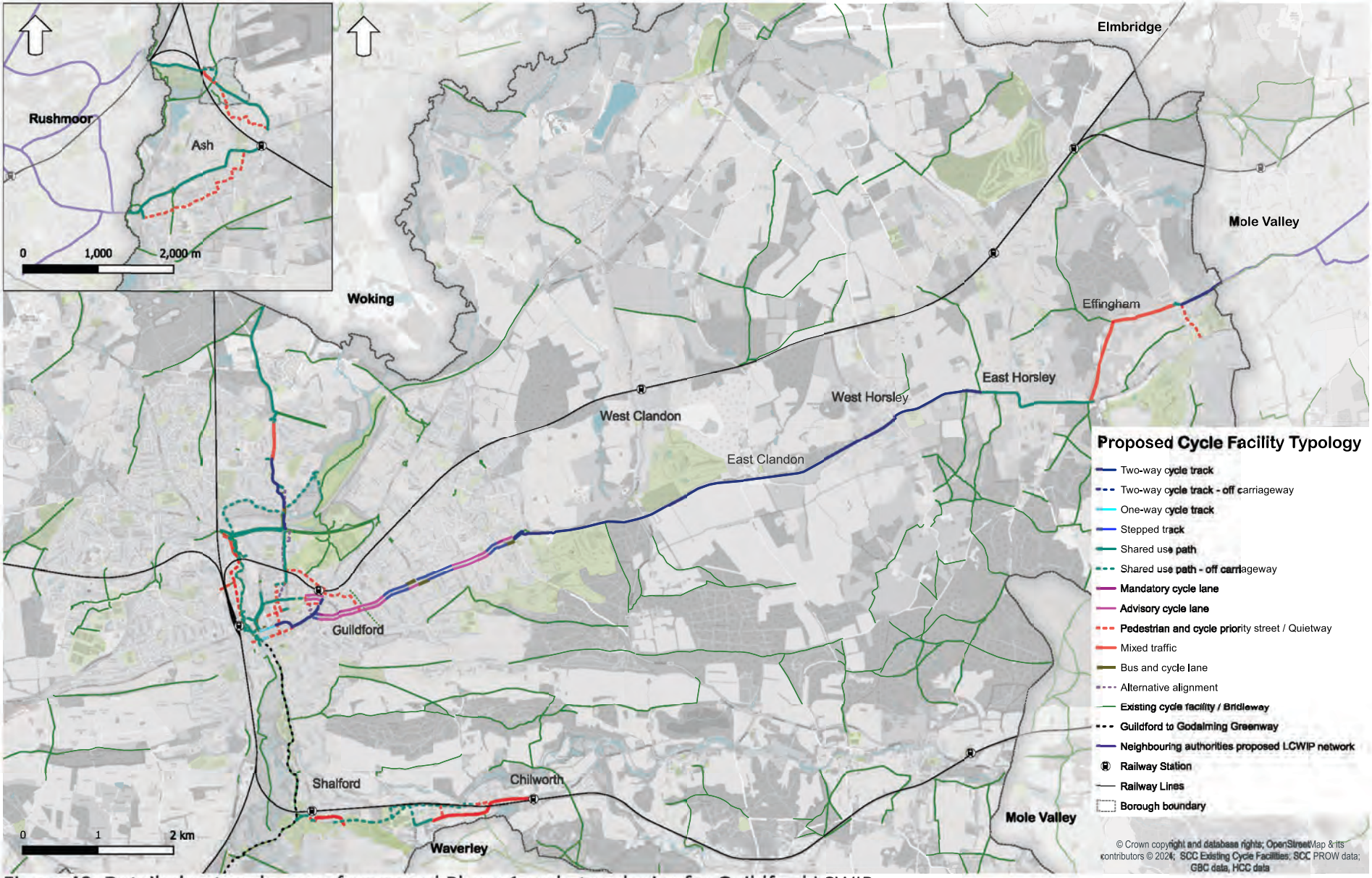


Figure 49. Detailed network map of proposed Phase 1 cycle typologies for Guildford LCWIP

Guildford town urban / suburban area

Cycle Corridor 1: High Street and North Street

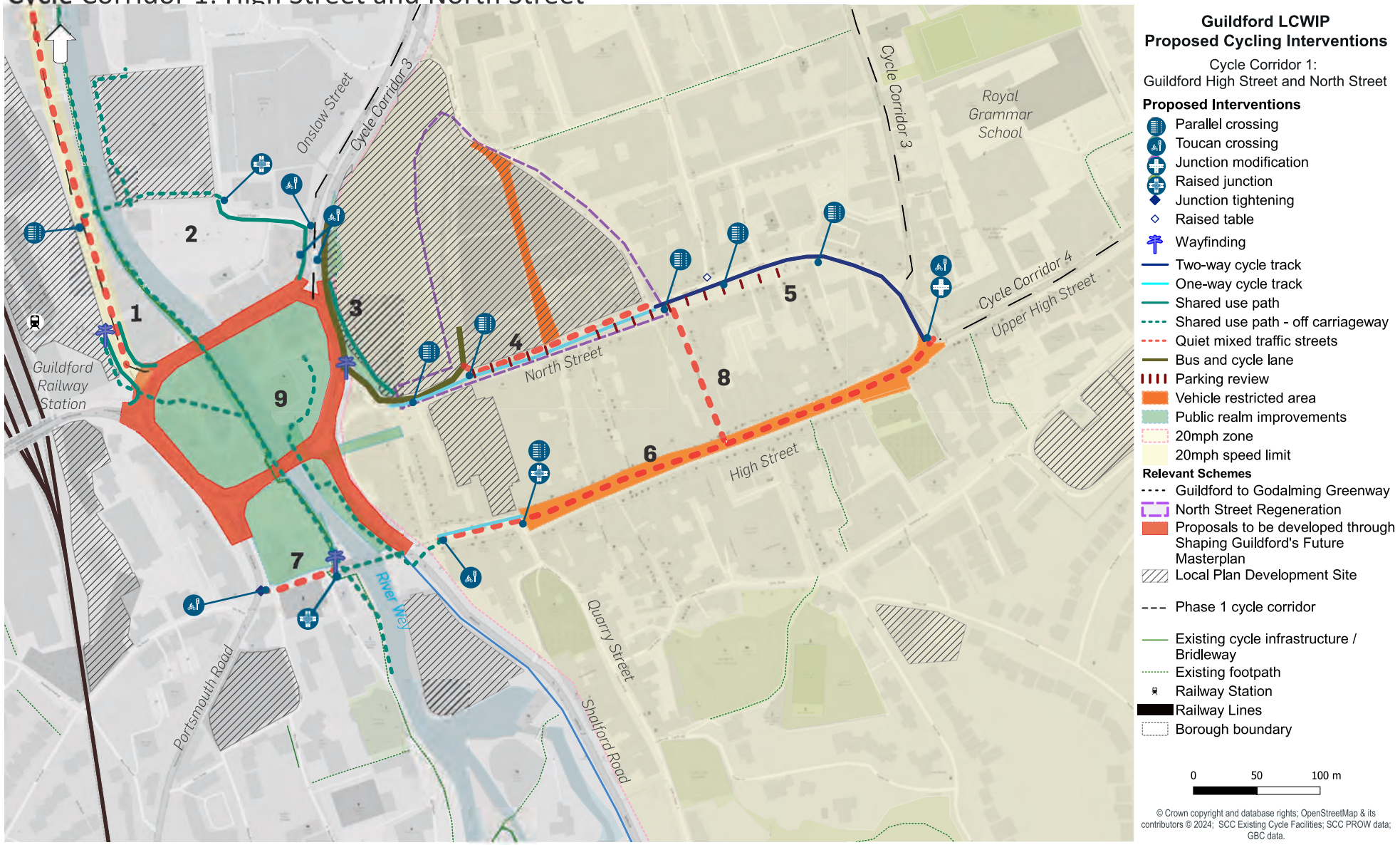


Figure 50. Cycle Corridor 1: High Street and North Street - key interventions

High Street and North Street (# 1)

The cycle corridor extends west - east through the retail centre in Guildford Town. It provides connections to Guildford Railway Station, the bus station and links to the towpaths along the River Wey. The proposed interventions complement proposals for the North Street Regeneration and Shaping Guildford's Future Masterplan[1].

Proposed Interventions:

1 Walnut Tree Close: Building on existing measures, designate as a quiet mixed traffic street[2]. Reduce speed limit to 20mph and introduce traffic calming measures including horizontal deflection - buildouts to reduce vehicular speeds, introduce uncontrolled crossings with reduced crossing distance, and manage on street parking.[3] Introduce a priority crossing on the approach to Walnut Bridge. Widen the footways on the approach to the gyratory to introduce short sections

1 The initial alignment of the corridor extended around the gyratory, however due to masterplan work the alignment now follows Walnut Bridge and the towpaths.

2 Following the recent changes in access to Walnut Tree Close and changing nature of the area (from industrial/commercial land use to residential and purpose-built student accommodation), the vehicular flows are estimated low. Speed reviews will be required in the future to ensure compliance with the speed limit.

3 Enforcement of 20 mph speed limit to be determined in the feasibility stage.

Figure 51. Access ramp to Walnut Bridge from Bedford Road. Improved access to be provided from here to Onslow Street.

Figure 52. Onslow Street / Bridge Street junction crossing. Busy junction and interaction between pedestrians and cyclists will need to be reviewed.

of shared use path, which allow access for cyclists to the existing crossings and a safer transition to the gyratory (mixed traffic)[4].

2 Bedford Road: Wide shared use path along Walnut Bridge and on the south side of Bedford Road, by removing one of the traffic lanes on Bedford Road and tightening of the bellmouth at the entry to the section from Onslow Street.[5] This will provide an east-west connection with a consistent typology of facilities between Walnut Tree Close and the town centre. A new signalised crossing on Onslow Street at the exit of Bedford Road is recommended as an aspirational proposal to enhance the connectivity and directness of the facilities.[6] Investigate options to improve access to the towpaths from Walnut Bridge and to introduce a pedestrian and cycle crossing on Onslow Street north of Bedford Road.

3 Onslow Street: Shared use paths proposed on both sides of Onslow Street to allow access for cyclists to the signalised crossings at Onslow Street / Bridge Street junction, and potentially provide a connection to York Road.[7] Proposal will provide a consistent typology of facilities along the key corridors to the town centre. Potential widening of the existing footways is required to be investigated for the opportunitiy to offer comfortable facilities for pedestrians and cyclists.[8] Upgrade existing crossings to toucan crossings. Upgrade the existing bus lane to a bus and cycle lane and extend to

4 Mixed traffic on the gyratory is not recommended by the LCWIP due to the high traffic flows. Proposal to be reviewed in the next stages of the design along with the Shaping Guildford's Future Masterplan.

5 Discussions may be required with Bedford Road Car Park for the location of the gate to ensure queuing traffic will not be obstructing the road.

6 The proposed aspirational crossing is required to be investigated in conjunction with the proposals for the Gyratory. The impact of the crossing on vehicle flows and southbound buses would require assessment in the feasibility stage.

7 See proposed cycle corridor 3/4.

8 Pedestrian flows are estimated high at the location. Segregation would be preferred to ensure comfort for both pedestrians and cyclists on the approach to the crossings. Proposed interventions to be reviewed in the next stages of the design along with the Shaping Guildford's Future Masterplan. The available space may be limited on the approach to the gyratory, and the proposed interventions will investigate reduction of the traffic lanes' width and/or the central island to reallocate space for the shared use path. Potential level issues at the island to be reviewed.

Figure 53. Eastern end of North Street. Pinch point on the south footway will be required to be addressed following the implementation of the cycle facilities.

Figure 54. Park Street/ High Street junction: wide bellmouth allows for high turning speeds and limits the space for pedestrians and cyclists.

the bus station to allow safe access for southbound cyclists to North Street[9].

4 North Street between Onslow Street and Leapale Road: Improvements to align with the proposals set out in the North Street Regeneration plans, including footway widening, parking and vehicles access restrictions. Additional recommendations include A) North Street as one-way eastbound for vehicular traffic[10] with a contra flow cycle lane for westbound cyclists[11] and mixed traffic for eastbound cyclists, including priority crossings to ensure safe transitions for cyclists. Parking to be allowed on the north side of the road. B) Public realm improvements at the entrance of Friary Shopping Centre to accommodate wider landing for cyclists at the crossings and allow cycle access for the northbound direction for cyclists exiting North Street[12] . The additional recommendations for the eastern end of the North Street Regeneration Plan area to be reviewed in the next stages of the development of North Street Regeneration Plan.

5 North Street between Leapale Road and High Street: Two-way cycle track on the south side of the road[13]. Review on street parking and retain space for market stalls on the footway[14]. Improvements to the footway levels to be reviewed in the next stages of design. Introduce priority crossings at the key desire lines for pedestrians and cyclists. Improvements to North Street / High Street junction to tighten the approaches to the junction and introduce a priority crossing for pedestrians and cyclists.

6 High Street[15]: Pedestrian and Cycle Zone (vehicle restricted area) between Quarry Street and North Street proposed, by restricting vehicular access at all times. Freight movements to be permitted during specific times of the day and market days. Cyclists to be permitted bi-directionally[16]. A quiet mixed traffic street is shown on the map through the High Street (VRA) to highlight the continuation of the cycle network through the town centre. Quiet mixed traffic area crossing is proposed at the western end of the High Street.

