Winchester City Council

Hampshire County Council

ATKINS
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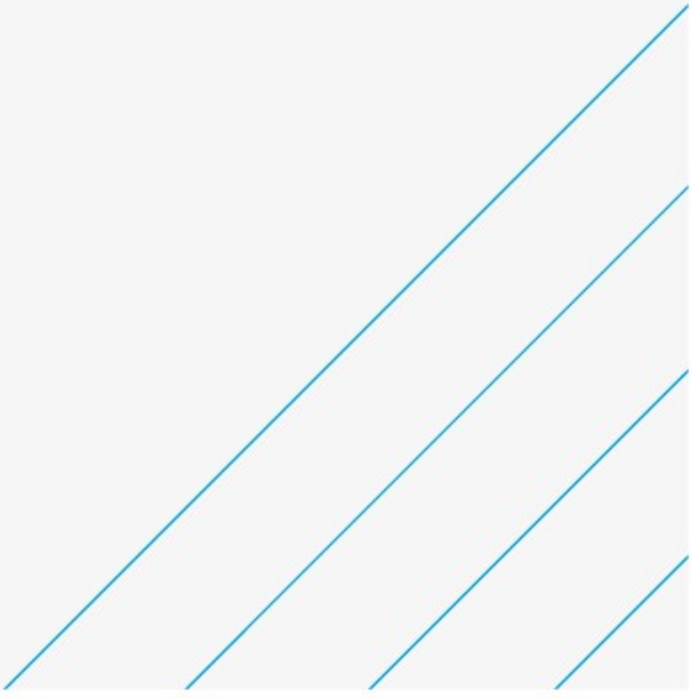
Winchester Movement Strategy Feasibility Studies

Phase 1 Summary Report

July 2020



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1. Foreword

A vision to make Winchester easier to get around by foot, bicycle and bus is emerging from the City of Winchester Movement Strategy.

Using feedback from residents and extensive evidence gathering, Hampshire County Council, together with Winchester City Council, is now looking at plans that include creating more park and ride provision across the city, improved and enhanced walking and cycling infrastructure and reconfiguring the city centre to prioritise bus, pedestrian and cycle traffic and reduce car use.

Councillor Rob Humby, Deputy Leader of Hampshire County Council and Executive Member for Economy, Transport and Environment, said: “Now the Winchester Movement Strategy has been adopted, we have been working with colleagues at Winchester City Council and partner organisations to identify priorities, based on feedback from the public and businesses, on how we can reduce traffic congestion in the City Centre, facilitate cycling, encourage walking and improve air quality.

“The Coronavirus pandemic has accelerated the changing travel patterns we were already beginning to see, and the Movement Strategy anticipated these developments. With more people already cycling and walking, this is a critical time for us to make changes for the future as the Movement Strategy starts to be implemented alongside Hampshire entering into a stabilisation phase from the Covid-19 pandemic. We’re working with colleagues at Winchester City Council every step of the way to ensure an excellent quality of life for those in the community.”

Plans will now be further developed with a view to submitting businesses cases to secure national funding, as and when it becomes available.

Projects prioritised for further development include:

- Extending the current park and ride provision at Bar End to provide 300 additional spaces (including electric vehicle charging) and (subject to funding) further extensions to meet projected demand;
- The development of nine cycle routes and 13 walking routes across the city to improve conditions for cyclists and pedestrians, particularly to and from the railway station, the University, Romsey Road, North Walls and the city centre;
- Better coordinated freight delivery to reduce congestion and delays in the city centre;
- Options to pedestrianise the Upper High Street, reduce St. George’s Street to a single lane, North Walls to operate as one-way (single lane) allowing pedestrian and cycle route enhancements, Friarsgate, Union Street and Eastgate Street to operate as two-way streets as well as many other preferred scenarios;
- Working with bus operators and Winchester City Council to look to increase park and ride bus frequency and expand bus routes across the city where demand is highest.

Cllr Martin Tod from Winchester City Council said: “The City Council is keen to move ahead with the Movement Strategy and deliver tangible improvements soon. It’s an essential part of improving air quality and giving people better options to access our city. We are already working on additional park and ride spaces at Bar End and are looking carefully at what funding and support the Council can provide in order to make change faster in line with the Movement Strategy objectives. This is a shared project and we look forward to continuing to work with the County Council to deliver real improvements in the City and in access to and from it from the rest of the District. We’ve worked very closely on the initial pop up transport recovery measures in the city and will continue to develop further measures to make our city safe and pleasant to visit and use during recovery from COVID-19, but are also consistent with our long-term plans for the Movement Strategy.”

Hampshire County Council and Winchester City Council adopted the City of Winchester Movement Strategy last year. It sets out an agreed vision and long-term priorities for travel and transport improvements in Winchester over the next 20-30 years.

Councillor Rob Humby

Councillor Martin Tod

2. Executive Summary

On 23rd April 2019 Hampshire County Council (HCC) adopted the "City of Winchester Movement Strategy" (WMS), endorsed by Winchester City Council (WCC). This joint policy document, born out of an extensive evidence gathering process, sets out an agreed vision and long-term priorities for travel and transport improvements in Winchester over the next 20-30 years. The overarching vision of the Strategy is to support economic prosperity for the city of Winchester, whilst at the same time enhancing it as a place where people can have an excellent quality of life.

During the development of the strategy, potential schemes were identified to help deliver the vision. These schemes were assessed to determine their effectiveness and deliverability and grouped into workstreams in the WMS Action Plan. HCC and WCC commissioned Atkins to develop feasibility studies for five of the workstreams that were identified as high priority in terms of impact and deliverability. These included schemes related to Park and Ride, walking and cycling, freight, buses and the public realm.

In line with the approach outlined in the Action Plan all studies have been developed interdependently - resources were shared across projects, regular workshops were held and decisions that impacted more than one workstream were made collaboratively. Each study broadly followed the same process-driven approach, in line with Department for Transport (DfT) recommendations:

1. Evidence gathering
2. Data analysis
3. Option identification
4. Option sifting and prioritisation using multi criteria analysis

This report provides a summary of the work undertaken. It describes the key issues to be addressed by each study, approach, outcomes and recommendations for further work.

Park and Ride

There are four existing Park and Ride (P&R) sites in Winchester with a total of 1,861 parking spaces - Pitt, South Winchester, St Catherine's, and Barfield. The existing sites are now operating at capacity and demand is expected to continue to grow as strategic development sites in the city are realised. The existing P&R services are subject to the uncertainties of the current road network and so can be delayed. There is a clear need to provide additional P&R spaces, both to cater for additional demand and to reduce the volume of vehicular traffic travelling into central Winchester. The high amount of private non-residential parking in central areas should also be considered, alongside the availability and cost of public parking spaces.

The potential demand for new P&R sites was estimated by analysing traffic flows into Winchester and data from city centre car parks. Fifteen sites were initially identified as having potential to be suitable to increase the P&R offer and these were sifted using a multi-criteria analysis. This highlighted seven sites to be assessed in more detail, including locations to the north of the city along Andover Road, locations to the east of the city in the vicinity of Easton Lane and extensions to existing P&R facilities including along Bar End Road.

