Cycle Highways Route Affirmation Process

An Initial Appraisal of the Proposed Cycle Superhighways Routes

A Report of the London Cycling Campaign
September 2009
(v.2 Corrected p.6, p.9, p.14)

"These Superhighways are central to the cycling revolution I'm determined to bring about. No longer will pedal power have to dance and dodge around petrol power - on these routes the bicycle will dominate and that will be clear to all others using them. That should transform the experience of cycling - boosting safety and confidence of everyone using the routes"

Boris Johnson, 5 June 2009

Executive Summary

Summary of Route Affirmation Findings

LCC's Route Affirmation Process has led us to the conclusion that some of the proposed routes have such low potential as Cycle Superhighways that they should not go ahead.
A summary of the route affirmation findings shows that the appraised routes fall into three clusters.

Cluster One: Proceed to the next stage of a more detailed User Assessment
H8 (A3205-A3), H9 (A315), H2 (A11-A118), H1 (A10)

Cluster Two: Consider alternative alignments to part(s) of the route
H6 (A215-A2216), H4 (A200-A206), and H12 (A1)

Cluster Three: Do not proceed and identify alternative route with greater potential
H5 (A202-A20), H11 (A5), and H10 (A40-A219)

Common Problems
Common Problems that occur on all these (proposed) TLRN routes that will need to be addressed include

a. Gyratories – raised by all the local LCC groups as their no.1 concern / deterrent
b. Left-hook hazards at other major junctions
c. Side road junctions – often untreated, or only a token treatment
d. Levels of general traffic, and high % of HGVs
e. Lack of road-width / narrow lanes
f. Parking & loading activity, including bus stops
g. High bus frequencies

Conclusion

Some but not all of the proposed 'highways' should now be the subject of more detailed **User Assessments** to assess both their current quality, and their potential, but others have too many constraints / limitations, or insufficient development potential.

It is a concern that much of north / north-west London may not have access to a (viable) highway.

Notwithstanding the frustration with the lack of LCN route completion, there is a danger here of 'throwing the baby out with the bathwater' – some of the better existing routes would benefit from the resources now being applied to Highways & all the promotional activities now being planned.

LCC has pressed from the start to be involved in decisions about route alignment and the route design process. Our concerns are: a lack of clarity, and consensus, about how this programme would be different to, *and lead to better outcomes than*, previous cycling programmes; and prematurely committing resources to routes that have too many barriers / deterrents – or have low potential throughout. These concerns grew as LCC engaged in the first two Cycle Superhighways projects which are due to be implemented by May 2010.

Cycle Highways: Route Affirmation Process London Cycling Campaign

A. Introduction

Background 4

Method 5

General Principles 6

Overall Network Design 8

B. The Report

(Proposed routes in order of potential starting with 'high')

H8 : A3205-A3 Westminster to Wandsworth (& Kingston) 11-13

H9 : A315 Hyde Park Corner to Chiswick & Hounslow 14-16

H2 : A11-A118 The City to Stratford (& Ilford) 17-18

H1: A10 Liverpool St to Tottenham 19-20

H6: A215 Elephant & Castle to Penge 21-22

H4: A200-A206 The City to Greenwich (& Woolwich) 23-24

H12: A1 East Finchley to the Angel 25-26

H5: A202-A20 Victoria to Lewisham 27-28

H11: A5 Westminster to Edgware 29-30

H10: A40(M) Park Royal to Olympia 31-32

\- - -

Overall Summary 32-33

Conclusions 34-35

Appendix 1 Usability Criteria 36
Appendix 2 Route Affirmation Questionnaire 37
Appendix 3(A) Cycle Priority Measures A3-A24 38-45
Appendix 4 (B) Cycle Priority Measures A13 46-53

Background

The Mayor has proposed to complete 12 'Cycle Super-Highways' by 2012 to encourage more people to commute by cycle, particularly into & across Central London – the largest 'near market' for cycling. As London Cycling Campaign proposed a similar 'strategic radial routes' concept in 2000, we welcome this initiative, and the high political priority the Mayor now attaches to cycling, which should elevate it to a serious transport mode.

In LCC's view there are some important strengths in the Cycle Super-Highways approach:

- Whole route management
- Transport for London taking implementation responsibility
- 'Design and deliver' contracts
- Serious budget and integration of 'hard' and 'soft' measures
- Challenging but achievable timescale for delivery
- Political support

This paper is the report of the Route Affirmation Process, which London Cycling Campaign has carried out independently, and will be presented to the Mayor's team and Transport for London. Our aim is to ensure that there is considered and objective discussion of all route alignment options, many of which do need to be optimised. We are keen to avoid everyone being locked into sub-optimal route choices, which then seriously constrain their ability to meet the Mayor's objectives and timescales, as happened on previous projects.

The Mayor has said:

"**These Superhighways are central to the cycling revolution I'm determined to bring about. No longer will pedal power have to dance and dodge around petrol power - on these routes the bicycle will dominate and that will be clear to all others using them. That should transform the experience of cycling - boosting safety and confidence of everyone using the routes**" (*Boris Johnson, Press release 283, 5 June 2009).*

Elsewhere the Mayor and Transport for London have talked of, 'safe, fast, comfortable and continuous routes', friendly to 'nervous wobbling' and of the importance of 'barrier busting' which will be vital – there are a total of **27** major barriers along the routes proposed by TfL.

LCC supports the general concept of the Cycle Highways and their promise of high quality routes, which are continuous across borough boundaries, and it is for this reason that LCC has invested hundreds of hours of local volunteer and staff time engaging in the Highways programme. The feedback we have received is that it is neither reasonable, nor responsible, to expect less experienced occasional cyclists to negotiate their own road-space in high volumes of fast-moving motor traffic, let alone HGVs, and that only continuous and attractive routes will persuade people to cycle in the weekday peaks on London's most congested roads.

LCC has pressed from the start to be involved in decisions about route alignment and the route design process. Our concerns are: a lack of clarity, and consensus, about how this programme would be different to, *and lead to better outcomes than*, previous cycling programmes; and prematurely committing resources to routes that have too many barriers / deterrents – or have low potential throughout. These concerns grew as LCC engaged in the first two Cycle Superhighways projects which are due to be implemented by May 2010.

Based on our experience to date (and many years of LCN experience) LCC has proposed a number of changes to the Cycle Superhighways process:

1. **A Route Affirmation Process**: an initial appraisal to identify the major issues along the route, including its alignment, which may compromise its deliverability.
2. **A Rapid Route Quality Assessment:** of the whole route, which is carried out before the CRISP. This analysis, by local cyclists, assesses the current state of each section of the route, and alternative sections, and whether the route overall has the potential to become high-quality. The CRISP can then focus on the optimum alignment, and on specifying achievable upgrades to those sections identified as very poor or poor.
   It is critical that both (1) & (2) are done before anyone gets locked into a detailed plan or alignment which has not been optimised.
3. **An Interactive Design Process:** this should only be necessary for a handful of schemes on each route, which are its most critical sections, and which, if they are not resolved, will remain barriers or deterrents to new cyclists – workshops in this interactive design process will thoroughly explore, with stakeholders, all possible options and solutions, and should be open to using 'best practice' from other, more successful, cycling cities.
4. **A Final Quality Audit:** to be carried out, by users, once the route is believed to be 'complete', but before the launch – this will identify any omissions or sub-standard solutions, and may result in a (prioritised) remedial work schedule.

Route Affirmation Process Method

The Route Affirmation Process is an initial appraisal of each proposed route to determine whether the alignment proposed has the ***potential*** to meet the Mayor's cycling objectives. In undertaking this review LCC has drawn on the experienced and in-depth local knowledge of numerous individuals and local groups – their feedback has been very consistent.

The factors we considered were

a) **Extent**. Does the route start and end at useful commuter destinations; should the route be extended, or is it longer than is necessary ?
b) **Road Conditions**. Width is key – or more precisely – is there sufficient political will to assign capacity to cycle traffic rather than just trying to exploit whatever *spare capacity* may exist or through creating additional capacity? This is crucial for the provision of continuous, safe cycling conditions. Achieving modal shift in the existing volume of traffic is essential. Whether levels of HGV traffic are high is also an important consideration.
c) **Cycle Facilities**. What existing facilities are present ; are they a good standard or poor quality; is continuity good or poor.
d) **Major Hazards** eg. Gyratories. How many major hazards are there along the route. Are there or could there be any convenient ways to by-pass them.
e) **Cycling Potential**. If this route was developed, would cyclists actually use it.
f) **Deliverability**. How easy or difficult will it be to complete this highway.
g) **Value for Money**. Will investing in this route be more beneficial or attract more new cyclists than developing other routes.

The outcome will be a recommendation to either:

a) proceed to the next stage (a more detailed User Assessment);
b) consider alternatives alignments to part(s) of the route proposed ;

c) do not proceed, and identify an alternative route with greater potential.

Usability Criteria

In the absence of any real quality criteria for the Cycle Super-Highways (beyond the old London Cycle Design Standards) LCC has developed usability criteria (appendix 1) to give some substance to the Mayor's stated aims that Cycle Highways should be safe and give confidence to inexperienced occasional cyclists – these are not prescriptive – and there will usually be more than one way of meeting them.

General Principles

The Mayor has said that Highways should give nervous cyclists the confidence they need. This implies that all routes should be good quality throughout, continuous and safe (for less experienced cyclists) with no major unresolved hazards, and have the potential to be upgraded by 2012 to meet the Usability Criteria (See Appendix), if they do not already. It only takes one or two major hazards to deter inexperienced or occasional cyclists – a bad experience may put them off using the route again.

This report is focused on the 10 proposed Cycle Highways on which development work has not yet started. But for completeness we include, as appendices our post-CRISP comments on the 2 pilot highways. Many of the issues raised around the pilots will also apply to other routes.

