

A4 Portway OBC

Options Assessment Report

Document Ref: 10053585 - A4 Portway OBC - OAR

Revision: 4

DECEMBER 2023



Version Control

Version	Date	Author	Approver	Changes
1	10/02/2023	RO, JM	AM, MT	First draft
2	09/03/2023	RO, KC	IB	Client comments addressed
3	03/05/2023	RO, JM, KC	IB	WECA comments addressed
4	08/12/2023	KC, MT	IB	Updated following BCC Consultee Review and option refinement

This report dated 03 May 2023 has been prepared for **Bristol City Council** (the “Client”) in accordance with the terms and conditions of appointment dated 01 June 2022 (the “Appointment”) between the Client and **Arcadis UK** (“Arcadis”) for the purposes specified in the Appointment. For avoidance of doubt, no other person(s) may use or rely upon this report or its contents, and Arcadis accepts no responsibility for any such use or reliance thereon by any other third party.

Contents

1	Introduction.....	1
2	Policy and Strategy	4
3	Existing Transport Conditions	10
4	Proposed Interventions in The Region.....	16
5	Need for Intervention.....	17
6	Study Objectives.....	26
7	Stakeholder Engagement.....	28
8	Longlist	30
9	Sifting Framework	36
10	Shortlist	42
11	Preferred Way Forward	47
12	Conclusion	49

Tables

Table 3-1	Collisions on the A4 Portway	14
Table 8-1	Minimum requirements assessment.....	31
Table 8-2	Design Area Locations	34
Table 9-1	RAG+M Criteria Summary	40
Table 10-1	Packaging Criteria	42
Table 10-2	Options considered in relation to the outbound bus lane, following public consultation....	42
Table 10-3	Cost Summary Table	45
Table 10-4	Discounted Options	46
Table 11-1	Preferred Way Forward	47
Table 11-2	Impact of Do Something against the problems	48
Table 11-3	Impact of Do Something option against the objectives.....	49

Figures

Figure 1	Geographic scope	1
Figure 2	Bus lanes on the A4 Portway, A4 Hotwell Road, and A4 Anchor Road.....	11
Figure 3	Rail stations in the study area.....	12
Figure 4	Cycle infrastructure in Bristol	13
Figure 5	Public Rights of Way adjacent to the Portway	14

Figure 6 Strategic Corridors as Phase 1 of Mass Transit.....	16
Figure 7 FirstMove bus delay (Oct - Dec 2019) AM Peak (08:00).....	18
Figure 8 FirstMove bus delay (Oct - Dec 2019) PM Peak (17:00).....	18
Figure 9 FirstMove bus occupancy (Oct - Dec 2019) AM Peak (08:00).....	20
Figure 10 FirstMove bus occupancy (Oct - Dec 2019) PM Peak (17:00).....	20
Figure 11 2011Census Propensity to Cycle Tool data for Bristol close to the A4 Portway.....	21
Figure 12 A4 Portway cycle data 2016-2019, Hotwells Road near Cumberland Basin.....	22
Figure 13 Bristol CAZ.....	23
Figure 14 Bristol AQMA.....	24
Figure 15 Logic Map.....	27
Figure 16 Summary of identified problems from early stakeholder engagement.....	29
Figure 17 A breakdown of the 6 key design areas.....	35
Figure 18 A summary of the sifting process.....	36
Figure 19 Sifting Framework Criteria.....	39
Figure 20 Compatibility matrix.....	41

1 Introduction

This Options Assessment Report (OAR) has been prepared by Arcadis, on behalf of Bristol City Council (BCC) for the A4 Portway linking Bristol city centre with Avonmouth. This report documents the process of identifying the need for intervention and the process of option development and selection for the A4 Portway.

Following the initial consultation and stakeholder engagement, Arcadis has developed a series of options to meet BCC's objectives to form a long list, a sifting framework, a shortlist and the preferred way forward. The methodology used to produce these lists has been detailed in this report including a sifting process and compatibility matrix used to match the viability of potential solutions to the project's objectives and other relevant criteria.

1.1 Overview of A4 Portway Corridor

The A4 Portway is a key route linking Bristol city centre with the strategic road network, M5 and M49, and employment centres in Avonmouth and the Avonmouth Severnside Enterprise Area (AESA). It has been identified as a high priority public transport corridor in phase one of the City Region Sustainable Transport Settlement (CRSTS) and the West of England Combined Authority (WECA) Bus infrastructure programme. Currently, it suffers from high levels of congestion as a result of the number of commuter trips made into the city. It also serves as a diversionary route for the M5. This project seeks to improve and add to the current transport infrastructure along the Portway to prioritise public transport and other modes of sustainable transport over general traffic.

The study area of the project is outlined in Figure 1. The project proposals extend from Anchor Road at its junction with Explore Lane along the A4 Hotwell Road and the A4 Portway, under the M5 Bridge, and end just before the Portway Roundabout. Roads in connection with the A4 Portway, for example at key junctions, are also included in the geographic scope of the project as shown in Figure 1. The impact of potential measures on these roads was determined during the modelling of the options.

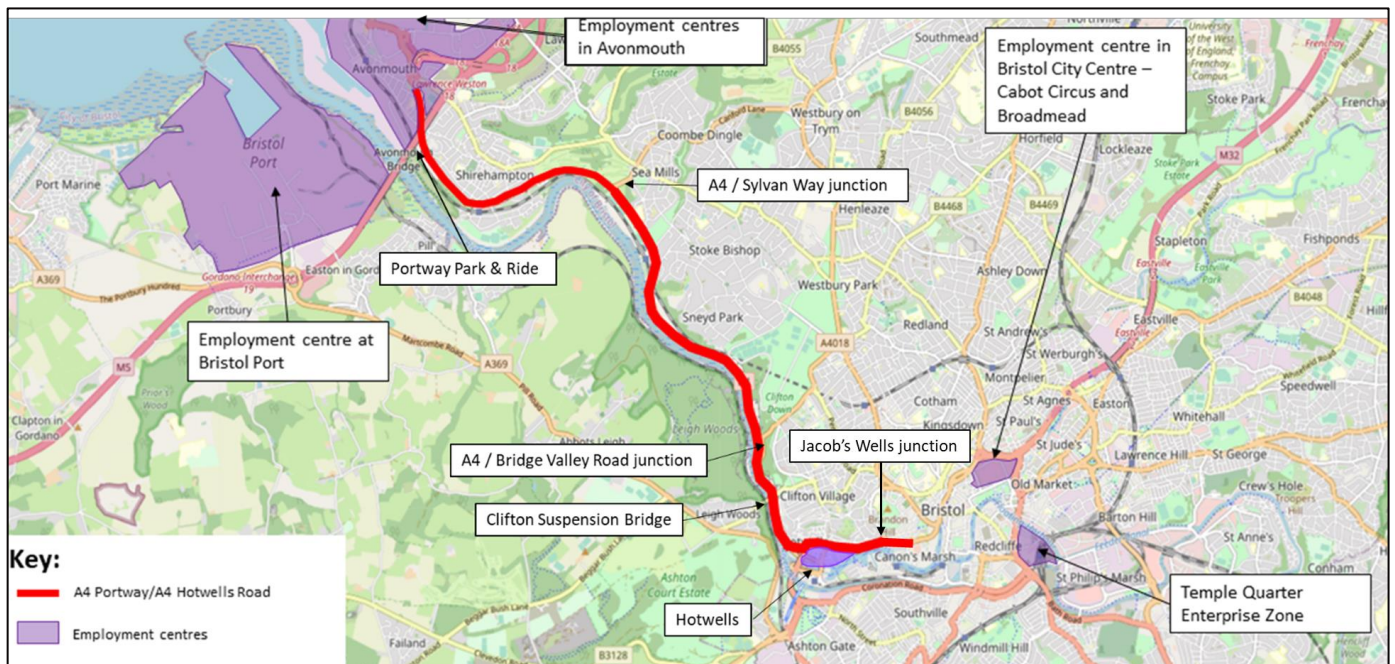


Figure 1 Geographic scope

1.2 Report Structure

This report has been prepared in accordance with Department for Transport's (DfT) Transport Analysis Guidance (TAG) guidance¹ and has the following structure:

- Chapter 2: Policy and Strategy
- Chapter 3: Existing Transport Conditions
- Chapter 4: Proposed Interventions in the Region
- Chapter 5: Need for Intervention
- Chapter 6: Project Objectives
- Chapter 7: Stakeholder Engagement
- Chapter 8: Longlist
- Chapter 9: Sifting Framework
- Chapter 10: Shortlist
- Chapter 11: Preferred Way Forward
- Chapter 12: Conclusion

¹
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/938766/tag-transport-appraisal-process.pdf

1.3 Proposed Development

The BCC aim for the Portway project is to:

Deliver infrastructure changes to the A4 Portway that make public transport, cycling, and walking people's natural choice in mode of travel to enhance social, wellbeing, economic and environmental outcomes.

The initial project objectives are:

- Improving the journey time, punctuality, and reliability of bus services along the corridor by delivering total segregation and other bus priority measures whilst giving consideration to the strategic nature of this corridor for private vehicles
- Increase the proportion of trips made by bus, cycling and walking
- Reduce levels of air pollution and CO2 emissions
- Enhance streetscape, public spaces and urban environment where possible

The proposed improvements include:

- Reallocating road space to achieve total segregation for public transport
- Bus infrastructure upgrades to help buses move quickly through the traffic improving journey times and reliability
- Enhancements to bus stop infrastructure including shelters, raised kerbs, cycle stands, bins, identifiable paved areas (using standard designs provided by BCC), and real time information, where required
- Junction enhancements to prioritise the movement of buses and other forms of public transport, including the remodelling of the Portway Park and Ride bus turning head to accommodate a north bound access/egress
- Supporting the route as a key freight link
- Consideration of SUDs provision
- Reallocating road space for cyclists to enable more active travel
- Better pedestrian environments providing safe crossing points and attractive streetscapes

2 Policy and Strategy

This chapter provides a summary of the relevant national and local transport and planning policy and strategy in relation to the proposed development. The application site lies within the unitary authority of BCC.

2.1 National Policy

<p>National Planning Policy Framework (NPPF)</p>	<p>The NPPF, updated in July 2021, sets out the Government’s planning policies for England and how these should be applied. The NPPF is a material consideration in planning decisions. It states-</p> <p>“Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up...”</p> <p>“Safe and suitable access to the site can be achieved for all users.”</p> <p>“The design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code.”</p> <p>“Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.”</p>
<p>Bus Back Better: National Bus Strategy for England</p>	<p>In 2020, the government announced a plan to transform bus services across the country with simpler fares, new buses, improved routes and higher frequencies.</p> <p>The national strategy sets out the vision and opportunity to deliver better bus services for passengers across England, through ambitious and far-reaching reform of how services are planned and delivered.</p>
<p>Gear Change</p>	<p>This plan describes the vision to make England a great walking and cycling nation. It sets out the actions required at all levels of government to make this a reality, grouped under four themes:</p> <ul style="list-style-type: none"> • Better streets for cycling and people • Cycling and walking at the heart of decision-making • Empowering and encouraging local authorities • Enabling people to cycle and protecting them when they do

2.2 Local Policy

Bristol One City Plan

Initially launched by BCC in January 2019, the Bristol One City Plan sets out the vision for Bristol by 2050, describing how a range of public, private and third sector partners within the city will collaborate to develop a fair, healthy, and sustainable city.

The third iteration of the report (released in Summer 2021) outlines the specific transport vision for Bristol by 2050, to be well-connected with transport and digital services that are efficient, sustainable and inclusive. Central to this vision are several specific goals, including:

- Creation of an integrated public transport system, including a mass transit network across the city
- Development of an attractive walking and cycling network
- Stronger and more frequent rail and bus services
- Improved traffic management systems
- Promotion of automated vehicles and low-emission technologies

Bristol Development Framework: Core Strategy

The Bristol Core Strategy, published by Bristol City Council in 2011 sets out the current spatial context of the city, as well as the vision and objectives looking forward to 2026, setting out the desired approach to how the city and its neighbourhoods will develop over time.

The vision of the core strategy has led to the creation of 11 strategic objectives for development, produced in consultation with the community and stakeholders. These aim to address several identified social, economic, environmental and transport issues.

- Ensuring a sustainable future for Bristol: A green capital with long-term sustainable development and growth
- Mixed, balanced and sustainable communities: Shared, socially cohesive places with easy walking and cycling access to a range of social, health and work facilities
- Ambitious and sustainable economic growth: A thriving and diverse local economy, maintaining high local growth rates and ensuring future competitiveness of the city
- Appropriate housing provision: Providing an appropriate mix of new and affordable housing throughout the city by 2026
- Better health and wellbeing: A pattern of development and urban design that promotes good health and wellbeing, with the promotion of active travel and green spaces

-
- High quality-built environment: Attractive and safe places, with a high quality well-designed built environment
 - High quality natural environment: A high quality natural environment with conservation of open spaces and biodiversity, and maintenance of a green infrastructure network
 - Improved accessibility and connectivity: Improved accessibility and connectivity between centres and within the city, to key services and places of work and recreation. Will reduce the need to travel, whilst managing congestion throughout the city
 - Effective waste management: Minimising waste in new developments and ensuring sufficient sites for delivery of sustainable waste management facilities
 - Adapting to climate change and promotion of renewable energy: Use of sustainable construction methods and renewable energy production to address the causes of climate change. New development in Bristol will account for the impacts of climate change including increased risks of flooding
 - Community involvement and engagement: Ensuring local communities are actively engaged in the planning process

Policy BCS10 of the Core Strategy outlines the council's commitment to delivering significant improvements to transport infrastructure to provide an integrated transport system, which improves accessibility within Bristol and supports levels of development.

Bristol's Core Strategy highlights existing congestion as a key issue across the city. Targeting improved health and sustainable solutions, the strategy prioritises development of active and public transport over purely road-based options. Options that solve existing issues of congestion whilst also reducing air pollution and conserving the local natural environment should be prioritised under the strategy to meet the objectives for the next 20 years.

Policy BCS4 has identified Avonmouth as a priority area for industrial and warehousing development and renewal. It sets out to support the economic strengths of the area whilst protecting environmental assets. The policy continues to state that principal industrial and warehousing areas will be identified and retained for industrial and warehousing uses. Development in these areas for those uses will be supported in principle. Proposals for port-related activities, manufacturing industry, logistics / distribution, waste management and other environmental technology related industries will be particularly encouraged. There may be opportunities for the development of energy from waste facilities, biomass energy and further large-scale wind turbines.

West of
England Joint
Local
Transport Plan

The JLTP4 has been prepared by the West of England Combined Authority, which comprises Bath & North East Somerset, Bristol and South Gloucestershire Councils, and in partnership with North Somerset Council. The Plan, adopted in March 2020, considers transport matters up to 2036 and sets out how to achieve a well-connected sustainable transport network.

The JLTP4 has a number of key objectives that the policies are intended to address. These are:

4 (JLTP4),
2020

- Take action against climate change and address poor air quality
- Support sustainable and inclusive economic growth
- Enable equality and improved accessibility
- Contribute to better health, wellbeing, safety and security
- Create better places
- For new mixed-land use developments, the JLTP4 emphasises that priority must be given to walking, cycling and public transport

West of
England Local
Cycling and
Walking
Infrastructure
Plan

This plan aims to transform active travel in the west of England and proposes a capital investment of £411 million by 2036.

The plan proposes improvements to the walking environment as well as improvements to the cycling routes, with the aim of providing high quality infrastructure to ensure the West of England is a region where cycling and walking are the preferred choice for shorter trips and to access public transport.

Specific to the A4 Portway, it suggests following improvements to be made:

“Consider whether a local interchange with cycle parking/hire could be installed where Station Road meets the A4 Portway.”

“Improve wayfinding to the station and consider options for removal of current footbridge with a step-free crossing.”

2.3 Local Strategy and Studies

<p>Bristol Transport Strategy 2019</p>	<p>The Bristol Transport Strategy (2019) sets out planned improvements to the transport network throughout the city to 2036.</p> <p>There are six key objectives of the strategy. Of central importance to achieving these outcomes is the continued transition towards use of sustainable modes of transport, such as walking, cycling and public transport:</p> <ul style="list-style-type: none"> • Provide transport improvements to accommodate increased demand from growth in housing, jobs & regeneration on an already congested network with complex movements from within and outside the city boundary • Enable equality within an inclusive transport system that provides realistic transport options for all • Create healthy places, promoting active transport, improving air quality, and implementing a safe systems approach to road safety • Create better places that make better use of our streets and enable point to point journeys to be made efficiently • Enable reliable journeys by minimising the negative impacts of congestion and increasing network efficiency and resilience • Support sustainable growth by enabling efficient movement of people and goods, reducing carbon emissions and embracing new technologies <p>The report makes specific reference to enhancing bus routes by connecting the Portway Park and Ride with Severnside.</p> <p>The objectives of the Bristol Transport Strategy reflect the more localised issues and opportunities along the A4 Portway corridor project.</p>
<p>West of England Bus Strategy</p>	<p>This bus strategy aims to create better, faster, more reliable and more accessible bus services across the region. It considers options to improve the bus network and sets out how further growth in bus usage can be encouraged. Through this strategy, WECA aims to double passenger numbers by 2036.</p>
<p>City Region Sustainable Transport Settlement (CRSTS) SOBC</p>	<p>The A4 Portway has been identified as a high priority public transport corridor in phase one of the City Region Sustainable Transport Settlement (CRSTS) and the West of England Combined Authority (WECA) Bus infrastructure programme.</p>
<p>The City Centre Framework</p>	<p>Bristol's City Centre Framework sets out proposals to improve movement, public realm and the approach to regeneration and development in the city centre. The key objectives of this framework are:</p>

-
- Creating a liveable, vibrant, safe and inclusive city centre for the benefit of people of all ages to live, work, learn and enjoy, both during the day and night
 - Tackling traffic congestion and improving air quality; making the city centre better connected, accessible and healthier
 - Supporting the city centre as the core retail, leisure and cultural heart of the region, by enabling regeneration, diversifying uses and promoting the offer
 - Ensuring the sustainable development of new homes, employment space, enhancement of heritage assets, streets and public open spaces; contributing to a carbon neutral and climate resilient city

Within the framework are 23 aims, most of which can be traced back to needed changes to transport infrastructure and 6 of which specifically mention changes to the highway network.

The corridor has capacity to deliver infrastructure changes that prioritise public transport and other modes of sustainable transport over general traffic.

Bristol Council
Corporate
Strategy

The high-level alignment with some of the council's corporate strategy (i.e., how will the project assist in meeting the council's overarching objectives) are summarised below:

- **Economy and Skills** - Ensuring fair travel opportunities to employment and education, valuing the differences of various user groups
 - **Environment and Sustainability** - Minimising impacts to the environment and climate change through maximizing public and sustainable transport use
 - **Health, Care and Wellbeing** - Improving accessibility to health, care and wellbeing services
 - **Homes and Communities** - Unlocking residential development opportunities and empowering local communities to deliver high quality public transport services
 - **Transport and Connectivity** - Maximising realistic transport options, improving network performance, reliability and resilience
-

3 Existing Transport Conditions

3.1 Overview

This chapter sets out the existing transport conditions along the A4 Portway, including an overview of the local highway network; a review of the levels of service for public transport; and an appraisal of walking and cycling accessibility.

3.2 Local Highway Network

Highway space on the A4 Portway is also used for several other functions all of which were considered in the development of this project, namely:

- Access to properties, businesses, and leisure activities
- On street parking
- Blue badge parking
- Footpaths / pedestrian crossings
- Bus lanes
- Cycle lanes
- Loading bays
- Coach pick up /drop off routes
- Access to rail (integration with rail)
- Bus stops

The current allocation of road space along sections of the corridor could be considered inefficient due to issues outlined in the need for intervention section. These sections of the corridor are highlighted in the Gap Analysis Document (Appendix A)². The Portway has areas of significant road space to retain the above facilities, but there is a need to consider the re-allocation of the road space to prioritise public transport, walking, and cycling, over general traffic as part of these proposals.

3.3 Public Transport

Bus

There are a series of existing bus services operating along the Portway which are detailed below.

First Bus runs services X1, X2, X4, X6/X7, and X8/X9 along the A4 Hotwell Road as they travel inbound from Bristol Gate and outbound from the A4 Hotwell Road along Humphry Davy Way on to Cabot Way (see Appendix B). A high number of services are running on this section of the corridor with potential for bus priority measures to ensure operational efficiency. First Bus also currently run the Portway Park and Ride service, which departs from the Portway Park and Ride site, runs along the A4 Portway and A4 Hotwell Road before

² BCC – A4 Portway Gap Analysis (2022) - [Gap Analysis Final v1.docx](#)

looping around the City Centre past Temple Meads and returning to the Portway Park and Ride site via the A4 Portway / A4 Hotwell Road.

The 505 is a service run by 'The Big Lemon' and operates between Long Ashton Park and Ride, and Southmead Hospital part of the route operates along the A4 Hotwell Road.

There has been an increase in the use of the A4 Portway by coach services in the last 15 years. This includes the establishment of the hourly national express service from South Wales to Bristol Airport (BRS).

The A4 Portway has also had an increase in the number of inter-urban bus services using it in recent years. In September 2020, the First Bus X5 service from Clevedon and Portishead was running hourly throughout the day and achieving a journey time of 31 minutes between Portishead and the heart of Bristol. This is compared to a 51-minute journey time, off-peak, on the traditional route using the A369. However, this route has since been shortened so it does not use the A4 Portway and only travels between Weston Super Mare and Portishead.

Stagecoach West operates the number 13 along part of the Portway, between Woodward Road and Sylvan Way. The service departs from Dursley Road, in Shirehampton, every hour, Monday to Saturday, and does not run on Sundays/Bank Holidays. This route is highlighted in Appendix B.

Bus lanes

Although there is extensive bus priority already in place, there are sections where buses remain with general traffic, which can be very congested. This makes improving bus priority on the Portway an extremely important part for future successful bus operations.

The A4 Portway, A4 Hotwell Road, and A4 Anchor Road provide priority for buses via a number of bus lanes as shown in Figure 2. There are approximately 4.32km of bus lanes on the corridor.

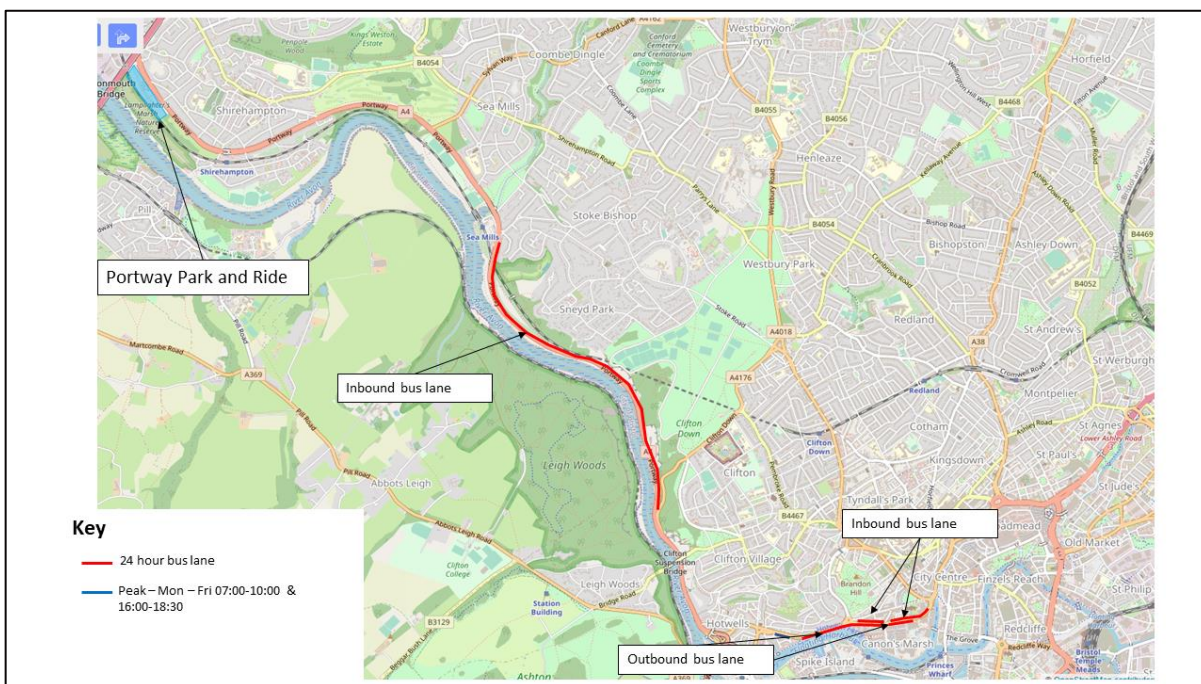


Figure 2 Bus lanes on the A4 Portway, A4 Hotwell Road, and A4 Anchor Road

Park and Ride (P&R)

The Portway P&R site is located at the northern end of the A4 Portway corridor, near the Portway Roundabout, Avonmouth, and Junction 18 of the M5. Its main bus service along the Portway is the Portway

Park and Ride, operated by First Bus. The service departs Shirehampton, Portway Park and Ride site every 15 minutes, Monday to Friday, and takes 46 minutes to complete the loop. On Saturdays the service departs the P&R site every 20 minutes, and then every 30 minutes on Sundays and Bank Holidays. This route is highlighted in Appendix B.

The service operates 7 days per week, with reduced hours on Sundays. The P&R site currently offers 544 spaces, with an additional 273 set to be constructed by February 2023. A new rail platform has been constructed and is set to be operational by Spring 2023.

Rail

The A4 Portway runs adjacent to the Severn Beach Line, which runs from Bristol Temple Meads to Severn Beach and stops at several stations located along the A4 Portway: Sea Mills, Shirehampton, Portway Park and Ride, and Avonmouth. The locations of the stations can be seen in Figure 3.

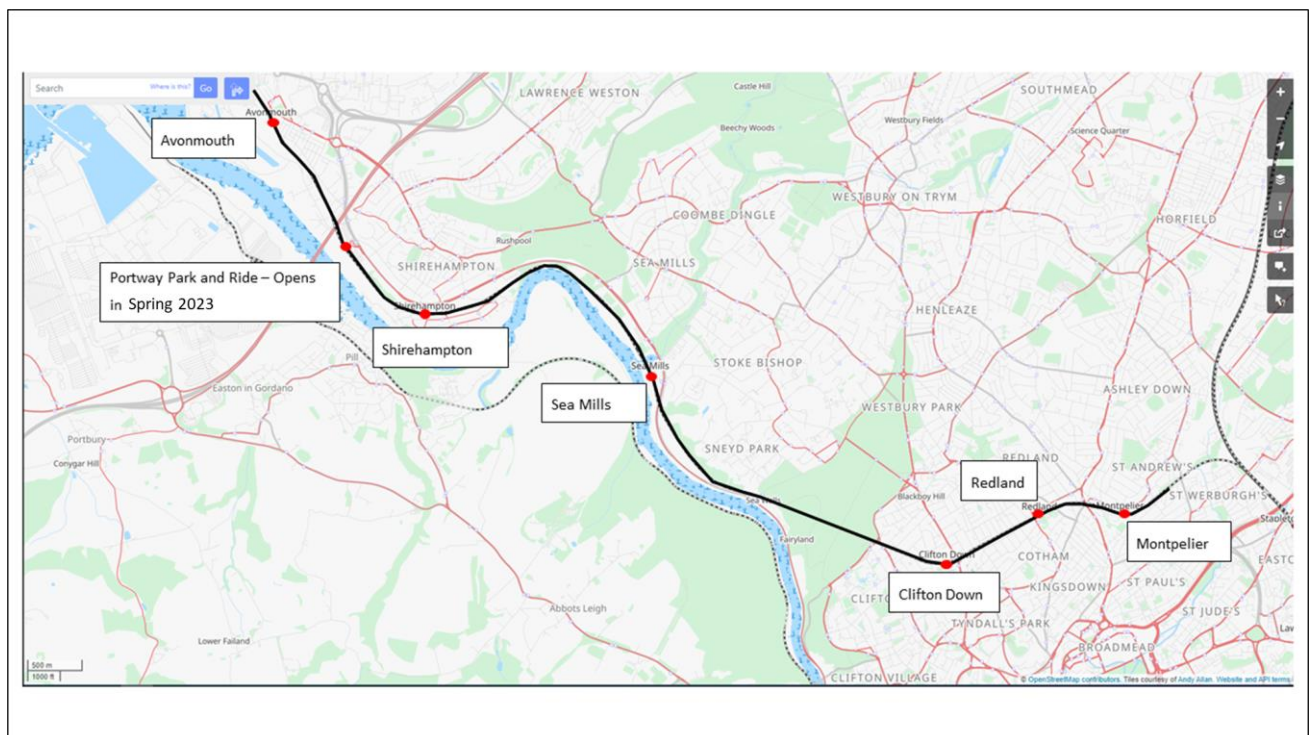


Figure 3 Rail stations in the study area

Cycling

Although not present along the A4 Portway/A4 Hotwells Road, the National Cycle Network (NCN) interacts with the Portway signed cycle way at various points. The following routes are the key interfaces with the NCN:

- NCN 3 – Starting in the Bristol City Centre, the NCN 3 runs through southern Bristol, into Bath and North East Somerset, and beyond into the southwest, before finishing at Lands End
- NCN 33 – Interacts with the study area along the A4 on Hotwells Road. NCN 33 starts in Bristol, and crosses Somerset and Devon before finishing on the south coast at the English Channel
- NCN 41 – Runs on the opposite bank of the River Avon, to the A4 Portway, and crosses the river at the M5 Avonmouth Bridge, where it then continues on to connect Bristol with Gloucester, Stratford-upon-Avon, and Rugby (when complete)

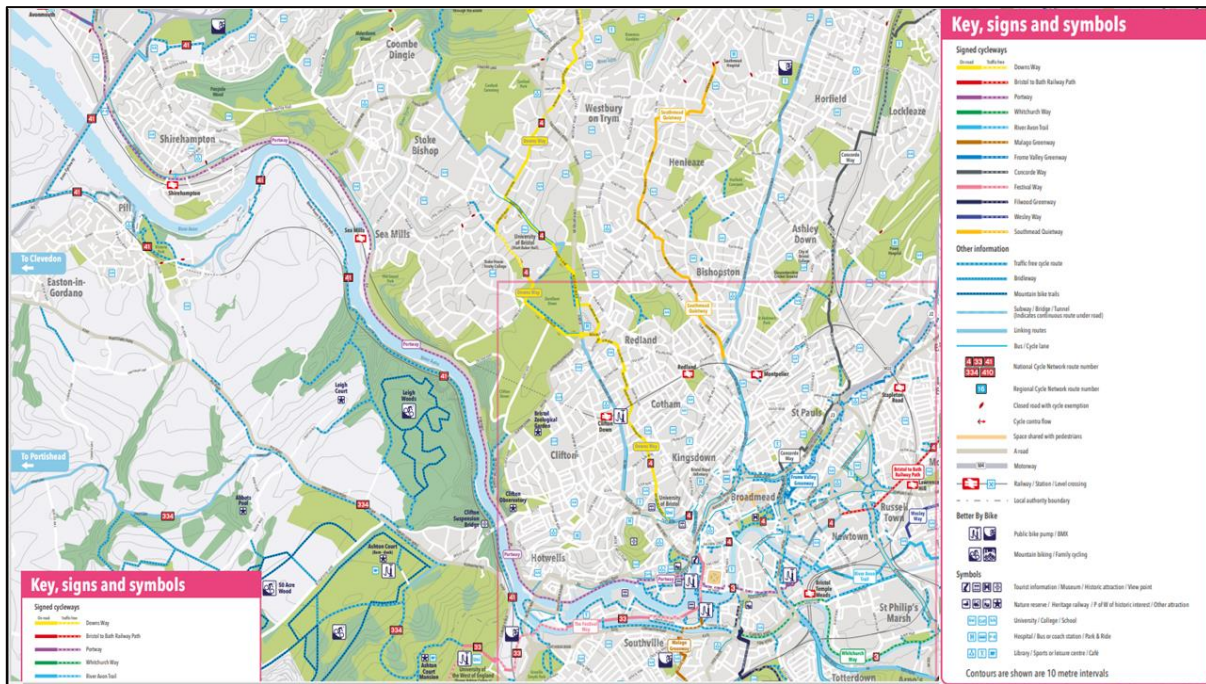


Figure 4 Cycle infrastructure in Bristol

The NCN routes, and other cycle infrastructure can be seen in Figure 4. From Figure 4 it can be seen that the Portway provides cyclists with a continuous traffic free route between the city centre and the Portway Roundabout, on the outbound side of the highway. The path is shared with pedestrians and varies in width, the narrowest points of the path are circa 1 m wide. Figure 4 also shows sections of bus/cycle lane, specifically along sections in Shirehampton, Sea Mills, and Hotwells.

Traffic data taken from the Portway demonstrates the increase in cycle trips on the A4 Portway corridor, with a particular increase of almost 20% during 2020. It is noted that this may be due to factors such as the Covid Pandemic and travel restrictions but should still be considered in the baseline assessment.

Walking

There are a number of Public Rights of Way in the vicinity of the study area, with routes distinguished as bridleways, footpaths, and restricted crossing points and can be seen in Figure 5. It does not include footways alongside the carriageway, which are provided along the length of the route.

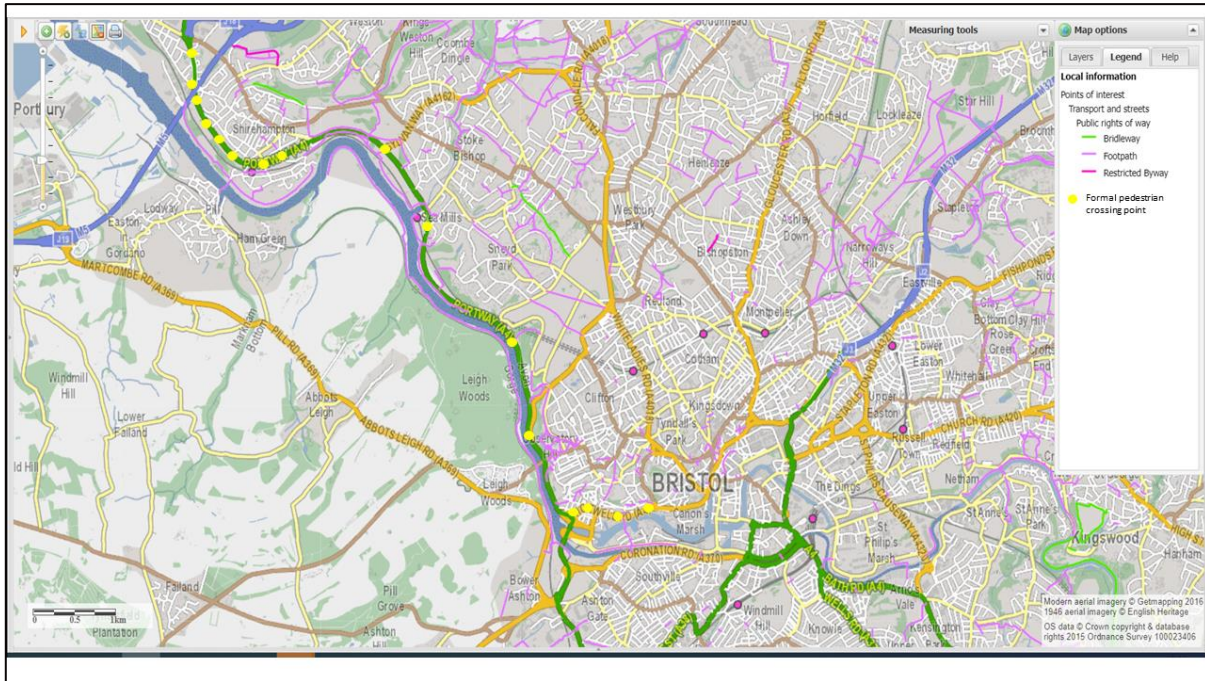


Figure 5 Public Rights of Way adjacent to the Portway

For the most part, the A4 Portway/A4 Hotwells Road contains a sufficient number of formal crossing points, particularly around Shirehampton, and Hotwells. However, formal crossings become more sporadic between Sylvan Way and Bridge Valley Road.

3.4 Road Safety

Personal Injury Collision (PIC) data was obtained from BCC for the five-year period encompassing March 2017 to February 2022 (see Appendix C) and is included in Table 3-1. The data gives a record of collisions resulting in personal injury that were recorded on the local highway network.

Table 3-1 Collisions on the A4 Portway

Location	Collisions per Location	Severity of PICs
A4 Portway, 135m W of Park Rd	1	Serious
A4 Portway junction with Portview Road	1	Serious
A4 Portway junction with Grove Leaze	1	Serious
A4 Portway, 800m N of Bridge Valley Rd	1	Serious
A4 Portway, 600m N of Bridge Valley Rd	1	Serious

A4 Anchor Road Junction with Canon's	1	Serious
Junction with Canon's Road	2	2 Serious
A4 Portway, Sea Mills, Bristol	1	Fatal
Rownham Mead, Bristol	1	Fatal

Analysis of PICs has not highlighted any clusters or patterns of serious or fatal collisions in the study area. The Portway experiences less collisions than would be anticipated given high vehicle flows and dual carriageway characteristics of the route. However, when assessing slight incidents, a pattern emerges with several clusters of incidents occurring in the following locations:

- At the A4162 junction
- At the A4716 junction
- Within the boundaries of west Bristol

4 Proposed Interventions in The Region

The following section outlines proposed future strategies in the region that may impact the success of the A4 Portway project.

Mass Transit Phase 1

Mass transit represents a step change in the quality of the transport network in the region. The A4 Portway Strategic Corridor is included within the first phase of BCC’s vision of Mass Transit, set to be delivered in the next five years. Phase 1 is a bus-based scheme within Bristol that has the potential to move a lot of people in a short period of time, through total segregation of buses from general traffic, and other bus priority measures (Figure 6). This project is part of BCC’s Strategic Corridor Programme that has been identified as having significant potential to deliver on the aims of mass transit. The A4 Portway, A4 Hotwell Road, and A4 Anchor Road, all form part of the A4 corridor, indicated using the blue line in Figure 6.

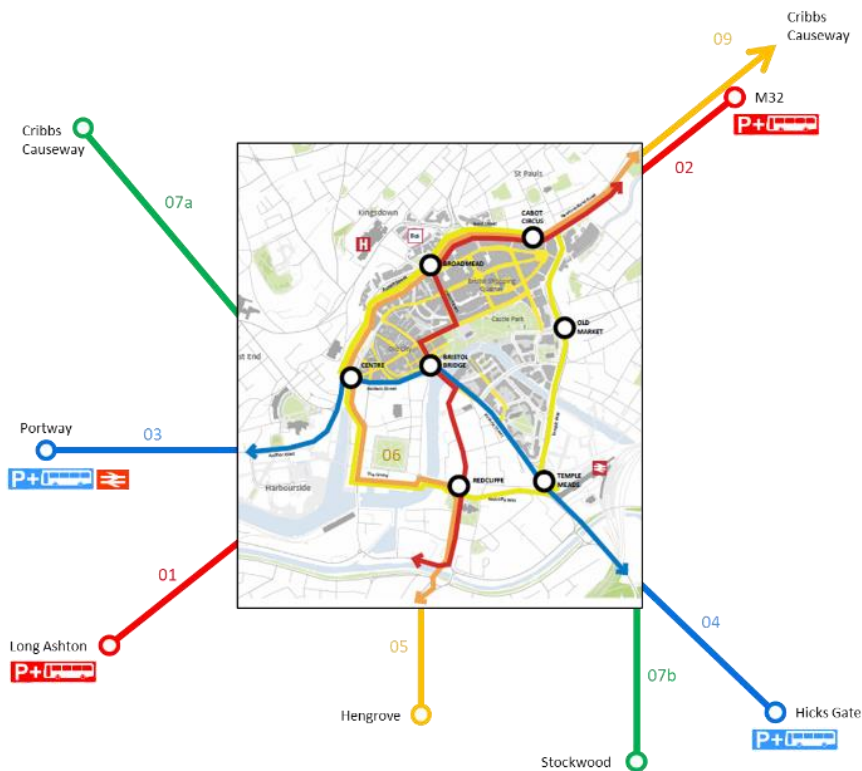


Figure 6 Strategic Corridors as Phase 1 of Mass Transit

Portway P&R Railway Station

A new railway station platform adjacent to the existing Portway P&R site on the Severn Beach Line (SBL). Portway Park & Ride Rail Station is now substantially complete and is due to open by Summer 2023, following completion of the testing, commissioning and authorisation to open processes. When it opens, the station will be served by half-hourly services between Bristol Temple Meads and Severn Beach. It will complement the existing Park & Ride bus service and be a useful extra transport option for the local community, as well as providing Park & Ride users from further afield a rail option to destinations along the Severn Beach line or for onward travel on the wider rail network from Bristol Temple Meads. The station will have a fully accessible single platform which will be served by existing trains on the Severn Beach Line, operated by Great Western

Railway. Parallel to the opening of the rail platform, work is underway to expand the Portway P&R site to facilitate more capacity following completion of the rail station. These works also include a new pedestrian and cycle entrance, providing more direct access to the station. These works will be complete prior to the opening of the station.

5 Need for Intervention

The following section outlines the need for intervention, developed with reference to early stakeholder engagement and recommendations by BCC. Improving the current situation along the A4 Portway corridor is critical if existing issues of congestion, public transport delay and reliability are to be improved. As such, the need for intervention is outlined below:

- **Buses are experiencing delays**, especially along the A4 Hotwell Road. Improving current bus reliability, punctuality is central to the aims and objectives of this project. Furthermore, creating a resilient public transport corridor, to withstand any future increase in congestion feeds into the project's objectives.

Bus delay data for services delays along the A4 Portway/A4 Hotwells Road corridor was provided by First Bus's on-board trackers. Figure 7 and Figure 8 show the level of bus delay during both AM and PM peak times, respectively. The delay is measured as the difference between the fastest and slowest median pace within the time period (seconds per metre).

The figures show that buses experience delays towards the south-eastern end of the corridor, in Hotwells. During the AM peak, buses are experiencing higher levels of delay travelling inbound along Brunel Way/Bristol Gate through Hotwells where there is no bus lane provision, and on the inbound section of Anchor Road, near the junction with the A4018 where the A4 Anchor Road inbound bus lane ends. During the PM peak buses experience greater delays travelling outbound on Jacobs Wells Road and near the roundabout on the A4 Hotwells Road. There are limited delays in the outbound bus lane section on the A4 Hotwell Road. During the PM peak, buses also experience delays on the inbound section of Anchor Road, where there is no bus lane provision, and outbound on the A4018.

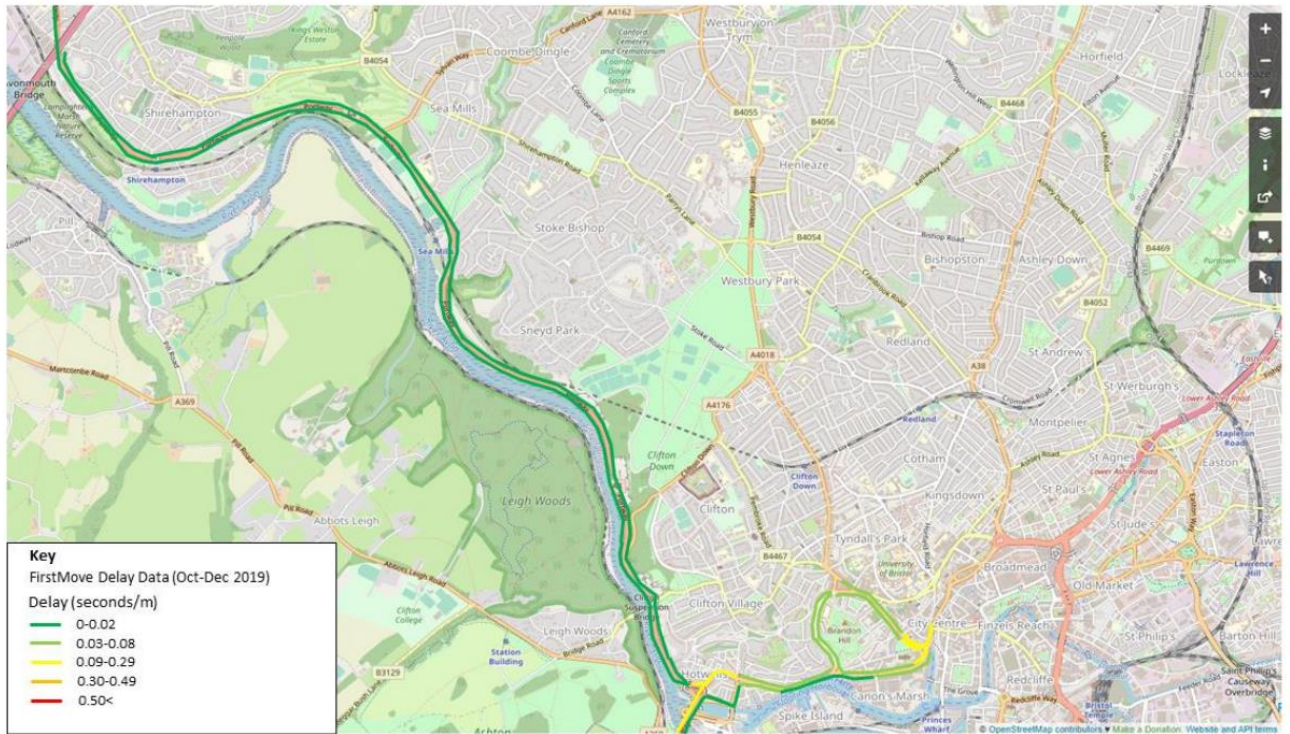


Figure 7 FirstMove bus delay (Oct - Dec 2019) AM Peak (08:00)

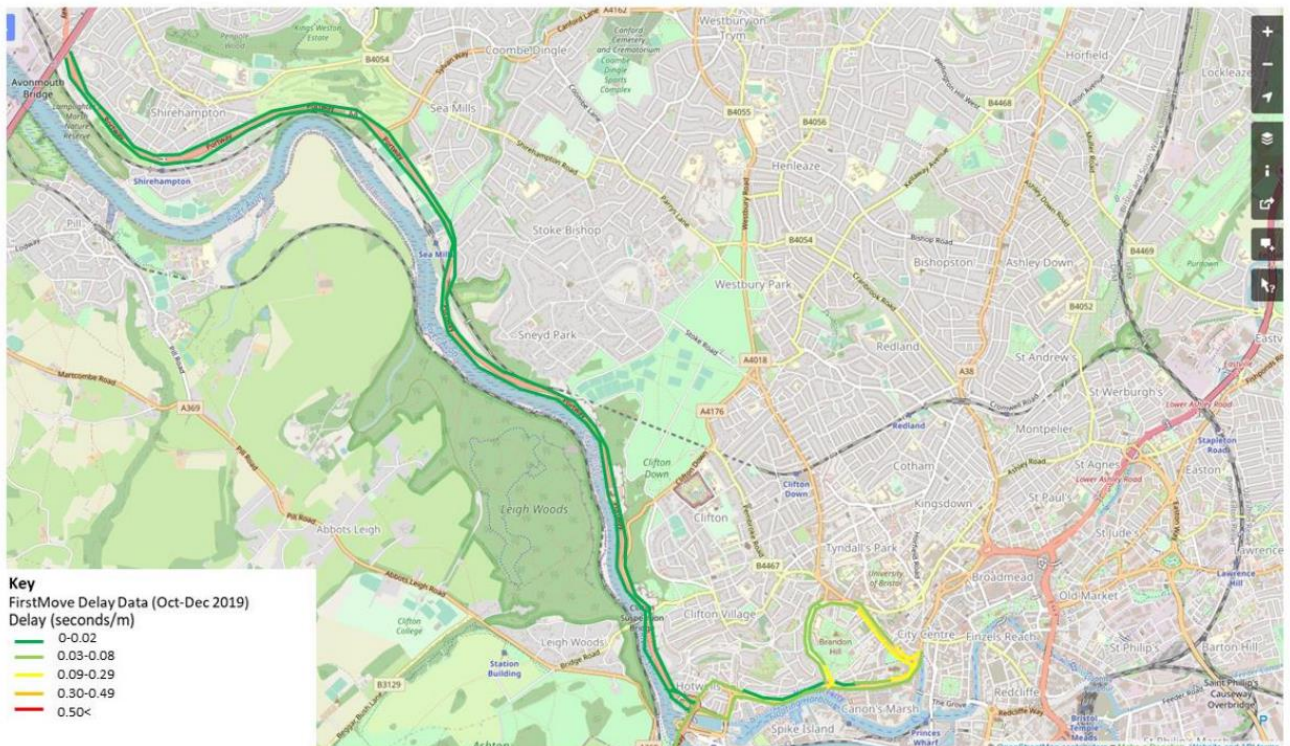


Figure 8 FirstMove bus delay (Oct - Dec 2019) PM Peak (17:00)

- **Bus occupancy** along the A4 Portway is quite low compared to within Bristol. There is an opportunity, along the A4 Portway, to encourage greater bus patronage through improving bus

reliability, punctuality, and user experience. This opportunity will be improved with the expansion of the Portway Park and Ride.

Occupancy rates of buses along the A4 Portway/A4 Howells corridor between October and December 2019 for the AM and PM peak have been provided by First Bus. The data (collected from ticketing information at every stop for every bus trip) is shown below in Figure 9 and Figure 10.

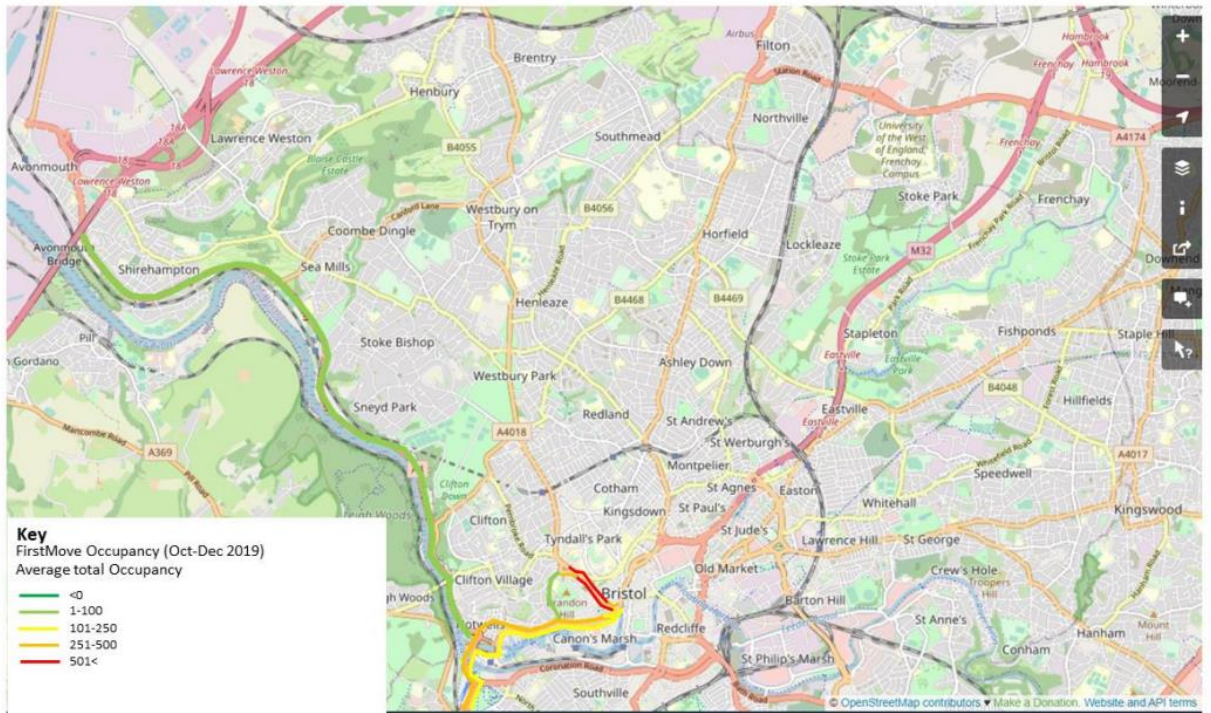


Figure 9 FirstMove bus occupancy (Oct - Dec 2019) AM Peak (08:00)

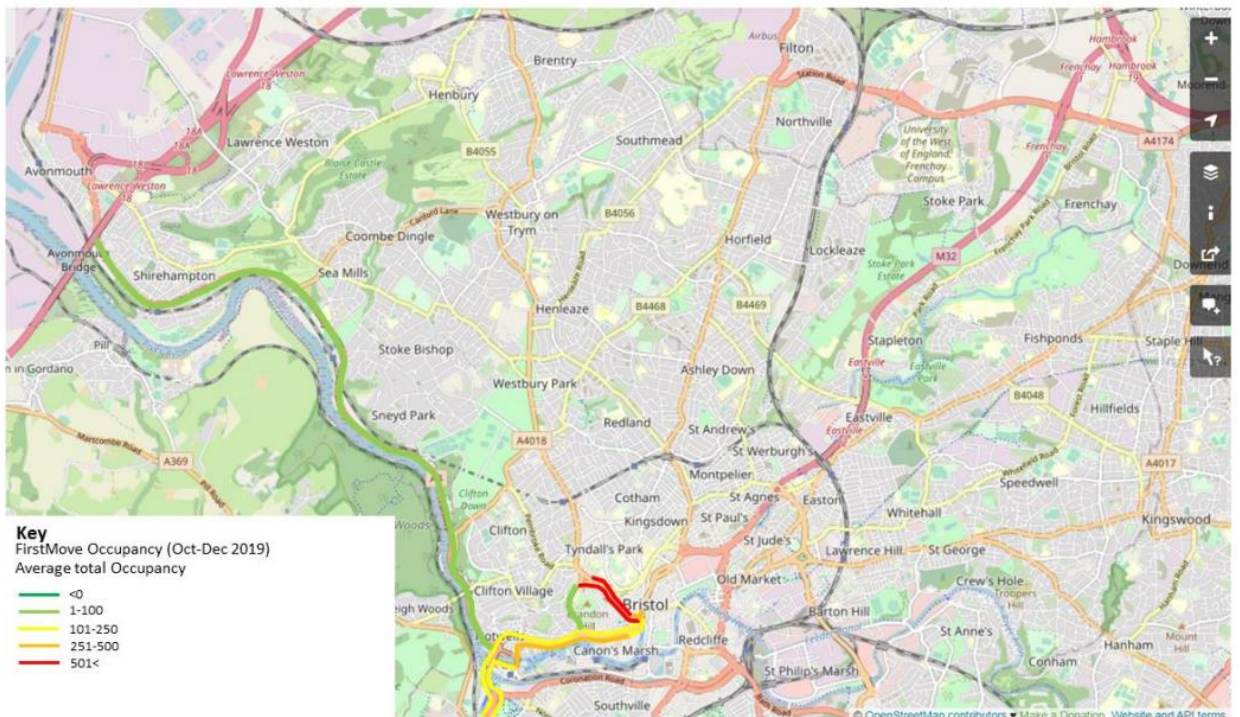


Figure 10 FirstMove bus occupancy (Oct - Dec 2019) PM Peak (17:00)

The figures show that the A4 Portway section of the corridor experiences average occupancy levels of between 1 and 100 passengers per hour, in both AM and PM peaks. Where services run through Hotwells, they experience higher levels of average occupancy during the AM peak with the average inbound occupancy per hour between 251-500 passengers. During the PM peak the average occupancy for services running through Hotwells is higher in the outbound direction.

- **Modal share** data shows that car use is high, particularly among those commuting from wards further away from the city centre, and the modal share in public transport is low. The modal share data presented in the Gap Analysis document (Appendix A) illustrates the opportunity to alter travel behaviours, with improved public transport.
- **Cycling** Figure 11 shows propensity to cycle data developed using 2011 census data. At present, the proportion of commuters cycling along the Portway is low (6% in Shire Hampton and 5% in Sea Mills) which can be attributed in part to insufficient infrastructure and concerns for safety along the route. By contrast, areas within the city centre feature a significantly greater number of cyclist commuters (17% in Eastville and 17% in St. Andrews). This can be attributed to the significant investment in active travel infrastructure with over 300 cycle parking spaces and cycle lanes on all major roads in the city³.

With further investment in active travel along the Portway it is reasonable to suggest that the number of cyclists will increase with a similar trend to the city centre. The route is flat, following the river, and 5 miles in length, shorter than the average UK commute length of 9.8mi⁴. Cycle counts (at Hotwells Road near Cumberland Basin between 2016 and 2019) show the number of people commuting along the Portway is increasing (Figure 12). This trend is expected to continue to increase with the Clean Air Zone (CAZ) being implemented in November 2022. Therefore, it is reasonable to suggest that the number of commuters cycling along the portway will increase, further justifying the case for additional active travel infrastructure to meet demands⁵.

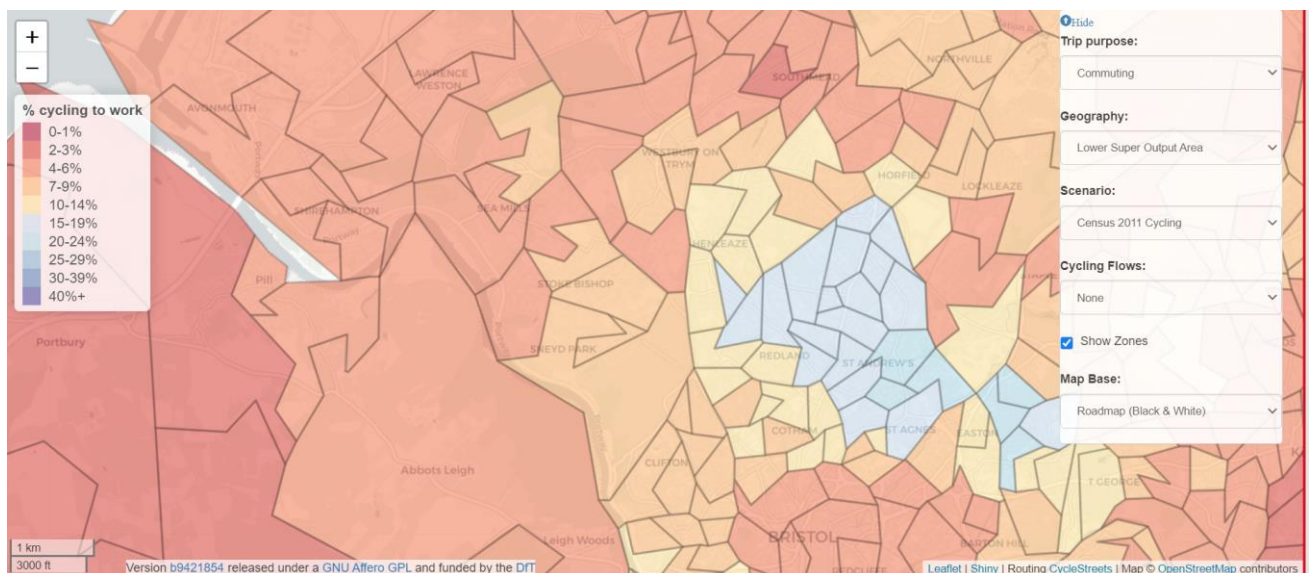


Figure 11 2011 Census Propensity to Cycle Tool data for Bristol close to the A4 Portway

³ <https://www.bristol247.com/news-and-features/features/is-bristol-a-cycle-friendly-city/#:~:text=%E2%80%9CWe're%20known%20as%20one,the%20city%2C%E2%80%9D%20said%20Chaskelson.>

⁴ <https://bikebiz.com/strava-reveals-average-british-cycle-commute-length/amp/>

⁵ <https://www.fleetnews.co.uk/fleet-faq/what-are-the-proposed-uk-clean-air-zones-caz>

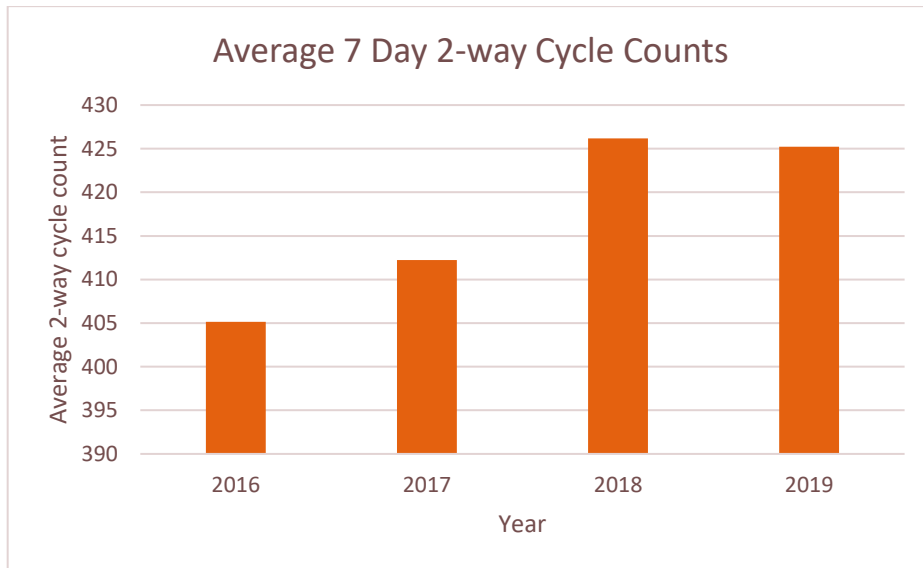


Figure 12 A4 Portway cycle data 2016-2019, Hotwells Road near Cumberland Basin

- High car ownership** in Stoke Bishop, whilst Hotwells and Harbourside have a significantly greater percentage of households with no access to a car or van. The challenge for the corridor is to encourage modal shifts in areas of high car ownership, to more sustainable modes of public transport, and to provide better connectivity through public transport, walking, and cycling in areas of lower car ownership. Reduced car journeys and the promotion of active travel will improve public health for those living along the corridor and nearby communities.
- Interface with the Bristol CAZ.** The south eastern part of the A4 Portway, where the corridor transitions into the A4 Hotwell Road, falls under the Bristol CAZ which opened in November 2022 (Figure 13). The CAZ acts to discourage private car use and encourage the use of public transport and active travel to reduce the levels of harmful air pollution⁶. Interventions along the Portway will help deal with the increased volume of users on public transport or active travel as expected to increase following the implementation of the CAZ.

⁶ <https://www.cleanairforbristol.org/caz/>

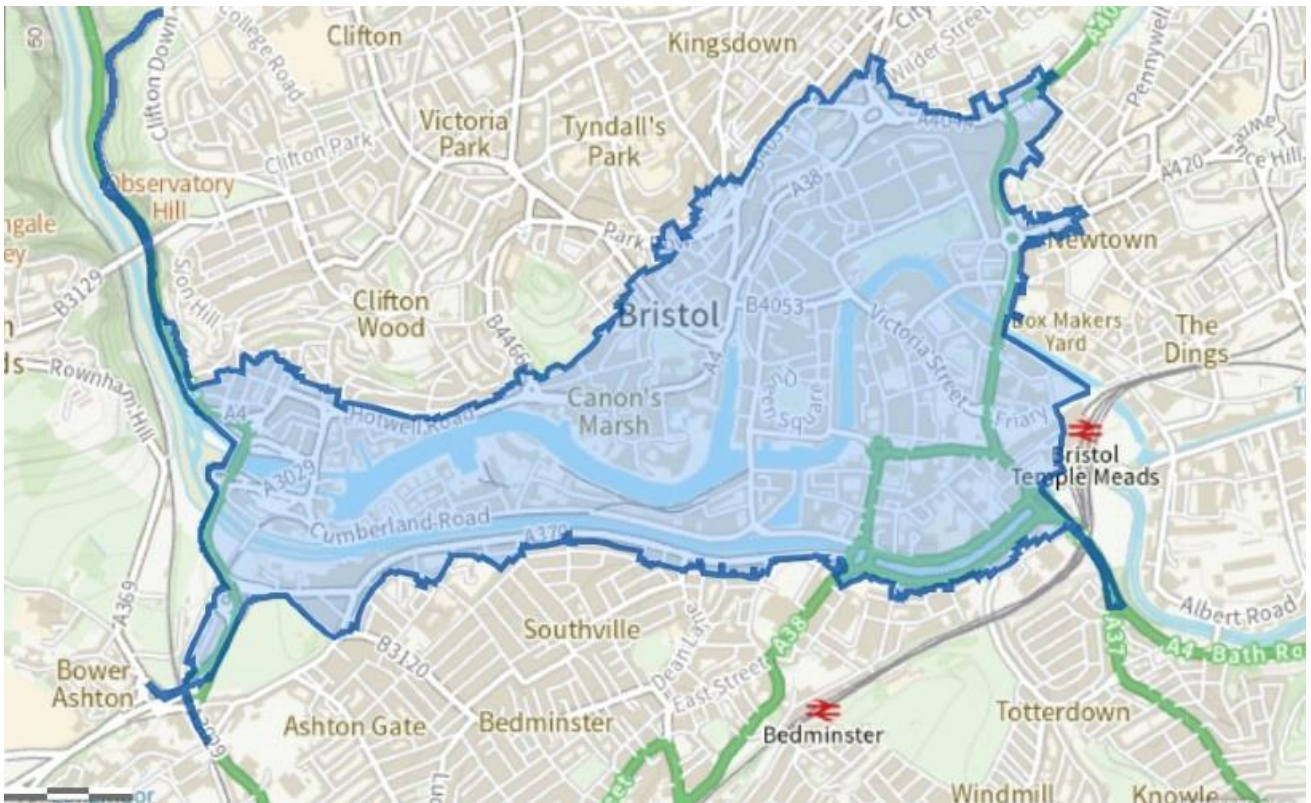


Figure 13 Bristol CAZ

- Air Quality** A site improvement plan has been developed by Natural England has found nitrogen and other pollutant deposits primarily sourced from the Portway. A reduction in traffic along the route and an increase in active travel measures will aid efforts to support the rehabilitation of the area through a decrease in contaminant production.

The Bristol AQMA, lies within the south-eastern part of the corridor encapsulates the A4 Hotwell Road from the junction with Bristol Gate/Brunel Way to Jacobs Wells Road and beyond (Figure 14). Intervention along the Portway will contribute to a reduction in air pollutants in line with government targets.

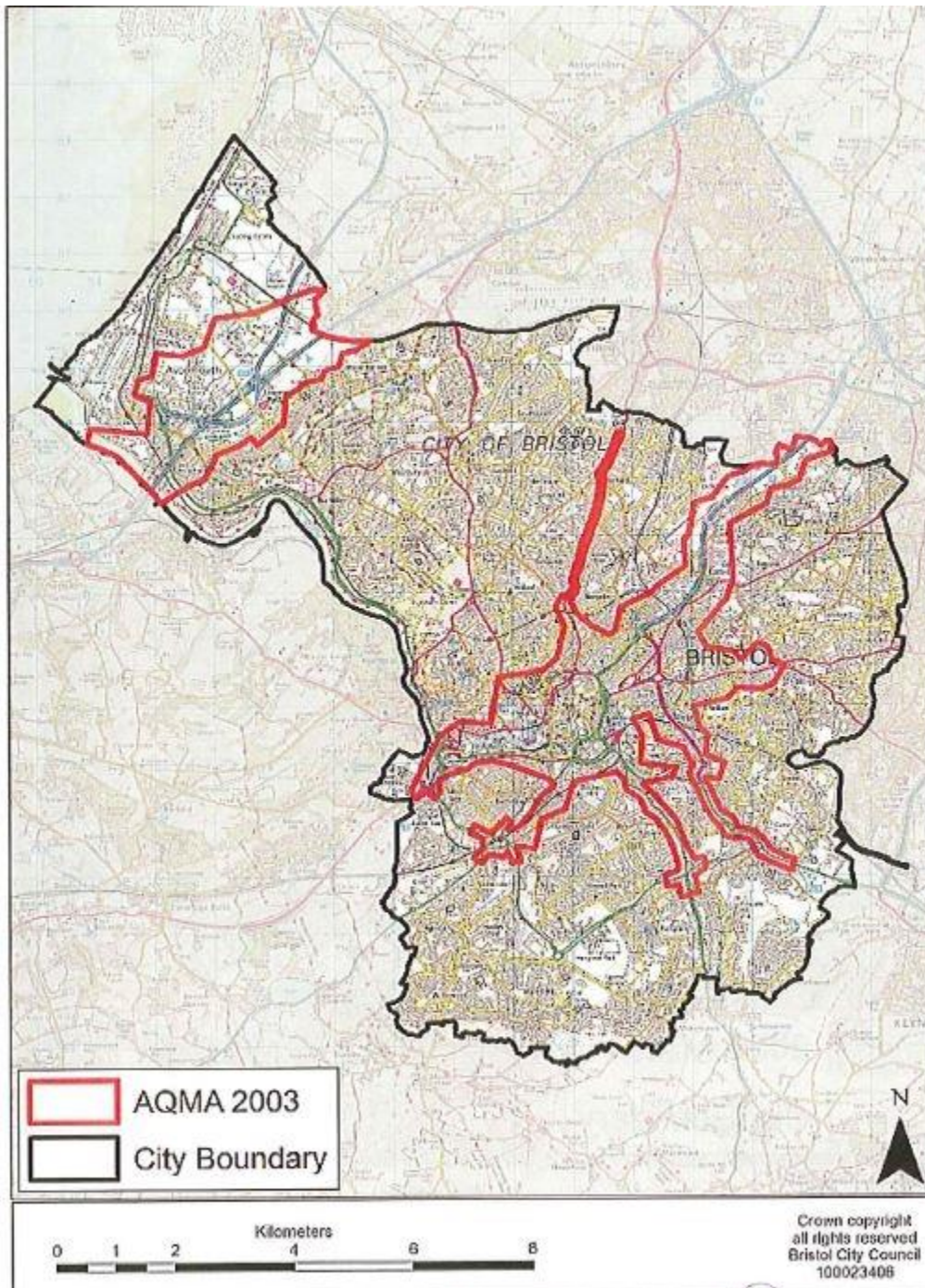


Figure 14 Bristol AQMA

- Ecology.** The A4 Portway corridor runs adjacent to environmentally sensitive areas. By encouraging the uptake of more sustainable transport methods along the corridor, the preservation of these environmentally sensitive areas will be enhanced.

The A4 Portway runs alongside the narrow river bankside of The Avon Gorge, which has been designated at a national level as a Site of Special Scientific Interest (SSSI) by Natural England, under the Wildlife and Countryside Act 1981. Due to the high level of protection, any work that may directly or indirectly have an impact on it, would need to be subject to a Habitat Regulations Assessment (sometimes called 'Appropriate Assessment') and would need consent from Natural England.

Currently, there is very limited pedestrian crossings and, on the eastern side of the A4, footway provision. Furthermore, there is a lack of safety measures such as dropped kerbs, bollards or safety fencing but also lack of visibility of sight lines at crossing points due to encroaching vegetation. Considerations of desirable improvements to the pedestrian and cycling infrastructure such as footways and crossing islands along these parts of the A4 Portway strategic project were provided by BCC.

- **Road width.** The current road space allocation could be considered inefficient. Attention has been paid as to how best reconfigure the road space. Proposals for the A4 Hotwell Road consider the multiple lanes of traffic and road space constraints.
- **Interface with transport decarbonisation aim in JLTP.** Encouraging modal shift from cars to active travel and public transport through improvements to travel infrastructure on the A4 Portway.

6 Study Objectives

The study objectives have been developed based on the issues presented in the need for intervention. This includes an overarching aim for the project set out by BCC and a series of project objectives and critical success factors used as metrics to measure the projects progress and level of success. A logic map has also been developed to support the objectives and critical success factors (Figure 15). This shows the relationship between the challenges faced in the case for change and the respective objectives set to address them.

6.1 Objectives

The BCC aim for the Portway project is to:

Deliver infrastructure changes to the A4 Portway that make public transport, cycling, and walking people's natural choice in mode of travel to enhance social, wellbeing, economic and environmental outcomes.

