North-South Cycle Superhighway (CS6): Farringdon Street / West Smithfield / Snow Hill junction

Response to Issues Raised
March 2017
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Executive summary

Between 2 November and 13 December 2016, we consulted on further proposed changes to the junction of Farringdon Street / West Smithfield / Snow Hill as part of North-South Cycle Superhighway (CS6).

We have published our factual consultation report at https://consultations.tfl.gov.uk/roads/west-smithfield/. It describes the consultation activities and highlights the issues most frequently raised during the consultation.

Next steps

Having considered the responses that were received during the consultation and following further investigations, we intend to proceed with the scheme, although with some minor changes to the design we consulted on. These include:

- Changing the loading/disabled bay on the western side of Farringdon Street, north of the Holborn Viaduct to a daytime taxi rank/night time loading bay
- Splitting the Advanced Stop Line (ASL) on Snow Hill into two separate boxes to help improve positioning for cyclists at the junction (pending DfT approval)
- Adding hatched road markings on the southbound approach to the pedestrian refuge island on Farringdon Street to increase visibility for southbound traffic
- Adding a traffic island on Farringdon Street so that an additional traffic signal can be provided
- Shortening the southbound segregation on Farringdon Street under the Holborn Viaduct to provide space for articulated lorries to turn left from Snow Hill
- Adding coloured surfacing on West Smithfield where vehicles cross the cycle feeder lane (subject to approvals from the City of London)

In addition to the changes above, we will also make changes to the designation of the loading, taxi rank and disabled bays on the east side of Farringdon Street, south of Stonecutter Street junction to better cater for expected demand. These will now be for taxi ranking and disabled parking only.
Construction

Subject to the formal Traffic Order process and the approval of the City of London Corporation, we would aim to start constructing some sections of the route in autumn 2017, with completion planned for 2018.

We will write to local residents, businesses and other stakeholders before undertaking work in their area. We also provide road traffic information to help people better plan their journeys and make informed choices about how, where and when they travel.
Response to issues commonly raised

We have worked closely with key stakeholders on our response to the issues raised during the public consultation, which is set out in this section.

Traffic and congestion

Traffic signals and journey times

Some respondents were concerned about potential increases in journey times for general motor traffic and buses due to the reallocation of road space. People raised concerns that an increase in traffic would then increase pollution around the junction from stationary vehicles, increase traffic on local roads or have an impact on local access.

Other people raised concerns that the current traffic signals along the proposed route of North-South Cycle Superhighway (CS6) do not allow enough traffic through and therefore to add more would result in increased journey times. Others supported the addition of signals to the junction as a means to bring smoother traffic flow by controlling those that join Farringdon Street from Snow Hill.

Some were also concerned that additional traffic signals would result in increased journey times for cyclists and believed this could result in some cyclists choosing to use the main carriageway instead.

Detailed traffic modelling has been undertaken to assess the impact of this scheme on journey times. The results, which were summarised in the consultation material, showed the scheme would have largely neutral impacts on general traffic and bus journey times on Farringdon Street. Small increases in cyclist journey times were predicted; however the proposed changes would significantly improve cyclist safety along the route for current cyclists as well as helping to encourage others to cycle.

Data generated from the detailed traffic modelling analysis for the North-South Cycle Superhighway (CS6) route will be used to feed into a review of the expected noise and air quality impacts of the scheme. As journey time impacts are largely neutral we expect the impacts on pollution and congestion to be reflective of this.

Following implementation of the scheme, we will actively monitor and manage traffic conditions on the roads using our SCOOT advanced traffic signal technology at the new signals. This will enable us to better manage traffic depending on differing conditions at any given time and help to manage conflicting traffic demands more dynamically, and reduce journey times, help to and enable engineers.
Cycle Superhighways causing disruption

Some people were concerned about the impact of the scheme on vehicle journey times. Concerns were raised that other Cycle Superhighway routes such as the first phase of the North-South Cycle Superhighway (CS6) and the East-West Superhighway (CS3) have had a negative impact on traffic and, as a result, pollution.

