

F1457 A1 Equality Impact Assessment (EqIA) form

N.B: the completed form should be emailed to the [Diversity and Inclusion team](#)

Project	A316 Manor Circus
Programme	Healthy Streets Local Schemes £1m-5m Programme

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Document History	Version	Date	Summary of changes
	1	Dec 2021	First draft
	2	03/05/2022	Updated by S.G.
	3, 4	23/06/2022	Revised following review by Faith Martin
	5	13/06/2023	Reviewed ahead of Gate 4 (June 2023)

Printed copies of this document are uncontrolled.

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To be used in conjunction with: G1060



* Delete as appropriate (the Accountable person should always be at least one management level higher than the Responsible person).

Project Related Documents	Doc No.	Document title	Relevant Section(s) of this Document



Step 1: Clarifying Aims

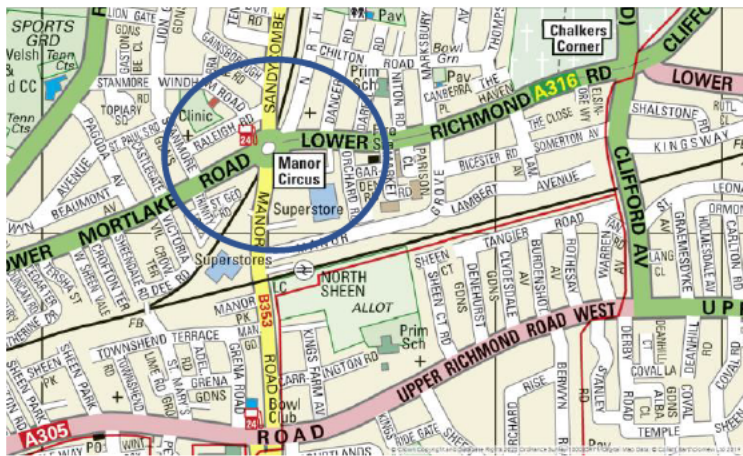
Q1. Outline the aims/objectives/scope of this piece of work

This scheme of proposed improvements to the A316 Manor Circus roundabout in Richmond is to address road safety issues, improve provisions for people walking and cycling, and provide better connection to the cycle network.

The scope of the scheme is to:

- Replace existing zebra crossings with signalised toucan crossings on all four arms of the roundabout, to provide better facilities for vulnerable road users (VRUs) and reduce the collisions at this junction
- Introduce shared use of footways at the crossings, widen footways and islands which will also form traffic calming measures
- Introduce better transitions for cycles to join the shared use footways on approach to each arm of the roundabout
- Resurface the carriageway throughout

The scheme also incorporates carriageway resurfacing, and TfL Asset Investment works, including waterproofing the top side of the bridge. Combining the works will deliver efficiencies to minimise disruption on this strategic corridor.



Of the nine vulnerable road user (VRU) collisions (in the 36-month period ending Sep 2022), one collision resulted in slight injury to a pedestrian on the zebra crossings; two collisions resulted in slight injuries to motorcycle riders; and six collisions resulted in injury to pedal cycle riders. Four of the seven collisions involving pedal cycles took place on/near the cycle facility on Lower Richmond Rd near the junction with Sainsburys; and two occurred on the roundabout itself – one of which resulted in serious injuries for the cycle rider.



TfL has worked with the London Borough of Richmond upon Thames (LBRuT) on this scheme since 2009. Public consultation on the initial design was held in 2014. The publication of the consultation report in 2018 revealed support for the scheme and there has been growing pressure from LBRuT and other stakeholders to deliver the project.

The scheme is currently in detailed design stage, scheduled to begin construction in summer 2023.

Q2. Does this work impact on staff or customers? Please provide details of how.

There are expected impacts on both staff and customers. Therefore, relevant experts are required to deliver the scheme.

Healthy Streets schemes cater for all road users to improve road safety, make streets easier to cross and encourage more walking and cycling.

The aim of the Manor Circus scheme is to improve road safety and improve provision for people walking and cycling through the junction. During the works, refurbishment of the topside of the bridge structure, beneath the roundabout, will also be undertaken, in the form of waterproofing the bridge deck.

The measures to improve road safety include upgrading the zebra crossings to signalised toucan crossings. This will provide safer facilities for vulnerable road users and make it easier to cross for people who are disabled, older or children. The shape of the roundabout central island will also be amended with a wide overrun strip to further reduce vehicle speeds through the junction and make it a safer environment for VRUs.

Shared use footways will enable people cycling to have easy access to better crossing facilities. Traffic islands will be step-free, providing easier access for wheelchair users, and wider footways and tightened geometry at side road junctions will help to slow vehicle turning speeds. Along with improved green infrastructure in the central disc of the roundabout and on the splitter islands to the east and west of the junction, the measures will help to make the streetscape more comfortable and welcoming for people to choose walking and cycling.

Replacing the zebra facilities with toucan crossings should improve bus journey time reliability, and 'call-cancel' sensors at the crossings (which will cancel push button unit demand if the user crosses before the signals change or moves away from the crossing) will protect bus services.