7 High Street between Quarry Street and Portsmouth Road: Improvements to include widening of the footways on the approach to the gyratory by reducing the carriageway width and reviewing the on-street parking needs[17]. Cyclists will be mixed with traffic in the westbound direction[18]. Permit bi-directional cycling by introducing one-way contra flow cycle track for eastbound cyclists. Introduce a priority crossing on the approach to Friary Street to allow access for eastbound cyclists to the new cycle facility. At the section west of Town network to the cycle network to increase the permeability for cyclists and improve access to the shops. The alignment via North Street is promoted for east-west connections through the town centre.

9 Bus and cycle lanes may not be attractive for less confident cyclists. Alternative alignments proposed via the towpaths.

10 Proposal part of the North Street Regeneration plan.

11 Exact typology to be confirmed in the future stages of the design

12 North Street Regeneration plan proposals extend to North Street and Guildford Bus Station.

13 In short sections segregation between pedestrians and cyclists may not be achievable due to the limited highway width and a shared use path would be proposed. Locations of pinch points to be investigated further during the feasibility stage, subject to topographic surveys. Proposal will require relocation of the taxi rank.

14 Proposals will be subject to further consultation with relevant officers to understand needs of the market and any changes which may be forthcoming as part of the North Street redevelopment.

15 The road surface on the High Street, the high pedestrian flows and gradient do not provide an attractive option for cyclists. The High Street is proposed as part of the cycle

16 Cyclists will be required to give priority to pedestrians.

17 Disabled parking to be retained.

18 Traffic flows are assumed to be low.

Figure 55. North Street Regeneration Plans June 2023 submission. Source: St Edward.

Bridge, proposed improvements include footway widening on the north side of the road by reallocating space from the carriageway. Cyclists will be mixed with traffic[10]. Proposal will allow junction tightening at Park Street/ High Street junction for opportunity to relocate the existing priority crossing at Park Street closer to the desire line (north of Park Street) and upgrade of the crossing to a toucan crossing for a safe exit for cyclists to the west.

8 Market Street: Quiet mixed traffic street to allow access between the High Street and North Street. Cyclists to be permitted bi-directionally[19].

9 Town Centre Gyratory[20]: Changes to the gyratory to be part of the Shaping Guildford's Future Masterplan. The proposed interventions for walking and cycling as part of the LCWIP will complement the proposals for the Masterplan. Recommendations for the gyratory to include improved provision for cyclists and pedestrians by providing segregated cycle facilities, widened footways and improved crossings. Additional public realm improvements

19 Cyclists will be required to give priority to pedestrians.

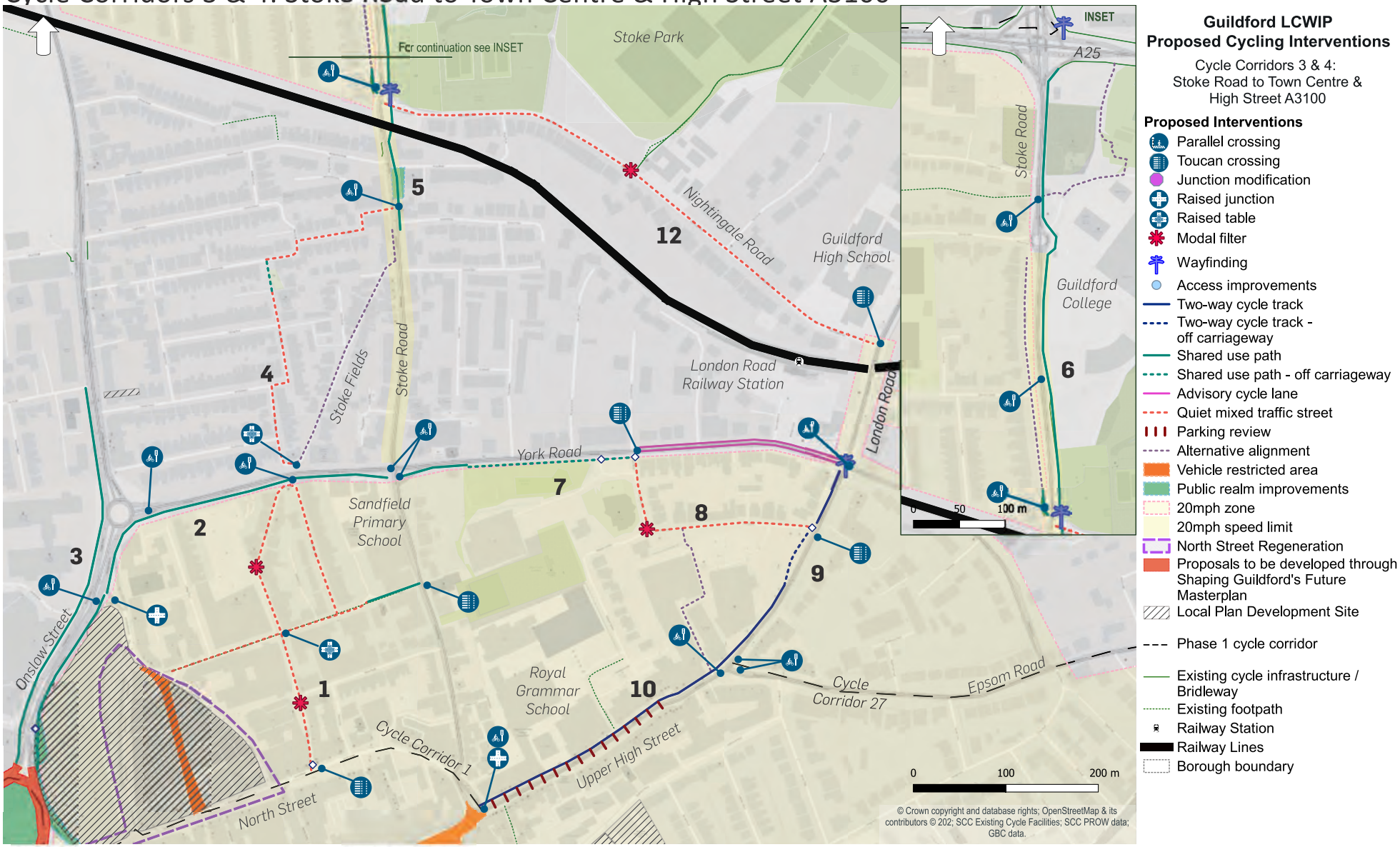
20 Following the Shaping Guildford's Future Masterplan further improvements may be implemented to enhance pedestrian and cyclists provision.

are recommended along the Town Wharf for opportunity to widen the existing paths and improve personal safety. Public realm improvements are also proposed at Portsmouth Road car park, to improve the pedestrian and cycle environment. The proposal will require the reduction of space for parking and widening of paths, resurfacing where required, added planting, seating areas, shelters and added lighting. Public realm improvements proposed for the Town Wharf and the subways include repainting and lighting improvements and CCTV systems to improve personal safety.

General Items:

- Introduce a 20mph zone for the Town Centre with additional improvements for crossings at junctions and further traffic calming measures to be reviewed in the next stages of design following speed surveys. Enforcement of 20mph speeds will be determined during the feasibility stage.
- Improvements to the towpaths to include widening of the path with potential segregation between pedestrians and cyclists. Resurfacing is required in some locations. Added lighting will improve personal safety. Consideration should be given in the next stages of design on drainage along the path to mitigate any potential flooding issues. All proposed interventions to be discussed with National Trust.
- Wayfinding: Review and update area-wide wayfinding system, including existing totems, to ensure up to date information is available to help cyclists (as well as pedestrians) navigate the area and illustrate the locations of local destinations and potential routes between them.
- Cycle parking: As part of footway and public realm improvements, consider opportunities to integrate secure cycle parking near local destinations, such as Guildford Railway Station and the High Street.
- Mobility hubs: Consider a network of mobility hubs across the area to encourage uptake of active travel modes and support place-making.
- A separate freight study may be required for servicing in the town centre to investigate the opportunities to manage the HGV flows in the area, improve road safety and improve cycling in Guildford Town Centre. Consideration for a freight hub in the outskirts of the town and servicing to be provided with LGVs and cargo bikes. Further limitation of the hours when freight movements are permitted in the town centre may be investigated to reduce vehicular flows during peak hours. Such measures have been also identified in parallel workstreams, including the Guildford Town Centre Air Quality Action Plan.

Cycle Corridors 3 & 4: Stoke Road to Town Centre & High Street A3100



Guildford LCWIP
Proposed Cycling Interventions

Cycle Corridors 3 & 4:
Stoke Road to Town Centre &
High Street A3100

Proposed Interventions

- Parallel crossing
- Toucan crossing
- Junction modification
- Raised junction
- Raised table
- Modal filter
- Wayfinding
- Access improvements
- Two-way cycle track
- Two-way cycle track - off carriageway
- Shared use path
- Shared use path - off carriageway
- Advisory cycle lane
- Quiet mixed traffic street
- Parking review
- Alternative alignment
- Vehicle restricted area
- Public realm improvements
- 20mph zone
- 20mph speed limit
- North Street Regeneration
- Proposals to be developed through Shaping Guildford's Future Masterplan
- Local Plan Development Site
- Phase 1 cycle corridor
- Existing cycle infrastructure / Bridleway
- Existing footpath
- Railway Station
- Railway Lines
- Borough boundary

Figure 56. Cycle Corridors 3 & 4: Stoke Road to Town Centre & High Street A3100 - key interventions

Stoke Road to Town Centre & High Street A3100 (#3 & #4)

The cycle corridors extend east (#3) and north (#4) of Guildford Town Centre and provide connections to the A25, Guildford College and London Road Railway Station. The corridors were combined to ensure the continuity of the cycle network in the town centre. Additional proposals include facilities that will connect the proposed corridor to the gyratory.

The initial alignment of corridor #3 followed Stoke Road to link to North Street. However, due to space constraints and high vehicular flows on Stoke Road the alignment was amended to follow Park Road, Artillery Terrace and Haydon Place as Quietways to the Town Centre.

Proposed Interventions:

1 Haydon Place: Quiet mixed traffic street proposed to allow for a safe link between North Street and York Road. Introduce a modal filter south of Martyr Road and north of The Bars to restrict any through movements. Introduce additional traffic calming measures to reduce vehicular speeds. New crossing is proposed at North Street to ensure safe access to the Town Centre. Proposal to relocate the existing crossing on York Road to the east, as currently it does not follow the desire lines[1]. Additional measures to ensure safe access to the proposed crossings, and improvements to the levels at the road[2].

2 York Road between Stoke Road and Onslow Street: Shared use path[3] proposed on the south side of the road by reallocating space from the verge and the carriageway. Consideration should be given to the levels of the facility at the western end of the section.

3 Onslow Street: Shared use paths proposed on both sides of the road by reallocating space from the carriageway[4]. Potential impact of proposals is to be assessed in the next stage. New crossings

1 Proposal subject to topographic surveys to estimate the levels at the proposed crossing location.

2 Currently there is level difference between Haydon Place, York Road and Artillery Terrace which will be required to be reviewed in the next stages of the design to ensure the accessibility of the proposed facilities.

3 Segregation between pedestrians and cyclists is desirable according to LTN 1/20, but may not be feasible due to limited public highway space.

4 The proposal will be reviewed in the next stages of the design as there are level differences along Onslow Road. Removal of the guardrail may be required to increase the effective width of the shared use path. The desirable widths may not be achievable in short sections due to the limited highway width. Locations of pinch points to be investigated further during the feasibility stage, subject to topographic surveys.

Figure 57. Level difference between Artillery Terrace and York Road will be required to be resolved following the implementation of the new crossing.

Figure 58. Onslow Street: dual carriageway with high traffic flows. Existing footways have guardrail. Opportunity to widen the footways to accommodate shared use path to provide access to the town centre. Source: Google Street View.

are introduced on the eastern arm of York Road / Onslow Street roundabout and on the approach to the bus station, along with improvements to the junction. Additional proposals to include public realm improvements and footway widening where feasible on the east side of Onslow Street to provide the shared use path.

4 Park Road - Artillery Terrace: Quiet mixed traffic street and shared use path. The road currently is low traffic, with a 20mph speed limit. Improvements to levels at the northernmost section of Artillery Terrace (section as shared use path) and replace the steps to accessible ramps. There is an existing modal filter and cyclists will be permitted. Alternative alignment via Stoke Fields proposed.

5 Stoke Road between Park Road and Nightingale Road: Introduce a shared use path[5] on the east side of the road by reallocating space from the carriageway. Additional proposals include upgrading the existing crossing south of Park Road to a toucan crossing and public realm improvements in the area of Kings Road southbound bus stop. Improve the access to the railway underpass and upgrade the crossings at the junction north of the railway to incorporate a new crossing of Stoke Road.

5 Segregation between pedestrians and cyclists is desirable according to LTN 1/20, but may not be feasible due to limited public highway space.

Figure 59. Stoke Road / Nightingale Road junction: There is no crossing on the north arm of the junction to allow access to the shared use path. Source: Google Street View.