As with most highway schemes, there is a bedding-in period where road users adapt to changes in the road layout. During this period, traffic and bus journey times are reviewed and signal timings are adjusted and optimised wherever possible. A full comparison of before and after journey times cannot usually be completed until 12 months after a scheme has completed and traffic signal timings have been refined. Therefore, we do not yet have a full set of before and after data. However, initial studies of the routes look positive. For example on CS5, which was completed in November 2015, inbound journey times for motor traffic in the morning peak are approximately the same as prior to works.

The impact of Cycle Superhighway routes alone on traffic journey times in the local area is difficult to quantify. There have recently been a number of other major works and schemes that will have caused traffic near recently opened Cycle Superhighways to divert, including the City of London’s closure of Tower Bridge for example. With multiple projects happening at any one time, it can be difficult to determine the exact cause of longer journey times on certain roads and there is often a cumulative impact.

Cycle Superhighways can carry more people than the same amount of road space used for private cars. Other sustainable modes also enhance the ‘people capacity’ of streets. Private cars take up 19 per cent of street space in central London, but account for only 11 per cent of journey distance. Buses use 11 per cent of street space but provide 57 per cent of journey distance in central London. Two weeks after opening, the East-West and North-South Cycle Superhighways corridors were carrying five per cent more people per hour than they could without cycle lanes, and this is predicted to increase as they attract more cyclists.

As the population of London continues to grow, it is important to make the best use of the existing road space and Cycle Superhighways are a key method to achieving this.

Banned turn

Some respondents, including the City of London and Smithfield Market Tenants’ Association (SMTA), were concerned about the proposed banned left turn from
Farringdon Street to West Smithfield. They raised concerns that this would cause re-routing which in turn could increase congestion. Both the City of London and the SMTA requested that TfL investigate the feasibility of a part time banned turn at the junction to provide overnight access to Smithfield Market. Representatives from the taxi trade raised concerns that the banned turn would increase the journey times for passengers and therefore increase fares or restrict access to certain locations. Others were supportive of the proposed banned turn as a way of improving cyclist safety by removing the risk of left hook collisions at the junction.

When designing a scheme, consideration is given to safety, local access and network resilience, with the aim of providing the most appropriate balance for all road users in each location. The decision to propose a banned turn is taken only after all of these factors have been considered. This banned left turn for southbound traffic has been proposed to remove the risk of left hook conflicts between motor traffic turning into West Smithfield and cyclists heading southbound along Farringdon Street, as this one of the most frequent kinds of cycle collision at this junction.

Throughout the consultation we have engaged with SMTA about southbound access to the market. We undertook detailed traffic counts and analysis at the junction which showed that, during market hours, the number of motor vehicles turning left into West Smithfield is around 40 per hour.

We expect that the alternative routes available nearby will be able to accommodate traffic that would have used the left turn without seeing a significant increase in journey times or traffic levels.

**Part-time banned turn**

Some respondents suggested making the proposed banned turn from Farringdon Street into West Smithfield part-time only to allow vehicle traffic including deliveries to Smithfield Market to make the turn overnight.

The design for the junction of Farringdon Street and West Smithfield includes segregated with-flow cycle tracks on both sides of the road with separate stop lines for cyclists and motor traffic. There is not enough space on Farringdon Street to have separate left-turn and ahead traffic lanes to hold back left turning traffic when cyclists are travelling south. Under the proposed signal staging if traffic were to turn left onto West Smithfield, it would turn across the path of southbound cyclists, putting them in conflict. This is not permitted under Department for Transport (DfT) regulations which state that conflicting movements within the same signal stage must be separated.

A part time turn would require an additional traffic signal stage to separate the conflicting left turning traffic and the southbound cyclists, which would add time to the overall signal timings at the junction. In this busy part of the road network, an additional signal stage could only be provided when traffic flows are lower (between
Traffic counts show that there is high demand for the left turn between 8pm and 9am which is beyond the times in which the additional signal stage could be provided without causing significant journey time increases for buses and general traffic on Farringdon Street.

