Guildford Borough Council and Surrey County Council

Guildford Town Centre Bus Study

Technical Note on Existing Conditions

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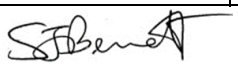
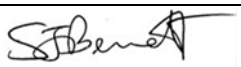
		Signature			
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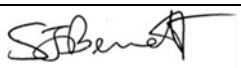
		Signature			
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1 Introduction

The Friary/North Street development is an opportunity to bring increased footfall and spend to the town centre. However, the developer has reported that the bus station cannot be accommodated for reasons of development viability. In order to maintain accessibility (access to jobs and retail facilities, affordable transport for those with mobility difficulties) and encourage more sustainable movement in the town centre (through ease of access to a comprehensive intra-urban bus network and park and ride services) the bus stop and stand arrangements may have to be accommodated elsewhere in the town centre. It is essential that any changes have a positive impact on bus services and bus passengers.

With this in mind, the first step in the Guildford Town Centre Bus Study is this technical note on existing conditions which focuses on:

- A summary and critical appraisal of existing background information, policy directions and priorities. A number of previous studies have been undertaken relating to transport and movement in Guildford town centre, as well as studies of the bus station itself. This material has been appraised and used as a starting point for an analysis of the existing bus network.
- Existing timetables and route maps for each bus route in each direction. This is essential to understand the facilities that need to be re-provided with any new arrangements and how provision could be expanded to support and encourage economic growth. It includes discussion of layover requirements, passenger and driver facilities.
- The highway network assumptions and constraints underpinning the selection of alternative bus stop and stand arrangements. Proposed development at The Friary/North Street may have an impact on the highway network, as will the planned changes to the gyratory.
- How changes to buses in the town centre can further the plans for the Sustainable Movement Corridor (SMC) and deliver improved connectivity at Guildford railway station. This sets out the prospects for use of the Station Square transport hub for relocation of some bus stop and stand facilities.

2 The Economic Benefit of Buses to the Town Centre

Buses are valuable to town centre economies. A number of studies have been done to demonstrate the direct and indirect benefits that they bring.

2.1 Buses and Economic Growth (ITS University of Leeds, 2012)

The National Travel Survey results for 2010 showed that 22% of bus journeys per year were journeys to/from work, 26% were shopping trips and 21% were leisure trips. The most recent study of bus passengers in Guildford (Colin Buchanan, 2003), found that the main trip purposes were shopping (33%), work (30%), education (14%) and leisure (5%). Although this study is now thirteen years old, current trends are expected to be similar.

The ITS University of Leeds study undertook an internet survey to examine respondents' last shopping and leisure trip by bus. This included whether the trip was to a city centre or not, the types of things or activities they spent their money on, the size of the group they were in and how much the group spend was. From this they derived an estimate of the average retail and leisure spend per person shopping and leisure trip.

The study found that grocery shopping and shopping for personal items dominated retail activities undertaken by bus, with an average retail spend of £29.66 per person per trip in the sample. Apparent differences existed by gender, age, whether the shopping was undertaken in the city centre and by household income quintile. However, only the differences by age were statistically significant: those aged 60 years and over spent less per retail trip than other bus users.

Eating, drinking and socialising were the dominant leisure activities undertaken by bus users, with an average leisure spend of £26.26 per person per trip in the sample. Leisure spend was negatively skewed, making it apparent that a lot of leisure activities can be undertaken for no or minimal costs (e.g. a walk in the park or a trip to the library). As with retail spend, differences existed by gender, age, whether the shopping was undertaken in the city centre and by household income quintile, however, none of these differences were statistically significant.

Of the shopping activity recorded, 81.2% occurred in city or town centres, whilst for leisure activities, 72.1% occurred in city or town centres. The study demonstrated how buses support town centre economies, particularly town centres with good retail and leisure opportunities such as Guildford.

2.2 The Case for the Urban Bus - The Economic and Social Benefits of Investing in the Urban Bus (PTEG, 2013)

The study area covered six PTEs, which between them serve more than eleven million people in Greater Manchester (Transport for Greater Manchester), Merseyside (Merseytravel), South Yorkshire (SYPTE), Tyne and Wear (Nexus), the West Midlands (Centro) and West Yorkshire (Metro).

The study report found that in areas covered by the Passenger Transport Executives (PTEs), bus networks are estimated to generate over £2.5 billion in economic benefits against public funding of £0.5 billion. Around £1.3 billion of this reflects user benefits from access to jobs, training, shopping and leisure opportunities. The remaining benefits accrue to other transport users and society at large, through decongestion, reduced pollution and lower accident rates.

According to results, the national travel concession for older and disabled people generates £1.5 of benefits for every £1 of public money spent. A proportion of these benefits accrue to other transport users and society at large rather than to those who benefit from the concession.

As such, the report concluded that buses provide exceptional value for money in terms of the return on public investment and support, given the way in which expenditure on bus generates extensive and multiple overlapping benefits for every pound spent.

2.3 An Economic Evaluation of Local Bus Infrastructure Schemes (KPMG for Greener Journeys, 2015)

This study assessed the extent to which bus infrastructure schemes had met objectives and targets, and whether they had delivered value for money. The research focused on the following three local bus infrastructure investments as case studies:

- **Fastway in Surrey and West Sussex**: a £38m bus priority scheme delivered over four years. Key aspects of the scheme were a new bus-only link and dedicated bus lanes (created by widening existing highways) including sections of segregated bus way with kerb guidance. The scheme aimed to address existing issues with service availability, speed, vehicle design and fares.
- **Mansfield Public Transport Interchange**: an £8.5m scheme to build a new, fully enclosed bus station building with an 80m footbridge connecting to the railway station. The scheme also included a new signalised junction, taxi provision, cycle parking and improved walking routes to the town centre. The scheme aimed to address issues with the existing bus station including weather protection, personal safety and security of passengers, especially at night, operational safety, accessibility and links with the town centre.

- **South East Hampshire Bus Rapid Transit (Eclipse) – Phase 1**: a £25m scheme which included an off-road bus way along an old disused railway line, new bus shelters with CCTV, real time passenger information and cycle parking, and other infrastructure measures. The bus operator also provided a new high quality fleet to serve the BRT route. The objectives of the scheme centred around improving public transport access to employment (existing and future), public health services, tertiary education and the North Fareham Strategic Development Area (SDA). The scheme was also implemented to improve the overall quality of public transport provision and to help to meet AQMA requirements.

Most of the targets set for the schemes related to patronage growth, traffic levels, reliability and journey times, new users, accidents, and customer satisfaction. In general, the schemes met or exceeded targets (sometimes significantly), although there were a couple of targets that the schemes fell slightly short on. To summarise:

- The Fastway significantly exceeded its patronage growth target, journey time reduction target and traffic growth target. It did not quite reach its reliability target.
- Mansfield Public Transport Interchange exceeded its patronage growth target but failed to meet its customer satisfaction target, and slightly failed on its accidents target (although the result cannot be robustly attributed to the new interchange).
- South East Hampshire Bus Rapid Transit significantly exceeded its patronage growth target and met its journey time reliability target.

In some instances, the schemes also made improvements in areas which had not had a target set for them. Figure 1 shows the wider economic, social and environmental benefits that can result from bus infrastructure improvements.

Figure 1 Economic, social and environmental impact of investment in local bus infrastructure

2.4 Bus Infrastructure and Growth in Patronage

Given the link between bus patronage and economic growth, even small changes that benefit bus accessibility can result in substantial improvements. For instance, Bristol bus station was redeveloped in 2006 to improve the environment for passengers and also improve bus operational efficiency. Then in 2013, Bristol City Council appointed Arup to undertake a review of the key public transport road corridors in the Greater Bristol area to inform future investment strategy. The scope of the review was to effectively undertake a 'gap analysis', whereby the core bus services serving Bristol were analysed to identify where weaknesses existed. In addition, there were a number of improvements to the vehicles, including the use of more environmentally friendly buses, which became a tourist attraction in their own right. As a result of these improvements, the Mayor of Bristol has reported a 25% increase in bus passenger numbers in Bristol over the last ten years, with an additional 70,000 passengers per week reported by FirstGroup in the last two years[1].

[1] Presentations by George Ferguson (Mayor of Bristol) and Giles Fearnley (FirstGroup), UK Bus Summit, 11 February 2016

Valence in France has seen a similar success story. Valence is a town with a population of around 60,000. In 2009 the operator redesigned the bus network. The revised network offers a very simple core network of three cross city lines (Citė 1, Citė 2 and Citė 4) replacing six separate radial services. The services mostly operate at a frequency of every ten minutes. All the services now cross at a city centre bus interchange street, such that passengers can seamlessly transfer between services to achieve anywhere-to-anywhere journeys. Recent published literature indicates that a 5% increase in revenue occurred within three months of the re-modelling[2].

These examples show that relatively small interventions to improve bus accessibility can result in major growth in passenger numbers. When taken with the research demonstrating a link between bus trips and town centre economic prosperity, we can expect that a growth in bus patronage means a growth in retail and leisure spend. The important point to note is that bus accessibility is key – the nature of the bus infrastructure is less important than the principle of improving connectivity.

2.5 Conclusion and Implications for Guildford

There are several implications for the Guildford town centre economy:

- Applying the proportions of retail and leisure trips, spend per retail trip, and spend per leisure trip set out in the ITS Leeds University study, the estimated 29.2 million bus passenger journeys per year in Guildford results in £226 million spend on retail and £162 million spend on leisure activities per year.
- Congestion costs businesses and individuals; targeted investment in local bus infrastructure and selective priority measures can improve the performance of the transport network and support economic growth. This was the case with the new Haymarket Bus Station in Leicester that was opened on 8 May 2016, where one of the main objectives of the scheme was to reduce bus queuing and congestion. A total of £13.5 million was spent of which £3.5 million was through a successful bid to the Department for Transport Local Pinch Point Fund, designed to remove bottlenecks on the local highway network which are impeding growth.
- The creation of high quality public transport interchanges can act as a catalyst for redevelopment and growth.
- Bus services support town centre retail and leisure spending, so accessibility by bus is important to promoting economic activity.
- Improved bus connectivity has wider economic, social and environmental benefits.
- The relatively low cost of bus infrastructure projects represents good value for money in terms of return on public investment and support.

[2] Bus and Coach Smart Move: Best Practice: Added Value at http://www.busandcoach.travel/en/best_practices/for_business_managers/added_value.htm

- Reducing barriers to travel (e.g. by improving bus services) can enable businesses to better connect with potential customers, suppliers and a wider pool of talent in the labour market. It can make it easier for individuals to participate in the labour market, access a wider range of jobs, and connect with leisure and retail opportunities.

3 Review of Existing Background Information

3.1 Policy Priorities

A number of previous studies have been undertaken relating to transport and movement in Guildford town centre. These help to indicate the political priorities and planned changes for the town centre.

3.1.1 Guildford Borough Transport Strategy (GBC, 2016)

The Guildford Borough Transport Strategy (2016) proposes a programme of schemes covering all modes of surface transport in the borough. This transport strategy will be used to support bids to Government, the Enterprise M3 Local Enterprise Partnership and other parties for investments.

In order to enhance the opportunity for making sustainable mode choices, the programme identified several key bus transit infrastructure and services associated with the town centre. They are as follows:

- The new Sustainable Movement Corridor as an 'anticipated improvement' to provide fast and reliable bus journeys in the Guildford urban area. The plan seeks to connect key destinations including the town centre, rail station and existing urban communities. GBC anticipates the delivery of this corridor from the west of the town by 2020.
- Relocation of the Guildford town centre bus facilities either partly or wholly off the North Street site.
- As an 'aspiration', GBC hopes to have fully integrated passenger transport ticketing across all bus and rail operators in the future.

The overall strategy target is to increase bus patronage and bus modal share in the borough.

3.1.2 The Guildford Town and Approaches Movement Study (Arup, 2015)

Arup undertook the Guildford Town and Approaches Movement Study (GTAMS) in 2014-15. This study identified that 20% of households in Guildford do not own a car and therefore public transport is important for future growth. It recommended:

- A new part-segregated public transport priority route linking key locations in the town – the 'sustainable movement corridor'– including green land bridges at certain crossing points;
- Bus priority and corridor improvements – segregation, signalling priority and bus gates at pinch-points, customer information systems and other stop improvements;
- Integration of public transport;

- New and expanded park-and-ride facilities, including potentially on the northern edge of the town to attract car journeys on the A320, A322 and A323; and
- Improved bus connections to both Heathrow and Gatwick airports, possibly using demand-responsive technology.

The 'sustainable movement corridor' (SMC) would be a priority public transport route through the town, providing for fast and direct connections between key locations, with an interchange hub at the railway station, or at least clearly-signposted and direct pedestrian links. The SMC would be used by buses in the short term and by Bus Rapid Transit or trams in the long term. This supports the concept of Station Square as an alternative bus stop and stand facility.

3.1.3 Guildford Town Centre Masterplan Vision (Allies and Morrison, 2014)

The Masterplan vision sets out 'big ideas' for Guildford town centre, focusing on removing the gyratory, making the river a more prominent asset, introducing pedestrian-friendly streets, instigating new connections (pedestrian bridges, new railway station, hopper bus service), and supporting commercial and residential development in the town centre.

There are a number of potential options which could support these priorities:

- Station View could be extended and improved to provide a rapid bus link to the University, Hospital and Surrey Research Park as part of the proposed Sustainable Movement Corridor;
- A new bridge could create a strong link from a new Station Esplanade towards the town centre via Bedford Road, improving pedestrian accessibility;
- Traffic could be removed from Bridge Street creating a pedestrian and cycle link, shared with buses;
- A new mixed-use development could be built on the existing car park site at Bedford Road, incorporating a mix of leisure and residential uses, creating 'Bedford Wharf';
- The Friary Bridge could be remodelled to provide two-way working for all vehicles, along with a further footway on the southern side;
- New riverside development could be promoted, including retail and residential offers, in order to open up access to the river, provide riverside walkway and improve town centre permeability; and
- Implementation of a signage and routing strategy to guide traffic away from the town centre and to restrict HGV access.

The Masterplan was adopted in March 2015 and now forms part of the evidence base for the Guildford Local Plan.

3.1.4 The Guildford Borough Proposed Submission Local Plan: Strategy and Sites (GBC, ongoing)

The Proposed Submission Local Plan: Strategy and Sites (henceforth referred to as 'the Proposed Submission Local Plan') identifies the spatial development strategy for the borough up to 2033. The Plan builds upon the Guildford Borough Local Plan Strategy and Sites Issues and Options (2013), Draft Guildford Borough Local Plan: Strategy and Sites (2014), Existing Local Plan (2003) and evolving evidence base. The Proposed Submission Local Plan is currently under review by Guildford Borough Council and is due to be approved for formal public consultation at the start of June 2016.

