

Decision Maker: Environment Portfolio Holder

Executive

For Pre-Decision Scrutiny by the Environment PDS committee on:

Date: 8th November 2016

Decision Type: Non-Urgent Executive Non-Key

Title: PROPOSED QUIETWAY ROUTES IN BROMLEY - QUIETWAY DEFINITION PLAN STAGE

Contact Officer: Alexander Baldwin-Smith, Assistant Transport Planner
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Chief Officer: Nigel Davies, Executive Director of Environment & Community Services

Ward: Lower Sydenham to Bromley Town Centre Route: Copers Cope and Bromley Town
Greenwich to Kent House Route: Penge & Cator

1. Reason for report

- 1.1 To inform the Committee of progress to date regarding the proposed Quietway routes since initial discussions in late 2014 and to seek approval from the Environment Portfolio Holder of the proposed Quietway routes to enable Council officers and TfL's delivery partners, Sustrans, to progress to the detailed design and implementation stages of the project.
- 1.2 Should the Portfolio Holder for the Environment endorse the proposed routes to enable Officers to sign-off the Quietways Definition Plan (QDP), TfL will be able to make a final judgment on whether to release funding for the schemes. The Environment Portfolio Holder and Ward Members will be kept informed of progress and Members will be consulted on the detailed design of interventions through the usual channels as with any Council Highways scheme.
- 1.3 If further routes are brought forward by TfL these will be brought to the Committee for consideration and approval by the Environment Portfolio Holder.

2. **RECOMMENDATIONS**

- 2.1 The PDS committee is asked to consider the proposals and provide comment.

The Environment Portfolio Holder is asked to:

- 2.2 Endorse the proposed Quietway cycle route from Lower Sydenham to Bromley and the proposed interventions.
- 2.3 Endorse the proposed Quietway cycle route from Lower Sydenham to Kent House Station and the proposed interventions.
- 2.4 Authorise the Executive Director of Environment and Community Services to sign off the QDP to enable TfL to formally review the proposals and make a final decision on whether to proceed with funding the routes.
- 2.5 Permit Council officers (assuming TfL approval for the Quietway as proposed in the QDP is granted) to begin an informal consultation with relevant stakeholders on the proposed interventions in early 2017 which is expected to take up to three months.

The Executive is asked to:

- 2.6 Agree to add the provisional scheme for the proposed Quietway Cycle Routes in Bromley to the Capital Programme, at an estimated cost of £862.5k, to be fully funded by TfL.

Impact on Vulnerable Adults and Children

1. Summary of Impact: Routes are designed to be accessible to those cyclists requiring recumbent cycles or specialist cycles for people with disabilities. The routes will also provide greater opportunities to cycle for less confident individuals including older people and children. There are not thought to be any negative impact on vulnerable adults and children.
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Corporate Policy

1. Policy Status: Not Applicable: Further Details
 2. BBB Priority: Quality Environment Safer Bromley Supporting Independence:
-

Financial

1. Cost of proposal: Estimated Cost of proposed Quietway routes: £862.5k
 2. Ongoing costs: Less than £200 per annum additional cost maintaining the new Quietway cycle routes, funded by TFL LIP monies
 3. Budget head/performance centre: Capital Programme
 4. Total current budget for this head: To be confirmed, following detailed design and approval by TfL
 5. Source of funding: TfL budget for Quietways
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Personnel

1. Number of staff (current and additional): 2 existing members of staff will work on the project; there may be a need to use agency staff on a short term basis to process the consultation responses.
 2. If from existing staff resources, number of staff hours: is predicted to be 1404 for both routes until December 2018, all rechargeable to TfL.
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Legal

1. Legal Requirement: None:
 2. Call-in: Applicable:
-

Procurement

1. Summary of Procurement Implications: None are anticipated and it is expected that the interventions will be constructed by the Council's term contractors for Highway projects
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Customer Impact

1. Estimated number of users/beneficiaries (current and projected): Over 800 cyclists are expected to use the route each day. This route will contribute to a wider network that is likely to benefit cyclists making journeys across London, so the total number of beneficiaries is likely to be higher than this. Safe cycle routes are likely to encourage more trips by bicycle therefore motorists are also likely to benefit from a reduction in the number of cars on the roads reducing

congestion as well as freeing up capacity for public transport. Pedestrians are also likely to benefit from the improvements made to footway surfacing and the crossing facilities at some of the junctions along the proposed Quietway routes.

Ward Councillor Views

1. Have Ward Councillors been asked for comments? Yes
2. Summary of Ward Councillors comments: Any comments received will be presented at the meeting

3. COMMENTARY

Quietways programme introduction

- 3.1 Quietways are cycle routes primarily on lightly trafficked back streets, through parks and alongside waterways providing quieter routes away from main roads designed to appeal, particularly, to new and inexperienced cyclists, but should be popular with all cyclists because of their high-quality.
- 3.2 They were a key part of the previous Mayor of London's vision for cycling and the current Mayor of London Sadiq Khan, has expressed his continued support for them. They are to be delivered in partnership with the London Boroughs.
- 3.3 Importantly, Quietways are not the same as Cycle Superhighways, as they do not reallocate significant amounts of road space to cyclists to create segregated routes as this is not normally required due to the low traffic volumes on the roads they primarily use. However, some limited segregation (including high-quality shared facilities with pedestrians) may be required where routes have to use or connect with other routes on busy roads.
- 3.4 Interventions to create safe Quietway routes can include markings to make motorists aware of the potential presence of cyclists, contra-flow cycle lanes (two-way cycling on otherwise one-way streets) which may include segregation and improved surface quality and lighting. Where routes cross busy roads, safe direct crossing facilities can be provided, for example parallel zebra crossings.
- 3.5 Quietway designs can be such that they make a positive contribution to the appearance of an area for all users including those who never intend to cycle.
- 3.6 To date the Waterloo-Greenwich Quietway has been delivered with a number of other routes expected to be completed soon. Bromley's proposed Quietways are intended for delivery as part of phase 2.2 planned for implementation between 2017 and 2018.

Quietways in Bromley

Please see appendix 1 for a high level map of proposed Quietway routes in Bromley

- 3.7 At present TfL plans to deliver two Quietways in Bromley; from Lower Sydenham to Bromley town centre as part of phase 2.2. This route will join-up with the proposed Greenwich to Kent House Station route just outside the Borough boundary on Waterlink Way in Lewisham. The second route will be the section of the Greenwich to Kent House Station route from Lower Sydenham Station to Kent House Station.
- 3.8 The routes are still at a feasibility stage with officers having worked with TfL and their delivery partner Sustrans to produce a list of proposed interventions and costings to include in the Quietway Definition Plans (QDPs) for each route. This document acts as a feasibility study to inform which routes are of sufficient quality, benefit and value that enables informed funding decisions to be made by TfL, as the project sponsor.
- 3.9 Whilst officers have taken advice from TfL to propose interventions in the QDP which are thought to be suitable, Members are asked to remember that PDS support for and Environment Portfolio Holder approval of these proposals does not guarantee that TfL will necessarily fund them if the route does not meet the level of quality that TfL are aspiring to for Quietways when assessed at the Sponsor's review. In recommending the proposed interventions, Officers have been mindful of Portfolio Holder and Member priorities and have asked that interventions are

appropriate for the Borough. Ward Member views on the proposals have been sought and complex interventions have been designed to concept stage, however detailed designs have not yet been produced to avoid waste of resource if the proposals do not proceed. If progressed, the Environment Portfolio Holder and Ward Members will be consulted throughout the detailed design process.

