Bloor Homes & Sandleford Farm Partnership

Sandleford Park, Newbury

Transport Assessment

March 2020

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1 INTRODUCTION

1.1 Vectos has been commissioned by Bloor Homes and the Sandleford Farm Partnership to provide traffic and transportation advice in relation to a proposed residential development at Sandleford Park, south of Monks Lane in Newbury. The local unitary authority is West Berkshire Council (WBC).

1.2 The strategic location of the site is illustrated in **Figure 1**, whilst the local context of the site is illustrated in **Figure 2**. The site currently comprises undeveloped land and is located to the south of Monks Lane, to the west of A339 and to the east of A343.

1.3 The planning application seeks outline permission with all matters reserved (except for access) for the following development:

Up to 1,000 new homes; an 80 bed extra care facility (Use Class C3) as part of the affordable housing provision; a new 2 form entry primary school (D1); expansion land for Park House Academy School; a local centre to comprise flexible commercial floorspace (A1-A5 up to 2,150 sq m, B1a up to 200 sq m) and D1 use (up to 500sq m); the formation of new means of access onto Monks Lane; new open space including the laying out of a new country park; drainage infrastructure; walking and cycling infrastructure and other associated infrastructure works

1.4 The land use and access parameters plan for the proposed development can be viewed at **Appendix A**.

1.5 An outline planning application (Ref: 18/00764/OUTMAJ) was submitted to WBC in March 2018 for the proposed site. The planning application submitted in March 2018 is a duplication of the proposed planning application identified above. The submitted planning application (Ref: 18/00764/OUTMAJ) is yet to be determined by WBC.

Context

1.6 The application site forms the majority of the Sandleford Park Strategic Site Allocation defined by Policy CS3 of the West Berkshire Core Strategy (2006-2026). The allocation is identified for development of up to 2,000 dwellings with associated infrastructure, including education, community uses, public open space and new highways infrastructure.

1.7 The Sandleford Park allocation boundary includes both the application site and land at New Warren Farm to the west, which has been brought forward through a separate planning

application (Ref: 18/00828/OUTMAJ) by Donnington New Homes. The Donnington New Homes planning application is known as 'Sandleford Park West' and seeks to provide up to 500 residential dwellings.

1.8 Extensive consultation has been undertaken with WBC regarding potential highways improvement schemes, which will be delivered as part of the application. This has included several meetings to discuss design parameters and layout of the proposed highway schemes.

1.9 We have also been co-operating with Donnington New Homes, who have submitted a planning application (Ref: 18/00828/OUTMAJ) for Sandleford Park West. Discussions regarding a sustainable access strategy (including public transport, walking and cycling improvements), proposed off-site highways works, traffic generation, traffic distribution and internal site layout have been undertaken.

1.10 An illustrative masterplan of the strategic site can be viewed at **Appendix A**.

Report Structure

1.11 This Transport Assessment has been prepared in order to assess the potential transport impacts of the development proposals. Following this introductory section, the remainder of this report is structured as follows:

- **Section 2** – provides a description of the existing situation and transport networks;
- **Section 3** – considers the proposals in the context of national and local planning policy;
- **Section 4** – describes the development proposals;
- **Section 5** – presents an assessment of the likely trip generation of the scheme and the distribution of trips onto the highway network;
- **Section 6** – summarises the assessment methodology;
- **Section 7** – assesses the potential effects of the development proposals on the study network;
- **Section 8** – provides a summary of the Travel Plan; and
- **Section 9** – provides a summary and conclusion to the report.

2 EXISTING SITUATION

Overview

2.1 This section of the report describes the location of the site in relation to its surrounding area and the accessibility of the site by non-car modes of transport

Site Location & Existing Use

2.2 The site location with respect to the strategic highway network is shown in **Figure 1** and a more detailed location plan is shown in **Figure 2**.

2.3 The site currently comprises undeveloped land and is located within Sandleford Park.

2.4 The site is located to the south of Monks Lane, to the west of A339 and to the east of A343, approximately 1.8km from Newbury town centre.

Highway Network

2.5 The site is located to the south of Monks Lane, which is subject to a 30mph speed limit and has an east-west alignment. To the east, Monks Lane forms a 4-arm roundabout junction with Newtown Road and Newbury College.

2.6 Further to the east, Newtown Road forms a 4-arm roundabout with A339 and Pinchington Lane. The A339 is the main route into Newbury and provides a connection to the M4 to the north via the A34, as well as providing access into Basingstoke town centre and onto the M3 to the south.

2.7 To the west, Monks Lane forms a 4-arm double mini roundabout with Andover Road (A343) and Essex Street. The A343 provides access to the A339 to the north and to the A34 to the south.