The Superhighways process should at all times aim for the highest possible solution within the recognised Hierarchy of Provision (Cycle Infrastructure Design, LTN 2/08):

Table 1.2 Hierarchy of provision

Consider first	Traffic volume reduction
↓	Traffic speed reduction
↓	Junction treatment, hazard site treatment, traffic management
↓	Reallocation of carriageway space
↓	Cycle tracks away from roads
Consider last	Conversion of footways/footpaths to shared use for pedestrians and cyclists

10 Cycle Infrastructure Design

The Highways concept definition states that superhighways will not comprise a single type of facility. As per the above guidance, it is generally preferable to have favourable on-

carriageway conditions created (for example) by a reduction in the speed and volume of motor traffic. The hierarchy exists to state that the most effective measures deal with problems at source, but if this cannot be done, other measures may be necessary. It should be recognised that whatever solution is agreed as appropriate to a specific highway condition, the LCC's position is that this process should aim high and that a bad facility is worse than no facility. However, the Superhighways process must aim to address *every stage of a route by an appropriate solution in accordance with this*.

This will require a determined effort to apply the potentially most effective measures of traffic and speed reduction, hazard treatment and traffic management to TLRN routes. Achieving it to the point of making them naturally attractive to occasional cyclists will include returning hazardous gyratories and one-way systems to two-way operation both on, and surrounding, the routes.

It may require an effort to reduce traffic in zone one and ensure cycling permeability across the whole zone, and then working outwards.

The goal in all cases is to ensure that cyclists will not have to compete on unequal terms with HGVs and high volumes of speeding motor traffic.

Innovative interventions are envisaged by The Mayor – these must not be deferred or delayed, At the same time, such interventions need to be made with a clear view to a long-term strategy of increasing the status of cycling on the streets, in the minimum possible technical and political timescale – this may mean adopting a 'fast-track' approach to modelling and consultation, and this is where leadership by the Mayor will make all the difference.

We believe the ***primary*** objective is *attracting the many cyclists who do not cycle to work (or school) but do cycle at weekends, or on short local trips, where they feel safe* – and that designers should regard their needs as paramount – routes that are 'fast' but unsafe will not attract <u>new</u> cycle commuters.

The Highways concept definition states superhighways will not comprise a single type of facility. We agree that the priority is route continuity. It is generally preferable to have favourable on-carriageway conditions, e.g. by a reduction in the speed and volume of motor traffic, and the Highways process should at all times prioritise solutions that are high in the recognised hierarchy of solutions.

Cyclists do use TLRN roads, but a high percentage tend to be young adult males, which is not a good indicator of safety; other safer routes have a mixed demographic and gender balance. Navigability and familiarity are the main advantages of the TLRN. It is often assumed there is more space available on TLRN roads, but our Route Affirmation study has shown this is not always the case. They certainly present a greater imperative for motor traffic reduction than other routes, but it is not clear whether the political will already exists to tackle these, and in particular junctions and gyratories on the TLRN.

Expanding cycling in London from its current low base requires a greater emphasis on enjoyment, and it is crucial that safety be assured. Cyclists who know and feel that they are safe will enjoy their riding more. Where this cannot be achieved on the TLRN, it will be

necessary to consider other routes. Routes free of motor traffic or traffic-calmed routes are known to attract high cycle flows.

Commuter cyclists use a wide variety of roads and paths and travel at a wide range of speeds. Cycling is a mode more sensitive to distance travelled than motoring, and in order to encourage a modal shift to cycling, greater network *permeability* ('maximum route choice, minimum diversion) must be ensured for cyclists.

It has been suggested that an aim of Super-Highways is to concentrate flows of cyclists. This suggests 'motorway' thinking for cyclists (or seeing cycles as single-occupancy buses) which could undermine the broader approach to encouraging modal shift as it is not desirable to reduce the presence of cycling on most streets in order to concentrate it on one. A better aim may be that Cycle Super-Highways should concentrate resources in order to demonstrate how focused & co-ordinated effort can generate 'cycling makeovers' of streets previously given over to motor traffic.

Overall Network Design

Integration is critical: the Highways team appears to be working in isolation from Cycle Hire (complementary measures), the Biking Borough/Hubs programme, the Olympics legacy, and the LCN+ programme. At present some Cycle Highways end at major cycling barriers(e.g. not pressing forward the case for returning one-way gyratories to two-way operation); not enabling access to major commuter destinations; uncritically following TLRN roads regardless of their potential / risks; not increasing network permeability, and not joining up into a value-adding network. What this approach risks is very poor value for money. Highways, Hire, Hubs, LCN+ and Olympics must work in synergy.

All the Highways should provide a safe route into and across Central London – which has the highest concentration of work-end destinations – but currently most do not. Cycle Highway design, and implementation, should therefore start *within* zone 1 and work outwards. This is not because Outer Boroughs are less important for cycling investment, but because this will lower the risk of gaps, and address the biggest 'near market' for commuters first. Outer Boroughs need a different approach that addresses local needs – long distance cycle commuting into Zone 1 may not be their top priority.

Highways will attract many more users if they ***branch*** out, as they extend into outer boroughs – currently all the routes serve only a single home-end destination. The route numbering is confusing. It would be helpful to new cyclists to use similar numbers to the A-roads.

The Highways should form a ***network*** – currently ½ of them have no intersection with other routes; this could be addressed by adding a circular route (or two) within Zone 1 (and Zone 2).

All the North London highways should extend out as far as the North Circular Road and provide a safe and convenient passage across it. Currently, two of them do not. Also, it is not clear how the proposed Highway along the A5. The South London highways should provide safe passage to and across as many Thames Bridges as possible. Currently, only three Thames Bridges are on the 'highways' draft plan.

‘Highways’ will attract many more users if they ***branch*** out, as they extend into outer boroughs – currently all the routes serve only a single home-end destination. Having said that, we believe the focus initially should be on the ‘near market’, and not long-distance commuters.

The route numbering is confusing: it would be helpful to new cyclists to use similar numbers to the respective A-roads.

Cycle Highways: Route Affirmation Process
London Cycling Campaign

B. The Report

H8 : A3205-A3 : Westminster to Wandsworth (& Kingston)

Short off-road section – too short

Why no track here – ample space ?

Lambeth: only works in 1 direction out of 4

London's narrowest cycle 'facility'

Lane crosses Vauxhall junction... then...

Nine Elms : central island wastes space

Battersea : narrow road; heavy traffic ; left-hook

York Rd : left-hook

Concerns re Specific Routes

H8 : A3205-A3 : Westminster to Wandsworth (& Kingston)

Extent : this route would be more direct if it stayed on the South Bank to Vauxhall & Lambeth Bridge, upgrades to both of which should be within the scope of this Highway. It would be more valuable if it continued across Parliament Square (a major hazard) and along Whitehall; the alternative via Marsham St, which continues directly north via Horseguards, should also be considered.

Road Conditions: Albert Embankment is a fast road with ambiguous signing re whether off-road cycling is permitted. Nine Elms Lane is wide but the central reservation wastes road-width. The Battersea section of the A3205 is narrow & always congested at peak times. Old York Rd, which has been calmed, is preferable to the fast Swandon St traffic. Most cyclists use Ram St in preference to the much busier Fairfield, where traffic changes lanes at speed.

Cycle Facilities: Nine Elms Lane has very poor cycle facilities, in a poor state of repair – cyclists can use the Thames path, but it is not continuous . York Rd lacks any cycle facilities initially (despite its ample width) then only has narrow lanes. Crossing the A214 rdbt is safe but too slow.

The A3(M) already has off-road tracks, which are not well used – this route to Kingston requires going up then down a very long hill – many cyclists will use alternative routes.

Major Hazards:

a) Vauxhall Bridge : the northside is a very high risk junction with fast moving traffic, and southside access lacks continuity to / from Nine Elms Lane (& Wandsworth Rd)

b) Lambeth Bridge : the southside roundabout is more of an obstacle than a facility, and the cycle lanes are extremely narrow – preventing overtaking

c) Cambridge Rd (etc) gyratory seems an unnecessary hazard (its not clear what the benefit is, if any, to motorists) which could revert to 2-way operation

d) Wandsworth town centre gyratory is <u>the</u> outstanding hazard on this route

Cycling Potential: Nine Elms Lane & Albert Embankment are both wide enough for road-space to be reallocated to provide good quality cycle facilities, in the short term, with little impact on motor traffic.

Realignment via Battersea Park (which stays open late into the evenings) would avoid the heavy traffic, where long queues delay cyclists; this *could be* a good example of using a traffic-free section to attract new cyclists to the Cycle Highway, but access to it needs to be improved, particularly via Cambridge Rd and Queens Circus – another hazard.

There has recently been talk, again, of redesigning Wandsworth gyratory, with the High St becoming 2-way & traffic calmed. The A3 already has cycle facilities and may not present

many more opportunities in itself, but usage should increase given a safe route through Wandsworth centre.

Deliverability : Nine Elms Lane & Albert Embankment could both be ‘quick wins’. Upgrading Lambeth & Vauxhall Bridges and access to them should be a priority. Further progress on this route probably depends on the progress of the Wandsworth gyratory redesign.

Value for Money : a good quality route to Battersea could be established quickly and at reasonable cost; Wandsworth gyratory redesign will be costly but very worthwhile.

The photos highlight some of the challenges to be addressed – but not all of them

H9 : A315 : Hyde Pk Corner to Hounslow

Hammersmith Broadway north-side : new bus station ; wide pavement ; no cycle route

King St : why 1-way system ? (no contraflow)

Awkward access to narrow contraflow

Chiswick High Rd: trying to dodge buses

Left hook hazard (new)

Pedestrian build-out

Kew Bridge : dangerous right turn

H9 : A315 : Hyde Pk Cnr to Hounslow

Extent : all the local LCC groups, and other consultees, would prefer to avoid the A4 and stay on the A315 throughout, as there are many more destinations along it. The A4 has had cycle tracks on both sides for many years already so there would be no real gain – and not many cyclists use them !

Heathrow ought to be the subject of a 'hub' project, rather than a (long) extension of just one route. This Highway will do well if it delivers a continuous route to & through Hounslow town centre.