The construction of the scheme will cause some temporary disruption in the area. The full extent of the impacts is unclear at this stage of the scheme's development. However, the following negative impacts can be expected because of the temporary construction works and during only certain phases of the works. By planning the works we will seek to mitigate and minimise the following impacts:

- Increased noise and air pollution caused by the roadworks
- Temporary parking restrictions
- Increased traffic delays caused by temporary traffic signals and therefore, increased bus journey times



- Probable route diversions on residential roads which may increase road safety risks
- Possible pedestrian diversions where footway works occur
- Temporary closure of signalised and uncontrolled crossings

There is likely to be a settling-in period after the works are completed as road users adjust to the new layout.



Step 2: The Evidence Base

Q3. Record here the data you have gathered about the diversity of the people potentially impacted by this work. You should also include any research on the issues affecting inclusion in relation to your work

Consider evidence in relation to all relevant protected characteristics;

- Age
- Disability including carers¹
- Gender
- Gender reassignment
- Marriage/civil partnership
- Other – refugees, low income, homeless people
- Pregnancy/maternity
- Race
- Religion or belief
- Sexual orientation

The proposals will help improve accessibility for people walking and cycling to a number of key amenities in the local area. The following destinations are within approximately 500m (in a straight line) of Manor Circus roundabout:

Schools/Nurseries

- Darrell Primary & Nursery School
- Holy Trinity Church of England (C of E) Primary and Nursery School
- Windham Nursery School
- Bright Horizons Richmond Day Nursery and Preschool
- Rainbow Nursery School – Sheen Park

Places of worship

- Holy Trinity C of E Church

Public sports/recreation facilities

- Old Deer Park Sports Grounds
- North Sheen Recreation Ground
- Raleigh Road Recreation Ground

Public transport

- North Sheen railway station

Other

- Retail destinations east of the roundabout at Lower Richmond Road, and south of the roundabout at Manor Road

Within about a kilometre (under one mile) of the roundabout; key destinations include Richmond town centre, Richmond Park, Kew Gardens, Mortlake Cemetery.

¹ Including those with physical, mental and hidden impairments as well as **carers** who provide unpaid care for a friend or family member who due to illness, disability, or a mental health issue cannot cope without their support



Age

The demographic figures show that LB Richmond has a higher-than-average age profile for the over 65's (16.1% compared with London average of 12.2%), highlighting an increased need for accessible walking and cycling facilities to these amenities.

Age group	Proportion of LBR population	London average
0-15	20.3%	19.3%
16-64	63.6%	68.5%
65+	16.1%	12.2%

Source: GLA (2020) – Datarich Population Report

Frequency and access to public transport; air pollution; and perceived issues of safety due to traffic volume and speed and lack of infrastructure for walking and cycling are factors that have been shown to impact travel opportunities for people who are disabled or older (Source: Public Health England).

Greater London Authority 2020-based population projects for the borough indicate that the proportion of Richmond residents between the ages of 20 to 39 are lower than the Outer London boroughs average and significantly lower than the overall London average. Conversely, the proportion of residents between the ages of 40 to 79 are higher than both the Outer London boroughs and overall London average.

The percentage of children in the borough (22.9%) is also higher than the London average (21.8%) with all ages between 5-17 years making up a larger population percentage than in London (Source: London Borough of Richmond upon Thames Joint Strategic Needs Assessment, 2021).

Research has shown that younger adults may be more likely to try different forms of transport (including active travel) and if 'experiences are positive and the transport mode fits with their lifestyle and values tend to persist with their choice' (Source: Cummins and Pistoll, 2019). This suggests that improvements to public transport to enable active travel, may contribute to young adults adopting active travel continuing into their later life.

Disability

Studies show that Disabled people travel less frequently than non-disabled people (Source: TfL, 2012). Disabled Londoners are less likely to hold a driving licence compared to non-disabled Londoners and are therefore more likely to walk or use public transport for the purposes of shopping, personal business and leisure. The main modes of transport used by disabled Londoners at least once a week are walking (78%), bus (55%), car as a passenger (44%) and car as a driver (24%).

Due to the longer life expectancies of women, a higher proportion of disabled people are women (54%) compared to non-disabled people (51%). Disabled people are also more likely to be retired and on lower household incomes than non-disabled people. Disabled Londoners of working-age are less likely to be employed, and those that are, are more likely to be working part-time than non-disabled people.



of all working-age (16-64)	London	United Kingdom
with mobility difficulties	6%	8%
use special equipment to help be mobile	2%	3%
with a mobility impairment	4%	5%
who currently have 'DDA' Disability	15%	19%

Source: Office for Disability Issues

Compared to the London average, there is a lower proportion of residents in Richmond that are disabled, however almost 1 in 8 residents is limited by a disability.

Level of disability	Proportion of LBR population	London average
Limited a lot	4.9%	6.7%
Limited a little	6.6%	7.4%
No limit	88.5%	85.8%

Source: 2011 Census data, ONS

Gender

Women and men's journey patterns differ – women make more multi-stop trips than men (Source: Barker, 2009); women make more off-peak journeys than men; women make shorter trips than men; and women make more journeys using public transport, with children and otherwise (Source: Hine and Mitchell, 2001).

Gender	Proportion of LBR population
Male	48.6%
Female	51.4%

Source: Greater London Authority, 2021

Women continue to face a number of systemic barriers that underpin their experience and interaction with transport systems and public space more broadly (Source: Sustrans).

Research by the passenger watchdog London TravelWatch in 2021, to explore the issue of personal security, found that almost half of women say they have stopped travelling in London at certain times of the day due to concerns about personal safety. The report found 23% of passengers – and 48% of women respondents – no longer travelled at certain times of the day due to safety concerns.