Accessibility by Non-Car Modes

Pedestrians

2.8 **Figure 3** presents the existing walking network within the vicinity of the site.

2.9 Footways are provided along both sides of Monks Lane. These footways also benefit from street lighting. In addition, in some places, these footways are separated from the carriageway by grass verges.

2.10 Crossing points in the form of a toucan crossing and a puffin crossing are located along Monks Lane near its junction with Rupert Road and access to Newbury Rugby Club, respectively. These crossing facilities provide a link to the existing residential area located to the north of Monks Lane. Dropped kerbs with tactile paving are provided at both crossings.

2.11 The toucan crossing, located circa 30 metres west of the Monks Lane/Rupert Road junction, connects the footways along Monks Lane with the footway on Rupert Road. These footways along Rupert Road provide a link through the predominantly residential area to the north of the application site as well as providing access into Newbury Town Centre via Newtown Road and Andover Road.

2.12 To the west of the site, at the Monks Lane/Andover Road/Essex Street roundabout, pedestrian crossings in the form of pedestrian refuges and zebra crossings are provided on the Monks Lane and Essex Street arm respectively. These crossing points provide access to nearby local amenities including a convenience stores, takeaway and a café.

2.13 Approximately 250 metres south of the Monks Lane/Andover Road/Essex Street roundabout, a signal-controlled pedestrian crossing point is provided allowing pedestrians to cross between the eastern and western footways and providing access to Falkland Primary School and Park House School (secondary and sixth form) located to the west and east of Andover Road, respectively.

2.14 Approximately 500 metres to the east of the site, the footways along Monks Lane connect into the footways located along Pinchington Lane providing a continuous pedestrian route to the nearby Tesco supermarket and retail park, which includes a Homebase, Next, Mothercare, Sports Direct, Argos and New Look stores.

2.15 In addition to the footways located along the adopted public highway surrounding the site, the site is connected to the public rights of way network via footpath NEWB/5/1 and GREE/9/1. Footpath GREE/9/1 runs east to west through the site from the A339 Newtown Road to the east and connects into the public footpath NEWB/5/1 to the west. Footpath

NEWB/5/1 provides a connection into Warren Road and therefore, on to the A343 Andover Road to the west.

2.16 In addition to the above, there is currently a pedestrian access from Monks Lane to Newbury College providing direct access to the facility.

2.17 Central Government research states that walking has the potential to substitute for short car trips, particularly those under 2km. As noted above, the proposed development site is within 2km of Newbury town centre and a host of everyday facilities closer to the site. As such, it is considered that the proposed site is accessible to local facilities by walking.

Cyclists

2.18 **Figure 3** also presents the existing cycling network within the vicinity of the site.

2.19 The site benefits from a well-established local cycle network within Newbury. There is an extensive identified network of cycle routes that permeate through Newbury and comprises both signed on and off carriageway routes and various 'quiet routes' (i.e. lightly trafficked roads).

2.20 Signed cycle paths (cycleway or shared footway / cycleway) run along Monks Lane, which connect to a signed cycle route on Newtown Road travelling north towards the town centre. It should also be noted that the cycleway along Monks Lane is classified as an 'Urban Cycle Route'.

2.21 Some sections of the local roads include on-road signed cycleways. These are sections of A343, Greenlands Road, St John's Road, Bartholomew Street and A343 connecting onto other cycleways or shared foot paths. In addition, the majority of the local surrounding streets include quiet roads ideal for cycling which are mainly on road.

2.22 In addition, there is a section of Andover Road, near the roundabout with Newtown Road, which benefits from segregated cycle lanes providing access into the town centre.

2.23 In terms of long-distance cycle routes, National Cycle Route 4 (NCR 4), which runs from London to Fishguard, passes through Newbury and lies approximately 2.3km to the north of the application site. NCR 4 provides connection to Thatcham approximately 4.0 km to the east of the centre of Newbury and to Hungerford 13.5km to the west.

2.24 Central Government research states that cycling has the potential to substitute for short car trips, particularly those under 5km, and to form part of a longer journey by public transport. The propensity for people to choose to cycle will depend on journey purpose and individual ethos as well as having a safe place to store their bicycle at the end of their journey.

2.25 As detailed in **Figure 3**, the site benefits from cycle connection to Newbury Station using a combination of signed on and off-carriageway cycleways and quiet routes. The cycle journey time between the site and Newbury is relatively short at approximately 8 mins.

Local Amenities

2.26 Several key facilities are located close to the site including educational and public transport facilities, as summarised in **Table 2.1** below. The location of these local services in relation to the site is illustrated on **Figure 4**.