The Proposed Submission Local Plan promotes alternative ways of moving around the borough. It identifies opportunities locally to improve the experience of arriving in and leaving Guildford town centre for bus and rail users, to improve the walking and cycling experience in built up areas, and to improve links between these and surrounding destinations.

The strategy proposes that this could be achieved through improving interchange between bus and rail services at Guildford, improving the highway network to increase bus usage, and expand Park and Ride services in order to support business growth and reduce traffic congestion in the town centre.

This supports the use of Station Square as an enhanced bus stop and stand facility, but also identifies the need for more stops and stands to accommodate growth in Park and Ride services.

The Proposed Submission Local Plan also highlights the opportunity for the existing Guildford bus station to be located either partly or wholly off the North Street redevelopment area. Furthermore, if the proposed arrangement involves on-street provision of bus stops and waiting facilities, then consideration is required to the interaction with other uses (i.e. pedestrians, deliveries and servicing, and parking).

3.1.5 The Guildford Borough Infrastructure Baseline (GBC, July 2013)

The Guildford Borough Infrastructure Baseline (2013) sets out the challenges and potential plans for buses in Guildford town centre.

Bus services in Surrey are operated by approximately 30 bus operators. These range from community transport operators to small independent companies to subsidiaries of large international passenger transport operating groups. National Express Coaches operate a London to Portsmouth coach service which stops in Park Barn in Guildford and a coach service to the Central Bus Station at Heathrow Airport. Guildford is the only Surrey town where a Park and Ride network has been implemented. This emphasises both the importance of bus services in Guildford but also the complexity of catering for the various services.

Most of the bus routes in the borough converge on Guildford bus station, although this is less true for bus routes passing through the Blackwater Valley area of the

borough. The bus station is located on Commercial Road close to the main shopping areas of the town and a short walk from Guildford rail station. The present appearance of the bus station is poor, with backward looking buildings on the perimeter and corrugated iron bus shelters. It makes a poor first impression and does not offer a pleasant, welcoming experience to the town for bus passengers.

From the north, the main roads used by buses to access the town centre are Woodbridge Road/Onslow Street and Stoke Road/Chertsey Street. Buses accessing the town centre area from the east do so primarily via Epsom Road and London Road. On each of these approaches, traffic congestion affects bus route efficiency and effectiveness. There are some short stretches of bus lane in Guildford town; eastbound on the A25 Parkway and southbound on Onslow Street.

The Surrey TravelSMART project, funded by the Local Sustainable Transport Fund (LSTF), will deliver bus priority and corridor improvements along multiple corridors leading into Guildford town centre, which should speed up journey times and attract more passengers. In addition, three more Park and Ride sites are planned (Surrey Transport Plan: Implementation and Finance module (Surrey County Council, 2011)), with particular consideration likely to be given to sites along the northern and eastern approaches to the town.

3.2 Growth Assumptions

In order to ascertain the level of provision required for buses in Guildford town centre, it is essential to determine the projected population growth.

3.2.1 West Surrey Strategic Housing Market Assessment (GL Hearn, 2015)

According to the latest official 2012-based Sub-National Population Projects (SNPP), published by the Office of National Statistics in May 2014, the population of Guildford is expected to increase by 15% between 2013 and 2033. This equates to approximately 21,180 additional persons in the borough of Guildford by 2033.

Based on these population trends and the level of housing provision needed to support economic growth and improve affordability, the West Surrey Strategy Housing Market Assessment (SHMA) has projected a need for 693 dwellings per annum, broken down as follows:

- Initial demographic projections: 517 dwellings per annum;
- Supporting economic growth: 120 dwellings per annum;
- Improving housing affordability: 31 dwellings per annum; and
- Student growth impact: 25 dwellings per annum.

3.2.2 Planning applications for major developments in the town centre or on bus routes to/from the town centre

Several new developments are planned for Guildford over the next few years. These will increase demand for bus services in and around the town centre. The largest is the Guildford station redevelopment (also known as the 'Solum' scheme), which proposes 438 residential units, office space, retail, food and leisure outlets, in addition to a new station plaza and public realm improvements. This could add residential trips to the bus network, but also act as a trip attractor to the new amenities. The improved station environment would make bus to rail interchange more attractive. The application is due to be determined by summer 2016.

There are a number of smaller applications on bus routes into Guildford town centre, including an application at Alresford Road (a residential development of 134 dwellings) and at Old Portsmouth Road, Artington, (a residential development of 36 dwellings). Whilst not significant in themselves, the cumulative impact of these developments will increase the demand for bus services into Guildford town centre.

3.3 Previous Bus Studies

Several bus studies have been undertaken on behalf of the council. The summary of their final recommendations is shown in Table 1. Figure 2 shows all previously proposed locations for bus facilities in the town centre.

Table 1 Summary of bus study recommendations

Report	Recommendations/proposals
Colin Buchanan & Partners (CBP) 2003	Keep existing bus station but improve the interchange between the bus station and Guildford rail station
MVA 2011	New bus station at Bedford Road (south of cinema) and on-street stops around the town centre, specifically on the High Street
MVA 2012	• New bus station at Bedford Road (south of cinema) and on-street stops around the town centre • New bus station at new Friary development • On-street stops at new Friary development and around the town centre
MMD 2013	• New bus station at Bedford Road (south of cinema), with some on-street on North Street and Leapale Road

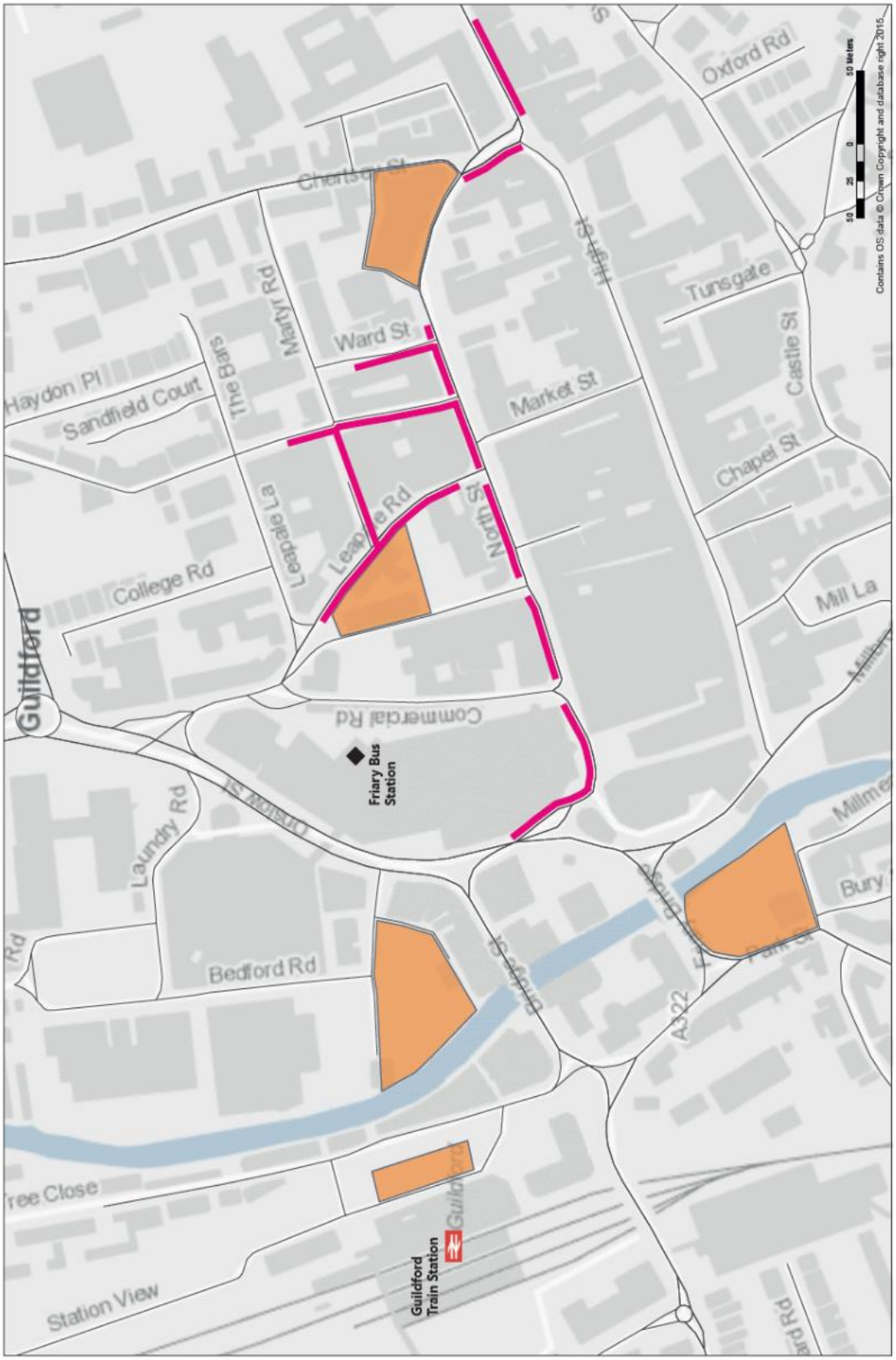


Figure 2 Previously proposed locations

3.3.1 Guildford Friary Bus Station Report (Colin Buchanan and Partners, 2003)

The 'Guildford Friary Bus Station' (2003) study examined the option of relocating the bus station, currently off Commercial Road, to Guildford rail station. The option comprised of redeveloping Guildford rail station to incorporate a transport interchange.

In order to assess the likely impact of this option, Colin Buchanan and Partners (CBP) conducted bus passenger surveys, passenger counts, and utilised bus operational data. The assessment concluded that the existing bus station should not be relocated to Guildford rail station due to the following reasons:

- Only 3% of bus station users interchange to rail at Guildford rail station so relocating the bus station would not make a significant improvement towards passengers' journey times.
- The final destination of the majority of bus station users is east of the River Wey in the town centre, for work and shopping purposes.
- Operationally, relocating the bus station to the rail station would potentially cause higher demand at town centre bus stops. The increase in boarding and alighting time at bus stops could cause delays to the network, crowding at stops and highway congestion.
- The cost associated with relocating was estimated to result in an additional operating cost of approximately £700,000 per annum (2003 value). This additional cost would likely have an impact on the bus services and cause service reductions, particularly for the smaller operators.

The study also indicated that there is limited opportunity to add more on-street bus stops in the town centre as this would be at the expense of other transport users. For instance, adding more bus stops on North Street would affect pedestrians while adding more stops on High Street would affect existing parking, delivery and servicing facilities.

Although this study was completed thirteen years ago, the overall trends are still relevant. Nevertheless, growth in bus services and car traffic, changes to rail services, and the changing nature of retail and employment in the town centre in the last thirteen years mean that the study conclusions and recommendations need to be reviewed.

3.3.2 Guildford Bus Station Study Options Report (MVA Consultancy, 2011)

Several options were analysed, with one hybrid option recommended. Each of the five options is listed in Table 2.

Table 2 Bus facility options

Single site	Split site	On-street only
Bedford Road	Railway station and Dolphin House	Leapale Street, North Street, High Street (East)
Dolphin House	Former Farnham Road bus station and on-street	

The preferred option proposed at the end of the study was a combination of two of the site options:

1. A new purpose built off-street bus station located on the site of the existing Bedford Road surface car park (part of a more comprehensive Masterplan for the Bedford Road area)
2. A set of high quality on-street bus stops located at the top of the High Street that form part of a wider public realm /traffic management improvement scheme for this location.

The proposed facility was due to serve as a partial replacement for the existing bus station, serving 87% of buses, with the rest (local buses) using on-street stops. Services travelling to and from the east of Guildford would be catered for by premium on-street stands situated around the junction of North Street and the High Street. The location of these stands was to ensure that the eastern end of the town centre retained a good level of accessibility if the main bus facility moved to Bedford Road.

The arrangement provided a theoretical capacity for between 92 and 128 buses per hour (bph), compared with a peak usage of 79 bph at the time at The Friary bus station. As such, the proposal allowed for operational contingency and future growth in the bus network.

This proposal assumed retention of the gyratory. The retention of the gyratory would mean that there would be minimal changes to traffic patterns as a whole, apart from the addition of signals for buses turning right onto Onslow Street. Another option was posited for a contra-flow bus lane in operation on Bedford Road instead of the signals.

3.3.3 Emerging Options and Refinements to Replacement Bus Station Designs (MVA Consultancy, 2012)

The ‘Emerging Options and Refinements’ study built on the work in the previous options exercise, as well as proposing some new options for relocated bus stop and stand facilities in Guildford town centre.

Designs for the Bedford Road bus station option were worked up in more detail, including measures to improve pedestrian access to the site and measures to increase internal bus queuing capacity.

The report also introduces a new option for the bus station. The Friary Interchange would be of a similar design to the current bus station but would be located on Leapale Road, with all buses approaching from the east via a new street connected to Haydon Place. A new mini roundabout at the end of Leapale Lane would allow enable buses travelling to the east to avoid the town centre, and this would also be used for buses arriving from the north/west of the town. New on-street stops would be constructed on the east end of North Street, and the entire west end would be pedestrianized.

An on-street option was also put forward in this study. The on-street plan takes the routings for the Leapale Road station option but uses on-street stops instead of a terminus building, thus requiring less land.

3.3.4 Guildford Bus Station Issues (Mott Macdonald, 2013)

The proposal put forward by the 'Guildford Bus Station Issues' report (2013) was for a smaller bus station to be constructed at Bedford Road, across the river from the railway station. The exact site was not specified by the study, but may be assumed to be the car park south of the cinema (Figure 3). It may also include be on, or include, the public space just outside of the cinema.

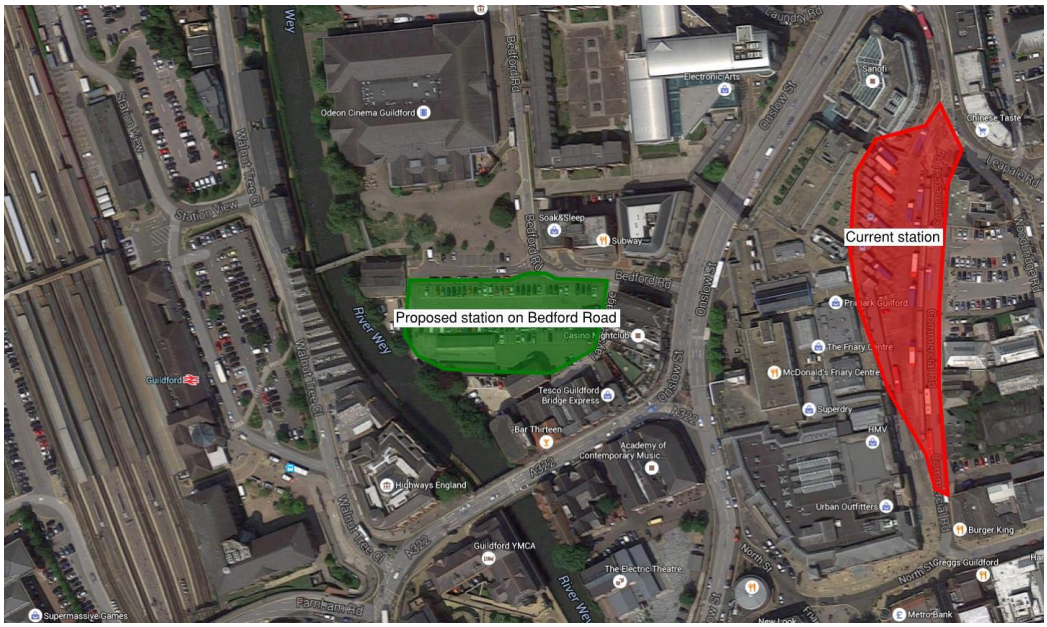
A major benefit of this proposal is the potential for a pedestrian-friendly link between the railway station and the city centre. A bus facility in this location would unite the two.