Greater London Authority 2020 based 'population by sex' indications for the borough shows the greater proportion of Richmond residents over the age of 70 are female. Therefore, schemes that promote road safety and improve the streetscape will disproportionately benefit more women than men.

Age group	LBR population by sex (% proportion of age group)	
	Female	Male
70 to 74	53.6%	46.4%
75 to 79	53.9%	46.1%
80 to 84	56.7%	43.3%
85+	63.9%	36.1%

Source: Greater London Authority, 2021



Pregnancy/maternity (source: London Borough of Richmond upon Thames Joint Strategic Needs Assessment 2021. Start Well)

Indicators of population health and well-being among children and young people in Richmond are generally better or similar to the England average.

The latest available data shows that over 10% of births in Richmond were to women aged 40+, which ranks the second highest in London and is above the England percentage of 4.4%. In terms of trends in outcomes for newborns in Richmond, the still birth and neonatal mortality rate (6.9/1000) as well as premature birth rate (births at less than 37 weeks, 77.6/1000) are statistically similar to England. Low birth weights are better than the England averages, with no discernible increase or decrease in trends.

Race/Ethnicity

Richmond's ethnic make-up has more in common than the England average than with London. 14.0% of the population categorise themselves as belonging to an ethnic minority group, compared with the London average of 40.2%. The borough has the lowest proportion of people from ethnical minority groups compared to its SW London neighbours (Source: 2011 Census data, ONS).

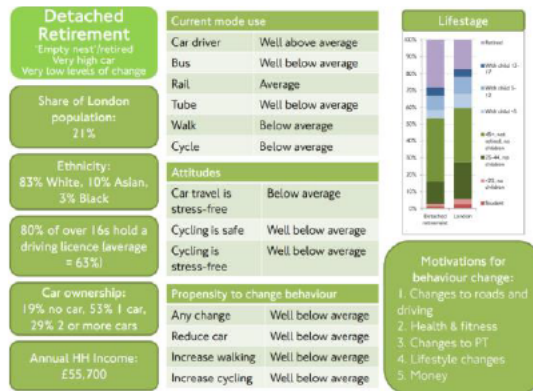
Minority ethnic groups are less likely to have access to a car, less likely to cycle and more likely to be involved in a collision as a pedestrian. They are more likely to work unsociable

hours when the level and frequency of public transport services are less than during peak hours (Source: London Borough of Richmond upon Thames LIP3: Equalities Impact Needs Assessment, 2018).

Other protected characteristics

TfL's Transport Classification of Londoners (TCoL, 2017) multi-modal demographic segmentation tool shows that the existing demographic within Richmond is predominantly Detached retirement (66%), the second highest in London after

Bromley (67%). People in this segment are typically in the "empty nest" or retired life stage groups. Travel is dominated by the car with some use of rail, but very little bus or active modes.



- Compared to London as a whole, Richmond continues to have a higher proportion of Christian (55% vs 48%), a higher proportion reporting no religion (28% vs 21%), and lower proportions of other religions (e.g. Muslim: 3% vs 12%) (Source: 2011 Census data, ONS). Unlike some boroughs, Richmond does not have any sizeable non-Christian places of worship.



- Richmond maintains a rank within the 10% least deprived Local Authorities (LAs) in England between 2015 and 2019 and remains the least deprived London borough.

The average Income Deprivation Affecting Children Index (IDACI) and Income Deprivation Affecting Older People Index (IDAOPI) scores indicate that 7% of children (0-15) and 9% of older people (60+) in Richmond are affected by income deprivation.

- Outer London residents have lower overall active, efficient and sustainable mode shares, however Richmond upon Thames has particularly high cycle mode shares compared to the other outer London boroughs, at 4.5%. The borough also has a higher than average walk mode share, along with Kingston upon Thames and Barking & Dagenham (Source: TfL Travel in London Report 13, 2020).

Information on other protected characteristics revealed no direct or indirect scheme impacts on these specific characteristics.



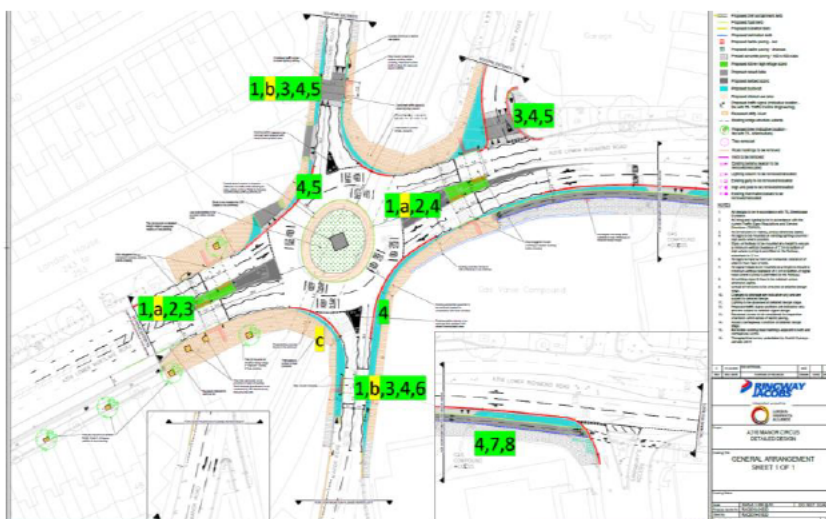
Step 3: Impact

Commented [GS1]: Need to update image below following decision on push-button signals

The following figure shows the latest concept design, dated April 2020, for the Manor Circus scheme with annotations of expected positive impacts and potential negative impacts within the scheme.