Road Conditions : Kensington High St has 2 narrow lanes, which block overtaking (resulting in cycling on the pavement) due to space being constrained (ironically) by the centrally located cycle parking. Hammersmith King St is ***currently*** 1-way, which is also detrimental to bus operation, and it carries too much *through* traffic (which should be on the nearby A4) as does Chiswick High Road. The High Road is a mess that varies from block to block; it needs a more consistent treatment – but there is scope for change – it is wider than it looks. Parts of Brentford have limited road-width, and traffic is heavy at Kew Bridge. Hounslow town centre has a bus priority scheme, but very poor cycle access.

Cycle Facilities: Kensington has no cycle lanes / tracks at all. Hammersmith Rd has sub-standard lanes which are often blocked; King St has a narrow contraflow, and no with flow cycle facilities. The Hounslow sections provide an erratic mixture of different types *and standards* of facility, or none.

Major Hazards:

a) Hyde Park Corner has inadequate green time, and too many separate crossings which are dangerously out of sync; it also needs a 3rd exit to Grosvenor Crescent.

b) Hammersmith Bdwy is the major unresolved barrier to EW cycling – it lacks cycle facilities on both the north & south sides – and by-passing it requires a long detour.

c) The Chiswick roundabout has cycle tracks across it, but poor access to it – but a route along the A315 would probably by-pass it to the south via Wellesley Rd...

d) Kew Bridge is a dangerous junction, requiring A315 cyclists to turn right across multiple lanes of heavy traffic needs; it needs redesigning to provide safe cycle access in all directions

There are left-hook hazards at several junctions : Exhibition Rd; Kensington High St; Warwick Rd; Dalling Rd; Goldhawk Rd; Chiswick Lane ; Heathfield Terrace; Chiswick Park; Kew Bridge...

Cycling Potential: all sections of the A315 need radical redesign, which would also benefit the many bus & pedestrian users. Space is only *inherently* limited in parts of Brentford. A ***good quality*** cycle highway which passes through so many town centres should attract many new users.

Deliverability: this will depend on whether all the LBs agree to a more consistent design throughout; technically there is scope to make real improvement – none of the barriers are insurmountable.

Value for Money: the necessary high street redesign will be costly, but other vulnerable road users will also benefit.

The photos highlight some of the challenges to be addressed – but not all of them

H2 : A11-A118 : The City to Stratford (& Ilford)

Whitechapel Rd

Mile End: plenty of width ; no cycle lane

A102 intersection Bow: HGVs dominate

Stratford gyratory ; lane wrong side of railings

A118 Newham: narrow cycle lane; bus lane blocked

Part time partial-lanes : confused ?

A406 intersection : no cycle facilities

Ilford Hill 4-lane gyratory ; no cycle facilities

H2 : A11-A118 : The City to Stratford (& Ilford)

Extent : it should start within The City, not outside it, as per H3, at St.Pauls via Eastcheap-Tower Hill; and must enable access into both Stratford & Ilford centres.

Road Conditions: A11 through LBTH is wide, A118 is less so, but not narrow – both roads are busy mixed use high streets. There are several 2-phase pelican crossings, with central cages and railings, which have created pinch points at regular intervals. Traffic levels are not too bad along A11, but heavy between Stratford & Ilford with a high % of HGVs.

Cycle Facilities: some sub-standard cycle lanes, but mostly bus lanes, which are only available part-time due to the high levels of commercial kerbside activity. Shop fronts on both sides throughout.

Major Hazards:

a) Aldgate is still intimidating, despite (limited) recent improvements, but can be avoided

b) A12(M) intersection at Bow is very dangerous – and is a real barrier – there is no other EW crossing of the Lea Valley in the vicinity, although there will be more post-Olympics

c) Stratford has a (very inconspicuous) cycle track through the town centre but poor access and the gyratory is hazardous: a complex obstacle eastbound; a fast left-hook westbound

d) Ilford allows cycling through part of its centre, but not all of it, and is surrounded by another unpleasant gyratory, with heavy traffic in Ilford Hill, and no safe access from east or west – this leads immediately to the very busy A406 junction – again no cycle facilities

Cycling Potential: this is clearly a high demand route, at least as far as Stratford, and providing a good safe route to the Olympics should be a high priority.

Deliverability: the width of Whitechapel-Mile End Rd means there is scope for real improvement, in the short term – beyond that progress depends on gyratory redesign – the A118 will be more difficult, but there is enough width along most sections for significantly better facilities.

Value for Money : designing out the gyratories will be costly, but should be progressed as they are critical to the development of this route. Crossing / pinch point redesign should proceed regardless as this will also benefit pedestrians.

The photos opposite highlight some of the challenges to be addressed – but not all of them

H1: A10: Liverpool St to Tottenham

Bishopsgate : narrow lanes, boxed in

Wide central reservation wastes space

Dalston junction : busy – limited width

Bus lane but 1 side only

Stoke Newington gyratory

Evering : unsuitable for HGVs

H1: A10: Liverpool St to Tottenham

Road conditions: traffic levels on Bishopsgate and Kingsland Rd and Tottenham High Rd are high. Its principal advantage is its directness, although this is compromised by its major gyratories. The A10 has wide lanes throughout LB Hackney and traffic volumes are of little concern as far as congestion is concerned. This is a busy road that already carries a large amount of cycle traffic and should receive more. Bus frequencies are high.

Cycle Facilities: mainly bus lanes, mostly narrow and not always continuous – few cycle specifics except ASLs, which tend not to have proper lead-in lanes.

Major Hazards :

a) Stoke Newington gyratory is a hazard and a major detour, to southbound cyclists in particular;

b) Tottenham Hale gyratory – busy , with fast-moving traffic – high risk

c) The Great Eastern Street/Commercial Street junction southbound is a left hook hazard.

d) Dalston junction is busy with retail frontages on both sides.

e) There are left hooks at: Stoke Newington Church St/Stoke Newington High Street; Amhurst Pk; and Bruce Grove

Cycling Potential: Cycle modal share is very high in Hackney compared to the rest of London. The political environment is supportive and there is a culture of cycling on the carriageway. For this reason cycling potential is high if the gyratories are returned to full two-way operation. These should be the <u>first</u> steps on this route. With consistent application of wide bus lanes and/or wide kerb lanes, there is little need for cycle-specific facilities.

Deliverability: This depends on the return of the gyratories to two-way operation. Continuity and permeability will otherwise be poor.

Value for Money: It is worth resolving the gyratories, even irrespective of the Cycle Superhighway programme. This would deliver excellent value for money in revitalising local centres and increasing cycling and walking, as well as better bus accessibility.

Alternatives**:** The route proposed competes with established parallel LCN10. However, one of the main reasons why this has in the past been taken forward has been the presence of the Stoke Newington gyratory. If the gyratory is addressed, alternative routes will again become far less attractive than the A10. The A10 cannot be beaten for directness.

The photos opposite highlight some of the challenges to be addressed – but not all of them

H6: A215 : Elephant & Castle to Penge

Elephant Rd : why through traffic ? – why off-road cycling ?

Walworth Rd : fast traffic approaching Elephant Two narrow lanes

Ample space here for wider bus lanes

Less width, but enough for cycle lanes

H6: A215 : Elephant & Castle to Penge

Extent: the first part of the route, to Camberwell, may be worth developing, but thereafter this is not a 'direct' route – and hilly – its hard to see what its advantages are over the nearby & well used LCN22 which runs roughly parallel, is more direct, avoids the hills & extends a lot further.

Its end point in Penge is not a significant destination – the route just stops... it should continue until it connects with NCN21 – less than a mile away.

Other options to the Elephant & Castle should be considered; giving it a wider berth would be preferable, as the by-pass is slow (and therefore under-used) and the gyratory is dangerous.

Road Conditions: Walworth-Camberwell Rd is mostly a good width, but there are some narrower sections, and a section which has been narrowed by a central reservation.

The Dulwich section would require cyclists to ascend some steep hills, and then the (proposed) route uses a very busy section of the S.Circular(A205), which is likely to be a deterrent to inexperienced cyclists.

Traffic levels on the A215 (north of Camberwell) are not too high, and HGVs numbers are relatively low, but there are plenty of buses.

Cycling Facilities : mostly bus lanes rather than cycle lanes , some of which are wide enough for bus+bike, but not all of them – some sections have lanes on one side only. Cyclists do use the by-pass north of the New Kent Rd (to Trinity Church, etc) in significant numbers, but not south of it.

Major Hazards:

a) Elephant & Castle gyratory by-pass (east) is less well-defined, has a missing link, and is indirect – but these defects could be addressed (n.b. developers now on site)

b) Camberwell Green is a busy junction – LCN23 provides a safer & equidistant alternative

c) Right turns across A205 traffic, in both directions – and other awkward A2216 right turns

Cycling Potential : the short link to Camberwell has some cyclists – although it duplicates LCN23; south of Denmark Hill the purpose of the proposed route is not clear.

Deliverability : straightforward as far as Camberwell – but limited scope for significant improvement

Value for Money : relatively low

The photos opposite highlight some of the challenges to be addressed – but not all of them

H4: A200-A206 : The City to Greenwich (& Woolwich)

No cycle lane ; railings

Central railings; increases speed & takes space

Wide lane at bus stop ; more railings

No cycle lane ; wide pavement

First gyratory – Rotherhithe

Second, complex gyratory - Surrey Quays

Safer on the pavement – ample space

H4: A200-A206 : The City to Greenwich (& Woolwich)

Extent : it should start within The City, not outside it, as per H3:A13, to Cannon St via Tower Hill, which has had a lot of investment in the pedestrian environment – but none on cycle facilities.

Road Conditions: width is adequate except for the inherently constrained section through Greenwich; traffic levels are not too high (except Greenwich) but HGV numbers are high especially at Woolwich

Cycle Facilities: few cycle specifics, mainly bus lanes, which are generally narrow and not always in both directions; continuity is severely disrupted by gyratories, but is otherwise ok

Major Hazards : this route causes us concern, as there are 5 major hazards along (exc. Tower Hill) which is more than are likely to be designed out within the timescale of this project :

a) Rotherhithe Tunnel roundabout – ok westbound, but a 4-lane gyratory eastbound

b) Surrey Quays gyratory – a complex gyratory with multiple hazards which would need to be completely redesigned if this is to become a 'cycle highway'

c) Greenwich Centre gyratory – plans to redesign the town centre do exist but their *implementation* would be key to any further route development

d) A102(M) intersection – the site of a recent & predicted fatality, highlighted as a serious hazard by CRISP but not yet modified

e) Woolwich Ferry – at which HGVs tend to assume right of way...