The focus of the town centre is due to move further west as a result of the ongoing town centre Masterplan work and so a bus station at Bedford Road would support this vision.

The proposal also recommends that all local and P&R buses make use of on-street stops around the city centre, mainly on North Street and Leapale Road. This approach would allow these services to reach more of the central area and also not take up valuable bays in the new bus station.

The new station would then be used by inter-urban buses, which typically require a longer dwell time, so bays are more necessary than they are for local services.

Figure 3 Potential Bedford Road bus station site



3.4 Conclusion

There is a significant amount of planning policy in place or in the process of being formulated for Guildford town centre, reflecting the potential for growth. The Guildford Transport Strategy, Guildford Town Centre Masterplan Vision, Guildford Town and Approaches Movement Study and Local Plan (with its supporting documents) acknowledge the importance of pedestrian links, improved traffic flows, better connectivity and permeability to supporting and enabling growth in the town centre.

The Office of National Statistics forecasts that the population of the borough of Guildford will increase by 15% to 2033, which is just over 1,000 people per year. The studies summarised in Section 2 emphasise the particular importance of bus passenger trips to town centre economic growth. Therefore, any proposals to relocate the bus stop and stand facilities from the current town centre bus station will have to support bus passengers and bus operators, in order for successful economic development in Guildford to be achieved.

Previous studies have identified possible options for relocating the bus station infrastructure. This Guildford Town Centre Bus Study will critique, assess and build on these options according to key stakeholder requirements.

4 Review of Existing Conditions

This section details the existing conditions of the bus network, bus facilities and bus infrastructure in Guildford town centre, with a particular focus on The Friary bus station. This is essential in order to understand the existing profile of bus usage and bus provision which will form the basis of identifying requirements for any relocated facilities.

4.1 Routes and Frequencies

Various bus services into Guildford town centre are in operation, as shown in Figure 4.

These include:

- Standard bus services (e.g. Service 24 from Guildford to Cranleigh);
- Park and Ride services (e.g. Service 200 from Artington Park & Ride site to Guildford town centre);
- Demand responsive services (e.g. the Farley Green Taxi Bus, a shared taxi scheme charging bus-type fares which must be pre-booked in advance); and
- Local business shuttle bus services (e.g. the dedicated courtesy shuttle bus service to Guildford Business Park).

Figure 5 shows the bus movements for buses approaching the town centre to the bus station from the north, east, west and south respectively. Due to the one-way system in operation in the town centre, buses have to do a loop when entering or exiting the bus station. This has mileage implications and results in possible delays to bus journey times, particularly as the gyratory experiences significant congestion at peak times.

Figure 6 and Figure 7 demonstrate the high level of bus capacity provided on the main corridors into/out of the town centre. They show the combined buses per hour in both directions. Information for the AM peak only is presented as this is when there is the highest level of bus provision in the week, according to timetable information. The ‘peak of the peak’ (i.e. the busiest hour in the peak three hours) in terms of bus frequency provision is 9:00 – 10:00, reflecting the retail profile of the town centre – both providing shopping and employment opportunities.

Bus usage data is expected from the operators. This will enable an analysis of how well capacity matches demand, and the level of boarding and alighting in the bus station during the peaks. Data provided in the Colin Buchanan report (2003) suggests that, in general, boarding figures are higher than alighting in the bus station, particularly for routes approaching from the east. This is because passengers tend to alight at the top of North Street, walk down the hill and do their shopping, before boarding again in the bus station at the bottom of the hill.

During the busiest AM peak hour (9:00 – 10:00), the majority of buses are coming from the north, east, and west of the town centre area. Bus services accessing the town centre from the north primarily travel via Stoke Road and Woodbridge

Road, reaching a bottleneck at Onslow Street. Bus services accessing the town centre from the east primarily approach from Epsom Road. This corridor provides 25 buses per hour (bph) in both directions. At North Street, bus services originating from the east provide 42 bph (two-way). Bus services originating west of Guildford access the town centre primarily via Guildford Park Road and converge with other routes at Farnham Road, near the gyratory.

A closer review of the AM pear hour bus frequencies within the town centre show the very high frequencies provided. The loop around the bus station, shown in Figure 5, means that up to 84 bph are provided on the eastern side of the gyratory. Bridge Street, Onslow Street and Woodbridge Road (between Onslow Street and the bus station) also provide very high frequency corridors, as these roads serve as the main routes for buses entering the town centre from the west and south of Guildford town centre. North Street (between Onslow Street and Commercial Road) is a high frequency corridor, with up to 45 bph. North Street is a critical route for buses approaching the town centre from the north, west and south of Guildford.

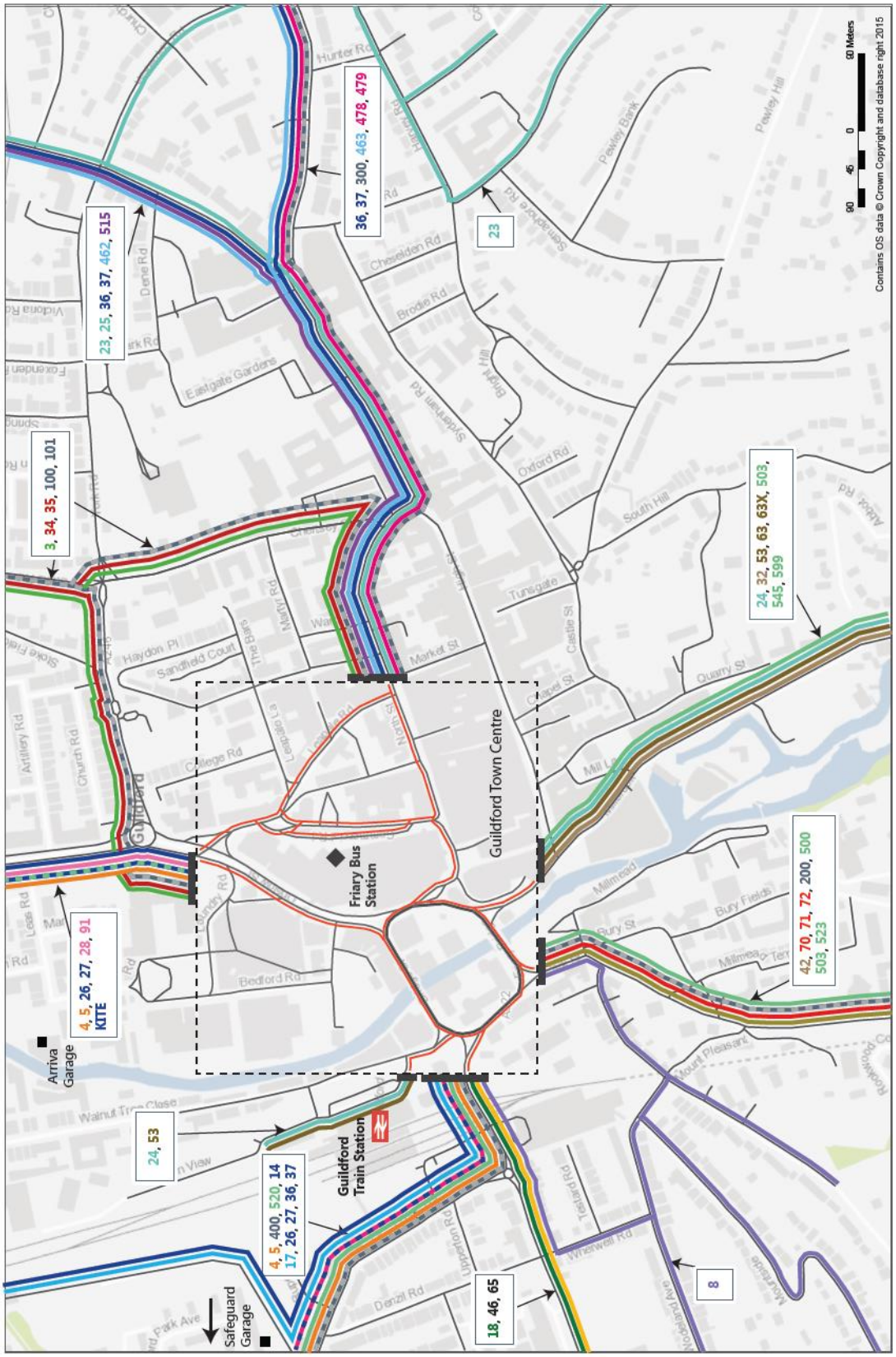
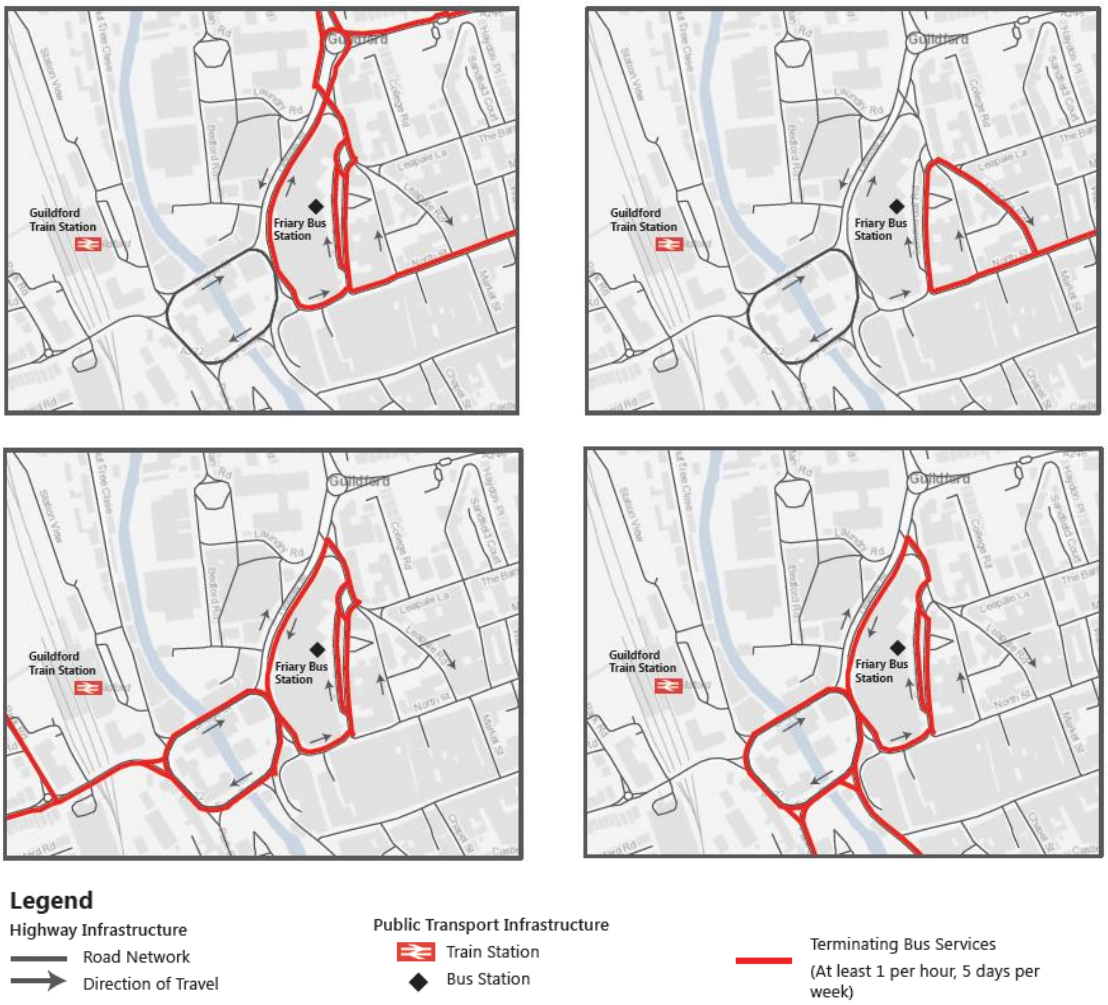


Figure 4 Bus routes serving Guildford town centre

Figure 5 Bus movements in Guildford town centre



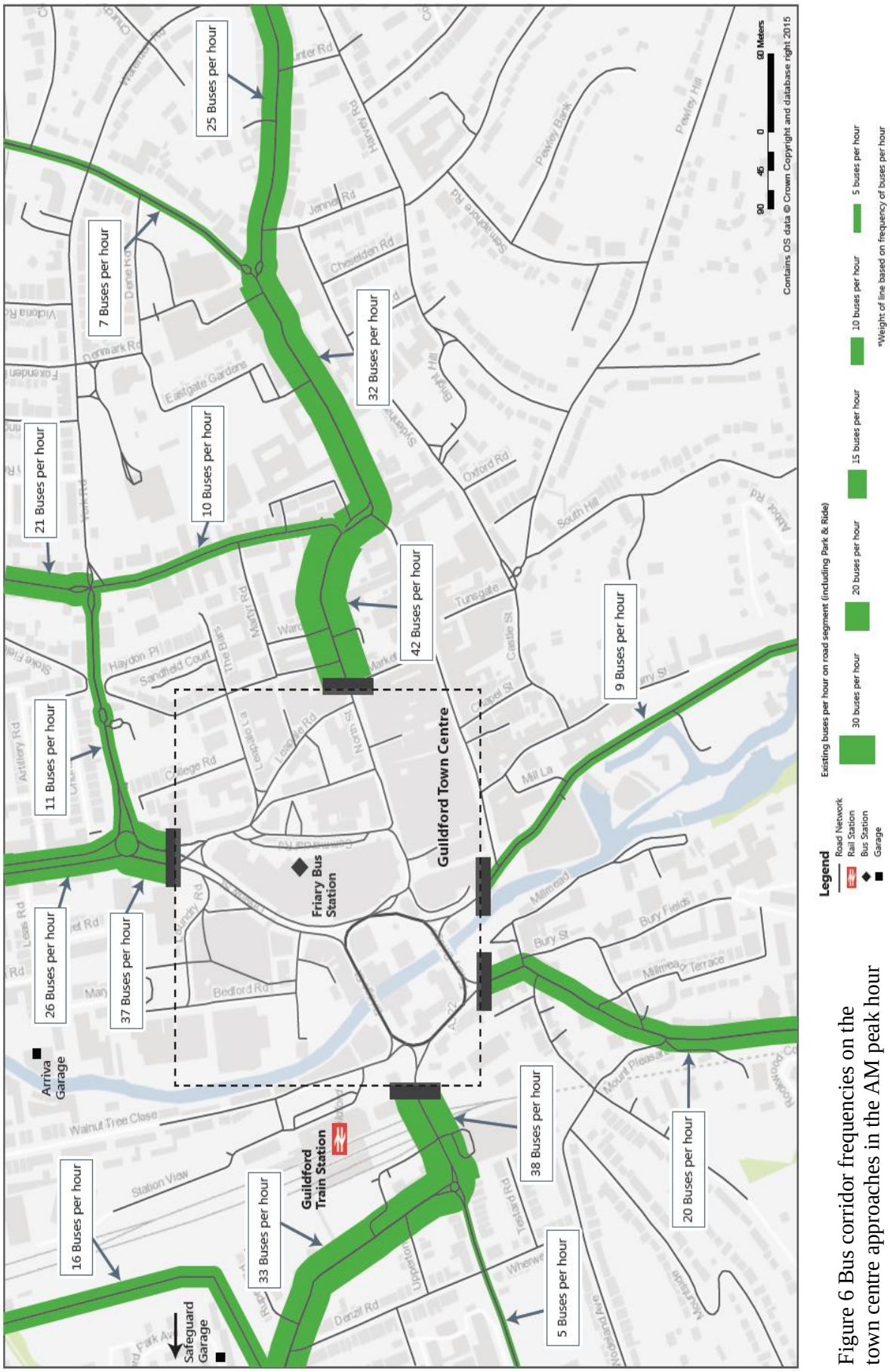


Figure 6 Bus corridor frequencies on the town centre approaches in the AM peak hour