Local Cycling and Walking Infrastructure Plan

Local Cycling and Walking Infrastructure Plans (LCWIP), as set out in the Government's Cycling and Walking Investment Strategy (2017), identify improvements required to develop local walking and cycling networks with the overall aim of increasing the number of trips made by these modes in the long term. The study follows the DfT guidance for an LCWIP, the core outputs of which are network plans for key walking and cycling routes and a prioritised programme of infrastructure improvements. Stakeholder engagement was a crucial element of this study as local users offered an in-depth knowledge of challenges and opportunities for cycling and walking in the local context.

Routes identified during the evidence gathering process were reviewed using a multi-criteria analysis that considered local stakeholder input, potential usage, access to key destinations and other factors. From this process, 9 cycle routes and 13 walking routes were selected. Based on further stakeholder engagement, a smaller number of high priority routes will be selected for design development in the next phase of work.

Urban Freight Transport

During the initial WMS public consultation process in 2017, the need to improve and better manage deliveries in the city centre saw the highest approval rating (88%) across all workstreams. The freight study involved a

high-level assessment of the current urban freight environment in Winchester including an interview with representatives from Winchester Business Improvement District and surveys carried out with local businesses in the city centre. Once this baseline was established, a literature review of current best practice across European and UK towns and cities informed the initial longlist of interventions that could be considered for future implementation.

Out of the initial fifteen options, three scored highly in the multi-criteria appraisal framework (MCAF) process. These were, use of portering for last mile delivery, promoting cycle-based freight solutions and cycle infrastructure to support cycle-based freight solutions and collaborative and collective procurement. The MCAF process and outcomes are subject to change pending further stakeholder engagement.

Winchester City Centre Movement and Place Plan

The Winchester City Centre Movement and Place Plan sets out an aspirational and coherent long-term plan and design vision for public realm and movement enhancements in the city centre. Its primary objective is to understand the potential impact from reallocating road space along the one-way system, enabled by reduction in traffic levels, to give more space to walking, cycling and public transport.

A desktop assessment of existing data, strategies and proposals was carried out followed by analysis of the existing spatial context of the city. An initial list of options was developed with varying degrees of vehicle permeability. The benefits to the city from each option was compared in terms of changes to access for different modes, impact on environmental factors, impact on active travel and extent of public realm enhancements opportunities. Preliminary concept proposals were then developed for the emerging preferred option(s) to demonstrate how the public realm vision could be delivered in different locations. The emerging preferred option(s) are subject to change pending stakeholder engagement.

Bus Provision

The work summarised in this document will enable a detailed passenger transport plan to be developed. This will build upon the bus hub assessment work being undertaken, the Movement and Place Plan and consideration of specific measures such as bus gates along with current opportunities such as Challenge Funding to support new and extended bus services, the recently approved Winchester Parking and Access Strategy and the potential Electric Bus town bid.

3. Introduction

3.1. Winchester Movement Strategy

On 23rd April 2019 Hampshire County Council (HCC) adopted the "City of Winchester Movement Strategy" (WMS), endorsed by Winchester City Council (WCC). This joint policy document, born out of an extensive evidence gathering process, sets out an agreed vision and long-term priorities for travel and transport improvements in Winchester over the next 20-30 years. The overarching vision of the Strategy is to support economic prosperity for the city of Winchester, whilst at the same time enhancing it as a place where people can have an excellent quality of life.

The plans began to develop in 2017 in response to concerns that continued growth in traffic demand would damage the quality of the city centre and jeopardise future economic prosperity. Managing city centre traffic has been a priority of previous transport strategies resulting in the implementation of a number of successful measures such as provision of Park and Ride (P&R), which has increased 10-fold over the past 15 years. However, as the network nears capacity and traffic demand continues to grow there is need for a new approach that will ensure Winchester remains a thriving and pleasant place to live, work and visit.

The overarching vision of the WMS is to support economic prosperity for the city of Winchester whilst at the same time enhancing it as a place and community where people can have an excellent quality of life. Three closely related strategic priorities (shown in Figure 3-1) emerged from the evidence gathering process and consultation with the public and stakeholders.

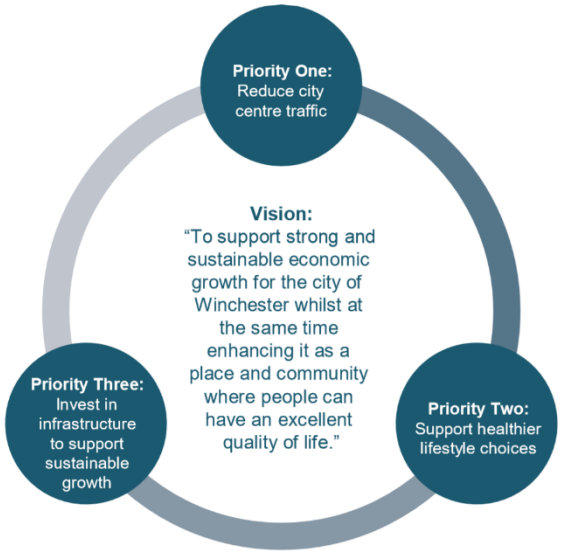


Figure 3-1 - Priorities for movement across Winchester

The strategy comprises measures that will reduce city centre traffic; enablers, and measures that will be enabled by traffic reduction. Some measures that contribute to traffic reduction do not necessarily fall within the control of the city and county councils. Chief among these is the capacity enhancement to M3 Junction 9 being taken forward by Highways England, which has been identified as a key enabler of traffic reduction in the city centre. It is an important scheme that if delivered will support the effectiveness of the rest of the Strategy. In the event that this scheme does not come forward, it will become necessary to reconsider previously discounted measures to reduce city centre traffic, for example the introduction of a workplace parking levy.

3.2. Realising the strategy

During the WMS development process, potential schemes were identified to deliver the objectives of the strategy. The details of these schemes emerged from the consultation, modelling and technical work. The schemes were grouped into 11 interdependent workstreams and each was assessed in more detail to provide an overall deliverability score. The criteria for assessment included:

- Strategic compliance, i.e. to what extent each of the three WMS priorities are addressed, compliance with the Hampshire Local Transport Plan, dependencies with other projects and risks to delivery
- Impacts and wider benefits, including potential impacts on inequality or the environment
- Expected cost and potential funding sources and
- Indicative planning and delivery timeframe

This deliverability score was used to inform decisions on which workstreams were appropriate to take forward to the next stage of development at that time. HCC and WCC commissioned Atkins to develop feasibility studies for five of these workstreams. The workstreams and a summary of the reasons for progressing to feasibility stage, that are indicated in the WMS Action Plan, are described in Table 3-1.

