

THE CITY OF LIVERPOOL

A CYCLING STRATEGY FOR LIVERPOOL

JUNE 1997

PREPARED BY ALLOTT TRANSPORTATION

STAGE 2 REPORT, APPENDICES

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APPENDIX 1 – REPORT OF STAGE 1 OF STUDY

Summary of Consultants Report

1. The consultants, Allott Transportation, have reported on the first stage of their development of a Cycling Strategy for Liverpool.

Their report reviews:

- the existing conditions for cycling in Liverpool,
- the likely benefits of an increase in cycling,
- identifies the key issues that need to be addressed to raise levels of cycling as a transport mode,
- suggests an outline action plan.

A more detailed strategy is being produced as the consultants continue their investigation.

EXISTING CONDITIONS FOR CYCLING IN LIVERPOOL:

2. Liverpool has succeeded in raising its national image as a great city by an impressive programme of refurbishment of public buildings and urban landscapes.

Major social & economic problems remain, and it can be argued that transport is one of the underlying problems which still needs to be addressed.

3. The favourable conditions for car traffic, plus good rail links in one or two key directions, have encouraged many to move out of Liverpool, and commuters often travel quite long distances to work.

LCC & other Merseyside districts are attempting to reverse this effect through the Package Bid process, but progress is necessarily slow because of the availability of funds for major investment.

4. Despite favourable conditions for cycling – relatively easy terrain, compact centre, low car ownership – cycling levels are well below their potential.
5. Lack of secure parking in city centre, workplaces, schools, railway & bus stations, district centres, is a major disincentive to cycling.
6. Traffic & road environment present problems to existing cyclists and discourage many others.

BENEFITS OF AN INCREASE IN CYCLING:

7. Liverpool has the potential to increase the modal share of cycling significantly, bringing substantial traffic, economic & health benefits.
8. Many great cities in Europe have invested heavily in reducing dependence on cars and encouraging transport which is more human in scale.

In Liverpool many areas have low car ownership, but the general level of car usage still makes conditions uninviting in many parts of the City Centre, Local Centres, & on travel corridors.

Traffic Severance, air & noise pollution make walking & cycling difficult in many places, leading to reduction in normal street movements & a corresponding increase in the perceived threat of crime.

9. A more cycle friendly Liverpool would add to the status of the City as an important tourism centre.
10. Another key problem area is the health of the population, particularly in some parts of the City. Liverpool has a poor health profile overall, & in some areas the incidence of preventable diseases is among the worst in the country.

There is good evidence that lack of exercise is a significant factor in this situation, & there would be much to gain from promoting cycling for transport and leisure.

Absenteeism & work performance would improve with a fitter workforce, and more than justify any employer action needed to make cycle commuting more convenient.

Liverpool residents of all ages would benefit from the increased opportunities which cycling gives for healthy exercise.

KEY ISSUES TO BE ADDRESSED:

11. An increase in cycling will involve a major change in public & private attitudes.

The City Council needs to play a leading role in helping to make this change.

There are a number of Key issues which need to be considered:

- Cycle parking
- Traffic Management
- A network of cycle routes for transport & leisure
- Publicity & Education
- Linking cycling to health promotion
- Tourism potential
- Employer involvement

12. These issues are being developed by the consultants in the 2nd stage of their study.

ACTION PLAN:

13. According to the consultants, cycling could play a more significant role provided that the City Council & other agencies made some modest but well-targeted investments. An outline plan of action is suggested in the report of the first stage of the study.

Cycle Parking:

14. A major installation programme is high on the list of priorities. It is likely that this would be a priority for investment in the short term.

It has a relatively short implementation cycle, is highly visible, & if installed according to well-established principles, will be universally popular.

Other infrastructure investment, such as cycle routes, tends to be much less straightforward.

Traffic Management:

15. The needs of cyclists at certain junctions & on some links where there have been clusters of accidents should be given a high priority in the Safety Scheme programme, as indeed some already have. . There are other opportunities to ensure that TM measures can make journeys less circuitous & difficult.

Cycle route network

16. A city wide network of suitable routes is being identified, including some limited sections segregated from motor traffic.

It will include the Liverpool portion of the National Cycle Network & other links to neighbouring boroughs.

17. The City Centre & Universities are seen as key parts of any network.

It is important that full consultation takes place with residents & other interested parties as well as cyclists, so a planned implementation over a number of years is needed.

Publicity & Education

18. Publicity & other encouragement measures are an essential part of an effective strategy. In this context the consultants stress the importance of the Cycle Centre in Berry St & mass rides such as the Liverpool to Chester bike ride in raising the public profile of cycling.

They have been impressed with how much good will there is in Liverpool towards cycling, & believe that now is the time to convert that good will into increased use.

19. The recent publication of new Technical advice for engineers & planners would be a good opportunity to update City Council staff on the latest techniques to make infrastructure more cycle-friendly.
20. Cycle education programmes in schools, including the cycling proficiency programme, can be extended to encourage safe cycle use by young people.

Linking cycling to Health Promotion

21. We believe that cycling can offer a healthy travel option for many more people than it does at the moment. There has been little local experience in developing this line of action, so we look forward to developing a programme with the appropriate staff in the health agencies.
22. It is sometimes argued that an uncoordinated increase in cycling would be counter – productive because of the increased number of accident casualties. Authoritative estimates are that health benefits of cycling exceed the disbenefits of traffic accident involvement by a factor of around 20:1.
23. It is important that the positive aspects of cycling should be stressed, while at the same time being vigilant about the potential for increased injury levels if certain safeguards are not in place.

Tourism Potential

24. Better access to the city centre, increased promotion of the Ferry links to & from Birkenhead & Wallasey, & further restrictions on unnecessary car use in the centre would all help to add value to Liverpools' considerable tourism assets.

Employer involvement

25. The support & participation of employers is crucial to the success of attempts to increase cycling to work.

The increase in residential accommodation in or close to the City Centre is a positive development which will make cycling a more attractive choice for commuting.

The City council & the University of Liverpool have a great deal to gain from encouraging their employees to cycle to work more often, & there are good opportunities to make the Office Quarter more cycle friendly as it is developed.

Employers in other parts of the city are also well placed to launch Green Commuter Programmes which would include a strong cycling element.

26. We believe there is a big potential for interesting other employers in ways of encouraging cycling among their own staff. We understand that the National Cycling Strategy, due to be launched in July (1997) will provide extra impetus to employer involvement.

APPENDIX 3

1.0 CITY CENTRE ROUTES

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Introduction

- 1.1 Liverpool city centre has a number of wide streets which offer considerable scope for accommodating cyclists.
- 1.2 However a number of features of Liverpool's city centre roads & traffic conditions currently pose significant problems to cyclists; these include obstacles posed by the pedestrianised areas, numerous one way streets, a number of large complex junctions & difficulties caused by widespread on street parking.

Design approach for the proposed city centre cycle network

1.3 Our aim has been to identify an integrated network of routes for cyclists which serves the main journey attractors & follows the main desire lines for cyclists within the area.

Cyclists will almost always take the quicker route to their destination & our approach has been to make these routes safer & more convenient for cyclists wherever possible.

The proposed cycle network is mainly non-segregated but includes specific measures to aid cyclists at difficult intersections & links in the highway network.

1.4 The routes within the network satisfy the previously mentioned 5 major design criteria. The network is coherent, direct, safe, comfortable & will help make cycling attractive. Routes have been selected to take into account the following 4 factors:

1.5 Location of major journey attractors. Major journey attractors in the city core were identified & are marked on the detailed 1:2500 plan included. The office quarter in the north west of the city centre, in the vicinity of Old Hall St is an important additional destination for cycle journeys.

1.6 Cycle friendliness of links & nodes on city streets. All the streets in the city centre were surveyed & classified according to their potential to facilitate safe, convenient cycle travel & to encourage new cyclists.

Problem sites which pose unacceptable or perceived danger or delay were considered to identify engineering solutions, or if necessary, alternative routes.

1.7 Location of known entry/exit points to/from the city centre. These have been chosen on the basis of where people commuting from surrounding areas are known to enter the city centre.

1.8 Cyclists desire lines identified by consultation & the consultants own observations.

Problems for cyclists in the city centre

1.9 The difficulties experienced by cyclists in Liverpool city centre & their reluctance to commute by bicycle have been examined. There are 5 main problems:

- There is lack of facilities provided in & around the city centre to enable cyclists to park their bicycles securely at their destination.

- The complex one way system , without contraflow facilities, poses very significant detours & delays & requires cyclists to weave across multiple traffic lanes.
- The pedestrianised area in the city centre poses a barrier to cyclists forcing them to detour along busy alternative routes.
- There are a number of difficult intersections & links in the existing highway network that pose higher than average traffic danger for cyclist & which act as disincentives to cycling.
- Extensive on street parking in the city centre forces cyclists to pull out into faster moving streams of traffic & restricts visibility for cyclists emerging from junctions.
- Echelon parking (for instance on Hatton Garden & Nelson St) poses a particular hazard as drivers reversing into the carriageway have limited visibility. On street parking also reduces carriageway width available for with flow or contraflow cycle or bus / cycle lanes.
- General traffic congestion (particularly along Renshaw St & Ranelagh St). works are in progress on a new bus station at Queen Square & the impact of this on the traffic levels of surrounding roads is difficult to predict.

1.10 The combination of these 6 problems currently poses very real difficulties for cyclists attempting to cross the city centre north-south or east-west. The proposed city centre routes should help to facilitate cycle movements in all directions. Solutions to the problems associated with these routes & intersections are proposed in this section of the appendix.

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RECOMMENDATIONS

Cycle parking

1.11 Locations suggested for the provision of cycle parking stands in the city centre are listed in Chapter 8 (*of the Main Report*)

One way streets

1.12 The network includes proposals for a number of cycle contraflows on one way streets. These should improve cyclists safety & act as an encouragement measure by providing journey time advantages for cyclists compared to other modes. The 1:2500 plan shows city centre one way restrictions & the proposed cycle contraflows.

1.13 Cycle contraflows on the following streets re considered essential to provide coherent, direct routes for cyclists around the city centre.

- College Lane
- Tithebarn St (between Pall Mall & -Moorfields)
- Water St (between The Strand & Covent Garden)
- Hatton Garden
- Whitechapel
- Moor Place

1.14 These one way streets are wide enough to accommodate a contraflow lane. The lanes should be defined using white painted carriageway markings, but coloured surfacing is not considered necessary: it would add considerably to the cost of installation & provide only small benefits in terms of conformance.

Pedestrianised areas

1.15 Permitting cyclists to use the pedestrianised area would open up very helpful direct traffic free routes. Outside the busiest shopping hours there would be little risk of cyclist/pedestrian conflict. A ban on cycling in the pedestrian area from, say 1000 to 1600hrs Monday to Saturday may well be needed to eliminate conflict whilst allowing cycle commuters use of the pedestrian area outside these hours.

1.16 Segregated cycle lanes in the pedestrian are not recommended. These tend to restrict freedom of movement by cyclists, are rarely observed by pedestrians in busy pedestrian areas, & can thus make safe mixing more difficult. The number of obstructions, both permanent street furniture & temporary obstructions such as fast food vans, also preclude use of segregated lanes.

Difficult intersections & links

Intersections

1.17 Difficult intersections have been identified at the following locations:

- Whitechapel / Crosshall St / Hood St
- Byrom St / Hunter St
- The crossing of Strand St north of Hartley Quay
- Lime St / Copperas Hill / Ranelagh St

1.18 All the above intersections already have at grade pedestrian crossing facilities, with the exception of the junction of Byrom St & Hunter St, where an elevated walkway provides access to the JMU Byrom St campus from the south.

1.19 It is recommended that the crossing facilities are upgraded to Toucans at these locations to allow shared use.

In addition to the required signal head changes, removal of inconveniently sited street furniture or signal poles & provision of flush kerbs & convenient links to & from on-road routes will be needed.

In the short term, cyclists are likely to use the existing Pelicans where this provides time savings or reduces the complexity or perceived danger of conventional crossing manoeuvres.

In the long term the requirement that cyclists dismount to use Pelicans will not give the image that cycling is being taken seriously & would unlikely to be obeyed.

1.20 The elevated walkway at the junction of Byrom St & Hunter St has a ramped access & is currently used by cyclists. It is not convenient & is a significant deterrent to cycling to the JMU Byrom St campus.

1.21 An alternative route to the campus could be developed by converting existing Pelicans to Toucans across Islington (east end of Hunter St), & constructing a cycle link along Christian St to the footway alongside the northern boundary of the campus. A complementary northern link could be provided from St Anne St via Gt Richmond St.

Problem links

1.22 An effective low cost improvement on difficult links with 2 or more lanes in each direction is to move the carriageway markings to widen the nearside lane in each direction (to 4.25m wide if possible). This provides more room for vehicles to overtake cyclists without crossing into the adjacent lane & is particularly helpful for more experienced cyclists. This solution is not always possible, & the section below on city centre routes details alternative measures for specific difficult links.

1.23 Some of the most difficult links have been avoided altogether. There are a number of city centre roads where there are no suitable alternatives; these are currently used by cyclists & a coherent network must provide acceptable standards of safety & attractiveness on these routes:

- Hanover St / Ranelagh St / Gt Charlotte St / Elliott St
- Whitechapel
- Lime St / Renshaw St

1.24 Major works & / or traffic reduction will be needed to make them sufficiently cycle friendly.

On street parking

1.25 Liverpool city centre has a number of long stay car parks but on road short stay parking is still permitted along many central roads. To improve

the city centre environment & to encourage more motorists to use bicycles & public transport, it is recommended that on street parking is limited to disabled parking, permit holders & service vehicles in the central zone (area within & inclusive of The Strand, Hanover St, Lime St & Tithebarn St).

- 1.26 Other restrictions on parking are recommended for the areas between Duke St, Berry St, Renshaw St & Hanover St.

EXIT/ENTRY POINTS

Seacombe Ferry & Woodside Ferry

- 1.27 Cyclists travelling from Seacombe, Wallasey & Egremont can commute to Liverpool using the Seacombe ferry. Cyclists travelling from Birkenhead, Devonshire Park & Claughton can commute to Liverpool using the Woodside ferry.

From the Liverpool landing stage a choice of routes is proposed. To provide access to the central pedestrianised area, a short section of cycle route is recommended along Mann Island, crossing Strand St to reach James St.

A route to the Office quarter is suggested along Water St, Covent Garden, Chapel St & Tithebarn St.

Pall Mall (entry point from RR 1 – the Docks)

- 1.28 From the Docks, cyclists would enter the city via Pall Mall. At Tithebarn St, a short section of southwest bound contraflow is required between Pall Mall & Moorfields. The central shopping areas can then be reached via Moorfields, Dale St & Castle St.

Vauxhall Rd (entry point from RR 2 – Kirkdale)

- 1.29 The Vauxhall Rd route is a direct route from Bootle & Kirkdale. At the city centre the provision of a cycle contraflow on Hatton Garden would enable cyclists to continue south to join Dale St.

St Anne St & Norton St (entry point from RR 3 – Aintree Stn)

- 1.30 St Anne St & Norton St are direct routes for cyclists from the North & continue as a direct cross-city route to Upper Duke St & RR 9

Prescot St & Moss St (entry point from RR 4, 5, 6 – Croxteth, West Derby, Mill Yard)

1.31 Cyclists travelling into the city centre via Moss St from the north & Prescott St from the east have to follow the one way giratory around Daulby St & Pembroke Pl (or Anson St & London Rd when leaving the city centre. Left filters on the giratory create hazards for cyclists continuing straight ahead or turning right; opportunities to modify the junction geometry to increase deflection & reduce speeds should be considered. (low cost measures such as carriageway markings & coloured surfacing could be effective.

1.32 links to the city centre are suggested via:

- Gt Newton St, Brownlow Hill, Ranelagh St
- Pembroke Pl, Seymour St, Lord Nelson St
- Pembroke Pl, Moor Pl, Copperas Hill

1.33 Moor Pl is one way but prohibition of on street parking would allow a **cycle contraflow to be added**. At present it is not possible to continue straight ahead from the east side of Copperas Hill to the west, but it is recommended that cyclists are exempted from this restriction.

Mount Pleasant & Brownlow Hill (entry point from RR 7 & 8 – Finch Ln, Woolton, Mossley Hill)

1.34 Mount Pleasant & Brownlow Hill provide access to the city centre & Ranelagh St. The signalised junction with Renshaw St & Lime St poses a major problem as it becomes congested with traffic queuing to enter Ranelagh St.

The provision of ASLs at the junction would make cyclists more visible, would aid correct lane positioning, & give cyclists a head start over vehicular traffic.

At busy times it may be quicker to dismount & use the pedestrian crossings to reach Ranelagh St.

Upper Duke St (entry point from RR 9 – Speke & Princes Park)

1.35 Upper Duke St provides 2 way entry point past the Anglican cathedral. 3 options exist for access from Upper Duke St to the pedestrianised area:

- Via Duke St & Paradise St
- Via Rodney St, Knight St, Berry St, Seel St, College Ln, ParadiseSt.College Ln would require an eastbound contraflow.
- Via Rodney St, Knight St, Berry St, Renshaw St & Ranelagh St.

Park Ln (entry point from RR 10 – Otterspool)

1.36 Park Ln & Paradise St provide a direct 2 way route to the pedestrianised area & the centre of the network. Park Ln is broad & carries little traffic.

CITY CENTRE CYCLE NETWORK

Introduction

1.37 A Millenium Route link to the Cycle Centre, 6 interlocking routes & other linking routes comprise the proposed network & give access to major journey attractors in the city centre. In contrast with radial routes, the city centre routes link different nodal points & may not be the most direct route between the outer ends of the route.

In addition the city centre one way system has meant that routes use different roads depending on the direction of the cyclist.

1.38 The proposed city centre network is denser than the city wide network due to the compactness of the city centre & the concentration of major journey attractors.

1.39 Recommendations for improvement include ASLs at all signalled junctions, major works at a number of junctions, combined bus/cycle lanes, contraflow lanes & parking restrictions.

1.40 New cycle parking sites are shown on the 1:2500 plan.

Millenium Route: Riverside Promenade to Berry St Cycle Centre

Route (both directions): Riverside Promenade, Queens Wharf, Blundell St, St James St, Nelson St, Gt George St, Berry St.

Queens Wharf

1.41 The route leaves the Promenade at Queens Wharf which is a new road giving access to development land & commercial premises near Queens Wharf. Traffic flows are very low but may increase in the future. There are 2 new roundabouts which may be problematic for cyclists should traffic levels increase. Queens wharf links with Albert Dock via Riverside Walk & Kings Parade.

1.42 Improve access to Riverside Walk by provision of ASLs *at the Riverside Walk / Chaloner St crossroads?? Surely he means Queens Wharf/Chaloner St?*

Blundell St

1.43 a quiet, wide road running uphill to Jamaica St & continuing as a short section between Jamaica St & St James St.

St James St

1.44 Traffic flows are low & visibility is good. It is therefore feasible , even for unaccompanied 12-year olds, to turn right out of Blundell St to reach Nelson St.

1.45 Use of Nelson St south of St James St, as an alternative to Blundell St, would avoid this right turn. Unfortunately this is not possible owing to the closure (with railings) of the southern part of Nelson St.

Nelson St

1.46 The north section is currently being redeveloped (City Challenge Project) as a one way (south west bound) road with parking bays for adjacent Chinese restaurants. New lighting is being installed. Traffic on Nelson St must give way to traffic on Grenville St. *South* of Grenville St Nelson St becomes 2 way, but there is a road closure at Upper Pitt St.

1.47 Although not ideal for cycle use, Nelson St is considered more direct the other alternatives if a contraflow is added on the one way section. The other alternative, Cornwallis St, is cobbled, bordered by derelict buildings & closed beyond Grenville St.

At Nelson St/Pitt St a cycle cut through with flush kerbs would need to be introduced across the closure.

Gt George St

1.48 The route uses Gt George St for a short distance from Nelson St to the crossroads with Duke St & Berry St.

1.49 Consider provision of a Toucan south of the T junction with Nelson St for south west bound cyclists turning Right from Gt George St to Nelson St.