The project objectives are:

- Improving the journey time, punctuality and reliability of bus services along the Portway from scheme opening by delivering total segregation and other bus priority measures whilst giving consideration to the strategic nature of this corridor for private vehicles.
- Increase the proportion of trips along the A4 Portway made by bus, cycling and walking in the decade post opening.
- Reduce levels of air pollution and CO2 emissions through interventions along the Portway to support Bristol's 2030 carbon neutral target.
- Enhance the streetscape, public spaces and urban environment where possible, by implementing improvements to the cycling and pedestrian environments to promote sustainable travel along the Portway upon project completion.

In addition to the project objectives a series of critical success factors have been included as follows to determine the success of the project:

1. Facilitate a Mass Transit Route between Explore Lane and the north west of the city centre that is unencumbered by congestion
2. Improve bus reliability, and journey times, along the A4, between the Portway Park and Ride site and Explore Lane
3. Design a Mass Transit route, not excluding LTN 1/20 aligned cycle infrastructure and widened footways, to be progressed as a second phase
4. Maintain the ability for all business' and properties to be serviced
5. Create a new access/egress to the Portway Park and Ride site for buses travelling to and from the north and west of the Park and Ride site
6. Improve public transport interchange infrastructure along the corridor to ensure the consistent delivery of safe, accessible, and high-quality interchanges

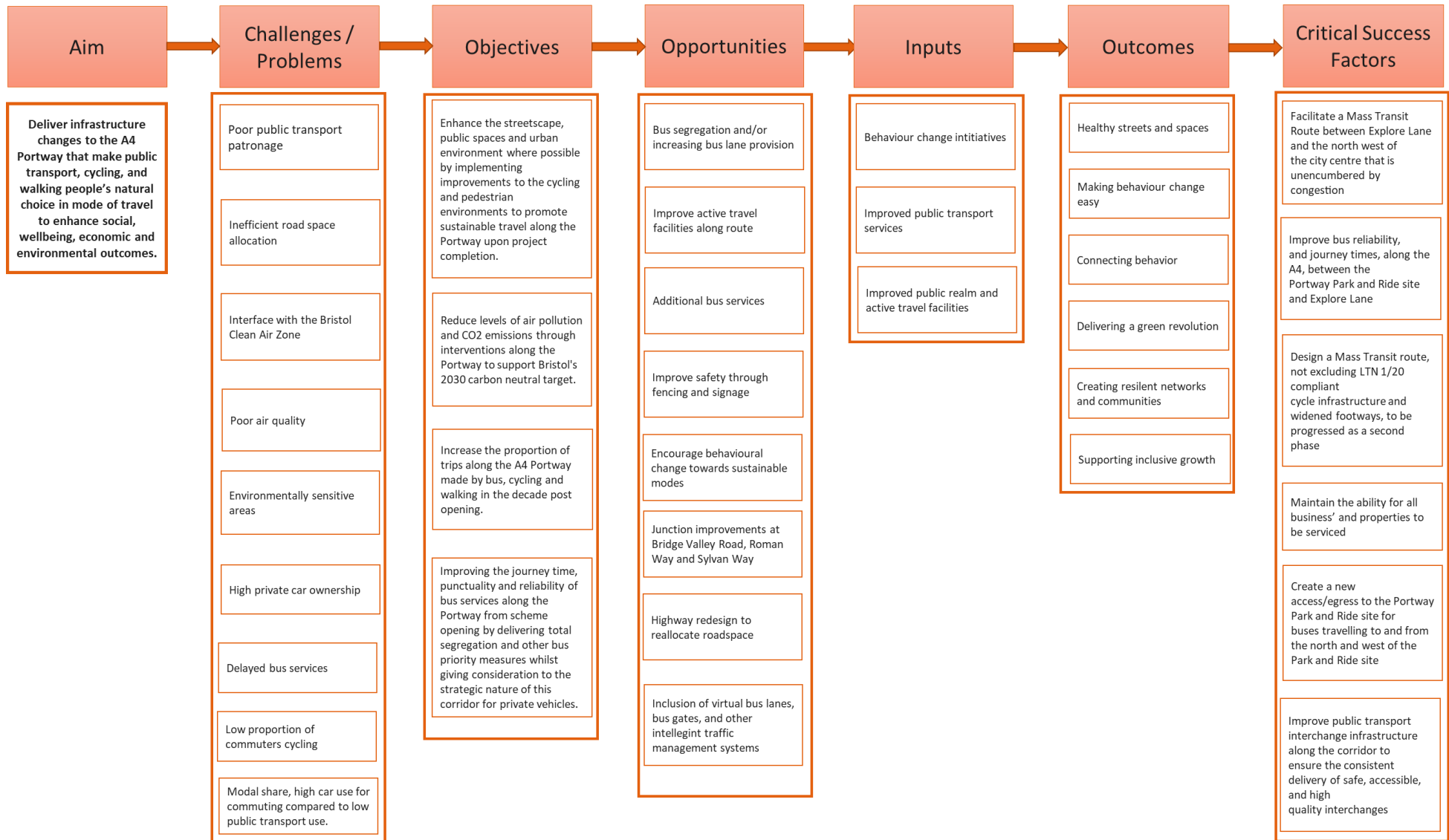


Figure 15 Logic Map

7 Stakeholder Engagement

Summer 2022

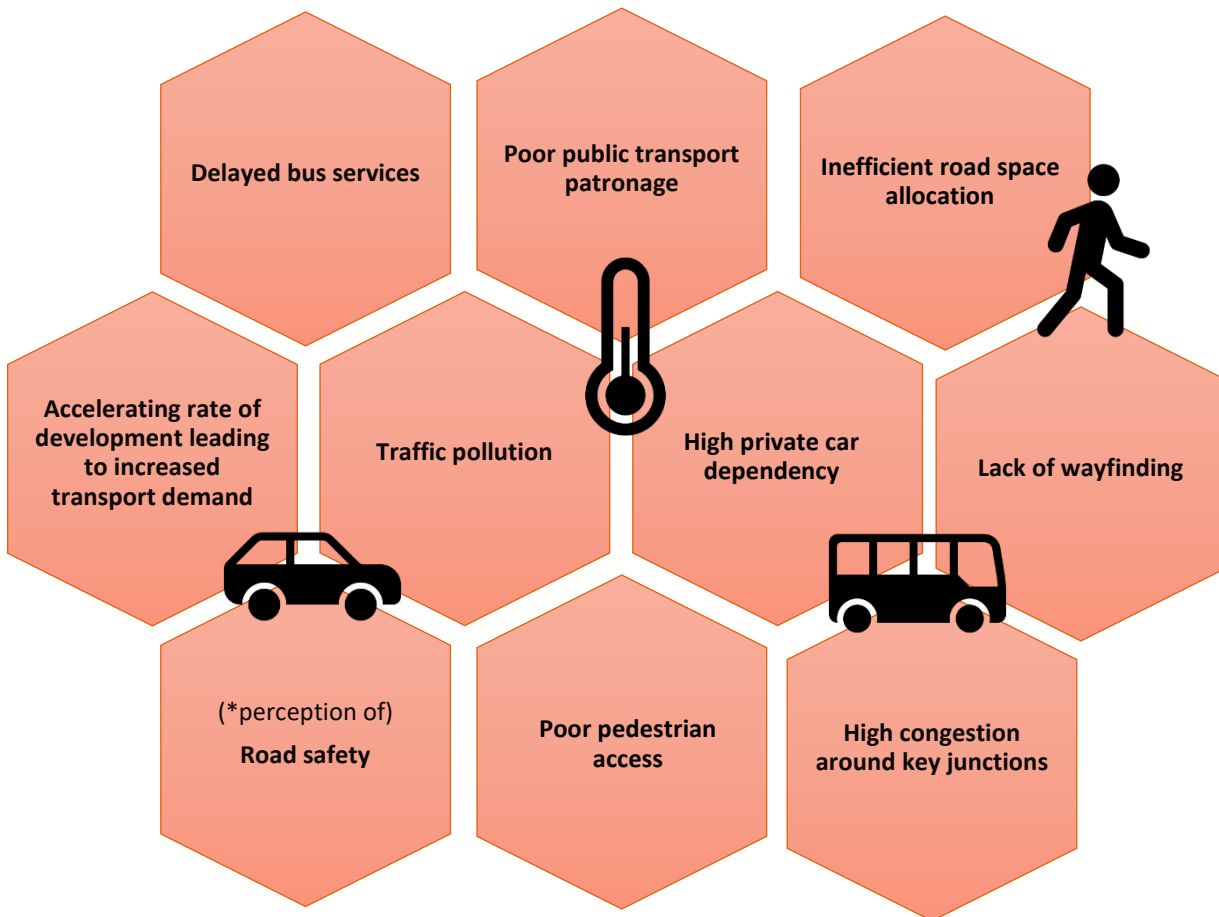
BCC produced an Early Engagement Report (Appendix D1) detailing early public and stakeholder engagement exercises including an online survey, interactive map and drop-in sessions. This early engagement exercise asked people about their travel issues along the route. People who live or travel along the Portway A4 were encouraged to feed into the early engagement exercise. This was to find out how this main route into the city can be improved to help buses move quickly through traffic and make cycling and walking safer and more enjoyable. Key findings can be found in Appendix D1 and summarised below. Stakeholder engagement was then used to inform changes to the objectives and the logic map (Figure 15).

Of the 1143 survey responses and 58 responses to the interactive map, 30% of respondents said they were a local resident and 56% regularly travel along the route.

Around 62% travel along this route by car/van and 26% walk whilst 50% cycle. Of the 46 other many of them use the train or run along the route. A full breakdown of transport types can be seen in Appendix D1.

Safe cycle routes and clean air have the highest importance percentages with traffic noise as the lowest out of these options. A full breakdown of the key issues identified in the early engagement report can be found in Appendix D1.

A detailed list of the key problems, inputs and opportunities are contained within the Problems and Opportunities statement (Appendix D2) and have been summarised below in Figure 16.



Whilst road safety has been identified as a key problem and ‘safe walking and cycling routes’ were seen as *Figure 16 Summary of identified problems from early stakeholder engagement*

the most important issue along the route (66% and 74% respectively in the Early Engagement Report) the collision data presented in section 3.4, shows a comparatively low level of collisions and PIC data for a major arterial route with the traffic flows that the A4 Portway experiences. This suggests that there is a ‘perception of poor road safety’ rather than a high number of collisions. This should still be considered as a key problem, but understanding the perception of poor road safety is important when formulating improvement options.

The key travel issues raised from the public and stakeholder engagement have been used to inform the key problems described within Section 5 and Figure 15, along with the data presented in Section 3. The study objectives (listed in Section 6) have then been developed with input from the early engagement through understanding of the key issues raised and the most important issues raised by both the public and stakeholders. The most important issue raised by the public was having clean air, this feeds into the objective around reducing pollution and improving air quality. Furthermore, the second most important issue raised was around frequent bus services and this fed into the objective around bus journey times, punctuality and reliability. The objectives have been agreed with key stakeholders.

October/November 2023

A detailed engagement in October/November 2023 followed on from the early engagement in Summer 2022. Feedback from the early engagement helped shape the proposals that people were asked to comment on in the detailed engagement.

There was promotional material presented in the local area, as well as two virtual stakeholder workshops and drop in sessions. A survey was launched on Monday 2 October 23 until Sunday 12 November 2023 which

allowed six weeks for comment and was designed by the team to capture views from residents, businesses and anyone who lives and uses the route.

The key takeaways from the engagement exercise were as follows:



Majority in support for the footway widening, speed limit reduction, inbound bus lane.



Positive comments from bus users on the inbound bus lane but confusion about the outbound bus lane and why it was being proposed.



Support for improved pedestrian and cycle provision.

- Concerns that the additional bus lanes could result in more traffic queuing.
- Some respondents supported the proposed scheme but called for further improvements to pedestrian and cycle infrastructure.
- Concerns over shared-use infrastructure for pedestrians and cyclists.
- Removal of parking spaces to accommodate the Park and Ride bus stop.

The following response was provided by BCC to show why the outbound bus lane is being considered:

- *“The results of the survey show that 50.8% of respondents rate the outbound bus lane either “poor” or “very poor” while 49.1% of respondents rated the outbound bus lane “fair,” “good” or “very good.”*
- *After consideration of this response rate, and an assessment of alternative options it has been decided that the outbound bus lane will continue to feature in the proposals as part of the OBC. The outbound bus lane presents benefits that include the creation of a bus rapid transit route along the A4 Portway that goes above and beyond the standards set by the metrobus initiative, providing buses that travel along the Portway with improved journey times, better reliability and frequency through continuous bus priority, factors that are essential in encouraging the modal shift. Continuous bus priority measures along the Portway both inbound and outbound will safeguard these outcomes and benefits in all future scenarios be it continued growth in traffic or closure of the M5. Additional benefits will be to coaches, taxis, private hire vehicles, and cyclists, with 74.4% the latter user group (cyclists) responding to the survey identifying the outbound bus lane as a “fair,” “good,” or “very good” proposal.*

8 Longlist

In accordance with the DfT’ TAG⁷, a wide range of options has been developed that have the potential to achieve the scheme objectives outlined in section 6.1 of this document. Informed by extensive stakeholder engagement, including continuous consultation with highways development control, option development was undertaken, and a long list of options was identified through discussions of the problems and opportunities along the Portway.

Wider initiatives, that contribute to supporting mode shift alongside this project, are being implemented through various policies already in place. For example, in the Bristol Transport Strategy Plan, cycle hire schemes and bikeability training in schools are being utilised on a city-wide scale to provide policy support. As such, these wider initiatives are complimentary to the infrastructure options developed for this scheme to encourage Bristol wide mode shift.

In order to determine the measures that need including within the longlist a minimum requirements assessment was undertaken. Those requirements with the highest priority are deemed “Must have”, the next level of priority is termed “Should have”, the third level of priority is “Could have” and the lowest level of priority

7

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/938766/tag-transport-appraisal-process.pdf

is deemed to be “Would have”. This helped determine which must, should or could be included as part of the solution and therefore, the preferred way forward.

Table 8-1 Minimum requirements assessment

Category	Requirement	Rationale	Priority
Bus	Deliver the infrastructure to facilitate a Mass transit route between Explore Lane and the north west of the city centre that is unencumbered by congestion	Contributes to the following: Aim 4 Bristol City Centre Framework, Bristol One City Plan, Objectives A, B & C in CRSTS SOBC, National Bus Strategy, WECA Bus Strategy, Joint Local Transport Plan 4, BSIP	Must have
Bus	Deliver infrastructure changes to contribute to improving bus reliability and journey times along the A4 Portway between the Portway Park and Ride and Explore Lane	Contributes the following: Aim 4 and 6 in the Bristol City Centre Framework, Objectives A, B & C in CRSTS SOBC, Joint Local Transport Plan 4, BSIP To contribute towards the delivery of bus services that are viable to operators and attractive for users	Must have
Bus, Walking & Cycling	Design a Mass Transit route, not excluding enhanced walking and cycle infrastructure and widened footways, to be progressed at a later phase	Contributes to the following: Bristol One City Plan, Objectives A, B & C in CRSTS SOBC, CRSTS Grant Funding Letter, Gear Change, Joint Local Transport Plan 4, Following guidance of best practice in LTN 1/20	Must have

Category	Requirement	Rationale	Priority
Access & connectivity	Maintain the ability for all business' and properties to be serviced	Best practice	Must have
Bus	Deliver infrastructure to create a new bus access and egress to the Portway Park and Ride site for bus services travelling to and from the north and west of the Park and Ride site	Contributes to the following: Aim 4 within the Bristol City Centre Framework, Objectives A, B & C in CRSTS SOBC, Joint Local Transport Plan 4, BSIP, WoE Bus Strategy, National Bus Strategy	Must have
Bus	Deliver improvements public transport interchange infrastructure along the corridor to contribute to the consistent delivery of safe, accessible, and high-quality interchanges	Contributes to the following: BSIP, WoE Bus Strategy, Bus Stop Standards, Best practice To contribute towards the delivery of bus services that are viable to operators and attractive for users	Must have
Project	Delivery of the project by March 2027	CRSTS funding requirement	Must have
Project	That the scheme falls within the available funding allocation, or that additional funding allocations can be secured.	CRSTS funding requirement	Must have
Environment	Deliver the infrastructure required to contribute to the region's ambitions of achieving net zero in carbon by 2030, including the facilitation of a low carbon transport system	Contributes to the following: WoE Climate Emergency Action Plan, Bristol Once City Climate Strategy, Decarbonising Transport	Should have
Walking & Cycling	That pedestrian and wheeling routes along the corridor will be improved to provide safe and continuous provision	Contributes to following:	Should have

Category	Requirement	Rationale	Priority
	where there is demand and where this is not currently available.	Gear Change, Best practice, CRSTS grant funding requirement and SOC commitment.	
Environment	No net loss of biodiversity and protection of green spaces for people, wildlife, and nature	Contributes to the following: Political commitment across all three Authorities, Spatial Development Strategy	Should have
ACCESS & CONNECTIVITY	That the proposals do not result in any greater severance between communities along the A4.	To ensure local benefits from the scheme are not lost.	Should have
Walking & Cycling	Continuous LTN 1/20 segregated standard safe cycle infrastructure end to end on the key corridor.	Contributes to the following: CRSTS grant funding requirement and SOBC commitment, Gear Change	Could have
Access & connectivity	Ensure that there is improved access to opportunities for walking and cycling along the corridor for communities living along the route.	Best practice SOBC requirement	Could have
Walking & Cycling, Environment	Deliver infrastructure improvements that contribute to the uptake of walking and cycling, 'active modes of travel' to be the preferred choice for shorter journeys which will also combat climate change, reduce emissions, and improve air quality in local areas	Contributes towards the following: Joint Local Transport Plan 4, Bristol One City Plan, Spatial Development Strategy, WoE Joint Green Infrastructure Strategy, Bristol Transport Strategy	Could have
Bus	A maximum of 600m – 800m between bus stops, apart from in exceptional circumstances where the population yield is not sufficient to accommodate a bus stop.	Best practice	Would have
Environment	Ensure the infrastructure is in place so that all 'last mile' journeys can be decarbonised	Decarbonising Transport	Would have

Longlist Workshop

Following identification and circulation of potential longlist options by the Arcadis design team, a ‘Collaborative Longlist Review Workshop’ was held on Thursday 20th October 2022, attended in person and virtually over Microsoft Teams, by over 20 internal BCC and National Highways stakeholders. During a successful and productive hybrid workshop session, using Miro collaborative online whiteboard, a longlist of options was identified through discussions of the problems and opportunities along the Portway.

Following comments and amendments from the workshop, 164 options were identified which were split into the six design areas along the corridor (Table 8-2 and Figure 17), and developed for general design, public transport and active travel. The longlist table is provided in Appendix E.

Table 8-2 Design Area Locations

Design Area	Location
Design Area 01	Portway Roundabout to Park Road Bus Stop
Design Area 02	Park Road Bus Stop to Avonleaze Footpath
Design Area 03	Avonleaze Footpath to Bennett’s Patch & White’s Paddock
Design Area 04	Bennett’s Patch & White’s Paddock to Footpath to Clifton Downs
Design Area 05	Footpath to Clifton Downs to St Vincent’s Parade
Design Area 06	St Vincent’s Parade to Explore Lane



Figure 17 A breakdown of the 6 key design areas

9 Sifting Framework

9.1 Development of Sifting Process

An options sifting process was undertaken using a multi-criteria assessment tool, Figure 18 below presents a summary of the sifting process undertaken. Options were assessed by how well they aligned with the strategic objectives for the project and their deliverability. This formed the sifting criteria which helped to broadly assess the benefits that each option would accrue for different users of A4 Portway and Bristol city centre.

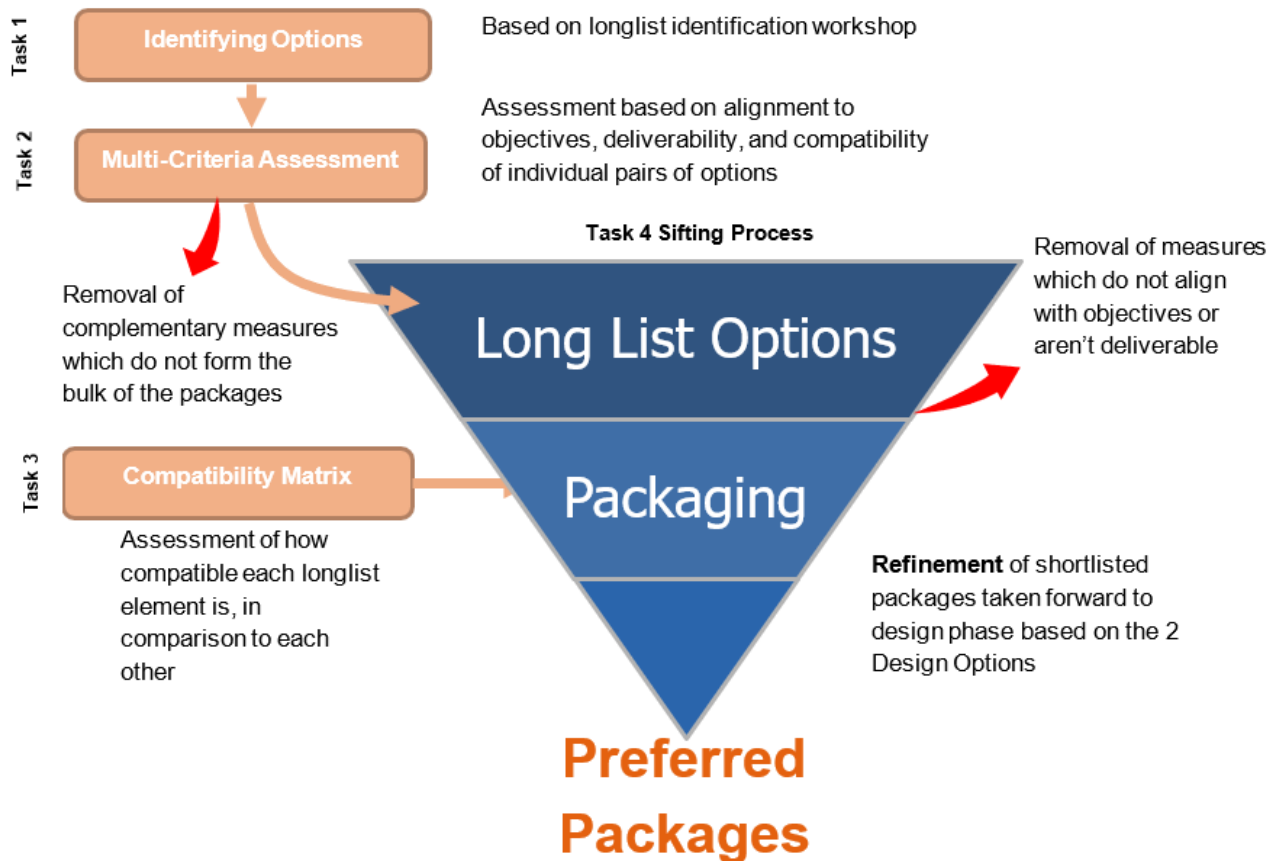


Figure 18 A summary of the sifting process

9.2 Objectives and Sifting

The longlist of 164 measures was sifted by the project team focusing on the 'Objective' scoring to identify options that aligned most with the project objectives. These were scored using the criteria agreed with the client and discussed during a sifting workshop to create a shortlist of options.

To score these objectives, they were split into qualitative metrics, based on a five-point scale scored from +2 to -2. The sifting framework demonstrates the scoring process, shown in Figure 19. The objectives and deliverability scores were weighted equally. If a longlist measure was considered to 'strongly conflict' with an objective or had a 'Showstopper risk' then it was removed from the longlist, as it is unsuitable for inclusion. The outcome scores do not indicate necessarily the scale of impact or how well measures might perform in comparison to one another (for example a measure with a score of 136 isn't 'better' than one with a score of 120). However, it provides an assessment of strategic fit with objectives, with consideration of deliverability.

Objectives		Qualitative Metrics	Qualitative Ranking	Min Score	Max Score	Weighting	Max Score	Ranking	Score	
Improving journey time, punctuality and reliability of bus services along the corridor by delivering total segregation and other bus priority measures, whilst recognising the strategic nature of the corridor for private vehicles.	Bus segregation and/or increasing bus lane provision	Reduce journey time	Strongly Align Weakly Align Neutral Weakly Conflict Strongly Conflict	FAIL	2	7%	13	Strongly Align	2	
	Enhance reliability of all journeys				2	7%	13	Weakly align	1	
					2	7%	13	Neutral	0	
							20%	40	Weakly Conflict	-1
Increase the proportion of trips made by bus, cycling and walking	Encourage behavioural change towards sustainable modes		Strongly Align Weakly Align Neutral Weakly Conflict Strongly Conflict	FAIL	2	7%	13	Strongly Conflict	FAIL	
	Improve active travel facilities and safety along the route				2	7%	13			
	Improve journey quality / user experience for PT users				2	7%	13			

20%	40
------------	-----------

Reduce levels of CO2 emissions	Reduction of private car kms travelled	Strongly Align Weakly Align Neutral Weakly Conflict Strongly Conflict	FAIL	2	7%	13
	Reducing levels of noise and air pollution			2	7%	13
	Reducing severance between communities by sustainable transport modes			2	7%	13
				20%	40	

Enhance streetscape, public spaces and urban environment where possible	Positive impact of landuse planning and placemaking, including safety and security	Strongly Align Weakly Align Neutral Weakly Conflict Strongly Conflict	FAIL	2	7%	13
	Reduces and reverses impacts of transport on the urban environment			2	7%	13
	Provide transport infrastructure that promotes the corridor as an attractive place for investment			2	7%	13
				20%	40	

Opportunity to Review Prior to Deliverability Sift						
Deliverability	Likely level of acceptability from the public	Showstopper Significant Risk Moderate Risk Slight Risk No Risk	FAIL	2	4%	8
	Likely level of acceptability from			2	4%	8

Ranking	Score
Showstopper	FAIL
Significant Risk	-1

	stakeholders & political leaders							
	Alignment to adopted policy			2	4%	8	Moderate Risk	0
	Likely duration of construction programme			2	4%	8	Slight Risk	1
	Likely level of construction cost			2	4%	8	No risk	2
				20%	40			
				100%	200			

Figure 19 Sifting Framework Criteria

In total:

- 25 measures were removed from the longlist as they were considered unsuitable, due to conflict with objectives or not considered deliverable
- 77 measures were removed from the longlist as they were considered to be more ‘complementary’ rather than essential to achieving the objectives of the project
- 46 measures remained in the shortlist

A summary of the longlist and justification for sifting can be seen in Appendix E.

9.3 Compatibility Matrix

A compatibility matrix was developed to check for incompatibilities and inter-dependencies between the longlisted measures to identify improvement measures that can, could or could not be implemented together as part of the project. A copy of the compatibility matrix is shown in Appendix F.

A ‘Red, Amber, Green, Must’ (RAG+M) assessment was undertaken on all pairs of measures. This exercise was completed to identify any conflicting measures within a design area and across the whole corridor, and therefore identify which measures could be implemented together in a package to form a shortlist option or would introduce deliverability or benefit realisation risks. Table 9-1 details the criteria used within the RAG+M Assessment.

Table 9-1 RAG+M Criteria Summary

Rating	Description	Example
R	Conflict or ineffective together	Inbound bus lanes alongside a segregated cycle lane, where there is not space for both
A	Feasible but some problems or may require further analysis	Bus lanes on both sides of the carriageway and ensuring they are 4.5m wide to accommodate cyclists
G	Effective and/or compatible together	Provide 2m wide footway width for pedestrians and upgrade to LTN 1/20 standard
M	Must Do together	Outbound bus lane must be provided in all design areas to provide consistent provision along the corridor

For illustration purposes, Figure 20 presents an example of the compatibility matrix.

Design Area	Sifting framework reference	Compatibility ref.	Location	Description	1	2	3	4	5	6	7	8	9
Design Area 1	4	1	All bus lanes	Ensure the proposed bus lanes are 4.5m wide to accommodate cyclists		G	G	G	A	A	G	R	R
	1	2	Inbound from A4/B4054 Roundabout to DA1 eastern limit (west of Park Road)	Inbound bus lane	G		G	G	G	A	G	G	G
	8	3	Inbound from A4/B4054 Roundabout to DA1 eastern limit	Inbound bus lane to provide cycle facility	G	G		G	G	G	G	R	R
	5	4	Outbound from DA1 eastern limit (west of Park Road) to existing Bus Lane at Station Road junction.	Outbound bus lane	G	G	G		G	G	G	G	G
	10	5	Inbound footway	Provide 2m wide footway width for pedestrians	A	G	G	G		R	G	G	G
	13	6	Outbound carriageway	Provision of segregated two-way cycle facility	A	A	G	G	R		A	R	G

Figure 20 Compatibility matrix following the sifting as detailed above, the compatibility matrix was then used to identify any conflicts with other key measures within the design areas, to support the packaging process.

10 Shortlist

10.1 Shortlist Options

Following sifting by the compatibility matrix, the shortlisted measures were identified and packaged into three options, Do Nothing, Do Something and Do Maximum. Packaging of the shortlisted measures was undertaken to create indicative schemes across the corridor for further development. Table 10-1 outlines the criteria for each package.

Table 10-1 Packaging Criteria

Packages	Description
Do Nothing	<ul style="list-style-type: none"> Includes Portway Park and Ride Bus Access and other committed plans Aim to improve the existing conditions e.g., signage, re-surfacing, maintenance
Do Something (Blend of scenarios)	<ul style="list-style-type: none"> Additional public transport priority measures provision Minor widening to facilitate a shared foot/cycle way Minor junction improvements New Portway Park and Ride access for buses
Do Maximum (Inbound and Outbound provision)	<ul style="list-style-type: none"> All route control Significant widening of the footway to accommodate a segregated two-way cycleway New Portway Park and Ride access for buses

October 2023 Public Consultation

Following the public consultation in October 2023, BCC and the project team gave further consideration to the scheme design options. Options considered in relation to the outbound bus lane are presented in Table 10-2.

Table 10-2 Options considered in relation to the outbound bus lane, following public consultation

Option	Reasoning for discounting
Do nothing	To not implement the outbound bus lane could cause problems for bus reliability, journey times, and frequency in future years, exacerbating barriers to modal shift. By not implementing the bus lane the current situation of car dependency would persist and potentially increase as sustainable travel options along the route would not be the

attractive method of travel. High car dependency would continue to attract issues such as congestion and poor air quality. To do nothing and allow the current situation to worsen would create problems for the city and the region as they strive to carbon neutrality, therefore, to do nothing should not be considered an acceptable option.

Segregated cycling facility One option that had previously been considered was a fully segregated off carriageway cycling facility along the route. The decision was made to sift out the option for a segregated cycle lane based on the cost it would incur to install it for the length of the route, and the fact that it would not be possible to provide a continuous segregated cycle facility along the whole route. The option was considered to include a segregated cycle facility along longer sections of the route where the space was permitting to do so, however in adopting this measure disbenefit would be realised for buses as they become caught up in general traffic. Based on these reasons the inclusion of a segregated cycle lane is not considered to be an acceptable option.

Outbound bus lane The other option being proposed is the implementation of an outbound bus lane, the core benefits of which have been set out in the paragraph above.

Description of Options

Do Nothing

For comparison and assessment purposes, a 'Do Nothing' option has also been considered and consists of routine maintenance and minor enhancements that could happen regardless of additional intervention. No measures from the shortlist are included within this option.

Do Something

The 'Do Something' option focuses on bus priority measures on the inbound side of the corridor. Options on the 'Do Something list were chosen as the most feasible options when considering the budget and time allocated to the project. This included a series of 'Quick wins', lower cost measures and measures with the highest impact for the lowest cost.

In **Design Area 1** the inbound bus lane, from the A4/B4054 Roundabout to the DA1 eastern limit (west of Park Road), will be streamlined by removing the central hatching, some on-street car parking spaces and the right turn waiting at Barrow Hill Road, Burnham Road. The outbound footway will also be upgraded to LTN 1/20 shared use standard. A new Park and Ride Access will be added to include a right turn in and left turn out for buses.

In **Design Area 2** an inbound bus lane will run the entire length of the area, with priority at the Sylvan Way Junction. Here, the shared use footway/cycleway will also be upgraded to LTN 1/20 shared use standard

For **Design Area 3**, bus priority will be granted at the Riverleaze/Bristol Manor Junction with queue detection used to hold the queue and create a virtual bus lane. The Bristol Manor Farm crossing will also be upgraded for walking and cycling and the shared footway along the length of the area will be upgraded to LTN 1/20 shared use standard.

Design Area 4 includes upgrades to the existing islands for pedestrian and cycle crossing and the shared use footway will be upgraded to LTN 1/20 shared use standard through the entire length of DA4.

For **Design Area 5**, there is a proposed inbound bus lane running the length of Hotwell Road. Bus priority will be given at Bridge Valley Road Junction and a redesign of existing arrangements will be made to provide width for road space reallocation. To encourage active travel on the DA5, the existing shared footway will be upgraded to LTN 1/20 shared footway / cycleway. Furthermore, the existing speed limit will be reduced from 50mph to 40mph or 30mph increasing safety in the area. In terms of general design, a review of existing street furniture and unnecessary signage will be conducted in this design area.

For **Design Area 6**, two bus lanes will be installed, one inbound from Freeland Place to the Mardyke area operating 24/7 and another inbound from the Mardyke area to Jacobs Wells Roundabout. The existing inbound bus lane on Hotwell Road will have on-street parking removed to provide road space reallocation. For active travel, the existing cycle infrastructure on Cumberland Basin Road will be improved to LTN 1/20 standard and cycling and pedestrian crossings will be improved across the Jacobs Wells Roundabout. A toucan crossing will be installed at Merchants Road/Cumberland Basin and the existing shared route at Harbourside will be widened and upgraded. In terms of general design features, all signalised junctions will be reviewed to improve efficiency, a new section of 24/7 bus lane is proposed outbound on Hotwell Road between the existing outbound lanes to create a continuous route. (A summary of Do-Something options is provided in Appendix G)

Do Maximum

'Do Maximum' scenario includes delivering total segregation for public transport modes, but also improving walking and cycling infrastructure (LTN 1/20 compliance where possible), removing the footbridge at Shirehampton (near the Portway Park and Ride), and improving the public realm through uplift in the built environment and the planting of trees. The 'Do maximum' approach included measures that were deemed to cost inefficient for the 'Do something' approach but still met the objective criteria with recognised benefits.

Design Area 1 extends the outbound bus lane from the west of Park Road to connect with the P&R bus lane and removes the existing pedestrian footbridges, replacing them with at grade toucan crossings. There will also be provision of a segregated two-way cycle facility at the outbound carriageway.

Design Area 2 includes an outbound bus lane along the entire length of the area and provision of a segregated two-way cycle facility at the outbound carriageway.

Design Area 3 removes bus stops from laybys and places them in the carriageway south of the Roman Way Junction. There will also be provision of a segregated two-way cycle facility at the outbound carriageway. (Appendix G).

Design Area 4 removes the right turn lane into Seawalls car park to provide width for an outbound bus lane and road space reallocation for a cycle facility. Along the entire length of the DA4, pedestrians will be segregated from the existing shared use path. In terms of general design, further urban greening and streetscape is proposed throughout the design area which includes raingardens, SUDS and road space reallocation works.

Design Area 5 proposes an outbound bus lane on Hotwell Road, a clear segregation between cycling and walking routes and an increase in crossing points along the entire length of the DA5.

Design Area 6 proposes upgrades to the existing shared route at Harbourside, including upgrading the route to LTN 1/20 with full segregation and new bridge structures. For general design, investigations will be carried out to explore the prospects of a Dutch style roundabout. (A summary of Do-Maximum options is provided in Appendix G)

Additional measures

Complimentary measures will be considered and added to the Do Something and Do Maximum scenarios where appropriate. Examples of complimentary measures which may be drawn up are as follows:

- Improved wayfinding
- Maintenance of vegetation
- Upgrades to bus stop infrastructure
- Removal of on-street parking in some areas
- Review of speed limits
- Urban greening
- Upgrade the existing environment for vulnerable users to improve the perceived safety by introducing better lighting and CCTV
- Removal of redundant signage/street furniture
- Upgrade existing signalised crossings to Toucan facilities
- Opportunities for e-scooter parking
- Upgrade of pedestrian crossings
- Remove inset bus stops and position the bus stop cages in the carriageway
- Cycle hire parking next to the station
- Improve the surface on the shared use path
- Protection from falling objects on footway
- Opportunity to make improvements for the local community assets e.g. skate park

10.2 High level costing

As part of the shortlisting process, a high-level costing exercise was undertaken, based on initial Schematic Plans of the 6 scheme design areas.

An allowance was included for STATs and professional fees have been incorporated, but are unquantified at this stage. As the design develops the costs and assumptions will evolve, but the high-level costing information was used to inform the sifting process.

A summary of the high-level costing for the 'Do Something' option has been presented in Table 10-3, with the detailed cost plan included in Appendix H.

Table 10-3 Cost Summary Table

A4 Portway	
	Total
-	
Total Direct Works	£10,266,490
Total STATs	£550,000
Total Strategic Planning	£0
Total Direct Professional Fees	£380,330
Sub-Total (Excluding risk)	£11,196,820

Allowance for Inflation 5.4%	£604,628
Grand Total (Including inflation)	£11,801,448

Following the cost estimates for the ‘Do Something’ option, the ‘Do Maximum’ costs were estimated to significantly exceed the project funding, and therefore were not developed further.

10.3 Sifting of the Shortlist

Further meetings and workshops were held with the client to consider and discuss the shortlist options and identify the preferred way forward.

Discounted Options

The options outlined in Table 10-4 were discounted from further development.

Table 10-4 Discounted Options

Option	Reasoning for discounting
Do nothing	<p>Outbound - To not implement the outbound bus lane could cause problems for bus reliability, journey times, and frequency in future years, exacerbating barriers to modal shift. By not implementing the bus lane the current situation of car dependency would persist and potentially increase as sustainable travel options along the route would not be the attractive method of travel. High car dependency would continue to attract issues such as congestion and poor air quality. To do nothing and allow the current situation to worsen would create problems for the city and the region as they strive to carbon neutrality, therefore, to do nothing should not be considered an acceptable option.</p> <p>Inbound- This option does not meet any of the objectives outlined for the project so was discounted.</p>
Segregated cycling facility	<p>One option that had previously been considered was a fully segregated off carriageway cycling facility along the route. The decision was made to sift out the option for a segregated cycle lane based on the cost it would incur to install it for the length of the route, and the fact that it would not be possible to provide a continuous segregated cycle facility along the whole route. The option was considered to include a segregated cycle facility along longer sections of the route where the space was permitting to do so, however in adopting this measure disbenefit would be realised for buses as they become caught up in general traffic. Based on these reasons the inclusion of a segregated cycle lane is not considered to be an acceptable option.</p>
Do Maximum	<p>After a workshop with the client, this option was discounted as it exceeds CRSTS funding available for the project</p>

11 Preferred Way Forward

Following the sifting process, the Do Something option received the highest score and was identified as the preferred way forward and is outlined in Table 11-1. The option meets the project objectives and maximises the value for money within the allocated CRSTS budget, as confirmed by a high-level costing exercise.

The Do Something option strikes the balance between providing upgraded facilities for pedestrians and cyclists within the CRSTS budget to maximise active travel benefits. The Do Something provides bus priority inbound and outbound, Section 5 describes the inbound direction as a peak.

Table 11-1 Preferred Way Forward

Design Area	Mode	Proposed Scheme Elements
Design Area 01	Public Transport	New inbound bus lane New outbound bus lane Removal of central hatching/central island and some on-street parking. Removal of right turn waiting at Barrow Hill Road-
	Active Travel	Upgrade outbound footway share use standard
Design Area 02	Public Transport	New inbound bus lane New outbound Bus Lane Increase the capacity at Sylvan Way creating a dedicated left turn and dedicated right turn lane.
	Active Travel	Upgrade shared use footway/cycleway informed by LTN 1/20 guidance
Design Area 03	Public Transport	New outbound bus lane New inbound bus lane
	Active Travel	Upgrade crossing facilities for cycling and walking Upgrade shared use footway/cycleway informed by LTN 1/20 guidance
Design Area 04	Active Travel	Upgrade/improve existing islands for pedestrians and cycle crossing Upgrade existing shared footway/ cycle using LTN 1/20 guidance to encourage further use Reduce speed limit from 50mph to 40mph New trees

Design Area	Mode	Proposed Scheme Elements
Design Area 05	Public Transport	Redesign existing arrangement to provide width for road space reallocation
	Active Travel	Upgrade existing shared use path to LTN 1/20 to encourage further use Reduce existing 40mph speed limit to 30 mph.
Design Area 06	Public Transport	Remove on-street parking to provide width for road space reallocation New inbound bus lane
	Active Travel	Provide a parallel crossing across Merchant's Road / Cumberland Basin

The extent to which the Do Something option addresses the identified problems and meets the objectives is demonstrated in Table 11-2 and Table 11-3.

Key:

✓ – Slightly beneficial, ✓✓ – Moderately beneficial, ✓✓✓ – Largely beneficial

Table 11-2 Impact of Do Something against the problems

Problems and Issues	Do Something
Delayed bus services	✓✓✓
High private car occupancy	✓✓
Interface with CAZ	✓✓
Air Quality	✓✓
Ecology	✓
Road width	✓✓
Interface with transport decarbonisation aim in JLTP	✓✓

Table 11-2 shows that the Do Something option addresses the identified problems and indicates that it has beneficial impacts across all problems and issues, especially to bus delay and road space allocation.

Table 11-3 Impact of Do Something option against the objectives

Objectives	Do Something
Improving the journey time, punctuality and reliability of bus services along the Portway from scheme opening by delivering total segregation and other bus priority measures whilst giving consideration to the strategic nature of this corridor for private vehicles.	✓✓✓
Increase the proportion of trips along the A4 Portway made by bus, cycling and walking in the decade post opening	✓
Reduce levels of air pollution and CO2 emissions through interventions along the Portway to support Bristol's 2030 carbon neutral target.	✓✓
Enhance the streetscape, public spaces and urban environment where possible, by implementing improvements to the cycling and pedestrian environments to promote sustainable travel along the Portway upon project completion.	✓

Table 11-3 shows the extent to which the Do Something option contributes to the objectives and indicates that the option positively contributes to them, particularly in reducing levels of air pollution and improving journey time, punctuality, and reliability.

12 Conclusion

To support the upcoming development of the A4 Portway, a longlist of transport options was created to provide suitable and sustainable improvements in the area. Using a multi-criteria assessment tool, these options were appraised and shortlisted into final set of options from which the preferred way forward was identified, outlined in Table 11-1. This study will now move forward to the next stage, the development of the outline business case.

Appendix A - Gap Analysis Document

Appendix B – Current Bus Routes

Appendix C – Road Safety Data

Appendix D - BCC Early Engagement Report

Appendix D2 - Problems and Opportunities statement

Appendix E – Longlist

Appendix F – Compatibility Matrix

Appendix G – Shortlist Options

Appendix H – High Level Cost Plan

Arcadis UK

2 Glass Wharf,
Temple Quay,
Bristol BS2 0FR

T: +44 (0) 20 7812 2000

[arcadis.com](https://www.arcadis.com)

Appendix A - Gap Analysis Document



Bristol City Council

Gap Analysis

SP Information Pack

Bristol City Council Public Transport Team
4-4-2022

Contents

Section 1: Background	4
History	4
Rail History	7
Previous improvements	8
Study Area	9
Area of Impact	11
Section 2: Current situation	11
Land Use	11
Topography	12
Demographics	13
Car or van availability	13
Deprivation	14
Modal Share	14
Travel to school	16
Employment and commercial locations	17
Travel networks	20
Active Travel	20
Bus Network	21
Rail	25
Travel patterns	25
Cycling	25
Bus	25
Reliability	29
Portway P&R passenger numbers	30
Highways	31
Congestion	31
Road safety	34
Environment	34
Constraints	34
Air Quality	34
Historic Environment	35
Biodiversity	35
Geology	36
Road drainage and water environment	36
Climate	36

Noise	36
Early stakeholder engagement plan	36
Section 3: Policy Review.....	37
Introduction	37
National Policies.....	37
Bus Back Better	37
Decarbonising Transport.....	38
Gear Change.....	39
National Planning Policy Framework (NPPF)	40
Environment Bill.....	41
Regional Policies	42
West of England (WoE) Bus Service Improvement Plan	42
WoE Bus Strategy.....	42
Joint Local Transport Plan 4	43
Spatial Development Strategy	44
WoE Local Cycling and Walking Infrastructure Plan (LCWIP)	45
WoE Strategic Economic Plan	45
WoE Local Industry Strategy	46
WECA Climate Emergency Action Plan	46
WECA Joint Green Infrastructure Strategy	47
Portbury, Avonmouth, and Severnside Transport Strategy.....	48
Local Policies	48
Bristol Transport Strategy	48
Bristol One City Plan.....	49
Bristol Development Strategy: Core Strategy.....	50
Draft Local Plan (Bristol Local Plan Review, 2019).....	52
Site Allocations and Development Management Policies (SADMP).....	53
Bristol Resilience Strategy.....	54
BCC Bus Deal	54
Bristol One City Climate Strategy.....	50
Bristol Avon Flood Strategy.....	55
Bristol Trees Replacement Standard.....	56
Key Local Projects and Schemes	57
Lawrence Weston Neighbourhood Plan	57
Committed/Planned Development.....	57
Bristol Clean Air Zone.....	57

Future Transport Zones.....	58
Section 4: Future Travel Demand	63
National Trip End Model Forecasts.....	63
Impacts of the Bristol Clean Air Zone (CAZ).....	63
Impact of the COVID-19 pandemic	63
Section 5: Establishing the need for intervention	64
Introduction	64
Need for intervention	65
General issues/opportunities.....	65

Section 1: Background

The A4 (Portway/Hotwell Road) is a key transport link between Bristol City Centre and Avonmouth, running adjacent to the river Avon and through Hotwells, Clifton, Stoke Bishop, and Shirehampton. The A4 (Portway) is then connected with the M5, at junction 18, B4054 Avonmouth Road, and A4 (Bristow Broadway) at the Portway Roundabout. The A4 Portway is considered a high priority corridor as it connects employment centres in Avonmouth with residential areas and the city centre. The A4 Portway serves as a direct route into the city centre from the M5. Acknowledging the increasing pressure on the congested M5 junctions, it is expected that the A4 Portway will experience an increase in traffic, adding to the congestion already suffered along the corridor. The congestion will attract issues such as longer and less reliable journey times, worsened reliability of bus services, rat running, and poor air and noise quality.

History

The route between Bristol and Avonmouth has long been an important corridor. The Portway was constructed in the 1920's to improve access to Avonmouth Docks, which superseded Bristol Harbour as the major centre for shipping. The Portway was originally classified as the A36, however it was renumbered as a western extension of the A4 in 1935. Stretching from central London to Avonmouth, via Reading, Bath and Bristol, the A4 represents one of the original East-West links between London and the southwest.

Since its construction in the 1920's the layout of the Portway between Avonmouth and Hotwells has remained much the same. While housing, industry, and business' have built up around the route, especially in Avonmouth, Sneyd Park, and Shirehampton.

Figures 1-1, 1-2, and 1-3 shows the Portway, from Avonmouth to Jacobs Wells Road roundabout in the 1950s, before the construction of the M5. While Figures 1-4, 1-5, 1-6, and 1-7 shows the layout of the highway today.

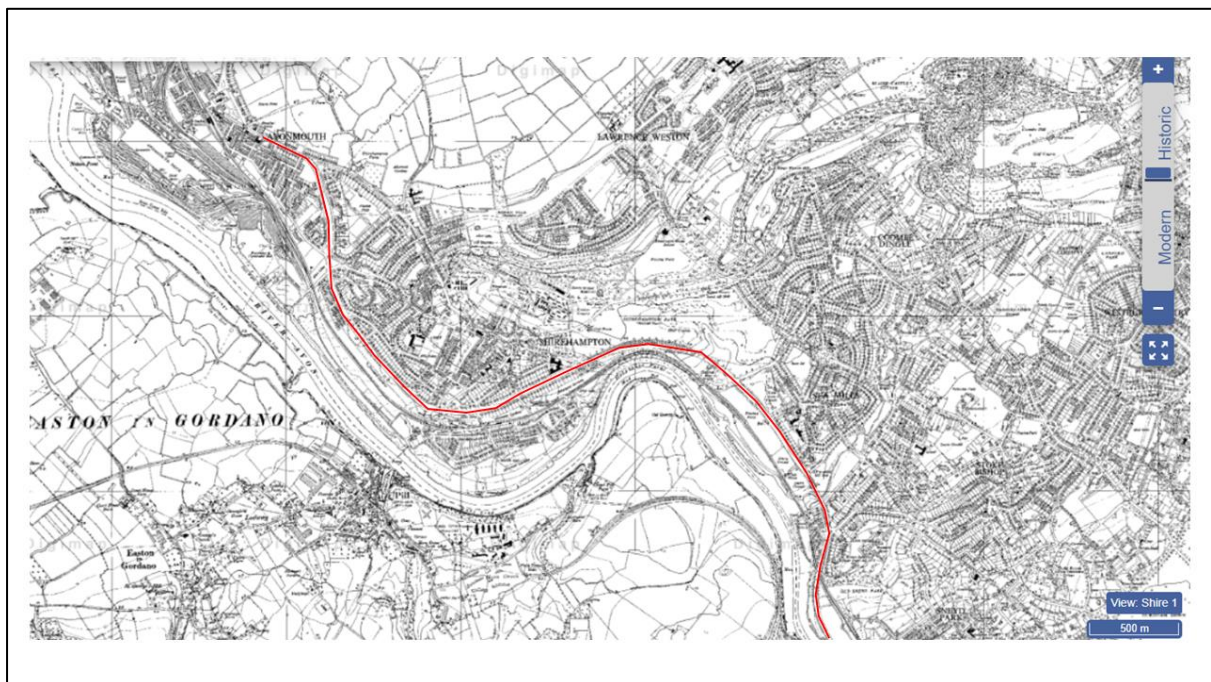


Figure 1-1: A4 Portway c1950

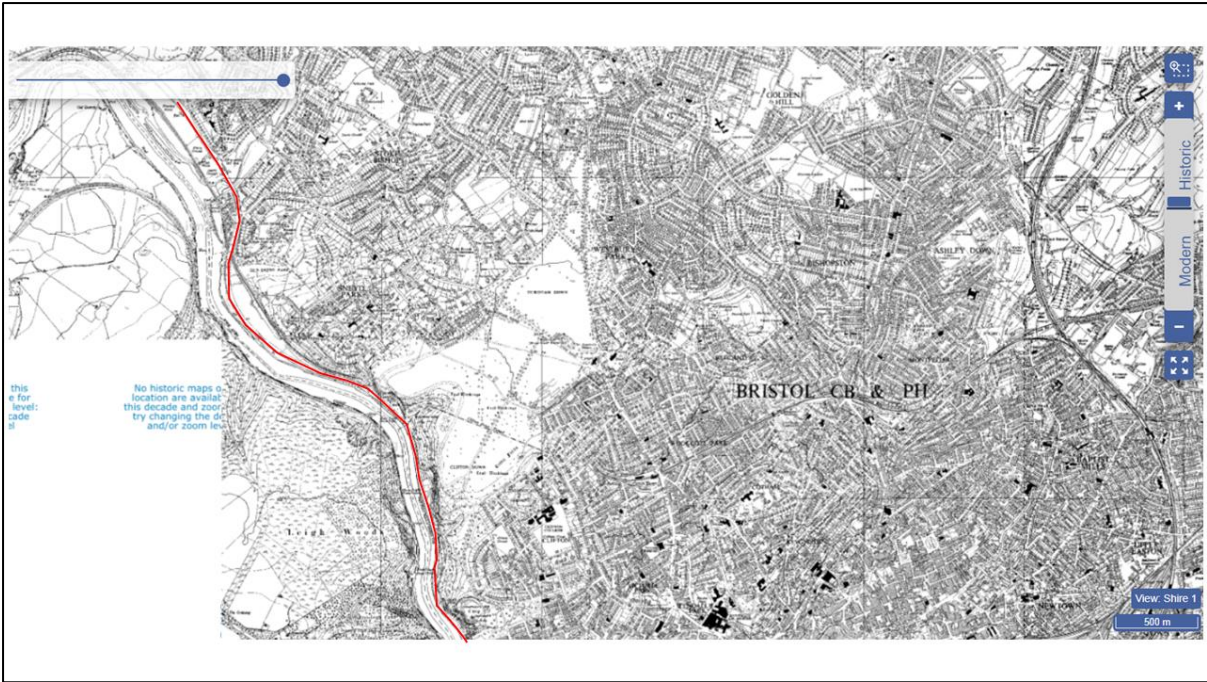


Figure 1-2: A4 Portway c1950 (part 2)

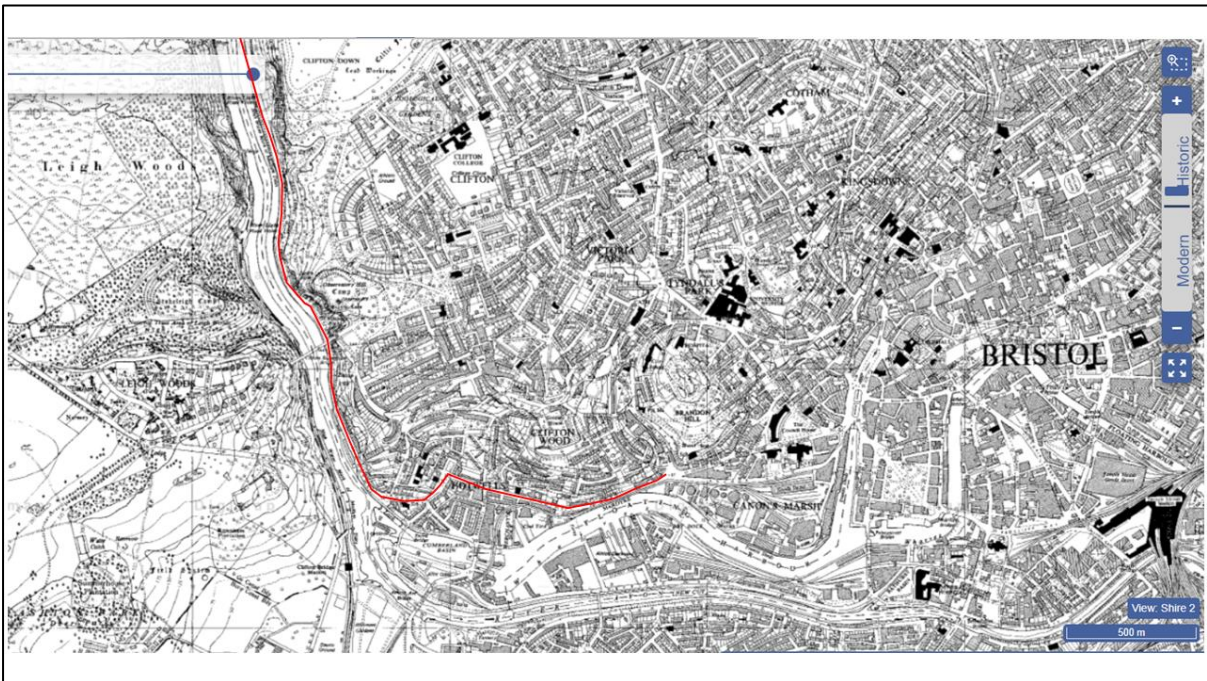


Figure 1-3: A4 Portway c1950 (part 3)

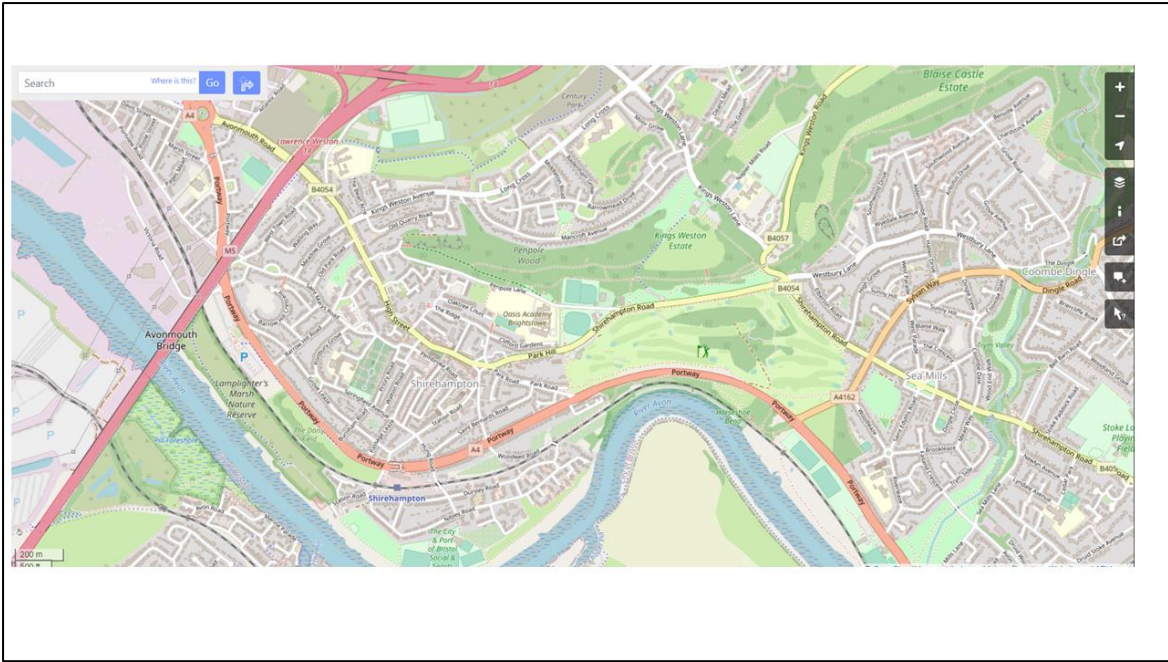


Figure 1-4: A4 Portway road layout today

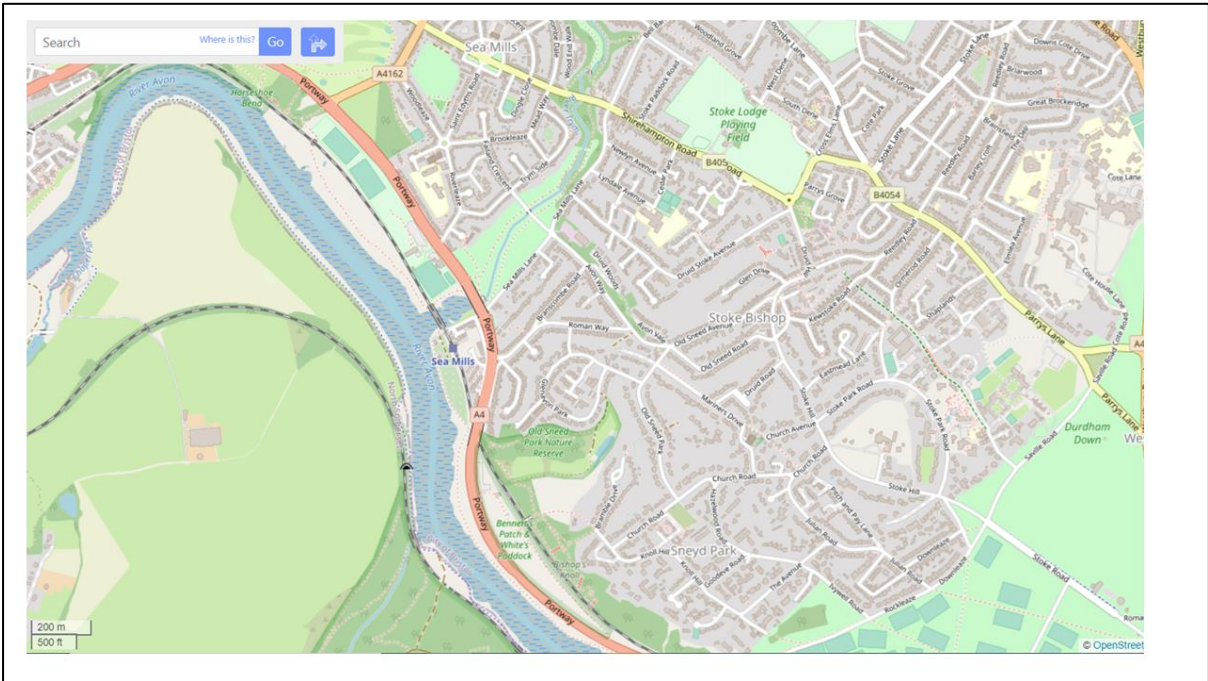


Figure 1-5: A4 Portway road layout today (part 2)



Figure 1-6: A4 Portway road layout today (part 3)

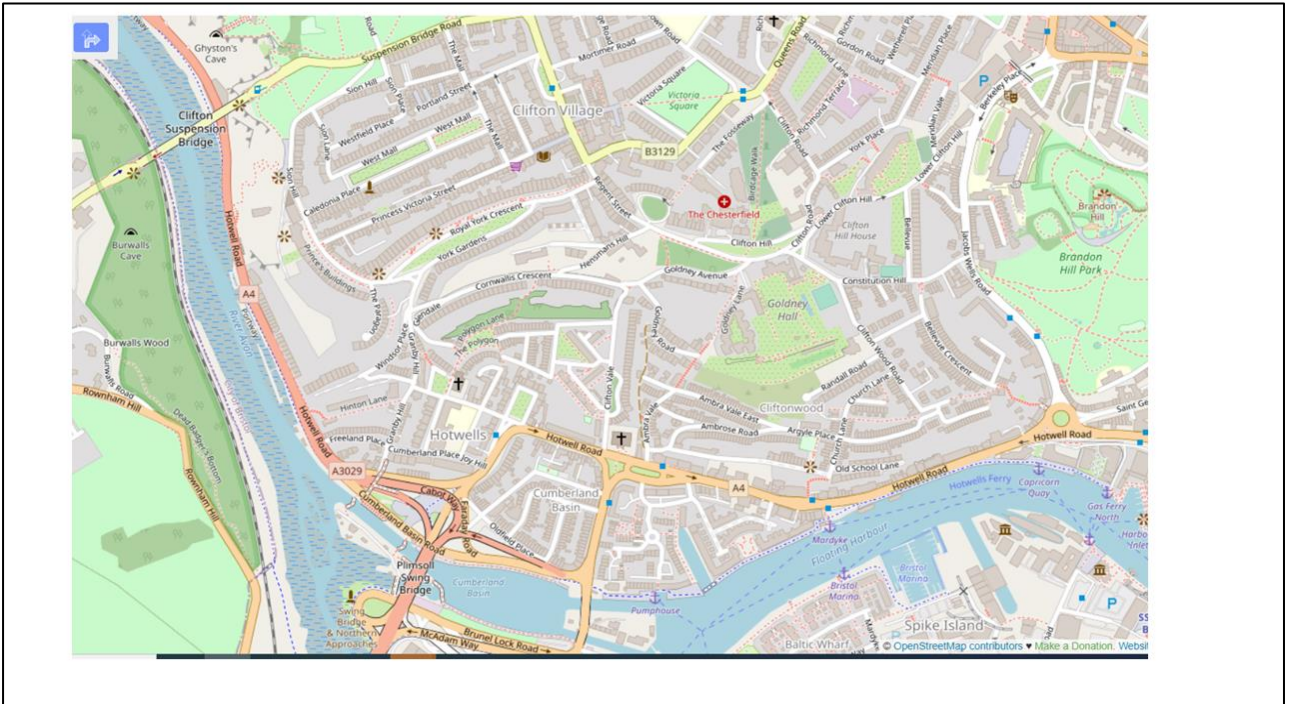


Figure 1-7: A4 Portway road layout today (part 4)

Rail History

The Portway was constructed adjacent to the Severn Beach Line, which runs from Bristol Temple Meads to Severn Beach. The line was dates back to the late 1800's and was originally referred to as the *Bristol Port & Pier Railway*. The route map of the Severn Beach line can be seen in Figure 1-8.

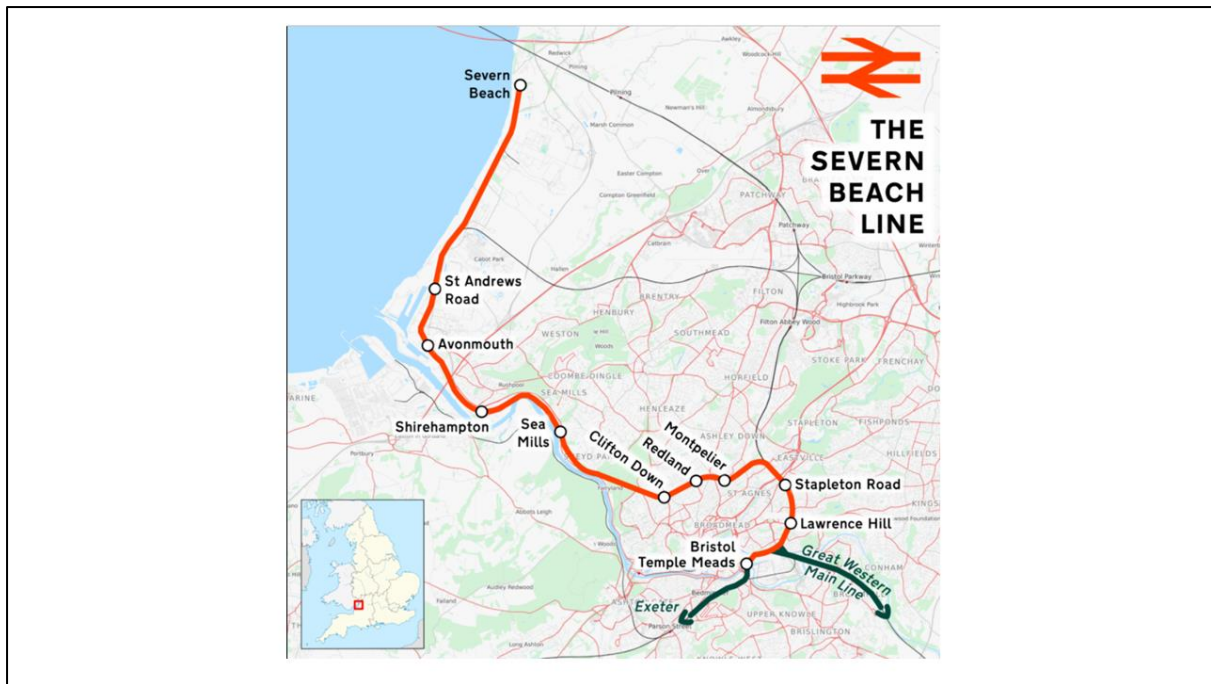


Figure 1-8: Severn Beach line

Previous improvements

2002 – A4 (west) Park and Ride opens on the A4 Portway, to serve central Bristol providing 265 parking spaces

2008 – Portway Park and Ride car park expansion – To help serve the Cabot Circus development in the city centre, where 279 spaces were added

2002 – present - Junction improvements to enhance the pedestrian access/egress to the Park and Ride sites, including Portway P&R

Bus priority – bus lanes (inbound and outbound)

Junction improvements at the Bridge Valley Road/A4 Portway junction traffic signals

Bus stop improvements – Bus stop improvements along the corridor, including shelter installations installation of raised kerbs, with associated safe haven paving.

2011 - GBBN Corridor 8 (Anchor road and Hotwells) – Greater Bristol Bus Network or GBBN, saw Bristol City Council working in partnership with the bus operator, First, upgrade 10 key routes through, new buses, improved bus shelters, real time information, bus priority signals, bus lanes, pedestrian and cycling improvements, road widening, and public realm improvements. The section of the A4 from Jacobs Wells Road Roundabout to the junction with Cabot Way/Bristol Gate, through Hotwells, was included in the GBBN network (Corridor 8). Corridor 8 saw a 17.3% rise in patronage through the improvements made as part of GBBN, as well as exceeding its targets on improving bus user satisfaction, improving bus punctuality, reducing area wide traffic levels, improving air quality, increasing the number of cycling trips, and improving road safety. The targets of reducing congestion were also largely met.

2022 – Rail station construction at Portway Park and Ride, set to open in August 2022.

2023 – Portway P&R car park expansion, an additional 273 spaces are to be added between September 2022 and February 2023.

