



Illuminas
Enlighten. Empower.

Bus Services on Highways England Roads

Prepared for Transport Focus

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Research background and objectives

Buses passengers and bus companies are customers of Highways England's network

Bus services in Bristol and Brighton travel along and also interact with the strategic road network.

The 28 and 29 bus routes in Brighton, and the Y1 and M3 routes in Bristol, were selected to research current customer experiences and **potential improvements**. Buses on these routes travel along and/or cross the Highways England Network.

The purpose of this research was to help identify how Highways England can better meet the needs of these customer groups.



The research objectives centred on improving bus travel along Highways England's network for both passengers and bus drivers

Bus Passengers

- What **pain points and frustrations** exist with bus travel (in particular within the two relevant local areas that will form the focus of the study)?
- What **improvements** do passengers value when it comes to improving?
- Across all possible changes, what are the **priorities** for improvement?

Bus Drivers

- What **broad-level trends and challenges** do they see in the operation of bus services along the network?
- What specific parts of their route work well or not so well? In particular, what are the issues at or approaching junctions?
- What actions do bus drivers' think would improve the services they provide on the routes they drive?

Summary of approach

1. Discovery Stage:

Briefing and dialogue with key stakeholders, and review of previous research materials

To inform the research priorities, flesh out in-bound hypotheses for testing and **finalise details** of the research process

2. Exploration Stage:

Designing and conducting qualitative focus groups and depth interviews

6 Focus Groups with bus passengers

8 Depth Interviews with bus drivers along the relevant routes, allowing us to capture the expert perspective as well as the voice of the passenger

3. Quantitative Research

Designing and conducting a quantitative survey

533 self-complete questionnaires with bus passengers

At this stage, as well understanding broad-level satisfaction with the relevant junctions simple ranking exercises were used to identify priorities, as well as measure support for some possible improvements.

4. Follow-up Qualitative Research

Testing potential improvements to the routes

4 Focus Groups with bus passengers

Additional focus groups were undertaken in each area to test some ideas for changes which could be made on particular parts of Highways England's network.

Because the research concerned how the strategic road network could be improved for the benefit of customers travelling by bus, only users of the two bus routes in each of the two local areas were included. We did not speak to those who do not use the bus, and so the research cannot be used to address questions relating to barriers to bus use.

Qualitative Research

The initial qualitative research explored general issues in the local area, and was undertaken on the 14th and 15th of January 2019.

Location	Bus Route	Frequency	Demographics
Bristol	Y1 to Yate	Infrequent	Older (60+)
	Y1 to Yate	Frequent	Middle Aged (35-59)
	M3 to City Centre	Frequent	Younger (18-34)
Brighton	Brighton to Lewes (28/29)	Infrequent	Older (60+)
		Frequent	Middle-aged (35-59)
		Infrequent	Younger (18-34)

Additional focus groups were conducted to test potential improvements in each location. These were undertaken on the 25th of February and 4th of March 2019.

Location	Bus Route	Frequency	Demographics
Bristol	Y1 to Yate	Frequent	Middle Aged (35-59)
	M3 to City Centre		Younger (18-34)
Brighton	Brighton to Lewes (28/29)		Middle-aged (35-59)
			Younger (18-34)

In all groups, a number of participants had access to a car, and sometimes used cars in the local area or along the same route as the buses in question

Participants were split between different types of user of the routes in question

Initial Focus Groups

- Spread journey purpose **within focus groups**
- 1.5 hours
- 8 respondents (10 recruited for 8)

Minimums:

- Spread of journey purpose including leisure, business, commuting
- Minimum 2 per group to feel the bus is their only viable option

Additional Focus Groups

- Spread journey purpose **within focus groups**
- 1.5 hours
- 8 respondents (10 recruited for 8)
- Within Brighton, minimum half to board the bus at stops on the A27

Minimums:

- Minimum 2 per group to feel the bus is their only viable option

Qualitative Research – Bus Drivers

We conducted **30-minute interviews** on-site with bus drivers on the relevant routes, aiming for an even spread of services across the two locations.

Gaining the **expert perspective** of bus drivers was valuable as a means of supplementing the views of passengers. These drivers highlighted issues around driver behaviour, the built environment, and Highways England's network that many passengers did not notice or see as problematic.

Location	Bus Route
Bristol	Y1
	Y1
	M3
	M3
Brighton	28/29
	28/29
	28/29
	28/29



Sample – Quantitative Research

Between 18th February and 15th March 2019, interviews were undertaken with passengers as they travelled on the routes in question

533 Face-to-face
interviews on buses

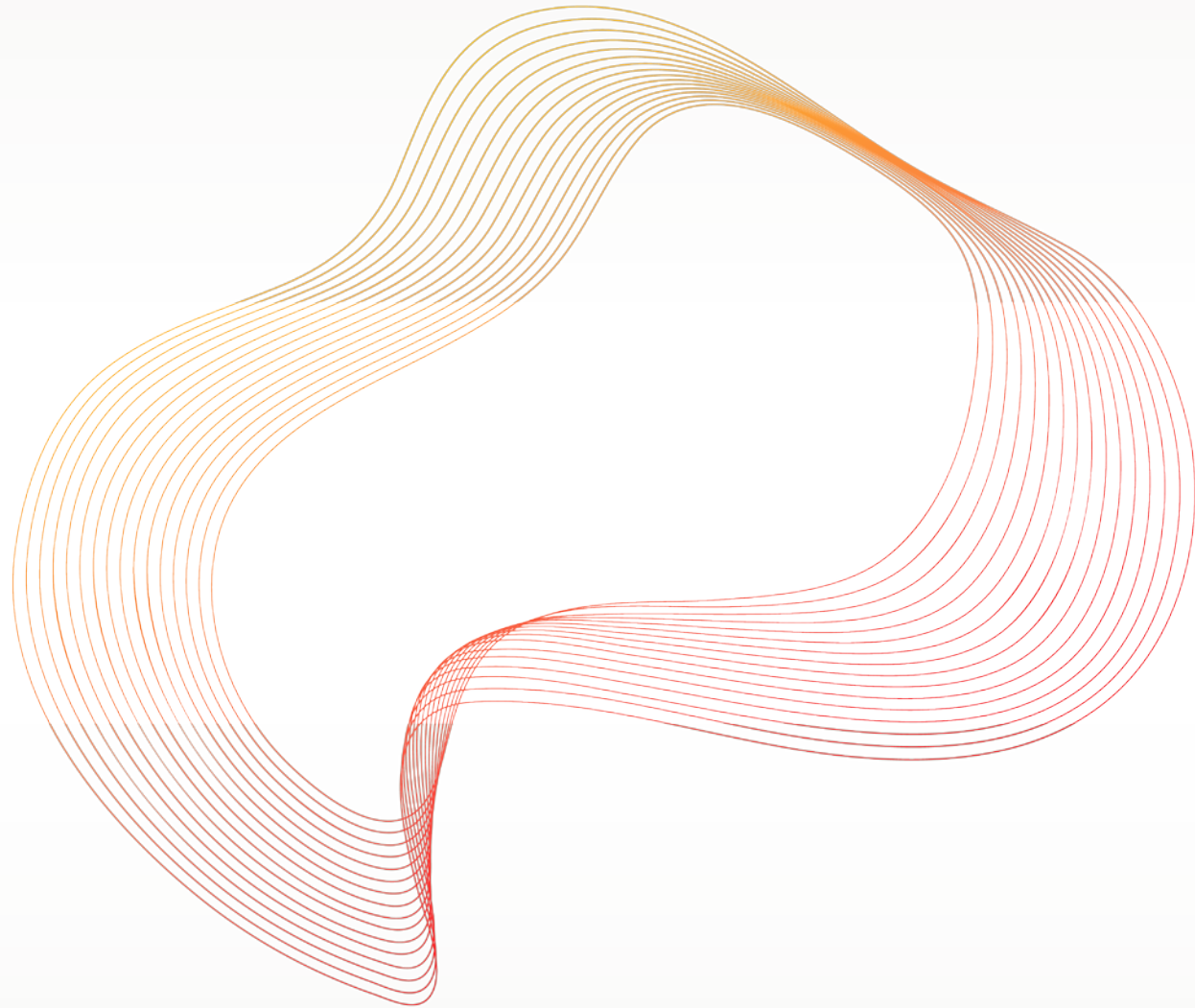
Minimum 120 per route

- Spread of timings (peak and off-peak; weekday and weekend)
- Spread of age: 16-34; 35-59; 60+ (Minimum cells of 75 for each)
- Spread of alternative modes considered/used
- Spread of journey purpose: Commuting; leisure; professional; business
- Spread of fare payers and non-payers

- **Minimum 50** to feel they have no other alternative than the bus route
- **Minimum 50** to identify as having a disability (ideally spread across age brackets)

It should be noted that people who did not use the bus were not included in the sample. This research is therefore less able to identify barriers to using the bus in the first place.



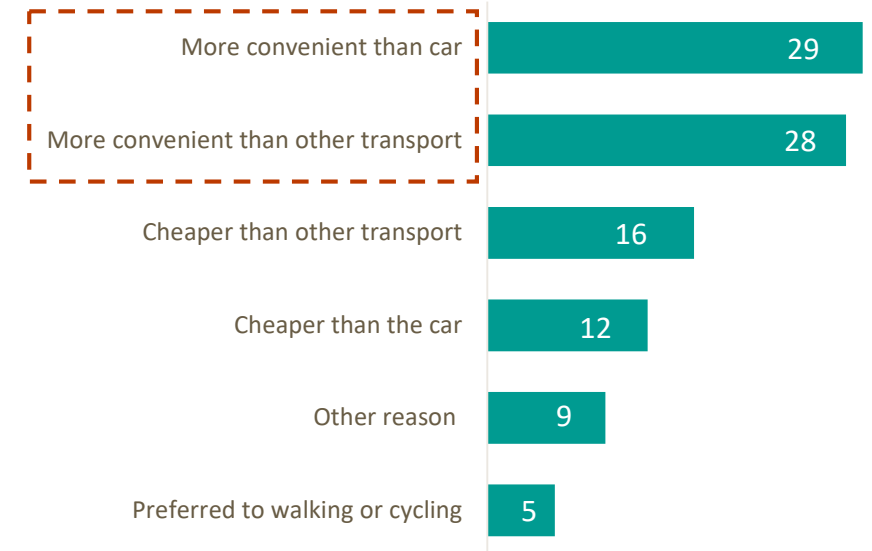


General perspectives on the bus

Passengers value taking the bus, seeing it as convenient and often pleasant

- Passengers see buses along Highways England’s network as an effective way of **avoiding the disadvantages** associated with other modes.
 - While passengers recognise that the bus can be affected by traffic, there is strong recognition that highway buses can **‘beat’ traffic** in a way that cars cannot.
 - **Cost** is a less persuasive factor, however many passengers do feel that making frequent journeys by bus is more economical than doing so by car.
- **Parking** in the city centre is problematic for both Brighton and Bristol passengers, which buses that use Highways England’s network allow passengers to avoid.
- Others highlight that buses that use Highways England’s network connect distant towns that would otherwise be difficult to travel between – they **value the service** and often feel that travelling along the strategic road network has become a core part of their day-to-day life.

% Main reason for selecting the bus



I like the bus. I think it's super essential for me because if it wasn't for the bus I wouldn't be able to do my job – the 28 and the 29 are super regular for when I need them and quite reliable.

Brighton, 28/29, Younger, Infrequent

I did have a motorbike until I had to write it off...it is easier now. The bus is fine. It's cheaper than petrol, insurance and everything

Brighton, 28/29, Middle-Aged, Frequent

I like the journey, especially along the M32 when I sit on the top and look at the scenery.

Pre-task, Bristol, Y1

Parking is just terrible so it's sometimes easier just to jump on the bus – and you miss the traffic sometimes as well, which is good.

Bristol, M3, Younger, Frequent

Congestion emerges as the primary concern with taking the bus

Many passengers are accustomed to delays and see them as a fact of life, primarily attributed to congestion. Delays, congestion and scheduling can feel beyond passengers' **locus of control**. Many assume that these issues are a fact of living in an urban area and may not consider these when evaluating their bus route.

For this reason, some respondents **plan their journeys on the assumption that the bus will be delayed**. This is not necessarily unique to the routes in question or to bus travel in general: Several respondents that **drive** reported planning ahead considerably in order to get to work on time.

I have to wake up half an hour earlier to do not a very nice job. I'm not going to Lewes for particularly pleasant reasons.

Brighton, 28/29, Younger, Frequent

You can't necessarily plan. You've got to be early or you've almost got to think it's going to be bad and let it be a treat if it isn't. You just don't know.

Bristol, Y1, Middle-Aged, Frequent

You can't change how much traffic there is, and you can't change other people's behaviour...But you can put in better wi-fi.

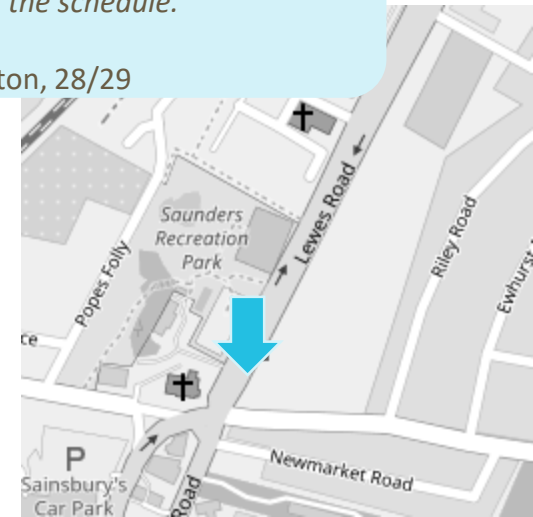
Brighton, 28/29, Younger, Frequent

That's why I used to take the 7:05 bus; that's what it used to be like; now I'm flexi, I choose my own hours at work.

Bristol, Y1, Middle-Aged, Frequent

We pulled over and waited while a 29B overtook us, which was a bit frustrating but I understand that the drivers have to try and keep to the schedule.

Pre-task, Brighton, 28/29



Cleanliness, comfort and driver courtesy have a considerable impact on satisfaction

Amenities such as wi-fi and charging sockets can make a substantial difference to individual journeys, and enable passengers to check on their route via their phones. These features can make the journey pass quicker and potentially mitigate the impact of congestion or delay.

The service is regular and invariably my complaints are traffic related more than the service...I like the wi-fi. I'll be reading a book and then suddenly, oh! I'm in Lewes.

Brighton, 28/29, Middle-Aged, Frequent

I don't mind zoning out on the bus for an hour as long as I know I'd get there on time.

Brighton, 28/29, Middle-Aged, Frequent

One respondent with a hearing impairment pointed out that drivers need to be facing her in order to understand what is being said. Various anecdotes emerged about drivers (and passengers) on a range of routes being less focussed on **disabled people's needs**.

I have some horrible health conditions and the way older people look at you if you sit in the priority seat...

Brighton, 28/29, Younger, Frequent

So many bus drivers, you ask them something and they're looking somewhere else. I need to see your mouth to hear you.

Brighton, 28/29, Younger, Frequent

Sometimes the actual state of the bus...they can be filthy.

Brighton, 28/29, Middle-Aged, Frequent



Bus users rely on schedule information in the event of a delay

Most journeys on buses are made frequently and are habit-driven

Most passengers are **highly familiar** with the route and do not require information about fares, the route itself or, in many cases, the schedule. While this is the case, passengers wanting to minimise their wait time value having information about the bus timetable in advance.

When affected by a delay, most passengers use some form of **online information** to establish the **cause** and **potential impact of the interruption**:

- Social Media (Twitter, both official bus profiles and news sites)
- Online journalism (e.g. *The Argus* in Brighton)
- Bus provider websites
- Bus provider apps

Digital signage is valued only if the schedule is felt to be accurate

Respondents highlighted that the time shown until the next bus can increase indefinitely or be simply incorrect, **undermining** the value of these facilities for some.

Some feel that paper schedules are rendered useless by delays to the service: as soon as interruptions to the service set in, the schedule is incorrect. For this reason, digital signage is strongly preferred to paper timetables, **with the proviso that they are accurate**.

