

Jericho and Walton Manor Low Traffic Neighbourhood

Concept Scheme Assessment - Technical Note



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1. Introduction

C Proctor Engineering is a small, multi-disciplinary highways, traffic and urban design consultancy specialising in the identification, planning, design and delivery of active travel infrastructure schemes and networks, public realm improvements and complementary behaviour change initiatives. C Proctor Engineering has worked extensively with London Borough of Waltham Forest over the past five years as the lead technical project development specialist on their transformative Enjoy Waltham Forest Programme. Prior to this, founder and director Chris Proctor had a number of roles within various London-based local authorities, including four years as London Borough of Hackney's Head of Design and Engineering. More recently, C Proctor Engineering was commissioned by Oxfordshire Liveable Streets and St Mary's Ward Councillors to develop concept Low Traffic Neighbourhood proposals for the Florence Park and St Mary's areas within Oxford City. Following successful completion of these projects, C Proctor Engineering Limited has been commissioned undertake an outline technical assessment/review of emerging Low Traffic Neighbourhood (LTN) proposals within the Jericho and Walton Manor area of Oxford.

For reference, a Low Traffic or "Liveable" Neighbourhood is an area-based approach to reducing the volume and impact of motorised traffic using parts of the road network within a given area, typically part of an urban or city environment. The approach generally includes the introduction of a range of traffic management measures alongside additional highway safety improvements and public realm/space enhancements; the ultimate aim being to reduce the dominance of motor vehicle traffic within the neighbourhood, improve safety, encourage and enable more active and sustainable travel, enhance the public realm, and increase the sense of place and community. This in turn can lead to improvements in air quality, public health, social inclusion and mobility, alongside a range of other social, environmental and economic benefits.

The LTN proposals have been developed by the "Jericho Low Traffic Neighbourhood Group" – made up of a number of representatives from within the local community, primarily residents. The LTN proposals have been borne from a relatively unique set of circumstances that have developed and evolved over the past 12 months, whereby an initially temporary road closure for highway maintenance work was extended using Experimental Traffic Management Order powers, effectively creating a LTN of sorts within the area. This in turn has generated a significant amount of local interest and publicity, both positive and negative, from a range of stakeholders. Ultimately, it has resulted in the development of alternative LTN proposals to try and address some of the key concerns that have arisen from the current traffic management measures, while still delivering the key benefits commonly associated with lower levels of motorised traffic within the area.

The primarily purpose of this review is to provide further technical assurance on the feasibility and viability of the emerging plans including; identification of potential issues, impacts and technical constraints associated with the proposals; consideration of different traffic management options for specific streets (where multiple options are put forward), and identification of any additional or complementary measures that could/should be considered. It is important to note that the review is not intended to justify or support the implementation of an LTN within the area from a policy perspective, but to consider and assess the current proposals from a technical and operational viewpoint.

While the focus of the commission is a review and assessment of the LTN proposals as described above, a number of other outputs have been requested as follows;

- An outline cost estimate for the LTN proposals
- Consideration of a possible short and long-term phased delivery approach in light of the Department for Transport's Covid-19 Emergency Active Travel Fund (EATF). It is understood that some funding has been provisionally allocated to the Jericho LTN as part of EATF, in the order of £55,000.
- Short appraisal of several alternative proposals being suggested for the area

As part of the review process an initial background investigation and associated desktop study has been completed to ensure a level of familiarisation with the area, supplemented by a site visit on Monday 28 September 2020. The site visit included an accompanied tour of the study area with a representative of the Jericho Low Traffic Neighbourhood Group, to help understand key local issues, concerns, aspirations and ideas in greater detail.

Given funding and time constraints it is important to emphasise that while every effort has been made to provide assurance that the concept presented is broadly workable, it is highly recommended that a formal and detailed project and design development process be followed in order to develop and progress highway improvement proposals within this area. This will ensure that any detailed proposals are fully feasible and viable from a technical, safety and operational perspective, and meet the requisite design standards and requirements of the local authority, as well as legislative and/or regulatory requirements.

2. Background and Area Context

As this report has been commissioned by members of the Jericho and Walton Manor community it has not been deemed necessary to provide an exhaustive description of the area and its land use and transport characteristics. However, the most pertinent contextual information relating to the area and the background behind the current LTN proposals is included below.

2.1 Study/LTN Area

The Jericho and Walton Manor areas are located just to the north of Oxford Town Centre. For the purpose of this commission the specific study area, and boundary of the LTN, is defined broadly as being between Woodstock Road, St Giles, Beaumont Street and Worcester Street (All A4144), Castle Mill Stream and Polstead Road, as shown in Figure 1 below. The study area spans a number of administrative ward areas including Jericho and Osney, Carfax, North and St Margaret’s. Relevant Ward Councillors have not been directly approached or engaged as part of this commission.



Figure. 1 – Jericho and Walton Manor (copyright Google Maps)

The area is predominantly residential with a range of typical community amenities located throughout, including several lower years education facilities, religious institutions, a medical centre and community centre. Oxford University and its associated faculties and colleges are prevalent across the city with a number of administrative, teaching and research facilities located within Jericho, although it is understood these do not generate a significant amount of motorised vehicle trips to and from the area. Oxford University Press has a significant operational facility in Jericho and

is understood to be the area's biggest employer as well as a key trip generator, particularly for commercial traffic.

Walton Street and Kingston Road form the main north-south 'spine' through the area. While Kingston Road is largely residential Walton Street is mixed use, with the northern section forming a key local centre for retail, commercial and hospitality sector business activity within the area. In the context of the Low Traffic Neighbourhood proposals this is a key focal point; on one hand it is seen as the centre piece to the area with an aspiration to create an attractive, accessible, pleasant, low-traffic, pedestrian-friendly environment that supports and nurtures local businesses, but is also where some of the key biggest concerns exist over the potential impact of any changes to the road network and local access by motor vehicle. In the southeast corner of the area is Little Clarendon Street, another primarily commercial and retail street. Aspirations again exist to improve the visitor experience by reducing motorised traffic and creating greater, and more flexible, outdoor space for non-motorised users.

National Cycle Network Route 5 connects Oxford with Birmingham and starts in the City Centre before running through the LTN area, primarily along the main Walton Street – Kingston Road spine. People cycling make up a sizeable proportion of the traffic currently using the area, as shown later in Section 4, so improving and enhancing the NCN route, as well as the area in general, is a key objective of the proposed LTN and a strategic driver behind the EATF bid submission for the area.

2.2 Background Information

In 2019 emergency works to repair a sink hole at the southern end of Walton Street just north of the junction with Beaumont Street and Worcester Street (location shown in Figure 1) required Walton Street to be temporarily closed to traffic. The Council decided to keep the closure in place for an extended period of time using Experimental Traffic Regulation Order powers. It is understood that this was in response to historic concerns over the volume of through traffic using the Jericho and Walton Manor area instead of St Giles and Woodstock Road, with a view that the impacts would be observed and assessed over a period of time under "operational" conditions, before making a decision on whether the closure should be made permanent or not.

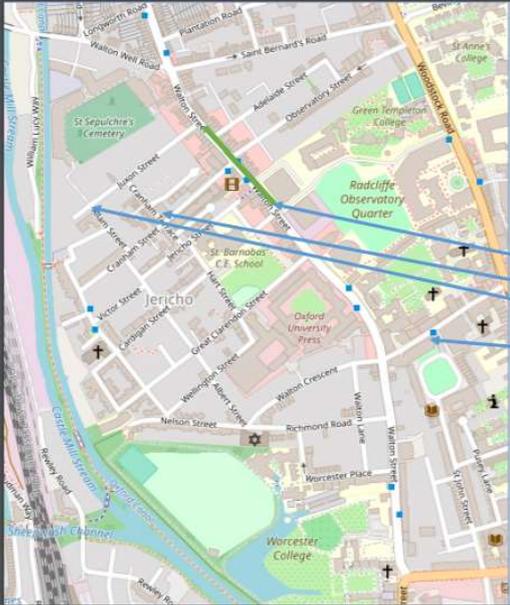
The closure has proved to be contentious, largely (although not exclusively) due to the process by which it was introduced and the perceived lack of consultation. Concerns exist over a perceived reduction in access, or at least ease of access, by motor vehicle, and that journeys to and from the south of the area are longer and more circuitous, amongst others. There have also been some unintended consequences with certain roads seeing increased levels of traffic – based on anecdotal feedback and observations at least – as a result of changes to access routes in and out of the area.

In response, a group of local residents who are supportive of the principles of reducing traffic within the Jericho and Walton Manor area have been progressively developing proposals for an alternative, more holistic, low traffic or liveable neighbourhood plan for the area. The intention being to reunite the community around a set of alternative plans that seek to; address some of the key impacts and concerns arising from the current Walton Street closure; provide a wider range of benefits for the community – in particular improvements to and create a greater sense of communal ownership. The emerging plans have been subject to a range of informal local engagement activities within the community in order to help garner feedback and refine the proposals, identify and assess local needs and requirements, and build local support.

3. Jericho Low Traffic Neighbourhood Group LTN Proposals

3.1 Overview

A detailed Proposals Document prepared by the Jericho Low Traffic Neighbourhood Group is included in Appendix 1. The document sets out a number of core traffic management proposals that effectively seek to replace the current temporary/experimental modal filter (road closure to motorised traffic) at the southern end of Walton Street with a series of modal filters or “Filter line” further north in Jericho. Figure 2 below includes several key extracts from the Jericho Low Traffic Neighbourhood Groups proposal document explaining the core proposals.



Replacing the barrier

We suggest that the barrier can be replaced by four ‘modal filters’ that would eliminate all rat running in the whole area but still allow walkers and cycles through. This cuts off all North–South routes through the area while allowing residents to drive in and out.

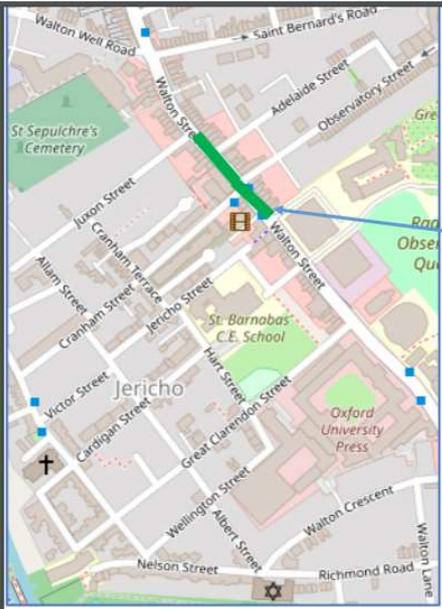
These four filters could be placed in:

- Walton Street
- Cranham Terrace (by the Rickety Press)
- Allam Street (corner with Juxon Street)
- Little Clarendon Street

Walton Street would become a pedestrianised shopping district. Deliveries, emergency vehicles and buses could all be let through.

The two filters in Jericho would stop rat running and mean that all traffic is local.

Options for Little Clarendon Street vary and are discussed in a later slide.



Pedestrianisation could make Walton Street a thriving eating and shopping destination

Re-landscaping part of Walton Street could give more space for restaurants, shoppers, cyclists and pedestrians.

PROPOSED CAR-FREE AREA

From just north of the Health Centre, so vehicles can still access this, to Juxon Street, which remains open.

This includes Jericho Tavern, Giggling Squid, Jude the Obscure, the Mind Shop, the Standard, Joots Pharmacy, The Phoenix Cinema, the Jericho Café, Branca, Jamals, Daisies, Manos, Mamma Mia and the 101 Coffee Shop.

Deliveries would still be permitted, perhaps only at certain times, and perhaps also emergency vehicles and buses, but otherwise there would be no through traffic.

Figure. 2 – Low Traffic Neighbourhood Proposals - Overview

The core proposals effectively include:

- Modal filters in Allam Street and Cranham Terrace
- A third modal filter in the form of the notional ‘pedestrianisation’ of Walton Street, shown broadly as the section between Jericho Medical Centre and Juxon street (with suggestions around possible access exemptions, on a time restricted or vehicle restricted basis)
- The identification of Little Clarendon Street as potentially/probably needing intervention as part of the wider traffic management/reduction strategy, but with a number of different possible options put forward for consideration. These are documented later in the detailed proposal document in Appendix 1, but include (not exhaustively):
 - ‘pedestrianisation’.
 - A point modal filter within Little Clarendon Street with vehicle access retained either side
 - A no left turn from Little Clarendon Street into Walton Street (Little Clarendon Street is retained as one-way westbound).
 - Reversing Little Clarendon Street so that it is one-way eastbound.

These core traffic management proposals/options aim to ensure that the overall traffic reduction benefits of the current modal filter in terms of removing traffic on wider/longer journeys between the City Centre and North Oxford are retained, while redistributing necessary and legitimate journeys in, out and within the overall area more equitably. The proposals also aim to provide greater opportunity for public space improvements and enhancements to the Walton Street retail area, to reduce motor vehicle dominance and make it more attractive, accessible and pedestrian orientated, which in turn should help support local businesses and allow more functional and flexible use of public highway space.

Additional aspirations and desired benefits of the proposed scheme, both local and strategic, are set out in more detail in the Detailed Proposal document, along with a range of other information including (again not exhaustively):

- Additional/supplementary proposals including possible School Streets and the desire for further speed reduction measures
- Identification of potential constraints and challenges requiring consideration and possible resolution. Notably this includes identification of the potential need for additional traffic management proposals in Observatory and Adelaide Streets, as associated measures to the Walton Street pedestrianisation
- Parking, access and delivery/servicing considerations for businesses, particularly those in Walton Street

In addition to the above a number of further key traffic issues and requirements have been raised, either by the Jericho Low Traffic Neighbourhoods group directly or through community feedback

and engagement, with a view that any alternative scheme should take these on board and try to address or ameliorate them as far as practical. Some of the main ones are outlined below:

- Any scheme results in a more equitable redistribution of traffic, both between Jericho and Walton Manor and across roads that form the entry and exit points to the area
- Any scheme does not result in a substantial or unacceptable increased in traffic in the residential Jericho area
- Any scheme aims to minimise or mitigate the likelihood of the previous capacity and congestion issues returning at the southern end of Walton Street, given it would need to be reopened under any proposal
- Any scheme is future proofed or could be easily adapted to accommodate a north - south bus route through the area. A bus previously served the area, but it is understood was withdrawn due to a lack of demand and poor journey time reliability. There is an aspiration from some to reinstate a service, as part of the wider sustainable travel package for the area

As appropriate, the information above and contained with the Detailed Proposals document has been taken into consideration as part of this review. In particular, throughout the report the LTN proposals and associated options (where relevant), are discussed and considered in the context of both the stated objectives and aspirations, and the key concerns and considerations outlined.

4. Traffic Data

At the time of commissioning no explicit provision was made for the analysis and assessment of any existing traffic survey data for the area, either to assess the impact of the current temporary/experimental modal filter or the impact of the alternative scheme proposed. This is largely because it was unclear whether, and what, previous data actually existed for the area.

Some existing traffic survey data for the area has however been provided by the Jericho Low Traffic Neighbourhood Group. The majority appears to have been commissioned by the Council and undertaken by a specialist traffic survey company, but this has also been supplemented by several additional informal manual surveys undertaken by members of the group. The survey data provided largely relates to the periods January/February 2020 and June/July 2020, both occurring after the current closure at the southern end of Walton Street was introduced in summer 2019. A small number of surveys have been provided for the period before summer 2019 (pre-closure), and while this includes extensive data from a permanent counting site on Kingston Road south of Leckford Road, the survey data is not classified by vehicle type and is therefore of limited use for comparative purposes. Overall, inconsistency amongst the various surveys and data sources provided is key theme, making meaningful analysis and assessment difficult.

Having reviewed the data provided there is insufficient historic traffic flow information available to make a robust assessment on the impact of the current modal filter at the southern end of Walton Street on traffic volumes/patterns throughout the area. As such it is very difficult to quantify, support or dispel some of the anecdotal reports of roads being negatively affected, particularly St Bernard’s Road which has been singled out as a key concern. Similarly, the absence of significant before data means that it is not possible to quantify, with any degree of confidence, the traffic reduction achieved by the current modal filter, which is unfortunate. However, survey data from Kingston Road and Walton Street does indicate that some overall traffic reduction has been achieved, as shown in the following section.

More significant data is however available following the introduction of the current modal filter. There appears to be gaps in the data collection strategy (i.e. not all entry and exit routes into the Jericho and Walton Manor area have been surveyed), meaning that a full and completely robust assessment is difficult. Sufficient information is however available to make some informed judgements about the overall volume of traffic currently moving in and out of the southern Jericho area in particular on a daily basis. This in turn can be used to provide some outline estimates on how traffic currently travelling in and out of Jericho *may* redistribute as a result of the proposed changes.

A full list of the surveys considered as part of the traffic analysis are set out in Table 1 below. Only data commissioned by the Council and undertaken by a specialist survey company has been considered.