Table 2.1: Local Facilities

Facility Type	Facility	Approximate Distance from nearest proposed access (metres)	Approximate Walking Time (minutes)	Approximate Cycle Time (minutes)
Education	Newbury College	500	6	2
	Park House School	950	12	3
	St George's Pre-School	1000	12	3
	St John The Evangelist C.E. Nursery and Infant School	1100	13	3
	Falkland Primary School	1200	15	5
	St Gabriel's School and Sandleford Nursery	1200	15	5
	The Willows Primary School	1300	16	5
	St Bartholomew's School	1800	21	5
	John Rankin Nursery, Infant, Junior School	1800	22	6
	St Nicolas CofE Junior School	1800	22	6
Supermarket	Tesco	550	8	2
	M&S	550	8	2
	Budgens	750	10	3
Retail	Newbury Retail Park (including Argos, Boots, Homebase, McDonald's, Next, New Look, Sports Direct, TK Maxx,)	550	8	2
	Kennet Shopping Newbury	2000	24	6
Leisure	David Lloyd	500	6	1
	Newbury Rugby Club	650	7	2
Medical Centre	Wash Common Pharmacy/Dental Practice	350	5	1
	Eastfield House Surgery	1700	20	5
Other	St John's Post Office	1400	16	4
	Newbury Railway Station	2000	24	6
	Existing Bus Station	150	2	1
	Proposed Bus Station (The Wharf)	2200	27	7

2.27 It is evident from **Table 2.1** that there are a wide range of facilities within walking distance of the site.

Public Transport

2.28 The location of local public transport services in relation to the site is illustrated on **Figure 4**.

Local Bus Services

2.29 The nearest bus stops to the site are located on Monks Lane, approximately 150 metres from the proposed site accesses.

2.30 **Table 2.2** below summarises the routes and service frequencies from Monks Lane.

Table 2.2: Local Bus Services

No.	Operator	Route	Average Frequency		
			Weekday	Saturday	Sunday
7A	Stagecoach in Hampshire Andover	Burghclere - Newbury	3 per day		No Service
8	Kennections	Newbury – Greenham (-Wash Common)	Hourly		No Service
103	Newbury & District	Newbury – Greenham Common	4 per day	No Service	

Rail

2.31 Newbury railway station lies on the Reading to Taunton line which is a major branch of the Great Western Main Line. The station is served by local services operated by Great Western Railway (branded as GWR) from Reading to Newbury and Bedwyn, and by inter-city trains operated by GWR from London Paddington to the West Country with regular services throughout the day (frequency 30 – 60 minutes) into Reading and London Paddington.

Road Safety Analysis

2.32 In order to assess the potential impact of the development proposals on road safety, the latest available personal injury collision (PIC) data was obtained for the period 01/05/2014 and 30/04/2019.

2.33 A total of 95 collisions were recorded within the study network during the five-year period that data was obtained for, which resulted in 116 casualties. Of these collisions, 81 collisions were recorded as being 'slight', 13 were deemed to be 'serious' and one resulted in a fatality.

2.34 A summary of the collisions and resultant casualties is provided in **Table 2.3** below.

Table 2.3: Summary of Collisions recorded in the study area

Casualty Classification	Number of Collisions Recorded	Number of Resulting Casualties
Slight	81	102
Serious	13	13
Fatal	1	1
Total	**95**	**116**

2.35 A single fatal collision was recorded during the study period, which occurred on the A339 approximately 750m to the south of the St Johns Road roundabout. The collision was the result of a vehicle travelling in wet conditions losing control and colliding with a roadside barrier. No other road users were involved in the collision. The contributing factors for the collision were drink driving and exceeding the speed limit.

2.36 The data is subsequently discussed in more detail below, according to location within the study area.

A339/B4009/London Road

2.37 Within the most recent five-year period, there were 12 collisions recorded within close proximity to the A339/B4009/London Road junction. Ten of these collisions were recorded as being 'slight', whilst two were deemed to be 'serious'.

2.38 Both 'serious' collisions occurred as a result driver's failure to look properly and disobeying traffic signals.

2.39 The ten 'slight' collisions recorded were as a result of drivers failing to look properly, losing control of the vehicle, travelling too fast and/or failing to judge the other person' path/speed.

A339/B4640

2.40 There were five collisions recorded at the A339/B4640 junction. All of these collisions were recorded as being 'slight' and were as a result of drivers travelling too fast, driving recklessly/in a hurry, by impaired by alcohol or being distracted by a mobile phone.

A339/Mill Lane/Kings Road/Bear Lane

2.41 There were nine collisions recorded within close proximity to this junction; all of which were recorded as being 'slight' and were as a result of driver's failing to look properly or judge

other persons path/speed or driving recklessly/in a hurry. Two collisions recorded in this location were as a result of the driver disobeying the traffic signals.