Considerable space on the south corner plot at Upper Duke St/Gt George St offers the possibility of a cycle track to cut the corner from the proposed Toucan to reach Upper Duke St.

Berry St ([link to Cycle Centre](#))

1.50 A busy road through the Chinese quarter, Berry St has recently undergone mJOR street works with new parking bays, paving & lighting.

1.51 Install ASLs on all arms of the Berry St / Duke St / Gt George St junction

1.52 This spur of the Millenium Route can be continued to link up with the university areas, by using either Duke St or Knight St to reach Rodney St & then following Rodney St to Mount Pleasant & Clarence St to Brownlow Hill.

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City Centre Route: JMU Byrom St Campus to Cathedral Gate

Route: Byrom Way path, Christian St Hunter St, St Anne St, Norton St, Seymour St, Russell St, Clarence St, Rodney St, Cathedral Gate.

- 1.53 This route is an extremely useful north – south cross city route avoiding some of the busier more central area & without major changes in gradient. It provides links to RR 3,4,5,6,7,8,9. It would benefit students & staff at both universities & in particular those at JMU as it links the Byrom St campus to other sites on Rodney St & Cathedral Gate.

For those who have to travel between the sites the cycle route could potentially provide a faster alternative than using other modes of transport.

- 1.54 For these reasons it is suggested that this route receives priority in implementation.

Byrom Way Path

- 1.55 Access to JMU Byrom St campus is currently extremely difficult by bicycle, particularly as the main entrances are located on fast dual carriageways.

- 1.56 Unless a new access point is opened onto Christian St, it is recommended that cyclists are allowed shared use of the path which runs alongside the Northern boundary of the campus, giving access to the University from Byrom Way. This may require widening of the path.

Christian St

- 1.57 A recently developed residential area, Christian St is a quiet road which is closed to through traffic at its southern end. To the north it links with RR 3 via Gt Richmond St.

- 1.58 Provide a cycle route through the road closure / pedestrianised area at the south end of Christian St.

Hunter St

- 1.59 A fast dual carriageway. Hunter St is not considered suitable as a cycle route.

- 1.60 Provide a cycle path on the footway (or across wide verges) parallel with the north side of Hunter St between Christian St & St Anne St.

St Anne St

- 1.61 Forming part of RR 3 to Aintree station, this is a busy dual carriageway.

- 1.62 Convert existing Pelicans on St Anne St to Toucans to link with Hunter St cycle path & to enable cyclists to continue south.

Provide ASLs at crossroads of St Anne St / Hunter St / New Islington & at St Anne St / Hunter St / Islington / Norton St.

Norton St

- 1.63 A narrow (?) dual carriageway with the Coach Station on the west side.

- 1.64 If sufficient space, provide ASLs on crossroads of St Anne St / Hunter St / Islington / Norton St & Norton St / London Rd / Pembroke Pl / Seymour St / St Vincent St.

Seymour St / St Vincent St.

- 1.65 Cyclists heading north would follow the one way system from Russell St along St Vincent St, which narrows as the road descends towards the junction. There are double yellow lines on St Vincent St.

Cyclists heading south would use the one way Seymour St which becomes Russell St. Seymour St has moderate traffic flows, is wider & has on street parking. The gradient climbs from the junction with Norton St.

There is a link to the side entrance of Lime St Station along Lord Nelson St, & this connects with both St Vincent St & Seymour St.

- 1.66 Introduce parking restrictions on Seymour St.

Russell St / Clarence St

- 1.67 These are straight two way roads with some parking restrictions. There are signalised junctions with Brownlow Hill & Mount Pleasant.

- 1.68 Provide ASLs on all arms of crossroads.

Rodney St

- 1.69 Rodney St is an attractive Georgian street with on street parking. It is part of a Conservation Area. There are signalised crossroads (with no pedestrian phases) at the junction with (*Upper*) Duke St which is set on a gradient.

- 1.70 Install ASLs on all arms of (*Upper*) Duke St crossroads.

Cathedral Gate

1.71 There is no through access from Cathedral Gate to Upper Parliament St for vehicles, but there is a pedestrian through route during daylight hours. New university accommodation (JMU) has recently been developed at University Gate (*route used by cyclists*)

1.72 Provide cycle parking outside the cathedral & secure covered parking for university accommodation.

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City Centre Route: Promenade to Pall Mall via Albert Dock & Pier Head.

Route – Promenade to Pall Mall: Promenade (south end) Water St, Covent Garden, Chapel St/Tithebarn St, Pall Mall.

Route – Pall Mall to Promenade: Pall Mall, Tithebarn St, Moorfields, Dale St, Water St, Promenade.

The Promenade

1.73 The Promenade has a rough riding surface but is otherwise fine for cycling & links the Albert Dock area to the Royal Liver & Cunard Buildings & Pier Head. Appropriate signing will be needed to prevent conflict with pedestrians on the footbridge near the Museum of Liverpool Life.

At Pier Head the Promenade opens out into a large pedestrianised square, from where the route continues along Water St. The latter is a two way cul-de-sac with parking along both sides & very little traffic.

1.74 Cycle parking (as described in earlier sections) is recommended at various locations along the waterfront.

Junction of Water St & The Strand

1.75 Crossing The Strand presents major problems. The Strand is a busy multi lane road with signalised crossroads at the junction with Water St. Water St on the east side of the junction is one way west bound. The pedestrian crossing on the south side of the junction is wide enough for combined pedestrian & cycle use.

1.76 2 options are proposed:

From Pier Head cyclists could either use the existing pedestrian crossing & then cross Water St to a cycle contraflow,

or, as a better solution, a new Toucan should be installed on the North side of the crossroads to link with the cycle contraflow.

From the city centre cyclists could either use the existing pedestrian crossing or remain on road straight across the junction.

Water St

1.77 Water St on the east side of the Strand junction is a 3 lane, one way street with some on street parking on the North side.

1.78 Provide an eastbound cycle contraflow between the Strand & Covent Garden (& examine the possibility of extending this further).

Remove on street parking & reduce from 3 lanes to 2 all purpose lanes plus a westbound combined bus / cycle lane.

Covent Garden (northbound only)

1.79 Covent Garden is currently one way northbound & is narrow (less than 7m) with parking on its west side. At the T junction with Chapel St cyclists must cross 3 lanes of traffic, but this is not too problematic as traffic moves in one direction & there are gaps in the traffic.

1.80 Restrict parking on Covent Garden.

Chapel St & Tithebarn St

1.81 One way eastbound with 3 –4 lanes & some parking bays.

1.82 Provide a combined bus / cycle lane eastbound

& remove one all purpose traffic lane to add a cycle contraflow westbound between Pall Mall & Moorfields.

At the T junction of Pall Mall provide a crossing facility to allow cyclists to turn right from Pall Mall to the proposed contraflow on Tithebarn St.

Moorfields (southbound only)

1.83 One way southbound with on street parking & is quite wide. At the T junction with Dale St visibility is good.

Pall Mall

1.84 Pall Mall between Leeds St & Tithebarn St is a wide 2 way road with a signal controlled junction at Leeds St. Beyond Leeds St pall Mall passes through an industrial area & becomes a very wide road with parked cars along both sides. Most traffic seems to be local accessing the industrial premises, but does include some HGVs

- 1.85 It is possible to link RR 2 by continuing north along Pall Mall & Love Ln, & using the pedestrian cut through to Burlington St to link with Vauxhall Rd.

RR 1 is reached via Whitley St & Carlton St.

- 1.86 Install formal parking bays along Pall Mall.

Provide ASLs at junction with Leeds St.

Dale St (westbound only)

- 1.87 Dale St is one way westbound & continues as Water St beyond the T-junction with Castle St. It is used as a bus route & has 3 lanes.

- 1.88 Provide a combined bus / cycle lane westbound.

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City Centre Route: Park Ln to Vauxhall Rd via Lord St & Town Hall

Route from Park Ln to Vauxhall Rd: Park Ln, Paradise St, Custom House Ln, Sth John St, North John St, Dale St, Covent Garden, Chapel St/Tithebarn St, Vauxhall Rd.

Route from Vauxhall Rd to Park Ln : Vauxhall Rd, Hatton Garden, Dale St, Castle St, Derby Sq, path to Sth John St, Custom House Ln, Paradise St, Park Ln.

- 1.89 this north-south route links at its southern end with RR 10 to Otterspool, & at its North end with RR 2 to Kirkdale. Choice of the exact route needs to be considered in the context of the new bus station development.

- 1.90 A more direct route between Park Ln & Vauxhall Rd would use Whitechapel (with a cycle contraflow) , Manchester St & Hatton Gdn.

Park Ln / Paradise St

- 1.91 Visibility is good at the junction of Park Ln & Paradise St. Paradise St provides a quiet link to Hanover St. There is a new complex junction layout & phasing at the signal controlled junction at Hanover St.

There is no Right turn from Paradise St onto Hanover St.

- 1.92 Mark or build a Right turn refuge for cyclists turning from Park Ln to Paradise St.

Provide ASLs at junction of Paradise St & Hanover St.

Paradise St (Hanover St to Whitechapel)

1.93 This 2 way section is a no through road for motor vehicles but is heavily used by buses. Cyclists continuing North to Whitechapel may be at risk because all buses are turning Left into the bus station.

1.94 Provide a 1.5m wide Right turning lane to enable cyclists to reach the pedestrian refuge between the bus station & School Ln, & thereby enter the pedestrianised area.

Custom House Ln

1.95 Narrow lane, closed to traffic at the Paradise St end

1.96 Convert to a 2 way, cycles only cut through.

South John St (Canning Place to bus station)

1.97 This section is closed to traffic but is not formally pedestrianised. There is therefore scope to accommodate works for cyclists. Sth John St links with the route to Albert Dock

1.98 Allow free mixing (*shared use*) of cyclists & pedestrians.

South John St (bus station to Lord St)

1.99 A 2 way bus only route (*not bus only – general traffic has access to Cable St*) with signals at the Lord St crossroads.

1.100 Provide a cycle lane (northbound) to feed into an ASL at the signals.

North John St (northbound only)

1.101 One way (northbound) with some on street parking.

Dale St (see Promenade – Pall Mall route 1.73 – 1.88)

1.102 From Dale St there is a short cut to Tithebarn St via Hackins Hey, a narrow back street.

Covent Garden (northbound only) , Tithebarn St (see Promenade – Pall Mall route 1.73 – 1.88).

Junction of Tithebarn St, Vauxhall Rd, Hatton Gdn

1.103 A signalled crossroads with a pedestrian crossing on the west side of Tithebarn St. Hatton Garden is one way northbound.

- 1.104 Install ASLs on all arms & allow Southbound cyclists to continue straight ahead (*into Hatton Garden*)

Vauxhall Rd (Leeds St to Tithebarn St)

- 1.105 Wide 2 way road

Junction of Vauxhall Rd & Leeds St

- 1.106 Signalised crossroads
- 1.107 Install ASLs.

Vauxhall Rd

- 1.108 Moderate traffic flows, potential speed problems, parking restrictions.

Hatton Garden

- 1.109 A 3 lane one way northbound carriageway
- 1.110 Add a southbound contraflow & reduce from 3 to 2 all purpose lanes. Remove echelon parking bays on the east side to make room for the cycle contraflow.

Junction of Hatton Garden & Dale St

- 1.111 A T junction with a right turn slip from Dale St into Hatton Garden. The junction of the elevated road & Dale St is signalised.
- 1.112 Provide a fully signalised crossroads with a phase to allow north-south cycle movements, thereby linking the proposed contraflow on Hatton Garden to the proposed contraflow on Manchester St & the south side of Dale St.

Provide a link to Lime St Station via Manchester St & William Brown St including a Toucan crossing.

Junction of Dale St & Castle St

- 1.113 Priority T junction

Castle St

- 1.114 Castle St is 2 way with on street parking & has a number of side roads.
- 1.115 Prohibit all on street parking.

Junction of Castle St, James St & Lord St (Derby Sq)

1.116 Provide cycle parking at Derby Sq

Install ASLson all arms of Derby Sq junction

& a new cycle –only arm from Derby Sq (2 way)

Footpath from Derby Sq to South John St

1.117 A newly laid wide brick path links the west end of Canning Place & South John St to Derby Sq. Although there could be some conflict with pedestrians, this path provides a very useful direct & comfortable route for cyclists between journey attractors. The path has a smooth brick surface, is well lit & has no steps.

1.118 Allow shared use of footpath.

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City Centre Route: Albert Dock to Lime St Station via Derby Sq (*note this shares a common section with Mt Pleasant to Town Hall*)

Route Albert Dock to Lime St Station: Salthouse Quay/Hartley Quay, Canning Pl, footpath to Derby Sq, Castle St, Cook St, Victoria St, William Brown St, Lord Nelson St.

Route Lime St Station to Albert Dock: Lord Nelson St, William Brown St, Manchester St, Dale St, Castle St, Derby Sq, footpath to Canning Pl, Hartley Quay / Salthouse Quay

1.119 Albert Dock to Lime St Station route is not the most direct option but it avoids the busiest city centre roads & the pedestrianised area.

Other possible routes that are more direct & recommended for use outside the busiest shopping hours are:

- Canning Pl, Hanover St, Ranelagh St
- Whitechapel pedestrian area (except between 1000 & 1600 hrs) & Whitechapel (with cycle contraflow)

Albert Dock

1.120 Albert Dock has become an important centre for cultural life in Liverpool with the dockland warehouses renovated & converted to galleries & museums. It also attracts tourists from further afield.

At present it is accessible by car from Strand St, & there is a Pelican crossing.

Salthouse Quay is a traffic calmed road with a raised pedestrian crossing.

1.121 Provide cycle parking outside Albert Dock attractions.

Direct cyclists onto the pedestrian crossing at Canning Place & upgrade to a Toucan

Canning Pl / Derby Sq footpath & Castle St (see Park Ln – Vauxhall Rd route)

Cook St , Victoria St (eastbound only)

1.122 Eastbound only with 3 lanes & on street parking. Crossroads at North John St, Stanley St & Sir Thomas St are signalised.

1.123 Restrict car parking

Provide ASLs at crossroads

Convert the Pelican between Manchester St & St Johns Ln to a Toucan

William Brown St

1.124 William Brown St is closed to through traffic, but is used for a small amount of car parking. There are traffic signals at the junction with Lime St. Surface is rough block paving. The rough surface & steps may make it uncomfortable for cyclists but it is a useful short cut & gives access to St Georges Hall, Central Library, Walker Art Gallery & Liverpool Museum.

1.125 Provide flush kerbs or provide ramps where there are steps & kerbs.

Consider a Toucan across Lime St opposite Lord Nelson St.

Lord Nelson St

1.126 Lord Nelson St is a 2 way road extensively used by taxis but also giving useful at grade access for cyclists to the side entrance of Lime St Station. There is no right turn onto Lime St from Lord Nelson St.

1.127 Install a Toucan between St Georges Hall & Lord Nelson St.

Provide cycle parking at the north entrance to Lime St Station (in the covered area if possible).

Manchester St

1.128 Manchester St is a wide one way street (northbound) with low traffic levels. It provides access to a small car park.

1.129 Provide a cycle contraflow lane.

Junction of Hatton Garden & Dale St (see Park Ln – Vauxhall Rd route 1.89 – 1.118)

Dale St (westbound) (see Promenade – Pall Mall route 1.73 – 1.88)

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City Centre Route: Mount Pleasant / Brownlow Hill to Town Hall via Lime St Station . (note this shares a common section with Albert Dock – Lime St Station route)

Route: Mount Pleasant to Town Hall: Mount Pleasant, Clarence St, Russell St, St Vincent St, Lord Nelson St, William Brown St, Manchester St, Dale St.

Route: Town Hall to Mount Pleasant: Castle St, Cook St, Victoria St, William Brown St, Lord Nelson St, Seymour St, Russell St, Clarence St, Mount Pleasant

1.130 For cyclists travelling east- west across the northern parts of the city centre there are a number of problems which prevent easy access.

These include the one way systems, fast dualled roads with elevated sections, & other physical barriers such as the St Johns Precinct.

Brownlow Hill

1.131 Brownlow Hill is a wide road through the LU campus. It is possible to provide a link to Grinfield St via Smithdown Lane (also a quiet wide road). There is a signalled T junction between Mount Pleasant & Brownlow Hill & a signal controlled crossroads at the BrownLow Hill / Rodney St junction.

1.132 It is possible to continue down Brownlow Hill towards the city centre but major changes would be needed at the junction with Lime St & Renshaw St to make it cycle friendly.

There are signals immediately before Brownlow Hill & Mount Pleasant merge.

Clarence St, Russell St , Seymour St, St Vincent St (see Cathedral Gate- Byrom St Campus route 1.53 – 1.72)

Lord Nelson St, William Brown St, Manchester St, Castle St, Cook St, Victoria St (see Albert Dock – Lime St Station route 1.119 – 1.129)

Dale St (westbound) (see Promenade – Pall Mall route 1.73 – 1.88)

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City Centre Route: Pier Head to Berry St via Lord St

Route (both directions): Mann Island, James St, Lord St, Whitechapel, Paradise St, College Lane, Seel St, Berry St.

Mann Island

1.133 This is a 2 way road used by local traffic & buses. Mann Island / Strand St . James St is a signalised crossroads. Traffic is very heavy and crossing the 5 lanes on the A5036 (*Strand/Strand St*) is a daunting prospect even for the experienced cyclist. There are pedestrian crossings on all sides.

1.134 Allow cyclists the option to remain on road or use pedestrian crossings.

James St

1.135 A 2 way street heavily used by buses, with several bus stops. Signalled crossroads at James St / Castle St / Lord St junction.

1.136 Prohibit access on James St except for buses, cycles & taxis, or provide bus / cycle lanes.

Provide ASLs on all arms of the junction with Castle St & Lord St
& a new cycle only arm from Derby Square.

Lord St (Derby Sq to South John St)

1.137 This section of Lord St is 2 way. Signal controlled crossroads at the Lord St / South John St junction.

Lord St & Whitechapel pedestrian area

1.138 This area is only suitable for cycling when pedestrian flows are at their lowest i.e. before 10am & after 4pm.

College Ln (alternatively use School Ln)

1.139 School Ln is a narrow back street (one way westbound), bordered by high buildings giving rise to a possible social safety problem.

On street parking is prohibited at certain times.

College Ln is closed at its West end, there are a number of accesses to business premises & on street parking.

1.140 Both School Ln & College Ln cross Hanover St. Traffic on Hanover St is very congested & slow moving, a crossing facility would enable cyclists & pedestrians to be more visible & cross more easily.

1.141 If College Ln is used consider prohibiting parking to enable provision of a cycle contraflow.

Provide a cycle only route through the road closure at the west end.

If School Ln is preferred, restrict on street parking & if there is sufficient width add a cycle contraflow.

Seel St

1.142 Seel St passes through an area of small commercial industrial premises. Shoppers as well as workers account for the high level of on street parking.

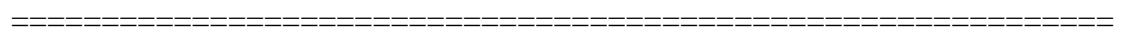
Seel St is 2 way & is wider than parallel alternatives, although there are a number of closely spaced junctions. It meets Berry St at a priority T junction.

1.143 Restrain parking especially near junctions (consider permits for users of local premises).

Consider traffic calming measures.

Berry St

1.144 The narrow Roscoe Lane provides access to the back of the Cycle Centre



Other links in the city centre route network

Knights St

1.145 Knights St provides a link to Rodney St. 2 way with on street parking.

Duke St / Upper Duke St

1.146 Duke St & Upper Duke St are a useful continuation of RR 9 into the city centre.

Hawke St, Bolton St, Copperas Hill, Skelhorne St

1.147 These streets around the south end of Lime St Station give access from Brownlow Hill & Russell St to the station south entrance. (Skelhorne St is one way eastbound).

Copperas Hill / Moor Pl / Monument Pl

1.148 This is the city centre end of RR 5 & 6 out along London Rd / Prescott St.

1.149 Moor Pl is one way northbound & would require a cycle contraflow (*started but never finished*) & **ban of on street parking**.