An updated design drawing is expected in September 2022, and no further impacts are anticipated.

The impacts numbered below are described in the following sections regarding particular characteristic groups (Q4 for negative impacts and Q5 positive impacts).



Positive impacts of proposal

- 1 – Upgrade existing zebra to signalised toucan
- 2 – min. 3.0m wide central refuge
- 3 – cycle waiting areas to use toucans
- 4 – kerb build-outs to slow traffic speeds, and increase space for peds/cycles
- 5 – raised tables
- 6 – transitions for cycles to join shared space
- 7 – reallocation of road space to space for peds/cycles
- 8 – new cycle markings to encourage priority

Potential new negative impacts

- a – staggered toucans
- b – relocated crossings further north/south of roundabout, away from east-west desire line
- c – additional points of conflict between peds/cycles



Q4. Given the evidence listed in step 2, consider and describe what potential short, medium and longer term negative impacts this work could have on people related to their protected characteristics?

Protected Characteristic		Explain the potential negative impact
Age	Y	<p>Construction While construction impacts are unclear at this stage of scheme development, the work is likely to cause some temporary inconvenience for people who are older and children. This will include possible pedestrian route and vehicle traffic diversions, an increase in traffic delay impacting bus journey times, noise and emissions on residential roads.</p> <p>The Three Tier assessment will be incorporated into the traffic management design process to consider associated road users.</p> <p>Shared Space The introduction of shared space footways, in the vicinity of the crossings, may result in risks of conflict between people walking and cycling.</p> <p>Staggered crossings The conversion of a straight across facility to a staggered toucan crossing on the western and eastern arms of the roundabout; could increase the time it takes to cross the roundabout and the duration people are exposed to air pollution from passing traffic.</p> <p>Relocated Toucan crossings Toucan crossings on Sandycombe Road and Manor Road, are proposed further away from the roundabout and pedestrian/cycle desire line. This means people will have to walk/cycle further to cross these arms of the roundabout. This could result in some people crossing informally closer to the junction.</p>
Disability including carers	Y	<p>Construction While construction impacts are unclear at this stage of scheme development, the work is likely to cause some temporary inconvenience for people who are disabled. This will include possible traffic and pedestrian diversions, an increase in traffic delay impacting bus journey times noise and emissions on residential roads.</p> <p>The Three Tier assessment will be incorporated into the traffic management design process to consider associated road users.</p>



		<p>Shared Space The introduction of shared space footways, in the vicinity of the crossings, may result in risks of conflict between people walking and cycling.</p> <p>Staggered crossings The conversion of a straight across facility to a staggered toucan crossing on the western and eastern arms of the roundabout could increase the time it takes to cross the roundabout and therefore, the duration people are exposed to air pollution from passing traffic.</p> <p>There may also be potential issues for non-standard cycles negotiating a staggered refuge (source: DfT, 2020).</p> <p>Relocated Toucan crossings Toucan crossings on Sandycombe Road and Manor Road, are proposed further away from the roundabout and pedestrian/cycle desire line. This means people will have to walk/cycle further to cross these arms of the roundabout. This could result in some people crossing informally closer to the junction.</p> <p>Change of existing zebra crossings to button-controlled signalised crossings Through consultation with Richmond Mobility Forum, it has been identified that a number of their members that use the junction are unable to operate button-controlled crossings due to a mobility impairment. For this reason, they have raised a concern that the proposed scheme would prevent them from crossing the junction unaided – a retrograde, in terms of accessibility, from the existing zebra crossings.</p>
<p>Gender</p>	<p>Y</p>	<p>Construction While construction impacts are unclear at this stage of scheme development, the work is likely to cause some temporary inconvenience for anyone travelling within the vicinity of the location. This will include possible traffic and pedestrian diversions, an increase in traffic delay impacting bus journey times, noise and emissions on residential roads</p> <p>The Three Tier assessment will be incorporated into the traffic management design process to consider associated road users.</p>
<p>Gender reassignment</p>	<p>Y</p>	<p>Construction While construction impacts are unclear at this stage of scheme development, the work is likely to cause some temporary inconvenience for anyone travelling within the vicinity of the location. This will include possible traffic and pedestrian diversions, an increase in traffic delay impacting bus journey times, noise and emissions on residential roads.</p>



		The Three Tier assessment will be incorporated into the traffic management design process to consider associated road users.
Marriage/civil partnership	Y	<p>Construction While construction impacts are unclear at this stage of scheme development, the work is likely to cause some temporary inconvenience for anyone travelling within the vicinity of the location. This will include possible traffic and pedestrian diversions, an increase in traffic delay impacting bus journey times, noise and emissions on residential roads</p> <p>The Three Tier assessment will be incorporated into the traffic management design process to consider associated road users.</p>
Other – e.g. refugees, low income, homeless people	Y	<p>Construction While construction impacts are unclear at this stage of scheme development, the work is likely to cause some temporary inconvenience for anyone travelling within the vicinity of the location. This will include possible pedestrian route and vehicle traffic diversions, an increase in traffic delay impacting bus journey times, noise and emissions on residential roads</p> <p>The Three Tier assessment will be incorporated into the traffic management design process to consider associated road users.</p>
Pregnancy/maternity	Y	<p>Construction While construction impacts are unclear at this stage of scheme development, the work is likely to cause some temporary inconvenience for pregnant women or people pushing prams/buggies within the vicinity of the location. This will include possible pedestrian route and vehicle traffic diversions, an increase in traffic delay impacting bus journey times, noise and emissions on residential roads</p> <p>The Three Tier assessment will be incorporated into the traffic management design process to consider associated road users.</p>
Race	Y	<p>Construction While construction impacts are unclear at this stage of scheme development, the work is likely to cause some temporary inconvenience for anyone travelling within the vicinity of the location. This will include possible pedestrian route and vehicle traffic diversions, an increase in traffic delay impacting bus journey times, noise and emissions on residential roads</p>