- 3.10 Once TfL has made their decision about whether to fund the implementation of the route, the Council will then be able to undertake informal consultation with relevant stakeholders about the proposed interventions. Further Member and public consultation will take place on the details of the interventions when appropriate during the design process prior to implementation, including statutory consultation where necessary.
- 3.11 In 2014, following consultation with Members and a meeting with the former Cycling Commissioner, Andrew Gilligan, and Officers asked that TfL consider the following routes for implementation in the Borough:
- Orpington to Canary Wharf via Greenwich
 - Penge East to Honor Oak Park
 - Lower Sydenham to Bickley via Bromley town centre
 - Greenwich foot tunnel to Croydon via Ladywell and Catford
 - Orpington to Croydon
- 3.12 On 9th October 2014, Mr Gilligan wrote to the Deputy Leader of the Council and Environment Portfolio Holder for Environment to confirm the prioritisation of routes for Bromley as follows:
- A Quietway route from Orpington to Canary Wharf
 - A Quietway route from East Croydon to Catford
 - A Quietway route from Bromley to Lower Sydenham, to link with the East-Croydon to Catford route
 - A Quietway link from Bromley to Petts Wood, to link with the route to Orpington
- 3.13 In his response to this letter of 25th November, the Environment Portfolio Holder for expressed concern that despite Bromley's 'high aspirations for cycling in the borough the continuing lack of investment making its way to the Borough makes it very difficult to be able to deliver any meaningful, tangible improvements for cyclists.'
- 3.14 Further correspondence was received from Mr Gilligan on 12th March 2016 in response to the Environment Portfolio Holder's letter of 25th November. This letter confirmed that Bromley Town Centre Lower Sydenham and Croydon Town Centre to Greenwich via New Beckenham routes would be funded as part of phase 2 of the Quietways programme. Correspondence with the Commissioner after this date has been limited to other areas of concern and aspirations for the Borough.
- 3.15 Subsequently, Officers have been working with TfL's delivery partner for Quietways, Sustrans, to scope out the works required to bring the proposed route up to Quietway standard. Council Officers have impressed upon Sustrans the need for interventions that represent good value for money and are appropriate for Bromley.

- 3.16 The proposed routes to be progressed during this phase of Quietways were chosen using a tried and tested methodology developed by TfL which considers where routes are going, i.e. what places of interest they connect with and which trip generators they serve. They also consider the likelihood of the residents of the areas they serve being encouraged to cycle more as a result of the new route and the economic benefit this will bring to those areas.
- 3.17 Other routes in the Borough may be considered at a later stage when additional funding becomes available. Any further routes and extensions to those currently proposed is possible and more likely to gain funding from TfL after efficient and successful delivery of the currently proposed routes. Further routes could include the extension of the Lower Sydenham- Bromley route to Petts Wood, or the Greenwich to Kent House route to East Croydon.
- 3.18 This report provides details of the proposed routes and interventions required to bring them up to the required Quietway cycle route standard. Where an intervention is particularly complex, concept designs have been provided as appendices to this report. These have been funded by TfL and it is not possible to provide drawings for all smaller interventions at this stage due to budgetary constraints.

Benefits of the routes

- 3.19 The proposed routes will offer significant benefits to cyclists in the Borough without any cost to the Authority.
- 3.20 In Bromley the cycling mode share has increased from 0.8% between 2010/11 and 2012/13 to 1.3% between 2011/12 and 2013/14. Given the London average trends, this demand can be expected to increase and with it the need to develop high quality safe cycle infrastructure to cater for cyclists living and working in the Borough.
- 3.21 Encouraging more cycle journeys through high quality infrastructure, also frees up capacity for those who choose to use other modes including the car. It is important to note that if everyone who currently commutes to Central London by bike travelled by car it would result in between 28,000 and 36,000 extra cars on the roads in Zone 1 in the morning rush hour or would require an additional 42 trains on the Underground. Therefore in Bromley, these proposed routes should free up road space and capacity on public transport for residents who do not want to cycle.
- 3.22 Those living along the Lower Sydenham to Bromley route are thought to have a high propensity to cycle and therefore, the provision of a high quality cycle route passing a number of railway stations in the Borough should prove popular with these residents and is likely to be a well-used route. This route should therefore contribute to increasing the cycling mode share in the Borough in addition to increasing the rates of cycle to rail trips, a particular Borough aspiration for cycling.
- 3.23 The route from Greenwich to Kent House route via Lower Sydenham will also provide an important link between railway stations on different lines in the Borough encouraging greater uptake of cycle to rail. From the Council's perspective this route importantly links up with the Lower Sydenham to Bromley route, just north of Lower Sydenham station and therefore provides residents living in Bromley town centre and Beckenham with a high-quality cycle route to other parts of South East London. Outside of the Borough, the route to Greenwich will link to the Greenwich – Bexleyheath Quietway and runs close to the Waterloo – Greenwich Quietway (Q1) which cyclists from Bromley could easily link to should they wish to.

- 3.24 In addition to the benefits for cyclists, both routes will also benefit pedestrians with improved crossing facilities and, possibly, surface quality at key points along the routes.
- 3.25 Large sections of both routes are based on existing London Cycle Network routes in the Borough, therefore the investment from the Quietways programme will benefit all users of existing routes and enable LBB to upgrade these routes at no cost to the authority, notably Kangley Bridge Road on the route from Greenwich to Kent House.
- 3.26 Improving the condition of Kangley Bridge Road will provide the Borough with the opportunity to implement a Pay & Display/Business Parking scheme in Kangley Bridge Road which could generate annual revenues for the Borough.
- 3.27 Transport for London will not provide funding to displace day to day expenditure by the Council. However, where interventions are required to bring the routes up to Quietway standard the Council will see improvements to their assets and may see a slight reduction in revenue expenditure (e.g. from new lighting or repairs to surfacing).
- 3.28 If well designed the interventions in Bromley can make a positive contribution to the streetscape of the areas the route passes through notably Kangley Bridge Road, possibly through the use of high-quality surface materials, better lighting and cleansing, all funded by the scheme. The already completed Waterloo – Greenwich Quietway 1 has made a significant improvement to the appearance of the areas it passes through, for example ensuring that previously run-down pockets of land are cleaned and better lit.

Proposed new route: Lower Sydenham to Bromley Town Centre – route description

Please see appendix 2 for map of proposed Lower Sydenham to Bromley Town Centre

- 3.29 In the Borough, the route begins, adjacent to Lower Sydenham Station in Worsley Bridge Road. The section of Worsley Bridge Road between the River Pool and the junction with Copers Cope Road would benefit from segregating cyclists from motorised traffic. This is proposed to be achieved by moving the kerb back on the north side of the road to create a section of stepped cycle track for cyclists travelling towards Bromley. The track is likely to enable the Borough to upgrade the lighting along this section of road to LEDs in addition to resurfacing the footway at no cost to the authority. Segregating cyclists from this busy road will not only improve safety but will prevent slow moving cyclists from impacting on traffic-flow. As an optional extra, to segregate cyclists heading towards Lower Sydenham station, a shared or lightly segregated path on the south side of the road is also being proposed, whilst officers believe that this facility would be of benefit for all road users in this location, although the inclusion of this intervention in the Quietway is not yet approved by TfL.
- 3.30 The route then turns right into Copers Cope Road and continues until turning left into Park Road.
- 3.31 For northbound cyclists (i.e. those turning right from Park Road onto Copers Cope Road) measures to improve visibility and the installation of an island are recommended, some of those being part of the Copers Cope Road safety scheme agreed by Members in June 2016.
- 3.32 At the end of Park Road, the route crosses Southend Road. To make the crossing safe for cyclists and to improve the crossing for pedestrians, including the large number of children who use this road, it is proposed to install a parallel zebra crossing to the south of the junction. This facility will be utilised for both south and northbound cyclists. A crossing here has previously been requested by residents and by a Ward Member. Please see appendix 4 for the concept design.