Table 3-1 – WMS workstreams progressed in this report

Workstream	Description	Reasons for progression to feasibility stage
Park and Ride (P&R)	Increasing the number of P&R spaces on the periphery of Winchester	• High level of agreement with WMS and LTP priorities • Positive environmental impacts expected in city centre • Enables redistribution of street space to other modes
Walking and Cycling	Re-allocation of road space to improve pedestrian and cycle facilities in the city	• High level of agreement with WMS and LTP priorities • Provide realistic non-car travel options • Health benefits associated with encouraging active travel
Deliveries	Better management of deliveries of goods to the city centre	• High level of agreement with WMS and LTP priorities • Avoid peak congestion, improving air quality and delays • Improved reliability and minimise costs for local businesses
Enhancing public realm in the city centre	Creation of high-quality, people-focussed places and spaces that people will enjoy	• High level of agreement with WMS and LTP priorities • Improves economic vibrancy and productivity • Equality benefits and supports social cohesion
Bus Priority	Introducing bus priority measures on key radial routes into the city centre	• High level of agreement with WMS and LTP priorities • Positive environmental and equality impacts • Bus gates provide a step-change in public transport status

City of Winchester Movement Strategy, 2019

Since the publication of the WMS, the workstreams described in Table 3-1 have developed into the feasibility studies described in this report: P&R, Local Cycling and Walking Infrastructure Plan, Urban Freight Transport, Movement and Place Plan and Bus Provision Studies. In addition, WCC is updating the District-wide Local Plan and implementing its newly adopted Parking and Access Strategy.

3.3. Approach to feasibility study programme

The feasibility studies have been developed by Atkins, advised by HCC and WCC technical leads with detailed knowledge of the local context. Regular meetings and workshops have been held between each level of project governance.

Work to date, which comprises the subject matter of this report and will form the basis of further detailed examination, has been undertaken before the likely UK impacts of the Covid-19 pandemic were understood. On publication of this report it is clear that the social and economic impacts of the pandemic will be profound but are, as yet, unquantifiable. The temporary effects of actions taken to control pandemic are likely still to be prevalent for some time and this is likely to engender enduring changes in travel behaviour. Expected increases in home working and active travel will be beneficial to the aims of the strategy but this is likely to be tempered by continuing tendency to avoid public transport and possible reduced capacity due to social distancing requirements.

3.3.1. Interdependencies

In line with the approach outlined in the WMS Action Plan, all studies have been developed interdependently. Where possible, resources have been shared between multiple workstreams to maximise knowledge sharing. Findings from each workstream have been fed into the others as they arose, and decisions impacting multiple workstreams have been made collaboratively. Two workshops were held with task leads to facilitate this process. The first, at the beginning of the process, highlighted any potential interdependencies and when they were likely to arise. The second, mid-way through the process, established which interdependencies had been met and updated the list according to changes in scope and direction. The list of interdependencies prompted project leads to collaborate and share outputs at appropriate times throughout the process.

3.4. Purpose of this report

This report provides a summary of the work undertaken for the WMS Feasibility Studies. It describes the key issues addressed by each study, approach, outcomes and recommendations for further work.

4. Park and Ride Feasibility Study

4.1. Alignment with WMS priorities

The WMS, WMS Action Plan and draft Winchester Parking and Access Strategy identify substantial expansion of P&R services in Winchester as important to delivering the overall WMS strategy. Table 4-1 demonstrates how the aims of the P&R Feasibility Study align with the priorities of the WMS. Increasing the P&R services in Winchester to accommodate demand will provide an alternative to parking in city centre car parks, reducing unnecessary traffic and relieving congestion (WMS Priority 1). Providing attractive and sustainable options, such as P&R, for travel into Winchester will enable future development that will support economic prosperity in Winchester for future generations (WMS Priority 3).

Table 4-1 - Alignment with WMS Priorities (P&R)

WMS Priority		
1: Reduce city centre traffic	2: Support healthier lifestyle choices	3: Invest in Infrastructure to support sustainable growth.
✓		✓

There are four P&R sites in Winchester with a total of 1,861 parking spaces, located to the south of Winchester City Centre - Pitt, South Winchester, St Catherine's and Barfield. The average occupancy across all sites on weekdays has grown to 82% (100% at both Pitt and Barfield) in 2019, they are therefore considered to be operating at capacity.

All four sites are serviced by a single P&R bus route operated by Stagecoach. The current P&R bus services run on street, and largely without any priority, apart from at Winchester Train Station and in Silver Hill. They are subject to the uncertainties of the current road network, which can make P&R unattractive compared to private vehicle use in some circumstances. Demand has significantly grown since 2017 and the WMS research suggests that demand is expected to continue to grow as strategic development sites are realised. The high amount of private non-residential parking in central areas is also a factor that needs to be considered, alongside the availability and cost and availability of central public parking spaces.

4.2. Feasibility study approach

The approach to P&R feasibility study had two main strands, an assessment of potential demand for P&R; and an option assessment of potential P&R sites.

4.2.1. P&R demand assessment

A high-level demand estimation was carried out to identify and understand the underlying travel market along 11 key corridors into Winchester and to infer the potential scale of P&R demand among car drivers on those corridors (Figure 4-1).

A demand model was developed using initial assumptions for the intercept rate of cars trips entering Winchester by a potential P&R site and the level of private and public parking supply in the city. This model enabled an estimate for potential P&R demand from each direction (South-east, South, South-west, North-east, North-west) across a number of future scenarios from 2022 to 2036. The estimates varied depending upon:

- The percentage of switch from public parking in central areas (using pricing or other means); and
- The percentage of switch from private non-residential parking in central areas.

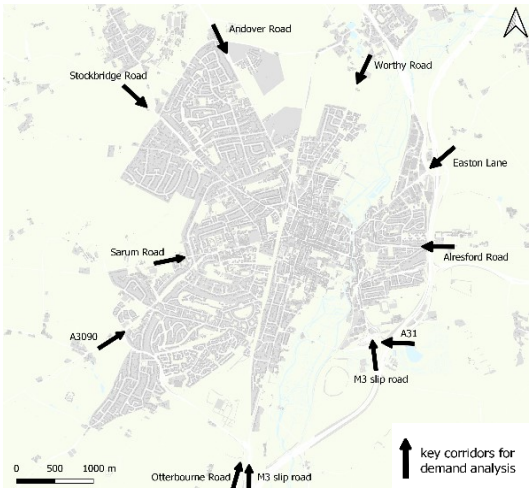


Figure 4-1 - Demand analysis corridors

4.2.2. Option assessment of P&R sites

A multi-criteria assessment framework (MCAF) was produced to assess each of the initially identified fifteen sites against different criteria to understand which sites are deliverable, and effective in achieving the WMS priorities. These criteria can be broadly assembled into the following three groups:

- Land use and site criteria – considering land acquisition, existing use, flood zones and site protection
- Environmental criteria – considering level of tree coverage, ecology/landscape and air quality/noise
- Transport criteria – considering walking distance to bus corridors, car trips, bus journey times, non-motorised user accessibility, and potential journey time savings

The MCAF process ranked the proposed P&R sites in order of priority.

4.2.3. Data considered

Table 4.2 below shows a high-level summary of key data considered for the P&R feasibility study.

Table 4.2 - Summary of data used in the P&R Feasibility Study

Data Type	Summary
Occupancy data	Analysis of hourly occupancy data from each of the P&R sites to determine the current demand and unused capacity.
P&R ticket sales	Total number of daily tickets sold at each P&R site gives an indication of each P&R site's estimated revenue. This also provides information on the most popular time of day for parking at each location, i.e. morning peak and Saturday all day.
Origin-destination data	Using trip origin-destination data to forecast the best locations for P&R sites to encourage those currently using private vehicles to switch to the P&R services.
Census data	Breakdown of how commuters travel to work and where they are travelling from.
Real Time Information analysis of bus services	Analysed for the purpose of understanding bus journey times, locations where services incur delays and variability of arrival times into each bus stop.
Cost data	Analysis of operating, maintenance and revenue costs for existing P&R sites were used to determine high level cost estimates for new and expanded P&R sites.
Data from Private Non-Residential parking users	Analysis of car park survey data from the 2011 WinACC (Winchester Action on Climate Change) report informed the demand assessments. An updated survey was undertaken in February 2020 and these results will be used to further develop the demand and capacity assessment scenarios as the feasibility work progresses into Phase 2.