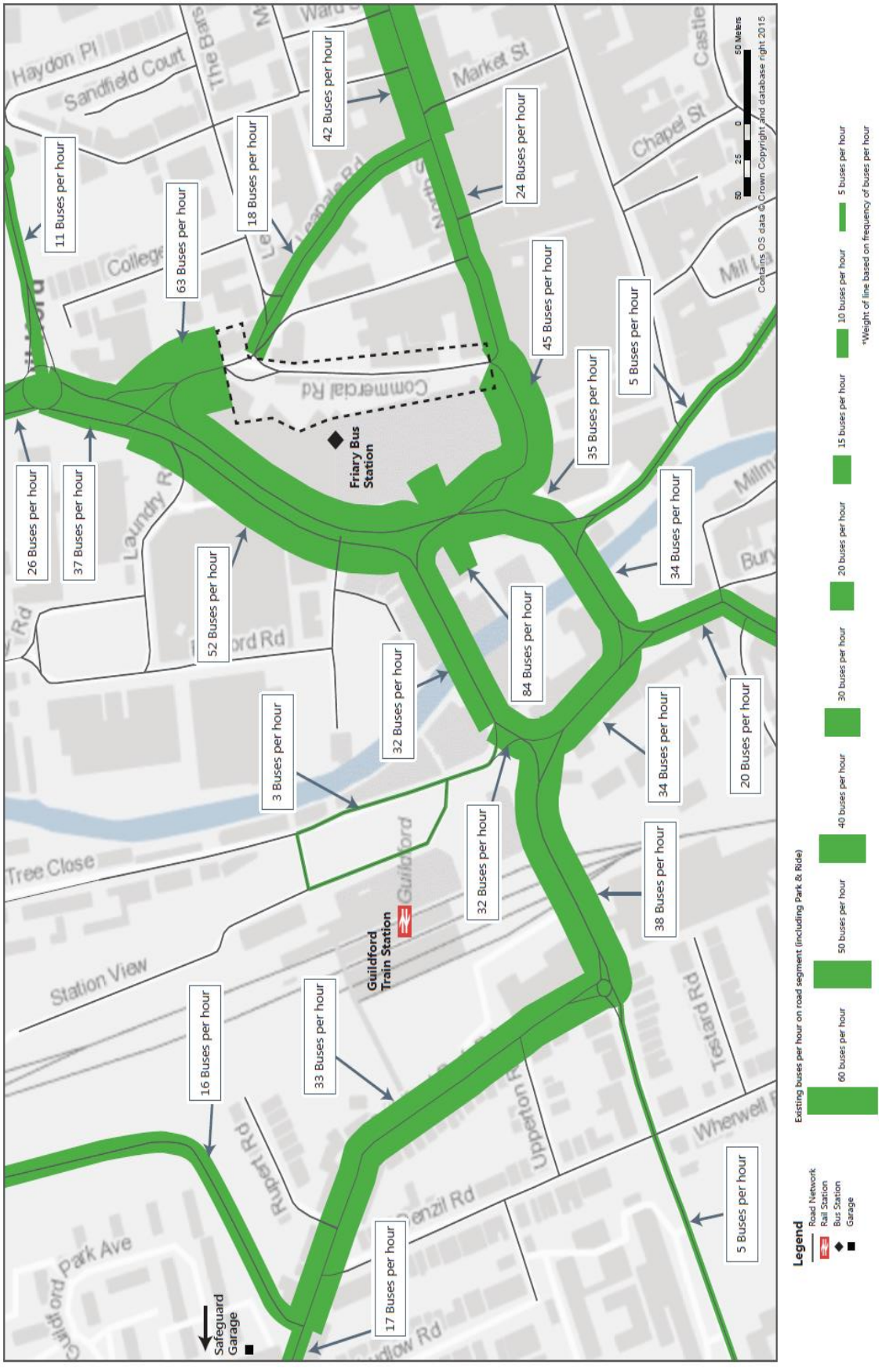


Figure 7 Bus corridor frequencies in Guildford town centre in the AM peak hour

4.2 Stops and Station Facilities

Bus stops are located around the town centre in a variety of locations (Figure 8) but the majority of routes serve the Friary bus station in addition to these stops (Figure 9).

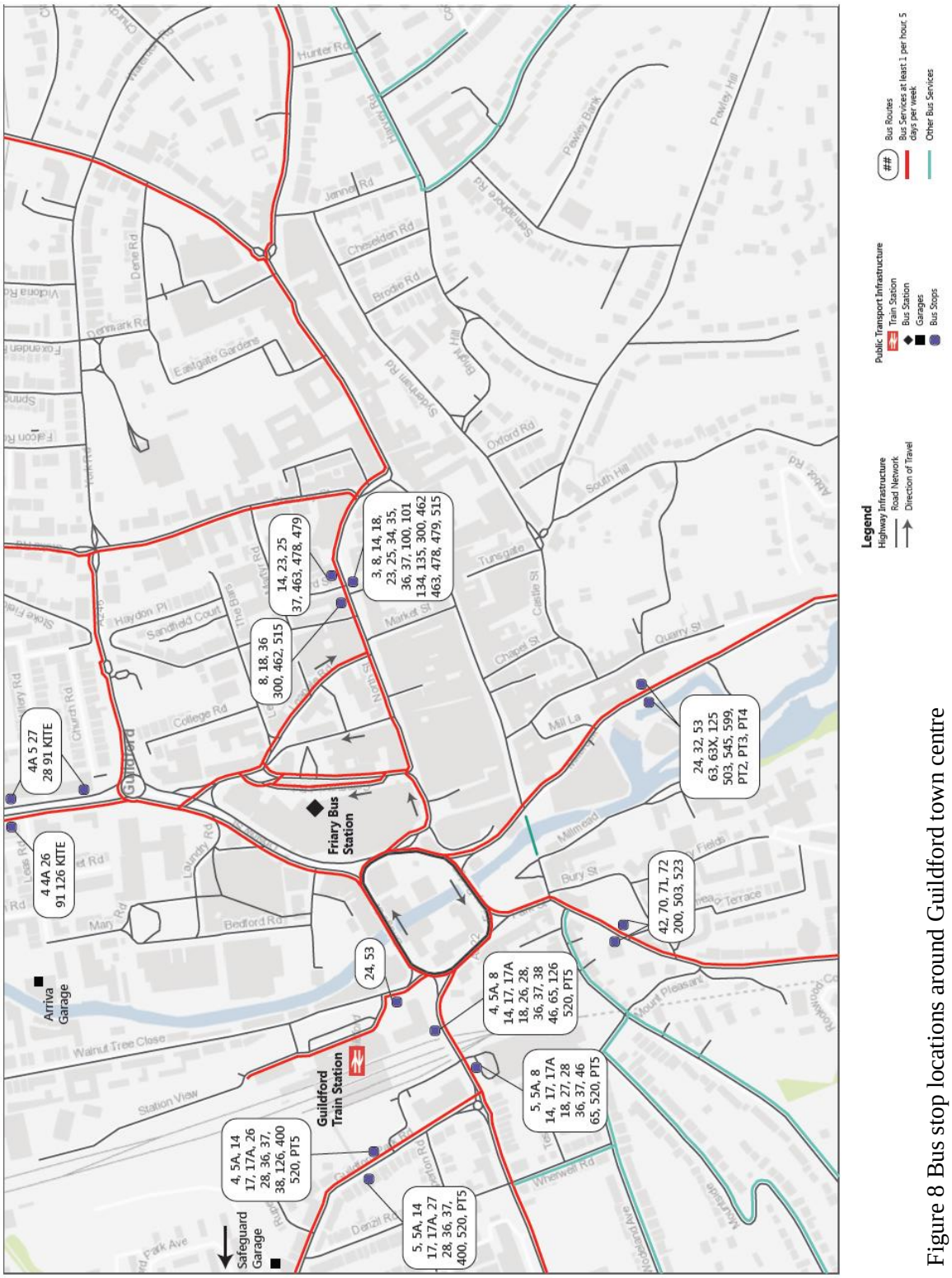
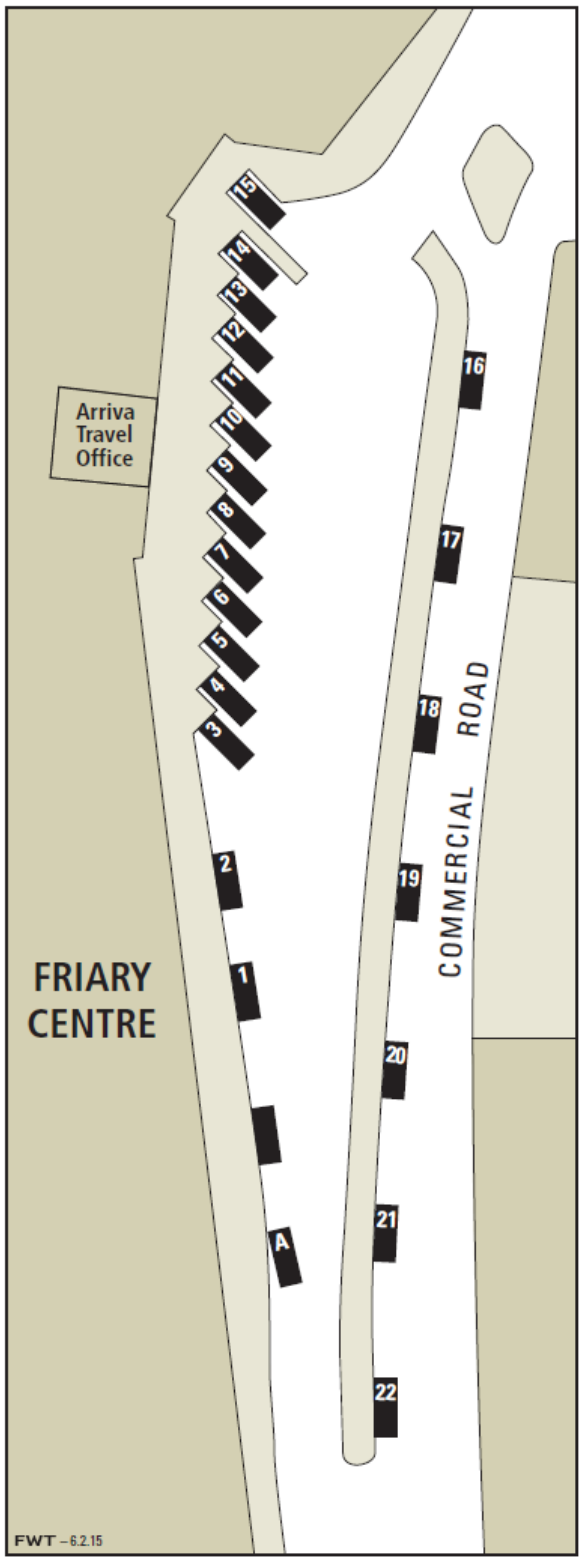


Figure 8 Bus stop locations around Guildford town centre

Figure 9 The Friary bus station* (Source: Travel Smart in Surrey)



Guildford Friary Bus Station

Stand Number	Route Number
1	200 Park & Ride
2	100 Park & Ride 101
3	70 71 72
4	18 24 42
5	46 65
6	34 35 91
7	53 63 63X
8	26
9	17 17A 28 32
10	27 36 37 *(to University)*
11	4
12	5
13	3
14	KITE
15	503 520 523 545 599
16	8 462 463 478
17	479
18	37 *(to Merrow/Burpham)*
19	36 *(to Burpham/Merrow)* 515
20	23 25
21	400 Park & Ride
22	300 Park & Ride
A	Dial-a-Ride

Correct from March 2016

*Please note that route 14 should be included in this diagram, using bay 19.

There are 24 bays in total (including one alighting point). However, according to timetable information, only 23 of the bays are used. There are six layover bays,

used when drivers are taking a break. If a vehicle is going to be out of service for more than 45 minutes, bus station guidelines dictate that the bus should not remain in the layover bay in the bus station. In this case, vehicles should return to the depot or to dedicated standing space at the rail station. However, according to feedback from bus operators, this practice is not always adhered to.

The majority of routes serving the bus station are terminating services. There are just four through-routes which do not terminate at the bus station, representing 9% of all routes: route 8 (which is a circular route, starting and terminating at North Street/Library), 14 (which terminates at North Street/Library), 36 (which double runs into the bus station), and 37 (which double runs into the bus station). However, it should be noted that only two to three journeys a day are run on routes 8 and 14, and some journeys on routes 36 and 37 do terminate in the bus station. There are four Park and Ride services. Figure 10 illustrates the services that do not terminate in the bus station.

4.3 Bus Station Analysis

A total of 47 routes serve the bus station in a typical weekday. Of these, two are through-routes or circular routes (i.e. not terminating in the bus station) – route 8 and route 14 – although these only run two to three services a day. Routes 36 and 37 provide some through-journeys and some that terminate in the bus station. Four routes are Park and Ride services: 100, 200, 300 and 400. 27 are classed as ‘high frequency’ and 20 as ‘low frequency’. ‘High frequency’ is defined as a route that runs at least one bus per hour, five days a week.