Gt Newton St

1.150 Gt Newton St connects RR 7 & 8 along Brownlow Hill and RR 5 & 6 along London Rd / Prescott St.

Other possible links in the city centre route network (These links are not shown on the 1:2500 plan)

Sir Thomas St (southbound only)

1.151 Although well used by buses & now with new bus bays, Sir Thomas St could be a useful southbound only link between Dale St, Victoria St & Whitechapel.

Hope St / Mount Pleasant

1.152 The high level of cycle use of Hope St south of Upper Duke St would suggest a continuation of this route north to Brownlow Hill & the University sites.

2.0 RADIAL ROUTES

2.1 Ten radial routes have been identified which fulfil a through route function in the network hierarchy. These are described below. The routes are numbered 1 to 10 clockwise from north to south. Approximate route lengths are given, measured from the perimeter of the city centre inset map.

Radial Route 1: City Centre North West to Liverpool Docks

Route: Pall Mall, Whitley St, Carlton St, Regent Rd. (Approximate route length = 3km)

2.2 The A5036 Regent Rd is a fast direct route used by heavy vehicles to and from the docks and adjacent industrial area. At present it is used as a through route from Liverpool to Bootle but changes at the north end may restrict traffic flows.

2.3 General recommendations:

- Cycle route signing
- Reduce traffic speeds on Regent Rd and consider cycle lanes (sufficient width).

2.4 Specific recommendations:

- Clarify priority and improve road markings at the Pall Mall / Chadwick St crossroads.

Radial Route 2: City Centre North to Kirkdale

Route: Vauxhall Rd, Commercial Rd, Melrose Rd, Brewster St. (Approximate route length = 3km)

2.5 This route links the city centre to the docks, Kirkdale & Bootle. It uses a direct through road which has recently been downgraded. There is the potential of adding cycle lanes and installing ASLs at all signalised junctions. It passes through recently developed areas including the Eldonian Village residential area and Canalside Park.

2.6 General recommendations:

- Cycle route signing
- ASLs at all signalised junctions
- Cycle lanes in both directions on the A5038

2.7 Specific recommendations:

- Vauxhall Rd (Burlington St to Boundary St): Improve existing cycle path through regular maintenance, markings & providing signs where it crosses minor roads, Install flush kerbs where it crosses other accesses and/or mark a cycle lane on the road.
- Commercial Rd: reduce to one lane in each direction, restrict on-street parking & provide cycle lanes – this may also allow for widening of the footways.
- Melrose Rd (Stanley St to Westminster Rd): if possible remove or lower the high wall on the south-west corner which affects visibility. Restrict parking & provide cycle lanes.

Radial Route 3: City Centre North to Aintree Station

Route: Lord Nelson St, St Vincent St, Seymour St, Norton St, St Anne St, Gt Homer St, Smith St, Westminster Rd, Barlow Ln, County Rd, Makin St, Imison Way, Stuart Rd, Hornby Rd, Rice Ln, Walton Vale, Warbreck Moor. (Approximate route length = 7km)

2.8 This route from Lime St Station continues to the northern boundary of the City of Liverpool. It links with the National Express Coach Station on Norton St, Gt Homer St shopping area, Everton Park Sports Centre, Walton Prison and the suburban railway stations of Walton & Rice Lane. Some one way streets are used near the city centre but cyclists do not have to make a detour and a cycle contraflow was considered unnecessary. From the city centre the cycle route uses main roads which run parallel to the very busy A59, eventually joining it at Barlow Ln. From the A59 (County Rd) the use of Makin St, Imison St, & Stuart Rd gives a lightly trafficked route to Walton Prison.

2.9 Area-wide traffic calming is recommended for the A59 through Walton Vale. As there are no other suitable alternative routes north, this road is the only option for cyclists to use. At present, there are a number of hazards for cyclists including abrupt changes in carriageway width, narrow lanes, closely spaced T-junctions, on-street parking by service vehicles and left filters at junctions. Footway conversion is not an option due to restricted space and the large number of pedestrians. Traffic calming the A59 through Walton Vale shopping centre would have safety and environmental benefits for all road users.

Alternative routes

2.10 There is a possible alternative from Barlow Lane & Stuart Rd via Chirkdale St, Delamore St, Carisbrooke Rd & Bedford Rd.

2.11 From Rice Ln to Warbreck Rd there is a possible day-time only alternative route via Orrell Ln, Warbreck Rd, Montgomery Rd, Bull Ln, bridge over the Loop Line, a section of footpath, bridge over Aintree railway line, Helsby Rd. This avoids the daytime congestion around the Walton Vale shopping centre and junction with Longmoor Lane.

2.12 General recommendations:

- Cycle route signing
- ASLs at all signalised junctions
- Area-wide traffic calming on & around A59 Walton Vale.

2.13 Specific recommendations:

- **Parking restrictions on Seymour St**
- Cycle lanes on both sides of St Anne St
- St Anne St: the 2-lane dual carriageway section between London Rd & Dryden St is likely to be intimidating to inexperienced cyclists, particularly the split-level section and the fast sweeping bends between Richmond Row & Dryden St. Moving the lane markings to give additional width to the nearside lane on each carriageway will help to give additional space

for faster vehicles to overtake cyclists. Speed camera enforcement of the 30mph speed limit will also be important.

- Great Homer St: north of Dryden St, cycle lanes on the carriageway would be helpful here. The use of white painted hatching where the carriageway narrows near Dryden St will help cyclists feeling squeezed on the approach to this pinch point.
- Consider treatment of the narrow section of Westminster Rd
- Use of County Rd, at least between Barlow Ln & Makin St is recommended if a bus/cycle lane (preferably 24-hour) is provided in both directions. This will require modification of some of the central pedestrian refuges. (An alternative quieter route uses Chirkdale St, Delamore St, Carisbrooke Rd, Bellamy Rd & Bedford Rd to reach Makin St, part of which is a 20mph zone).
- Makin St to Imison St: upgrading of the Pelican Crossing of the A5057 Breeze Hill to a Toucan Crossing with flush kerbs is desirable.
- Provision of a break in the road closure on Stuart Rd (south end)
- Provide a cycle cut-through in the central reservation of A5098 Hornby Rd at the north end of Stuart Rd
- Install on-carriageway cycle lanes on Hornby Rd

Radial Route 4: City Centre North to Croxteth

Route: Moss St, Shaw St, Brow Side, Village St, Everton Rd, Breck Rd, Oakfield Rd, Wylva Rd, Arkles Rd, Arkles Ln, Utting Ave, Utting Ave East, Storrington Ave, Altcross Rd. (Approximate route length = 8 km)

2.14 Linking the city centre to Everton & Anfield this route uses Shaw St from the city centre and climbs the Everton incline using Brow Side & Village St which are closed to through traffic. Breck Rd & Oakfield Rd provide a route to Utting Ave which then provides a direct route between Anfield & Croxteth.

2.15 Utting Ave is a 2-lane dual carriageway for most of its length with signalised junctions, but there are some pinch points and problem junctions. These include the narrowing under the railway bridge and the double roundabout under the Loop Line (the latter being one of the accident cluster sites). The very small number of breaks in the central reservation creates problems for cyclists trying to cross the central reservation to access minor roads perpendicular to Utting Ave. There is some on-street parking on parts of Utting Ave but this is not considered a major problem.

2.16 Journey attractors on or near Utting Ave include the Anfield football stadium, Anfield Community Comprehensive School, Asda superstore east of the junction with Queens Drive, Broadway shopping centre and the parade of shops on Moss Way, and Croxteth, where the route ends.

2.17 From Breck Rd the potential exists for a cycle route continuing along Townsend Ln. This route is narrow and intimidating in the shopping area between Oakfield Rd & Walton Breck Rd.

If the City's proposed bus/cycle lanes are developed, these would make Townsend Ln a much more attractive cycle route option.

2.18 General recommendations:

- ASLs at all signalised junctions
- Minimise on-street parking through greater restrictions and enforcement.
- Consider providing cycle-only routes across the central reservation opposite minor roads.

2.19 Specific recommendations:

- Consider alternate one-way working (signalised) at pinch point of Utting Ave under railway bridge, or provide shared cycle and pedestrian use of the footway.
- Consider signalised junctions with Richard Kelly Drive and Stanley Park Avenue South.
- Treatment of double roundabout at Broadway – consider signalisation or cycle links on footways.

Radial Route 5: City Centre North East to West Derby

Route: Copperas Hill (east section), Moor Place, London Rd, Prescot St, Kensington, Farnworth St, Boaler St, Gardners Dr, Lister Dr, Moscow Dr, *Russian Dr*, Quarry Rd, Sandforth Dr, Eaton Rd, Marlfield Rd, Town Row, Melwood Dr, Deysbrook Ln. . (Approximate route length = 7 km)

2.20 This route shares a common section with Radial Route 6 on Prescot Rd near the City Centre, but then leaves the A57 to use lightly trafficked roads through residential areas to reach West Derby. On-street parking on Prescot St is a common problem. The route needs to be well signed as a number of minor roads are used.

2.21 General recommendations:

- Provide Cycle route signing & ASLs at all signalised junctions.
- Minimise on street parking through more widespread restrictions & enforcement.
- Extend the combined bus cycle lanes on the A57 where possible

2.22 Specific recommendations:

- Consider traffic calming on Farnworth St
- Consider improving the crossing between Quarry Rd & Sandforth Dr (currently there is a simple break in the central reservation of the Queens Drive dual carriageway)
- Consider traffic calming on Eaton Rd & Town Row to make it safer for cyclists to turn onto & off these roads
- Introduce speed controls (cameras) on Melwood Drive

Radial Route 6: City Centre North East to Mill Yard.

Route: Copperas Hill (east section), Moor Place, London Rd, Prescott St, Kensington, Prescott Rd, Green Ln, Sandstone Rd, Acanthus Rd, The Beechwalk, Chatterton Rd, Alder Rd, Eaton Rd, Honeys Green Ln, Yew Tree Ln, Mab Ln. (Approximate route length = 7 km)

2.23 This is a direct east-west route using the A57 to Stanley & quieter roads beyond. All major junctions on the A57 are signalised & it is recommended that ASLs are provided. There are already bus lanes on some sections and these could be continued as combined bus cycle lanes, with complimentary parking restrictions for other sections of the route.

2.24 The route provides links to the Royal Liverpool Hospital and Dental Hospital and the Royal Liverpool Childrens Hospital. It also passes the Stanley Industrial Estate and two secondary schools on Honeys Green Lane.

2.25

General recommendations:

- Cycle route signing
- ASLs at all signalised junctions.
- Minimise on street parking through more widespread restrictions & enforcement.
- Extend combined bus cycle lanes throughout the length of the A57.

2.26 Specific recommendations:

- Copperas Hill junction with Seymour St: alter the junction to enable cyclists approaching from the east to go straight ahead from Copperas Hill.
- Consider a Toucan crossing across Pembroke Place between Moor Place & London Rd pedestrianised area.
- Consider redesigning the junction of London Rd, Moss St, Daulby St & Prescott St to enable cyclists from Prescott St east to continue west (this scheme would also require a cycle contraflow on London Rd)
- Use parking restrictions / parking bays on Green Ln
- Consider provision of a right turning refuge on Green Ln opposite Sandstone Rd
- Provide a cycle only route through the road closure between Sandstone Rd West & Sandstone Rd East
- Improve parking bays / chicanes on Sandstone Rd East
- Limit on street parking on Derby Rd around closely spaced T-junctions.
- Provide a crossing facility from Acanthus Rd (across Queens Drive dual carriageway to The Beechwalk)
- Improve the unsignalised crossroads junction of Alder Ln & Eaton Rd by signalising or traffic calming Eaton Rd and optionally constructing a table top junction.
- Consider improvements to the junction layout at Alder Ln Blackmoor Rd Honeys Green Ln Yew Tree Ln unsignalised crossroads.

Radial Route 7: City Centre East to Finch Ln

Route: Mount Pleasant, Oxford St, Abercromby Sq, Oxford St East, Grinfield St, Chatham Pl, Harbord St, Wavertree Rd, Leigh St, Wavertree Boulevard, Dryden Rd, Pighue Ln, Charlton Rd,

Gourley Rd, Statton Rd, The Green, Thomas Dr, Thingwall Hall Dr, Campbell Dr, Dovecot Ave, Finch Ln. (Approximate route length = 7 km)

2.27 Following the same route between the city centre and Edge Hill as route 8A , this route links up with the recently developed Wavertree Technology Park. It benefits from using quiet access roads through the Technology Park, although personal safety may be perceived as a problem here after dark when buildings are empty. The route then follows Pighue Ln and requires a crossing facility to avoid the hazardous roundabout on Rathbone Rd. Alternatively cyclists can use Binns Rd for this section which links to the multi-screen cinema and has a signalised junction with Rathbone Rd

2.28 The route then continues to Broadgreen Hospital and the Loop Line at the city boundary. However, it is necessary to use the ramped subway under the Queens Drive flyover and adjoining section of footway. Beyond Thomas Drive the route passes through part of the Knowsley District before reentering Liverpool at Dovecot Ave. These are mostly quiet residential roads with a local shopping centre at the crossroads with Prescott Rd.

2.29

General recommendations:

- Cycle route signing
- ASLs at all signalised junctions.
- Minimise on street parking through more widespread restrictions & enforcement.

2.30

Specific recommendations:

- Traffic calm Leigh St, Wavertree Boulevard & Pighue Ln (west of Rathbone Rd roundabout)
- Formalise shared facilities for cyclists and pedestrians at the crossing on the north side of the Rathbone Rd roundabout
- Provide a right turning facility for cyclists from Pighue Ln (east of the Rathbone Rd roundabout) onto the refuge to link with the formal crossing
- Provide a cycle contraflow (westbound) on Charlton Rd
- Upgrade the existing Pelican crossing across Edge Lane Drive (between Statton Rd & The Green) to a Toucan crossing
- Provide links on the footway between the Edge Ln Drive Pelican crossing and The Green
- Allow cycle use of subway under Queens Drive flyover.
- Provide facility for cyclists to turn right from Thomas Drive to link with the subway on the north side
- Consider traffic calming on Finch Ln, particularly in the vicinity of the junction with Finch Rd

Radial Route 8A: City Centre East to Woolton

Route: Mount Pleasant, Oxford St, Abercromby Sq, Oxford St East, Smithdown Ln, Upper Parliament St, Darrel Rd, Smithdown Rd (westwards), Earle Rd, Lawrence Rd, Wellington Rd, Wavertree Park, Fir Ln, Woolton Rd. (Approximate route length = 7 km)

2.31 This route links the City Centre and Liverpool University precinct to Edge Hill, Wavertree Park, Woolton and the Millenium Route. It also passes the Blue Coat Secondary School, Christs College & St Katherines College. There is a steep uphill section from the city centre but the route provides a direct alternative to other parallel routes which have greater traffic volumes. Traffic calming is needed for the section along Earle Rd & Lawrence Rd (Wavertree). Woolton Rd provides an excellent direct through route.

2.32 General recommendations:

- Cycle route signing
- ASLs at all signalised junctions.
- Minimise on street parking through more widespread restrictions & enforcement.

2.33 Specific recommendations:

- Allow cycle use of the pedestrianised section of Smithdown Lane (just north of Upper Parliament St) where there is ample space for both pedestrians and cyclists.
- Provide a Toucan Crossing or other crossing facilities for cyclists turning right from Upper Parliament St onto Smithdown Ln
- Provide a facility to enable cyclists to turn right from Darrel Rd onto Smithdown Rd
- Lawrence Rd: exclude cyclists from the no entry (for westbound traffic) located immediately west of Salisbury Rd. Traffic calm to 20mph. Consider closure of Lawrence Rd (or selected no entry sections (with exemptions for cyclists) to through traffic (diverting traffic away to Smithdown Rd
- Traffic calm Wellington Rd & consider measures to facilitate cyclists right turns from Wellington Rd into Lawrence Rd & Wavertree Park.
- Wavertree Park east-west route: modify the two existing concrete humps to take account of cycle traffic & review street lighting provision
- Fir Ln : consider prohibiting uphill (eastbound) traffic except cycles (the major traffic flow is from Grant Ave) or reduce speed with traffic calming (road humps preferred) on this section. If a one-way order for motor traffic is not implemented westbound then it would be necessary to signalise the junction with Prince Alfred Rd
- Woolton Rd (west of Mendip Rd): consider prohibition of on-street parking
- Woolton Rd (Queens Drive Wavertree to Mendip Rd): provide cycle lanes in both directions. Offset the centre line to create space on the uphill section.
- Woolton Rd (Cromptons Ln to Queens Drive Wavertree):enforce 30mph speed limit & move centre line over, towards the side with the parking bay.
- Woolton Rd (Park Ave to Cromptons Ln): prohibit on street parking & install cycle lanes(1.5m wide).
- Roundabout junction of Woolton Rd and Park Ave: increase the diameter of the central island (using an overrun area of hatchings)to narrow the circulatory carriageway and increase deflection. Increased deflection is needed especially on the left turn from Aldbourne Ave to Woolton Rd & the left turn from Park Ave to Woolton Rd
- Woolton Rd (Blackwood Ave to park Ave): prohibit on street parking (ample off street parking exists currently) and consider conversion of the resulting carriageway to 1.5m cycle

lanes and 3m running lanes. Consider the use of speed cameras to enforce the 30mph speed limit.

Radial Route 8B: City Centre East to Woolton

Route: Mount Pleasant, Oxford St, Abercromby Sq, Oxford St East, Smithdown Ln, Upper Parliament St, Smithdown Rd, Greenbank Rd North, Mossley Hill Rd. (Approximate route length = 4 km)

2.34 This route links the City Centre and Liverpool University precinct to Mossley Hill & Radial route 9A. It also gives access to Sefton General Hospital, Lourdes Hospital, Liverpool Collee & university accommodation. Smithdown Rd is used for its directness despite being a heavily trafficked route. Combined bus cycle lanes & restrictions on parking will benefit cyclists considerably.

2.35 General recommendations:

- Cycle route signing
- ASLs at all signalised junctions.
- Minimise on street parking through more widespread restrictions & enforcement.

2.36 Specific recommendations:

- (Common route section - recommendations as for Route 8A)
- Shared bus cycle lanes along Smithdown Rd

Radial Route 9A: City Centre South East to Speke

Route: Duke St, Upper Duke St, Catherine St, Princes Rd / Princes Ave, Croxteth Rd, Sefton Park Rd, Croxteth Dr, Mossley Hill Dr, Park Ave, Mossley Hill Rd, Rose Ln, Rathmore Ave, Cooper Ave North, Cooper Ave South, Derby Rd, Garston Old Rd, Island Rd, Island Rd South, Horrocks Ave, Speke Rd, Speke Boulevard. (Approximate route length = 13 km)

2.37 This route passes a number of journey attractors and provides link from city centre university sites to university accommodation in the Mossley Hill area. It uses parts of the existing signed cycle route to Garston (University Route) although it offers an alternative to the section along Mossley Hill Rd & South Sudley Rd.

2.38 The route also improves cycle access to various schools and hospitals, the Church of England Cathedral & an Art Gallery and Museum on Mossley Hill Rd. there are existing segregated cycle tracks along both sides of Speke Rd / Speke Boulevard. These provide the basis for a high quality, safe route between Garston & Speke. Speke is the location of a major journey attractor – the Ford car plant. A dense network of local distributor cycle routes has been identified for the speke residential area as part of a local transport study.

2.39 In the central sections of the route, there is the possibility of using paths through Princes Park & Sefton Park. However problems with broken glass and the lack of lighting present social safety problems during hours of darkness. Therefore on road routes have been defined.

2.40 There are a number of changes of gradient along this route.

2.41 General recommendations:

- Cycle route signing
- ASLs at all signalised junctions.