Further to this, the risk of contraventions of the left turn ban throughout the day would introduce a hook risk for cyclists. The nearby bus stop reduces visibility between traffic and cyclists which contributes to the risk of a collision.

We therefore intend to proceed with the full time ban as proposed in the consultation.

**Banned right turn into West Smithfield**

Camden Cycling Campaign (CCC) suggested banning the right turn from Farringdon Street onto West Smithfield as they felt this would avoid conflict with cyclists traveling southbound along Farringdon Street. Our proposals remove potential conflicts between southbound cyclists on Farringdon Street and right turning traffic into West Smithfield through the separation of the signal phasing. There is therefore no need to ban this turn.

**Cycle facilities**

**Segregation**

Some respondents supported the additional segregation under Holborn Viaduct. Others suggested making the track fully segregated as well as stepped. Under Holborn Viaduct, there will be a greater vertical separation between the stepped cycle track and the carriageway due to the height of the kerbs that protect the bridge structure. A kerb upstand is proposed along the edge of this stepped track under the viaduct to provide additional protection to cyclists.

**Route alignment and access**

**Route alignment of the North-South Cycle Superhighway (CS6)**

Some people commented that the proposals in this consultation would improve route connectivity for cyclists. There were also a number of comments regarding the wider route alignment of the North-South Cycle Superhighway. The detailed proposals for the rest of the route were consulted on previously and are not part of this consultation. Further information on our responses to these issues can be found in the North-South Cycle Superhighway (CS6) Stonecutter Street to King’s Cross Response to Issues Raised Report.
Cycle track

Contraflow cycle lane and Advanced Stop Lines (ASL)

Some respondents, including CCC and LCC, queried why both an ASL and a contraflow lane have been proposed for the right turn from Snow Hill onto Farringdon Street. It was suggested that the ASL be removed at this junction to reduce confusion. Others suggested extending the contraflow further along West Smithfield towards Long Lane. Other people suggested the removal of one of the traffic lanes to allow for another access route to the ASLs via a feeder lane on Snow Hill.

There are two roads that join the junction at this point: West Smithfield and Snow Hill. The central cycle lane on Snow Hill is part of the City of London Quietway route which provides a contraflow cycle lane along West Smithfield up to the junction with Farringdon Street. It is expected that cyclists approaching on the Quietway along West Smithfield will use the contraflow facility at the junction to turn right. Cyclists approaching from Snow Hill may not be able to join the contraflow lane as it will be on the off-side. The right turning ASL provides a safe waiting area for cyclists from Snow Hill to turn left or right onto CS6. In order for the junction to operate effectively, two lanes are required for traffic to enable left and right turning traffic to run in separate signal phases.

Some respondents also asked why there was no ASL proposed on Farringdon Street. An ASL is not proposed as cyclists will be segregated from traffic on Farringdon Street with dedicated stop lines.

Width of cycle track

Some people raised concerns about the proposed width of the cycle track under Holborn Viaduct, stating that it is not suitable for the expected volumes of cycle traffic.

On the main road section we have generally designed the segregated cycle track to be two metres wide in each direction, which allows cyclists to overtake each other, thus accommodating cyclists of different speeds. The narrowing under the viaduct is necessary to accommodate pedestrians and space for traffic waiting to turn right into West Smithfield. The width proposed meets TfL’s minimum standard.

Preference for a two-way cycle track

Some people expressed a preference for a two-way cycle track along Farringdon Street stating the lack of road junctions on the west side of Farringdon Street makes it safer for cyclists.
The carriageway narrows north of the junction with Charterhouse Street and to continue the two-way track beyond this point would require the removal of almost all of the loading facilities. Additionally, buses waiting at the bus stops would block traffic lanes.

We aimed to take the two-way track as far north as possible and identified Stonecutter Street as the best place to switch to a with-flow facility as there is enough space to provide a cycle crossing and parallel pedestrian crossing. These crossings minimise wait times for southbound cyclists and northbound cyclists can continue without passing through traffic lights.