Table 3 shows all the routes that serve the station, whether they are terminating or through-routes and whether they are high or low frequency.

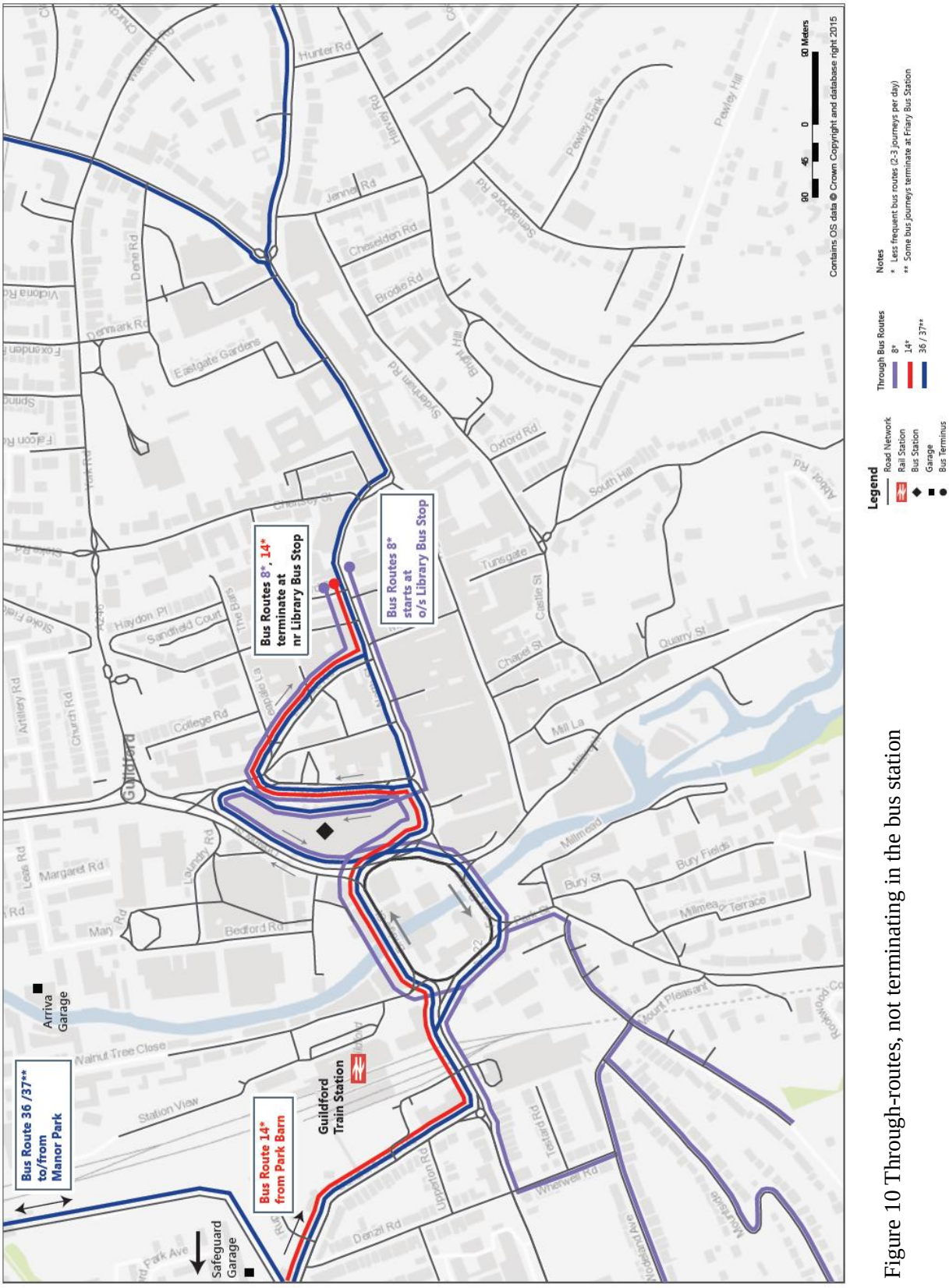


Figure 10 Through-routes, not terminating in the bus station

Table 3 Bus route profile

Route	Terminating?	High Frequency?
3	Y	Y
4	Y	Y
5	Y	Y
8	N	N
14	N	N
17	Y	Y
17A	Y	N
18	Y	Y
23	Y	N
24	Y	N
25	Y	N
26	Y	Y
27	Y	Y
28	Y	Y
32	Y	Y
34	Y	Y
35	Y	Y
36	Y & N	Y
37	Y & N	Y
42	Y	N
46	Y	Y
53	Y	Y
63	Y	Y
63X	Y	Y
65	Y	Y
70	Y	Y
71	Y	Y
72	Y	Y
91	Y	N
100 P&R	Y	Y
125	Y	N
126	Y	N
134	Y	N
200 P&R	Y	Y
300 P&R	Y	Y
400 P&R	Y	Y
462	Y	N
463	Y	N
478	Y	N

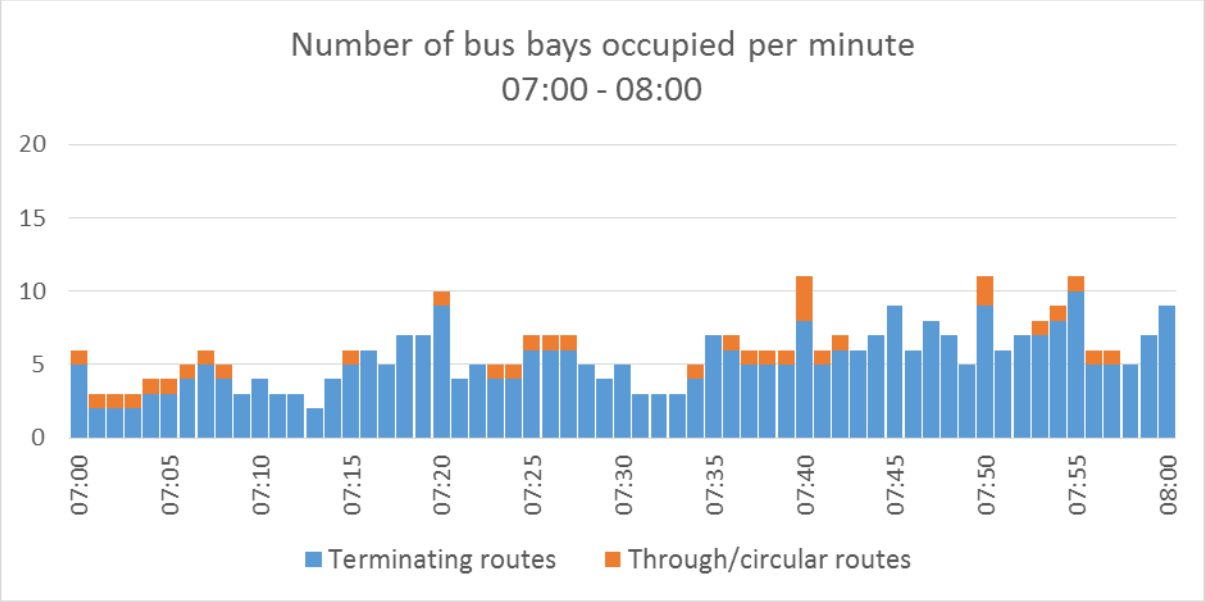
479	Y	Y
503	Y	N
515	Y	Y
520	Y	N
523	Y	N
545	Y	N
599	Y	N
KITE	Y	N

In terms of the usage of bays in the bus station, Graph 1, Graph 2, and Graph 3 show the number of bus bays occupied per minute in the AM peak three hours, differentiating between terminating routes and through-routes. This assessment has been achieved through analysis of the route timetables, rather than surveys. The assumptions have been checked with operators as to what happens in reality.

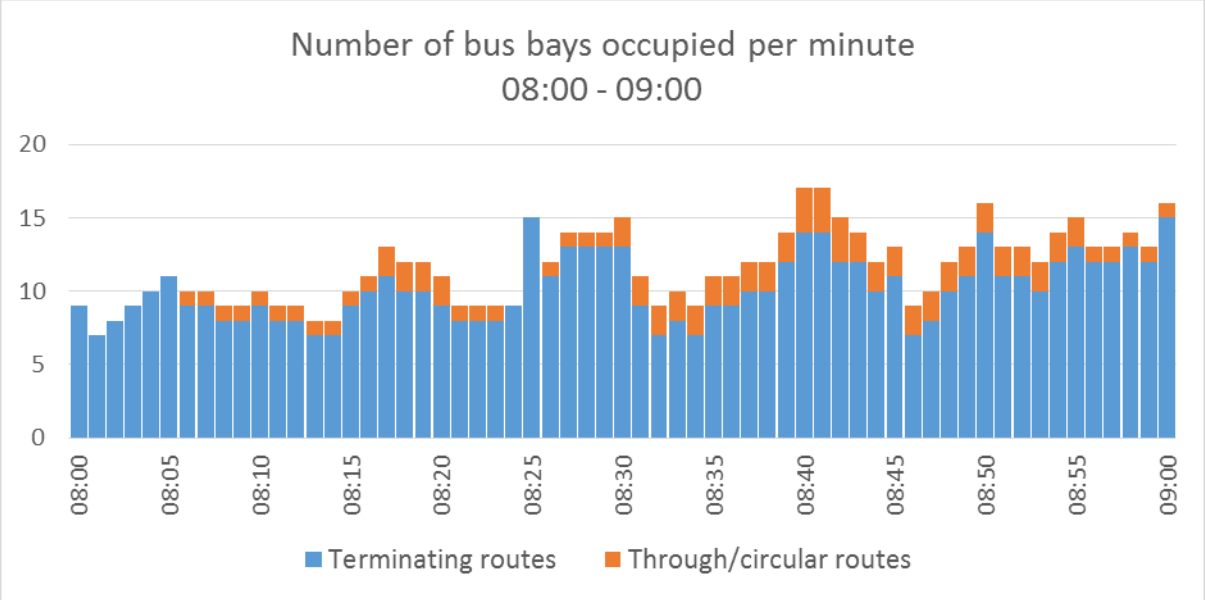
Based on the timetable information, the graphs show that maximum bay occupancy in the AM peak three hours is from 09:00-10:00, when 19 bays are occupied in the peak minutes. 16 of these are occupied by terminating routes and three by through-routes. All six of the (unnumbered) layover bays are consistently used in the AM peak. This conclusion was validated by operators because routes have finished the peak school and commuter run, and come to lay over in the bus station.

Maximum occupancy between 08:00 and 09:00 is 17 bays in any one minute, with 14 occupied by terminating routes and three by through/circular routes in the peak minutes. In all time periods, terminating routes outnumber through-routes in terms of number of bays occupied. With a dominance of terminating routes, duration of stay in the bays is longer than it would be if most routes were through-routes.

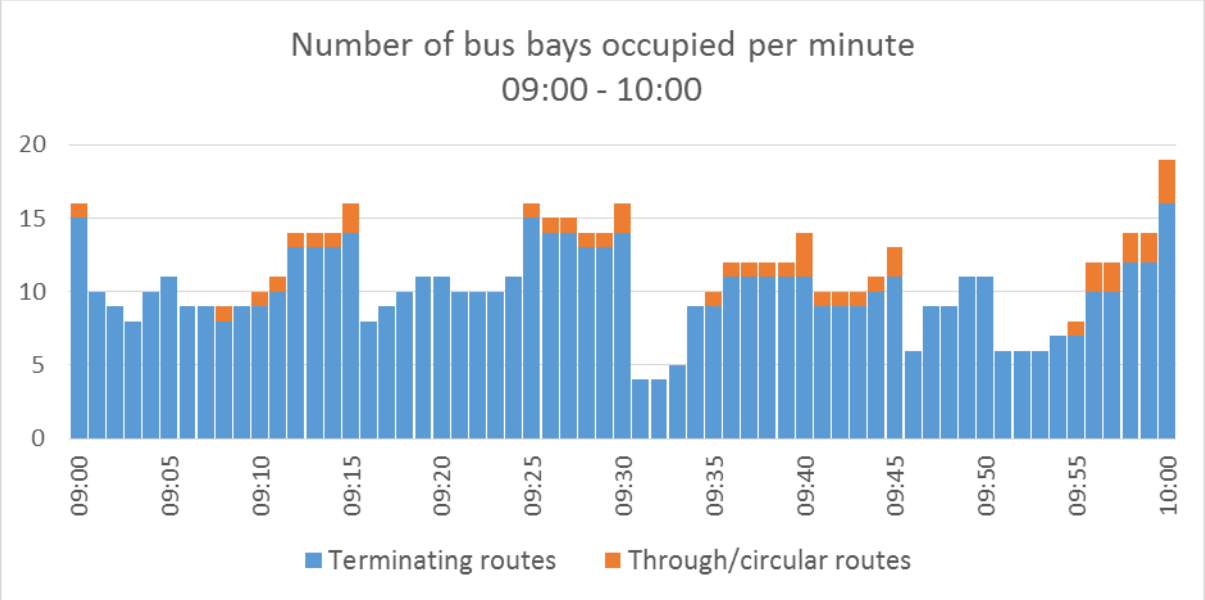
Graph 1 Bays occupied per minute (07:00-08:00) – Terminating vs through-routes