2.42 Specific recommendations:

- **Upper Duke St: enforce existing No Waiting at any time near (Anglican) Cathedral (Rodney St to Pilgrim St).**
- Consider right turn refuge at the junction of Upper Duke St with Hope St.
- **Catherine St: enforce existing (but widely disregarded) 7am to 7pm No Waiting restrictions**
- At the sharp deflection where Princes Rd widens from a 4 lane single carriageway to a 2 dual carriageway consider the use of white hatching on the inside of the bend to discourage cars from cutting the corner and pinching cyclists
- Calm the roundabout at junction of Princes Rd, Croxteth Rd & approach lanes on Princes Ave, narrowing the circulatory carriageway width and introducing conventional priority for traffic from the right on all entries. Signalisation as a crossroads would provide even greater benefits for cyclists.
- Mossley Hill Rd: provide traffic calming
- South Sudley Rd: investigate / negotiate a new cycle track through the former Marsh College of Education (John Moores University). This would avoid the narrow uphill on Mossley Hill Rd & on Barkhill Rd.
- Brodie Ave: use speed cameras to enforce the 30mph speed limit
- Long Lane: provide segregated parking bays on the north side.
- Long Lane: convert the south-west carriageway to one bus / cycle lane & one all purpose lane. (There may be a need to provide a bus bay if buses use this as a waiting area). Install speed cameras to enforce the 30mph speed limit
- Speke Rd / Speke Boulevard: provide improvements to the existing segregated cycle tracks including priority over minor side turnings, **provision of signal phases to allow cyclists & pedestrians conveniently and safely to cross the complex signalised junctions with Speke Hall Rd / Speke Hall Avenue & Woodend Avenue / Western Avenue.** Complete the “missing link” between Banks Rd & Horrocks Ave where the route would join the existing cycle route to the city centre. Provide cycle and pedestrian signal phases or ASLs at the junction with Banks Rd / Vineyard St.

Radial Route 9B: City Centre South East to Princes Park:

Route: Duke St, Upper Duke St, Hope St, Windsor St, Admiral St, Devonshire Rd West, Belvidere Rd (Approximate route length = 2 km)

2.43 This route is already well used by cyclists heading south from the city centre. It is very direct & mostly uses quiet roads. However, although there is currently a Pelican crossing to the

west of the junction of Hope St & Upper Parliament St, cyclists are not using it. Therefore the priority for this route is to provide a new crossing facility at the cyclists desire line.

2.44 General recommendations:

- Cycle route signing
- ASLs at all signalised junctions.

2.45 Specific recommendations:

- Common route section –recommendations as for Radial 9A
- Provide a Toucan or other crossing facility across Upper Parliament St between Hope St & Windsor St
- Provide a cycle only route through the road closure at north end of Windsor St
- Improve give way signs & markings at the unsignalled crossroads of Windsor St & Upper Warwick St
- Consider signalisation of T junction at Ullet Rd & Belvedere Rd

Radial Route 10: City Centre South to Otterspool:

Route: Paradise St, Park Ln, Jamaica St, Grafton St, Herculaneum Rd, Thornton Place, Cockburn St, Dingle Rd, Promenade Gardens, Riverside Drive, (*Otterspool*) Promenade (Approximate route length = 7 km)

.46 This is a direct radial route running from the south of Liverpool City Centre through Toxteth to Festival Park & Otterspool, where it links with the Millenium Rute & continues along the Promenade to Grassendale. At this point it connects with the Outer Orbital Route.

.47 The route passes Shorefields Community Comprehensive School in Dingle & St Michaels Station (?) The route is used extensively by existing cyclists, but there are a number of road closures without provision for cycle use & broken glass is a a problem along much of the route.

2.48 General recommendations:

- Cycle route signing
- Improved road maintenance & sweeping
- ASLs at all signalised junctions.

2.49 Specific recommendations:

- Prohibit waiting at all times on the junction of Park Ln & Paradise St & provide a right turn lane or refuge island
- Provide cycle lanes in both directions on Park Lane
- Modify the Park Ln/Jamaica St/St James St roundabout to provide more deflection
- Install priority markings at the junctions of Grafton St & Warwick St & Northumberland St
- Provide a cycle only route through the road closure at the Grafton St/ Hill St junction. Alter the junction priority to give priority to Grafton St.

- Provide cycle only routes through the road closures on the north & east arms of the Park St/Grafton St junction. Investigate the possibility of Section 106 funding from the future housing site on the south west side of this junction.
- Resurface the Grafton St carriageway between Park St & Harlow St
- Install a cycle bypass in the road closure between Herculaneum Rd & Thornton Place
- Cockburn St: consider formalising on-street parking or traffic calming (this is not a priority)
- Remark the centre line of Promenade Gardens
- Provide signal controlled pedestrian / cycle crossings (*Toucans*) at the Promenade Gardens / Riverside Dr roundabout or convert to a signalised four arm crossroads.
- Riverside Dr: provide 3m wide segregated cycle / pedestrian paths (*Shared use*) from the west end of Festival Park to Priory Wood or provide wide on-carriageway cycle lanes if Riverside Dr is dualled. Retain 30mph speed limit.
- Consider a Toucan crossing at the west end of Riverside Gardens to facilitate access from the Promenade to the Eastbound carriageway / segregated cycle route along Riverside Drive. Improve the access ramps from the Promenade to Riverside Dr (at present the ramps would probably require dismounting)

3.0 ORBITAL ROUTES

3.1 three orbital routes (inner, middle & outer) have been identified and serve a through route function in the network hierarchy. These are described below.

Inner Orbital Route

Route anti-clockwise: Dingle Ln, Ullet Rd, Sefton Park Rd, Lodge Ln, Tunnel Rd, Durning Rd, Holt Rd, Kensington, Sheil Rd, Belmont Rd, Oakfield Rd, Walton Breck Rd, Everton Valley, Kearsley St, Foley St, Lambeth Rd, Sandhills Ln,. (approximate route length = 8 km)

3.2 This is a direct orbital route making use of busy but wide 2-lane single carriageway local distributors. All the major road crossings are signalised and on-street parking creates pinch points for cyclists in relatively few places. The main requirements are (bus-friendly) speed reduction measures to help cyclists to share the carriageway.

3.3 there is complex T-junction where Everton Valley meets the A59 Walton Rd. Use of the pedestrian phase by cyclists is an option or alternatively, the use of Kirkdale Vale & Walton Rd should be considered.

3.4 The route links the Docks to Anfield, Wavertree, Edge Hill, Toxteth & Dingle & provides access to rail stations at Sandhills & Edge Hill as well as a number of school, parks & the LFC stadium.

3.5 General recommendations:

- Cycle route signing
- ASLs at all signalised junctions
- Speed reduction measures

3.6 Specific recommendations:

- B5173 Lodge Ln, Sefton Park Rd (north of Ullet Rd): repairs needed to the carriageway surface
- Traffic calm Oakfield Rd between Thirlmere Rd & Breck Rd with speed cushions
- Provide a cycle only route through the road closure at the west end of Kearsley St
- Junction of Everton Valley, Walton Rd & Kirkdale Rd: junction improvements required to allow safe cycle movements in all directions.
- Improve the junction of Lambeth Rd & Westminster Rd

Middle Orbital Route

Route anti-clockwise: (as for Millennium Route between Riverside & Panny Ln), Penny Ln, Heathfield Rd, Lance Ln, Mill Ln, St Oswalds St, Derby Ln, Stoneville Rd, (L) Portelet Rd, (R) Eccleshall Rd, (L) Guernsey Rd, (R) Bowley Rd, (L) Moscow Dr, (R) Russian Ave, (R) Russian Dr, (L) Bankfield Rd, Delamain Rd, Lisburn Ln, Malleson Rd, Larkhill, Cherry Ln, Walton Village. (approximate route length = 10 km)

3.7 This orbital route utilises the Millenium Route from the Riverside Promenade as far as Penny Ln then continues along a number of minor roads. Major problems are the points where the route crosses busy main roads such as Smithdown Place, Edge Ln, West Derby Rd, & Walton Hall Ave.

3.8 Specific recommendations:

- Major junction improvements are required to facilitate cycle use of crossroads between Heathfield Rd & Penny Ln At Smithdown Place
- Junction improvements at the unsignalled crossroads of Lance Lane & Woolton Rd
- Mill Ln (Childwall Rd – Edge Ln Dr): provide parking bays & improve the carriageway surface
- Mill Ln (Edge Ln Dr to St Oswald St): provide cycle contraflow & adapt the crossroads with Edge Ln Dr to enable cyclists on Mill Ln to continue south
- St Oswalds St: provide a cycle cut-through in the central reservation to enable cyclists to turn right out of Mill Ln
- ASLs at Prescot Rd / St Oswalds St crossroads
- *Stoneville Rd was converted to 1-way c 2000, without making alternative provision for Southbound cyclists.*
- *Allow cycle use of the wide alleyway between Portelet Rd & Guernsey Rd (this was alleigated in 2004 resulting in a reroute via Eccleshill Rd)*
- *Cycle gaps at closures in Portelet Rd, Eccleshill Rd, Moscow Dr, Russian Dr were provided in 2004*
- Consider signalisation of the crossroads between Bankfield Rd & West Derby Rd (*Delamain Rd*)
- Provide a cycle contraflow on Delamain Rd (south of Muirhead Ave)
- Convert Pelican crossing to a Toucan Crossing on Walton Hall Ave (between Cherry Ln & Walton Village)
- Walton Village: ban on street parking on bends & near junctions.

Outer Orbital Route

Route anti-clockwise: Riversdale Rd, Aigburth Hall Ave, Booker Ave, Yew Tree Rd, Beaconsfield Rd, Blackwood Ave, Gateacre Park Dr, Barnham Dr, Bentham Dr, Bowland Ave, Rocky Ln, Thomas Ln, Brookside Ave, Blackmoor Dr, Sandfield Park (*East*), Leyfield Rd, Town Row, Almonds Green, Lorenzo Dr, Parthenon Dr, Stopgate Ln, Long Ln, Hall Ln, Warbreck Moor (approximate route length = 16 km)

3.9 the outer orbital route links the Riverside Walk to the Loop Line at Childwall & then follows a route parallel to the Loop Line. The Loop Line does provide an excellent daytime & recreational route but for utility cyclists the lack of access points & lighting & the broken glass at access points act as deterrents to regular use.

3.10 there are a number of links to the Loop Line including a link from Gateacre Dr via Well Ln & from Long Ln via Hartley Ave to the north end of the Loop Line.

3.11 General recommendations:

- ASLs at all signalised junctions

3.12 Specific recommendations:

- The southwest end of Riversdale Rd is currently closed for sewer works. When it is reopened an improved direct 3m wide route should be protected as a through route for cyclists & walkers. Riversdale Rd gives access to a college & residential properties. Replant displaced vegetation if possible, without obscuring visibility.
- Aigburth Hall Ave & Booker Ave from Aigburth Rd to Brodie Ave: use build outs & parking bays to create “Two plus Turns” traffic calmed arrangement.
- Booker Ave crossing of Brodie Ave: the current traffic signals with a two-lane approach could lead to possible conflict between cyclists and turning motor traffic. The short intergreen does not allow slow cyclists to traverse wide dual carriageway. Provide ASLs and modify the traffic signal controller stage timings.
- Booker Ave from Brodie Ave to Mather Ave: wide road (9m) with considerable on street (residential) parking & busy traffic during peak periods. Use build outs & parking bays to create “Two plus Turns” traffic calmed arrangement.
- Booker Ave crossing of Mather Ave: Provide ASLs
- Booker Ave & Yew Tree Rd from Mather Ave to Menlove Ave: an attractive but narrow road with busy traffic especially at peak periods. There are few properties or accesses, & Calderstones Park takes up one side for much of the length. If possible close the road just south of Dowsefield Ln except for cycles, emergency vehicles & buses. Investigate the cost of a new car park & access to Calderstones Park from the north end. If road closure is not acceptable, introduce innovative traffic calming to reduce its attractiveness as a long-distance through route, e.g. by a two-waysingle-width chicane with priority in one direction (with cycle by-passes).
- Menlove Ave crossing: a complex crossing of the dual carriageway central reserve, with lanes marked for different directions. A complex signalled junction with potential for cyclist & motor traffic conflict. Provide ASLs & a cycle lane in central reserve.
- Beaconsfield Rd: an attractive tree-lined road with few accesses or properties. Narrow & busy. Introduce innovative traffic calming to reduce its attractiveness as a long-distance through route, e.g. by a two-waysingle-width chicane with priority in one direction (with cycle by-passes) in vicinity of Strawberry Fields.
- Church Rd / Woolton Hill Rd junction: a complex junction with an unusual use of hatching across whole of central area. Replace with more understandable layout, for example mini-roundabout (s) or central waiting areas.
- Woolton Rd crossing: a complex multi-lane signal controlled junction with slip lanes. Provide ASLs with clear marking to prevent left-turning traffic conflicting with cyclists going straight ahead into Gateacre Drive.
- Gateacre Park Dr: a local distributor with on street parking & some risk of speeding traffic. Provide speed cushions and/or chicanes in conjunction with parking bays

- Gateacre ParkDr / Well Ln junction: provide a speed table to reduce speeds & improve safety for right turning cyclists making for the Loop Line.
- Signalise the Childwall Valley Rd / Score Ln crossroads
- Restrict speeding through traffic from Barnham Dr & Bentham Dr . consider traffic calming with pinch points (with cycle cut throughs)
- Formalise on street parking on Thomas Ln
- Prescott Rd roundabout junction with Thomas Ln & Blackmoor Dr: reduce the width of the circulatory carriageway & consider the provision of an lternative facility to enable cyclists to cross over the busy roundabout
- Alter the junction or provide a cycle only route to enable cyclists to continue straight over Honeys Green Ln from either side of Blackmoor Dr
- Allow cyclists to use the cut-through between Sandfield Park East (there are two cut-throughs & it may be possible for cyclists to use one side & pedestrians the other)
- Traffic calm Leyfield Rd & Town Row
- Restrict parking around junctions on Leyfield Rd & Town Row
- Lorenzo Dr roundabout: traffic calm all approach roads, increase deflection on roundabout & provide carriageway markings (none at present)
- Consider cycle lanes along Stopgate Ln & Long Ln. Consider speed cameras

4.0 LOCAL DISTRIBUTOR ROUTES (LDR)

4.1 The 10 radial routes & 3 orbital routes are served by a dense network of LDRs.

These have two functions.

- To provide links between the radial & orbital through routes
- To provide access to major journey attractors such as schools, university sites, shopping centres & railway stations which are not on the main 10 radial & 3 orbital routes

4.2 The consultants have recommended a wide range of LDRs which can be developed following the implementation of the radial & orbital routes or sooner as local opportunities arise.

In future additional distributor routes & access routes can be added to the strategic Liverpool cycle network.

4.3 The LDRs are listed below by area (from north to south). Roads are grouped together where they form a continuous route. A brief route description & outline recommendations for improvements to help cyclists are included.

AINTREE

Melling Rd

4.4 Passing through the Aintree race course, Melling Rd is a fast through route with some on street parking at the narrower west end near Warbreck Moor (Radial Route 3) 0.6km

4.5 Consider measures to prevent speeding, particularly near the junction with Seeds Ln

Seeds Ln

4.6 A narrow semi-rural road with new housing at its north end, Seeds Ln is a useful route between Aintree & areas to the south (route continues along Higher Ln – see Fazakerley section). However it may be used as a rat run. There is low bridge at the north end which restricts buses & HGVs using Seeds Ln. 0.54km

4.7 Traffic calm with speed cushions or ramps.

KIRKDALE

Walton Ln (Walton Breck Rd (St Domingo Rd) to Priory Rd)

4.8 Walton Ln is a 2-lane dual carriageway with wide lanes & few side turnings between the junctions with Walton Breck Rd & Priory Rd. North of the junction with Priory Rd, Walton Ln becomes narrower & this, together with a

sharp bend at the railway bridge, creates a threatening section. The Walton Ln / Priory Rd junction has traffic signals & Pelican crossings. 1.12 km

- 4.9 Repaint lane markings to widen the nearside lane on both carriageways between the junctions with St Doming Rd & Priory Rd

Goodison Rd (Walton Ln to Goodison Park)

- 4.10 This road provides access to the EFC Stadium. Problems for cyclists include the closely spaced priority T-junctions & on street parking. 1.14km
- 4.11 Improve the junction of Goodison Rd / Walton Ln / Spellow Ln to increase protection for right turning cyclists.

Continuation of a cycle route along Goodison Rd, City Rd , Church Rd & St Marys Ln to reach Haggerston Rd would complete a useful link from Radial Route 3 to Fazakerley, but is problematic in view of the numerous junctions & narrow carriageway, which is narrowed further by on street parking.

However, if the alternative link via Lancaster St, Rice Ln & Cavendish Dr is not accepted then measures to improve cyclists safety & convenience on the City Rd link should be further investigated.

Introduction of an area wide 20mph speed limit between Queens Dr, County Rd, Walton Ln & Spellow Ln could be considered.

Spellow Ln

- 4.12 Spellow Ln links County Rd (RR3) to Goodison Rd thereby providing access to the EFC stadium from the west. Cyclists would benefit from a reduction in motor traffic speeds on the rather narrow 2 lane single carriageway. 0.28km
- 4.13 Improve the junction of Goodison Rd / Walton Ln / Spellow Ln. consider bus/cycle friendly traffic calming on Spellow Ln.

Chirkdale St, Delamore St, Goodall St, Carisbrooke Rd, Bedford Rd.

- 4.14 An alternative quieter route to the use of County Rd (RR3) uses Chirkdale St, Delamore St, Goodall St, Carisbrooke Rd & Bedford Rd to reach Makin St. 0.96km

WALTON

Haggerston Rd

- 4.15 Haggerston Rd forms the southern end of a quiet link between the Middle Obital in Kirkdale & the Graylaw trading estate in Fazakerley. Haggerston Rd is very quiet (the section north east of Queens Drive is part of a 20mph zone) but is blocked by the central reservation barrier at Queens Drive Walton. A

Pelican crossing is situated just north west of the junction of Haggerston Rd & Queens Dr, Walton.

- 4.16 Upgrade the Pelican Crossing to a Toucan & install flush kerbs. Ensure safe access to the toucan for south-east bound cyclists. In the longer term a more convenient, though more costly solution would be to replace the pelican with a fully signalised junction of Haggerston Rd & Queens Drive; this should include a new cut through for cyclists & pedestrians in the central reservation directly opposite Haggerston Rd.

Woolhope Rd

- 4.17 Woolhope Rd has a 20mph limit & provides a link from Haggerston Rd to Walton Hall Ave.
- 4.18 Improve access to Walton Hall Park at the junction of Haggerston Rd & Woolhope Rd & provide a new access to the park at the junction of Woolhope Rd & Walton Hall Park. The latter would enable cyclists to use the path through the park which runs parallel to Walton Hall Ave. Woolhope Rd needs no other treatment.

Walton Hall Ave (Woolhope Rd to Blackthorne Rd)

- 4.19 Walton Hall Ave is a very heavily trafficked 2 to 3 lane dual carriageway which is intimidating for cyclists. The parallel wide traffic free path along the south east side of Walton Hall Park would provide a much more attractive daytime route connecting Woolhope Rd, Blackthorne Rd (which leads to the Loop Line) and the link south on Stanley Park Ave, & would provide access to the Woolhope (*Walton*) sports centre. The area does not feel socially safe and at night cyclists are likely to prefer an alternative route on the carriageway.
- 4.20 Permit cyclists to use the path parallel to Walton Hall Ave through Walton Hall Park. Improve the surface & lighting & ensure regular sweeping to remove broken glass, & provide access through the park railings to Woolhope Rd.

East of Woolhope Rd Walton Hall Ave widens from 2 to 3 lanes eastbound. Consider conversion of the nearside lane on both carriageways to a bus / cycle lane, or segregate the nearside lane from traffic on the eastbound carriageway only & convert to a two way cycle track.

The bus lane solution would require an additional crossing of Walton Hall Ave opposite Woolhope Rd; the segregated solution could be reached using the existing pelican crossing near Stanley Park Ave.

Shared use of the paved footway outside the park railings is not recommended because of insufficient width & a poor surface.

Walton Hall Park Path

- 4.21 This would provide an important link between Haggerston Rd & Cavendish Dr, completing the quiet route between the middle orbital in Kirkdale & the

Graylaw trading estate in Fazakerley. Although there are significant social safety problems involved with this off road route, it has been included because alternative routes avoiding County Rd, Rice Ln, Queens Dr grade separated junctions are less suitable.