There are also left-hook hazards at fast T-junctions e.g. Abbey St; Deptford Church St

Cycling Potential: cycle flows are high along Jamaica Rd but drop sharply after Greenwich – many cyclists continue via Greenwich Park, and more would if it was more accessible – the A206 is not the only way to Woolwich...

Deliverability: Jamaica Rd could be upgraded, in the short term, if the central reservation and other railings were removed, as a (short, interim) route to Southwark Pk & Rotherhithe. Beyond that progress depends on the redesign of the 5 gyratories.

Value for Money: removing the gyratories will be expensive, but ultimately worth it

Upgrading the existing LCN20 may be a cost-effective interim option / complementary route.

The photos opposite highlight some of the challenges to be addressed – but not all of them

H12: A1 : (East) Finchley to the Angel

Highbury Corner gyratory

Holloway Rd – wide road ; narrow lanes

Central barrier wastes space

Archway 4-lane gyratory

Railings ; steep hill

H12: A1 : (East) Finchley to the Angel

Extent : to serve commuters it needs to be continued into zone 1 – not stop at Angel; it should also continue across the A406 at one of its safer crossing points (not A1000 nor A1). Its not a very direct route – the A1 cuts across North London at an angle – shorter alternatives are possible.

Road Conditions : Archway is a steep hill and the road width is restricted through Highgate. Holloway Rd is wide, as is Upper St, but they both have hazards at both ends. Lower Holloway Rd is flatter & wider than Upper Holloway Rd, but the space has not been put to good use – hanging baskets may make the central barrier look prettier, but its still a barrier to pedestrians and cyclists. Upper St gets congested especially around the Angel.

Cycle Facilities : generally limited – mainly bus lanes, not always both sides and usually narrow

Major Hazards :

a) Angel is a dangerous junction that most cyclists have always (rightly) by-passed, and this highway would also do well to by-pass it, as the road-width here is constrained.

b) Highbury Corner is a very busy gyratory to southbound cyclists, and northbound cyclists are often blocked by queuing traffic (cyclists observed trying to use the centreline).

c) The Parkhurst Rd-Camden Rd 1-way system is a hazard to E-W cycling and compromises access to Caledonian Rd, which also has a (pointless) 1-way system.

d) Archway Rd / Holloway Rd is a multi-lane gyratory which is on a hill, exacerbating the risks (slower cyclists ; faster traffic).

e) Aylmer Rd / Cherry Tree Hill jct is a left-hook northbound

Cycling Potential : limited by the steep hill – the least steep way up to Highgate is via Parkland Walk (the old railway track) which is wide but needs resurfacing

Deliverability : depends on viability of a route into zone 1 (St.John St has limited road-width)

Value for Money : low – as currently defined

Alternatives : Islington section competes with existing LCN7 which is a safer & popular N-S route, which avoids Angel, but then needs upgrading. Liverpool Rd has also been suggested but it doesn't by-pass Angel. Other more direct alternatives running N-S rather than NW-SE should be considered.

The photos opposite highlight some of the challenges to be addressed – but not all of them

H5: A202-A20 Victoria to Lewisham :


Vauxhall Bridge (N) Width restricted ; no bus lanes ; bendy-buses(18m)


New Cross gyratory Boxed in at bus stop

New Cross Gate gyratory ; railings; left-hook Heavy traffic ; narrow lanes

A20 congested approaching Lewisham centre ; no bus nor cycle lanes

H5: A202-A20 Victoria to Lewisham :

Extent : it should continue to Hyde Park – but not via Grosvenor Place – safer parallel alternatives are possible but should be 2-way, throughout; it is not clear why the route ends at Lee Green.

Road Conditions: the road width through much of Peckham is restricted, and the A20 approaching Lewisham centre is very restricted, with frontages on both sides; traffic is heavy throughout with a high number of HGVs & buses

Cycling Facilities: very limited and intermittent – mainly (narrow) bus lanes, but often on one side only due to inherent lack of width – continuity is poor

Major Hazards:

a) Victoria itself is the first hazard, with the station currently inaccessible to cycles (unlike Copenhagen where there is a blue cycle lane through all the bus stands)

b) Vauxhall Bridge north side is a very high risk junction with fast moving traffic

c) Harleyford Rd gyratory could & should be designed out (a possible quick win)

d) New Cross gyratory is a serious hazard, as is the New Cross Gate gyratory

e) Loampit Vale (A21 intersection) has a major roundabout with railings all round it

As the CRISP concluded: '*these are particularly hazardous conditions for cyclists'*.

Cycling Potential: cycle flows are very low along most of this route – and its not clear why they would increase – this is not a radial route, its more of an orbital – is there really a demand ?

Deliverability: there seems little prospect of this becoming a continuous, safe 'cycle highway' in either the short or the long term

Value for Money: investment should be concentrated on point solutions to the above hazards.

An alternative alignment from Burgess Park to Lambeth/Vauxhall should be considered.

Upgrading & completing the existing LCN22 would provide a direct radial route to Lewisham, which is also a significantly longer route to Bromley.

The photos opposite highlight some of the challenges to be addressed – but not all of them

H11: A5 : Westminster to Edgware

Busy road – busy pavement; frequent side roads junctions

Congestion is common; as is illegal parking

Frequent obstacles

Two narrow lanes – no ASL

A (partial) parallel alternative – ample width, low traffic

H11: A5 : Westminster to Edgware

Extent : Firstly this route should go into the West End, though not via this alignment – there are various much safer alternatives to Marble Arch gyratory. Secondly it should cross the A406(M) though again probably not at this point; the recent design proposed for this intersection is unsafe.

Road Conditions : the road is not narrow – but the ***very*** high volume of traffic along the whole of the A5, at all times, means there is currently ***no spare capacity*** for cycle, or bus-cycle facilities.

The A5 has already been the subject of a very thorough CRISP study, which has not resulted in any pro-cycling changes being made. The CRISP team are strongly of the view that another study is most unlikely to produce any fresh insights, as conditions along the A5 have not changed.

Cycling Facilities: almost none.

Major Hazards: the route is more of a continual succession of minor hazards and frequent blockages; the major hazards are at each end, but should be avoided.

Cycling Potential : very low – the lowest of any of these proposed routes

Deliverability : very little chance of this road becoming a 'cycle highway' in the foreseeable future

Substantial traffic reduction would be a pre-requisite for any meaningful intervention here.

Realignment is therefore recommended using other roads which have less traffic / more potential.

Value for Money: poor unless the route is realigned – there are various options which would need to assessed re their potential and their ability to form a coherent NW-SE alternative.

The photos opposite highlight some of the challenges to be addressed – but not all of them

H10: A40(M) : Park Royal to Olympia

Extent: this short 'highway' is quite puzzling; it runs alongside an urban motorway for most of its length, before changing direction sharply, then diverting into the backstreets of Shepherds Bush. Its not clear what demand this route serves or aims to generate.

Road Conditions: Wood Lane is a busy single carriageway distributor and bus route, with limited / sub-standard cycle facilities; there is no link to the off-road track along Scrubs Lane. The streets around Olympia have been traffic calmed, but are inconvenient, indirect 1-ways.

Even if the A40 has an off-road track, there are still some hazardous junctions to negotiate, with no cycle facilities. The Cycle Path along the A40 is low quality dual use and very narrow in places. There are lots of flats which can only be reached via the path. During rush hour there are lots of pedestrians using the path including mothers with pushchairs. This makes it difficult to maintain normal commuting speeds and is potentially dangerous for both cyclists and pedestrians. A number of side streets such as Allan Road filter off the A40. When heading West bound to Hangar Lane it is very difficult to tell if fast moving traffic behind you is going to turn in front of you. Cyclists have to constantly stop and look behind before crossing side roads (that is there are left hook hazards).

Cycle Facilities: Shepherds Bush Green has an off-road cycle track around most of it, but access to the centre is limited. The new cycle parking at Westfields is well used but more is needed elsewhere

Major Hazards:

a) Shepherd Bush gyratory is a deterrent – cyclists who only want to pass through SBG can use the track – but the central island is cut-off from the surrounding streets, so access to the shops, etc, along both sides is hazardous (various redesigns have been proposed, but not implemented)

b) The Wood Lane / A40(M) junction is hazardous to N-S cyclists

c) The very busy Victoria/Wales Farm gyratory at North Acton is dangerous

Cycling Potential: very low – there are some destinations along Wood Lane (including BBC) but a N-S route here, continuing along Scrubs Lane, might be better.

Deliverability: could be implemented fairly quickly – because it relies mainly on existing facilities

Value for Money: relatively inexpensive – because it relies mainly on existing facilities

Alternatives: the canal towpath, much of which has been upgraded in recent years, provides a direct, attractive, traffic-free route into the heart of the Park Royal estate (unlike the A40, which by-passes it, with no links) and it continues east to Little Venice & Paddington, and west to Greenford, etc.

Summary of Route Affirmation Findings

LCC's Route Affirmation Process has led us to the conclusion that some of the proposed routes have such low potential as Cycle Superhighways that they should not go ahead.

A summary of the route affirmation findings shows that the appraised routes fall into three clusters. We have ordered the routes into these clusters in the following summary table 'Summary of Route Affirmation Findings':

Cluster One: Proceed to the next stage of a more detailed User Assessment

H8 (A3205-A3), H9 (A315), H2 (A11-A118), H1 (A10)

Cluster Two: Consider alternative alignments to part(s) of the route

H6 (A215-A2216), H4 (A200-A206), and H12 (A1)

Cluster Three: Do not proceed and identify alternative route with greater potential

H5 (A202-A20), H11 (A5), and H10 (A40-A219)

Note

It should be noted that this appraisal focuses on the end-to-end viability of the routes proposed, which should provide a *continuous* high-quality cycling environment; however, point solutions to major hazards will still be of value locally, even if the Highway takes a different route.