- 3.33 The route continues along Foxgrove Road and Crab Hill, before turning right onto Ravensbourne Avenue. At the signalised junction with Beckenham Lane, by Shortlands Station, the route continues straight onto Station Road and then Queen's Mead Road, before turning right into Bromley Gardens.
- 3.34 At the end of Ridley Road, the route will take the existing, although narrow, footpath to Ravensbourne Road. Cycling is not currently allowed along this footpath so to open it up to cyclists, a dropped kerb will be required at the end of Ridley Road leading to the path. Cutting back vegetation would provide additional width for both pedestrians and cyclists and measures to reduce cycle speed at the approach from Ravensbourne Road would be required, and will be determined as the designs progress.
- 3.35 The route then continues along Ravensbourne Road, which will need to have a cycle contra-flow facility to allow for cycling in each direction and officers are investigating design options to avoid loss of car parking.
- 3.36 At present the proposed route then ends in Bromley town centre, although future extensions to make the route more useful to other Borough residents are possible once this initial phase is successfully completed. Officers will continue to lobby TfL to fund extensions when suitable opportunities to gain funding arise.

Proposed new route: Greenwich to Kent House Station route description

Please see appendix 3 for map of proposed Greenwich to Kent House Station Quietway in Bromley

- 3.37 The route begins near Lower Sydenham station on the existing off-street Waterlink Way running adjacent to the Hayes railway line. At Lower Sydenham station, the route then turns right into Westerly Crescent and then left into Kangley Bridge Road.
- 3.38 Kangley Bridge Road will require a segregated path for cyclists given the large number of HGVs and heavy parking, much of which appears to be associated with the car repair company located in the road. To minimise the loss of parking it is proposed to widen the eastern footway by approximately 1 metre to create a high quality shared path. To improve the visibility of pedestrians and cyclists to HGVs turning into the commercial premises, it is proposed to use 'at any time' waiting restrictions at key points in the road and could be combined with a Pay and Display scheme to generate revenue for the Council.
- 3.39 Parking is currently unrestricted along the length of Kangley Bridge Road and in order to accommodate a wider footway and provide sufficient room for large vehicles to use the road, it is necessary for the parking arrangements to be formalised. This will reduce the available road space for general car parking. However, the space currently available is largely inefficiently used, particularly at the southern end of Kangley Bridge Road and the parking in the road at present is not thought to be by local residents. Instead it appears to be primarily associated with the businesses in the road with a number of vehicles either damaged awaiting repair or part-way through repair parked in the road, likely to be associated with the repair garage. Where trees have to be removed, it is intended to plant suitable replacements, details of which will be finalised at the detailed design stage.
- 3.40 Subject to detailed design, the proposed formalisation and P&D parking associated with the shared path could provide the council with potential parking income from pay and display and business permits if the scheme were to proceed. Please see appendix 5 for the concept design.
- 3.41 This shared path would be an extension of the existing Waterlink Way and make a significant improvement to this popular Greenway in the Borough. At the end of Kangley Bridge Road, the route turns left onto Waterlink Way continuing to the exit of the path onto Lennard Road.

- 3.42 Waterlink Way will require some upgrading, to improve the surface, cutting back of vegetation along River Pool path between Kangley Bridge Road and Lennard Road and possibly upgrading the existing lighting to efficient LEDs, reducing running costs for the borough. The Quietway programme will therefore allow TfL capital to be spent on improving a Borough resource at no cost to the Council. At the junction of the River Pool path with Lennard Road it may be necessary to add 5/6m of full time parking restrictions or hatching to improve visibility for pedestrians and cyclists crossing Lennard Road and it is not thought that this will have a negative impact on residents.
- 3.43 The route then crosses Lennard Road and continues along Waterlink Way through Cator Park. To enable the route to be safe and secure 24 hours a day, Cator Park will require some limited lighting which could be provided by LED lighting of an appropriate design which would minimise on-going energy and maintenance costs. It is thought that the lighting can be installed under Permitted Development rights of the Authority. It is also proposed to widen the existing path slightly to provide more space for cyclists and pedestrians to comfortably and safely share the facility. Some limited widening of the path maybe required to remove pinch-points for pedestrians and cyclists.
- 3.44 The route then exits Cator Park and continues on Kings Hall Road until turning and then terminating in Kent House Station Approach.
- 3.45 There are however two options for crossing Kings Hall Road. Firstly to exit Cator Park onto Aldersmead Road continuing to the junction of Aldersmead with Kent House Road. This would be likely to involve tightening the Aldersmead Road radii at the junction with Kent House Road and installing new refuge islands to assist both cyclists and pedestrians with crossing. The second option, which Council officers have tended to favour, would be to continue the route along the Cator Park shared path until it meets Kent House Road where it can use the existing crossing facility provided as part of the LCN. There is however the option of upgrading the pedestrian and cyclist crossing here perhaps by moving the existing pedestrian refuge island to this location from slightly further along Kings Hall Road, this would be looked into in more detail at the detailed design stage for the route
- 3.46 It may also be possible to install new cycle parking facilities at Kent House Station as part of Quietways Programme. This would be a major improvement for passengers using the station because the existing cycle parking is often either full or indeed over capacity, highlighting the demand there is to cycle to Kent House Station.

4. IMPACT ON VULNERABLE ADULTS AND CHILDREN

- 4.1 Routes are designed to be accessible for all including those cyclists requiring recumbent cycles or disability bikes. There is not thought to have any adverse impact on Vulnerable Adults and Children.