		The Three Tier assessment will be incorporated into the traffic management design process to consider associated road users.
Religion or belief	Y	<p>Construction While construction impacts are unclear at this stage of scheme development, the work is likely to cause some temporary inconvenience for anyone travelling within the vicinity of the location. This will include possible pedestrian route and vehicle traffic diversions, an increase in traffic delay impacting bus journey times, noise and emissions on residential roads</p> <p>The Three Tier assessment will be incorporated into the traffic management design process to consider associated road users.</p>
Sexual orientation	Y	<p>Construction While construction impacts are unclear at this stage of scheme development, the work is likely to cause some temporary inconvenience for anyone travelling within the vicinity of the location. This will include possible pedestrian route and vehicle traffic diversions, an increase in traffic delay impacting bus journey times, noise and emissions on residential roads</p> <p>The Three Tier assessment will be incorporated into the traffic management design process to consider associated road users.</p>



Q5. Given the evidence listed in step 2, consider and describe what potential positive impacts this work could have on people related to their protected characteristics?

Protected Characteristic	Explain the potential positive impact
Age	<p>Y As per the Evidence Base, for older people, lack of infrastructure for walking and cycling is a factor that has been shown to impact on travel opportunities. For younger people the scheme should support sustaining active travel choices into later life.</p> <p>Upgrading zebra crossings to signalised toucan crossings on all arms of the roundabout will allow people cycling to cross without dismounting, especially important for mobility impaired cycle users.</p> <p>Footway buildouts will provide more space for people walking and cycling and reduce risks of conflict. More space will improve comfort for walking and cycling, making it better for road safety and personal security.</p>  <p><i>Existing narrow footways at SW corner of roundabout (junction with Manor Road)</i></p> <p>Wider central refuge islands will provide greater comfort, making it easier for people who are disabled, older and children to cross the road safely.</p> <p>Raised tables at the toucan crossings and entrance/exit to the fuel station, will encourage lower vehicle traffic speeds across the roundabout. Creating a safer environment for walking will make it less intimidating for people who are disabled, older and children walking and cycling through the area.</p> <p>Eight bus routes (110, 190, 371, 419, H37, N22, R68, R70) serve bus stops that surround the roundabout. A reliable</p>



	<p>public transport service is especially important for sustainable travel choices.</p> <p>Traffic flow modelling undertaken as part of this scheme forecasts neutral outcomes for bus journey times on the A316 Lower Mortlake Road (east and west arms) and improved bus performance on Sandycombe Road and Manor Road (north and south arms). The proposed signalised crossings will also have technology to help meet demand and reduce delays to traffic for improving bus journey time reliability.</p> <p>Construction Expected negative impacts will be mitigated and minimised. Especially, for distances older people will have to walk or cycle whilst construction takes place. The Three Tier assessment will be incorporated into the traffic management design process to consider associated road users.</p>
<p>Disability including carers</p>	<p>Y</p> <p>Upgrading zebra crossings to signalised toucan crossings on all arms of the roundabout will allow people cycling to cross without dismounting, especially important for mobility impaired cycle users.</p> <p>Footway buildouts will provide more space for people walking and cycling and reduce risks of conflict. More space will improve comfort for walking and cycling, making it better for road safety and personal security.</p> <p>Wider central refuge islands will allow people using mobility aids, such as wheelchairs as well as larger cycles, such as trikes and cargo bikes, to safely cross the roundabout.</p> <p>Raised tables at the toucan crossings and entrance/exit to the fuel station, will encourage reduced vehicle traffic speeds across the roundabout. Creating a safer environment for walking will make it less intimidating for people who are disabled, older or children walking and cycling through the area.</p> <p>Eight bus routes (110, 190, 371, 419, H37, N22, R68, R70) serve bus stops that surround the roundabout. A reliable public transport service is especially important for sustainable travel choices for disabled people.</p> <p>Traffic flow modelling undertaken as part of this scheme forecasts neutral outcome for bus journey times on the A316 Lower Mortlake Road (east and west arms) and improved bus performance on Sandycombe Road and Manor Road (north and south arms). The proposed signalised crossings will also have technology to help meet demand and reduce delays to traffic for improving bus journey time reliability.</p>