6 Stoke Road between Stocton Road and A25: Introduce a shared use path on the east side of the road by reallocating space from the carriageway[6]. New crossings are proposed at Guildford College and north of the roundabout to link to the existing cycle facilities and footpaths, and improvements to the existing crossings are proposed on the A25 with increased pedestrian running phases and reduced average waiting times[7]. The area west of Stoke Road is proposed as a 20mph zone with additional traffic calming measures to be proposed.

7 York Road between Stoke Road and Denmark Road: A shared use path[8] and advisory cycle lanes are proposed. The proposed facility will extend through the green space at Foxenden Quarry Playground[9], along a widened path. The eastern extent of York Road is very constrained and segregation between cyclists and motor traffic is not feasible[10]. Introduce a parallel crossing at the eastern end of the shared use path to allow safe transition between the off-carriageway cycle facilities and the advisory cycle lanes. The proposed crossing will improve access to London Road Railway Station.

6 Segregation between pedestrians and cyclists is desirable according to LTN 1/20, but may not be feasible due to limited public highway space. At locations the desirable widths for the shared use path may not be achievable. Alternative alignments proposed via the service road on the west side of Stoke Road and via off-carriageway paths through Guildford LIDO.

7 Junction modelling will be required at the location to estimate the impact of the proposals.

8 Segregation between pedestrians and cyclists is desirable according to LTN 1/20, but may not be feasible due to limited public highway space and potential environmental constraints.

9 Existing levels at the path will be required to be investigated further in the next stage of the design.

10 The traffic flows are estimated >10,000 vehicles per day (annual average daily traffic - AADT) which is above the recommended threshold for on-carriageway cycle facilities by LTN 1/20. Options for segregation were considered but likely not feasible due to carriageway and public highway constraints. An alternative alignment is proposed to provide the east-west connection.

8 Denmark Road - Dene Road: Designate as a quiet mixed traffic street as the traffic flows are assumed to be low. Investigations are required in the next stage of the design to ensure road safety at the access to the car park. Introduce a contraflow cycle lane on Dene Road to increase the permeability of the cycle network. Proposal will require review of the on-street parking. Introduce a 20mph speed limit complemented by traffic calming measures.[11] Introduce a modal filter to reduce any through movements and allow for a safer cycle environment.

9 London Road: Two-way cycle track on the north side of the road. Reallocate space from the carriageway at the section north of Dene Road and utilise the existing path through the green space at the section south of Dene Road[12]. On-street parking requirements will need to be reviewed for opportunity to provide wider pedestrian and cycle facilities. New priority crossings are proposed at Epsom Road/London Road roundabout and improved cycle crossing at the York Road / London Road / Waterden Road junction, to allow safe transition for cyclists from the segregated cycle facilities to mixed traffic.

Figure 60. Off street path on London Road may accommodate cyclists. Source: Google Street View.

Figure 61. Wide highway space along Upper High Street may accommodate segregated cycle facilities, widened footways as well as on-street parking.

10 Upper High Street: Two-way cycle track on the north side by reallocating space from the carriageway. On-street parking review, it is proposed to be on the footway level at designated bays. Improvements to North Street / High Street junction to tighten the approaches to the junction and introduce a toucan crossing.

11 Nightingale Road: Quiet mixed traffic street through the residential area and to the access to Stoke Park. Introduce a modal filter east of the park entrance to reduce the vehicular flows[13]. Introduce a priority crossing on the approach to London Road to improve the access to the railway station.

General Items:

» Introduce a 20mph zone for the Town Centre with additional improvements for crossings at junctions and further traffic calming measures to be reviewed in the next stages of design following speed surveys. Enforcement of 20 mph speed limits will be determined during the feasibility stage.
» Wayfinding: Review and update area-wide wayfinding system. Consider measures such as wayfinding totems at key locations (e.g., railway stations, High Street/town centre) to help cyclists (as well as pedestrians) navigate the area and illustrate the locations of local destinations and potential routes between them.
» Cycle parking: As part of footway and public realm improvements, consider opportunities to integrate secure cycle parking near local destinations, such as London Road Railway Station and the High Street.

11 Enforcement of 20 mph speed limits to be determined in the feasibility stage.
12 Path through the green space preferred as it will not affect on-street parking at the section.
13 Stakeholders reported rat-running through Nightingale Road as drivers avoid traffic on York Road.

Cycle Corridor 11: Guildford College to Woking

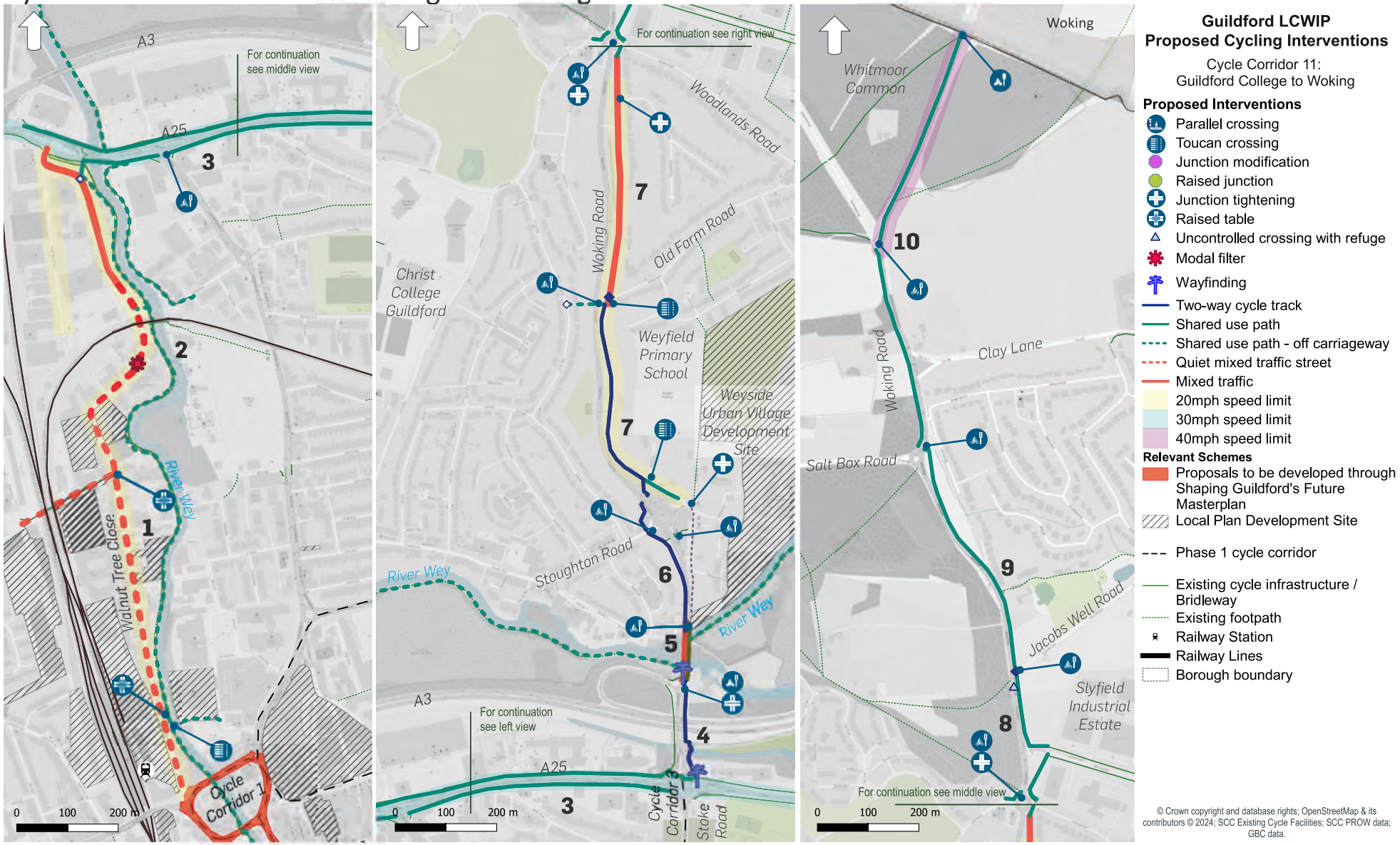


Figure 62. Cycle Corridor 11: Guildford College to Woking - key interventions

Guildford College to Woking (# 11)

The cycle corridor extends between Guildford Town Centre and Woking Borough boundary. The initial alignment connected Woking Borough and the A25. However, following stakeholder input, it was agreed to extend the corridor to link to Guildford Railway Station as well. The corridor provides connections to Woodbridge Meadows Industrial Estate east of the railway lines, River Wey towpaths, and Slyfield Industrial Estate.

The Weyside Urban Village (WUV): Development site extends east of the cycle corridor. As part of the development proposals to improve the capacity of Woking Road have been developed[1]. The proposed interventions were reviewed as part of the LCWIP and the following recommendations aim to complement the scheme.

Continuation of the proposal can be explored as part of the forthcoming Woking Borough LCWIP[2].

Proposed Interventions:

1 Walnut Tree Close: Building on existing measures, a quiet mixed traffic street is proposed. Reduce speed limit to 20mph and introduce a modal filter south of the railway underpass[3, 4]. Additional traffic calming measures proposed to include horizontal deflection - buildouts to reduce vehicular speeds which will also introduce uncontrolled crossings with reduced crossing distance and manage on-street parking. Introduce a priority crossing on the approach to Walnut Bridge. Widen the footways on the approach to the gyratory to introduce short sections of shared use path to allow access for cyclists to the existing crossings.

2 River Wey towpath (National Trust owned): An off-carriageway shared use path is proposed as an alternative alignment of Walnut Tree Close. Improved and accessible access to the path is proposed to be investigated via Walnut Bridge[5] . North of the railway lines cyclists are proposed to use the towpath up to

1 The proposals have S106 funding and at the time of the LCWIP the detailed design was being developed.
2 Study to commerce in Q2 2024.
3 Recent changes in the access to Walnut Tree Close restrict southbound through traffic. Proposed modal filter will restrict any through traffic in both directions. The vehicular flows are estimated to be low. Northern section of Walnut Tree Close is estimated to have higher flows of HGVs due to the access to the business park.
4 Enforcement of 20 mph speed limits to be determined in the feasibility stage.
5 High level aspiration to provide access to River Wey towpaths via Walnut Bridge via new accessible ramps.

Figure 63. Existing modal filter on Walnut Tree Close allows northbound through traffic and restricts southbound through traffic. Cyclists are permitted bi-directionally. Proposal to restrict all through traffic and allow access only.

Figure 64. Improvements to the existing towpath are required to enhance accessibility and improve personal safety.

the A25[6]. Improvements to the path are proposed (widening, added lighting, and resurfacing) as well as improvements to the access from Walnut Tree Close via the car park. Proposed interventions to be discussed with National Trust.

3 A25: Improve the shared use paths on both sides of the road[7]. Proposals include widening of the facilities to higher standards, where feasible, with an addition of a 0.5m green buffer along the A25. The speed limit on the A25 is proposed to be reduced to 30mph to improve road safety through the town. Additional improvements at the side roads with raised tables and priority crossings where required.

4 Woking Road between A25 and A3 eastbound slip lane: Proposals include a two-way cycle track on the east side by reallocating space from the carriageway. Proposals are part of the WUV development.

5 Woking Road between A3 eastbound slip lane and (WUV) development site access: Mixed traffic provision. Southbound cyclists may use the bus lane[8]. Introduce priority crossing north and south of the bridge to allow for a safe transition for

6 Northern section of Walnut Tree Close is estimated to have higher flows of HGVs due to the access to the business park therefore some cyclists may not feel safe using the road.

7 Segregation between pedestrians and cyclists is desirable according to LTN 1/20, but may not be feasible due to limited public highway space. Proposal to be investigated in the next stage of design following topographical surveys.

8 The bridge over River Wey is very constrained with two-way traffic and a southbound bus lane. The existing footways are narrow (2m width) and allow cyclists to use them. Due to space constraints no segregation may be proposed at the section. There are high traffic volumes on Woking Road (estimated >13,000 vehicles per day (annual average daily traffic - AADT)) and the vehicular speeds are estimated low, therefore the proposal is not suitable for all cyclists. The narrow width of the traffic lanes will allow cyclists to stay on the primary position on the carriageway with motorised traffic not being able to overtake them.

Aspirational proposal to consider a cycle bridge.

Figure 65. Existing shared use paths on the A25 have inconsistent width and at locations are very narrow. Improvements to the facilities are required to enhance the connectivity of the network.

Figure 66. River Wey Navigation bridge at A320 Woking Road: constrained pedestrian and cycle environment and high traffic flows.

Figure 67. Existing shared use path on Woking Road to be upgraded to segregated cycle facility. New crossing of Stoughton Road required.

cyclists between the proposed segregated cycle facilities (items 4 & 6) and the on-carriageway facilities. Investigate the opportunity to convert the Woking Road / A3 eastbound slip lane roundabout to a priority junction for the implementation of the proposed crossing[9].

6 Woking Road between Weyside Urban Village development site access and Stoughton Road: Two-way cycle track on the west side of the road is proposed by reallocating space from the carriageway and the verge. Introduce a priority crossing on Stoughton Road and utilise the existing crossing on the north arm of the roundabout to access Woking Road East (service road). Additional proposal to include tightening of the Woking Road/ Bellfields Road/ Mangles Road junction to reallocate space from the carriageway and introduce priority crossings.