5. POLICY IMPLICATIONS

- 5.1 This proposal supports outcome 5 of the 2016-19 Environment Portfolio Plan to Improving Travel, Transport & Parking by working:

- To improve the road network and journey-time reliability for all users
- To improve 'connectivity' (getting to places you couldn't previously reach easily) and 'integration' (linking different modes of transport)
- To reduce congestion and greenhouse gas emissions by promoting cycling, walking and public transport journeys
- To promote safer travel, and reduce the number and severity of road accidents

- To provide accessible, affordable, fair and effective parking services

6. FINANCIAL IMPLICATIONS

- 6.1 This report is requesting endorsement of the two proposed Quietway cycle routes within Bromley and for the Executive to add the provision scheme totalling £862.5k to the capital programme.
- 6.2 The estimated cost of the schemes will be fully funded by TfL. This includes funding for the LB Bromley project management staff time and design costs. The estimated cost of each of the Cycle Quietway routes is shown below: -

Quietway Cycle Routes	£'000
Greenwich to Kent House Station route	434.7
Lower Sydenham to Bromley Town Centre route	427.8
Total cost of the Quietway Cycle Routes scheme	<u>862.5</u>

- 6.3 At this stage the projects are at the 'Definition Plan' stage and are subject to an evaluation by TfL to assess whether or not the proposed routes represent quality and best value. Should TfL approve both schemes, a detailed design will be prepared to ascertain the full costs of implementation. Should the costs be significantly different from the £862.5k, a further report will be brought back to Members with full details of the costs and funding, otherwise confirmation of costs and funding will be included in a future Quarterly Capital Programme monitoring report.
- 6.4 Both proposed routes use significant sections of existing London Cycle Network Routes, therefore the cost of maintenance is not anticipated to be significantly higher than at present for cycle routes in the Borough. The work to maintain cycle routes includes surface repairs, and based on current maintenance budgets, the additional mile of cycle route in addition to the LCN that the Quietways add will cost less than £200 per annum to maintain. This is currently funded from the Local Implementation Plan Cycle and Walking route maintenance budget.
- 6.5 The proposed capital expenditure for some locations within the Quietways, will reduce the call on revenue maintenance funding in the medium term as the assets will be renewed earlier than would otherwise be possible.
- 6.6 There is also the potential to introduce parking schemes at some locations along the route which could generate additional parking income.

7. PERSONNEL IMPLICATIONS

- 7.1 Transport and Highways already employs staff who are able to project manage the design and delivery of Quietways. The members of staff undertaking these functions are funded via TfL's annual Local Implementation Plan budget at no cost to the Authority.
- 7.2 It is not anticipated that there will be any impact of FTE as a result of these proposals.
- 7.3 Whilst it is anticipated that the detailed design work will be shared between Council staff and Sustrans, the precise assignment of work has yet to be agreed but it is not anticipated that additional resources will be required to carry out the works.
- 7.4 Given the volume of responses expected as part of the consultation exercise required for the route in its entirety, it is likely that the Council will need to take on some additional contract staff

to process the consultation responses from stakeholders. These staff would simply be employed on an agency basis for approximately three or four weeks and would be funded from the Quietways budget, with no impact on the Authority.

8. LEGAL IMPLICATIONS

- 8.1 On the Lower Sydenham to Bromley Quietway, the footpath between Ridley Road and Ringers Road (Footpath 74) on which cycling is currently prohibited due to its designation as a Public Right of Way, will require cycling to be allowed along it as part of the Quietway route.
- 8.2 The Council can, through a conversion order, convert a Public Right of Way to a cycle track that would then be available to both pedestrians and cyclists. The Cycle Track Regulations 1984 specify the procedure to be followed when conversion orders are made. DoT Circular Roads 1/1986 describes the provisions of the Act and Regulations in detail and advises local authorities on the use of those powers
- 8.3 Bye-laws may also need to be repealed to allow for cycling along this footpath but due to the time-consuming nature of the investigative work required these will be investigated subsequent to approvals being given for the route by the Environment Portfolio Holder and TfL.

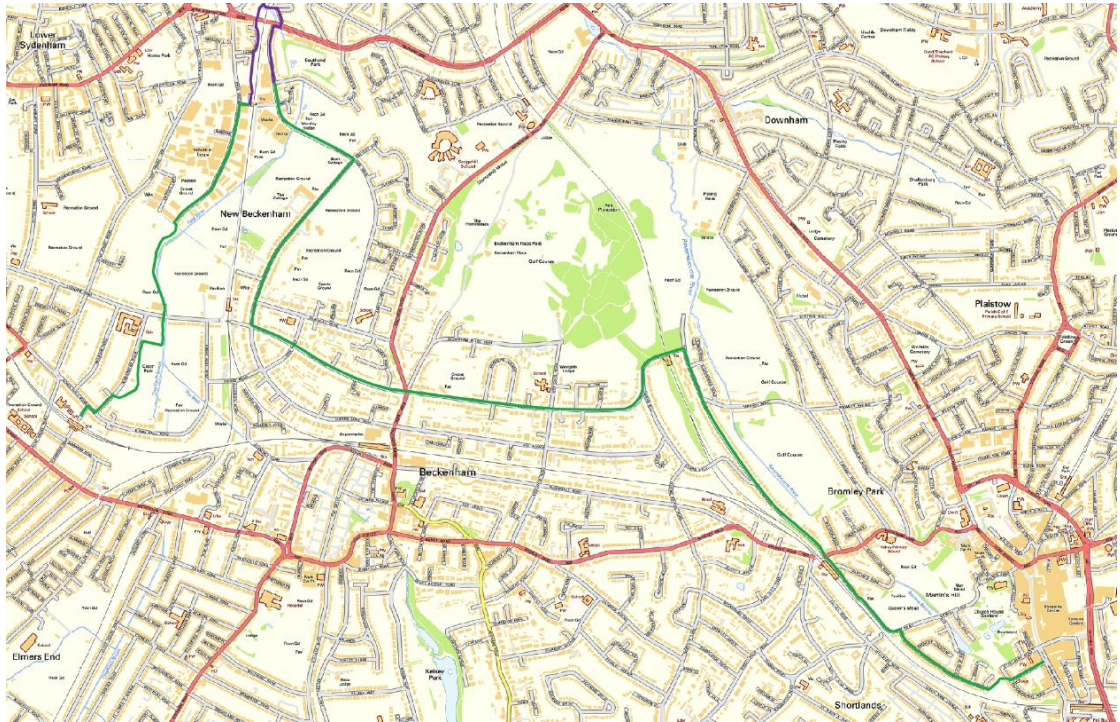
9. PROCUREMENT IMPLICATIONS

- 9.1 It is anticipated that the construction work will be undertaken by the Council's term contractors, so no procurement implications are expected, the scale of works being within the threshold.

Non-Applicable Sections:	
Background Documents: (Access via Contact Officer)	