Summary of Route Affirmation Findings

			Initial Route Affirmation - Cycle Highways									
#	Roads	Extent	Road Conditions			Major	--Cycle Facilities--		Cycling	Deliverability*		Consider
			Width	HGVs	Traffic	Hazards	Safety	Continuity	Potential	by 2010	by 2012	Alternative
H8	**A3205-A3**	**inc. Lambeth,**	**ok except**	**avg**	**avg**	**2**	**poor**	**poor**	**good**	**good %**	**high ?**	
		Vaux.bridges	**Battersea**									
H9	**A315**	**(nb not A4)**	**ok till**	**avg**	**avg**	**3**	**avg**	**poor**	**good ?**	**partial**	**high ?**	**avoid A4**
			Brentford									
H2	**A11-A118**	**go into City**	**wide**	**high**	**avg to**	**3**	**poor**	**poor**	**good ?**	**partial**	**good ?**	
					high							
H1	A10	ok	v.busy	avg	high	2	poor	poor	good*	partial	??	part
			capacity ??									
H6	A215-A2216	?? after	ok initially	avg	avg	1	avg	ok	avg	good %		part
		Camberwell	steep hills				(bus lanes)		(short)			
H4	A200-A206	go into City	ok except	high	avg	5	v.poor	poor	avg	partial	partial	part
			Greenwich									
H12	A1	go into City	ok initially	avg	avg/	2	avg	poor	low	partial	partial	part
		end Archway	v.steep hill		high				(short)			
H5	A202-A20	go on to	limited	high	high	5	poor	v.poor	low	low	low	**whole**
		Hyde Pk										
H11	A5	go across	ok	avg	v.high	2	avg	v.poor	v.low	v.low	low	**whole**
		A406										
H10	A40-A219	?? purpose	ok	high	high	2	avg	ok	v.low	high %		**whole**

						27		** assumes all gyratories will be removed*				

Common Problems

Common Problems that occur on all these (proposed) TLRN routes that will need to be addressed include

a) Gyratories – raised by all the local LCC groups as their no.1 concern / deterrent

b) Left-hook hazards at other major junctions

c) Side road junctions – often untreated, or only a token treatment

d) Levels of general traffic, and high % of HGVs

e) Lack of road-width / narrow lanes

f) Parking & loading activity, including bus stops

g) High bus frequencies

Conclusion

Some but not all of the proposed 'highways' should now be the subject of more detailed **User Assessments** to assess both their current quality, and their potential, but others have too many constraints / limitations, or insufficient development potential.

It is a concern that much of north / north-west London may not have access to a (viable) highway.

Notwithstanding the frustration with the lack of LCN route completion, there is a danger here of 'throwing the baby out with the bathwater' – some of the better existing routes would benefit from the resources now being applied to Highways & all the promotional activities now being planned.

Omissions and Alternatives

The following are opportunities which have not currently been considered:

Omissions

Victoria-Chelsea Embankment : an obvious candidate for an off-road route with good continuity. Bearing in mind there is no 'highway' serving Chelsea & Fulham, this should be a priority.

Newham Greenway : an elevated traffic-free route from Victoria Pk to Beckton, with no capacity constraints. Access improvements needed throughout (there should be no steps...)

Bayswater Rd-Holland Pk Ave-Uxbridge Rd, starting within Hyde Pk-Kens.Gdns, and continuing eastwards into the west end via Brook St...

At least one circular route is needed – inside Zone 1 – to connect the central London route ends

Alternatives

LCN22, despite being incomplete, is used by over 450 cyclists a day, and continues out to Bromley, etc

LCN20, which is a branch of LCN22, provides a safe alternative as far as Greenwich

The Mayor is keen for more cycle routes in the park, so for example, Regents Park, which is deserted on weekdays, would be a good start to an alternative to the A5.

There are various other viable alternatives, which should be **assessed** in more detail, as they could provide at least a partial solution, if upgraded.

Appendix One: Usability Criteria

Cycle Superhighways – London's First Cycle Priority Routes
Usability Criteria from an 'occasional cyclist' perspective

To generate the desired growth in cycling, the Cycle Superhighways must be immediately attractive to less experienced occasional cyclists and they must be safe and feel safe. It would be counter-productive to expend resources on marketing poor quality routes, or worse unsafe routes. If there is a gap between the promise of the experience and the reality, it will turn people off cycling and undermine the credibility of the Superhighways project. To be successful in attracting occasional cyclists to become regular commuters we must be clear about the quality of experience occasional cyclists would perceive as 'continuous', 'convenient', and 'safe'. This can then inform route design.

The following 'usability criteria' have been informed by London Cycling Campaign's many years of experience supporting cyclists, improving conditions for cyclists and advising on the design of cycling facilities.

Feeling safe: routes must be safe and be felt to be safe

- I will feel that I have enjoyed my cycle journey, not merely survived it
- I will feel safe throughout my journey, and feel it is safe for less experienced cyclists
- I will not feel that motor-traffic is dominant and that I am a 3rd class road user
- My route will have some traffic-free / access-only streets (no *through* traffic) to provide rewarding and pleasant sections/ incentives to commute daily

Cycle priority: capacity and width must be more than adequate for peak flows throughout (all route-types, whether on-/off-road). Route quality must be continuous with no dismounting

- My route will not be blocked by loading vehicles and queues of stationary traffic
- I will not feel that buses / other HGVs are overtaking too close
- I will not have to overtake buses and other vehicles on the outside
- I will be able to overtake slower cyclists, without putting myself (or others) at risk
- I will be able to cycle at the speed I want to
- I will not feel I have to cycle 'fast' to keep up with the traffic (or other cyclists)
- I will not have to stop / brake to avoid taxis / vans / cars cutting in front of me
- I will not have to worry about 'dooring' – or parked vehicles pulling out
- I will not have to cycle head-down watching out for potholes / other surface hazards
- I will know that if an accident is imminent, I do have an escape route (no railings, etc)

At junctions: There should be no gyratories. Department for Transport guidance says there is no safe cycling solution to a multi-lane roundabout

- I will not be required to cross lanes of faster-moving traffic / compete for position
- My route (ahead) through the junction will be clearly marked (and respected by drivers)
- I will not incur time-delays if I use cycle-specific (or pedestrian-shared) crossings
- I will be able to by-pass traffic signals (where it is safe to do so) for example at T-junctions / left-turns
- On red, I will stop in a (more) advanced, visible position, and be able to go before general traffic is released
- If I am crossing a major road, I will have ample time to make a direct crossing (safely)
- If I am crossing a minor road, I will not have to give way & emerging vehicles will do so slowly
- I will not have to keep getting a map out to check I am on the correct route
- I will be able to join or exit the main route safely and conveniently

Appendix Two: Route Affirmation Questionnaire

Route Affirmation / Scoping Questions

1. Does the overall alignment make sense ? – ref. geography; key destinations
2. Does the route start / end at logical points ? – ref. links to other routes
3. Are current (peak) cycle flows high / medium / low ?
4. How do you rate current route quality ? (very good / good / poor / very poor)
5. Has the route (or part of it) been subject to a CRISP already ?
6. What is the proposed route's potential ? (very good / good / poor / very poor)
7. Is it worth dividing the route into sections ? ... if so, see below...

Constraints and Barriers

1. Where are the major hazards / accident black spots / barriers on the route ?
2. Are there obvious solutions to these barriers – or ways to by-pass them ?
3. Is it / could it be wide enough for significantly higher cycle volumes ?
4. Is the volume of motor traffic at peak times tolerable, or too great to (currently) consider this route as a 'cycle highway'

Alternatives and Opportunities

1. Are there safer / more efficient alternatives to all, or part of, the route
2. Should there be branches at either the home or workplace ends ?
3. Are there traffic free / calmed sections on or near the route that ought to be incorporated as incentives to use it ? Should sections be closed / calmed ?

Section by Section comments

If you see the route as having separate sections e.g. inner / outer, or / and branch A, branch B... please provide an initial assessment of each section rather than the route as a whole

Appendix 3(A) Cycle Priority Measures in the A3-A24 Corridor (LCC – August'09)

Contents

1. **Access to Major Commuter Destinations**
2. **Conditions along the A3 & A24**
3. **Other Viable Options**
4. **Oval Junction(s)**
5. **Stockwell gyratory**
6. **Clapham High St**
7. **Clapham Common**
8. **South of Clapham**
9. **Branches**
10. **Permeability**

Appendices

a. Route Quality Assessment

b. Safety / Usability Criteria

1. Access to Major Commuter Destinations

Guildhall is a better start point than Bank for this 'highway', as Bank is a complex, hazardous intersection and there is little prospect of making any real improvement, whereas Guildhall offers cyclists ways of by-passing the Bank intersection and good onward links to other routes.

However, this route *should* serve countless commuter destinations in The City or the West End, which can be accessed via any of (at least) 4 different Thames bridges – it should be noted that less than 50% of the cyclists passing The Oval in the a.m. peak continue along the A3.

In order to attract the maximum number of new cyclists, we recommend that this 'highway' should have more than one branch at its workplace end. We do not agree that cycle highways should aim to 'concentrate cyclists' along a single route *throughout* their length – we are not designing a motorway here – if this route is seen as only serving a single destination (or bridge) it is unlikely to achieve its usage targets.

Despite their strategic importance to cycling being highlighted by the TRRL review (2004), most Thames bridges *and their approaches* still have no / poor cycle access, and many have serious hazards / deterrents to cyclists at one or both ends. We suggest that the first issue this 'highway' should address is the provision of safe end-to-end cycle access to and across (more than one) river crossings – as strongly recommended by TRRL – and by subsequent CRISPs.