A339/Greenham Road/A343

2.42 Of the 10 collisions recorded at the A339/Greenham Road/A343 junction, one was recorded as being 'serious'. This 'serious' collision was a single vehicle incident, where a vehicle travelling northbound failed to slow down on the roundabout and collided with a central reserve. The collision was attributed to fatigue, distraction and impairment with medicine.

2.43 The other nine collisions were recorded as being 'slight' and were as a result of the driver failing to look properly or judge other persons path/speed, driving carelessly/recklessly or following too close and were not as a result of the layout of the junction.

A339/Pinchington Lane/Newtown Road/Monks Lane

2.44 There were 12 collisions recorded at the A339/Pinchington Lane/Newtown Road/ Monks Lane junction; all of which were deemed to be 'slight'.

2.45 One collision classed as 'slight' was attributed to the road layout as well as 'failure to look properly'. It occurred when driver turning northbound, collided with pedestrian. All remaining collisions occurred due to avoidable actions, such as distraction, failure to look properly or limited experience with driving.

Monks Lane

2.46 Within the most recent 5-year period, there were four collisions recorded along Monks Lane. One of these collisions were recorded as being 'serious', whilst the other four were deemed to be 'slight'.

2.47 The 'serious' collision involved a driver travelling eastbound along Monks Lane. The driver of the vehicle was putting their seat belt on when they crossed onto the opposite carriageway colliding with a vehicle travelling westbound.

2.48 The 'slight' collisions recorded were as a result of sudden braking, driver's failing to look properly and driving recklessly/in a hurry.

Newtown Road/A343

2.49 There were 11 collisions recorded at the Newtown Road/A343 junction. One of these, was a single vehicle incident which resulted in a fatality. The driver who sustained fatal injuries was under influence of alcohol and lost control over his vehicle following exceeding the speed limit.

2.50 There was one collision classed as serious as this location. This collision was also caused by a driver who was impaired by alcohol, lost control of his vehicle and collided with a central reserve, sustaining serious injuries.

2.51 The remaining nine incidents were classed as 'slight' and all of them were as a result of driver's failing to look properly, failing to judge other persons' path or speed or driving aggressively.

A343/ Bartlemy Road

2.52 A total of four collision were recorded on the junction of A343 with Bartlemy Road which is a local access road. Three of these were classed as 'slight' and one were 'serious'.

2.53 One serious collision occurred when the driver failed to look properly and collided with a cyclist. All 'slight' collisions resulted from drivers failing to look properly, exceeding the speed limit or limited driving experience.

Summary of Accessibility

2.54 This section has demonstrated that the application site is readily accessible by a variety of modes of transport, which have the potential to reduce reliance on the private car. In particular, the site is located within close proximity to existing footways and cycle routes.

2.55 Access to a wide range of everyday of key facilities are within walking distance of the site including education facilities, retail, healthcare and employment opportunities.

2.56 In addition, a number of local bus services are accessible from the site, which provide access into Newbury town centre and to Newbury railway station enabling onward connections to local and regional centres.

2.57 A review of the accident data has demonstrated that the accidents recorded occurred as a result of driver error rather than defects to the local highway network.

3 PLANNING POLICY

3.1 This section of the TA evaluates the development proposals against appropriate national and local transport policies.

National Policy

National Planning Policy Framework (NPPF)

3.2 The NPPF sets out the Government's expectations and requirements from the planning system. It is a material planning consideration for both applicants and decision makers. This approach allows the planning system to be tailored to reflect the needs and priorities of individual communities.

3.3 Paragraph 15 states that 'policies in Local Plans should follow the approach of presumption in favour of sustainable development so that it is clear that development which is sustainable can be approved without delay.'

3.4 One of the 12 core land-use principles within the NPPF includes:

3.5 "[to] actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable."

3.6 Section 4 of the NPPF deals with 'Promoting sustainable transport.' Paragraph 29 states that:

3.7 *"the transport systems need to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. However, the Government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural area".*

3.8 Paragraph 32 states that "*all developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment"*. It goes on to mention that plans and decisions should take account of whether;

- *"the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*

- *Safe and suitable access to the site can be achieved for all people; and*
- *Improvements can be undertaken within the transport network that cost effectively limits the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."*

3.9 Paragraph 34 states that plans should seek to ensure that "developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised."

3.10 It notes that developments should be located and designed where practical to:

- Prioritise pedestrian and cycle movements, and have good access to high quality public transport facilities;
- Create safe and secure layouts that minimise conflicts between traffic and cyclists / pedestrians; and
- Consider the needs of people with disabilities by all modes of transport.