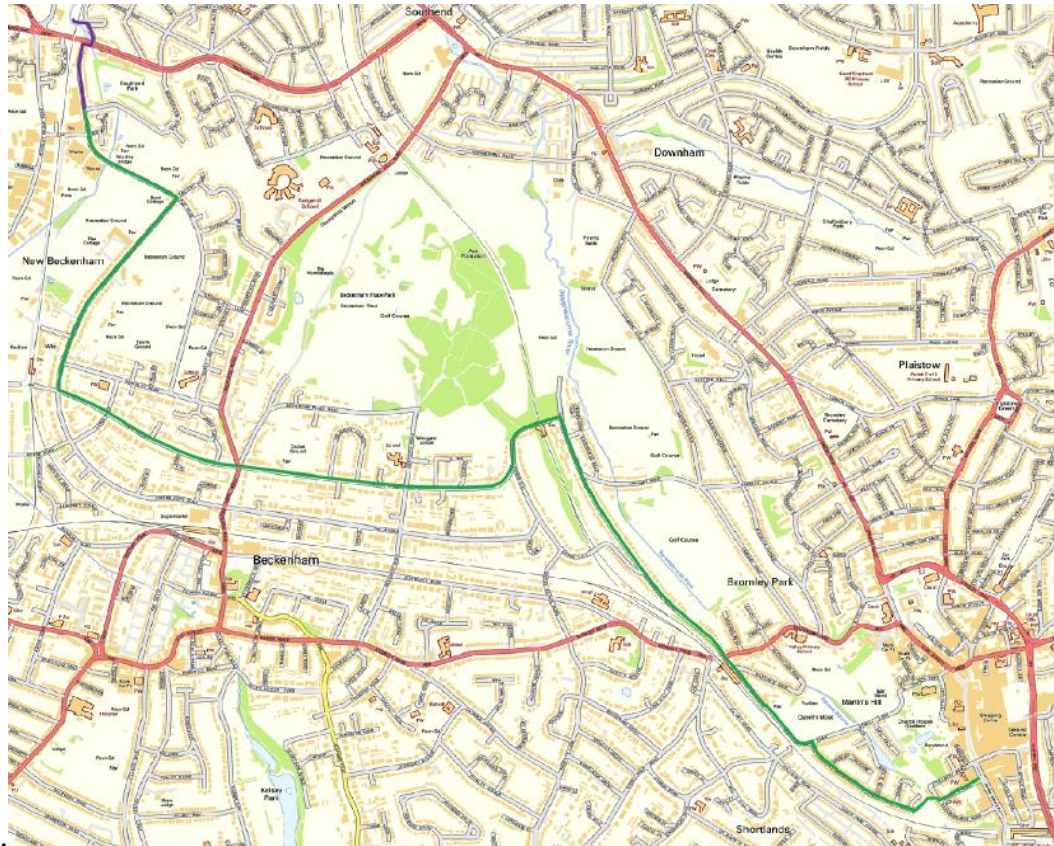
Appendix 1- map of proposed Quietways in Bromley-

Please note, that the green lines show proposed Quietway routes in LB Bromley and the purple lines represent Quietways outside of the borough.



Appendix 2- map of proposed Lower Sydenham to Bromley Town Centre Quietway

Please note, that the green line show the proposed Quietway route in LB Bromley and the purple line represents the route outside of the borough.