Table 1: Traffic count locations

Year	Location	Type	Notes
2018	Kingston Road north of Leckford Road	Classified 2-way traffic count	1 day, 7am to 7pm
	Walton Street between Walton Crescent and Richmond Road	Automatic Classified 2-way traffic count	7-day, 24 hours. Pedal cycles not classified

2019	Kingston Road north of Leckford Road	Classified 2-way traffic count	1 day, 7am to 7pm
Jan 2020	St Bernard's Road	Automatic Classified 2-way traffic count	18-day, 24 hours.
	Leckford Road	Automatic Classified 2-way traffic count	18-day, 24 hours.
	St Margaret's Road	Automatic Classified 2-way traffic count	18-day, 24 hours.
	Observatory Street	Automatic Classified 2-way traffic count	18-day, 24 hours.
	Walton Street between Walton Crescent and Richmond Road	Automatic Classified 2-way traffic count	18-day, 24 hours.
	Little Clarendon street	Automatic Classified 2-way traffic count	18-day, 24 hours.
	Beaumont Street	Automatic Classified 2-way traffic count	18-day, 24 hours.
	Farndon Road	Automatic Classified 2-way traffic count	18-day, 24 hours.
	Kingston Road north of Leckford Road	Automatic Classified 2-way traffic count	18-day, 24 hours.
	St Margaret's Road/Woodstock Road	Manual Classified Junction Count	1 day, 7am to 7pm
	Woodstock Road/St Bernard's Road/Bevington Road	Manual Classified Junction Count	1 day, 7am to 7pm
	Woodstock Road/Observatory Street	Manual Classified Junction Count	1 day, 7am to 7pm
	Woodstock Road/Little Clarendon Street	Manual Classified Junction Count	1 day, 7am to 7pm
	Walton Street/Cranham Street/Observatory Street	Manual Classified Junction Count	1 day, 7am to 7pm
	Walton Street/Kingston Road/St Bernard's Road/Walton Well Road	Manual Classified Junction Count	1 day, 7am to 7pm
Jul 20	St Bernard's Road	Automatic Classified 2-way traffic count	8-day, 24 hours.
	Leckford Road	Automatic Classified 2-way traffic count	8-day, 24 hours.
	St Margaret's Road	Automatic Classified 2-way traffic count	8-day, 24 hours.
	Observatory Street	Automatic Classified 2-way traffic count	8-day, 24 hours.
	Farndon Road	Automatic Classified 2-way traffic count	8-day, 24 hours.
	Kingston Road north of Leckford Road	Automatic Classified 2-way traffic count	6-day, 24 hours.
	Woodstock Road/Leckford Road	Manual Classified Junction Count	1 day, 7am to 7pm
	Kingston Road/Leckford Road	Manual Classified Junction Count	1 day, 7am to 7pm

4.1 Traffic Volume

All the survey points above have been mapped and are shown graphically in Figure 3 below. A larger copy of Figure 3 in PDF format is also enclosed within Appendix 2. Data from the surveys highlighted in bold in the table above are of particular relevance and key summary information relating to average daily traffic at these locations for each of the data periods is shown in Figure 3. For the purpose of this analysis, pedal cycle volumes have been removed but motorcycles and powered two wheelers have been left in.

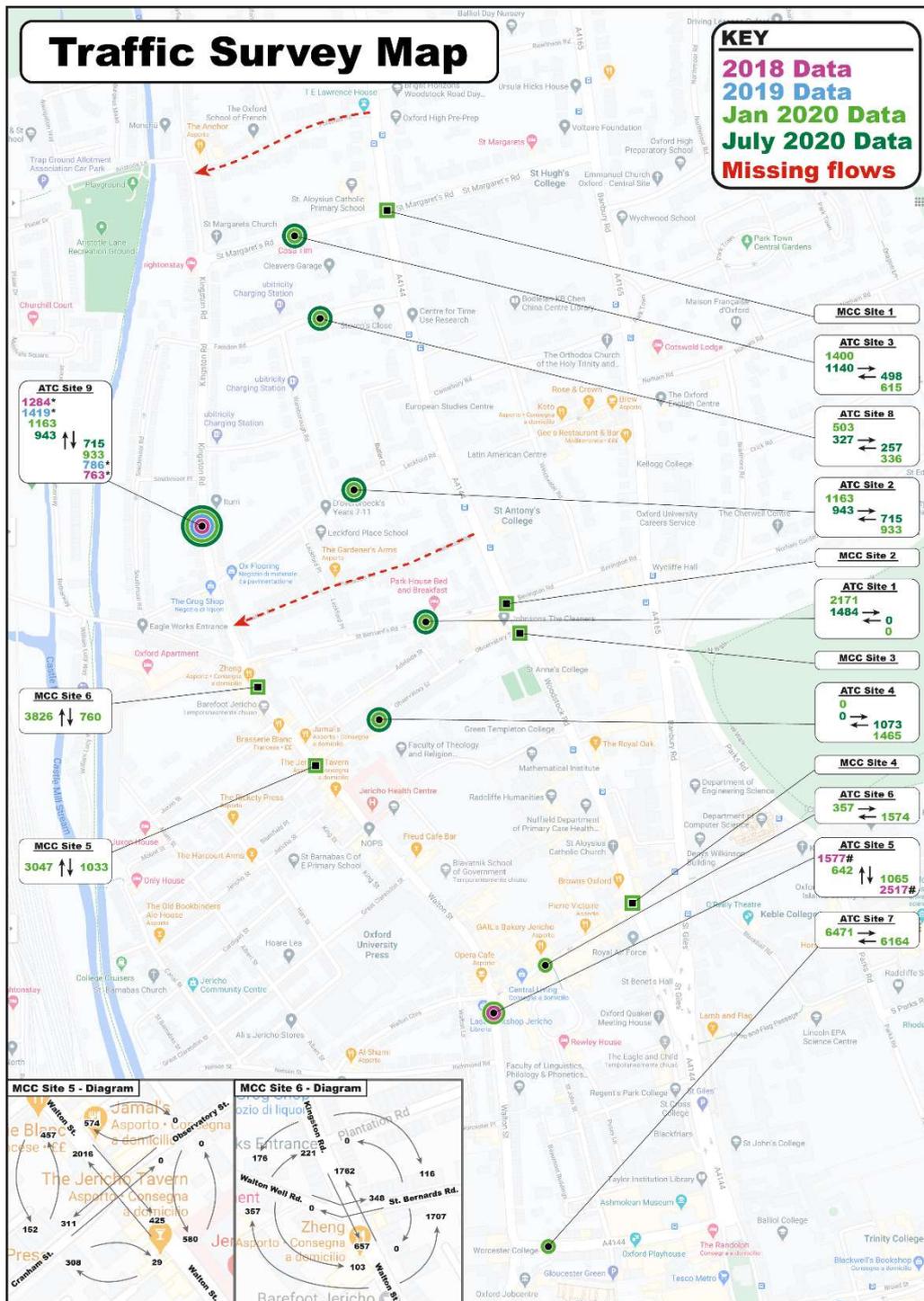


Figure 3 - Traffic Count Locations and Daily Volume Summary

The 2018 and 2019 survey data for Kingston Road north of Leckford Road is notated with an Asterix (*) to highlight that the vehicle flows shown are for a 12 hour (7am-7pm) time period only, whereas all other data is generally shown as a 24 hour flow. As no substantive analysis or comparison of pre/post Walton Street closure traffic data is being undertaken this is not considered to be an issue. Similarly, 2018 data for Walton Street south of Little Clarendon Road is notated with a hashtag (#) reflecting that only limited vehicle classification was included within the original survey data, with pedal cycles seeming excluded. As all values presented in Figure 3 exclude pedal cycles anyway, this again is not considered to be an issue.

Manual Classified Junction Turning Count data for both the Walton Street/Kingston Road/St Bernard’s Road/Walton Well Road junction and the Walton Street/Observatory Street/Cranham Street junction is displayed inset within Figure 3. The original turning movement data covered a 12-hour (7am-7pm) survey period and has been upscaled to create an equivalent 24-hour flow using ATC data from St Bernard’s Road and Observatory Street respectively. The upscaled turning count data for the Walton Street/Kingston Road/St Bernard’s Road/Walton Well Road junction has been used in turn to develop a two-way traffic flow on Walton Street between Juxon Street and St Bernard’s Road. This approach enables the creation of an effective cordon around Jericho, with data known at the three main entry and exit points (Little Clarendon Street, Observatory Street and Walton Street between Juxon Street and St Bernard’s Road). While it is acknowledged that traffic volume data is not available for Adelaide Street, it is assumed that traffic volumes are relatively minor and do not contribute significantly to the overall movement of traffic in and out of the area.

Within Walton Manor, survey data is not available at several entry and exit points to the area including Plantation Road (one-way westbound) and Polstead Road, as highlighted in Figure 4. This means that a similar cordon analysis approach is not possible as the data is incomplete. Some limited outline assumptions can nonetheless be made from the data that is available, particularly around the impact on St Bernard’s Road.

4.1.1 Jericho Cordon Data

Based on the methodology above, Table 2 below shows the total estimated daily traffic flow in and out of the Jericho area in January 2020, post the closure of the southern end of Walton Street.

Table 2: Jericho Cordon Data

Entry/exit point	Daily traffic flow into Jericho	Daily traffic flow out of Jericho
Walton Street between Juxon Street and St Bernard’s Street	760	3826
Observatory Street	1465	-
Little Clarendon Street	1574	357*
Total	3799	4183

* Traffic flow against signed one-way operation. Predominantly motorcycles (70 – 80% of total flow)

While we would expect the daily flow in and out of Jericho to be very similar, on the basis that most journeys will involve a vehicle entering the area and then leaving or vice versa, it is not essential that they exactly match. There will be a number of one/single direction journeys either into or out of the area during the survey period for a number of reasons, for example. However, of the 357 vehicles

recorded in Little Clarendon Street travelling against the signed one-way operation, approximately 70-80% were classified as motorbikes. There is a high probability that many of these will be northbound motorcycles travelling through the current modal filter at the southern end of Walton Street and then using Little Clarendon street to avoid part of the A4144. As no traffic count data is available for the southern Walton Street junction these motorbikes will not have been recorded travelling into the area, which would help explain the net variance between the daily in and outflow in table 2, of approximately 384 vehicles per day. In this case, there should also be an additional allowance for variance associated with the absence of a survey in Adelaide Road, and that the data for Walton Street has been based on an upscaled 12-hour manual junction count. The total inflow and outflow are nonetheless within a 10% margin of tolerance, which is considered acceptable

As the modal filter at the southern end of Walton Street has fundamentally removed the ability for through traffic to travel between the City Centre and North Oxford via Jericho and Walton Manor, it is not unreasonable to assume that the number of vehicle movements in and out of the area as shown in Table 2 reflects residual 'legitimate' journeys to and from Jericho, with the possible exception of the motorcycle journeys in Little Clarendon Street discussed above. And that many of these journeys, or at least the majority of them, may continue to take place even if an alternative LTN design is put in place. This then provides us with some level of expectation about how much traffic may continue to enter and exit Jericho through a revised set of entry and exit points under any new scheme, allowing a high-level assessment of potential traffic demand at these locations.

The main complicating factor in this case, aside from motorcycle traffic in the southern part of the area, is that there are likely to be a number of vehicles entering the area via Observatory Street or Little Clarendon Street but with no intended destination in Jericho itself, and are in fact using Jericho as a "cut-through" to access Walton Manor. Therefore, the cordon flows in and out of Jericho in Table 2 above could be overly inflated and should very much be seen as a conservative or worse case estimate of residual traffic demand, in terms of assessing any alternative proposals.

Based on the Manual Junction Count Data at Walton Well Road/St Bernard's Road as shown in Figure 3, over 2000 of the 3826 northbound traffic movements on Walton Street south of St Bernard's Road either continue north onto Kingston Road or turn west in Walton Well Road. If all of these movements were associated with journeys that use Jericho as the point of access to the area but with an end destination in Walton Manor, then there would be no need, or ability, for them to travel through Jericho under the revised LTN proposals. This could, theoretically, reduce residual traffic demand by up to 50% (around 2000 in and out vehicle movements per day). The reality is clearly going to be somewhere between the two and unfortunately there is very little additional information available to try and refine or reduce this potential range.

4.2 Traffic Speed

Traffic reduction is clearly one of the most important issues and objectives for the community, and a key catalyst for the development of new LTN proposals. The survey data provided does however provide some insight into traffic speeds within the area, and it is understood that there are specific concerns around speeding throughout the area, and in Kingston Road in particular. Part of the commission includes looking at potential additional/supporting/complementary measures to address wider road danger concerns, so understanding current behaviour where data is available is important to understand what further measures could/should be considered. Table 3 below shows

speed data for the area where this is available from the survey data provided, and this is considered further in section 5.5

Table 3: Traffic Speeds

Location	Jan 2020 Average speed	Jan 2020 85 th ile speed	Jul 2020 Average speed	Jul 2020 85 th ile speed
St Bernard’s Road	14.80mph	17.70mph	14.20mph	17.30mph
Leckford Road	17.65mph	22.05mph	17.70mph	22.20mph
St Margaret’s Road	18.00mph	22.40mph	18.10mph	22.45mph
Observatory Street	13.40mph	16.80mph	13.80mph	17.50mph
Walton Street	13.60mph	17.35mph	-	-
Little Clarendon street	11.65mph	14.20mph	-	-
Beaumont Street	16.10mph	20.00mph	-	-
Farndon Road	17.25mph	21.00mph	17.95mph	21.50mph
Kingston Road north of Leckford Road	15.70mph	20.60mph	14.95mph	19.65mph

4.3 Cycle Volumes

Oxford is widely recognised as one of the UK’s foremost cycling cities in terms of the number of people cycling and the proportion of journeys being made by bike. More locally, National Cycle Network Route 5 is aligned through the Jericho and Walton Manor area, at the start of its journey towards Birmingham, while the area also provides a key conduit into and out of the City Centre, and is most likely used for a large number of more local inter-city journeys. Cycle volume data is included in table 4 below at each of the traffic survey locations, demonstrating the significant levels of cycling currently taking place. The data emphasises the importance of locking in any traffic reduction already achieved and improving the area further for people cycling, particularly on the main north-south route.

Table 3: Traffic Speeds

Location	Jan 2020 Cycle Volume	Jan 2020 Proportion of all traffic	Jan 2020 Cycle Volume	Jul 2020 Proportion of all traffic
St Bernard’s Road	108	4.8%	55	3.6%
Leckford Road	200	8.7%	66	3.8%
St Margaret’s Road	84	4.0%	47	2.8%
Observatory Street	98	6.3%	36	3.3%
Walton Street	510	23.0%	-	-
Little Clarendon street	427	18.1%	-	-
Beaumont Street	285	2.2%	-	-
Farndon Road	25	2.9%	6	1.0%
Kingston Road north of Leckford Road	394	15.7%	368	18.7%

5. Technical Review of Proposals

The following approach has been adopted to assess the LTN proposals developed by the Jericho Low Traffic Neighbourhood Group

1. Assessment of overall strategic/area wide impact of measures proposed

This focuses on the main interventions proposed as a package in principle and the overall impact of these. Using traffic data from the previous section amongst other information sources the intention is to understand and assess, where possible, the potential impact of the proposals as a collective and whether it is likely to achieve the stated traffic reduction objectives, and address some of the specific concerns raised.

2. Localised assessment of proposed site-specific interventions

Review of proposed interventions on a site by site basis to identify and assess any key technical, engineering, safety, traffic management and operational considerations, constraints or challenges, and discussion of potential options for each where appropriate;

- a. Allam Street and Cranham Terrace Modal filters
- b. Walton Street Pedestrianised area
- c. Little Clarendon Street Options

3. Assessment of proposed complementary measures and identification of further enhancements

Outline assessment of any additional/complementary measures proposed and identification of additional measures that could either further enhance the scheme or further mitigate some of the concerns raised:

- a. School Streets
- b. Speed reduction measures
- c. Parking considerations
- d. Public realm

5.1 Assessment of overall strategic/area wide impact of measures proposed

As set out previously, the Jericho and Walton Manor area is bordered by Woodstock Road and St Giles to the east, Beaumont Street and Worcester Street to the south, Castle Mill Stream to the west, and Polstead Road to the north. The geographic barrier created by Castle Mill Stream to the west (as well as the rail line and Port Meadow greenspace) means that historic instances of rat-running or non-local through traffic using the area would have been associated with vehicles travelling broadly north-south between the City Centre (via Worcester Street) and North Oxford (via Woodstock Road and Banbury Road), and vice versa - effectively using the area to locally bypass part of the A4144 (Beaumont Street – St Giles – Woodstock Road). This bypass movement is illustrated by the red arc in Figure 4. There is no equivalent east-west rat-run or through route due to the geography of the area and geophysical barriers to the west.

The current modal filter at the southern end of Walton Street (A in Fig 4) has effectively removed the ability for through traffic to use Jericho and Walton Manor to locally bypass part of the A4144, as it has removed the single southern entry/exit point to the area. Arguably, it has therefore achieved the aim of reducing or preventing non-local “rat-running” traffic from using the area, and the limited pre-filter data available for Walton Street and Kingston Road suggests that some reduction has been achieved. The modal filter has however led to a range of other impacts and concerns as detailed previously, which the new LTN proposal seek to remedy.

The new proposals effectively seek to relocate the “filtering line” further north, broadly to the line shown as B-B in Figure 4 to create two LTN Cells as shown in blue. As a strategic traffic management



Figure 4 – Strategic Traffic Management Plan

package in principle, the proposals are relatively straight forward. By replacing the current southern filter with a series of filters further north on the line shown the area remains protected from wider north/south through journeys. The proposed scheme does however increase the number of modal filters from one to a minimum of three (one of which being the notional Walton Street ‘pedestrianised’ area, which in itself affects an additional number of interconnecting streets). And further consideration is needed on how Observatory Street, Adelaide Street and Little Clarendon Street should be treated, to ensure that they do not create gaps in the overall traffic management strategy. These areas and issues have been identified for further intervention and optioneering within the LTN proposal document, such as the potential inclusion of additional closures in Observatory and Adelaide Streets, and will be discussed in more detail in subsequent sections of this report. Invariably however, moving the “filter line” will make the overall scheme more complex compared to the current arrangement, will carry an increased cost to implement permanently, and is likely to reduce the overall number of routes in and out of the area, for Jericho in particular

relatively straight forward. By replacing the current southern filter with a series of filters further north on the line shown the area remains protected from wider north/south through journeys. The proposed scheme does however increase the number of modal filters from one to a minimum of three (one of which being the notional Walton Street ‘pedestrianised’ area, which in itself affects an additional number of interconnecting streets). And further consideration is needed on how Observatory Street, Adelaide Street and Little Clarendon Street should be treated, to ensure that they do not create gaps in the overall traffic management strategy. These areas and issues have been identified for further intervention and optioneering within the LTN proposal document, such as the potential inclusion of additional closures in Observatory and Adelaide Streets, and will be discussed in more detail in subsequent

5.1.1 Jericho Traffic Impact

Presently, Jericho has three points of entry and one point of exit (Little Clarendon Street - entry, Observatory Street - entry, northern Walton Street – entry and exit). Under the proposed scheme, assuming measures are included to prevent Observatory Street and Adelaide Street from being used by through traffic as suggested, the revised entry and exit points for the Jericho area are likely to be limited to the Walton Street/Beaumont Street/Worcester Street junction and Little Clarendon Street.