Graph 2 Bays occupied per minute (08:00-09:00) - Terminating vs through-routes

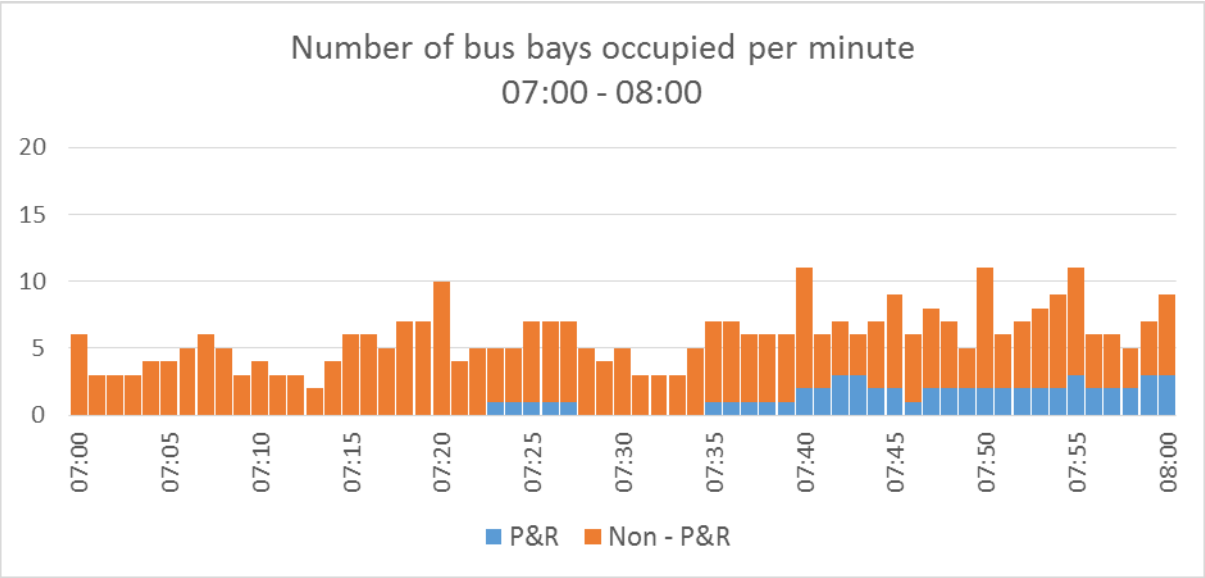


Graph 3 Bays occupied per minute (09:00-10:00) - Terminating vs through-routes

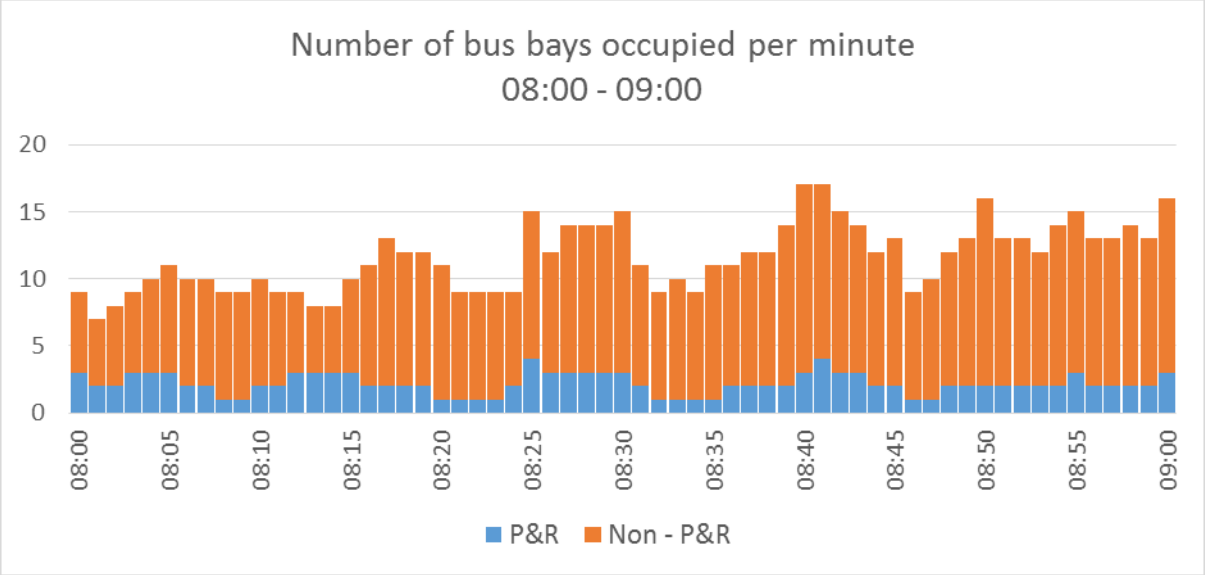


Graph 4, Graph 5 and Graph 6 show bay occupancy by type of service i.e. Park and Ride versus regular bus services. The majority of occupied bays are occupied by non Park and Ride services in the AM peak three hours. The maximum number of bays occupied at any one time by Park and Ride services is four, at 08:25 08:41. This suggests that Park and Ride services are important providers for journeys to work and not just for shoppers (for which a later peak in service provision would be expected, around shop opening times).

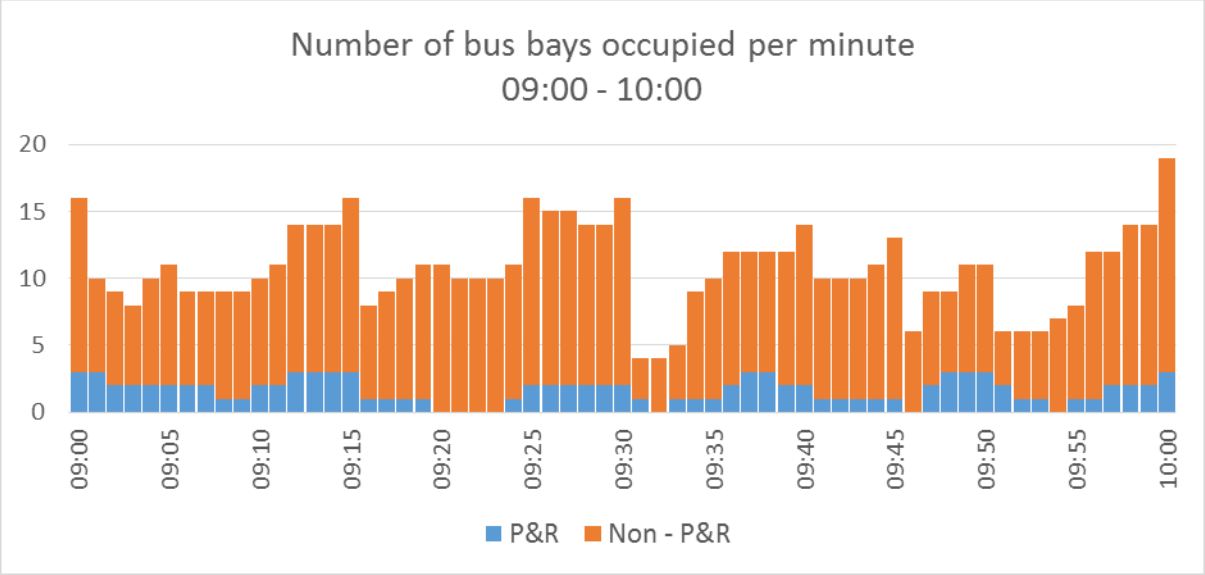
Graph 4 Bays occupied per minute (07:00-08:00) – By type of service



Graph 5 Bays occupied per minute (08:00-09:00) – By type of service



Graph 6 Bays occupied per minute (09:00-10:00) – By type of service



It is important to understand bay occupancy by type of route (terminating vs through-route) and type of service (Park and Ride vs non Park and Ride) to understand operational requirements for any relocated facilities – number of bays to be provided and the likely duration of occupancy, as well as the location of bays.

4.4 Facilities

4.4.1 For Drivers

In the current bus station, there are male and female driver toilets (recently refurbished) and meal relief facilities. These will need to be re-provided at each new bus stand facility, or at least within a short walk of the bus stand.

Industry standards dictate that a mess room is necessary for use by the bus drivers to either have a ‘tea break’ between scheduled bus departures or as a working day’s meal break, with male and female toilets close to the mess room.

There is also a requirement for provision of potable drinking water and a water supply to top up bus radiators.

4.4.2 For Passengers

The previously high quality facilities have deteriorated with age. Passenger waiting facilities are currently poor. Shelters are provided but they are not fully covered and so wind and rain can make the waiting area unpleasant in winter. The area tends to flood in heavy rain.

Some seating is provided but it is not of a high standard. Through site visits, it was noted that most boarding and alighting activity occurs around bays 6 to 10, so other areas can feel remote and unsafe after dark.

There is a Travel Office run by Arriva which provides timetable and route information, and electronic information boards which show service departures. However, the level of passenger information and ease of navigation through the bus station could be improved.

4.5 Usage

Data is pending from the bus operators on usage in Guildford. This includes data on bus to bus interchange, bus to rail interchange, bus user profiles, as well as overall bus usage.

The Guildford Friary Bus Station report by Colin Buchanan and Partners (2003) provided an indication of usage and interchange. The number of bus movements in the bus station is higher today, which is expected to be matched by an increase in passenger usage (to be confirmed by operator data), however, the trends are reported here and will be updated when more recent data is available.

Passenger surveys were carried out from 0800 to 2000. In total, 5,981 people boarded buses at the bus station, 4,387 alighted and 311 were through-passengers. The surveys reported that the most common way of accessing the bus station in the PM (from 1200 to 2000) was walking from the town centre (83% of passengers), with bus to bus interchange accounting for 9%, and access from the rail station accounting for 3% of passengers. In the survey period, bus to bus interchange occurred mostly from 1500 to 1600 and can therefore be assumed to be school-related. The study concluded that bus to rail interchange is low and bus to bus interchange only marginally higher. Most trips appear to be to/from the town centre.

National survey data has been used to provide a more up to date indication of usage in Guildford town centre, in the absence of operator data. Official Labour Market Statistics show that the bus mode share for travel within Guildford is higher than the bus mode share from neighbouring output areas to destinations within Guildford town centre. Table 4 shows that the mode share for travel within Guildford is 7.4%, whereas it is 3.8% for travel from Waverley to Guildford, 3.3% for travel from Rushmoor to Guildford, and 2.6% for travel from Woking to Guildford. This shows that bus commuter trips tend to be relatively local, which could be attributed to a number of reasons, including journey time, reliability of journey time and links provided.

Table 4 Bus trips and mode share for trips into Guildford. Source: Official Labour Market Statistics (nomisweb.co.uk)

Origin borough	All modes	Bus/coach	Mode share
East Hampshire	1,804	14	0.9%
Guildford	24,820	1,838	7.4%
Hart	1,294	1	0.1%
Mole Valley	1,792	27	1.5%
Rushmoor	3,579	119	3.3%
Surrey Heath	2,224	25	1.1%
Waverley	7,730	297	3.8%
Woking	4,626	118	2.6%
Total	47,869	2,439	5.1%

According to the DfT's National Travel Survey (2014), the mode share for buses in England is 5%, therefore the bus mode share for trips into Guildford is higher than the national average. There is no obvious reason for this, however, it could be due to the number of operators running services in Guildford, which provides a competitive network of links and prices.

SCC reports that out of the 29.2 million bus passenger journeys per year in Guildford, 20 million are fare-paying. This means that around 30% are concessionary, a figure which is supported by operator feedback. This compares with a national average in England of 34%. Therefore, contrary to popular belief, the amount of concessionary trips on the network in Guildford is slightly less than the national average.

Transport Focus (the independent transport user watchdog), undertook a comprehensive survey of bus passengers across England in 2015. The results can be broken down by region and by operator, although it should be noted that only major operators are surveyed. The results applicable to Guildford show that overall passenger satisfaction is generally high, ranging from 83% (Abellio Surrey) to 86% (Stagecoach) and 89% (Arriva). The main drivers of passenger satisfaction are:

- On bus journey time;
- Punctuality;
- Value for money; and
- Safety of the driving.

These findings show that buses (and bus passengers) are important to Guildford's economy, and providing efficient and safe facilities are important to retaining and attracting passengers.

4.6 The Wider Picture

4.6.1 Congestion

Currently, the town centre road network operates within capacity on the whole, with some notable exceptions (GOTCHA Technical Note 1, WSP:PB, 2015).

Capacity is measured by the Degree of Saturation (DoS), which is a guideline percentage (shown in Table 5).

Table 5 Guideline percentages for degree of saturation

Within Capacity	Approaching Practical Capacity	Over Practical Capacity, Approaching Theoretical Capacity	Over Theoretical Capacity
< 80%	> 80%, < 90%	> 90%, < 100%	> 100%

The main exception is the Onslow Street approach, which operates near theoretical capacity in the AM peak (93.2% DoS) and over theoretical capacity in the PM peak (101.1% DoS). Capacity issues at the Onslow Street junction have a knock-on effect on the preceding junctions, causing long queues on each arm. Due to the nature of the one-way system, many of the bus routes use Onslow Street to access or egress the bus station and are therefore affected by this congestion. Any proposals to relocate and re-provide bus station facilities must bear congestion hotspots in the town centre in mind to minimise delay to bus journey times for passengers and traffic lost mileage (which is a key concern for operators).

4.6.2 Air Quality

Maintaining good air quality is one of the stated strategic objectives of the Proposed Submission Local Plan. The Plan notes that development must mitigate its traffic impacts, including its environmental impacts and impacts on amenity and health. Measures designed to encourage people to make sustainable travel choices, such as car clubs, car sharing, infrastructure / facilities for electric charging plug-in points and other ultra-low emission vehicles, provision of cycle lanes and cycle parking, and encouraging the accelerated uptake of cleaner fuels and technologies resulting in carbon and vehicle emission reductions, can assist with reducing these impacts. Well-designed developments may actively help to enhance air quality, manage exposure and reduce overall emissions, therefore reducing possible health impacts.

For this reason, development at The Friary/North Street will be required to have a positive impact on air quality in the town centre. Promoting the use of public transport over the private car will be a key component of this and, therefore, any proposals to relocate the bus facilities must ensure they do not make bus usage less attractive. In addition, air quality relating to bus operations must also be managed, for instance prohibiting engine idling when buses are on the stand.

4.6.3 Accidents

Graph 7 shows that the number of accidents in the borough of Guildford has declined overall (about 17%) since 2005, although there was a slight increase between 2013 and 2014.