Study Area

The study area comprises of the A4 Portway between The Portway Roundabout, where the A4 meets the M5, and The A4 Anchor Road, near the junction with Explore Lane, west of Bristol City Centre. The key settlements along the route are, Avonmouth, Shirehampton, Sea Mills, Sneyd Park, and Hotwells. The study area can be seen in Figure 1-9. Key locations on the road network in the study area can be seen in Figures

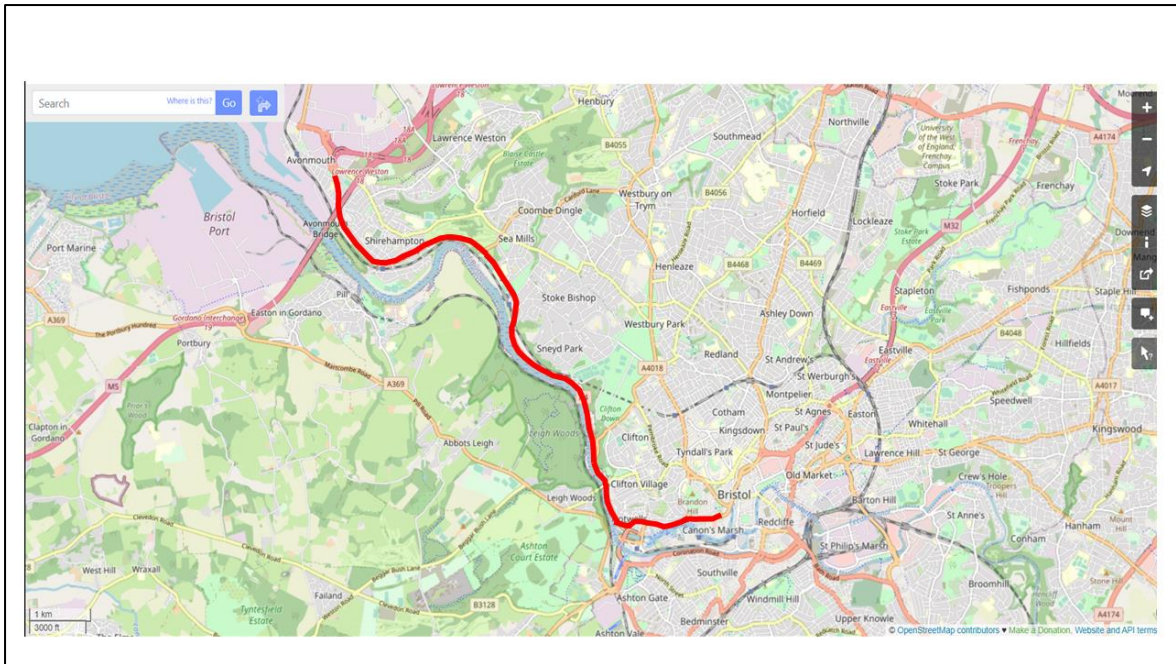


Figure 1-9: Geographical scope of the A4 Portway Strategic Corridor

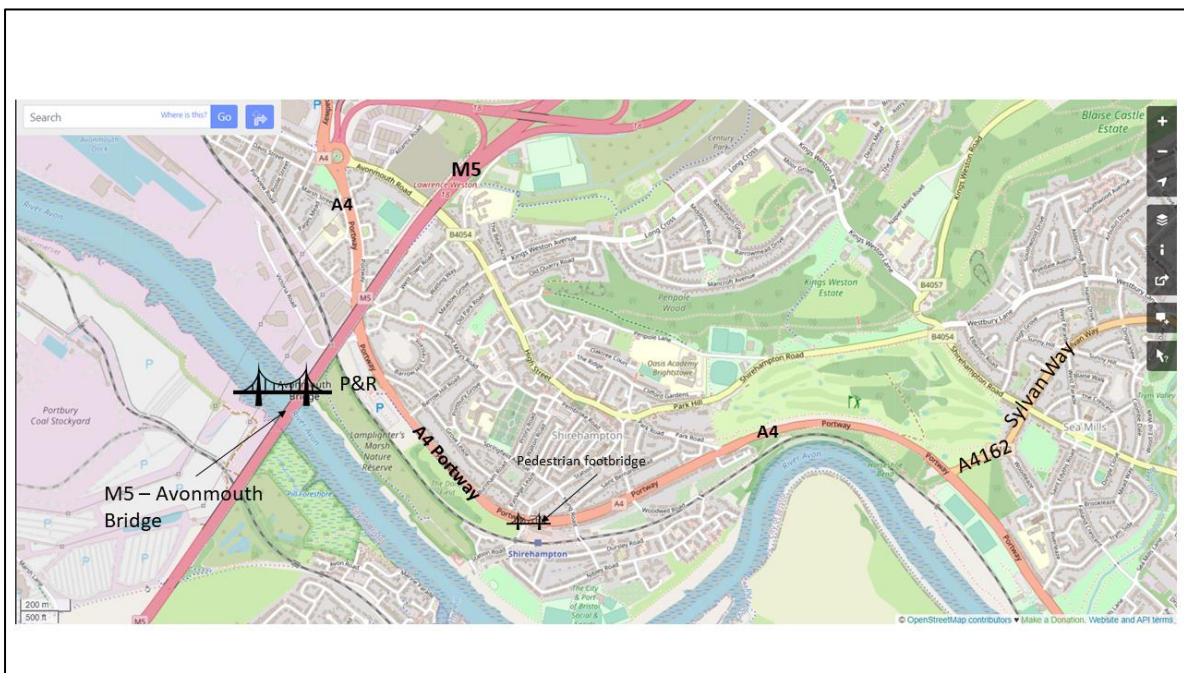


Figure 1-10: Key locations on the road network

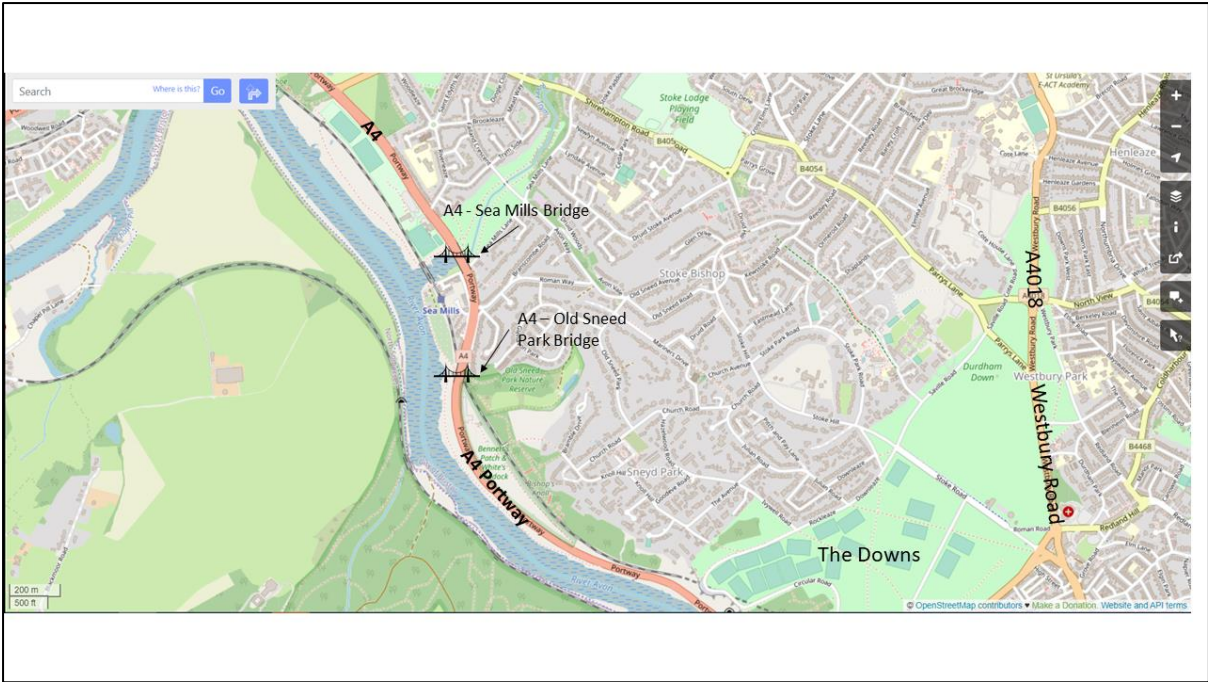


Figure 1-11: Key locations on the road network (part 2)

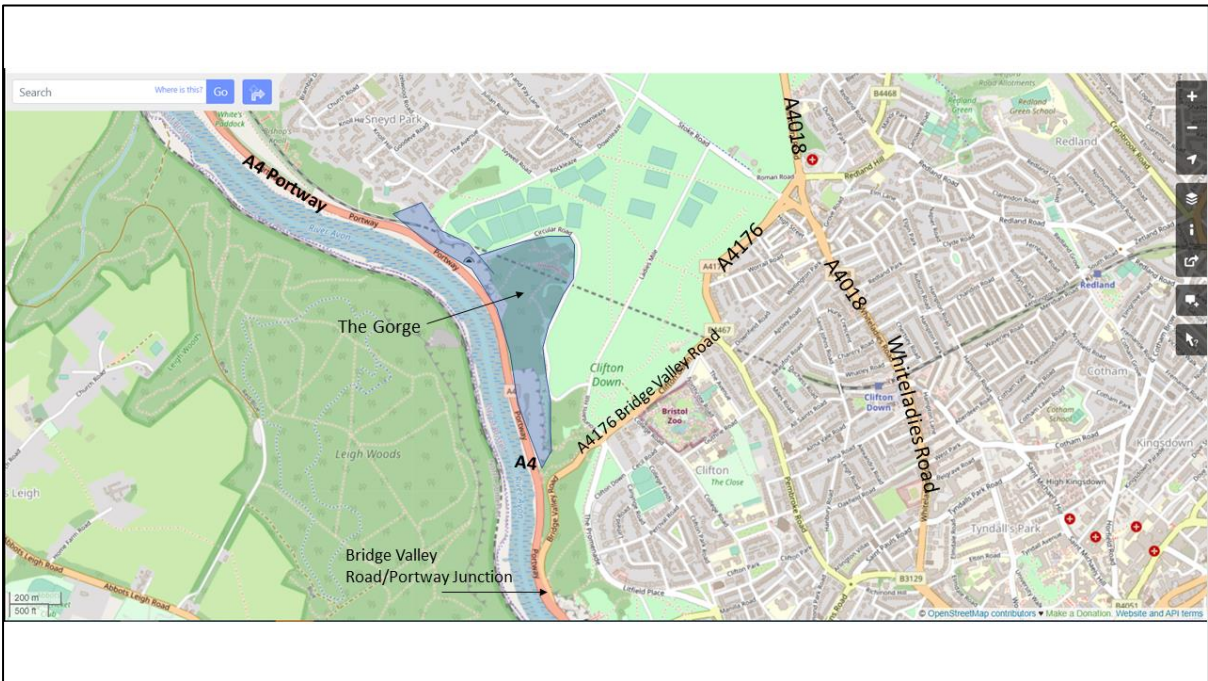


Figure 1-12: Key locations on the road network (part 3)

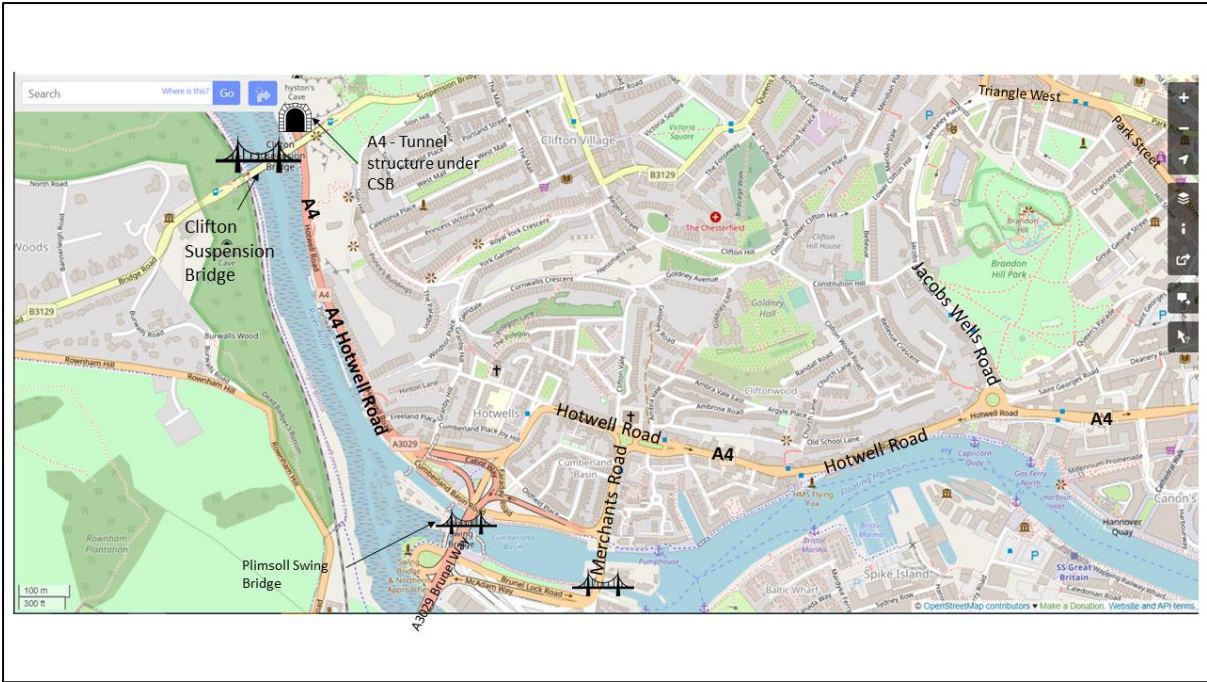


Figure 1-13: Key locations on the road network (part 4)

Area of Impact

Whilst the A4 Portway corridor represents the central study area for the project, it is important to consider the wider area of influence for any intervention. This represents an area in which local people live and work, that will predominantly be affected by the potential improvement work to be carried out. It is expected that the area of impact will become apparent after the modelling has been produced as part of the Outline Business Case.

Section 2: Current situation

Land Use

Figure 2-1 shows the Classification of Workplace Zones along the A4 Portway¹. A large part of the route has been identified as suburban services, and primarily residential suburbs. This is most evident in neighbourhoods such as the land to the southeast of Shirehampton, Stoke Bishop, Sea Mills, and parts of Sneyd Park. A more detailed inspection shows that Hotwells, at the south-eastern end of the A4 Portway, has a land use classification of metro suburbs and independent professional metro services. At the north-western end of the A4 Portway, in Avonmouth, land use is dominated by manufacturing and distribution, including industrial units, business parks, manufacturing, energy, and utility services.

¹ [CDRC Mapmaker: Classification of Workplace Zones \(England/Wales\)](#)

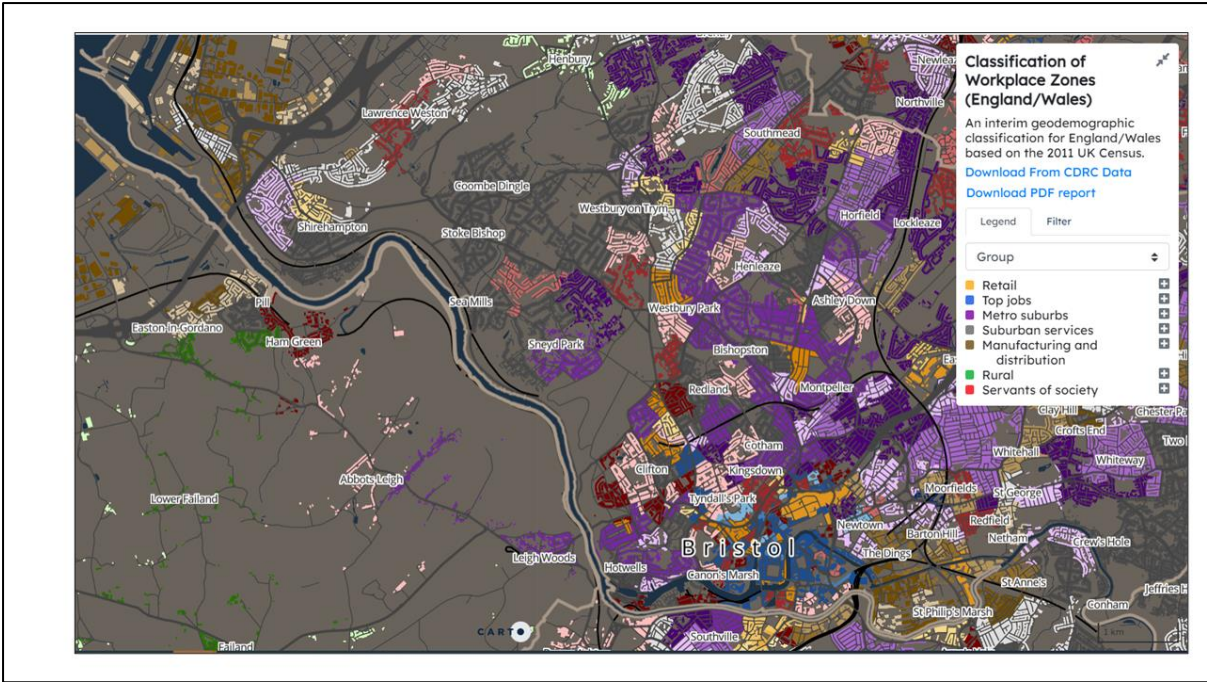


Figure 2-1: Classification of Workplace Zones in Bristol

Topography

Figure 2-2 shows the topography of the study area². The A4 Portway runs adjacent to the River Avon, which can be seen in running through Figure 2-2, between 0 and 20 m, and for the most part the elevation of the Portway does not change for the duration of the route. The elevation increases to 30m through parts of Shirehampton, and 25m along the section to the north of Bridge Valley Road.

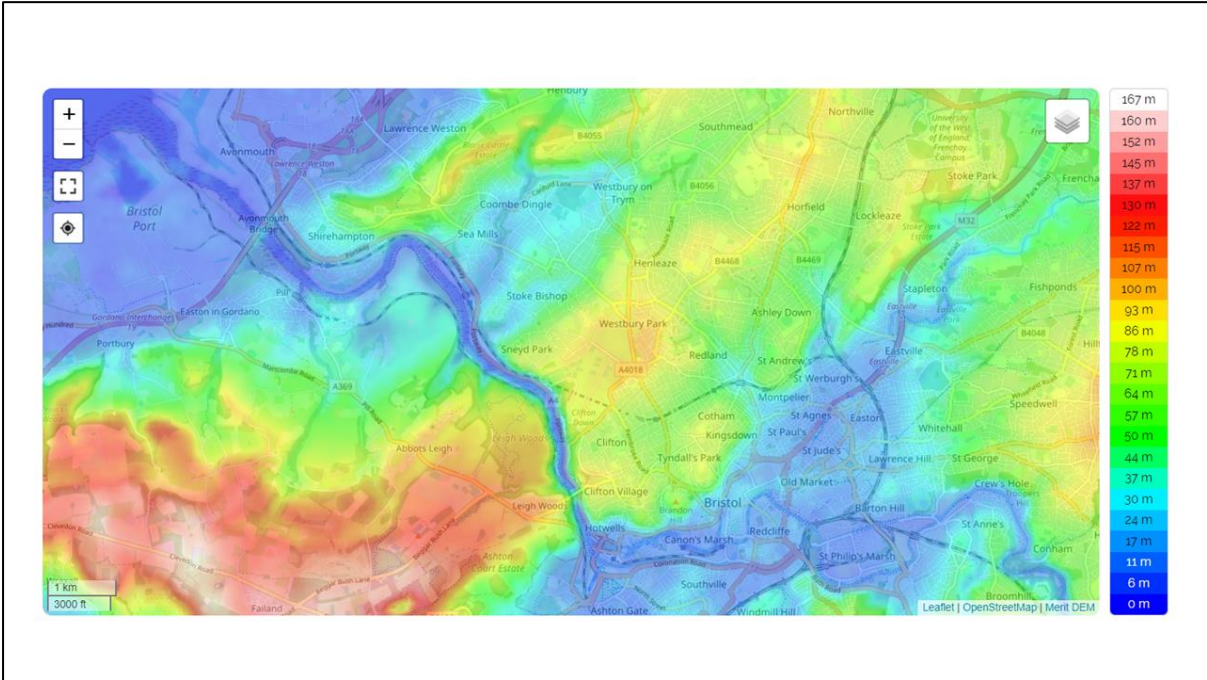


Figure 2-2: Topography of the study area

² [England topographic map, elevation, relief \(topographic-map.com\)](http://www.topographic-map.com)

The elevation of the settlements adjacent to the corridor is variable. Elevation in Avonmouth, parts of Shirehampton, Sea Mills, and Hotwells is low, ranging from 0 to 30 m. The elevation of Sneyd Park, Clifton and Clifton Down is higher, ranging from 55 – 91m.

Demographics

Car or van availability

The Bristol average percentage of households with no car or van access was 28.9%, as of the 2011 Census³. The percentage of households with no access to car or van in the wards along the Portway corridor are as follows

Avonmouth and Lawrence Weston – 27.6%

Stoke Bishop – 11.8%

Clifton - 27.0%

Hotwells and Harbourside – 34.0%

Figure 2-3 shows the average number of cars per household across Bristol, broken down by ward⁴. Stoke Bishop has the highest average number of cars per household at 1.5, significantly greater than the Bristol average. Whilst the car ownership in the other wards along the Portway is not significantly different from the Bristol average.

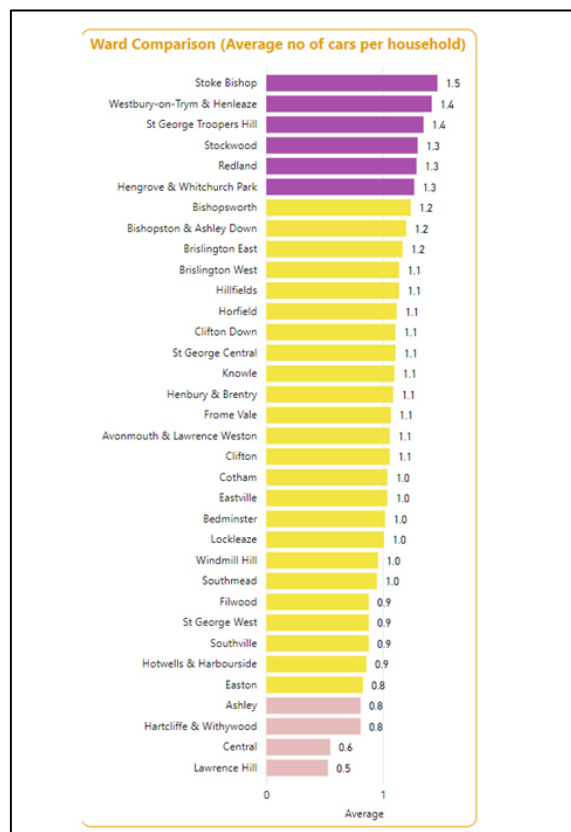


Figure 2-3: Average number of cars per household (by ward)

³ [Nomis - Official Labour Market Statistics \(nomisweb.co.uk\)](http://nomisweb.co.uk)

⁴ [Microsoft Power BI](#)

Deprivation⁵

The deprivation data for Bristol can be seen in Figure 2-4. The deprivation data for the wards in which the Portway runs through is broken down below

Avonmouth and Lawrence Weston has seven Lower Super Output Areas (LSOAs) in the 20% most deprived neighbourhoods in England.

Stoke Bishop has only one LSOA in the 20% most deprived neighbourhoods in England. This ward also has five LSOAs among the 15% least deprived areas in England.

Clifton has no LSOAs in the 20% least deprived neighbourhoods. The majority of the neighbourhoods in Clifton are in the 50% least deprived in England.

Hotwells and Harbourside has two LSOAs, neither fall into the 20% most deprived, nor the 20% least deprived.

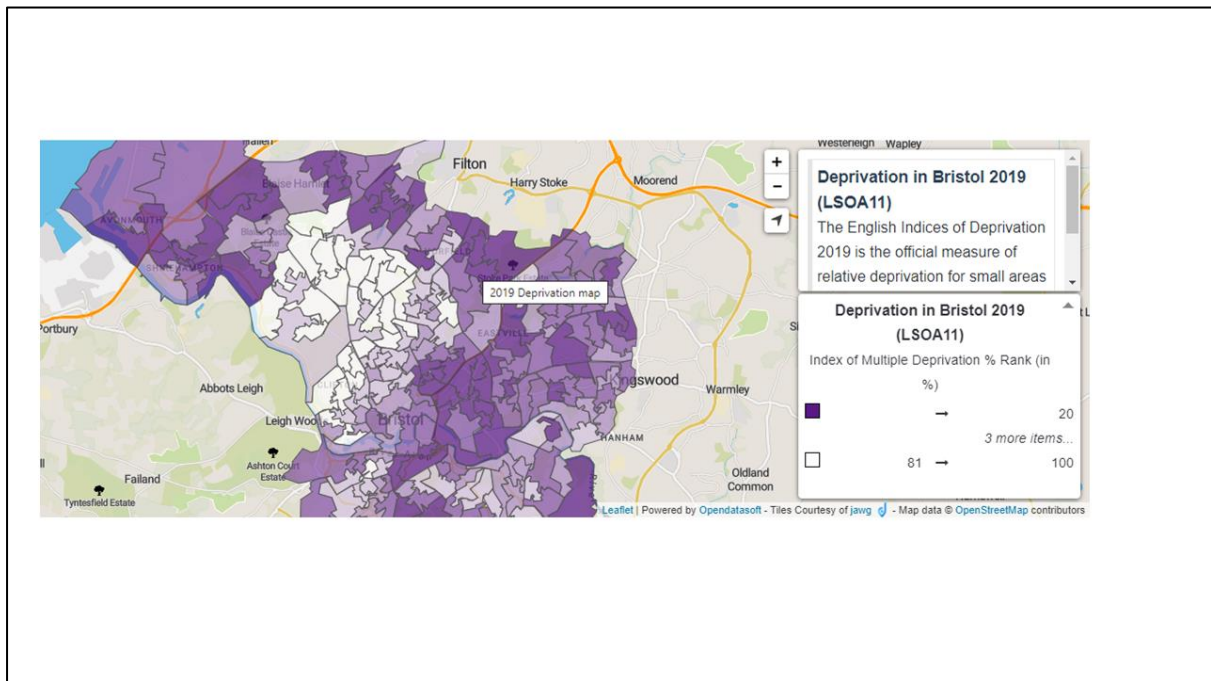


Figure 2-4: Deprivation in Bristol (2019) by 2011 Lower Super Output Areas

Modal Share³

Journey to work data was collected as part of the 2011 Census and describes aspects of the commuting behaviour. The data provides valuable insight to the modal choice of commuters in the study area. The study area encompasses multiple Lower Super Output Areas (LSOAs). The LSOAs are shown on the map in Figure 2-5, and Table 2-1 shows the modal split for the journeys to work.

⁵ [Deprivation in Bristol 2019 \(LSOA11\) — Open Data Bristol](#)

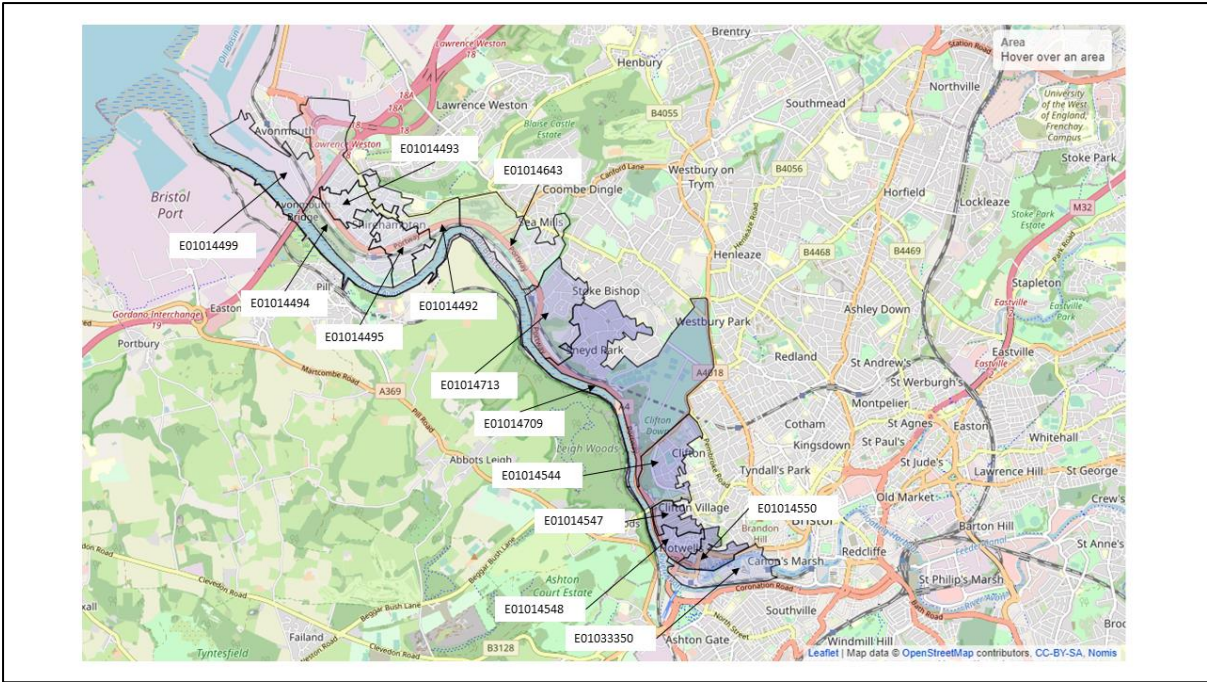


Figure 2-5: LSOAs base for mode used to travel to work data

Table 2-1: Mode used to travel to work as a percentage of the study area population

Mode	Study area	City of Bristol
Work from home	5%	3%
Train	2%	1%
Bus, minibus or coach	5%	6%
Taxi	<1%	<1%
Motorcycle, scooter or moped	<1%	<1%
Car or van	34%	33%
Passenger in car or van	2%	3%
Bicycle	5%	5%
Walking	14%	13%
Other mode	<1%	<1%
Not in employment	32%	35%
Total	100%	100%

Table 2-1 shows the range in methods of travelling to work. The patterns observed in the study area are broadly aligned with those percentages shown for the city of Bristol. 34% of people travel to work by car or van, only 1% less than that seen in the city of Bristol. The next highest mode share for the study area is walking, followed by cycling, and bus. Again, similar to that seen in the city of Bristol.

Table 2-2: Modal share reported in the Bristol Quality of Life Survey (2020/2021)

Quality of Life Survey 2020-2021	Ward				
	Avonmouth and Lawrence Weston	Stoke Bishop	Clifton	Hotwells and Harbourside	Bristol Average
Mode					
Train	5%	2%	2%	6%	3%
Bus	12%	5%	4%	5%	12%
Motorcycle or moped	6%	0%	3%	1%	1%
Car	42%	63%	22%	12%	12%
Bicycle	14%	16%	11%	16%	16%
Walk	4%	5%	52%	51%	51%
Other	17%	9%	6%	9%	5%
Total	100%	100%	100%	100%	100%

There are similarities between the modal share reported in the 2011 Census, and the modal share reported as a result of Bristol's Quality of Life Survey 2020/2021 (QoL). The results for the QoL Survey can be seen in Table 2-2. Travelling to work by car is higher in the wards furthest away from the city centre, Avonmouth and Lawrence Weston, and Stoke Bishop. However, there are some differences, for example the percentage of people who reported using cars to travel to work in 2020/2021 was much lower than the percentage reported as a result of the 2011 Census.

Table 2-3 has been generated using the QoL survey⁶. The table shows how other transport matters hold impact on Bristol citizens' quality of life. Satisfaction with local bus services in the study area varies between the wards, the greatest satisfaction can be seen in Clifton at 61%, while the least satisfaction can be seen in Stoke Bishop at 43%. The satisfaction with the buses in the study area is not significantly different to the average satisfaction with buses in Bristol. Satisfaction with the information on local bus services averages out at about 50% for the study area, again this is not dissimilar to the average for Bristol.

Table 2-3: Transport and quality of life

Ward	% satisfied with the local bus service	% satisfied with information on local bus services	% that state inaccessible public transport prevents them from leaving home when they want
Avonmouth and Lawrence Weston	58%	54%	7%
Stoke Bishop	43%	41%	17%
Clifton	61%	51%	12%
Hotwells and Harbourside	53%	50%	11%
Bristol Average	57%	52%	9%

Travel to school

Figure 2-6 shows the primary schools, secondary schools, and colleges in proximity to the A4 Portway/A4 Hotwells Road. Primary schools are frequent along the route, with a cluster seen in

⁶ [Quality of Life 2020-21 — Open Data Bristol](#)

Avonmouth, and Shirehampton. While secondary schools, and colleges are less frequent, and located closer to the city centre.

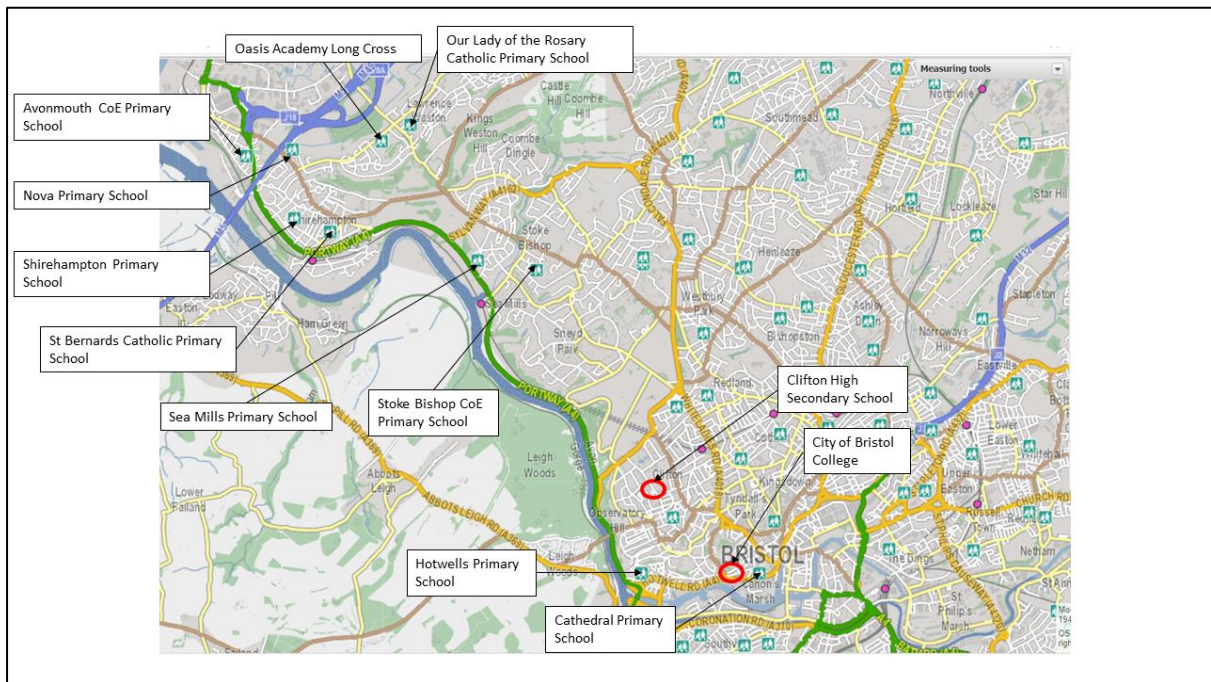


Figure 2-4: Education institutions in the study area

The only travel to school data available is from Shirehampton Primary School. Walking and cycling make up 58% of the modal split, when travelling to school. The schools Park and Stride scheme accounts for 26% of the modal share. Cars make up 9% of the modal share, while only 1% of students and staff use public transport.

Employment and commercial locations

As can be seen from Figure 2-5, the key employment areas in relation to the A4 Portway and the A4 Hotwells Road are at either end of the corridor. The employment areas in Avonmouth have been identified in Policy BCS4 of the Bristol Development Framework Core Strategy, the strategy also references Bristol City Centre as the region’s biggest employment area. Avonmouth, the docks, and Bristol Port area all located to the north of the corridor. At the southern end of the corridor there is the city centre, and just beyond that the Temple Quarter Enterprise Zone, which is adjacent to the Portway Park and Ride bus route.

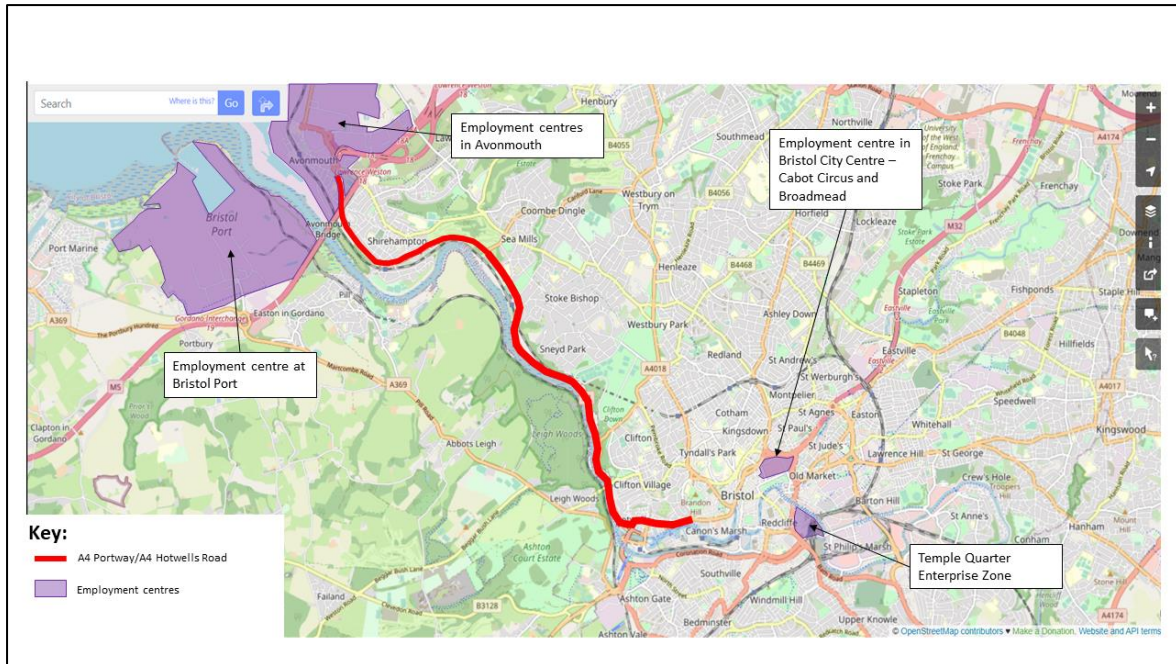


Figure 2-5: Key employment centres in relation to the A4 Portway corridor

The Travelwest Travel to Work Survey 2019 has found that the car was the main mode used to travel to work, at 43%. While 14% reported walking or cycling, 12% reported using the bus, and only 6% used the train. The pattern found in the Travel to Work Survey 2019, mirrors an earlier study by Kiron Chatterjee and Caroline Bartle at UWE, looking at the mode used to travel to work in the Bristol Port area. Their findings have shown that over 60% of people surveyed used a car, between 2 and 5% walked or cycled, less than 1% took the bus, and only 2% caught the train (Bartle and Chatterjee, 2019)⁷. When cross referenced to Figure 2-6 the low percentage of respondents who reported using public transport is not surprising, given the difficulty in accessing public transport Avonmouth and the northern end of the A4 Portway corridor.

Figure 2-6 shows the Bristol Transport Access Level (BrisTAL) which is a method of measuring the level of public transport connectivity within the city of Bristol. It is similar to the Public Transport Accessibility Approach (PTAL) used by Transport for London.

⁷ [Employer perceptions of the business benefits of sustainable transport: A case study of peri-urban employment areas in South West England - ScienceDirect](#)

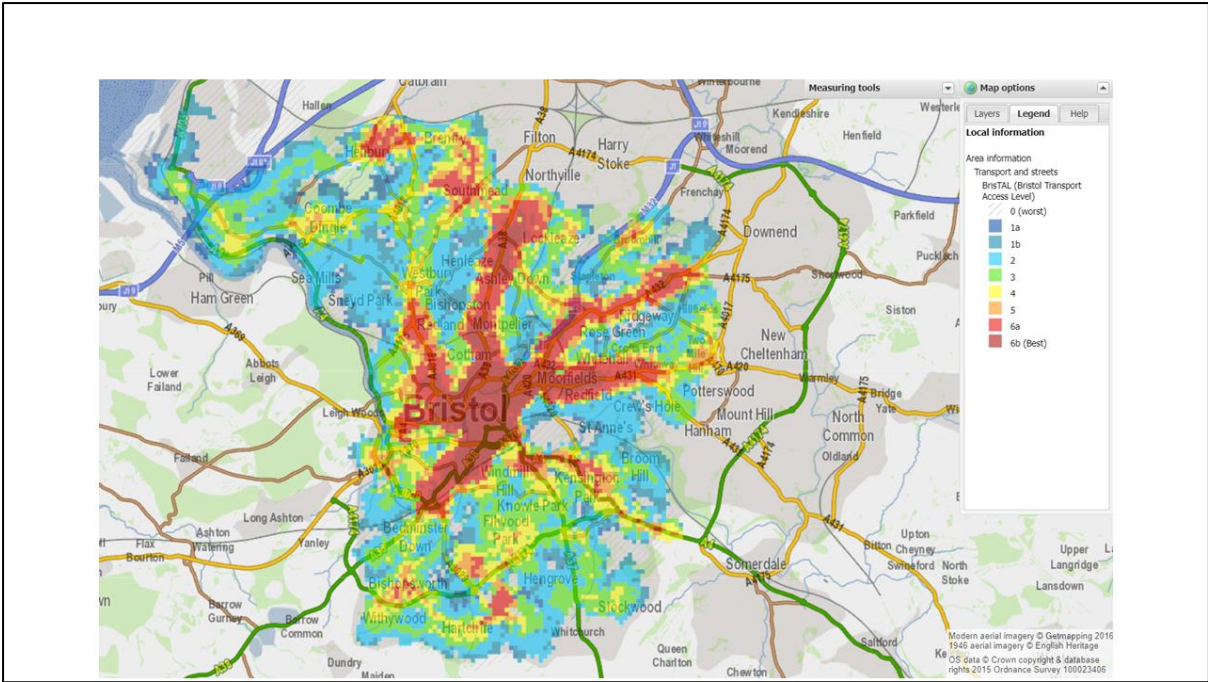


Figure 2-6: BrisTAL - Access to transport (Pinpoint layer)

The two key commercial locations in relation to the A4 Portway/A4 Hotwells Road can be seen from Figure 2-7. They are Cribbs Causeway which can be accessed from Junction 17 on the M5, and Bristol City Centre, which includes the shopping centre at Cabot Circus, Broadmead, Park Street, and Whiteladies Road.

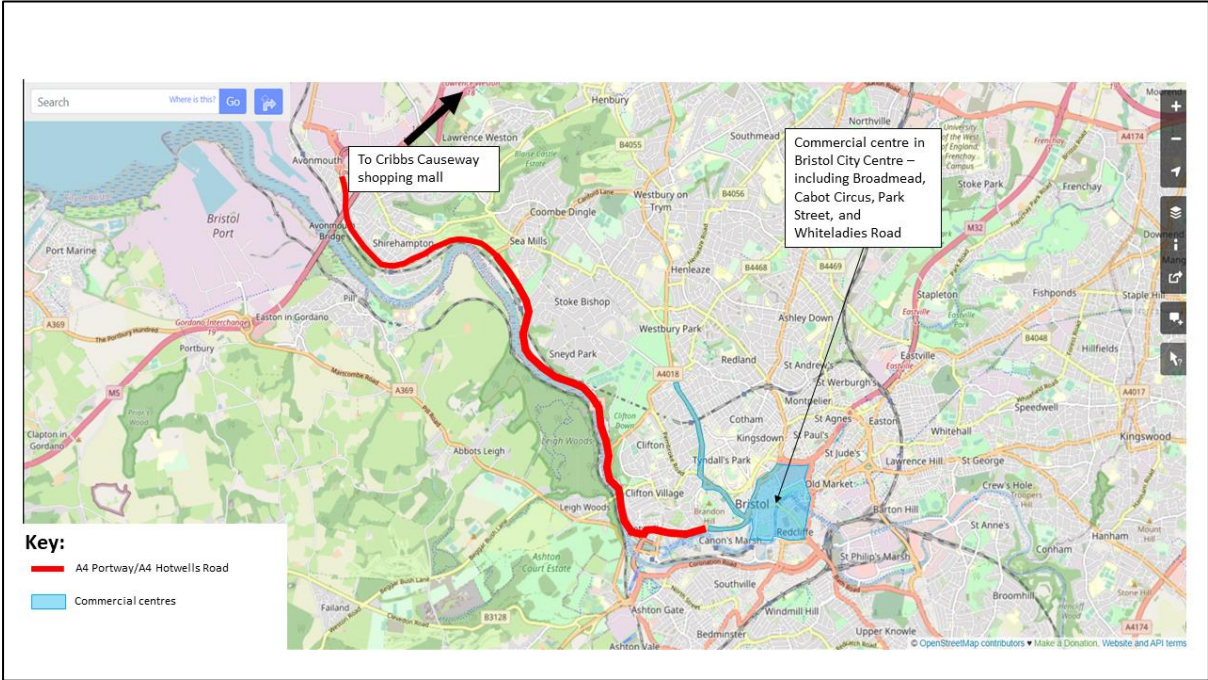


Figure 2-7: Commercial centres in relation to the A4 Portway corridor

Travel networks

Active Travel

Cycling

Although not present along the A4 Portway/A4 Hotwells Road, the National Cycle Network (NCN) interacts with the Portway signed cycle way at various points. The following routes are the key interfaces with the NCN

- NCN 3 – Starting in the Bristol City Centre, the NCN 3 runs through southern Bristol, into Bath and North East Somerset, and beyond into the southwest, before finishing at lands end.
- NCN 33 – Interacts with the study area along the A4 on Hotwells Road. NCN 33 starts in Bristol, and crosses Somerset and Devon before finishing on the south coast at the English channel.
- NCN 41 – Runs on the opposite bank of the River Avon, to the A4 Portway, and crosses the river at the M5 Avonmouth Bridge, where it then continues on to connect Bristol with Gloucester, Stratford-upon-Avon, and Rugby (when complete).

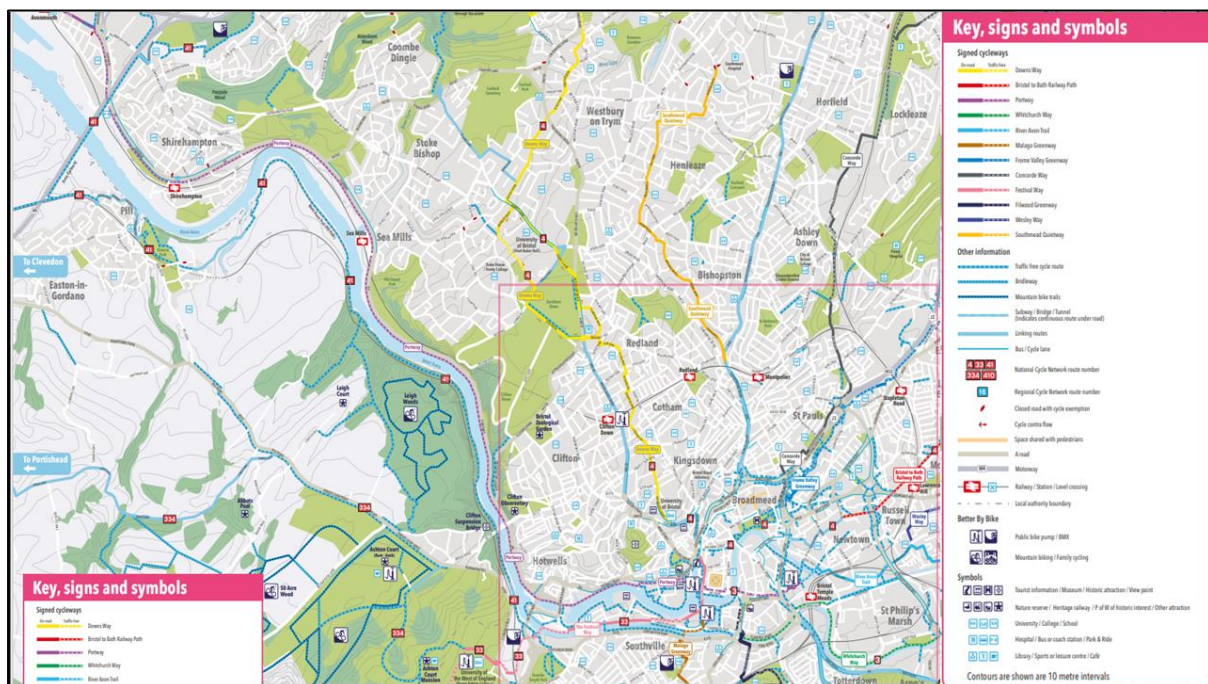


Figure 2-8: Cycle infrastructure in Bristol

The NCN routes, and other cycle infrastructure can be seen in Figure 2-8. From the Figure it can be seen that the Portway provides cyclists with a continuous traffic free route between the city centre and the Portway Roundabout, on the outbound side of the highway. The path is shared with pedestrians and varies in width, the narrowest points of the path are circa 1 m wide. Figure also shows sections of bus/cycle lane, specifically along sections in Shirehampton, Sea Mills, and Hotwells.

Walking

There are a number of Public Rights of Way in the vicinity of the study area, with routes distinguished as bridleways, footpaths, and restricted crossing points and can be seen in Figure 2-9. It doesn't include footways alongside the carriageway, which are provided along the length of the route.

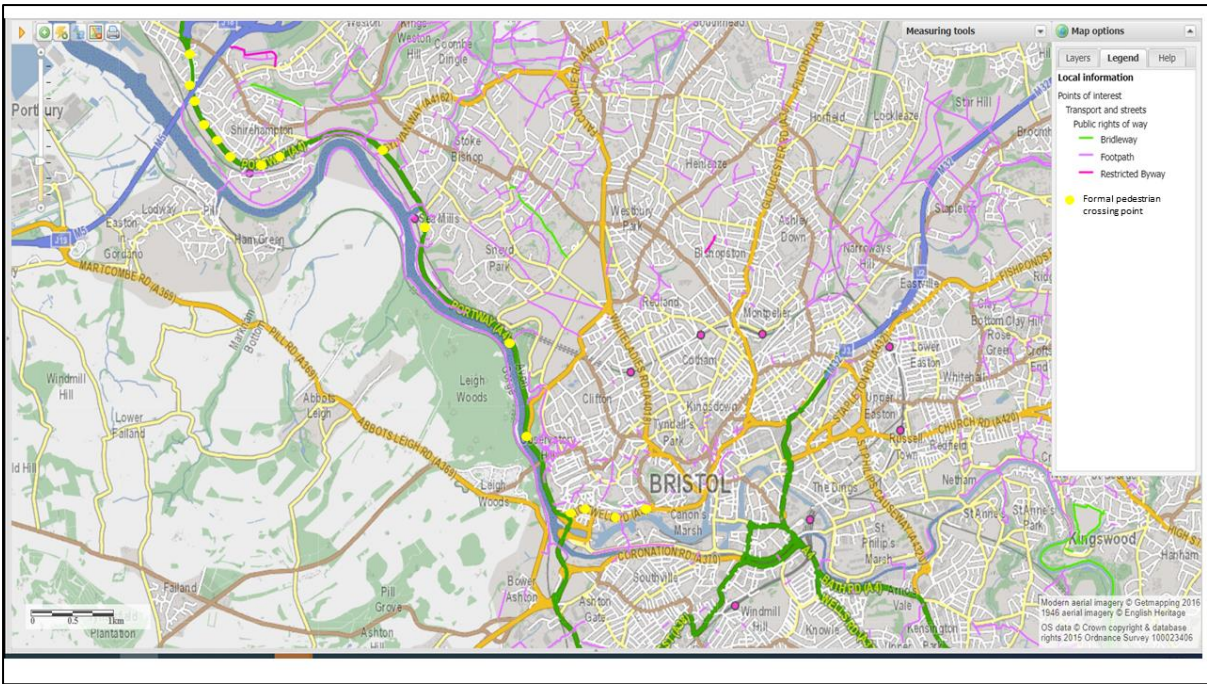


Figure 2-9: Public Rights of Way adjacent to the Portway

For the most part, the A4 Portway/A4 Hotwells Road contains a sufficient number of formal crossing points, particularly around Shirehampton, and Hotwells. However, formal crossings become more sporadic between Sylvan Way and Bridge Valley Road.

Issue: Amount of vehicular traffic on the A4 Portway presents a safety risk to pedestrians wishing to cross on the Portway, between Sylvan Way and Bridge Valley Road. There is also a risk of anyone using the PRoW's that dissect the Portway without a formal crossing point, notably BCC/173 Bennett's Patch, BCC/268 New Zig Zag Path, BCC/283 Zigzag Path.

Bus Network

Bus Routes

Figure 2-10 shows the bus services available along the A4 Portway/A4 Hotwells corridor. The services within the study area cater for journeys between Weston-Super-Mare, Portway Park and Ride, Portishead, Clevedon, Nailsea, Backwell, Langford, and Bristol City Centre.

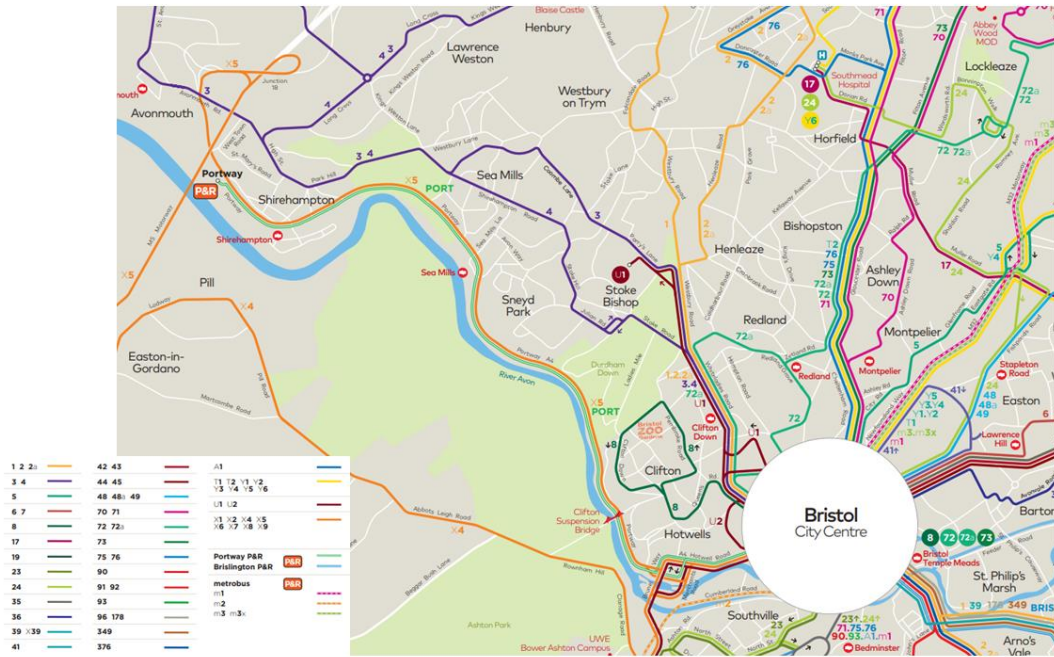


Figure 2-10: Bus network map for A4 Portway and Bristol City Centre

Table 2-4 has provided a summary of the bus services that serve the A4 Portway/A4 Hotwells corridor, including operating hours and approximate frequency as of services in March 2022. The majority of services operate at least every 30 minutes and run through-out the day, with some services running until midnight. The services to Bristol city centre provide onward journey opportunities by bus, rail, and coach.

Table 2-4: Bus services operating along the A4 Portway and A4 Hotwell corridor

Bus Service	Operating Hours (Weekday)	Approximate Frequency (peak)	Approximate Frequency (off-peak)
Portway P&R (Portway P&R – Bristol City Centre – Portway P&R)	0600-1943	15 mins	15 mins
X1 (Weston-Super-Bristol – Bristol)	0510-2332	15-30 mins	20-30 mins
X2 (Weston-Super-Mare – Bristol)	0638-1841	60 mins	60 mins
X4 (Bristol – Portishead)	0615-0026	30 mins	30 mins
X6/X7 (X6- Bristol – Walton St Mary/ X7- Bristol – Clevedon)	0710-0010	10-40 mins	20-40 mins
X8/X9 (Bristol – Nailsea)	0630-0030	5-30 mins	30 mins
U2 (Bristol City Centre – Langford Veterinary College)	0715-1846	60 mins	60 mins

Bus Lanes

The A4 Portway, A4 Hotwell Road, and A4 Anchor Road provide priority for buses via a number of bus lanes as shown in Figure 2-11. There are approximately 4.32km of bus lanes on the corridor.

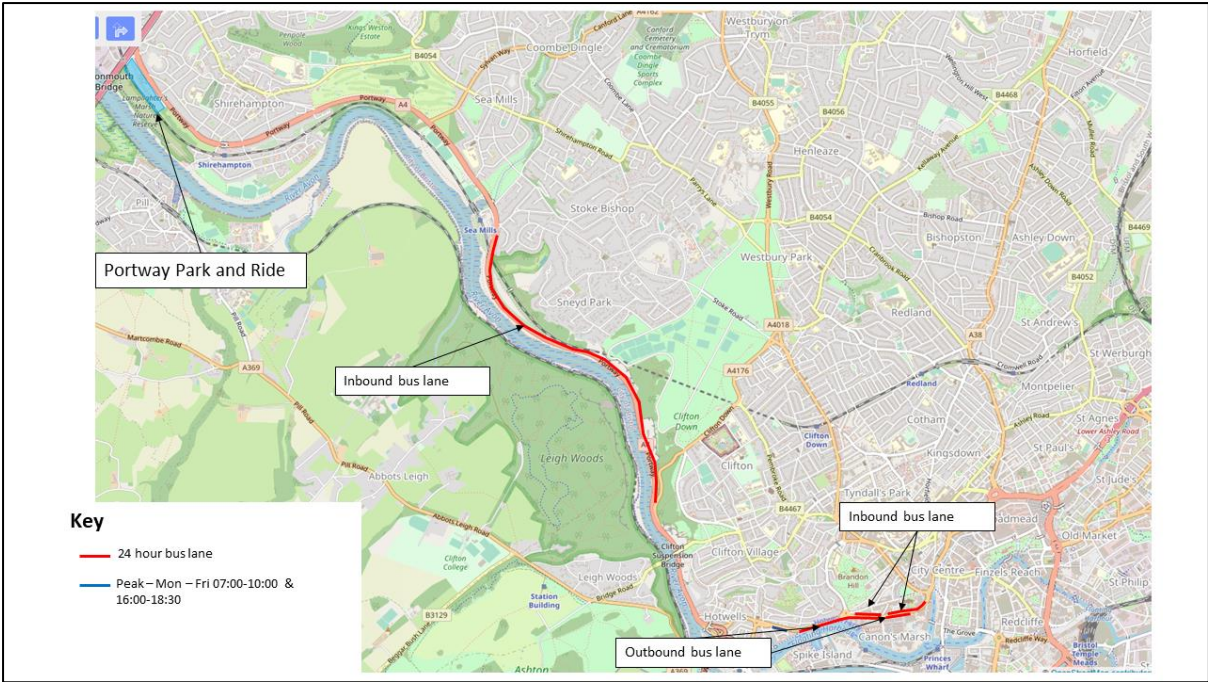


Figure 2-11: Bus lanes on the A4 Portway, A4 Hotwell Road, and A4 Anchor Road

Bus Stops

In total there are 19 bus stops on the A4 Portway, A4 Hotwell Road, and A4 Anchor Road. The bus stop locations can be seen in Figure 2-12, and Table 2-5 provides an overview of the infrastructure available at the stops.

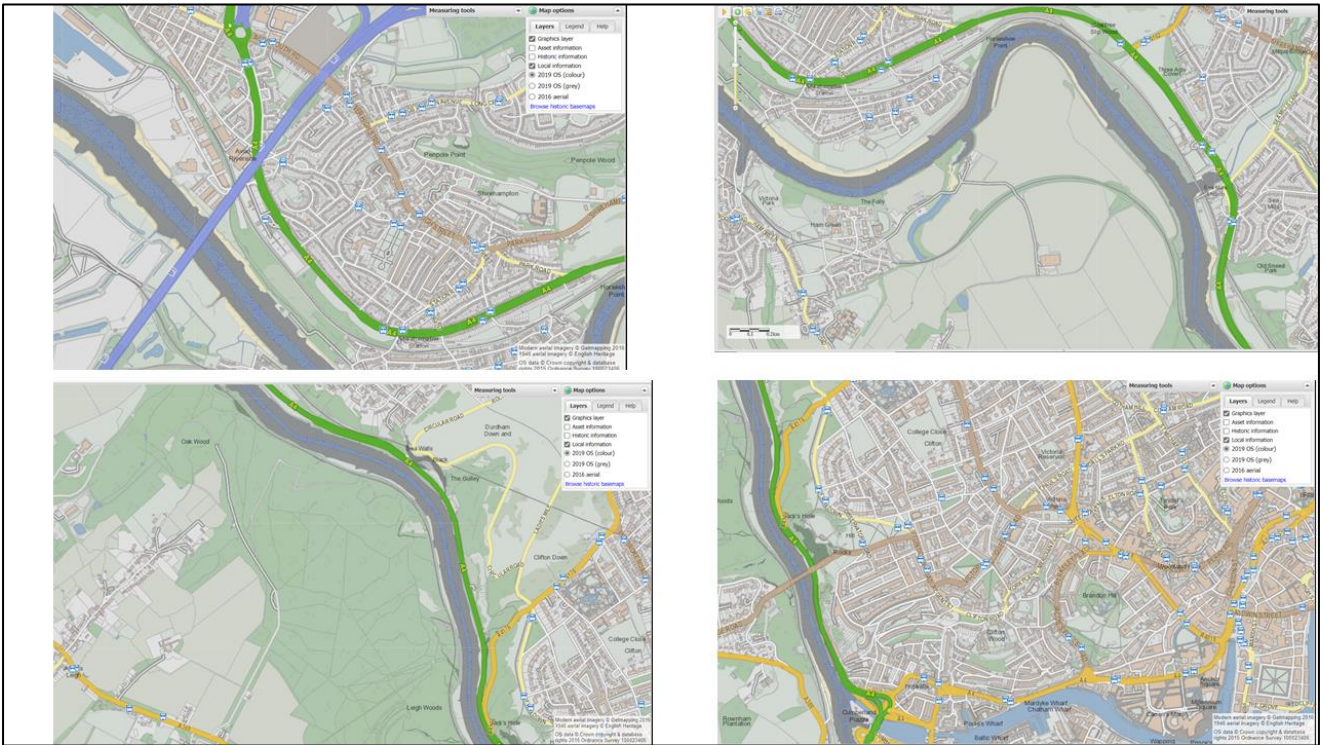


Figure 2-12: Bus stop locations on the corridor. Available on Pinpoint.

Table 2-5: Bus stop infrastructure along the corridor

	Total bus stops	Pole and Flag	Shelter	Real Time Information	Raised Kerb	Bin	Stop Markings
A4 Portway/Hotwell Rd (Total)	19	8	13	10	17	8	18
Akeman Way (S Bound)		0	1	0	0	0	1
Akeman Way (N Bound)		0	0	0	0	0	1
Portway P&R		1	1	1	1	1	1
Station Road (SE Bound)		0	1	1	1	0	1
Station Road (NW Bound)		1	1	0	1	1	1
Woodwell Road (SE Bound)		0	1	1	1	1	1
Woodwell Road (NW Bound)		1	0	0	1	0	0
Riverleaze (S Bound)		1	1	1	1	0	1
Riverleaze (N Bound)		1	0	0	1	1	1
Roman Way (S Bound)		0	1	1	1	0	1
Roman Way (N Bound)		1	0	0	1	1	1
Trinity Church (E Bound)		0	1	0	1	0	1
Merchants Road (S Bound)		0	1	1	1	1	1
Hotwell Road (E Bound)		1	0	0	1	0	1
Hotwell Road (W Bound)		0	1	1	1	0	1
Gasferry Road (E Bound)		1	0	0	1	0	1
Gasferry Road (W Bound)		0	1	1	1	1	1
Anchor Road (E Bound)		0	1	1	1	0	1
Anchor Road (W Bound)		0	1	1	1	1	1

Park and Ride (P&R)

Figure 2-11 also shows the location of the Portway Park and Ride site. The Portway P&R site is located at the northern end of the A4 Portway corridor, near the Portway Roundabout, Avonmouth, and Junction 18 of the M5. The service runs as a circuit, from the Portway P&R site, to the city centre and Temple Meads, before looping back around to run back up the A4 Portway and finish at the Portway P&R site. The service operates every 15 minutes, with a journey time of approximately 40 minutes.

The service operates 7 days per week, with reduced hours on Sundays. The P&R site currently offers 544 spaces, with an additional 273 set to be constructed by February 2023. A new rail platform has been constructed and is set to be operational by August 2022.

Rail

The A4 Portway runs adjacent to the Severn Beach Line, which runs from Bristol Temple Meads to Severn Beach and stops at several stations located along the A4 Portway. These stations include, Sea Mills, Shirehampton, Portway Park and Ride, and Avonmouth. The locations of the stations can be seen on Figure 2-13.

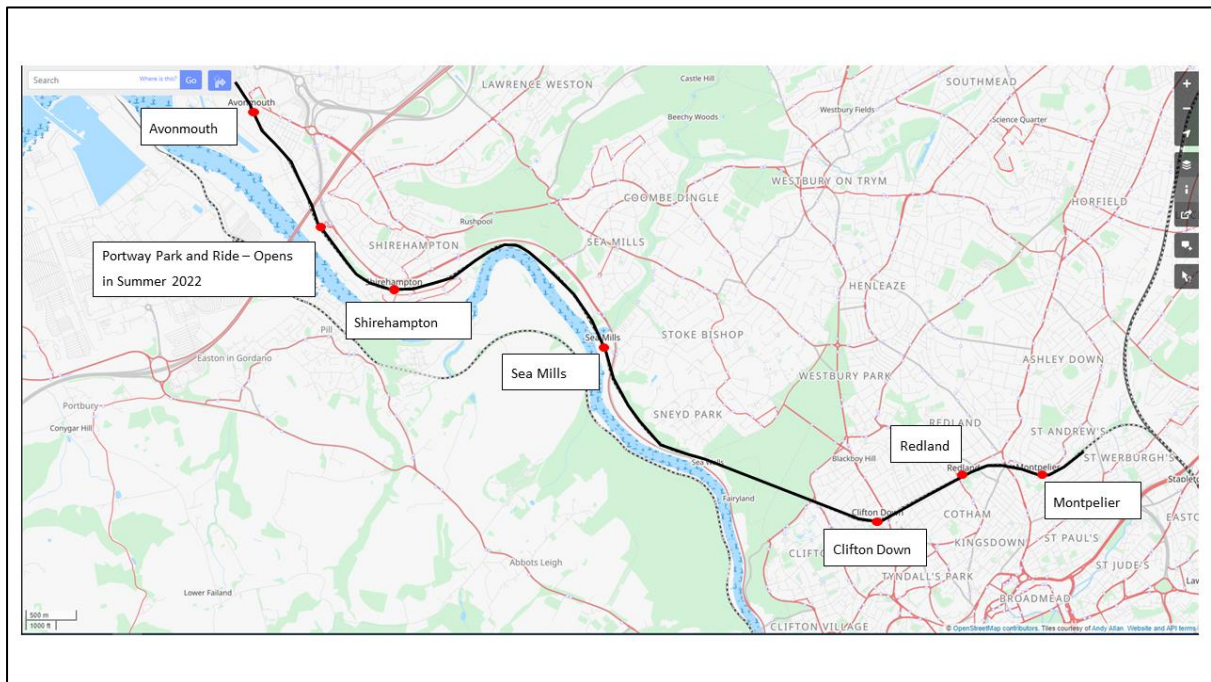


Figure 2-13: Rail stations in the study area

Travel patterns

Cycling

Strava provide a heat map of cycle journeys made across the U.K.⁸

Bus

Bus Delay

Data has been provided by First Bus's on-board trackers in relations to bus delays along the A4 Portway/A4 Hotwells Road corridor. Figure 2-14 and Figure 2-15 show the level of bus delay during both AM and PM peak times, respectively. Delay here is measured as the difference between the

⁸ [Strava Global Heatmap](#)

fastest and slowest median pace within the time period (seconds per metre). The data used to create the map can be found ⁹.

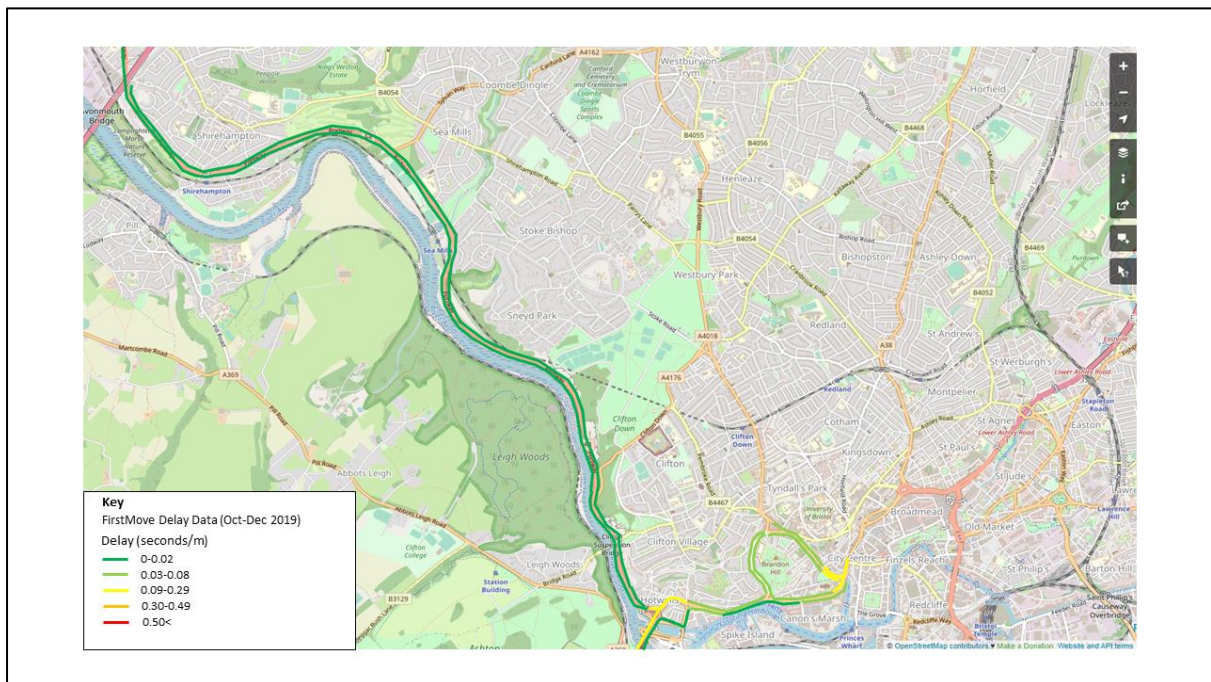


Figure 2-14: FirstMove bus delay (Oct - Dec 2019) AM Peak (08:00)

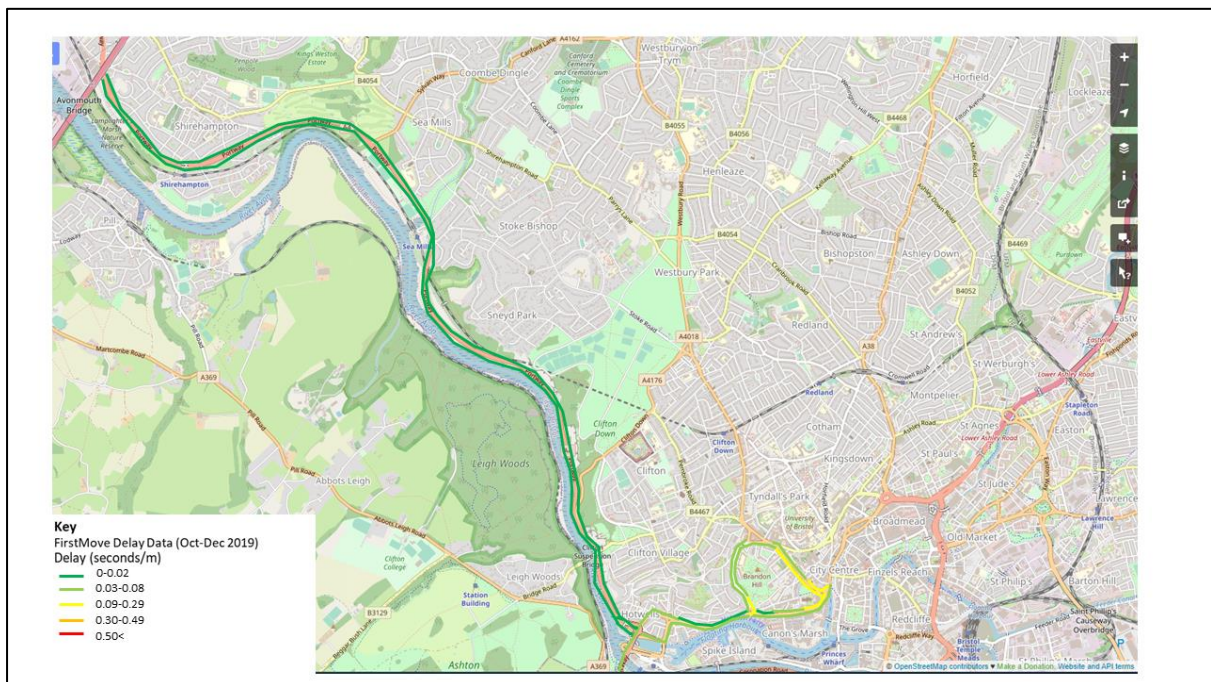


Figure 2-15: FirstMove bus delay (Oct - Dec 2019) PM Peak (17:00)

The above figures show that buses experience delay towards the south-eastern end of the corridor, in Hotwells. Buses during the AM peak, are experiencing higher levels of delay as they travel inbound along Brunel Way/Bristol Gate through Hotwells where there is no bus lane provision, and then

⁹ [Sign In \(arcgis.com\)](https://www.arcgis.com)

again on the inbound section of Anchor Road, near the junction with the A4018 where the A4 Anchor Road inbound bus lane ends. Buses during the PM peak are experiencing greater delays as they travel outbound on Jacobs Wells Road, near the roundabout on the A4 Hotwells Road, the delay reduces where the buses are able to pick up on the outbound bus lane on the A4 Hotwell Road. During the PM peak, buses are also experiencing delays on the inbound section of Anchor Road, again where the inbound bus lane ends, and outbound on the A4018.