**Cycle crossing and waiting facilities**

Some people made comments about the cycle crossing between Farringdon Street and West Smithfield with concerns raised about the size of waiting areas, angle of the turns or visibility for cyclists. The design for the junction takes into account current and expected cycle flows for the route. Cyclist flows turning right from Farringdon Street into West Smithfield are expected to be higher than those turning from Snow Hill into Farringdon Street and the space allocated for waiting has been designed to take account of this. The design also takes account of the space for vehicles to turn, visibility of other road users and movements at the junction have been taken into account in the design.

**Cycle ramps**

Some respondents requested that ramps along the cycle track be shallow enough so as not to be uncomfortable for cyclists. Any ramps will be shallow enough to allow for comfortable use by any cycle as outlined in the [London Cycling Design Standards](#).

**Cycle parking and signage**

Some people suggested increasing the amount of cycle parking or signage along the route. Cycle parking is proposed throughout the route and was included in the designs consulted on in March 2016. The location and number of spaces will be assessed at the detailed design stage, taking into account safety and demand considerations. Cycle wayfinding signs will be provided throughout the route in line with Cycle Superhighway design guidance.
Pedestrian crossings and facilities

Some respondents made a comment about pedestrian crossings and facilities, including support for signalising the junction to improve pedestrian safety and to accommodate the likely increase in pedestrian demand after the opening of Elizabeth line services in December 2018.

Other respondents, including the London Cycling Campaign (LCC), suggested that the crossing over across Snow Hill / West Smithfield should be signalised or that the proposed signalised crossing over Farringdon Street should be straight across rather than staggered.

Currently, there are no controlled pedestrian crossings on this section of Farringdon Street or Charterhouse Street. As part of the wider North-South Cycle Superhighway proposals, five new signalised crossings are proposed in this area. The crossing over Farringdon Street will be staggered and signalised across the main road. This reduces the risk of conflict between motor traffic and pedestrians while reducing the number of stopping points along the route for cyclists.

At Snow Hill / West Smithfield, the current unsignalised crossing will be raised to provide a flush crossing for pedestrians and to slow down vehicles approaching the junction. In addition, the design includes build outs to the footway, shortening the crossing distance and maintaining a central reservation for pedestrians to cross in two stages. Following feedback, we undertook further modelling to assess the impact of pedestrian signalisation; however this would require an additional phase for all traffic to be stopped which would increase overall time required at the junction and therefore have a negative impact on journey times.

Cycle demand and level of provision

Some people were concerned about the level of provision for cyclists and said that this or other Cycle Superhighway schemes focus on cyclists at the expense of other road users. Others called for more provision for cyclists due to increasing demand or improved cycle facilities elsewhere.

The Travel in London Report 9 highlights that cycling accounts for two per cent of all journeys taken in London. In the 10 years from 2005/06 to 2015/16, the number of journey stages involving cycling increased 61 per cent. The provision of improved, segregated cycle routes aims to increase the number of trips and diversity of cyclists by encouraging those who are less confident.
Cycle Superhighways often have the capacity to carry a greater number of people than the roads they follow and help to enhance the ‘people capacity’ of streets along with other sustainable modes of transport. Buses for example take up only 11 per cent of road space but provide 57 per cent of journey distance in central London. Two weeks after opening, the East-West and North-South Cycle Superhighways were moving five per cent more people per hour than would have been possible without the cycle tracks. This is expected to increase even more as they attract more cyclists.

The Travel Demand Survey found that 66 per cent of car journeys in London were less than three miles and did not involve carrying goods or passengers that need a car. By encouraging people to cycle these shorter journeys, road space is freed up for journeys that require use of a motor vehicle.

Detailed traffic modelling and assessments were carried out on the proposed designs for this route. This included current and future predicted flows of traffic and cyclists. The output of this modelling was published on our website as part of the consultation.