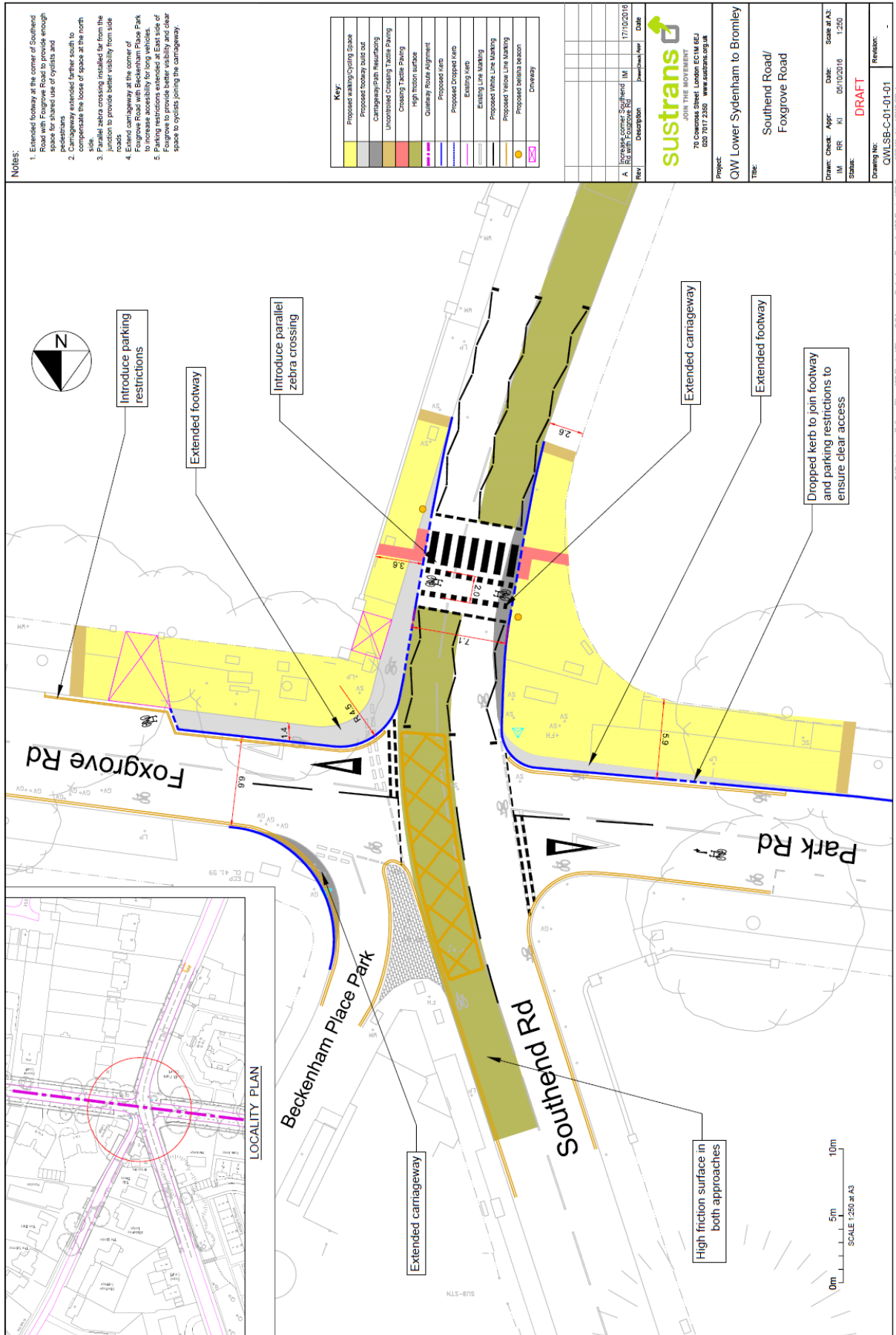


Appendix 3- map of proposed Greenwich to Kent House Station Quietway in Bromley

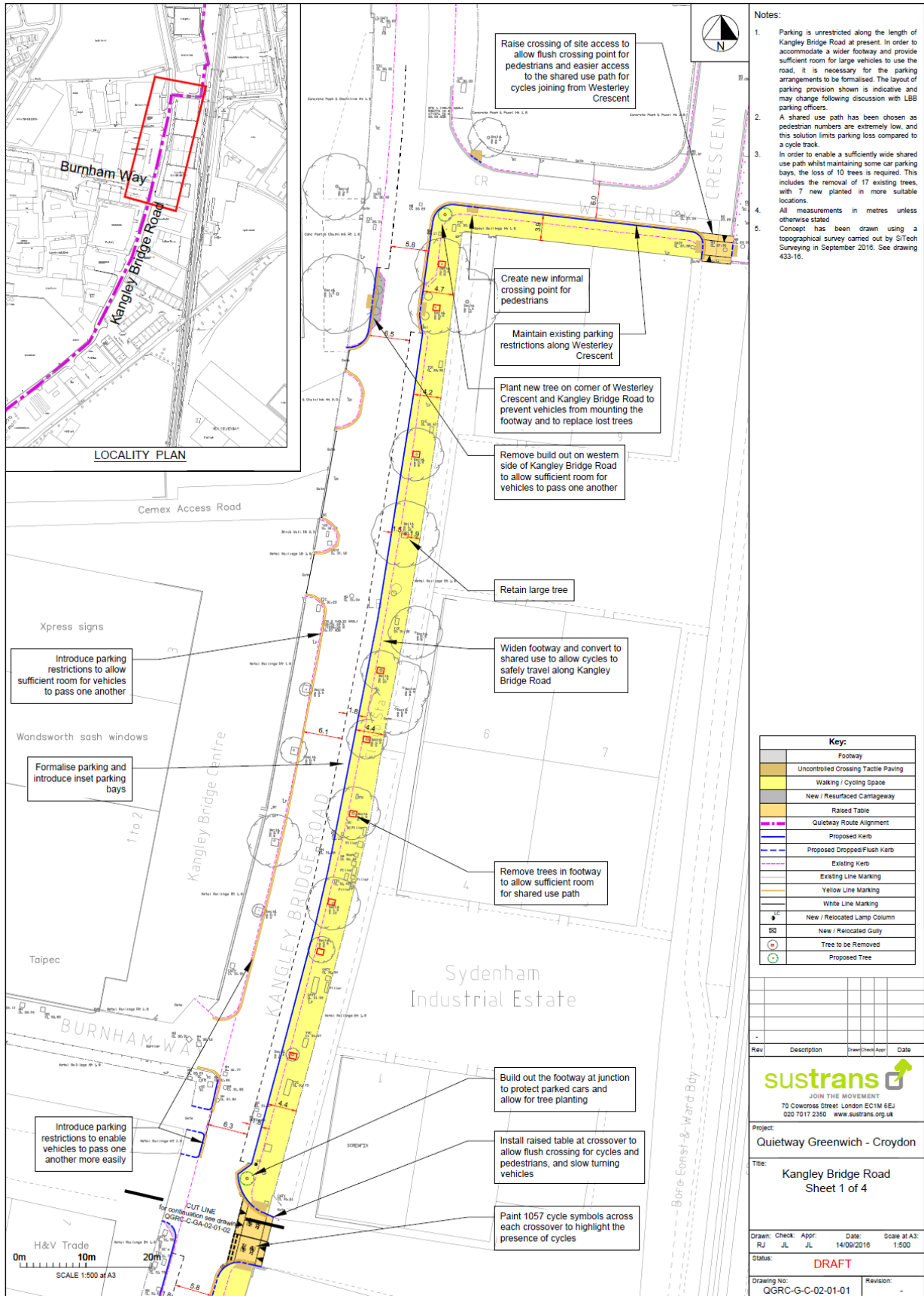
Please note, that the green line show the proposed Quietway route in LB Bromley and the purple line represents the route outside of the borough.



Appendix 4 – Proposed Parallel Zebra Crossing on Southend Road, Copers Cope



Appendix 5 – Proposed Kangley Bridge Road Shared Path



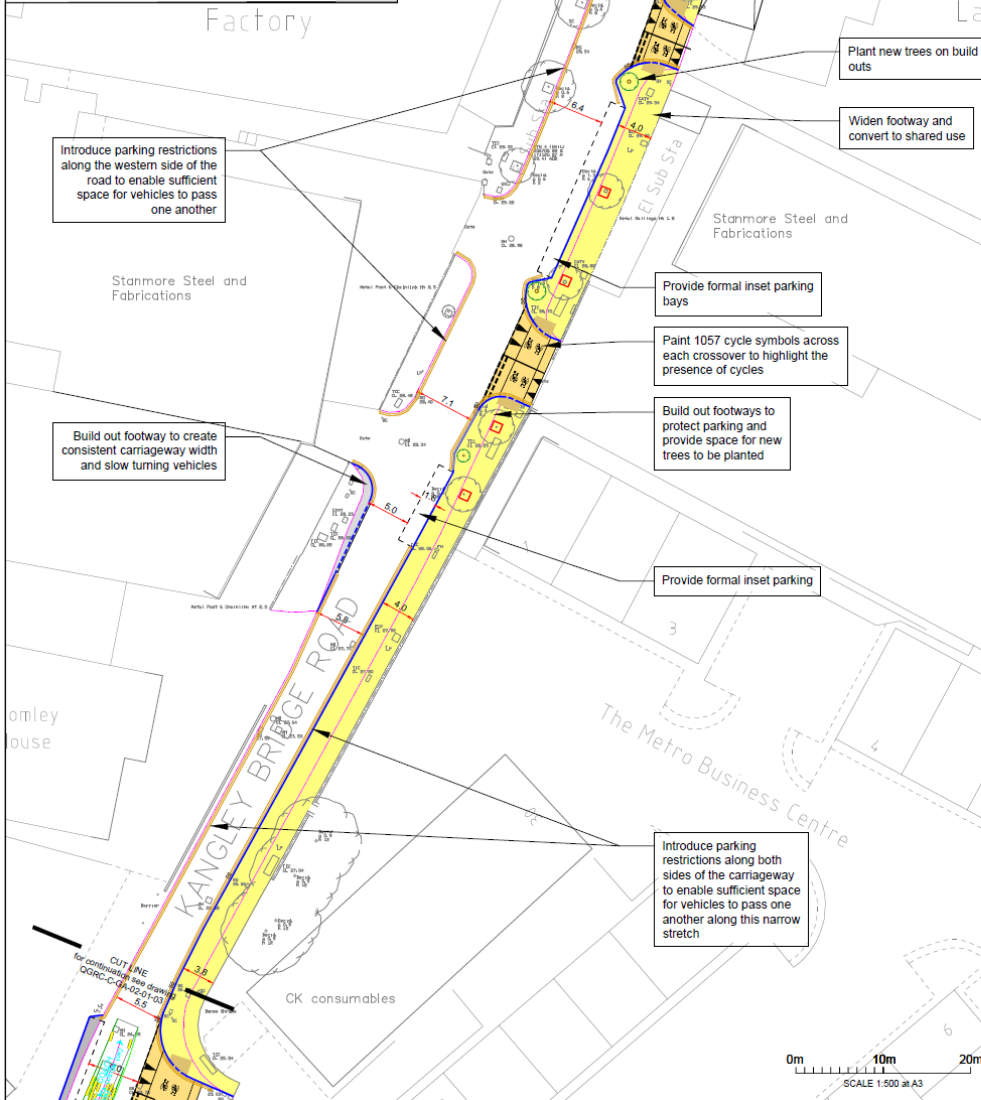
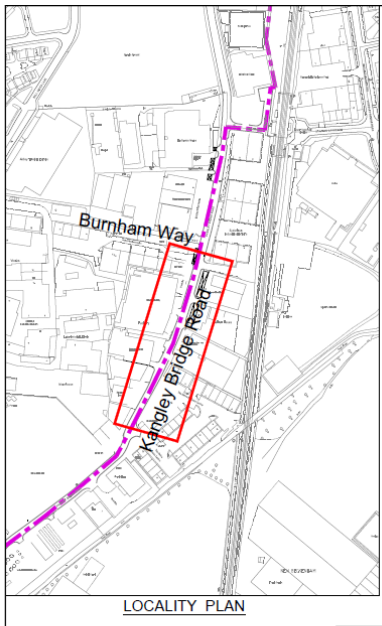
- Notes:
1. Parking is unrestricted along the length of Kangley Bridge Road at present. In order to accommodate a wider footway and provide sufficient room for large vehicles to use the road, it is necessary for the parking arrangements to be formalised. The layout of parking provision shown is indicative and may change following discussion with LBB parking officers.
 2. A shared use path has been chosen as pedestrian numbers are extremely low, and this solution limits parking loss compared to a cycle track.
 3. In order to enable a sufficiently wide shared use path whilst maintaining some car parking bays, the loss of 10 trees is required. This includes the removal of 17 existing trees, with 7 new planted in more suitable locations.
 4. All measurements in metres unless otherwise stated.
 5. Concept has been drawn using a topographical survey carried out by SItTech Surveying in September 2016. See drawing 433-16.