3.11 Paragraph 37 states that planning policy should aim for a balance of land uses within areas, in order for people to be encouraged to minimise journey lengths for employment, leisure and education. Reducing journey lengths can encourage the use of public transport and walking / cycling.

3.12 On 5 March 2018 the government published a consultation draft of the revised NPPF. Being a consultation draft, limited weight should be given to the proposed policies. However, a summary of the revised transport policies has been provided for completeness below:

"*108. In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*

a) Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;

b) Safe and suitable access to the site can be achieved for all users; and

c) Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

109. Development should only be prevented or refused on highway grounds if the residual cumulative impacts on the road network or road safety would be severe."

3.13 The main change in these policies compared with the current version of NPPF is the clarification that relevant impacts are capacity, congestion and safety and that for a development to be refused on transport grounds the residual cumulative impacts on the highway network or road safety would have to be severe.

Local Policy

West Berkshire District Local Plan 1991-2006 (Saved Policies 2007)

3.14 Planning applications within Newbury are assessed against the saved policies set within West Berkshire District Local Plan, which was adopted in September 2007 and covers the period between 1991 and 2006.

3.15 The saved transportation policy relevant to this development is Policy 1, which states:

"The transportation needs of new development should be met through the provision of a range of facilities associated with different transport modes including public transport, walking, cycling and parking provision. The level of parking provision will depend on the availability of alternative modes, having regard to the maximum standards adopted by West Berkshire Council Standards."

Parking Provision

3.16 Parking standards for developments within West Berkshire are detailed within Appendix 5 of the Local Plan Saved Policies document. The parking standards are set as maximum standards and are summarised in the table below.

Table 3.1: Local Parking Standards

Land Use	Maximum Car Parking Requirement
A1 Food Retail	1 per 30 sqm up to 1000 sqm – 1 per 14 sqm over 1000 sqm
Care facility	No specific standards
D1	No specific standards
Dwellings	An average of 1.5 spaces per dwellings across the District
Primary School	No specific standards

3.17 It is noted that these parking standards have been superseded for residential dwellings by the Housing Site Allocations DPD, summarised within **Table 3.2** below.

West Berkshire Council, Core Strategy, Adopted July 2012

3.18 The Core Strategy forms part of the Local Plan for the District and set out an overall planning strategy to 2026.

3.19 The policies set within the Core Strategy relevant to the proposals are set out below:

- Policy CS 3: *Sandleford Strategic Site Allocation* - Land at Sandleford Park will provide a sustainable and high-quality mix used use development with up to 2,000 dwellings, two vehicular accesses off Monks Lane with an additional sustainable transport link for pedestrians, cyclists and buses provided from Warren Road onto Andover Road. Further infrastructure improvements will be delivered in accordance with the Infrastructure Delivery Plan.
- Policy CS 13: *Transport* – Development that generates a transport impact will be required to a) reduce the need to travel, b) improve and promote opportunities for healthy and safe travel, c) improve travel choice and facilitate sustainable travel particularly within and between main urban areas and rural service centres, d) demonstrate good access to key services and facilities, e) minimise the impact of all forms of travel on the environment, f) mitigate the impact on the local transport network and the strategic road network, and g) prepare Transport Assessments/Statements and Travel Plans to support planning proposals in accordance with national guidance.
- Policy CS14: *Design Principles* – New developments must demonstrate high quality and sustainable design that respects and enhances the character and appearance of the area and makes a positive contribution to the quality of life in West Berkshire. Development proposals will be expected to make good provision for access by all transport modes and ensure environments are accessible to all and give priority to pedestrian and cycle access.

Sandleford Park Supplementary Planning Document, March 2015

3.20 The Sandleford Park Supplementary Planning Document (SPD) is a document that provide a framework for the future development of the allocated site of Sandleford Park.

3.21 It has been developed in collaboration between West Berkshire Council and the Sandleford Park Landowners. It was first adopted in September 2013 and then updated in March 2015.

3.22 The document sets out a number of strategic objectives for the Sandleford Park Development. From a highways perspective, the development principles are as follows:

- The layout and design of Sandleford Park will promote a hierarchy of streets, spaces and routes which create a legible and permeable place.
- The scheme will integrate with the existing surrounding development to ensure connections to the wider area.
- Sandleford Park will promote alternative forms of transport to the private car.
- The layout of buildings and spaces will lead to a connected and safe neighbourhood where pedestrians and cyclists have priority and the impact of vehicles is kept to a minimum.
- Car Parking and Cycle Parking will meet the needs of residents and visitors.
- The design of buildings and spaces will be accessible to all members of the community.

