

Active Travel Consultation – Pop-Up Lanes

January 2023

Please find the below submission in response to the latest 'Active travel consultation'.

In response to the latest 'Active travel' consultation, Liverpool University Hospitals Foundation Trust (LUHFT) has engaged participants of the ATSEF (Active Travel Stakeholder engagement Forum), local community cycling clubs such as 'Aigburth Cycle Club' and 'Joyriders', members of the public and NHS staff.

As an anchor institution we are keen to support the local authority on proposals that benefit the health and wellbeing of the public in the region.

The current process has been developed to heighten the awareness and increase participation for the recent Liverpool City Council proposals. Composed from a series of cycle rides and mapping workshops, the response below has been drawn together by participants from these events, some of which were hosted by LUHFT. The response represents the thoughts and feelings of those that attending and demonstrates a real enthusiasm for more 'Active travel' infrastructure.



Overview

We would like to thank Liverpool City council for giving us access and the members of Mott MacDonald for their participation in the consultation process, providing access to their most recent drawings, and their willingness to discuss the rationales behind their design decisions.

We have produced detailed response to the proposals, including an overview of the scheme and specific improvements we believe need to be made to certain sections.



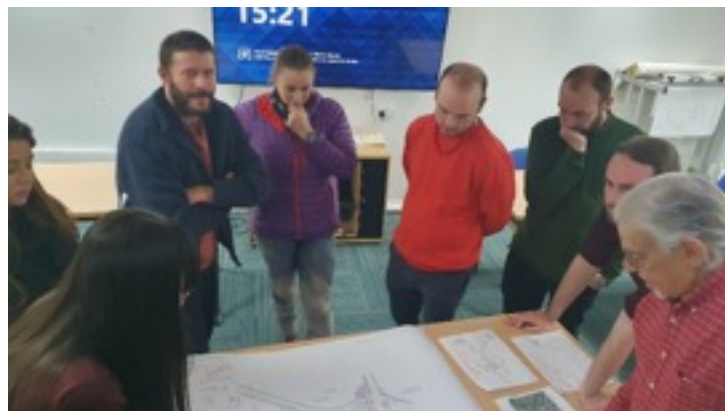
Good points:

- We support the use of LTN 1/20 guidance as a minimum standard for cycle infrastructure.

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- The choice of routes is generally good - linking suburbs with the city centre is a good start for creating a city-wide cycling network. The scope and reach of this proposal is very impressive.
- Cycle infrastructure will be kerb-separated from motor traffic and separated from pedestrian spaces throughout. The protection and safety provided by this separation is necessary to encourage new cyclists - and it helps to discourage drivers from encroaching on the cycle infrastructure.
- Cycle lanes are generally 2 metres wide for unidirectional cycleways, and 3 metres for bidirectional cycleways, which is wide enough to allow effective cleaning by street sweepers, as well as providing space for sociable 2 abreast cycling (e.g., parent with child), wide bicycles (e.g., cargo bikes and tricycles) and one cyclist overtaking another.
- We welcome the new pedestrian crossings (signalised and unsignalised) in places which currently don't have crossings, which is very important for increasing the safety and convenience of walking in places busy with motor traffic.
- The continuous raised footways at many junctions between major and minor residential streets are a significant improvement for pedestrian safety and accessibility along local high streets and support recent changes to the Highway Code.
- We are pleased to see many uses of the bus stop bypass layout in these schemes and believe that this should be the default layout to be used wherever possible.
- We were glad to see lots of junctions will have improved physical protection for cyclists, and we have been assured that there will be dedicated traffic light phases for cyclists travelling along the proposed route which can be activated automatically by AI cameras at major nodes.
- We support the plans to use ANPR (Automatic Numberplate Recognition) cameras to deter parking on pedestrian and cycle infrastructure, especially if the proceeds from fines can be ringfenced for future active travel projects.
- We are pleased to see that in many situations, these plans have found the space for cycle infrastructure by narrowing or reducing the number of lanes for motor vehicles rather than taking valuable public space away from pedestrians. This will likely have the added benefit of reducing traffic speeds and increasing safety and reinforce a general practice of reducing traffic volumes in favour of more sustainable transport modes.
- We support the 'missing links' plans to join up cycle infrastructure in and around the city centre, which are in the early stages of development and to be consulted on soon.