Gender	Y	<p>Improved crossing facilities should make it safer and more attractive for walking and cycling. Enhanced public transport and active travel facilities should reduce the use of private vehicles, increase pedestrian footfall and therefore natural surveillance.</p> <p>Measures to improve the efficiency and reliability of bus services should help support better personal safety, which is particularly important for women and girls.</p>
Gender reassignment	Y	<p>Improved crossing facilities should make it safer and more attractive for walking and cycling. Enhanced public transport and active travel facilities should reduce the use of private vehicles, increase pedestrian footfall and therefore natural surveillance.</p> <p>Measures to improve the efficiency and reliability of bus services should help support better personal safety, which is particularly important for customers.</p>
Marriage/civil partnership	Y	<p>Improved crossing facilities should make it safer and more attractive for walking and cycling. Enhanced public transport and active travel facilities should reduce the use of private vehicles, increase pedestrian footfall and therefore natural surveillance.</p> <p>Measures to improve the efficiency and reliability of bus services should help support better personal safety, which is particularly important for customers.</p>
Other – e.g. refugees, low income, homeless people	Y	<p>Improved crossing facilities should make it safer and more attractive for walking and cycling. Enhanced public transport and active travel facilities should reduce the use of private vehicles, increase pedestrian footfall and therefore natural surveillance.</p> <p>Measures to improve the efficiency and reliability of bus services should help support better personal safety, which is particularly important for customers.</p>
Pregnancy/maternity	Y	<p>Improved crossing facilities should make it safer and more attractive for walking and cycling. Enhanced public transport and active travel facilities should reduce the use of private vehicles, increase pedestrian footfall and therefore natural surveillance.</p> <p>Measures to improve the efficiency and reliability of bus services should help support better personal safety, which is particularly important for customers.</p>



Race	Y	<p>Improved crossing facilities should make it safer and more attractive for walking and cycling. Enhanced public transport and active travel facilities should reduce the use of private vehicles, increase pedestrian footfall and therefore natural surveillance.</p> <p>Measures to improve the efficiency and reliability of bus services should help support better personal safety, which is particularly important for customers.</p>
Religion or belief	Y	<p>Improved crossing facilities should make it safer and more attractive for walking and cycling. Enhanced public transport and active travel facilities should reduce the use of private vehicles, increase pedestrian footfall and therefore natural surveillance.</p> <p>Measures to improve the efficiency and reliability of bus services should help support better personal safety, which is particularly important for customers.</p>
Sexual orientation	Y	<p>Improved crossing facilities should make it safer and more attractive for walking and cycling. Enhanced public transport and active travel facilities should reduce the use of private vehicles, increase pedestrian footfall and therefore natural surveillance.</p> <p>Measures to improve the efficiency and reliability of bus services should help support better personal safety, which is particularly important for customers.</p>



Step 4: Consultation

Q6. How has consultation with those who share a protected characteristic informed your work?

List the groups you intend to consult with or have consulted and reference any previous relevant consultation? ²	If consultation has taken place what issues were raised in relation to one or more of the protected characteristics?
Sustrans	<p>Oppose: the use of staggered toucan crossings as they create a large cumulative delay to pedestrians, cyclists. Would prefer the crossings closer to the junction.</p> <p>Our response is:</p> <p>The toucan crossings are proposed at a safe distance from the junction and in line with current design standards whilst minimising a deviation from the desire line and therefore an unlikely increase to journey times. Staggered crossings are better for pedestrians where carriageways are 15m or wider as it can be intimidating in these types of locations to cross at straight across facilities. We aim to link all the new signals near the roundabout to minimise wait times while meeting road user demands.</p> <p>Support: the proposed footway widening, removal of the westbound left turn traffic lane in Lower Richmond Rd, the proposed raised entry treatment and tighter corner into North Rd.</p>
Emergency Services	Metropolitan Police have no objections or observations.
Local schools	Darrell Primary & Nursery School support improvements but wanted reassurance that the pedestrian footbridge nearby would be retained and maintained in safe order.
Accessibility groups including Richmond Mobility Forum	<p>We attended the Richmond Mobility Forum and Transport Action Group on 8 December 2014. We did not receive a formal response from this stakeholder however some of the comments made at the forum meeting include:</p> <p><u>Common themes – existing situation</u></p> <ul style="list-style-type: none"> • Concern about safety at the junction overall • Concern about type, design and / or location of crossings • Concern about behaviour of motorists at the junction • Concern about traffic / congestion in Manor Road • Concern about safety on the Lower Richmond Road arm (including North Road junction) • Concern about safety on / off the roundabout itself • Concern about the rail level crossing in Manor Road • Concern about overall cycle provision at the junction <p><u>Common themes – proposed scheme</u></p>

² This could include our staff networks, the Independent Disability Advisory Group, the Valuing People Group, local minority groups etc.