I have got that app now – I find it really useful If you miss a bus you need to know how long you're going to wait.

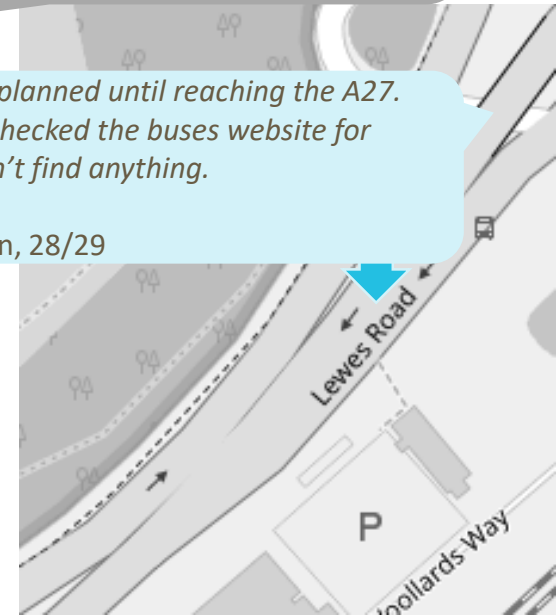
Brighton, 28/29, Middle-Aged, Frequent

We do get people complaining about the information not being correct; I think the company is working on that. Maybe there's a problem with the equipment on the buses

Driver, Y1

Journey went as planned until reaching the A27. Severe delays. I checked the buses website for information; didn't find anything.

Pre-task, Brighton, 28/29



In the main, Highways England's network is seen as the 'fast part' of the route

Passengers can be tolerant about the prospect of delays

- Many passengers argue that they would experience the same (or fewer) delays on the network if they were travelling by car

Travelling on the network can set up the expectation that the bus will take a more 'express' route

- Passengers' first association with Highways England's network is 'speed'. In normal circumstances, they notice the bus speeding up substantially and the expectation is that this speed should be consistent, with fewer stops.

Bus users want those responsible for local roads, major 'A' roads and motorways alike to improve the route

- There is very strong awareness of the broader road network's impact on individual bus services, with many seeing a role for local councils, bus services and Highways England alike to tackle congestion.

I think that the pre-signalling system is definitely something to take into account, if that's what the agenda is, to make the roads more bus-friendly

Brighton, 28/29, Younger, Infrequent

They could do something about the potholes. When I first started using the A27 I used to do my make-up on the bus; I've given up on that.

Brighton, 28/29, Middle-Aged, Frequent

The M32 literally finishes outside this building, and I consider this the city centre. I'd have classed it something that the council should sort out...

Bristol, M3, Younger, Frequent

I think they could give far more consideration to the people who use public transport, instead of everything being geared towards car drivers.

Brighton, 28/29, Middle-Aged, Frequent

Bus drivers brought a unique and expert perspective to the research

Bus drivers do see issues with bus routes which use Highways England's network. However, when asked, many felt that these issues were part and parcel of being a bus driver and would occur on any route, even those that do not cross Highways England's network.

However, bus drivers note that driver behaviour is different on the network compared to local roads. Car users have more room to manoeuvre, and at greater speed, giving them more opportunities to obstruct or hinder buses as they change lanes, merge into traffic or pull into bus stops.

Specific issues highlighted:

Bristol:

- High Occupancy Vehicle lane can feel unenforced, leading to congestion on a part of the journey that otherwise benefits the bus
- Road markings along the M32 can be faint, which may impact driver behaviour
- Overhanging trees along the M32 can make hazard perception difficult
- Changing lanes to access different sections of bus lane can be challenging
- Potholes can affect journey comfort, and inclines on the M32 can pose a risk of the bus bumping into the road

Brighton:

- Lack of illumination at bus stops can make it challenging to see passengers
- Southerham roundabout has two lanes going into one, making merging difficult
- Departing from Newmarket Inn, the driver can struggle to see oncoming traffic – a wider bus lane could allow the driver to angle the bus and better perceive other road users
- Wider bus lanes in general would allow drivers to enter the bus stop more easily

Bus priority measures and priority during disruption are the most popular improvements

However, during the qualitative research, the concept of encouraging bus use emerged more powerfully

% Strong Preference (scoring 6-7)

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%



Bus priority measures are seen as an essential improvement in both Bristol and Brighton, as well as the most **simple and direct** intervention.

Concepts such as encouraging bus use are well-liked once passengers are able to deliberate and consider the longer-term impact of each improvement. However, adding bus priority measures such as bus lanes is seen as the most unambiguously positive change.



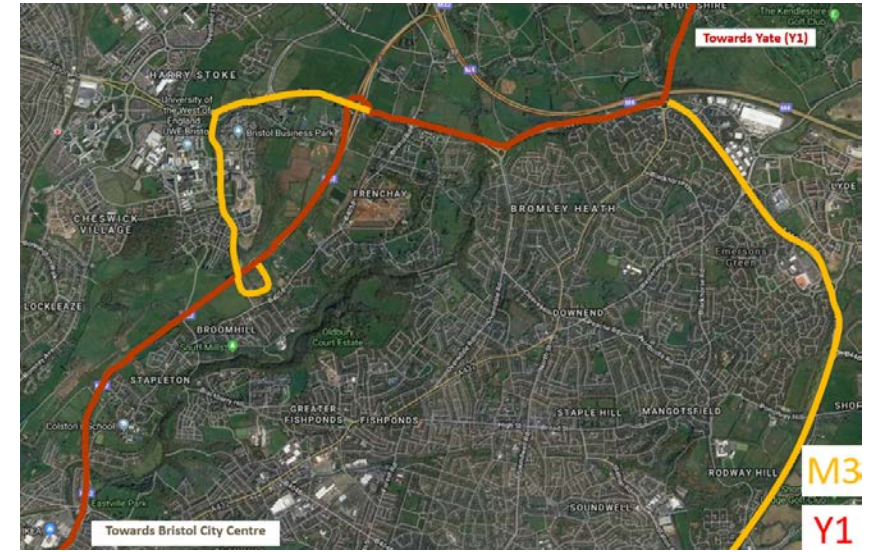
Bristol, Y1 and M3

Y1 and M3 Characteristics

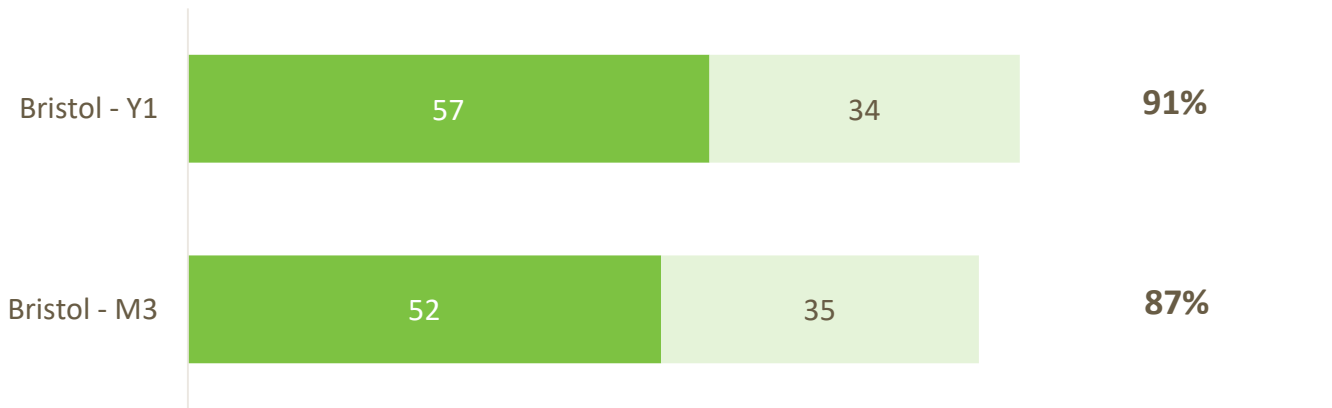
The M3 has benefitted from extensive Metrobus improvements. It features a dedicated bus lane on the bridge over the M32. Each stop along the M3 route features digital information about the route, and the ability to purchase tickets before boarding.

The Y1 is a standard commercial route which has benefitted from changes which have been made in relation to the introduction of the Metrobus. Specifically, the bus has been re-routed via the M32 rather than travelling along the local roads it used previously.

The vast majority are satisfied with their journey time when they use both the Y1 and M3 bus routes



% Fairly / Very satisfied with journey time



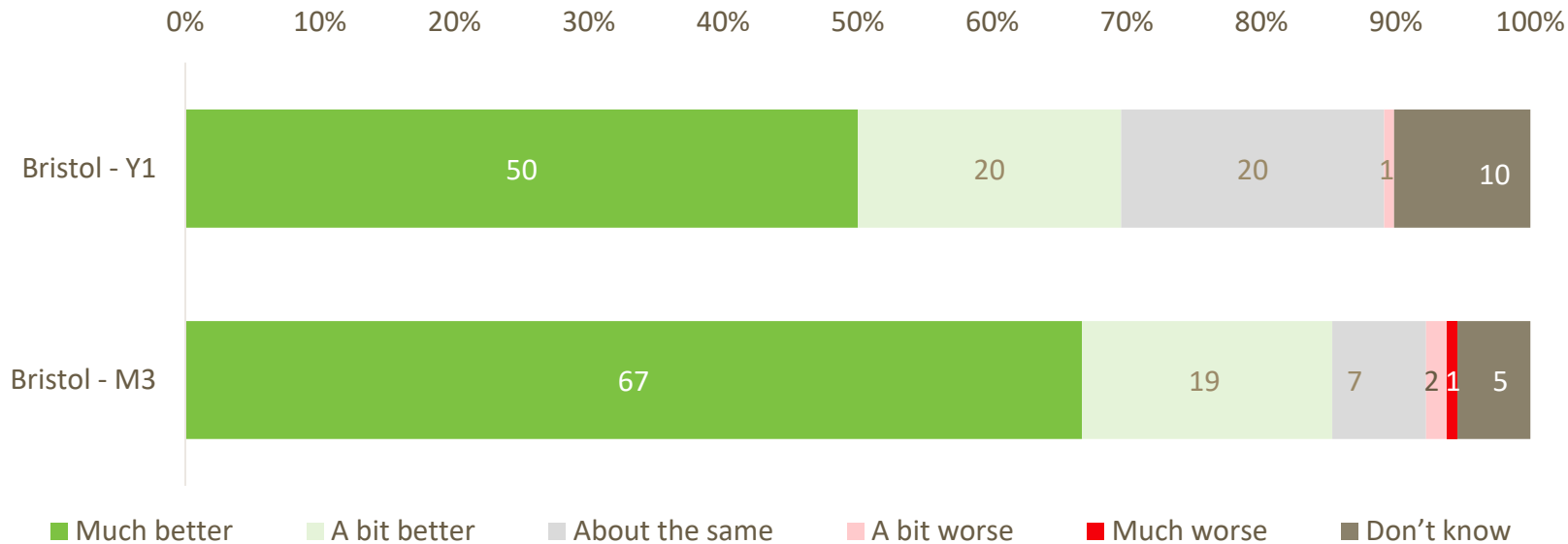
*I'm quite pleased with the way it is when I get on the bus, I usually get on at the weekend and I drive at other peak times so I don't suffer quite as much as someone who's getting on it at peak times
Bristol, Y1, Middle Aged, Frequent*

*The M3's different, even the fabric, like the grey, you can wipe it clean – It's spacious, it feels modern, but it's got that whole academic student vibe. I feel like I'm on a student bus which isn't a bad thing
Bristol, M3, Younger, Frequent*

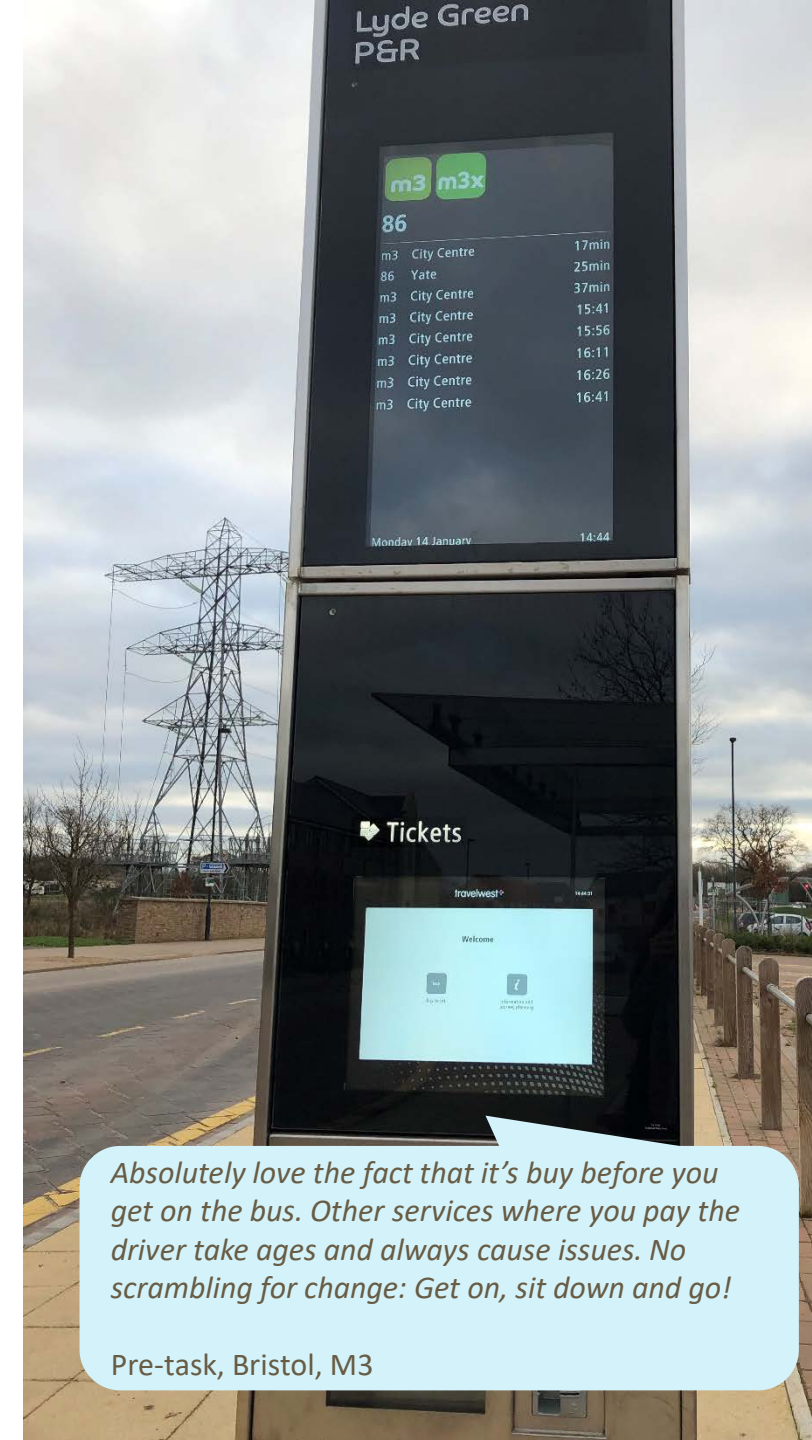
The M3 is rated significantly higher than other local routes

- **Passengers surveyed saw the M3 as a substantial improvement to their journeys.**
 - Qualitatively, there was a general sense that the M3 is modern, up-to-date, and, most importantly, fast. It has benefitted from a much wider range of improvements than the Y1
 - A combination of passenger amenities and wider infrastructural factors along the route produce substantially higher satisfaction for the M3 compared to other routes

How does this journey compare to other bus journeys in the local area?