4.2.4. Stakeholder engagement

The initial WMS public consultation in 2017 discussed the issues surrounding bus services in Winchester City Centre and opinions on the P&R services currently on offer. No further public consultation has been carried out in establishing the baseline, however it is recommended that stakeholder engagement on the shortlisted sites is carried out in the next phase of work.

4.3. Outcomes

The demand assessment indicated that P&R demand could increase from an additional 719 spaces (in 2022) to just over 3,000 spaces (in 2036), subject to the impact of the wider WCC Parking and Access Strategy and the level of reduction of private non-residential parking. Key observations from the demand analysis included:

- A reduction of 333 private non-residential parking spaces in the city centre between 2011 and 2020, (approximately 12%). This is likely to be a response to increased P&R capacity on the outskirts of the city centre.
- 15.4% of car park demand originates from within Winchester area. This is the origin zone with the highest number of trips to city centre car parks.

- Bordering the city centre area, a high number of trips originate from Springvale and Alresford areas to the north east.
- Longer distance demand originates predominantly from south of Winchester including Southampton and Eastleigh. Demand from north of Winchester tends to be for shorter distances and
- Analysis of questionnaire data from all private non-residential car parks showed that 82.8% of respondents remain at car parks all day, reflecting the high level of usage of these sites for commuters. The second highest category was short stay for less than three hours at 11.6%.

The outcome from the option assessment analysis shows that 7 out of 15 sites scored highly against the MCAF criteria (Section 4.2.2) as shown in Figure 4-2 below. These sites have been shortlisted for further design, public and stakeholder engagement and business case development, as part of subsequent phases of the study. The shortlisted potential P&R options are provided below:

- Kings Barton – This development site to the east of Andover Road is currently under construction and will include a 'Park and Ride Light' car park with space for circa 200 cars, which is estimated for completion in 2024.
- A site north of the city that has the ability to provide a P&R for trips into Winchester using both Andover and Stockbridge Roads.
- A P&R site in the Winnall/Easton Lane area – although this is a key business and commercial hub for Winchester and, thus, care needs to be taken to ensure that this is not jeopardised.
- Barfield and St Catherine's – extensions of existing provision
  - The former Vaultex site – Currently at a funding application stage to provide 300 additional spaces (including electric vehicle charging) as an extension to Barfield P&R site. An initial 100 space surface car park is at the planning application stage.
- Winchester South P&R – extension to existing provision

Figure 4-2 - Summary of shortlisted P&R options

The outcomes of this study will feed into the Winchester Parking and Access Strategy which will establish the appropriate balance of parking on offer in Winchester between P&R, residential parking, private non-residential parking and visitor parking.

4.4. Recommendations

As part of the next phase of the P&R study, it is recommended that:

- The feasibility of the 5 shortlisted site options (subject to stakeholder engagement) are explored in further detail to understand their impacts on current P&R infrastructure, bus journey times to key destinations and the number of private vehicles in Winchester City Centre;
- Concept site designs should be created, and bus service routes developed to help identify deliverability, and the risks and opportunities for each location;
- The impact of the existing and proposed P&R services on air quality, health, equality and other environmental considerations should be assessed;
- The results from the recent private non-residential parking survey should be further interrogated to understand more about whether the availability of this type of parking is likely to threaten the viability of an

expanded P&R offer. At this point, the future introduction of a workplace parking levy should not be ruled out entirely, although it should remain as a fall-back option, as per the WMS.

- The implementation of the newly adopted WCC Parking and Access Strategy particularly in regard to the availability and cost of public parking in central Winchester will be a key factor in the success of an expanded P&R offer.

5. Local Cycling and Walking Infrastructure Plan

5.1. Alignment with WMS priorities

The development of a Local Cycling and Walking Infrastructure Plan (LCWIP) for Winchester was a key element of the WMS Action Plan workstream: *Walking and Cycling – Re-allocation of road space to improve pedestrian and cycle provision.* In Winchester, the pattern of development has led to several examples of physical severance throughout the city. Inadequate routes, or lack of them, can bring residents and visitors to rely on private transport overstretching the already congested city centre network. Enabling walking and cycling through infrastructure improvements provides a viable option for users to choose modes other than private vehicles thus helping to reduce city centre traffic (WMS Priority 1 as shown in Table 5-1) and supporting healthier lifestyle choices through the use of active modes (WMS Priority 2). Providing a greater choice of travel options also helps to accommodate future growth that could not be supported by the existing road network alone (WMS Priority 3).

Table 5-1 - Alignment with WMS Priorities (LCWIP)

WMS Priority		
1: Reduce city centre traffic	2: Support healthier lifestyle choices	3: Invest in Infrastructure to support sustainable growth.
✓	✓	✓

5.2. Feasibility study approach

Local Cycling and Walking Infrastructure Plans, as set out in the Government's Cycling and Walking Investment Strategy (2017), identify interventions required to develop and improve local walking and cycling networks with the overall aim of increasing the number of trips made by these modes in the long term. The outputs of an LCWIP are network plans for key walking and cycling routes and a prioritised programme of infrastructure improvements. These outputs were achieved by carrying out:

1. A review of previous studies and existing data relating to walking and cycling in Winchester
2. Analysis of spatial and behaviour data sets
3. Stakeholder engagement with local walking and cycling interest groups and other local stakeholders
4. Identification of cycle and walking networks
5. Development of a programme of infrastructure improvements based on audits of the proposed cycle and walking routes and stakeholder input

The strategy aims to develop local walking and cycling infrastructure that, whilst respecting the character and aesthetics of the city, is transformational, future proofed, innovative and deliverable, creating a network that truly prioritises pedestrian and cyclist movement and integrates with the other HCC and WCC workstreams. To support this aim, the interventions deliver design best practice through six key elements: safety, directness, comfort, coherence, attractiveness and adaptability. Ultimately, the design strategy looks to identify both 'quick wins' and long-term solutions that could be applied across Winchester.

5.2.1. Data considered

Table 5-2 summarises the data that was considered in the development of the LCWIP.