	<ul style="list-style-type: none"> • Dissatisfaction with proposed / alternative suggestions for design of roundabout • Dissatisfaction with increased crossing time / reduced convenience of crossing for pedestrians (and consequences) due to proposed crossings • Dissatisfaction with proposed design of traffic lanes on the Lower Richmond Road arm (including North Road junction) (including concern about removal of westbound left turn lane, particularly related to overflow of traffic queue in Manor Road caused by rail level crossing) • Satisfaction with proposed type of crossing in general • Satisfaction with proposed type of crossing on the Lower Richmond Road arm <p>Some of the issues raised were implied within comments rather than stated directly.</p> <p>Update August 2022: in response to sharing the traffic management plans for the phased construction of the scheme, we received correspondence from a member of the Richmond Mobility Forum regarding concerns that a number of their members would be unable to cross the roundabout unaided, due to an inability to use button-controlled crossings. For this reason, they have raised a concern that the proposed scheme would prevent them from crossing the junction without support – a retrograde, in terms of accessibility, from the existing zebra crossings that currently allow them to cross unaided.</p>
<p>London Borough of Richmond upon Thames</p>	<p>Concerned about the lack of pedestrian guard rail on the SE and SW corners of the junction which would guide pedestrians towards the crossing on Manor Rd. Also, the concrete barrier on the SW corner should be relocated to the back or front of the newly widened shared footway to maximise its width and reduce conflict between pedestrians and cyclists.</p> <p>Support: the need for toucan crossings and improved cycle facilities, but the crossing points should be widened for convenience & safety.</p>
<p>Richmond Cycle Campaign</p>	<p>Changes to the crossings prioritises motor traffic over pedestrians and cyclists, and not supporting desire lines would make it more difficult for pedestrians. Concerned that people would therefore cross away from the crossing on Manor Rd via the raised thermoplastic areas (that will divide the carriageway). Replacing zebras with toucans would increase the length of time for pedestrians to cross.</p> <p>Disappointed that there was not pedestrian priority across the exits of the petrol station and that shared space instead of specific space for cycling was a backward step.</p> <p><u>Our responses are:</u></p> <ul style="list-style-type: none"> • <i>Our engineers are confident that as proposed crossings are close enough to desire lines there is less risk of crossing away from them. However, we will monitor the situation and address any issues (e.g. by reinstalling pedestrian guard rail)</i>



	<ul style="list-style-type: none"> • Pedestrians frequently have to wait a considerable time before it is safe to cross at the Zebra crossings. The risks have resulted in collisions involving pedestrians and cyclists being hit by vehicles. Therefore, signal control should make it easier to cross the road with greater confidence in road safety for pedestrians who are disabled, older or children. • Due to the flow of vehicles in the vicinity of the roundabout the accesses to the petrol station are not formally controlled. However, raised tables should enhance the priority for pedestrians and cyclists crossing the shared use footway and slow vehicles entering/exiting the petrol station. • We aim to link all the new signals near the roundabout to improve control while meeting the demands of different users. Wait times for pedestrians and cyclists using the crossing should be minimised, which will mean not having to wait on the islands at staggered crossings.
London Cycling Campaign (LCC)	<p>Support: Toucan staggered crossings which are considered more appropriate for the location on road safety grounds. However, the timings for the two halves of the crossing should ensure pedestrian wait times on the centre island are minimal.</p> <p><u>Our response is:</u></p> <ul style="list-style-type: none"> • We aim to link all the new signals near the roundabout to improve control while meeting the demands of different users. Wait times for pedestrians and cyclists using the crossing should be minimised, which will mean not having to wait on the islands at staggered crossings.



Q7. Where relevant, record any consultation you have had with other projects / teams who you are working with to deliver this piece of work. This is really important where the mitigations for any potential negative impacts rely on the delivery of work by other teams.

Consultation has taken place with Urban Movement, London Borough of Richmond, City Hall and Richmond Cycling Campaign regarding the proposals to provide better facilities for cyclists as part of the scheme.

- The borough is generally supportive of the scheme and we have worked closely with the local authority throughout the design process. Following their vision for a turbo arrangement at the roundabout to reduce the circulatory lanes (from two to one going north/south to improve safety for cycle users), TfL Engineering reviewed the turbo roundabout design.
- The TfL report concluded that a turbo roundabout could not be supported at Manor Circus. Primarily, because of the difficulties in delivering the changes within the timescales (as there is to be urgent bridge waterproofing). There would also need to be additional scheme governance and consultation. TfL's Network Performance would also require the junction to be remodelled based on reduced lanes (north/south). Existing modelling shows that the TfL design has a neutral impact on buses. However, a lane reduction is likely to lengthen traffic queues and therefore, increase journey times.
- An iteration of the turbo design approach that would not require remodelling was produced by TfL Engineering in November 2021. This retained the spiral road markings but removed the hatch markings, allowing the offside circulatory lanes to be fully available to traffic. Essentially, the designs are identical, but one is without the hatched areas.
- In order to improve the accessibility of the pedestrian crossings, following a concern raised by Richmond Mobility Forum, a number of technological options to improve the accessibility of calling a pedestrian green phase (in addition to the conventional button) have been explored for implementation on the temporary traffic signals.

Following engagement with a number of companies, [Smart Cross](#) button units were selected for installation on the temporary traffic signals for the duration of construction, 9-12 months. Smart Cross devices allow additional ways to call a crossing, in addition to the usual push button that will be retained:

(1) gesture-based detection underneath the crossing button unit (designed as a 'touch-free' way to call the crossing), as well as

(2) built-in Bluetooth capability, which allows the crossing to be called by a third-party mobile app (developed by Smart Technology) and wireless remote-control buttons, to operate the crossing from a short distance away

- An email and flyer was cascaded to local people in April 2023 (see Appendix A), via a number of local organisations in Richmond (including Richmond Mobility Forum), to invite people to register their interest in participating in the trial. In preparation for



starting the trial, briefing sessions and on-site demonstrations will be offered to participants.

- Separate to the piece of work to identify and deliver a solution for the temporary pedestrian signals, TfL Engineering are investigating options for the permanent pedestrian crossings that will be installed towards the back-end of construction. As part of this work, the problem will be fully identified and understood, and various solutions will be trialled, including engagement with various user groups. The results of the study will not only inform what should be installed at Manor Circus, but also have implications for future schemes across London.