- 4.22 Permit cyclists to use the path through Walton Hall Park between Cavendish Dr & the north end of Woolhope Rd. Improve path surfaces & sweep regularly to remove broken glass. Install lighting & cut back vegetation near the paths as necessary to improve social safety at night., & provide access through the park railings to Woolhope Rd.

Cavendish Dr , Lavender Way, Rosedale Close

- 4.23 Useful quiet route which connects the Loop Line at Rosedale Close (cul de sac) & Walton Hospital at Rice Lane.
- 4.24 Provide cycle bypasses in the road closure between Cavendish Dr & Lavender Way. **Provide ASLs at the junction with Rice Ln.**

Lobelia Ave, Blackthorne Rd

- 4.25 These are quiet roads through a new housing estate linking Richard Kelly Dr to Lavender Way. There is an access point to the Loop Line at the south end of Blackthorne Rd.
- 4.26 Provide ASLs at the signalised crossroads of Blackthorne Rd / Walton Hall Ave / Richard Kelly Dr

Buchanan Rd, Lancaster St, Rice Ln (Lancaster St to Hornby Rd)

- 4.27 Buchanan Rd, Lancaster St are quiet residential roads which provide a link from RR3 to Rice Ln. Rice Ln completes the link to Walton Hospital & Cavendish Dr, but presents severe difficulties for cyclists, including heavy traffic & narrow carriageway width.

Footway solutions are not feasible.

In particular it is extremely difficult to turn right from Rice Ln to reach Lancaster St.

Alternative routes from Breeze Ln to Cavendish Dr through Walton Hospital have been blocked by a high hospital boundary wall.

Despite the difficulties on Rice Ln this route is preferred to the alternative via City Rd, Haggerston Rd & Walton Hall Park as it is more direct, has fewer social safety problems at night , & passes the entrance to Walton Hospital, the major journey attractor in the area.

The section north of Walton Hospital along Rice Ln would also provide a useful link for cyclists, but there a number of problems including closely spaced T-junctions, a narrow carriageway & heavy traffic.

- 4.28 Investigate traffic calming of Rice Ln between Lancaster St & A5098 Hornby Rd. This should include measures to enable cyclists to turn right into Lancaster St & Cavendish Dr.

Whitfield Rd, Rice Ln Recreation Ground

- 4.29 The wide tarmac circular path around the recreation ground has considerable potential for cycle use. It provides a direct means of access from Rice Ln (via Whitfield Rd or Evered Ave) to the Loop Line & beyond to the Long Ln industrial area.
- 4.30 Allow shared pedestrian & cycle use of path. Consider lighting the section parallel with Evered Ave.

Hartley Ave Railway Bridge / Hartley Ave

- 4.31 It is possible to use Rice Ln to continue north from the end of the Loop Line path but a preferred option would be to leave the **Loop Line where the tarmac surface ends** (east of Evered Rd), join the Rice Ln Recreation Ground path northwards & construct an uphill link to Hartley Ave bridge. This is an old road bridge with barriers preventing vehicular access from a council car park at the end of Hartley Ave. Hartley Ave is used by local traffic (including HGVs) for the small industrial estate & cement works.
- 4.32 Construct a new uphill link from Rice Ln Recreation Ground to Hartley Ave bridge. The bridge surface requires levelling & resurfacing.

Loop Line / pedestrian link to Long Lane

- 4.33 The tarmac pedestrian route from the Loop Line to Long Lane connects Orrel Park & Walton to the Graylaw trading estate. It is used extensively by cyclists although signs indicate “strict prohibition”. There is adequate width (at least 2.5m) & street lighting.
- 4.34 Cutting back of vegetation & surface repair are recommended. Improved access to the Loop Line is needed at the west end.

Hunslet Rd, Cedar Rd

- 4.35 These residential roads provide a link from Long Ln to the centre of Walton Vale shops. Cedar Rd is a narrow road with double yellow lines on one side although this is abused by drivers stopping to use the Natwest bank at the north end of the road.
- 4.36 Provide cycle parking for Walton Vale shops. Provide a cycle cut through at the east end of Hunslet Rd. On street parking could be restricted to one side only on Hunslet Rd. Consider the introduction of a residential permit system & limit parking to permit holders only. Enforce any parking restrictions.

FAZAKERLEY

Brookfield Dr

4.37 Brookfield Dr is a wide dualled, industrial estate access road without lane demarcations. There is on street parking, particularly at the western end. Junction improvements are ongoing at both ends. At the west end this will provide a signal controlled crossing of Long Ln.

4.38 **Cycle audit of junction improvements.**

Higher Ln, Landford Ave

4.39 Higher Ln is a semi rural road which provides an attractive daytime cycle route. However lighting is poor & use after dark may be perceived as socially unsafe. It provides a southward continuation of the Seeds Ln route from Aintree & there is link via Brookfield Dr to the Long Ln industrial area. Junction improvements are ongoing for the new road to the new Fazakerley prison & there is a temporary road closure near Dyson Hall Dr. Landford Ave is closed at its south end.

4.40 **Cycle audit of junction improvements.** Convert pedestrian crossings at East Lancs Rd / Townsend Ave T-junction to Toucan crossings & construct cycle tracks across closure to Landford Ave.

Long Ln (Stopgate Ln to Lower Ln)

4.41 This section of Long Ln is a useful connecting route from the outer orbital to Higher Ln & Lower Ln. It passes Queen Mary Comp School.

4.42 Traffic calm to encourage through traffic to use East Lancs Rd instead.

Lower Ln

4.43 This is a wide road used as a bus route with a new junction being constructed for access from the east to the new Fazakerley prison. It is an important route providing links to Fazakerley Hospital & residential area.

4.44 **Cycle audit of junction improvements.** Consider provision of advisory cycle lanes for the length of Lower Ln. **Provide ASLs & feeder lanes at the Lower Ln / East Lancs Rd / Lower House Ln crossroads.**

Moss Pits Ln, Swainson Rd, Sherwoods Ln

4.45 Moss Pits Ln is part of a 20mph residential zone. Swainson Rd is also a residential road with on street parking & has a number of bends with poor forward visibility. Sherwoods Ln gives access to Fazakerley Sports Centre & Fazakerley High School. There is a break in the Longmoor Lane central reservation between Swainson Rd & Sherwoods Ln.

- 4.46 Consider parking bays and /or traffic calming on Swainson Rd. Ban on street parking on Sherwoods Ln between Longmoor Ln & Fazkerley Sports Centre car park.

CROXTETH PARK

Oak Ln

- 4.47 Oak Ln is the only access road to Croxteth Park & other new housing areas & it is therefore important that it is included in the Liverpool cycle route network. However there are a number of problem junctions.
- 4.48 Oak Ln / Dwerryhouse Ln / Muirhead Ave East roundabout: reduce excessive width of circulatory carriageway & increase deflection.

Oak Ln / Croxteth Hall Ln staggered crossroads: provide ASLs.

Oak Ln / Fir Tree Dr South / Fir Tree Dr North roundabout: : reduce width of circulatory carriageway & increase deflection.

Consider speed cameras on Oak Ln between Dwerryhouse Ln & Croxteth Hall Ln.

Fir Tree Dr South

- 4.49 Fir Tree Dr South is wider than Fir Tree Dr North making it more suitable for use as a cycle route, and it also provides access to local shops at Stand Farm.
- 4.50 Consider traffic calming. Provide cycle parking at local shops.

WEST DERBY

Muirhead Ave East

- 4.51 A dual carriageway with all major junctions signalised. Breaks in the central reservation give access to minor roads. **There is a Liverpool Community College site adjacent to the roundabout with Oak Ln.**
- 4.52 ASLs at all signalised junctions.

Meadow Ln

- 4.53 Links Muirhead Ave East to the centre of West Derby village. It is narrow in parts with sharp bends.
- 4.54 Ban on street parking near bends.

NEWSHAM PARK

Newsham Dr, Orphan Dr

4.55 These are wide street-lit roads through Newsham Park. On street parking is permitted & congestion can occur around the junction of Newsham Dr & Orphan Dr. At its south end Orphan Dr becomes a footpath & is closed to traffic from Prescot Rd. Broken glass is a major problem at the south end.

4.56 Improve junction on Rocky Ln (A5049) to enable cyclists from Newsham Dr to cross from Park View to Lower Breck Rd.

Convert pelican crossing to Toucan on Prescot Rd (A57) between Newsham Park entrance & Holland St.

Green Ln (Derby Rd West to Sandstone Rd West), West Derby Rd (Green Ln to Muirhead Ave), Muirhead Ave

4.57 Green Ln is a useful north-south route between Stanley & Tuebrook & Links RR 5 & 6. It is a wide road with on street parking.

There is a signalled junction with West Derby Rd. West Derby Rd is very busy & has a complex roundabout at the junction with Muirhead Ave.

Muirhead Ave is a busy dual carriageway with signalled crossroads at the junction with Queens Dr.

4.58 On Green Ln provide formal parking bays & restrict on street parking around junctions (mostly on east side of the road). Consider cycle lanes on Green Ln.

Consider signalisation of West Derby Rd junction with Muirhead Ave

STANLEY / OAK HILL PARK

Holland St, Gresham St

4.59 These are quiet residential roads with on street parking. They link up with a north-south route using Priory Rd, Lower Breck Rd, Orphan Dr, Holland St, Gresham St, Milton Rd, Dryden Rd.

4.60 Convert pelican crossings to Toucan crossings on Prescot Rd (east of Holland St) & Edge Ln (west of Gresham St). Consider traffic calming. Provide cycle route through Gresham St road closure.

Edge Ln (Gresham St to Milton St)

4.61 Edge Ln is a fast, busy dual carriageway and RR 6 & 7 offer alternative parallel routes. However for cyclists travelling north-south it would be useful to provide a link along Edge Ln from Milton Rd to Gresham St.

- 4.62 Construct a cycle path on the south footway between Milton Rd & Gresham St to link with a Toucan crossing (conversion of pelican) just east of Gresham St. There are no access points crossing the footway in this section & there is sufficient space for a 2 way cycle path.

Milton Rd, Dryden Rd

- 4.63 These roads provide access to Wavertree Technology Park & a number of major employers. They also link RR 7. there are sharp bends at the northern end.
- 4.64 Traffic calm

Prescot Rd (Green Ln to Derby Ln)

- 4.65 This short section of Prescot Rd provides an extension of RR 6 to the crossroads with St Oswalds St & Derby Ln & the local shopping centre. It also enables cyclists to continue southwards along the middle orbital route.
- 4.66 Provide ASLs at junctions of Prescot Rd / Green Ln & St Oswald St / Derby Ln

St Oswald St (Mill Ln to Edge Ln)

- 4.67 This short section of St Oswald St dual carriageway continues the middle orbital route towards Wavertree (via Rathbone Rd)
- 4.68 Major junction improvements required at crossroads of St Oswald St / Edge Ln

Cunningham Rd, Oakhill Rd, Chilcot Rd, Burnthwaite Rd

- 4.69 These roads provide a quiet route to the Loop Line & the north side of Broadgreen Hospital from the middle orbital route at Mill Ln. **There is ramped access to the Loop Line from Burnthwaite Rd** which then gives access to the Sainsburys superstore to the north.
- 4.70 Provide cycle only routes through road closures at south end of Cunningham Rd & east end of Oakhill Rd. Convert pelican crossing to Toucan on Queens Drive south of Oakhill Rd.

NORRIS GREEN

Townsend Ave

- 4.71 A relatively quiet dual carriageway, Townsend Ave links Broadway (access to Loop Line) to the route to Fazakerley & Aintree (Higher Ln & Lower Ln) & to the outer orbital route.

- 4.72 Improvements to double roundabouts at Broadway. Convert pedestrian crossings at East Lancs Rd / Townsend Ave T-junction to Toucan crossings.

Lower House Ln, Dwerryhouse Ln

- 4.73 These dual carriageways provide useful linking routes between Fazakerley & Croxteth, RR 4 & local distributor route (Oak Ln) to Croxteth Park.
- 4.74 ASLs at all signalised junctions.

Richard Kelly Dr

- 4.75 This is a quiet direct north-south route with links to the Loop Line via Philbeach Rd & junctions with RR4 & the middle orbital.
- 4.76 Improvements required at most junctions. Consider Toucan crossings at the following junctions: Utting Ave, Queens Dr, Townsend Ln. Walton Hall Ave: provide ASLs.

Broad Ln (Utting Ave to Lorenzo Dr)

- 4.77 From the outer orbital Broad Ln provides a route north-west which avoids the hazardous Broadway double roundabout (accident cluster site). It also links with a local shopping centre & has ramped access points onto the Loop Line. OSP is a potential problem. Where Broad Ln crosses Townsend Ave dual carriageway there is a break in the central reservation.
- 4.78 Provide cycle parking for Broadway shops. At Lorenzo Dr / Broad Ln roundabout traffic calm all approach roads, increase deflection & provide carriageway markings (none at present).

ANFIELD

Breck Rd, Townsend Ln

- 4.79 Breck Rd is wide & presents few problems for cyclists between Everton Rd & Breckfield Rd. Townsend Ln is a busy but direct route continuing RR 4 from Breck Rd to the Broadway double roundabout. The road is mostly dual carriageway but narrows to one lane in either direction under a railway bridge.
- 4.80 Provide combined bus / cycle lanes on Townsend Ln. Consider widening footways under railway bridge & allow shared pedestrian & cycle use of footway.

Provide ASLs at junction of Townsend Ln / Priory Rd / Lower Breck Rd.

Priory Rd

- 4.81 This is the northern end of a valuable north-west / south-east distributor route using Priory Rd , Lower Breck Rd, Orphan Dr, Holland St, Gresham St, Milton Rd, Dryden Rd. Priory Rd is a wide 2-lane single carriageway with little OSP; it provides access to Anfield Comp School.
- 4.82 Provide ASLs at junctions with Utting Ave & Townsend Ln. Consider cycle lanes if OSP can be restricted. Introduce speed cameras to enforce the 30mph speed limit if speeding is a problem.

Lower Breck Rd

- 4.83 Although narrow in parts & with OSP, Lower Breck Rd is the most direct link from Newsham Park to Anfield.
- 4.84 Major junction improvements are needed to enable cyclists from Lower Breck Rd to cross over West Derby Rd (*Rocky Ln*) to Park Avenue (*Park View*). Consider parking restrictions on Lower Breck Rd & introduce speed cameras if needed. Clarify carriageway markings on the approach to the junction with Townsend Ln.

Stanley Park Ave North, Stanley Park Ave South

- 4.85 Stanley Park Ave provides a direct link to Walton Sports Centre & Walton Hall Park from RR 4 & the middle orbital. Work is required to allow cyclists through road closures & to cross very busy multi-lane carriageways.

Stanley Park Ave North is a quiet residential dual carriageway & is closed to traffic at its junction with the westbound carriageway of Queens Drive.

Stanley Park Ave South is a fairly quiet through road narrowed by on street parking.

The staggered junction with Cherry Ln requires cyclists to make right turns in an exposed position on Cherry Ln.

The junction with Stanley Park Ave South with Utting Ave has a wide gap in the central reservation without turning lanes marked.

- 4.86 Upgrade the pelicans on Walton Hall Ave to Toucans & provide flush kerbs & formal cycle links to the north end of Stanley Park Ave North.

Provide a more convenient, signalised crossing of Queens Dr (avoiding the awkward junction with Grandison Rd) & a new tarmac surface across the grass area at the north part of the section of Stanley Park Ave North between Queens Dr & Cherry Ln

Introduce a clearer junction arrangement at the junction of Cherry Ln / Cherry Ave / Stanley Park Ave North / Stanley Park Ave South.

Consider signalisation of the junction of Stanley Park Ave South with Utting Ave, or at least mark separate turning lanes in the central reservation cut through.

EVERTON

Prince Edwin St

- 4.87 Junction of Prince Edwin St / St Anne St / Gt Homer St is difficult for cyclists turning right from St Anne St onto Prince Edwin St, who must cross 2 lanes of traffic to reach the right turning lane. The existing underpass is threatening & poorly drained & has poor visibility at the north end.
- 4.88 An at-grade crossing in place of the underpass would benefit cyclists & pedestrians.

Netherfield Rd North, Netherfield Rd South

- 4.89 Netherfield Rd is usable & is generally well-graded, but the surface needs repair & there are a number of sudden changes in width (some sections are uncomfortably narrow). Fewer problems south of Brow side.
- 4.90 Surface repairs.

St Domingo Rd, Heyworth St

- 4.91 Wide 2-lane single carriageway with few side turnings.
- 4.92 Provide cycle lanes, particularly on the inside of the moderately sharp bends which act as pinch points.

Breckfield Rd North, Robson St, Sleepers Hill, Anfield Rd (Sleepers Hill to Walton Ln)

- 4.93 This route presents few problems; the carriageway is wide & the junction with Walton Breck Rd is signalised.
- 4.94 Junction of Anfield Rd & Walton Ln (& preferably the junction of Sleepers Hill & Anfield Rd) needs to be signalised.

VAUXHALL / DOCKS

Burlington St (Love Ln to Vauxhall Rd)

- 4.95 Connects RR 1 & 2. Recently resurfaced with a new roundabout at the junction of Eldonian Way & Eldonian Ave, both residential roads. There is a road closure between Burlington St & Love Ln.
- 4.96 Provide cycle route through road closure. Increased deflection at roundabout. Provide ASLs at crossroads with Vauxhall Rd.

Silvester St, Chapel Gardens

- 4.97 A quiet residential road between RR 2 & Scotland Rd, Silvester St is closed to through traffic at the east end. There is a pelican crossing on Scotland Rd which is considered preferable to using the socially unsafe subway further south. Chapel Gardens is a narrow 2-way road linking Scotland Rd to RR 3. new housing is being built with an access road off Chapel gardens which could affect traffic levels.
- 4.98 Provide cycle only route through Silvester St road closure & link to crossing. Convert pelican to Toucan crossing & construct link to Chapel Gardens. Change Chapel Gardens to one way with a cycle contraflow.

Blackstone St , Boundary St, Boundary St East

- 4.99 Useful link between RR 1, 2 & 3. West of Vauxhall Rd, Boundary St is a wide road, well used by HGVs. There is some new housing near Vauxhall Rd. Boundary St East is closed to through traffic from the A59 (Kirkdale Rd).
- 4.100 Provide ASLs at signalised crossroad junctions with Gt Howard St & Commercial Rd.

Provide Toucan (& link from Boundary St) for cyclists crossing east-west between Boundary St East & Boundary St across Kirkdale Rd & Stanley Rd.

Consider cycle lanes on Boundary St & Blackstone St.

Provide cycle only route through road closure on Boundary St East

EDGE HILL

Brownlow Hill, Smithdown Ln (Brownlow Hill to Grinfield St)

- 4.101 Continuing a route out of the city centre, Brownlow Hill gives access to the north side of the Liverpool University campus. The junction with Smithdown Ln is not signalised. Smithdown Ln is less busy than Brownlow Hill providing a quiet link to RR 7 & 8.
- 4.102 Consider providing a facility for cyclists turning right from Brownlow Hill onto Smithdown Ln.

Hardman St, Myrtle St, Crown St (Myrtle St to Parliament St)

- 4.103 Wide roads with heavy traffic.

- 4.104 Area wide traffic calming to reduce impact of traffic on university / heritage area.

WATERFRONT

Brunswick Way

- 4.105 Gives access to the new business park on Brunswick Dock. The roundabout junction of Brunswick Way & Sefton St is hazardous for cyclists due to a wide circulatory carriageway & two approach lanes on Sefton St.

- 4.106 Make the roundabout more cycle friendly by increasing deflection & reducing the width of the circulatory carriageway.

To enable less experienced cyclists to avoid 270 degree turns at this roundabout, use of both park St & Northumberland St has been suggested to provide access from Brunswick Way to RR 10.

Cyclists travelling towards Brunswick Way could then use Park St to reach Sefton St & turn left at the roundabout; cyclists leaving Brunswick Way could turn left at the roundabout & reach RR 10 on Northumberland St.

Alternatively, conversion of the roundabout to a signal controlled crossroads would enable cyclists to turn in all directions more easily & either Park St or Northumberland St would then be sufficient.