Occupancy

First Bus also provided data in relation to occupancy rates of buses along the A4 Portway/A4 Hotwells corridor between October and December 2019 for the AM and PM peak. Bus occupancy data (collected from ticketing information at every stops for every bus trip) is shown below on Figure 2-16 and Figure 2-17, respectively. The data used to create these figures can be found ¹⁰

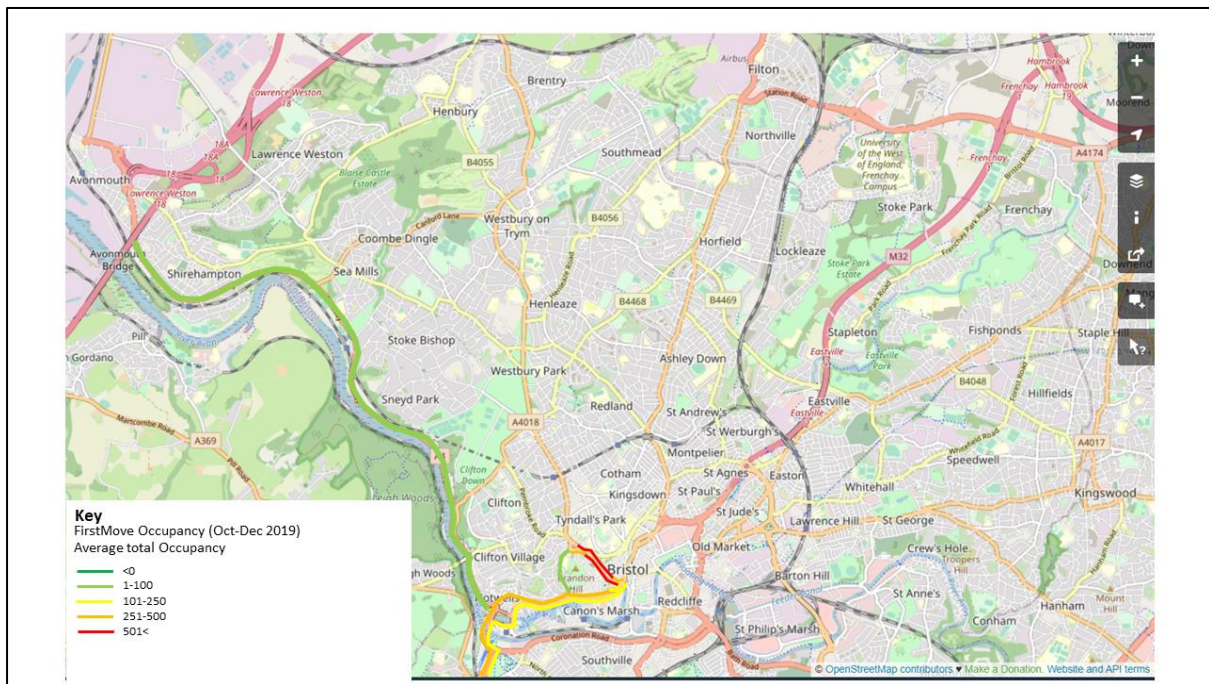


Figure 2-16: FirstMove bus occupancy (Oct - Dec 2019) AM Peak (08:00)

¹⁰ [Sign In \(arcgis.com\)](https://www.arcgis.com)

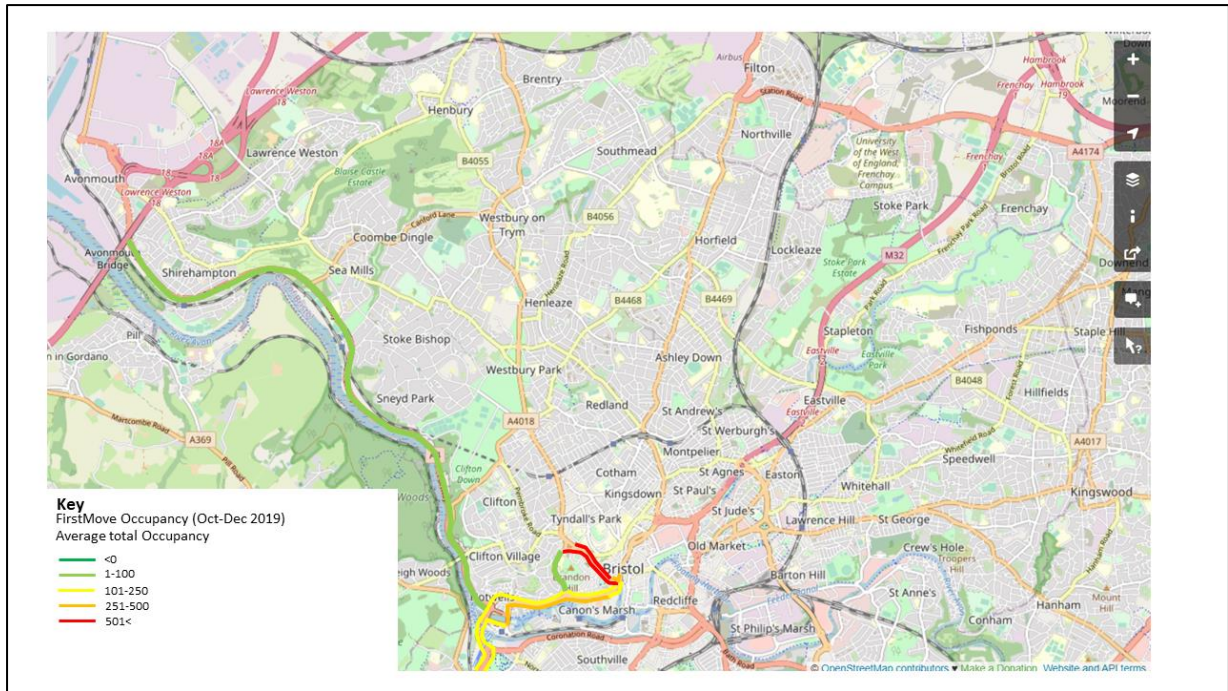


Figure 2-17: FirstMove bus occupancy (Oct - Dec 2019) PM Peak (17:00)

The above figures show that the A4 Portway section of the corridor experiences average occupancy levels of between 1 and 100 passengers per hour, in both AM and PM peaks. Where services run through Hotwells, they experience higher levels of average occupancy during the AM peak with the average inbound occupancy per hour between 251-500 passengers. During the PM peak the average occupancy for services running through Hotwells is higher in the outbound direction.

Passenger Delay

First Bus provided information relating to per passenger delay and is shown in Figure 2-18 and Figure 2-19. The data used to construct these figures can be found ¹¹

¹¹ [Sign In \(arcgis.com\)](https://www.arcgis.com)

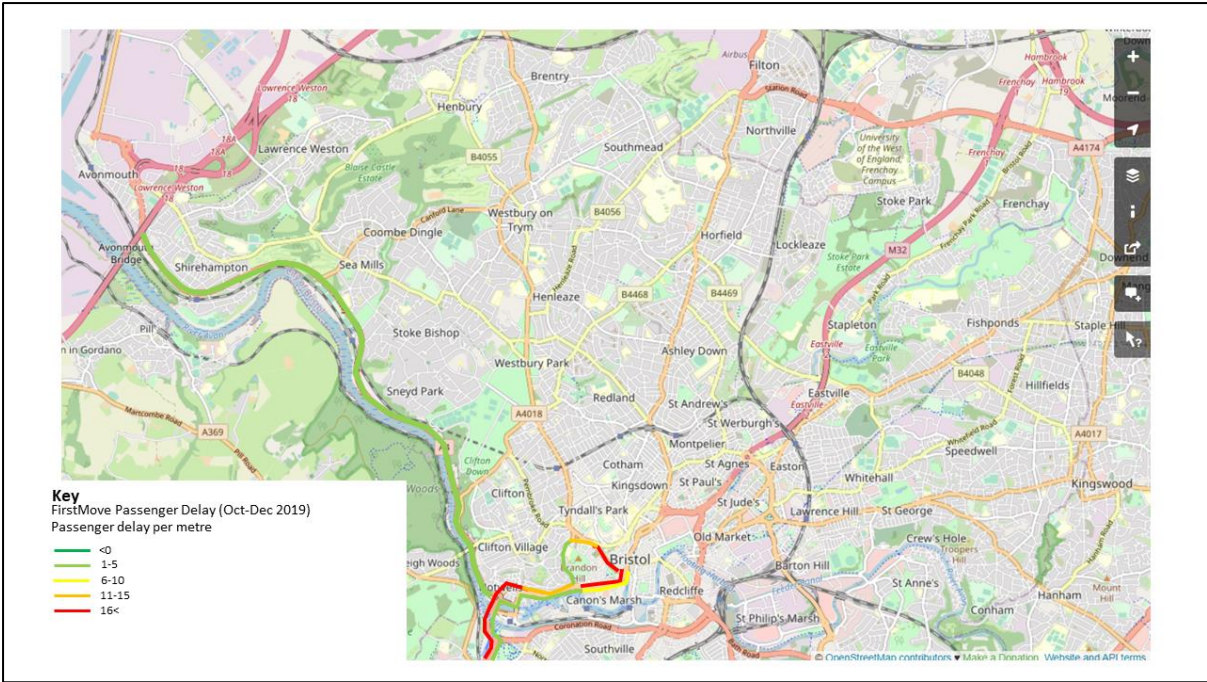


Figure 2-18: FirstMove passenger delay (Oct - Dec 2019) AM Peak (08:00)

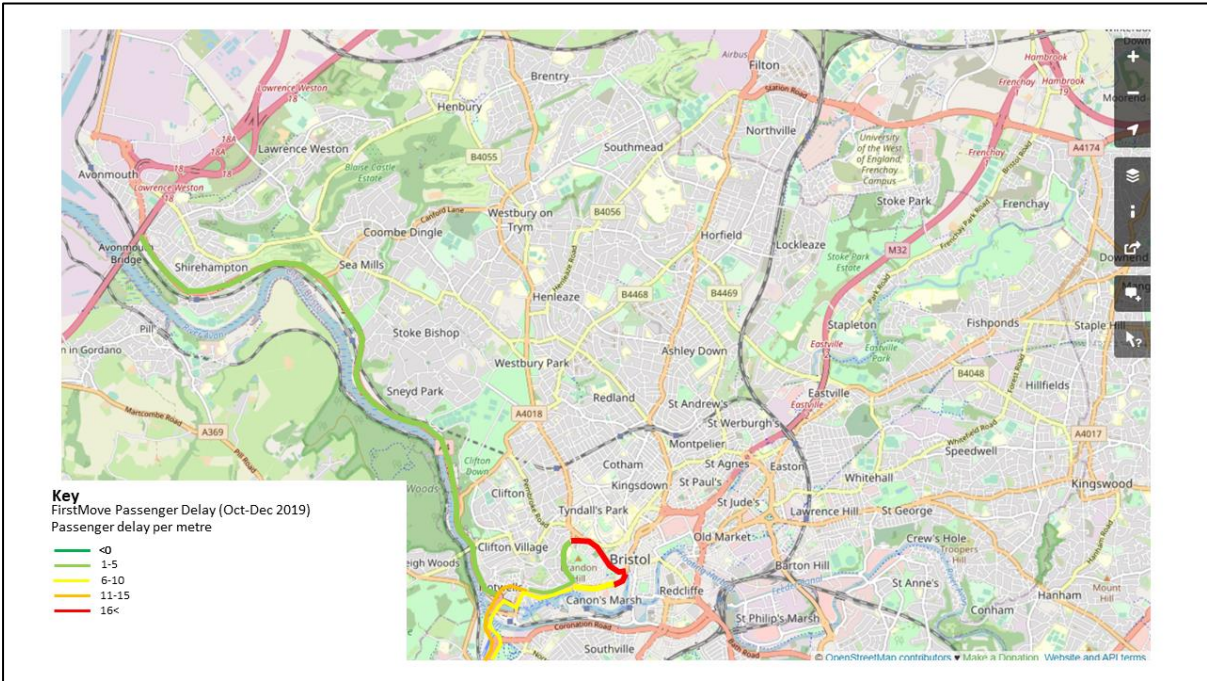


Figure 2-19: FirstMove passenger delay (Oct - Dec 2019) PM Peak (17:00)

As can be seen from the figures above, in the AM period the greatest amount of passenger delay is shown along the Hotwells Road, and Anchor Road inbound section of the A4 corridor. In the PM peak the outbound section along Hotwells Road has the greatest passenger delay, while the inbound delay is still high across Brunel Way/Bristol Gate. In both peak times, the passenger delay along the A4018 is significant, which could impact on A4 where they interact.

Reliability

The West of England Combined Authority (WECA) has provided bus journey time data, for services along the A4 Portway, and A4 Hotwell Road. WECA have provided data for the ‘Actual bus run time’

which matches the scheduled run time of the service against the actual run time of the bus, this data can be used to find the delay of each service between each stop over the month of February 2022. WECA have also provided data for the 'Time taken to travel between stops along the corridor' dating back to 2019 which can be used to compare the fastest X% of services against the slowest x% of services. Both sets of data will be made available to the project team for analysis.

Portway P&R passenger numbers

Patronage data for the service '902 Portway Park and Ride' has been supplied by BCC. This data is based on ticket sales from the 902 service, with passenger numbers being presented as an annual total. Figure 2-20 shows the total annual users of the P&R service between 2019 and February 2022. The data used to construct Figure 2-20 will be made available to the project team.

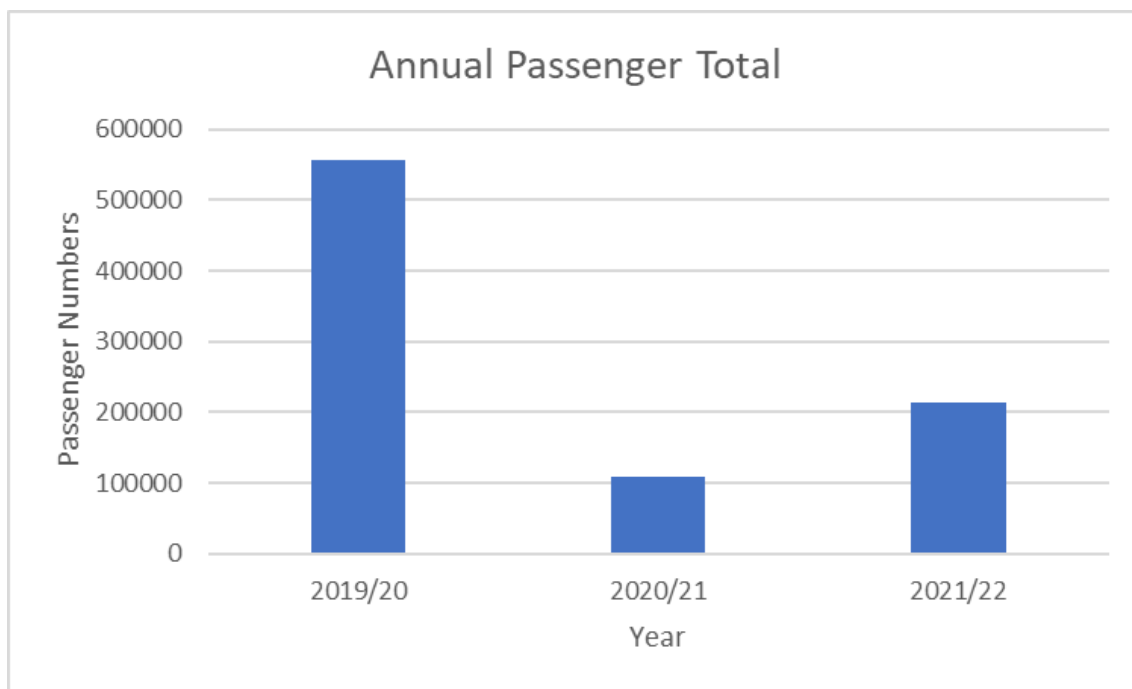


Figure 2-20: 902/Portway P&R Service passenger numbers each year since 2019

The figure above shows a dip in the patronage for the year 2020/2021, it is acknowledged the reason for this dip is likely to be attributed to the COVID-19 pandemic. Pre covid levels suggest an annual patronage of over 550,000, and whilst patronage has not yet recovered to its pre-pandemic levels, there is evidence to show that patronage is growing as COVID-19 restrictions have eased, as the annual patronage for 2021/2022 to date indicates. It is a key ambition in the West of England Bus Service Improvement Plan to grow patronage back to pre-pandemic levels and beyond ¹²

BCC has also provided the data produced as part of the Portway Park and Ride Parking Survey, conducted in January and February 2020. This data can be seen in Table 2-6, and will be made available to the project team.

¹² [West of England Bus Service Improvement Plan \(westofengland-ca.gov.uk\)](https://www.westofengland-ca.gov.uk)

Table 2-6: Portway P&R parking survey 2020

Date	Day	Time	Available Spaces			Total Available	% Free			% Total Available
			Standard	Disabled	Electric		Standard	Disabled	Electric	
18/01/2020	Saturday	15:00	349	0	6	355	64.7%	0%	100%	64%
21/01/2020	Tuesday	10:00	128	8	2	138	23.7%	80%	33%	24.9%
22/01/2020	Wednesday	10:00	134	5	5	144	24.9%	50%	83%	25.9%
29/01/2020	Wednesday	10:00	104	7	5	116	19.3%	70%	83%	20.9%
30/01/2020	Thursday	10:00	144	5	4	153	26.7%	50%	67%	27.6%
01/02/2020	Saturday	15:00	472	9	6	487	87.6%	90%	100%	87.7%

The current capacity of the Portway Park and Ride site is 544 spaces, with an additional 273 spaces set to be added by February 2023. As can be seen from the data in Table, the car park is well occupied during the week. Over the four mid-week counts in the table, the car park is running an average occupancy rate of 75%. At the time of the survey the car park occupancy was less on the weekends, however the expansion of the site, introduction of the new Portway P&R rail station, and the potential for greater parking demand as a result of the YTL Arena development could increase occupancy on the weekends.

Highways

Congestion

Journey times and average vehicle speeds

The data for journey times and average vehicle speeds can be calculated using the 'Journey Links' tab on the PowerBI report. BCC will arrange access to the PowerBI report for the partner.

Traffic volumes/Traffic Count Data

Traffic volumes and traffic count data can be accessed for part of the corridor. BCC have fixed count sites along the A4 Hotwell Road, but do not have count sites for the rest of the A4 Portway. The 'Daily Flow by Hour and Day Type' tab, on PowerBI can be used to generate data for traffic counts/volumes. The PowerBI report will be made available to the partner, and the specific sites will be highlighted.

As well as the information found in the A4 Portway Power BI file, Table 2-7 details the historic traffic counts, held by BCC, and how to access them. The data contained in these files can be used to build a profile of historic traffic volume along the A4 Portway and A4 Hotwell Road.

Table 2-7: Historic traffic count data for the A4 Portway and location of file

File reference	Location	Date	Link to access	Notes
1010 A4 Portway west of Sylvan Way	A4 Portway – north west of junction with Sylvan Way	July 2012	MS Teams > A4 Portway Strategic Corridor > Business Case > 00 Gap Analysis and Scoping > Data > 01 Traffic Count (Historic)	

1550 Hotwell Road East of Dock Gate	A4 Hotwell Road – near junction with A3029	1997 – 2014 (excl. 2013)	MS Teams > A4 Portway Strategic Corridor > Business Case > 00 Gap Analysis and Scoping > Data > 01 Traffic Count (Historic)	
1910 Brunel Way	A3029 – north of Clift House Road	1993 - 2014	MS Teams > A4 Portway Strategic Corridor > Business Case > 00 Gap Analysis and Scoping > Data > 01 Traffic Count (Historic)	
4380 Sylvan Way	A4162 Sylvan Way south of Shirehampton Road	Jan 2001, Jan 2005, Jan 2009	MS Teams > A4 Portway Strategic Corridor > Business Case > 00 Gap Analysis and Scoping > Data > 01 Traffic Count (Historic)	
4390 Portway	A4 Portway, south of Riverleaze	May 2005, Nov 2011	MS Teams > A4 Portway Strategic Corridor > Business Case > 00 Gap Analysis and Scoping > Data > 01 Traffic Count (Historic)	
4400 Shirehampton Road west of Sylvan Way	B4054 Shirehampton Road west of Sylvan Way	Jan 2001, Jan 2005, Nov 2011	MS Teams > A4 Portway Strategic Corridor > Business Case > 00 Gap Analysis and Scoping > Data > 01 Traffic Count (Historic)	
4410 Shirehampton Road east of Sylvan Way	B4054 Shirehampton Road east of Sylvan Way	Jan 2001, Jan 2005	MS Teams > A4 Portway Strategic Corridor > Business Case > 00 Gap Analysis and Scoping > Data > 01 Traffic Count (Historic)	
9300 Avonmouth Relief Road	A4 Bristow Broadway, south of St Brendans Way	May 2004, May 2008, May 2012	MS Teams > A4 Portway Strategic Corridor > Business Case > 00 Gap Analysis and Scoping > Data > 01 Traffic Count (Historic)	

160215_6 Bristol Various – Site 6	A4 Portway – north of junction with Bridge Valley Road	April 2016	MS Teams > A4 Portway Strategic Corridor > Business Case > 00 Gap Analysis and Scoping > Data > 01 Traffic Count (Historic)	
20191023-20 – Hotwell Road (A4)	A4 Hotwell Road – west of Jacobs Wells Road Roundabout, by The Grain Barge	November/ December 2019	MS Teams > A4 Portway Strategic Corridor > Business Case > 00 Gap Analysis and Scoping > Data > 01 Traffic Count (Historic)	
20191023-23 – Portway (A4)	A4 Hotwell Road – south of Bridge Valley Road	November/ December 2019	MS Teams > A4 Portway Strategic Corridor > Business Case > 00 Gap Analysis and Scoping > Data > 01 Traffic Count (Historic)	
Copy of 9. MCC A4 Hotwell Road east of Dock Gate Lane	A4 Hotwell Road east of Dock Gate Lane	June 2021	MS Teams > A4 Portway Strategic Corridor > Business Case > 00 Gap Analysis and Scoping > Data > 01 Traffic Count (Historic)	
Copy of 19319 Site 38 – 1550 Hotwell Road 11 July 2019	A4 Hotwell Road – east of Dock Gate Lane	July 2019	MS Teams > A4 Portway Strategic Corridor > Business Case > 00 Gap Analysis and Scoping > Data > 01 Traffic Count (Historic)	
Copy of Client Results – 5935 – Bristol CC – Package A, Site 8 hotwell road	A4 Hotwell Road – by The Grain Barge	June 2018	MS Teams > A4 Portway Strategic Corridor > Business Case > 00 Gap Analysis and Scoping > Data > 01 Traffic Count (Historic)	
Copy of Client Results – 8229 Bristol – Site 38 (Tuesday)	A4 Hotwell Road – by The Grain Barge	September 2020	MS Teams > A4 Portway Strategic Corridor > Business Case > 00 Gap Analysis and Scoping > Data > 01 Traffic Count (Historic)	

Historic Traffic Growth can be calculated using the data provided for each of the sites in Table 2-7, and by analysing the data on the Department for Transport's Annual Average Day Traffic Count Sites¹³. The ID numbers of the sites relevant to the A4 Portway/A4 Hotwells Road are: 89002, 89003, 56122, 16124, 36133, 58285, 28726, 74782, 8599, 56135, 946804, and 74770.

Road safety

BCC will make available the collision, and Killed Serious Injured (KSI) data to the partner.

Environment

Constraints

The A4 Portway runs adjacent to the River Avon which has been designated as a Site of Nature Conversation Interest (SNCI). SNCIs are local designations for sites containing features of substantive nature conservation value at a local level. The sites are designated through a Local Sites Partnership (LSP), using an agreed set of criteria. These sites receive a level of protection through local planning policy, specifically Policy BCS9 of the Local Plan¹⁴. There are also areas of SNCI designation as the A4 Portway passes Sea Mills and Shirehampton, the exact locations of the SNCIs can be found [HERE].

The A4 Portway runs through The Avon Gorge, which has been designated at a national level as a Site of Special Scientific Interest (SSSI) by Natural England, under the Wildlife and Countryside Act 1981. The Avon Gorge SSSI is recognised for an exceptional number of rare plants and for its exposures of Carboniferous Limestone. The Avon Gorge has also been designated as a Special Area of Conservation (SAC) on an international level. More information on SACs can be found JNCC.gov website¹⁵

Due to the high level of protection, any work that may directly or indirectly have an impact on it, would need to be subject to a Habitat Regulations Assessment (sometimes called 'Appropriate Assessment') and would need consent from Natural England.

Air Quality

A Site Improvement Plan from Natural England has identified nitrogen deposition and other pollutants, which are primarily produced from the A4 Portway, as a key issue facing the sites of environmental designation along the corridor¹⁶

The Bristol Air Quality Management Area (AQMA), which was declared in 2001 for exceedances in the Nitrogen Dioxide (NO₂) annual mean and particulate matter (PM₁₀) 24 hour mean, lies within the south-eastern part of the corridor, encapsulating the A4 Hotwell Road from the junction with Bristol Gate/Brunel Way to Jacobs Wells Road and beyond. The extent of the AQMA, and the air quality monitoring sites can be found on the Open Data Bristol website¹⁷

Air quality data from Bristol City Council (Footnote above) shows seven air quality monitoring sites along the corridor, concentrated along A4 Hotwells Road and Anchor Road. In 2020 annual mean NO₂ was below 40 µgm⁻³.

¹³ [Map Road traffic statistics - Road traffic statistics \(dft.gov.uk\)](https://www.dft.gov.uk/road-traffic-statistics)

¹⁴ [Local Plan - bristol.gov.uk](https://www.bristol.gov.uk/local-plan)

¹⁵ [Special Areas of Conservation \(jncc.gov.uk\)](https://www.jncc.gov.uk/special-areas-of-conservation)

¹⁶ [Site Improvement Plan: Avon Gorge Woodlands - SIP008 \(naturalengland.org.uk\)](https://www.naturalengland.org.uk/site-improvement-plan/avon-gorge-woodlands-sip008)

¹⁷ [Air Quality Dashboard — Open Data Bristol](https://www.opendatabristol.org/)

Historic Environment

The Avon Gorge has had a long history of grazing, dating back to the Anglo Saxon periods. While grazing helped shape the landscape, it declined and ultimately ceased in 1925.

The gorge has an extensive history of quarrying which took place between the 17th and 19th centuries.

There are over 40 Grade II/II* listed buildings adjacent to the south eastern end of the corridor as the A4 Hotwell Road approaches Jacobs Wells Road Roundabout. There are other historical features further north along the A4 Portway, including Part of a Roman Settlement, and Kings Weston House Park and Garden, which is also Grade II listed ¹⁸

According to the Bristol City Council interactive planning policy map ¹⁹ there are five conservation areas (CA) along the corridor. From north to south these include

- Kings Weston and Trym Valley CA which covers a section of the A4 Portway to the east of Shirehampton and finishing at Sylvan Way.
- Sea Mills CA which covers the section of the A4 Portway from Sylvan Way to just south of bridge crossing the River Trym.
- Sneyd Park CA which covers the section of the A4 Portway from just south of the bridge crossing the River Trym to the start of the Avon Gorge.
- The Downs CA which covers the section of the A4 Portway from the northern part of the Avon Gorge to the A4 Hotwell Road junction with Cabot Way/Bennett Way.
- Clifton CA covers the A4 Hotwell Road from the junction with the A3029/Cabot Way to Jacobs Wells Road Roundabout.

Biodiversity

At the base of the Gorge, next to the Portway there are several old quarries, parts of which technically fall outside of the designations but have developed features of interest associated with the dry grassland habitat for which the Bristol side of the Gorge is particularly important. This includes plant species that are themselves legally protected. The Gorge cliff faces and associated caves are also home to protected species such as bats and nesting peregrine falcons, as well as a number of rare invertebrates. Consideration would need to be given to the potential for impacts associated with any construction works (e.g. noise and dust), and also from elements of the infrastructure itself, such as changes in lighting or if the works increase the need for cliff face rock protection works. The Gorge and river corridor is generally a very dark one, other than the existing road lighting and is used by a number of species which could be detrimentally effected by an increase in lighting. The cliff face is quite unstable in places, but works to stabilise it or prevent falling rocks from reaching the highway, can detrimentally impact on the geology and ecology of the Gorge.

¹⁸ [Search the List: Map Search | Historic England](#)

¹⁹ [ArcGIS Web Application \(bristol.gov.uk\)](#)

Geology

The Avon Gorge is a limestone gorge and is nationally recognised for its geology. More information on the Geology of The Avon Gorge can be found on the Natural England Site Improvement Plan²⁰

Road drainage and water environment

Running alongside the River Avon, the A4 Portway/A4 Hotwell Road falls within a combination of Flood Zone's 1, 2, and 3. In the north, the A4 Portway benefits from flood defences until it reaches a Flood Zone 1 designation in Shirehampton. Flood Zone 1 represents the land assessed as having a 'low risk' of fluvial or tidal flooding, or less than 1 in 1,000 annual probability (<0.1%).

Between Sea Mills and the junction with Bridge Valley Road, there are patches of the A4 Portway that have been identified as falling in Flood Zone 3, meaning it has a 1 in 100 annual probability of fluvial or tidal flooding (>1%).

Patches of the A4 Hotwell Road also fall under Flood Zone 3 and the A4 Anchor Road to the east of Jacobs Wells Road Roundabout falls under Flood Zone 2.

The information provided on the flood zones has been found using the governments flood map for planning²¹

Climate

Traffic using the A4 Portway/A4 Hotwell Road currently produces Greenhouse Gas emissions (GHG), in the form of carbon dioxide, methane and nitrous oxide. In 2019, 27% of net greenhouse gas emissions in the UK were estimated to be from the transport sector, almost entirely through carbon dioxide emissions. The main source of emissions from this sector is the use of petrol and diesel in road transport²². An increase in the atmospheric concentrations of GHGs produces a warming effect. Future climate projections published by the UK Met Office (UKCP09) predict that as a result of climate change the UK will generally experience warmer, wetter summers resulting in an increased incidence of storm events, high winds and heavy precipitation potentially leading to disruption of infrastructure networks and their surrounding environment. BCC and WECA have set climate emergency goals of reaching net zero carbon by 2030²³ & ²⁴; 20 years sooner than national targets. Consideration needs to be given to how the study area will be designed to be more resilient to future climate change.

Noise

Noise along the A4 Portway, between the Portway Roundabout in the north and the junction with the A3029, averages at 75.0 dB and over. While the land immediately adjacent to this section of the corridor has an average dB between 60.0 and 69.9. The A4 Hotwell Road is slightly quieter, averaging a dB between 70.0 and 74.9²⁵. It is likely that much of this noise is generated from traffic using the A4.

Early stakeholder engagement plan

Engagement is set to be carried out for the A4 Portway strategic corridor project between the 16th of May and 26th of June 2022. During this period key stakeholders and local residents will have the

²⁰ [ArcGIS Web Application \(bristol.gov.uk\)](https://www.bristol.gov.uk/arcgis-web-application)

²¹ [Flood map for planning - GOV.UK \(flood-map-for-planning.service.gov.uk\)](https://www.gov.uk/flood-map-for-planning)

²² [2019 UK Greenhouse Gas Emissions, Final Figures \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/414442/2019-UK-Greenhouse-Gas-Emissions-Final-Figures.pdf)

²³ [CE Action Plan.pdf \(moderngov.co.uk\)](https://www.moderngov.co.uk/ce-action-plan)

²⁴ [one-city-climate-strategy.pdf \(bristolonecity.com\)](https://www.bristolonecity.com/one-city-climate-strategy.pdf)

²⁵ [Extrium > England Noise and Air Quality Viewer](https://www.extrium.com/england-noise-air-quality-viewer)

opportunity to raise concerns about localised issues and provide their input as to what they believe is required to meet the aims and objectives of the projects.

The methodology of the engagement will include, posting letters to properties in the affected areas, social media posts, emails to local stakeholders, drop in events in Shirehampton, Sea Mills, Portbury and Avonmouth, and the Portway P&R site, posters on buses, surveying bus users at the Portway P&R, on buses, and where possible at bus stops.

The early engagement session will be a chance to work with key stakeholders and residents in creating a positive approach to the proposals, as it is acknowledged the input of residents and key stakeholder could feed into the concept designs.

Section 3: Policy Review

Introduction

A policy review has been undertaken to identify the key policy objectives that this scheme should seek to align with. The review of policy, in conjunction with a review of existing and future issues and constraints should inform the development of this projects objectives.

National Policies

Bus Back Better²⁶

The Department for Transport's (DfT) 'Bus Back Better' report, published in March 2021, sets out a vision for the future of bus provision within the UK, in the light of the post-COVID-19 pandemic transport landscape. The strategy represents the first national strategy for buses of its kind, providing long-term national funding commitments in order to increase the numbers of people travelling by bus – initially aiming to return patronage to pre-pandemic levels, and ultimately to exceed them.

The Strategy sets out key areas for improvement, including improved frequency and reliability, better co-ordination, greener infrastructure, and lower prices of fares. A £3billion investment for bus services outside of London was announced in February 2020, and will initially be invested in:

- Supporting new and increased services (£300m of funding will be used to support sector recovery from the pandemic in 2021/22).
 - Giving Local Transport Authorities (LTAs) the skills and people they need to deliver the strategy improvements (£25m of the £300m pandemic recovery funding)
- Bus priority schemes to speed up journeys, with the first schemes delivered in 2021/22
- Accelerating the delivery of zero emission buses with £120m in 2021/22

To encourage the modal shift back towards public transport, the strategy stresses the importance of LTAs working with the Government and bus operators in order to prioritise implementation of two of the key policies outlined:

1. The expectation that LTAs will install bus lanes (subject to consultation with local residents and firms) in areas where there is frequent bus service, congestion, and the physical space for installation, alongside measures to convert part-time bus lanes to 24-hour operation

²⁶ [Bus back better - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/bus-back-better)

2. The introduction of targeted fares cuts (working alongside the DfT)

Local Transport Authorities will be required to publish their own Bus Service Improvement Plan (BSIP) by the end of October 2021, detailing how they proposed to use their powers to improve bus services, with decisions made over whether to progress an Enhanced Partnership solution or Franchising

The solutions offered by the strategy, including improved facility accessibility and maximised service reliability, should tie into the options put forward for the A4 corridor project; improving bus services within the study area should create various additional benefits for the local area.

WECA, as the Local Transport Authority, have published a BSIP and will be discussed later in this section. It is understood that WECA will be pursuing an enhanced partnership.

Decarbonising Transport²⁷

This document prepared by the Department for Transport notes out the Government's ambitious plan to decarbonise transport to achieve net zero emissions from all modes by 2050.

Reducing carbon in a global economy is UK priority. Transport is a crucial element of our international economy, the DfT decarbonisation strategy aims to harness the UK to steer low carbon innovation that helps a global transition of low carbon and will boost the UK economy, leading the change internationally

The report sets out six strategic priorities for the Transport Decarbonisation Plan, to reflect the themes and view of the future we will pursue to decarbonise our transport system before 2050. They were outlined in the 'Decarbonising Transport: Setting the Challenge' in 2020 and remain valid as the country recovers from the COVID-19 pandemic:

- **Accelerating modal shift to public and active transport**
 - Public Transport and active travel will be the natural first choice for our daily activities
 - We will have a cohesive, widely available, net zero public transport network designed for the passenger
 - We will use our cars differently and less often, with new technology helping to reduce our carbon footprint
- **Decarbonisation Road Transport**
 - We will phase out all new non zero emission road vehicles from, from motorbikes to HGVs by 2040
 - Delivered by a world leading regulatory framework and support packages, leading the global race to zero emission road transport
 - We will ensure infrastructure will not be a barrier to the zero emission transition
- **Decarbonising how we get our goods**
 - We will decarbonise our freight system, pioneering new zero emission technologies with mass scale demonstrators for HGVs

²⁷ [Transport decarbonisation plan - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/transport-decarbonisation-plan)

- Increasing amount of freight will shift from road and air to more sustainable modes, with digital solutions and data sharing optimising efficiency
- The last mile will be decarbonised and places will have the logistics solutions best suited to their specific needs
- **UK as a hub for green transport technology and innovation**
 - We will lead the modern industrial revolution through UK transport, becoming the internationally recognised leader in green technology, innovation, science and research
 - We will harness the opportunities from green innovation and technology to drive UK productivity growth and create new jobs
- **Place-based solutions**
 - By 2050 every place in the UK will have its own net zero transport network
 - We will reform the way local transport infrastructure is funded to drive decarbonisation at a local level
 - All places will have the ability to take bold action to decarbonise transport, to radically change how people travel and level up the UK
- **Reducing carbon in a global economy**
 - UK aviation will meet net zero by 2040* and UK shipping by 2050
 - We will ensure the impact of aviation on the environment is significantly reduced and by 2050, zero emission ships will be commonplace globally
 - We will continue to lead international ambition, cooperation and collaboration

In order to support the objectives set out within the DfT's Setting the Challenge report, the A4 Portway project options must account for lowering of emissions and improved air quality along the corridor. Whilst easing of traffic flows should help to lower localised air pollution, it is only through improved, cleaner public transport links and the promotion of increased active travel through the area that the project can contribute towards the climate emissions targets.

Gear Change²⁸

Published in July 2020, the Department for Transport's 'Gear Change: A bold vision for cycling and walking' strategy, sets out the Government's vision for a 'travel revolution' for active travel across England, putting walking and cycling at the centre of future travel provision. The document sets out the actions required at a range of levels of government, in order to realise this vision, reiterating the connection to recent update on cycle infrastructure design guidance: LTN1/20 Cycle Infrastructure Design²⁹

The DfT's plan describes the need for increased active travel across the country, with benefits for air quality, combating climate change, improving health, addressing inequalities, and tackling existing congestion on our roads. With the rise in popularity of cycling and walking as a result of the COVID-

²⁸ [Gear change: a bold vision for cycling and walking \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/874227/gear-change-a-bold-vision-for-cycling-and-walking.pdf)

²⁹ [Cycle infrastructure design \(LTN 1/20\) - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/874227/ltn1-20-cycle-infrastructure-design.pdf)

19 pandemic altering travel behaviours, the importance of embedding these principles for the long-term is underlined, with plans laid out for its achievement.

The strategy outlines this vision under four overarching themes, representing the actions required at all levels of government to achieve this vision:

1. **Better streets for cycling and people:** Ensuring that sufficient quality infrastructure is provided to allow for safe, continuous, and direct routes for cycling in towns and cities, physically separated from pedestrians and volume motor-traffic. This will include the creation of cycle, bus and walking corridors, created through the closure of main roads to through traffic, to increase safety and prevent rat-running
2. **Cycling at the heart of decision-making:** Overall spending for active travel improvements will be significantly increased, with assurances that new local and strategic A-Road schemes include appropriate provision for cycling, as well as increased cycle parking provision where it is needed most
3. **Empowering and encouraging Local Authorities:** Funding will be increased for local authorities, with £2 billion of additional, new investment provided from 2020-2025, most of which will be channelled through local authorities. This will be in addition to improved capacity and assistance provided to local authorities from the national level, with different approaches applied to different areas and projects under consideration to avoid a 'one size fits all' approach.
4. **Enabling people to cycle and protecting them when they do:** Providing training on cycle safety, as well as improving cycle facilities in areas where it is needed, and increasing safety considerations for both riders and against bike theft

The DfT's 'Gear Change' strategy indicates that strong national support will be offered for any active travel considerations that can be incorporated into the A4 Portway scheme. Plans for continuous, segregated cycle paths reflect the requirements of the policy, alongside options to limit through traffic along the A4 – both acting to encourage safer streets for cyclists, and increase uptake of active travel modes.

Increased Local Authority enforcement powers and improved capacity will broaden the decision-making extent for BCC on the implementation of the active travel measures as part of the wider scheme

National Planning Policy Framework (NPPF)³⁰

First published in 2012, but updated in 2019 and then again in 2021, the National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally prepared development plans can be produced. The NPPF must be taken into account in preparing any development plan

At the centre of the framework is a '*presumption in favour of sustainable development*'. Achieving this relies upon meeting three overarching objectives

- Economic: to help build a strong and competitive economy, by ensuring that sufficient land is available where needed to support growth, innovation and improved productivity.

³⁰ [National Planning Policy Framework - Guidance - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/policies/national-planning-policy-framework)

- Social: to support vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed, safe built environment with accessible services and open spaces reflecting current and future needs.
- Environmental: to contribute to protecting and enhancing our natural, built and historic environment, including making effective use of land, helping improve biodiversity, minimising waste and moving to a low carbon economy

Transport issues should be considered from the earliest stages of plan-making, with significant development focused on locations which are sustainable, through limiting the need to travel and offering genuine choice of transport modes

The central presumption of the NPPF, being in favour of sustainable development, should direct the project planning and delivery process, prioritising the progression of the scheme so as to safeguard the existing economic, social, and environmental status of the area. The inclusion of a range of different transport modes within the project development will be important in ultimately offering a range of transport options for the Avonmouth and Shirehampton areas to connect with the rest of the city, be these public, private, or active modes.

Environment Bill³¹

The Department for Environment, Food and Rural Affairs (DEFRA) put forward the 'Environment Bill' in January 2020, to outline the future positioning of the environment at the centre of policymaking at all levels of government.

The Bill is focused around making provision for plans and policies that aim to improve the natural environment. It requires government to set at least one target in four priority areas:

- Air Quality
- Biodiversity
- Water
- Resource efficiency and waste reduction

The Bill is intended to help stimulate investments in green technology and innovative practices by providing long term certainty for business, allowing long-term planning in the aftermath of the COVID-19 crisis. It will enable environmental goals to be set in a way that legally binds this and future governments to their success.

The Environmental Bill indicates the importance of the climate and ecological aspects of the project. With a focus already on reducing emissions and raising air quality standards for the local area, awareness of impacts on local biodiversity will be critical from a conservation standpoint, with any proposed option(s) assessed for their ecological impacts.

³¹ [Environment Bill 2020 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/environment-bill-2020)

Regional Policies

West of England (WoE) Bus Service Improvement Plan³²

The WoE BSIP has a vision to ensure that public transport acts as an enabler to economic growth and prosperity by enhancing our key economic clusters, widening our labour markets, and supporting access to goods and services, generating sustainable growth which benefits everyone.

The BSIP sets out to reduce journey times by 10%, ensure 95% of services run on time, return to pre-pandemic patronage by 2025 and continuing to grow beyond that, increase passenger satisfaction and aim for all buses to be zero emission by 2030.

To achieve these targets the BSIP sets out a delivery plan to

- Make the bus convenient - taking our residents where they want to go at the times they need to travel by extending the current network, enhancing frequencies and optimising services.
- Make our public transport network co-ordinated – by providing a recognisable and consistent brand across the area, easy access to information, integrated ticketing across operators and enabling simple connections across modes and services.
- Deliver a positive customer experience – by bringing our bus stops up to a high quality and consistent standard, delivering new accessible and environmentally friendly buses, offering a value for money and affordable service for all, including some targeted fares reductions; also ensuring that people are provided with the right information as and when they need it, all so that buses are an easy-to-use and a natural choice.

The BSIP provides further detail on the targets for the regions bus network. They include

- Bus journey time: Reduce average bus journey times on designated corridors by 2% by 2025 and by 10% by 2030.
- Punctuality: Achieve 95% of services running on time, defined as being no more than 1 minute early or 5 minutes late, by 2030.
- Single Passenger Journeys: Return to pre-pandemic patronage levels by 2025 and grow patronage by at least 24% from that level by 2030.
- Passenger Satisfaction: Increase passenger satisfaction to 89% for 2025 and 95% for 2030
- Bus decarbonisation: By 2023 all buses operating in BSIP area will meet the Euro VI emission standard. By 2030, at least 75% of the local fleet will be either zero-emission or ultra-low emission and by 2035 all buses will be zero-emission. However, our ambition is to bring this forward to 2030 by accessing additional funding through ZEBRA and working with operators to accelerate their plans

WoE Bus Strategy³³

WECA's Bus Strategy, adopted in June 2020, outlines the development of the bus network and services across the West of England, to achieve a vision of dependable, reliable, accessible, and good value bus transport for the region. The key aim is to create a connected region which will promote

³² [West of England Bus Service Improvement Plan \(westofengland-ca.gov.uk\)](https://www.westofengland-ca.gov.uk)

³³ [West of England Bus Strategy - West of England Combined Authority \(westofengland-ca.gov.uk\)](https://www.westofengland-ca.gov.uk)

active and sustainable travel, improve community health, and reduce private vehicle journeys through a sustainable approach

To achieve this vision, the strategy seeks to achieve:

- A doubling in bus passenger numbers by 2036;
- Maximised bus service reliability and reduced journey times;
- Simplified ticketing allowing use of multiple buses on a single ticket, and better integration with other modes; and
- Accessible passenger waiting facilities and vehicles.

The solutions offered by the strategy, including improved facility accessibility and maximised service reliability, should tie into the options put forward for the A4 Portway corridor project; improving bus services within the study area should create various additional benefits for the local area.

Joint Local Transport Plan 4³⁴

The JLTP4 sets out the vision for transport in the WoE up to 2036 – aiming to achieve a well-connected, sustainable transport network that is effective for residents, businesses, and visitors across the region. The Plan was published in March 2020 by the West of England Combined Authority (WECA), working with Bath & North East Somerset, Bristol, North Somerset and South Gloucestershire councils.

Transport represents the largest single source of carbon emissions in the South West, at 32% of all emissions in the region. For the WoE, transport CO₂ emissions will rise by a further 22% by 2036 if no action is taken.

The report highlights that increased delays on the already congested M5 junctions are likely to result in a diversion of trips on to other routes, including the A4 Portway. This will likely lead to increased congestion along the A4 Portway.

Five key objectives have been identified within the JLTP4:

1. Take action against climate change and address the poor air quality
2. Support sustainable and inclusive economic growth
3. Enable equality and improve accessibility
4. Contribute to better health, wellbeing, safety and security; and
5. Create better places

The JLTP4 aims to ensure that transport is carbon neutral by 2030. This is reliant on a substantial shift towards cleaner and more sustainable forms of transport. Measures that will need to be considered include

- Management of parking provision – on street, off street, residential and business parking.
- Reallocation of road space to sustainable transport modes.

³⁴ [Joint Local Transport Plan - Combined Authority \(westofengland-ca.gov.uk\)](https://www.westofengland-ca.gov.uk/jltp4)

- Road user charging e.g. as applied in London with revenue reinvested in alternatives

A number of policies and interventions are outlined throughout the report, in relation to improving connectivity of the transport system within the WoE. Of relevance to this study include

- Provide more public transport options and improve service quality (W1);
- Use, as appropriate, measures and technological advances to influence and better manage the demand of private car use (W3);
- Improve resilience of the network, providing increased reliability (W4);
- Enable walking and cycling, 'actives modes of travel', to be the preferred choice for shorter journeys (L1).

The transport plan mentions some specific policies relating to the A4 Portway study area, including

- Building on the extensive bus priority measures already in place along the A4 Portway to cater for a future metrobus route from Bristol City Centre to Severnside.
- The expansion of the Portway Park and Ride site

In order to achieve the combined environmental, social and economic objectives outlined within the JLTP4, options for the A4 Portway project should prioritise sustainable transport options, with improved public transport and active travel modes at its core, taking a focus on the measure of road space reallocation. With congestion a key issue along the route, improving the resilience of the area's transport network will be highly important in achieving improvements to air quality and health, alongside improved productivity and growth for the city as a whole.

Under Appendix 3, The JLTP4 makes reference to transformational major schemes which include Mass Transit, a scheme which aims to provide high frequency, high capacity, and fast public transport routes across the region. For Bristol City the Mass Transit scheme has identified high priority corridors where significant measures can be taken to deliver on the aims for mass transit.

Spatial Development Strategy³⁵

WECA's Spatial Development Strategy (SDS) is an emerging document aiming to set out a framework to determine where clean, inclusive growth in housing, transport and access to green space can be improved across the region. Central to this will be a focus on meeting the demand for homes and jobs across the West of England over the next 20 years, in line with meeting WECA's ambition to meet carbon neutrality by 2030.

A full draft SDS is planned for publication in Spring 2022, and will be subject to a 12-week consultation, where residents and businesses across the region will be invited to share their views. A final version of the strategy is planned for completion in the Summer of 2023.

Key themes for the strategy emerging from early engagement carried out at the end of 2020, including four key areas of focus:

- Providing quality homes (relative to local incomes)

³⁵ [Spatial Development Strategy - West of England Combined Authority \(westofengland-ca.gov.uk\)](https://www.westofengland-ca.gov.uk/spatial-development-strategy)

- Protecting accessible green spaces for people, wildlife, and nature
- Activities to prioritise our response to the climate emergency
- A high-quality sustainable transport network

The likely focus on improving the transport network as part of WECA's forthcoming SDS will provide further encouragement for BCC to prioritise sustainable transport growth along the A4 Portway corridor – aiming to contribute towards WECA's 2030 carbon neutrality goal.

WoE Local Cycling and Walking Infrastructure Plan (LCWIP)³⁶

WECA's LCWIP presents a detailed plan outlining the need for more than £400m investment into infrastructure that ensures the provision of high-quality cycling and walking routes, making these the preferred modal choice for shorter journeys by 2036. The plan proposes improvements to the walking environment focussing on 30 local high streets (totalling £105m), as well as improvements along 55 continuous cycle routes (totalling £306m).

With regards to walking, the LCWIP has suggested investment into Shirehampton (W08)³⁷. Specific recommendations include the consideration as to whether a local interchange with cycle parking/hire could be installed where Station Road meets the A4 Portway, and improvements in wayfinding to Shirehampton station.

With regards to cycling, the LCWIP has suggested improvements be made to A4 Hotwell Road (Bristol routes 8 and 9)³⁸. Specific suggested improvements include localised widening to shared use path adjacent to floating harbour, resurfacing of path to reduce impact of tree roots, consider bridge across Rownham Mead to avoid barrier pinch point.

The high levels of potential walking and cycling investment suggested by WECA's LCWIP towards improved walking and cycling networks across the region support inclusion of active travel development as a central part of the optioneering plan for the A4 Portway project. The proposed 'best case scenario' option(s) should look at how the area can better connect into existing cycle and walking routes as well as the provision of additional road cycling lanes where possible.

WoE Strategic Economic Plan³⁹

Produced by WECA, the West of England Strategic Economic Plan (2015-2030) outlines the strategy for economic growth in the region up to 2030. Key outcomes of the vision include:

- Becoming one of Europe's fastest growing and most prosperous sub regions, driven by major developments in employment and government backed infrastructure improvements in South Bristol and North Somerset.

³⁶ [Local cycling and walking infrastructure plan - West of England Combined Authority \(westofengland-ca.gov.uk\)](https://www.westofengland-ca.gov.uk)

³⁷ [W08-Shirehampton.pdf \(westofengland-ca.gov.uk\)](https://www.westofengland-ca.gov.uk)

³⁸ [C13-Bristol-routes-8-and-9.pdf \(westofengland-ca.gov.uk\)](https://www.westofengland-ca.gov.uk)

³⁹ <https://www.lepnetwork.net/media/1101/west-of-england-sep.pdf>

- Easier local, national, and international travel, owing to transport solutions that link communities to employment opportunities and local services, control and reduce congestion and improve strategic connections by road and rail.
- Success secured in ways that are energy efficient, protect air quality, minimise, and manage waste and protect and enhance the natural and built environment.

WoE Local Industry Strategy⁴⁰

Published in 2019, the West of England Local Industrial Strategy (WELIS) identifies the region's strengths and challenges and presents plans to promote collaborative innovation across the economy and ensure that any future growth is both inclusive and clean

The Strategy is centred around 4 key priorities

1. **Cross-sectorial innovation:** Seeking to develop measures that will improve coordination and enable testing at scale, in order to strengthen the region's innovation ecosystem and drive productivity
2. **Inclusive growth:** Ensuring that the right employment and skills provision is offered to all residents to enable them to reach their full potential, to both contribute to, and benefit from, its economic success
3. *The productivity challenge:* Supporting productivity and business growth by setting a West of England productivity challenge to encourage all businesses to improve performance and sustainability
4. *Innovation in infrastructure delivery:* The region will harness its powerful innovation assets to deliver the vision of the Joint Spatial Plan (JSP) and Local Transport Plan where, by 2036, the WoE will be one of Europe's fastest growing and most prosperous regions

The proposals included within the WELIS should help to grow the local economy and productivity into the future, increasing the prosperity of the area, particularly in Avonmouth, and Hotwells. This could lead to increased footfall and traffic flowing through the area, potentially increasing the need for a range of easing measures and a reliable public transport network to the respective wards.

WECA Climate Emergency Action Plan⁴¹

WECA has set a climate emergency goal of reaching net zero carbon by 2030 – 20 years sooner than national targets. To meet this regional goal, emissions must fall by 18% each year until 2030. As such, the development of the climate emergency action plan serves to direct WECA's work towards this shared future climate target.

The action plan focuses on five challenge areas where action will be required to achieve the region's goal:

1. *Low carbon transport system:* Working to decarbonise the transport system and increase cycling, walking and use of the public transport system. This will aim to build on positive behaviour changes following the COVID-19 pandemic lockdown period

⁴⁰ [West of England Local Industrial Strategy - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/414242/West_of_England_Local_Industrial_Strategy_-_GOV.UK.pdf)

⁴¹ [CE Action Plan.pdf \(moderngov.co.uk\)](https://www.moderngov.co.uk/ce-action-plan/)

2. Low carbon business: Helping local businesses and people benefit from growth in the green economy, maximising government investment in the region and supporting business to recover.
3. Renewable energy: Working to decarbonise the energy system and increase local renewable energy
4. *Low carbon buildings and places*: Increasing the energy performance of buildings and developing low carbon standards in new developments
5. The green environment: Protecting and enhancing the environment through a proactive approach to green infrastructure.

In order to support the achievement of WECA's net zero carbon goal by 2030, the A4 Portway project options must account for lowering of emissions. Whilst easing of traffic flows should help to lower localised air pollution, it is only through improved, cleaner public transport links and the promotion of increased active travel through the area that the project can contribute towards the climate emissions targets.

WECA Joint Green Infrastructure Strategy⁴²

The Joint Green Infrastructure Strategy (JGIS) has been produced by WECA, alongside Bath and North-East Somerset, Bristol, North Somerset and South Gloucestershire councils, as a guide to ensuring that the network of multifunctional urban and rural green spaces responds effectively to the climate and ecological emergency. The strategy is intended for use by and with policy makers and practitioners working in all sectors for a period between 2020 and 2030

The overarching aim of the JGIS programme is to secure investment in Green Infrastructure (GI) planning and provision, through evidencing the need and use of natural solutions in addressing climate and biodiversity issues, as well as health and other social benefits

The WoE region's green and blue resources include: 3,194km of public rights of way, 2,155km of watercourses, and 698km of A-road/motorway and railway

Eight outcomes have been sought as part of an integrated approach to GI in the West of England

1. Improved ecological networks: To protect, enhance and expand resilient ecological networks that deliver net gains in biodiversity and ecosystem services
2. Greater resilience to climate change: Providing natural solutions to build resilience against the impacts of climate change
3. Sustainable water management: Optimising and improving the use of GI to deliver an improved water environment by working with natural processes to help reduce flood risk and improve water quality
4. Health and wellbeing: Improving the network of active travel routes and accessibility to green spaces to support healthy lifestyles and mental wellbeing, providing an equality of opportunities for people to connect with nature

⁴² [Joint-Green-Infrastructure-Strategy---June-2020..pdf \(westofengland-ca.gov.uk\)](#)

5. Sustainable places: Maximising the multiple benefits of GI in delivering resilient, healthy, and environmentally friendly places and a net gain in natural capital via longer-term GI investment
6. Valued healthy landscapes: Designing and delivering high quality GI that improves local sense of place and protects and enhances landscape character and the natural, cultural and heritage services that they provide
7. Sustainable/local food production: Increasing opportunities for local food production in urban and rural areas
8. Resilient economy: Creating attractive areas for investment and job creation, and supporting the environmental resilience of economic sites by enhancing GI relating to housing, businesses, and other associated infrastructure

Portbury, Avonmouth, and Severnside Transport Strategy⁴³

The Portbury, Avonmouth, Severnside (PAS) Transport Strategy is a joint transport strategy for movement in the PAS area. The key aims of the PAS Transport Strategy are:

1. To help better connect people, primarily from areas of underemployment across the region with job opportunities in the area.
2. To support planned growth across the PAS area, including the Avonmouth Severnside Enterprise Area by ensuring efficient use of the transport network and exploring options to manage future demand.
3. To promote the movement of people and goods through active and sustainable modes of travel. This will contribute towards reduced carbon emissions across the region and supports the declaration of a climate emergency by Local Authorities and WECA.

Currently the strategy is undertaking a transport study of the area. Once complete, the evidence will form the basis of the strategy.

Local Policies

Bristol Transport Strategy⁴⁴

Adopted in July 2019, the Bristol Transport Strategy sets out planned improvements to the transport network throughout the city through to 2036, lowering congestion and improving air quality whilst meeting the increased demand from growth in housing, jobs and regeneration

Currently, 53% of commuter journeys are made by car across the city. Due to growth from housing and jobs, this percentage of car commuter journeys would have to be reduced to 43% by 2036 just to maintain current traffic levels. Furthermore, around 300 deaths a year (8.5% of all deaths) are attributable to air pollution

The vision of the Strategy is for Bristol to become a city of sustainable communities combining housing, employment, retail, education, training and leisure functions, all linked by a strong public transport network. It is hoped that a Bristol transport network can enable people to move around efficiently with increased transport options that are accessible and inclusive to all

⁴³ [Portbury, Avonmouth & Severnside \(PAS\) Transport Strategy - Travelwest](#)

⁴⁴ [Bristol Transport Strategy - bristol.gov.uk](#)

There are six key objectives of the strategy. Of central importance to achieving these outcomes is the continued transition towards use of sustainable modes of transport, such as walking, cycling and public transport. The six key objectives are;

1. Provide transport improvements to accommodate increased demand from growth in housing, jobs & regeneration on an already congested network with complex movements from within and outside the city boundary
2. Enable equality within an inclusive transport system that provides realistic transport options for all
3. Create healthy places, promoting active transport, improving air quality, and implementing a safe systems approach to road safety
4. Create better places that make better use of our streets and enable point to point journeys to be made efficiently
5. Enable reliable journeys by minimising the negative impacts of congestion and increasing network efficiency and resilience
6. Support sustainable growth by enabling efficient movement of people and goods, reducing carbon emissions and embracing new technologies

The report makes specific reference to enhancing bus routes by connecting Portway Park and Ride with Severnside.

The objectives of the Bristol Transport Strategy reflect the more localised issues and opportunities along the A4 Portway corridor project. Aiming to increasing frequency and journey time reliability of the public transport network should remain the primary aims for the project and improving air quality and reducing congestion should be a key area to explore within the optioneering process. It can be hoped that increased sustainable growth and regeneration will be an indirect benefit of the project if the objectives of the strategy are followed.

Bristol One City Plan⁴⁵

Initially launched by BCC in January 2019, the Bristol One City Plan sets out the vision for Bristol by 2050, describing how a range of public, private and third sector partners within the city will collaborate to develop a fair, healthy, and sustainable city

The third iteration of the report (released in Summer 2021) outlines the specific transport vision for Bristol by 2050, to be well-connected with transport and digital services that are efficient, sustainable and inclusive. Central to this vision are several specific goals, including:

- Creation of an integrated public transport system, including a mass transit network across the city
- Development of an attractive walking and cycling network
- Stronger and more frequent rail and bus services
- Improved traffic management systems
- Promotion of automated vehicles and low-emission technologies

⁴⁵ [One City Plan 2021 \(bristolonecity.com\)](https://www.bristolonecity.com)

The Plan outlines the opportunities available to capture and build upon the changes in travel seen as a result of the Covid-19 pandemic: growth in active travel, reduced congestion, cleaner air, and targeted traffic restraint. Emphasis is placed on the importance of providing sustainable alternatives to private vehicle use across the city, with a need for residents to change the way they travel, moving to more active, healthy and sustainable modes of transport.

The Plan sets out three key priorities for transport in Bristol in 2021:

1. Continue the reduction in car traffic and support the revitalisation of the city centre, hospitality, retail, culture and night-time economy, by expanding active travel and public transport options and providing ongoing funding of essential transport
2. Co-design, with community organisations, the development of transport schemes to support our response and recovery to COVID-19
3. Clean Air Zone progressed with proportional supporting measures to encourage a reduction in traffic entering the city, allowing businesses and residents to adapt and the start of improved air quality

The key priorities of the One City Plan will provide important guidance to inform the development of options for the A4 Portway scheme. Prioritising sustainable travel provision will help to reduce private vehicle usage along the corridor, with subsequent benefits for lowering emissions and improving air quality across the study area.

Bristol One City Climate Strategy⁴⁶

The One City Climate Strategy presents a vision of Bristol as carbon neutral and climate resilient by 2030. Key areas for action outlined within the strategy include

- Transport: Switching to significantly more walking, cycling and zero carbon public transport modes, and converting the remaining vehicles to zero carbon fuels. A 40% reduction in total vehicle miles is targeted.
- Buildings: Retrofitting and building them to become carbon neutral and resilient to a changing climate.

Natural Environment: Restoring, protecting, and enhancing these spaces and wildlife within them as the climate continues to change

Bristol Development Framework: Core Strategy⁴⁷

The Bristol Core Strategy, published by Bristol City Council in 2011, represents the primary document within the Bristol Development Strategy – a series of reports considering how the city aims to develop over a period of 15-20 years

The Core Strategy sets out the current spatial context of the city, as well as the vision and objectives looking forward to 2026, setting out the desired approach to how the city and its neighbourhoods will develop over time

At the time of publication, the majority of employed people in Bristol (57%) travelled to work by car. Associated congestion and journey time reliability makes Bristol one of the most congested cities in

⁴⁶ [one-city-climate-strategy.pdf \(bristolonecity.com\)](#)

⁴⁷ [Document \(bristol.gov.uk\)](#)

Britain. However, increases in commuting by active travel modes mean that walking and cycling now accounts for over 25% of all commuter journeys

The vision of the core strategy has led to the creation of 11 strategic objectives for development, produced in consultation with the community and stakeholders. These aim to address a number of identified social, economic, environmental and transport issues

1. Ensuring a sustainable future for Bristol: A green capital with long-term sustainable development and growth.
2. *Mixed, balanced and sustainable communities*: Shared, socially cohesive places with easy walking and cycling access to a range of social, health and work facilities
3. *Ambitious and sustainable economic growth*: A thriving and diverse local economy, maintaining high local growth rates and ensuring future competitiveness of the city
4. *Appropriate housing provision*: Providing an appropriate mix of new and affordable housing throughout the city by 2026
5. *Better health and wellbeing*: A pattern of development and urban design that promotes good health and wellbeing, with the promotion of active travel and green spaces
6. *High quality-built environment*: Attractive and safe places, with a high quality well-designed built environment
7. *High quality natural environment*: A high quality natural environment with conservation of open spaces and biodiversity, and maintenance of a green infrastructure network
8. *Improved accessibility and connectivity*: Improved accessibility and connectivity between centres and within the city, to key services and places of work and recreation. Will reduce the need to travel, whilst managing congestion throughout the city
9. *Effective waste management*: Minimising waste in new developments and ensuring sufficient sites for delivery of sustainable waste management facilities
10. Adapting to climate change and promotion of renewable energy: Use of sustainable construction methods and renewable energy production to address the causes of climate change. New development in Bristol will account for the impacts of climate change including increased risks of flooding.
11. Community involvement and engagement: Ensuring local communities are actively engaged in the planning process.

Policy BCS10 of the Core Strategy outlines the council's commitment to delivering significant improvements to transport infrastructure to provide an integrated transport system, which improves accessibility within Bristol and supports levels of development.

Bristol's Core Strategy highlights existing congestion as a key issue across the city. Targeting improved health and sustainable solutions, the strategy prioritises development of active and public transport over purely road-based options. Options that solve existing issues of congestion whilst also reducing air pollution and conserving the local natural environment should be prioritised under the strategy to meet the objectives for the next 20 years.

The Policy BCS4 recognises the economic strengths of the Avonmouth area to the regions economic prosperity. Bristol Port supports approximately 7,500 jobs in the sub regional economy through port related activities. Bristol Port Company has also received permission to expand the port through the construction of deep see container terminal at Avonmouth which could create an additional 1,500 jobs.

Policy BCS4 has identified Avonmouth as a priority area for industrial and warehousing development and renewal. It sets out to support the economic strengths of the area whilst protecting environmental assets. The Policy continues to state that principal Industrial and Warehousing Areas will be identified and retained for industrial and warehousing uses. Development in these areas for those uses will be supported in principle. Proposals for port-related activities, manufacturing industry, logistics / distribution, waste management and other environmental technology related industries will be particularly encouraged. There may be opportunities for the development of energy from waste facilities, biomass energy and further large-scale wind turbines.

Draft Local Plan (Bristol Local Plan Review, 2019)⁴⁸

Due for adoption in 2023, Bristol's existing Local Plan is currently being reviewed and updated, to set out how the city will develop up to 2036. The Bristol Local Plan explores how the city will develop, representing the framework for deciding planning applications in Bristol. The updated plan aims to deliver new homes and jobs, and safeguard existing environmental assets for a sustainable future

WECA and local authorities have been working together to prepare the West of England Joint Spatial Plan (JSP), setting out the strategy proposed to meet future housing requirements across the region over the period to 2036. This includes a requirement of 33,500 new and affordable homes to be delivered in this timeframe. The updated Local Plan will set out how the proposed housing quota will be delivered in Bristol by 2036, with the council aiming to exceed this number

T1: Development and transport principles

- Sets out the transport development principles for consideration in all new proposals for development. This policy, and the approach to urban living, aim to minimise the need to travel especially by car and maximise opportunities for walking, cycling and the use of public transport

T2: Transport schemes

- This policy will safeguard some of the identified schemes in the current local plan as well as new proposals contained within the JLTP4 transport programme. The policy will also safeguard railway sites and associated land which are required for rail infrastructure improvements. Existing transport facilities such as transport depots will also be safeguarded where required

T3: Car and cycle parking provision for residential development

- Sets out the approach to determine the appropriate level, design and management of parking provision for new developments

T4: Cycle parking provision for B1 office development

- To accommodate the growth in commuting by bicycle, it is proposed that the minimum cycle parking standards for staff for B1 office developments are uplifted to

⁴⁸ [Local plan review - bristol.gov.uk](https://www.bristol.gov.uk/local-plan-review)

one space per 50m². This policy also proposes that those facilities are incorporated into the design of new or extended offices

T5: Provision of infrastructure for electric and other low emission vehicles

- Development proposals which include parking facilities or which will be likely to generate vehicle movements or vehicle ownership will be expected to integrate the provision of infrastructure to enable the charging of electric or other ultra-low emission vehicles into the design and layout of the development.

Site Allocations and Development Management Policies (SADMP)⁴⁹

As part of the Bristol Local Plan, the Site allocations and Development Management Policies (SADMP) document sets out

- Development Management policies: detailed planning policies used by the council when assessing planning applications.
- Designations: land which should be safeguarded or where specific policies apply.
- Site allocations: sites to be allocated for particular land uses, to provide clarity to planning applicants and the community regarding land uses that are acceptable to the council on specific sites.

Three transport related policies are included within the SADMP:

Policy DM23: Transport Development Management:

- Sets out the transport and traffic considerations for development proposals to address. Includes parking standards and provision for active and sustainable transport modes.
- Expectations for developments include: safe and adequate access for all sections of the community, good access to public transport, enhancing the pedestrian and cycle network.

Policy DM24: Transport Schemes:

- The core strategy contains proposals for new transport infrastructure across Bristol to encourage growth and regeneration. The purpose of Policy DM24 is to safeguard land required for implementation of these proposals which have land use implications.

Policy DM25: Greenways:

- Sets out how development proposals should facilitate and improve access to the network of 'greenways' (largely off-highway routes in Bristol intended for shared use by non-motorised transport).

Sites that are of relevance to the A4 Portway include

BSA0101 Part of Henacre Open space, Lawrence Weston

⁴⁹ [d6dfdc7e-0f55-4a07-be74-9cd5fffaa64d \(bristol.gov.uk\)](https://www.bristol.gov.uk/d6dfdc7e-0f55-4a07-be74-9cd5fffaa64d)

Development considerations for this site detail that a minimum of 50 homes should be provided on site. The estimated number of homes for this site is 150. Planning approval has been granted (subject to permission) for the phased construction of 128 dwellings, new vehicular access, open space, and landscaping. Planning application reference 18/02166/F.

BSA0102 Land at former Lawrence Weston Campus of City of Bristol College, Lawrence Weston

Development considerations for this site detail that the estimated number of homes to be delivered for this site is 80. Planning approval for the proposal to develop 75 dwellings at this site has been granted, subject to conditions. Planning application reference 18/03622/F.

Bristol Resilience Strategy⁵⁰

This strategy represents a framework for action to protect the city against potential shocks and stresses it may encounter in the future, including severe traffic congestion, rising house prices, poor air quality, and child poverty

The strategy is intended to be a dynamic process, with scope to change over time as new challenges and opportunities emerge.

Relevant goals to be met by 2066 include:

- A city where all ages can access necessary services within a 20 minutes journey by active or sustainable modes of transport.
- Achieving clean air for Bristol.
- Develop a zero waste and carbon neutral city.
- Providing free bus travel for under-16s.

With improved reliability and journey times of the transport network a key part of Bristol's future resilience plan, improving the capacity and frequency of bus links through the A4 corridor represents a key opportunity for BCC to implement future-proof infrastructure that will enable these objectives to be met.

Developing local walking and cycling links will help to reduce air pollution and emissions from the area, as an important part of long-term future resilience.

BCC Bus Deal⁵¹

Bristol City Council and First West of England Buses are working to deliver a programme of improvements across the city's bus services

Significant improvements have already been delivered in the last few years:

- 54% passenger growth since 2012/13.
- The delivery of the Metrobus network, which has carried 3 million passengers to date.

Investment of £30 million since 2015 to deliver 152 cleaner buses, meeting the highest Euro VI emission standards

⁵⁰ [31a768fc-2e9e-4e6c-83ed-5602421bb3e3 \(bristol.gov.uk\)](https://www.bristol.gov.uk/31a768fc-2e9e-4e6c-83ed-5602421bb3e3)

⁵¹ [Bristol Bus Deal MOU.pdf](#)

The updated agreement outlines several key objectives:

To increase modal share of buses to 20% of all journeys in Bristol by 2031.

To double the peak frequency of bus services on core corridors.

Further delivery of a greener, more modern bus fleet

The aims of the BCC Bus Deal tie into the objectives of the A4 Portway project, with improved bus services and upgraded facilities through the area a key priority.

Making bus network developments a central part of the project plan would help BCC to reach their various deal targets, including that of doubling the peak frequency of services on core corridors.

Bristol Avon Flood Strategy⁵²

Currently in development, the Bristol Avon Flood Strategy represents an update to the 2013 Central Area Flood Risk Assessment document. The Strategy intends to be a long-term plan to better protect homes and business from the risk of the River Avon flooding

Consultation on the strategy took place in Autumn 2020. In response to the desires of stakeholders, the strategy plans to create a greener, more active city via improving walking and cycling routes along the River Avon (as part of flood defence improvements)

The preferred option outlined within the business case is for the construction of raised defences from Shirehampton and Pill, through central Bristol and upstream to Keynsham and Swineford.

The indicative alignment of the Avon Flood Strategy Defences can be seen in Figure 3-1. The dark red line shows the flood defences to be constructed in the 2020s. As can be seen from the figure, this would interface with the A4 Portway at Sea Mills, and with the A4 Hotwell Road at the junction with the A3029. The details of the exact measures to be implemented as part of the Avon Flood Strategy are yet to be determined.