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Suggested Improvements:

These are suggestions based on providing a consistent and overall higher level of safety across all the proposed schemes.



- While LTN 1/20 is a good minimum standard, we believe that these it's important to consider options beyond the LTN 1/20 and look for precedents around the UK and Europe. This infrastructure is intended to have a lifespan of 20-30 years, so it's important to make every aspect futureproof in terms of urban design, capacity, material quality, and being able to link in with future infrastructure changes that may be needed in the coming decades.
- We would like to see further improvements to cycling access across these routes, providing protection for cyclists travelling to and from all directions at major junctions, e.g., at the Sefton Park gates. This would support a wider variety of journeys and could allow future cycle infrastructure schemes to 'plug-in' without it being necessary to make further significant changes to major junctions.
- We generally do not support the use of shared spaces at bus stops, due to the potential conflict created by bus passengers and cyclists being directed into the same space. We favour the use of bus stop bypasses wherever possible, and where this isn't possible a narrow buffer area of 0.5 - 1m of a similar colour material to the pavement could be introduced to allow vulnerable users such as an elderly or visually impaired person to step off the bus into a safe area where they can see and/or be seen by oncoming cyclists before stepping into the shared space.

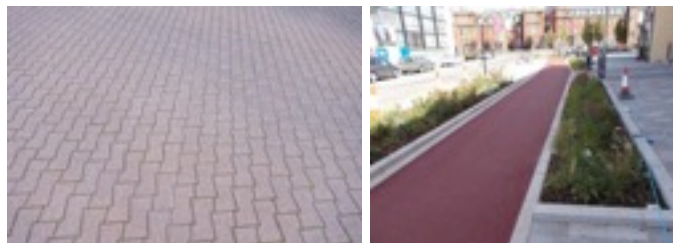
<https://www.transportxtra.com/publications/evolution/news/61330/blind-group-questions-legality-of-enfield-s-bus-stop-boarders/>

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- Consistency in colour and surface treatment of cycle infrastructure is very important for ensuring the streetscape and infrastructure is legible to as many road users as possible. We would like to see a terracotta red colour used throughout this scheme and adopted as the default for future schemes. Red tarmac is preferable as it is the most comfortable and grippy surface for cyclists. Red brick or interlinking block surfacing is also suitable for use on residential and access streets which are shared between cyclists and motor vehicles if used as part of a scheme to slow and calm motor traffic. It's also acceptable in situations where many utilities are located under the cycleway because it can be a preferable surface to tarmac which has been patched multiple times.

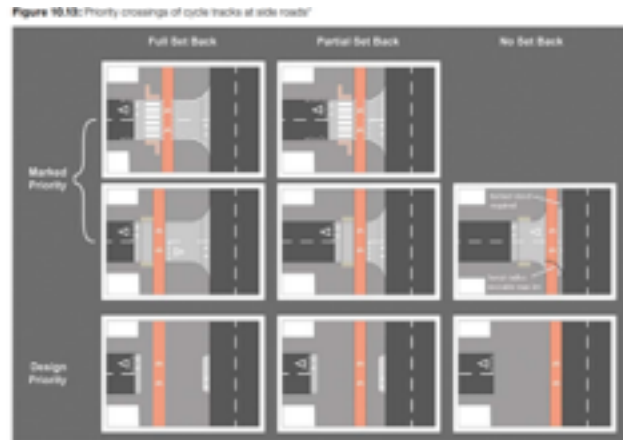


Interlinking red block / red tarmac in Salford

- While we support the use of priority crossings using raised continuous pavements at the mouth of junctions between major and minor roads to emphasise the recent change in the highway code, this protection should be extended to cyclists too. This could be done by using 'design priority' according to the LTN 1/20, raising the cycleway to intermediate or pavement height. As designed, with only 'marked priority', it is too easy for drivers to wait on the cycleway blocking cyclists while waiting for pedestrians to cross.