Q13a. How does this journey compare to other bus journeys in the local area? Base: M3 Passengers (129), Y1 Passengers (138)

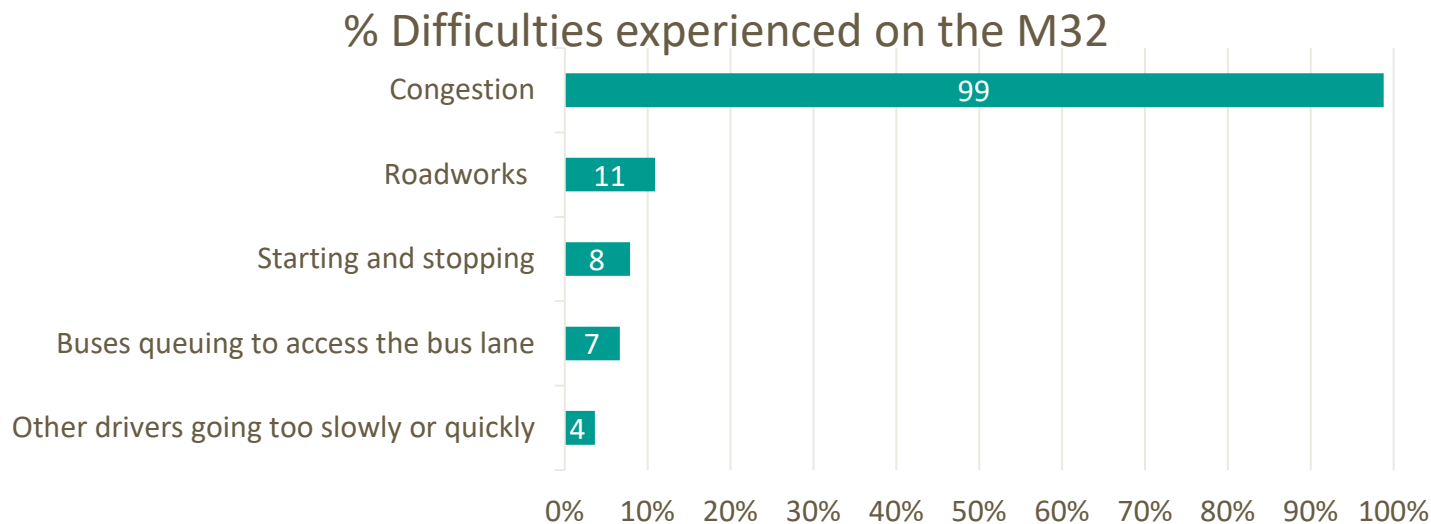


Absolutely love the fact that it's buy before you get on the bus. Other services where you pay the driver take ages and always cause issues. No scrambling for change: Get on, sit down and go!

Pre-task, Bristol, M3

When asked about the causes of delays on the M32, congestion was by far the most common issue for passengers

- Many felt that the M32 was **vulnerable** to small incidents that could cause significant delays.
- Passengers expect buses to be able to **bypass** the worst congestion.
- **Roadworks** emerged as a considerable source of delay in the qualitative research. Many felt that there are persistent roadworks within and beyond the city, leading to congestion.



Q12b. You mentioned that you experienced delays along or approaching the M32. On this stretch of road, which of the following problems do you experience, if any? Base: Those experiencing problems along the M32 (165)

When there's an accident anywhere in Bristol, it could be the other side of the city, it could be the smallest bump, and for some reason the whole of Bristol comes to a halt

Bristol, M3, Younger, Frequent

In rush hour, it's going to take you longer to drive than getting a bus; you'd have to put up with all the buses pulling in front of you, which you want to be on!

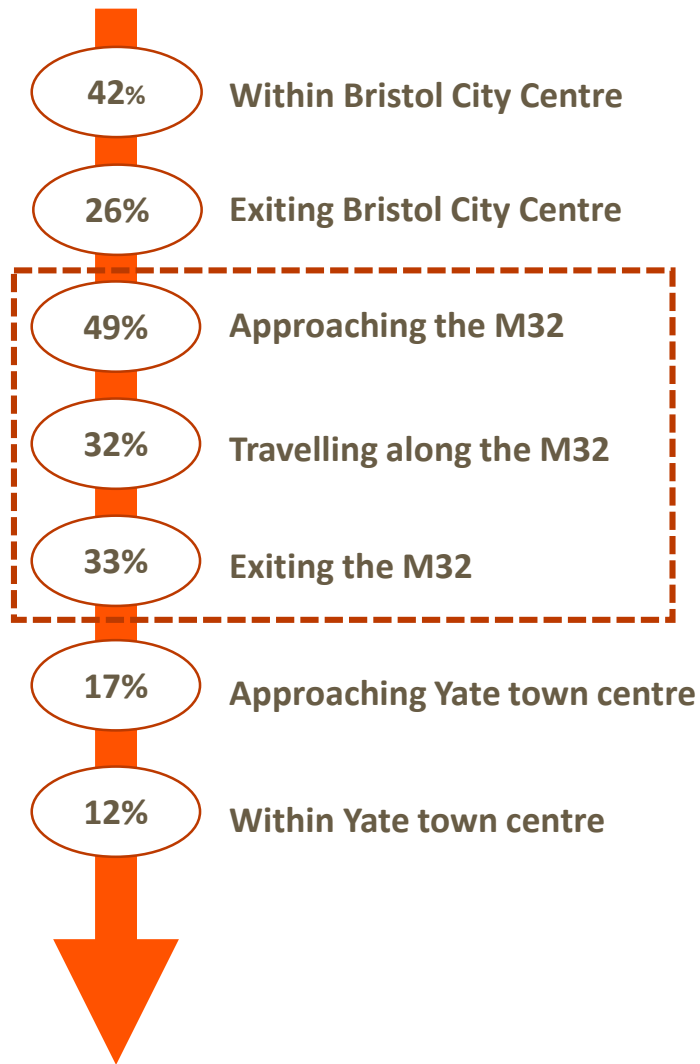
Bristol, Y1, Middle Aged, Frequent

To put it in perspective, I'm looking for a job in Yate because I'm sick to death of travelling into Bristol. It shouldn't take me an hour and a half.

Bristol, Y1, Middle Aged, Frequent

However, quantitative research suggests that issues arise at the city centre and the M32 approach

% Experiencing problems on the Y1



It's a motorway service. Other drivers have plenty of road surface that they can use, and they don't always cater to you as a bus.

Bus Driver, M3

Everyone's in the left lane as you approach Bristol; everyone's fighting to get into the left lane as you come into town. People use that lane to go straight on, even if they don't need to go left.

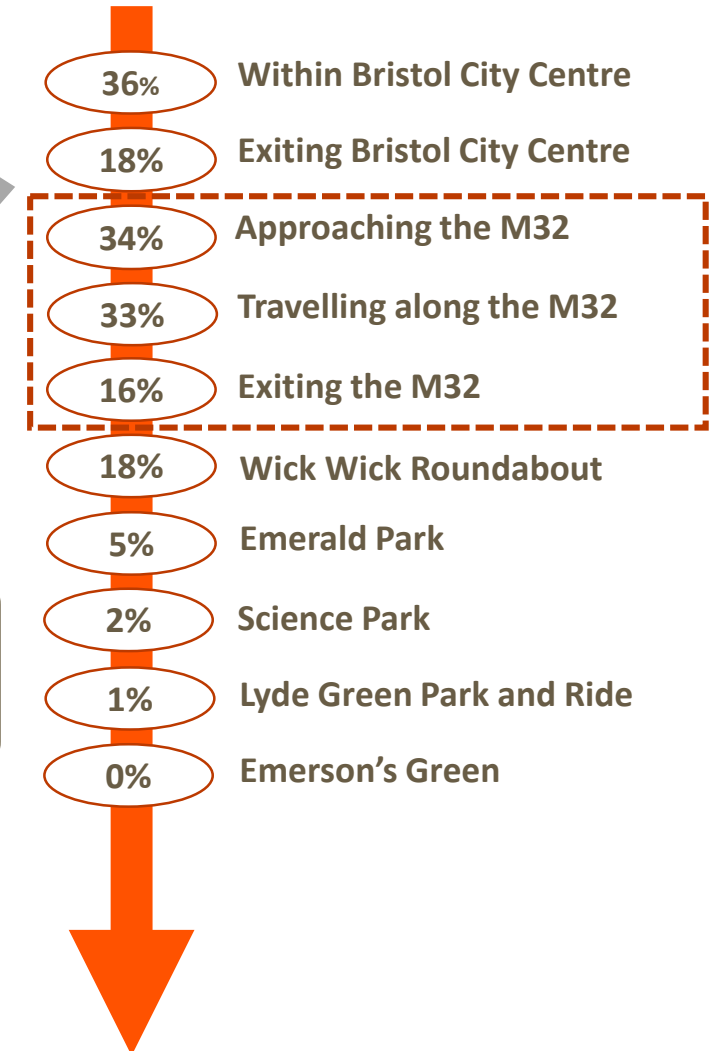
Bus Driver, Y1

The amount of traffic coming through Yate and onto the ring road is sometimes pretty horrendous

Bristol, Y1, Older, Infrequent

62% Y1 and M3 passengers identified a point approaching, on, or exiting the M32 as a location where the bus is typically delayed

% Experiencing problems on the M3



Where the A4174 meets the M32 at Junction 1 is a major point of congestion during peak times

While passengers value recent improvements to the junction, many feel that other drivers' **behaviour** remains an issue

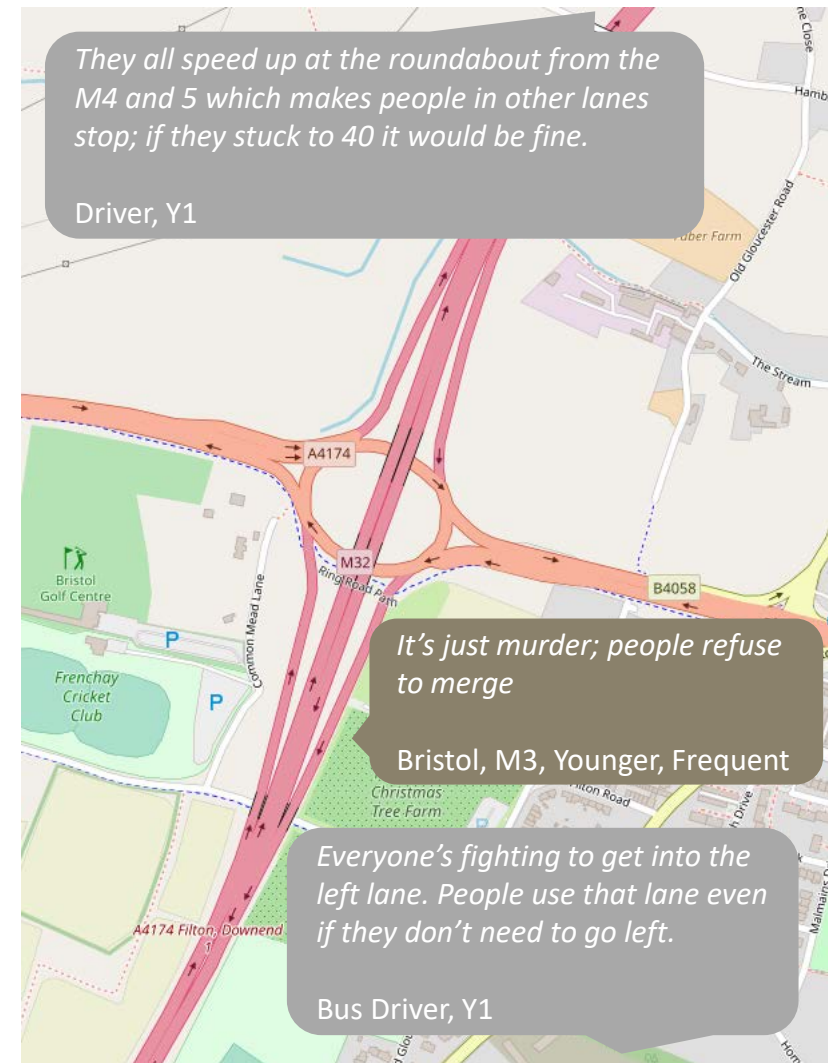
- **Drivers' behaviour on the M32 J1 emerged as a fundamental issue in the qualitative research.**
 - Bus drivers and passengers feel that other road users can make it difficult for buses to access the correct lane as they approach Bristol.
 - While the M32 provides more space for cars, it was argued that aggressive drivers can use this additional manoeuvrability to cut buses off.
- **More generally, the ring road is seen as a focal point for a wide range of traffic.**
 - Passengers identified traffic converging from Longwall Green, Keynsham, Downend, and Yate

One of the things they've done in the past is getting rid of the Hambrook lights so you could only turn left. It stopped people crossing over and the traffic flowed a lot better

Bristol, M3, Younger, Frequent

They put in a slip road for the metro service and it just goes over the motorway and back to UWE, instead of making you drive all the way. It does make sense, it's a good thing.

Bus Driver, Y1

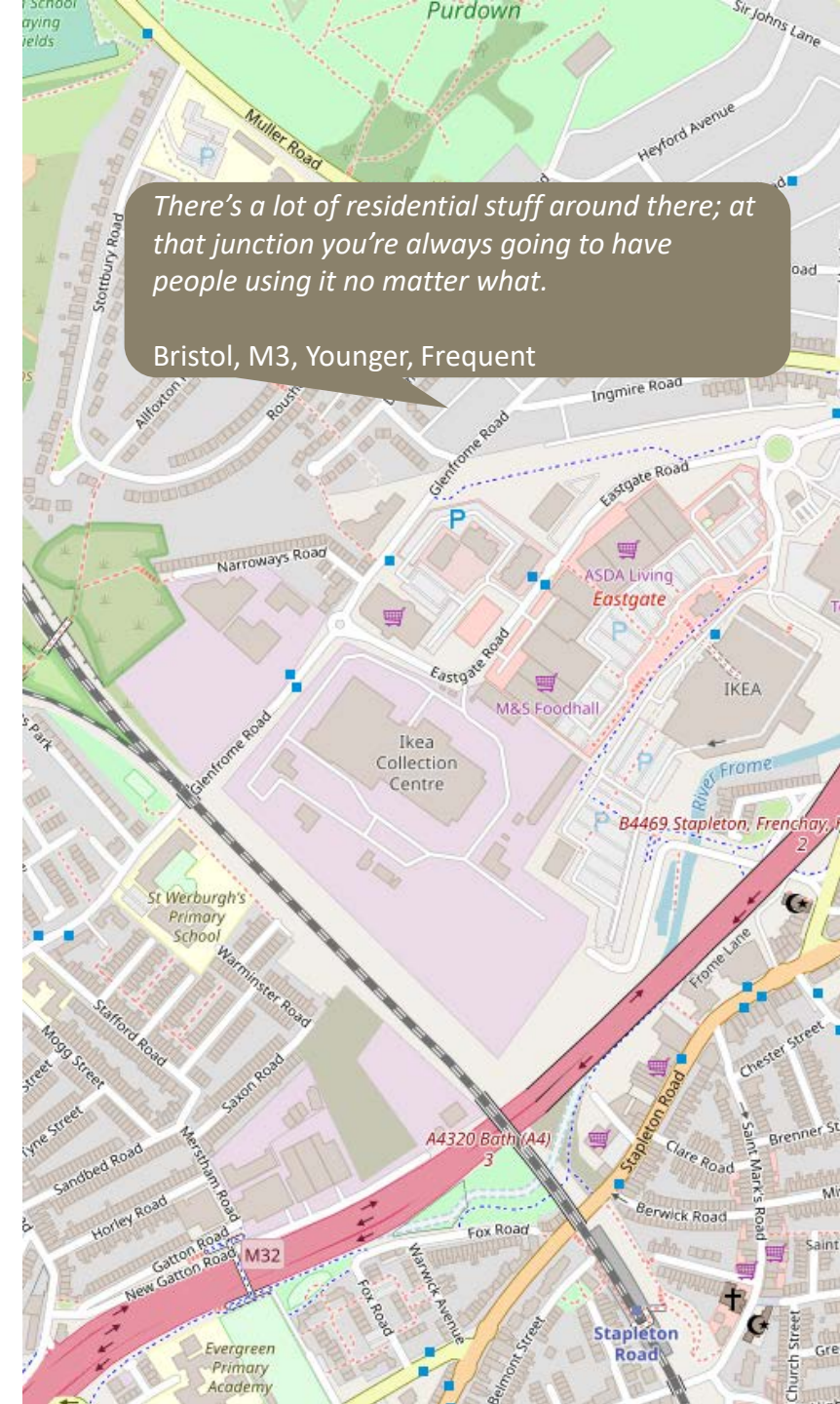


Many felt that the M32 was unable to support increasing traffic, particularly at Frenchay

- **Focus group respondents felt that Bristol's population is growing beyond the capabilities of its road network.**
- Respondents were able to point to clusters of commercial and residential buildings that made entering Bristol from the M32 difficult.
- In particular, they were concerned by congestion caused by people trying to get to the University of the West of England, and retail outlets along the M32
- Bus drivers pointed to delivery drivers, commercial vehicles and taxis using the stops in the city centre, making pulling into the stops difficult

The M32 is much too small for everything that's going on now. It's been there since the 1950s and it's two lanes and it just doesn't work.