Graph 7 Accidents by year in Guildford

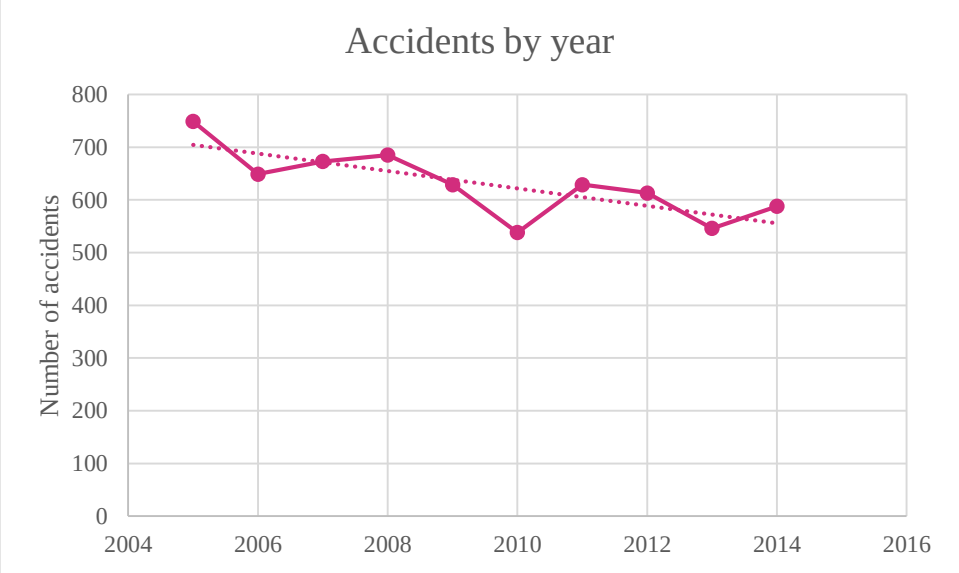
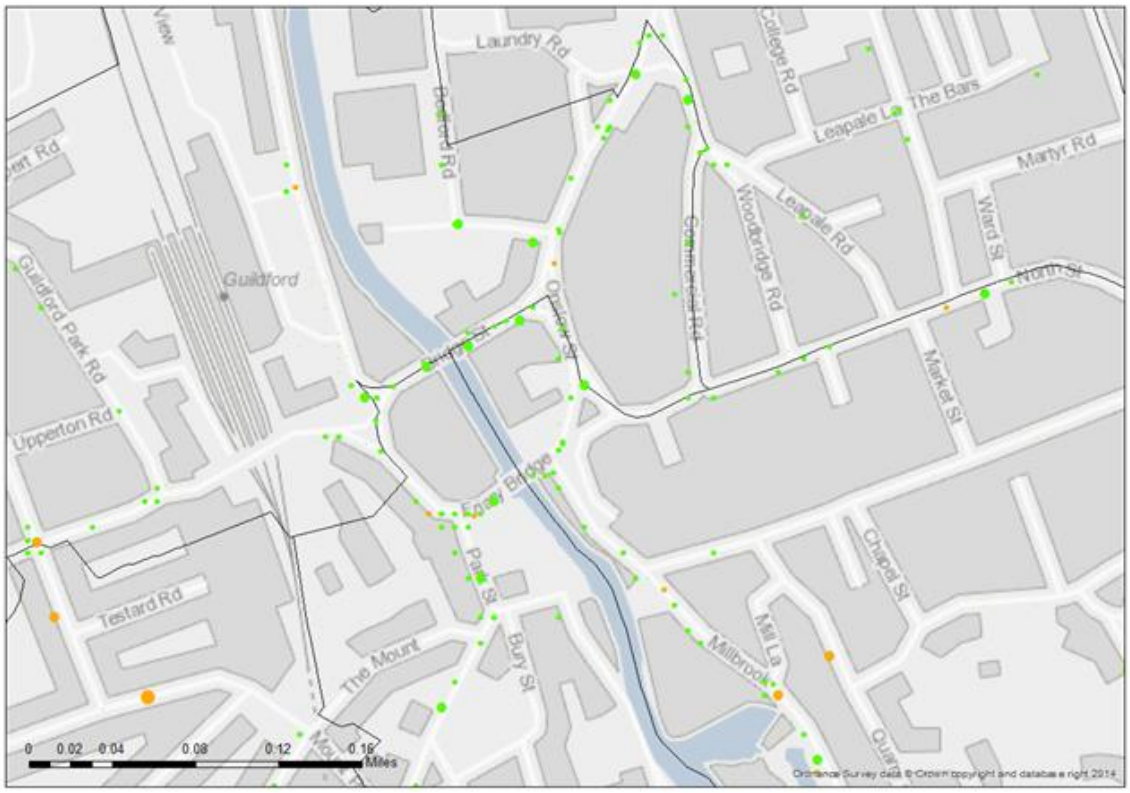


Figure 11 illustrates every accident in the town centre between 2005 and 2014. Green dots represent accidents with a severity categorised as '3' (minor) and red dots represent more serious ones categorised as '2'. Larger dots represent accidents involving multiple vehicles. It is clear from the map that the majority of accidents in the town centre occur on, or on the approaches to, the gyratory. This is not surprising given the relative volume of traffic using the gyratory compared to individual streets around the town centre, but it also shows that making the gyratory safer (potentially by removing it and introducing a two-way system on three sides) would have a positive impact on road safety in the town centre.

Figure 11 Accidents in Guildford town centre



These findings serve to emphasize the need to ensure any new bus facility is safe for passengers and for vehicle manoeuvres, and user conflicts are minimised. This includes cyclists, pedestrians, vehicles as well as waiting bus passengers. It is also understood from operator feedback that bus to bus accidents are a common occurrence in the current bus station, given the drive in, reverse out operation. Options for bus facilities will be scored according to their safety and the preferred design will be subject to a Stage One Road Safety Audit.

4.7 Conclusion

The Friary bus station is a major bus facility, served by 47 bus routes. The majority of routes serving the bus station are terminating services. There are just four through-routes which do not terminate at the bus station, representing 9% of all routes: route 8 (which is a circular route, starting and terminating at North Street/Library), 14 (which terminates at North Street/Library), 36 (which double runs into the bus station), and 37 (which double runs into the bus station). However, it should be noted that only two to three journeys a day are run on routes 8 and 14, and some journeys on routes 36 and 37 do terminate in the bus station. This means that there is a significant demand for bus layover facilities, in addition to bus stops for passengers to board and alight in the town centre, unless routes are fundamentally redesigned to operate as through services. In the peak of the peak, 19 bays are required. The six unnumbered layover bays in the bus station are in occupation fairly consistently across the AM peak.

A more comprehensive network planning exercise may be advisable to identify if the extension of routes across the town centre to provide new links would promote growth in the bus network, improve accessibility, and also reduce the need for layover in Guildford town centre.

22 numbered bays, one alighting bay, one bay allocated to dial a ride, and approximately six layover bays are provided in the bus station. The layover bays are not supposed to be occupied for stays of longer than 45 minutes, however, operator feedback suggests that this is not always the case. Evidence suggests that the bus station could operate more efficiently.

Provision of bus stand facilities elsewhere will need to make provision for existing terminating services and provide scope for future growth. Supporting facilities must also be provided for drivers and passengers. This could lead to replication of these supporting facilities, if more than one location is required for bus layover.

Lack of up to date passenger data means that no firm conclusions can be drawn for overall passenger numbers or passenger profiles, for instance the importance of bus to bus or bus to rail interchange. Previous surveys show that bus to rail interchange is low in Guildford and bus to bus interchange is only marginally higher. This is corroborated through recent discussions with operators. The main purpose of bus trips to and from the town centre is access to the town centre itself.

Other factors which must be taken into consideration in the next stage of the study are congestion, air quality and safety, in order to ensure that any new locations proposed for the bus facilities protect bus journey times, ensure that the bus is still an attractive alternative to the private car, and enables safe and efficient bus operations in the town centre.

5 Highway Network Change Assumptions

5.1 Existing Conditions

Figure 12 shows the hierarchy of roads in Guildford town centre. Transport itself contributes to severance in Guildford, with the rail lines, river and gyratory representing barriers to movement between the west and east of the town centre. The pedestrian route between the rail station and the town centre is not attractive or easy to navigate.

GBC has received Local Enterprise Partnership (LEP) funding for the Guildford Town Centre Transport Package. This includes:

- Widening pavements to allow shared pedestrian and cycle use;
- New toucan crossings on busy roads; and
- A new foot and cycle bridge over the River Wey at Walnut Bridge, connecting the train station to the town centre.

Recent traffic surveys undertaken in Guildford found that 14% of car journeys through the town centre are less than 4km long. This suggests that encouraging people to walk and cycle should have a significant and noticeable effect on traffic volumes. In turn, this could encourage more people to use the bus instead of the car for longer trips, due to improved journey time reliability.

Delays caused by congestion were raised as a major concern by operators, with Guildford gyratory, Onslow Street, Millbrook, Guildford Park Road, Woodbridge Road, Stoke Road and North Street (particularly on market days) were noted as congestion hotspots.

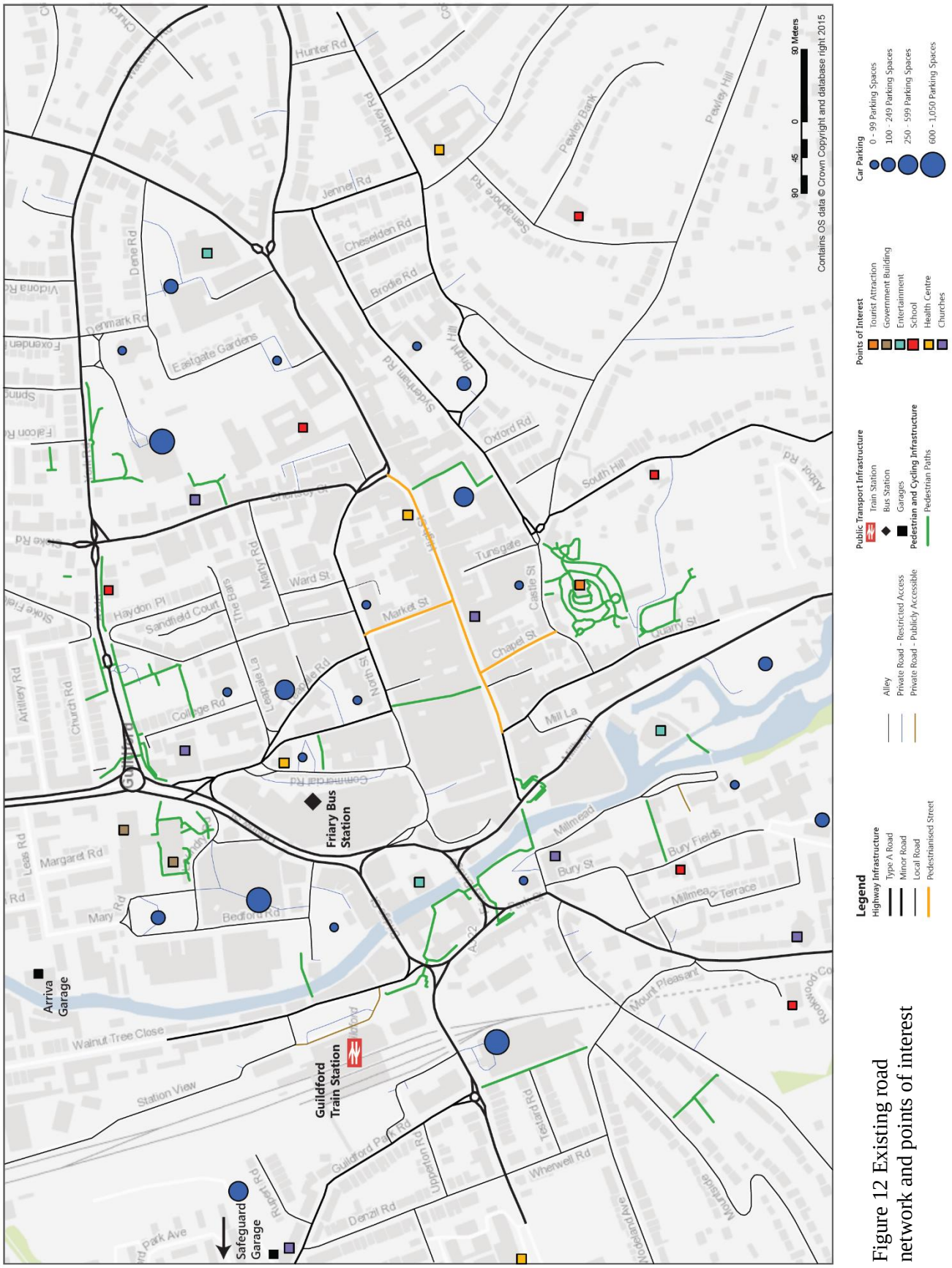
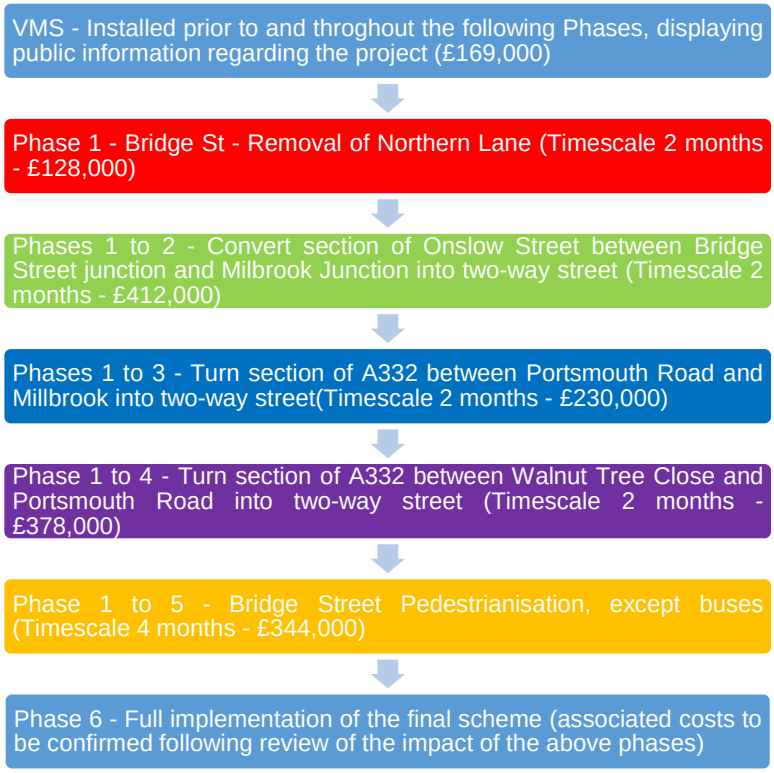


Figure 12 Existing road network and points of interest

5.2 Gyratory Removal

GBC has developed a scheme to remove the gyratory which is awaiting confirmation of funding. If successful, the Guildford gyratory system would be reconfigured in phases using temporary traffic management, in accordance with Gyratory Scenario 2 in the Draft Guildford Town Centre and Hinterland Masterplan Report (Allies & Morrison, October 2015). This is shown in Figure 13. A phased approach would allow GBC to examine the resulting impact on traffic flow and pedestrian movement and safety. The scheme would be implemented over a 6-12 month period to allow the impacts to be thoroughly tested.

Figure 13 Gyratory proposal flow chart of work



The final concept plan is shown in Drawing 1. The main change would be the pedestrianisation of Bridge Street. Bus routes that cross the gyratory, however, are likely to still be allowed to pass through this street. In this case, mileage would not be significantly affected by the proposals. There is also the possibility to provide bus stands on Bridge Street.

Throughout the upgrade works there would possibly be increased levels of congestion and resulting journey time delays to bus routes using the gyratory. However, once fully implemented, the expectation is that levels of congestion in the town centre would be lessened and so there would be a net improvement to bus journey times.

5.3 Planned Changes as a Result of Town Centre Development

Current proposals for the M&G Real Estate development at The Friary would result in the closure of Commercial Road and Woodbridge Road. Pedestrian access to the new development would be from Onslow Street, North Street and Leapale Road. Servicing access would be via Onslow Street to a dedicated undercroft servicing area. There are also plans for the west side of North Street to be pedestrianised. Leapale Road may need to become two-way in order to facilitate traffic movement around the new development. Approximately 300 car parking spaces are proposed on site. Figure 14 shows the main changes proposed as a result of development at this site.