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/951074/cycle-infrastructure-design-ltn-1-20.pdf (p106)

Example of a junction between major distributor road and minor residential street with good quality design priority:



<https://twitter.com/dutchurbanindex/status/1226838061071437825>

<https://robertweetman.wordpress.com/2018/11/13/design-details-1/>

- We recommend that Liverpool City Council consults with local community interest groups and determine whether other public realm improvements can be made alongside the active travel interventions. This could include improved paving, planting of trees and shrubs, new outdoor seating areas, and spaces for community activities. This could increase buy-in from non-cycling residents and business owners, and provide other potential funding sources, e.g., Stanley Road, Rocky Lane and West Derby Road could be eligible for local high street funding.
- We are happy to see Cyclops and other similar signalised junction designs used in several places in these proposals, as they help to protect cyclists from busy motor traffic through traffic light phasing, but they would be improved by having the stop lines for bikes significantly advanced of the stop line for motor traffic.
- Where separated cycle infrastructure, it is important to include kerb protection to allow cyclists to merge into traffic smoothly, rather than being asked to give way to join the carriageway.

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Sefton Park Route

This route has the potential to be the future jewel in the crown of Liverpool's cycle infrastructure. The current proposals are certainly an improvement, but we have identified several aspects that we believe need changing to make the proposals high quality and fit for the future.

Croxteth Gate

Mott MacDonald proposal



- As currently proposed, the cycle infrastructure at the two northern entrances to Sefton Park is likely to be confusing, creates potential conflict points, and doesn't accommodate travel by bike to and from all directions. We believe it's important to design for all use cases. For example, some users may not be comfortable cycling through the park after dark and are likely to use the better-lit and less secluded perimeter road, so it's important to accommodate that choice in the infrastructure design.
- We have concerns about the use of bidirectional and contraflow cycle lanes at the junction of Ullet Road because it puts cyclists travelling in the opposite direction to where drivers will expect them to be.
- The route for cyclists to travel from Croxteth Road into Sefton Park is very indirect, crossing the road at Croxteth Gate twice. Some users are likely to shortcut, cycling the wrong way down the cycle lane on the western side.
- There is no provision for allowing safe cycle access between the designated route and Ullet Road, Mossley Hill Drive, or Croxteth Drive.
- There is no improvement for pedestrians walking along Ullet Road - the proposal diverts pedestrians from their desire line even further than the current situation to get to a designated crossing.

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Alternative Proposal

This would consist of fully protected junctions for cyclists, with all cyclepaths unidirectional on the left-hand side of the carriageway. We propose to retain the existing location of the roundabout and most kerb lines. It may be possible to fit a cycle-priority Dutch Roundabout, but a non-priority roundabout would likely work just as well in this situation, as there is plenty of space to provide refuges for cyclists and pedestrians on each arm.



This will provide:

- Protection for cyclists and pedestrians traveling to and from every direction.
- Traffic calming through narrowed carriageway and tighter roundabout geometry.
- Potentially lower cost due to mostly using existing kerb lines.
- More predictable positioning for cyclists.
- More intuitive navigation as cyclists can follow their desire lines.
- Protection for cyclists emerging onto the carriageway at Croxteth Drive.

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Aigburth Drive Gate

Mott MacDonald proposal



- We support the repurposing of space from vehicle slip lanes to pedestrian space, and the introduction of pedestrian crossings.
- Turns into/out of Windermere Terrace, and right turns at the Ullet Road junction, are still risky for cyclists. We believe the infrastructure at this point also needs to account for and protect cyclists and pedestrians travelling to and from every road to be the most futureproof and effective.
- The Princes Avenue junction is proposed to have a protected cycle link into Princes Park, which would allow cyclists to ride through and exit at Windermere Terrace, but there is no protection for cyclists following this route and continuing to Sefton Park via this junction.
- Like the previous section, the proposal doesn't account for cyclists joining and leaving the cycle route via Sefton Park's perimeter road Croxteth Drive.
- The sharp turn in the cycle path next to the pedestrian zebra crossings requires pedestrians to look behind them to check that cyclists are stopping for them.
- We appreciate the creation of additional public green space, but question how much this will be used when it is so close to Sefton Park itself.

Our Proposal:

This would consist of another roundabout, using the existing disused circle, and cycle paths allowing protected navigation to and from all points.