Park St

- 4.107 Park St provides a steep link from RR 10 to Brunswick Way & Riverside Walk

- 4.108 Consideration could be given to provision of a signalised crossing to help cyclists cross Sefton St to reach the north-west bound carriageway.

Northumberland St (Sefton St to Grafton St)

- 4.109 Northumberland St provides a link for Brunswick Way to RR10 at Grafton St, & continues via Merlin St to North Hill St near Princes Rd. Northumberland St is very steep downhill towards the river.

- 4.110 Provide a cycle bypass through the road closure at the west end of Northumberland St to reach the proposed Toucan crossing of Sefton St.

Mariners Wharf, Stanhope St (Sefton St to Grafton St)

- 4.111 Mariners Wharf & Stanhope St provide access to Riverside Walk from RR 10 at Grafton St. North of St James place, Stanhope St provides a useful link east to Smithdown Rd (?) avoiding the heavy traffic on Parliament St. This very promising route is severed between Grafton St & St James Place by high

railings where the Stanhope St carriageway has been incorporated into the Robert Cain brewery.

4.112 A signalised junction is needed at Mariners Wharf / Sefton St.

Detailed investigation / negotiation is recommended to find a direct link between Grafton St & St James Place.

A signalised crossing of St James Place would also be necessary.

MOSSLEY HILL

Palmerston Rd, Rose Ln (Templemore Ave to Mossley Hill Station)

4.113 This is an important link which allows cyclists travelling from the city centre via RR 8B & 9A to avoid the hill on Mossley Hill Rd. It also provides access to Mossley Hill Station.

4.114 Traffic calming around T-junctions of Palmerston Rd with Mossley Hill Rd & Rose Ln

SEFTON PARK

Mossley Hill Dr (Park Ave to Aigburth Dr), Aigburth Dr

4.115 These wide roads encircle Sefton Park providing street lit alternatives to cycling through the park. Part of Mossley Hill Dr is incorporated into RR 9A & there are links with the Millenium Route which cuts through Sefton Park. There is very little on street parking.

4.116 No measures are considered necessary unless complaints about speeding become common.

CROXTETH GATE

4.117 Croxteth Gate forms part of the university route. The existing facilities to help correct lane positioning to reach Brompton Ave are helpful, although rather narrow in places. Visibility is poor at the junction with Ullet Rd.

4.118 Consider warning signs / carriageway markings on Ullet Rd to emphasise the visibility problem at the junction of Croxteth Gate & Brompton Ave

AIGBURTH

Jericho Ln, Ashfield Rd

4.119 These are busy roads but they do provide useful links from Sefton Park to Otterspool Prom. Ashfield Rd is narrow with on street parking despite

prohibition near the signals. The narrow uphill northbound from Aigburth Rd combined with the platoons of traffic leaving the signals is intimidating for cyclists.

- 4.120 ASLs are needed for the junctions of Jericho Ln/ Ashfield Rd/ Aigburth Rd & Ashfield Rd/ Elmswood Rd/ Victoria Rd/ North Sudley Rd. Install cycle lanes along Jericho Ln & extend parking restrictions. Consider permitting shared use by cyclists & pedestrians on Jericho Ln where the carriageway narrows on the bridge over the railway.

North Sudley Rd

- 4.121 North Sudley Rd gives access to the JMU site at the southeast end. North Sudley Rd is one way (eastbound) between Ashfield Rd & Daventry Rd.
- 4.122 ASLs are needed for the junctions of Jericho Ln/ Ashfield Rd/ Aigburth Rd & Ashfield Rd/ Elmswood Rd/ Victoria Rd/ North Sudley Rd. Changes are needed to enable cyclists to ride north westbound between Daventry Rd & Ashfield Rd (*contraflow*)

Elmswood Rd

- 4.123 Elmswood Rd provides a link from Sefton Park to the Carnatic Halls.
- 4.124 Install ASLs at the junction of Ashfield Rd/ Elmswood Rd/ Victoria Rd/ North Sudley Rd

Mersey Rd / Barkhill Rd

- 4.125 These quiet roads provide a link between RR 9A &10 & Aigburth Station & JMU site. Mersey Rd is currently closed at the Otterspool end.
- 4.126 Provide ASLs at the junction of Mersey Rd / Barkhill Rd / Aigburth Rd. If the road closure at the south end of Mersey Rd is formalised then provide a cycle only route through the road closure.

TOXTETH

St James Place, Mill St, Beloe St, Dingle Mount

- 4.127 This is a direct radial route running through Toxteth parallel to & south of the hilly, narrow section of Park Rd between Ullet Rd & Parliament St. It is well used by cyclists.
- 4.128 Improve the carriageway surface & provide a cycle bypass through the road closure at the north end of Mill St where it meets St James Place.

Provide a Toucan crossing from the West end of Stanhope St to the cycle bypass. This would enable cyclists to reach Stanhope St from Mill St (& vice versa) & would also provide a facility for southbound cyclists from Gt George St who need to cross St James Place to reach Mill St.

Northumberland St (Sefton St to Windsor St), Merlin St

- 4.129 This is a quiet route from the waterfront to North Hill St near Princes Rd. Regular sweeping is needed to remove broken glass.
- 4.130 Provide a cycle bypass through the road closure of Northumberland St at its junction with Park Rd. Consider signalisation of the junction with Park Rd. Traffic calm the junction of Maud St, Merlin St & North Hill St & consider changing the junction priority to reduce speeds.

Harlow St, North Hill St

- 4.131 Harlow St is 10.5 – 11m wide & very steep just northeast of the junction with Grafton St. North Hill St is a very straight 9.5m wide road with little on-street parking. Traffic on North Hill St must give way at the priority junction with Windsor St (RR 9B)
- 4.132 Harlow St needs carriageway surface repair between Park Rd & Toxteth St & just South of the junction with Mill St.

The junction of Harlow St / North Hill St / Park Rd needs signals to help cyclists cross the heavy traffic on Park Rd.

Provide a fully signalised junction of North Hill St with Princes Rd & Princes Ave (simply upgrading of the existing pelican to Toucan crossings would leave westbound cyclists with the problem of crossing North Hill St).

Beaconsfield St (Princes Ave to Granby St), Cairns St

- 4.133 Beaconsfield St & Cairns St are quiet residential streets, Beaconsfield St is closed at its west end & at the former junction with Princes Ave.
- 4.134 Provide a cycle bypass at the west end of Beaconsfield St to provide cycle access to the proposed signalised junction with North Hill St & Princes Ave / Road.

Either provide a cycle contraflow (false one-way street) eastbound on Beaconsfield St between Granby St & Kingsley Rd (could be problematic because of parked cars) or use Cairns St & provide a cycle bypass in the road closure at the east end & reposition the bus stop.

Coltart Rd (University Route)

- 4.135 Coltart Rd is part of the established University cycle route & provides a cycle & pedestrian link from Lodge Ln to Kingsley Rd.
- 4.136 Install signing & bollards (if necessary) to prevent parking across the entrance to the cycle cut through at the east end of Coltart Rd. Consider the use of

signals to facilitate crossing from Lime Grove to Coltart Rd if consultation reveals that cyclists are delayed unacceptably here.

Lime Gr, Maple Gr (Lime Gr to Fern Gr, Fern Gr (Maple Gr to Hartington Rd) – University route.

- 4.137 The route feels socially unsafe. The road closure on Fern Gr at the junction with Hartington Rd has no cycle bypass or dropped kerbs.
- 4.138 Provide a cycle bypass through the road closure of Fern Gr at its junction with Hartington Rd & install signing & bollards to prevent obstruction by parked vehicles. Ensure regular sweeping to remove broken glass. Review street lighting to improve social safety.

Arundel Ave

- 4.139 Arundel Ave provides a link to Sefton General Hon street parkingital & RR 8B. the carriageway is narrowed by on street parking.
- 4.140 Consider traffic calming if cyclists report speed related problems in the narrow carriageway.

Brompton Ave

- 4.141 A quiet link between Arundel Ave & Ullet Rd
- 4.142 Review street lighting if consultation reveals feelings of social threat.

Ullet Rd (Park Rd to Croxteth Gate)

- 4.143 This busy straight local distributor road is 7.5 –8m wide between Croxteth Gate & Park Rd. It is used by HGVs & is also a bus route, but there are no steep gradients. This section poses fewer problems for cyclists than the narrower section between Park Rd & Aigburth Rd (*Sefton Park Rd*).
- 4.144 Ensure conformance with the 30mph speed limit using speed cushions. (*Traffic calming*)

Kingsley Rd

- 4.145 Direct route providing southern continuation of route from Crown St (refer to EDGE HILL section – *nothing there!*)

Park Way, Selborne St, Beaumont St, Yanwath St

- 4.146 Beaumont St is 7m wide with segregated parking bays on one side Speeds greatly in excess of 30mph are a common problem.

Selborne St (north of Mulgrave St) is 10.5m wide with very little on street parking. Selborne St (south of Mulgrave St) is approx 6m wide.

At the west end of Selborne St , westbound traffic uses Parkway & must turn left along Princes Ave

- 4.147 Calm Beaumont St with speed cushions and/or prohibit some manoeuvres to prevent rat running. Speed reduction also needed on Selborne St.

Resite the Pelican crossing of Princes Ave closer to the junction of Parkway with Princes Ave / Princes Rd to provide a more direct route across the central reservation.

Upper Stanhope St

- 4.148 This links St James Pl to RR 9A & 9B. It is 7m wide with some on street parking & little traffic. It narrows to 6m wide west of Windsor St.

- 4.149 Provide cycle only routes through the road closures. Install a Toucan crossing to the road closure at the North end of Mill St.

Gt George St (Upper Parliament St to St James St)

- 4.150 This is an important desire line used by many cycle commuters.

- 4.151 Provide ASLs at junction of St James St / Gt George St & Gt George St / St James Place / Upper Parliament St. Remove or decrease length of Left filter lanes.

WAVERTREE

Dunbabin Rd

- 4.152 From the middle orbital & Heathfield Rd, Dunbabin Rd continues to link up with the Millenium Route at Taggart Ave. Dunbabin Rd could be a useful direct route but attention is needed at junctions.

- 4.153 Provide cycle route through central reservation on Queens Dr dual carriageway.

At Childwall Priory Rd gyratory some calming of traffic can be achieved with cushions, speed tables & build-outs to create parking bays. Further rationalisation of car parking possibly needed.

Sturdee Rd (Gourley Rd to Waldgrave Rd), Northway, Southway, Abbeystead Rd, Beauclair Dr (Childwall Rd to Dunbabin Rd)

- 4.154 These quiet residential roads link Dunbabin Rd to RR 7 & pass close to King David High School on Childwall Rd

Thingwall Rd, Rocky Ln

- 4.155 Both roads are bus routes. Thingwall Rd is less busy than Rocky Ln.

- 4.156 Traffic calm Rocky Ln. Provide ASLs at junction of Rocky Ln / Thingwall Rd / Queens Dr.

Gainsborough Rd, Wellington Rd, Rathbone Rd

- 4.157 These roads have a number of problems but provide the only direct north – south route due to the physical barrier of the railway. This is a bus route with 7am to 7pm waiting restrictions Mon-Sat & 24hour parking prohibition around junctions (although there is some non-conformance).

Gainsborough Rd between Garmoyle Rd & Smithdown Rd is very narrow & there is a very difficult right turn from Smithdown Rd to Gainsborough Rd. Gainsborough Rd between Garmoyle Rd & Lawrence Rd is 8.5m wide.

North of Lawrence Rd, Wellington Rd narrows again & the right turn into Wavertree Park is difficult for cyclists. (Wellington Rd between Lawrence Rd & Wavertree Park entrance forms part of RR 8A)

- 4.158 Consider traffic calming Gainsborough Rd & Wellington Rd. Increase deflection on the Rathbone Rd roundabout. Provide ASLs at signalised junctions wherever there is space for feeder lanes.

Garmoyle Rd

- 4.159 6.5m wide with a large number of side turnings & cars parked on both sides (partly on the footway). This road is used as a ratrun to avoid congestion on Smithdown Rd.
- 4.160 Needs traffic calming (20mph zone) to reduce volume & speed of traffic – bicycles have trouble getting priority. Suggestions; speed cushions and /or alternating parking bays. Possible selective road closure.

CHILDWALL

Score Ln (Rocky Ln to Childwall Ln), Childwall Ln

- 4.161 Score Ln is a quiet residential road with on street parking. The section from Childwall Valley Rd to Well Ln is fairly narrow. There is a possible link to Holt High School from Score Ln via quiet residential roads (Bampton Rd & Molton Rd) which would require a Toucan crossing.(on Queens Dr). Childwall Ln links with the Outer Orbital route & with local shops at Gateacre Dr.
- 4.162 Need to signalise junction (crossroads) with Childwall Valley Rd. Change priority at childwall abbey junction so that Score Ln gives way to Childwall Abbey Rd / Childwall Ln (Millenium Route)

Bentham Dr (Score Ln to Bowland Ave)

- 4.163 Links to the Outer Orbital

4.164 Consider traffic calming

CHILDWALL

Hartsbourne Ave (Well Ln to Hedgefield Rd, Besford Rd)

4.165 From Well Ln to Millenium Route this is a direct route to local shops on Hartsbourne Ave & BelleVale shopping centre. There is a potential link to Gateacre School via Cranleigh Rd & Grangemeadow Rd, although these roads have a number of bends & on street parking.

4.166 Provide cycle only route through road closure at south end of HartsbourneAve. Install cycle parking outside shops on Hartsbourne Ave & Belle Vale shopping centre.

Hedgefield Rd

4.167 Links to Childwall Valley Rd & Belle Vale shopping centre.

Childwall Valley Rd (Hedgefield Rd to Caldway Dr)

4.168 Abusy road but an important local distributor route giving access to Netherley, Belle Vale Swimming Pool, Lee Manor High School & Sports Centre.

4.169 Provide ASLs at junction of Childwall Valley Rd / Kings Dr / Naylor's Rd. Consider cycle lanes if sufficient space. Consider a Toucan crossing opposite Lee Manor High School.

GRASSENDALE

Beechwood Rd, Grassendale Rd (Beechwood Rd to Aigburth Rd), Riverbank Rd

4.170 These are quiet residential roads linking the end of RR 10 & the Promenade to RR 9A. Beechwood Rd has a number of bends.

4.171 Convert Pelican crossing on Aigburth Rd (immediately west of Grassendale Rd) to Toucan crossing.

WOOLTON

Allerton Rd, High St, Kings Dr, Out Ln

4.172 Dual carriageway except for Out Ln where the road suddenly narrowsto a single lane at a sharp bend.

4.173 Provide ASLs at junction of Woolton Rd & Allerton Rd. Consider measures to prevent pinching of cyclists at road narrowing on Out Ln.

Grange Ln, Halewood Rd, Macketts Ln (Out Ln to Rosefield Rd)

4.174 Single carriageway through route parallel to Loop Line.

- 4.175 Provide ASLs at junction of Halewood Rd / Grange Ln / Gateacre Brow / Belle Vale Rd

Manor Rd, Hunts Cross Ave, Rosefield Rd

- 4.176 Residential roads linking Macketts Ln in central Woolton & local shops (Hunts Cross Ave)

Church Rd

- 4.178 8.0m wide & much quieter than Acrefield Rd. Little parking except on the hill at the south end (business & residential). Parking is on both sides reducing the carriageway width from 8.5m to 4.5m There is also parking along a short section between Allerton Rd & High St.
- 4.179 Junction of Church Rd / Woolton Hill Rd / Beaconsfield Rd is a 5 arm junction. Needs attention, preferably with signals or possibly mini roundabout. However the arms are very close.
- 4.180 Church Rd South: Provide cut through on central reservation of High St (pedestrians & cycles only). Possibly close church Rd South to through traffic. Parking reduces width from 8m to 3.5m.

Woolton Hill Rd to (Church Rd to Rose Brow)

- 4.181 Woolton Hill Rd is an attractive road but with steep gradient eastward down to Rose Brow. The Church Rd / Woolton Hill Rd junction is complex with unusual use of hatching across the whole central area..
- 4.182 Consider repositioning centre line to give traffic more room to pass (slow-moving) cyclists on the uphill. Warning signs on the downhill could be used to advise riders about the steep gradient.

At the junction of Woolton Hill Rd & Church Rd, replace with more understandable layout, for example a mini-roundabout or central waiting areas.

Rose Brow

- 4.183 Rose Brow is at the foot of the steep descent on Woolton Hill Rd. Vehicles on Woolton Hill Rd must give way to Rose Brow.
- 4.184 Consider changing the priority at the Rose Brow / Woolton Hill Rd junction to avoid the risk of speeding cyclists overshooting the give way line at the junction. This could reduce capacity at the junction.

Gateacre Brow, Belle Vale Rd

- 4.185 This is a local distributor with some busy traffic at times, passing through a local shopping centre in Gateacre. There is traffic danger, especially in connection with parking manoeuvres by shoppers. There is a steep gradient on Gateacre Brow up to the junction with Acrefield Rd.
- 4.186 Install ASLs at the signal controlled crossroads at Grange Ln / Halewood Rd.

Consider traffic calming in conjunction with parking schemes for the local shopping area.

Consider changing the junction priority to Rose Brow / Gateacre Brow, repositioning bollard & lighting pole at top of Gateacre Brow. This should not affect capacity significantly (*junction remodelled 2003*)

HUNTS CROSS

Speke Hall Rd (Hillfoot Ave to Speke Boulevard)

- 4.187 Speke Hall Rd is a 9m to 9.5m wide 2 lane single carriageway, with a 30mph limit & parking prohibited 7am to 7pm. There is a blind crest at the railway bridge.
- 4.188 It is suggested that 1.5m cycle lanes are installed on the carriageway with minor widening to accommodate these if needed. This would require a 24 hour parking prohibition. The resultant narrowing of the all purpose lanes should help to enforce the 30mph speed limit. Segregated cycle tracks on the wide verges are not recommended because of the number of access points.

ASLs are recommended at the junction with Hillfoot Ave

Woodend Ave

- 4.189 A busy local distributor carrying northbound traffic from Speke. Mostly dual 2-lane with 6.5m wide carriageways, this narrows abruptly to a 7m wide 2 lane single carriageway at the railway bridge, creating a pinch point for cyclists & other vehicles. Traffic forms a single stream & there is little or no on street parking.
- 4.190 It is suggested that Woodend Ave is reduced to a single all-purpose lane in each carriageway, with the nearside lane on both carriageways being converted to a 1.5m wide mandatory cycle lane.

The additional width from the nearside lane could be used to provide additional protection for right turning vehicles by use of white painted hatching, thus producing a meandering running lane which would help to enforce the (widely abused) speed limit.

At the railway bridge it is suggested that cyclists are permitted to use shared-use footways, with a smooth (flush) transition from the carriageways to the footways, but should rejoin the carriageways where they currently widen to 2 lanes.

Although the wide verges could accommodate segregated cycle tracks this is not recommended in view of the large number of side accesses.

Hillfoot Rd (Woolton Rd to Speke Hall Rd), Speke Hall Rd (Hillfoot Rd to Hillfoot Ave), Hillfoot Ave

4.191 Hillfoot Ave provides an important link between Woodend Ave & Speke Hall Rd. Hillfoot Ave is a 2 lane dual carriageway , each carriageway 6.5m to 7m wide. This carriageway width causes cyclists to be given insufficient width by overtaking vehicles.

4.192 Possible solutions are :

- Provision of cut throughs to facilitate cyclists use of the service roads (calmed to 20mph)
- Provision of ASLs at the traffic signals
- Conversion of the nearside lane in each direction to a bus / cycle lane with ASLs at the signals. This latter option would be much more convenient for cyclists.

Speke Rd (Woolton)

4.193 From High St to School Ln the road is 7.3m wide, narrowing at Haileybury Rd to 6 – 6.5m . Surface is poor, road is congested & there are a number of bends. At School Ln junction Speke Rd is 9.5m wide.

4.194 Junction with School Ln needs a right turn cycle refuge, parking prohibition & repositioning of the bus stop.

Close Speke Rd to through traffic except buses, cycles & pedestrians & emergency vehicles. Divert all through traffic via Hillfoot Rd, Speke Hall Rd & Allerton Rd.