7 Woking Road East (service road) between Stoughton Road and Woodlands Road: Two-way cycle track is proposed between the roundabout and Old Farm Road, by converting the western footway to cycle track[10]. The proposal also includes

Figure 68. No crossings are provided at Woking Road / Woodlands Road /Hazel Avenue roundabout. Converting the roundabout to a priority junction will help tidy the movements and reallocate space for cycle facilities and new crossings.

Figure 69. New segregated cycle facility proposed along Woking Road (north of Salt Box Road) by reallocating space from the verge.

mixed traffic provision[11] north of Old Farm Road with additional traffic calming measures. Introduce priority crossings at key locations:

- Priority crossing north of School Close to access the existing toucan crossing on Woking Road (north arm of Woking Road / Stoughton Road roundabout.
- Priority crossing south of Old Farm Road to provide a safe transition between the two-way cycle track and the mixed traffic section. Additional proposal to upgrade the uncontrolled crossing on Woking Road (at the location close to Old Farm Lane) to a toucan crossing to provide a connection to Fir Tree Road.

Additional measures to consider restrictions to HGVs and 20mph speed limit.[12]

8 Woking Road between Woodlands Road and Jacobs Well Road: Shared use path by reallocating space from the verge[13]. Convert Woking Road / Woodlands Road / Hazel Avenue roundabout to a signalised junction[14] and introduce toucan crossings.

9 Proposal may allow for wider footways and the pedestrian crossing to be located closer to the desire lines.

10 Pedestrians in the area are likely to use only the eastern footway as it extends along the houses, while the western footway extends along a wall to the A320

11 Traffic flows are assumed to be low.

12 Enforcement of 20 mph speed limits to be determined in the feasibility stage.

13 Segregation between pedestrians and cyclists is desirable according to LTN 1/20, but may not be feasible due to environmental constraints (area is common land).

14 Weyside Urban Village Development proposal.

9 Woking Road between Jacobs Well Road and Salt Box Road: Shared use path on the east side of the road by reallocating space from the verge[15]. Introduce a toucan crossing at Jacobs Well Road.

10 Woking Road between Salt Box Road and Woking Borough: Shared use path on the west side of the road by reallocating space from the verge and the carriageway[16]. The speed limit is proposed to be reduced to 40mph to improve the safety and comfort of cyclists. New toucan crossing north of Salt Box Road to allow cyclists to change sides of the road, and at Burdenshott Road. The proposal terminates at the border of Guildford Borough, where a toucan crossing is proposed to link to the existing bridleways and footpaths. Continuation of the proposal can be explored as part of the forthcoming Woking Borough LCWIP.

General Items:

» Wayfinding: Review and update area-wide wayfinding system. Consider measures such as wayfinding totems at key locations (e.g., railway stations, business park, industrial area) to help cyclists to navigate the area and illustrate the locations of local destinations and potential routes between them.

» Improvements to the towpaths to include widening of the path with potential segregation between pedestrians and cyclists. Resurfacing is required in some locations and additional lighting will improve personal safety. In the next stage of design, considerations should be given to drainage along the path to mitigate any potential flooding issues. Proposed interventions to be discussed with National Trust.

» Cycle parking: As part of footway and public realm improvements, consider opportunities to integrate secure cycle parking near local destinations, such as Guildford Railway Station and commercial areas.

15 Pedestrian flows are assumed to be low along this section, therefore segregation is not required.

16 Pedestrian flows are assumed to be low along this section, therefore segregation is not required. Potential environmental constraints.

Cycle Corridor 27: Eastern Spoke - Epsom Road

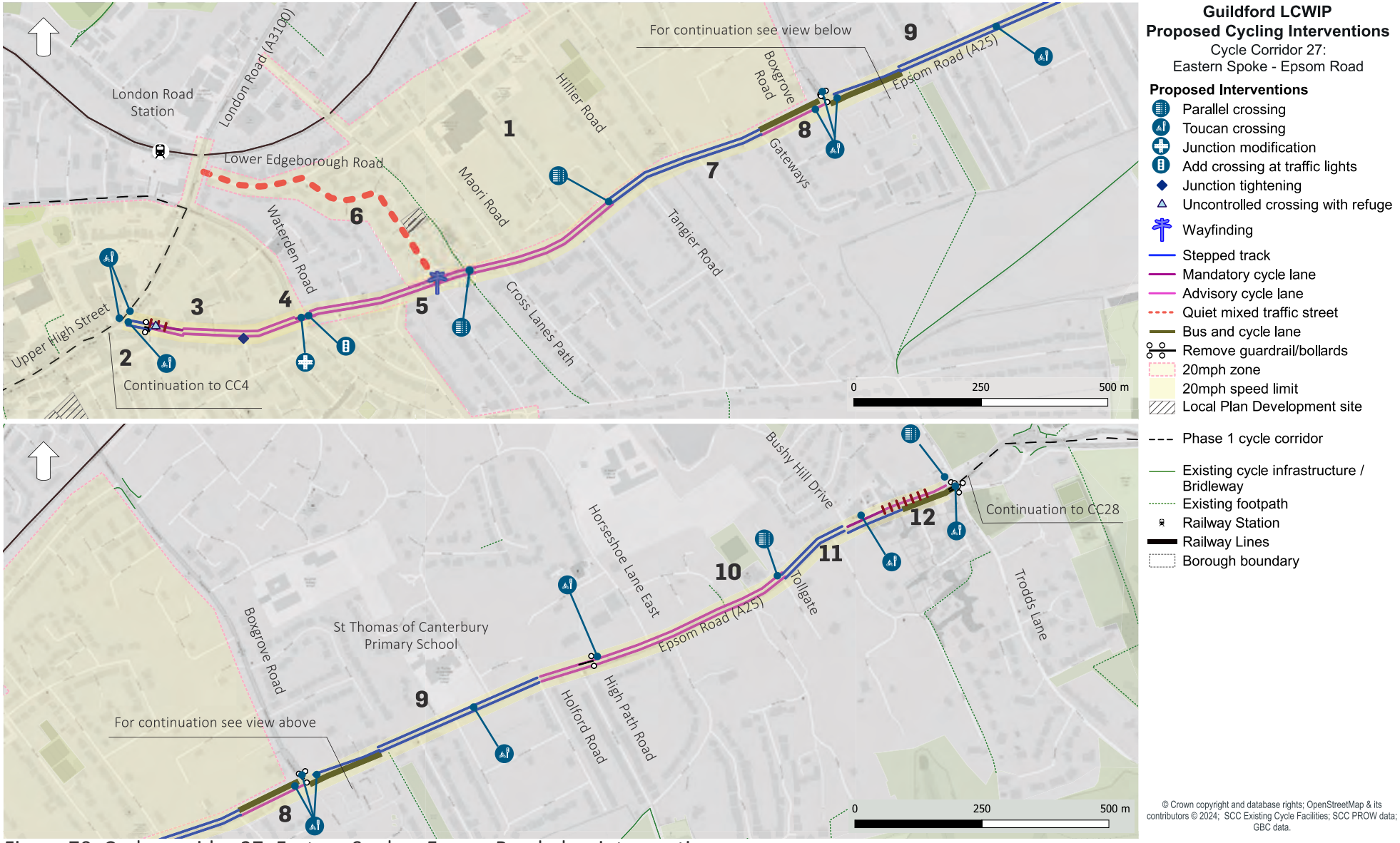


Figure 70. Cycle corridor 27: Eastern Spoke - Epsom Road - key interventions

Epsom Road (# 27)

The proposed route along the A245 and A25 connects cycle corridor #4 on Guildford Upper High Street with the village of Merrow in the north-east of Guildford where it offers onward continuity towards Effingham at the borough boundary. The route proposes a mix of stepped track and advisory cycle lanes, with short sections of mandatory cycle lane as well as bus and cycle lanes[1].

Proposed Interventions:

1 Epsom Road between Upper High Street and Trodds Lane: 20mph speed limit reduction along the entire link is proposed.[2] This would be especially beneficial in the sections with limited carriageway space available where segregated cycle facilities cannot be provided and advisory cycle lanes are proposed instead.

2 Upper High Street junction: Toucan crossings are proposed on all three arms to improve connectivity with Guildford High Street and London Road. Potential modification and signalisation of the junction to minimise the risks of cyclists

Figure 71. A short section of mandatory cycle lane in front of the shops near junction with Upper High Street will provide space for cyclists travelling uphill.

Figure 72. Removal of short right turn lane at Waterden Road junction will offer space for dedicated (mandatory) eastbound cycle lane (uphill), and provision of signal-controlled crossing on the eastern arm.

Figure 73. Sections of Epsom Road offer enough carriageway and verge space to provide full segregation (stepped tracks).

Figure 74. Existing signal-controlled crossing near High Path Road to be upgraded to toucan and the guardrail removed.

1 Due to high traffic flows and limited public highway space available in multiple sections, it is not possible to provide LTN 1/20 compliant route along the entirety of the corridor.

2 Enforcement of 20 mph speed limits to be determined during the feasibility stage.

using a roundabout to be investigated in the next design stage.

3 Epsom Road between Upper High Street and Jenner Road: The westernmost end proposes stepped track on either side of the road, with mandatory cycle lane in front of the shops where parking revision is also proposed to accommodate cycle infrastructure. This section of the eastbound cycle track has steep gradient and a mandatory cycle lane will allow cyclists to travel uphill at a slower pace.

4 Epsom Road junction with Waterden Road: Junction modification is proposed which would include removal of short westbound right turn lane and reallocation of carriageway space to provide short section of eastbound mandatory cycle lane for the uphill movement. A new signal controlled crossing is also proposed on the junction's east arm.

5 Epsom Road between Jenner Road and Tangier Road: Due to limited space available advisory cycle lane on either side of the road is proposed. A parallel crossing is also proposed in the location where Cross Lane Path intersects with Epsom Road, and the existing uncontrolled crossing east of St Omer Road bus stops to be upgraded to a priority crossing (potentially parallel).

6 Lower Edgeborough Road: A quiet mixed traffic street is proposed along the road as an alternative to the main corridor to connect Epsom Road with London Road Railway Station.

7 Epsom Road between Tangier Road and Boxgrove Road junction: This segment proposes sufficient carriageway space to provide full segregation (stepped track) in the majority of this section, with bus and cycle lane and advisory cycle lane near Boxgrove Road junction.

8 Boxgrove Road junction: The LCWIP proposals for this section incorporate interventions suggested as part of the A25 Epsom Road bus improvement scheme. The proposal includes a bus and cycle lane on the eastern and western approach to the junction, with westbound advisory cycle lane between the junction and Gateways. It is also proposed to upgrade the signal-controlled crossings on the western, northern and eastern arms of the junction to toucans.

9 Epsom Road between Boxgrove Road junction and Holford Road: The proposals for this section include predominantly stepped track, with the uncontrolled crossing outside St Thomas Primary School upgraded to toucan.

10 Epsom Road between Holford Road and Tollgate: Due to limited space available, advisory cycle lanes are proposed on either side of Epsom Road, with the existing signal-controlled pedestrian crossing near the junction with High Path Road upgraded to toucan and the guard railing associated with the crossing removed.

11 Epsom Road between Tollgate to Bushy Hill Drive: The section proposes stepped track on either side of the main road, with uncontrolled crossing between Tollgate and Redwood Close upgraded to a priority crossing (parallel).

12 Epsom Road between Bushy Hill Drive and Trodds Lane: The LCWIP proposals for this section incorporate interventions suggested as part of the A25 Epsom Road bus improvement scheme. Along the north side of Epsom Road it includes a mandatory eastbound cycle lane from the junction to the petrol station, which then is converted to advisory cycle lane towards Merrow Street. This section will require an on-street parking review to accommodate a cycling facility alongside parking. On the south side a stepped track is proposed in the westbound section, and bus and cycle lane in the eastbound section towards Trodds Lane junction. Parallel crossing is proposed at the junction with Merrow Street, and existing staggered toucan crossing on the A25 is to be redesigned to a single stage toucan to offer better onward connectivity towards Trodds Lane. At this point the Epsom Road route also connects to Cycle Corridor 28 (Epsom Road East).

Figure 75. Existing on-street parking outside shops to be reviewed and rearranged to accommodate eastbound advisory cycle lane.

Figure 76. Merrow Street / Trodds Lane toucan crossing requires improvements to provide better onward connectivity along Epsom Road and in other directions.

General Items:

» Wayfinding: Review and update area-wide wayfinding system. Consider measures such as wayfinding totems or fingerposts at key locations (e.g., retail areas, local destinations, etc.) to help cyclists and pedestrians to navigate the area and illustrate the locations of local destinations and potential routes between them.
» Cycle parking: As part of footway and public realm improvements, consider opportunities to integrate secure cycle parking near local destinations such as London Road Railway Station, commercial areas, schools, etc.