Southwark Bridge has advantages over other zone 1 bridges:

a) it usually has low traffic flows at all times, including peak hours
b) neither end has a gyratory; one end is a T-jct, closed to motors (open to cycles)
c) its the only bridge where cycle lanes are protected from traffic (by trief kerbs)
d) there are good quality cycle lanes most (but not all) of the way to Elephant & Castle
e) it has the highest % of cyclists – indicating some cyclists divert to use it – but spare capacity.

It is therefore a sound choice, but the coach parking & PTW parking which still blocks the southern approach (and exit) should be relocated elsewhere, and 2.0m cycle lanes provided. Full implementation of the other CRISP recommendations would improve safety at both ends.

However, many A3 cyclists will continue to want to use other bridges – especially...

Blackfriars, which has high cycle flows, despite its very poor access at the south end, and lack of safe access / toucan crossings at the north end. Again, full implementation of the A201 CRISP recommendations by TfL would be a significant step forward; n.b. there should be safe 2-way cycle links to & from the minor roads on both sides (not just the busy, fast A201) particularly Blackfriars Lane, Temple Avenue, and Upper Ground where a closure / filter should be installed.

Waterloo Bridge has a dangerous roundabout on the south side – but can be avoided (short term) by using Cornwall Rd – a good example of permeability, which should be better signed.

London Bridge has left-hook hazards at both ends, heavy traffic and railings... cyclists do use it, but it needs radical redesign to meet the safety / usability criteria for a 'cycle highway'.

2. Conditions along the A3-A24

The suitability of the A3-A24 (and many similar A-roads) for increased levels of (safe) cycling depends on three things : width ; capacity ; and whether their major hazards can be resolved. *The accident record is poor along the whole of the A3 & A24 with too high a % of cycle accidents.* Inexperienced cyclists, who are the target market for 'highways', will be deterred by gyratories, by pinch points, or by other dangerous untreated junctions where cyclists lose priority.

There are 3 serious hazards along the A3 at: The Oval; Stockwell; Clapham, which will all need to be designed out before this route can be designated as a credible 'cycle highway' – the less confident target market (who don't currently cycle to work) will not be persuaded to take up cycling in the rush hour unless the whole route is safe. These are discussed in 4,5,6 below. *NB these are not the only hazards – other junctions also need redesign e.g. the A205.*

The A3-A24 does have some wide sections e.g. Balham High Rd(S) and most of Clapham Road, where there is ample space, and spare peak-hour capacity, to provide wide cycle(only) lanes / tracks inside loading / parking bays / bus stops (as is common in Europe) where they would be **protected** from encroachment by vans / taxis / etc, and available all day, not just for a few peak hours as many bus / cycle lanes are at present. (*NB bus lanes are unlikely to attract as many new people to cycling as good quality cycle (only) lanes / tracks*.) But this high-quality treatment is unlikely to be possible on other sections due to their inherent physical constraints.

Road-widths vary significantly along the A3-A24, and so do the **peak** traffic conditions; off-peak conditions can give a misleading impression that there is ample width / spare capacity. There are several bus routes along the A3, and bus frequencies are high, but most bus lanes are only 3.0m wide, which means cyclists cannot overtake stationary buses without leaving the lane, and buses cannot overtake slower moving cyclists. This is less of an issue off-peak, as the outside lane can used for overtaking but, during commuter peaks, cyclists get boxed in by traffic queues in the outside lane, which means that they cannot overtake, nor be overtaken by buses; this causes delays, unnatural bunching, and puts cyclists under pressure to cycle at a speed which does not hold up the buses; this competitive environment is unlikely to attract less experienced / confident cyclists. It is notable that currently A3 cyclists are mostly young adult males – '*highways' should be aiming to attract a much broader range of users*.

Furthermore, there are significant gaps where there are neither bus lanes nor cycle lanes eg Union Rd – where there could be a cycle lane if the right turn was banned, or where there is a bus lane on one side only eg Newington Butts – where 2 cycles lanes would be preferable.

Side road junctions are largely untreated along the A3-A24 which, regardless of whether cycle / bus lanes are present, exposes cyclists to risks from vehicles turning across their path. Effective junction treatments which slow vehicles right down (as per Denmark – not as per the UK norm) should be installed throughout – the top priority being Balham Hill. Cycle lanes / tracks, where present, should be continuous across side road junctions, which is only safe if turning vehicles have been slowed sufficiently, and sight lines are kept clear.

There are two severely congested sections with no bus / cycle lanes: Upper Tooting Rd and Clapham High St, where the high traffic levels can form an impassable obstruction. It should be possible to relocate Clapham High St traffic queues to the less busy roads south & north, and install bus / cycle lanes, but nobody has yet put forward any real proposals which would ease the chronic congestion in Tooting, which is exacerbated by uncontrolled loading & parking.

Merton High St also has no cycle facilities, currently, and heavy traffic including HGVs, and road widths between Tooting Broadway & South Wimbledon are limited, although wide enough for basic cycle lanes in most places – subject to the loading requirements of shops, etc.

Cycle flows drop sharply south of Tooting Bec and it may be that (many) commuters will regard this as too far to cycle, even if high quality facilities are provided – there may be more demand for park & ride facilities here; Clapham South clearly needs more (& better) cycle parking. It should also be noted that the popular Tooting Common route runs parallel to this section – cyclists are unlikely to switch to the A24 unless it is transformed...

We therefore recommend that this 'highway' should focus (initially) on providing high quality route(s) as far as Clapham & Balham, and that the important extensions out to Merton – and other possible branches – **need more thought** and should be a clearly planned 2nd phase.

3. Other Viable Options

The primary objective of 'highways' as stated is to improve cycling conditions along obvious commuter routes – but this does not necessarily mean TLRN-roads.

a) Kennington Rd is wider than the A3, is an attractive, tree-lined road, and carries less traffic and less buses / other HGVs; it also allows cyclists to avoid the Elephant & Castle gyratory and the Newington Butts pinch point – and *could* be designed to allow cyclists to by-pass the hazardous Oval junctions. It is reasonable to assume that a high % of A3-south cyclists use this alternative already (less than 50% use the A3-north), and if protected cycle (only) lanes were provided, inside loading / parking / bus stops (which it is much easier to do here than on the A3) the numbers of cyclists using it would be likely to increase.

   We therefore strongly recommend including Kennington Road in this 'highway' as a branch to other Thames Bridges, as we believe it would attract many more cyclists than the A3 alone; this should not be a 'spur' but a part of the main 'highway'.

   The junction with Westminster Bridge Rd is a left-hook risk, which needs careful design, but otherwise Kennington Road is a relatively low-risk option.

b) Of the various ways to access the Thames bridges we recommend Baylis Rd-The Cut-Union St-Newcomen St, which could be significantly upgraded by diverting *through* traffic and being made 2-way *throughout*. (This recommendation is <u>not</u> dependent on (a) above.)

c) Larkhall Rise-Lane is a traffic-calmed LCN route running parallel to <u>both</u> the Clapham Rd(A3) and Wandsworth Rd, which avoids the serious hazards at The Oval and Stockwell, and the congestion in Clapham High St. It currently has very poor links at both the Vauxhall end and

the Clapham Common end, and is not well signed, but n.b. it has the same or higher cycle flows than most sections of the A3-A24, except for the busiest traffic bottlenecks.

At the north end there should be a link from Larkhall Lane to Vauxhall via Wandsworth Road (off-road track to Wilcox Rd) and at the south end there should be a *well-signed* link to Clapham Common via a new toucan at Bromells Rd, and Clapham Manor St.

The cycle lanes in Larkhall Lane are inappropriate (cyclists should not have to cycle on the left on minor roads) but perhaps indicate that further traffic calming is needed here.

We believe it is well worth investing in these straightforward 'complementary measures' needed to **complete** (& sign) this route so that a valid comparison can be made between it and the A3, and there should be some synergy between them i.e. given two **good** routes, with well signed links between them, some cyclists will find it convenient to use part of both routes on the same journey, which should lead to more cycling overall.

4. The Oval Junction(s)

Given that Elephant & Castle has a cycle by-pass, albeit a slow one that needs some upgrading (especially on its incomplete east side), the top priority hazards for this 'highway' to resolve are the Stockwell gyratory and the Oval junction(s) both of which are intimidating. *NB Detailed design workshops should be convened asap to agree the optimum, safe solutions – the following suggestions are not likely to be definitive...*

There are 4 lanes of general traffic through The Oval, encouraging driving at unsafe speeds; this is unnecessary and is exacerbated by the presence of railings, which can turn a serious accident into a fatal one. The number of traffic lanes through the junction(s) and coming into the junction should be reduced – the safest option is a *single* straight ahead lane – removing the central barrier will also reduce vehicle speeds. Cyclists going straight ahead along the A3, need to be able to get into the right position early, *but safely, without dodging fast moving traffic.*

The central ASL feeder lane here is unsafe – and reminiscent of the fatal Blackfriars design...

Southbound there is a long motorway-style left-turn lane, which encourages drivers to execute the turn at speed; *there isn't a safe place for cyclists to move across* – it should be removed; left-turning traffic (in towns) should be forced to do so slowly, in low gear, by tight corners.

It would be possible for Kennington Road cyclists to by-pass this junction via an off-road track, re-entering the carriageway after the junction – but Kennington Park Road cyclists would still be at risk. Advance GO facilities and more visible, advanced, waiting areas would be helpful, but the highest risks are when the lights are green. It may be that the only truly safe solution for cyclists here, both northbound & southbound, is for cyclists to wait (on the left) for their own green phase, which could be shared with pedestrians (as in Holland). However, most cyclists will only use such a facility if they do not incur a time penalty.

Danish-style blue cycle lanes are unlikely to be safe through such a busy, major junction, unless a 20mph speed limit can be *strictly* enforced (but should work well at other, lesser junctions).

5. Stockwell gyratrory

DfT Guidelines (2008) make it quite clear that there is no safe solution to (multi-lane) gyratories and that the risk of accident for cyclists is 15 times higher than for drivers. The simplest solution here would be to replace the gyratory with cross-roads, removing the current need for cyclists to weave across 2 lanes of faster moving traffic, *but there would still be a high risk of left-hooks* in both directions when the lights are green. Blue cycle lanes across the junction may reduce the risk slightly, but unlike in Denmark, will not give **cyclists** any real **priority** (Danish drivers are presumed to be liable for accidents, so give way).