Little Clarendon Street is currently one-way westbound (into Jericho) and it is assumed that if the Walton Street/Beaumont Street/Worcester Street junction is reopened it would operate under two-

way conditions. This would result in two entry points into Jericho (Little Clarendon Street and the southern end of Walton Street) and one exit point (southern end of Walton Street). While Little Clarendon Street could potentially be reversed, as discussed later, creating one entry point to the area and two exit points, it is highly unlikely that it could be safely reverted to full two-way operation given spatial constraints and likely traffic volume.

Overall, the revised scheme is therefore likely to reduce the overall number of access and egress points into the Jericho area. While this is not in itself an insurmountable problem, it is a factor to be considered, particularly as traffic congestion at the Walton Street/Beaumont Street/Worcester Street junction has been cited as one of the drivers for implementing the current experimental filter.

Based on the traffic Jericho Cordon data in Table 2 the estimated worst-case scenario is that in the region of 4000 vehicle movements in and out of Jericho per day may need to be accommodated through any revised set of entry and exit points, approximately 10% of which are estimated to be motorbikes. It should however be re-iterated that this is very much a worst-case scenario and potentially, residual traffic demand in Jericho could potentially be as little as half of this. In reality, as discussed previously, it is likely to be somewhere between the two. Assuming that Little Clarendon Street remains one-way westbound (into Jericho) and the southern end of Walton Street is opened up two-way, somewhere in the region of 2000-4000 vehicles per day are likely to be exiting the area via the southern end of Walton Street, with 2000-4000 vehicles entering the area split between Little Clarendon Street and the southern end of Walton Street. If Little Clarendon Street were to be reversed, then 2000-4000 vehicles could potentially be entering the area via the southern end of Walton Street with a similar amount leaving split between southern Walton Street and Little Clarendon Street.

Irrespective of which way around, given the vehicle numbers in question and the large potential range, it is highly recommended that the Walton Street/Beaumont Street/Worcester Street traffic signals are reactivated, at least initially, to manage traffic flow as safely as possible. If traffic demand in and out of Jericho is at the higher end of the range shown, then it is likely that the junction would need to remain under traffic signal control in the longer term. Alternative methods of junction control could be considered, such as a roundabout or mini-roundabout, if capacity and delay are an issue, but the potential dis-benefit to people walking and cycling would have to be carefully considered, assuming a feasible design. If traffic demand in and out of Jericho is at the lower end of the range shown, then this may allow other alternatives to traffic signal control to be considered, such as a conventional priority junction, but this would need to be subject to further detailed assessment.

The potential for congestion and delay to return to the southern end of Walton Street has been raised as a key concern. However, in the absence of pre-closure traffic flow data for the Walton Street/Beaumont Street/Worcester Street signal junction it is not possible to tell whether the potential traffic volume range exiting Walton Street as estimated above under the LTN proposals is likely to lead to a return of these issues or not.

Under the worst-case scenario, all traffic currently leaving the area via the northern end of Walton Street is transferred to the southern end, assuming it is the only exit point. This equates to 3826 vehicles per day – Table 2. Traffic survey data for MCC6 (which the 3826 has been derived from) indicates a maximum hourly flow of 322 PCU's (passenger car units) leaving Jericho. Assuming a signal cycle time of approximately 90 seconds at the Walton Street/Beaumont Street/Worcester

Street junction this would require around 8 PCU’s to be discharged per cycle to avoid queuing and congestion. This in turn would require in the region of 20-22 seconds of green time assuming a stop line saturation flow of 1400 vehicles/hour. Similarly, peak hourly traffic volume in Beaumont Street is approximately 500 – 520 vehicles per hour in each direction. Factoring for buses and larger vehicles, hourly traffic demand at the signal junction on the Beaumont Street and Worcester Street approaches is likely to be around 550 PCU’s, requiring 14 PCU’s to be discharged per signal cycle with a minimum associated green time of 30 - 32 seconds, based on a saturation flow of 1800 vehicles/hour. The junction appears to operate on a three-stage signal cycle with a dedicated right turn into Walton Street from Beaumont Street. Allowing a nominal, and conservative, 10 second inter-green/safety clearance period between signal stages, the junction should be able to run all three stages within a 90 second cycle and provide the required vehicle green time on each approach to minimise the likelihood of extensive queuing, congestion and delay.

It is recommended that the signal junction method of control and timings are reviewed as part of any scheme to ensure it is operating as effectively and efficiently as possible when reactivated. It is not known whether local signals are co-ordinated via a Urban Traffic Control system, but it has been suggested that some of the previous issues at the junction were due to queuing and congestion from other nearby signal installations. This should be reviewed.

Given the sensitivity of this issue, further measures to mitigate potential pressure on the southern end of Walton street are also considered later in the report, particularly during the discussion of Little Clarendon Street options.

5.1.2 Walton Manor Traffic Impact

Due to there being several gaps in the survey data for the Walton Manor area, namely Plantation Road and Polstead Road, there is not a complete cordon available to try and assess and estimate the potential impact of the proposed LTN scheme on the Walton Manor Area in the same way as Jericho, including how traffic might redistribute amongst the various entry and exit points. There are also a larger number of remaining entry and exit points, some of which are two-way, so by default there are a wider number of routing choices which makes estimating potential traffic redistribution that much more difficult. It is however possible to make some speculative assessments in response to several of the key known issues, based on the Manual Classified Junction Turning Count data for the Walton Street/Kingston Road/St Bernard’s Road/Walton Well Road, an enlarged copy of

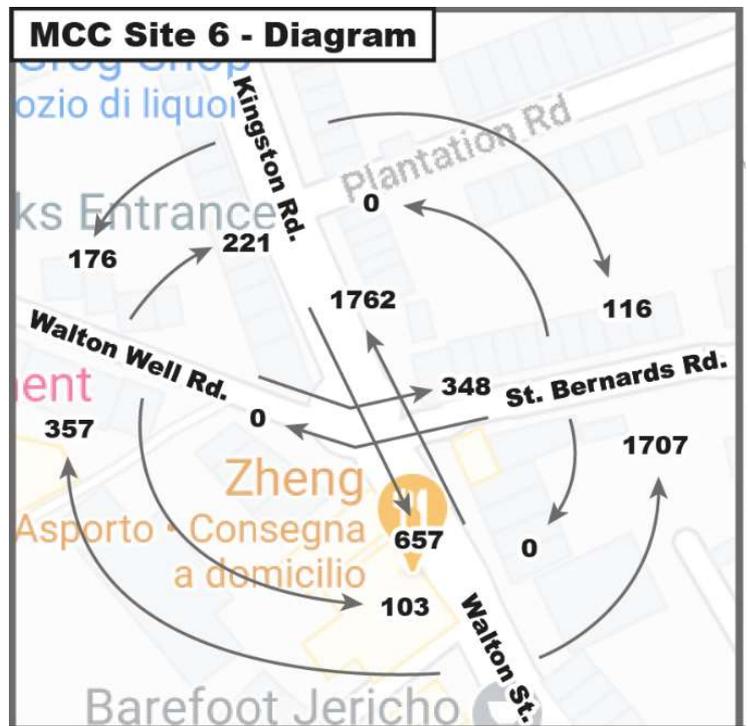


Figure 5 – Walton Street/Kingston Road Junction

which is in Figure 5. As detailed in section 5.1.1, the only way in which vehicles can currently leave Jericho is via the northern end of Walton Street and the Walton Street/Kingston Road/St Bernard’s

Road/Walton Well Road junction, which means the data for this junction can provide some insight into how traffic movements might change.

Based on the area wide traffic data shown in Fig 3 there are approximately 1900 daily vehicle movements into Walton Manor from Woodstock Road via Leckford Road, Farndon Road and St Margaret's Road combined. No data is available for Plantation Road and Polstead Road - but as these are both effectively one-way westbound (into Walton Manor) then the daily total inflow into Walton Manor from Woodstock Road will be higher, but by how much we are unsure. Interestingly, there are only 657 daily vehicle movements from Kingston Road into Jericho as shown in Figure 5, suggesting that a relatively small proportion (around a third at absolute most) of traffic entering Walton Manor from Woodstock Road is doing so to access Jericho, and that a much larger proportion of traffic entering Walton Manor from Woodstock Road has a destination within Walton Manor itself. Of the 657 that are travelling between Kingston Road and Jericho it is expected that most will be residents/businesses/visitors/deliveries associated with Jericho, but some may be Walton Manor residents accessing services or amenities in Jericho by motor vehicle. The 103 vehicle trips from Walton Well Road into Jericho are most likely to be local residents accessing services and amenities or deliveries, but this is by no means guaranteed. Overall, this tells us that moving the filter line may help reduce southbound traffic on Kingston Road and also inbound traffic volumes on Leckford Road, Plantation Road, St Margaret's, etc, by removing some Jericho bound trips that enter the area via Walton Manor.

Moving the filter line should also reduce the amount of northbound traffic travelling into Kingston Road from Jericho. However as we don't know what proportion of the 1762 northbound daily vehicle movements are journeys that originate in Jericho and are using Walton Manor to depart the overall area, and how many are journeys with a destination in Walton Manor and are currently using Jericho as their in-route, it is difficult to estimate the resultant traffic impact. The greater the proportion of journeys that are associated with the latter, the lower the additional traffic reduction we would expect to see in Walton Manor.

Overall, the data suggests that there are relatively few movements associated with residents in Walton Manor visiting services and amenities in Jericho by motor vehicle, which is positive in the sense of potential concerns over community division and substantial numbers of residents being negatively impacted by having to take longer circular routes to travel between Walton Manor and Jericho. Obviously, one of the key objectives of an LTN is to try and encourage and support local journeys like this by active and sustainable modes, where possible.

St Bernard's Road has been a particular concern for parts of the local community with a perception that the road has seen significant increases in traffic as a result of the current modal filter. While these reports are largely anecdotal as there is no pre-closure data available to act as a baseline for comparison, it is not unreasonable to assume that St Bernard's Road now acts as one of the primary outlets for the area as there are no [official/formal] exit points for motorised traffic within Jericho itself. As the northern end of Walton Street now acts as the sole exit point from Jericho, St Bernard's provides the first opportunity for traffic leaving Jericho to access Woodstock Road. Based on the turning data in Figure 5, over 78% of traffic recorded on St Bernard's Road in January 2020 originated from Jericho and Walton Street. Moving the filter line towards the northern end of Walton Street should therefore have a significant impact on St Bernard's Road traffic volumes. Under the current proposals it is suggested that access to and from Juxon Street, and the properties on Walton Street situated between Juxon Street and St Bernard's Road, will be via Walton Manor,

and that deliveries may need to be allowed through the Walton Street pedestrian area. While this may mean some ongoing traffic demand on St Bernard’s Road originating from the ‘Jericho’ area, this is likely to be a fraction of current demand. In addition, while it is very difficult to predict whether the changes will result in substantial changes to traffic movements between Walton Well Road or Kingston Road into St Bernard’s Road, there are no obvious reasons why it should.

5.2 Assessment of proposed site-specific interventions

5.2.1 Allam Street and Cranham Terrace modal filters

Modal filters have been identified for Allam Street and Cranham Terrace, as shown in the extract below from the LTN Proposal Document in Figure 6. These will work alongside the Walton Street pedestrianised area to create the new northern filter line. Recognising the residential nature of these streets the modal filters proposals are relatively basic, but it is suggested that they could contain some community amenity elements (seating, green infrastructure, etc). The Allam Street modal filter is proposed at the junction with Juxon Street, whereas several options are put forward for consideration for Cranham Terrace, with a number of benefits and disbenefits highlighted for each. Visualisations what the modal filters could look like have also been included, as shown below

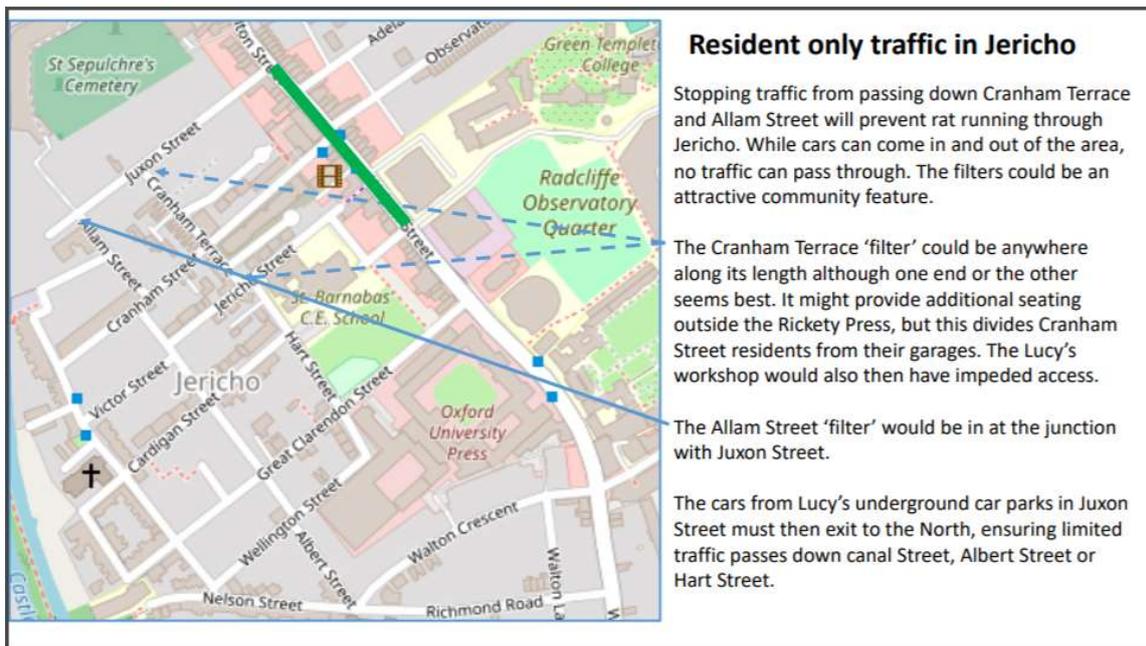


Figure 6 – Cranham Terrace and Allam Street Modal Filters



Figures 7 & 8 – Cranham Terrace and Allam Street modal filter visualisations

Based on an outline desk top review and observations during the site visit, there are no evidently obvious issues or reasons why modal filters couldn't or shouldn't be located at the proposed locations. Clearly, further work is required to develop a more detailed General Arrangement/Highway Layout design for each that takes into consideration road safety and operational requirements alongside relevant pedestrian, cycle and accessibility guidance. And this of course should also include identification and consideration of any statutory undertakers' equipment and existing highway drainage infrastructure to ensure buildability. While it is clearly not possible to provide full "turning heads" in the event that a larger vehicle needs to turn around, consideration should be given to the likelihood and frequency of this happening. It is likely that there are local examples where similar layouts are in place that have worked well for a large number of years, and where vehicle numbers are likely to be very low this shouldn't be used as a safety argument against the installation of modal filters.

Whether or not the modal filters should include seating, planting and greenery, etc, should be down to local knowledge, engagement and community appetite, as well as a cost consideration. Of course, increased green infrastructure and more seating are key components of a vibrant and accessible public realm, but they need to be in places where they will be used and maintained, otherwise they will fall into disrepair and will end up a maintenance burden.

During the site visit cases were made for installing the modal filter on Cranham Terrace at both the southern end outside the Rickety Press and the northern end at the junction with Juxon Street. The former allowing a small "public space" to be created outside a local hospitality business, the latter potentially being more beneficial/palatable to a large local stakeholder with operational requirements in the area. Ultimately, there is very little from a strategic or engineering perspective that suggests one would be better than the other, or that one is more viable than the other, unless the detailed design process identified some significant engineering constraints at one of the locations, which is unlikely. As such, this again is likely to be best decided based on local knowledge and engagement, to ensure as much community buy-in to the changes as possible.

5.2.2 Walton Street 'Pedestrianised' area.

5.2.2.1 Proposal Overview

Probably the key component of the proposed LTN is the Walton Street 'pedestrianised' area – forming part of the overall traffic filtering/reduction approach to the area while also aiming to deliver a number of economic and social benefits and improvements through the creation of a more attractive, accessible, high quality, low or no traffic, pedestrian-friendly environment to encourage visitor activity and support businesses. This is particularly relevant in the current climate given the impact of Covid-19, where outdoor space is a highly sought-after commodity for many businesses, allowing them to increase customer numbers and turnover in light of social distancing requirements. While the objectives and benefits appear to be clear cut, it is understood that parts of the business community have been the most vocal about the current Walton Street closure, and have some of the most significant concerns over the impact of further changes to the road network and local access to the area by motor vehicle. This is a common concern and rightly so, given the stakes and livelihoods involved.