Ash and Tongham urban area

Cycle Corridor 18: Ash Street

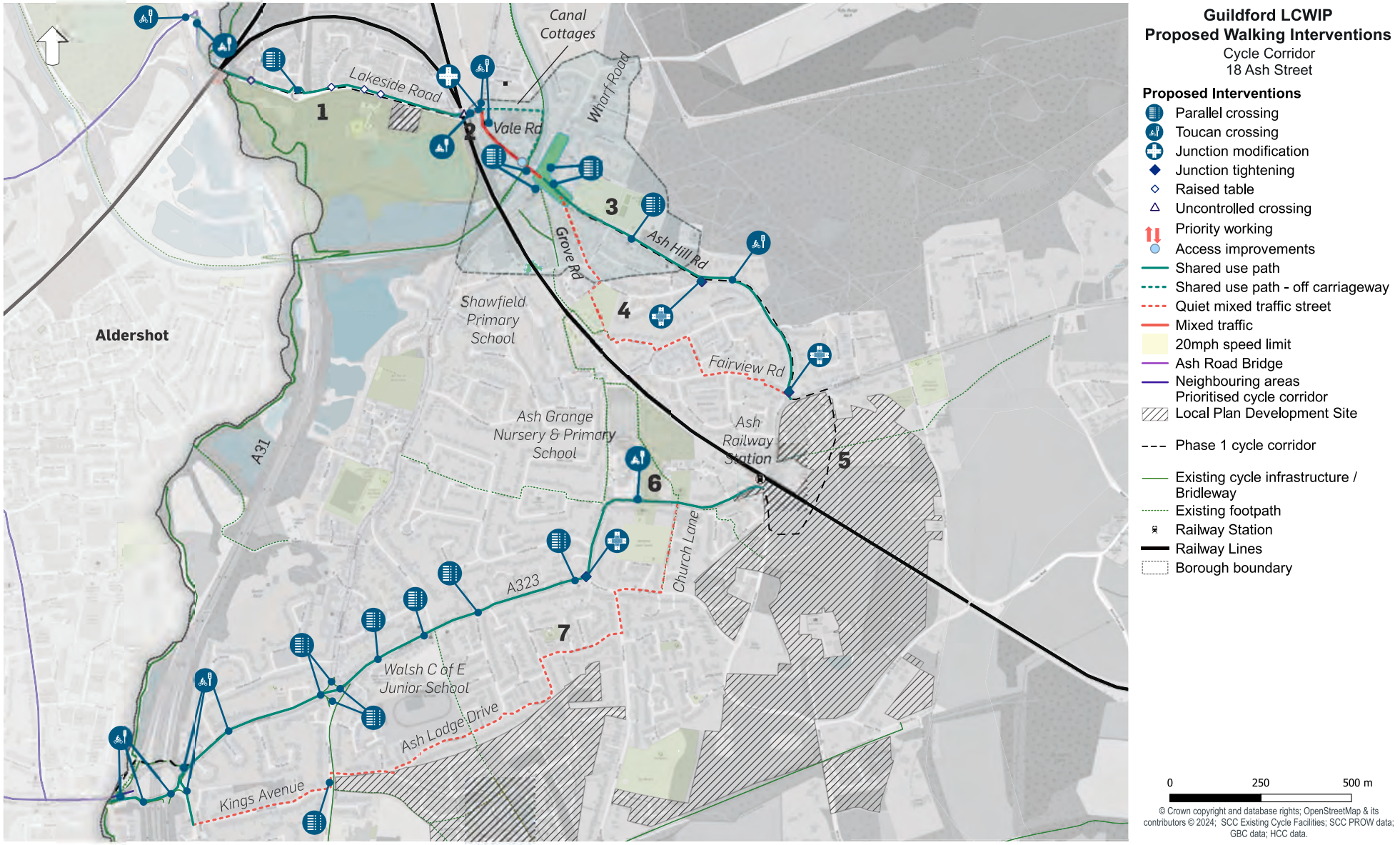


Figure 77. Cycle Corridor 18: Ash Street - key interventions

Ash Street (# 18)

The proposed route along Ash Hill Road / Aldershot Road connects cycle corridor #18 to proposed cycle corridors in neighbouring Aldershot, which explains its inverted 'C' shape. It starts at Lakeside Road, continues to Ash Railway Station, terminating at Aldershot Road roundabout at the borough boundary. The proposed interventions, described below, will start from the Lakeside Road end.

Proposed Interventions:

1 Lakeside Road: Due to the limited available space, interventions along Lakeside Road include a shared use path (SUP) along the existing footway with raised tables at the junctions to enhance priority for both cyclists and pedestrians. It also includes a parallel crossing by Old Farm Place.

2 Lakeside Road roundabout: Where Lakeside Road approaches the roundabout with Vale Road, there is very limited space, and the footway is narrow. There is not sufficient space for a segregated facility or even a SUP; therefore, for a small section (approximately 250m) the cycle corridor will be mixed traffic (accompanied by footway widening), including junction modification (replacing the mini roundabout with a priority junction).[1] To improve safety for cyclists and comply with cycling guidelines (LTN 1/20), it is proposed to reduce the speed limit to 20mph.[2] As an alternative, it is proposed to improve the connection between Canal Cottages and the existing path along Basingstoke Canal. From there, cyclists can stay along the canal or join back to Vale Road, avoiding the roundabout (refer to CWZ 12 on page 185).

3 Vale Road: Along Vale Road, further safety measures include toucan and parallel crossings, junction tightening and a 20mph speed limit.[2] 20 mph limit also proposed for a section of Shawfield Road as part of CWZ interventions (Figure 77). There is an alternative route, a mixed traffic route along Vale Road (accompanied by footway widening), or via Canal Street, where a shared use path is proposed. Canal Street connects Vale Road with Basingstoke Canal towpath, leading to Ash Hill Road. which will provide connection to Vale Road south, near the canal bridge. The access from Canal Street to Basingstoke Canal towpath will benefit from signage, resurfacing and possibly lighting improvements.

4 Ash Hill Road and Fairview Road: There are also two alignments for this stretch. There is a shared use path along Ash Hill Road (accompanied by footway widening), or via a quiet mixed traffic

1 Proposals for junction modification and/or removal of roundabouts will be assessed in the feasibility stage, including consideration of the impact on flows, and the type of crossings (signalised or non-signalised) to be proposed.

2 Enforcement of 20 mph speed limits to be determined during the feasibility stage.

Figure 78. Alternative alignment to Ash Hill Road including the existing path (off Old School Close). Source: Google Street View.

Figure 79. Example of SUP to be widened and uncontrolled crossing / pedestrian refuge to be upgraded to parallel crossing. Source: Google Street View.

street starting at Grove Road following existing paths (off Old School Close and Fairview Close). This would require resurfacing and lighting improvements along the Old School Close Path and lighting, wayfinding and resurfacing in sections along Fairview Close path.

5 Ash Road Bridge development: Between the Ash Hill Road/Guildford Road roundabout and the Guildford Road/ Foreman Road junction, the Ash Road bridge is designed to include a shared use path. It is anticipated pedestrian levels on the bridge will be low as pedestrians will still be able to use the more direct and convenient alignment along Guildford Road (crossing the railway tracks via a footbridge at Ash Railway Station), and would not have to divert via the new road bridge.

6 Aldershot Road / A323: Due to space constraints, the cycle corridor between Ash Railway Station and A323 / Aldershot Road roundabout (across A331) is proposed as a shared use path. The existing section of shared use path is proposed to be widened. Further proposals include parallel and toucan crossings and junction tightening to support the accessibility of cyclists and pedestrians.

7 Alternative alignments: For both the north and south sections of the cycle corridor, there are two alternative alignments. In the north there is an alternative alignment proposed along Grove Road and Fairview Road. This would be a quiet mixed traffic street and would require resurfacing in sections (as discussed in Item 4). The southern alternative alignment is along Church Lane[3], Southlands Road and Ash Lodge Drive. This would be a quiet mixed traffic street, accompanied by 20mph speed limits and resurfacing and / or widening of Church Lane. Review of lighting also required.[4]

Figure 80. Sections to be widened along Church Lane. Source: Google Street View.

General Items:

- Improvements to the existing path (off Old School Close) to include widening of the path with potential segregation between pedestrians and cyclists. Resurfacing is required in some locations. Added lighting will improve personal safety. Consideration should be given in the next stages of design on drainage along the path to mitigate any potential flooding issues.
- Wayfinding: Review and update area-wide wayfinding system. Consider measures such as wayfinding totems at key locations (e.g., railway stations, High Street/town centre) to help cyclists (as well as pedestrians) navigate the area and illustrate the locations of local destinations and potential walking routes between them.
- Cycle parking: As part of footway and public realm improvements, consider opportunities to integrate secure cycle parking near local destinations, such as Ash Railway Station, Ash Vale Railway Station, and shopping areas.
- Mobility hubs: Consider a network of mobility hubs across the area to encourage uptake of active travel modes and support place-making.

3 Public Right of Way.

4 Enforcement of 20 mph speed limits to be determined during the feasibility stage.

Rural areas

Cycle Corridor 28: Epsom Road East

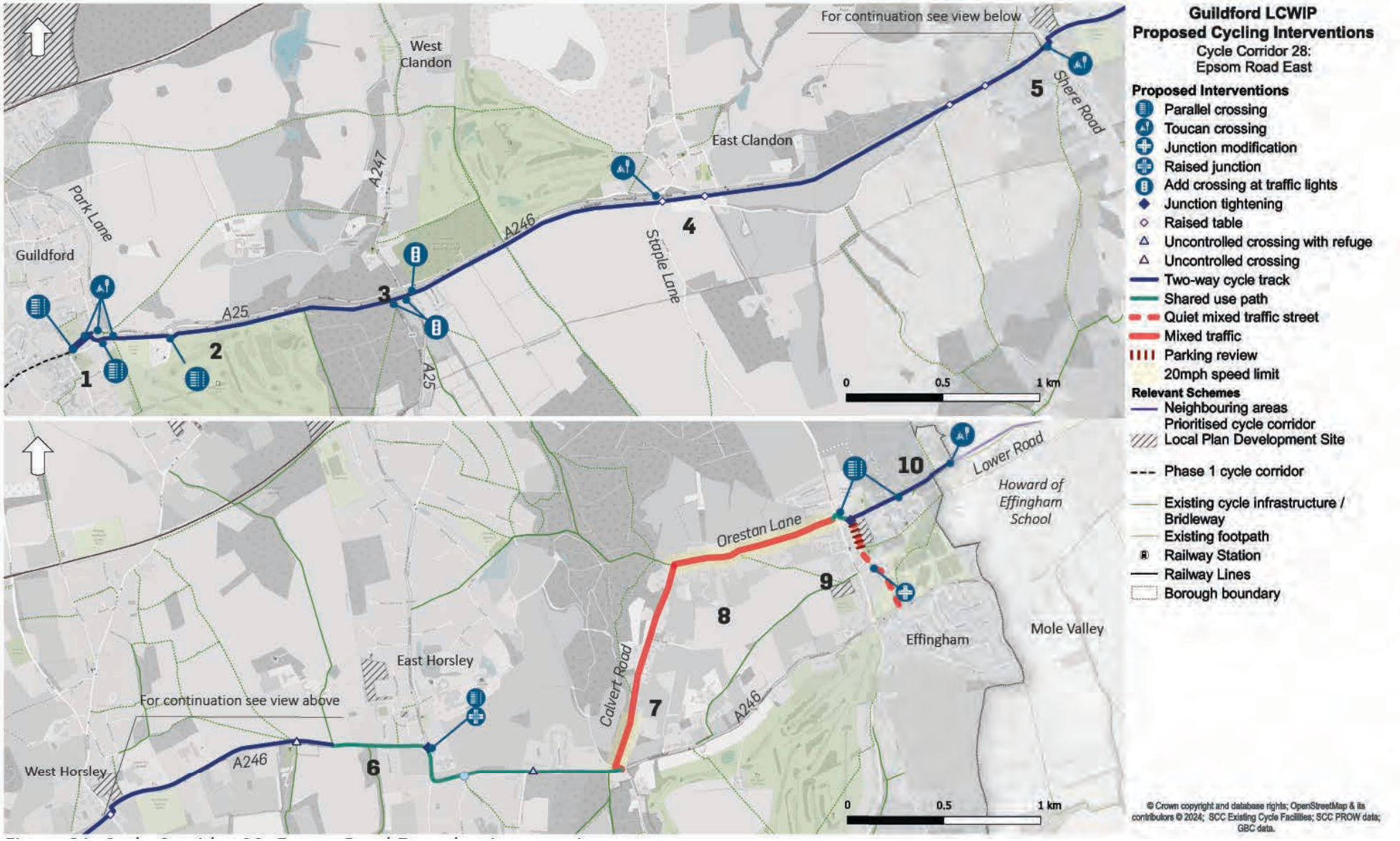


Figure 81. Cycle Corridor 28: Epsom Road East - key interventions

Epsom Road East (# 28)

The route predominantly follows the A25/ A246 corridor, with the easternmost section along Calvert Road and Orestan Lane towards Effingham offering a more quiet environment. From Effingham the route continues along Lower Road to the Mole Valley District boundary. The section along Epsom Road is characterised by high traffic flows and speeds. Posted speed is 50mph with 85% over 40mph, and cycle infrastructure in such an environment requires full segregation.