School Ln (Woolton)

- 4.195 5.5 – 6m wide with a very narrow pinchpoint at the Speke Rd end. Little traffic but some fast traffic.
- 4.196 Consider closure to all but bicycles, pedestrians & emergency vehicles in the central section between Winchester Close & Cavell Close. Surface repairs are also needed

ALLERTON

Greenhill Rd (Allerton Rd to Heath Rd, Stamfordham Dr

- 4.197 Quiet residential roads making an attractive & direct route between Allerton Station & Calderstones Park.
- 4.198 Improvements at junctions. Traffic calm with speed cushions

Melbreck Rd

- 4.199 A quiet residential road linking Greenhill Rd & Heath Rd to the Outer Orbital & West Allerton Station.

Heath Rd, Greenhill Rd (Heath Rd to Brodie Ave)

- 4.200 At its East end Heath Rd gives access to a loosely surfaced path alongside Allerton Park Golf Course. Heath Rd continues west as Greenhill Rd to meet up with Brodie Ave / Long Ln. Heath Rd between Allerton Rd & Mather Ave is a wide 2 lane dual carriageway & between Mather Ave & Greenhill Rd is a wide single carriageway.

Allerton Rd (Greenhill Rd to Woolton Rd)

- 4.201 This provides a useful direct alternative route to the busier Mather Ave. It connects with the Millennium Route (Green Ln) & Outer Orbital route (Booker Ave / Yew Tree Rd) & provides access to New Heys secondary school.
- 4.202 Consider traffic calming. Improve clarity of junction with Allerton Rd North / Green Ln, change junction priority at the junction with Greenhill Rd.

Springwood Ave

- 4.203 This wide road through Allerton cemetery is already used by cyclists travelling between Allerton & Hunts Cross. Hunts Cross shopping park is reached via Speke Hall Rd.
- 4.204 Consider cycle lanes along Springwood Ave

GARSTON

Church Rd (St Marys Rd to Woolton Rd)

- 4.205 This is a moderately wide carriageway, but there is a problem that cyclists can feel squeezed on the bends.
- 4.206 Prohibit & enforce parking restrictions on the bends. Reduce the junction flare at the junction of Church Rd, Woolton Rd & Chapel Rd.

Woolton Rd

- 4.207 Between Church Rd & Horrocks Ave the road is 11m wide with some parked cars on both sides. Speed is the only real problem. Between Horrocks Ave & Mather Ave the road is a 7.5m wide 2 lane dual carriageway. There are very difficult junctions for cyclists between:

Horrocks Ave & Woolton Rd and Long Ln & Woolton Rd which are very close together,

Woolton Rd & Mather Ave.

- 4.208 Woolton Rd is a 2 lane dual carriageway & climbs uphill from Mather Ave to the entrance to Allerton Priory School. Between Mather Ave & Springwood Ave each carriageway is 8m wide. Between Springwood Ave & Allerton Rd the width decreases to 6.5m & the road contains a number of sharp bends with poor forward visibility.

At the Woolton Rd junction with Allerton Rd there is a wide flare which is hazardous for northbound cyclists who are slow moving up the hill. This is an essential link in the network but there is no scope for carriageway widening or shared use of the footways.

- 4.209 Reduce Woolton Rd speed limit to 30mph & enforce it with speed cameras.

Consider reducing the 2 lane carriageways to a single wide lane (4.25m) plus a wide advisory cycle lane (1.5 to 2m). this will allow overtaking in the event of a breakdown or accident.

Alternatively consider a bus / cycle lane & an all purpose traffic lane in each carriageway.

At the signalised Woolton Rd junction with Springwood Ave install ASLs & remove or signalise the left hand slip which currently avoids the signals & endangers queuing cyclists.

Brodie Ave (Cooper Ave North to Long Ln)

- 4.210 2 lane dual carriageway; carriageways are each 8.5m wide. There are signals at Booker Ave. There are cut throughs in the wide central reservation at Cooper Ave, Cairnmore Rd, Lismore Rd, Craigmore Rd & south of Booker Ave at Lanville Rd, Glenhead Rd, Ravenstone Rd, & Greenhill Rd. Brodie Ave to the north forms part of RR 9A

4.211 Use speed cameras to enforce 30mph speed limit.

Long Ln

4.212 Long Ln is a single carriageway only to Nuresery Ln where it becomes a 2 lane dual carriageway. Northeast side is 8m wide with a few parked cars. South west side is 6.5m wide but there are no frontages. There is a cut through opposite Cardwell Rd.

4.213 Convert SouthWest side to one bus/ cycle lane & one all purpose lane. (Could provide bus bay because buses seem to wait). Speed cameras to enforce 30mph speed limit. There is a cut through opposite Cardwell Rd.

GARSTON

Banks Rd

4.214 Banks Rd between Speke Rd & Blackburne Rd has a 10m wide carriageway & is used as a distributor to Garston & by HGVs serving the tannery. Banks Rd between Church Rd & Windfield Rd is a 7m wide local distributor with little heavy traffic but there is a primary school access & traffic speeds are inappropriately high.

4.215 Install cycle lanes on both sides of Banks Rd between Speke Rd & Blackburne Rd. Signalise the junction of Banks Rd & Blackburne Rd to help right turning cyclists. **Traffic calm Banks Rd between Church Rd & Windfield Rd** with speed cushions.

Windfield Rd

4.216 A quiet residential distributor with no through traffic. The junction with Banks Rd is very flared & visibility is obstructed by buses which use the wide junction as a waiting area.

4.217 Reduce junction flare & prohibit waiting or **create bus bays where these do not obstruct visibility.**

King St / Dale St

4.218 King St is currently closed to traffic at its junction with Vulcan St during major engineering works. The Banks Rd / Dale St / Church Rd junction has very poor visibility & poses difficulties for cyclists turning right from Church Rd to Dale St.

4.219 Install a signal controlled junction (preferably) **or mini roundabout at the Banks Rd / Dale St / Church Rd junction**

Church Rd (Dale St to St Marys Rd)

4.220 Junction of Church Rd & St Marys Rd / Speke Rd is signalised

4.221 Install ASLs

SPEKE

Dunlop Rd , Hale Rd

4.222 10m wide. Could accommodate on carriageway cycle lanes in both directions. Hale Rd is the main through route round the southern margin of the Speke estate. It provides a valuable route for cyclists east from Speke to Hale & towards Widnes avoiding the A562. East of Western Ave Hale Rd is a street lit 7.3m wide single carriageway. The main difficulty for cyclists is the 40mph speed limit, combined with bends & limited width.

4.223 Consideration could be given to reducing the speed limit to 30 mph

Damwood Rd

4.224 Damwood Rd is a convenient direct route for cyclists along the southern edge of the Speke estate. The 7.3 m wide single carriageway poses few difficulties for cyclists.

4.225 Marking of a centre of carriageway line is recommended.

Tewit Hall Rd, Central Ave, North Parade, South Parade, Central Way, Heathgate Ave

4.226 Main east-west local distributor for Speke. Dual 2 lane between Western Ave & Eastern Ave. This route serves Spekes' main shopping & other community facilities; North Parade & South Parade in particular need to be made cycle friendly. The main problems are

- Busy Western Ave / Central Ave roundabout
- High speeds by some vehicles which is particularly problematic through junctions & on the bends at both ends of the North Parade & South Parade gyratory.

4.227 Introduction of a 20mph zone throughout the section between Harefield Rd & Little Heath Rd. Speed cushions could be employed to make this self enforcing

Conversion of the 2 lane dual carriageways between Western Ave & Harefield Rd & Little Heath Rd & Eastern Ave to an on carriageway cycle lane & a single wide all-purpose lane in each direction. The cycle lane should be advisory to permit overtaking of broken down vehicles.

Where additional width can be taken from the verge, segregated parking bays could be provided together with a 1m dividing strip to separate the cycle lane from parked cars.

The roundabout at the junction of Western Ave / Central Ave can be calmed by increasing the central island diameter with a raised, textured overrun area. This will increase deflection while accommodating larger vehicles & will be

feasible given the proposed reduction to one all-purpose lane in each direction on Western Ave & Central Ave.

Needs Sheffield stands at both north & south ends of the Central Parade shopping area. At the north end these can be under cover.

Speke Church Rd, Woodend Ln

- 4.228 A staggered Pelican crossing is provided at the north end of Woodend Ln, providing access between Speke & the segregated cycle track along the north side of Speke Boulevard. Woodend Ln & Speke Church Rd provide a short cut for westbound cyclists on Speke Boulevard to reach Speke Hall Ave & the airport.
- 4.229 Convert Pelican at the north end of Woodend Ln to a Toucan crossing. Consideration could be given to signisation of the junction of Speke Church Rd & Speke Hall Ave.

Bray Rd, Tarbock Rd, Millwood Rd, East Millwood Rd

- 4.230 This 8m wide carriageway provides a direct & convenient through route for cyclists along the north side of Speke estate & carries moderate traffic flows.
- 4.231 A signal controlled junction with Western Ave would facilitate crossing of Western Ave & should help to calm traffic on Western Ave. The use of formalised parking bays on alternating sides of the carriageway could be used to reduce traffic speeds if this is found to be necessary.

Western Ave

- 4.232 Two lane dual carriageway (each carriageway 7.3m wide) with on street parking. The main north-south local distributor for Speke. Reduce to 1 lane in each direction with marked parking bays.
- 4.233 If possible widen carriageway to accommodate a 1.5m one way cycle lane on both carriageways between the parking bays & the all-purpose lane. Widening is needed to accommodate an additional 1m wide (0.5m minimum) dividing strip between the car bays & the cycle lane to allow opening of car doors.

Eastern Ave

- 4.234 Eastern Ave is an 8m wide single carriageway with little on street parking. It is a bus route.
- 4.235 Calming & formalised parking bays on alternate sides might be needed.

Conleach Rd, Ganworth Rd

- 4.236 Conleach Rd & Ganworth Rd provide north-south access routes to the central shopping & community services area, but are not convenient as through routes because they are interrupted by the North Parade / South Parade giratory.

Speke Hall Ave

4.237 Speke Hall Ave is the main access to Liverpool Airport & Speke Hall industrial estate. It is the most direct route for cyclists north or west from these significant attractors & is well used by cyclists. The main problems are:

- The large fast roundabout with multiple approach lanes immediately north of the industrial estate
- The multi lane approaches to the junction with Speke Boulevard / Speke Rd. In particular there is no deflection for vehicles entering the left turn lane from the south presenting difficulties for northbound cyclists who wish to continue straight ahead
- The 40mph speed limit combined with sharp bends & a carriageway width of 7.3m south of the roundabout.

4.238 Provision of high quality (3m wide) segregated cycle tracks between the airport & Speke Rd / Speke Boulevard.

South of the roundabout these would make use of the wide verges.

North of the roundabout space could be taken in part from the very wide (10m) northbound carriageway & the 8.5m southbound carriageway

Cyclists should have priority at the junction with Speke Church Rd.

Regular sweeping & winter salting of these facilities is essential.

Signalised crossings of all arms of the roundabout will be needed to prevent unacceptable delays to cyclists. The segregated cycle tracks will need to feed into cycle / pedestrian phases at the junction of Speke Hall Ave / Speke Rd / Speke Boulevard.

APPENDIX 5 – SAFER ROUTES TO SCHOOLS

1. In June 1996, Sir George Young, Secretary of State for Transport, addressed the Sustrans Safe Routes to Schools conference which urged local authorities to create safe walking & cycling routes to schools, to contribute towards reducing local traffic congestion, pollution & road danger & to improve health & fitness.
2. There is considerable scope for increasing the proportion of students who cycle to school; average home-school distances are short; a majority of school age children are able to ride a bike; & the benefits to students include better general health & greater independence. However the deterrents include fears regarding social safety, hazardous roads, noise & air pollution & traffic congestion. A safer routes to schools programme offers the opportunity of counteracting the decreasing percentage of students making independent journeys to & from school.
3. However, safer routes to school is not merely about providing physical routes to schools – it is a complementary package of measures to encourage children to walk or cycle more. It requires measures to improve confidence in cycling such as cycling proficiency courses, road safety information & cycling with parents & friends. Safer routes to school also benefits from wider curriculum work on travel awareness & environmental awareness.
4. The provision of physical infrastructure is therefore complemented by promotion of cycling & walking. Physical measures include providing secure cycling parking facilities at schools, storage facilities / lockers for cycle equipment. Routes to schools might include new crossing facilities, signed cycle routes on minor roads, special cycle facilities & traffic calming measures.
5. The location of secondary schools has been a major factor in identifying possible cycle routes in Liverpool. The table below indicates the nearest cycle routes to each of the 41 secondary schools (County, Voluntary, Private, Independent & Grant maintained). Many of these routes give direct access to the school whilst others pass close by. It was not possible to identify specific routes into schools as this would have required gathering detailed information on access points to every school. However it is hoped that all feeder cycle routes will be investigated in the future between secondary schools & the proposed cycle route network. In the short term provision of secure cycle parking at all secondary schools is recommended.
6. It is essential that students, staff, parents & governors are fully consulted when developing safer routes to schools schemes.

School	Nearest Primary cycle route	Nearest local distributor routes	Comments
Alsop High	Middle orbital	Haggerston Rd	High priority for investigation of cycle routes to school due to location on major dual cway near roundabout intersection (<i>Rice Ln Flyover</i>)
Anfield comp	RR 4	Priory Rd	Provide ASLs at Priory Rd / Utting Ave crossroads
Breckfield comp	RR 4	Breckfield Rd	Consider signalisation of Breckfield Rd North & Breck Rd junction
Broadgreen comp	RR 7		
Calderstones Comp	Millenium Route	Allerton Rd	Harthill Rd is narrow, may need traffic calming
Childwall comp	Middle orbital	Thingwall Rd, Rocky Ln Abbeystead Rd	Provide ASLs at Queens Dr / Rocky Ln / Thingwall Rd crossroads, & at Mill Ln / Childwall Rd / Lance Ln
Croxteth comp	RR 4		Junction improvements at crossroads of Stonebridge Ln / Parkstile Ln / Altcross Ln / Storrington Ave
Fazakerley comp		Sherwoods Ln Swainson Rd Mospits Ln	Consider new crossing facility from Sherwoods Ln to Swainson Rd across Longmoor Ln & upgrading existing Pelican (opposite school) to Toucan with links on footway
Gateacre comp	Outer orbital	Grange Ln Hartsbourne Ave Belle Vale Rd	Loop Line nearby. Traffic calm Grange Ln & consider link via Grangemeadow Rd & Cranleigh Rd
Lee Manor High (closed)		Childwall Valley Rd	Provide new Toucan opposite school & ASLs at crossroads of Naylor's Rd / Childwall Valley Rd / Kings Dr
New Heys comp	Outer orbital	Heath Rd Allerton Rd	Improvements to Booker Ave (site closed)
Queen Mary comp	Outer orbital	Long Ln	Traffic calm Long Ln
Shorefields	RR 10 RR 9B	Dingle Mount	Improve Belvedere Rd / Ullet Rd T-junction
Speke	RR 9A	Central Ave	Improve existing cycle tracks

			on Speke Boulevard. Dense network of proposed LDRs in Speke give access from school to all residential areas
Holly Lodge	RR 5	Green Ln	
West Derby comp	RR 5		Although well served by primary routes there may need to be links provided along the footway on Queens Drive. Improve Queens Dr crossing between Quarry Rd & Sandforth Dr
Bluecoat	RR 8A		Consider traffic calming & ASLs at crossroads of Church Rd / Woolton Rd / Fir Ln. Consider either making Fir Ln one way or traffic calm
King David	RR 8A	Abbeystead Rd Beauclair Dr Dunbabin Rd	Improve crossing points over Queens Dr for pupils travelling from the east
Archbishop Blanch	RR 7	Brownlow Hill Smithdown Ln	Consider improvements to junction of Brownlow Hill / Smithdown Ln
Archbishop Beck	RR 3 Outer orbital	Cedar Rd Evered Ave Rice Ln Recreation ground path	Link the two sites by using the LoopLine & constructing anew bridge at its northern end over the railway. Recommend area wide traffic calming around A59
Broughton Hall (Yew Tree Ln)	RR 6		
Campion	RR 3	Prince Edwin St Netherfield Rd	
	RR 6 RR 7		Major works required to improve safety of Blackmoor Dr / Prescott Rd / Pilch Ln / Brookside Ave junction
De la Salle	RR 4	Dwerryhouse Ln	Junction improvements required on Carr Ln East & adjacent roads Croxteth Hall Ln & Oak Ln to enable access from new housing estates to the east
Notre Dame	RR 3	Netherfield Rd St Domingo Rd	High priority for further investigation of cycle routes to school due to location near major intersection (A59 / A580)
Nugent			Provide ASLs at Overbury St / Harbord St junction
Pope John Paul	RR 8A	Millwood Rd	Improve existing cycle tracks on Speke Boulevard. Dense network of proposed LDRs in Speke give access from school to all residential areas
St John Almond	RR 9A		Complete missing link of segregated cycle route between Banks Rd & Horrocks Ave.
St John Bosco	RR 4		Junction improvements at crossroads of Stonebridge Ln / Parkstile Ln / Altcross Ave / Storrington Ave
St Julies		Speke Rd High St Allerton Rd	Provide ASLs at junction of Woolton St / Kings Dr / Speke Rd / High St
St Marys	RR 9A RR 9B Inner orbital		Improve Belvedere Rd / Ullet Rd T-junction
Belvedere	RR 9B		Improve Belvedere Rd / Ullet Rd T-junction
Christian Fellowship	RR 9A		Calm Princes Rd / Kingsley Rd / Croxteth Rd /

			Devonshire Rd roundabout & enforce 30mph speed limit (consider speed cameras)
St Edwards	RR 5		Improve Queens Dr crossing between Quarry Rd & Sandforth Dr
Elliott Clarke (Rodney St)	City Centre Route – JMU Byrom St campus to Cathedral Gate		Provide ASLs at all signalised crossroads
Liverppool College	RR 8B Middle orbital		
Newborough (Quarry St Woolton)		Allerton Rd High St Woolton Rd Church Rd	
Our Ladys (Margaret St)	RR 4		
St F X	Outer orbital		Traffic calm Beaconsfield Rd
St Margarets (Aigburth Rd)	RR 9B Millenium Route		
St Hildas	RR 9A Millenium Route	Croxteth Gate Ullet Rd Brampton Ave	

Beaconsfield Rd	Our Ladys (Margaret St)
Belvedere Rd	St Marys, Belvedere, Shorefields
Brookside Ave	Cardinal Heenan
Childwall Rd	Childwall comp
Childwall Valley Rd	
Cranleigh Rd	
Grange Ln	Gateacre comp
Grangemeadow Rd	Gateacre comp
Harbord St	
Harthill Rd	Calderstones Comp
High St	
Kings Dr	
Lance Ln	Childwall comp
Long Ln	Queen Mary comp
Longmoor Ln	Fazakerley comp
Mill Ln	
Overbury St	
Pilch Ln	
Prescot Rd	
Priory Rd	Anfield comp
Queens Dr	Childwall comp
Rocky Ln	Childwall comp
Rodney St	Elliott Clarke (Rodney St)
Speke Rd	
Stonebridge Ln	Croxteth comp
Storrington Ave	Croxteth comp
Storrington Ave	
Thingwall Rd	Childwall comp
Ullet Rd	Shorefields
Utting Ave	Anfield comp
Woolton St	

APPENDIX 6 CYCLE AUDIT PROCEEDURE

1. In Chapter 6 of the main report the need for ca has been explained, together with an outline of the resource requirement.
2. The IHT Cycle friendly infrastructure guidelines (1996) state that a proper system of cycle audit is likely to involve formalising the design, technician support & audit procedures.

It will involve incorporating guidance into design briefs for in house designers & consultants.

Good training for all principal staff in the particular techniques of designing for cyclists will improve efficiency & avoid the need for corrective action later.

Around $\frac{3}{4}$ of cycle facility design work uses techniques that are common to all highway management work. The rest is cycle specific.