⁵² [Bristol Avon Flood Strategy consultation - Bristol - Citizen Space](#)

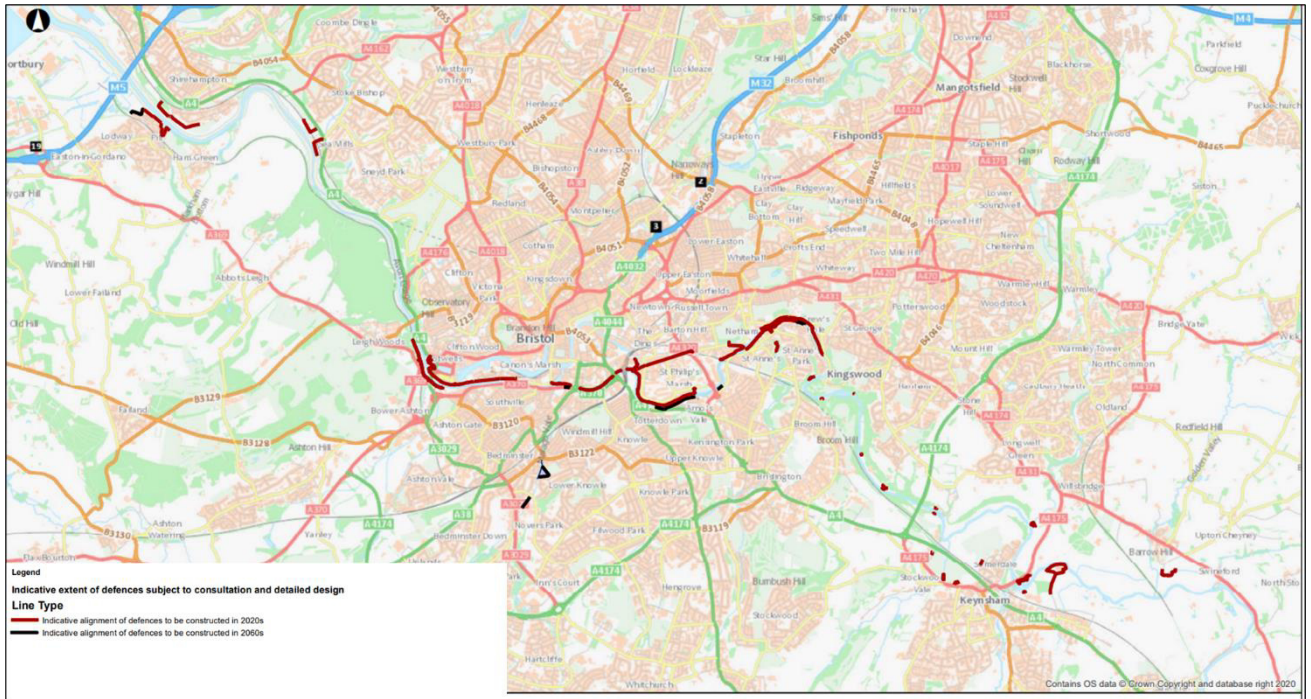


Figure 21: Indicative map of flood defences as part of the Avon Flood Strategy

Bristol Trees Replacement Standard

Set out in policy BCS9 of the Core Strategy, Bristol City Council's obligations in respect of trees are required where either

1. New planting is required on public land to mitigate the impact of a development; or
2. Where trees covered by categories A, B and C or BS 5837 (Trees in relation to construction) are felled as part of a development, with replacement planting required on public land

Avonmouth and Severnside Outline Development Strategy (ODS)⁵³

The Avonmouth and Severnside ODS recognises that Avonmouth Severnside is one of the West of England Local Enterprise Partnerships most important economic development opportunities, which could contribute to achieving employment and economic growth over the next 30-40 years.

The report provides an overview of the Avonmouth and Severnside area, highlighting that it is made up of two main areas of economic activity – Avonmouth in the south and Severnside in the north. The area comprises a mix of industrial, storage and distribution, power generation, waste recycling and disposal, sewage treatment and gas storage facilities, the Port of Bristol, and an area of agricultural land, with approximately 14,000 people employed in the area.

The purpose of the ODS is to:

- Highlight the potential of the Avonmouth Severnside area and outline opportunities to realise it;
- Identify and outline a response to issues and constraints within the area;
- Consider options for realising the opportunities and to propose an Outline Development Strategy;

⁵³ [804bf9cd-48c1-442d-88f4-d6e3c3be78c2 \(bristol.gov.uk\)](https://www.bristol.gov.uk/804bf9cd-48c1-442d-88f4-d6e3c3be78c2)

- Assess the costs, benefits and value for money of the proposed strategy; and
- Identify how the Strategy could be implemented.

Key Local Projects and Schemes

Lawrence Weston Neighbourhood Plan⁵⁴

The Lawrence Weston Neighbourhood Development Plan is now part of the development plan for Bristol and is being used with the Bristol Local Plan to decide planning applications in Lawrence Weston.

Committed/Planned Development

Bristol Clean Air Zone

Plans to create a Clean Air Zone (CAZ) in the centre of Bristol have been proposed, for earliest implementation in Autumn 2022. This will involve a daily charge imposed on older, more polluting vehicles driving in the CAZ, with funds raised reinvested back into the local community. Estimates are that the CAZ will deliver compliance with legal limits for air pollution by 2023.

Although much of the A4 Portway strategic corridor is located outside of the CAZ, the south-eastern end of the corridor falls within the CAZ. Figure 3-2 shows that the CAZ boundary includes Bridge Valley Road as it joins the A4 Portway, and then runs into the A4 Hotwell Road/ A4 Anchor Road.

Any options to improve transport along the A4 Portway corridor must therefore account for improvements to local air quality, prioritising the development of public transport or active travel modes as part of the project plans.

⁵⁴ [Neighbourhood planning: Lawrence Weston - bristol.gov.uk](https://www.bristol.gov.uk/Neighbourhood-planning:Lawrence-Weston)

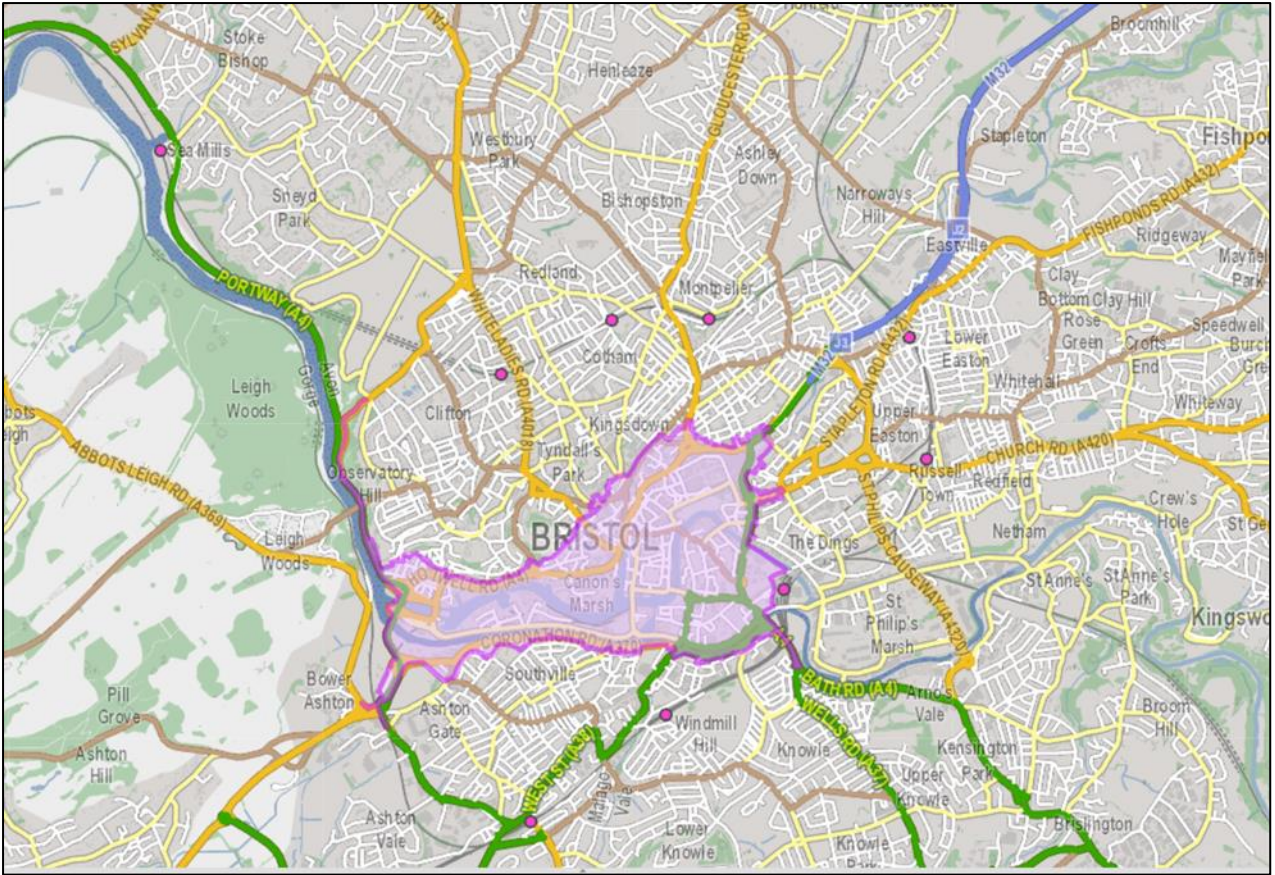


Figure 22: Clean Air Zone boundary

Future Transport Zones

The FTZ programme is based around the use of innovative new digital technologies in improving public transport and connections within communities. The DfT have selected four regions to become FTZs and provided £24.4m to deliver the programme, running from July 2020 to March 2024. WECA will also invest £3.65m in the scheme. The Portway Park and Ride is being considered as one possible location for a Future Transport Zone.

The FTZ will deliver six key transport innovations

1. *Mobility as Service*: A centralised location for journey planning and ticketing across all forms of transport
2. *Mobility Stations*: integrated spaces for changing between transport modes
3. *Dynamic Demand-Responsive Transport*: Improving access to transport within communities
4. *E-scooters*: Better connected last-mile journeys, extending the boundaries of core transport corridors
5. *E-cargo bikes*: Green forms of transport improving air quality and reducing congestion for freight in city centres.
6. *Transport Data Hub*: A regional data warehouse to improve transport planning and management.

Western Harbour Growth and Regeneration Area

The Western Harbour area, seen in Figure 3-3, has been identified as having significant potential for regeneration. The regeneration would look to strike a balance between meeting some of Bristol's aspirations and the need to address some of the biggest challenges facing Bristol ⁵⁵.

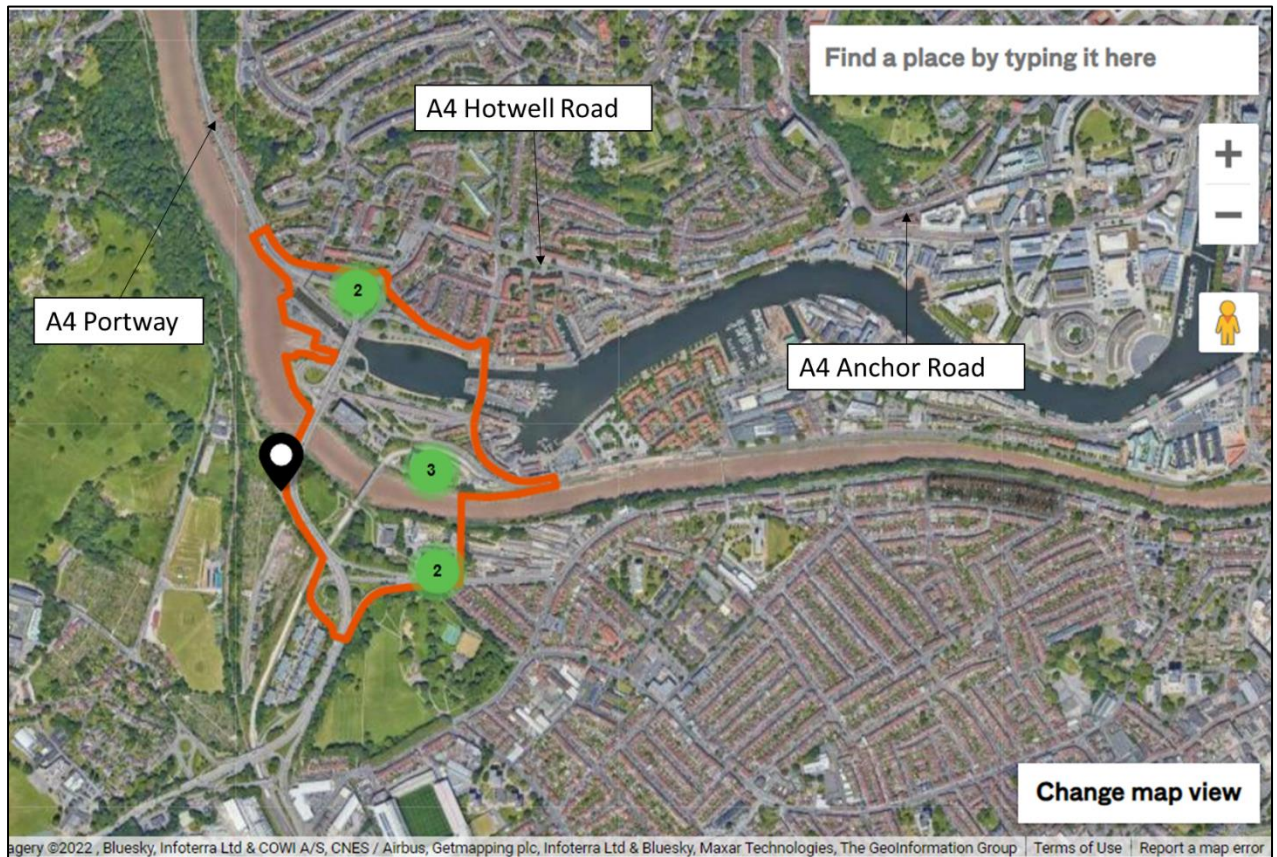


Figure 23: Western Harbour Growth and Regeneration Area

The reasons for the regeneration include

- Need to replace the Cumberland Basin Road system. The age of the road system has been costly with regards to maintenance. This cost is set to rise as the maintenance issues on the Cumberland Road network are predicted to become more complex.
- There is a need to provide new homes in Bristol.
- It is a sustainable location. It is ideally located to provide ease of access to the city centre, and green spaces, like Ashton Court, using sustainable modes of transport.
- Current use of land is seen to be inefficient, and unsustainable – building new homes will help to protect the greenspaces around the city, thus helping with the response to the ecological emergency.

No proposals have been designated for the Western Harbour yet. In 2021 the project team ran an engagement programme on the future of the Western harbour to inform a vision for the area. The draft vision is that the Western Harbour will

1. Be a distinctive gateway to Bristol

⁵⁵ [About \(harbourhopes.co.uk\)](https://harbourhopes.co.uk)

2. Support a thriving community
3. Build on its tradition of innovation
4. Embrace freedom and nature

The project is currently at public consultation for review and comments on the draft vision with a scope to receive endorsement from the Bristol City Council cabinet in June 2022. Should the BCC cabinet approve the vision, a masterplanning team will be selected in Autumn 2022. It is proposed that the masterplan for the area will be developed from Autumn 2022 – Spring 2024. Should these timescales be met, the scope is to have planning approvals by 2025 and work commencing on the ground in 2026⁵⁶

Portway Park and Ride Rail Platform and Car Park Expansion

The construction of a new rail platform at the Portway Park and Ride was given planning permission in 2019⁵⁷. The new platform is currently under construction and is scheduled to be complete in Summer of 2022. The new station will be served by the service running between Bristol Temple Meads and Severn Beach.

In 2008 planning permission was granted to expand the capacity of the Portway Park and Ride car park, by an additional 552 spaces. 279 of these spaces have been constructed already, with the remaining 273 spaces set to be constructed between September 2022 and March 2023.

YTL Arena⁵⁸

A major hybrid planning application comprising of the demolition of existing buildings and structures, and associated external alterations to the Brabazon Hangar buildings from Class B8 use to a mixture of Class D1, D2, A1, A3, A4 and B1a uses, along with associated infrastructure works, was approved (subject to conditions) in April 2021. The YTL Arena will be located on the site of the old Filton airfield, in South Gloucestershire, but it is acknowledged that the impacts of the development will be felt across the city of Bristol, through various mitigation measures. The proposed site of the YTL Arena in relation to the A4 Portway can be seen in Figure 3-4.

⁵⁶ <https://www.bristol.gov.uk/planning-and-building-regulations/western-harbour>

⁵⁷ [18/03830/F | Proposed construction of a single platform railway station and associated works between the existing railway track and Council operated Bus Park and Ride Car Park. | Park And Ride Portway Bristol BS11 9QE](#)

⁵⁸ [19/05500/P | Hybrid planning application comprising: the demolition of existing ancillary buildings and structures; full details associated with the change of use of, and associated external alterations to, the Brabazon Hangar buildings from Class B8 use to a mixture of Class D1, D2, A1, A3, A4 and B1a uses, along with outline details associated with infrastructure works including: revised vehicular access arrangements; redevelopment and reorganisation of the former aircraft apron to provide parking, servicing and associated infrastructure provision; plus associated landscaping, service infrastructure and other associated works and improvements. | Arnold Laver Brabazon Hangar & Surrounding Land West Way Bristol BS34 7DU](#)

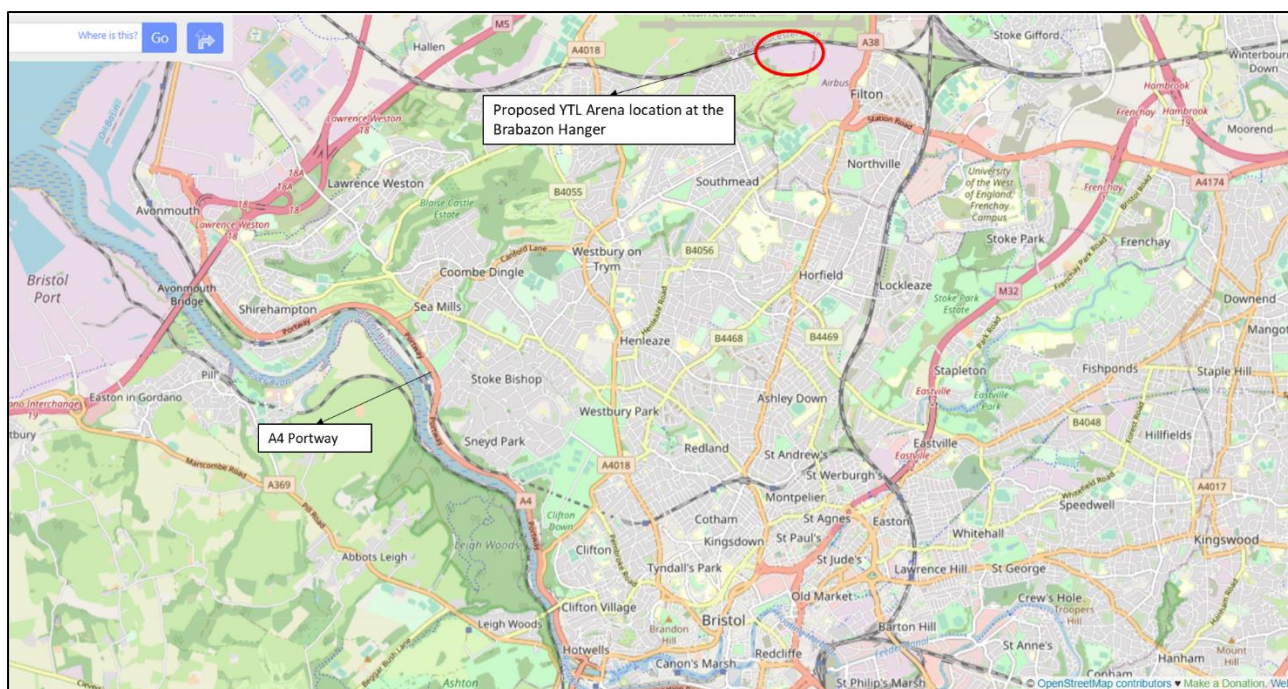


Figure 24: Proposed location of the YTL Arena

Public Right of Way Improvements

The Bristol City Council Public Right of Way team have plans to make improvements to the Public Right of Way footpaths that spur off the A4 Portway. The improvements to the paths themselves will be picked up within the scope of a different project⁵⁹. There is scope to consider making the “desirable” improvements to the PRow network as part of the A4 Portway strategic corridor proposals, specifically where two PRow footpaths are severed by the A4 Portway with no option for a safe crossing.

Key developments in Avonmouth

St Modwen’s Park / Access 18 green field land (south of existing brownfield development of the former Britannia Zinc site also known as Access 18). This is a 42 hectares ‘hybrid’ industrial and commercial/hotel development which has just been consented (planning ref 20/02903/P). This amounts to 92,903 sq m of floorspace creating around 1,200 jobs over the next 10 years. Owner and developer is St Modwen.

Atlantic Road there is a 4.9 hectares previously developed industrial site, owned by BCC but on a long lease to Masador. This future of this site is subject to on-going negotiations but it is very likely to be re-developed within the next 5 years for continued industrial / employment uses. There is no current planning application, but the site has capacity for some 28,000 sq m of floorspace, with potential to create 470 jobs.

Other smaller sites with planning applications recently approved or pending decision are at:

- 25 Portview Road, BS11 9LD – ref: 20/03738 (approved 27/7/21) – commercial building /offices/storage.

⁵⁹<https://bristolcouncil.sharepoint.com/:f:/r/sites/A4PortwayStrategicCorridor/Shared%20Documents/Business%20Case/00%20Gap%20Analysis%20and%20Scoping/Data/08%20Other?csf=1&web=1&e=TIDuAR>

- 100 Gloucester Road, Former Harbour Centre, 20/06176/F (pending) – for 28 housing units
- Third Way, Land south of Powersprays Ltd, BS11 9YA, 21/06624/F (pending) – for Research and training and warehouse facility
- Unit 1, Third Way – BS11 9HL, 21/04751/F (pending) – for industrial unit expansion
- Avon Lodge, Third Way – 20/05756/F – (approved 01/04/22) - redevelopment and expansion of Truck Stop facility

S106 Schemes and agreements (Details TBC)

There is likely to be S106 agreements from the St Mowden’s Park/Access 18 development – BCC TDM to confirm

S278 Schemes and agreements

The only S278 agreement along the corridor, is at the junction between Valerian Close and the A4 Portway. The agreement type is a formal S278, however it has not been technically approved and the agreement is not yet in place.

Road Safety Schemes (Details TBC)

School Street Schemes:

There are plans to operate a ‘School Street’ scheme for Cathedral School, adjacent to the A4 Anchor Road. When the scheme is operational it means that College Square will be temporarily closed to traffic leading up to the school start time in the morning and for a period following the school finish time in the afternoon.

Planning applications

Ashton Gate Sporting Quarter (Pending consideration)⁶⁰

A planning application has been submitted for the land adjacent to the Ashton Gate stadium, but has not yet been approved or rejected. The application seeks to demolish existing buildings and proceed with a phased redevelopment of a sports and convention centre, a hotel, 125 residential units, office accommodation, retail, gym, club museum, multi-story car park, public realm improvements and landscaping, new internal access routes, and other associated infrastructure works.

Longmore Village (Pending consideration)⁶¹

An application for outline planning permission with some reserved matters – for a phased residential-led development including affordable homes and commercial/community floorspace,

⁶⁰ [21/03165/F | Demolition of existing buildings and the phased redevelopment of the site to comprise a sports and convention centre, a hotel, 125 residential units, office accommodation, retail, gym, club museum, multi-storey car park, public realm improvements and landscaping, new internal access routes, new and improved vehicular and pedestrian accesses and infrastructure and other associated works and improvements on land west of Ashton Gate Stadium. \(Major\). | Land To The West Of Ashton Gate Stadium Ashton Road Bristol BS3 2EJ](#)

⁶¹ [21/03166/P | Application for Outline Planning Permission With Some Matters Reserved - for phased residential-led development including affordable homes and commercial/community floorspace \(Use Classes E and F.2\), amenity green spaces; natural and semi natural greenspace; provision of associated infrastructure including footpaths/cycleways and new vehicular and emergency accesses; and provision of associated](#)

amenity green space, natural and semi natural green space, provision of associated infrastructure including footpaths/cycleways and new vehicular and emergency accesses; and provision of associated engineering and landscaping work including SUDs.

It is acknowledged that the site has the potential to be considered a major development with a potentially significant impact on trip generation from the area.

Section 4: Future Travel Demand

National Trip End Model Forecasts

The National Trip End Model (NTEM) provides forecasts of the growth in trips produced by an area in the future, based upon national projects of population, employment, housing, car ownership and trip rates. The NTEM data is provided by the DfT⁶²

Impacts of the Bristol Clean Air Zone (CAZ)

Bristol intends to implement a Clean Air Zone covering the city centre to be implemented by Autumn 2022. This will result in the most polluting vehicles being charged between £9 and £100 to enter the city centre, with certain individuals exempt from paying.

Although it is only the south-eastern end of the A4 Portway that falls into the CAZ, it is likely that the CAZ will influence movements along the corridor. Transport modelling has been undertaken using Saturn strategic highway modelling to inform the CAZ full business case. The Saturn Strategic Highway will be made available to the partner, by BCC.

Impact of the COVID-19 pandemic

To understand future travel behaviours, it is important that the long-term effects of the COVID-19 pandemic are understood, acknowledged and accounted within the future conditions for the study network.

The COVID-19 pandemic has had a significant influence on travel behaviour since the Spring of 2020. One of the measures to reduce the spread of COVID-19 has been to reduce unnecessary travel for work and education and to 'stay at home' as much as possible

To monitor the use of the transport system during the coronavirus pandemic, DfT has provided statistics on transport use by mode. This data shows daily data on travel across the UK and is now published weekly. The data can be reviewed to determine historic and current travel patterns in relation to the pandemic and how this may have influenced behaviour⁶³

It should be noted that this data is supplied for the UK as a whole, with individual modal data based on a sub-set of the country. As such, the effects of COVID-19 on the study corridor may well have been, or will continue to be, slightly different to the national data reviewed. Having said this, national data provides the most consistent and comparable dataset for this purpose and is therefore considered appropriate for this study

[engineering and landscaping work including SUDs. Approval sought for access with all other matter reserved. | Land West Of Silbury Road Bristol](#)

⁶² [National Trip End Model \(NTEM\) - data.gov.uk](#)

⁶³ [Transport use during the coronavirus \(COVID-19\) pandemic - GOV.UK \(www.gov.uk\)](#)

Mass Transit

Mass transit represents a step change in the quality of the transport network in Bristol. It is a bus-based scheme, that has the potential to move a lot of people in a short period of time, through total segregation of buses from general traffic. The corridors indicated in Figure 4-1 have all been identified as having the ability to deliver segregation of buses through reallocation of road space, and other bus priority measures, without the expense, and complexity, of digging underground.

The A4 is one corridor that has been identified as having significant potential to deliver on the aims of mass transit. The A4 Portway, A4 Hotwell Road, and A4 Anchor Road, all form part of the A4 corridor, indicated using the blue line in Figure 4-1. By protecting the future of mass rapid transit along the A4, specifically the A4 Portway, A4 Hotwell Road, and A4 Anchor Road, the option for additional, and/or increased services becomes safeguarded.

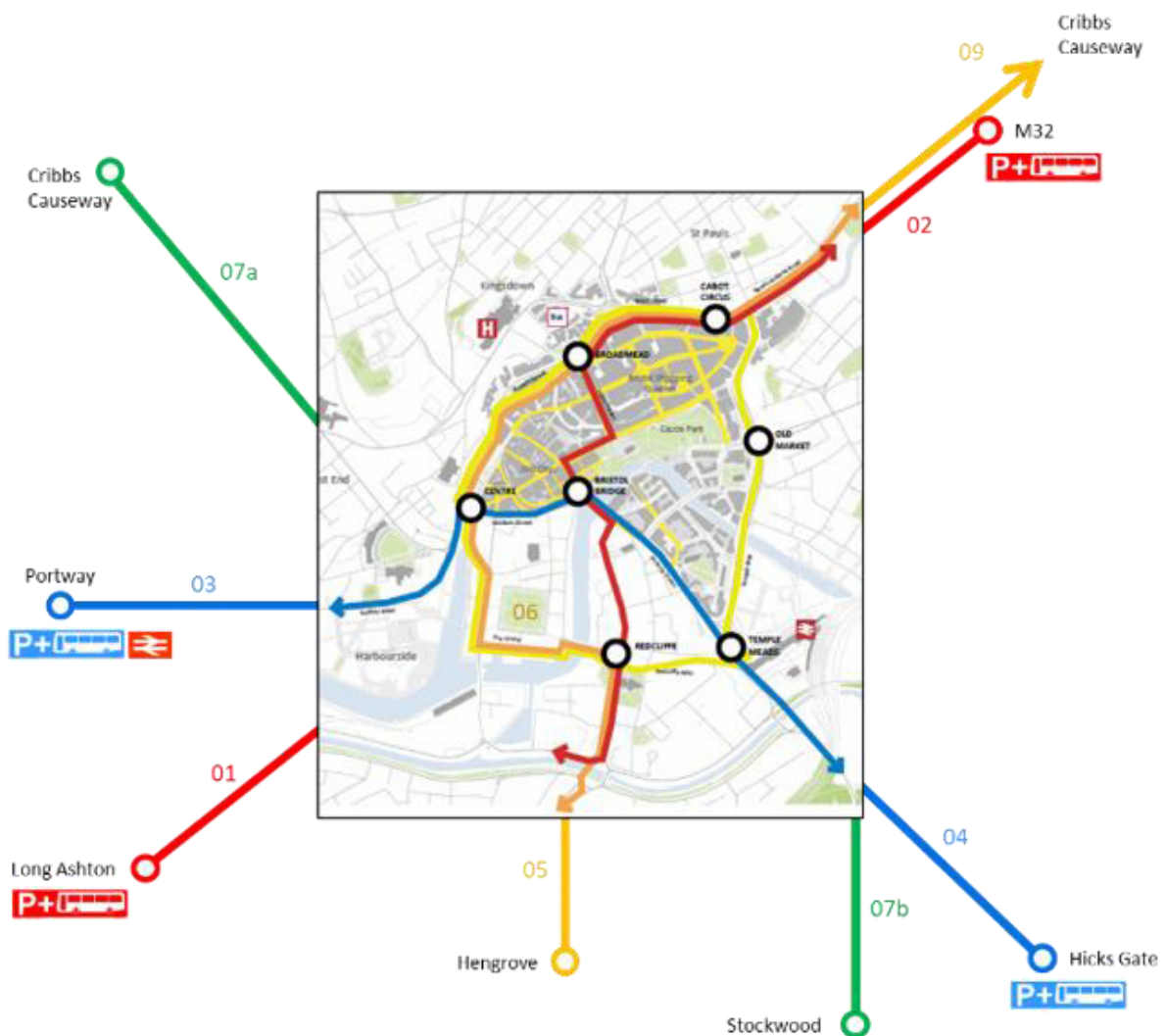


Figure 4-1: Mass Transit in Bristol

Section 5: Establishing the need for intervention

Introduction

Improving the current situation along the A4 Portway corridor is critical if existing issues of congestion, and public transport delay and reliability are to be improved. As such, the need for intervention is outlined below.

Need for intervention

General issues/opportunities

- Buses are experiencing delay, especially along the A4 Hotwell Road. During the AM peak, buses travelling inbound from Brunel Way/Bristol Gate are delayed. The JLTP4 has set out that congestion on the M5 is likely to increase, and consequently generate higher traffic flows on the A4 Portway, ultimately creating more congestion on the A4 Portway among other routes. Increasing congestion will cause further delays to buses along the corridor. Improving current bus reliability, punctuality should be central to the aims and objectives of this project (Coherent with WECA's BSIP). While creating a resilient public transport corridor, to withstand any future increase in congestion should also feed into the projects objectives.
- Bus occupancy along the A4 Portway is generally quite low. There is an opportunity, along the A4 Portway, to encourage greater bus patronage through improving bus reliability, punctuality, and user experience. This opportunity will be improved with the expansion of the Portway Park and Ride. Improving bus patronage should be central to the aim and objectives of this project, remaining consistent with the visions of the WoE Bus Strategy, specifically to achieve a doubling in passenger numbers for the region by 2036.
- Modal share data shows that car use is high, particularly among those commuting from wards further away from the city centre, and the modal share in public transport is low. The modal share data presented illustrates the opportunity to alter travel behaviours, with improved public transport.
- High car ownership in Stoke Bishop, whilst Hotwells and Harbourside has a significantly greater percentage of households with no access to a car or van. Additionally, just over a quarter of households in Avonmouth and Lawrence Weston, and Clifton have no access to a car or van. The challenge for the corridor is to encourage modal shifts in areas of high car ownership, to more sustainable modes of public transport, and to provide better connectivity through public transport, walking, and cycling in areas of lower car ownership. A target which is coherent with the Portbury, Avonmouth, Severnside Transport Strategy.
- Interface with the Bristol Clean Air Zone. The south eastern part of the A4 Portway, where the corridor transitions into the A4 Hotwell Road, falls under the Bristol CAZ. It is anticipated that the number of trips to be made into the CAZ, by private vehicles that do not fall under the exemption list will decrease, while the number of trips being made into the CAZ by more sustainable transport modes will increase.
- Ecology. The A4 Portway corridor runs adjacent to environmentally sensitive areas. By encouraging the uptake of more sustainable transport methods along the corridor, the preservation of these environmentally sensitive areas will be enhanced.
- **Barrow Hill and Burnham Road** – Where the A4 Portway runs between Barrow Hill and Burnham Road the width of the carriageway is 19m at its widest point. This 19m currently has an outbound bus lane, two lanes of general traffic, central hatching markings, inbound cycle lane, and parking area. There is an opportunity at this location to consider the reconfiguration of the road space.
- **Barrow Hill and Hung Road** – Where the A4 Portway runs between Barrow Hill and Hung Road there is a significant road width, circa 20m at its widest point. The road space is

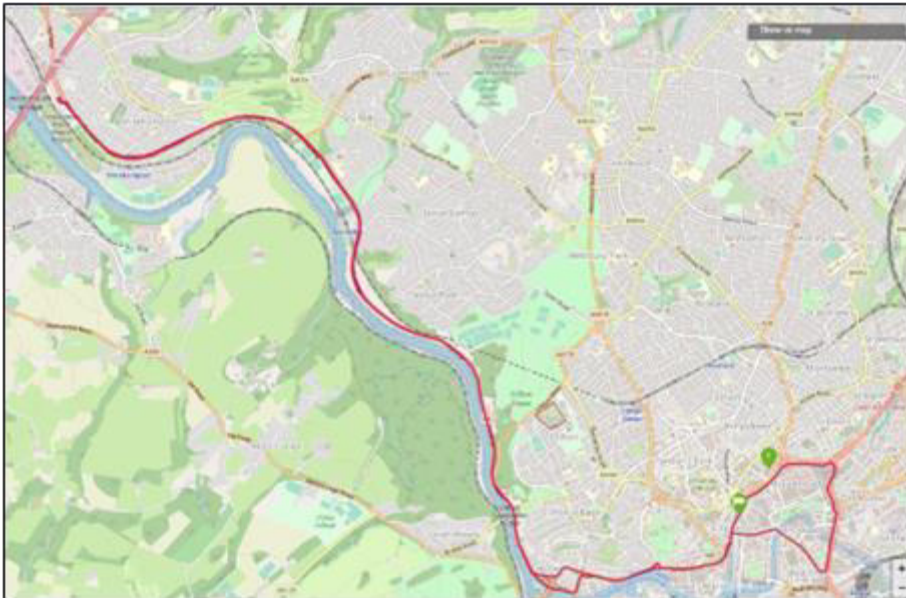
facilitates a lot of uses. The outbound section of the carriageway has two lanes of general traffic, one of which becomes a bus lane after the junction with Station Road. There is a physical central reservation with kerbs and a barrier. On the inbound side of the carriageway there is parking, an inbound cycle lane, and a general lane of traffic up to the Station Road (IB) bus stop. The cycle lane continues past the bus stop, and a lane of general traffic is added.

- ***Hung Road to Roman Way*** – This section of the A4 Portway has a significant amount of road space, circa 20m at its widest point. The current road space allocation could be considered inefficient. Attention should be paid as to how best reconfigure the road space at this location.
- ***Roman Way to the Sea Walls car park*** – The inbound section of the carriageway has a continuous bus lane, and one lane of general traffic. The outbound section of the carriageway has two lanes of general traffic. The current outbound section of the carriageway could be considered inefficient, and consideration should be paid as to how best, reconfigure the road space within this section.
- ***Bridge Valley Road to Jacobs Wells Road Roundabout*** – Road narrows significantly after the junction between the A4 Portway and Bridge Valley Road. Multiple lanes of traffic on the approach to the A4/A3029 junction. Proposals for the A4 Hotwell Road need to consider the multiple lanes of traffic, and road space constraints.

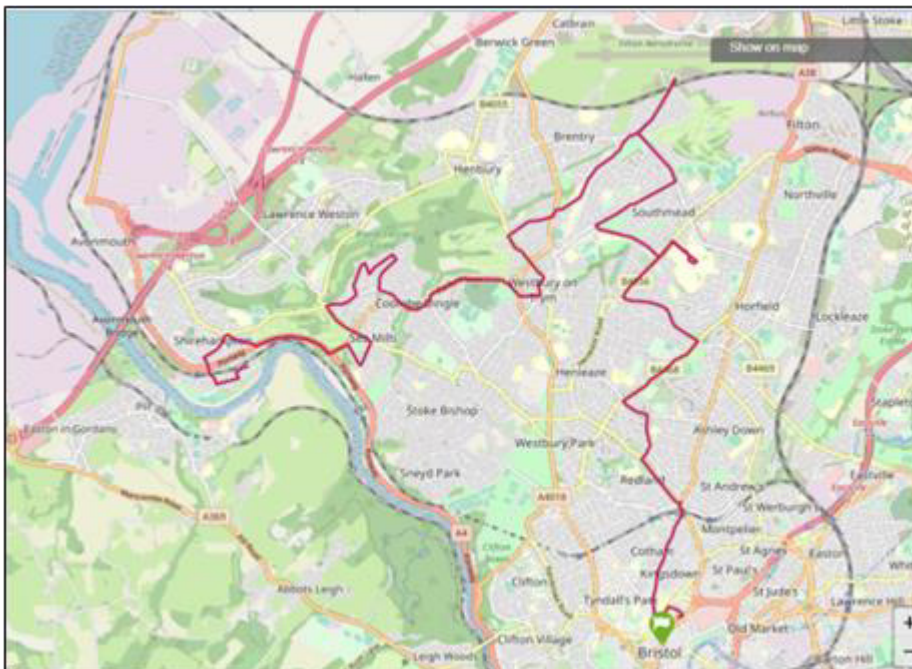
Appendix B – Current Bus Routes

Current Bus Routes

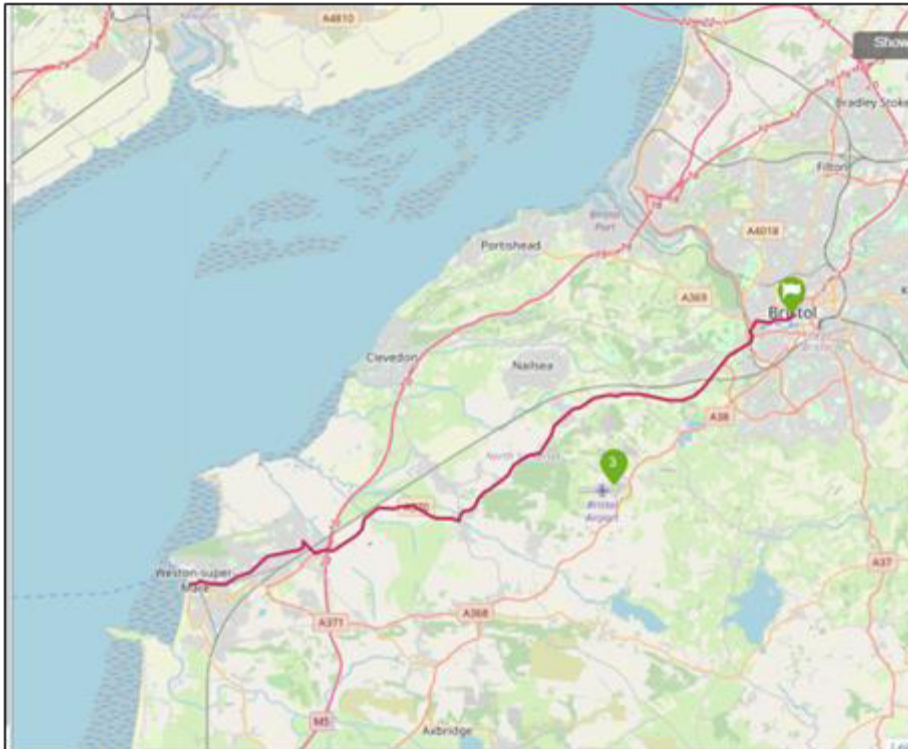
First Bus Portway Park and Ride service from Shirehampton Park and Ride Site to Bristol City Centre



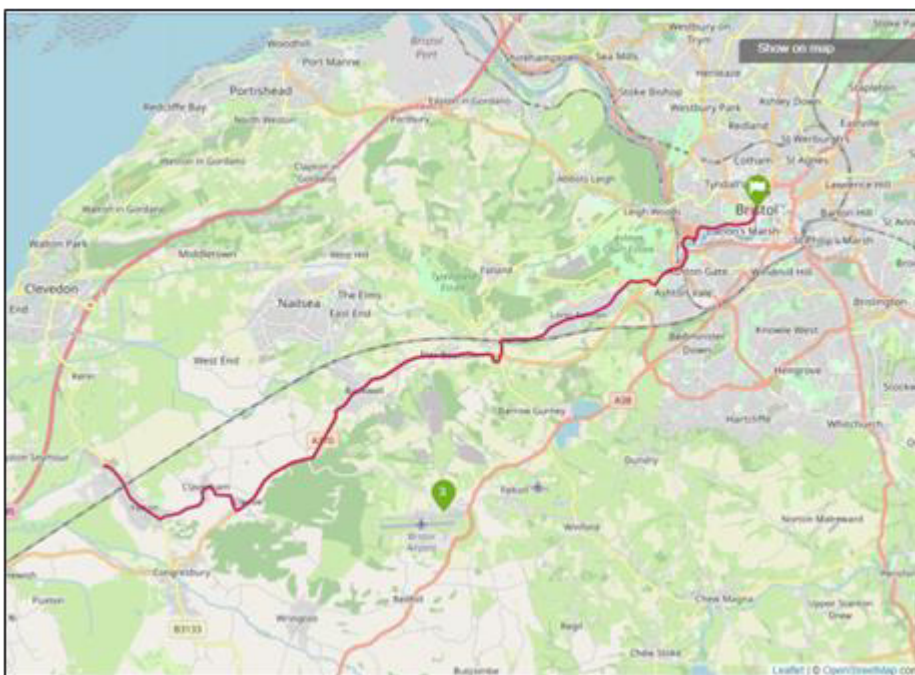
Stagecoach West service number 13



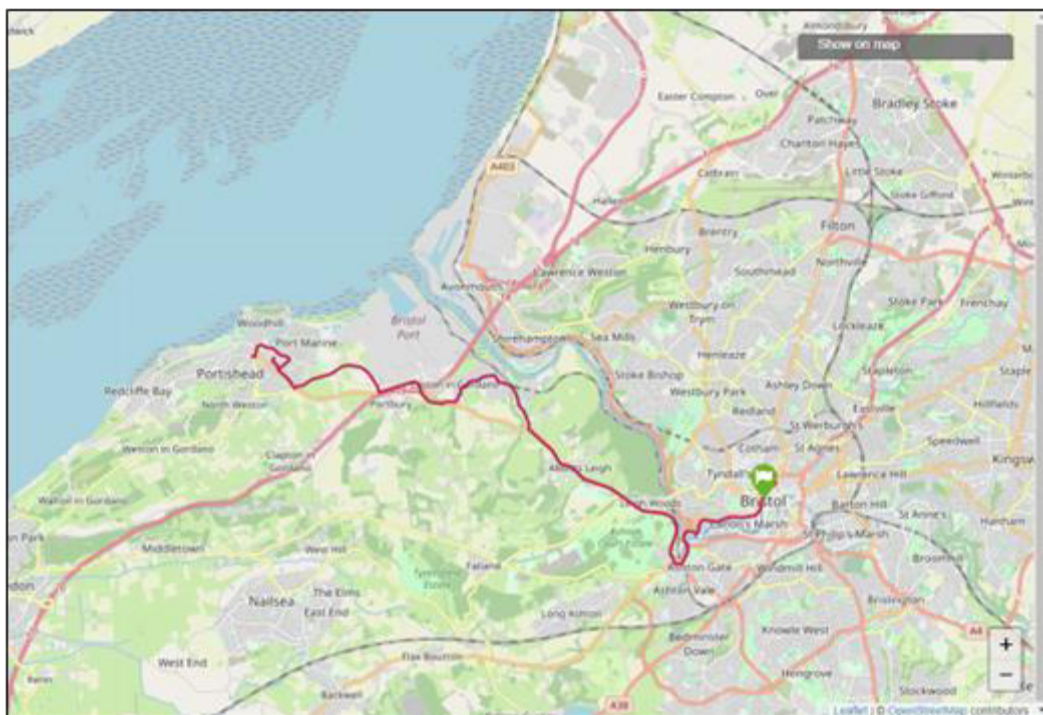
First Bus service X1 from Weston-Super-Mare to Bristol City Centre



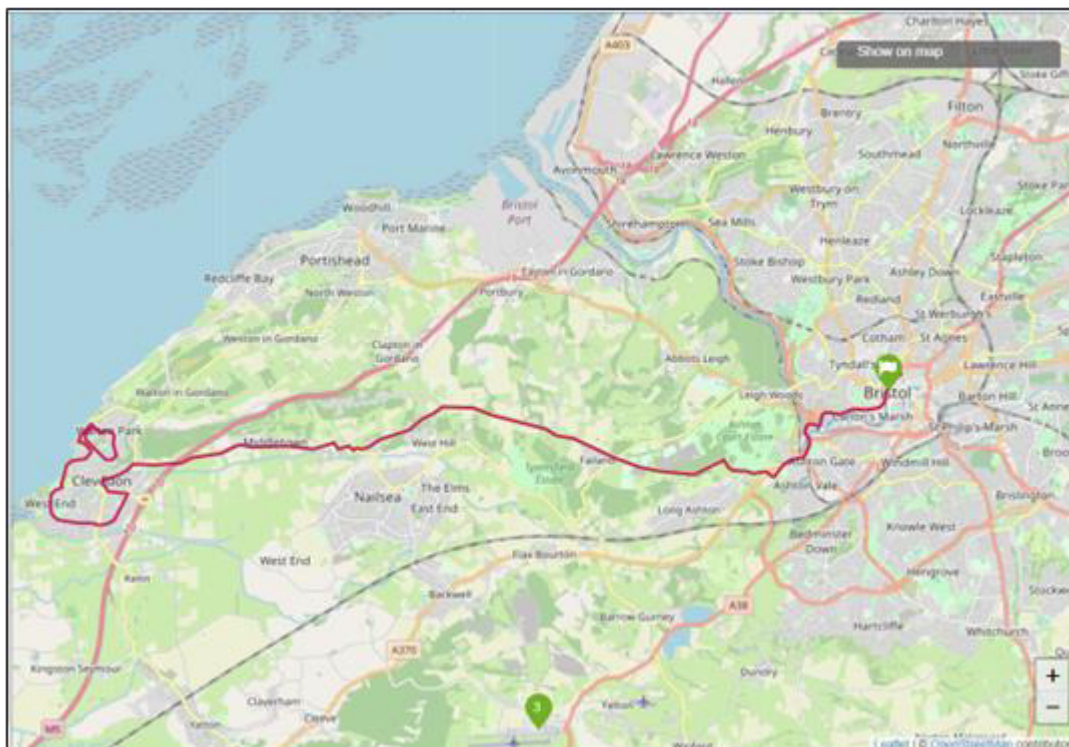
First Bus service X2 from Yatton to Bristol City Centre



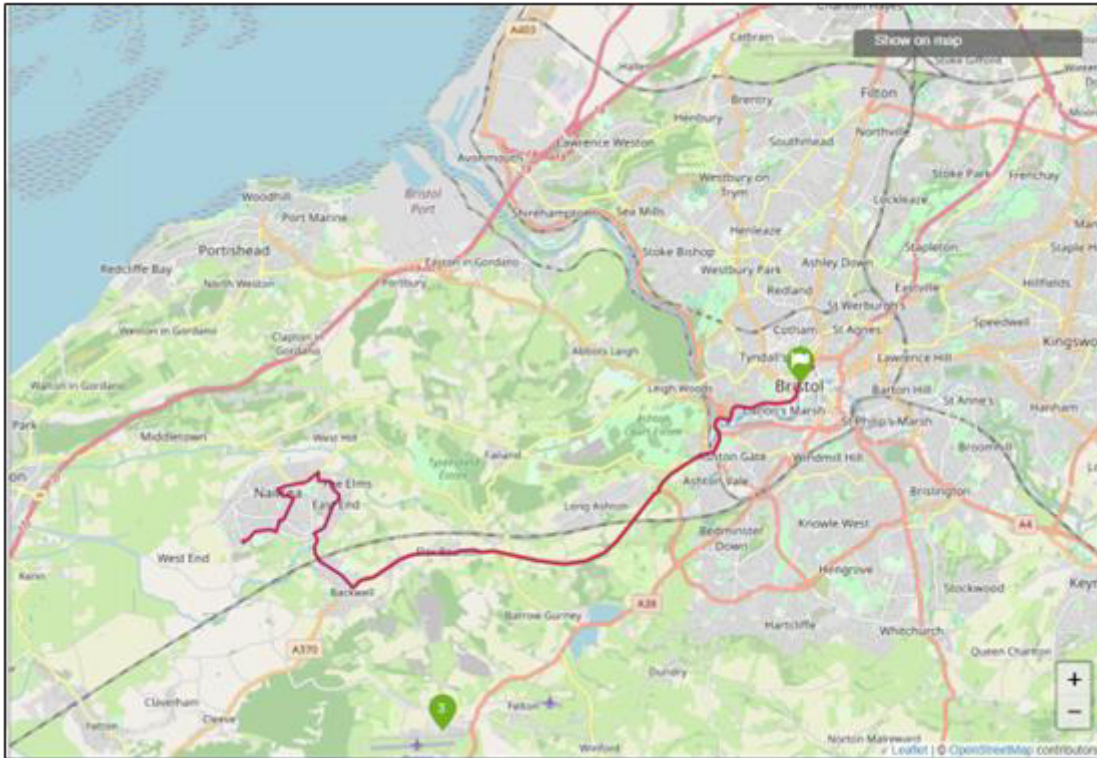
First Bus service X4 from Portishead to Bristol City Centre



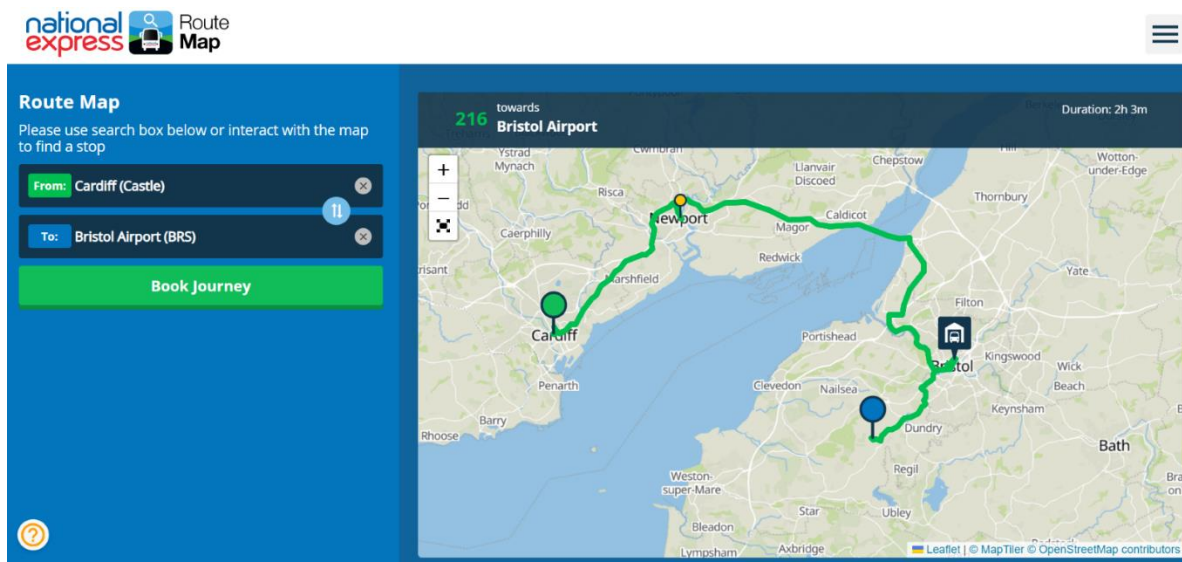
First Bus X7 Service from Clevedon to Bristol City Centre



First Bus service X8 from Nailsea to Bristol City Centre



National Express Route Cardiff to Bristol Airport ¹



¹ Source: https://routemap.nationalexpress.com/search/between/cardiff_castle/bristol_airport_brs

Appendix C – Road Safety Data

Accidents between dates 01/03/2017 and 28/02/2022 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -***MN'S WORKSPACE***
("ADE2022-0419")

Police Ref.	Acc Class	Date	Day	Time	Grid References	Casualties			Causation Factors/ Prob	Ped		Light	Weather	Road Surface	Vehicle Types	
						Ftl	Ser	Slt		L	M					D
171702438	Slight	22/03/2017	Wed	1615	357127 172451	0	0	1	404V001A 406V001B	0	0	0	Light	Fine without high winds	Dry	9 5
171702446	Slight	26/03/2017	Sun	1335	356392 173294	0	0	1	999V1B	0	0	0	Light	Fine without high winds	Dry	9 4
171702515	Slight	03/04/2017	Mon	0630	354629 176572	0	0	1	403V001B 403V002B	0	0	0	Light	Fine without high winds	Dry	9 20
171703073	Slight	06/04/2017	Thu	1527	357238 172516	0	0	1	802C001A	5	2	5	Light	Fine without high winds	Dry	11
171702399	Slight	07/04/2017	Fri	1651	355045 175476	0	0	1		0	0	0	Light	Fine without high winds	Dry	9 9
171704067	Slight	24/04/2017	Mon	1216	357886 172604	0	0	1	509V001A 503V001B 505V001B	0	0	0	Light	Fine without high winds	Dry	9
171704103	Slight	07/05/2017	Sun	1705	357302 172496	0	0	1	904V001A 403V002B	0	0	0	Light	Fine without high winds	Dry	9 1
171704200	Slight	10/05/2017	Wed	1706	354590 176619	0	0	2	301V002B	0	0	0	Light	Fine without high winds	Dry	9 9
171704215	Slight	11/05/2017	Thu	0819	352236 177175	0	0	2	710V001A	0	0	0	Light	Fine without high winds	Dry	9 9
171705347	Slight	07/06/2017	Wed	0815	356784 172279	0	0	1	405V003A 406V003A	0	0	0	Light	Fine with high winds	Dry	9 9 9
171703796	Slight	09/06/2017	Fri	1815	358459 172638	0	0	1		0	0	0	Light	Fine without high winds	Dry	4 9
171706308	Slight	01/08/2017	Tue	1700	352270 177195	0	0	3	408V001A 308V002A 308V003A 406V002B 406V003B 408V002A	0	0	0	Light	Fine without high winds	Dry	9 9 9
171706674	Slight	15/08/2017	Tue	0802	356383 173308	0	0	1	306V001B 701V002B	0	0	0	Light	Fine without high winds	Dry	3 9
171706727	Slight	15/08/2017	Tue	1653	352211 177859	0	0	2	406V001A 408V001A 410V001B	0	0	0	Light	Fine without high winds	Dry	9 9 9
171706946	Slight	25/08/2017	Fri	1430	356152 174460	0	0	1	701V001A	0	0	0	Light	Fine without high winds	Dry	9 3
171708239	Serious	23/09/2017	Sat	1355	356332 173807	0	1	0	405V002B	0	0	0	Light	Fine without high winds	Dry	9 5

Accidents between dates 01/03/2017 and 28/02/2022 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -***MN'S WORKSPACE***
("ADE2022-0419")

Police Ref.	Acc Class	Date	Day	Time	Grid References	Casualties			Causation Factors/ Prob	Ped			Weather	Road Surface	Vehicle Types	
						Ftl	Ser	SlT		L	M	D				Light
171707295	Slight	11/10/2017	Wed	0830	358317 172590	0	0	1	104V001B 305V001A 405V001A 710V001B	0	0	0	Light	Unknown	Dry	5 9
171707306	Slight	31/10/2017	Tue	0809	356835 172355	0	0	1		0	0	0	Light	Fine without high winds	Dry	2 9
171708380	Slight	15/11/2017	Wed	2020	356823 172332	0	0	4	306V002A 307V002A 409V002A 410V002A 103V002A	0	0	0	Dark	Unknown	Dry	9 9
171800479	Slight	17/11/2017	Fri	1415	356373 173328	0	0	1	406V001A	0	0	0	Light	Fine without high winds	Dry	9 9
171801187	Slight	27/12/2017	Wed	0950	356794 172285	0	0	1	103V001A 405V002B 408V001A 703V002B	0	0	0	Light	Fine without high winds	Wet/Damp	3 9
181802021	Slight	25/02/2018	Sun	1112	356354 173365	0	0	1	402V001A 406V001A 408V001B	0	0	0	Light	Fine without high winds	Wet/Damp	9 9 9
181802046	Slight	25/02/2018	Sun	1116	356881 172493	0	0	2	104V001A 305V001A	0	0	0	Light	Raining without high winds	Wet/Damp	9 9
181802475	Slight	10/04/2018	Tue	0424	356697 172535	0	0	3	104V001B 305V001A	0	0	0	Dark	Fine without high winds	Dry	9 9
181803714	Slight	29/04/2018	Sun	0430	357449 172464	0	0	1	308V002B 407V001B 509V002B 602V002B	0	0	0	Dark	Fine without high winds	Dry	8 9
181803022	Slight	03/05/2018	Thu	1240	358464 172642	0	0	1		6	9	9	Light	Fine without high winds	Dry	9
181805752	Serious	05/05/2018	Sat	0220	358479 172654	0	1	0	999V1B	8	9	9	Dark	Fine without high winds	Dry	9
181804532	Slight	16/05/2018	Wed	1630	356926 172505	0	0	1	410V001B 603V001B 999V001A	0	0	0	Light	Fine without high winds	Dry	9 9 9

Accidents between dates 01/03/2017 and 28/02/2022 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -***MN'S WORKSPACE***
("ADE2022-0419")

Police Ref.	Acc Class	Date	Day	Time	Grid References	Casualties			Causation Factors/ Prob	Ped		Light	Weather	Road Surface	Vehicle Types	
						Ftl	Ser	Slr		L	M					D
181804580	Slight	18/05/2018	Fri	1500	356965 172557	0	0	4	403V001A 405V001A 410V001A 503V001A 505V001A 706V001A	0	0	0	Light	Fine without high winds	Dry	9 11
181803690	Slight	24/05/2018	Thu	1640	358153 172563	0	0	1		0	0	0	Light	Unknown	Dry	1 9
181804163	Slight	18/06/2018	Mon	1600	357154 172540	0	0	1		0	0	0	Light	Fine without high winds	Dry	1 9
181805298	Slight	18/06/2018	Mon	1851	358151 172565	0	0	3	301V001A 403V001A	0	0	0	Light	Raining without high winds	Wet/Damp	9 9
181804539	Slight	02/07/2018	Mon	1110	357127 172550	0	0	1		0	0	0	Light	Unknown	Dry	5 9
181804710	Slight	02/07/2018	Mon	1830	358042 172550	0	0	1		0	0	0	Light	Fine without high winds	Dry	9 1
181805320	Serious	24/07/2018	Tue	1701	356284 173975	0	1	0	405V001A	0	0	0	Light	Fine without high winds	Dry	9 5
181900679	Slight	15/08/2018	Wed	1250	356159 174447	0	0	1	405V001A 405V002B 406V001A 406V002A	0	0	0	Light	Fine without high winds	Dry	9 3
181900963	Slight	24/08/2018	Fri	1855	356346 173576	0	0	1	103V001A 108V001A 307V001B 410V001B 605V001B 707V001B	0	0	0	Light	Raining without high winds	Wet/Damp	9
181900974	Slight	25/08/2018	Sat	1320	353092 176466	0	0	1	403V002A 405V002A 406V002A	0	0	0	Light	Fine without high winds	Dry	9 9
181806213	Slight	12/09/2018	Wed	0610	356348 173382	0	0	1		0	0	0	Dark	Unknown	Dry	3 9
181901775	Slight	27/10/2018	Sat	1305	356341 173560	0	0	1	405V002A 406V001B 406V002B 710V002B	0	0	0	Light	Fine without high winds	Dry	97 9
181808309	Slight	12/12/2018	Wed	0520	357876 172580	0	0	3		0	0	0	Dark	Fine without high winds	Dry	9 11 9

Accidents between dates 01/03/2017 and 28/02/2022 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -***MN'S WORKSPACE***
("ADE2022-0419")

Police Ref.	Acc Class	Date	Day	Time	Grid References	Casualties			Causation Factors/ Prob	Ped			Weather	Road Surface	Vehicle Types	
						Ftl	Ser	Slt		L	M	D				Light
181808389	Slight	12/12/2018	Wed	1850	357077 172562	0	0	1		0	0	0	Dark	Fine without high winds	Dry	9 11
181900022	Slight	20/12/2018	Thu	1800	356290 173948	0	0	1		0	0	0	Dark	Raining without high winds	Wet/Damp	2 2 9
191901247	Slight	20/02/2019	Wed	0930	356783 172279	0	0	1	501V002B	0	0	0	Light	Fine without high winds	Dry	9 9
191903784	Slight	07/03/2019	Thu	1315	356841 172351	0	0	2	308V2B 308V001A 405V001B 406V001B 602V001B	0	0	0	Light	Fine without high winds	Wet/Damp	9 9 9 9
191902481	Fatal	07/04/2019	Sun	1248	357155 172511	1	1	0	999V1B	6	9	0	Light	Fine without high winds	Dry	9
191903997	Serious	13/04/2019	Sat	0530	358486 172665	0	1	0	107V002B 307V002A 405V002A 410V002A 602V002A 704V002B	0	0	0	Dark	Fine without high winds	Dry	19 3
191905428	Slight	13/04/2019	Sat	1507	356853 172395	0	0	2	602V001A	0	0	0	Light	Fine without high winds	Dry	9 9 9 9
191902933	Slight	01/05/2019	Wed	1830	355193 175071	0	0	1		0	0	0	Light	Unknown	Dry	9 9
191903090	Slight	07/05/2019	Tue	1900	357203 172528	0	0	1		6	9	9	Light	Unknown	Dry	9
191905743	Slight	15/05/2019	Wed	0919	358240 172579	0	0	2	405V002A 406V002A 403V002A 602V002A	0	0	0	Light	Fine without high winds	Dry	8 9
191903857	Slight	14/06/2019	Fri	1415	357290 172498	0	0	1		0	0	0	Light	Raining without high winds	Wet/Damp	1 9
191906230	Slight	05/07/2019	Fri	1710	357312 172493	0	0	2	509V001A 406V001A	0	0	0	Light	Fine without high winds	Dry	9 9 9
191905255	Slight	02/09/2019	Mon	1315	353544 176649	0	0	1		5	9	0	Light	Fine without high winds	Dry	21
191905910	Slight	29/09/2019	Sun	2135	358234 172572	0	0	1		0	0	0	Dark	Fine without high winds	Dry	9 1
191907469	Slight	25/11/2019	Mon	0144	356876 172407	0	0	2	601V001A 602V001A 901V001B	0	0	0	Dark	Fine without high winds	Wet/Damp	9 9
191907136	Slight	27/11/2019	Wed	1710	358238 172579	0	0	1		5	3	1	Dark	Raining without high winds	Wet/Damp	9
191907263	Slight	03/12/2019	Tue	1500	356755 172511	0	0	1		0	0	0	Light	Fine without high winds	Dry	3
192007422	Slight	11/12/2019	Wed	1950	357903 172595	0	0	1		0	0	0	Dark	Raining with high winds	Wet/Damp	9 9

Accidents between dates 01/03/2017 and 28/02/2022 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -***MN'S WORKSPACE***
("ADE2022-0419")

Police Ref.	Acc Class	Date	Day	Time	Grid References	Casualties			Causation Factors/ Prob	Ped		Weather	Road Surface	Vehicle Types		
						Ftl	Ser	Slt		L	M				D	Light
191907520	Slight	12/12/2019	Thu	2030	357482 172463	0	0	1		0	0	0	Dark	Raining without high winds	Wet/Damp	1 9
202000057	Slight	06/01/2020	Mon	0635	356882 172414	0	0	1		0	0	0	Dark	Fine without high winds	Dry	1 9
202000694	Slight	25/01/2020	Sat	2115	358140 172561	0	0	1	302V001A 403V001B 405V001A 406V001A 602V001A 605V001A	0	0	0	Dark	Raining without high winds	Wet/Damp	9 9
202004925	Slight	07/05/2020	Thu	1332	356377 173321	0	0	1	999V001B	0	0	0	Light	Fine without high winds	Dry	3 9
202005066	Slight	22/05/2020	Fri	0643	355075 175926	0	0	1	406V002A 602V002B 405V002B	0	0	0	Light	Fine without high winds	Dry	90 5
202003289	Slight	24/05/2020	Sun	1255	356665 172608	0	0	1	999V001B	5	9	9	Light	Fine without high winds	Dry	9
202002396	Slight	14/06/2020	Sun	1545	356772 172515	0	0	1	405V002B 406V002B	0	0	0	Light	Fine without high winds	Dry	1 9
202100064	Slight	14/06/2020	Sun	1520	356377 173318	0	0	2	402V001A 408V002A 308V003B	0	0	0	Light	Fine without high winds	Dry	1 9 9
202003393	Slight	25/06/2020	Thu	1655	356377 173310	0	0	1	999V001B	0	0	0	Light	Fine without high winds	Dry	9 9 2
202104646	Slight	29/06/2020	Mon	2213	356627 172694	0	0	2	501V001B 502V001B 406V001A	0	0	0	Dark	Fine without high winds	Dry	9 9
202100408	Slight	11/07/2020	Sat	1458	356650 172623	0	0	2	408V001A 408V002A 405V003A	0	0	0	Light	Fine without high winds	Dry	9 9 9
202100640	Slight	11/07/2020	Sat	0450	355088 175723	0	0	1	501V001A 502V001A	0	0	0	Dark	Fine without high winds	Dry	9

Accidents between dates 01/03/2017 and 28/02/2022 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -***MN'S WORKSPACE***
("ADE2022-0419")

Police Ref.	Acc Class	Date	Day	Time	Grid References	Casualties			Causation Factors/ Prob	Ped		Light	Weather	Road Surface	Vehicle Types	
						Ftl	Ser	Slt		L	M					D
202003052	Slight	16/07/2020	Thu	1824	356364 173341	0	0	1	104V001B 105V001A 406V001B 104V002B 105V002A 405V001A	0	0	0	Light	Fine without high winds	Dry	5 9
202002973	Slight	29/07/2020	Wed	1745	354570 176614	0	0	1		0	0	0	Light	Fine without high winds	Dry	9 9
202003208	Slight	07/08/2020	Fri	2149	353662 176713	0	0	1	306V002A 405V001A 406V001A	0	0	0	Dark	Fine without high winds	Dry	9 5
202003652	Serious	06/09/2020	Sun	1600	352338 177020	0	1	0	999V001B	0	0	0	Light	Fine without high winds	Dry	9 9
202003851	Slight	29/09/2020	Tue	0930	354955 176123	0	0	1		5	9	9	Light	Fine without high winds	Dry	9
202101067	Slight	03/11/2020	Tue	1830	354565 176639	0	0	1	405V001A 406V001A	0	0	0	Dark	Fine without high winds	Wet/Damp	9 9
202004719	Slight	10/11/2020	Tue	1702	356373 173309	0	0	1	999V001B	0	0	0	Dark	Raining without high winds	Wet/Damp	3
202101157	Slight	20/11/2020	Fri	1320	357133 172549	0	0	1	306V001A 409V001A 307V001B 405V002B 406V002B	0	0	0	Light	Raining without high winds	Wet/Damp	9 19
212100505	Slight	20/01/2021	Wed	1310	357885 172591	0	0	1	302V001A 401V001A 103V001A	0	0	0	Light	Raining without high winds	Wet/Damp	9 2
212101624	Slight	31/01/2021	Sun	0957	352160 177839	0	0	1	710V002B 307V002B 405V002B	0	0	0	Light	Raining without high winds	Wet/Damp	9 90 9
212102134	Slight	30/03/2021	Tue	1825	356802 172273	0	0	1	306V002A 405V002A 602V002A 605V002B	0	0	0	Dark	Fine without high winds	Dry	9 3
212102004	Slight	02/04/2021	Fri	1740	357880 172596	0	0	1	999V001B	0	0	0	Light	Fine without high winds	Dry	9 9 9

Accidents between dates 01/03/2017 and 28/02/2022 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -***MN'S WORKSPACE***
("ADE2022-0419")

Police Ref.	Acc Class	Date	Day	Time	Grid References	Casualties			Causation Factors/ Prob	Ped			Weather	Road Surface	Vehicle Types	
						Ftl	Ser	Slt		L	M	D				Light
212102045	Slight	12/04/2021	Mon	0700	354598 176629	0	0	1	403V001A 410V001A 501V001A 601V001A 902V001A	0	0	0	Light	Fine without high winds	Dry	9 9
212102162	Slight	16/04/2021	Fri	1502	355308 174964	0	0	1	405V001A 406V001A 510V001A	0	0	0	Light	Fine without high winds	Dry	9 9
212102506	Slight	23/04/2021	Fri	0823	356368 173334	0	0	1	405V001A	0	0	0	Light	Fine without high winds	Dry	9 3
212102092	Slight	24/04/2021	Sat	2150	357241 172516	0	0	1		0	0	0	Dark	Fine without high winds	Dry	1 5
212103764	Slight	14/05/2021	Fri	1617	355115 175782	0	0	1	405V002A 406V001B	0	0	0	Light	Fine without high winds	Dry	4 9
212103194	Serious	04/06/2021	Fri	1127	352238 177350	0	1	0	402V001A 405V001A 710V001A	0	0	0	Light	Fine without high winds	Dry	9 1
212103261	Serious	14/06/2021	Mon	0645	353582 176663	0	1	0	405V001A	0	0	0	Light	Fine without high winds	Dry	19 1
212104415	Slight	17/06/2021	Thu	0857	357485 172461	0	0	1	408V001A	8	1	1	Light	Fine without high winds	Dry	9
212104787	Slight	02/07/2021	Fri	1714	357522 172464	0	0	1	405V001A 701V001B 701V002B	0	0	0	Light	Fine without high winds	Dry	5 8
212104702	Slight	17/08/2021	Tue	1150	356350 173689	0	0	1	403V001A 410V001B 503V001B 505V001B	0	0	0	Light	Fine without high winds	Dry	9 9 9
212104458	Slight	10/09/2021	Fri	2000	356592 172760	0	0	1		0	0	0	Dark	Unknown	Wet/Damp	1 9
212105184	Serious	18/09/2021	Sat	2055	358151 172562	0	1	0		0	0	0	Dark	Fine without high winds	Dry	3 9
212104985	Fatal	07/10/2021	Thu	0546	352967 176451	1	0	0	999V01B	0	0	0	Dark	Fine without high winds	Dry	4 21
212201184	Slight	12/11/2021	Fri	0619	354584 176620	0	0	1	301V001B 301V002B	0	0	0	Dark	Fine without high winds	Wet/Damp	9 9
212106283	Slight	25/11/2021	Thu	1800	352907 176452	0	0	1	405V001B 406V002B 605V001A	0	0	0	Dark	Fine without high winds	Dry	9 21

Accidents between dates 01/03/2017 and 28/02/2022 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -***MN'S WORKSPACE***
("ADE2022-0419")

Police Ref.	Acc Class	Date	Day	Time	Grid References	Casualties			Causation Factors/ Prob	Ped		Weather	Road Surface	Vehicle Types	
						Ftl	Ser	Slt		L	M D				Light
212201347	Slight	02/12/2021	Thu	2105	356901 172446	0	0	1	103V001B 306V001B 307V001B 308V001A 405V001A	0	0 0	Dark	Raining without high winds	Wet/Damp	9 9
222200943	Slight	13/02/2022	Sun	1930	352158 177842	0	0	1		0	0 0	Dark	Raining without high winds	Wet/Damp	9 9
Column Totals	Slight :	90				2	9	0			Light : 70		Dry : 78		
	Serious :	8									Dark : 30		Wet : 22		
	Fatal :	2													

Total number of accidents listed: 100

Appendix D - BCC Early Engagement Report

Appendix D2 - Problems and Opportunities statement

A4 Portway

Early Engagement Report

August 2022



Contents

1. Summary	3
2. Background	4
2.1 The A4 Portway route	5
2.2 Objectives of engagement and communications	6
3. Early Engagement exercise	7
3.1 Engagement Tools.....	7
3.2 Survey.....	9
3.3 Interactive Map.....	9
3.4 Supporting communications.....	10
4. Results	10
4.1 Stakeholder engagement.....	10
4.2 Public Feedback	18
4.2.1 Survey.....	18
4.2.2 Interactive map.....	33
4.2.3 Drop in sessions	37
4.2.4 Emails, letters and phone calls.....	37

1. Summary

How we engaged

Community survey

Stakeholders

Emails, phone calls and drop in sessions

2. Background

Over the past decade changes have been made to the road network in Bristol to improve bus journey times and encourage walking and cycling. However, the transport network in Bristol still faces challenges, including growth in housing and employment areas, unreliable journey times, and high levels of congestion and air pollution.