Proposed Interventions:

1 Park Lane roundabout: Existing shared use path along the west arm to be upgraded to two-way cycle track, with the uncontrolled crossing upgraded to a toucan. Toucan crossings are also proposed for the north and east arms of the roundabout to improve link to the north and future Gosden Hill Farm development, and onward connectivity along the A246. Alternatively, a new two-way cycle track could be introduced along the south side of Epsom Road between Trodds Lane and Park Lane Roundabout.

2 Epsom Road between Park Lane roundabout and Shere Road: The proposal includes a south side two-way cycle track. In this section a parallel crossing is also proposed at the Merrow Park and Ride access.

Figure 82. Park Lane roundabout currently does not offer cycle priority crossings and is difficult to navigate for pedestrians and cyclists.

Figure 83. Existing verge along south side of Epsom Road between Park Lane roundabout and Merrow Park & Ride provides sufficient space to accommodate two-way cycle track.

Figure 84. Staple Lane junction with Epsom Road proposal includes introduction of toucan crossing on the minor road. Source: Google Street View.

Figure 85. Ockham Road junction with Epsom Road proposals include junction tightening, introduction of raised table and parallel crossing.

3 Epsom Road junction with A25 in West Clandon: The proposal includes integrating new cycle crossings into existing signal-controlled junction.

4 Epsom Road junction with Staple Lane in East Clandon: Introduction of toucan crossing to provide access to East Clandon, and raised table on Staple Lane to support onward eastbound route continuity.

5 Epsom Road junction with Shere Road in West Horsley: A signal-controlled crossing to enable cycle corridor transition from the south side of the A246 to the north side, and improve access to West Horsley.

6 East Horsley: Due to anticipated limited space available in this section of the A246, a shared use path is proposed on the north side until the Dirtham Lane/ Calvert Road junction. A raised junction treatment with parallel crossing is proposed at Ockham Road South junction in East Horsley.

7 Calvert Road in Effingham:, The link is assumed to have low traffic speeds and flows. Traffic calming and speed limit reduction to 20mph in the southern section of the road is proposed to support mixed traffic arrangement (the northern section of Calvert Road has posted speed of 20mph).[1]

1 Enforcement of 20 mph speed limits to be determined during the feasibility stage.

Figure 87. Potential modification of the roundabout at the junction of The Street with Lower Road to provide safer environment for cycling.

8 Orestan Lane in Effingham: The link is assumed to have low traffic speeds and flows. Traffic calming and speed limit reduction to 20mph is proposed along this section to support mixed traffic arrangement.[2]

9 Orestan Lane / The Street roundabout: The proposal includes parallel crossing at north arm of the junction and a short section of shared use path on the north side of Lower Road. The Street / Lower Road roundabout junction could be potentially modified to improve cycle movements across the intersection.[3]

2 Enforcement of 20 mph speed limits to be determined during the feasibility stage.

3 Proposals for junction modification will be assessed in the feasibility stage, including consideration of the impact on flows,

Figure 86. Orestan Lane junction with Effingham Common Road uncontrolled crossing with an island to be upgraded to parallel crossing.

Additionally, a quiet mixed traffic street and parking review along Church Street in Effingham is proposed as part of the LCWIP walking network improvements.

10 Lower Road in Effingham: Short section of shared use path near St Lawrence Primary School which will require minimal carriageway space reallocation. Further east the route will transition to a two-way cycle track [4] on the north side which provides connection to Mole Valley

and the type of crossings (signalised or non-signalised) to be proposed.

4 Howard of Effingham School Section 278 related works include provision of shared use path on Lower Road. Further consultation with the developer is required in later stages of the scheme to synchronise cycle infrastructure offered in this area.

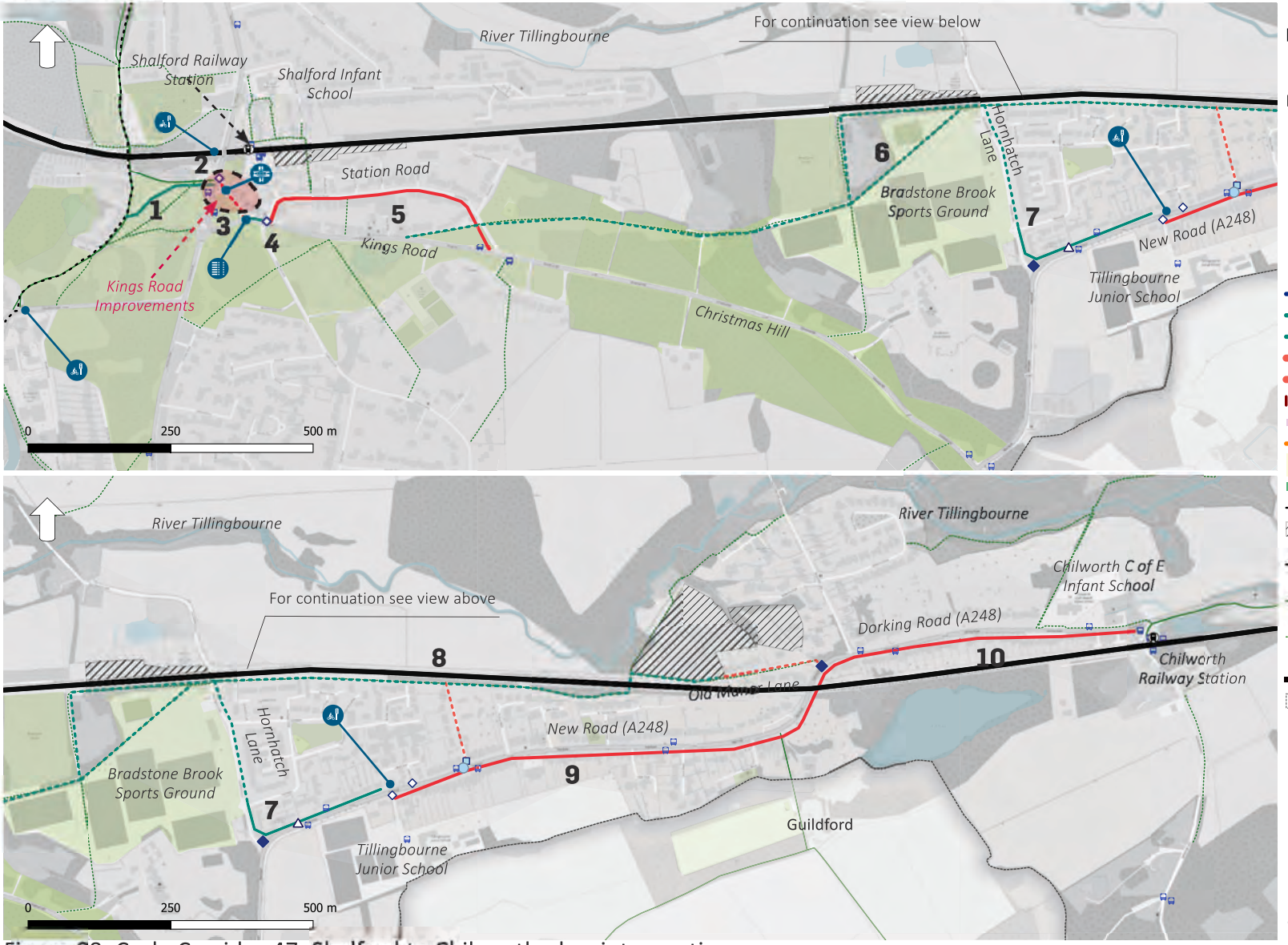
District (two-way cycle track along Lower Road is proposed as part of Mole Valley LCWIP). A parallel crossing is proposed near Howard of Effingham School, and a toucan crossing at Mole Valley District boundary to provide onward connectivity.

General Items:

» Wayfinding: Review and update area-wide wayfinding system. Consider measures such as wayfinding totems or fingerposts at key locations (e.g., retail areas, local destinations, etc.) to help cyclists and pedestrians to navigate the area and illustrate the locations of local destinations and potential routes between them.

» Cycle parking: As part of footway and public realm improvements, consider opportunities to integrate secure cycle parking near local destinations such as commercial areas, schools, etc.

Cycle Corridor 47: Shalford to Chilworth



Guildford LCWIP
Proposed Cycling Interventions
Cycle Corridor 47:
Shalford to Chilworth

Proposed Interventions

- Parallel crossing
- Toucan crossing
- Raised junction
- Junction tightening
- Raised table
- Uncontrolled crossing
- Access improvements
- Continuous footway
- Two-way cycle track
- Shared use path
- Shared use path - off carriageway
- Quiet mixed traffic street
- Mixed traffic
- Parking review
- Traffic calming
- Footway widening
- 20mph speed limit
- Public realm improvements
- Guildford to Godalming Greenway
- Local Plan Development Site
- Phase 1 cycle corridor
- Existing cycle infrastructure / Bridleway
- Existing footpath
- Railway Station
- Railway Lines
- Borough boundary

Figure 88. Cycle Corridor 47: Shalford to Chilworth - key interventions

Shalford to Chilworth (# 47)

The cycle corridor intersects with Shalford Core Walking Zone, and multiple proposed interventions in Shalford centre are relevant to both walking and cycling improvements. The corridor provides a link between Shalford Infant School and Tillingbourne Junior School in Chilworth, and its westernmost section includes the proposed Guildford to Godalming Greenway. Multiple design interventions included as part of this cycle corridor are relevant and are included in Shalford Core Walking Zone #15 and are described in more detail on page 189.

Proposed Interventions:

1 Broadford Road: A toucan crossing is proposed at the bend of the road. The crossing will accommodate cycle movements along Guildford to Godalming Greenway / NCN Route 22. The crossing will provide connectivity to cycle corridor along Dagley Lane, which is proposed to be resurfaced to provide improved walking and cycling link with potential seating and resting places. The section between Broadford Road and Horsham Road to be delivered as part of the greenway works.

2 Horsham Road / Dagley Lane / Kings Road junction: A toucan crossing is proposed near the junction to enable safe crossing of the main road and provide connection to Shalford Railway Station and the retail area, and to offer onward connectivity towards Chilworth. This potentially can include relocation of existing signal-controlled crossing at the southern end of the railway bridge to a site near Dagley lane / King's Road junction. Proposed toucan crossing in new location can unlock opportunity for the junction re-design and removal of King's Road slip lane immediately to the south of existing water drinking fountain in Shalford Orchard.

3 King's Road: This section is proposed as a quiet mixed traffic street with potentially reduced or limited vehicular access, whilst maintaining access to the railway station and dwellings. Raised junction

Figure 89. Dagley Lane requires resurfacing to provide high quality off-line link for cyclists and pedestrians. It will be delivered as part of Guildford to Godalming Greenway work.

Figure 90. King's Road intersection with Horsham Road offers an opportunity for junction redesign and removal of the short section of carriageway between Kings Road and Horsham Road south of the water drinking fountain.

Figure 91. Raised junction treatment is proposed for King's Road junction with Station Approach.

treatment is proposed at the junction with Station Approach, to slow down traffic and offer additional protection to cyclists in mixed traffic arrangement. Alternatively, the cycle corridor could utilise the northern verge of common land located immediately to the south of King's Road[1].

4 King's Road junction with Station Road: A parallel crossing is proposed at the King's Road priority junction, near Snooty Fox, and a short section of shared use path in front of Boots pharmacy, which will provide onward connectivity and link with the mixed traffic arrangement along Station Road. Additional cycle parking is also proposed in the commercial centre of the village. Further engagement with Shalford Placemaking project is required to ensure synergies between the two workstreams.

5 Station Road: It is proposed to reduce speed limit to 20mph and provide additional traffic calming measures to support mixed traffic arrangement along the road, and slow down traffic especially near the Pound Place junction blind spot.[2] A localised on-street parking review is also proposed to improve pedestrian comfort along the road and permeability of the area.

6 Shalford Common and Bradstone Brook Sports Ground: The proposal includes upgrading existing Public Right of Way to shared use path (bridleway). It will require widening of the existing path and upgrading the surface to support walking and cycling. The main alignment of the path near Bradstone Brook Sports Ground follows the railway line.

1 King's Road area is the site where the walking network interventions interact with cycle proposals and Shalford Placemaking project which was being developed at the same time as Guildford LCWIP. Further engagement is required with the public realm scheme to ensure synergies between the LCWIP and the placemaking proposals.

2 Enforcement of 20 mph speed limit is to be determined during the feasibility stage.

Figure 92. Localised parking review is proposed along Station Road to improve quality of mixed traffic arrangement and pedestrian accessibility local destinations.

Figure 93. Existing public footpath through Bradstone Brook Sports Ground can potentially offer alternative alignment to the public right of way alongside the railway line.

Figure 94. Potential to introduce a toucan crossing on New Road near Tillingbourne School access.

7 Hornhatch Lane: Existing footway on the eastern side of the road is proposed to be upgraded to shared use path, and Hornhatch Lane junction with New Road to be tightened.

8 PROW alongside railway line: Investigate whether there is sufficient width to upgrade existing right of way to shared use path (bridleway). It will connect Shalford with Chilworth by bypassing a large section of New Road. This alignment requires the route to cross over the railway line, and details of potential crossing have not been investigated at this stage. In the eastern section the route will continue along Old Manor Lane in a quiet mixed traffic street arrangement until the junction with Dorking Road.