Table 5-2 - Summary of data considered in study

Data Type	Summary
Desktop research	Previous studies and data relating to walking and cycling, major origins or destinations in the city and relevant major schemes were reviewed. These included Walking Group – Feet First Audits (2016), Central Winchester Regeneration: Public Realm Framework Plan (2017), Cycle Winchester Maps (2018) and WMS: Walking and Cycling Conditions Assessment (2018), Winchester Station Approach (2018), Winchester District Cycle Strategy (2012), among others
Data analysis and GIS mapping	Existing data sources were analysed including collision data; existing walking and cycling networks, key destinations including schools, census data such as densities of no car households and population, topography, journey to work, Propensity to Cycle Tool (PCT) and Strava data

5.2.2. Stakeholder engagement

Stakeholder engagement was a crucial element of this study as local users had an in-depth knowledge of challenges and opportunities for cycling and walking in the local context. The project involved four stakeholder engagement events - two workshops and two interim meetings (Figure 5-1). The first workshop invited stakeholders to review the data gathering process and add their input to the initial findings. The second meeting was during the concept design process to review the proposed infrastructure interventions and vote on routes for prioritisation. The stakeholder events were attended by local walking and cycling interest groups, representatives from WCC, Royal Hampshire County Hospital, Winchester University and others.

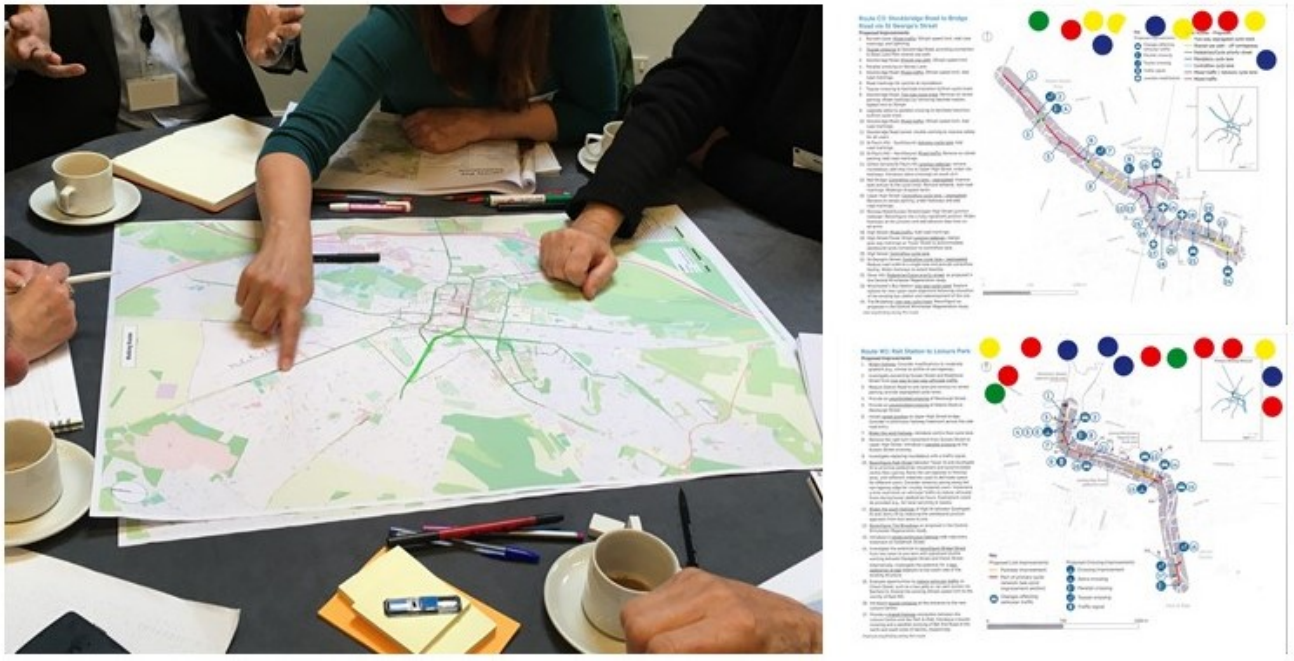


Figure 5-1 - Stakeholders review initial findings (first workshop) and vote on routes for prioritisation (final workshop)

5.3. Outcomes

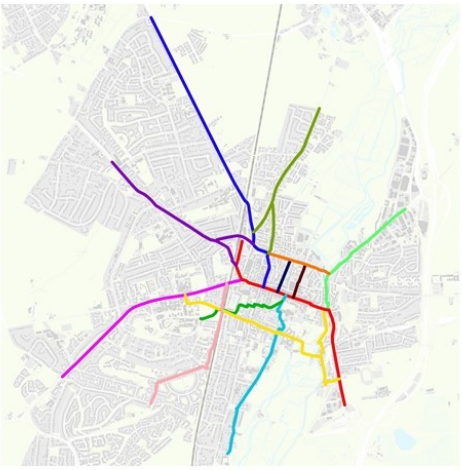
Routes identified during the evidence gathering process were reviewed using a multi-criteria analysis that considered local stakeholder input, potential usage, access to key destinations and other factors. From this process, 9 priority cycle routes and 13 priority walking routes were selected to make up the walking and cycling network for Winchester (Figure 5-2).

Provisional design interventions were developed for each of the chosen routes to improve conditions for pedestrians and cyclists. Examples of interventions include:

- Pedestrian/cycle priority streets
- Raised junctions
- Side road entry treatments
- Segregated cycle lanes

These were based on a set of guiding principles developed from established best practice, case studies with a similar local context and proven successful designs.

Priority	Walking Route
High	Rail Station to Leisure Park via High Street
	Romsey Road
	Andover Road to Jewry Street
	North Walls
	University to Leisure Park
Medium	Stockbridge Road
	Kingsgate Road
	University to City Centre via Archery Lane
	Worthy Road
	Parchment Street
Low	St James' Terrace to Cromwell Road
	Water Lane – Easton Lane
	Middle Brook Street



Priority	Cycle Route
High	National Cycle Route 23
	Stockbridge Rd to Bridge Rd via St George's St
	Andover Rd to Rail Station and North Walls
Medium	Worthy Rd, Jewry St and Southgate St
	Parchment Street
	University to Leisure Park via St James' Lane
Low	Romsey Road
	Kingsgate Road
	St James' Terrace to Cromwell Rd via Christchurch Rd

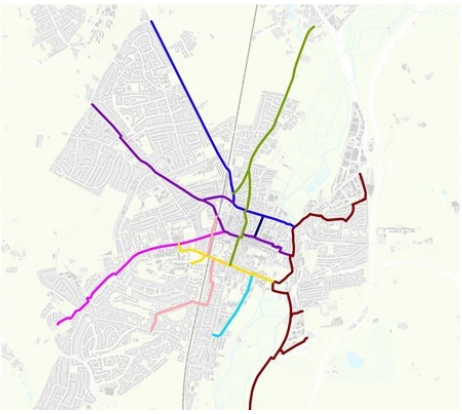


Figure 5-2 - Selected walking and cycle networks for Winchester

5.4. Recommendations

As part of the next phase of the LCWIP study, it is recommended that:

- design proposals across the WMS workstreams are integrated, to resolve any competing needs, and to review the proposals to ensure a cohesive overarching strategy is achieved.
- the current prioritisation programme should be refined to consider more discrete elements, such as route segments, individual interventions or specific geographical areas (and resources) to be more targeted toward the weakest links in the network, areas with the greatest need or highest benefit, and/or where there is opportunity for synergy with the other WMS workstreams.
- Engagement is continued with stakeholders including walking and cycling groups to get feedback on design proposals.
- The design proposals associated with selected routes should be advanced to feasibility design, including cost updates and a detailed programme of interventions.
- Outputs should then be integrated into local planning and transport policies, strategies and delivery plans.