**Road user conflict and behaviour**

**Cyclist behaviour**

A number of people raised concerns about the speed of cyclists along the route and cyclists’ adherence to red signals and whether this will be enforced.

We acknowledge concerns raised about cyclist behaviour, although our research shows that most cyclists ride responsibly, and that cyclists are no more likely to disobey road rules than other road users.

With the launch of any new cycle route, we undertake a range of engagement and enforcement activity for all road users including cyclists. This includes:

- Representatives from the Metropolitan Police present on site to provide support and assistance to the public. They educate people how to use the new road layout and advise on appropriate behaviour for all road users
- TfL Travel Ambassadors provide assistance and advice to road users and hand out leaflets informing road users about changes to road layouts and the new innovative features

We promote adherence to the Highway Code by all road users and encourage ‘responsible cycling’ and mutual respect between road users. We work to eliminate cycling offences through a combination of Police enforcement and educational programmes. For example, TfL contributes funding towards the Metropolitan Police’s Cycle Safety Team which patrols the route as part of their normal operations. TfL
also works with the Metropolitan Police on Operation Safeway, which sees up to 1,000 officers deployed at around 100 junctions at least two days every month to tackle dangerous or illegal behaviour by all road users. Between November 2013 when it was launched and June 2016, over 5,000 Fixed Penalty Notices were given to cyclists.

Road user conflict

Some people were concerned about motorists edging out into the cycle track and blocking southbound cyclists as they try to access Farringdon Street from Snow Hill. Other respondents were concerned about the speed of motorists and requested enforcement of 20mph speed limits along Snow Hill and West Smithfield.

Some people had concerns about the left hook risk at the junction of Farringdon Street and West Smithfield. The signalised junction design will encourage motorists to wait at the stop line on Snow Hill.

Speed enforcement is the responsibility of the associated police forces. TfL part funds and works in partnership with the Metropolitan Police Roads and Transport Policing Command (RTPC) on Operation Safeway and the Cycle Task Force, which sees 2,300 officers deployed to key junctions across London to enforce the rules of the road and engage with road users about their safety and to reduce the number of collisions that occur on London’s roads. We work closely with the Metropolitan Police Service (MPS) and City of London Police (CoLP) to minimise congestion and improve compliance on TfL’s roads. CoLP is responsible for the enforcement of contraventions on the City of London’s roads.

The left hook risk at this junction will be addressed by banning the turn from Farringdon Street to West Smithfield.

Pedestrian conflicts

Some respondents were concerned about cyclists conflicting with pedestrians using the bus stop bypasses. We continue to monitor the operation of bus stop bypasses and are also trialling zebra crossings. More information is available in the [Bus stop bypasses](#) section.

Parking, loading and taxi bays

Parking / loading / taxi bays on the inside of the cycle track

Some people made a comment about the location of parking, loading and taxi bays behind the stepped cycle track on Farringdon Street. A particular concern was vehicles crossing the cycle track to reach the bays.
The position of the cycle track in front of the bays offers good visibility of cyclists for vehicles turning into or out of the side roads south of the bay. Additionally, the junctions at some side roads will have a raised area to encourage all vehicles to slow down as they turn.

If the cycle track was on the inside of the bays, drivers turning into the side roads would not be able to see cyclists. The kerbs at the parking bays will be low and shallow.

![Angled kerbs at edge of stepped track with gentle gradient](image)

**Provision for taxis**

A few people were concerned about the removal of the taxi rank on Farringdon Street stating that it would lead to an increase in street hailing and therefore traffic congestion.

After reviewing the proposed locations of taxi ranks and liaising with representatives from the taxi trade, we now intend to change the two bays on the east side of Farringdon Street south of the Holborn Viaduct to loading / blue badge parking and motorcycle parking. The bay on the west side, north of the Holborn Viaduct, is now proposed to be for taxi ranking only from 10am to 4pm and 7pm to midnight. Loading will be permitted between midnight and 7am to cater for a local business.