Key:	
[Symbol]	Footway
[Symbol]	Uncontrolled Crossing Tactile Paving
[Symbol]	Walking / Cycling Space
[Symbol]	New / Resurfaced Carriageway
[Symbol]	Raised Table
[Symbol]	Quietway Route Alignment
[Symbol]	Proposed Kerb
[Symbol]	Proposed Dropped/Flush Kerb
[Symbol]	Existing Kerb
[Symbol]	Existing Line Marking
[Symbol]	Yellow Line Marking
[Symbol]	White Line Marking
[Symbol]	New / Relocated Lamp Column
[Symbol]	New / Relocated Gully
[Symbol]	Tree to be Removed
[Symbol]	Proposed Tree

Rev	Description	Drawn	Checked	Appr	Date



Project:	Quietway Greenwich - Croydon
Title:	Kangley Bridge Road Sheet 1 of 4
Drawn:	RJ
Check:	JL
Appr:	JL
Date:	14/09/2016
Scale:	at A3, 1:500
Status:	DRAFT
Drawing No:	QGRC-G-C-02-01-01
Revision:	-



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Key:

[Symbol]	Footway
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[Symbol]	Raised Table
[Symbol]	Quietway Route Alignment
[Symbol]	Proposed Kerb
[Symbol]	Proposed Dropped/Flush Kerb
[Symbol]	Existing Kerb
[Symbol]	Existing Line Marking
[Symbol]	Yellow Line Marking
[Symbol]	White Line Marking
[Symbol]	New / Relocated Lamp Column
[Symbol]	New / Relocated Gully
[Symbol]	Tree to be Removed
[Symbol]	Proposed Tree

Rev	Description	Drawn	Checked	Date

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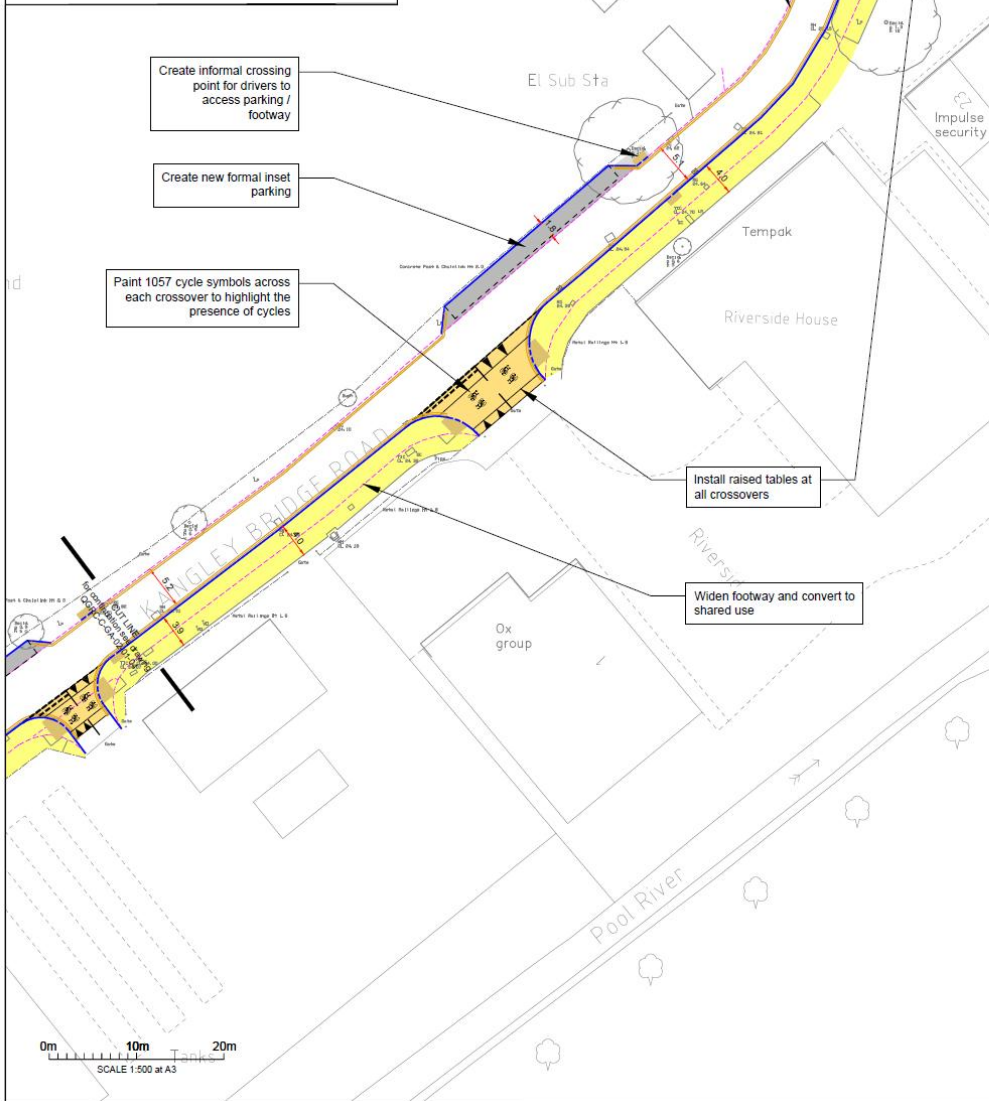
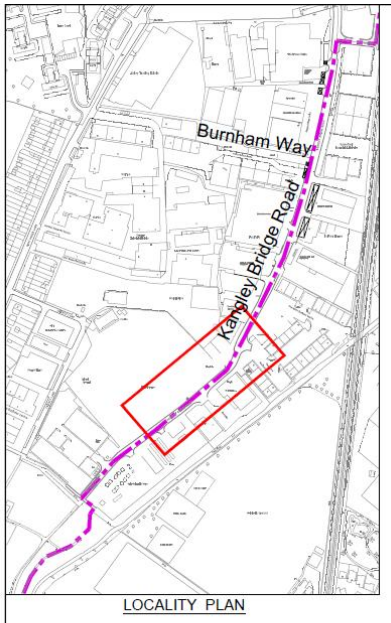
Project:
Quietway Greenwich - Croydon

Title:
Kangley Bridge Road
Sheet 2 of 4

Drawn: Check: Appr: Date: Scale at A3:
RJ JL JL 14/09/2016 1:500

Status: **DRAFT**

Drawing No: QGRC-G-C-02-01-02 Revision: -



- Notes:**
1. Parking is unrestricted along the length of Kangley Bridge Road at present. In order to accommodate a wider footway and provide sufficient room for large vehicles to use the road, it is necessary for the parking arrangements to be formalised. The layout of parking provision shown is indicative and may change following discussion with LBB parking officers.
 2. A shared use path has been chosen as pedestrian numbers are extremely low, and this solution limits parking loss compared to a cycle track.
 3. In order to enable a sufficiently wide shared use path whilst maintaining some car parking bays, the loss of 10 trees is required. This includes the removal of 17 existing trees, with 7 new planted in more suitable locations.
 4. All measurements in metres unless otherwise stated.
 5. Concept has been drawn using a topographical survey carried out by SiTech Surveying in September 2016. See drawing 435-16.