Bristol, M3, Younger, Frequent



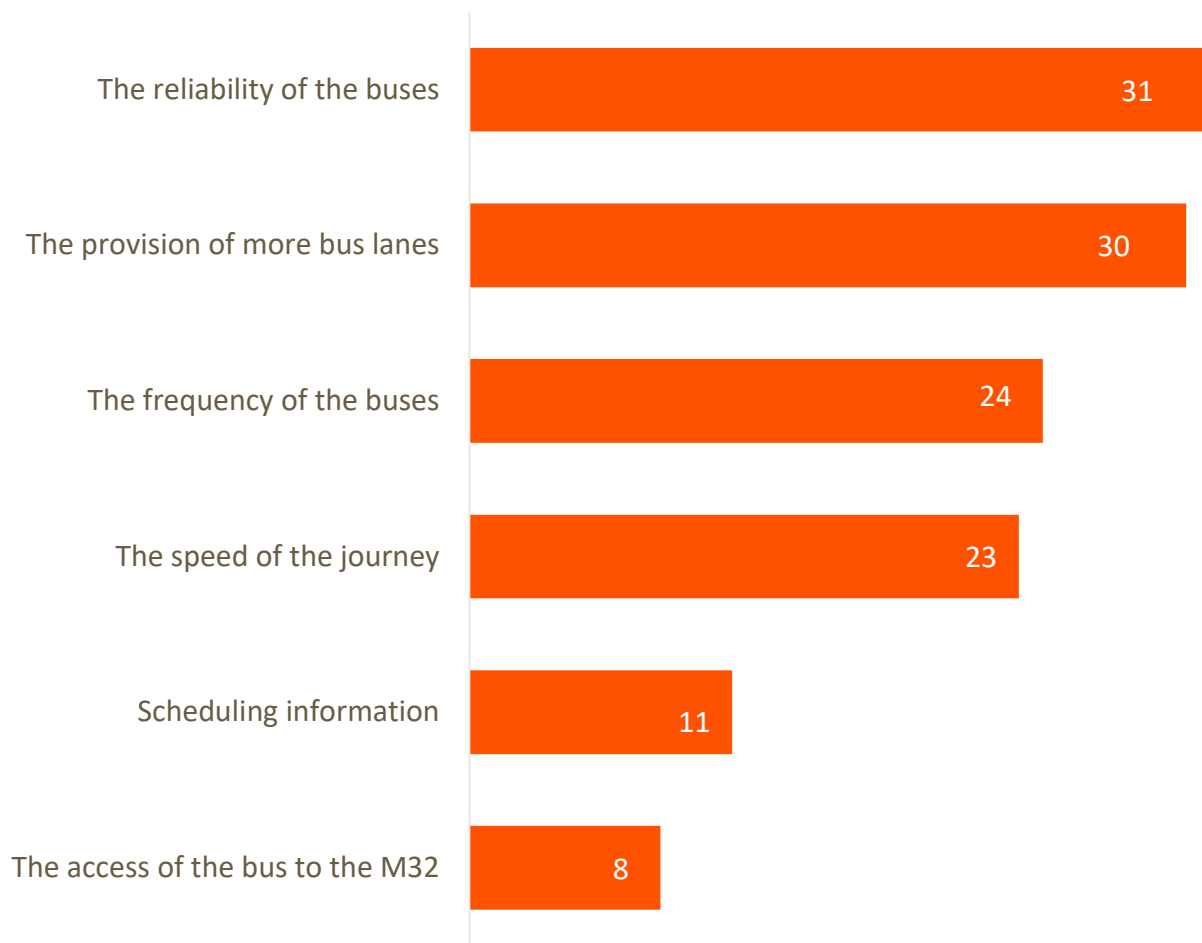
There's a lot of residential stuff around there; at that junction you're always going to have people using it no matter what.

Bristol, M3, Younger, Frequent

For Bristol passengers, reliability and the provision of bus lanes were seen as valuable

The quantitative research suggests that access to the M32 is not front-of-mind for passengers on the service

Which one or two of the following is the most important thing to improve? %



Spontaneous comments on the M32 focussed on bus lanes, recognising the positive impact of existing improvements

M3

The bus could access the M32 a lot quicker if it didn't stop by UWE

A bus lane just for peak time on the A4174 going into Bristol; it's congested from 7-9am

A longer bus lane along the M32

More bus lanes to avoid morning traffic such one of the motorway lanes being a bus lane

I'd want a bus lane on the M32 going northbound

Y1

Better access for buses to the ring road and going around the ring road

We need more bus lanes along the M32

The route has already been improved a lot

Passengers in Bristol focussed on dedicated bus lanes, with some warmth towards changes in signalling and bus priority

In Bristol, there was a strong sense that bus lanes must be continuous to be effective

During the qualitative focus groups, there was strong agreement that bus lanes along the M32 end abruptly, leading to difficulties re-integrating with traffic, 'stopping and starting' and making the journey longer than feels necessary.

Many felt that extending bus lanes would be superior to any changes around high-occupancy vehicle lanes. However, some older car drivers did see some benefits to the '2+ lane' as road users, and felt that giving buses exclusive access during busier periods could be an effective compromise.

Signalling was suggested as a useful way of controlling and accounting for peak-time traffic

However, road users may need reassurances that signal changes will only prioritise buses when it is necessary – the image emerged of cars being held back to accommodate buses that hadn't yet arrived at the junction.

Park-and-ride type schemes were spontaneously suggested among middle-aged respondents

There was general recognition among respondents that parking in the centre of Bristol is challenging, and older respondents in particular tended to be hybrid bus and car users.

Park-and-ride type schemes were felt to be a necessary improvement among middle-aged and older respondents, taking traffic off the road and making parking less expensive.

We need a park and ride with a dedicated route straight to the M32 around Yate; we've only got two main roads out and a more direct road would make more sense

Bristol, Y1, Middle-Aged, Frequent

You come on the M32 on the special bus priority area – brilliant – then you go 150 metres and you just join the normal traffic with everyone else. If you built a bus route the entire way down, it would take you five minutes to get into town

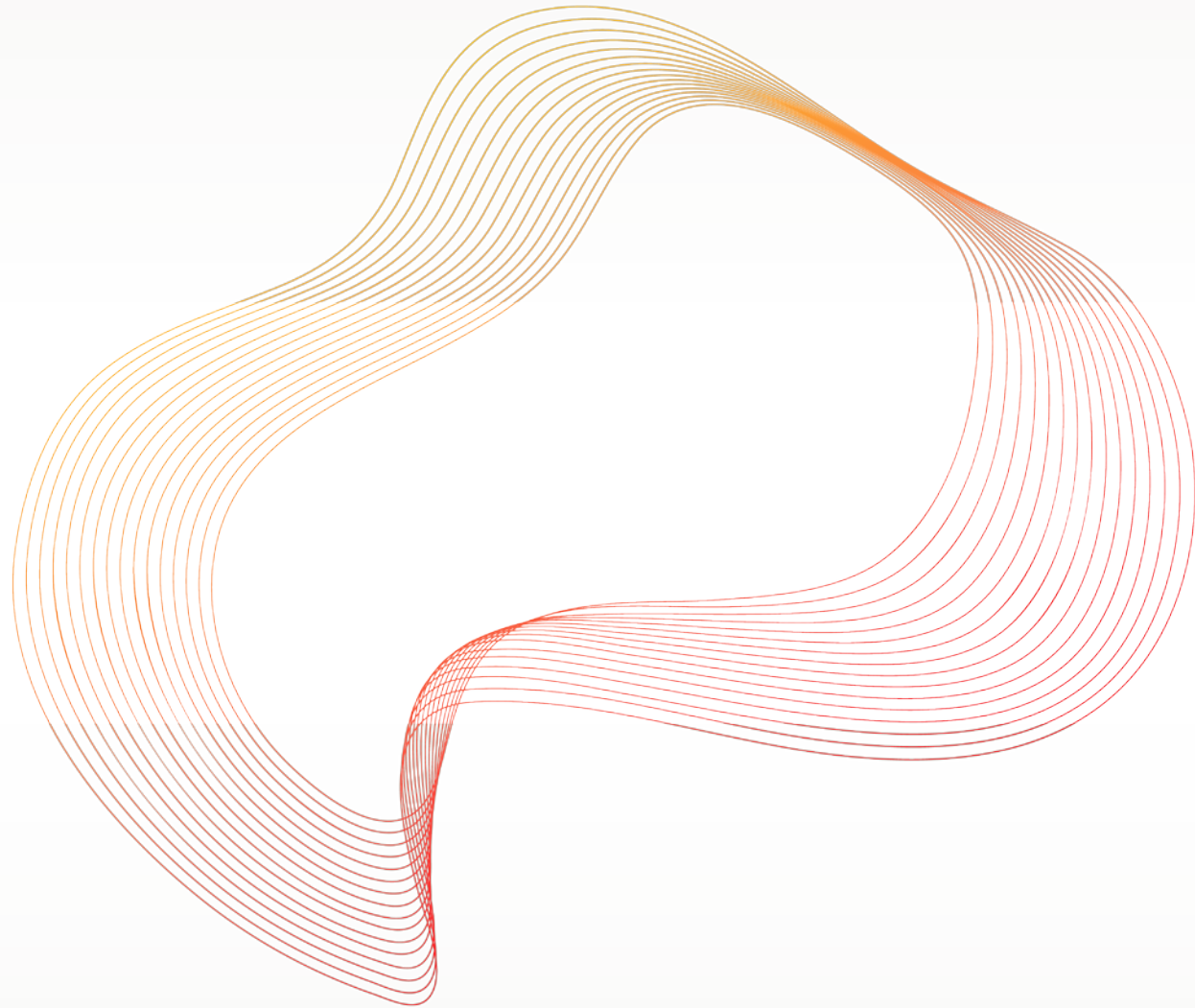
Bristol, M3, Younger, Frequent

You could have a traffic light on that 2+ lane at certain times to only allow buses to go through it

Bristol, Y1, Older, Infrequent

I'd be mad if the light was green for buses and it was 8 in the morning and nothing was going through!

Bristol, M3, Younger, Frequent



Improvement propositions

Respondents were shown improvement propositions during the additional focus groups

Extending or adding bus lanes

- Extension of the bus lane to the back of the roundabout at Filton Road
- Extension of the bus lane from the A4174 to the roundabout
- Converting the hard shoulder to a bus lane on the east side of the circulatory carriageway
- Additional bus lane on the east side of the circulatory carriageway

Changing the timing of the High-Occupancy Vehicle lane from 7:30am to 6:30am

Information campaigns to encourage proper usage of the High-Occupancy Vehicle lane

Staggered merging for traffic joining the M32 at J1

Single lane free-flow left turn onto Filton Road

Removing splitter islands along the circulatory carriageway

A park and ride service along the route

Bus lanes were seen as essential along the M32

Converting existing lanes into bus-only lanes was seen as efficient and useful

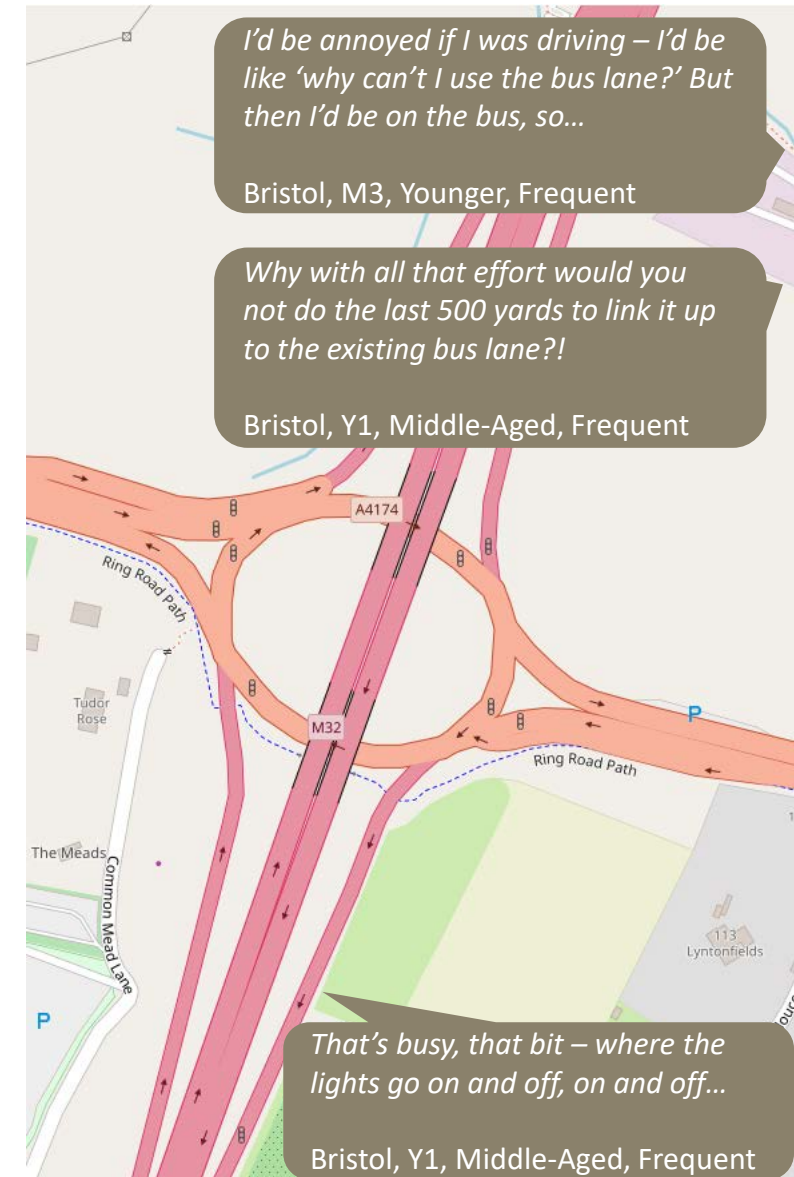
- **Respondents spontaneously suggested turning the High Occupancy Vehicle lane into a bus lane.**
 - Doing so, they argue, would add capacity to the M32 without the need for roadworks.
 - Some felt that the High Occupancy Vehicle lane was under-used, or used inappropriately
- **Converting the hard shoulder on the M32 into a southward bus lane was felt to be valuable, given perceived congestion near Frenchay.**
- This would potentially be valued by car drivers, since they would not be ‘losing’ a usable lane
- Some resent seeing buses avoiding traffic while they are experiencing a delay in their car but recognise the public benefits of streamlined bus travel
- **Adding a bus lane to the east side of the circulatory carriageway is felt to be a logical and natural step**
 - Many respondents were confused about why the existing lanes were not already ‘joined up’ around the ring road
- **Both bus drivers and passengers are grateful for existing bus lanes on the M32 route**

Well they've extended the bus lane on the M32 before which was helpful. I'm usually still able to go at the driving speed of the road, except at rush hour.

Driver, Y1

You can put the lane there [on the hard shoulder] and keep what's there for the cars.

Bristol, Y1, Middle-Aged, Frequent



High-Occupancy Vehicle lanes suffer from a poor reputation among bus passengers

The lack of familiarity with these lanes leads to less enthusiasm for them overall

- **Some respondents are unaware that buses are able to use the High-Occupancy Vehicle lane**
 - This can lead some to argue that they are redundant; un-used by buses and mis-used by road users.
 - Those who do drive feel frustrated that they are unable to use them
- **Bus lanes have a strong association with being 'dedicated' and purpose-built for buses**
 - The most popular improvements to the route are those which feel exclusively for the benefit of bus users; unambiguous 'perks' of using public transport that encourage bus use and take cars off the road.
- **There is some warmth towards the idea of stricter enforcement**
 - Most are reluctant to entertain the idea that a behaviour change campaign could work, preferring to see the lanes enforced through policing, cameras and fines.
 - Likewise, changing the timings of the High-Occupancy Vehicle lane was poorly received, with some doubtful that congestion began as early as 06:00.
- **Many would prefer to see the 2+ lane converted to a bus lane**
 - These passengers feel that bus lanes are more easily enforced, with less ambiguous rules around their use.