3.23 Whilst Core Strategy Policy 3 defines that access to Sandleford Park will be provided from Monks Lane, the SPD encourages additional points of access to be explored, namely to the A339 Newtown Road and to the A343 Andover Road via Warren Road. These additional points of access are explained in the following Section.

3.24 With regards parking standards, the SPD sets out that car parking will be in line with guidance and principles in the Manual for Streets.

West Berkshire Local Transport Plan

3.25 The Local Transport Plan (LTP) sets out the framework for the delivery of all aspects of transport and travel for West Berkshire. The Council's third LTP covers the period from 1st April 2011 to 2026.

3.26 The goals of the LTP include:

- Improving travel choice and encourage sustainable travel;
- Supporting the economy and quality of life by minimising congestion and improving reliability on West Berkshire's transport networks;
- Maintaining and improving West Berkshire's transport networks for all modes of travel;

- Improving access to services and facilities;
- Improving and promoting opportunities for healthy and safe travel; and
- Minimising energy consumption and the impact of all forms of travel on the environment.

3.27 The policies set within the LTP relevant to the proposed development are:

- Policy LTP K1: *Travel Choice* – The council will work towards widening travel choices in order to minimise congestion and improve accessibility and air quality in the District.
- Policy LTP AT1: *Walking* – The council will work towards increasing the use of walking as a mode of travel for local journeys and as a means of accessing other sustainable travel modes for longer journeys.
- Policy LTP AT2: *Cycling* – The council will work towards increasing cycling in West Berkshire by ensuring that all new developments make cycling at least as desirable as any other transport mode choice by connecting with the local network where possible and following the West Berkshire Council Cycling Guidance.
- Policy LTP SC1: *Travel Planning* – The council will promote and encourage the use of sustainable modes of travel for residents, staff and pupils by requiring developers to submit travel plans will all major planning applications and support schools, workplaces and other organisations in the review and updating of existing travel plans.
- Policy LTP SC2: *Car Sharing and Car Clubs* – The council will work with partners to facilitate car sharing and car clubs across the district by investigating the feasibility of a car club for the Newbury and Thatcham area.
- Policy LTP SC3: *New Technology* – The council will work with partners to embrace and facilitate the use of new technologies in transport to reduce carbon emission, reduce congestion and make travel smarter.
- Policy LTP K2: *Minimising Congestion* – The council will work towards tackling congestion on the District's highway network in order to minimise delays and improve local air quality. To achieve this, the council will work with its partners to improve capacity at identified congestion hotspots, particularly along the A339 (Newbury).
- Policy LTP K3: *Accessibility* – The council will work towards improving access to essential services and facilities for all living and working within West Berkshire. To achieve this, the council will focus on ensuring that new developments are focused where there is already good access to services and facilities.

- Policy LTP K4: *Accessibility (equality, diversity and inclusion)* – The council will work with partners to improve access to transport services and infrastructure for those with a disability by working with transport organisations and providers to improve transport infrastructure such as pavements, crossing points, bus stops and rail stations to reduce barriers to travel, and facilitating equal access to the rights of way network for health and leisure purposes.
- Policy LTP K5: *Climate Change* – The council will develop measures to reduce road transport energy consumption and carbon emissions in West Berkshire and to plan for the impacts of climate change on transport.
- Policy LTP K8: *Road Safety* – The council will work towards creating a safer environment for all by focusing on monitoring road traffic collisions and addressing high risk routes and sites with appropriate schemes, improving safety for vulnerable road users and providing education, information and training for pedestrians, cyclists and higher risk drivers.
- Policy LTP PT1: *Bus Services* – The council will seek to provide safe, integrated and efficient bus services that permit easy interchange with other modes of transport and that meet the travel needs of customers who choose not to use, or are unable to use, a private car.
- Policy LTP PT6: *Infrastructure and Interchange* – The council will seek to enable development of pedestrian, cycle and bus routes to deliver good interchange opportunities for travel within and between urban areas including linking to rail stations.
- Policy LTP K10: *School Travel* – The council will work towards reducing car use through increasing the use of walking, cycling and public transport to school for staff and pupils.
- Policy LTP K11: *Parking* – The council will facilitate and manage parking throughout the District.
- Policy LTP P3: *Parking Standards* – The council will implement the following parking standards when managing developments: car parking should be provided in accordance with standards developed through the Local Development Framework and LTP Parking Strategy; cycle and motorcycle parking should be provided in accordance with the West Berkshire Council Cycling Advice and Standards Guidance Note; and, disabled parking should be provided in accordance with national standards.
- Policy LTP K13: *New Development* – The council will manage the transport and travel aspects of developments by ensuring Transport Assessments / Statements submitted in

support of development are of an acceptable standard and use relevant modelling tools; ensuring appropriate measures are developed and delivered to mitigate impacts of development on transport networks; ensuring robust Travel Plans are developed, delivered and monitored for relevant developments; ensuring the transport and travel aspects of all development are planned to integrate with and enhance existing networks and to support delivery of Policy CS 14; ensuring traffic impacts from developments do not adversely affect safety on transport networks; and ensuring the transport impacts of development do not adversely affect the environment especially the character of rural roads, rural communities and the AONB.