To address these challenges and help Bristol reach its 2030 carbon neutral target, radical changes to Bristol's road network are required. These changes will need to make a transformational difference to bus travel, and act as an enabler for cycling and walking.

Over the next 10 to 15 years Bristol and the West of England Combined Authority have committed to developing and improving bus services as a priority for the region, in collaboration with bus operators.

Clean Air Zone (CAZ)

The government has directed Bristol, and other cities, to reduce harmful pollution from vehicles in the shortest possible time. The size of the zone and its boundary has been designed to meet legal air quality targets in the central area where air quality is worst.

Central areas of the city and main routes, which include the Portway and the Cumberland Basin, have breached legal levels of pollution for several years because of the number of vehicles that use them. For this reason, they are included in the Clean Air Zone, which is being introduced later this year.

The A4 Portway will support the aim of the Clean Air Zone by helping to make sustainable transport modes - such as public transport, walking and cycling - the natural choice for people's journey.

How the Portway A4 route project links to the Western Harbour regeneration project

Some of the A4 Portway route passes through the Western Harbour regeneration zone and this section is out of scope for this early engagement. This is because work will be needed to update or replace the Cumberland Basin road system in the future as part of the [Western Harbour's regeneration project](#). Replacement of large parts of the system will be necessary because the infrastructure of the Cumberland Basin has become older, and maintenance has become increasingly costly.

Implementing short term improvements along the Portway A4 route will improve bus journeys and the walking and cycling environment now ahead of work undertaken as part of the Western Harbour regeneration project in the future.

Feedback from this early engagement on the Portway A4 route will be integrated into [Western Harbour's masterplan](#) that will consider more detailed proposals for the area alongside consultation with the community.

Project ambition

The focus of this project is to develop and improve the bus services and the walking and cycling environment running along the north western section of the A4.

Buses are an essential service connecting people to education, employment, sport and leisure activities, and are integral in connecting communities. Through infrastructure changes, the aim is to achieve greater bus reliability, improved bus punctuality, growth in people travelling by bus, and a step change in the quality of bus services along the A4. While the focus is on the bus services, there is scope to consider improvements to active travel infrastructure.

2.1 The A4 Portway route

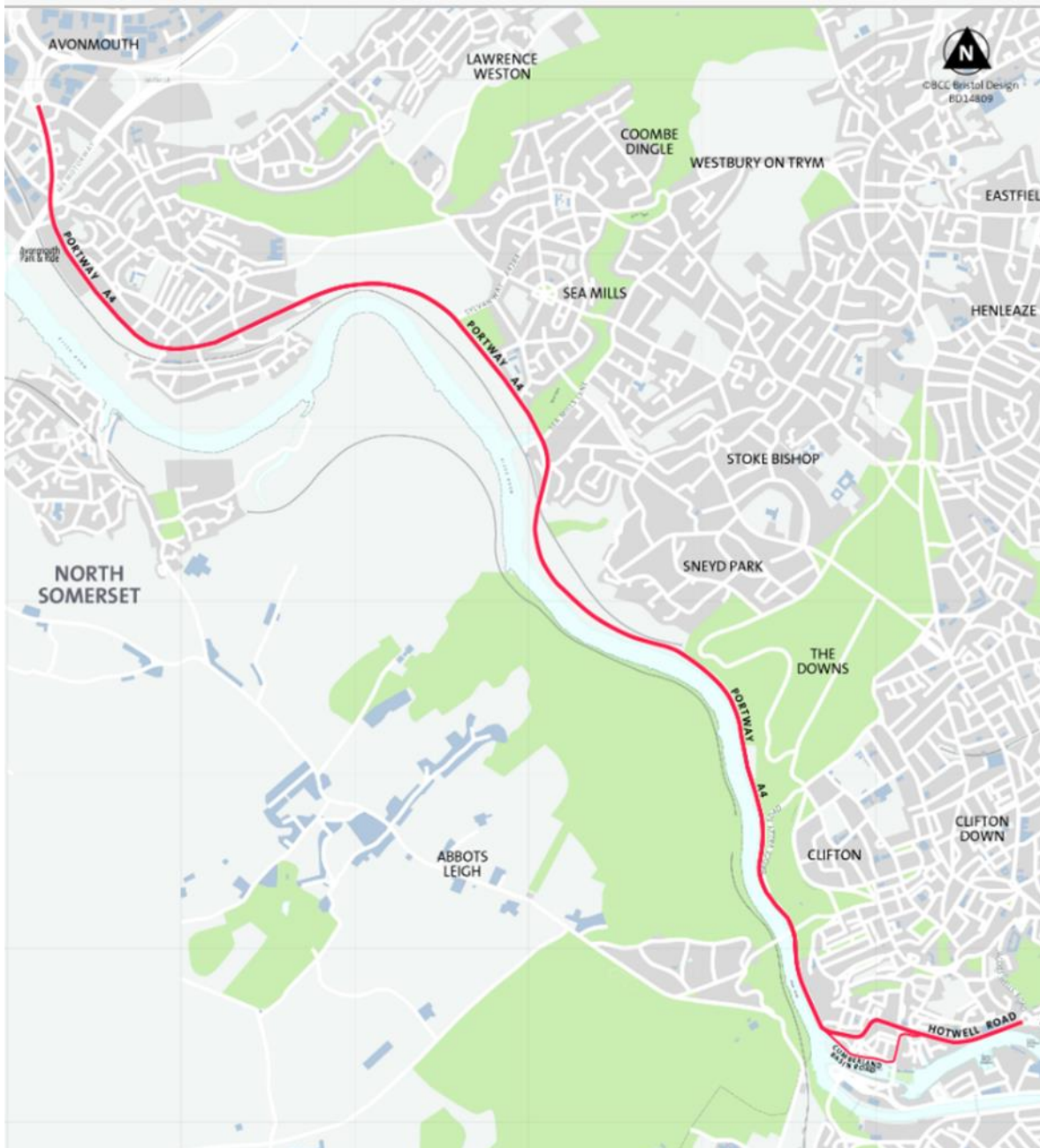
The A4 in Bristol links two of the city's Park and Ride sites: one at Portway and one at Brislington. The route starts at the M5 flyover, it travels along the A4 passing the Avon Gorge and onto Hotwell Road to the Jacob's Wells Road roundabout, then along Anchor Road, and up to Explore lane.

The whole route covers 4 wards. In the north the route starts in Avonmouth and Lawrence Weston and at the junction with Sylvan Way it changes to Stoke Bishop. At the junction with Bridge Valley Road, it moves into Clifton and where the A4 turns left at the Cabot Way junction it changes to Hotwells and Harbourside.

Feedback from previous [public engagement and consultation on Western Harbour](#) will be used to inform proposals on the Portway A4 route that runs along the Western Harbour boundary, which follows Hotwell Road, Dowry Place and Oldfield Place.

Transport proposals to this route will also benefit a number of bus services such as the Portway Park and Ride, X1, , X4, X6/X7, X8/X9, and U2, Stagecoach service number 13, and HCT service number 505.

Below is a map showing the A4 Portway transport route:



2.2 Objectives of engagement and communications

The main aim of the engagement exercise was to:

- seek views from key and local stakeholders
- seek views from local businesses, local people living and working along the route
- begin a constructive dialogue and create the environment where people can be involved throughout the process
- create a good understanding of the early engagement exercise to find out the issues and any benefits amongst stakeholders, local businesses, local people, and commuters
- demonstrate Bristol City Council is prioritising sustainable transport options to help Bristol become a sustainable city with a low impact on our planet, clean air, and a healthy environment for all

To achieve these objectives, the team agreed upon key messages such as:

- Bristol City Council is committed to working with local people and partners to improve sustainable transport across the city.
- We are improving key routes across the city to make these journeys easier, improving conditions for all forms of transport and those that live and work along those routes. This includes changes to junctions, creating bus gateways, improving reducing traffic on side roads, and improving the environment for everyone.
- The feedback from the Western Harbour regeneration project will be used to inform proposals on the Portway A4 route that runs along the Western Harbour boundary, which follows Hotwell Road, Dowry Place and Oldfield Place.
- The council have also introduced active travel measures during COVID-19 aimed at making it easier for people to choose to walk and cycle

The target audiences for this project include stakeholders such as:

- Bristol City Council ward members, Members of Parliament
- West of England Combined Authority
- Hospitals, care homes, emergency services
- Educational facilities such as the University, colleges, and local schools
- Business Improvement Districts, Business West and local businesses and traders
- Transport Operators
- Transport campaign groups
- Wildlife and habitat groups
- Equality groups
- Local people who live on the bus route or on side roads
- Local resident associations, faith, and community groups
- People working on the route
- People who visit local places on the route
- Commuters along the route

3. Early Engagement exercise

This early engagement exercise asked people about their travel issues along the route. People who live or travel along the Portway A4 were encouraged to feed into the early engagement exercise. This was to find out how this main route into the city can be improved to help buses move quickly through traffic and make cycling and walking safer and more enjoyable.

3.1 Engagement Tools

The team produced different products to support the early engagement process and agreed on a survey as the best way to collate views from the community. The products included the survey with a freepost envelope, postcards, and posters. All the information was provided online and was compatible with word reader software and could be emailed out via editable pdfs.

The online survey had a shortened link www.bristol.gov.uk/A4portwayengagement that was promoted and publicised through social media channels and newsletters etc. To ensure those who do not have online access were also included the team produced paper copies of the products.

The team also provided different ways for the public to get in touch if anyone had a comment or required a survey in a different format. They could contact the team on email at

transport.engagement@bristol.gov.uk, by phone 0117 9036449 or by writing to A4 Portway, Transport Engagement, PO BOX 3399, 100 Temple Street, Bristol, BS1 9NE.

See below for an image of the business card and poster:



The team encouraged everyone to have their say by:

- Putting up posters in the local area so that those using the road regularly can see there is a survey taking place
- Posting out letters to over 9000 local properties to raise awareness of the survey and encourage local people to have their say
- Contact local groups and key stakeholders and ask them to help raise awareness of the survey
- Provided two virtual stakeholder workshops via Teams which involved a short presentation about the project and what we are trying to achieve, followed by a discussion looking at the challenges and opportunities along the route. The dates were:
 - Thursday 30 June – 1pm to 2.30pm
 - Wednesday 13 July – 6pm to 7.30pm
- Held drop-in sessions during the early engagement at the following locations and dates:
 - Shirehampton Library - 1pm to 5pm, Wednesday 6 July
 - Sea Mills Library – 10am to 2pm, Tuesday 12 July
 - Portway Park & Ride – 8am to 12noon, Tuesday 19 July
 - Central Library – 10am to 2pm, Thursday 21 July
 - Portway Park & Ride – 8am to 12noon, Saturday 23 July

3.2 Survey

The survey was launched on 29 June until 17 August 2022 which allowed seven weeks for comment and was designed by the team to capture views from residents, businesses and anyone who lives and uses the route. The survey questions were designed to help build a picture of the travel issues that exist along this main strategic corridor. This information was gathered through an online survey on the smart survey platform (paper copies and in various formats were available on request). The information gathered will help form the evidence for scheme designs as the project moves forward.

As the route was so long, we divided it into 4 sections in the survey to help people target their comments at the right location:

- 1) Portway P&R to Sylvan Way junction
- 2) Sylvan Way junction to Bridge Valley Road
- 3) Bridge Valley Road to Jacob Wells Road roundabout (not including the Western harbour section)
- 4) Jacob Wells roundabout to We the Curious

The survey has therefore been devised so that people answer questions:

- 1) About their own travel habits and what is important to them for transport routes
- 2) About their usage of the Portway Park and Ride and suggestions to improve the service
- 3) About each section of the route (following the order listed above). The three questions per section asked about any difficulties with the street environment, any improvements required and space for any other comments.
- 4) There was an interactive map where people could add a comment in a particular location
- 5) About free active travel support that is available
- 6) About your questions which are optional and help with demographic and equalities data

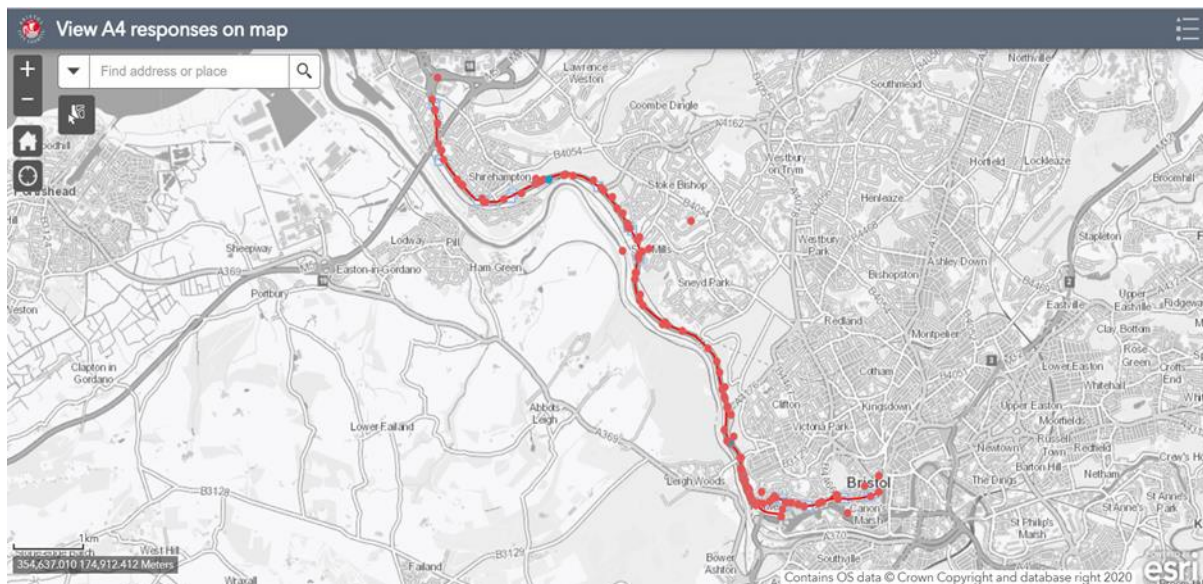
As the Portway Park and Ride service uses this route the survey is also an opportunity to promote the Portway Park and Ride and ask questions about the service and what customers would like changed, improved etc to encourage more to use it.

The survey was available through the consultation hub platform on the Bristol City Council website and through a link on the Travelwest website hosted by the West of England Combined Authority.

3.3 Interactive Map

We also created an interactive map that sits on the smart survey platform and allowed people to pinpoint their exact position on the transport route and to add their issue which can be categorised using the prepopulated issue types such as traffic signals, street scene, cyclist issues, crossing points, pedestrian issues, safety, street lighting, bus issues, bus stop/shelters, clean air and noise. If the issue types did not cover the comment people could choose 'other' and continue to add their comments. People can also 'like' the comments.

See the following image of the interactive map showing all of the comments made represented by red dots on the map.



3.4 Supporting communications

The team also created a social media toolkit which included images of the engagement and text for use in their communications and suggested web friendly copy for website, Facebook posts, twitter etc. The team also created a press release and copy for newsletters that were used with the sustainable transport business network and other local organisations.

First group also helped spread the word through printed adverts on the bus shelters and posters on the buses.

4. Results

4.1 Stakeholder engagement

The team identified key stakeholders who were contacted via email at the launch of the survey asking for their thoughts and comments. The key stakeholders list includes:

- 8 ward members covering Avonmouth and Lawrence Weston, Stoke Bishop, Central and Hotwells and Harbourside and the local MPs Thangam Debonnaire and Darren Jones
- emergency service providers,
- equality groups and disability groups
- transport / interest groups such as Bristol Cycling Campaign, Bristol Walking Alliance, Bristol Civic Society, First Bus, Stagecoach
- local interest groups such as Avon Gorge and Downs Wildlife project, Ambition Lawrence Weston, Cotswold Community Association, Shirehampton Community Action Forum
- educational institutions including pre-schools, local primary schools and secondary schools
- refuse firms such as Bristol Waste
- medical providers such as local GP surgeries
- faith groups and local centres

The team also provided two virtual stakeholder workshops which involved a short presentation about the A4 Portway corridor and what is trying to be achieved, followed by a discussion looking at the challenges and opportunities along this route from a transport perspective.

The workshops were held:

- Thursday 30th June – 1pm to 2.30pm
- Wednesday 13 July – 6pm to 7.30pm

Local and citywide stakeholders were invited to these workshops and those who could not attend either time but wanted to have a conversation were catered for on request.

Key stakeholders

We had xxx of responses from the following stakeholder groups:

National Highways

National Highways look after trunk roads and have a vested interest in strategic routes that move a high volume / frequency of goods and people. They are interested in strategic bus operations like ensuring the efficient operation of services and they are concerned with the operation of Junction 18, Portway Roundabout, St Brendans, and St Andrews.

National Highways are helping to fund improvements to wayfinding at the 'Avonmouth' end of the corridor. They would not want to see a reduction in capacity, however, would be open to negotiation if the modelled designs showed no significant negative impacts on the network. They do support anything to encourage the modal shift away from cars and towards sustainable modes of transport including bus, walking and cycling. They have requested to be included in the workshop to comment on the long list / short list options.

First Bus

Stagecoach

They submitted a letter that details the existing and potential role of the route and have expressed support to provide comment at this stage of the project. They detailed their support for the vision and ambition in the area and would like to see:

- Total segregation of bus services in both directions – seamless bus segregation provision
- The delivery of infrastructure to facilitate reliable bus services
- The delivery of a project that is mindful of the impacts on the wider strategic network
- The delivery of infrastructure that support and catalyse both a wider range of local bus services, and interurban bus and coach operations
- The delivery of infrastructure to the Portway Park and Ride that allows bus services travelling to and from the north and west of the Portway Park Ride to access the site.
- Infrastructure to facilitate improved access to Avonmouth, Severnside, Portbury, Portishead, W-S-M etc.
- Careful consideration of any potential changes to the speed limit so as not to unduly affect journey times and punctuality.

In their concluding remarks, Stagecoach state that they see the A4 Portway as having the potential to deliver transformative impacts for communities within Avonmouth, Severnside, Bristol Port, areas within the West of England region, and beyond. Stagecoach continues to state that they welcome the fact that this project is being progressed.

BWA (Bristol Walking Alliance)

Bristol Walking Alliance see this as a major opportunity to improve the pedestrian experience along the Portway and note that “removing shared use wherever possible should be a main objective. A segregated cycle track would give walkers sole use of the pavement and place them further away from the motor traffic. Reducing the carriageway width to achieve this would also help traffic calming. Though the Portway may not in itself be a key walking route, it does provide essential walking access to many areas of natural features along its length that are important for leisure, recreation and access to nature”.

For section 1 they would like the bridges replaced by ground level signal controlled crossings and would like more facilities at the park and ride. They suggest a new pedestrian crossing between Shirehampton Golf club and Shirehampton Park and a segregated cycle lane two way between the park and ride and Sylvan Way.

For section 2 they would like to see the existing crossing at Sea Walls and the Gulley footpath improved and have new crossing points at Old Sneed Park Nature Reserve, at each end of Avon Wildlife Trust’s land known as Bennett’s Patch & Whites Paddock, and where the new Zig-Zag footpath emerges beneath Bridge Valley Road. They would like additional bus stops and an improved leisure walking route.

For section 3 they note “there will need to be flood-prevention measures implemented along the section between Bridge Valley Road and the Cumberland Basin to prevent regular flooding at high tide with future sea level rise. The opportunity should be taken to widen the footway (perhaps cantilevered over a flood barrier?) to allow segregation from cycles”. They would also like a crossing to access the zig zag footpath from the Portway up to Sion Hill.

For section 4 they had no comments.

Bristol Cycling Campaign

They submitted a 22 point letter in response to the early engagement. They noted that “there should be a clear goal to create a continuous cycle route segregated from motor traffic, including buses, and walkers, throughout this route, along the A4 Portway, from the Harbourside to Avonmouth”. They were surprised and disappointed this is not front and centre of the consultation, but this is early engagement, and we are collecting suggestions to be considered in any future consultation. They would also like the route, and all linking infrastructure, to comply with LTN 1/20.

They suggested reallocating road space for high quality cycle and pedestrian infrastructure and would like a bidirectional cycle track parallel to the river located between the carriageway and footway. They suggest the speed limit is reduced to 20mph in residential areas and 30mph in other areas. They would also like junctions and accesses to the Portway for cyclists improved and would like a reduction in turning movements at Bridge Valley Road. There needs to be secure cycle parking at the park and ride and at the new train station. They would also like access to any plans at an early stage.

Bristol Disability Forum

They fully support more bus priority measures on the Portway as this is a key route from the park and ride and the railway station. They would like to see more bus stops and would like to see more bus services connecting to Sea Mills, Hotwells and the train stations and beyond to north somerset towns of Weston, Portishead, Clevedon and Nailsea. The route is well used by national express coaches, and they would like a future metro bus service on the Portway.

British Mountaineering Council

The British Mountaineering Council welcomed the opportunity to provide input into this early engagement. The Portway runs through the Avon Gorge, which is a climbing venue of national importance. Its future development is a matter of great interest to our members.

They noted that “the Avon Gorge is a wonderful location for wildlife and leisure. It would be no exaggeration to say that it is a latent jewel in the crown of Bristol’s iconic destinations. Its potential to offer a superb visitor experience has not been realized by recent administrations.”

They also see the engagement exercise as opening the possibility of a public discussion about how the Avon Gorge could be transformed into a destination for the tranquil enjoyment of nature and leisure.

Workshop 1 – Thursday 30 June

We had seven attendees at this workshop representing both local community groups and citywide campaign groups alongside a ward member.

A presentation was given which covered the aims of the project, how it fits with the wider policy and city ambitions of mass transit and links to rail, mobility hub etc. Once complete the group were asked two questions:

Q1 What are the challenges along the entire route?

The responses have been grouped by transport mode:

Walking

- Road crossings - with Portway being a busy route will need adequate no. of crossings especially towards city centre. Bridge Valley Road crossing needs improving. Crossings are associated with traffic lights and need to look at further crossing points. Need access to park and ride by bus stops to cross Portway
- Walking bridges are inaccessible and not suitable nowadays- below standards
- Important to provide more direct pedestrian route from bridge over new cut that goes down over Southville towards Bridge Valley Road. Now the route is a dog leg and so is confusing.
- Vegetation management is required as the paths are overgrown
- Shared space - difficult for disabled people to share the space. Need to make sure distinctive differences like on Baldwin Street. Make sure cycling lane had same colour
- Lighting is an issue and can create dark spaces.
- Nature reserve - no pedestrian access to this so must come in from Stoke Bishop

Cycling

- The segregated cycle lane is a problem as not many people use it. It is not in good condition and is alongside a walking path
- Cycling and walking is shared along Portway for the most part. That may be necessary, but Local Transport Note (LTN) 1/20 standard is to be separated by minor level different if width allows for it.
- Cyclists prefer to be separated from road traffic e.g., step down in level to traffic
- Sad to see the big issue bikes go. Had to pull out but happy to see scooter although issue - last mile issue
- Bus lane becomes a cycle lane if not good enough

Escooters

- Continually been bringing up issue of parking as on pavements in future need to put this on the road. Parking places are not well marked so need to allocate space for both bike and scooter parking key.
- People not leaving them in the correct place and blocking pathways

Buses

- Buses – low bus occupancy and usage
- Buses emerging on a hub - rerouting of local routes to Park and Ride
- Need link to Park and Ride from Lawrence Weston

Trains

- Train line along the Portway is a great improvement and be good to get to Portishead as this is a challenge
- Increasing bus, cycle, and walking - no mention of the train. Way cheaper to get train into town than bus

Speeding

- Speed limits are quite confusing on Portway 40, 30, 40, 50 - need to review speed limit

Other

- Major related factors e.g., arena when they are big events will have buses at Portway Park and Ride. A38 are already overwhelmed
- Omission which is the relationship to flooding measures on Portway. Issue at high tide and issue with 1m climate rise. Eg under suspension bridge. Will need serious interventions
- Need to plan for future usage across all modes
- Mobility hub - think about transition from car to bike etc
- Live in Avonmouth - off road pathways. Hard to get off the Portway - new off road pathway and new places to get off

Q2) What are the possible solutions/ opportunities?

Walking

- Keep the walking routes clear of debris and overgrown vegetation
- Include more crossing points in areas of high footfall particularly by the bus stops

Cycling

- Improve cycle lane by providing segregated lanes for modes including walking
- Got great cycling routes but can be affected by 10% which creates unusual routes
- Make cycle route stand out - bikes you can get in from further places

Buses

- Buses and trains - they end up in different destination. Use according to price and destination
- Bus operators get to select the route but need to more to where the Unitary Authority select the route
- Bus and train go to different places. Hippodrome – bus, Temple Meads for train
- Adequate bus shelters at all the routes and be accessible
- Improve the bus infrastructure e.g., bus stops and passengers to have confidence that buses will turn up e.g., Real Time Information needs to be available and accurate
- Needs to be cheaper than the train e.g., buses. Bus service may not run at full
- Integrated ticket system - for all modes
- x5 now stops which didn't - NSC link need to push the X5
- Avon wildlife trust - living roof on bus stops

Train

- Train - works and links well with bikes - can get in from Easton etc

Other

- Nature reserve - worth engaging with them and run SSSI. Complain about noise pollution as detracts from people using the site. Could improve access to site
- Electric points - just two in P&R site
- More bins
- SGC masterplan - work in Severn beach. Portway linking to Avonmouth - need to be done together

Comments about the Park and Ride

Need public toilets, café and charging points for e-bikes, e-scooters and electric vehicles

Workshop 2 – Wednesday 13 July

We had six attendees at this workshop representing both local community groups and citywide campaign groups.

A presentation was given which covered the aims of the project, how it fits with the wider policy and city ambitions of mass transit and links to rail, mobility hub etc. Once complete the group were asked two questions:

Q1 What are the challenges along the entire route?

The responses have been grouped by transport mode:

Walking

- Circular route coming down from the downs. A few options via Victorian steps but when you get to the bottom you get stranded on bottom of Portway. Like to see circular route so you could go up and down in the gorge – safer and user friendly route.
- Avon Gorge project produced a management plan and section about access to gorge. Long term aspiration. Geology trail looking at birds, rocks etc. The Gorge is Site of Special Scientific Interest. National geology organisations would love to explore it better but now it is difficult to get them down to look at it.
- Need access points, Zig Zag path coming down by Bridge Valley Road. Avon Gorge Hotel route comes out by Clifton rocks railway, but all come out to dangerous roads. Could we create safe crossings?
- Issues with shared path – whenever we have groups it can be dangerous and traffic noise and cyclists without bells
- Plea for crossing between Shirehampton and Sea Mills
- Maintenance of infrastructure is critical – debris, hedges etc.

Cycling

- Current shared use path is not up to the LTN1/20 standards. Trying to void shared space with peds. The path also drops off as you get up to the north of the Portway. Community severance at the north end from the bridge by Shirehampton station. Barrier to walking to the station.
- Better provision at southern of cycling to etc into centre
- Primary ask to have a segregated cycle route throughout the length and still have 2 lanes of traffic. Such a lovely place and would be good to remove traffic altogether. Shared path does not work for either mode. Pavement for walking only and widen where it is narrow by Shirehampton. 3m wide segregated cycle route which might mean taking out traffic lane.

Buses

- Do we need more bus lanes – but with relatively low frequency and high prices. Bus gate??
- Need to link orbital and radius route eg bus services

Road closures

- Consideration for closure Bridge Valley Road? Thinking of bus reliability and efficient traffic movements. When Bridge Valley Road was closed for repairs, it didn't stop traffic moving around.

Other

- Good place for wildlife and save money as it costs to do rock inspection and work to keep the rock face in good in order.
- Concerns about damage to ecological – special area of conversation and national nature reserve.
- 30 different trees only grow in Bristol and nowhere else.
- Level of Heavy Goods Vehicles traffic you get a lot of debris kicked onto the path
- Last mile support is very important – most significant challenge is the quality of the cycle paths for e-cargo bikes.
- Need to get people into and out of Portbury and Avonmouth area – not attractive. Greater sense of place. Need to link mode and population and work areas. Eg cycle routes.

Q2) What are the possible solutions/ opportunities?

Walking

- Putting in more crossings
- Replacing the bridge in Shirehampton and connecting the Portway up as a active travel corridor so you can connect with quietways.
- Uninviting place for active travel eg noise, pollution, debris – could be resolved by reducing speed limit eg 50 to 40mph?

Cycling

- Segregated cycle lane – two-way
- People feel safer if they know where they are going from and to. Ride and stride scheme funded by national highways – way finding work starts in NSC and comes into Bristol.

Speed

- Speed is a challenge – so reducing this and make 30 and 20 in built up section. Probably wouldn't reduce journey times but would reduce pollution and avoid accelerate brake culture.

Freight

- Underlining the conversation is that the Portway is a key freight route and assumed that freight must move as it does now. What about cargo bikes, rail freight?
- Assume freight is coming from south A370 – consider where it is coming from. recycling depot in Avonmouth. Excellent motorway connections.
- Freight is passing through from one side to another and has port which makes Bristol great. Consumables and food needs to come in. significant work for decarbonisation of large vehicles.

Other

- Fail to put in place signage in place. Need pride in place. Get a sense of what you are travelling through eg SSSI.







- Connections and hubs are great but need mini hubs in Sea Mills, Shirehampton stations.
- Decarbonisation – impact of emissions on ecology but can't get away that traffic will use it but as vehicles change to electric modes this will help. Also, quieter modes so impact on noise levels.
- Getting people into the gorge. Portway Sundays and close the road and family fun days.
- Support about seeing Portway as a place and could use Portway as a car park for these destinations.
- Would like to close Bridge Valley Road but could be an issue for access for school groups to the Gorge could reduce turning movements and make one way.

4.2 Public Feedback

Below details the response to the survey, interactive map, drop in sessions and emails/ letters/ phone calls. In total 1143 comments were received for the survey and 58 comments were left on the interactive map.

4.2.1 Survey

Below is a summary for each question with the breakdown of responses:

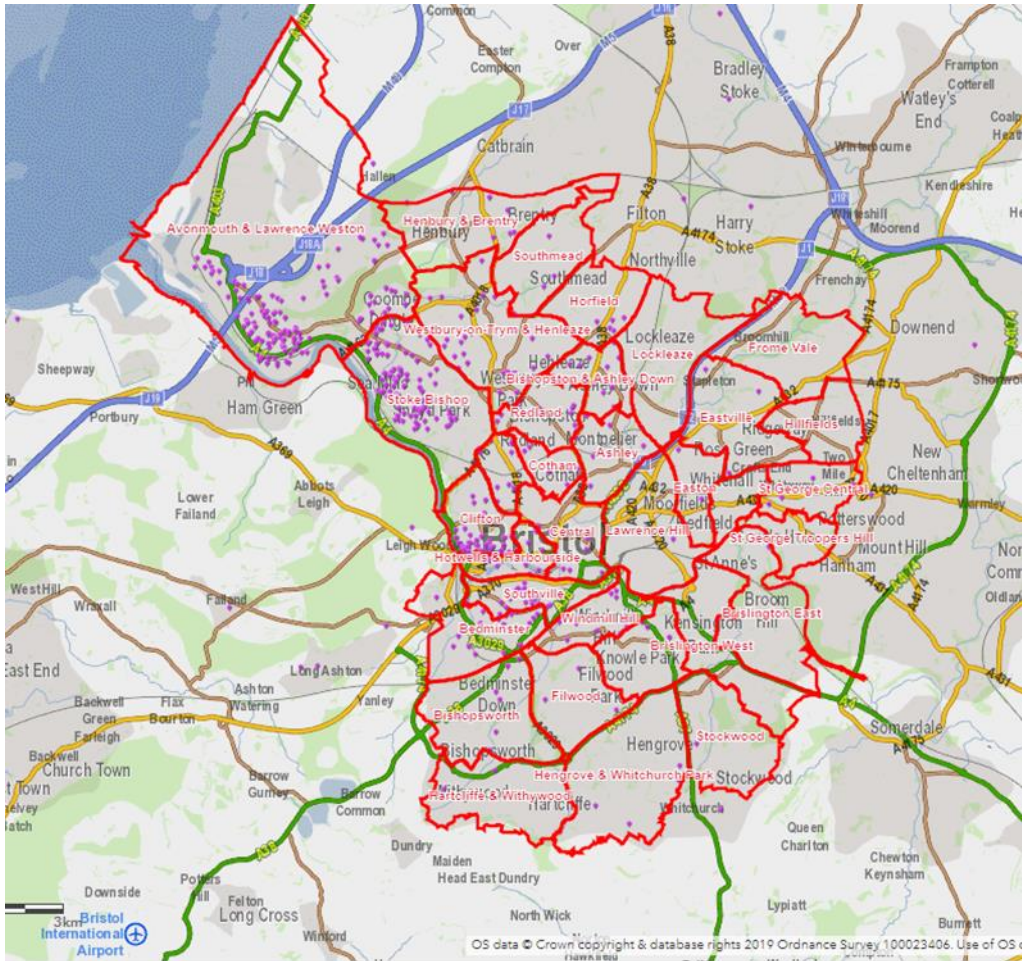
1. Which of the following best describes you?				
			Response Percent	Response Total
1	I am a resident along the route		30.24%	339
2	I am a business owner along the route		0.36%	4
3	I work along the route		1.87%	21
4	I regularly travel along this route		56.74%	636
5	I am a taxi / private hire driver		0.00%	0
6	I am a regular visitor to the area		9.28%	104
7	I am responding on behalf of a business/ Voluntary Group/ Community Group/Social Enterprise Other (please specify):		1.52%	17
			answered	1121
			skipped	22

30% of respondents said they were a local resident and 56% regularly travel along the route.

2. What is your full postcode?

		Response Percent	Response Total
1	Open-Ended Question	100.00%	1099








The 1099 postcodes have been plotted on a map below to show where the respondents live.



3. What is your main form of transport you usually use along this route? (Tick all that apply)

		Response Percent	Response Total
1	Walk	25.83%	287
2	Bicycle and/or ebike	50.68%	563
3	Scooter and/or escooter	2.52%	28

3. What is your main form of transport you usually use along this route? (Tick all that apply)

			Response Percent	Response Total
4	Bus / Metrobus		11.52%	128
5	Park & Ride		14.04%	156
6	Car / Van driver		61.21%	680
7	Car / Van passenger		15.12%	164
8	Taxi		3.24%	36
9	Motorcycle		2.52%	28
10	Other (please specify):		4.14%	46
			answered	1111




Around 62% travel along this route by car/van and 26% walk whilst 50% cycle. Of the 46 other many of them use the train or run along the route.

4. Please tell us how important you think the following things are along main transport routes:







	High importance	Medium importance	Low importance	Not at all important	Response Total	
Have clean air	63.7% (704)	26.9% (297)	6.1% (67)	3.4% (38)	1106	
Frequent bus services	57.3% (617)	28.0% (301)	9.5% (102)	5.2% (56)	1104	
Minimise traffic noise	38.4% (410)	38.8% (414)	16.8% (179)	6.0% (64)	1096	
Free flowing traffic eg reduced congestion	49.7% (532)	31.8% (341)	13.4% (143)	5.1% (55)	1098	
Safe walking routes	66.0% (710)	21.8% (234)	9.3% (100)	2.9% (31)	1104	
Safe cycling routes	73.5% (795)	14.4% (156)	7.2% (78)	4.8% (52)	1110	
People enjoying the route	48.4% (520)	31.3% (336)	14.6% (157)	5.8% (62)	1104	
					answered	1118
					skipped	25

Safe cycle routes and clean air have the highest importance percentages with traffic noise as the lowest out of these options.

Portway Park and Ride

5. Do you know about the Portway Park & Ride service that is located on the A4 Portway?			Response Percent	Response Total
1	Yes		88.73%	992
2	No		9.84%	110
3	Not sure		1.43%	16
			answered	1118
			skipped	25

Nearly 90% of respondents know about the park and ride service.

6. How frequently do you use the Portway Park & Ride?			Response Percent	Response Total
1	Daily		1.25%	14
2	Two to three times a week		5.65%	63
3	Once a week		3.32%	37
4	Few times a month		10.57%	118
5	Few times a year		15.59%	174
6	Never		63.62%	710
			answered	1116
			skipped	27

Over 60% never use the park and ride and only around 10% use it more weekly or more.

7. Thinking about the Portway Park & Ride service and facilities, how would you rate the following:						
	Very good	Good	Fair	Poor	Very poor	Response Total
Opening and closing times	9.7% (66)	29.0% (198)	37.2% (254)	16.1% (110)	8.1% (55)	683
Journey times	24.8% (168)	36.5% (247)	30.0% (203)	5.0% (34)	3.7% (25)	677
Cost of ticket	6.4% (42)	16.3% (106)	46.3% (302)	20.9% (136)	10.1% (66)	652
Local service option in Shirehampton and Sea Mills	14.4% (91)	22.7% (143)	44.4% (280)	10.8% (68)	7.8% (49)	631
Facilities at the site	3.8% (23)	20.8% (126)	55.1% (334)	14.4% (87)	5.9% (36)	606




7. Thinking about the Portway Park & Ride service and facilities, how would you rate the following:

	Very good	Good	Fair	Poor	Very poor	Response Total
Service reliability and time waiting for bus	6.3% (40)	27.6% (176)	44.4% (283)	13.5% (86)	8.3% (53)	638
Perceived safety whilst on bus	22.0% (139)	43.8% (277)	28.0% (177)	2.2% (14)	4.0% (25)	632
The quality of the bus stop and stops along the route	11.9% (76)	36.8% (235)	38.8% (248)	6.7% (43)	5.8% (37)	639
Other	10.8% (31)	9.0% (26)	54.5% (157)	8.3% (24)	17.4% (50)	288
					answered	730
					skipped	413




The highest rating for very good was perceived safety on the bus at 22% but most options score over 80% for fair or above.

Later in the year the Portway railway station is planned to open on the Severn Beach line which will provide connections to Temple Meads and onwards to wider regions of the country. The Park & Ride will serve as a mobility hub where people will be able to access different modes of transport to travel around the city and beyond.

8. Do you think this would encourage you to use the Portway Park & Ride service?

		Response Percent	Response Total
1	Yes		33.93% 362
2	No		42.36% 452
3	Not sure		23.71% 253
		answered	1067
		skipped	76

9. One of the aims of the park and ride is to increase the connectivity to local places north and west of the site such as communities and businesses in Avonmouth, Lawrence Weston, Shirehampton and North Somerset etc. Would additional bus services connecting to these local areas encourage you to use the Portway Park & Ride more?

		Response Percent	Response Total
1	Yes		30.89% 328
2	No		46.70% 496
3	Not sure		22.41% 238
		answered	1062
		skipped	81











10. Any other comments about the Portway Park & Ride service?

		Response Percent	Response Total
1	Open-Ended Question	100.00%	442

[insert comments]

Section 1 – M5 flyover to the Portway Park and Ride and onto Sylvan Way junction

11. Do you experience any of the following difficulties with the street environment along this section of the route? (Please tick all that apply)

			Response Percent	Response Total
1	The buses get held up in the traffic / the buses are too slow		13.08%	122
2	The buses are unreliable		14.58%	136
3	The buses are not frequent enough		13.61%	127
4	The road is unpleasant to walk along		47.05%	439
5	The road feels unsafe to cycle on		59.70%	557
6	The street is busy with traffic		37.73%	352
7	Traffic is too fast/ speeding traffic		42.87%	400
8	There is too much congestion		25.62%	239
9	There is not enough parking		4.07%	38
10	Other (please specify):		22.19%	207
			answered	933
			skipped	210

Nearly 60% think the road is unsafe to cycle on and 47% think it is unpleasant to walk along.

Of the 'Other' comments

12. How important do you think the following improvements to this section of the transport route are?

	High importance	Medium importance	Low importance	Not at all important	Response Total
Bus priorities to speed up journey times	36.5% (347)	34.2% (325)	16.9% (161)	12.3% (117)	950
Bus stops with shelters	36.2% (336)	41.0% (380)	15.1% (140)	7.7% (71)	927

12. How important do you think the following improvements to this section of the transport route are?

	High importance	Medium importance	Low importance	Not at all important	Response Total
More frequent bus services	35.8% (330)	41.4% (381)	15.1% (139)	7.7% (71)	921
Safer walking routes	56.1% (549)	24.1% (236)	12.9% (126)	6.9% (67)	978
Safer cycle routes	68.0% (687)	14.9% (151)	8.9% (90)	8.2% (83)	1011
Cycle parking provisions	33.0% (309)	28.1% (263)	24.1% (226)	14.8% (139)	937
Traffic calming	34.0% (325)	26.8% (256)	20.1% (192)	19.1% (182)	955
Increased greenery such as trees and bushes	46.3% (457)	30.0% (296)	14.4% (142)	9.2% (91)	986
				answered	1046
				skipped	97











13. Do you have any other comments or suggestions for this section of the route?

	Response Percent	Response Total
1 Open-Ended Question	100.00%	430

[insert comments]

Section 2 – Sylvan Way junction to Bridge Valley Road junction

14. Do you experience any of the following difficulties with the street environment along this section of the route? (Please tick all that apply)

		Response Percent	Response Total
1	The buses get held up in the traffic / the buses are too slow		15.89% 154
2	The buses are unreliable		13.93% 135
3	The buses are not frequent enough		14.45% 140
4	The road is unpleasant to walk along		50.36% 488
5	The road feels unsafe to cycle on		59.75% 579
6	The street is busy with traffic		47.16% 457
7	Traffic is too fast/ speeding traffic		42.62% 413
8	There is too much congestion		39.73% 385
9	There is not enough parking		5.37% 52
10	Other (please specify):		21.26% 206

14. Do you experience any of the following difficulties with the street environment along this section of the route? (Please tick all that apply)

	Response Percent	Response Total
	answered	969
	skipped	145

Insert comments

15. How important do you think the following improvements to this section of the transport route are?

	High importance	Medium importance	Low importance	Not at all important	Response Total
Bus priorities to speed up journey times	34.4% (308)	34.6% (310)	19.1% (171)	11.8% (106)	895
Bus stops with shelters	29.2% (259)	39.7% (352)	20.1% (178)	10.9% (97)	886
More frequent bus services	33.0% (292)	39.8% (353)	17.6% (156)	9.6% (85)	886
Safer walking routes	57.9% (558)	21.0% (202)	13.4% (129)	7.8% (75)	964
Safer cycle routes	67.5% (663)	14.2% (139)	9.5% (93)	8.9% (87)	982
Cycle parking provisions	29.0% (260)	22.6% (203)	28.0% (251)	20.5% (184)	898
Traffic calming	34.9% (320)	24.6% (226)	20.9% (192)	19.5% (179)	917
Increased greenery such as trees and bushes	44.2% (407)	26.8% (247)	15.3% (141)	13.6% (125)	920
				answered	1017
				skipped	97











16. Do you have any other comments or suggestions for this section of the route?

	Response Percent	Response Total
1 Open-Ended Question	100.00%	462

Other comments

Section 3 – Bridge Valley Road junction to Jacob's Wells Road roundabout (not including the Western Harbour section in this engagement)

17. Do you experience any of the following difficulties with the street environment along this section of the route? (Please tick all that apply)

			Response Percent	Response Total
1	The buses get held up in the traffic / the buses are too slow		28.94%	281
2	The buses are unreliable		16.58%	161
3	The buses are not frequent enough		17.40%	169
4	The road is unpleasant to walk along		53.66%	521
5	The road feels unsafe to cycle on		63.44%	616
6	The street is busy with traffic		58.81%	571
7	Traffic is too fast/ speeding traffic		39.96%	388
8	There is too much congestion		50.67%	492
9	There is not enough parking		9.99%	97
10	Other (please specify):		15.14%	147
			answered	971
			skipped	172

18. How important do you think the following improvements to this section of the transport route are?

	High importance	Medium importance	Low importance	Not at all important	Response Total	
Bus priorities to speed up journey times	37.6% (330)	33.8% (297)	16.1% (141)	12.5% (110)	878	
Bus stops with shelters	29.7% (255)	37.9% (325)	21.3% (183)	11.1% (95)	858	
More frequent bus services	33.8% (290)	37.1% (318)	18.0% (154)	11.1% (95)	857	
Safer walking routes	61.5% (573)	19.3% (180)	10.7% (100)	8.4% (78)	931	
Safer cycle routes	67.8% (647)	14.3% (136)	9.2% (88)	8.7% (83)	954	
Cycle parking provisions	34.2% (300)	25.8% (226)	22.8% (200)	17.2% (151)	877	
Traffic calming	39.8% (353)	22.4% (199)	17.7% (157)	20.1% (178)	887	
Increased greenery such as trees and bushes	48.9% (439)	25.6% (230)	13.2% (118)	12.3% (110)	897	
					answered	994
					skipped	120

19. Do you have any other comments or suggestions for this section of the route?

		Response Percent	Response Total
1	Open-Ended Question	100.00%	446

Insert other

Jacob's Wells Road roundabout to We The Curious (Explore Lane junction)

20. Do you experience any of the following difficulties with the street environment along this section of the route? (Please tick all that apply)

			Response Percent	Response Total
1	The buses get held up in the traffic / the buses are too slow		27.93%	229
2	The buses are unreliable		17.68%	145
3	The buses are not frequent enough		19.15%	157
4	The road is unpleasant to walk along		36.22%	297
5	The road feels unsafe to cycle on		51.59%	423
6	The street is busy with traffic		55.12%	452
7	Traffic is too fast/ speeding traffic		31.10%	255
8	There is too much congestion		44.51%	365
9	There is not enough parking		10.85%	89
10	Other (please specify):		13.17%	108
			answered	820
			skipped	323

Insert comments

21. How important do you think the following improvements to this section of the transport route are?

	High importance	Medium importance	Low importance	Not at all important	Response Total
Bus priorities to speed up journey times	37.3% (307)	31.3% (258)	18.4% (152)	13.0% (107)	824
Bus stops with shelters	32.7% (267)	36.5% (298)	19.6% (160)	11.2% (91)	816
More frequent bus services	34.0% (279)	37.4% (307)	18.3% (150)	10.4% (85)	821
Safer walking routes	49.9% (428)	23.7% (203)	16.6% (142)	9.8% (84)	857
Safer cycle routes	62.3% (560)	16.1% (145)	11.1% (100)	10.5% (94)	899

21. How important do you think the following improvements to this section of the transport route are?

	High importance	Medium importance	Low importance	Not at all important	Response Total
Cycle parking provisions	40.6% (341)	26.5% (222)	18.6% (156)	14.3% (120)	839
Traffic calming	36.8% (311)	23.2% (196)	21.1% (178)	18.9% (160)	845
Increased greenery such as trees and bushes	51.6% (440)	25.1% (214)	11.0% (94)	12.3% (105)	853
				answered	946
				skipped	197

22. Do you have any other comments or suggestions for this section of the route?




	Response Percent	Response Total
1 Open-Ended Question	100.00%	333

Insert others








Active Travel Support

As part of the survey any respondents were given the opportunity to indicate if they would be interested in any of the free active travel support offers that are currently available from the council. The table below shows the level of interest in the offers and each person who left their contact details will be followed up to see if they are still interested in the free offer to help people travel more sustainably for some of their trips.

8. Please indicate which of the following free active travel offers you would like to receive information about (tick all that apply):

		Response Percent	Response Total
1	Personal Travel Planning - to help you explore all your options your regular journeys with our free 1:1 service (currently offered over the phone or video meeting). 	3.96%	25
2	Borrow a bicycle for free - try cycling before you buy. We can loan you a hybrid (city) or folding bicycle for up to 1 month, or an electric bike for up to 2 weeks. 	9.83%	62
3	Free cycle training - to improve your skills and ability to cycle confidently whatever your ability, sessions can be tailored for complete beginners, intermediate or advanced levels. 	6.81%	43









8. Please indicate which of the following free active travel offers you would like to receive information about (tick all that apply):

			Response Percent	Response Total
4	Free basic bicycle maintenance courses – a bike mechanic will help you with basic skills.		11.41%	72
5	Accompanied cycle ride - to find your best route and build your confidence.		2.38%	15
6	Free bus taster tickets – try the bus for free and find a new way of travelling without the car.		12.36%	78
7	Information about Car clubs – a perfect solution for short trips. Simply pay by the hour with no extra costs for insurance, fuel and maintenance costs. Find your nearest car club.		6.18%	39
8	Information about Car sharing – You don't even need to own a car, just search for drivers going the same way.		4.75%	30
9	Information about electric charging points – helpful for those looking at electric vehicles		12.36%	78
10	None of the above		65.93%	416
			answered	631
			skipped	294



Demographic data

The table below shows that there is a good split of ages who have responded to this survey from 25 up to 74 years old with the largest group between 25 and 35 years old.




25. What is your age?

			Response Percent	Response Total
1	0-10		0.00%	0
2	11-15		0.00%	0
3	16-17		0.09%	1
4	18-24		1.87%	20
5	25-34		17.29%	185
6	35-44		22.43%	240
7	45-54		19.25%	206
8	55-64		17.94%	192
9	65-74		14.21%	152
10	75-84		2.90%	31





25. What is your age?

			Response Percent	Response Total
11	85 +		0.19%	2
12	Prefer not to say		3.83%	41
			answered	1070
			skipped	44




26. Do you consider yourself to be a disabled person?

			Response Percent	Response Total
1	Yes		7.26%	79
2	No		86.58%	942
3	Prefer not to say		6.16%	67
			answered	1088
			skipped	55










27. What is your sex?

			Response Percent	Response Total
1	Female		35.19%	385
2	Male		55.67%	609
3	Prefer not to say		8.23%	90
4	Other (please describe):		0.91%	10
			answered	1094
			skipped	49











28. Have you gone through any part of a gender reassignment process, or do you intend to?

			Response Percent	Response Total
1	Yes		0.28%	3
2	No		88.47%	944
3	Prefer not to say		11.25%	120
			answered	1067
			skipped	76

29. What is your ethnic group? (please tick one box only)

			Response Percent	Response Total
1	White British		77.69%	839
2	White Irish		1.30%	14
3	White Other		5.65%	61
4	Black /African / Caribbean / Black British		0.37%	4
5	Asian / Asian British		1.39%	15
6	Mixed / Multi ethnic group		1.67%	18
7	Gypsy / Roma / Irish Traveller		0.09%	1
8	Prefer not to say		10.09%	109
9	Any other ethnic background (please describe):		1.76%	19
			answered	1080
			skipped	63






30. What is your religion/faith?

			Response Percent	Response Total
1	No Religion		57.72%	617
2	Buddhist		1.03%	11
3	Christian		25.63%	274
4	Hindu		0.19%	2
5	Jewish		0.19%	2
6	Muslim		0.56%	6
7	Pagan		0.47%	5
8	Sikh		0.19%	2
9	Prefer not to say		11.88%	127
10	Other (please describe):		2.15%	23
			answered	1069
			skipped	74




31. What is your sexual orientation?

			Response Percent	Response Total
1	Bisexual		3.79%	40




31. What is your sexual orientation?

			Response Percent	Response Total
2	Gay Man		2.84%	30
3	Gay Woman / Lesbian		1.04%	11
4	Heterosexual / Straight		71.94%	759
5	Prefer not to say		18.58%	196
6	Other (please describe):		1.80%	19
			answered	1055
			skipped	88

32. Are you pregnant or have you given birth in the last 26 weeks?

			Response Percent	Response Total
1	Yes		1.53%	16
2	No		87.01%	911
3	Prefer not to say		11.46%	120
			answered	1047
			skipped	96

33. Are you a refugee or asylum seeker?

			Response Percent	Response Total
1	Yes		0.19%	2
2	No		89.18%	940
3	Prefer not to say		10.63%	112
			answered	1054
			skipped	89

34. We want to make sure our surveys are as good as possible. Please tell us if you agree or disagree with the following statements:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Response Total
There is enough information for me to answer the questions	16.9% (177)	52.1% (545)	17.6% (184)	9.0% (94)	4.4% (46)	1046
The questions make it easy for me to give my views	14.6% (153)	45.6% (478)	19.9% (209)	13.1% (137)	6.8% (71)	1048
The survey meets my accessibility needs	24.8% (255)	49.9% (513)	19.7% (203)	2.6% (27)	2.9% (30)	1028

34. We want to make sure our surveys are as good as possible. Please tell us if you agree or disagree with the following statements:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Response Total
					answered	1049
					skipped	94

4.2.2 Interactive map

A total of 58 comments were posted on the interactive map. The responses have been divided into the 4 sections to follow the layout of the survey design and then by issue type.

Section 1. Portway park and ride to Sylvan Way - 9 comments received

Issue Type	Summary	Description
Bus issues	Bus lane needs to be shorter	Bus lane needs to start later as traffic currently backs up to the Hung Road traffic lights
Cyclists' issues	Signage for cycles	Cyclists route to Avonmouth Bridge should not be via Park Road, where there is no safe crossing of Portway, but via West Town Road where there is lights-controlled crossing
Pedestrian issues	Narrow path too close to road, and sharing with cyclists is dangerous	
Pedestrian issues	Narrow path too close to road, and sharing with cyclists is dangerous	
Pedestrian issues	Narrow path too close to road, and sharing with cyclists is dangerous	Push path back from road
Pedestrian issues	Needs safer pedestrian access to park and ride	
Safety	Concerns of increased traffic in Shirehampton Village	As part of any improvement plans for this section of the A4, there MUST be new, effective speed deterrents implemented in Shirehampton village, to stop rat-runners avoiding A4.
Safety	Traffic speeds along this section (excess of 40mph limit). Reduce to 30pmh as far as Roman Way	Cars and lorries drive at speed along this built up area. Feels unsafe to walk and cycle, even on the pavement and at crossings. A slower speed limit would reduce traffic noise too.
Traffic signals	Remove the traffic lights	Remove the existing traffic lights and send the buses out of the car exit towards Avonmouth and back around the roundabout. This would allow the Park & Ride to serve Avonmouth.

Section 2. Sylvan Way to Bridge Valley Road – 21 comments

Bus issues	Bus lane needs to end sooner as this would allow more cars	Bus lane doesn't need to be 24/7 as the buses do not run 24/7
------------	--	---

	through the lights, thus reducing congestion	
Bus stops / shelters	Bus stop required. Long distance between Shirehampton and Riverleaze	Bus stops used to be here but were taken away a long time ago. Large residential area not catered for by buses
Bus stops / shelters	Need a covered shelter here	
Clean air	The air along the Portway is extremely polluted.	Portway could be such a great place to walk, cycle and run if the air was within legal pollution levels
Cyclists' issues	The shared cycle / footpath narrows here and stops by the bus stop, requiring cyclists to get onto the slip road then cross back	The route narrows and stops at the bus stop. Cyclists need to get onto the slip road, then cross back to re-join the shared path. This is awkward and visibility for traffic is poor
Cyclists' issues	Doorzone, deathzone	Cycling close to parked cars is so dangerous. When a door opens you are knocked into traffic. This is a deadly design.
Cyclists' issues	shared path not fit for cyclist & pedestrians. vehicles intimidate cyclists on roads.	share path too narrow / no protective barrier to 50/60mph traffic. When on roads, vehicles pass to fast and are aggressive. No need for two lanes out of city to Avonmouth - turn into cycle path
Cyclists' issues	Cycle route requires crossing a road	Bicycles must cross a road and (outbound) re-join the shared use path with no visibility of pedestrians or cyclists coming the other way.
Cyclists' issues	Toucan crossing has too much delay	I use this crossing regularly, and nearly always end up crossing the road before the lights have changed, because the crossing is so slow to respond.
Noise	Traffic noise makes leisure pursuits in the area more hazardous.	Climbing in the gorge or cycling along the Portway can be made more hazardous by the noise volume from the very busy road.
Noise	Road noise due to bad road surface	Large lorries, particularly empty container lorries make a terrible noise when passing over bumps and holes in the road, causing houses to shake
Other	Fence is unsightly and rusty	The fence behind the bus stop is very ugly and rusting. A better fence would provide a sound barrier and more protection to residents.
Other	Sign needed	The footpath down the Portway needs signage, as the entrance is very difficult to spot.
Other	Stop forcing traffic into Sylvan Way therefore increasing pollution for residents when traffic can run freely in less built up areas of the Portway	Stop poisoning residents when there is no need
Pedestrian issues	More crossing points along the Portway needed and the shared cycling and walking footpaths are not helpful and also dangerous	If walking between the River Avon and Bishops Knoll nature reserve there is no way to cross the Portway without it being very dangerous.

Pedestrian issues	Pavement required need to walk in road	Undergrowth needs cutting right back and pavement needs resurfacing. Need to balance on kerb or walk in road a buggy or mobility scooter could not get through here.
Pedestrian issues	Reopen the Hotwell Railway Tunnel	Perhaps repurpose the old Hotwell Railway Tunnel as a pedestrian route/cycle track away from the noisy main road, along with a route within these green spaces.\
Safety	Dangerous fence	Fence is rusty, not providing any use as not safety fence, broken and dangerous for children and pets. Also is bad for wildlife as loss of green belt from nature reserve due to concrete paving.
Safety	Traffic speeds	Because this stretch of road has 2 lanes people treat it like a 70mph dual carriageway. It needs a reduced speed limit and enforcement
Safety	Inbound Superelevation never intended to take ALL traffic on crown of road. Risk of overturning. ETC	All traffic now forced to use crown of banked curve since c 2012, never the design intention, by Bus lane. Drivers watching the nearside white line and not the offside kerb. Severe risk of death
Traffic signals	Traffic slows down	

Section 3. Bridge Valley Road to Jacobs Wells Road – 28 comments

Clean air	The whole Portway needs to be rethought,	This is a potentially pristine area of the city and should never have been allowed to become a traffic rat-run
Cyclists' issues	Why isn't there clear signage to the cycle route across College Green which then links to the Centre.	
Cyclists' issues	Shared path narrows and gets very uneven very difficult to cycle along	Shared path constricts here and has railings and is impossible to cycle at any speed also impossible to pass any other user.
Cyclists' issues	No easy way of crossing road	
Cyclists' issues	Roadway very narrow here. Cars pass too close to cyclists and usually at speed	Roadway very narrow. Pavement equally narrow. A lights-controlled pedestrian crossing at the bottom of the Zigzag and replace the pavement on that side with a cycle lane could help.
Cyclists' issues	Car v cyclist conflict over meaning of double yellow lines.	Cyclists don't seem to appreciate that double yellow lines allow loading, and that cars and vans *need* to stop outside these properties. Better to have marked loading bays. Or even better, parking.
Cyclists' issues	Flyover cycling provision	There is no suitable cycle route to get from the Portway to South of the river towards Ashton Gate without going round Hotwells. There

		should be an easy route for cycles to travel through the area.
Cyclists' issues	Cycling inbound very unpleasant	Parked cars make this very unpleasant to cycle along
Noise	Change the traffic flow so residents only down merchant road and basin road to create a public space along basin.	Reduce three lanes on Hotwell Road to two and use one for traffic flowing out of Bristol. Create a greater public space by the basin
Noise	Great place for a noise camera	There is a real problem with motorbikes, some with modified silencers, 'opening the taps' at night and racing along the Portway. Install one of the new noise cameras to catch them.
Noise	Slow down traffic to 20MPH	You cannot take this corner at over 20mph, so why not slow traffic down to that speed.
Noise	Slow down traffic to 20MPH	You cannot take this corner at over 20mph, so why not slow traffic down to that speed.
Noise	Slow down traffic to 20MPH	You cannot take this corner at over 20mph, so why not slow traffic down to that speed.
Noise	Slow down traffic to 20MPH	You cannot take this corner at over 20mph, so why not slow traffic down to that speed.
Other	Pavement under the canopy is covered in pigeon droppings	
Other	Fundamental problem with the underlying geology	If you look at BCC's "Fix My Street", the VAST number of pothole complaints here shows that there is a fundamental problem. This must be remedied at source, before any bus lane or other tarmac is laid
Other	Prohibit right turn into Mardyke Car Park	Keep the traffic flowing by making cars approaching Mardyke Car Park from the west U turn at Jacobs Well Roundabout. This will keep the traffic flowing. Ditto any other right hand junction.
Other	Joy Hill Turning	Further to the other comment here, a bike or bus lane running along Dowry Parade would improve things, as it would make the turning circle into Joy Hill less severe if entering from a middle lane.
Other	Multiple bumps in the road. Not quite potholes, more like depressions.	There are lots of depressions, usually around manholes. These cause nearby flats to shake violently whenever a lorry goes over them. Please resurface the road flat and smooth as part of your works.
Other	Water fountain at the Hot Well	Great idea here about installing a water fountain. Just to add, not just walkers but cyclists, joggers and dogs would also welcome water fountains here and along the route. Especially in 35 degree heat.
Other	Why have a lay-by here?	Fill in the lay-by and widen the space available for walking, cycling and running. Space would be left over for a large, planted area to lessen the impact of all the cars, plus absorb some CO2

Pedestrian issues	Stopping on the pavements.	Could you dissuade vehicles (mainly servicing the flats) from pulling onto the pavement here. The road is wide enough to allow stopping on the carriageway.
Pedestrian issues	Pavement width between the house and the gantry	This gap is very narrow for pedestrians.
Pedestrian issues	Narrow path encumbered by bins, boxes, refuse bags and bulky waste on and around bin collection day.	Can a better arrangement be made? Suggestion: assign some of the unnecessarily-wide road space as an area for bins/bags (and parking too!).
Pedestrian issues	Slow down traffic to 20MPH	You cannot take this corner at over 20mph, so why not slow traffic down to that speed.
Safety	Shared path narrows and is dangerous for cyclist pedestrians and Voi mixing	Path narrows right down and OK if path quiet but difficult to pass other shared path users
Safety	Dangerous and unnecessarily space-hungry road layout where Cabot Way Overpass and Cumberland Basin Road merge onto northbound Hotwell Road.	Make Cumb. Basin Rd give way rather than merge. Drivers are too ill-disciplined, signage is poor, and near-misses are frequent. This frees up the extra-wide carriageway on Hotwell Rd for other uses.
Street scene	*No* further restrictions on parking please.	Our local shops are struggling and closing. Our next nearest shops are up the cliff in Clifton. Don't kill our shop keeper's custom by introducing parking restrictions.

Section 4. Jacobs Wells Road to Explore lane – no comments received

4.2.3 Drop in sessions

The project team are also running drop in sessions in each area along the route eg Shirehampton library, Sea Mills library, Central library and Holy Trinity church (TBC). For each drop in session the team require:

- A3 laminated plans of the four maps
- Business cards with the shortlink to the consultation hub

The drop in sessions are planned to be in weeks 3 to 6 to give people time to review the information about the engagement and to come down and talk to the project team if they have any questions.

Active Travel roadshows will also be organised alongside the drop in sessions (with a Dr Bike where possible) to also encourage people to come down and talk to us about free support to walk, cycle and catch a bus.

4.2.4 Emails, letters and phone calls

During the consultation process the team offered three ways for people to contact the council outside of the survey and this was via email, phone calls or face to face.

Emails

Letters

Phone calls



1 A4 Portway Strategic Corridor – Problems, Issues, and Opportunities Statement

<i>Problem</i>	<i>Issue</i>	<i>Opportunity</i>
1. Public transport has a low modal share, and high portion of household with no access to car	1. Need to provide a reliable, punctual, and integrated public transport network to enable modal shift, and to improve connectivity	1. Bus segregation, bus priority, improved bus stop infrastructure, improved walking and cycling infrastructure (trip chain to bus stop) – bus service efficiency and patronage growth
2. Current allocation of road space inefficient	2. Need to reconsider how road space is allocated to each mode of transport. Although space is allocated to PT (bus lanes) and active travel, there is sections were private vehicles are prioritised. See ‘Problem’ 1.	2. Maintaining current, and increasing bus lane provision, LTN 1/20 cycle lane provision, widened footways, and public realm – uptake in active travel modes
3. Bus occupancy is low	3. See ‘Issue’ No.1 – punctual, reliable, and efficient bus services. Need for infrastructure to support occupancy recovery from COVID and occupancy growth from Bristol Clean Air Zone	3. See ‘Opportunity’ No.1 – bus segregation, bus priority, bus stop infrastructure. New services can be introduced using the infrastructure – bus patronage growth
4. Buses can only access/egress the Portway P&R from the city.	14. There is a need to implement a north bound exit from the Portway P&R site	4. New/additional bus services could run between Portishead and Portway P&R, opportunity for YTL

		Arena shuttlebuses, and Rail replacement services
5. Pollutants from high car frequency causing degradation to the environmentally sensitive areas	5. See 'Issue' No.1 – Need to encourage the modal shift away from the private car, to reduce traffic levels, congestions, and subsequent pollution along the corridor.	5. See 'Opportunity' No.1 – Growth in bus patronage would lead to reduction in private car usage, congestion, and in levels of pollutants.
6. Increase in housing to the north and west of the city will increase demand in the future	6. There is a need to safeguard the bus services from any increase in levels of congestion, and their capacity for increased demand	6. Additional bus services could be implemented to cater for increased demand
7. Development to employment areas in Avonmouth will increase demand in the future	7. See 'Issue' No. 6	7. See 'Opportunity' No. 6
8. High number of road accidents in the past 5 years.	8. There is a need to safeguard pedestrians and cyclists from motor vehicles and manage traffic. Particularly dangerous junctions for Vehicle-vehicles collisions are: Bridge Valley Road (11), Sylvan Way (6)	8. Segregation of modes, traffic calming measures, safe crossing points, junction redesign and auxiliary features (e.g. improved lighting).
9. High proportion of HGV's along road	9. See 'Issue' 8	9. See 'Opportunity' 8
10. Narrow footways alongside the A4 at Hotwells Road and along section of Portway. In many cases vegetation is also encroaching on the	10. See 'Issue' 8. There is little space for cyclists to pass pedestrians this raises likelihood of collisions and makes the journey uncomfortable, thus	10. Install bollards or safety fencing and warning signage alongside the narrow footway running south from the bottom of the PROW steps to The



<p>footpath, worsening the problem.</p>	<p>lowering desire to walk the route.</p>	<p>Colonnade steps. Cutting back excess vegetation could quickly widen sections of footpath.</p>
<p>11. Access to PROW's along the A4 Portway is difficult</p>	<p>11. See 'Issue' 8</p>	<p>11. Install warning signage and central crossing island. Also, clear vegetation to improve sight lines</p>
<p>12. Private car as a popular method to travel to school</p>	<p>12. See 'Issue 5'</p>	<p>12. Encourage behavioural change towards sustainable modes</p>
<p>13. Delayed bus services.</p>	<p>13. See 'Issue 6' and 'Issue 2'. Delays are also attributed to buses being stuck behind cyclists in the bus lanes, rather than the cycleway.</p>	<p>13. See 'Opportunity' 6 and 2 Improving the condition of cycle infrastructure to reduce cycle traffic in bus lanes. Implementation of 'Virtual Bus Lanes', using bus gates and signalised junctions can redistribute traffic to locations where busses can pass without queuing.</p>
<p>14. Poor regular maintenance across the route leading to encroaching vegetation and low-quality surfacing</p>	<p>14. Overgrown vegetation encroaching on highways and footpath can make active travel less comfortable. Overgrown vegetation on the southbound side has been reported to cause (superficial) damage to buses and causes reduced speeds.</p>	<p>14. See 'Opportunity 11' and 13. Revise regular maintenance schedule and carry out targeted maintenance to cut back vegetation.</p>

	Poor footpath surfacing can discourage active travel and poses safety risks.	
15. High volume of Northbound Traffic turning right up Bridge Valley Road Junction causing congestion.	15. Queues of traffic waiting to turn right use hatchings as make shift lane and begin to block traffic going northbound along Portway.	15. See 'Opportunity 5'

Problems

1. Car use is high while the modal share in public transport is low. For example, in Avonmouth and Lawrence Weston 18% use bus/train and 42% use private car. In addition, households with no access to a car or van is significantly higher than the Bristol average in Hotwells and Harbourside, while over 25% of households in Avonmouth and Lawrence Weston, and Clifton, and 34% in Hotwells and Harbourside have no access to a car or van.
2. Current allocation of road space is inefficient, especially along the A4 Portway between Barrow Hill and the Sea Walls Car Park.
3. Bus occupancy along the A4 Portway is low and buses are experiencing delays along the A4 Hotwell Road in peak times. For example, 95 passengers as a daily average (Stagecoach data: April 2021 – March 2022)
4. Buses can only access/egress the Portway P&R from the city centre. Portway P&R bus occupancy declined drastically during Covid-19, passenger numbers are slowly increasing but have not yet reached half of the 2019/20 passenger numbers.
5. Pollutants from high car frequency causing degradation to the environmentally sensitive areas. In 2020, the annual mean NO₂ was below 40 µgm⁻³.
6. Increase in housing to the north and west of the city centre will increase the demand for travel in the future.
7. Development to employment areas in Avonmouth will increase demand in the future.
8. There have been a high number of accidents in the past 5-year period along the route, including 3 accidents categorised as 'serious'. Particularly dangerous junctions for Vehicle-vehicles collisions are: Bridge Valley Road (11), Sylvan Way (6)
9. High proportion of HGV's along road e.g. 11% between the Portway roundabout and End of HE-managed section (north of bus stops).
10. Narrow footways alongside the A4 at Hotwells Road and along section of Portway. In many cases vegetation is also encroaching on the footpath, worsening the problem.
11. Access to PROW's along the A4 Portway is difficult
12. Private car as a popular method to travel to school e.g. 9% private car and 26% Park&Stride to/from Shirehampton Primary School



13. Delayed bus services. For example, at certain stops there is a wait of up to 10 minutes between the scheduled and actual run times. For others services a 2-5 minute wait is commonplace. Delays occur most frequently between 12pm-13pm and around roman way (both ways), merchants road and Riverleaze (northbound) bus stops. (based on combined data collected throughout February 2022).
14. Poor regular maintenance along the strategic corridor, leading to sections of Portway where there is overgrown vegetation encroaching on the carriageways and footpath and low-quality surfacing.
15. High volume of Northbound Traffic turning right up Bridge Valley Road Junction causing congestion.