It's when you're in the car and you see another person just bombing down the 2+ lane

Bristol, M3, Younger, Frequent

As a bus user, why would I want a two-plus lane?

Bristol, M3, Younger, Frequent

Well you can see the police half-way down the road; so you know when they're not there and then people are just going to go for it!

Bristol, M3, Younger, Frequent

I think people would be more inclined to abuse the 2+ lane than they would abuse a bus lane, especially if the bus lane were red.

Bristol, M3, Younger, Frequent

It's purely the fact that it's early in the morning, nobody wants to get stuck behind a bus. You could read anything and you still wouldn't pay attention.

Bristol, Y1, Middle-Aged, Frequent

While merging near Filton Road was recognised as an issue, staggered merging was met with some confusion

- **Some argued that delays caused by traffic lights would offset the potential benefits**
 - It was felt the traffic would simply be moved past the merge rather than dispersed or minimised
- **Staggered merging was more appealing when discussed in conjunction with bus priority measures**
 - However, most felt that a bus lane beyond the merge would be unfeasible, and that there would not be enough space on this part of the route

By the time you got past you'd just hit another bit of traffic anyway

Bristol, M3, Younger, Frequent

There's no room for them to merge into; it's not freeing up any space for them to stagger into.

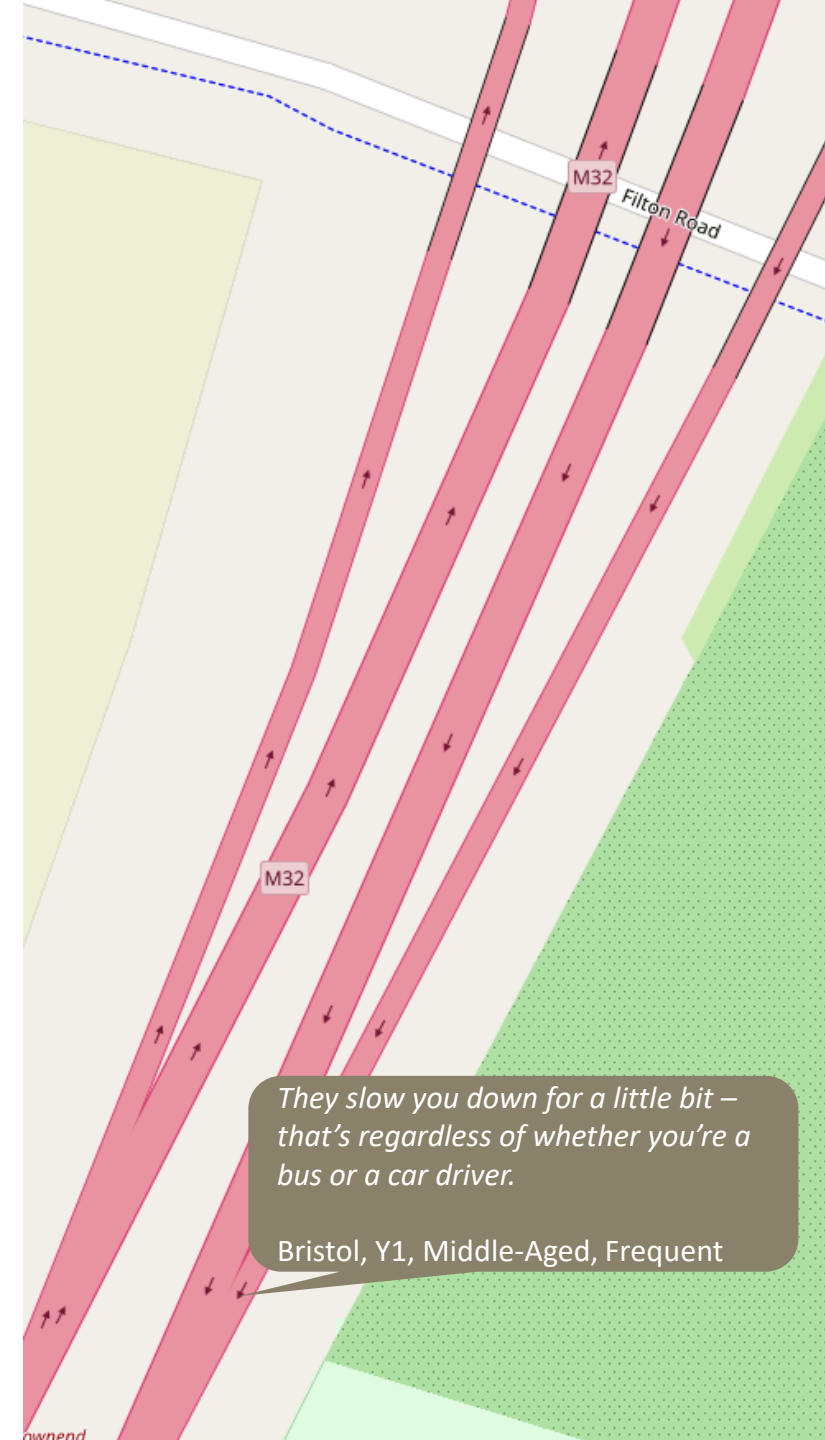
Bristol, M3, Younger, Frequent

It's almost like an extra lane for a few hundred more metres.

Bristol, Y1, Middle-Aged, Frequent

Where the chevrons are, that's a problem, because you've got two lanes trying to merge.

Bristol, Y1, Middle-Aged, Frequent



They slow you down for a little bit – that's regardless of whether you're a bus or a car driver.

Bristol, Y1, Middle-Aged, Frequent

A free-flow left turn came across as unnecessary for some respondents

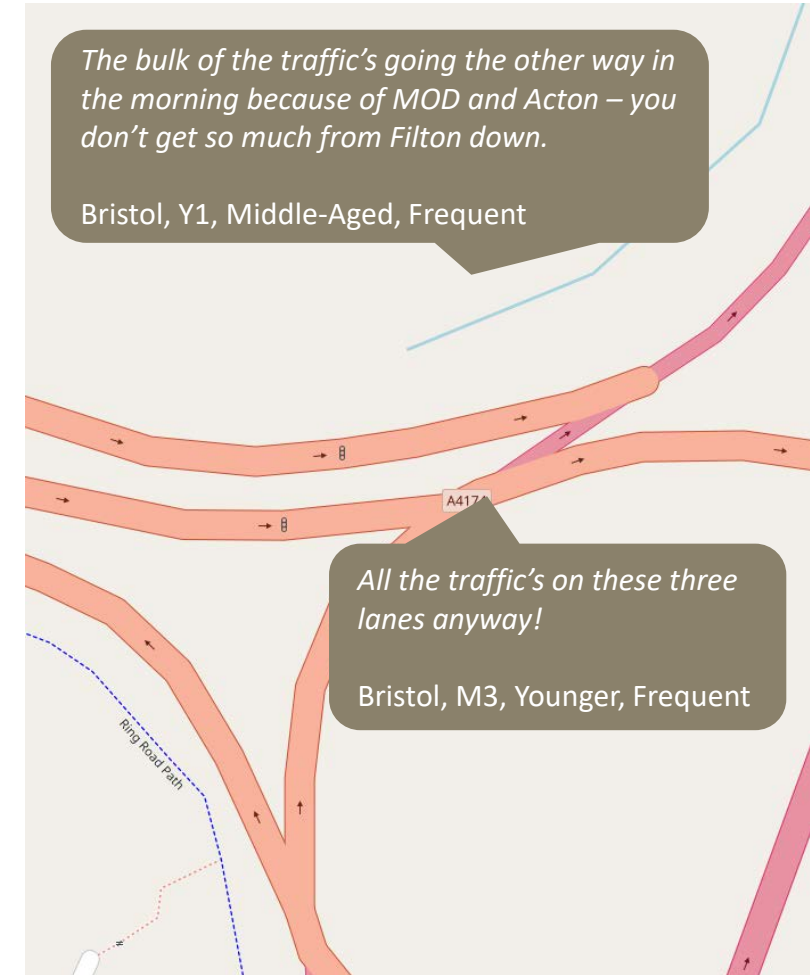
In principle, however, free-flow turns were popular as an effective way of avoiding delays caused by traffic lights

Many felt that the west side of the circulatory carriageway was a lower priority

- Several felt that the proposition would be very useful for drivers accessing the **M4**, but for the Y1 and M3 the relevance was unclear.
- The supposedly **large number of traffic lanes available** can lead some respondents to feel that the left turn is already satisfactory.
- Others argued that the **two lanes from Filton Road were relatively clear of traffic** compared to the **three inner lanes** which could suffer from heavy queueing.
- Others were concerned about the **potential safety implications** of a free-flow left turn along the M32 carriageway, feeling that it could lead to collisions

Well, you haven't got to stop, so you'll have more cars not stopping, and you'll have less of a build-up.

Bristol, Y1, Middle-Aged, Frequent



Splitter islands were seen as a useful way of controlling traffic

The prospect of removing them was met with confusion and some scepticism

- **Respondents often had negative views about other drivers.**
 - Splitter islands were seen as a necessary means of regulating what they saw as careless behaviour from other road users.
- **In addition, the benefits of removing splitter islands were unclear.**
 - Few understood the underlying rationale and felt that knock-on delays from cars switching lanes at will would offset any potential added value.
- There was, however, general recognition that circulatory carriageways along the M32 are difficult to navigate and act as ‘choke points’ for traffic.

It won't just be one person. You'll probably end up with a queue of people doing the same thing, forced back onto the motorway.

Bristol, M3, Younger, Frequent

They make traffic safer. You've got no choice but to go around again and get people in the right lane.

Bristol, Y1, Middle Aged, Frequent

Removing them allows people to be a bit more stupid. They'll just go, well, because it's not there, I can shift over.

Bristol, M3, Younger, Frequent

'Park and ride' developments are met with mixed approval in Bristol

In Bristol, respondents were frequent car users

Several respondents actively **enjoyed using their cars** and saw practical benefits to using park and ride services as a way of avoiding the traffic of the city centre, as well as on the M32

The ideal use case is mostly assumed to involve driving from Yate to near Bristol, and then boarding the bus to **bypass traffic on the approach to (and within) the city centre.**

Ultimately this proposition was felt to work for car drivers looking for a convenient route into town, but there was less sense that the proposition would take traffic off the road or improve the overall status of the M32 route.

On Saturday we go to the football and it's a nightmare driving through the centre; this would take away all the traffic in the middle of the city

Bristol, Y1, Older, Infrequent

Price-wise there's an advantage. I used to get the park and ride in Bath and it was £2 to park all day but much more in Bath – it's freeing up travel time as well.

Bristol, Y1, Middle-Aged, Frequent



Brighton, 28 and 29

The 28 and 29 bus routes call at numerous bus stops along the A27

The majority of users of the 28 and 29 bus routes are satisfied with their overall journey time

28/29



80%

28/29 passengers very or fairly satisfied with journey time

Given the similarity of the 28 and 29 buses in terms of routing, we have combined respondents from the two buses for the purposes of robust analysis

The 28 and 29 buses tend to be seen as on a par with other local routes

Qualitative research suggests that the differences between these routes and other local buses are of lower salience

Concerns do exist around the punctuality of the 28 and 29 buses, however there is little to suggest that respondents attribute these concerns to the A27 or **factors unique to the route.**

Quantitatively, most respondents see the route as roughly the same as other bus services in terms of journey quality.

However, when passengers are able to reflect critically during the qualitative research, significant concerns arose around the approach to the A27 and bus stops along the route.

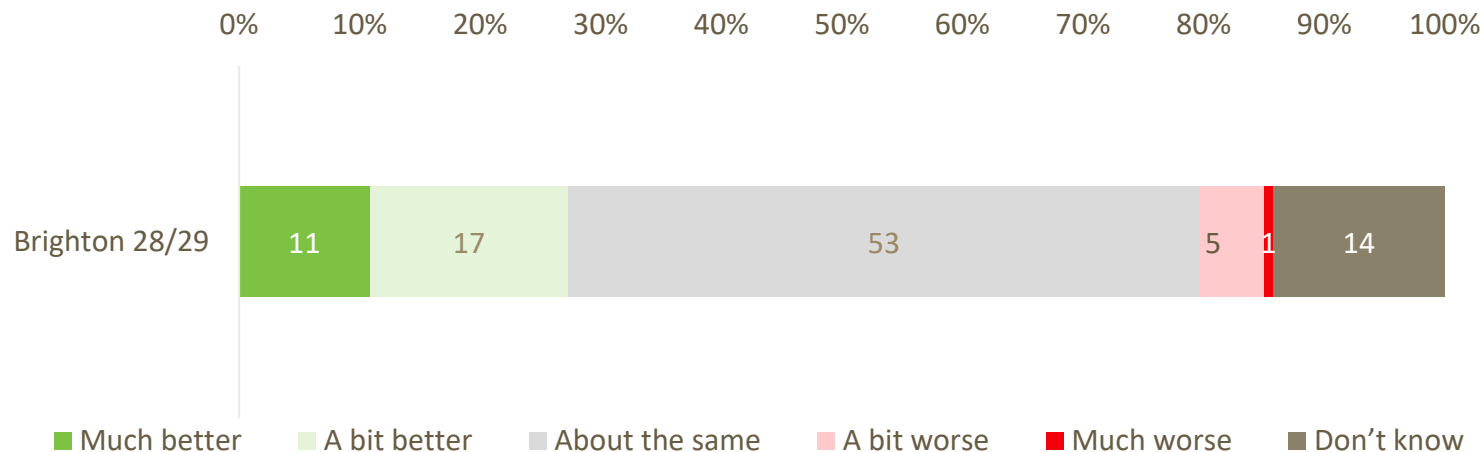
The 28 and the 29 are super regular for when I need them and they're quite reliable, the bus drivers are pretty friendly nine times out of ten, so it's a nice experience.

Brighton, 28/29, Younger, Infrequent

It's really pleasant but not as nice as you're all saying! I normally go dead on rush hour and back on Sunday which is a rubbish service!

Brighton, 28/29, Younger, Infrequent

How does this journey compare to other bus journeys in the local area? %



Q13a. How does this journey compare to other bus journeys in the local area? Base: 28/29 Passengers (266)

However, delays along the A27 can be particularly frustrating when they do occur

Qualitative research suggests that when passengers do experience A27 delays, information becomes essential

Passengers experiencing delays on the A27 may have to use unfamiliar stops

– Many felt that a delay on the A27, though rare, can have a severe impact on the journey

- Passengers are often unfamiliar with the A27 bus stops, and often unsure how to proceed if they have to leave the bus in the event of a breakdown.
- Bus drivers can also be unclear about the cause and impact of a delay on the A27

– In this situation, Brighton passengers value knowing how long the delay will last.

- This helps clarify what next steps they should take, and whether to attempt a different route or stay on the bus.
- Passengers waiting for a bus that has been delayed on the A27 can be left unsure of when it will arrive, making information even more vital

Sometimes it's a broken down car causing the delay, you're queueing for ages, but of course by the time you're moving the delay is gone so you can't really tell what caused it.

Bus Driver, 28/29

When you're sitting there not knowing how long you're going to be, that makes it feel twice as long. At least someone can update you.

Brighton, 28/29, Middle-Aged, Frequent

I've been stuck on it for two hours before, and that's it – you're stuck.

Brighton, 28/29, Middle-Aged, Frequent

Not really on the A27 – It's flowing and if no one's crashed into anybody it just goes.