9 New Road: Short section of shared use path is proposed in the western section of the road between Hornhatch Lane junction and Tillingbourne School, with an uncontrolled crossing near the bus stops and a toucan crossing outside the school. This will provide an active travel connection to the school separated from traffic. Traffic calming features are proposed along New Road, with a parking review undertaken in the vicinity of Tillingbourne School to be investigated further in next stage of design. Additionally, a quiet mixed traffic street arrangement is suggested along Chantry Road, which will connect the New Road corridor with the shared use path proposed alongside the railway line.

10 Dorking Road: The link provides a continuation of the corridor's on-line alignment along New Road. Junction tightening is proposed for the intersection with Old Manor Lane to provide a safer link between two proposed cycle corridor alignments. Additionally, traffic calming along the main road is proposed, with localised parking revision, specifically near Chilworth Railway Station westbound bus stop, where the existing uncontrolled crossing is proposed to be upgraded to a priority crossing. Additional cycle parking is proposed outside the railway station.

General Items:

» Wayfinding: Review and update area-wide wayfinding system. Consider measures such as wayfinding totems or fingerposts at key locations (e.g., railway stations, retail areas, local destinations, etc.) to help cyclists and pedestrians to navigate the area and illustrate the locations of local destinations and potential routes between them.

» Cycle parking: As part of footway and public realm improvements, consider opportunities to integrate secure cycle parking near local destinations such as Shalford Railway Station, commercial areas, schools, etc.

Summary of Phase 1 Cycle Corridors

Table 8. Summary of Phase 1 Cycle corridors

Corridor[1]	Public Benefit	Other Benefit / Potential increase in users[2]	Suitability of proposals (LTN 1/20)[3]	Potential Issues
Guildford town urban / suburban area High Street and North Street (#1)	Links the commercial centre of Guildford Town to the railway station and future development sites; and National Cycle Network (Route 223); improves access to the towpaths; incorporates North Street Regeneration Plan proposals.	Aims to improve accessibility of cycling for people of all ages and abilities through provision of segregated facilities where feasible and new and upgraded crossings; enhances the continuity of the cycle network in the centre of Guildford Urban Area. Potential increase in cycling of 732 commuter trips/ day (one-way flows; growth based on PCT E-Bike scenario) and 59 school trips/ day (two-way flows based on PCT go Dutch scenario).	Approx 30% likely fully compliant, 66% partially compliant, and 4% non-compliant with LTN 1/20 guidance. Limited public highway space in the historic town centre and high vehicular flows on the gyratory. Use of towpaths preferred by non-confident cyclists to provide connections to Guildford Railway Station away from vehicular traffic	Cycle facilities through the busy High Street with high pedestrian flows increases the risk of conflicts between pedestrians and cyclists. Potential opposition to some proposals due to impact on on-street parking, restricted vehicle access (to the High Street) and/or reallocation of road space. Constrained public highway space in some areas.

1 For each Phase 1 Cycle Corridor, stakeholders supported the proposals and provided input during the LCWIP process.

2 Potential increase in users is estimated using the Propensity to Cycle Tool (PCT) information for the routes, comparing the existing cycle flow (2011 Census) scenario to the e-bike scenario for commuter flows and go Dutch scenario for school flows. See page 55 for more information on the Propensity to Cycle Tool. At the Borough level, the PCT e-bike scenario estimates a potential increase in mode share for cycling from approximately 2% of commuter trips to 18%, primarily shifted from private vehicle trips (69% to 57%).

3 The summary of LTN 1/20 compliance reflects a very high-level review of potential constraints at this early concept stage. Due to a variety of reasons, such as space constraints along historic streets and limited public highway space, adherence to LTN 1/20 may not always be possible. In such cases, alternative options were suggested. The potential for LTN 1/20 compliance and alternative options would be investigated in more detail in future stages of scheme development.

Corridor[1]	Public Benefit	Other Benefit / Potential increase in users[2]	Suitability of proposals (LTN 1/20)[3]	Potential Issues
Guildford town urban / suburban area Stoke Road to Town Centre & High Street (#3 & #4)	Links the existing facilities on the A25 to the commercial centre and the railway station; enhances cycle accessibility along busy roads.	Aims to improve accessibility of cycling for people of all ages and abilities through provision of segregated facilities where feasible or lower traffic speeds/flows and new and upgraded crossings; enhances the continuity of the cycle network through the town centre. Potential increase in cycling of 987 commuter trips/ day (one-way flows; growth based on PCT E-Bike scenario) and 221 school trips/ day (based on PCT go Dutch scenario).	Approx 52% likely fully compliant, 42% partially compliant, and 6% non-compliant with LTN 1/20 guidance. Limited public highway space along Stoke Road and York Road with high vehicular flows. Modal filter and traffic calming measures are proposed to reduce traffic flows and support compliance with LTN 1/20	Potential opposition to some proposals due to impact to on-street parking and/or measures to reduce traffic flows; extended length of shared facilities along a busy corridor may increase the risk of conflict between pedestrians and cyclists.
Guildford town urban / suburban area Guildford College to Woking (#11)	Improved connectivity between the railway station and the industrial areas; improves access to the residential areas; links the town centre to Woking Borough; extends the existing cycle network.	Aims to improve accessibility of cycling for people of all ages and abilities through provision of segregated facilities where feasible and new and upgraded crossings; seeks to improve personal safety, for example lighting would be proposed for off-road routes and more isolated sections (particularly benefiting women, young people, and older people); enhances the continuity of the cycle network for the county. Potential increase in cycling of 1089 commuter trips/ day (one-way flows; growth based on PCT E-Bike scenario) and 189 school trips/ day (based on PCT go Dutch scenario).	Approx 60% likely fully compliant, 40% partially compliant with LTN 1/20 guidance. Shared facilities are proposed for extended sections due to highway constraints.	Pinch point on the River Wey Bridge on Woking Road results to narrow facilities and reduction of the available space for pedestrians; extended length of shared facilities along a busy corridor may increase the risk of conflict between pedestrians and cyclists; interfaces with Weyside Urban Village Development proposals, coordination is required on a section of the route.

Corridor[1]	Public Benefit	Other Benefit / Potential increase in users[2]	Suitability of proposals (LTN 1/20)[3]	Potential Issues
Guildford town urban / suburban area Eastern Spoke - Epsom Road (#27)	Provides cycling infrastructure continuity along Epsom Road, with connections to Upper High Street and London Road Railway Station in the town centre.	Aims to improve accessibility of cycling for people of all ages and abilities through provision of segregated facilities where feasible and lower traffic speeds along the route (20mph), with new and upgraded crossings, enhances the continuity of the cycle network in the eastern part of Guildford. Potential increase in cycling of 1086 commuter trips/ day (one-way flows; growth based on PCT E-Bike scenario) and 182 school trips/ day (based on PCT go Dutch scenario).	Approx 13% likely fully compliant, 72% partially compliant, and 15% non-compliant with LTN 1/20 guidance. Full segregation cannot be provided in sections with limited public highway space available. Direct link to London Road Railway Station follows a quiet mixed traffic street alignment.	Existing pinch points along the corridor, with limited parts of the route on gradient. Safety issues for cyclists due to high traffic volumes along Epsom Road in the section east of Waterden Road junction (approx. 10k vehicles a day). Cyclists sharing road space with buses where bus and cycle lanes are proposed. Potential opposition to some proposals due to impact on on-street parking.

Corridor	Public Benefit	Other Benefit / Potential increase in users	Suitability of proposals (LTN 1/20)	Potential Issues
Ash and Tongham urban area Ash Street (#18)	Provides cycling infrastructure continuity between Ash Railway Station and the borough boundary, where it links with proposed infrastructure in Rushmoor District.	Aims to improve accessibility of cycling for people of all ages and abilities through provision of shared use path with new and upgraded crossings, quiet mixed traffic areas, and lower traffic speeds along selected sections of the route (20mph). Potential increase in cycling of 261 commuter trips/ day (one-way flows; growth based on PCT E-Bike scenario) and 256 school trips/ day (based on PCT go Dutch scenario).	The corridor is likely partially compliant (94%) or not compliant (6%) with LTN 1/20 guidance. Limited public highway space and high vehicular flows may require extended sections of shared facilities.	Speed limit reduction to 20mph along Kings Avenue, Ash Lodge Drive, Southlands Road, Church Lane corridor will likely require additional traffic calming measures which may not be supported by some stakeholders. Section between Ash Railway Station and Fairview Road depends on third party delivery.

Corridor	Public Benefit	Other Benefit / Potential increase in users	Suitability of proposals (LTN 1/20)	Potential Issues
Rural areas Epsom Road East (#28)	Provides cycling infrastructure continuity along Epsom Road, to link Guildford Town Centre with Mole Valley District in the east.	Aims to improve accessibility of cycling for people of all ages and abilities through provision of segregated facilities where feasible, with new and upgraded crossings and localised improvements to public realm. Potential increase in cycling of 88 commuter trips/ day (one-way flows; growth based on PCT E-Bike scenario) and 581 school trips/ day (based on PCT go Dutch scenario).	Full segregation can be provided along most of the route, and short section of mixed traffic is assumed with low traffic flows, making majority of the route compliant. Approx. 15% of the route is likely partially compliant with LTN 1/20 guidance due to a section of shared use path.	Speed limit reduction to 20mph along Orestan Lane and Calvert Road will likely require additional traffic calming measures which may not be supported by some stakeholders.
Rural areas Shalford to Chilworth (#47)	Links Chilworth and Shalford railway stations and provides connection to Shalford Infant School and Tillingbourne Junior School.	Aims to improve accessibility of cycling for people of all ages and abilities through provision of traffic free facilities where feasible, with new and upgraded crossings, traffic calming and speed limit reduction to increase safety of users, specifically between the two schools in the area. Potential increase in cycling of 332 commuter trips/ day (one-way flows; growth based on PCT E-Bike scenario) and 96 school trips/ day (based on PCT go Dutch scenario).	Approx. 84% of the route option following the railway line PROW alignment is likely partially compliant, and 16% non-compliant with LTN 1/20 guidance. For the New Road option alignment, approx. 64% is partially compliant and 36% non-compliant.	Off-carriageway alignment requires introduction of a level crossing specifically for active travel users, and will require Network Rail permission. Traffic calming measures and localised impact on on-street parking may not be supported by some stakeholders.

7.3. Assessment of Proposals

Following the concept design, the proposed interventions were assessed using the Route Selection Tool (RST) with the same criteria used for the assessment of the existing situation of the corridors.

The RST facilitates a high-level, comprehensive review of existing conditions for people cycling along a route based on the key metrics of directness, gradient, safety, connectivity, and comfort. Lower scores suggest a poorer quality route, which may benefit from infrastructure interventions (i.e., to improve safety or comfort) or selecting an alternative route alignment (i.e., more direct or reduced gradient). The following assumptions were applied in completing the RST assessment:

» Routes were divided into subsections that were under ≤ 1km in length and reflected consistent characteristics in factors that may impact RST output (such as existing facility type, width, traffic speeds or volumes, etc.).
» Where existing traffic speed data was not available, the existing speed limit was utilised.
» Where existing traffic volume data was not available, professional judgement and best practice was used to categorise the route within the RST categories for traffic flows.

A summary of the results for each corridor within the first phase of proposals is presented in the following tables and each assessment is presented in Appendix 4 (separate document).

By undertaking the RST it helps to show which options provide the greatest benefit when compared to a do-nothing scenario. This subsequently identifies which option should be promoted for further development. This will also help to prioritise options too (see “Prioritisation of the Routes” on page 203).

For each route a comparison was made between the existing situation and the potential of the improvements.

Every cycle corridor is improved in terms of comfort, and safety, since the interventions are proposing protected cycle facilities. Gradient and connectivity remain the same as the alignments are retained, as illustrated by the following diagrams.