The proposal for Walton Street is shown again in Figure 9 below. The proposal refers to a ‘pedestrianised’ or “car free” area between Jericho Street/Jericho Medical Centre and Juxon Street, but indicates that deliveries could/would be permitted, along with a number of other potential access requirements. A number of concept visualisations are shown in the LTN Proposal Document, several of which are also included below for reference in Figures 10 and 11. These highlight the aspiration for a transformative redevelopment of the street to create a high quality and attractive public realm for users

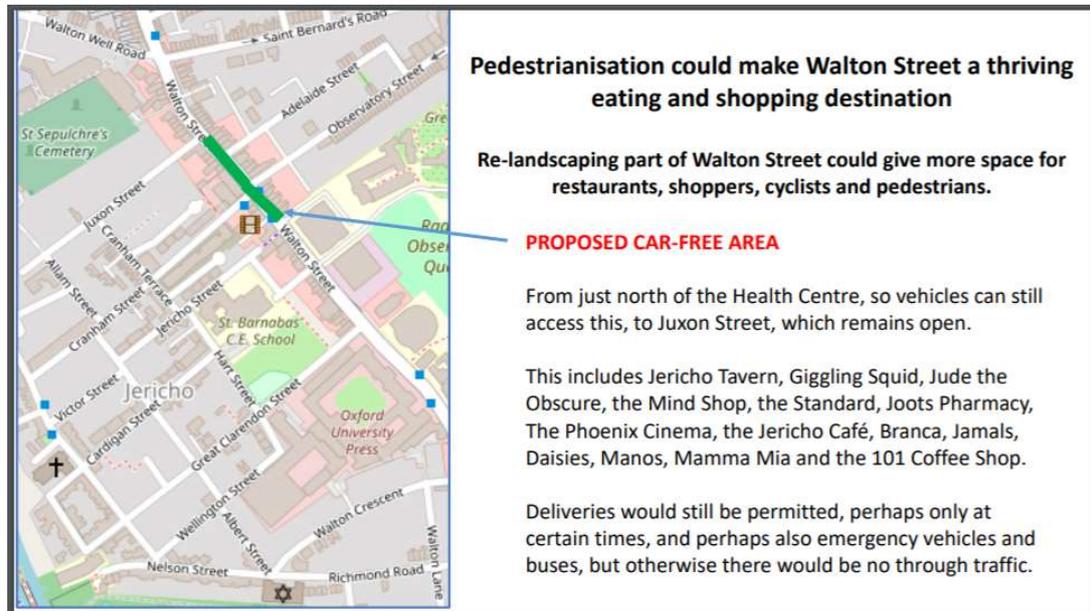


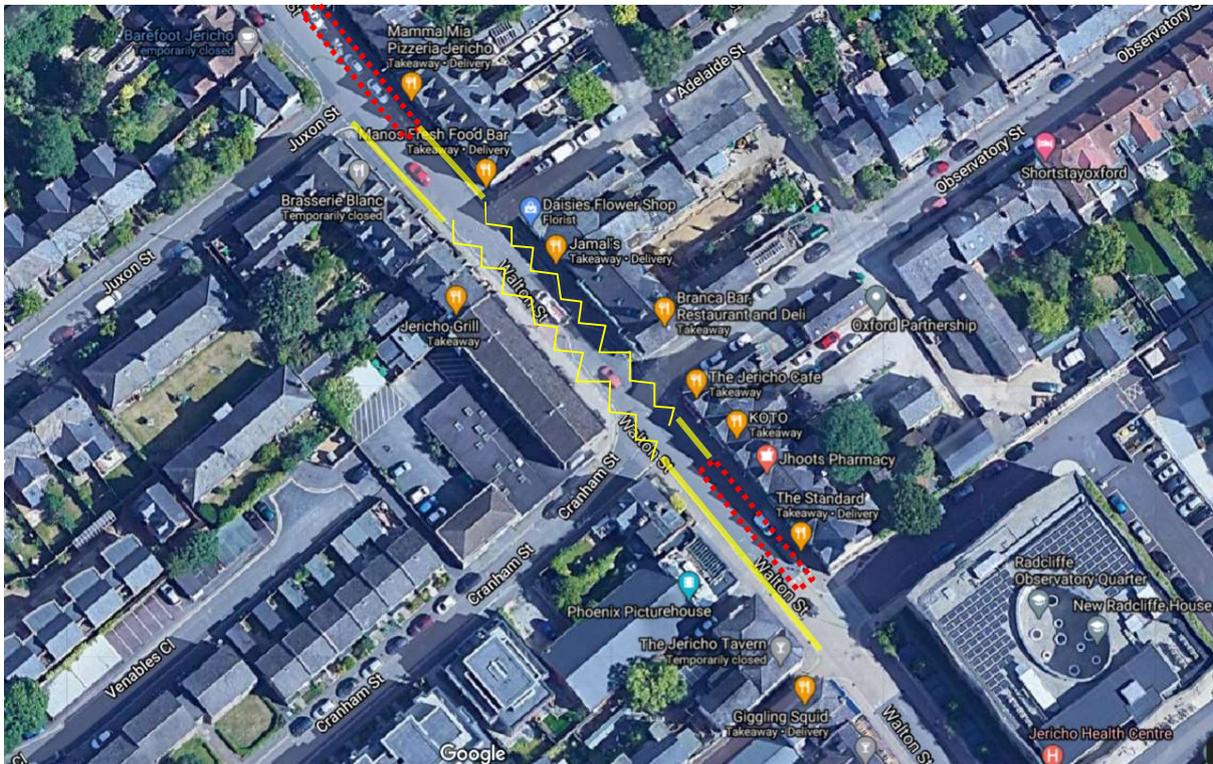
Figure 9 – Walton Street Pedestrianisation Proposal



Figures 10 & 11 – Walton Street Pedestrianisation visualisations

5.2.2.2 Current situation

This section of Walton Street contains the highest concentration of retail businesses, many of which are within the hospitality sector. The google maps satellite image in Figure 12 below highlights the concentration and nature of businesses in this area, and the relationship with a number of adjoining roads including Observatory, Adelaide and Cranham Streets’.



Figures 12 and 13 - Walton Street businesses and kerbside restrictions



The kerbside in this section of Walton Street is largely restricted, particularly in respect to waiting and parking. As shown on the above plan and the adjacent street view image (Figures 12 and 13) a large proportion of the kerbside in this area is either controlled by zig-zag lines (No Stopping) associated with the existing zebra crossing or double yellow lines (No waiting/parking at any time). Within the section

between Jericho street and Juxon street there are approximately 4 short stay parking spaces located on the eastern side south of Observatory Street, and a further 3 on the eastern side north of Adelaide Road, which form part of a longer bay that extends to the north. It is noted that there are a relatively sizeable number of additional short stay parking bays in both Observatory Street and Cranham Street, as well as several visitor bays in Adelaide Street. Overall, despite the relative lack of parking provision on Walton Street itself, short stay/visitor parking provision for the area certainly seems reasonable overall.

Information has been provided by Jericho Low Traffic Neighbourhood Group on current servicing activities and patterns for most businesses. This includes where servicing generally takes place from, vehicle type and frequency, and any current issues/key concerns. Many of the properties on the eastern side of Walton Street have additional rear accesses that are serviceable by motor vehicle, off either Observatory or Adelaide Streets. Based on the information provided it is evident that quite a few of the businesses use these rear accesses as their primary means of servicing, which makes sense given the limited kerbside space formally allocated for loading/unloading/servicing on Walton street itself. Interestingly, in the majority of cases vehicle sizes are relatively small, mainly commercial vans. While the double yellow lines on Walton Street do allow loading/unloading these are predominantly located on the western side of the road and so it is expected that these are used more so by businesses on this side, although very few businesses overall appear to service directly from Walton Street. Several that do have expressed concern over their current ability to service effectively, and it is assumed that this is largely to do with the current kerbside restriction layout. Overall, the detailed servicing information provided indicates that direct servicing access from Walton Street itself is not critical for many businesses, but that continued access to the rear of properties on the eastern side would be essential, unless significant space can be given over on Walton Street for servicing.

5.2.2.3 Outline Options Assessment

In order to assess this proposal fully a number of different options/interpretations for the Walton Street Pedestrianisation Proposal have been considered. Broadly these include:

1. **Full Pedestrianisation: No Motor Vehicle Access** - For the purpose of this commission, only one option has been considered in terms of the extents of any pedestrianised area - between Jericho Medical Centre and Juxon Street, as per the LTN proposals presented. It is acknowledged that shorter sections of pedestrianisation could be considered (i.e. between Observatory Street and Adelaide Street for example) and this may address some of the issues highlighted in the following section, but this would require a range of sub-options to be assessed, significantly increasing commission scope. Reduced areas of pedestrianisation also starts to overlap with option 3.
2. **Pedestrianisation: Restricted/Priority Access Scheme** – An effective pedestrianisation scheme but with some vehicle access allowed, either time restricted or restricted by vehicle type/purpose, or both. As above, initially only one option has been considered in terms of extents, between Jericho Medical Centre and Juxon Street, to manage commission scope. There are a number of different legal/regulatory mechanisms available for managing Restricted Access schemes that are considered later, but all would require camera enforcement to be effective
3. **Point modal filter on Walton street** – Instead of a ‘pedestrianised’ area, with or without some form of vehicle access, a conventional point modal filter (similar to the proposals for Allam Street and Cranham Terrace) could be installed somewhere in the northern section of Walton Street. There are a number of potential locations, each with different impacts and implications.

A high-level assessment of the relative benefits and key considerations of each approach is detailed in Table 5 below. **In all cases it is assumed that pedal cycles will be permitted along Walton Street**

in both directions, but it is unlikely that buses could be accommodated under the full pedestrianisation scheme.

Table 5: Outline assessment of Walton Street Options

Proposal	Benefits	Key Considerations
<p>Full pedestrianisation</p>	<ul style="list-style-type: none"> • Maximum traffic reduction impact • In principle, residential Jericho area largely protected from any rerouting of traffic, particularly commercial traffic associated with Walton Street businesses • Simple and clear to all users - no general vehicle access into pedestrianised area so no ambiguity and no scope for abuse • Creates opportunity to reallocate space to non-motorised users and improve public realm 	<ul style="list-style-type: none"> • Vehicle/servicing access to businesses directly from Walton Street removed within extents of pedestrianised area. • Observatory Street, Adelaide Street and Cranham Street would need to be completely closed at the respective junctions with Walton Street. Vehicle access to these streets will need be from elsewhere, which could be particularly problematic for Adelaide Street. • Vehicles arriving in Walton Street from south, including larger vehicles, will need to turn around in Walton Street • “clear” space will still need to be provided in the design to allow Emergency Vehicle access to Walton Street properties if needed • Transformative redesign likely to be expensive • Some residential properties located within the pedestrianised area extents, which could be problematic in terms of legal access rights.
<p>Pedestrianisation with Restricted Access</p>	<ul style="list-style-type: none"> • Largely achieves overall traffic reduction benefits by restricting most traffic in Walton Street • In principle, residential Jericho area largely protected from any rerouting of traffic, particularly commercial traffic associated with Walton Street businesses • Creates good opportunity to reallocate space to non-motorised users and improve public realm • Potentially provides vehicle/servicing access to businesses directly from 	<ul style="list-style-type: none"> • Restricting access to certain times or vehicle types requires an enforcement led approach, generally via cameras, rather than physical measures to restrict traffic. This automatically opens up the potential for use/abuse/misuse • Different regulatory signage options/approaches available dependent on whether/which vehicles are allowed access and when. Each comes with its own pros and cons. The more exemptions the more likelihood of misuse, and the lower traffic reduction achieved. “Loading and “Access” exemptions

	<p>Walton Street, subject to decision on exemptions and balancing road-space reallocation aspirations</p> <ul style="list-style-type: none"> • Access to/from Adelaide Street/ Observatory Street/ Cranham Street and Walton Street would not need to be physically restricted and could be camera enforced. Some vehicles could also therefore be allowed access between Walton Street and side roads as needed. 	<p>typically most difficult to effectively enforce</p> <ul style="list-style-type: none"> • Likely to generate some confusion, initially at least, as signage can be difficult to understand • Dependent on layout and number of entry points may need a number of enforcement cameras, significantly increasing cost in addition to public realm aspirations • Street layout design potential will be limited by need to provide through access for vehicles, and possibly space for loading/servicing on Walton street • General vehicle access to/from Observatory Street, Adelaide Street and Cranham Street will not be from Walton Street
<p>Modal Filter</p>	<ul style="list-style-type: none"> • Physical restriction to prevent through traffic – simple and easy to understand • Low cost and easiest to deliver • A number of options around location on Walton Street to try and balance local needs and issues • Provides most general unhindered/unrestricted access to kerbside in Walton Street (i.e. all vehicles will be able to access all points of the road, just won't be able to drive through) • Likely to be least restrictive in terms of general vehicle access between Walton Street, Observatory Street, Adelaide Street and Cranham street (subject to any additional traffic management measures that may be needed in local roads to ensure the overall scheme works) 	<ul style="list-style-type: none"> • Point modal filter generally provides the least opportunity for substantive road space reallocation and public realm improvements along Walton street. (However, additional traffic management measures could be considered in Walton Street to help reprioritise road space) • Dependent on location, could result in some commercial traffic relating to the Walton Street businesses rerouting into residential Jericho • Dependent on location is likely to require additional traffic management measures in Observatory Street, Adelaide Street and possibly Cranham Street to ensure there are no gaps in the overall area wide traffic reduction strategy. In all likelihood this could mean additional modal filters in some roads, reversing some of the overall area accessibility benefits.

5.2.2.4 Full Pedestrianisation

Full pedestrianisation, except for cycles, with no motor vehicle access undoubtedly provides the greatest potential scope to reallocate space away from motor vehicle to other users on Walton Street, and to introduce transformative public realm improvements. However, it is understood that the pedestrianisation proposal is particularly contentious amongst parts of the community,

especially some of the businesses. It is clear from this LTN Proposal Document and discussions during the commission that these are significant concerns and a balanced solution is needed to try and get as many people on board as possible. Access to businesses for servicing (and visitors) is one of the primary considerations and concerns, as is a general concern around an overall reduction in accessibility by motor vehicle, and the full pedestrianisation scheme is likely to be the most restrictive in this sense. Access to Adelaide Road for both businesses and residents – especially for larger vehicles including waste services – presents a particularly significant challenge given access limitations directly from Observatory Street. In addition, it is unlikely that a full pedestrianisation scheme would be able to accommodate a bus service in the future.

Full pedestrianisation should certainly not be completed discounted, as theoretically it has the greatest potential to enhance Walton Street, but the challenges and constraints appear to be most significant, and a substantive amount of further detailed investigation and design work is likely to be required to try and resolve these, or at least assess them in greater depth. For the purpose of this commission, full pedestrianisation is not considered to be a preferred option at this stage, but one that could be investigated further in the longer term if desired.

5.2.2.5 Pedestrianisation with Restricted Vehicle Access

Pedestrianisation with restricted vehicle access is an approach to prioritising non-motorised users (pedestrians and cycles) within an area while also allowing some ‘essential’ vehicle access; most frequently access is maintained for pedal cycles, public transport, for businesses to undertake servicing where there are no other viable alternatives, and for a number of other select circumstances. The approach is used in many city centres, including elsewhere in Oxford (see images on next page). Access can either be restricted at certain times of the day, by vehicle type/journey purpose, or a combination of both. As such there are myriad permutations in terms of what vehicles can and can’t access the restricted area, and at what times. On one hand this generates a lot of flexibility, which means solutions can be more tailored to each circumstance, but at the same time it significantly increases complexity and it is simply not possible to identify or assess all of the different possible permutations in a commission like this. Ultimately, if a restricted access scheme is to be progressed in Walton Street further work is most definitely going to be required with the community and the Council to home in on a final proposal in respect to exemptions and times of operation. The most common regulatory approaches to creating an area with restricted access are to introduce a prohibition of driving for motor vehicles using sign 619 from the Traffic Signs and Regulations General Directions (TSRGD2016) or create a “pedestrian”/ “pedestrian and cycle” zone. Both approaches allow the restrictions to operate all of the time or for certain time periods only, and both allow a range of exemptions. While by no means the only difference, the “Pedestrian”/“Pedestrian and Cycle” zone approach generally allows a more complex set of information to be conveyed on the entry signage, including both moving traffic and kerbside restrictions. The prohibition of driving signage on its own, or with a single supporting plate, is more commonly used in less complex situations, although this is not always the case. A number of examples are shown below in Figure 14



Figure 14 – Examples of Restricted Access Signage Conventions (clock

As detailed above, the absence of physical features to restrict traffic movement means that any scheme is reliant on enforcement to ensure compliance with the restriction. This will almost definitely need to be via cameras. While the overall approach does allow greater flexibility in terms of providing motor vehicle access for some people, the lack of a physical restriction and the need for what could be complex signage means that there is a higher risk of non-compliance. This could be due to misunderstanding of the signage and associated restriction, or simple disregard. Either way, this has the ability to diminish the benefits of the scheme if the restricted area is frequently subject to illegitimate vehicle use, deliberate or otherwise. Generally, the greater the number of exemptions and more complex the signage, the greater the likelihood of misuse and abuse. Exemptions for “Loading” and “Access” typically are the most difficult to enforce, as these generally require vehicles to be ‘tracked’ through the area to ensure they are undertaking legitimate/permitted activity. This

can only be done using PTZ cameras rather than ANPR, meaning manual camera operation and associated long term resource requirements. It is however understood that the compliance with the existing traffic management restrictions in George Street (top left in Figure 14) is very high, suggesting that non-compliance may not be an issue

The following proposal has been developed as a suggested operational layout for a restricted access scheme. The proposed layout as shown in Figure 15 includes:

- Restricted access area between Jericho street and Juxon Street with one-way northbound operation only – except pedal cycles and possibly buses in the future. Camera enforced access/entry points via Walton Street (from the south) and Adelaide Street
- Physical modal filters on Cranham Street and Observatory Street at their junctions with Walton Street. Observatory Street to be made two-way