- Policy LTP K14: *Health and Leisure* – The council will work towards the promotion of transport as a means of improving health and access to leisure by maintaining, promoting and improving the rights of way network and other routes for walking, cycling and horse riding.

Housing Site Allocations DPD Preferred Options – Parking Standards for New Residential Development (May 2017)

3.28 Within this document, Policy P 1 sets out the residential parking standards for new developments. The following levels of parking (as a minimum) should be provided for residential development within the curtilage of the dwellings and / or within formal parking areas. The parking standards for developments within Zone 2 are summarised below.

Table 3.2: Parking Standards

Land Use		Car Parking Requirement (Zone 2)
Flats (one additional space per 5 flats)	1 bed	1.25
	2 bed	1.5
	3 bed	2
Houses	1 bed	1.25
	2 bed	2
	3 bed	2.5
	4 bed	2.5

3.29 It should be noted that garages will not be counted as a parking space.

3.30 A travel plan will be required where 50 or more dwellings are proposed in Zones 1 and 2, and developments of 10 or more dwellings will be expected to provide new residents with a travel information pack containing relevant information to inform residents of their travel choices and encourage sustainable travel.

3.31 A full Transport Assessment will be required where 60 or more dwellings are proposed.

3.32 Electric charging points should also be installed for new residential developments. These charging points may vary from communal points, more suited to flats or where there are shared parking areas, to individual points incorporated into houses.

Cycling and Motorcycling Advice and Standards for New Development (November 2014)

3.33 This document sets out the design standards and expected levels of cycle and motorcycling provision for residential developments. The cycle parking standards are summarised below.

Table 3.3: Cycle Parking Standards

<table>
<tr><th colspan="2" rowspan="3">Land Use</th><th colspan="4">Recommended standards</th></tr>
<tr><th colspan="2">Bicycle Parking</th><th colspan="2">Motorcycle Parking</th></tr>
<tr><th>Staff / Long Stay</th><th>Visitor / Short Stay</th><th>Staff / Long Stay</th><th>Visitor / Short Stay</th></tr>
<tr><td rowspan="2">A1 Retail</td><td>Non-food</td><td>1/200 sqm</td><td>1/750 sqm</td><td rowspan="2"><900 sqm individual consideration</td><td>>900 sqm 1/600sqm</td></tr>
<tr><td>Food</td><td colspan="2">1/500 sqm</td><td>>900sqm 1/900 sqm</td></tr>
<tr><td colspan="2">A2 Financial and Professional services</td><td>1/200 sqm</td><td rowspan="4">Min of 2</td><td colspan="2" rowspan="4">1/1400sqm</td></tr>
<tr><td colspan="2">A3 Restaurants and Cafes</td><td rowspan="4">Spaces for 10-25% staff</td></tr>
<tr><td colspan="2">A4 Drinking establishments</td></tr>
<tr><td colspan="2">A5 Hot food takeaway</td></tr>
<tr><td colspan="2">C2 Care Home</td><td>1/4 consulting rooms</td><td colspan="2">Min 1</td></tr>
<tr><td rowspan="2">C3 Dwellings</td><td>1 bed</td><td>1 per unit</td><td rowspan="3">Some visitor parking should be available</td><td colspan="2">Individual consideration (some parking should be available)</td></tr>
<tr><td>2+ bed</td><td>2 per unit</td><td colspan="2">1/40 FTE staff (min of 2) + 1/200 FE/HE students</td></tr>
<tr><td rowspan="4">D1 Non-residential institutions</td><td>Education</td><td rowspan="4">Spaces for 10-25% staff</td><td colspan="2" rowspan="2">1/1250 sqm (min of 2)</td></tr>
<tr><td>Libraries</td><td>2-10 depending on size and catchment</td></tr>
<tr><td>Health Care</td><td>1/4 consulting rooms or min of 10 spaces</td><td colspan="2">1/40 FTE staff (min of 2)</td></tr>
<tr><td>Day Nurseries</td><td>Some visitor parking should be available</td><td colspan="2"></td></tr>
</table>

	Halls and Places of Worship		2-10 depending on size	1/250 sqm (min of 2)

Policy Summary

3.34 As summarised above, planning policy encourages sites which are accessible by sustainable modes. The proposals comply with these policies by siting the proposed development within the existing settlement, linking to an existing pedestrian network and connecting the site to the surrounding local amenities. Parking Standards will be applied in determining reserved matters application in due course.