Key:

[Symbol]	Footway
[Symbol]	Uncontrolled Crossing Tactile Paving
[Symbol]	Walking / Cycling Space
[Symbol]	New / Resurfaced Carriageway
[Symbol]	Raised Table
[Symbol]	Quietway Route Alignment
[Symbol]	Proposed Kerb
[Symbol]	Proposed Dropped / Flush Kerb
[Symbol]	Existing Kerb
[Symbol]	Existing Line Marking
[Symbol]	Yellow Line Marking
[Symbol]	White Line Marking
[Symbol]	New / Relocated Gully

Rev	Description	Drawn	Checked	Appr	Date

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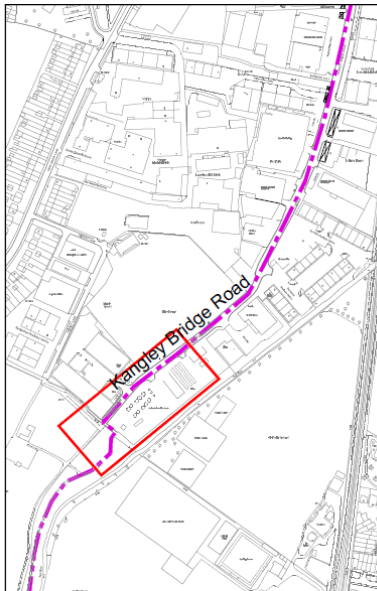
Project:
Quietway Greenwich - Croydon

Title:
Kangley Bridge Road
Sheet 3 of 4

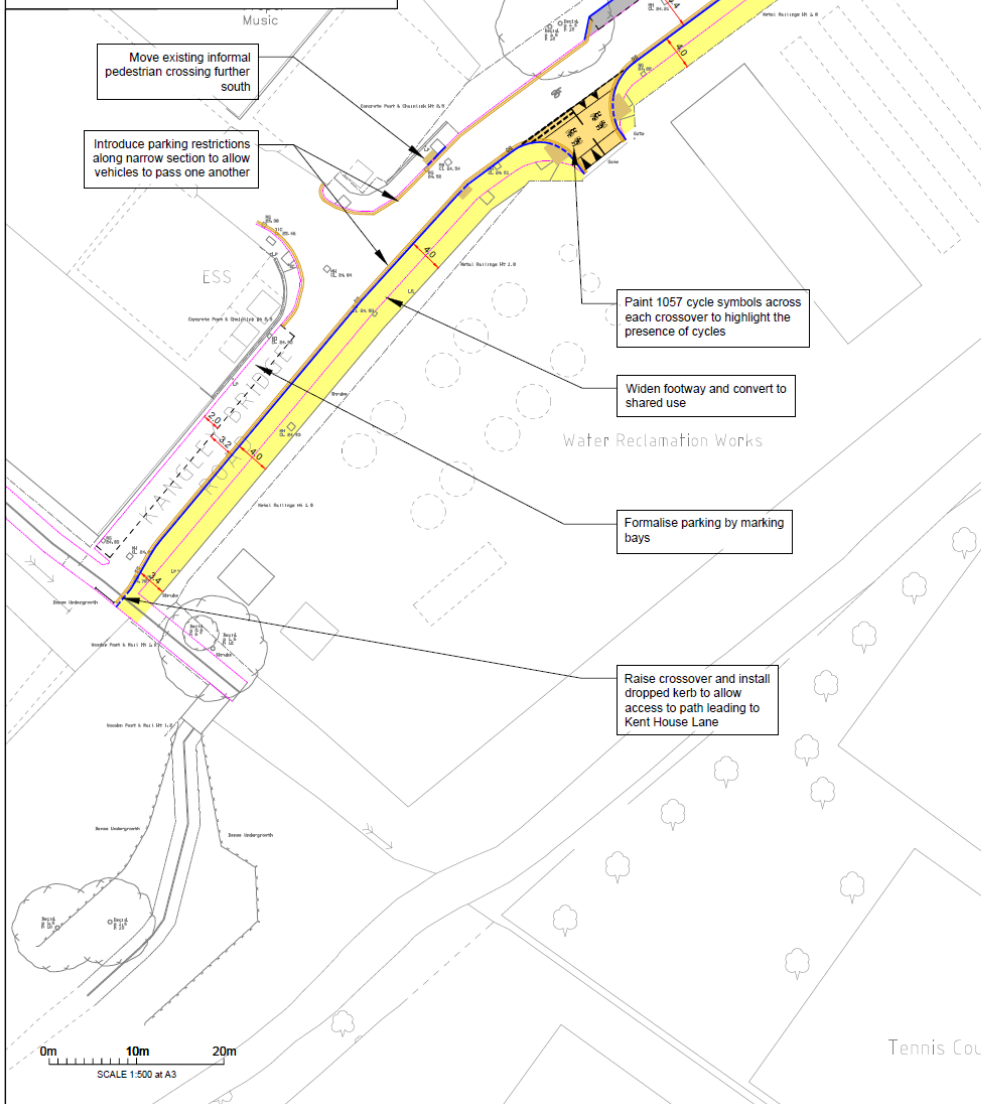
Drawn: Check: Appr: Date: Scale at A3:
RJ JL JL 14/09/2016 1:500

Status: **DRAFT**

Drawing No: QGRC-G-C-02-01-03 **Revision:** -



LOCALITY PLAN



0m 10m 20m
SCALE 1:500 at A3



- Notes:
1. Parking is unrestricted along the length of Kangley Bridge Road at present. In order to accommodate a wider footway and provide sufficient room for large vehicles to use the road, it is necessary for the parking arrangements to be formalised. The layout of parking provision shown is indicative and may change following discussion with LSD parking officers.
 2. A shared use path has been chosen as pedestrian numbers are extremely low, and this solution limits parking loss compared to a cycle track.
 3. In order to enable a sufficiently wide shared use path whilst maintaining some car parking bays, the loss of 10 trees is required. This includes the removal of 17 existing trees, with 7 new planted in more suitable locations.
 4. All measurements in metres unless otherwise stated.
 5. Concept has been drawn using a topographical survey carried out by SiTech Surveying in September 2016. See drawing 433-16.

Key:

[Symbol]	Footway
[Symbol]	Uncontrolled Crossing Tactile Paving
[Symbol]	Walking / Cycling Space
[Symbol]	New / Resurfaced Camerogway
[Symbol]	Raised Table
[Symbol]	Quietway Route Alignment
[Symbol]	Proposed Kerb
[Symbol]	Proposed Dropped / Flush Kerb
[Symbol]	Existing Kerb
[Symbol]	Existing Line Marking
[Symbol]	Yellow Line Marking
[Symbol]	White Line Marking
[Symbol]	New / Relocated Gully

Rev	Description	Drawn	Check	Appr	Date

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Project:
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Title:
Kangley Bridge Road
Sheet 4 of 4

Drawn: Check: Appr: Date: Scale at A3:
RJ JL JL 14/09/2016 1:500

Status: **DRAFT**

Drawing No: QGRC-G-C-02-01-04 Revision: -