6. Urban Freight Transport Study

6.1. Alignment with WMS priorities

The Winchester Urban Freight Transport Study forms the foundation for delivering one of the nine workstreams defined in the WMS: "*Deliveries – Better management of deliveries of goods to the city centre*". The better management of freight deliveries will improve the movement of traffic through Winchester City Centre and support the growth of local businesses (WMS Priority 3 in Table 6-1). The safety of streets will be improved, making travel by active modes more accessible (Priority 2).

Table 6-1 - Alignment with WMS Priorities (Urban Freight Transport)

WMS Priority		
1: Reduce city centre traffic	2: Support healthier lifestyle choices	3: Invest in Infrastructure to support sustainable growth.
	✓	✓

During the initial WMS public consultation process in 2017, the need to improve and better manage deliveries in the city centre saw the highest approval rating (88%) across all nine workstreams. Several key issues were highlighted including:

- High demand for deliveries in the city centre along the main traffic corridor around Eastgate Street, Friarsgate, St George's Street and Southgate Street, exceeds the capacity of loading bays
- Unofficial loading spaces are frequently used and caused disruption to traffic in peak periods
- On-street parking in the proximity of the shop is preferred by businesses
- Loading bays are limited in number and in space and not suitable for large lorries
- Freight deliveries are creating conflicts with pedestrians (e.g. in and around The Square) , negatively impacting the perception of the city centre
- Businesses show low acceptability to change
- Difficulty in the enforcement of current loading/delivery restrictions.

Inefficient management of deliveries resulting from the key issues described above present a barrier to economic prosperity in the town centre.

6.2. Feasibility study approach

The study involved a high-level assessment of the current urban freight environment in Winchester, a literature review of best practice across European and UK towns and an initial assessment of a long list of interventions that could be considered for future implementation. The approach consisted of the following five tasks:

1. A baseline assessment to understand the current freight demand and delivery profile of the focus area
2. A literature review to identify UK and European best practices for urban freight transport
3. Stakeholder engagement to engage with the Winchester businesses and validate the assumptions of the freight demand and delivery profile
4. Option identification to develop a long list of options with varying degrees of cost, delivery, timeframe, and impact
5. Option prioritisation, using a multi-criteria analysis, to assess the strengths and weaknesses of each option based on the following six criteria:
   - Feasibility
   - Economic impacts
   - Environmental impacts
   - Transport impacts
   - Social impacts
   - Business impacts

6.2.1. Data considered

Table 6-2 shows a high-level summary of all data considered for the study.

Table 6-2 - Summary of data used in the study

Data Type	Summary
Desktop research	Four studies formed the main sources of the research including SUGAR (Sustainable Urban Goods Logistics Achieved by Regional and Local Policies), STRAIGHTSOL (Strategies and Measures for Smarter Urban Freight Solutions), FTC2050 (Freight Traffic Control 2050), and Transport for London best practice among others.
Surveys and Interviews	See section 6.2.2. below.
GIS Spatial data analysis	Used to visualise the characteristics of the study area.

6.2.2. Stakeholder engagement

An interview was conducted with a representative from Winchester Business Improvement District (BID) to identify drivers and constraints for the demand and supply of urban freight transport in the city.

In addition, a survey was conducted with local businesses located in the city centre on October 24th, 2019. The survey was distributed to 69 businesses, representing approximately 10% of businesses in the Winchester Business Improvement District. The survey collected of two forms of data:

- Qualitative data: including type of business and busiest day of the week
- Quantitative data: including number of deliveries received on a typical day, the duration of the deliveries, loading location, and other quantifiable data collected through the survey.

The results of these surveys and the data analysis form the baseline assessment which helps to understand the overall freight delivery profile in the city. The results are presented in Figure 6.1 below.

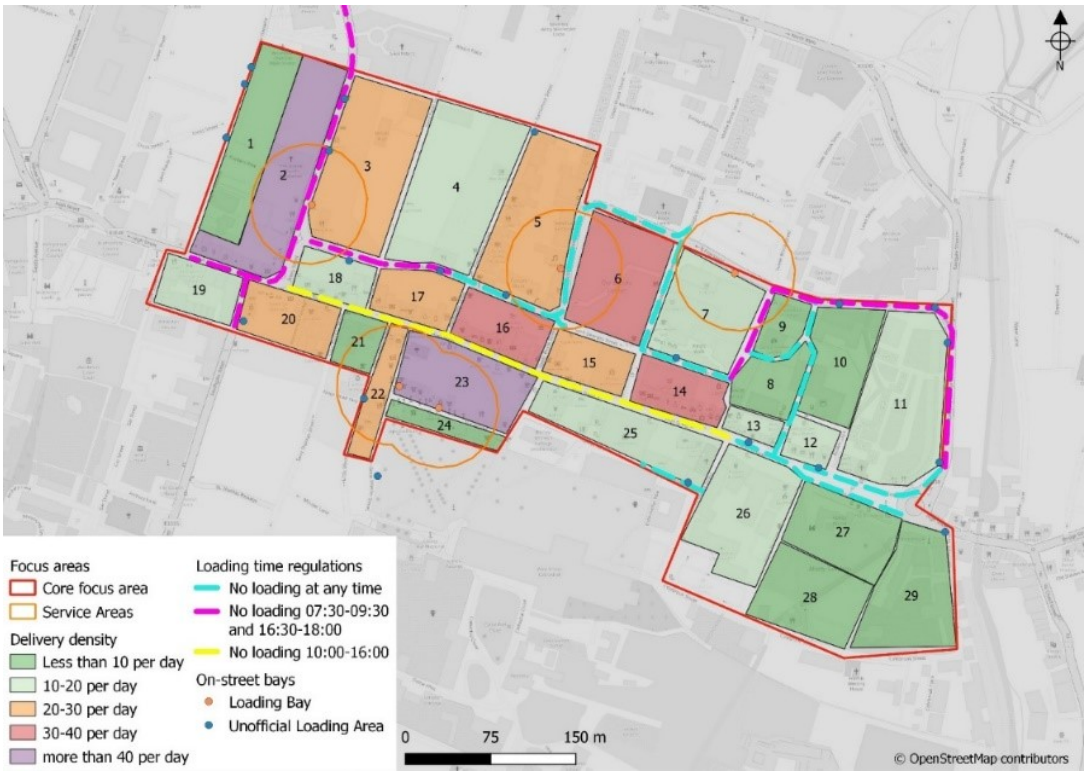


Figure 6.1 - Outcomes of the freight baseline assessment

6.3. Outcomes

Out of the fifteen initial options identified, three scored highly in the multi-criteria analysis process. At this stage of the study, all criteria (presented in Section 6.2) were given an equal weightage. The short-listed options were:

- Use of portering for last mile delivery
- Promoting cycle-based freight solutions and cycle infrastructure to support cycle-based freight solutions
- Collaborative and collective procurement

It should be noted that the three short-listed options are subject to change pending further stakeholder engagement and the updates to the multi-criteria analysis.