**Bus passengers and bus stops**

**Bus stop bypasses**

Some respondents were concerned about pedestrian and cyclist conflicts at the bus stop, particularly disabled pedestrians. Others suggested that cyclists should be routed around the outside of a normal bus stop design.
Bus stop bypasses have been introduced across London on segregated cycle routes to avoid the need for cyclists to enter the adjacent traffic lane to pass a stopped bus and enable continuous segregated cycle routes.

The crossing point has tactile paving and is raised to footway height to create a flush surface. It is also differentiated from the rest of the cycle track by a change in surface colour which highlights to cyclists that pedestrians may be crossing.

We have set up a working group to inform our future decision making on the design of bus stop bypasses. This includes representatives from 12 stakeholder groups such as the RNIB, Guide Dogs for the Blind, London Travel Watch, London Cycling Campaign and Living Streets.

**Zebra crossings across the cycle track**

Some respondents suggested the provision of zebra crossings across the cycle track.

We have committed to trialling zebra crossings at six bus stop bypasses. This trial is being undertaken by Transport Research Laboratory and the results will feed into our decision making on bus stop bypasses.

**Bus journey times**

Some people were concerned about increases in bus journey times arising from the scheme.

As mentioned in the Traffic and congestion section, our traffic modelling shows that we do not expect journey times to significantly increase along the route. Following the implementation of the scheme, we will continue to monitor traffic.

**Environment and health**

Some respondents felt that the proposals would create a better environment, lead to less pollution or ease congestion. Others felt the scheme would increase air pollution by slowing down existing motor traffic.

Air pollution is one of the most significant challenges facing London. The Mayor has called for new proposals to urgently tackle London’s current poor air quality, and we have developed detailed proposals for the implementation of an Emissions Surcharge (ES), and ideas for improving the Ultra Low Emission Zone (ULEZ). More information about our consultations to improve air quality is available here.

We undertake independently assessed environmental evaluations of the impacts of our schemes including Noise and Air Quality Assessments. In addition, our traffic
modelling analysis allows us to review the expected impact to traffic flow and journey times, which have a direct impact on pollution. As shown in the consultation material, this scheme is not predicted to have noticeable impacts on journey times for general traffic.

**Improvement of lighting and street environment under Holborn Viaduct**

Some people suggested improving lighting and street environment under Holborn Viaduct.

Although not part of this scheme there are proposals to improve lighting underneath Holborn Viaduct with heritage lighting to create a more pleasant pedestrian environment.

**Cost and social impact**

**Value for money**

Some respondents questioned expenditure on this and other cycling schemes. Others though that the scheme would have a negative impact on the London economy.

Sustainable transport plays an important role in providing safe, healthy and convenient transport choices to the population. An additional two million people are expected to live in Greater London by 2030. To accommodate this growth, we are implementing a programme of transport improvements such as London Underground upgrades, delivery of the Elizabeth line, creating Healthy Streets, bus priority schemes and urban realm projects.

Cycle Superhighways form part of this investment and we have identified a number of positive impacts from the delivery of these cycling improvements relating to safety, health, the environment and public realm. When implemented as part of an integrated transport strategy, we can expect to see the Cycle Superhighways catering for a significant number of people, particularly during the peak hours.

**Traffic modelling information**

Some respondents questioned the validity of our traffic modelling predictions that we presented as part of the proposals. It was suggested that we gave misleading impressions of the impacts of the proposed changes and that cycling benefits were biased in the model.
We have a high level of technical modelling experience and expertise which has been in development since the 1970s. Through our responsibilities for the operation, design and implementation of London’s traffic control systems, we have an established grounding for developing traffic modelling skills. We follow industry guidelines set out in the Department for Transport Appraisal Guidance (TAG).

Our traffic models are validated using actual vehicle count data; however, it is important to recognise that these models are predictive tools used to help plan and inform the design of our schemes and ongoing operation of the transport network. Traffic models provide an offline environment in which numerous design solutions can be tested and appraised with the aim of achieving the optimum balance of benefits and value for money.