3. The cycle audit should be undertaken at the following stages:
 - 1A Feasibility
 - 1B Completion of preliminary design (order publication report stage) before publication of draft orders.
 - 2 Completion of detailed design (works commitment stage) before invitation to tender
 - 3 Post implementation (completion of construction) prior to opening of scheme to traffic wherever possible OR audit of existing highway network or cycle network or facility.
4. It may be simpler to group stage 1A & 1B audits together especially when the cycle facility is only one element in a larger scheme.

Each audit needs to provide an assessment of the scheme relative to the stage reached.

The audit stages are the same as those used for a safety audit.

However the cycle audit should be done just ahead of the safety audit at any stage to ensure that the safety auditor has maximum information to hand.

5. At each stage the audit should be conducted under the following 5 headings:
 - **Coherence:** all factors influencing the ease of finding & following a route & the logic of a facility layout.
 - **Directness:** all factors influencing journey time
 - **Attractiveness:** objective & subjective appeal.
 - **Safety:** objective & subjective safety of the carriageway / footway / cycle route away from the highway, as appropriate.
 - **Comfort:** all features requiring extra physical effort and/or causing physical discomfort.
6. As with safety audit, the engineer / technician designing the scheme should not carry out the cycle audit.

The information produced to support the audit process should be comprehensive enough to enable technicians to seek appropriate information & make judgements without routine recourse to the cycling officer.

To minimise the workload for the cycle auditor & to disseminate knowledge of cycling provision among all authority officers, it may be appropriate for the design engineer to complete a designers cyclist checklist prior to the formal cycle audit.

This should ensure that the cyclists needs are considered in the design at the earliest possible stage.

7. The following is an outline of the features of the design or completed scheme which should be reassessed.

Detailed questions will be specific to each of the 4 stages: feasibility, preliminary design, detailed design, post-implementation.

Some of the questions are applicable to cycle networks, others to individual facilities.

The detailed audit could be subdivided into questions specific to different situations including:

- Different types of junction - a) signal controlled
b) roundabout
c) other priority junction
- Traffic calming
- Traffic management / bus priority
- Pedestrian zones
- On carriageway cycle facilities on links
- Segregated cycle or shared pedestrian / cycle facilities
- Development proposals

8. The audit procedure will require the establishment of minimum standards for a number of parameters on cycle routes for example: Design speed, Detour factor (ratio of route section length to as-the-crow-flies distance).

These parameters will vary for routes with different functions in the network hierarchy; standards will be increasingly strict for access routes, then distributor routes, then through routes.

Standards will also have to be tailored to suit the capability of the intended cycle user group; for example, Safety standards will need to be more stringent for a safer route to school facility than for a route intended for use by adult commuters.

The Dutch Design Manual “Sign up for the bike” offers some additional design detail in determining standards for these parameters. HA 42/94 Road Safety Audits gives additional information which will be helpful in developing the safety section of the audit.

Coherence

9. Networks

- Does the network connect all significant origins & destinations?
- Are routes easy to follow (adequate signing, network maps, consistency in appearance)?
- Is there a choice of route at less than the maximum acceptable spacing, at least one of which is socially acceptable at night?
- Are design standards consistent (are there any points where the network fails to provide adequate standards of directness, safety, attractiveness & comfort because of barriers to cycling) ?

10. Individual facility

- Are all probable cyclist manoeuvres catered for?
- Will the proposal sever existing routes used by cyclists?
- For the proposed development is there direct & safe access for cyclists to all points?

Directness

11. Directness

- Is the detour factor below the maximum acceptable for route function in the network hierarchy?
- Is the design speed adequate for the route function, gradient & practical level of usage?

- Are delays at major junctions less than the maximum acceptable standards for the route function?
- Are delays at least as low as those on neighbouring routes which are less safe?
- Does the cycle route have priority over minor roads & driveways?
- Do one way , turning or access restrictions, or traffic signals, lead to unnecessary detour, time delay, or loss of momentum?
- Are gradients minimised?

Safety

12. Individual facility

- Is the junction type the safest available in relation to expected turning volume?
 - Is the complexity of manoeuvre suited to the capability of the least able within the intended cycle-user group?
 - Is intervisibility adequate between cyclists & motor vehicle users & pedestrians?
 - Are vehicle speeds sufficiently low to allow drivers & cyclists to react to each other throughout the intended manoeuvre?
 - Are motor vehicle speeds, volumes & HGV percentage suited to the level of cyclist segregation?
-
- Are the following adequate for the predicted cyclist volumes & attainable speeds?
 - Sightlines
 - Effective carriageway / path width
 - Carriageway / path headroom
 - Parapet heights
 - Curve radii
 - Surface condition (skid resistance, including manhole covers, unevenness & freedom from potholes
 - Stopping distances
 - Lighting
 - Positioning of bollards or speed control devices
 - Is salting & sweeping adequate to ensure safe passage
 - Is drainage adequate to prevent standing water
 - Are there any gaps or crevices that could trap or deflect a narrow wheel
 - Are there any upstands, rails or other irregularities? Is it necessary to cross these at other than 90 degrees
 - Is lighting at night or in underpasses adequate to ensure social safety
 - Is vandalism likely to impair personal safety
 - Will construction work lead to increased hazards for cyclists from temporary surface, construction traffic, temporary signals, or diversion onto less suitable routes

Attractiveness

13. Individual facility

- Is a cyclist likely to feel safe & personally secure , without being lulled into a false sense of security, including at night?
- Are levels of theft & vandalism of cycles acceptable & reducing?
- Does the facility avoid disorientating the user?
- Is obstruction by parked vehicles, pedestrians, or slower cyclists likely to deter usage
- Is surfacing sufficiently even to prevent damage to the cycle?
- Is the route environment sufficiently varied?
- Does any vegetation add to the attractiveness of the environment of the route without unacceptable cost to visibility, social safety or increased likelihood of punctures?
- Is the number of (non-accident danger) complaints from users & passersby within acceptable limits.
- Does the development proposal include adequate & well-located cycle parking provision?

Comfort

14. Individual facility

- Does the design minimise the need for loss of momentum (at junctions, bends & other obstructions)?
- Is the general hilliness of the route within acceptable limits for the local terrain?
- Are gradients within the capacity of most cycles & cyclists, including when carrying children or towing a trailer?
- Is protection from winds adequate.
- Is the texture & smoothness of the surface of good original quality & subsequently properly maintained?
- Are all interfaces between the carriageway & vertical interfaces flush?
- Is conflict with vehicles / pedestrians resolved?

APPENDIX 7 GUIDANCE FOR CYCLE FRIENDLY EMPLOYERS.

INTRODUCTION

1. There are significant benefits to employers in becoming more cf, not least the potentially huge cost savings for urban based emps in minimising the space required for car parking. Other possible financial benefits include the release of land for more productive uses & savings on car subsidies.
2. Cycling offers a reliable & flexible mode of transport for employees . Over short distances & in congested areas cycling can be the fastest means of reaching work or travelling for other work related journeys.It is also an equitable mode of transport – a bicycle is very affordable & accessible to all ages, thereby benefiting a greater range of employees.
3. It is logical that absenteeism from work will be lower where there is a healthy workforce & the benefitsof cycling in reduced coronary heart disease, obesity & tension, & in improving general fitness have been noted by the BMA. The government is shortly to commission a scientific study to identify the health benefits of regular cycling.
4. In addition to the cost savings & health benefits to employers who encourage cycle commuting, there is also a major benefit in terms of the companys' image. Supporting an environmentally sustainable mode of transport such as cycling could be part of other environmental initiatives promoting a greener image for the company.Measures to promote cycling can be included in a Green Commuter Plan ot Compant Transport Plan which aims to reduce the impact of car travel through a wide variety of initiatives.
5. However, there remain a number of deterrents which suppress the potential for cycle commuting. The London Cycle Campaigns' excellent "Get Friendly – a guide for employers" identifies 3 main barriers stopping employees from cycling:
 - Fear of traffic & pollution
 - Lack of adequate parking, changing, washing & storage facilities at work
 - Overestimating the physical demands of cycling
6. Their attractive information leaflet sets out a programme for employers to tackle these barriers:
 - Overcome obstacles (survey existing usage, install parking, provide washing& changing facilities, make cycling safer by putting beginners in touch with experienced coaches)
 - Give financial & other incentives (company bikes, interest free loans, loan bikes , subsidies for accessories, mileage allowances, help with maintenance.
 - Promote cycling through the workplace.

FACILITIES AT THE WORKPLACE

7. The cycling employees principal need is for safe convenient parking. Using Sheffield stands employers can accommodate up to 10 or 12 bicycles in on e car parking space. The stands should ideally be under cover in a secure place, preferably visible from a permanently manned security position or reception area. For high-risk sites, lockable cages may be needed.
8. Most enterprises will have some space available for parking but if not then the local authority could offer to construct some on adjacent public land, subject to agreement on cost.
9. Installing showers in some washrooms can be a useful encouragement, particularly when commuters are travelling longer distances. Lockers in changing areas are highly recommended to store helmets. Bags, lamps & other items which they may be reluctant to leave on unattended bicycles.
10. cycle access to the workplace is also important & emps have a role to play in supporting safe & direct cyle routes to the workplace & within larger work sites.

FINANCIAL INDUCEMENTS FOR COMMUTERS

11. Financial rewards for other travellers – car subsidies, loans for season tickets – are an established part of employer benefit packages. Existing rewards should t the very least be extended to include cyclists – loans at attractive terms for the purchase of bicycles, company bikes plus a cash sum as an alternative to a company car. If the enterprise is committed to encouraging cycling to improve the health & productivity of its emps, then some extra benefits just for cyclists are not out of place: loan bikes, subsidies for helmet or clothing purchase, even a daily payment.

CYCLING ON WORK BUSINESS

12. The CTC estimate that the cost of cycling including depreciation, insurance & running costs for an average mileage, is around 15p a mile. A milege rate for company business as least as high as the lowest casual car rate would be the minimum reasonable expectation, & one could argue that the equivalent of the highest car rate would better reflect the benefit to the enterprise.
13. Obviously many work journeys involve load carrying, long distances or a neat appearance, all of which are possible by bike, but less realistically less. However for some occupations, especially in service industries, health & social services the bicycle can be very suitable for work business, & every encouragement should be given to allow it to be used.
14. As part of the follow up to the NCS, the Inland Revenue is to develop new guidelines to employers for an agreed cycle allowance rate, possibly by 1997.

BICYCLE USER GROUPS

15. Every encouragement should be given to the starting of a BUG at the workplace. A number of successful BUGs especially in the health sector, have worked enthusiastically with management in helping to form pro-cycling policies. BUGs will help to identify suitable locations for parking stands & other facilities & join in effortsto persuade more people to take up cycling. Experienced cyclists can pass on advice to beginners.

APPENDIX 8 - GUIDANCE FOR DEVELOPERS

Planning Policy Guidelines:

“Local authority planning policies must reflect the importance of cycling as part of the transport infrastructure. Development control policies should address the implications of development proposals for cycling. Wherever desirable & reasonable cycle access & parking should be required or provided.” (Association of County Councils, Association of District Councils, Association of Metropolitan Authorities: “Taking cycling seriously” 1993)

1. Recent government planning guidelines, notably PPG6, 12 & 13 have dramatically changed the objectives & context for development control policies relating to location, parking & access. The revised goals incorporate an increasing role for walking & cycling which, to be implemented, require local authority policies to be reviewed in the areas of cycle parking, car parking & residential & non-residential development.

Cycle Parking

2. LPAs have existing powers to require bicycle parking facilities in new developments & many authorities have introduced & operated parking standards for some years, a practice advocated by PPG13 (para 4.17).
3. Where rigid standards are not in place, a strategy of information & encouragement is recommended through local authority example & developer guidelines, backed by the development plan. As an indication of the level of possible standard/guidelines for development, the attached table shows a combination of current figures used by 4 leading authorities.
4. As well as level of provision, the design, location & quality of cycle parking facilities will determine their usefulness.

Facilities should be close to the destination, clearly visible & well connected to any acknowledged cycle routes.

They should be protected from rain & illuminated at night, should provide for locking of the bicycle or complete enclosure, & should support the main parts of the bicycle without damage.

5. Typical cycle parking standards for new developments are shown below. These are based upon an aggregate of standards provided by 4 local authorities or former authorities: Cardiff City Council, Lothian Regional Council (standards for Edinburgh), Oxford City Council & Oxfordshire County Council. Not all of these authorities provided a standard for each of the land use categories.

Type of Land Use	Class	Unit	No of spaces
Shops/services	A1/A2	1000m2	15
Restaurants, cafes, pubs	A3	1000m2	50
Business offices	B1	1000m2	20
Industry	B2	1000m2	14
Warehouses	B8	1000m2	25
Hotels, guesthouses	C1	20 bedrooms	1
Hospitals, nursing homes	C2	staff	1 per 3
Clinic, health centres	D1	staff	1 per 8
Primary schools		staff	1 per 10
Secondary schools	D1	Students	1 per 4
Colleges, universities	D1	Students	1 per 2
Student accommodation	C2	Students	1 per 1
Other dwellings, flats		Unit	1
Libraries	D1	Staff	1 per 8
Theatres, cinemas	D2	100seats	3
Sports, leisure centres	D2	staff	1 per 10
Function rooms/places of assembly		100m2	7
Churches, halls, community centres		1000m2	6
Golf courses		Staff	1 per 15
Swimming pools		100m2	5
Marinas		Staff	1 per 15

6. PPG 13 recommends that car parking standards for on site parking should be revised downwards, setting maxima instead of minima. As a guideline a reduction of between one & two thirds is recommended immediately in non-operational parking levels.

Planning guidance recognises that parking provision has a major influence on the choice of means of transport, & states that local authorities should consider requiring commuted payments towards access by public transport, cycling & walking instead of car parking.

7. Clearly, the direct substitution of cycle parking costs for car parking costs in a commuted payment will greatly reduce the overall bill. Alternatively by collecting an equivalent amount (around £3000 per space), the substitute cycle parking facilities may be provided with sufficient funds left over for traffic calming, speed cameras or cycle routes on the approaches.

Residential development

8. PPGs 6 & 13 require new development to be accessible by a choice of transport modes & PPG 12 requires these policies to be incorporated into development plans. Developments should be based upon sustainable development principles &

it is recommended that they follow examples which minimise car ownership & use & involve a major role for cycling.

9. To achieve this, layouts should make local trips (under 5km) more attractive by bicycle or public transport than by car.

Provision of traffic calming & safe integration of cars & cyclists at low speed is recommended in preference to general segregation.

Layouts should give advantages to cyclists & pedestrians with short cuts & “gates”.

Private estate roads should not exclude non-resident cyclists & pedestrians.

10. Developers should be given guidelines on bicycle parking / storage facilities. The advantages of bicycle travel for local trips can be lost if the bicycle cannot be stored in a place that is both secure & easily accessible. Flats & houses need ground floor storage facilities that accommodate several bicycles securely & accessibly. It is recommended that these requirements are made as binding on developers as requirements for car parking & access.

Non-residential development

11. The above design principles apply equally to non-residential development. To summarise they should be based on:
 - Low car ownership & use
 - Priority access for cyclists, pedestrians & public transport
 - Bicycle parking located more conveniently than car parking.
 - Low vehicle speeds, enforced by cycle-friendly traffic calming around the development.
 - Extreme care with the use & design of roundabouts.
 - Segregation of cyclists from motor vehicles only where traffic volumes are high, manoeuvres are complex, or speeds are above 30mph. (Good overall design will help avoid the last two entirely).

APPENDIX 9 SUMMARY OF CYCLING POLICY STATEMENTS

Cycle Audit

CP1 All highway & land use development schemes will include a cycle audit to ensure that schemes provide improvements to , or at least have no negative impact on, the coherence, directness, safety, attractiveness & comfort of routes used by cyclists.

CP2 The council will undertake a strategic cycling review of its existing road network, to be completed by Autumn 2002, to assess locations & routes on the basis of the criteria of coherence, directness, safety, attractiveness & comfort for cyclists.

The council will aim to undertake traffic management &/or engineering measures as necessary to treat any problem sites & routes identified in the review as resources become available, or develop equally convenient & safe alternative & additional routes.

Cycle networks

CP3 High quality route networks will be provided for cyclists, with priority given to the main urban areas & links to surrounding settlements which generate significant amounts of commuting.

The route network will comprise the highway network, modified where necessary using traffic restraint, traffic calming & cycle specific facilities to enable safe & convenient access to all destinations.

CP4 Priority will be given to routes as follows:

1. Major routes which serve utility cycling trips; in particular safer routes to schools, routes from residential areas to significant journey attractors such as retail centres, major employers, public transport interchanges, hospitals, other education & leisure facilities.
2. Other connecting routes used for utility cycling, including inter-urban links.
3. Recreational routes including links to non-urban sections of the National Cycle Network.

CP5 Route networks will achieve high standards of coherence, directness, safety, attractiveness & comfort, & design criteria will adopt the hierarchical approach recommended by the IHT/DoT/CTC/Bicycle association publication: Cycle friendly infrastructure: Guidelines for Planning & Design (1996).

CP6 Measures will be provided, wherever feasible, which improve cyclists safety & give priority (in terms of access & journey times) over other traffic, on roads with significant cycle flows or significant potential cycle flows.

CP7 the city council will undertake a high standard of maintenance of segregated cycle facilities & all roads used by cyclists within its current maintenance regime.

CP8 the city council will ensure that, where feasible, development does not sever routes used by cyclists or pedestrians or prejudice accessibility by walking or cycling without providing suitable diversions.

CP9 The city council will make use wherever possible of planning gain & commuted payments to improve transport infrastructure to aid cyclists.

Cycling & Public Transport

CP10 The city council, in conjunction with Merseytravel, will seek to integrate cycling with public transport, to facilitate cycle use as part of longer journeys.

Cycle Parking

CP11 Adequate cycle parking will be provided according to standards defined in the city councils SPG Note 8 (Car & Cycle parking standards), at educational establishments, retail centres, public transport interchanges, leisure facilities & other major journey attractors. Employers will be encouraged to provide cycle parking at workplaces.

CP12 The city council will adopt cycle parking standards to ensure that cycle parking facilities are secure & accessible, & where possible are well lit, under shelter, & conveniently serve the cycle route network.

Encouragement

CP13 The city council will support its infrastructure measures with a sustained programme of complementary publicity to publicise the cycle network & other facilities, to emphasise the health, financial & environmental benefits of cycling & the need for reduced use of private cars.

CP14 The city council will establish a programme of cycle friendly employer initiatives.

Education

CP15 The city council will seek to provide on-road cycle training for at least 50% of 10-12 year olds as part of its school transport policy.

CP16 The city council, in conjunction with Merseytravel, will seek to prepare a school transport policy, which will encourage & facilitate walking & cycling (in combination with public transport use where necessary) as a means to improve the safety, fitness, & independent mobility of school children, & to reduce congestion & traffic danger around schools.

CP17 The city council will endeavour to provide, in partnership with local cycling organisations, on road cycle training for adults.

Enforcement

CP18 The city council will liaise with Merseyside Police to ensure that enforcement of traffic law receives the highest possible priority among its many policing responsibilities.

CP19 The city council in partnership with Merseyside Police will endeavour to adopt a Theft Reduction Strategy, recognising that the fear of cycle theft is a major deterrent to cycling for many utility journeys.

Monitoring & review of policies in action

CP20 The city council will undertake comprehensive monitoring of cycle use, accidents involving cyclists & cycle theft in cooperation with Merseyside Police) to inform its programme of infrastructure development & to measure progress towards its targets.

CP21 The city council will ensure that its programme of highway schemes & all cycling infrastructure proposals are supported by monitoring of cycle use (as described in “Monitoring & Review of policies & action) & by regular consultation with local cycling organisations.

Staffing requirements

CP22 The city council will ensure that sufficient expertise exists among a wide range of staff within the relevant departments to meet the targeted increase in cycling as a mode of transport.

Funding

CP23 The city council will identify potential funding sources for cycling measures, & will make appropriate bids for such funding, in order to implement the measures contained within the strategy.

Danger Reduction

CP24 The city council will adopt a Danger Reduction Strategy to ensure that the desired increase in cycle use is accompanied by a decrease in cyclist casualty rates. The approach of this strategy will be to reduce road traffic danger at source, through the programme of engineering measures & education & enforcement strategies.