6.4. Recommendations

As part of the next phase of the Urban Freight Transport study, it is recommended that:

- The most suitable intervention package should be established to meet the needs of stakeholders, proven to be effective in small cities with similar traffic conditions to Winchester and should offer the best combination of deliverability and financial viability.
- The multi-criteria analysis used in Stage 1 should be extended to include various sensitivity scenarios, reflecting different focuses for each criterion and input from the wider stakeholder consultations with WCC, HCC and freight and commerce organisations.
- Possible intervention packages should be defined from a mix of the options identified with the highest potential to improve freight delivery related issues in the city centre that help to minimise the negative impacts on air quality, peak traffic flows, pedestrians and cyclists.
- Possible delivery models for the intervention package should be defined and available funding opportunities should be identified.
- A freight strategy and action plan should be developed.

7. Winchester City Centre Movement and Place Plan

7.1. Alignment with WMS priorities

The City Centre Movement and Place Plan evolved from the WMS Action Plan workstream: *Enhancing the public realm in the city centre,* which aimed to create high-quality, places and spaces that people will enjoy. This helps Winchester to maintain and enhance its draw for shopping, leisure, culture, entertainment and tourism, helping to secure future economic prosperity (WMS Priority 3 shown in Table 7-1). Re-defining the street space to reduce the dominance of traffic will enable the creation of high quality, comfortable environments for walking and cycling which will encourage the use of active modes (WMS Priority 2).

Table 7-1 - Alignment with WMS Priorities (Movement and Place Plan)

WMS Priority		
1: Reduce city centre traffic	2: Support healthier lifestyle choices	3: Invest in Infrastructure to support sustainable growth.
	✓	✓

The objectives of the Plan are to:

- Provide a coherent and long-term public realm and movement vision for Winchester city centre
- Understand the impact of traffic reduction and road space reallocation along the one-way system
- Rebalance and reprioritise movement dynamics between different modes, focusing on giving back space to pedestrians and the public realm.

7.2. Feasibility study approach

A desktop assessment of existing data, strategies and proposals was carried out followed by analysis of spatial patterns within the city centre which considered the different types of land use and spatial typologies in Winchester, and how multiple user groups interact with them. This user-centred spatial analysis enabled a series of public realm proposals to be outlined across the city centre which complement existing schemes and help to create a coherent and long-term public realm vision for the city centre.

Transport modelling outputs from the WMS evidence-base were assessed as part of a 'movement analysis' to understand how the one-way system would be impacted by future traffic demand and changes to the network. Movement options were developed with varying degrees of vehicle permeability which reflected gradual progression in reducing city centre traffic. These were overlaid with the emerging public realm proposals to examine their benefits and challenges.

A high-level comparison matrix was developed to demonstrate the benefits to the city from each Design Option in terms of changes to access for different modes, impact on environmental factors, impact on active travel and extent of public realm enhancements opportunities. Preliminary concept proposals were then developed in alignment with emerging preferred option to demonstrate how the public realm vision could manifest through design interventions. The approach is summarised in Figure 7-1.

The Plan and preliminary concept proposals were developed in line with key principles including:

- create or enhance public realm, and
- improve pedestrian environment and key pedestrian/cycling routes through and to the city centre, by
- reallocating highway space to public realm, walking, and cycling
- through a reduced need for private vehicles to be travelling through and to the city centre
- improve bus journey times and journey time reliability and
- maintain local access to homes, businesses and retail.

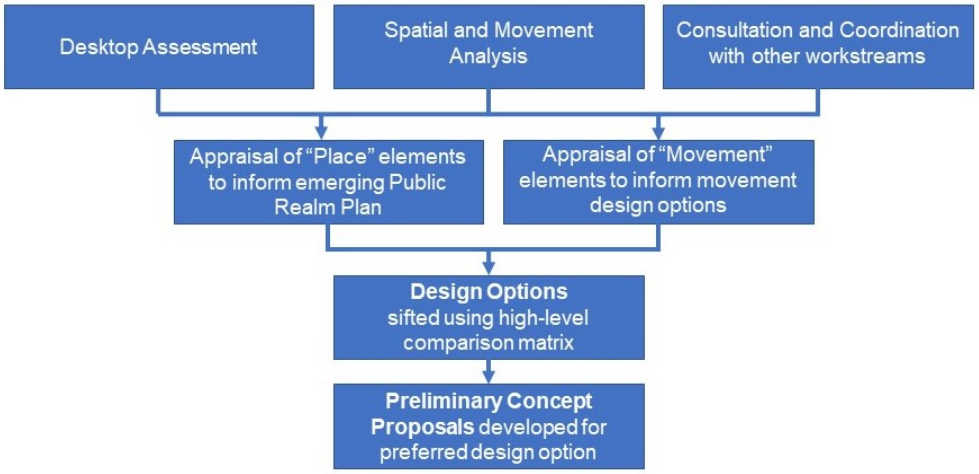


Figure 7-1 - Summary of Movement and Place Plan Approach

7.2.1. Data considered

Table 7-2 summarises the data that was considered in the development of the Movement and Place Plan.

Table 7-2 - Summary of data considered in study

Data Type	Summary
Desktop research	The key issues and proposals identified in previous studies were collated including the locations of collision hotspots, vehicle-dominated junctions, footways with insufficient footways and cut-throughs used by drivers to navigate through the city centre. Examples of key studies that were considered are Winchester Movement Strategy PERS and CLoS Assessment, Winchester Station Approach (2018), and the Winchester District Development Framework (2012)
Spatial Analysis	This included analysis of census data, crime data, built and open space, visitor attractions and event spaces, visibility and accessibility, night time activity, land-use, frontages and spatial typologies to understand priorities for the function of spaces
Movement Analysis	The outputs of the LCWIP, bus routes, vehicle trip movements, visibility and accessibility analysis were combined to provide an understanding of patterns of movement around the city

7.2.2. Stakeholder engagement

No stakeholder engagement was carried out in this stage of the feasibility study process. It is recommended that the Design Options are reviewed by stakeholders and refined accordingly in the next stage of development.

7.3. Outcomes

Three Public Realm Plan Design Options emerged from the study and their key features are described below and are summarised in Figure 7-2 and Table 7-3.

The road layout for Option 1 is based on a scenario tested during the WMS evidence gathering process (referred to in that study as Option 3bii)[1], options 2a and 2b are more aspirational still, as they involve further limiting vehicle permeability in the city centre. These options are subject to change following stakeholder engagement, further data collection, modelling and engineering assessment.