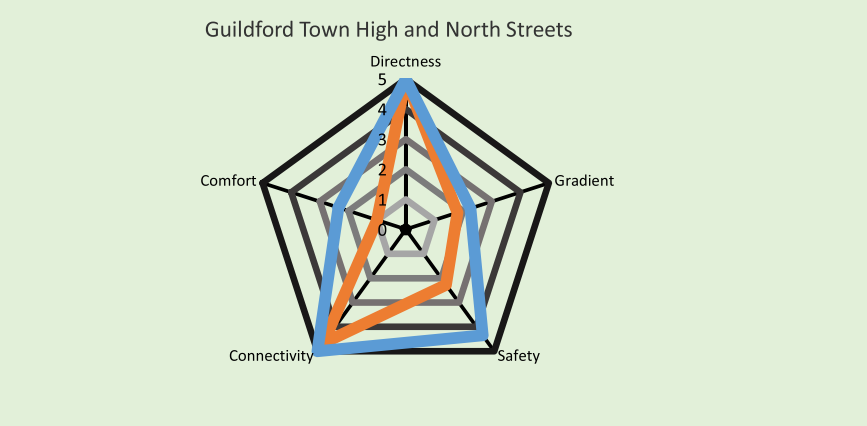
Cycle Corridor 1: Guildford High Street and North Street

Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	Guildford Town High and North Streets
Overall Length	1.719km
Name of Assessor(s)	TH
Date of Assessment	01 February 2024

	Performance Scores	
Criterion	**Existing**	**Potential**
Directness	5.00	5.00
Gradient	1.81	2.25
Safety	2.27	4.35
Connectivity	4.67	5.00
Comfort	1.01	2.35



Number of Existing Critical Junctions/Crossings	31
Number of Potential Critical Junctions/Crossings	13
Description of Improvements	Vehicle access restridctions of High Street between Quarry Street and North Street - no changes to the stone surface Vehicle access restrictions of Woodbridge Road between North Street and Leapale Road (North Street regeneration plan) One-way cycle track on North Street (westbound) & Shared bus and cycle lane along North Street through North Street Regeneration Plan. Two-way cycle track on the eastern end of North Street. Route via Walnut Bridge and Bedford Rd (high ped flows on Onslow Street)

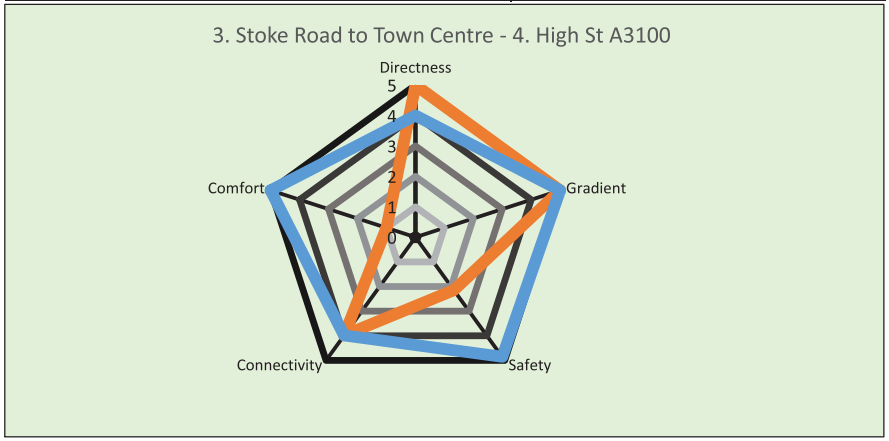
Cycle Corridor 3: Stoke Road to Town centre and Cycle Corridor 4: High St A3100 combined and North Street

Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	3. Stoke Road to Town Centre - 4. High St A3100
Overall Length	2.935km
Name of Assessor(s)	TH
Date of Assessment	01 February 2024

	Performance Scores	
Criterion	**Existing**	**Potential**
Directness	5.00	4.00
Gradient	5.00	5.00
Safety	2.15	4.85
Connectivity	3.98	3.98
Comfort	1.00	5.00



Number of Existing Critical Junctions/Crossings	7
Number of Potential Critical Junctions/Crossings	2
Description of Improvements	Quiet mixed traffic street and modal filters on Haydon Place, Artillery Road and Park Road Two way cycle track along High Street E Shared use path along Stoke Road and York Road

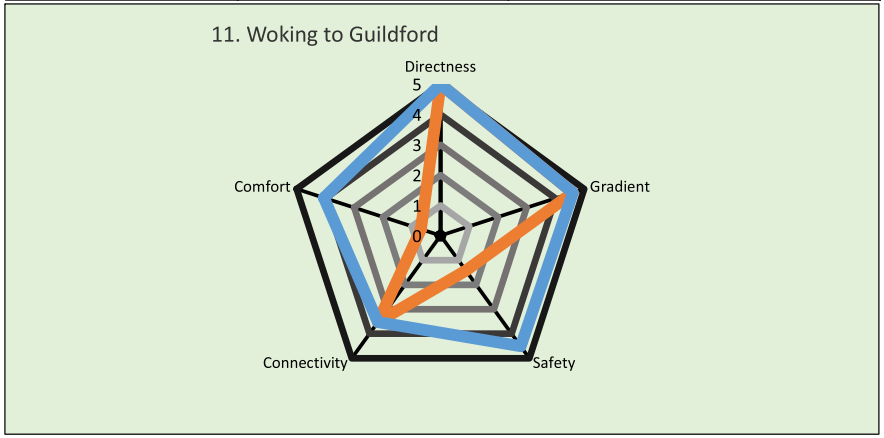
Cycle Corridor 11: Guildford to Woking

Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	11. Woking to Guildford
Overall Length	5.296
Name of Assessor(s)	TH
Date of Assessment	30 January 2024

	Performance Scores	
Criterion	**Existing**	**Potential**
Directness	5.00	5.00
Gradient	4.60	4.60
Safety	1.42	4.51
Connectivity	3.53	3.53
Comfort	0.68	4.05



Number of Existing Critical Junctions/Crossings	18
Number of Potential Critical Junctions/Crossings	1
Description of Improvements	Modal filter on Walnut Tree Cl Shared use path on the A25 - EXISTING Two way cycle track along Woking Road between Ladymead and Stoughton Road Mixed traffic on River Wey Bridge New 20mph speed limit along Woking Road service road E Shared use path along Woking road between Woodlands Avenue and district border

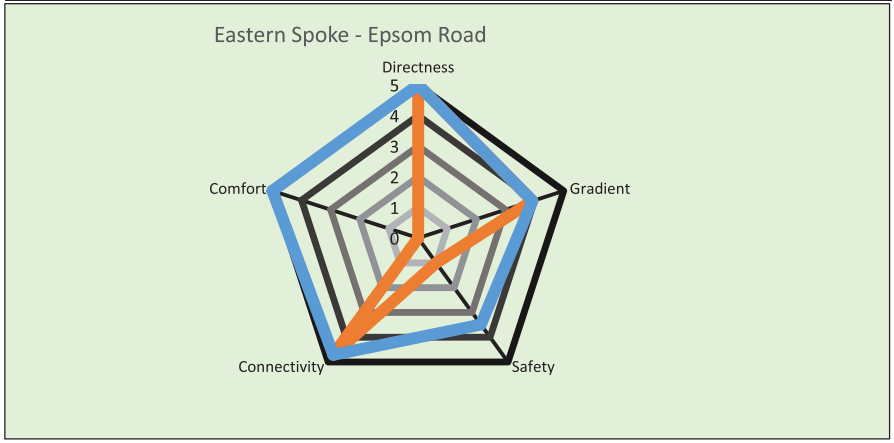
Cycle corridor 27: Eastern Spoke - Epsom Road

Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	Eastern Spoke - Epsom Road
Overall Length	2.918 km
Name of Assessor(s)	TH
Date of Assessment	23 October 2023

	Performance Scores	
Criterion	**Existing**	**Potential**
Directness	5.00	5.00
Gradient	3.92	3.92
Safety	1.00	3.49
Connectivity	4.71	4.71
Comfort	0.00	5.00



Number of Existing Critical Junctions/Crossings	11
Number of Potential Critical Junctions/Crossings	4
Description of Improvements	Signalised crossings Junction tightening and/or junction modification 20 mph speed limits in selected areas Advisory cycle lanes, madatory cycle lanes, stepped track and/or bus and cycle lane at selected locations Removal of guardrail

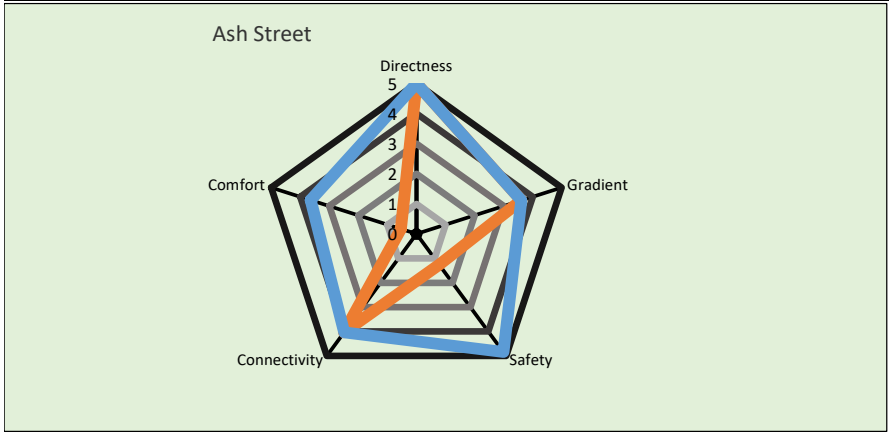
Cycle Corridor 18: Ash Street

Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	Ash Street
Overall Length	4.73km
Name of Assessor(s)	TH
Date of Assessment	30 January 2024

	Performance Scores	
Criterion	**Existing**	**Potential**
Directness	5.00	5.00
Gradient	3.61	3.61
Safety	1.26	4.84
Connectivity	4.04	4.04
Comfort	0.53	3.65



Number of Existing Critical Junctions/Crossings	21
Number of Potential Critical Junctions/Crossings	15
Description of Improvements	SUP option along Ash Gill Road and A323 Mixed traffic on Vale Road on Basingstoke Canal Bridge Junction tightening and modification & Crossings (signalised and non-signalised) Priority working underneath railway line (to provide space for shared use path) 20 mph speed limit in selected areas

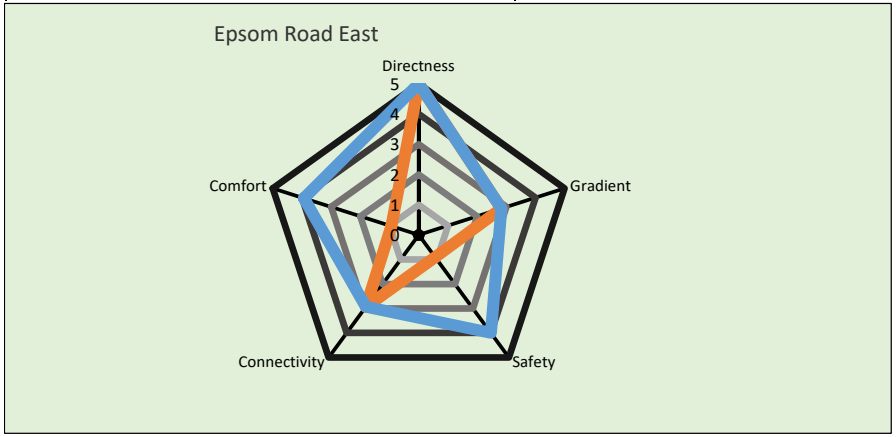
Cycle Corridor 28: Epsom Road East

Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	Epsom Road East
Overall Length	10.6km
Name of Assessor(s)	TH
Date of Assessment	30 January 2024

	Performance Scores	
Criterion	**Existing**	**Potential**
Directness	5.00	5.00
Gradient	2.83	2.83
Safety	0.90	4.00
Connectivity	2.94	2.94
Comfort	0.94	3.93



Number of Existing Critical Junctions/Crossings	24
Number of Potential Critical Junctions/Crossings	9
Description of Improvements	Two-way cycle track along Epsom Road between Merrow Street and West Horsley Place. Shared use path between West Horsley Place and Dirtham Lane Mixed traffic running along Dirtham Lane, Calvert Road and Orestan Lane. New 20mph speed limit along Orestan Lane Two way cycle track along Lower Road between The Street and district boundary

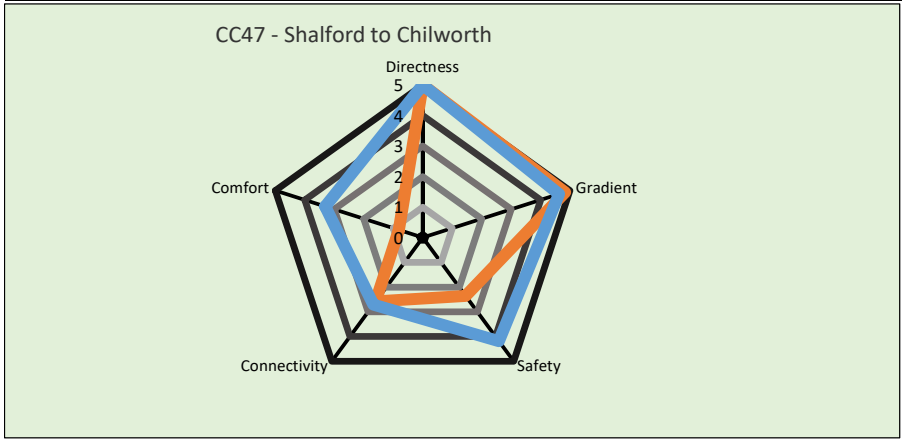
Cycle Corridor 47: Shalford to Chilworth

Local Cycling and Walking Infrastructure Plan: Route Selection Tool

ROUTE SUMMARY

Route Name	CC47 - Shalford to Chilworth
Overall Length	3.53km
Name of Assessor(s)	TH
Date of Assessment	01 February 2024

	Performance Scores	
Criterion	**Existing**	**Potential**
Directness	5.00	5.00
Gradient	4.83	4.63
Safety	2.36	4.19
Connectivity	2.58	2.71
Comfort	0.81	3.31



Number of Existing Critical Junctions/Crossings	9
Number of Potential Critical Junctions/Crossings	4
Description of Improvements	Public realm improvments along Dagley Lane Traffic calming and speed limit along Station Road New shared use path through Shalford Common and off road paths to Chilworth next to the railway lines (paths without passive surveillance) SUP to Chilworth RS