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This will provide:

- Protection for cyclists and pedestrians traveling to and from every direction.
- Traffic calming through narrowed carriageway and tighter roundabout geometry.
- Potentially lower cost due to mostly using existing kerb lines and features.
- More predictable positioning for cyclists.
- More intuitive navigation as cyclists can follow desire lines.
- Protection for cyclists emerging onto the carriageway at Croxteth Drive.

A Dutch-style cycle-priority roundabout may be feasible at these two gateways to Sefton Park but may not be necessary because motor traffic volumes are generally low if refuges are provided to allow cyclists and pedestrians to pause between crossing each lane of traffic.

Example of Dutch roundabout which does not give priority to cyclists (left) and does (right).



<https://www.google.com/maps/@52.3132423,4.8632904,83m/data=!3m1!1e3>

<https://www.google.com/maps/@52.3155311,4.8680902,100m/data=!3m1!1e3>

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Junction of Ullet Road, Sefton Park Road, Aigburth Drive, and Windermere Terrace



The current proposed design provides an early-release for cyclists approaching the junction from Sefton Park Road and Aigburth Drive but doesn't provide protection for cyclists approaching from other directions including Windermere Terrace - an otherwise ideal route for families, novices, and tourists travelling recreationally between Sefton Park and Princes Avenue.

If traffic volumes are shown to be high, a Cyclops junction may be preferred, with access to Windermere Avenue for motor traffic via a left turn from Ullet Road, and a give-way left turn from Windermere to Sefton Park Road, and cycle infrastructure continuing clockwise around the whole junction.

This is not an ideal solution as it isn't very intuitive or direct, but could provide:

- Safer access to and from Windermere Terrace to join up with Princes Drive through Princes Park - could be more appealing for novice cyclists and recreational rides.
- Protected turns to and from all directions for cyclists, and protected crossings for pedestrians across all arms of the junction. Protection may be more important at this junction than directness.
- No risk of novice cyclists needing to stop in the centre of the junction when attempting to turn right.
- Traffic calming through narrowed vehicle lanes, planting, and continuous footways across Windermere Terrace.

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Junction of Croxteth Road, Sefton Park Road & Greenheys Road



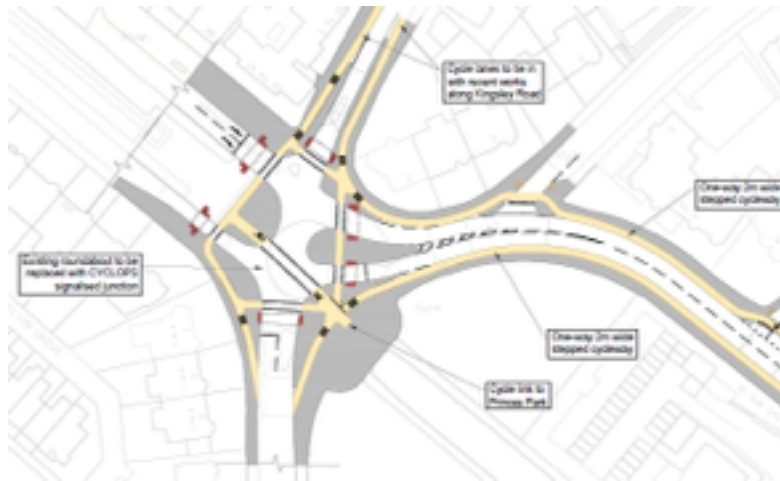
The current design is, overall, very good. The cyclops arrangement is well-suited to the context, allows protected turns to and from all directions, and the limiting of through traffic on the southern section of Sefton Park Road to northbound only is a good solution to the providing protection for cyclists on this narrow road. We would suggest also limiting motor vehicles to one-way travel on Greenheys Road with design priority for cyclists and pedestrians or turning it into a cul-de-sac by closing the eastern end, to provide space for a safer protected emerge onto Sefton Park Road.



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Junction of Princes Avenue, Kingsley Road, and Croxteth Road



This is a very good junction, which allows cyclists and pedestrians to travel to and from all directions and allows cyclists to follow their desire line directly between Princes Park and Princes Avenue. The narrowing of carriageways on the approach helps to calm traffic speeds, which is very welcome.