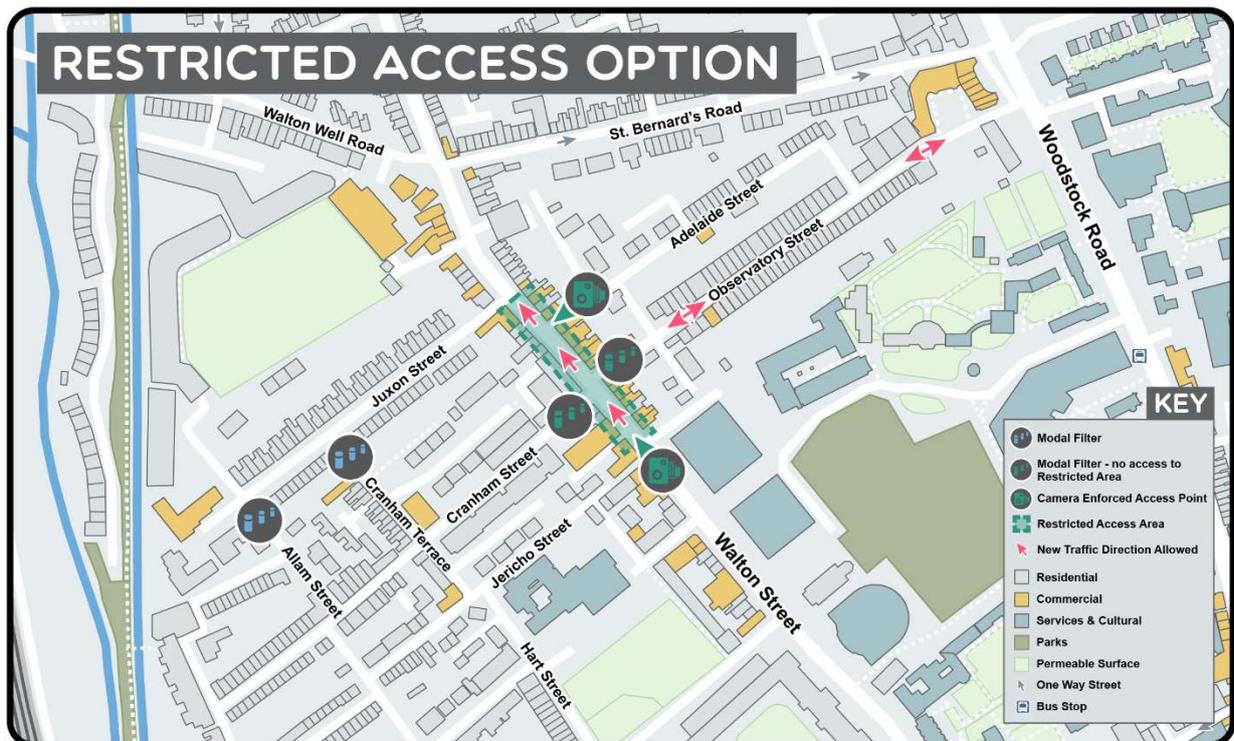


Figure 15 – Walton Street Restricted Access Scheme Proposal

The proposed scheme aims to:

- Minimise the number of entry points to the restricted area; simplifying the scheme as far as possible, reducing the number of cameras that are likely to be required; and reducing the opportunities for non-compliance
- Provide access to Adelaide Street from both Observatory Street and Walton Street (for some exempt vehicles) to ensure servicing can continue to take place including waste collection
- Ensure the overall traffic management strategy for the area works and there are no gaps.

- By making the restricted area one-way it minimises the width required for motor vehicle access/manoeuvring through the area, maximising space for other purposes.
- Ensure the north-south cycle route is protected and improved, and potentially accommodates a future bus route.

The scheme as proposed is believed to provide the best balance of the above, however, alternative options/variations could include:

- Replacing the physical closures in Observatory Street and Cranham Street with camera enforced restrictions - potentially creating further flexibility for servicing and deliveries but increasing the number of cameras and control points
- Reducing the length of the restricted area – but depending on the reduced length additional restrictions are likely to be required in Observatory Street and Adelaide Street to ensure the integrity of the overall traffic management strategy
- Allow general two-way traffic in the restricted area – while traffic volumes within the restricted area may be low, two-way operation could lead to conflict and so passing areas may need to be designed in, reducing space for other purposes. Two-way will mean a camera at each end plus side road access points, increasing the number of cameras. These constraints will also need to be taken into consideration should a bus route be pursued in the future

5.2.2.6 Point Modal Filter Options

While the LTN proposals developed by Jericho Low Traffic Neighbourhood Group clearly preference some form of ‘pedestrianised’ retail area in Walton Street due to the potential additional benefits it brings, it would be remiss to not consider a more basic point modal filter in Walton Street as an alternative option. Particularly in light of the access concerns and constraints, and the complexities associated with pedestrianised or restricted access areas. A point modal filter in Walton Street could provide a much simpler and cheaper solution; retaining a higher degree of motor vehicle accessibility in and around the retail area while still providing the area wide LTN cells. On the other hand, a point modal filter would appear to provide the most limited opportunity for road space reallocation and additional enhancements. Depending on where it was located may need further complementary traffic management measures to ensure the overall LTN continues to work. Four alternative options have been considered

1. Walton Street between Juxon street and Adelaide Street
2. Walton Street between Adelaide Street and Observatory Street,
3. Walton Street between Juxon Street and St Bernard’s Road - Under this option the modal filters in Allam Street and Cranham Terrace would not be required and the three filters proposed at the northern end of Jericho would be placed with a single filter.
4. A further suggestion from Jericho LTN Group for a diagonal modal filter between Observatory Street and Cranham Street. Under this proposal Walton Street either side of the

filter would be made one-way in opposing directions, with Cranham Street and Observatory Street also made one-way, both away from Walton Street.

All four potential filter locations are shown on the plan in figure 16 below. An outline assessment of the benefits, potential constraints/challenges, and additional measures that could be included or are likely to be required for each option is set out in the following pages, along with supporting plans.

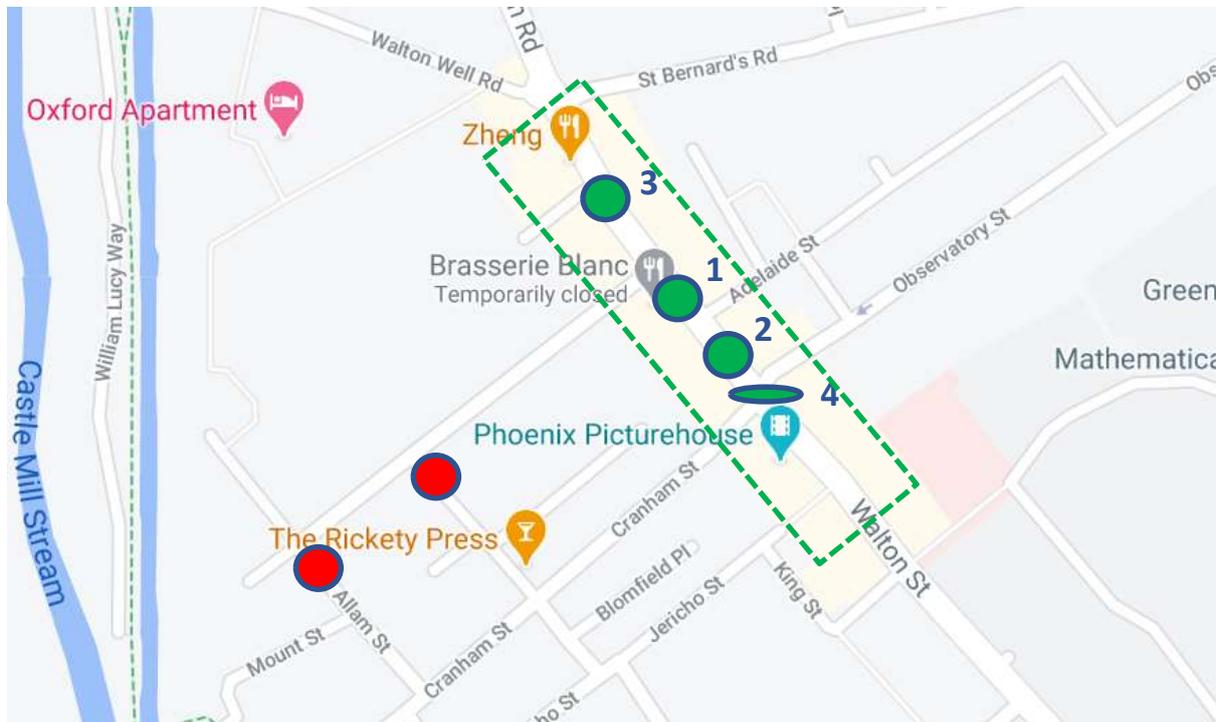


Figure 16 – Basic Modal Filter Location Options for Walton Street

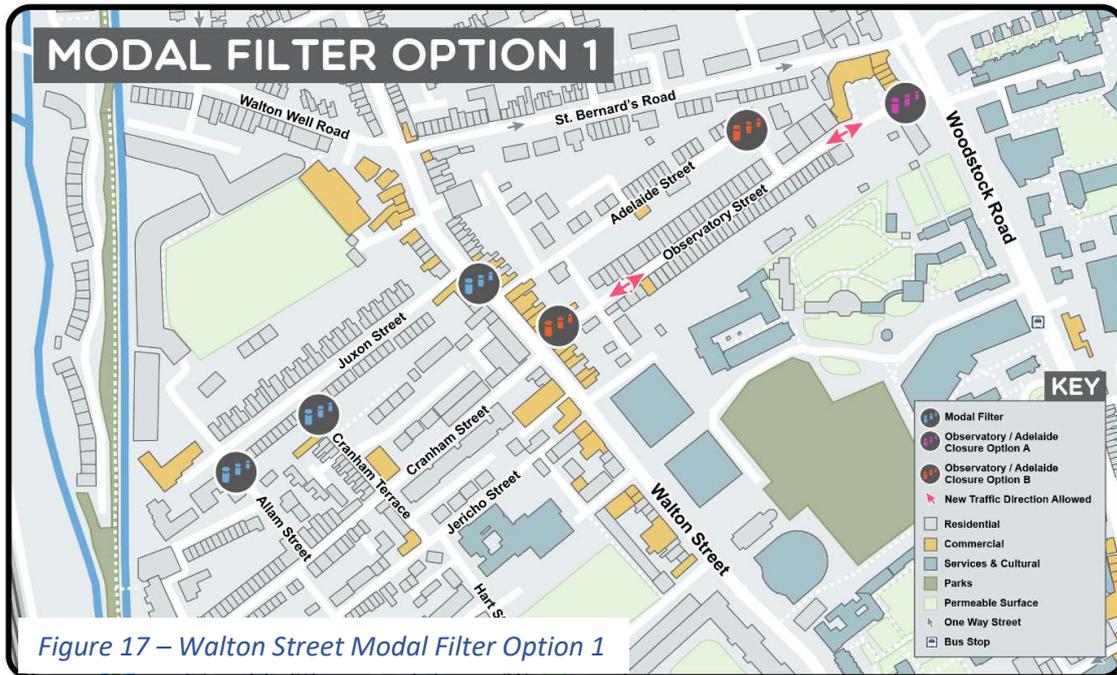
Option 1 – Walton Street between Juxon Street and Adelaide Street

Benefits: relatively low cost and easy to deliver compared to other solutions; access to properties/businesses/kerbside on Walton Street largely unrestricted; access to Adelaide Street and Cranham Street from Walton Street retained, potentially making it easier for servicing, visitor access, etc

Challenges/constraints: Limited scope for road space reallocation in Walton Street, some reversing/manoeuvring may take place on Walton Street either side of the modal filter and access for very large vehicles may be problematic; Cranham Street may be used as outlet for traffic associated with businesses coming from the south; additional measures needed in Observatory Street and Adelaide Street to prevent traffic being able to bypass A4144;

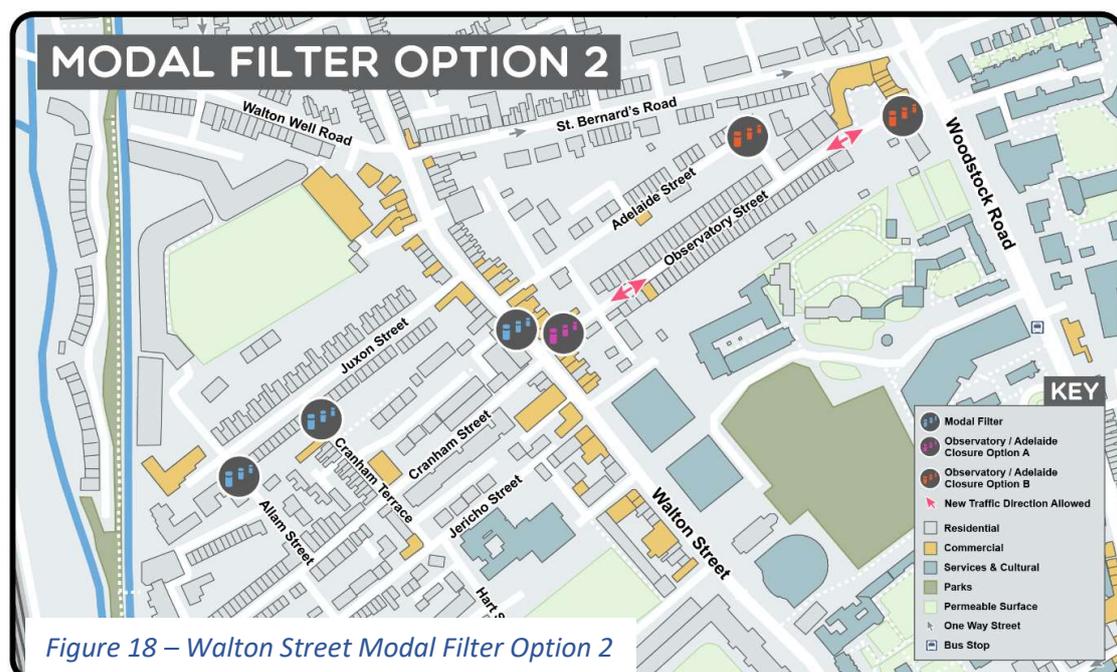
Additional measures: Observatory Street and Adelaide Street need to be addressed otherwise there is a risk that southbound traffic could start to use the area to bypass the A4144. Reversing the one-way in Observatory Street would open up a potential northbound bypass movement and so a modal filter is likely to be the most effective approach. Options include closing Observatory Street at the junction with Woodstock Road (Figure 17 - Option A in key) or closing Observatory Street at junction with Walton Street (Figure 17 - Option B in key). The latter would create a better pedestrian environment on Walton Street and would enable some reallocation of space for outdoor business use but would also require an additional closure on Adelaide Street to prevent it being used as a

secondary bypass. The only viable location for a closure is likely to be at the 90-degree bend due to the need for larger vehicle access from Walton Street (Figure 17 - Option B in key).



Option 2 – Walton Street between Adelaide Street and Observatory Street

The benefits, constraints and potential additional measures required for option 2 are largely the same as option 1. The main difference is that the modal filter separates Adelaide Street and Observatory Street and therefore measures to restrict potential through traffic are required in both roads. A per Option 1, Observatory Street could be closed at either the junction with Walton Street or Woodstock Road, but Adelaide Street would also need to be closed at the bend to prevent traffic from bypassing the Walton Street filter



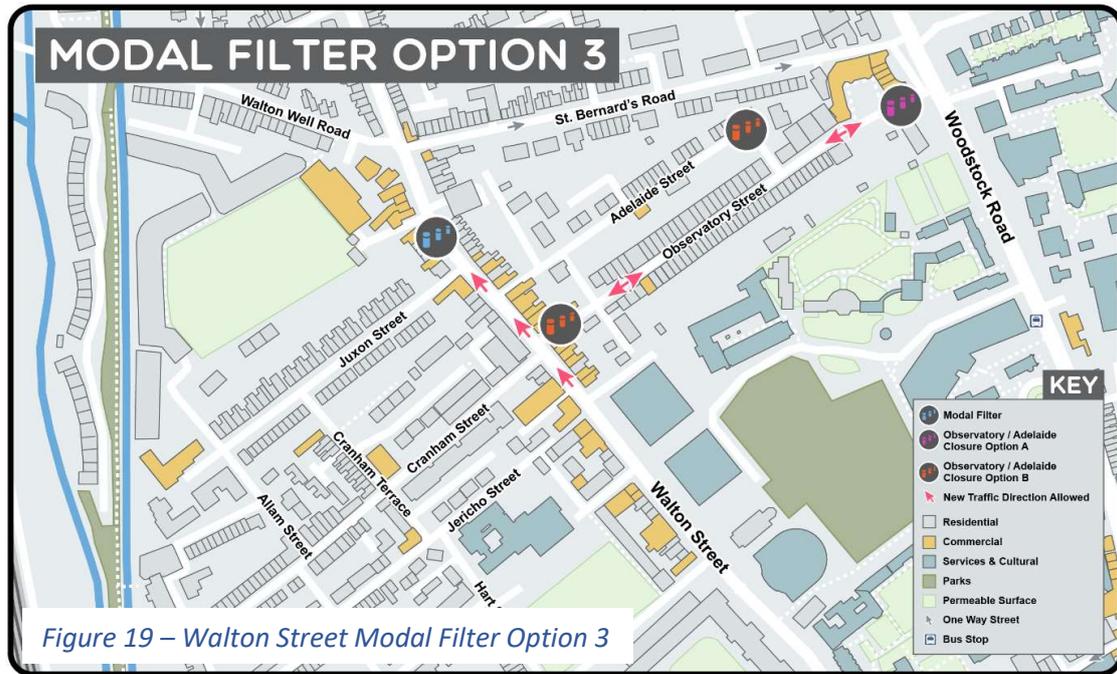
Option 3 – Walton Street between St Bernard’s Road and Juxon Street

Benefits: As per previous options, relatively low cost and easy to deliver compared to other solutions; means that Allam Street and Cranham Terrace filters are not required; access to properties/businesses/kerbside on Walton Street largely unrestricted; access to Adelaide Street and Cranham Street from Walton Street retained potentially making it easier for servicing, visitor access, etc, natural circulation routes for traffic provided as far as possible including large vehicles (minimal reversing/turning manoeuvres required)

Challenges/constraints: Limited scope for road space reallocation in Walton Street without additional traffic management measures, some very localised reversing/manoeuvring may take place on Walton Street either side of the modal filter; Juxon Street and the wider Jericho area will be used by some traffic associated with the businesses to exit area; additional measures needed in Observatory Street and Adelaide Street to prevent traffic being able to bypass A4144;

Additional measures required: As per options 1 and 2, Observatory Street and Adelaide Street need to be addressed otherwise there is a risk that southbound traffic could start to use the area to bypass the A4144. Potential options are as detailed in (1) and include a closure at the Woodstock Road end of Observatory Street, a closure at the Walton end of Observatory Street supported by a closure in Adelaide street, or a right turn ban from Woodstock Road into Observatory Street. Each will have their own benefits and disbenefits in terms of resident access, local opportunities for more space by some businesses, etc.