The number of traffic lanes coming into the junction should be minimised to reduce vehicle speeds (there is no need for more than one straight-ahead lane), and the approaches to the junction could be narrowed, but the angles here mean there is no need for drivers to change down a gear – its an inherently fast left-turn – which again means the only truly safe solution for cyclists is to wait for their own green phase, which could be shared with pedestrians. But again, most cyclists will only use such a facility if they are given a *long* green time.

Any 'solution' that does not involve removing the gyratory will require cyclists to make multiple crossings, which many cyclists may ignore (as eg Wandsworth) because they incur a long delay.

NB if it is not possible to implement a much safer junction re-design by May 2010 at Stockwell this route should be diverted (temporarily) via Larkhall Lane.

6. Clapham High St

Cyclists were observed riding the centreline (a dangerous practice*)* during the severe peak hour congestion in Clapham, which also delays the buses, and creates an unpleasant, polluted pedestrian environment. This is exacerbated by railings both roadside, and in the middle of the road; neither of which should be necessary.

Traffic management is clearly required here to relocate the traffic queues to the roads south and north, where there is spare capacity and, where if queues occur, they will not impact cyclists and pedestrians. Then bus / cycle lanes can be installed in both directions and the railings removed.

Better cycle facilities are also required at the junction with Bedford Rd – a pinch point.

7. Clapham Common

Clapham Common is an important node in London's cycle network; it has a well-used commuter route N to Chelsea Bridge, but many other paths across it are also used by cyclists taking various other routes. And there is an (informal) jogging track around the perimeter, which some cyclists also use, and which ought to be upgraded and designated as a shared use path.

This would provide a safe, attractive off-road route along one side of the A24, leaving plenty of road-space for a wide bus lane or dedicated cycle lane along the southbound side. Continuity of

the Common perimeter path would be improved by closing both Windmill Drive and Rookery Rd, which is a left-hook hazard.

The north (A3) side of the Common should also have an off-road path; there is less need for a perimeter path on the west side where the residential roads have been closed to through traffic and a cycle gap has been provided.

Access to the Common should be improved by convenient, safe links across the busy A-roads that encircle it – particularly to / from Larkhall Rise via Bromells Rd (currently 1-way).

The junction with Clapham High St is not a left-hook risk, but the double junction at the A205 & Nightingale Lane definitely is and needs careful re-design to make cyclists more visible to drivers and give cyclists ***priority*** over vehicles turning left (blue lanes / elephants footprints across the junctions would be helpful here).

8. South of Clapham

Balham Hill is quite steep so a wider uphill bus lane is needed – downhill cycle lanes are not a requirement – as its safer for fast downhill cyclists to be in the traffic stream. Side road junction treatments are a high priority here.

The north end of Balham High Rd is just wide enough for cycle lanes on both sides (there are none currently). The ASL at Chestnut Grove only has stubs – *queue length* lead-in lanes are required here – *and throughout the route*. Links to Tooting Common should be signed

The southern section of Balham High Rd is very wide, although space is wasted in the middle of the road on hatching, etc. There is ample space here for wide **protected** cycle lanes inside loading bays / bus stops / etc. Side road junction treatments are again required.

Approaching Tooting Bec the road narrows – and stays narrow – competition for road space is intense and (currently) there is no spare capacity to reallocate to a 'cycle highway'. Unless & until more creative solutions emerge which resolve the congestion / competition for space from vans loading, etc, this critical section cannot (yet) be designated as a 'cycle highway'.

9. Branches

We recommend that, south of Clapham Common, this route should have more than one branch, otherwise the numbers using the outer sections will diminish – regardless of route quality – this same principle applies to other 'highways' where cycle flows drop sharply after a similar distance / time from the city centre, and more cyclists take the park & ride option.

We suggest that Streatham and Earlsfield are good candidates for branches, as both do have existing routes which could be upgraded. Further design work is required to develop upgrade plans for these, together with the Merton branch, which needs a lot more creative thought.

10. Permeability : improving links to / from the main route

Many current (LCN) routes do not connect well with local feeder routes, which limits their value / effectiveness – one of the ways that 'highways' can generate more cycling is by ensuring that cycle access to & from side roads is straightforward, e.g. that they are not 1-way streets, that A-road **crossings** are provided, and that the feeders are well signed *e.g.*

a) Cleaver Sq-St-Sancroft Rd : should be a 2-way link to Black Prince Rd (sign: Lambeth)

b) Claylands Rd : good link W to / from existing LCN3 (not signed)

c) Dorset Rd : a useful link both E and W

d) Albert Sq : good link W to / from existing LCN3 (not signed)

e) Voltaire Rd : access currently blocked by (unnecessary) central railings

f) Crescent Lane : good link E to Brixton, Brockwell Pk

Appendix 3B: Cycle Priority Measures in the A13 Corridor (LCC - July'09)

Contents

11. **Access to Major Commuter Destinations**
12. **Conditions along the A13 itself**
13. **Cable St Redesign**
14. **Getting to & from Cable St**
15. **Narrow St**
16. **Poplar High St**
17. **East India Dock**
18. **East of the River Lea**
19. **Branches**
20. **Permeability**

11. Access to Major Commuter Destinations

The primary objective of 'highways' as stated is to improve cycling conditions along obvious commuter routes (which n.b. does not always mean A-roads). On most 'highways' this will just requires ensuring continuity into The City or the West End (where there are countless commuter destinations) and providing safe access across 'barriers' such as the inner ring road, or rail / river crossings, but on this route there is another major commuter destination so significant that it reverses the normal peak flows: significantly more people cycle east to Canary Wharf, in the a.m.peak than cycle west to The City, and vice versa in the p.m.peak.

Canary Wharf is clearly a high demand commuter destination, despite the complete lack of even the most rudimentary cycle facilities there, which suppresses demand. The Canary Wharf branch is / should be more than a 'spur' – its a major workplace destination which requires much better access at both the Limehouse and the Poplar ends, and proper cycle facilities throughout.

The City is the other major destination that should served by this route – but, again, demand is being suppressed by the lack of any safe routes into The City from nearby LBTH (cycle flows are lower than via radial routes from other directions). Not only is Aldgate still a complex major barrier; all the alternatives to it are currently either 1-way streets, or too congested, or have heavy traffic and no cycle facilities. There is a need for more than one (good, safe) route into The City to enable / encourage cycling into both the Liverpool St area and the Cannon St area.

It is the unanimous view of LCC that providing safe & convenient cycle route(s) into Canary Wharf and into The City should be a very high priority for this 'highway' and is more likely to be (measurably) successful and cost effective than a route out to Barking.

12. Conditions along the A13 itself

The suitability of the A13 (and many similar A-roads) for increased levels of (safe) cycling depends on three things : width ; capacity ; and whether its major hazards can be resolved. Inexperienced cyclists, who are the target market for 'highways', will be deterred by gyratories, by pinch points, or by other dangerous untreated junctions where cyclists have no priority.

Width means total road width, not just the (current) carriageway width; narrow sections on busy distributors are unlikely to be able to be modified to provide safe, attractive cycling conditions. It is easy to be misled by off-peak conditions on the A13 (and elsewhere) when it appears there is plenty of capacity; what matters, is whether or not there is spare capacity during peak hours, which can be reallocated to provide explicit cycle facilities, protected from encroachment by taxis, vans, parked cars, etc, and available all day (not just a few peak hours as at present).

For most of its length through LBTH the A13 is fairly wide, but there is (currently) too much peak traffic – see photo xxx – i.e. insufficient capacity; there are also high levels of HGVs at all times. If, in the future, traffic levels along Commercial Rd-East India Dock Rd are reduced significantly, then genuine **cycle priority measures** could become viable, but at the moment the equidistant

parallel route via Cable St-Narrow St-etc has more potential (if it is redesigned to overcome its current limitations) ; its already an established, popular, commuter route, so the A13 would have to offer significant advantages for existing cyclists to switch to it, or for new cyclists to use it instead of Cable St (or the Thamespath).

Some of the bus lanes have been widened, but most are still only 3.0m which means cyclists cannot overtakes stationary buses without leaving the lane, and buses cannot overtake slower moving cyclists, especially in peak hours – this competitive pressure is now exacerbated by PTWs using bus lanes, as well as taxis (see photo xxx). Less experienced cyclists do not regard bus lanes as a safe facility – whatever their colour. Furthermore some bus lanes are peak hours only, and there are significant gaps where there are neither bus nor cycle lanes.

There are several serious hazards along the A13 (see map fig. xxx) which would all need to be modified before it could be designated as (any type of) cycle route; the less confident target market (who don't currently cycle to work) will not be persuaded to take up cycling in the rush hour unless the whole route is safe.

East India Dock Rd should NOT be 'signed as an alternative route' as it is – it would need extensive modifications to make it safe for cycling – significant (peak) traffic reduction would be a prerequisite, and there are several pinch points / other hazards...

The worst of these is the A12(M) intersection, but there is no merit in 'reviewing cycling conditions' at one junction in isolation: the A1205 junction is another intimidating motorway junction; and there are left-hook hazards at Branch Rd and Butchers Row. It is not necessarily the volume of traffic that is the hazard, but the speed at which traffic is encouraged to execute left turns by the wide junction radii; slowing traffic through these junctions, especially when turning is (literally) vital.

Every pedestrian crossing along Commercial Rd and East India Dock Rd is a 2-phase crossing with a central cage which, as well as delaying pedestrians, creates a pinch point for cyclists – this is exacerbated by the extensive use of railings, which can turn a serious accident into a fatal one.

Each pinch point also causes significant delay to cyclists – see photo xxx – n.b. the number of traffic lights along the A13 (and similar roads) increases journey times; there is far less stopping along Cable St-Narrow St, and none at all along the Thamespath-Canal.