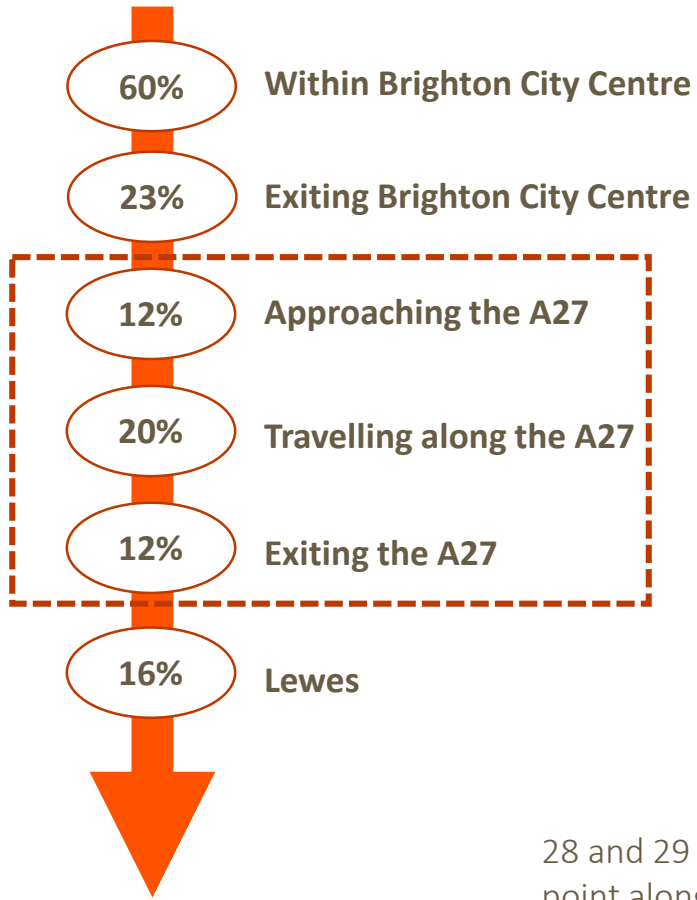
Brighton, 28/29, Middle-Aged, Frequent

If you're halfway between Brighton and Lewes you don't really know if the bus is caught in traffic or not. You don't know when it will turn up.

Brighton, 28/29, Middle-Aged, Frequent

While the city centre is mentioned, 32% identify the A27 as a source of delay

% Experiencing problems on the 28/29 route



This part of the A27 where you come off on to the A270 – Every day the traffic to get to Coldean road is massive.

Bus Driver, 28/29

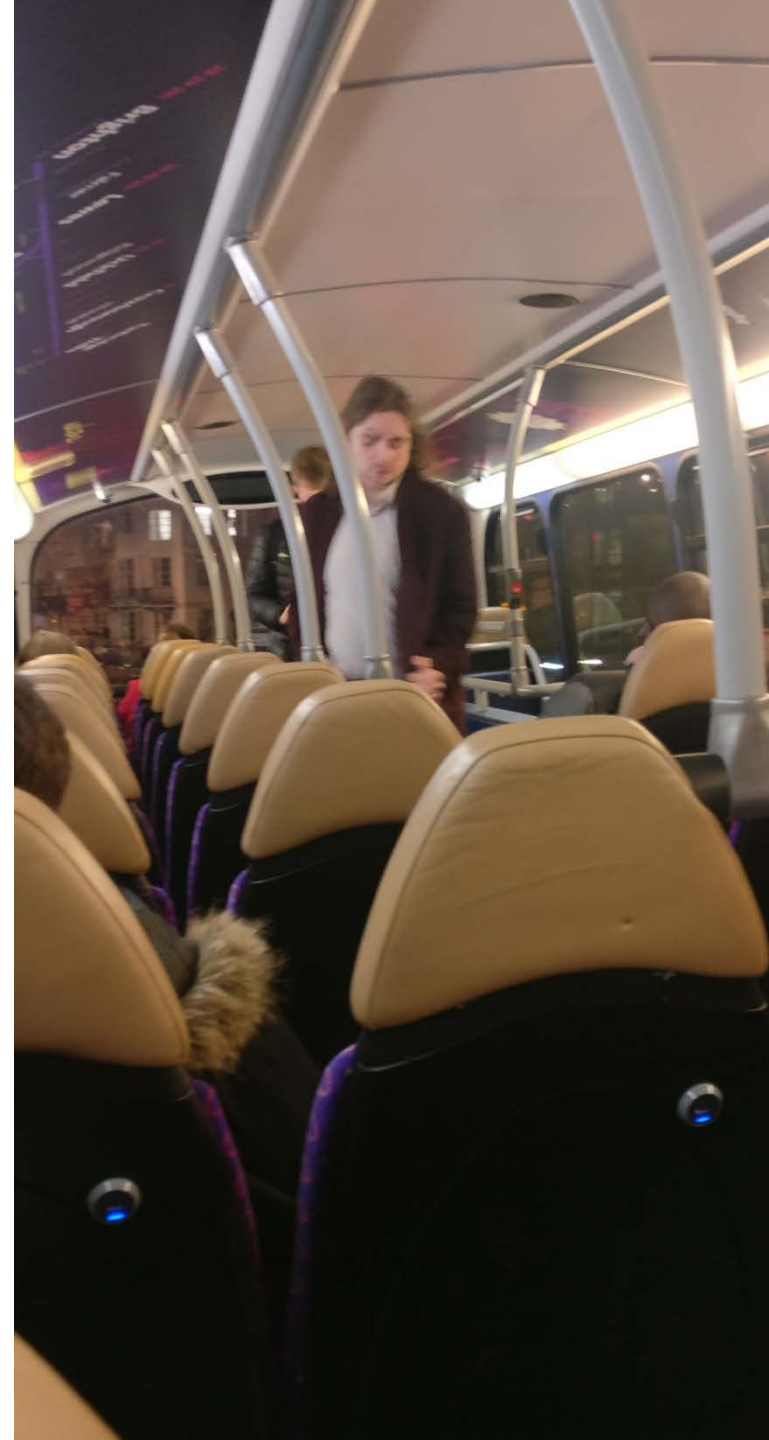
The biggest pain point is coming back onto the motorway after a bus stop. The cars are going to where I worry about accelerating too quickly as passengers could fall but at the same time accelerating too slow to cause problems with the cars.

Bus Driver, 28/29

It flows alright, but the same as anywhere else, one little hiccup, one little shudder... It's the volume of traffic; the amount of houses they're building in the South East.

Bus Driver, 28/29

28 and 29 passengers identifying some point along the A27 as a source of delay **32%**



In the qualitative research, Falmer emerged as a challenging part of the 28 and 29 route

- **Respondents felt that delays around Falmer could have a knock-on effect on the A27**
 - For this reason, respondents are often particularly grateful for the existing bus lane on Lewes Road.
- **Bus drivers highlighted issues with the position of the Falmer Village bus stop**
 - It struck some as being too narrow and awkward to stop at given the speed of the road.
 - Some were unsure why the 28/29 route needed to cross the slip road, rather than remaining on the A27.
 - As with later stops along the A27, the 'run-up' to the stop was felt to be insufficient.
 - One bus driver highlighted the problem of trees that reduced their usable space along the Falmer slip road
- **Both drivers and passengers felt that Falmer was most problematic at the evening peak**

If there are any problems with the coast road, or Coldean Lane, that junction takes the stretch and the A27 route becomes very, very congested

Brighton, 28/29, Middle-Aged, Frequent

Stop the traffic at Lewes road; let us go past. So many people filter in there – the driver will often let people out first which is nice, but...

Brighton, 28/29, Middle-Aged, Frequent

It's a bit weird that they put a bus stop in the middle of a slip road. It's quite a fast road, although people slow down slightly because they've been up a hill.

Bus Driver, 28/29

The slip road isn't wide enough. There are trees which makes it harder to navigate and Falmer Village isn't long enough to pull into.

Bus Driver, 28/29

Most delays along the A27 were attributed to specific events

Sports fixtures, the universities, and traffic collisions were all seen as root causes

The B2123 serves both Sussex University and the American Express Stadium

- During Freshers' Week, or a major football match, the inflow of passengers and road users can lead to significant crowding on the buses
- Queues along the B2123 have a direct impact on the 28/29 routes as they cross the slip road
- Passengers are grateful for bus lanes on the route as a means of bypassing these delays
- **Congestion linked to football matches are seen as a major problem on the route**
- Passengers going to or from the American Express Stadium can cause crowding on the bus
- Some felt that specific bus services that catered for the events would lead to a more comfortable and reliable journey for others.
- Some have observed cars parking in layby on match days, making it harder for buses to access the stops
- **Traffic collisions further along the A27 were felt to have an impact as far back as Falmer Village**
- There was a general sense that Falmer was vulnerable to even minor occurrences which could have a severe impact on journey time

Falmer was utter chaos yesterday. As soon as you hit those bus lanes it's just like 'Oh thank God for bus lanes!'

Brighton, 28/29, Middle-Aged, Frequent

I saw it on the football day - congestion up the road, where it's quite countryfied – they all congregate, all these cars, round the bus stops in laybys and things

Brighton, 28/29, Older, Infrequent

From my perspective, both Brighton and Sussex Universities haven't put any thought into the infrastructure required to support the people they're moving back and forwards

Brighton, 28/29, Middle-Aged, Frequent



On football nights it's pretty bad going into Falmer because you have to go up and over, the traffic caused by queues into the stadium...

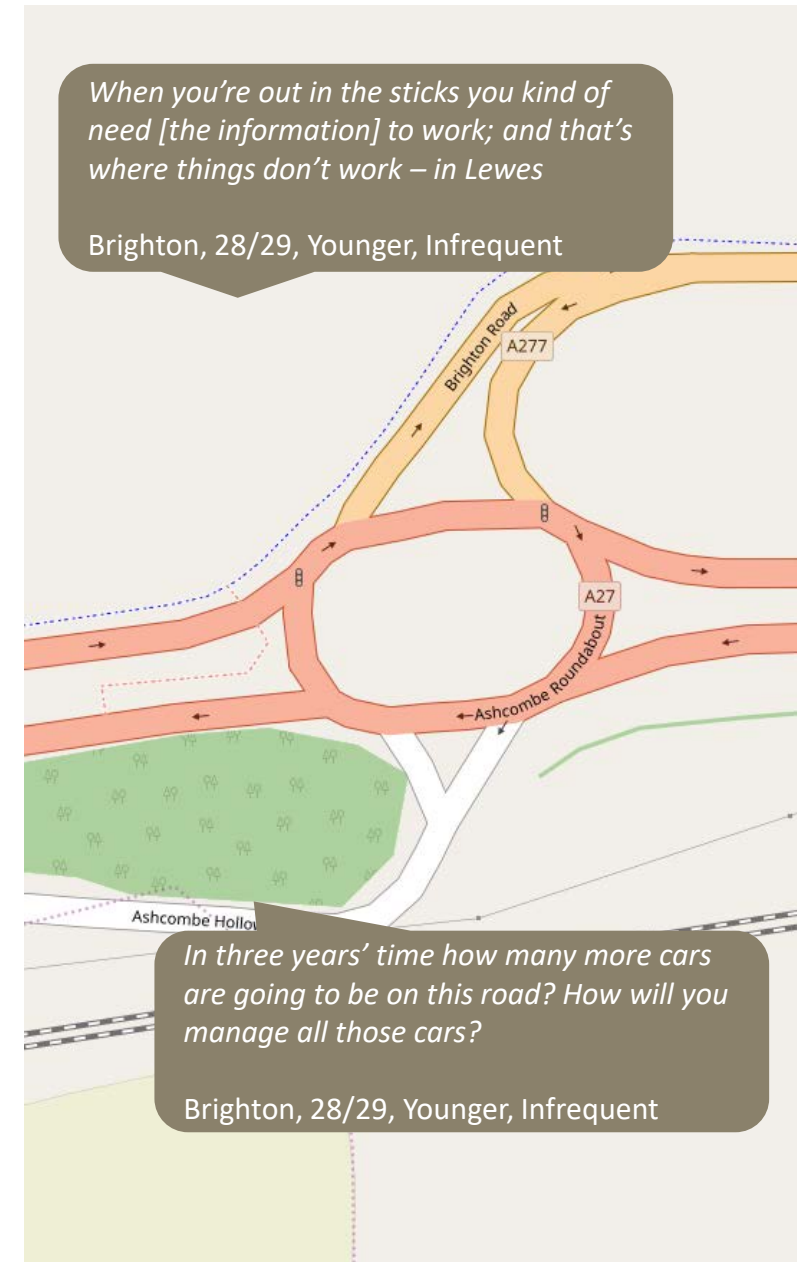
Bus Driver, 28/29

The A27 approach from Lewes is felt to be congested

- **The point where Brighton Road meets the A27 is felt to be too narrow**
 - There was a strong sense that as Lewes develops, there must be more points of access to the A27 to keep pace with population growth
- **Lewes' surrounding highways are viewed as a focal point of traffic from multiple sources**
 - Lewes roads are seen as narrow, small and unsuitable for the flows of traffic coming in from Highways England roads, both from Kingston and Brighton city centre.
- **The roundabout between Hope-in-the-Valley and Kingston Ridge emerged as a pain point**
 - Other drivers' behaviour is the primary concern here, with drivers failing to give way to other road users or stay in the correct lane
 - Some felt that road users drive too fast along this section of the route, preventing buses from merging into traffic

The Ashcombe roundabout, just the sheer volume of traffic makes pulling out of there a problem

Brighton, 28/29, Middle-Aged, Frequent

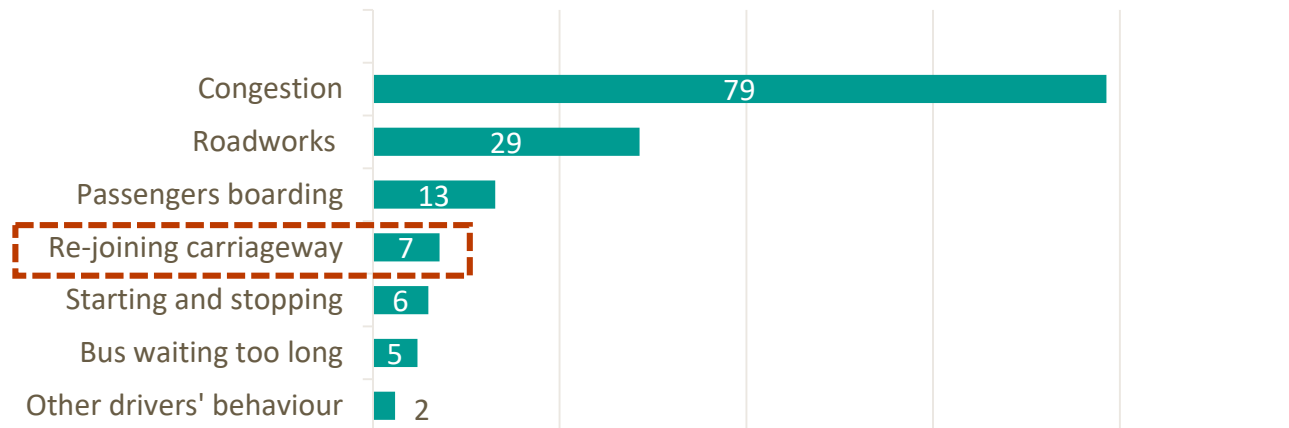


Bus drivers see accessing bus stops along the network as the primary issue with the A27

– For passengers, the Falmer and the city centre emerge as a major source of delay

- Many passengers felt that once the route passed the congestion at Falmer, the remainder of the A27 is relatively smooth.
- Both bus drivers and passengers noted that pulling into the bus stops along the A27 did not happen frequently.
- For passengers, the question of bus stops may therefore be lower-salience.
- Bus drivers along the A27 are acutely aware of problems with accessing stops on the network, having a more comprehensive, technical understanding of the route as a whole.

% Difficulties experienced on the A27



Going into Kingston Ridge there's a tree, actually growing into the bus stop lane – if you pull in too quickly you'll smash into it.