In addition to the above, there have been the following discussions within TfL:

- Buses team to ensure the proposals meet their requirements
- Assets Investment team to understand requirements/processes needed to deliver the bridge refurbishment works
- Assets Operations team to understand requirements/processed needed to deliver the Highways works
- TfL Signals Engineering, managing the signals element of the Manor Circus design
- Network Performance to mitigate the impact of the bridge works

Further liaison with the TfL Network Management team, TfL Asset Operations, and TfL Buses will be necessary during the planning of the construction phase of the scheme.



Step 5: Informed Decision-Making

Q8. In light of the assessment now made, what do you propose to do next?

Please select one of the options below and provide a rationale (for most EqIAs this will be box 1). Please remember to review this as and when the piece of work changes

<p>1. Change the work to mitigate against potential negative impacts found</p>	
<p>2. Continue the work as is because no potential negative impacts found</p>	
<p>3. Justify and continue the work despite negative impacts (please provide justification)</p>	<p>The full extent of the construction impacts is unclear at this stage of scheme development. Any expected negative impacts will be temporary and restricted to the construction works. These will include: diverted walking routes, diverted vehicle routes resulting in an increase in congestion and therefore noise and air pollution on affected streets; delays to traffic resulting in longer journey times for buses. However, by planning the works we will seek to mitigate and minimise these impacts. Particularly, for minimising walking distances whilst construction takes place.</p> <p>Providing toucan crossings will lead to an introduction of shared space footways, resulting in potential user conflict risk between pedestrians and cycles.</p> <p>However, the scheme will greatly improve the level of service for pedestrians and cycles using the roundabout. The increased footway for space will exceed 2.9 metre widths, and the use of tactile paving and surface cycle logos will enable pedestrians/cycles to move safely throughout the space.</p> <p>The signals will be linked to minimise wait times for people using the staggered Toucan crossings. This will mean not having to wait on the islands at staggered crossings We aim to link all the new signals near the roundabout to improve control while meeting the demands of different users.</p> <p>To combine pedestrian and cycle movements and minimise delay to motor traffic staggered crossing are provided with a refuge island. This is at least 3.0m wide and free from pedestrian guard railing to optimise the space (in line with LTN 1/20 and LTN 2/09 guidance), which will help accommodate non-standard cycles.</p> <p>Toucan crossings on Sandycombe Road and Manor Road (north and south arms of the roundabout) are relocated further away from the roundabout to allow for adequate signal visibility. The new crossing on Sandycombe Road will be approximately 5m further north and with the new crossing on Manor Road approximately 15m further south it will be closer to Sainsburys.</p>



	<p>Removing the existing zebra crossings, in favour of button-controlled signalised crossings, has been identified as a barrier to people that are unable to operate button-controlled crossings. To improve the accessibility of the pedestrian crossings, a number of technological options to call a pedestrian green phase (in addition to the conventional button) have been explored, and a system has been selected that will be trialled for the duration of construction. Work to identify a solution to improve the accessibility of the permanent pedestrian crossings is underway.</p> <p>The anticipated delays to vehicle traffic movement have been assessed and traffic modelling forecasts indicate that traffic journey times will be broadly neutral. Especially, as enhanced public transport and active travel facilities should encourage less private vehicle use to reduce congestion.</p> <p>The proposed scheme will offer more positive than negative impacts. The scheme will greatly improve road safety at the roundabout and therefore, the level of service for pedestrians, cycles and bus journey time reliability.</p> <p>We have sufficient mitigation measures to minimise the negative impacts and will monitor the outcomes of the implemented scheme.</p> <p>While construction will be temporary and restricted to the construction works period; planning the works in advance including providing a Transport Demand Management strategy will help minimise the likely negative impacts by warning road users in advance and allowing them to plan their journeys to avoid the disrupted area.</p>
<p>4. Stop the work because discrimination is unjustifiable and no obvious ways to mitigate</p>	



Step 6: Action Planning just check any actions from positive/negative bit above.

Q9. You must address any negative impacts identified in step 3 and 4. Please demonstrate how you will do this or record any actions already taken to do this. Please remember to add any positive actions you can take that further any positive impacts identified in step 3 and 4.

Action	Due	Owner
Road Safety Audits will be carried out at the appropriate design stages of the scheme to identify and mitigate any potential road safety issues.	During design process	TfL Engineering / TfL Investment Delivery Planning
Engage with local disability centres / SEN schools regarding impacts to people travelling through the area during construction	Pre & during construction period	TfL Investment Delivery Planning / Local Communities and Partnerships
Undertake Three Tier assessment to consider associated road users and minimise inconvenience for people travelling through the area.	During construction.	TfL Investment Delivery Planning / Works Contractor
Ensure road safety and personal safety are key considerations when setting up site compound for works.	Pre & during construction period	TfL Investment Delivery Planning
The signals will be linked to minimise wait times for people using the staggered Toucan crossings	During construction.	TfL Network Management
Address any issues identified through monitoring the implementation of the scheme.	Monitoring scheme outcomes post-implementation	TfL Engineering / TfL Investment Delivery Planning



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Step 7: Sign off

Signed Off By	EQIA Author	Sam Greening Sponsor
	[REDACTED]	26 July 2023
	Senior accountable person	Penny Rees Head of IDP – Healthy Streets Highways
	[REDACTED]	26 July 2023
	Diversity & Inclusion Team Representative	Faith Martin Principal Technical Specialist / EQIA Superuser
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