We recommend that all crossing are made single phase, and that all / most of the railings are removed (as per latest DfT Guidelines April'09) regardless of the route this 'highway' takes.

13. Cable St Redesign

This route has been successful – but there are problems & constraints with the current design (which is more usually applied to wider primary roads, e.g the A13...). 'Directness' is not an issue here, but there is contention at junctions, and cyclists currently lose priority (and incur time delays) at every side road junction, which they would not if they were on the carriageway.

Normally, cyclists **gain** time using (equidistant) secondary road routes, because there are less traffic lights to be negotiated, and no bus stops, pedestrian crossings, etc, which cause delay.

The track is at the limit of its capacity, but there is no room to widen it. The street layout is now quite complex with opposing 1-way sections, which is not ideal for access by residents & businesses – deliveries are also limited by the track taking up so much road-space.

And Cable St suffers from rat-running, especially in peak hours, and it is a bus route. It is not currently a ***cycle priority route*** and the safety & convenience of cyclists (and walkers) is compromised by competition from other vehicles, including some HGVs.

Rather than tinkering with the existing design, we propose a **major** upgrade to Cable St, to exclude **through** traffic, which would enable cyclists to use the (2-way, traffic calmed) road again, safely, and the street to be redesigned as a more pedestrian-friendly space – without any guard railings – which should not be necessary in secondary roads (ref. DfT Guidelines). N.B. this would make many of the minor improvements suggested during the CRIM unnecessary.

Candidate locations for closures / filters are: Dock St (just east of); Butchers Row (just west of); and probably one other central location eg Dellow St (east of). The closures can be implemented on a trial basis initially (as temporary roadworks) and their impact assessed before being made permanent – we recommend this approach, rather than modelling, which cannot predict the displacement effects of road closures, nor the amount of traffic evaporation (typically 25%).

Residential access & deliveries will be easier in a 2-way street, with no traffic congestion – there is no shortage of side roads by which residents, etc, can gain access.

Capacity (for cyclists) would no longer be limited with this solution, for which there are several successful examples elsewhere, notably, but not only, in Hackney. And there are a few precedents for this type of treatment in LBTH eg Durward St and, most recently, Bell Lane.

We believe it is much easier to create a ***cycle priority route*** in Cable St by diverting a relatively small no.of peak hour car commuters, than (in the short term) by trying to relocate A13 traffic.

The main issue to be resolved is whether Cable St should remain a bus route, in which case rising bollards would be required – but this is the sort of innovative solution that 'highways' should not hesitate to implement, if required. Another option might be to re-open it in the evenings – as per Bell Lane – but a permanent closure is simpler and cheaper. Our preference is for better bus priority measures along The Highway / Commercial Rd instead – this would allow 'streetscene' improvements to be made to Cable St, which will not be possible if it remains a bus route.

14. Getting to & from Cable St

West: the **primary** route alignment we suggest is Cannon St-Eastcheap-Gt.Tower St-Tower Hill; this assumes an **off-road** track is provided along Tower Hill, where the very high volumes of fast traffic (and HGVs) rule out an on-carriageway cycle facility. NB the Mansion House gyratory is being removed, which will make this route significantly safer than any E-W route via Bank (note: the Goodmans Yard proposal does not meet this requirement).

Because of the difficulties crossing via Shorter St, a route via East Smithfield(off-road) then Dock St *may* be preferable – which would also improve access to the Canal-Thames route – although this will depend on the alignment of the Tower Hill cycle track...

Tower Hill is not as wide as East Smithfield, but it is wide enough for a cycle track to be provided on one side only (one 2-way track requires less space than two 1-way tracks). There are pros & cons with both sides: there is more space on the south side but higher ped.flows; *this should be designed with access to / from Tower Bridge in mind*, not just Cable St, which probably makes the south side preferable. Removing the central barrier & hatching would release some space. There is one pinch point at Trinity Sq.Gdns (see photo xxx) where space could be reallocated by narrowing or even removing the pavement – which is not used by many walkers at this point, as they have a far more attractive route via the gardens.

As a **secondary** access route to (some parts of) The City, if Portsoken St-Prescot St-Hooper St could be made 2-way throughout, it would complementary the permeability changes in progress around Fenchurch St, but this probably depends on other N-S roads in the Aldgate gyratory system becoming 2-way. We agree with City Cyclists' view (ref. CRISP) that this should not be regarded as the primary route – a safe route along Tower Hill is also needed by the hundreds of cyclists from SE London who use Tower Bridge; this should be addressed sooner, not later.

East: Butchers Row crossing : the key point here is that the alignment is wrong; cyclists should not have to mount the pavement... they should be able to cross straight into/outof the park. We do not believe there is likely to be contention with walkers here as ped.flows are low and sight lines are very good – this is not park where children play, as it is too small.

There is rat-running at the east end of Cable St (which would be stopped by a closure / filter).

15. Narrow St

Access to / from the west end of Narrow St is complicated by an unnecessary 1-way system – which could & should revert to 2-way operation – both Horseferry & Narrow St itself are well wide enough to simply be 2-way streets (contraflows should not be needed); this affects Thamespath cyclists as well as Cable St cyclists. The link to the excellent Thamespath needs a dropped kerb and a build-out to stop the route being blocked by parked cars – and signing.

Otherwise Narrow St is an excellent cycling environment, with *no capacity constraints,* and low traffic levels / speeds, that has high cycle flows in both directions (over 1000 in the peak hour).

Access to / from its east end is good – with the wide, direct A1261 toucan being exemplary – but the route is not obvious and is not well signed. There is a route into Canary Wharf at this point, via Hertsmere Rd, although its indirect, badly signed, and again lacks a dropped kerb – it also only gives (good) access to the (lower) West India Quay, not the higher Colonnades, which is the main E-W road through Canary Wharf with several commuter destinations – although there is a ramp up at Willoughby Walk which could be developed to provide access via Fishermans Walk.

Most cyclists access Canary Wharf by the more obvious, direct and attractive Thamespath to Westferry Circus, but currently there are several steps to ascend (and only 1 small lift). A ramp at this point would be a significant improvement and worthwhile investment. The awkward exit to Narrow St should also be made more accessible.

16. Poplar High St

The closure at its west end makes most of Poplar High St a good cycle route, with low traffic flows and low speeds, but the east end suffers from over-parking which reduces carriageway width to the point where its difficult for 2 vehicles to pass, even without cycles present. Limiting parking to one side only would resolve this problem – and would only affect a small number of parking spaces – alternatively parking spaces could be set back, but that would reduce pavement width. The Cotton St junction lacks cycle facilities; there are also unnecessary guard railings, which should be removed, and some rat-running, which could be stopped.

The big advantage of Poplar High St at this point is that avoids the A12(M) intersection (the A12 being in a tunnel) and, as it is the **only** E-W road between the A13(M) & A1261(M), its not unreasonable to expect it to be treated as a ***cycle priority route.***

There is access to the east end of Canary Wharf here, although its not at all obvious and needs upgrading: there is space to install a cycle track along Trafalgar Way(S) linking to the subway.

17. East India Dock

Naval Row is narrow, with little scope for widening, although traffic is very light as this is a cul-de-sac for motors; the northside pavement is redundant and could be minimised (walkers now have a raised walkway which is a much wider, and more pleasant facility). East India Dock is privately owned, which is not necessarily a problem, but the entrance to it is a blind corner – and the route through it is not clear; however modifying the blind corner is not difficult, and signing would clarify the route (blue tarmac is not necessary here).

After crossing the A12(M) the **branch** to Canning Town could instead proceed via the A13 given an off-carriageway track along its south side (the A13 is a motorway at this point : on-road cycling would not be appropriate) but there are other onward destinations to consider; it would not be convenient for cyclists using the Lower Lea Crossing route to go around 3 sides of a square here. Also the link from Saffron Ave to the R.Lea promenade is well-engineered (though not well signed...) and the riverside promenade is a good start to the route to Canning Town.

We understand there are major developments at Canning Town (which should have been tabled at the CRIM) and trust that the safe, convenient E-W passage of cyclists will be a high priority.

Both ends of the Lower Lea Crossing need upgrading: the link at its west end to Saffron Ave could be re-routed via the north side of the roundabout, and the (more direct) link from here to Canary Wharf needs to be more clearly signed.

18. East of the River Lea

We recommend that, in phase 1, this route does not continue beyond the River Lea, and that more design work is needed to specify 3 branches east of this point, including a branch to Stratford, which should be completed before the Olympics.

The exception being that the current severance of The Greenway by the A13(M) should be addressed asap (the current multi-phase toucans take over 2 minutes) and the proposed new foot-/cycle-bridge over it should be expedited, regardless of the route of the 'highways'.

19. Branches

We strongly recommend that, east of Canary Wharf, this route should have more than one branch, otherwise the numbers using the outer sections will diminish – regardless of route quality – this same principle applies to other 'highways' where cycle flows drop sharply after a similar distance / time from the city centre, and more cyclists take the park & ride option.

We suggest that Stratford-Limehouse is a good candidate for a branch, and that a branch to the City Airport & Woolwich Ferry should also be considered. As further design work is required, these together with the Barking branch, which n.b. is a long commute, could be a phase 2.

20. Permeability : improving links to / from the main route

Many current (LCN) routes (including this one) do not connect well with local feeder routes, which limits their value / effectiveness – one of the ways that 'highways' can attract more cyclists is by ensuring that cycle access to & from side roads is straightforward, e.g. that they are not 1-way streets, that A-roads crossing are provided, and that the feeders are well signed *e.g.*

g) Vaughan St : link to traffic-free Ornamental Canal route (not signed)

h) Backchurch Lane : good N-S link to Whitechapel & Brick Lane (not signed)

i) Dellow St : should be good link to Shadwell Basin, but lacks a cycle gap, and is unsigned

j) Sutton St : good N-S link to Stepney (not signed)

k) Stepney Way : good E-W route N of the A13 with potential to be upgraded as a parallel route to both the A13 and the A11 – a candidate for 'complementary measures' funding

l) Limehouse Basin : key links to both Limehouse Cut and the Regents Canal (not signed)