In addition to the above, in order to provide greater scope and flexibility to reallocate road space on Walton Street, Walton Street could be made one-way northbound between Jericho Street and Juxon Street, except for cycles and possibly buses, similar to the Restricted Access scheme proposal. This would allow the carriageway to be reduced and footway space expanded and would be compatible with all the options detailed for Observatory Street and Adelaide Street above. The main challenge is likely to be that servicing traffic associated with some of the businesses on Walton Street may need to use Juxon Street and the residential part of Jericho to exit the area, although this is not expected to be a significant amount of daily traffic. To mitigate the potential for additional traffic, particularly visitors, using Juxon Street additional measures such as signage could be deployed further south on Walton Street to raise awareness that it is a no through route and to encourage use of Cranham Street and Great Clarendon Street.

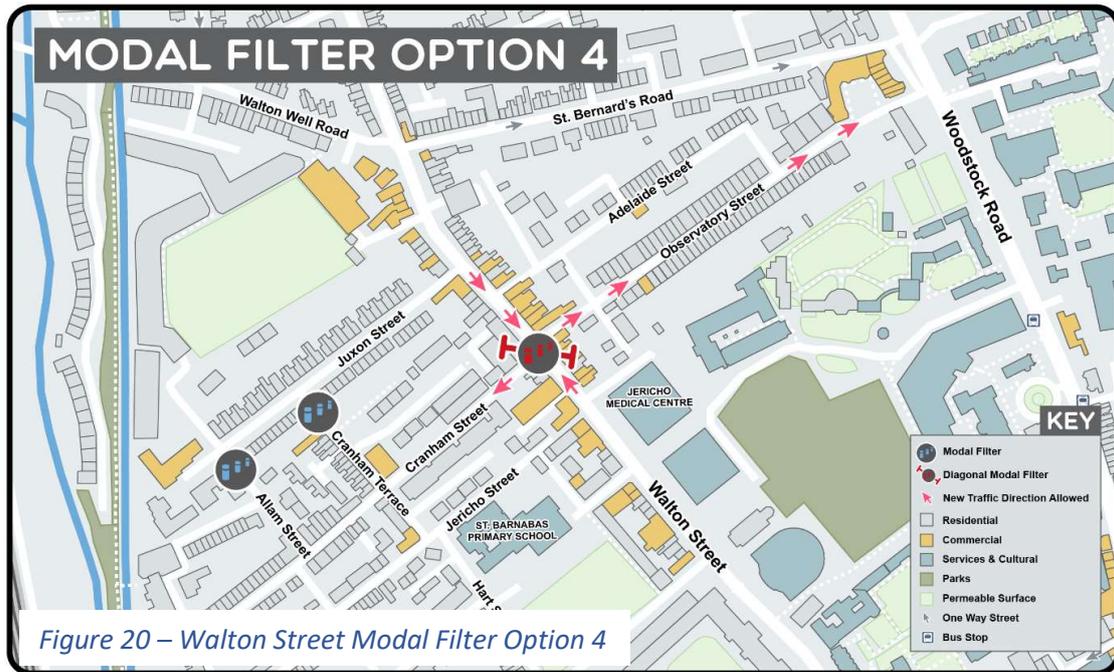


Option 4 – Diagonal closure between Observatory Street and Cranham Road. Observatory Street made one-way towards Woodstock Road and Cranham Street made one-way towards Cranham Terrace (except for pedal cycles where possible)

Benefits: As per previous options relatively low cost and easy to deliver compared to other solutions; access to properties/businesses/kerbside on Walton Street largely unrestricted; access to Adelaide Street and Cranham Street from Walton Street retained, albeit from different directions, potentially making it easier for servicing, visitor access, etc; natural circulation routes for traffic provided as far as possible including large vehicles (minimal reversing/turning manoeuvres required); minimises likelihood of increased traffic in Allam Street and Cranham Terrace; additional measures not needed in Observatory Street and Adelaide Street to prevent traffic being able to bypass A4144.

Challenges/constraints: Limited scope for road space reallocation in Walton Street and at junction with Observatory Street; detailed swept path analysis at diagonal filter required to ensure turning movements viable for larger vehicles as required; safety implications of reversal on Woodstock Road end needs to be assessed, but precedent established elsewhere (St Bernard’s Road); Impact on Observatory Street difficult to quantify, although unlikely would be subject to large amounts of traffic based on turning count data for St Bernard’s Road; Cranham Street likely to be used as outlet for traffic associated with businesses coming from the south; creates biggest ‘division’ of retail area; difficult to see how a north-south bus route could be accommodated in this proposal

Additional measures: No additional measures beyond those already detailed would be required in Observatory or Adelaide Streets to ensure overall traffic management strategy, but limited benefit to Walton street in the context of reapportioning road space. Introducing opposing one-way sections on Walton Street, except for pedal cycles, as shown could allow some road space to be reallocated for other uses but this is likely to be limited and subject to further assessment, due to swept paths for turning movements at junctions.



5.2.2.7 Observatory Street and Adelaide Street

In the Jericho Low Traffic Neighbourhood group’s LTN Proposal Document and throughout this report it has been recognised that Observatory Street could form part of a southbound through route if left unchanged under any alternative plans. The consistent theme throughout the option appraisal process for the modal filter options in 5.2.2.6 has therefore been that some form of traffic management intervention is necessary in Observatory Street, and by extension possibly Adelaide Street, and that a modal filter is likely to provide the best all-round solution. The notable exception to this being Modal Filter Option 4 involving the reversal of Observatory Street.

It is however recognised that filtering Observatory Street reduces the overall number of routes in and out of Jericho under the alternative LTN proposal, as discussed in detail in section 4.1.1 and 5.1.1. Which in turn will place additional pressure on the southern end of Walton Street. While maintaining Observatory Street one-way westbound as it currently is without any further intervention is likely to recreate a southbound through route in the area, a banned right turn into Observatory Street from Woodstock Road could be a possible alternative option. This would maintain Observatory Street as a route into Jericho for residents, businesses, visitors, etc, but would be a deterrent to through traffic. The key disbenefits of this are that Observatory Street would remain an access route into the area and would therefore be subject to similar traffic volumes to present, access into Observatory Street would be reduced as it would only be possible to do a left turn from Woodstock Road, and there would be no, or very limited scope, for any road space reallocation in Walton Street

5.2.2 Little Clarendon Street

Little Clarendon Street is located in the south-eastern part of the area. It is a narrow, primarily commercial/retail street, currently operating one-way westbound (into Jericho). In addition to being a key route into southern Jericho (at present) it is a key corridor for business access/servicing and provides access to several off-street car parking facilities. If the southern end of Walton Street is

opened up under the proposed LTN scheme, Little Clarendon Street could become a short alternative southbound bypass to St Giles and Beaumont Street if left unchanged, adding even more pressure on the southern end of Walton Street. In recognition of this, and a more general desire to also improve the environment in Little Clarendon Street for businesses and general users, it has been identified as needing some form of traffic management intervention as shown in Figure 21 below

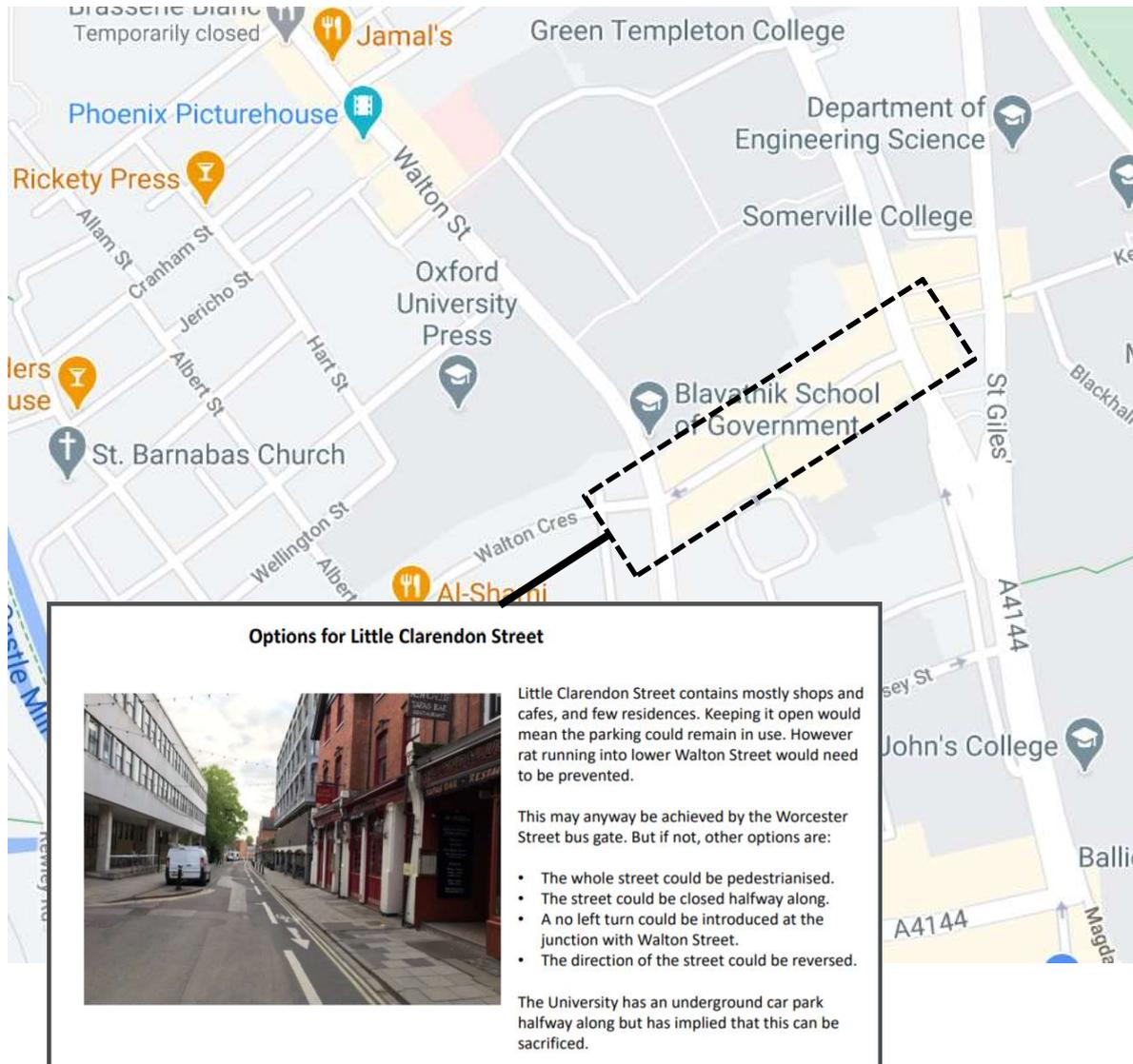


Figure 21 – Little Clarendon Street Options

The four main options put forward are considered in more detail in below:

5.2.2.1 ‘Pedestrianisation’ – similar to the options considered above for Walton Street this could include full pedestrianisation or a restricted/priority access scheme

Full pedestrianisation with no motor vehicle access is unlikely to be a viable option. A number of businesses appear to be reliant on access from Little Clarendon Street for servicing and while it is understood local stakeholders have suggested that access to off-street car parking facilities could be up for discussion, this is likely to be a protracted process and not one that should be taken for granted.

A restricted access scheme comes with all of the general benefits and challenges, constraints and issues discussed earlier in relation to Walton Street and so will not be discussed again in detail here. Additional considerations in this instance are:

- The current road layout is very narrow and therefore opportunity for enhancement if vehicle access is maintained is limited
- How a restricted access scheme (or full pedestrianisation) fits within the wider traffic management strategy for the area and the consequent impact on local access routes in and out of Jericho. As discussed in 5.1.1 above, one of the key impacts of the proposed LTN is the change in main access routes in and out of the area, with the revised access points realistically being the southern end of Walton Street and Little Clarendon Street. Removing Little Clarendon Street as a route either in or out of the area will mean that all traffic entering and exiting Jericho will be via the southern end of Walton Street only. While there is no requirement to maintain more than one access/egress point to the area, the risk is that the southern Walton Street junction will become overloaded and overly congested, leading to significant backlash.

5.2.2.2 Mid-point modal filter

While this would provide greater access opportunities for local business servicing and access to off-street carparks, many of the same issues above still apply. The road layout is sufficiently narrow that any scheme that maintains vehicle access, no matter how infrequent, it limits opportunities for road space reallocation. The impact on overall access routes in and out of the area also needs to be considered.

5.2.2.3 Banned left turn from Little Clarendon Street into Walton Street

A banned left turn from little Clarendon Street into Walton Street aims to make the potential southbound bypass route through the area much less attractive. While it would still be theoretically possible for a vehicle travelling southbound on Woodstock Road to use Little Clarendon Street and then Walton Street, Great Clarendon Street, Albert Street, Richmond Road and Walton Street again to access Beaumont Street/Worcester Street, the principle is that this significantly increases route length and journey times to a point where it is not considered an appealing alternative to the main road. A google maps journey planner analysis suggests that the southbound A4144 route from Observatory Street to Worcester Street takes 2 minutes, even in busy peak hour traffic conditions, whereas the alternative with the left turn ban would take 5 mins plus additional time waiting at the Walton Street/Beaumont Street/Worcester Street signal junction once this is reopened. On this basis it seems unlikely that drivers would choose to use Little Clarendon Street, but this is clearly not guaranteed.

5.2.2.4 Reversing one-way operation of Little Clarendon Street

Reversing the one-way operation of Little Clarendon Street from westbound to eastbound has been suggested as a possible option. The primary grounds for this being

- Concern that maintaining the current one-way westbound operation, even with a potential left turn ban from Little Clarendon Street into Walton Street in place, is likely to lead to southbound rat running traffic through southern Jericho.
- Reversing the one-way, while opening up an alternative northbound bypass route of Beaumont Street and the lower end of St Giles/Woodstock Road, is felt to be a less attractive option to staying on the A4144, based on local knowledge and experience of traffic conditions in the area during peak times
- Reversing the one-way operation would create two exit routes from the Jericho area, potentially relieving pressure on the Walton Street/Beaumont Street/Worcester Street junction.

From an area wide traffic management perspective, maintaining Little Clarendon Street as a route either in or out of the area appears to be a necessity in order to try and balance and dissipate overall traffic flow in and out as far as possible. Reversing the one-way clearly adjusts the overall traffic management dynamic, which needs to be considered, but at least maintains an additional route out of the area and also accommodates local business servicing and access needs, as well as access to off-street car parking facilities. Similar to Observatory Street in section 5.2.2.4 above, reversing the one-way operation of Little Clarendon Street does require further assessment to ensure any safety issues or considerations are fully identified and mitigated, particularly at the St Giles/Woodstock Road junction as set out below

As shown in Figure 22 below, Little Clarendon Street’s narrowest point is at the junction with Woodstock Road and there is an existing signal-controlled pedestrian crossing located in Woodstock Road less than 5 metres north of the junction. The impact of reversing the one-way in terms of manoeuvrability and visibility at this junction, and the continued safe operation of the pedestrian crossing would need to be considered. Providing adequate opportunity for vehicles to exit Observatory Street also needs to be considered, particularly when the pedestrian crossing is in operation and traffic is being held. One option to address the pedestrian/vehicle conflict issue would be a left turn ban from Little Clarendon Street into St Giles, which would also reduce the likelihood of Walton Street and Little Clarendon Street being used as a northbound alternative to the A4144. Providing safe opportunity for vehicles to exit Observatory Street, particularly if only permitted to



turn right is more complex, and a more rounded detailed safety assessment should be taken including the requisite Road Safety Audits on any design proposals.