However, it seems to rely on the proposed AI signals to be effective at changing the lights when cyclists approach. It may be less expensive and almost as effective, to install a Dutch Roundabout with priority for cyclists:



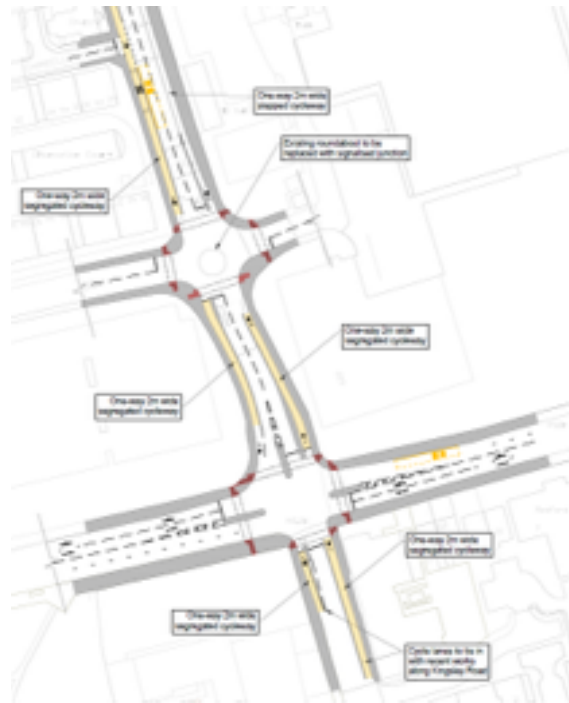
(Todd Lithgow)

This would allow cyclists to continue through the junction without stopping, while allowing the same basic layout of the junction to remain. We believe that the geometry would work and that this could be cheaper than the current proposal to build and maintain, which could allow more to be spent on protecting cyclists and pedestrians at busier junctions. A roundabout without priority for cyclists may also be feasible if sufficient refuges are provided. We encourage Mott MacDonald to conduct a study to determine if signals are necessary at this junction.

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Junctions at Kingsley Road, Upper Parliament Street, and Crown Street



The level of protection given to cyclists across Upper Parliament Street is poor for the traffic volumes - early release at the traffic lights should be a minimum, and ideally a full Cyclops junction here would consider all potential directions of travel for cycle traffic.

Example Cyclops in Manchester (left) and possible solution for junction at Women's Hospital (right).



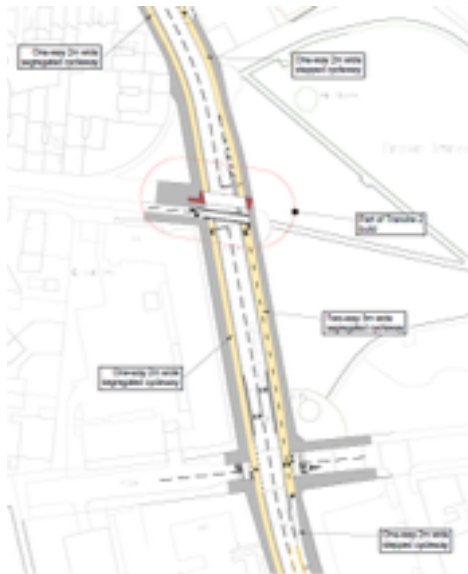
<https://cities-today.com/uks-first-cyclops-junction-opens-in-manchester-to-boost-bike-safety/>

The signalised junction at the entrance of the Liverpool Women's Hospital and JF Renshaw sites on Crown Street may not be necessary if usual traffic volumes in and out of these sites are low. It may be sufficient to treat these site entrances as minor roads and provide design safety for cyclists and pedestrians by installing continuous pavements and cycleways (design priority) across these side roads. Due to the 24-hour nature of the hospital, we suppose that there are less likely to be large surges of traffic at rush hour compared to other large employment centres. We'd encourage Mott MacDonald to study the traffic patterns and reconsider if there are alternatives to signalisation if AI camera control is not feasible.

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Crown Street Park



The plan around Crown Street Park needs some reworking- it seems unnecessary to have a unidirectional and a bidirectional cycle path on the same street. The right turn from Falkner Street into the bidirectional cycle path on Crown Street seems to create a conflict with drivers by being unexpected. We would recommend creating an unsignalised major to minor junction with refuges and design priority for cyclists grouped with an informal crossing for pedestrians, to allow both to cross Crown Street while taking each traffic lane in turn.