Bus Driver, 28/29

I think the A27 is fine; occasionally there's some kind of hold-up, if a tunnel was closed or something, but that would be the same in a car

Brighton, 28/29, Older, Infrequent

Bus users felt that stops on the A27 fail to meet the minimum standard required

While few respondents used these bus stops, it was seen as essential that all stops adhere to a 'bare minimum' standard

– Many respondents were alarmed when shown images of stops along the A27

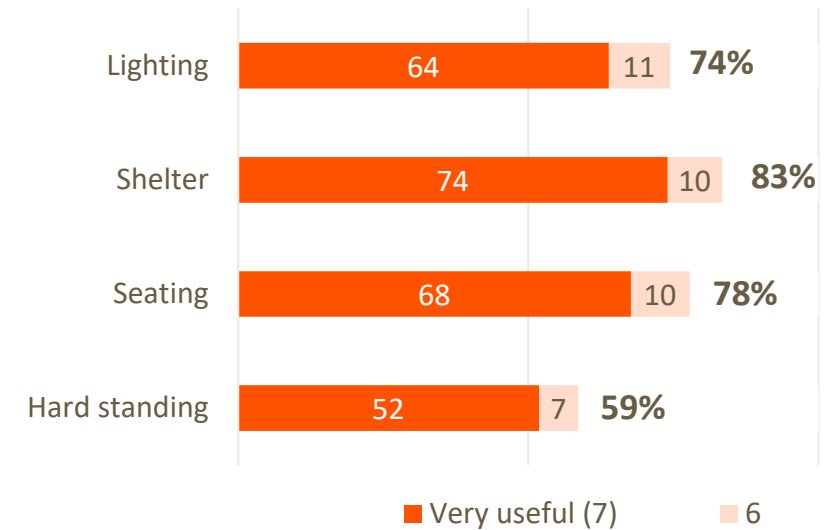
- While many respondents were unaware of these stops, accessibility, particularly for those with limited mobility, was felt to be a necessary good
- To reach the baseline standard for an acceptable bus stop, focus group respondents argued that seating, shelter and lighting are vital in the interests of safety.
- Some felt these bus stops were under-used and therefore questioned why they were there at all. However, they were less likely to feel like this when asked to consider the needs of people in the local area who might need to use them.

– A small number of respondents used these stops after a breakdown on the A27

- These passengers felt unsafe at the stops, with no information about when the next bus would arrive or how to proceed on the route, and very little lighting.

There is little differentiation between different physical features of an improved bus stop:

% Strong preference for bus stop amenities (scoring 6-7)



Anything that makes the stops more accessible, nicer for passengers, is a good thing.

Brighton, 28/29, Younger, Frequent

They like backpacking at Housedean Farm; they can walk to the next bus stop!

Brighton, 28/29, Middle-Aged, Frequent

At Newmarket Inn towards Lewes, it's difficult to see oncoming traffic. If I had more width I'd be able to turn myself at a slight angle to see better.

Bus Driver, 28/29

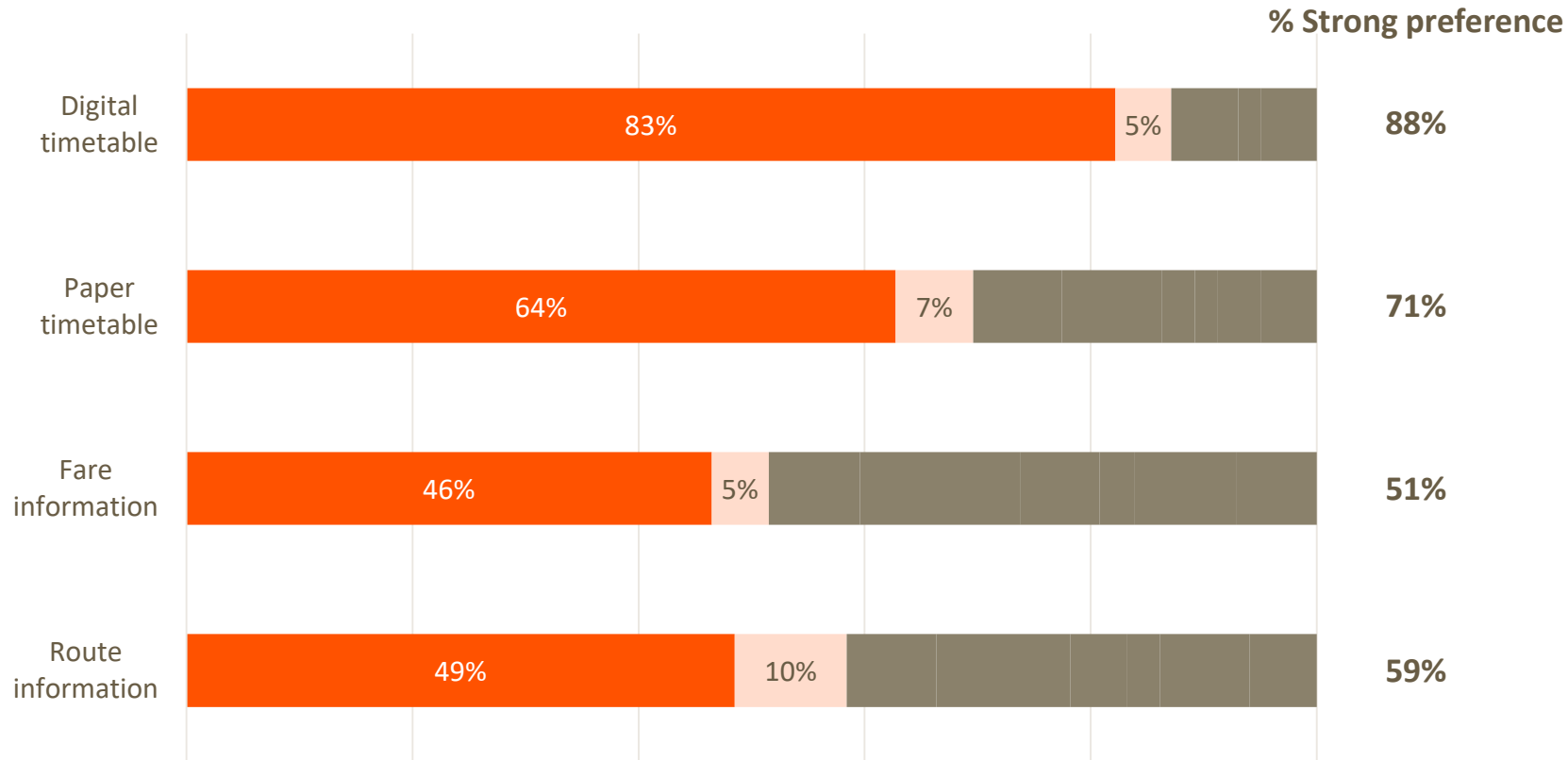
Going into Kingston Ridge there's a tree, actually growing into the bus stop lane – if you pull in too quickly you'll smash into it.

Bus Driver, 28/29

Digital information about the bus timetable is strongly preferred within Brighton

Again, however, the timetable must be accurate to be useful, and primarily comes into use during delays

% Strong preference (scoring 6-7)



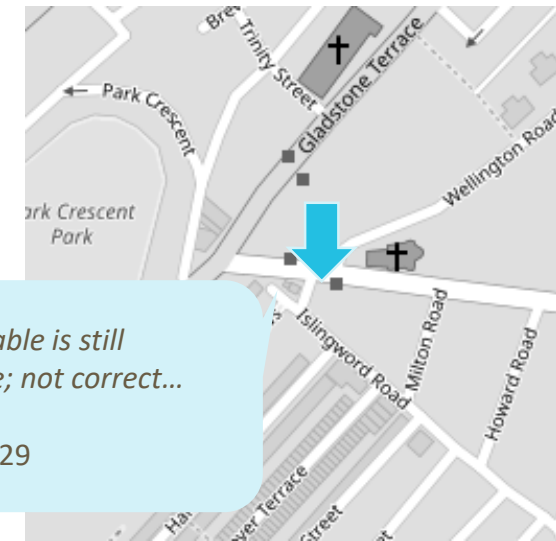
The bus arrived three minutes late.
There was no screen at the bus stop to show the delay.

Pre-task, Brighton, 28/29



The [digital] bus timetable is still showing 7 minutes late; not correct...

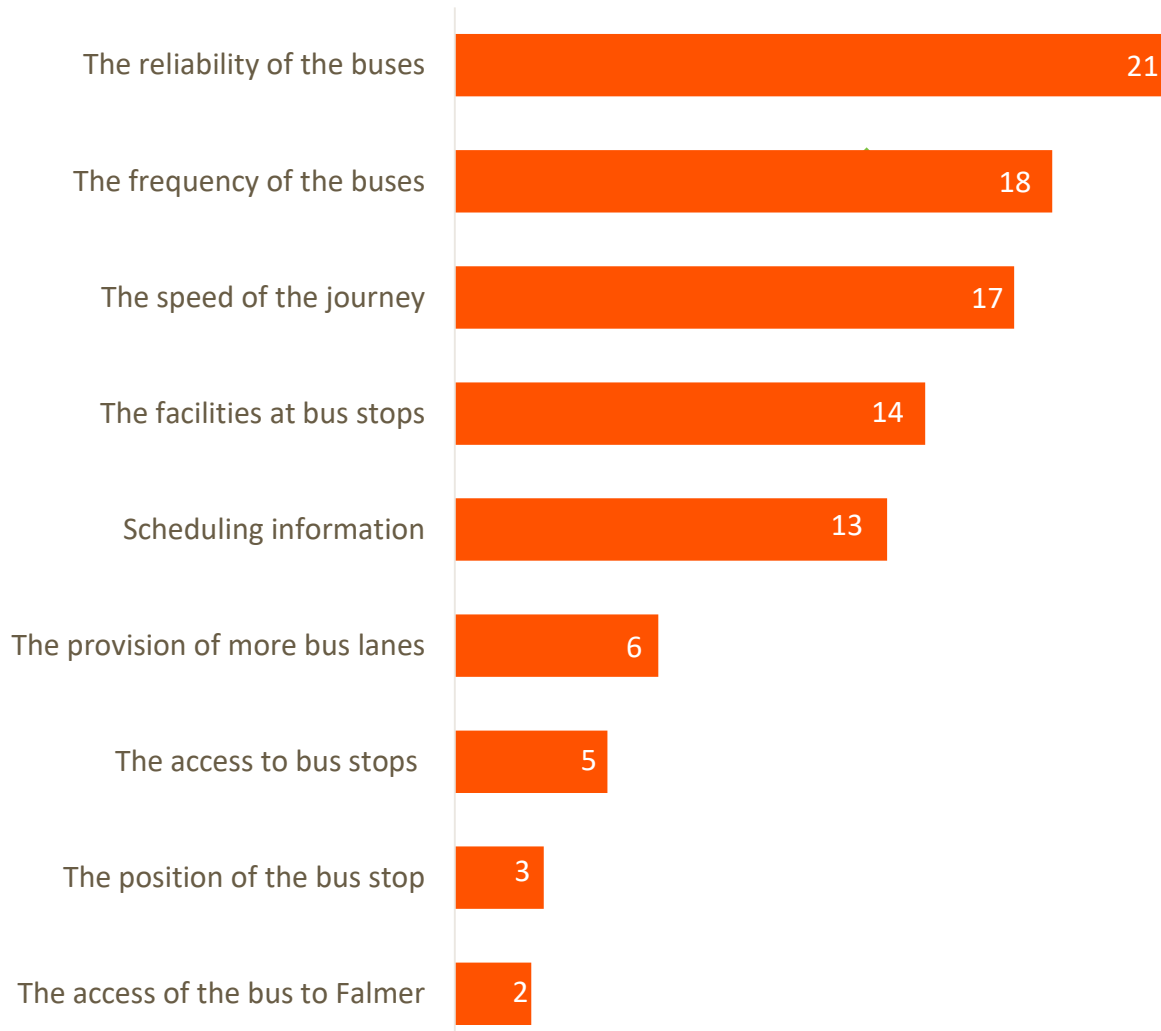
Pre-task, Brighton, 28/29



Brighton passengers offered a range of spontaneous suggestions for improvement

However, the quantitative research suggests that improvements to the route are not front-of-mind in terms of priorities

Which one or two of the following is the most important thing to improve? %



Being able to use bus lanes as normal driving lanes outside of peak times
Brighton, 28/29

Lighting at the Falmer bus stop – I frequently revise there and coming back in the dark can be scary.
Brighton, 28/29

Skip the Falmer Village stop – using the slip roads usually causes considerable delays when I travel
Brighton, 28/29

Make the buses not stop along the A27
Brighton, 28/29

Q14. Which one or two of the following is the most important thing to improve when it comes to your journeys on this part of the route? Base: 28/29 passengers (266)

Q19. And overall, what one thing would you like to see improved on this bus journey? Base: 28/29 passengers (266)

During the focus groups, additional and extended bus lanes were spontaneously suggested as necessary improvements

Bus lanes were seen as a useful way of protecting traffic from event-related or peak-time delays, particularly around known areas of congestion such as Falmer.

As with Bristol, however, car users may value reassurances that 'bus-only' improvements will make a significant and lasting improvement to the route without unduly burdening those who drive.

Places to park near bus stops outside the city centre were suggested, but with less support than in Bristol

As with Bristol, there was a general sense that parking in the city centre is difficult. Those who did suggest parking pockets tended to view it from the perspective of easing city congestion rather than improving the situation on the A27 itself.

What we want is free parking near the bus stops, then you get your bus, and you get a better environment in town.

Brighton, 28/29, Middle-Aged, Frequent

Friends of mine say that the traffic is so much worse since the bus lanes since you've got half the road not being used. You might as well get everyone through quickly rather than allocate one lane to something that's going to be used once every five minutes

Brighton, 28/29, Younger, Infrequent

I wonder if it's possible for Brighton to do like a park and ride, get the buses out of the city and provide really good service into town.

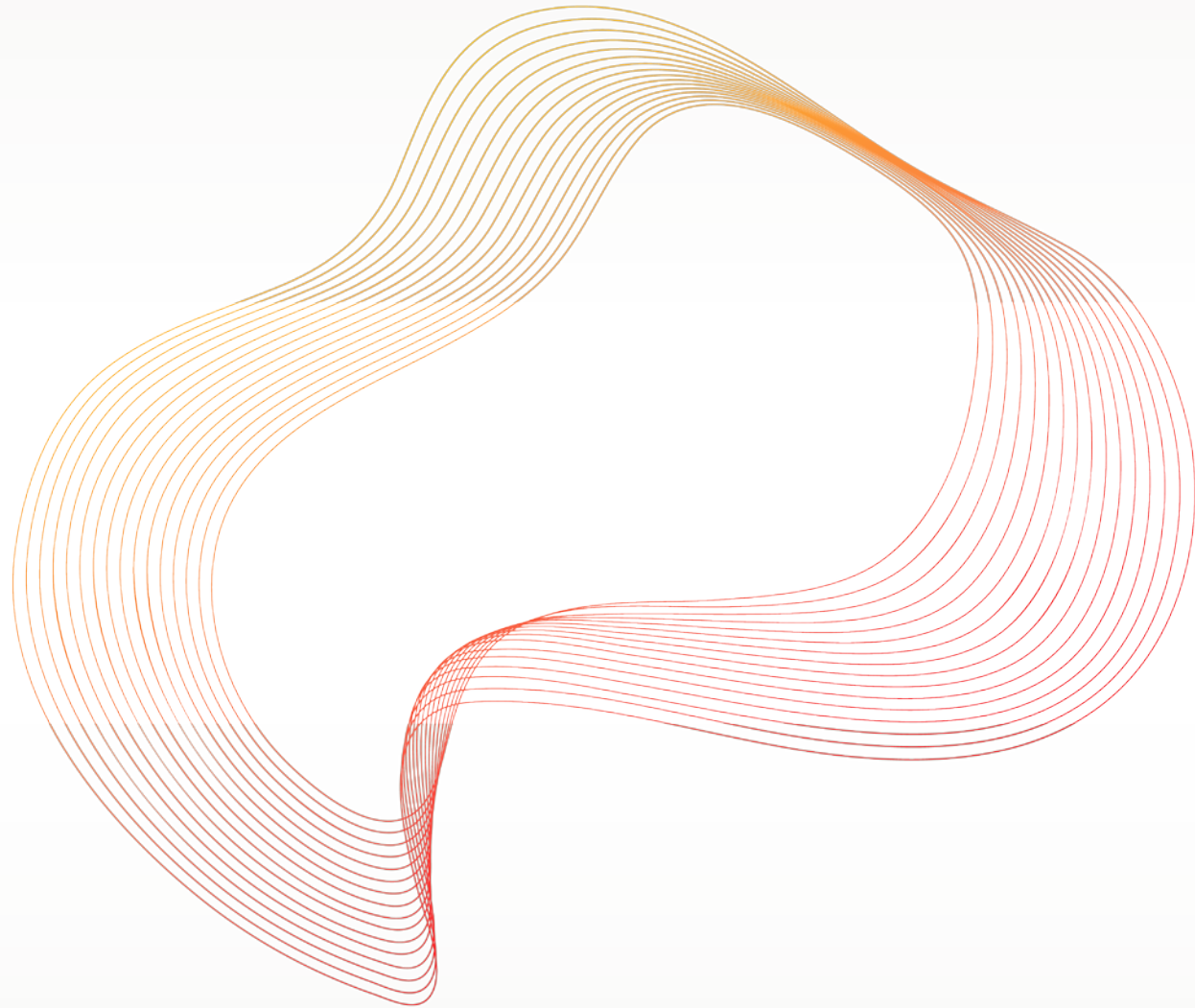
Brighton, 28/29, Younger, Infrequent

I drive down to Southdown, park the car and then get on at Southdown Avenue

Brighton, 28/29, Middle-Aged, Frequent

The main draw is the priority bus lane. I weighed up whether to continue driving or whether to get an annual ticket, and when the buses overtake you on Lewes road you're like 'I'm getting the bus.'