Figure 22 – Little Clarendon Street/St Giles junction

5.3 Assessment of proposed complementary measures and identification of further enhancements

As part of the LTN proposal developed by the Jericho Low Traffic Neighbourhood Group, a range of additional measures and potential areas for further improvement and enhancement have been identified. A number of key issues have also been drawn out for further consideration, to try and mitigate some of the concerns being raised by the community. This section briefly discusses some of the key items raised

5.3.1 School Streets

Figure 23 below outlines a proposed School Street for St Barnabas School. School Streets aim to completely (as far as practical) restrict motor vehicle access to parts of the road network directly surrounding the school/school gates for a short window at start and finish times, reducing road danger, reducing idling, and creating a more pleasant environment for active trips to school by pupils. Over the past 2 – 3 years School Streets schemes have become more prevalent across the UK, being introduced by a number of different Councils and Highway Authorities. Typically, they include either the use of Number Plate Cameras or moveable physical restrictions, on the basis that they only operate for a short period each day and even during these times legitimate resident access needs to

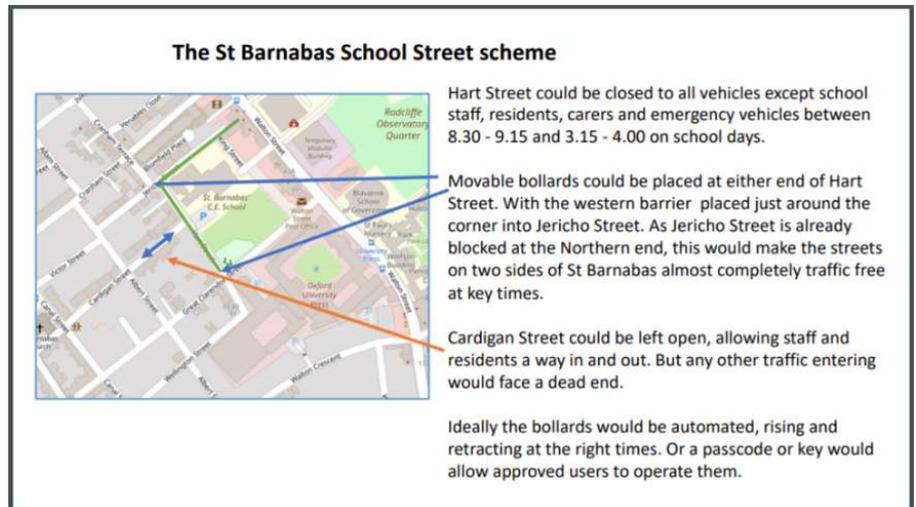


Figure 23 – St Barnabas School Street

be maintained. The School Streets scheme as proposed appears reasonable and sensible in extent but consideration should be given to both the timing of the scheme (in the context of whether it should be delivered as part of a wider set of changes associated with the LTN or possibly deferred to a later date) and the proposed method of operation. Given the wider LTN changes being proposed, an additional school streets scheme could add significant further confusion and complication, if delivered at the same time. The LTN in itself may also change how people chose to travel to/from St Barnabas School. It may therefore be prudent to deliver the LTN changes, and consider the school street as a second phase, subject to monitoring.

The suggested method of operation is via automated or rising bollards. These are notoriously problematic in terms of long-term durability, maintenance and instances of fault, and as such attract high long-term operating costs. During the site visit a non-operational rising bollard/automated gate scheme was observed in Aristotle Lane, demonstrating some of the long-term operational and viability issues associated with solutions such as this. The models that appear to be working at present for School streets either include ANPR cameras with resident permit systems, or manual operation – often utilising resources from the school or community. It is suggested that these options provide the most likely mechanism for effective enforcement should a School Streets scheme be progressed.

5.3.2 Speed Concerns

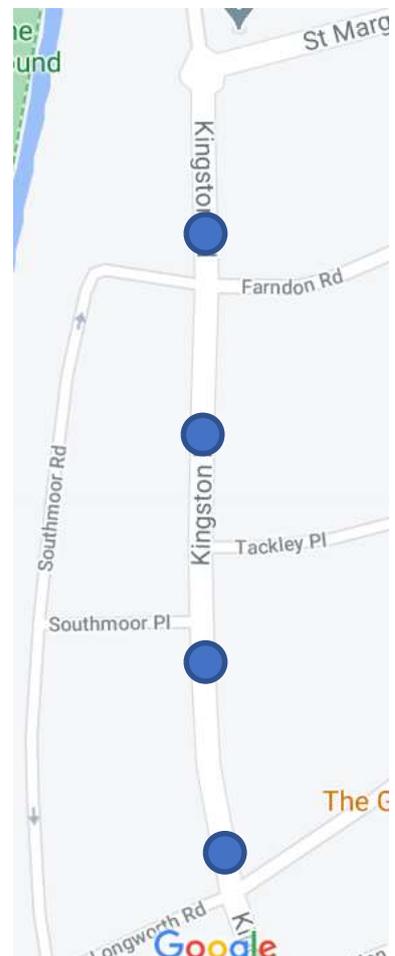
During discussions with members of Jericho Low Traffic Neighbourhood Group, speeding has regularly been raised as a key concern by some members. A summary of the key speed data from each ATC survey conducted in the area is shown in Table 3 on page 13, outlining the average speed and 85thile speed in both January and July 2020. For reference, the 85thile speed is the speed at which 85% of vehicles were recorded travelling below, and is generally considered to represent the speed of the ‘majority’ of vehicles. Most Local/ Highway Authorities will consider 85thile speeds of 20mph or just above as reflective of general adherence with a 20mph speed limit, on the grounds that the majority are travelling within the speed limit and additional investment in measures to try and further reduce vehicle speeds is likely to have significantly diminishing returns. This also takes into consideration that Police enforcement of 20mph speed limits is generally based on a threshold of 24mph, allowing for instrumentation errors. As shown in Table 3, traffic speeds in the area do not appear to be significantly higher than the speed limit. The highest speeds were recorded in St Margaret’s, Leckford and Farndon Road’s, within the Walton Manor Area. None of these roads have regularly traffic calming features of any note and are reasonably wide and able to accommodate two-way flow even with kerbside parking, which most likely explains why speeds are higher. 85thile speeds are still however below 24mph despite the absence of traffic calming features, and this may reflect the fact that the majority of people driving in the area is likely to be associated with the area, given that through traffic is no longer able to pass through.

In specific regard to Kingston Road, it is understood that when factoring in pedal cycles the proportion of motor traffic exceeding the speed limit is estimated to be in the region of 20-30%. In the vast majority of cases however, where vehicles are exceeding the speed limit this is with 1 or 2mph, rather than significant exceedances. Of course, it is acknowledged there are the one-off examples of hugely inappropriate speeds, with an absolute maximum recorded within the 50-55mph range, but it is highly unlikely these extreme instances would be prevented by more or different physical traffic calming measures



Figures 24 and 25 – Kingston Road Traffic Calming

Notwithstanding the above, there are a number of existing hybrid priority give-way/road narrowing/vertical traffic calming measures located approximately every 100m along Kingston Road as shown in Figures 24 and 25. The measures combine a mixture of horizontal



and vertical traffic calming techniques, and include bypasses for pedal cycles, which is positive given the conflict that horizontal/pinch point traffic calming features can generate. It would appear that these measures are largely effective, if not outdated, but could be replaced or upgraded with more conventional speed humps or tables, while also increasing frequency. This would give back parking space to residents, if this is a priority, but is likely to mean the loss of greenspace assets, as most have tree planting incorporated onto the buildouts.

5.3.3 Parking considerations

Parking is an emotive subject and often forms a central part of the debate over any highway changes. In general, Low Traffic Neighbourhood proposals rarely include substantial parking changes or adjustments, for residents at least, with the primary impact being how routes in and out of an area change rather than parking availability. The specific impact on parking availability and options in and around retail/business/commercial areas can however be a big source of concern, particularly where more radical changes are being proposed – such as in this case with the proposals for Walton Street.

Often short stay and/or visitor parking is in relatively short supply compared to resident parking provision, for obvious reasons, and there is also a common perception that businesses are heavily reliant on either passing trade or customers who travel by motor vehicle. There is however a growing body of research that suggests that people who walk and cycle to local shops and High Streets spend more money in the longer term (<https://tfl.gov.uk/corporate/publications-and-reports/economic-benefits-of-walking-and-cycling>; <https://www.livingstreets.org.uk/media/3890/pedestrian-pound-2018.pdf>) and local engagement and research in places like Waltham Forest (Figure 26) has shown the dichotomy between what businesses perceive their visitors/customers want and what their visitors/customers actually want, particularly in respect to the provision of parking and access by motor vehicle.

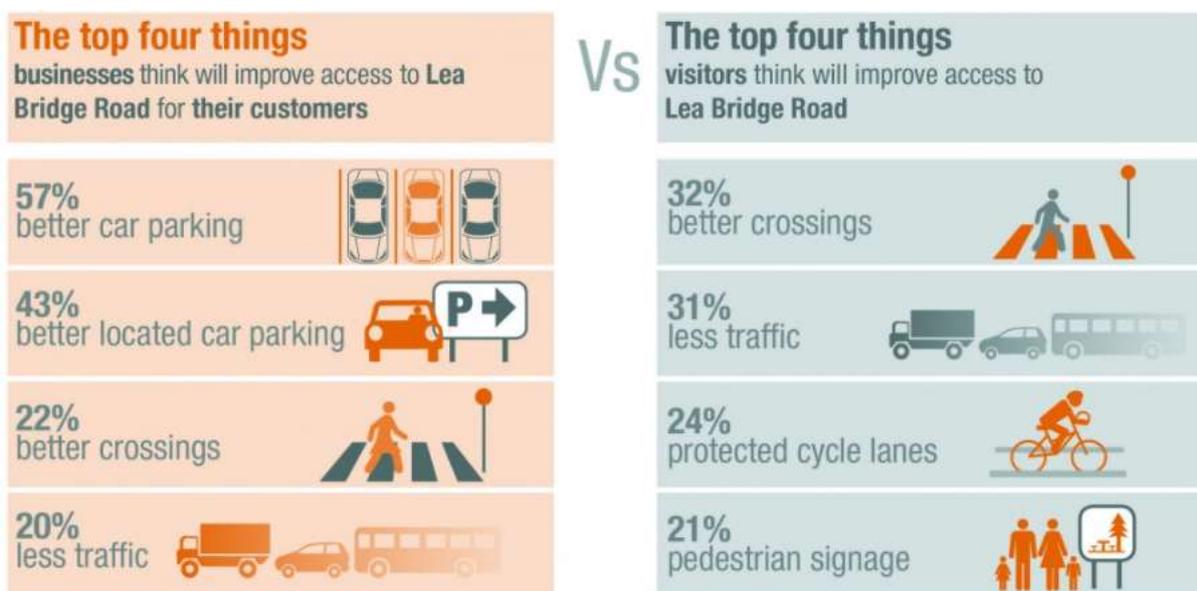


Figure 26 – Waltham Forest Infographics

While it is hoped that real life case studies and evidence such as this will start to change opinions and perceptions about the role motor traffic and parking play in the success and viability of our High

Streets and local businesses, it is certainly recognised that some people do, and will continue to, travel by motor vehicle for a variety of reasons. As such some visitor/short stay parking is of course required, and given the level of change being proposed as part of the wider LTN it makes sense to try and mitigate some of the concerns being raised, where possible, to try and get greater buy-in and acceptance.

As discussed in 5.2.2.2 above, under the most extensive proposals (either the full pedestrianisation or full restricted access scheme) it is anticipated that around seven spaces would need to be removed (between Jericho street and Juxon street), and several bays in both Observatory Street and Cranham Street would most likely need removal to create adequate turning areas. This however represents the maximum parking impact, and in most of the options involving a point modal filter on Walton Street it would be possible to retain most of the current parking provision, if desired. The scope of this commission does not include a full and detailed parking review of the area, however, based on site observations there appear to be a number of obvious opportunities where visitor/short stay parking provision could be increased as part of any scheme in order to at least mitigate any necessary reduction in northern Walton Street. Key opportunities include:

- Historic Bus Stop/Cage locations along Walton Street, primarily to the south: At present the kerbside is allocated to bus stop use but no buses are present. Subject to a site by site assessment these could be converted to parking bays in the short term. In the long term they could be reinstated as bus stops should a bus service be reinstated.
- Disabled parking provision alongside Jericho Medical Centre: It is anticipated that this parking provision was a condition (planning or highways) of the medical centre redevelopment but use during the site visit was observed to very low. Anecdotal local observations suggest the same It is recommended that an occupancy review take place to determine whether some of these bays could be repurposed
- The general parking arrangement on Walton Street has largely been restricted to one side of the carriageway, with the other being designated as No Waiting at any time. This most likely reflects historic traffic volumes and that parking on both sides would restrict the free flow of two-way traffic. In light of reduced traffic levels, both currently and under a revised LTN scheme, consideration could be given to reinstating parking on both sides at some locations, subject to further assessment
- The eastern end of Juxon Street could be reviewed, and some bays reallocated to short stay/visitor use.

As discussed above, a detailed parking assessment has not been considered as part of this commission but a more detailed review is highly recommended as it is highly likely that any reduction or removal of parking to facilitate the proposed changes can be easily offset, if not a net increase achieved.

5.3.4 Public Realm

The Detailed LTN proposal document prepared by Jericho Low Traffic Neighbourhood Group includes a number of visualisations depicting public realm aspirations at potential modal filter

locations and within the Walton Street Pedestrian area, being the focal points intervention. As such, it has not been deemed necessary to undertake a further assessment on potential public realm improvement opportunities within the area. Inevitably there will be other opportunities within the area and in the longer term it is recommended that a wider piece of work be undertaken to identify these

5.3.5 Cycle Routes and Cycle Parking

As detailed earlier, NCN Route 5 is aligned through the Jericho and Walton Manor area and cycle volumes recorded at traffic survey sites in both Walton Street and Kingston Road indicate people cycling make up almost 25% of daily traffic flow in some cases, which is significant. Of course, this is predominantly going to be local people making local journeys rather than people making the journey between Oxford and Birmingham, but ensuring the area is safe and accessible for people currently cycling and making it more attractive, convenient and appealing for new cyclists is critical to both, and a key objective of the LTN. The proposals outlined aim to lock-in the traffic reductions already achieved, and should help spread residual traffic volume more evenly across the Walton Street – Kingston Road corridor

A detailed cycle parking review of the area has not been completed but any proposals aimed at improving and enhancing access to local shops and retail areas should of course include as much cycle parking provision as possible. Particularly in this case where cycle volumes already make up a sizeable proportion of flow. It is recommended that a more detailed cycle parking audit of the area take place as part of the development of more detailed plans, with a view to maximising provision within the Walton Street retail area. Where options detailed above include opportunity to reallocate road space within the Walton Street area then this should provide ample opportunity to incorporate cycle parking, like that shown in Figure 27 below, alongside other flexible uses such as seating, planting, etc. The specific design in Figure 27 is clearly more suited to a shorter-term interim scheme rather than a permanent one, but the principles of providing higher levels of cycle parking in areas formerly allocated to motor traffic are the same.



Figure 27 – Car Bike Port



Figure 28 – Residential Bikehangar

Alongside short stay visitor parking, a programme of secure on-street residential cycle parking should be explored, although it is recognised that this may fall out of the scope of the LTN, particularly in the shorter term. A programme of bike hangar installations in the carriageway, or similar, like those in Figure 28 would provide much needed secure residential parking for bikes while minimising pavement obstructions and reprioritising road space to active and sustainable modes.

6. Preferred Options, Estimated Costs and Delivery Approach.

As part of the commission an outline estimated delivery cost has been requested, as has the identification of potential delivery approaches in both the short and long term.

Even once the general traffic management options and planned interventions have been fixed and agreed in principle, there are a number of different ways in which the various components or interventions within a scheme can be designed and implemented and it can be difficult to provide a specific or definitive cost. A common approach is to identify low, medium and high cost design options for each proposed intervention and provide a range – albeit potentially a wide one. The intention being that this forms a type of shopping list that is refined as the scheme develops in order to suit the budget and funding availability when this is known, taking into consideration local priorities.

In this case the proposal is not yet fixed, in the sense that there remains a range of different potential options available, particularly in relation to the treatment of Walton Street and Little Clarendon Street. Most of the options considered in this report should achieve the strategic area-wide traffic management objectives, but each has a different impact on some of the other key objectives and localised or site-specific aspirations, as well as key issues such as access, traffic impact, etc.

Finally, it is understood that a funding bid for the Jericho and Walton manor LTN has been included within Oxfordshire’s Emergency Active Travel Fund Tranche 2 application to the DfT. It is understood that the amount allocated towards the Jericho LTN is in the region of £55,000, and like all EATF schemes it is understood must be delivered within a very compact timescale. EATF Funding was approved on Thursday 12 November, and at present this appears to be the only ‘guaranteed’ funding available for the Jericho LTN in the short to medium term. As such, there is a desire to make sure this opportunity is not wasted, even if this means adopting a phased delivery approach and introducing a “gateway” or interim scheme in the first instance, hopefully evolving into an aspirational one over time

In light of the wide range of factors and variables above, two scenarios have been considered in terms of a LTN scheme for Jericho and Walton Manor – a long term scenario with aspirational, high quality design ambitions, and a shorter term/interim scenario, more aligned with the funding and timescales of EATF. For each scenario a preferred option or options are suggested based on the discussion and analysis in this report, with indicative costs against each. In both scenarios the options put forward aim to balance the objectives and challenges/constraints/concerns within the area, but in the short-term scenario cost and deliverability within a limited timescale have also been key factors.

6.1 Suggested Options – Longer term

For the longer-term aspirational scheme two potential options are suggested as follows:

- Restricted Access Scheme in Walton Street with supporting modal filters in Allam Street and Cranham Terrace (Section 5.2.2.5, Figure 15). As part of this scheme options for full pedestrianisation could also be investigated in more detail

- Modal Filter in Walton Street between Juxon Street and St Bernard’s Road, with supporting measures in Adelaide Street and Observatory Street (Section 5.2.2.6 - Modal Filter Option 3, Figure 19)

For both options above, there are two options for Little Clarendon Street that could be considered. On one hand, retaining the current one-way westbound operation and introducing a banned left turn into Walton Street would be the simpler approach, and should mitigate the potential for southbound traffic to try and use the area as a by-pass. However, this means the southern end of Walton Street is the only exit point from Jericho and could lead to past instances of congestion and delay returning.

It is not possible to explicitly predict the likely entry and exit flows from Jericho under any new scheme based on the data available, but reversing the one-way in Little Clarendon Street would most likely help reduce pressure on the southern end of Walton Street and so could be a prudent measure. This does however require further detailed assessment to ensure it is viable, although there is no reason to see why it would not be given contra-flow cycling is currently allowed. For the purpose of this report the recommendation remains to keep Little Clarendon Street one-way westbound with a banned right turn, with a view that this is monitored closely, and amendments such as reversing the one-way considered as part of a subsequent phase if needed.

A recap on the key benefits and considerations for each option is set out below, along with an outline cost. For all longer-term options, a reasonably high specification design and materials palette has been assumed in keeping with the visualisations developed. This does not include contingency, include provision for 3rd party or utilities works, or include professional/consultancy/management costs and are for external works only. Costs are intended to be indicative only at this stage and should be subject to re-estimation following further detailed site investigation and design development to ensure viability and deliverability.