The bidirectional cycle lane and crossing between Myrtle Street and Crown Street Park is in practice often used as a waiting area for pedestrians, and there is often conflict between pedestrians and cyclists at the entrance to the park due to the narrow gateway. Either there should be a secondary gateway and path for cyclists to pass through the park, or cyclists should be intentionally directed away via Faulkner Street - currently cyclists use both routes because the design tends to funnel cyclists towards the park, but during termtime rush hour the paths through the park are usually too full of pedestrians to feasibly be shared.



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Junction of Crown Street & Oxford Street



This junction is currently very difficult to navigate by bike during rush hour - particularly right turns from Oxford Street eastbound onto Crown Street, a route which many university students will take between student accommodation and the northern half of the University of Liverpool campus. Signalisation will likely improve the situation, but we have concerns about the bidirectional section of cycle path across the junction. This should be avoided as drivers turning left from Oxford Street westbound into Crown Street will have been driving next to a unidirectional cycle lane for several hundred metres and will not expect it to suddenly become bidirectional at the junction.

We would recommend routing the cycle lane around the junction clockwise, and using tiger crossings across each arm, set back a car length from the corner, to allow cyclists and pedestrians to be given priority at the junction, and for drivers to deal with hazards one at a time.

We would also recommend that the cycle path continues north through the underutilised green space away from traffic to join up with the northern section of Crown Street.



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West Derby Road Route

Junction of West Derby Road, Sheil Road & Belmont Road



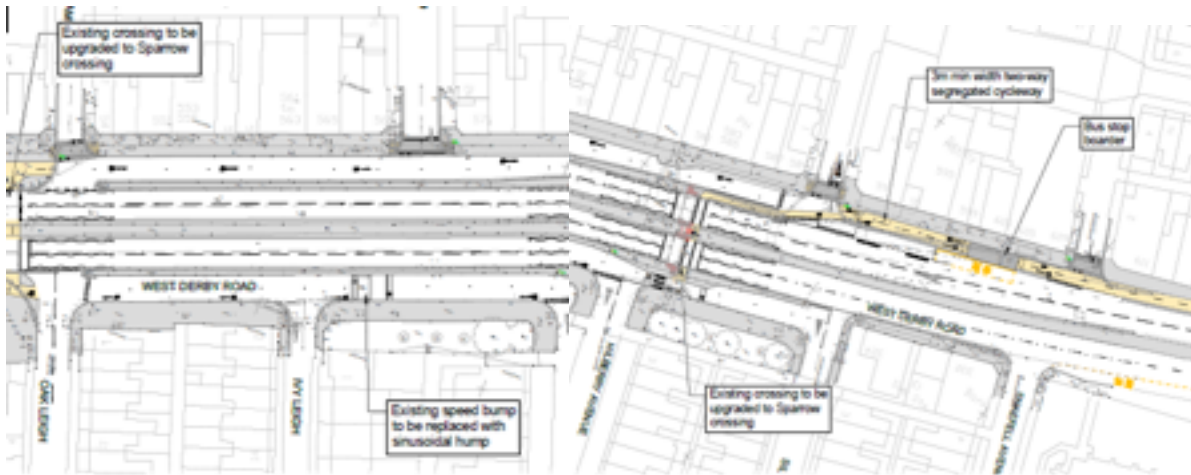
Overall, this junction is an improvement over the current situation for cyclist safety, but it seems unnecessarily complicated and confusing for cyclists travelling north. A full Cyclops junction would be a significant improvement further and allow future cycle infrastructure to tie in much more seamlessly.

The modal filter at Newsham Drive and use of Belmont Drive as a low traffic shared space are a good solution., however, the bidirectional section of cycleway to link Belmonth Drive should pass through the park gate to link up with the junction.