Issues

1. To enable the modal shift away from the private car there is a need to deliver a reliable, punctual, and integrated public transport network to enable the modal shift and improve connectivity.
2. There is a need to reconsider how the road space is allocated to each mode of transport including buses, pedestrians, cyclists, and cars.
3. See 'Issue No. 1'. There is also a need to provide infrastructure to support the occupancy growth in the recovery of the Covid pandemic, and passenger growth following the implementation of the Clean Air Zone.
4. There is a need to implement an entrance and exit for buses travelling from/to the north of the Portway Park and Ride site.
5. See 'Issue No.1'. There is a need to encourage the modal shift away from the private car to reduce traffic levels, congestions, and subsequent air pollutants along the corridor.
6. There is a need to safeguard bus infrastructure, and services for any increase in congestion, and their capacity for increased demand.
7. See 'Issue No. 6'.
8. There is a need to safeguard pedestrians and cyclists from motor vehicles and manage traffic
9. See 'Issue' 8
10. See 'Issue' 8
11. See 'Issue 8'
12. See 'Issue 5'
13. See 'Issue 6'
14. Overgrown vegetation encroaching on highways and footpath can make active travel less comfortable. Overgrown vegetation on the southbound side has been reported to cause (superficial) damage to buses and causes reduced speeds.
15. Queues of traffic waiting to turn right use hatchings as make shift lane. Queues then begin to block northbound traffic waiting to pass over the junction

Opportunities

1. Bus segregation, bus priority, improved bus stop infrastructure, improved walking and cycling infrastructure (trip chain to bus stop) – this would improve bus service efficiency and patronage growth.
2. Reconsidering how the road space is allocated will present opportunity to maintain current, and increase bus lane provision, LTN 1/20 cycle lane provision, widened footways, and public realm – enable an uptake in sustainable and active travel modes.
3. See ‘Opportunity’ No.1 – bus segregation, bus priority, bus stop infrastructure. New services can be introduced using the infrastructure – this will encourage bus patronage growth
4. New/additional bus services could run between Portishead and Portway P&R, opportunity for YTL Arena shuttlebuses, and Rail replacement services
5. See ‘Opportunity’ No.1 – Growth in bus patronage would lead to reduction in private car usage, congestion, and in levels of pollutants.
6. Opportunity for additional bus services to be implemented to cater for increased demand.
7. See ‘Opportunity No.6’
8. Segregation of modes, traffic calming measures, safe crossing points
9. See ‘Opportunity’ 8
10. Install bollards or safety fencing and warning signage alongside the narrow footway running south from the bottom of the PROW steps to The Colonnade steps
11. Install warning signage and central crossing island. Also, clear vegetation to improve sight lines
12. Encourage behavioural change towards sustainable modes
13. See ‘Opportunity’ 6
14. See ‘Opportunity 11’ and 13. Revise regular maintenance schedule and carry out targeted maintenance to cut back vegetation.
15. See ‘Opportunity 5’

Appendix E – Longlist

Design Area	Role	Location	Description	Requirements
1	Public Transport	Inbound from A4/B4054 Roundabout to DA1 eastern limit (west of Park Road)	Inbound bus lane	Removal of central hatching/central island and some on-street parking. Removal of right turn waiting at Barrow Hill Road, Burnham Road.
1	Public Transport	All bus stops	Upgrades to bus stop infrastructure - provision of shelters, RTPI, cycle parking, bus boarder kerbs.	
1	Public Transport	Traffic signal junction at public P&R entrance	Provision of bus gate	Removal of one of the two right turn lanes into the P&R and industrial estate
1	Public Transport	All bus lanes	Ensure the proposed bus lanes are 4.5m wide to accommodate cyclists	Re-allocation of road space/narrow general traffic lanes/ removal of central island/hatching
1	Public Transport	Outbound from DA1 eastern limit (west of Park Road) to existing Bus Lane at Station Road junction.	Outbound bus lane	Conversion of nearside lane.
1	Public Transport	Route wide	Review opportunities to provide other bus priority measures including number plate recognition, VMS signage etc.	
1	Public Transport	For entire length of DA1	Tunnel	New tunnel, access from street level at strategic locations.
1	Active Travel	Inbound from A4/B4054 Roundabout to DA1 eastern limit	Inbound bus lane to provide cycle facility	Removal of central hatching/central island and some on-street parking. Removal of right turn waiting at Barrow Hill Road, Burnham Road.
1	Active Travel	Puffin/signals locations	Upgrade existing signalised crossings to Toucan facilities	at West Town Lane, bus entrance to P&R, Hung Road, Woodwell Road
1	Active Travel	Inbound footway	Provide 2m wide footway width for pedestrians	Maintenance/footway widening from A4/B4054 to West Town Road
1	Active Travel	Inbound carriageway	Upgrade existing advisory cycle facility to segregated facility	Use on-street parking as buffer. Redesign of signal junctions.
1	Active Travel	Footbridges	Removal of existing pedestrian footbridges and replace with at grade Toucan crossings	
1	Active Travel	Outbound carriageway	Provision of segregated two-way cycle facility	Removal of central hatching/central island and some on-street parking. Removal of right turn waiting at Barrow Hill Road, Burnham Road.
1	Active Travel	Outbound from DA1 eastern limit to existing Bus Lane at Station Road junction.	Outbound bus lane to provide cycle facility	Conversion of nearside lane.
1	Active Travel	Outbound footway	Upgrade to LTN 1/20 standard	Widen to 3m. Widen footway, removal of trees
1	Active Travel	Route wide	Provide connections from the portway to existing cycle routes	
1	Active Travel	Route wide	Improved wayfinding	
1	General Design	Route wide	Opportunities for e-scooter parking	Locations TBD. Sufficient space for parking.
1	General Design	All signalised junctions	Review operation to improved efficacy	
1	General Design	All signalised crossings	Review operation to improved efficacy	
1	General Design	Route wide	Removal of redundant signage/street furniture	
1	General Design	Route wide	Pollarding of foliage/trees and maintenance of verges to maximise space	
1	General Design	Junction with Hung Road	Removal of right turn	Signal junction to be re-equipped. TRO
1	General Design	Junction with Burnham Road	Removal of right turn	Junction to be remarked. TRO
1	General Design	Route wide	Opportunities for urban greening as part of other road space reallocation	Dependent upon other improvement choices.
1	General Design	West Town Road / A4 Portway	Review lane allocation at the junction, do we need two right turn lanes from the portway.	
1	General Design	Entire length	Remove central reservation	
1	General Design	Entire length	Propose planting or noise mitigation measures due to the existing noise complaints from the local residents	
1	General Design	Entire length	Review the demand for highways space. Road safety concerns about two lanes of traffic. Changing the character of the road will justify reducing the speed limit further.	
1	General Design	Route wide	Upgrade the existing environment for vulnerable users to improve the perceived safety by introducing better lighting and CCTV.	
1	General Design	Route wide	Review of speed limits	Police support. TRO

2	Public Transport	Entire length	Inbound bus lane	Conversion of nearside lane.
2	Public Transport	Sylvan Way junction	Bus priority at junction	Junction redesign/re-equip
2	Public Transport	Sylvan Way junction	Relocate junction to use parcel of land to the south east.	Junction redesign/re-equip
	Public Transport	Sylvan Way junction	Removal of right turn into Sylvan Way	Junction redesign/re-equip
2	Public Transport	Entire length	Outbound bus lane	Conversion of nearside lane.
2	Public Transport	Park Road junction	Signalisation of junction to reallocate queues from Sylvan Way	New signal junction
2	Public Transport	All bus stops	Upgrades to bus stop infrastructure - provision of shelters, RTPI, cycle parking, bus boarder kerbs.	
2	Public Transport	For entire length of DA2	Tunnel	New tunnel, access from street level at strategic locations.
2	Active Travel	Outbound carriageway	Provision of segregated two-way cycle facility	Conversion of nearside lane.
2	Active Travel	For entire length of DA2	Inbound bus lane to provide cycle facility	Conversion of nearside lane.
2	Active Travel	Inbound carriageway	Upgrading of existing on carriageway advisory cycle lane south of Sylvan Way	Reallocation of proportion of nearside lane for segregation
2	Active Travel	Sylvan Way junction	Upgrade of pedestrian crossings within the signal junction	Junction redesign/re-equip
2	Active Travel	Sylvan Way	Pedestrian crossing to link to bus stops on Sylvan Way	New signal crossing
2	Active Travel	Route wide	Improved wayfinding to LTN 1/20	
	Active Travel	A4 / NSB5	Link from A4 to NSB5 Avon Path Pill to Bristol	
2	General Design	Route wide	Opportunities for e-scooter parking	Locations TBD. Sufficient space for parking.
2	General Design	Sylvan Way junction	Review operation to improved efficacy	
2	General Design	Route wide	Removal of redundant signage/street furniture	
2	General Design	Route wide	Pollarding of foliage/trees and maintenance of verges to maximise space	
2	General Design	Route wide	Opportunities for urban greening as part of other road space reallocation	Dependent upon other improvement choices.
2	General Design	Route wide	Review of speed limits	Police support. TRO
2	General Design	Sylvan Way junction	Review operation to improved efficacy	
2	General Design	Sylvan Way approach to junction	Widen Sylvan Way to accommodate increase stacking space.	New carriageway construction.
3	Public Transport	Inbound from DA3 northern limit to existing Bus Lane south of Roman Way junction.	Inbound bus lane	Conversion of nearside lane. Removal of advisory cycle lane and central island (?) south of Riverleaze. Redesign of Romans Way junction and crossing.
3	Public Transport	South of Roman Way junction	Remove bus stops from laybys. Place in carriageway	
3	Public Transport	Entire length	Middle tidal bus lane	
3	Public Transport	All bus stops	Upgrades to bus stop infrastructure - provision of shelters, RTPI, cycle parking, bus boarder kerbs.	
3	Public Transport	Roman Way	Remove inset bus stops and position the bus stop cages in the carriageway	
3	Public Transport	Roman Way	Review Roman Way bus stop locations to allow for junction improvements	
3	Public Transport	Bristol Manor Farm	Signalisation Riverleaze / Bristol Manor Farm FC junction to provide bus priority. Queue detection to hold the queue to create a virtual bus lane.	
3	Public Transport	Entire length	Remove inside lane to provide width for space allocation	
3	Public Transport	Entire length	Parking issues where the residential area is used as an un-official park and ride	
3	Public Transport	Entire length	Proposed outbound bus lane	
3	Active Travel	Outbound carriageway	Provision of segregated two-way cycle facility	Conversion of nearside lane.
3	Active Travel	Entire length (Outbound)	Cantilever bridge for pedestrian and cyclists	
3	Active Travel	Sea Mills Station	Cycle hire parking next to the station	
3	Active Travel	Bristol Manor Farm	Upgrade crossing facilities for cycling and walking	
3	Active Travel	Whole of DA3	Upgrade shared use footway/cycleway to LTN 1/20 standard	
3	General Design	Route wide	Formalise e-scooter and cycle hire parking spaces to reduce street clutter	
3	General Design	Route wide	Review of speed limits	Police support. TRO
3	General Design	All crossings	Upgrade all existing signalised crossings to toucan crossings where appropriate	
3	General Design	Throughout design Area	Maintain all foliage and vegetation throughout the design area to prevent encroachment into any existing or proposed bus lanes or cycleways	
3	General Design	Route wide	Opportunities for urban greening as part of other road space reallocation	
3	General Design	Handrians Close	Re-design junction between Hadrians close and A4 Portway	

4	Public Transport	Throughout design area	Proposed outbound bus lane	
4	Public Transport	Throughout design area	Proposed inbound bus lane	
4	Public Transport	Sea Walls public car park	Bus stop within Sea Walls car park	
4	Public Transport	Sea Walls public car park	Remove right turn lane into seawalls car park to provide width for outbound bus lane. Road users are required to perform U-Turn at Roman Way junction to access Sea Walls car park	
4	Public Transport	For entire length of DA4	Remove inside lane to provide width for space allocation	
4	Public Transport	For entire length of DA4	Tunnel	New tunnel, access from street level at strategic locations.
4	Active Travel	For entire length of DA4	Buffer to pedestrian cycleway (HGV Speeds)	
4	Active Travel	For entire length of DA4	Upgrade/improve existing islands for pedestrians and cycle crossing	
4	Active Travel	Sea Walls public car park	Cycle parking in car park	
4	Active Travel	Outbound carriageway	Provide toucan crossing to remove existing severance	
4	Active Travel	For entire length of DA4	Upgrade existing on road cycle path to LTN 1/20 to encourage further use	
4	Active Travel	For entire length of DA4	Segregate pedestrians and existing shared use path	
4	Active Travel	Sea Walls public car park	Remove right turn lane into seawalls car park to provide width for road space reallocation for cycle facility	
4	Active Travel	For entire length of DA4	Upgrade existing on road cycle path to LTN 1/20 to encourage further use	
4	Active Travel	Route wide	Improved wayfinding	
4	General Design	For entire length of DA4	Improve the surface on the shared use path	
4	General Design	Sea Walls public car park	Provide a crossing to the car park and climbing area	
4	General Design	Great Quarry	Additional Car parking	
4	General Design	For entire length of DA4	Explore opportunities for E-scooter parking	
4	General Design	Route wide	Propose further urban greening and streetscape throughout the design area to include raingardens, suds and road space reallocation works	
4	General Design	Route wide	Review all existing street furniture and unnecessary signage. Propose further way finding to LTN 1/20.	
4	General Design	Route wide	Maintain all foliage and vegetation throughout the design area to prevent encroachment into any existing or proposed bus lanes or cycle lanes	
4	General Design	Route wide	Review of speed limits	Police support. TRO
4	General Design	Route wide	Removal of redundant signage/street furniture	

5	Public Transport	Bridge Valley Road Junction	Provide priority at Bridge Valley Road signal junction	
5	Public Transport	Hotwell Road (Outbound)	Proposed outbound bus lane	
5	Public Transport	Hotwell Road (Inbound)	Proposed inbound bus lane	
5	Public Transport	For entire length of DA4	Remove road marking hatching to provide width for road space reallocation	
5	Public Transport	For entire length of DA5	Redesign existing arrangement to provide width for road space reallocation	
5	Public Transport	Hotwell Road (Inbound)	Proposed right turn for bus only	
5	Public Transport	For entire length of DA5	Widen carriageway into river or provide necessary width for bus lane in either direction	
5	Public Transport	For entire length of DA5	Tunnel	New tunnel, access from street level at strategic locations.
5	Active Travel	For entire length of DA5	Clear segregation between cycling and walking routes - LTN 1/20	
5	Active Travel	For entire length of DA5	Increase crossing points	
5	Active Travel		Protection from falling objects on footway	
5	Active Travel	Along River Avon	M	
5	Active Travel	Hotwell Road (Inbound)	Improve pedestrian facilities and provide crossing to the 'zig-zag' path	
5	Active Travel	For entire length of DA5	Upgrade existing shared use path to LTN 1/20 to encourage further use	
5	Active Travel	Route wide	Improved wayfinding	
5	General Design	For entire length of DA5	Reduce existing 50mph speed limit to 40mph (or 30mph)	Police support. TRO
5	General Design	For entire length of DA5	If the road speed stays the same, there should be a buffer between the footway and the carriage way	
5	General Design	For entire length of DA5	Review all signal timings at each junction to ensure it is fully optimised	
5	General Design	Bridge Valley Road	Remove right turn into Bridge Valley Road	
5	General Design	All crossings	Upgrade all existing signalised crossings to toucan crossings where appropriate	
5	General Design	Bridge Valley Road	Ban left turn	
5	General Design	For entire length of DA5	Maintain all foliage and vegetation throughout the design area to prevent encroachment into any existing or proposed bus lanes or cycleways	
5	General Design	Bridge Valley Road	Close junction at Bridge Valley Road	
5	General Design	For entire length of DA5	Opportunities for E-scooter parking	
5	General Design	Hotwell Road (Inbound)	Remove existing derelict structures	
5	General Design	Route wide	Review all existing street furniture and unnecessary signage. Propose further way finding to LTN 1/20.	
5	General Design	For entire length of DA5	Propose further urban greening and streetscape to include raingardens, suds and road space reallocation works	
5	General Design	Route wide	Average speed cameras	
5	General Design		Improved access for residential properties	
5	General Design	Route wide	Review of speed limits	Police support. TRO
5	General Design	Route wide	Removal of redundant signage/street furniture	

6	Public Transport	Jacobs Wells Roundabout	Junction improvements to provide public transport priority through the junction.	
6	Public Transport	Hotwell Road (Outbound)	Propose a new section of 24/7 bus lane between the existing outbound bus lanes to create a continuous route.	
6	Public Transport	Hotwell Road (Outbound)	Relocate existing outbound bus stop to provide width for road space reallocation	Consider loading requirements.
6	Public Transport	Hotwell Road (Inbound)	Remove on-street parking to provide width for road space reallocation	Conversion of nearside lane.
6	Public Transport	Inbound (Freeland Place to Jacobs Wells Roundabout)	Outbound 24/7 bus lane	
6	Public Transport	Christina Ter (Merchants Road)	Outbound bus stop unable to accommodate two buses at the same time. Relocate existing bus stop to increase capacity.	New tunnel, access from street level at strategic locations.
6	Public Transport	For entire length of DA6	Tunnel	
6	Public Transport	All bus stops	Upgrades to bus stop infrastructure - provision of shelters, RTP1, cycle parking, bus boarder kerbs.	
6	Public Transport	Route wide	Change the existing outbound bus lane to an inbound bus lane	
6	Active Travel	Cumberland Basin Road	Remove on-street parking to provide width for road space reallocation	
6	Active Travel	Cumberland Basin Road	Upgrade the existing cycle infrastructure to LTN 1/20 requirements	
6	Active Travel	Jacobs Wells Roundabout	Improve cycle and pedestrian crossings across the roundabout	
6	Active Travel	Harbourside	The existing shared route is narrow with poor surfacing conflicting cyclist and pedestrians; upgrade the route to LTN 1/20.	
6	Active Travel	Route wide	Improved wayfinding to LTN 1/20	
7	Active Travel	Merchant's Road	Provide a Toucan Crossing across Merchant's Road	
6	General Design	Hotwell Road / Christina Ter (Merchants Road)	Junction improvements at gyratory to reduce driver confusion	Matt B / Jon M (BCC) are currently designing the specifications
6	General Design	Route wide	Formalise e-scooter and cycle hire parking spaces to reduce street clutter	
6	General Design	Route wide	All staggered signalised crossings to be converted into straight across crossings and reduce the crossing distance where possible	
6	General Design	Merchants Road	Convert Merchants Road into a one-way road	Improve existing provision through widening and user segregation to permit this route for e-Scooters
6	General Design	Cumberland Basin Road	e-Scooters are currently banned from using Cumberland Basin Road. Improve existing provision through widening and user segregation to permit this route for e-Scooters	
6	General Design	Cumberland Basin Road / Granby Hill	Remove or improve existing pedestrian overbridge	
6	General Design	Pump House	The existing arrangement provides poor visibility therefore the junction will need to be improved	
6	General Design	McAdam Way / Humphrey Way	Propose bus gate	Dependent upon other improvement choices. Wider public realm scheme at BCC are currently progressing with the Harbourside area.
6	General Design	Route wide	Opportunities for urban greening as part of other road space reallocation	
6	General Design	Route wide	Pollarding of foliage/trees and maintenance of verges to maximise space	
6	General Design	Route wide	Removal of redundant signage/street furniture	
6	General Design	All signalised junctions	Review operation to improved efficacy	
6	General Design	All signalised crossings	Review operation to improved efficacy	Existing legal issues with parking at this location. BCC have a separate scheme where they are proposed a banned left turn from Anchor Road which will impact this.
6	General Design	Jacobs Wells Roundabout	Close St. Georges Road.	
6	General Design	Route wide	Re-open the existing pedestrian and cycle subways	
6	General Design	Route wide	Review the existing speed restrictions. Consider reducing the 40mph limits to 30mph and the 30mph to 20mph	Review 2026 plans to upgrade existing flood gates.
6	General Design	Cumberland Basin	Raise the carriageway to match the height of the existing flood gates.	
6	General Design	Hotwell Road	Remove rat-running traffic through the narrow streets of Clifton	
6	General Design	Cumberland Basin	Opportunity to make improvements for the local community assets e.g. skate park	
6	General Design	Jacobs Wells Roundabout	Investigate the prospect of closing St Georges Road at the junction with Jacobs Wells Road	
6	General Design	Jacobs Wells Roundabout	Investigate the prospect of proposing a Dutch style roundabout	
6	General Design	Route wide	Review of speed limits	Police support. TRO

Appendix F – Compatibility Matrix

Design Area 5	1	29	Bridge Valley Road Junction	Provide Bus priority at Bridge Valley Road signal junction	G G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
	2	30	Hotwell Road (Outbound)	Proposed outbound bus lane	G G G M G G G G G	G G G G G G G	G G G G G G G	M G G G G G G G	G A G G G A G G A G G G G G	G G G G G G G G G G
	3	31	Hotwell Road (Inbound)	Proposed inbound bus lane	G M G G G G G G G	G G G G G G G	G G G G G G G	G M G G G G G G	G A G G G A G G A G G G G G	G G G G G G G G G G
	4	32	For entire length of DAS	Redesign existing arrangement to provide width for road space reallocation	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
	5	33	Hotwell Road (Inbound)	Proposed right turn for bus only	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
	6	34	For entire length of DAS	Widen carriageway into river or provide necessary width for bus lane in either direction	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
	8	35	For entire length of DAS	Clear segregation between cycling and walking routes - LTN 1/20	G G G G G M G G G	G G G M G G G	G G G M G G G	G G G M G G G	G A A G G G G G G G	G G G G G G G G G G
	9	36	For entire length of DAS	Increase crossing points	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
	11	37	Hotwell Road (Inbound)	Improve pedestrian facilities and provide crossing to the 'zig-zag' path	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
	12	38	For entire length of DAS	Upgrade existing shared use path to LTN 1/20 to encourage further use	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G A A G G G G G G G	G G G G G G G G G G
	14	39	For entire length of DAS	Reduce existing 50mph speed limit to 40mph (or 30mph)	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
	15	40	For entire length of DAS	If the road speed stays the same, there should be a buffer between the footway and the carriage way	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	R R G G G G G G G G
	18	41	All crossings	Upgrade all existing signalised crossings to toucan crossings where appropriate	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
	25	42	For entire length of DAS	Propose further urban greening and streetscape to include raingardens, suds and road space reallocation works	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
Design Area 6	1	43	Jacobs Wells Roundabout	Junction improvements to provide public transport priority through the junction.	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
	2	44	Hotwell Road (Outbound)	Propose a new section of 24/7 bus lane between the existing outbound bus lanes to create a continuous route.	G G G M G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
	4	45	Hotwell Road (Inbound)	Remove on-street parking to provide width for road space reallocation	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
	5	46	Inbound (Freeland Place to The Mardyke area)	Inbound 24/7 bus lane	G M G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
	6	47	Inbound (The Mardyke area to Jacobs Wells Roundabout)	Inbound bus lane	G M G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
	12	48	Cumberland Basin Road	Upgrade the existing cycle infrastructure to LTN 1/20 requirements	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
	13	49	Jacobs Wells Roundabout	Improve cycle and pedestrian crossings across the roundabout	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
	14	50	Harbourside	The existing shared route is narrow with poor surfacing conflicting cyclist and pedestrians; upgrade the route to LTN 1/20.	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G
23	51	McAdam Way / Humphrey Way	Propose bus gate	G G G G G G G G G	G G G G G G G	G G G G G G G	G G G G G G G G	G G G G G G G G G G	G G G G G G G G G G	

RAQ+M	
Blue	Must Do together
Green	Effective and/or compatible together
Amber	Feasible but some problems or may require further analysis
Red	Conflict or ineffective together

Appendix G – Shortlist Options

Ref	Design Area	Mode	Location	Description	Score	Objectives	Deliverability	Stage 1 Sift	Complimentary / Supporting Option	Compatibility / Duplicates Sift	Recommended Scenario
1	1	Public Transport	Inbound from A4/B4054 Roundabout to DA1 eastern limit (west of Park Road)	Inbound bus lane - Removal of central hatching/central island and some on-street parking. Removal of right turn waiting at Barrow Hill Road, Burnham Road.	17	10	7				Do something
14	1	Active Travel	Outbound footway	Upgrade to LTN 1/20 share used standard	19	8	11				Do something
1	2	Public Transport	Entire length	Inbound bus lane	17	10	7				Do something
2	2	Public Transport	Sylvan Way junction	Bus priority at junction	14	6	8				Do something
23	2	Active Travel	For entire length of DA2	Upgrade shared use footway/cycleway to LTN 1/20 standard	19	8	11				Do something
7	3	Public Transport	Bristol Manor Farm	Signalisation Riverleaze / Bristol Manor Farm FC junction to provide bus priority. Queue detection to hold the queue to create a virtual bus lane.	16	5	11				Do something
14	3	Active Travel	Bristol Manor Farm	Upgrade crossing facilities for cycling and walking	18	7	11				Do something
21	3	Active Travel	Whole of DA3	Upgrade shared use footway/cycleway to LTN 1/20 standard	19	8	11				Do something
7	4	Active Travel	For entire length of DA4	Upgrade/improve existing islands for pedestrians and cycle crossing	15	4	11				Do something
12	4	Active Travel	For entire length of DA4	Upgrade existing shared footway/ cycle to LTN 1/20 to encourage further use	19	8	11				Do something
1	5	Public Transport	Bridge Valley Road Junction	Provide Bus priority at Bridge Valley Road signal junction	19	11	8				Do something
3	5	Public Transport	Hotwell Road (Inbound)	Proposed inbound bus lane	16	12	0				Do something
4	5	Public Transport	For entire length of DA5	Redesign existing arrangement to provide width for road space reallocation	22	16	6				Do something
12	5	Active Travel	For entire length of DA5	Upgrade existing shared use path to LTN 1/20 to encourage further use	16	9	7				Do something
14	5	Active Travel	For entire length of DA5	Reduce existing 50mph speed limit to 40mph (or 30mph)	22	8	14				Do something
24	5	General Design	Route wide	Review all existing street furniture and unnecessary signage. Propose further way finding to LTN 1/20.	24	10	14				Do something
28	5	General Design	Route wide	Review of speed limits	14	3	11				Do something
1	6	General Design	Jacobs Wells Roundabout	Junction improvements to provide public transport priority through the junction.	19	12	7				Do something
2	6	General Design	Hotwell Road (Outbound)	Propose a new section of 24/7 bus lane between the existing outbound bus lanes to create a continuous route.	18	8	10				Do something
4	6	Public Transport	Hotwell Road (Inbound)	Remove on-street parking to provide width for road space reallocation	15	12	3				Do something
5	6	Public Transport	Inbound (Freeland Place to The Mardyke area)	Inbound 24/7 bus lane	17	12	5				Do something
6	6	Public Transport	Inbound (The Mardyke area to Jacobs Wells Roundabout)	Inbound bus lane	15	12	0				Do something
12	6	Active Travel	Cumberland Basin Road	Upgrade the existing cycle infrastructure to LTN 1/20 requirements	19	8	11				Do something
13	6	Active Travel	Jacobs Wells Roundabout	Improve cycle and pedestrian crossings across the roundabout	16	9	7				Do something
14	6	Active Travel	Harbourside	The existing shared route is narrow with poor surfacing conflicting cyclist and pedestrians; upgrade minor widening shared use	15	10	5				Do something
27	6	General Design	All signalised junctions	Review operation to improved efficacy	18	4	14				Do something
28	6	General Design	All signalised crossings	Review operation to improved efficacy	17	3	14				Do something
36	6	Active Travel	Merchants Road	Provide a Toucan Crossing across Merchant's Road / Cumberland Basin	19	7	12				Do something

Ref	Design Area	Mode	Location	Description	Score	Objectives	Deliverability	Stage 1 Sift	Complimentary / Supporting Option	Compatibility / Duplicates Sift	Recommended Scenario
5	1	Public Transport	Outbound from DA1 eastern limit (west of Park Road) to existing Bus Lane at Station Road junction.	Extend outbound bus lane to connect with P&R bus lane	17	10	7				Do maximum
12	1	Active Travel	Footbridges	Removal of existing pedestrian footbridges and replace with at grade Toucan crossings	26	14	12				Do maximum
13	1	Active Travel	Outbound carriageway	Provision of segregated two-way cycle facility	20	11	9				Do maximum
5	2	Public Transport	Entire length	Outbound bus lane	18	13	5				Do maximum
9	2	Public Transport	Outbound carriageway	Provision of segregated two-way cycle facility	14	7	7				Do maximum
2	3	Public Transport	South of Roman Way junction	Remove bus stops from laybys. Place in carriageway	16	8	8				Do maximum
10	3	Public Transport	Outbound carriageway	Provision of segregated two-way cycle facility	20	11	9				Do maximum
22	3	Public Transport	Whole of DA3	Outbound bus lane	25	17	8				Do maximum
4	4	Public Transport	Sea Walls public car park	Remove right turn lane into seawalls car park to provide width for outbound bus lane. Road users are required to perform U-Turn at Roman Way junction to access Sea Walls car park	22	17	5				Do maximum
10	4	Active Travel	For entire length of DA4	Segregate pedestrians and existing shared use path	22	15	7				Do maximum
11	4	Active Travel	Sea Walls public car park	Remove right turn lane into seawalls car park to provide width for road space reallocation for cycle facility	21	15	6				Do maximum
17	4	General Design	Route wide	Propose further urban greening and streetscape throughout the design area to include raingardens, suds and road space reallocation works	17	9	8				Do maximum
2	5	Public Transport	Hotwell Road (Outbound)	Proposed outbound bus lane	15	12	0				Do maximum
8	5	Public Transport	For entire length of DA5	Clear segregation between cycling and walking routes - LTN 1/20	19	8	11				Do maximum
9	5	Public Transport	For entire length of DA5	Increase crossing points	23	11	12				Do maximum
14a	6	Active Travel	Harbourside	The existing shared route is narrow with poor surfacing conflicting cyclist and pedestrians; upgrade the route to LTN 1/20 with full segregation. New bridge structures.	14	11	3				Do maximum
35	6	General Design	Jacobs Wells Roundabout	Investigate the prospect of proposing a Dutch style roundabout	14	5	9				Do maximum

Appendix H – High Level Cost Plan

Bristol City Council

A4 Portway Strategic Corridor

DRAFT Concept Stage Cost Plan

Jan-23

A4 Portway Strategic Corridor



Matthew Allanson

Associate Cost Consultant

Arcadis LLP
103 Colmore Row
Birmingham
B3 3AG

Version Control

Issue	Revision Nr.	Date Issued	Description of Revision		Prepared By	Reviewed By
			Page Nr.	Comment		
1	A	13/01/23		DRAFT Concept Stage Cost Plan	TJ	RB
2	B	18/01/23		DRAFT Concept Stage Cost Plan	TJ	RB

Arcadis LLP is a limited liability partnership, registered in England, registered number OC368843. Registered office, 80 Fenchurch Street, London, EC3M 4BY. A list of the members' names is available for inspection at the above office. Part of the Arcadis Group of Companies, along with other entities in the UK. Regulated by RICS.

Contents

Section 1	Executive Summary
Section 2	Schematic Cost Plan Summary
Section 3a	Schematic Cost Plan Design Area 01
Section 3b	Schematic Cost Plan Design Area 02
Section 3c	Schematic Cost Plan Design Area 03
Section 3d	Schematic Cost Plan Design Area 04
Section 3e	Schematic Cost Plan Design Area 05
Section 3f	Schematic Cost Plan Design Area 06_A
Section 3g	Schematic Cost Plan Design Area 06_B
Section 4	Information Used Reference
Section 5	Qualifications, Assumptions and Exclusions

SECTION 1 - EXECUTIVE SUMMARY



Project Name: A4 Portway Strategic Corridor

COST SUMMARY

	A4 Portway							Total
	Design Area 01	Design Area 02	Design Area 03	Design Area 04	Design Area 05	Design Area 06_A	Design Area 06_B	
Total Direct Works	£2,960,860	£1,581,763	£837,790	£1,110,730	£755,387	£1,118,894	£1,901,066	£10,266,490
Total STATs	£50,000	£50,000	£50,000	£50,000	£50,000	£50,000	£250,000	£550,000
Total Strategic Planning	£0	£0	£0	£0	£0	£0	£0	£0
Total Direct Professional Fees	£84,217	£56,635	£41,756	£47,215	£40,108	£47,378	£63,021	£380,330
Sub-Total (Excluding risk)	£3,095,078	£1,688,398	£929,546	£1,207,944	£845,494	£1,216,271	£2,214,088	£11,196,820
Risk/Contingency	£619,016	£337,680	£185,909	£241,589	£169,099	£243,254	£442,818	£2,239,364
Sub-Total (Including risk)	£3,714,093	£2,026,078	£1,115,455	£1,449,533	£1,014,593	£1,459,526	£2,656,905	£13,436,184
Allowance for Inflation								
5.4%	£200,561	£109,408	£60,235	£78,275	£54,788	£78,814	£143,473	£725,554
Grand Total (Including risk, inflation)	£3,914,654	£2,135,486	£1,175,690	£1,527,808	£1,069,381	£1,538,340	£2,800,378	£14,161,738

COMMENTARY

A Budget Estimate has been undertaken on the Schematic Design drawings provided, which is made up of 6 Design Areas identified above. The information consists of concept design plan that does not fully detail the anticipated works. The estimate will be optimistic in its nature as the engineering and road safety aspects have not been incorporated into the design.

Risk has been incorporated in the estimate at 20%. We have also incorporated an allowance for inflation of 5.4%.

An allowance has been included for STATs diversions, which are likely to be required but at the time of this estimate are unknown and unquantified.

Anticipated professional fees have also been incorporated into this estimate on a percentage basis.

The estimate has been based on a mix of open market rates. Therefore the costs are subject to change in procurement route. External factors may also impact the current day costs. The main assumptions and exclusions are detailed in Section 5.

As the design develops the cost estimate will evolve along with the assumptions that have been made.

SECTION 2 - SCHEMATIC COST PLAN SUMMARY
A4 Portway Strategic Corridor



DESCRIPTION	QTY	UNIT	Design Area 01	Design Area 02	Design Area 03	Design Area 04	Design Area 05	Design Area 06_A	Design Area 06_B	TOTAL (£)
SERIES 100: PRELIMINARIES			438,542	236,429	128,545	168,653	113,246	168,406	277,321	1,531,141
SERIES 200: SITE CLEARANCE			48,974	34,033	14,300	35,966	22,483	16,157	22,645	194,558
SERIES 300: FENCING			-	66,272	18,296	-	-	26,057	-	110,624
SERIES 400: ROAD RESTRAINT SYSTEMS			-	-	-	-	-	-	-	-
SERIES 500: DRAINAGE AND SERVICE DUCTS			17,500	7,500	7,500	7,500	6,750	23,750	252,500	323,000
SERIES 600: EARTHWORKS			184,045	86,533	44,618	74,950	40,338	28,426	47,503	506,413
SERIES 700: PAVEMENTS			1,103,390	449,754	22,502	144,822	192,867	242,577	291,515	2,447,428
SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS			455,384	292,761	245,402	383,873	158,329	195,965	77,412	1,809,126
SERIES 1200: TRAFFIC SIGNS AND ROAD MARKINGS			264,000	160,000	251,500	109,000	108,500	259,000	620,500	1,772,500
SERIES 1300: ROAD LIGHTING COLUMNS, BRACKETS AND CCTV MASTS			15,000	29,000	8,000	47,000	10,000	10,000	1,000	120,000
SERIES 1400: ELECTRICAL WORK FOR ROAD LIGHTING AND TRAFFIC SIGNS			-	-	-	-	-	-	-	-
SERIES 1800: STRUCTURES			-	-	-	-	-	-	-	-
SERIES 2700: ACCOMODATION WORKS FOR STATUTORY UNDERTAKERS			-	-	-	-	-	-	-	-
SERIES 3000: LANDSCAPE AND ECOLOGY			-	-	-	-	-	-	7,500	7,500
ALLOWANCE FOR UNMEASURED ITEMS			104,415	56,293	30,606	40,156	26,963	40,097	66,029	364,557
Sub-Total			2,631,251	1,415,573	771,263	1,011,321	679,477	1,010,433	1,663,321	9,186,947
Framework Additional Items										
Contractor Fee										-
Traffic Management			219,271	118,214	64,272	84,327	56,623	84,203	207,991	834,901
Night working			110,339	44,975	2,250	14,482	19,287	24,258	29,152	244,743
Sub-Total			329,610	163,189	66,522	98,809	75,910	108,460	237,142	1,079,643
SUB - TOTAL DIRECT WORKS			2,960,860	1,581,763	837,790	1,110,730	755,387	1,118,894	1,901,066	10,266,490
Statutory Undertakers										
Diversion to be completed by STATs companies (Provisional)			50,000	50,000	50,000	50,000	50,000	50,000	250,000	550,000
Sub-Total			50,000	50,000	50,000	50,000	50,000	50,000	250,000	550,000
SUB - TOTAL STATs			50,000	50,000	50,000	50,000	50,000	50,000	250,000	550,000
STRATEGIC PLANNING										
Planning Discharge Fees @ 0% of Construction Costs Including Landscaping	0.00%	Item								-
Sub-Total			-	-	-	-	-	-	-	-
SUB - TOTAL STRATEGIC PLANNING			-	-	-	-	-	-	-	-
PROFESSIONAL / LOCAL AUTHORITY FEES										
SITE INVESTIGATIONS										
Surveys	1	Item	25,000	25,000	25,000	25,000	25,000	25,000	25,000	175,000
Sub-Total			25,000	25,000	25,000	25,000	25,000	25,000	25,000	175,000
ENGINEERING DESIGN										
Engineering Design Fees @ 8% of Construction Costs (incl. Site Support)		Item	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded	-
Sub-Total			-	-	-	-	-	-	-	-
LANDSCAPE DESIGN										
Landscape Design Fees	1	Item	Included	Included	Included	Excluded	Excluded	Excluded	Excluded	-
Sub-Total			-	-	-	-	-	-	-	-
ECOLOGY										
Ecological Management Strategy	0	Item	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded	-
Sub-Total			-	-	-	-	-	-	-	-
SITE SUPERVISION / GENERAL DESIGN										
CDM Management	0.5%	Item	14,804	7,909	4,189	5,554	3,777	5,594	9,505	51,332
Clerk of works	1.5%	Item	44,413	23,726	12,567	16,661	11,331	16,783	28,516	153,997
Sub-Total			59,217	31,635	16,756	22,215	15,108	22,378	38,021	205,330
PROJECT MANAGEMENT										
Project Management Fees		Item	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded	-
Sub-Total			-	-	-	-	-	-	-	-
COST MANAGEMENT										
Quantity Surveyor Fees		Item	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded	-
Sub-Total			-	-	-	-	-	-	-	-
LOCAL AUTHORITY FEES										
Direct LA Costs (staff/Advertisement/Design Checks/RSA's Etc)		Item	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded	-
Sub-Total			-	-	-	-	-	-	-	-
SUB - TOTAL DIRECT PROFESSIONAL / LOCAL AUTHORITY FEES			84,217	56,635	41,756	47,215	40,108	47,378	63,021	380,330
GRAND TOTAL (Excluding risk)			3,095,078	1,688,398	929,546	1,207,944	845,494	1,216,271	2,214,088	11,196,820
RISK AND CONTINGENCY										
Risk and Contingency on Infrastructure works	20%	Item	619,016	337,680	185,909	241,589	169,099	243,254	442,818	2,239,364
Sub-Total			619,016	337,680	185,909	241,589	169,099	243,254	442,818	2,239,364
GRAND TOTAL (Including risk)			3,714,093	2,026,078	1,115,455	1,449,533	1,014,593	1,459,526	2,656,905	13,436,184
ALLOWANCE FOR INFLATION										
Allowance +5.4% (BCIS All-in TPI 3Q 2025)	5.4%		200,561	109,408	60,235	78,275	54,788	78,814	143,473	725,554
Sub-Total			200,561	109,408	60,235	78,275	54,788	78,814	143,473	725,554
GRAND TOTAL (Including risk & inflation)			3,914,654	2,135,486	1,175,690	1,527,808	1,069,381	1,538,340	2,800,378	14,161,738

SECTION 3a - SCHEMATIC COST PLAN

Design Area 01

Code	Description	Qty	Unit	Rate	Total	Series Total
100	PRELIMINARIES					
200	SITE CLEARANCE					
	SERIES 200: SITE CLEARANCE					
200.01	Site Clearance					
200.01.01	General Site Clearance					
200.01.01.01	General site clearance	2.391	ha	7,500.00	17,934.40	
200.02	Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site					
200.02.01	Take up and remove to tip off Site					
200.02.01.01	Existing kerbs to be removed	659	m	15.30	10,085.97	
200.02.01.02	Existing lighting column to be removed	6	nr	170.00	1,020.00	
200.02.01.03	Existing lighting column to be relocated	15	nr	150.00	2,250.00	
200.02.01.04	Existing illuminated bollards to be removed	3	nr	250.00	750.00	
200.02.01.05	Existing traffic signal to be relocated	3	nr	350.00	1,050.00	
200.02.01.06	Existing traffic signal to be removed	17	nr	150.00	2,550.00	
200.02.01.07	Existing bollards to be removed	13	nr	250.00	3,250.00	
200.02.01.09	Existing electric post to be relocated	1	nr	250.00	250.00	
200.02.01.10	Existing tactile paving to be removed	33	m2	60.00	1,961.40	
200.02.01.11	Existing signage to be relocated	7	nr	250.00	1,750.00	
200.02.01.12	Existing signage to be removed	1	nr	100.00	100.00	
200.02.01.14	Existing railings to be removed	369	m	16.30	6,022.52	
	TOTAL Site Clearance					48,974.30

SECTION 3a - SCHEMATIC COST PLAN

Design Area 01

Code	Description	Qty	Unit	Rate	Total	Series Total
300	FENCING SERIES 300: FENCING No works anticipated.					
	TOTAL Fencing					0.00

SECTION 3a - SCHEMATIC COST PLAN

Design Area 01

Code	Description	Qty	Unit	Rate	Total	Series Total
400	<p>ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN) SERIES 400: ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN)</p> <p>No works anticipated.</p>					
	<p>TOTAL Road Restraint Systems (Vehicle and Pedestrian)</p>					0.00

SECTION 3a - SCHEMATIC COST PLAN

Design Area 01

Code	Description	Qty	Unit	Rate	Total	Series Total
500	DRAINAGE AND SERVICE DUCTS					
	SERIES 500: DRAINAGE AND SERVICE DUCTS					
500.01	Allowance for raising and lowering of existing cover, manhole, gully, electrical boxe etc. on carriageway and footways	1	Item	17,500.00	17,500.00	
	TOTAL Drainage and Service Ducts					17,500.00

SECTION 3a - SCHEMATIC COST PLAN

Design Area 01

Code	Description	Qty	Unit	Rate	Total	Series Total
600	EARTHWORKS					
	SERIES 600: EARTHWORKS					
600.14	Excavation					
600.14.01	Excavation to New Carriageway	1,918	m3	15.00	28,774.98	
600.14.02	Excavation to New Footway	556	m3	15.00	8,334.67	
600.14.03	Excavation to Topsoil (assumed 300mm thick)	448	m3	15.00	6,717.09	
600.34	Disposal of excavated materials					
600.34.01	Disposal of excavated materials	2,922	m3	35.00	102,262.37	
600.57	Geotextiles					
600.57.01	Geotextile	10,544	m2	1.50	15,816.24	
600.82	Completion of Formation and Sub-formation					
600.82.01	Completion of formation/sub formation	10,544	m2	0.40	4,217.66	
600.23	Extra Over Excavation for Excavation in Hard Material					
600.23.01	Extra over for excavation in hard material	896	m3	20.00	17,922.25	
600.14.02.01	Item allowance for harmful gasses on site (assume required)	1	Item	40.00	Excl	
600.14.02.02	Item allowance for contamination within the site areas (assume required)	1	Item	25,000.00	Excl	
	TOTAL Earthworks					184,045.25

SECTION 3a - SCHEMATIC COST PLAN

Design Area 01

Code	Description	Qty	Unit	Rate	Total	Series Total
700	PAVEMENTS					
	SERIES 700: PAVEMENTS					
700.02	Sub-base					
700.03	Base Course					
700.03.01	Base course ; 210mm thk in new carriageway	1,996	m2	55.00	109,772.30	
700.04	Binder Course					
700.04.01	Binder Course ; 60mm thk in new carriageway	1,996	m2	20.00	39,917.20	
700.04.02	Binder Course ; 60mm thk in existing carriageway	5,588	m2	20.00	111,758.20	
700.05	Surface Course					
700.05.01	Surface course ; 50mm thk HRA in new carriageway	1,996	m2	24.00	47,900.64	
700.05.02	Surface course ; 50mm thk HRA in existing carriageway	5,588	m2	24.00	134,109.84	
700.06	Regulating Course					
700.06.01	Regulating Course ; 110mm thk in existing carriageway	154	ton	121.25	18,632.19	
700.07	Tack Coat					
700.07.01	Tack coat	7,584	m2	0.85	6,446.20	
700.08	Capping					
700.08.01	Capping; 300 mm thick new carriageway	599	m3	45.00	26,944.11	
700.25	Milling					
700.25.01.01	Milling of existing carriageway; assume 110mm thk	12,737	m2	4.50	57,317.45	
700.26.01.01	Asphalt Reinforcement	12,737	m2	8.00	101,897.68	
700.A	Proposed Raised Table	894	m2	53.50	47,823.16	
700.B	Proposed Red Bus Lane Surfacing	7,149	m2	51.00	364,614.30	
700.C	Reinstatement of paving adjacent to kerb	659	m	55.00	36,256.77	
	TOTAL Pavement					1,103,390.04

SECTION 3a - SCHEMATIC COST PLAN

Design Area 01

Code	Description	Qty	Unit	Rate	Total	Series Total
1100	KERBS, FOOTWAYS AND PAVED AREAS					
	SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS					
1100.01	Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems					
1100.01.01	Kerbs					
1100.01.01.01	PCC Kerb	659	m	34.00	22,413.28	
1100.01.01.02	Edgings	1,103	m	18.00	19,857.72	
1100.02	Footways and Paved Areas					
1100.02.01	Footway					
1100.02.01.01	Surface course; 20mm thk AC6 in existing footway	5,979	m2	18.00	107,614.86	
1100.02.01.02	Surface course; 20mm thk AC6 in new footway	2,416	m2	18.00	43,485.21	
1100.02.01.03	Binder course; 60mm thick AC20 in existing footway	5,979	m2	20.00	119,572.07	
1100.02.01.04	Binder course; 60mm thick AC20 in new footway	2,416	m2	20.00	48,316.91	
1100.02.01.05	Granular sub-base; 150mm thick Type 1 sub base in new footway (DBM)	2,416	m2	10.00	24,158.45	
1100.02.01.06	Regulating Course ; 80mm thk in existing footways	120	ton	121.25	14,498.11	
1100.02.01.07	Tack coat	2,416	m2	0.85	2,053.47	
1100.02.01.08	Milling of existing footway	5,979	m2	4.00	23,914.41	
1100.03	Miscellaneous					
1100.03.01	Allowance for street furniture	1	Item	12,500.00	12,500.00	
1100.03.03	Allowance for tactile paving	1	Item	17,000.00	17,000.00	
	TOTAL Kerbs, Footways and Paved Areas					455,384.50

SECTION 3a - SCHEMATIC COST PLAN

Design Area 01

Code	Description	Qty	Unit	Rate	Total	Series Total
1200	TRAFFIC SIGNS AND ROAD MARKINGS SERIES 1200: TRAFFIC SIGNS AND ROAD MARKINGS					
1200.01	Traffic Signs					
1200.01.01	Allowance for new traffic signs/wayfinding signage	1	Item	10,000.00	10,000.00	
1200.01.02	Proposed New Bus Lane Signage and Repeaters	1	Item	3,500.00	3,500.00	
1200.02	Road Markings					
1200.02.01	Allowance for new road markings	1	Item	10,500.00	10,500.00	
1200.03	Proposed Toucan Crossings	5	No	48,000.00	240,000.00	
	TOTAL Traffic Signs and Road Markings					264,000.00

SECTION 3a - SCHEMATIC COST PLAN

Design Area 01

Code	Description	Qty	Unit	Rate	Total	Series Total
1300	ROAD LIGHTING COLUMNS AND BRACKETS, CCTV MASTS AND CANTILEVER MASTS					
1300.01.01	Relocation of lighting columns	15	nr	350.00	5,250.00	
1300.01.02	LV BWIC	15	nr	500.00	7,500.00	
1300.01.03	Disconnections and reconnections	15	nr	150.00	2,250.00	
	TOTAL Road Lighting Columns					15,000.00

SECTION 3a - SCHEMATIC COST PLAN
Design Area 01

Code	Description	Qty	Unit	Rate	Total	Series Total
1400	<p>Electrical Work for Road Lighting and Traffic Signs SERIES 1400: Electrical Work for Road Lighting and Traffic Signs</p> <p>Included in Series 200</p> <p>TOTAL Electrical Work for Road Lighting and Traffic Signs</p>					0.00

SECTION 3a - SCHEMATIC COST PLAN

Design Area 01

Code	Description	Qty	Unit	Rate	Total	Series Total
1800	Structural Steelwork No works anticipated.					
	TOTAL Structural Steelwork					0.00

SECTION 3a - SCHEMATIC COST PLAN

Design Area 01

Code	Description	Qty	Unit	Rate	Total	Series Total
2700	Accommodation for Statutory Undertakers SERIES 2700: ACCOMMODATION WORKS FOR STATUTORY UNDERTAKERS					
2700.01	Item allowance for utility supplies		Item			
	TOTAL Accommodation for Statutory Undertakers					0.00

SECTION 3a - SCHEMATIC COST PLAN

Design Area 01

Code	Description	Qty	Unit	Rate	Total	Series Total
3000	LANDSCAPE AND ECOLOGY SERIES 3000: LANDSCAPE AND ECOLOGY					
	TOTAL Landscape and Ecology					0.00

SECTION 3a - SCHEMATIC COST PLAN

Design Area 01

Code	Description	Qty	Unit	Rate	Total	Series Total
	Collection					
100	TOTAL Preliminaries	20	%	2,192,708.79	438,541.76	438,541.76
100.1	TOTAL Traffic Management	10	%	2,192,708.79	219,270.88	219,270.88
200	TOTAL Site Clearance					48,974.30
300	TOTAL Fencing					0.00
400	TOTAL Road Restraint Systems (Vehicle and Pedestrian)					0.00
500	TOTAL Drainage and Service Ducts					17,500.00
600	TOTAL Earthworks					184,045.25
700	TOTAL Pavement					1,103,390.04
1100	TOTAL Kerbs, Footways and Paved Areas					455,384.50
1200	TOTAL Traffic Signs and Road Markings					264,000.00
1300	TOTAL Road Lighting Columns					15,000.00
1400	TOTAL Electrical Work for Road Lighting and Traffic Signs					0.00
1800	TOTAL Structural Steelwork					0.00
2700	TOTAL Accommodation for Statutory Undertakers					0.00
3000	TOTAL Landscape and Ecology					0.00
	ALLOWANCE FOR UNMEASURED ITEMS	5	%	2,088,294.08	104,414.70	104,414.70
	Night working	10	%	1,103,390.04	110,339.00	110,339.00
	TOTAL FOR Design Area 01					2,960,860.43

SECTION 3b - SCHEMATIC COST PLAN

Design Area 02

Code	Description	Qty	Unit	Rate	Total	Series Total
100	PRELIMINARIES					
200	SITE CLEARANCE					
	SERIES 200: SITE CLEARANCE					
200.01	Site Clearance					
200.01.01	General Site Clearance					
200.01.01.01	General site clearance	1.346	ha	7,500.00	10,097.84	
200.02.01	Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site					
200.02.01.01	Existing kerbs to be removed	585	m	15.30	8,944.72	
200.02.01.02	Existing timber fence to be removed	336	m	15.00	5,039.70	
200.02.01.03	Existing wire fence to be removed	187	m	15.00	2,801.40	
200.02.01.04	Existing tactile paving to be removed	13	m2	60.00	759.00	
200.02.01.05	Existing lighting column to be relocated	30	nr	150.00	4,500.00	
200.02.01.06	Existing traffic signal, post and elec. conn.to be relocated	4	nr	350.00	1,400.00	
200.02.01.07	Existing traffic signs to be relocated	4	nr	85.00	340.00	
200.A	Item allowance for protection and safe keeping of furniture, fence, lighting column, traffic sign, etc.	1	Item	150.00	150.00	
	TOTAL Site Clearance					34,032.66

SECTION 3b - SCHEMATIC COST PLAN

Design Area 02

Code	Description	Qty	Unit	Rate	Total	Series Total
300	FENCING					
	SERIES 300: FENCING					
300.01	New timber fence	186.76	m	85.00	15,874.60	
300.02	New wire fence	335.98	m	150.00	50,397.00	
	TOTAL Fencing					66,271.60

SECTION 3b - SCHEMATIC COST PLAN

Design Area 02

Code	Description	Qty	Unit	Rate	Total	Series Total
400	<p>ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN) SERIES 400: ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN)</p> <p>No works anticipated.</p>					
	TOTAL Road Restraint Systems (Vehicle and Pedestrian)					0.00

SECTION 3b - SCHEMATIC COST PLAN

Design Area 02

Code	Description	Qty	Unit	Rate	Total	Series Total
500	DRAINAGE AND SERVICE DUCTS SERIES 500: DRAINAGE AND SERVICE DUCTS					
500.01	Allowance for raising and lowering of existing cover, manhole, gully, electrical boxe etc. on carriageway and footways	1	Item	7,500.00	7,500.00	
	TOTAL Drainage and Service Ducts					7,500.00

SECTION 3b - SCHEMATIC COST PLAN

Design Area 02

Code	Description	Qty	Unit	Rate	Total	Series Total
600	EARTHWORKS					
	SERIES 600: EARTHWORKS					
600.14	Excavation					
600.14.01	Excavation to New Footway	1,195	m3	15.00	17,925.20	
600.14.02	Excavation to Topsoil (assumed 300mm thick)	298	m3	15.00	4,467.83	
600.34	Disposal of excavated materials					
600.34.01	Disposal of excavated materials	1,493	m3	35.00	52,250.39	
600.57	Geotextiles					
600.57.01	Geotextile	5,196	m2	1.50	7,793.57	
600.82	Completion of Formation and Sub-formation					
600.82.01	Completion of formation/sub formation	5,196	m2	0.40	2,078.28	
600.23	Extra Over Excavation for Excavation in Hard Material					
600.23.01	Extra over for excavation in hard material	101	m3	20.00	2,017.37	
600.14.02.01	Item allowance for harmful gasses on site (assume required)	1	Item	40.00	Excl	
600.14.02.02	Item allowance for contamination within the site areas (assume required)	1	Item	25,000.00	Excl	
	TOTAL Earthworks					86,532.64

SECTION 3b - SCHEMATIC COST PLAN

Design Area 02

Code	Description	Qty	Unit	Rate	Total	Series Total
700	PAVEMENTS SERIES 700: PAVEMENTS					
700.A	Proposed Raised Table	53	m2	53.50	2,841.39	
700.B	Proposed Red Bus Lane Surfacing	7,473	m2	51.00	381,129.63	
700.25	Milling					
700.25.01.01	Milling of existing carriageway; assume 110mm thk	7,473	m2	4.50	33,629.09	
700.C	Reinstatement of paving adjacent to kerb	585	m	55.00	32,154.21	
	TOTAL Pavement					449,754.31

SECTION 3b - SCHEMATIC COST PLAN

Design Area 02

Code	Description	Qty	Unit	Rate	Total	Series Total
1100	KERBS, FOOTWAYS AND PAVED AREAS					
	SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS					
1100.01	Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems					
1100.01.01	Kerbs					
1100.01.01.01	PCC kerb	585	m	34.00	19,877.15	
1100.01.01.02	Edgings	585	m	18.00	10,523.20	
1100.02	Footways and Paved Areas					
1100.02.01	Footway					
1100.02.01.01	Surface course; 20mm thk AC6 in existing footway	3,760	m2	18.00	67,673.29	
1100.02.01.02	Surface course; 20mm thk AC6 in new footway	1,559	m2	18.00	28,056.83	
1100.02.01.03	Binder course; 60mm thick AC20 in existing footway	3,760	m2	20.00	75,192.54	
1100.02.01.04	Binder course; 60mm thick AC20 in new footway	1,559	m2	20.00	31,174.26	
1100.02.01.05	Granular sub-base; 150mm thick Type 1 sub base in new footway (DBM)	1,559	m2	10.00	15,587.13	
1100.02.01.06	Regulating Course ; 80mm thk in existing footways	75	ton	121.25	9,117.10	
1100.02.01.07	Tack coat	5,318	m2	0.85	4,520.59	
1100.02.01.08	Milling of existing footway	3,760	m2	4.00	15,038.51	
1100.03	Miscellaneous					
1100.03.01	Allowance for street furniture	1	Item	7,500.00	7,500.00	
1100.03.03	Allowance for tactile paving	1	Item	8,500.00	8,500.00	
	TOTAL Kerbs, Footways and Paved Areas					292,760.59

SECTION 3b - SCHEMATIC COST PLAN

Design Area 02

Code	Description	Qty	Unit	Rate	Total	Series Total
1200	TRAFFIC SIGNS AND ROAD MARKINGS					
	SERIES 1200: TRAFFIC SIGNS AND ROAD MARKINGS					
1200.01	Traffic Signs					
1200.01.01	Proposed New Bus Lane Signage and Repeaters	1	Item	3,500.00	3,500.00	
1200.01.02	Allowance for new traffic signs/wayfinding signage	1	Item	5,000.00	5,000.00	
1200.02	Road Markings					
1200.02.01	Allowance for new road markings	1	Item	7,500.00	7,500.00	
1200.03	Traffic Signals					
1200.03.01	Traffic Signals for Bus Priority Junction	1	Item	144,000.00	144,000.00	
	TOTAL Traffic Signs and Road Markings					160,000.00

SECTION 3b - SCHEMATIC COST PLAN

Design Area 02

Code	Description	Qty	Unit	Rate	Total	Series Total
1300	ROAD LIGHTING COLUMNS AND BRACKETS, CCTV MASTS AND CANTILEVER MASTS					
1300.01	SERIES 1300: ROAD LIGHTING COLUMNS AND BRACKETS, CCTV MASTS AND CANTILEVER MASTS					
1300.01.01	Relocation of lighting columns	29	nr	350.00	10,150.00	
1300.01.02	LV BWIC	29	nr	500.00	14,500.00	
1300.01.03	Disconnections and reconnections	29	nr	150.00	4,350.00	
	TOTAL Road Lighting Columns					29,000.00

SECTION 3b - SCHEMATIC COST PLAN

Design Area 02

Code	Description	Qty	Unit	Rate	Total	Series Total
1400	Electrical Work for Road Lighting and Traffic Signs SERIES 1400: Electrical Work for Road Lighting and Traffic Signs Included in Series 1200-1300					
	TOTAL Electrical Work for Road Lighting and Traffic Signs					0.00

SECTION 3b - SCHEMATIC COST PLAN

Design Area 02

Code	Description	Qty	Unit	Rate	Total	Series Total
1800	Structural Steelwork No works anticipated.					
	TOTAL Structural Steelwork					0.00

SECTION 3b - SCHEMATIC COST PLAN

Design Area 02

Code	Description	Qty	Unit	Rate	Total	Series Total
2700	Accommodation for Statutory Undertakers SERIES 2700: ACCOMMODATION WORKS FOR STATUTORY UNDERTAKERS					
2700.01	Item allowance for utility supplies		Item		See Summary	
	TOTAL Accommodation for Statutory Undertakers					0.00

SECTION 3b - SCHEMATIC COST PLAN

Design Area 02

Code	Description	Qty	Unit	Rate	Total	Series Total
3000	LANDSCAPE AND ECOLOGY SERIES 3000: LANDSCAPE AND ECOLOGY					
	TOTAL Landscape and Ecology					0.00

SECTION 3b - SCHEMATIC COST PLAN

Design Area 02

Code	Description	Qty	Unit	Rate	Total	Series Total
	Collection					
100	TOTAL Preliminaries	20	%	1,182,144.38	236,428.88	236,428.88
100.1	TOTAL Traffic Management	10	%	1,182,144.38	118,214.44	118,214.44
200	TOTAL Site Clearance					34,032.66
300	TOTAL Fencing					66,271.60
400	TOTAL Road Restraint Systems (Vehicle and Pedestrian)					0.00
500	TOTAL Drainage and Service Ducts					7,500.00
600	TOTAL Earthworks					86,532.64
700	TOTAL Pavement					449,754.31
1100	TOTAL Kerbs, Footways and Paved Areas					292,760.59
1200	TOTAL Traffic Signs and Road Markings					160,000.00
1300	TOTAL Road Lighting Columns					29,000.00
1400	TOTAL Electrical Work for Road Lighting and Traffic Signs					0.00
1800	TOTAL Structural Steelwork					0.00
2700	TOTAL Accommodation for Statutory Undertakers					0.00
3000	TOTAL Landscape and Ecology					0.00
	ALLOWANCE FOR UNMEASURED ITEMS	5	%	1,125,851.79	56,292.59	56,292.59
	Night working	10	%	449,754.31	44,975.43	44,975.43
	TOTAL FOR Design Area 02					1,581,763.13

SECTION 3c - SCHEMATIC COST PLAN

Design Area 03

Code	Description	Qty	Unit	Rate	Total	Series Total
100	PRELIMINARIES					
200	SITE CLEARANCE					
	SERIES 200: SITE CLEARANCE					
200.01	Site Clearance					
200.01.01	General Site Clearance					
200.01.01.01	General site clearance	0.465	ha	7,500.00	3,488.20	
200.02	Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site					
200.02.01	Take up and remove to tip off Site					
200.02.01.01	Existing kerbs to be removed	316	m	15.30	4,829.54	
200.02.01.02	Existing lighting column to be relocated	8	nr	150.00	1,200.00	
200.02.01.03	Existing signage to be relocated	6	nr	250.00	1,500.00	
200.02.01.05	Existing pavers to be removed	22	m2	60.00	1,302.53	
200.02.01.06	Existing cyclone wire fence to be removed and replaced	122	m	15.00	1,829.55	
200.A	Item allowance for protection and safe keeping of furniture, fence, lighting column, traffic sign, etc.	1	Item	150.00	150.00	
	TOTAL Site Clearance					14,299.82

SECTION 3c - SCHEMATIC COST PLAN

Design Area 03

Code	Description	Qty	Unit	Rate	Total	Series Total
300	FENCING SERIES 300: FENCING					
300.01	New wire fence	122	m	150.00	18,295.50	
	TOTAL Fencing					18,295.50

SECTION 3c - SCHEMATIC COST PLAN

Design Area 03

Code	Description	Qty	Unit	Rate	Total	Series Total
400	ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN) SERIES 400: ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN) No works anticipated.					
	TOTAL Road Restraint Systems (Vehicle and Pedestrian)					0.00

SECTION 3c - SCHEMATIC COST PLAN

Design Area 03

Code	Description	Qty	Unit	Rate	Total	Series Total
500	DRAINAGE AND SERVICE DUCTS SERIES 500: DRAINAGE AND SERVICE DUCTS					
500.01	Allowance for raising and lowering of existing cover, manhole, gully, electrical boxe etc. on carriageway and footways	1	Item	7,500.00	7,500.00	
	TOTAL Drainage and Service Ducts					7,500.00

SECTION 3c - SCHEMATIC COST PLAN

Design Area 03

Code	Description	Qty	Unit	Rate	Total	Series Total
600	EARTHWORKS					
	SERIES 600: EARTHWORKS					
600.14	Excavation					
600.14.02	Excavation to New Footway	273	m3	15.00	4,095.55	
600.14.02	Excavation to Topsoil (assumed 300mm thick)	501	m3	15.00	7,515.41	
600.34	Disposal of excavated materials					
600.34.01	Disposal of excavated materials	774	m3	35.00	27,092.23	
600.57	Geotextiles					
600.57.01	Geotextile	1,187	m2	1.50	1,780.67	
600.82	Completion of Formation and Sub-formation					
600.82.01	Completion of formation/sub formation	1,187	m2	0.40	474.85	
600.23	Extra Over Excavation for Excavation in Hard Material					
600.23.01	Extra over for excavation in hard material	183	m3	20.00	3,659.14	
600.14.02.01	Item allowance for harmful gasses on site (assume required)	1	Item	40.00	Excl	
600.14.02.02	Item allowance for contamination within the site areas (assume required)	1	Item	25,000.00	Excl	
	TOTAL Earthworks					44,617.85

SECTION 3c - SCHEMATIC COST PLAN

Design Area 03

Code	Description	Qty	Unit	Rate	Total	Series Total
700	PAVEMENTS					
	SERIES 700: PAVEMENTS					
700.04	Binder Course					
700.04.02	Binder Course ; 60mm thk in existing carriageway	84	m2	20.00	1,677.60	
700.05	Surface Course					
700.05.02	Surface course ; 50mm thk HRA in existing carriageway	84	m2	24.00	2,013.12	
700.06	Regulating Course					
700.06.01	Regulating Course ; 110mm thk in existing carriageway	2	ton	121.25	279.69	
700.07	Tack Coat					
700.07.01	Tack coat	84	m2	0.85	71.30	
700.25	Milling					
700.25.01.01	Milling of existing carriageway; assume 110mm thk	84	m2	4.50	377.46	
700.26.01.01	Asphalt Reinforcement	84	m2	8.00	671.04	
700.C	Reinstatement of paving adjacent to kerb	317	m	55.00	17,411.35	
	TOTAL Pavement					22,501.55

SECTION 3c - SCHEMATIC COST PLAN

Design Area 03

Code	Description	Qty	Unit	Rate	Total	Series Total
1100	KERBS, FOOTWAYS AND PAVED AREAS					
	SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS					
1100.01	Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems					
1100.01.01	Kerbs					
1100.01.01.01	Proposed Kerb	317	m	34.00	10,763.38	
1100.01.01.02	Edgings	274	m	18.00	4,929.12	
1100.02	Footways and Paved Areas					
1100.02.01	Footway					
1100.02.01.01	Surface course; 20mm thk AC6 in existing footway	3,289	m2	18.00	59,205.92	
1100.02.01.02	Surface course; 20mm thk AC6 in new footway	1,187	m2	18.00	21,368.09	
1100.02.01.03	Binder course; 60mm thick AC20 in existing footway	3,289	m2	20.00	65,784.36	
1100.02.01.04	Binder course; 60mm thick AC20 in existing footway	1,187	m2	20.00	23,742.32	
1100.02.01.05	Granular sub-base; 150mm thick Type 1 sub base in new footway (DBM)	1,187	m2	10.00	11,871.16	
1100.02.01.06	Regulating Course ; 80mm thk in existing footways	66	ton	121.25	7,976.35	
1100.02.01.07	Tack coat	4,476	m2	0.85	3,804.88	
1100.02.01.08	Milling of existing footway	3,289	m2	4.00	13,156.87	
1100.03	Miscellaneous					
1100.03.01	Allowance for street furniture	1	Item	6,000.00	6,000.00	
1100.03.02	Allowance for new Bus Shelters	1	Item	10,000.00	10,000.00	
1100.03.03	Allowance for tactile paving	1	Item	6,800.00	6,800.00	
	TOTAL Kerbs, Footways and Paved Areas					245,402.46

SECTION 3c - SCHEMATIC COST PLAN

Design Area 03

Code	Description	Qty	Unit	Rate	Total	Series Total
1200	TRAFFIC SIGNS AND ROAD MARKINGS					
	SERIES 1200: TRAFFIC SIGNS AND ROAD MARKINGS					
1200.01	Traffic Signs					
1200.01.01	Allowance for new traffic signs/wayfinding signage	1	Item	6,500.00	6,500.00	
1200.02	Road Markings					
1200.02.01	Allowance for new road markings	1	Item	5,000.00	5,000.00	
1200.03	Proposed toucan crossings	1	Item	48,000.00	48,000.00	
1200.04	Signalisation at Riverleaze Junction to be updated to provide bus priority	1	Item	192,000.00	192,000.00	
	TOTAL Traffic Signs and Road Markings					251,500.00

SECTION 3c - SCHEMATIC COST PLAN

Design Area 03

Code	Description	Qty	Unit	Rate	Total	Series Total
1800	Structural Steelwork No works anticipated.					
	TOTAL Structural Steelwork					0.00

SECTION 3c - SCHEMATIC COST PLAN

Design Area 03

Code	Description	Qty	Unit	Rate	Total	Series Total
2700	Accommodation for Statutory Undertakers SERIES 2700: ACCOMMODATION WORKS FOR STATUTORY UNDERTAKERS					
2700.01	Item allowance for utility supplies		Item		See Summary	
	TOTAL Accommodation for Statutory Undertakers					0.00

SECTION 3c - SCHEMATIC COST PLAN

Design Area 03

Code	Description	Qty	Unit	Rate	Total	Series Total
3000	LANDSCAPE AND ECOLOGY SERIES 3000: LANDSCAPE AND ECOLOGY					
	TOTAL Landscape and Ecology					0.00

SECTION 3c - SCHEMATIC COST PLAN

Design Area 03

Code	Description	Qty	Unit	Rate	Total	Series Total
	Collection					
100	TOTAL Preliminaries	20	%	642,723.05	128,544.61	128,544.61
100.1	TOTAL Traffic Management	10	%	642,723.05	64,272.31	64,272.31
200	TOTAL Site Clearance					14,299.82
300	TOTAL Fencing					18,295.50
400	TOTAL Road Restraint Systems (Vehicle and Pedestrian)					0.00
500	TOTAL Drainage and Service Ducts					7,500.00
600	TOTAL Earthworks					44,617.85
700	TOTAL Pavement					22,501.55
1100	TOTAL Kerbs, Footways and Paved Areas					245,402.46
1200	TOTAL Traffic Signs and Road Markings					251,500.00
1300	TOTAL Road Lighting Columns					8,000.00
1400	TOTAL Electrical Work for Road Lighting and Traffic Signs					0.00
1800	TOTAL Structural Steelwork					0.00
2700	TOTAL Accommodation for Statutory Undertakers					0.00
3000	TOTAL Landscape and Ecology					0.00
	ALLOWANCE FOR UNMEASURED ITEMS	5	%	612,117.19	30,605.86	30,605.86
	Night working	10	%	22,501.55	2,250.16	2,250.16
	TOTAL FOR Design Area 03					837,790.12

SECTION 3d - SCHEMATIC COST PLAN

Design Area 04

Code	Description	Qty	Unit	Rate	Total	Series Total
100	PRELIMINARIES					
200	SITE CLEARANCE					
	SERIES 200: SITE CLEARANCE					
200.01	Site Clearance					
200.01.01	General Site Clearance					
200.01.01.01	General site clearance	0.83	ha	7,500.00	6,232.02	
200.02	Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site					
200.02.01	Take up and remove to tip off Site					
200.02.01.01	Existing kerbs to be removed	1,109	m	15.30	16,964.44	
200.02.01.02	Existing lighting columns to be removed	1	nr	170.00	170.00	
200.02.01.03	Existing lighting columns to be relocated	47	nr	150.00	7,050.00	
200.02.01.04	Existing bollard to be removed	2	nr	250.00	500.00	
200.02.01.05	Existing illuminated bollard to be removed	12	nr	350.00	4,200.00	
200.02.01.06	Existing signage to be removed	2	nr	100.00	200.00	
200.02.01.07	Existing signage to be relocated	2	nr	250.00	500.00	
200.A	Item allowance for protection and safe keeping of furniture, fence, lighting column, traffic sign, etc.	1	Item	150.00	150.00	
	TOTAL Site Clearance					35,966.46

SECTION 3d - SCHEMATIC COST PLAN

Design Area 04

Code	Description	Qty	Unit	Rate	Total	Series Total
300	FENCING SERIES 300: FENCING No works anticipated.					
	TOTAL Fencing					0.00

SECTION 3d - SCHEMATIC COST PLAN

Design Area 04

Code	Description	Qty	Unit	Rate	Total	Series Total
400	<p>ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN) SERIES 400: ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN)</p> <p>No works anticipated.</p>					
	TOTAL Road Restraint Systems (Vehicle and Pedestrian)					0.00