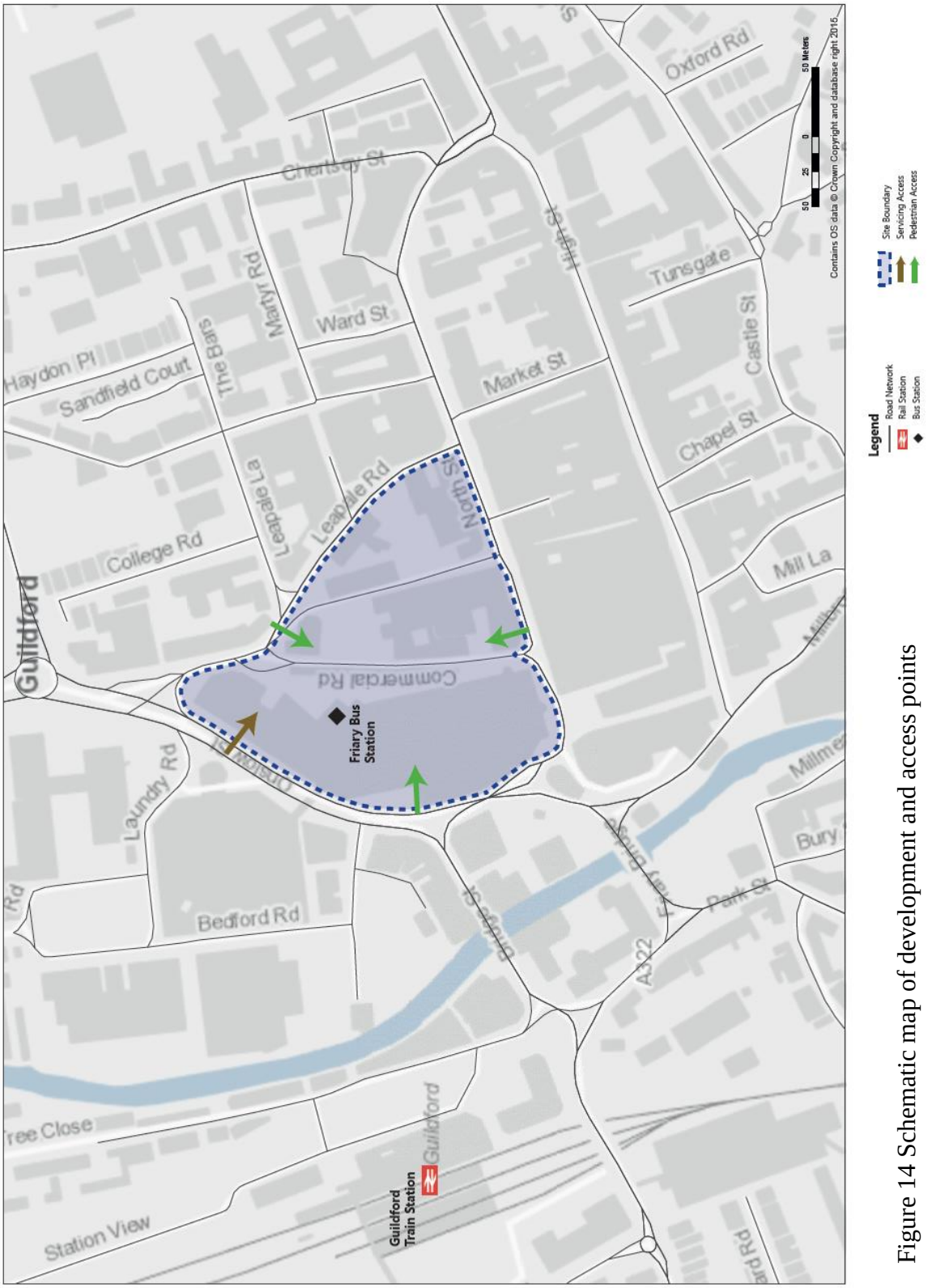


Figure 14 Schematic map of development and access points

5.4 Conclusion

Significant improvements to walking and cycling are planned for Guildford town centre as a result of the Guildford Town Centre Transport Package. These improvements would improve permeability and also make walking and cycling more attractive, thereby helping to reduce traffic volumes. With improved permeability, bus passengers could more easily access bus stops in various locations around the town centre.

The main planned change to the highway network in Guildford town centre over the next few years (subject to funding) is the removal of the gyratory system. This would dramatically improve pedestrian access between the rail station and the main retail area, have a beneficial impact on pedestrian safety, and improve traffic flow and congestion around the town. There is the potential for buses to continue to use Bridge Street, which would be closed to general traffic. Therefore the impact on buses and bus passengers is expected to be beneficial on balance, as access would be improved and congestion alleviated.

Current proposals for the M&G Real Estate development at The Friary will result in several changes to the town centre highway network, including the closure of Commercial Road and Woodbridge Road to improve pedestrian space. This will have the effect of removing the through east/west route for cars through the town centre, and place additional traffic on the York Road/Onslow Street/Bridge Street corridor. Pedestrian and traffic flows will alter depending on pedestrian and vehicle access points to the development, which must be considered with any planned relocation of bus stop and stand facilities.

6 Guildford Rail Station

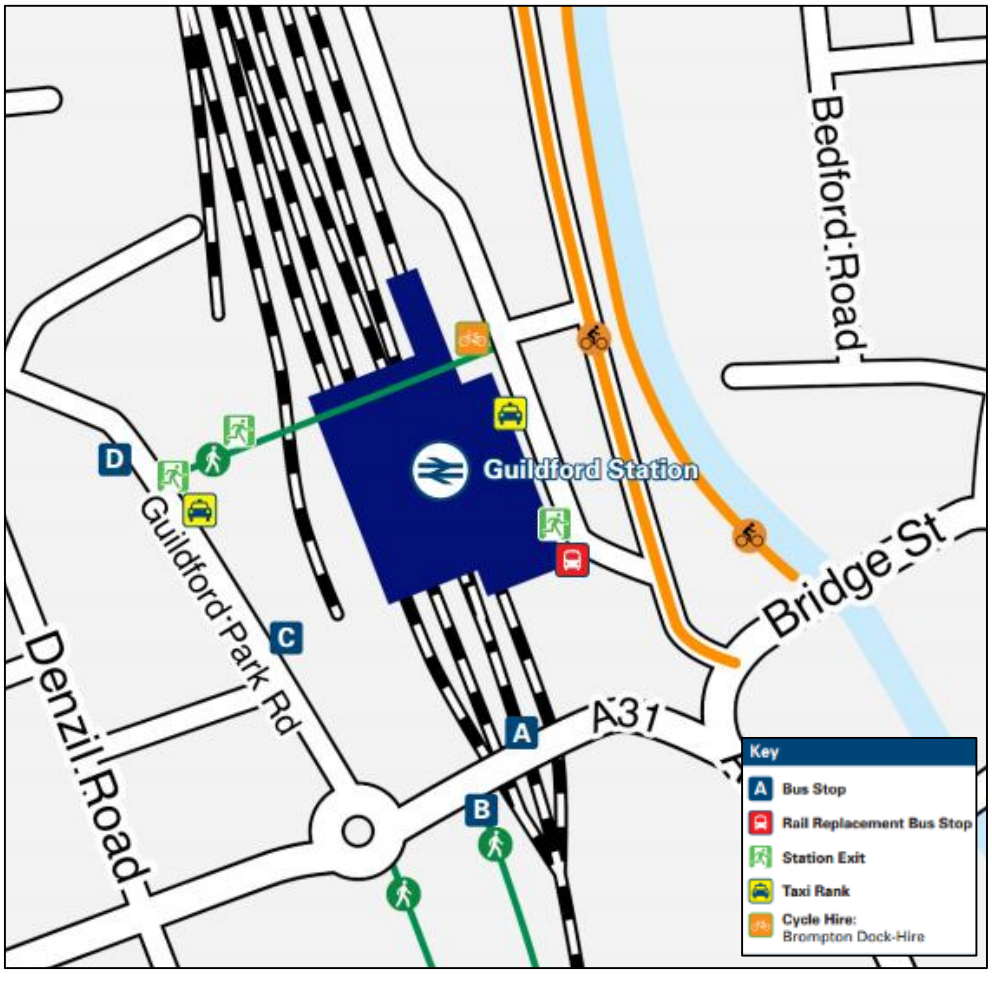
6.1 Bus Routes

There are currently five bus stops within walking distance (300m) of Guildford rail station, detailed below and in Figure 15 (routes in bold have frequencies of less than one bus per hour and those underlined are Park and Ride services).

- One stop at the main entrance (routes **24** and 53, as well as rail replacement services);
- One stop in each direction on Farnham Road (routes 4, 5, **8**, 17, 26, 27, 36, 37, 46, 400 and **520**); and
- One stop in each direction on Guildford Park Road (routes 4, 5, 17, 26, 27, 36, 37, 400 and **520**).

These are all on-street stops, with the exception of the one at the main entrance, which is a narrow bay inset from the road. None of the stops have shelters.

Figure 15 Bus stop facilities at Guildford rail station (http://www.nationalrail.co.uk/posters/GLD.pdf)



6.2 Solum Regeneration

Solum Regeneration, a partnership between Network Rail and Kier Property, is to submit a planning application in 2016 to redevelop the east side of Guildford station, following three years of discussions and consultation with the local authority and local community.

The scheme will deliver:

- A new station – providing a larger, double height ticket hall with a gate-line twice as wide as the current one to reduce congestion;
- An enhanced station environment with a new station square offering a high quality public realm;
- A new multi-storey car park closer to the station entrance;
- Separate pick-up and drop-off location and an improved taxi rank with a shelter;
- An additional 232 secure station bicycle storage spaces and a further 40 spaces specifically designed for Brompton cycles;
- A new station quarter with space for shops and restaurants;
- Better and safer pedestrian links and wayfinding into Guildford town centre; and
- New bus replacement arrangements so that no car parking spaces are lost during periods of engineering works.

The inclusion of a bus facility for rail replacement buses shows Network Rail's reluctance to lose any car parking spaces, even during short periods of rail engineering works. This may need to be addressed given the pressure on bus facilities in the town due to the North Street development. There are no specific plans proposed to improve accessibility to the rail station by bus.

6.3 Sustainable Movement Corridor

The current proposal to remove the gyratory at Guildford town centre would retain access to and from Walnut Tree Close and Farnham Road. Access to the newly pedestrianised Bridge Street would be provided, with crossings along Walnut Tree Close and Farnham Road. In this way, pedestrian access between the town centre and the railway station would be significantly improved.

As noted in Section 3, a 'sustainable movement corridor' (SMC) was proposed as part of the GTAMS. The SMC would be a priority, part-segregated pathway through the town for pedestrians, cyclists and public transport. Certain bus services would be transferred onto the SMC, thereby reducing journey times for passengers. There is also potential to integrate a bus rapid transit (BRT) service or a tram, if there is enough demand.

The route of the SMC would serve the west, centre, north and east of Guildford. It would begin at the Surrey Research Park and travel to a new P&R site outside of

the town to the north via the Royal Surrey County Hospital, the University of Surrey, Guildford railway station, the town centre, Stoke Park, the Spectrum (P&R) and Slyfield Industrial Estate. Figure 16 shows that the rail station would be an integral part of the SMC. The Proposed Submission Local Plan (see Section 3) has added an extension to the east: to Gosden Hill Farm.

Figure 16 SMC route and examples of potential infrastructure

6.4 Conclusion

Guildford rail station is already well served by buses, but only has one stop at the main entrance. The idea for the SMC indicates that the rail station could become more of a focal point for bus services, but by its very nature this would mean through-routes, rather than terminating services.

There is some scope to relocate some bus stand facilities to the rail station, but the priorities set out in the Solum Regeneration proposals indicate that provision for bus infrastructure should not interfere with car parking provision on site, thereby limiting the land available.

7 Summary

The Guildford Town Centre Bus Study has been commissioned by Surrey County Council and Guildford Borough Council. The purpose of this study is to determine bus operator and bus passenger requirements in order to successfully identify appropriate bus stop and stand arrangements in the town centre to support the proposed redevelopment of The Friary / North Street and wider town centre regeneration.

It is essential that any changes have a positive impact on bus services, bus passengers, and general accessibility of Guildford town centre. Accessibility to jobs and retail facilities, good access to affordable transport for those with mobility difficulties and support of the comprehensive local, inter-urban and park & ride services on offer must be maintained. Bus services support town centre retail and leisure spending, so accessibility by bus is important to promoting economic activity. In addition, the relatively low cost of bus infrastructure projects represents good value for money in terms of return on public investment and support.

The current Friary bus station is a major bus facility, served by 47 bus routes. The majority of routes serving the bus station are terminating services. There are just four through-routes which do not terminate at the bus station, representing 9% of all routes, however, it should be noted that only two to three journeys a day are run on routes 8 and 14, and some journeys on routes 36 and 37 do terminate in the bus station. This means that there is a significant demand for bus layover facilities, in addition to bus stops for passengers to board and alight in the town centre, unless routes are fundamentally redesigned to operate as through services. In the peak of the peak, 19 bays are required.

22 numbered bays, one alighting bay, one bay allocated to dial a ride, and approximately six layover bays are provided in the bus station. The layover bays are not supposed to be occupied for stays of longer than 45 minutes, however, operator feedback suggests that this is not always the case. Evidence suggests that the bus station could operate more efficiently.

Provision of bus stand facilities elsewhere will need to make provision for existing terminating services and provide scope for future growth. The Office of National Statistics forecasts that the population of the borough of Guildford will increase by 15% to 2033, which is just over 1,000 people per year. Therefore new facilities will need to have passive provision to support growth in the bus network. Supporting facilities must also be provided for drivers and passengers.

Previous studies have identified possible options for relocating the bus station infrastructure. This Guildford Town Centre Bus Study will critique, assess and build on these options according to key stakeholder requirements, impacts on bus passengers, impacts on deliveries and servicing, and impacts on other modes such as cycling and taxis. This will form the next task in the study.

Lack of up to date passenger data means that no firm conclusions can be drawn at this stage for overall passenger numbers or passenger profiles, for instance the importance of bus to bus or bus to rail interchange. This will be important to

identify which routes need to be grouped together at stops to ensure ease of passenger interchange.

Other factors which must be taken into consideration in the next stage of the study are changes to the highway network and potential use of the rail station for bus facilities, as well as the impact on other modes. The main planned changes to the highway network in Guildford town centre over the next few years are the Town Centre Transport Package works and the removal of the gyratory system (subject to funding). These schemes would improve permeability, make walking and cycling more attractive, and help to reduce traffic volumes. In addition, current proposals for the M&G Real Estate development at The Friary will result in several changes to the town centre highway network, including the closure of Commercial Road and Woodbridge Road.

There is some scope to relocate some bus stand facilities to the rail station, but the priorities set out in the Solum Regeneration proposals indicate that provision for bus infrastructure should not interfere with car parking provision on site, thereby limiting the land available. The idea for the SMC indicates that the rail station could become more of a focal point for bus services, but by its very nature this would mean through-routes, rather than terminating services. However, relocation of bus facilities in Guildford town centre could provide the opportunity for a more comprehensive review of the bus network.

Drawings

Drawing 1 Gyratory system plan