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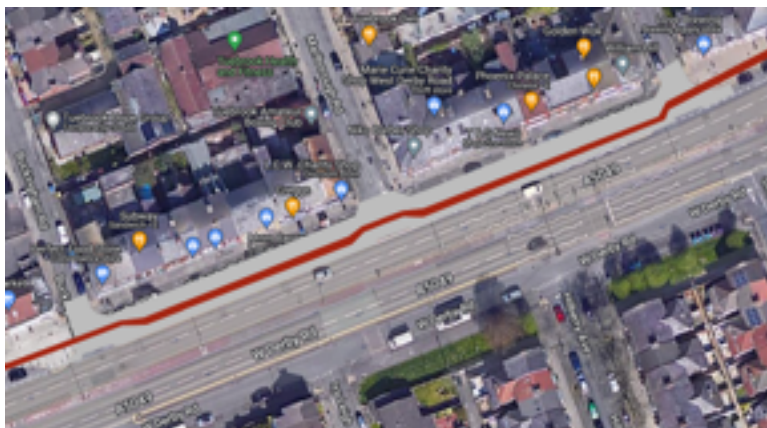
West Derby Road Shops



On low traffic volume residential streets, the use of access streets can be suitable as a shared space between motor and cycle traffic. However, Crash Map already shows many collisions between vehicles at entrances and exits of this access street at the front of the row of shops.



We think it would be very risky to put cyclists in this space without further modification - at a minimum serious traffic calming would be necessary, or ideally the permanent cycleway would pass through a new pedestrian area. This could also be an opportunity to provide some good quality public space on a local high street and parking could be on West Derby Road making it easier for people to access the shops from their cars.



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Green Lane Junction and Muirhead Avenue Roundabout



The junctions between West Derby Road, Green Lane and Muirhead Avenue are difficult to navigate on foot and by bike currently, and while the proposed plan improves matters, more could be done to ensure pedestrian and cyclist safety and convenience. It's disappointing to see that Green Lane remains much unchanged despite it being quite a collision hotspot according to Crash Map, and there are likely to be people who would join/leave the route from/to Green Lane and the eastern leg of West Derby Road. Lisburn Lane has also had several serious collisions, so adding a bidirectional cycle lane at the junction here could create more risk.



Lisburn Lane and Green Lane form part of an unofficial active travel route which is roughly parallel to Queens Drive on the inner-city side, linking Old Swan with Walton Village, so it would be desirable to account for movement along this corridor.

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It may be possible to simplify the roundabout by removing the link to Lisburn Lane for motor traffic, narrowing the motor vehicle lanes from approx. 4m to 3m on the approach, and using some space from the central reservations to move the carriageways together and create a safe route for cycles to travel clockwise around the roundabout separate from the carriageway. The design may not necessarily have to give priority to cyclists and pedestrians because there are refuges between each direction of travel and the crossing points are set back 1-2 car lengths from the junction to allow line of sight, but it could be desirable to include tiger crossings or signals on each arm to reverse the car dominance at this junction.

Space could be found for a protected signalised junction with crossings on all arms by removing the dedicated left turn lane for motor vehicles into Green Lane and reducing the kerb radii.

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Muirhead Avenue



The use of the central reservation for the cycle lane along Muirhead Avenue has benefits and drawbacks. On the one hand, it will help to open up quite a large area of underutilised public space and could be a desirable route for recreational cycling which links up with the Loop Line shared use pathway which is part of the National Cycle Network. It's also probably the cheapest option, and the least disruptive option for drivers.

However, as with the Princes Avenue cycle infrastructure, it would be undesirable as a route for many commuting or delivery cyclists because it's generally more time consuming to cross the carriageway to reach the central reservation and cross back again to leave than it is to remain on the carriageway or in a protected lane on the left-hand side.

If the central reservation is to be used, it's vital to ensure that all side roads can be used to join and leave the cycleway easily and safely. This means the above that the connections above would need to join both sides of Muirhead Avenue bi-directionally.

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Vauxhall & Stanley Road Route

Overall, this route is good quality and includes as much protection for cycling as is feasible on such a narrow street, although design priority for cyclists as well as pedestrians at side roads would still be desirable to emphasise the recent highway code changes apply to cyclists as well as pedestrians proceeding along a major road.

Pumpfields Road



At Pumpfields Road is the Just Eat Central Hub which is likely to have larger than average numbers of delivery cyclists going in and out - it may be preferable to have a Cyclops junction, or other junction that gives protection or priority to cycling here closer to the desire line. Right turns from Pumpfields Road to the Sparrow crossing may create a conflict point by not being obvious to other road users.