[1] https://documents.hants.gov.uk/consultation/WinchesterOptionAssessment-Modellingsummary.pdf

Table 7-3 – High-level, simplified summary of movement interventions on key routes

	Option 1 (base)	Option 2a (aspirational)	Option 2b (aspirational)
Jewry Street	Reduced to single lane	Reduced to single lane, bus access only	Reduced to single lane, bus access only
St George's Street	Reduced to single lane	Reduced to single lane	Reduced to single lane, bus access only
North Walls	Reduced to single lane	Reduced to single lane	Two-way movement
Friarsgate, Union Street and Eastgate Street	Two-way movement	Two-way movement	Two-way movement

Figure 7-2 - Public Realm Plan Design Options

Option 1 (base option):

- Bus and vehicular access is retained through Jewry Street. This limits scope of public realm interventions to north and south end of the street. Restriction on northbound movement to Hyde Street will enable traffic lane reduction along the north end of Jewry Street and reallocation of space for public realm. Similarly, removal of northbound movement from Southgate Street to Jewry Street will enable removal of northbound traffic lane at the junction of Jewry Street/High Street and reallocation of space for public realm.
- St. George's Street reduced to single lane and road space reallocated for public realm improvements
- North Walls to operate as one-way (single lane) allowing pedestrian and cycle route enhancements
- Friarsgate, Union Street and Eastgate Street to operate as two-way

Option 2a (aspirational):

- Prioritises traffic movement slightly more than option 2b by allowing vehicular & bus movement through St. George's Street but restricting movement along Jewry Street to bus only. This allows public realm enhancements to be implemented which would not be possible under option 1
- St. George's Street is reduced to single lane and road space reallocated for public realm
- North Walls to operate as one-way (single lane) allowing pedestrian and cycle route enhancements
- Friarsgate, Union Street and Eastgate Street to operate as two-way street
- Public realm enhancements similar to option 1 at north and south end of Jewry Street due to northbound movement restrictions
- Westgate Roundabout to be simplified to a two-way traffic movement along Sussex Street and Romsey Road. Westbound movement from High Street towards Romsey Road restricted to bus only to maximise public realm opportunities.

Option 2b (aspirational):

- Balances traffic and public realm priorities by keeping retail core accessible by bus whilst moving vehicular traffic along North Walls
- Bus only movements through Jewry Street and St. George's Street will partially improve public realm enhancement opportunities compared to options 1 and 2a
- Allows segment of the North Walls east of Upper Brook Street to operate one-way (single lane) allowing pedestrian and cycle route enhancements
- Signalised (two-way movement along a single lane) along North Walls segment between Jewry Street and Upper Brook Street can enable retaining benefits of pedestrian and cycle route enhancements available under options 1 and 2a.
- Retains southbound bus movement from Friarsgate Street to Southgate Street as options 1 and 2a
- Retains benefits of pedestrian prioritisation design offered under option 2a for Westgate Roundabout and Upper High Street

Option 2a emerged from the comparison matrix exercise as the one that achieves the best balance between public realm aspirations and traffic movement. The key benefits of this option include;

- North Walls is reduced to a single lane of traffic which will benefit pedestrians and cyclists and provide public realm enhancement opportunities through the reallocation of road space.
- Jewry street can be re-characterised through public realm improvements as traffic is reduced to bus only

7.4. Recommendations

As part of the next phase of the City Centre Movement and Place Plan it is recommended that:

- The potential options are tested within the microsimulation transport model
- The emerged options are refined and prioritised, reviewed against other short-listed options from parallel studies, and stakeholder engagement is undertaken
- Short-term potential trial/temporary interventions are developed to feasibility design stage including:
  - Closure of The Square to through traffic
  - Restriction of traffic movements at the High Street/Jewry Street junction to enhance the public realm
  - Improve the place setting of the Chesil Street/Bridge Street junction
- Develop preferred options and concept designs for priority interventions including engineering feasibility to:
  - Reduce St George's Street to one lane
  - Enable two-way operation of Friarsgate and Union Street along with associated junction changes
  - Improve pedestrian and cycle facilities on Upper High Street, Westgate and the junction with Southgate Street

8. Bus Provision

8.1. Alignment with WMS priorities

The Bus Provision Study aims to improve the public transport offering in Winchester to support future growth in bus demand and enhance the popularity of bus services (WMS Priority 1 as shown in Figure 8-1). Bus travel is more efficient than private vehicles in terms of space and emissions and therefore investment in this area is a sustainable means of supporting future growth in the city (WMS Priority 3).

Table 8-1 - Alignment with WMS Priorities (Bus Provision)

WMS Priority		
1: Reduce city centre traffic	2: Support healthier lifestyle choices	3: Invest in Infrastructure to support sustainable growth.
✓		✓

Buses currently operate via a clockwise gyratory in Winchester city centre. The circuit, from the north-west consists of City Walls, Eastgate Street, Broadway, Bus Station, Friarsgate, Tanner Street, Silverhill, St George's Street, Jewry Street and the Rail Station. This enables most buses to serve each end of the city centre and the rail station, which is necessary to achieve acceptable walking distances between bus stops and passenger destinations. With most buses entering from the west, a facility for buses to terminate and take layover in the east part of the city centre is required. Currently Winchester Bus Station and bus stops on Broadway fulfil this function (Figure 8-1), however of these Winchester Bus Station is part of the Central Winchester Regeneration Scheme and there is a desire to reduce vehicle movements on parts of the Broadway in order to improve the public realm.

Figure 8-1 - Buses and coaches in Broadway

8.2. Feasibility study approach

The feasibility study reviewed the current bus and coach operations in Winchester alongside previous studies of bus services. The study also undertook analysis of possible layouts of bus facilities in the city centre. The following tasks were carried out for this study:

- Review and validate work carried out in previous studies
- Quantify required bus stand space and ancillary facilities for future growth scenarios

- Review bus service routings across the city centre
- Develop preferred outline solution in consultation with HCC, WCC and Bus Operators

8.2.1. Data considered

Table 8-2 shows a high-level summary of all data considered for the study.

Table 8.2 - Summary of data used in the Winchester Bus Provision Study.

Data Type	Use within the Study
Bus Operator Data	Analysis of demand, journey time reliability, congestion hot spots and layover requirements of local buses.
Desktop research	Previous studies and local planning documents were reviewed to understand anticipated increase in demand for bus travel and to evaluate work that has been carried out on buses in Winchester to date. For example, growth associated with the Local Plan and housing development in Kings Barton suggested an increase of 7-9 buses per hour to cope with population increase through developments.

8.2.2. Stakeholder engagement

Two meetings were held on 10th and 28th of February 2020 with Bus Operators and representatives from HCC and WCC including those overseeing the Central Winchester Regeneration. The purpose of these meetings was to gain feedback on findings and collaborate on emerging design proposals.

8.3. Outcomes

Bus service provision is likely to increase in response to increased demand stemming from Local Plan growth and the policies developed under the Winchester Movement Strategy. This increase could be as high as approximately 12 - 15 local bus services per hour and around 5 P&R bus services per hour. Together these will increase overall bus service frequency by around 40% - 50%.

Further work is underway to determine the best location(s) for the additional bus stops and layover space required to accommodate the future growth. Engagement with bus operators, representatives from HCC and WCC including the Central Winchester Regeneration scheme and other WMS workstreams will continue to identify a pathway to providing a detailed passenger transport plan. This will also consider specific measures such as bus gates along with current opportunities such as Challenge Funding to support new and extended bus services, the newly adopted Winchester Parking and Access Strategy and the potential Electric Bus town bid.

8.4. Recommendations

As part of the next phase of the study it is recommended that:

- Proposals are fully validated with bus operators
- Further stakeholder engagement is carried out to review proposed options and refine accordingly
- A passenger transport plan for Winchester city centre is developed, drawing on findings and conclusions from other WMS workstreams and opportunities for changes to bus routeing and supporting bus priority measures including bus gates, the Movement and Place Plan, the recently-approved Parking and Access Strategy, Local Plan growth and bidding opportunities, including opportunities for alternatively-fuelled vehicles.
- A detailed transition plan is developed to facilitate change from the current situation to the proposed end-state.

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