6.1.1 Restricted Access Scheme in Walton Street

Main benefits and constraints of the scheme include:

- Likely to have the greatest scope to reduce traffic in Walton Street and repurpose/reallocate road space and transform Walton Street in-line with the aspirations as shown in the visualisations
- Scope to maintain access for servicing and possibly other activities on Walton Street, subject to more detailed work on restriction type and timings. Large vehicles would not need to turn around or use residential parts of Jericho to access/exit the area
- Greater flexibility in terms of access to/from Observatory Street and Cranham Street for servicing
- Most complex of the schemes with potential for misunderstanding and misuse, both accidental and deliberate
- High cost

Estimated Cost

Element	Unit (if applicable)	Unit cost	Total cost
Modal Filters	2	£15,000 - £25,000	£30,000-£50,000
Walton Street Restricted Access area			
<i>Highway redesign/Public realm costs</i>	1500sqm	£300/sqm	£450,000
<i>Cameras</i>	2	£20,000	£40,000
<i>Traffic Management measures and Parking Changes</i>		£20,000	£20,000
Little Clarendon Street			
<i>Banned left turn</i>		£7,500	£7,500
Kingston Road traffic calming			
<i>Replace/upgrade existing</i>	6	£5000	£30,000
<i>Increase frequency</i>	4	£2500	£10,000
Traffic calming in Walton Manor including St Margaret’s Road, etc		£30,000	£30,000
Additional measures/Ancillary costs (Tbc)		£50,000	£50,000
		Total	£667,500 - £687,000

6.1.2 Modal Filter in Walton Street between Juxon Street and St Bernard’s Road

Main benefits and constraints of the scheme include:

- Probably simplest and most straight forward scheme to introduce in terms of number of modal filters and traffic management restrictions. Maximum circulation routes for traffic.
- Largely unhindered access to businesses in Walton Street
- Several options available over where to close Observatory Street and Adelaide Road, dependent on local views
- Additional one-way operation in Walton Street would allow some road space reallocation in Walton Street, although unlikely to be as transformative as Restricted Access option and higher amount of residual traffic
- Potential for some additional traffic in Jericho residential area, including commercial vehicles, but difficult to quantify.
- Easily modified to allow buses by allowing buses through the Modal Filter using camera enforcement

Estimated Cost

Element	Unit (if applicable)	Unit cost	Total cost
Modal Filters			
<i>Walton Street</i>		£15,000 - £20,000	£15,000 - £25,000
<i>Observatory Street (assumed) including two-way</i>		£20,000 - £25,000	£20,000 - £30,000

<i>Adelaide Street (assumed)</i>		£5000	£5000
Walton Street Public Realm			
<i>Highway redesign/Public realm costs</i>	750sqm	£300/sqm	£225,000
<i>Parking Changes</i>		£5,000	£5,000
Little Clarendon Street			
<i>Banned left turn</i>		£7,500	£7,500
Kingston Road traffic calming			
<i>Replace/upgrade existing</i>	6	£5000	£30,000
<i>Increase frequency</i>	4	£2500	£10,000
Traffic calming in St Margaret's, etc		£30,000	£30,000
Additional measures/Ancillary costs (Tbc)		£50,000	£50,000
		Total	£397,500 - £417,500

6.2 Suggested Options – Short Term

The original catalyst that brought LTN's to the forefront of community spotlight and interest in Jericho was the Councils decision to extend the temporary closure of southern Walton Street using Experimental Traffic Order powers. Experimental Traffic Orders last for a finite period of time meaning further action and decision making is required at some stage to determine whether the Order should be made permanent or not. This is normally within a period of 18 months, extendable to 24 on Secretary of State approval, effectively meaning there is a deadline already in place.

It is understood that Oxfordshire County Council included an allocation of approximately £55,000 for an LTN in Jericho within their bid for Department for Transport's EATF Tranche 2 funding, the attached conditions at present being that it must be spent by March 2021. Given the likely costs associated with an aspirational scheme, and the likely timescales associated with progressing this through the design and construction process, it has highlighted the need to think about a scheme that could be delivered at relatively low cost, and in a short space of time. Possibly an interim or "gateway" scheme that achieved some of the core objectives, utilised the funding currently available, and could be built on in the future. This may also appeal more to parts of the community that have concerns about the potential impact, on the basis that it represents a lower cost next step that could be seen as a further trial or testing of the traffic management arrangement, before committing to a significant redesign of Walton Street

For the short-term scheme two potential options are therefore suggested as follows

- Modal Filter in Walton Street between Juxon Street and St Bernard's Road, with supporting measures in Adelaide Street and Observatory Street (Section 5.2.2.6 - Modal Filter Option 3, Figure 19)
- Diagonal modal filter at Walton Street/Observatory Street/Cranham Street junction, with supporting filters in Allam Street and Cranham Terrace (section 5.2.2.6 – Modal Filter Option 4, Figure 20)

In both options above, the recommended approach for Little Clarendon Street, in the first instance, would be as per the longer-term proposals and would involve maintaining the current one-way westbound operation with a banned left turn, subject to ongoing review and possible amendment.

A recap on the key benefits and considerations for each is set out below, along with an outline cost. For all shorter-term options, a lower specification design and materials palette has been assumed in comparison longer term scheme, to keep the scheme in accordance with budget and delivery programme requirements. This is also in keeping with the ethos that this is an interim scheme that will be developed and built on in the future. As per above, this does not include contingency, include provision for 3rd party or utilities works, or include professional/consultancy costs. Costs are intended to be indicative only at this stage and should be subject to re-estimation following further detailed site investigation and design development to ensure viability and deliverability.

6.2.1 Modal Filter in Walton Street between Juxon Street and St Bernard’s Road

Main benefits and constraints of the scheme include:

- Probably simplest and most straight forward scheme to introduce in terms of number of modal filters and traffic management restrictions
- Largely unhindered access to businesses in Walton Street
- Several options available on how to treat Observatory Street and Adelaide Road, dependent on local views and access needs
- Additional one-way operation in Walton Street would allow some road space reallocation in Walton Street, although in short term option low cost activation measures would need to be identified in light of budget constraints
- Potential for some additional traffic in Jericho residential area, including commercial vehicles but difficult to quantify

Estimated Cost

Element	Unit (if applicable)	Unit cost	Total cost
Modal Filters			
<i>Walton Street</i>		£7,500 - £15,000	£7, 500 - £15,000
<i>Observatory Street (assumed) including two-way</i>		£10,000 - £15,000	£10,000 - £15,000
<i>Adelaide Street (assumed)</i>		£5,000	£5,000
Walton Street Public Realm			
<i>Low cost activation</i>		£10,000 - £20,000	£10,000 - £20,000
<i>Traffic Management and Parking Changes</i>		£10,000	£10,000
Little Clarendon Street			
<i>Banned left turn</i>		£7,500	£7,500
Additional measures/Ancillary costs (Tbc)		£10,000	£10,000
		Total	£60,000 - £82,500

6.2.2 Diagonal modal filter at Walton Street/Observatory Street/Cranham Street junction, with supporting filters in Allam Street and Cranham Terrace

Main benefits and constraints of the scheme include:

- Similar to option above, simple and straight forward scheme to introduce in terms of number of modal filters and traffic management restrictions
- Access to properties/businesses/kerbside on Walton Street largely unrestricted;
- Access to Adelaide Street, Observatory Street and Cranham Street from Walton Street retained, potentially making it easier for servicing, visitor access, etc
- Natural circulation routes for traffic provided as far as possible including large vehicles and minimises likelihood of increased traffic in Allam Street and Cranham Terrace
- Very limited scope to reallocate road space on Walton Street, particularly around Observatory Street
- Detailed swept path assessment required to ensure works
- Detailed assessment of reversing one-way on Observatory Street required
- Some traffic could be pushed in Jericho via Cranham Street

Estimated Cost

Element	Unit (if applicable)	Unit cost	Total cost
Modal Filters			
<i>Walton Street diagonal filter</i>		£7,500 - £10,000	£7,500 - £10,000
<i>Allam Street</i>		£7,500 - £10,000	£7,500 - £10,000
<i>Cranham Terrace</i>		£7,500 - £10,000	£7,500 - £10,000
Walton Street Public Realm			
<i>Low cost activation</i>		£10,000	£10,000
<i>Traffic Management and Parking Changes</i>		£10,000	£10,000
Observatory Street			
<i>One-way</i>		£10,000	£10,000
Little Clarendon Street			
<i>Banned left turn</i>		£7,500	£7,500
Additional measures/Ancillary costs (Tbc)		£10,000	£10,000
		Total	£70,000 - 77,500

6.2.3 Restricted Access Scheme on Walton Street

While not put forward as a suggested option for the short term it should be noted that a Restricted Access scheme on Walton Street could potentially be delivered broadly in line with the two options above in terms of costs, assuming an absolute basic scheme was introduced.

Assuming just the regulatory signage and road markings were used to implement the Restricted Access area alongside other traffic management and parking restriction changes, and all physical modal filters were implemented using basic measures such as bollards or free standing planters, then it is estimated that the scheme would cost in the region of £60,000 - £80,000 including the cost of two cameras. However, only very limited public realm improvements would be possible within the

budget, if any, and given the limited timescales for delivery it is a much more complex scheme to try and communicate, finalise and deliver.

It is understood that this is an appealing option, as it would provide clear progression towards a longer-term permanent scheme of a similar ilk while achieving many of the immediate benefits within the Walton Street area in the short term. The risks are that it is the most complex scheme to communicate with the community and stakeholders, and further work is required to refine and finalise who should/could have access and when, if at all, all in the face of limited timescales to finalise and deliver a scheme in accordance with EATF T2 requirements. Given funding constraints, there is also likely to be limited budget left over for greenspace, public realm and street activation of any real description, unless further funding can be drawn in.

It is certainly an option for further consideration, but the risks and limitations need to be considered in light of the criteria and conditions likely to be attached with EATF

7 Alternative proposals

It is understood that a number of alternative proposals have been suggested or put forward, either by the community or by the Council, in terms of possible next steps to deliver further improvement within the area while addressing some of the key issues arising from the current arrangement. A short consideration of these has been requested as part of the commission.

7.1 Walton Street One-way Northbound

It is understood that several of the main alternative proposals revolve around Walton Street being made one-way northbound in some capacity, although it is unclear as to whether this is in its entirety or just in part. Without this level of detail, it is very difficult to provide a definitive view on the benefits or potential limitations of any proposal. However, assuming it is intended to be one-way northbound in its entirety, or even at the southern end of Walton Street only, then some of the key concerns would be;

- That a northbound through route would remain in the area allowing traffic with no intended purpose or destination within Jericho or Walton Manor to pass through
- Access out of the area would still be via Walton Manor. St Bernard's Road would continue to be the most southerly outlet for the entire area and would therefore be subject to exactly the same demand as being currently experienced, if not potentially more.
- There is no detail on whether the one-way would exclude people cycling (i.e. cyclists would be able to travel two-way) which is a significant issue given the popularity of the area as a key route. Similarly, it is unclear as to whether buses could be accommodated in the future
- One-way streets, particularly long sections, typically exhibit higher vehicle speeds

7.2 Right turn restrictions into St Bernard's Road and Leckford Road

It is understood that the Council is currently considering "bolt-on" proposals to the current arrangement, to try and create a more equitable redistribution of traffic across the wider area, and in particular reduce traffic in St Bernard's Road. While the proposals suggested are understandable the analysis in this report illustrates that at present in the region of 1700 vehicles exit Jericho via St Bernard's Road. Introducing right turn restrictions is likely to simply push this traffic further north onto St Margaret's Road and Farndon Roads, inevitably leading to similar concerns in these areas, as well as an increase in Kingston Road. This does not seem to be a long-term sustainable solution and provides little or no benefit to the Walton Street retail area.

8 Conclusion

The opportunities, aspirations, challenges and constraints associated with the Jericho and Walton Manor area are both unique but also in many ways typical of a dense urban inner-city environment. A wide mixture of land uses, amenities and trip generators are incorporated into a relatively compact and confined urban space, meaning the area should be about a sense of Place as much as Movement, and where movement takes place the vast majority of typical trips should be by sustainable and active travel modes. As is often the case however, public areas and spaces have generally been given over to the motor vehicle.

The current arrangement, with the southern end of Walton Street experimentally closed to motorised traffic, has arguably achieved one of the historic aims for the area - to reduce or remove non-local “rat-running” traffic. In particular, the southern section of Jericho is likely to have seen the greatest benefit in terms of reduced vehicle numbers. Unfortunately, very little ‘pre-closure’ data is available, so it is difficult to know whether other parts of the area including the northern end of Walton Street, where the main retail cluster is located, has seen a reduction in traffic or not. Post closure data from 2020 along with on-site observations suggest vehicle volumes in the main retail area remain relatively high. While the current modal filter has resulted in some improvement, for some people, it has also led to a number of concerns. Some of these relate to localised traffic impacts, most notably in St Bernard’s Road, while others relate to wider more subjective concerns around business impact, accessibility for local people, community division, etc. A perceived lack of community engagement also appears to be a key factor

The Jericho Low Traffic Neighbourhood Group’s LTN proposals have been developed to try and address some of the concerns raised while achieving a broader range of local objectives and aspirations. And to try and reunite parts of the community around a common plan. Improving the main Walton Street retail area and creating a more equitable redistribution of traffic are two of the key priorities within the LTN proposals, but are by no means the only ones, and a range of constraints and requirements have also been put forward for consideration to try and create a scheme that works for as many people as possible.

This report aims to provide an assessment of the LTN proposals that have been developed, looking at both the strategic benefit and impact of the proposals as a package, alongside a more detailed site by site appraisal of the different interventions. In both cases, proposals have been reviewed in the context of the key aspirations and constraints associated with the area. Where multiple options or suggestions have been put forward for particular roads (or locations), each has been considered.

In the case of Walton Street, the overarching concept within the LTN proposal is a car-free ‘pedestrianised’ area, but possibly with some allowance for servicing and access. Fundamentally, this is seen as the centrepiece of the area and a key opportunity to create a vibrant, attractive, pedestrian and cycle focused retail destination for both the local community and visitors from further afield. During the assessment of this particular component of the overall scheme a number of further options and sub-options have been drawn out, with Observatory Street and Adelaide Street appearing highly inter-dependent and critical to both the treatment of Walton Street and the wider scheme. Overall, a wide range of potential options, variations and permutations are potentially possible, and it simply has not been possible to consider each and every one of them in detail. The main ones have however been assessed and where relevant potential further variations have been highlighted

The emergence of the DfT’s EATF over the past 6 months and Jericho’s inclusion in the Councils Tranche 2 bid has created additional opportunity, but also added urgency and complexity. In light of

this, the optioneering outlined in this report has been used to identify two potential longer term aspirational schemes for the area and two potential short term schemes, the requirement of the latter being that they are broadly deliverable in what is currently understood to be the conditions and budget for the EATF. Of the preferred options, as set out in Section 6, each has its benefits and potential limitations or challenges, which relate back to the key aspirations and constraints referred to throughout the report.

Ultimately, it is C Proctor Engineering’s view that a restricted access scheme (or even full pedestrianisation) in Walton Street is likely to create the greatest opportunity for transformative change within the area in the longer term. Experience from elsewhere has shown that where bold decisions are made that do not try to achieve too many compromises, the outcome is most pronounced and most effective. Restricting access either completely or for most vehicles would allow the greatest amount of space to be repurposed towards active travel modes, visitors, and business use. Clearly there is a lot of detail to work through with the community and access to businesses for operational and servicing purposes needs to be fully considered, but access and parking for visitors should not be seen as a reason not to pursue a scheme of this type, as both would still be fully available.

In the short term, a restricted access scheme could be quite complex to develop and refine in the timescales associated with EATF, and within the understood budget available would be limited to a very basic skeletal scheme that contained just the core traffic management measures. While effective, this may not provide some of the visual and physical impact that some may wish to still achieve from an interim or short-term scheme.

In the short-term, within the budget and conditions associated with EATF, the suggested approach would be to introduce a Modal Filter in Walton Street between Juxon Street and St Bernard’s Road. This would not require the additional modal filters in Allam Street and Cranham Terrace, but traffic management measures within Observatory Street and Adelaide Street are recommended. Throughout the report, closing both Observatory Street and Adelaide Street to motorised traffic using modal filters have been taken as the default position, but other options are potentially available. The risk is that if left completely untreated then a southbound through route will exist, and any alternative measures are unlikely to allow much scope for road space reallocation on Walton Street, in the short term at least. It is however acknowledged that leaving Observatory Street open in some capacity would mean an additional route into the area, balancing traffic demand across entry and exit points, which is a key consideration.

Making Walton Street one-way northbound as part of this proposal could allow some reallocation of road space in the shorter term, possibly with some low-cost activation measures developed with businesses. The risk is that additional commercial traffic will be pushed into Juxon Street and Jericho to exit the area. While this is possibly the case, it is difficult to quantify the numbers and is unlikely to be a significant amount, if additional mitigating measures like advanced signage are put in place.

The recommended approach for Little Clarendon Street, in the context of a shorter-term scheme particularly, would be to retain the current one-way westbound traffic operation and ban the left turn into Walton Street. This could be reviewed once the scheme is implemented and further amendments made if necessary. It is highly recommended that the traffic signal junction method of control and timings are reviewed as part of the scheme to make sure they are operating as effectively and efficiently as possible once reactivated. Should Little Clarendon Street need to be reversed, this does not appear to be particularly complex and should not take a significant amount of time to deliver, but a further detailed review of the St Giles junction is required.

More generally, any planned treatment of Little Clarendon Street needs to be considered in the wider context of Observatory Street, and overall routes in and out of the Jericho area in general. If further variations to the scheme are to be considered as part of the next stage, it is essential they continue to be considered collectively as well as individually.