Brighton, 28/29, Middle-Aged, Frequent



Improvement propositions

Respondents were shown improvement propositions during the additional focus groups

Adding signage and traffic lights at junctions on the B2123

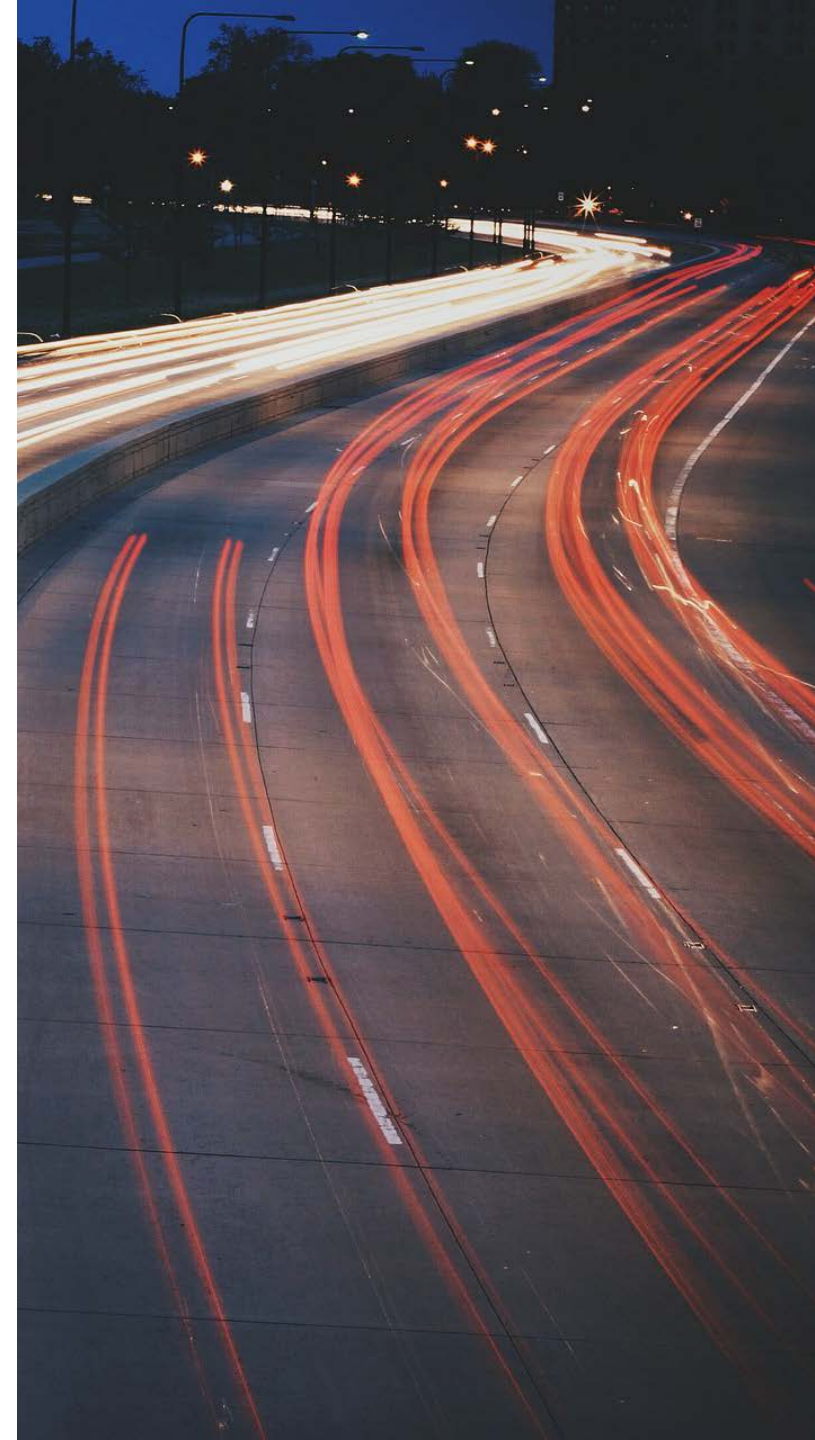
Extending and adding bus lanes

Changing speed limits

Upgrading bus stops (including signage to alert to buses merging into the traffic)

Amending crossings (including signage to alert vehicles to pedestrians / cyclists)

Adding places to park near bus stops



Traffic lights were seen as an effective way to deal with congestion linked to the university and stadium

There was broad agreement that Falmer posed significant issues, particularly during the evenings as students leave the university.

While adding traffic lights at the junctions caused some initial confusion among the groups, once explained, it was felt that **cars attempting to traverse the roundabouts** can lead to **queueing** and delays that impact the buses.

The concept of using **'smart' signalling** was well-received, with many assuming that 'coordinating' the B2123 would improve traffic flow.

Indeed, one A27 driver spontaneously suggested that this would improve the situation.

It is absolute chaos up there, from Woodington up and over to the University

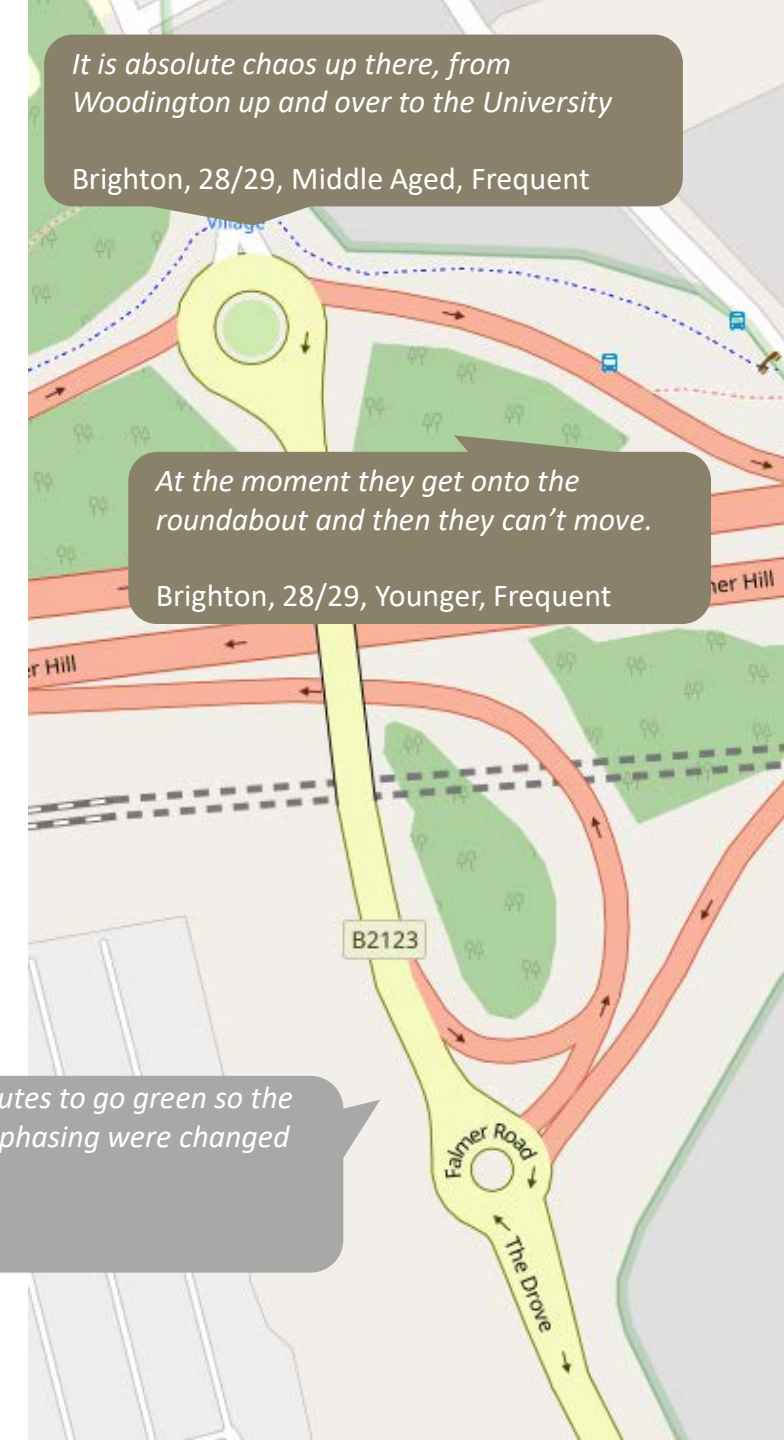
Brighton, 28/29, Middle Aged, Frequent

At the moment they get onto the roundabout and then they can't move.

Brighton, 28/29, Younger, Frequent

The traffic lights can take 3 or 4 minutes to go green so the traffic builds up really quickly. If the phasing were changed it would definitely help a lot.

Bus Driver, 28/29



Bus lanes were very well received as potential improvements in Brighton

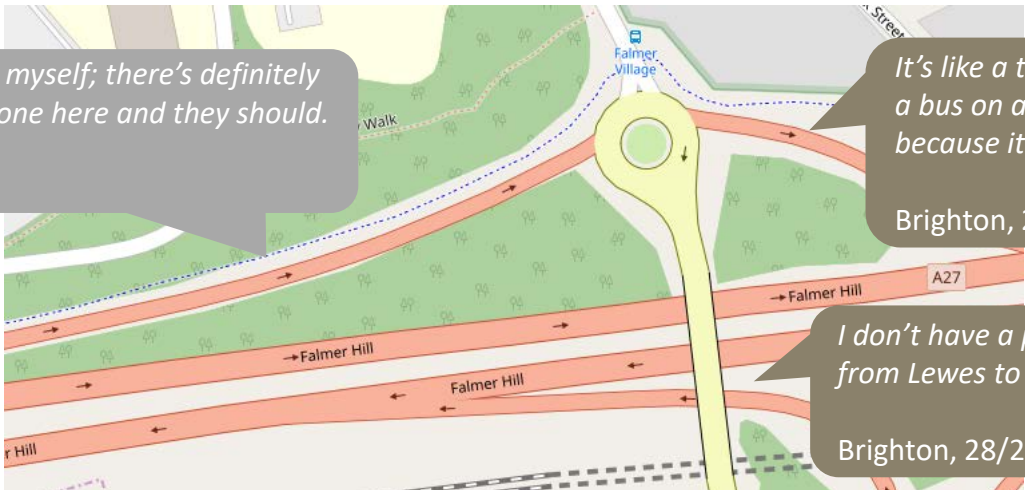
Bus lanes are generally understood as a key advantage of buses that should be implemented wherever possible

Exiting Brighton was identified as a greater problem than returning from Lewes

- Respondents were particularly positive about the prospect of a bus lane on the **eastbound slip road** as it approaches the B2123.
- The roundabout was identified as a particular pinch point, owing partly to the **University of Sussex**

In principle, extending bus lanes was felt to offer a smoother, more reliable journey.

- Some respondents were concerned about the potential time and disruption additional bus lanes might entail due to **roadworks**.
- However, most Brighton respondents were strongly in favour of bus lanes, making buses **less vulnerable to traffic** in their view.



I measured it myself; there's definitely room to add one here and they should.

Driver, 28/29

It's like a train; a train can only be on its track and a bus on a bus lane is going to generally be on time because it's not affected by traffic as much

Brighton, 28/29, Middle-Aged, Frequent

I don't have a problem with the Falmer stop going from Lewes to Brighton, it's just Brighton to Lewes

Brighton, 28/29, Younger, Frequent

Lowering the speed limit in Brighton was less well-received

Many passengers felt this change would be frustrating for them as car drivers

- **Many felt that reducing the speed limit would hinder cars without helping the buses**
 - Some were persuaded that a fast traffic flow cleared congestion from the roads more quickly
 - In addition, others felt that traffic along the A27 rarely travels at more than 50 miles per hour in the first place, making the benefits feel unclear
- **More concerning was the idea that the change in speed limit would be abrupt.**
 - Passengers worried that cars would be required to stop and start suddenly across the route which, they argued, could lead to accidents or delays.
 - For car drivers, there was a sense that reducing the speed limit would bring the rest of the traffic 'down' to the speed of the buses without improving the journey.
- **Again, few were sympathetic about the issue of bus stop integration and few saw a speed limit reduction as necessary**

I don't see what reducing the speed would do on a stretch of road that's generally the best part of the route...

Brighton, 28/29, Younger, Frequent

If I were regularly driving between Lewes and Brighton and the speed limit suddenly dropped from 70 to 50 I don't think I'd do it unless there were cameras!

Brighton, 28/29, Younger, Frequent

I just think that allowing people to go as fast as the national speed limit along the A27 does potentially mean they'll get off the roads sooner and get out of the way sooner.

Brighton, 28/29, Younger, Frequent

The prospect of improving bus stops along the A27 was met with mixed approval

Many were unsure whether the stops were being used enough to merit improvement. Some would prefer to remove them altogether.



Falmer on slip road

- A more popular bus stop that more passengers used frequently
- Strong recognition from bus drivers that the run-up to the stop was too short
- Removing foliage and widening the road were key priorities

It's not a big problem because not many people use that stop. It's another one of those stupid ones you could knock out.

Brighton, 28/29, Middle-Aged, Frequent



Housedean Farm

- Felt to be primarily used by campers and backpackers
- There was general recognition of the dangerous nature of crossing the A27
- Developing a safe pedestrian access route was seen as useful, as was removing foliage from the stop

Oh, gosh, that's not very safe...

Brighton, 28/29, Middle-Aged, Frequent

Ashcombe Hollow

- There was very little recognition of the food van at Ashcombe Hollow posing an issue, either among drivers or passengers
- Some sense that the surrounding area was unsafe; this was not a stop that people would like to wait at themselves

If something is that obscure, if you're going to keep that stop there in a dodgy area, you want some security, something to alert somebody if you were worried about something...

Brighton, 28/29, Middle-Aged, Frequent

The prospect of a parking pocket on the A27 was poorly understood

For Brighton passengers, most of whom were non-drivers, the benefits were unclear

Some were concerned that placing a parking pocket near Ashcombe Hollow would create **new pockets of congestion** in addition to those already highlighted.

Younger respondents felt that there was a **public interest in discouraging car use** when a bus is available.

Older respondents noted that there would be space for the development in the field by the food van, but highlighted **security concerns** given the lack of lighting around Ashcombe Hollow and its relative unfamiliarity.

UK public transport has been there for hundreds of years. Why would we encourage this kind of behaviour?

Brighton, 28/29, Younger, Frequent

We had this in Washington D.C. – But here the distance is so short that it might not be enticing for people

Brighton, 28/29, Younger, Frequent

My experience of park and rides are that they're not very secure; they're all very exposed, quiet places

Brighton, 28/29, Middle-Aged, Frequent