SECTION 3d - SCHEMATIC COST PLAN

Design Area 04

Code	Description	Qty	Unit	Rate	Total	Series Total
500	DRAINAGE AND SERVICE DUCTS SERIES 500: DRAINAGE AND SERVICE DUCTS					
500.03	Allowance for raising and lowering of existing cover, manhole, gully, electrical boxe etc. on carriageway and footways	1	Item	7,500.00	7,500.00	
	TOTAL Drainage and Service Ducts					7,500.00

SECTION 3d - SCHEMATIC COST PLAN

Design Area 04

Code	Description	Qty	Unit	Rate	Total	Series Total
600	EARTHWORKS					
	SERIES 600: EARTHWORKS					
600.14	Excavation					
600.14.01	Excavation to New Carriageway	690	m3	15.00	10,351.11	
600.14.02	Excavation to New Footway	510	m3	15.00	7,646.53	
600.34	Disposal of excavated materials					
600.34.01	Disposal of excavated materials	1,200	m3	35.00	41,994.48	
600.57	Geotextiles					
600.57.01	Geotextile	896	m2	1.50	1,344.30	
600.82	Completion of Formation and Sub-formation					
600.82.01	Completion of formation/sub formation	896	m2	0.40	358.48	
600.23	Extra Over Excavation for Excavation					
600.23.01	Extra over for excavation in hard material	663	m3	20.00	13,254.64	
600.14.02.02	Item allowance for harmful gasses on site (assume required)	1	Item	40.00	Excl.	
600.14.02.03	Item allowance for contamination within the site areas (assume required)	1	Item	25,000.00	Excl.	
	TOTAL Earthworks					74,949.53

SECTION 3d - SCHEMATIC COST PLAN

Design Area 04

Code	Description	Qty	Unit	Rate	Total	Series Total
700	PAVEMENTS					
	SERIES 700: PAVEMENTS					
700.02	Sub-base					
700.02.01	Granular sub-base (SB1); 150mm thk in new carriageway	134	m3	55.00	7,393.65	
700.03	Base Course					
700.03.01	Base course ; 210mm thk in new carriageway	896	m2	55.00	49,290.98	
700.04	Binder Course					
700.04.01	Binder Course ; 60mm thk in new carriageway	896	m2	20.00	17,923.99	
700.05	Surface Course					
700.05.01	Surface course ; 50mm thk HRA in new carriageway	896	m2	24.00	21,508.79	
700.07	Tack Coat					
700.07.01	Tack coat	896	m2	0.85	761.77	
700.08	Capping					
700.08.01	Capping; 300 mm thick new carriageway	269	m3	45.00	12,098.69	
700.C	Reinstatement of paving adjacent to kerb	652	m	55.00	35,844.34	
	TOTAL Pavement					144,822.21

SECTION 3d - SCHEMATIC COST PLAN

Design Area 04

Code	Description	Qty	Unit	Rate	Total	Series Total
1100	KERBS, FOOTWAYS AND PAVED AREAS					
	SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS					
1100.01	Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems					
1100.01.01	Kerbs					
1100.01.01.01	PCC Kerb	652	m	34.00	22,158.32	
1100.01.01.02	Edgings	652	m	18.00	11,738.97	
1100.02	Footways and Paved Areas					
1100.02.01	Footway					
1100.02.01.01	Surface course; 20mm thk AC6 in new footway	2,216	m2	18.00	39,894.94	
1100.02.01.02	Binder course; 60mm thick AC20 in new footway	2,216	m2	20.00	44,327.71	
1100.02.01.03	Granular sub-base; 150mm thick Type 1 sub base in new footway (DBM)	2,216	m2	10.00	22,163.85	
1100.02.01.01	Surface course; 20mm thk AC6 in existing footway	5,172	m2	18.00	93,088.18	
1100.02.01.02	Binder course; 60mm thick AC20 in existing footway	5,172	m2	20.00	103,431.31	
1100.02.01.08	Milling of existing footway	5,172	m2	4.00	20,686.26	
1100.02.01.04	Tack coat	2,216	m2	0.85	1,883.93	
1100.03	Miscellaneous					
1100.03.01	Allowance for street furniture	1	Item	6,000.00	6,000.00	
1100.03.02	Allowance for new Bus Shelters	1	Item	10,000.00	10,000.00	
1100.03.03	Allowance for tactile paving	1	Item	8,500.00	8,500.00	
	TOTAL Kerbs, Footways and Paved Areas					383,873.47

SECTION 3d - SCHEMATIC COST PLAN

Design Area 04

Code	Description	Qty	Unit	Rate	Total	Series Total
1200	TRAFFIC SIGNS AND ROAD MARKINGS SERIES 1200: TRAFFIC SIGNS AND ROAD MARKINGS					
1200.01	Traffic Signs					
1200.01.01	Allowance for new traffic signs/wayfinding signage	1	Item	6,500.00	6,500.00	
1200.02	Road Markings					
1200.02.01	Allowance for new road markings	1	Item	6,500.00	6,500.00	
1200.03	Traffic Signals					
1200.03.02	New traffic signals inclusive of all electrical and BWIC	1	nr	96,000.00	96,000.00	
	TOTAL Traffic Signs and Road Markings					109,000.00

SECTION 3d - SCHEMATIC COST PLAN

Design Area 04

Code	Description	Qty	Unit	Rate	Total	Series Total
1300	ROAD LIGHTING COLUMNS AND BRACKETS, CCTV MASTS AND CANTILEVER MASTS					
1300.01.01	Relocation of lighting columns	47	nr	350.00	16,450.00	
1300.01.02	LV BWIC	47	nr	500.00	23,500.00	
1300.01.03	Disconnections and reconnections	47	nr	150.00	7,050.00	
	TOTAL Road Lighting Columns					47,000.00

SECTION 3d - SCHEMATIC COST PLAN

Design Area 04

Code	Description	Qty	Unit	Rate	Total	Series Total
1800	Structural Steelwork No works anticipated.					
	TOTAL Structural Steelwork					0.00

SECTION 3d - SCHEMATIC COST PLAN

Design Area 04

Code	Description	Qty	Unit	Rate	Total	Series Total
2700	<p>Accommodation for Statutory Undertakers SERIES 2700: ACCOMMODATION WORKS FOR STATUTORY UNDERTAKERS</p> <p>No works anticipated.</p> <p>TOTAL Accommodation for Statutory Undertakers</p>					0.00

SECTION 3d - SCHEMATIC COST PLAN

Design Area 04

Code	Description	Qty	Unit	Rate	Total	Series Total
	Collection					
100	TOTAL Preliminaries	20	%	843,267.26	168,653.45	168,653.45
100.1	TOTAL Traffic Management	10	%	843,267.26	84,326.73	84,326.73
200	TOTAL Site Clearance					35,966.46
300	TOTAL Fencing					0.00
400	TOTAL Road Restraint Systems (Vehicle and Pedestrian)					0.00
500	TOTAL Drainage and Service Ducts					7,500.00
600	TOTAL Earthworks					74,949.53
700	TOTAL Pavement					144,822.21
1100	TOTAL Kerbs, Footways and Paved Areas					383,873.47
1200	TOTAL Traffic Signs and Road Markings					109,000.00
1300	TOTAL Road Lighting Columns					47,000.00
1400	TOTAL Electrical Work for Road Lighting and Traffic Signs					0.00
1800	TOTAL Structural Steelwork					0.00
2700	TOTAL Accommodation for Statutory Undertakers					0.00
3000	TOTAL Landscape and Ecology					0.00
	ALLOWANCE FOR UNMEASURED ITEMS	5	%	803,111.68	40,155.58	40,155.58
	Night working	10	%	144,822.21	14,482.22	14,482.22
	TOTAL FOR Design Area 04					1,110,729.66

SECTION 3e - SCHEMATIC COST PLAN

Design Area 05

Code	Description	Qty	Unit	Rate	Total	Series Total
100	PRELIMINARIES					
200	SITE CLEARANCE					
	SERIES 200: SITE CLEARANCE					
200.01	Site Clearance					
200.01.01	General Site Clearance					
200.01.01.01	General site clearance	0.82	ha	7,500.00	6,157.76	
200.02.01	Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site					
200.02.01.01	Existing kerbs to be removed	409	m	15.30	6,250.34	
200.02.01.02	Existing fence to be removed	170	m	15.00	2,542.80	
200.02.01.03	Existing guard rails to be removed	72	m	15.00	1,073.40	
200.02.01.05	Existing tactile paving to be removed	10	m2	60.00	609.00	
200.02.01.06	Existing lighting column to be relocated	10	nr	150.00	1,500.00	
200.02.01.07	Existing traffic signal, post and elec. conn.to be relocated	8	nr	350.00	2,800.00	
200.02.01.08	Existing traffic signs to be relocated	4	nr	100.00	400.00	
200.02.01.09	Existing traffic bollards to be removed	4	nr	250.00	1,000.00	
200.A	Item allowance for protection and safe keeping of furniture, fence, lighting column, traffic sign, etc.	1	Item	150.00	150.00	
	TOTAL Site Clearance					22,483.30

SECTION 3e - SCHEMATIC COST PLAN

Design Area 05

Code	Description	Qty	Unit	Rate	Total	Series Total
400	<p>ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN) SERIES 400: ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN)</p> <p>No works anticipated.</p>					
	<p>TOTAL Road Restraint Systems (Vehicle and Pedestrian)</p>					<p>0.00</p>

SECTION 3e - SCHEMATIC COST PLAN

Design Area 05

Code	Description	Qty	Unit	Rate	Total	Series Total
500	DRAINAGE AND SERVICE DUCTS					
	SERIES 500: DRAINAGE AND SERVICE DUCTS					
500.01	Allowance for raising and lowering of existing cover, manhole, gully, electrical boxes etc. on carriageway and footways	1	Item	6,750.00	6,750.00	
	TOTAL Drainage and Service Ducts					6,750.00

SECTION 3e - SCHEMATIC COST PLAN

Design Area 05

Code	Description	Qty	Unit	Rate	Total	Series Total
600	EARTHWORKS					
	SERIES 600: EARTHWORKS					
600.14	Excavation					
600.14.01	Excavation to New Carriageway	139	m3	15.00	2,088.59	
600.14.02	Excavation to New Footway	299	m3	15.00	4,480.26	
600.14.03	Excavation to Topsoil (assumed 300mm thick)	74	m3	15.00	1,116.59	
600.34	Disposal of excavated materials					
600.34.01	Disposal of excavated materials	512	m3	35.00	17,932.66	
600.57	Geotextiles					
600.57.01	Geotextile	6,145	m2	1.50	9,217.91	
600.82	Completion of Formation and Sub-formation					
600.82.01	Completion of formation/sub formation	6,145	m2	0.40	2,458.11	
600.23	Extra Over Excavation for Excavation					
600.23.01	Extra over for excavation in hard material	152	m3	20.00	3,043.68	
600.14.02.01	Item allowance for harmful gasses on site (assume required)	1	Item	40.00	Excl	
600.14.02.02	Item allowance for contamination within the site areas (assume required)	1	Item	25,000.00	Excl	
	TOTAL Earthworks					40,337.78

SECTION 3e - SCHEMATIC COST PLAN

Design Area 05

Code	Description	Qty	Unit	Rate	Total	Series Total
700	PAVEMENTS					
	SERIES 700: PAVEMENTS					
700.02	Sub-base					
700.02.01	Granular sub-base (SB1); 150mm thk in new carriageway	272	m3	55.00	14,986.21	
700.03	Base Course					
700.03.01	Base course ; 210mm thk in new carriageway	181	m2	55.00	9,945.65	
700.04	Binder Course					
700.04.01	Binder Course ; 60mm thk in new carriageway	181	m2	20.00	3,616.60	
700.04.02	Binder Course ; 60mm thk in existing carriageway	1,748	m2	20.00	34,960.80	
700.05	Surface Course					
700.05.01	Surface course ; 50mm thk HRA in new carriageway	181	m2	24.00	4,339.92	
700.05.02	Surface course ; 50mm thk HRA in existing carriageway	1,748	m2	24.00	41,952.96	
700.06	Regulating Course					
700.06.01	Regulating Course ; 110mm thk in existing carriageway	48	ton	121.25	5,828.62	
700.07	Tack Coat					
700.07.01	Tack coat	1,929	m2	0.85	1,639.54	
700.08	Capping					
700.08.01	Capping; 300 mm thick new carriageway	54	m3	45.00	2,441.21	
700.25	Milling					
700.25.01.01	Milling of existing carriageway; assume 110mm thk	2,260	m2	4.50	10,167.80	
700.26.01.01	Asphalt Reinforcement	2,260	m2	8.00	18,076.08	
700.A	Proposed Red Bus Lane Surfacing	511	m2	51.00	26,084.97	
700.C	Reinstatement of paving adjacent to kerb	342	m	55.00	18,827.00	
	TOTAL Pavement					192,867.34

SECTION 3e - SCHEMATIC COST PLAN

Design Area 05

Code	Description	Qty	Unit	Rate	Total	Series Total
1100	KERBS, FOOTWAYS AND PAVED AREAS					
	SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS					
1100.01	Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems					
1100.01.01	Kerbs					
1100.01.01.01	PCC Kerb	342	m	34.00	11,638.51	
1100.02	Footways and Paved Areas					
1100.02.01	Footway					
1100.02.01.01	Surface course; 20mm thk AC6 in existing footway	1,441	m2	18.00	25,942.50	
1100.02.01.02	Surface course; 20mm thk AC6 in new footway	1,299	m2	18.00	23,375.25	
1100.02.01.03	Binder course; 60mm thick AC20 in existing footway	1,441	m2	20.00	28,825.00	
1100.02.01.04	Binder course; 60mm thick AC20 in existing footway	1,299	m2	20.00	25,972.50	
1100.02.01.05	Granular sub-base; 150mm thick Type 1 sub base in new raised crossing (DBM)	1,299	m2	10.00	12,986.25	
1100.02.01.06	Regulating Course ; 80mm thk in existing footways	29	ton	121.25	3,495.03	
1100.02.01.07	Tack coat	2,740	m2	0.85	2,328.89	
1100.02.01.08	Milling of existing footway	1,441	m2	4.00	5,765.00	
1100.03	Miscellaneous					
1100.03.01	Allowance for street furniture	1	Item	6,000.00	6,000.00	
1100.03.02	Allowance for new Bus Shelters	1	Item	6,000.00	6,000.00	
1100.03.03	Allowance for tactile paving	1	Item	6,000.00	6,000.00	
	TOTAL Kerbs, Footways and Paved Areas					158,328.93

SECTION 3e - SCHEMATIC COST PLAN

Design Area 05

Code	Description	Qty	Unit	Rate	Total	Series Total
1200	TRAFFIC SIGNS AND ROAD MARKINGS					
	SERIES 1200: TRAFFIC SIGNS AND ROAD MARKINGS					
1200.01	Traffic Signs					
1200.01.01	Proposed New Bus Lane Signage and Repeaters	2	nr	3,500.00	7,000.00	
1200.01.03	Allowance for new traffic signs/wayfinding signage	1	Item	6,500.00	6,500.00	
1200.02	Road Markings					
1200.02.01	Allowance for new road markings	1	Item	5,000.00	5,000.00	
1200.03	Traffic Signals					
1200.03.01	Relocation of traffic signals inclusive of all electrical and BWIC	8	nr	750.00	6,000.00	
1200.03.02	New Traffic Signals, Junction to include bus priority	1	Item	84,000.00	84,000.00	
	TOTAL Traffic Signs and Road Markings					108,500.00

SECTION 3e - SCHEMATIC COST PLAN

Design Area 05

Code	Description	Qty	Unit	Rate	Total	Series Total
1800	Structural Steelwork No works anticipated.					
	TOTAL Structural Steelwork					0.00

SECTION 3e - SCHEMATIC COST PLAN

Design Area 05

Code	Description	Qty	Unit	Rate	Total	Series Total
	Collection					
100	TOTAL Preliminaries	20	%	566,230.72	113,246.14	113,246.14
100.1	TOTAL Traffic Management	10	%	566,230.72	56,623.07	56,623.07
200	TOTAL Site Clearance					22,483.30
300	TOTAL Fencing					0.00
400	TOTAL Road Restraint Systems (Vehicle and Pedestrian)					0.00
500	TOTAL Drainage and Service Ducts					6,750.00
600	TOTAL Earthworks					40,337.78
700	TOTAL Pavement					192,867.34
1100	TOTAL Kerbs, Footways and Paved Areas					158,328.93
1200	TOTAL Traffic Signs and Road Markings					108,500.00
1300	TOTAL Road Lighting Columns					10,000.00
1400	TOTAL Electrical Work for Road Lighting and Traffic Signs					0.00
1800	TOTAL Structural Steelwork					0.00
2700	TOTAL Accommodation for Statutory Undertakers					0.00
3000	TOTAL Landscape and Ecology					0.00
	ALLOWANCE FOR UNMEASURED ITEMS	5	%	539,267.35	26,963.37	26,963.37
	Night working	10	%	192,867.34	19,286.73	19,286.73
	TOTAL FOR Design Area 05					755,386.67

SECTION 3f - SCHEMATIC COST PLAN

Design Area 06_A

Code	Description	Qty	Unit	Rate	Total	Series Total
100	PRELIMINARIES					
200	SITE CLEARANCE					
	SERIES 200: SITE CLEARANCE					
200.01	Site Clearance					
200.01.01	General Site Clearance					
200.01.01.01	General site clearance	0.84	ha	7,500.00	6,324.25	
200.02	Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site					
200.02.01	Take up and remove to tip off Site					
200.02.01.01	Existing kerbs to be removed	190.032	m	15.30	2,907.49	
200.02.01.02	Existing guard rails to be removed	180	m	16.00	2,875.20	
200.02.01.03	Existing lighting columns to be relocated	8	nr	150.00	1,200.00	
200.02.01.04	Existing electric post to be relocated	2	nr	350.00	700.00	
200.02.01.05	Existing parking meter to be removed and replaced	1	nr	500.00	500.00	
200.02.01.06	Existing traffic signs to be removed/relocated	10	nr	150.00	1,500.00	
200.A	Item allowance for protection and safe keeping of furniture, fence, lighting column, traffic sign, etc.	1	Item	150.00	150.00	
	TOTAL Site Clearance					16,156.94

SECTION 3f - SCHEMATIC COST PLAN

Design Area 06_A

Code	Description	Qty	Unit	Rate	Total	Series Total
300	FENCING SERIES 300: FENCING					
300.01	New guardrails	180	m	145.00	26,056.50	
	TOTAL Fencing					26,056.50

SECTION 3f - SCHEMATIC COST PLAN

Design Area 06_A

Code	Description	Qty	Unit	Rate	Total	Series Total
400	<p>ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN) SERIES 400: ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN)</p> <p>No works anticipated.</p>					
	<p>TOTAL Road Restraint Systems (Vehicle and Pedestrian)</p>					0.00

SECTION 3f - SCHEMATIC COST PLAN

Design Area 06_A

Code	Description	Qty	Unit	Rate	Total	Series Total
500	DRAINAGE AND SERVICE DUCTS					
	SERIES 500: DRAINAGE AND SERVICE DUCTS					
500.01	Allowance for raising and lowering of existing cover, manhole, gully, electrical boxe etc. on carriageway and footways	1	Item	23,750.00	23,750.00	
	TOTAL Drainage and Service Ducts					23,750.00

SECTION 3f - SCHEMATIC COST PLAN

Design Area 06_A

Code	Description	Qty	Unit	Rate	Total	Series Total
600	EARTHWORKS					
	SERIES 600: EARTHWORKS					
600.14	Excavation					
600.14.02	Excavation to New Footway	215	m3	15.00	3,222.73	
600.34	Disposal of excavated materials					
600.34.01	Disposal of excavated materials	215	m3	35.00	7,519.71	
600.57	Geotextiles					
600.57.01	Geotextile	3,971	m2	1.50	5,955.77	
600.82	Completion of Formation and Sub-formation					
600.82.01	Completion of formation/sub formation	3,971	m2	0.40	1,588.20	
600.23	Extra Over Excavation for Excavation					
600.23.01	Extra over for excavation in hard material	507	m3	20.00	10,140.00	
600.14.02.01	Item allowance for harmful gasses on site (assume required)	1	Item	40.00	Excl.	
600.14.02.02	Item allowance for contamination within the site areas (assume required)	1	Item	25,000.00	Excl.	
	TOTAL Earthworks					28,426.41

SECTION 3f - SCHEMATIC COST PLAN

Design Area 06_A

Code	Description	Qty	Unit	Rate	Total	Series Total
700	PAVEMENTS SERIES 700: PAVEMENTS					
700.A	Proposed Red Bus Lane Surfacing	4,182	m2	51.00	213,303.93	
700.25.01.01	Milling of existing carriageway; assume 110mm thk	4,182	m2	4.50	18,820.94	
700.C	Reinstatement of paving adjacent to kerb	190	m	55.00	10,451.76	
	TOTAL Pavement					242,576.63

SECTION 3f - SCHEMATIC COST PLAN

Design Area 06_A

Code	Description	Qty	Unit	Rate	Total	Series Total
1100	KERBS, FOOTWAYS AND PAVED AREAS					
	SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS					
1100.01	Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems					
1100.01.01	Kerbs					
1100.01.01.01	PCC Kerb	190	m	34.00	6,461.09	
1100.01.01.02	Edgings	193	m	18.00	3,478.32	
1100.02	Footways and Paved Areas					
1100.02.01	Footway					
1100.02.01.01	Surface course; 20mm thk AC6 in existing footway	2,459	m2	18.00	44,266.77	
1100.02.01.02	Surface course; 20mm thk AC6 in new footway	934	m2	18.00	16,814.25	
1100.02.01.03	Binder course; 60mm thick AC20 in existing footway	2,459	m2	20.00	49,185.30	
1100.02.01.04	Binder course; 60mm thick AC20 in new footway	934	m2	20.00	18,682.50	
1100.02.01.05	Granular sub-base; 150mm thick Type 1 sub base in new footway (DBM)	934	m2	10.00	9,341.25	
1100.02.01.06	Regulating Course ; 80mm thk in existing footways	49	ton	121.25	5,963.72	
1100.02.01.07	Tack coat	3,393	m2	0.85	2,884.38	
1100.02.01.08	Milling of existing footway	2,459	m2	4.00	9,837.06	
1100.03	Miscellaneous					
1100.03.01	Allowance for street furniture in bins	1	Item	6,000.00	6,000.00	
1100.03.02	Allowance for new Bus Shelters	1	Item	10,000.00	10,000.00	
1100.03.03	Allowance for tactile paving	1	Item	13,050.00	13,050.00	
	TOTAL Kerbs, Footways and Paved Areas					195,964.64

SECTION 3f - SCHEMATIC COST PLAN

Design Area 06_A

Code	Description	Qty	Unit	Rate	Total	Series Total
1200	TRAFFIC SIGNS AND ROAD MARKINGS SERIES 1200: TRAFFIC SIGNS AND ROAD MARKINGS					
1200.01	Traffic Signs					
1200.01.01	Allowance for new traffic signs/wayfinding signage	1	Item	6,500.00	6,500.00	
1200.01.02	Proposed New Bus Lane Signage and Repeaters	2	nr	2,500.00	5,000.00	
1200.02	Road Markings					
1200.02.01	Allowance for new road markings	1	Item	7,500.00	7,500.00	
1200.03	Proposed Toucan Crossing	1	item	240,000.00	240,000.00	
	TOTAL Traffic Signs and Road Markings					259,000.00

SECTION 3f - SCHEMATIC COST PLAN

Design Area 06_A

Code	Description	Qty	Unit	Rate	Total	Series Total
1300	ROAD LIGHTING COLUMNS AND BRACKETS, CCTV MASTS AND CANTILEVER MASTS					
1300.01.01	Relocation of lighting columns	10	nr	350.00	3,500.00	
1300.01.02	LV BWIC	10	nr	500.00	5,000.00	
1300.01.03	Disconnections and reconnections	10	nr	150.00	1,500.00	
	TOTAL Road Lighting Columns					10,000.00

SECTION 3f - SCHEMATIC COST PLAN

Design Area 06_A

Code	Description	Qty	Unit	Rate	Total	Series Total
1800	Structural Steelwork No works anticipated.					
	TOTAL Structural Steelwork					0.00

SECTION 3f - SCHEMATIC COST PLAN

Design Area 06_A

Code	Description	Qty	Unit	Rate	Total	Series Total
2700	Accommodation for Statutory Undertakers SERIES 2700: ACCOMMODATION WORKS FOR STATUTORY UNDERTAKERS No works anticipated.					
	TOTAL Accommodation for Statutory Undertakers					0.00

SECTION 3f - SCHEMATIC COST PLAN

Design Area 06_A

Code	Description	Qty	Unit	Rate	Total	Series Total
	Collection					
100	TOTAL Preliminaries	20	%	842,027.66	168,405.53	168,405.53
100.1	TOTAL Traffic Management	10	%	842,027.66	84,202.77	84,202.77
200	TOTAL Site Clearance					16,156.94
300	TOTAL Fencing					26,056.50
400	TOTAL Road Restraint Systems (Vehicle and Pedestrian)					0.00
500	TOTAL Drainage and Service Ducts					23,750.00
600	TOTAL Earthworks					28,426.41
700	TOTAL Pavement					242,576.63
1100	TOTAL Kerbs, Footways and Paved Areas					195,964.64
1200	TOTAL Traffic Signs and Road Markings					259,000.00
1300	TOTAL Road Lighting Columns					10,000.00
1400	TOTAL Electrical Work for Road Lighting and Traffic Signs					0.00
1800	TOTAL Structural Steelwork					0.00
2700	TOTAL Accommodation for Statutory Undertakers					0.00
3000	TOTAL Landscape and Ecology					0.00
	ALLOWANCE FOR UNMEASURED ITEMS	5	%	801,931.11	40,096.56	40,096.56
	Night working	10	%	242,576.63	24,257.66	24,257.66
	TOTAL FOR Design Area 06_A					1,118,893.62

SECTION 3g - SCHEMATIC COST PLAN

Design Area 06_B

Code	Description	Qty	Unit	Rate	Total	Series Total
100	PRELIMINARIES					
200	SITE CLEARANCE					
	SERIES 200: SITE CLEARANCE					
200.01	Site Clearance					
200.01.01	General Site Clearance					
200.01.01.01	General site clearance	0.39	ha	7,500.00	2,896.82	
200.02	Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site					
200.02.01	Take up and remove to tip off Site					
200.02.01.01	Existing edgings to be removed	19	m	15.30	287.33	
200.02.01.02	Existing kerbs to be removed	118	m	15.30	1,807.39	
200.02.01.03	Existing upstand kerb to be removed	7	m	15.30	100.52	
200.02.01.04	Existing trees to be removed	5	no	1,500.00	7,500.00	
200.02.01.05	Existing concrete cover to be removed	1	nr	150.00	150.00	
200.02.01.06	Existing manhole cover to be removed	5	nr	150.00	750.00	
200.02.01.07	Existing marker to be removed	1	nr	150.00	150.00	
200.02.01.08	Existing marker legend to be removed	1	nr	150.00	150.00	
200.02.01.09	Existing street light (no post) to be removed	1	nr	350.00	350.00	
200.02.01.10	Existing lighting columns to be relocated	1	nr	150.00	150.00	
200.02.01.11	Existing traffic signal to be removed	3	nr	350.00	1,050.00	
200.02.01.12	Existing traffic signal to be relocated	2	nr	150.00	300.00	
200.02.01.13	Existing traffic signs to be removed	6	nr	150.00	900.00	
200.02.01.14	Existing traffic signage to be removed	2	nr	100.00	200.00	
200.02.01.15	Existing signage to be relocated	2	nr	250.00	500.00	
200.02.01.16	Existing pavers to be removed	32	m2	60.00	1,902.60	
200.02.01.17	Existing staggered crossings to be removed	1	Item	3,500.00	3,500.00	
	TOTAL Site Clearance					22,644.66

SECTION 3g - SCHEMATIC COST PLAN

Design Area 06_B

Code	Description	Qty	Unit	Rate	Total	Series Total
300	FENCING SERIES 300: FENCING No works anticipated.					
	TOTAL Fencing					0.00

SECTION 3g - SCHEMATIC COST PLAN

Design Area 06_B

Code	Description	Qty	Unit	Rate	Total	Series Total
400	<p>ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN) SERIES 400: ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN)</p> <p>No works anticipated.</p>					
	TOTAL Road Restraint Systems (Vehicle and Pedestrian)					0.00

SECTION 3g - SCHEMATIC COST PLAN

Design Area 06_B

Code	Description	Qty	Unit	Rate	Total	Series Total
500	DRAINAGE AND SERVICE DUCTS SERIES 500: DRAINAGE AND SERVICE DUCTS					
500.01	Allowance for raising and lowering of existing cover, manhole, gully, electrical box etc. on carriageway and footways	1	Item	2,500.00	2,500.00	
500.02	Drainage Amendments to Junction	1	Item	250,000.00	250,000.00	
	TOTAL Drainage and Service Ducts					252,500.00

SECTION 3g - SCHEMATIC COST PLAN

Design Area 06_B

Code	Description	Qty	Unit	Rate	Total	Series Total
600	EARTHWORKS					
	SERIES 600: EARTHWORKS					
600.14	Excavation					
600.14.01	Excavation to New Carriageway	586	m3	15.00	8,790.00	
600.14.02	Excavation to Footway	113	m3	15.00	1,687.50	
600.14.03	Excavation to Topsoil (assumed 300mm thick)	222	m3	15.00	3,330.00	
600.34	Disposal of excavated materials					
600.34.01	Disposal of excavated materials	921	m3	35.00	32,217.50	
600.57	Geotextiles					
600.57.01	Geotextile	760	m2	1.50	1,140.56	
600.82	Completion of Formation and Sub-formation					
600.82.01	Completion of formation/sub formation	760	m2	0.40	304.15	
600.23	Extra Over Excavation for Excavation					
600.23.01	Extra over for excavation in hard material	2	m3	20.00	33.34	
600.23.02	Extra over for excavation in soft material (assume 5% of excavation)		m3	30.00	0.00	
600.14.02.01	Item allowance for harmful gasses on site (assume required)		Item	40.00	Excl.	
600.14.02.02	Item allowance for contamination within the site areas (assume required)		Item	25,000.00	Excl.	
	TOTAL Earthworks					47,503.05

SECTION 3g - SCHEMATIC COST PLAN

Design Area 06_B

Code	Description	Qty	Unit	Rate	Total	Series Total
700	PAVEMENTS					
	SERIES 700: PAVEMENTS					
700.02	Sub-base					
700.02.01	Granular sub-base (SB1); 150mm thk in new carriageway	114	m3	55.00	6,273.05	
700.03	Base Course					
700.03.01	Base course ; 210mm thk in new carriageway	760	m2	55.00	41,820.35	
700.04	Binder Course					
700.04.01	Binder Course ; 60mm thk in new carriageway	760	m2	20.00	15,207.40	
700.04.02	Binder Course ; 60mm thk in existing carriageway	1,536	m2	20.00	30,711.80	
700.05	Surface Course					
700.05.01	Surface course ; 50mm thk HRA in new carriageway	760	m2	24.00	18,248.88	
700.05.02	Surface course ; 50mm thk HRA in existing carriageway	1,536	m2	24.00	36,854.16	
700.06	Regulating Course					
700.06.01	Regulating Course ; 110mm thk in existing carriageway	42	ton	121.25	5,120.23	
700.07	Tack Coat					
700.07.01	Tack coat	2,296	m2	0.85	1,951.57	
700.08	Capping					
700.08.01	Capping; 300 mm thick new carriageway	228	m3	45.00	10,265.00	
700.25	Milling					
700.25.01.01	Milling of existing carriageway; assume 110mm thk	1,536	m2	4.50	6,910.16	
700.26.01.01	Asphalt Reinforcement	1,536	m2	8.00	12,284.72	
700.B	Proposed Red Bus Lane Surfacing	1,566	m2	51.00	79,889.46	
700.C	Reinstatement of paving adjacent to kerb	472	m	55.00	25,978.70	
	TOTAL Pavement					291,515.47

SECTION 3g - SCHEMATIC COST PLAN

Design Area 06_B

Code	Description	Qty	Unit	Rate	Total	Series Total
1100	KERBS, FOOTWAYS AND PAVED AREAS					
	SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS					
1100.01	Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems					
1100.01.01	Kerbs					
1100.01.01.01	PCC Kerb	472	m	34.00	16,059.56	
1100.01.01.02	Edging	472	m	18.00	8,502.12	
1100.02	Footways and Paved Areas					
1100.02.01	Footway					
1100.02.01.01	Surface course; 20mm thk AC6 in existing footway	450	m2	18.00	8,100.00	
1100.02.01.03	Binder course; 60mm thick AC20 in existing footway	450	m2	20.00	9,000.00	
1100.02.01.05	Granular sub-base; 150mm thick Type 1 sub base in new footway (DBM)	450	m2	10.00	4,500.00	
1100.01	Miscellaneous					
1100.01.01	Allowance for street furniture in bins	1	Item	7,500.00	7,500.00	
1100.01.02	Allowance for new Bus Shelters	1	Item	15,000.00	15,000.00	
1100.01.03	Allowance for tactile paving	1	Item	8,750.00	8,750.00	
	TOTAL Kerbs, Footways and Paved Areas					77,411.68

SECTION 3g - SCHEMATIC COST PLAN

Design Area 06_B

Code	Description	Qty	Unit	Rate	Total	Series Total
1200	TRAFFIC SIGNS AND ROAD MARKINGS					
	SERIES 1200: TRAFFIC SIGNS AND ROAD MARKINGS					
1200.01	Traffic Signs					
1200.01.01	Allowance for new traffic signs/wayfinding signage	1	Item	10,000.00	10,000.00	
1200.02	Road Markings					
1200.02.01	Allowance for new road markings	1	Item	10,500.00	10,500.00	
1200.03	Proposed Toucan Crossing	5	No	48,000.00	240,000.00	
1200.04	Traffic Signals, Junction Re-Design	1	Item	360,000.00	360,000.00	
	TOTAL Traffic Signs and Road Markings					620,500.00

SECTION 3g - SCHEMATIC COST PLAN

Design Area 06_B

Code	Description	Qty	Unit	Rate	Total	Series Total
1300	ROAD LIGHTING COLUMNS AND BRACKETS, CCTV MASTS AND CANTILEVER MASTS					
1300.01.01	Relocation of lighting columns	1	nr	350.00	350.00	
1300.01.02	LV BWIC	1	nr	500.00	500.00	
1300.01.03	Disconnections and reconnections	1	nr	150.00	150.00	
	TOTAL Road Lighting Columns					1,000.00

SECTION 3g - SCHEMATIC COST PLAN

Design Area 06_B

Code	Description	Qty	Unit	Rate	Total	Series Total
1800	Structural Steelwork No works anticipated.					
	TOTAL Structural Steelwork					0.00

SECTION 3g - SCHEMATIC COST PLAN

Design Area 06_B

Code	Description	Qty	Unit	Rate	Total	Series Total
2700	<p>Accommodation for Statutory Undertakers SERIES 2700: ACCOMMODATION WORKS FOR STATUTORY UNDERTAKERS</p> <p>No works anticipated.</p>					
	<p>TOTAL Accommodation for Statutory Undertakers</p>					0.00

SECTION 3g - SCHEMATIC COST PLAN

Design Area 06_B

Code	Description	Qty	Unit	Rate	Total	Series Total
3000	LANDSCAPE AND ECOLOGY SERIES 3000: LANDSCAPE AND ECOLOGY					
3000.01	Proposed Tree	5	nr	1,500.00	7,500.00	
	TOTAL Landscape and Ecology					7,500.00

SECTION 3g - SCHEMATIC COST PLAN

Design Area 06_B

Code	Description	Qty	Unit	Rate	Total	Series Total
	Collection					
100	TOTAL Preliminaries	20	%	1,386,603.60	277,320.72	277,320.72
100.1	TOTAL Traffic Management	15	%	1,386,603.60	207,990.54	207,990.54
200	TOTAL Site Clearance					22,644.66
300	TOTAL Fencing					0.00
400	TOTAL Road Restraint Systems (Vehicle and Pedestrian)					0.00
500	TOTAL Drainage and Service Ducts					252,500.00
600	TOTAL Earthworks					47,503.05
700	TOTAL Pavement					291,515.47
1100	TOTAL Kerbs, Footways and Paved Areas					77,411.68
1200	TOTAL Traffic Signs and Road Markings					620,500.00
1300	TOTAL Road Lighting Columns					1,000.00
1400	TOTAL Electrical Work for Road Lighting and Traffic Signs					0.00
1800	TOTAL Structural Steelwork					0.00
2700	TOTAL Accommodation for Statutory Undertakers					0.00
3000	TOTAL Landscape and Ecology					7,500.00
	ALLOWANCE FOR UNMEASURED ITEMS	5	%	1,320,574.86	66,028.74	66,028.74
	Night working	10	%	291,515.47	29,151.55	29,151.55
	TOTAL FOR Design Area 06_B					1,901,066.41

SECTION 4 - INFORMATION USED



Project Name: A4 Portway Strategic Corridor

Ref	Title	Drawing No	Rev No
	A4 Portway Strategic Corridor Design Area Overview Sheet 01 of 02	100023406-ARC-XX-XX-DR-HE-001	P01
	A4 Portway Strategic Corridor Design Area 01 Cost Schematic Sheet 02 of 02	100023406-ARC-XX-XX-DR-HE-002	P01
	A4 Portway Strategic Corridor Design Area 02 Cost Schematic Sheet 03 of 07	100023406-ARC-XX-XX-DR-HE-003	P01
	A4 Portway Strategic Corridor Design Area 03 Cost Schematic Sheet 04 of 07	100023406-ARC-XX-XX-DR-HE-004	P01
	A4 Portway Strategic Corridor Design Area 04 Cost Schematic Sheet 05 of 07	100023406-ARC-XX-XX-DR-HE-005	P01
	A4 Portway Strategic Corridor Design Area 05 Cost Schematic Sheet 06 of 07	100023406-ARC-XX-XX-DR-HE-006	P01
	A4 Portway Strategic Corridor Design Area 06 Cost Schematic Sheet 07 of 07	100023406-ARC-XX-XX-DR-HE-007	P01

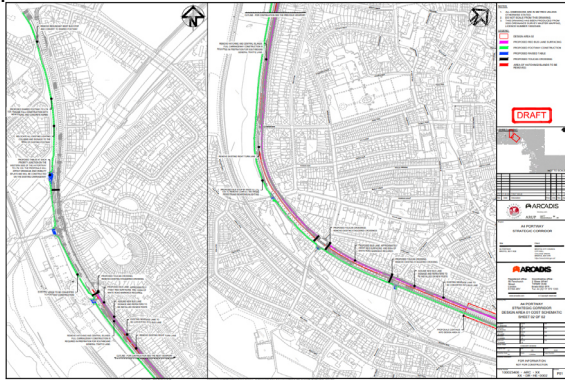
Qualifications, Assumptions and Exclusions

Project Name:	A4 Portway Strategic Corridor
Project Work Order:	
Description (e.g. Blo	Design Areas 01 to 06

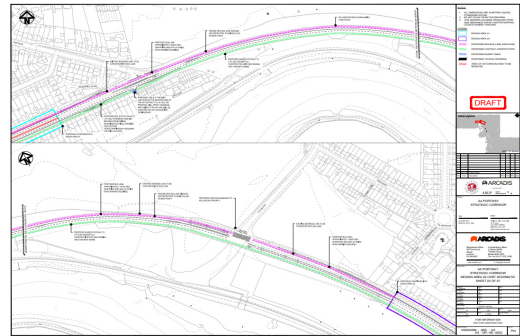
GENERAL

- 1 Measurements were done on the PDF files with the aid of CostX.
- 2 All inclined elements (areas or lengths) were measured flat on plan.
- 3 Some items not reflected on the plan are measured with the aid of Google map.
- 4 We have excluded Archaeology works.
- 5 We have excluded Ecology mitigation / intervention.
- 6 An allowance has been made for site clearance.
- 7 Noise mitigation is excluded.
- 8 Standard surfacing materials have been assumed with no allowances for enhancement.
- 9 We have excluded land purchase and all associated activities (planning reports / fees / purchase cost etc).
- 10 Cost plan excludes VAT
- 11 Finance charges are excluded
- 12 Professional fees not directly related to the works are excluded
- 13 Inflation is included.
- 14 Local Authority Fees have been included as a percentage allowance.
- 15 Night working is excluded.
- 16 Restricted working is excluded.
- 17 Should there be inconsistencies within the 'Key' and 'notes' description within the plans, assume 'notes' will govern.
- 18 Should there be inconsistencies within the scale of Google earth Pro and plans, considered the former will govern.
- 19 The BoQs were identified based on snippet below
- 20 We have assumed that only 30% of the footway requires full reconstruction where it states full reconstruction is required.
- 21 We have assumed that full reconstruction is not required where stated for the hatching areas. We have allowed 110mm inlay in these areas.

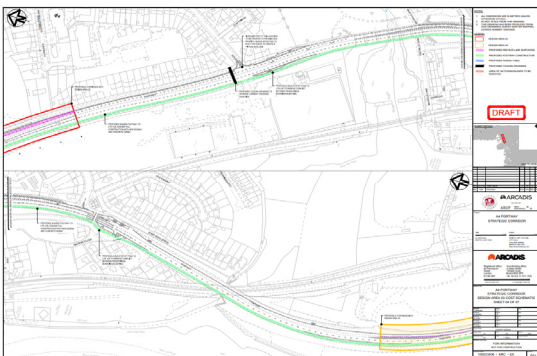
100023406-ARC-XX-XX-DR-HE-002 - Design Area 01



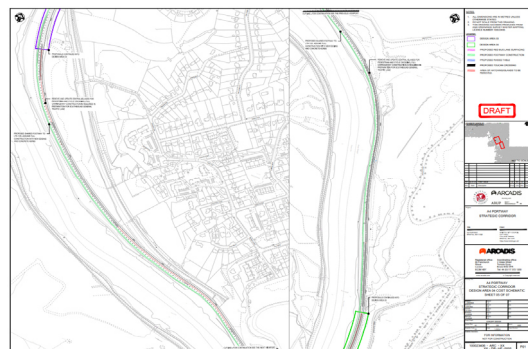
100023406-ARC-XX-XX-DR-HE-003 - Design Area 02



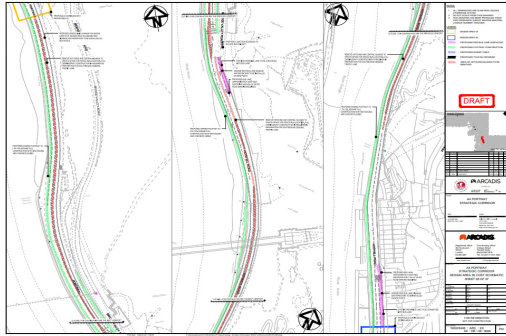
100023406-ARC-XX-XX-DR-HE-004 - Design Area 03



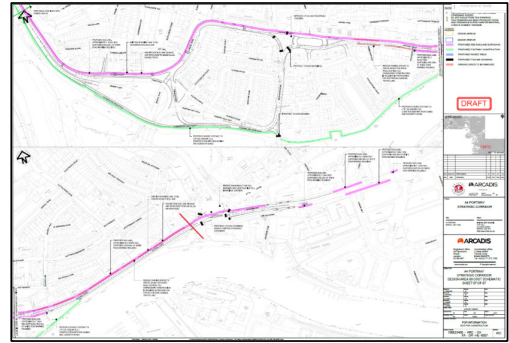
100023406-ARC-XX-XX-DR-HE-005 - Design Area 04



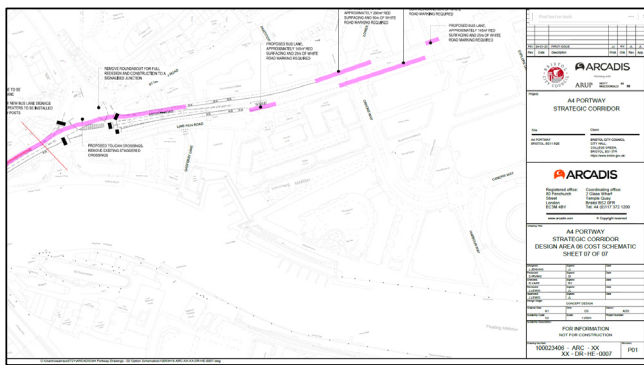
100023406-ARC-XX-XX-DR-HE-006 - Design Area 05



100023406-ARC-XX-XX-DR-HE-007 - Design Area 06B



100023406-ARC-XX-XX-DR-HE-007 - Design Area 06B



20 Scopes for area outside the delineated site boundary were excluded.

ASSUMPTIONS AND QUALIFICATIONS

Series 200: Site Clearance

- 1 We have assumed that the railings and kerbs as shown below are to be retained, since the legend for new footway construction is beyond the railings area.
Please confirm or state otherwise.

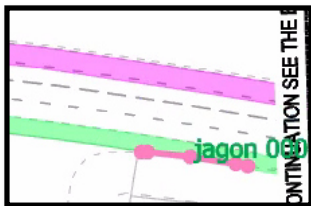
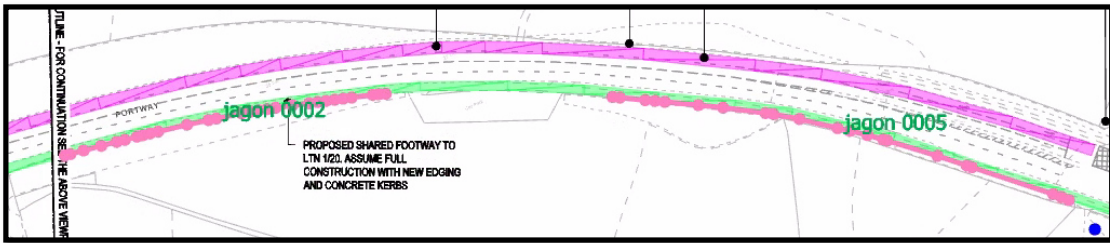
a. Design Area 01 (100023406-ARC-XX-XX-DR-HE-002)



- 2 We have assumed that all existing lighting column in proposed new footway construction will be relocated. Please confirm or state otherwise.

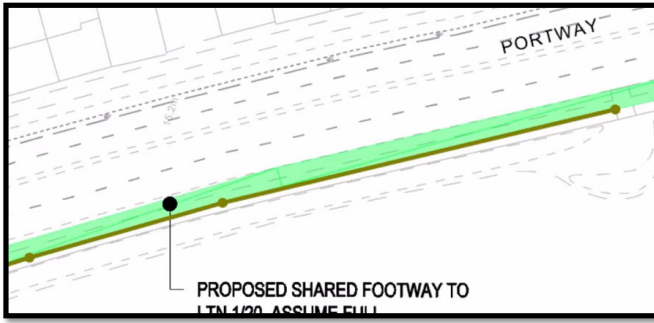
- 3 We have assumed to replace timber fence removed along this area. Please confirm or state otherwise.

a. Design Area 02 (100023406-ARC-XX-XX-DR-HE-003)

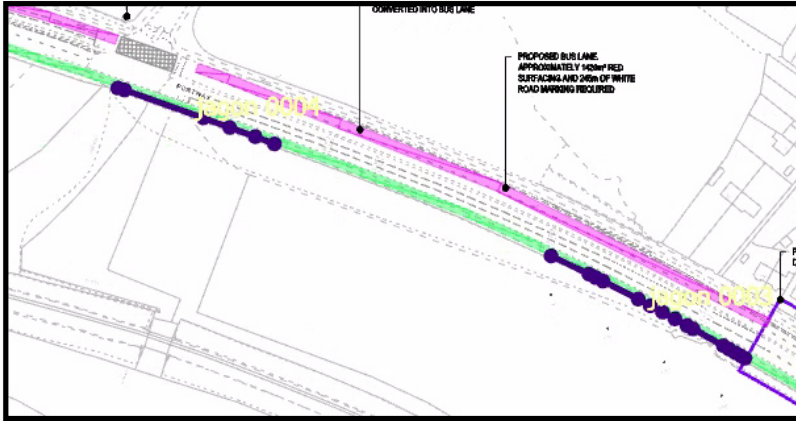


- 4 We have assumed to replace cyclone wire fence removed along this area. Please confirm or state otherwise.

a. Design Area 01 (100023406-ARC-XX-XX-DR-HE-002)

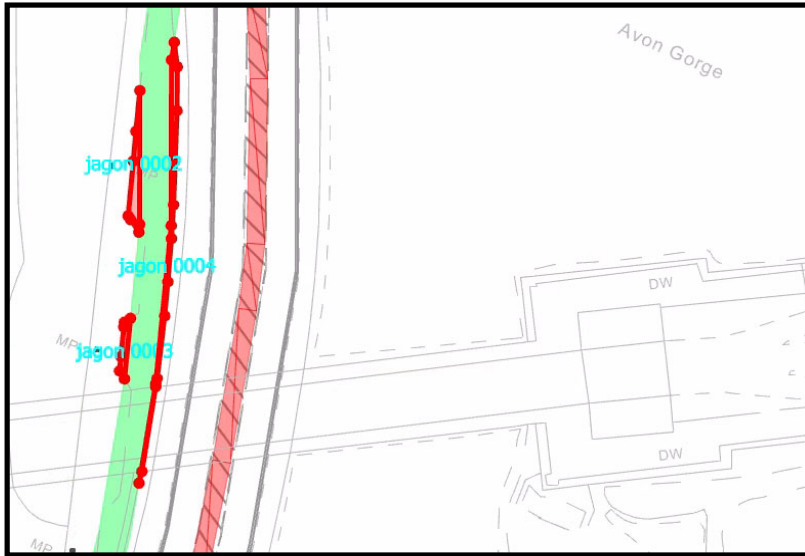


b. Design Area 02 (100023406-ARC-XX-XX-DR-HE-003)



5 We have assumed to include the remaining area of verge in the construction of new footway. Please confirm or state otherwise.

a. Design Area 05 (100023406-ARC-XX-XX-DR-HE-006)



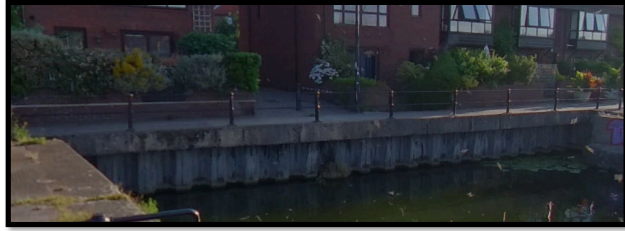
6 We have assumed the existing parking meter to be removed and replaced. Please confirm or state otherwise.

a. Design Area 06 (100023406-ARC-XX-XX-DR-HE-007)



7 We have assumed the existing guardrails are to be removed and replaced. Please confirm or state otherwise.

a. Design Area 06 (100023406-ARC-XX-XX-DR-HE-007)



Series 600: Earthworks

- 1 Assumed all excavated materials will be disposed off site. Please confirm or state otherwise.
- 2 We have utilised the road box method in computing the earthwork due to absence of plan and profile information.
- 3 Assumed 0.3m depth for extra over hard excavation. Please confirm or state otherwise.
- 4 Assumed 0.3m depth for topsoil stripping. Please confirm or state otherwise.
- 5 Assumed placing of geotextile.

Series 700: Pavement

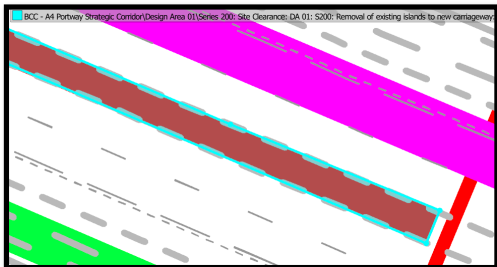
1 We have assumed that Red Bus Lane Surfacing is up to the edge of existing kerbs. Moreover, we have assumed that the existing kerbs will be retained. Please

a. Design Area 01 (100023406-ARC-XX-XX-DR-HE-002)



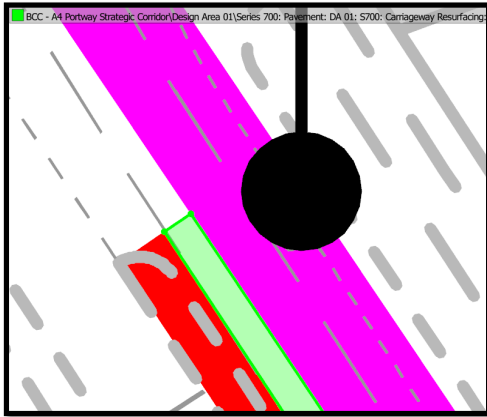
2 We have assumed that all area of Hatching/Islands to be removed will be replaced with full construction of new carriageway. Please confirm or state otherwise.

a. Design Area 01 (100023406-ARC-XX-XX-DR-HE-002)



3 We have provided Carriageway Resurfacing in between existing island and red bus lane surfacing. Please confirm or state otherwise.

a. Design Area 01 (100023406-ARC-XX-XX-DR-HE-002)



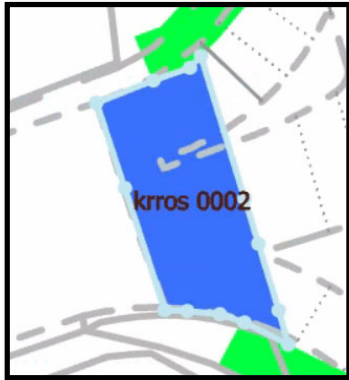
4 In the absence of details within the plans, we have assumed the area for the affected existing traffic island to proposed raised table as per the measurement from the google earth. Please confirm or state otherwise.

a. Design Area 01 (100023406-ARC-XX-XX-DR-HE-002)

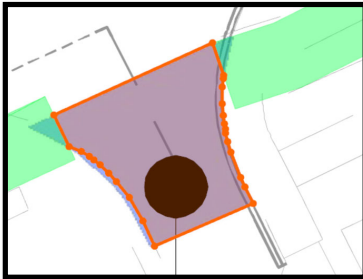


5 We have assumed that the proposed raised table is up to the edge of existing kerbs. Please confirm or state otherwise.

a. Design Area 01 (100023406-ARC-XX-XX-DR-HE-002)



b. Design Area 02 (100023406-ARC-XX-XX-DR-HE-003)



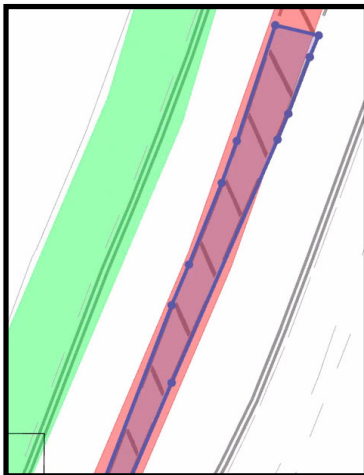
6 Listed below were the thickness considered for carriageway layers:

Assumed depth for existing and new pavement structures	
	Carriageway
	m
Capping	0.3
Concrete slab	
Sub-base	0.15
base	0.21
binder/regulating	0.06
surface	0.05
gravel topper	
Stone/Clay pavers with sand bedding	
Total Depth	0.77
Hard Excav	

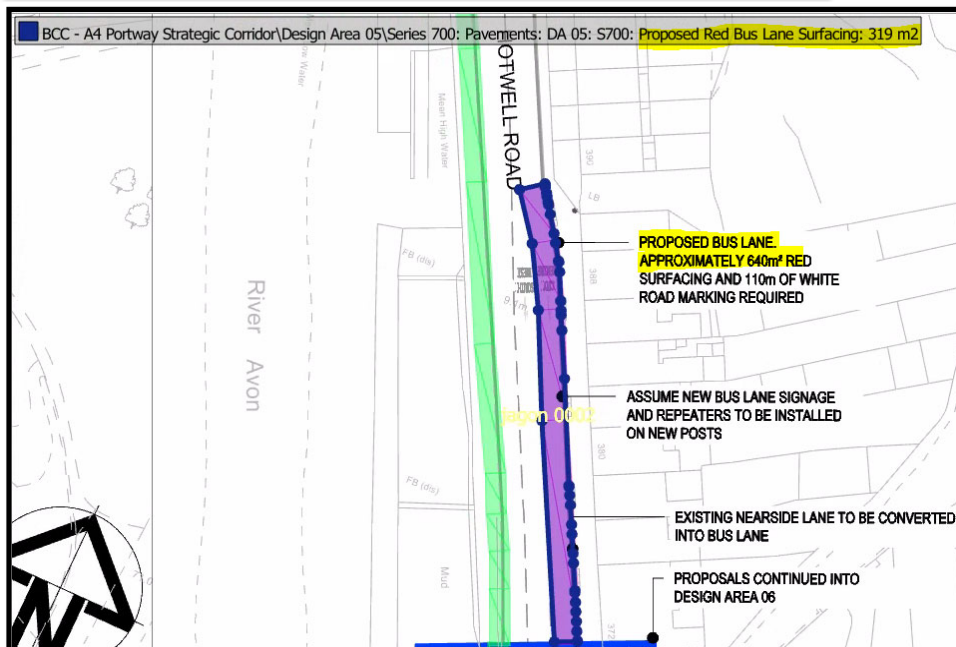
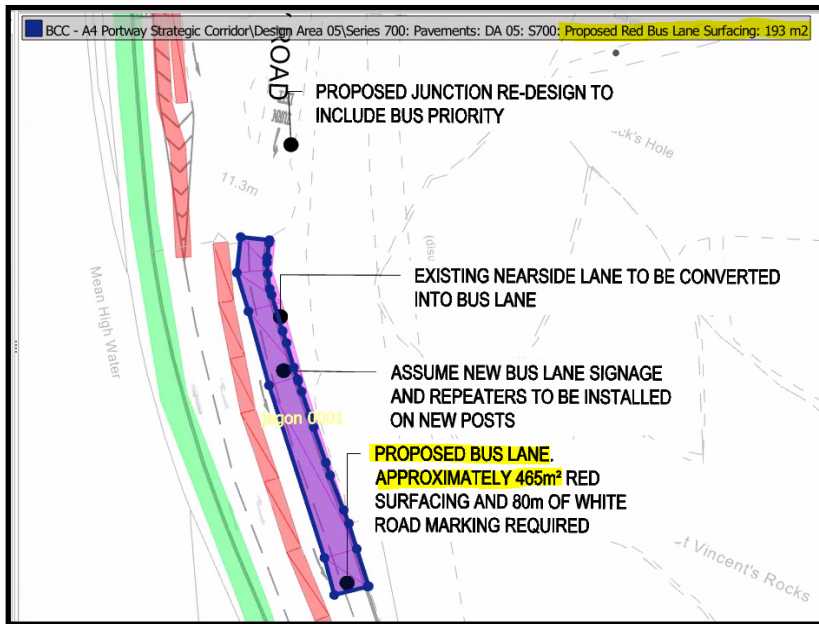
7 We have assumed 10% of inlay area for regulating course. Please confirm or state otherwise.

8 We have measured the construction of new carriageway based on the existing hatching and/or island. Please confirm or state otherwise.

a. Design Area 05 (100023406-ARC-XX-XX-DR-HE-006)

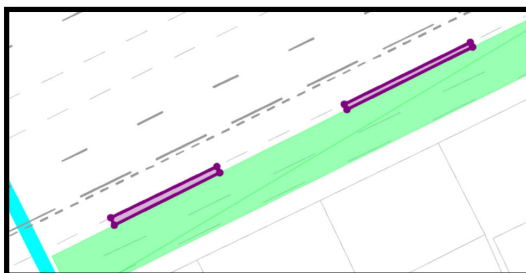


- 9 We have observed there is a variance on area measured vs indicated on the plan for red bus lane resurfacing, we have assumed the area measured governs.
- a. Design Area 05 (100023406-ARC-XX-XX-DR-HE-006)

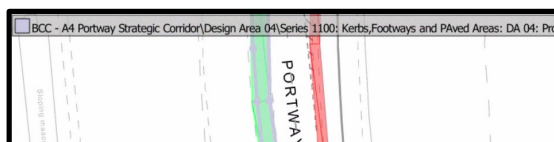


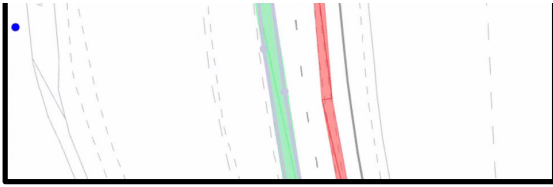
Series 1100: Kerbs, Footways and Paved area

- 1 We have assumed that the full construction of footway is up to the edge of existing kerbs where the gap is minimal. Please confirm or state otherwise.
- a. Design Area 02 (100023406-ARC-XX-XX-DR-HE-003)

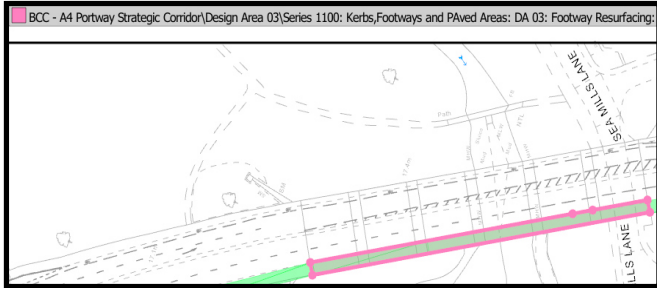


- b. Design Area 04 (100023406-ARC-XX-XX-DR-HE-005)

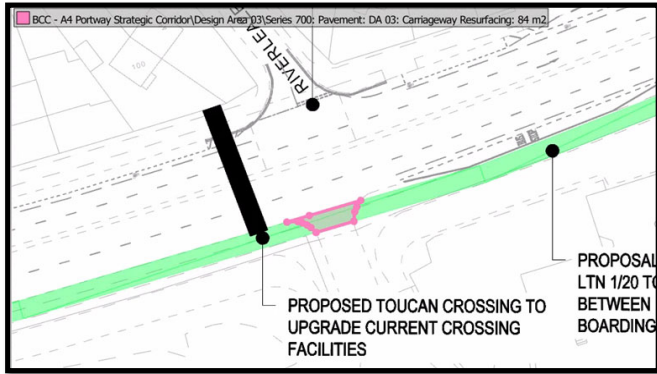




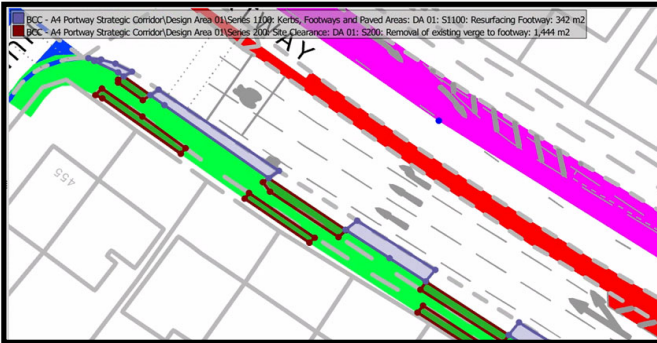
2 We have assumed that the footway along the bridge is for resurfacing only. Please confirm or state otherwise.
 a. Design Area 03 (100023406-ARC-XX-XX-DR-HE-004)



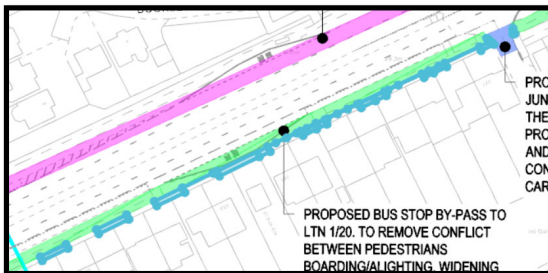
3 We have assumed that the junctions are for carriageway resurfacing only and considered an allowance for tactile paving. Please confirm or state otherwise.
 a. Design Area 03 (100023406-ARC-XX-XX-DR-HE-004)



4 In the absence of details within the plans, we have assumed the area affected for the proposed footway full construction is as per the measurement from Google
 a. Design Area 01 (100023406-ARC-XX-XX-DR-HE-002)



5 We have assumed that the remaining existing footways along these areas is to be resurfaced. Please confirm or state otherwise.
 a. Design Area 02 (100023406-ARC-XX-XX-DR-HE-003)

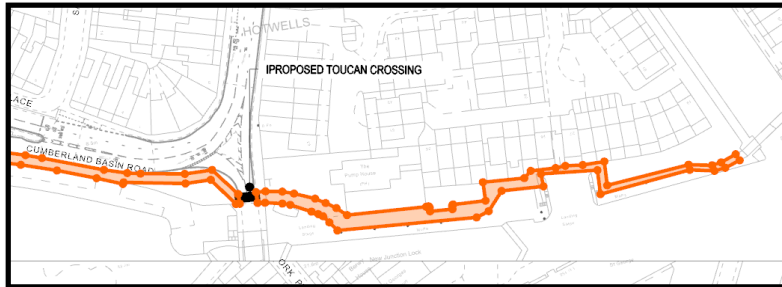


6 Listed below were the thickness considered for paved area layers:

*Assumed depth for existing and new pavement structures	Footway/Traffic Island/Cycleway
	m
Capping	
Concrete slab	
Sub-base	0.15
base	
binder/regulating	0.06
surface	0.02
gravel topper	
Stone/Clay pavers with sand bedding	
Total Depth	0.23
Hard Excav	0.30

7 We have assumed to follow the layout below for new footway. Please confirm or state otherwise.

a. Design Area 06 (100023406-ARC-XX-XX-DR-HE-007)



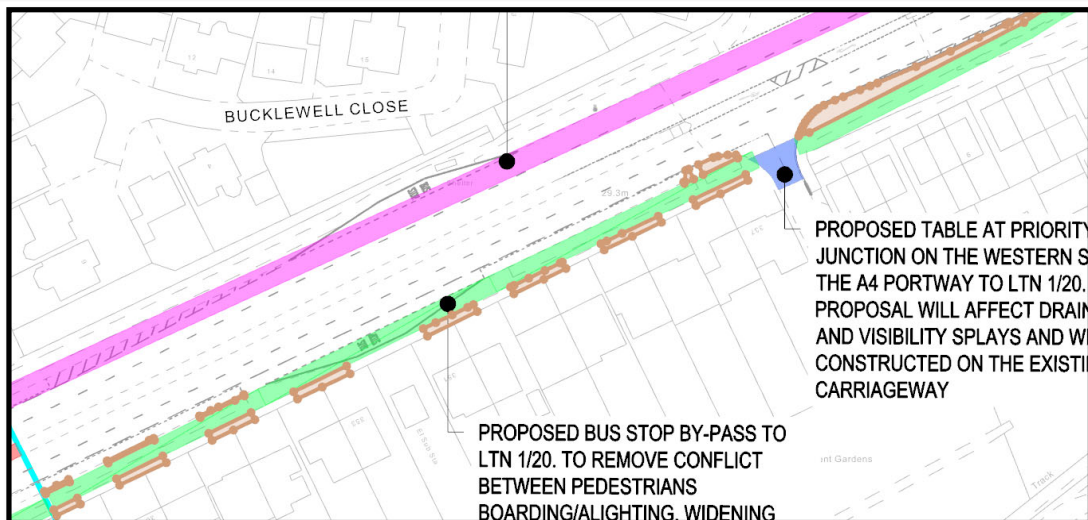
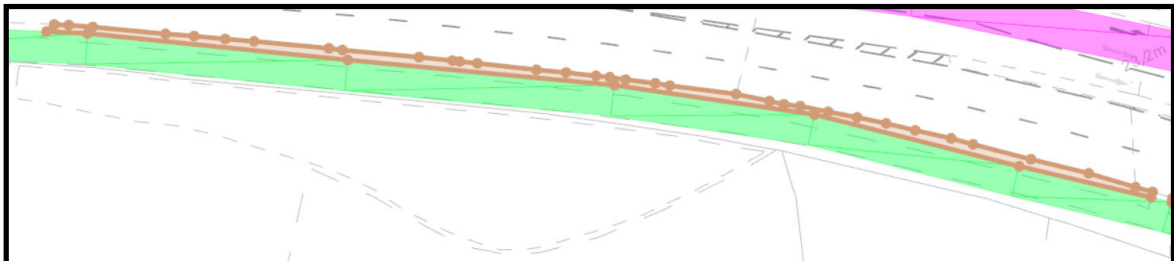
Series 1200: Traffic Signs and Road Markings

- 1 Assumed allowance for new traffic signs
- 2 Assumed allowance for new road markings

Series 3000: Landscape

1 We have assumed that the remaining existing landscape along these areas, affected by the widening of footway, is to be retained. Please confirm or state otherwise.

a. Design Area 02 (100023406-ARC-XX-XX-DR-HE-003)

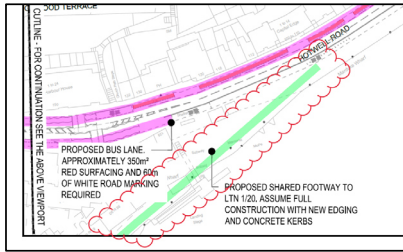
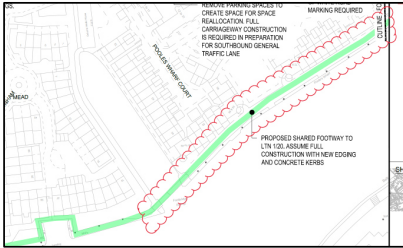


2 We have assumed that all trees removed will be replaced with new. Please confirm or state otherwise.

EXCLUSIONS

1 We have assumed no works to be done on the snippet below. Please confirm or state otherwise.

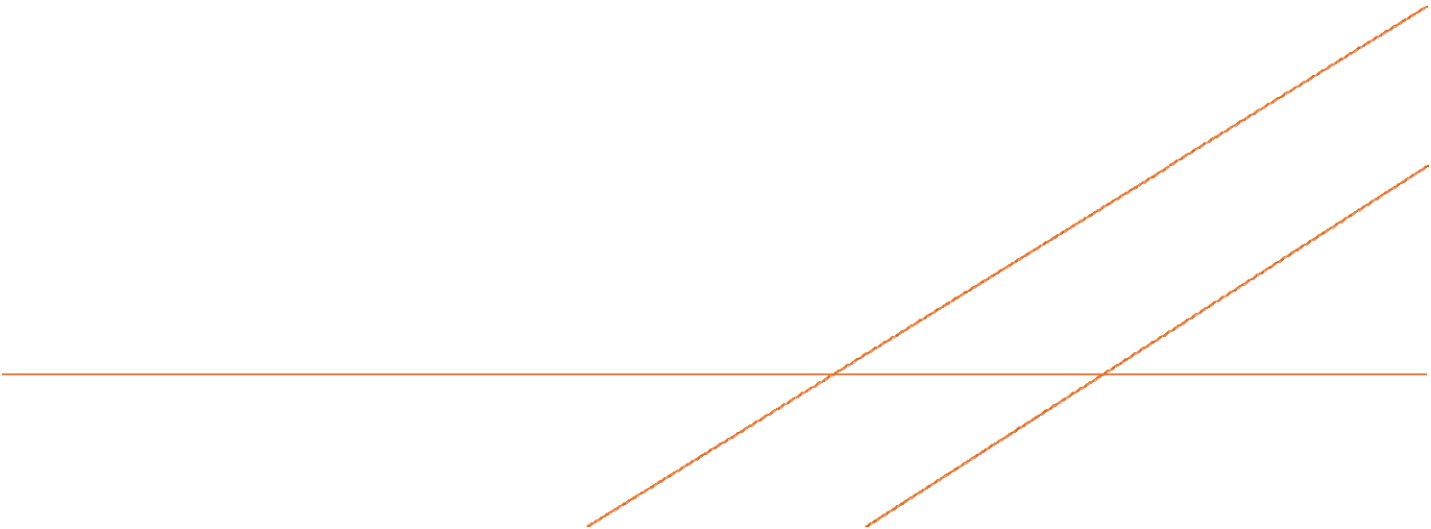
a. Design Area 06 (100023406-ARC-XX-XX-DR-HE-007)





Arcadis LLP
103 Colmore Row
Birmingham
B3 3AG

arcadis.com



Arcadis UK

2 Glass Wharf,
Temple Quay,
Bristol BS2 0FR

T: +44 (0) 20 7812 2000

[arcadis.com](https://www.arcadis.com)