4 DEVELOPMENT PROPOSALS

4.1 This section of the report describes the outline development proposals.

Proposed Development

4.2 The planning application seeks outline permission with all matters reserved (except for access) for the following development:

> *Up to 1,000 new homes; an 80 bed extra care facility (Use Class C3) as part of the affordable housing provision; a new 2 form entry primary school (D1); expansion land for Park House Academy School; a local centre to comprise flexible commercial floorspace (A1-A5 up to 2,150sqm, B1a up to 200sqm) and D1 use (up to 500sqm); the formation of new means of access onto Monks Lane; new open space including the laying out of a new country park; drainage infrastructure; walking and cycling infrastructure and other associated infrastructure works.*

Proposed Access Arrangements

Monks Lane Eastern Access

4.3 As part of the proposals, a new priority junction will be constructed on Monks Lane approximately 250m to the west of the Newtown Road/Monks Lane roundabout junction. The proposed access arrangements for this access are illustrated on **Drawing No. 172985/A/07** provided at **Appendix C**.

4.4 The proposed access road into the site will be designed with a carriageway width of 6m, which is sufficient for two vehicles to pass each other and is considered acceptable for a residential estate road.

4.5 Monks Lane is subject to a 30mph speed limit, and as such the proposed access will be constructed in accordance with Manual for Street, which is the latest government produced guidance for non-trunk roads with speed limits of less than 40mph. Based on this guidance, visibility splays of 2.4m x 43m are required and can be achieved from the proposed access in both directions.

4.6 Footways will be provided along both sides of the access road, which will connect into the existing footways along Monks Lane.

Monks Lane Western Access

4.7 A normal roundabout junction with an inscribed circle diameter of 30m will provide a second access to the site, located approximately 300m to the west of the Eastern Access. The proposed access arrangements can be viewed at **Drawing No. 172895/A/08**, provided at **Appendix D**.

4.8 Again, footways will be provided along both sides of the proposed access road, which will connect into the existing footways along Monks Lane.

A339 College Access

4.9 A new highway link between the A339 and the boundary of the Sandleford Park site was granted planning permission (Ref: 17/00158) as part of the High Wood Primary School scheme in 2017. A plan of the approved A339 access can be viewed at **Appendix B**. WBC has secured funding from the Local Enterprise Partnership and the applicants propose a financial contribution towards the construction of this link.

4.10 As part of the Sandleford Park proposed development, a road will be constructed to the boundary of Newbury College to connect to this new highway and providing vehicular connection from Sandleford Park to the A339 as sought by the SPD.

A339 Emergency Access

4.11 The proposed site is divided by a shallow valley, which separates the northern part of the site fronting onto Monks Lane and the southern part of the site, which will accommodate the proposed local centre.

4.12 The current proposals for up to 1,000 units comprises' approximately 500 units each within the northern and southern parts of the site, which will be linked via a valley crossing.

4.13 An existing public right of way (GREE/9/1) runs east to west through the site and provides a connection for pedestrians from the A339 via an existing farm access/turnstile (opposite the access to the St Gabriel's School) to the A343 Andover Road via Warren Road to the west.

4.14 As part of proposals to improve cycle accessibility, it is proposed to provide a cycle route adjacent to the PROW, which would extend through the site from the A339 and link to the central part of the proposed development.

4.15 Notwithstanding the proposals outlined above, it is considered that the proposed cycleway could also be used as an emergency access. The proposed cycleway would provide a 4m wide surfaced route extending from the A339 to the central part of the proposed site. Droppable bollards will be provided to ensure that the access isn't used by non-emergency vehicles.

4.16 **Drawing 172985/A/15** at **Appendix E** shows the proposed emergency access route.

Valley Crossing

4.17 The proposed site is divided by a shallow valley, which separates the northern part of the site fronting onto Monks Lane and the central part of the site, which will accommodate the proposed local centre.

4.18 The dwellings within the central part of the site will be served by a single road link from the north via the valley crossing. An illustrative layout of the proposed valley crossing can be viewed at **Appendix F**. The proposals provide a single carriageway in each direction separated by a section of soft landscaping. Each carriageway will be 3.65m wide, which will include a 1.5m wide on-carriageway cycleway and a 2m footway. This provision is fully in accordance with the developments approved SPD.

4.19 It is considered that should an event take place that causes one of the carriageways to be closed, the provision of a separate carriageway mitigates against the potential of the houses to the south of the valley being inaccessible. Furthermore, the provision of a separate carriageway mitigates against the potential for an obstruction for emergency vehicles.

4.20 The proposals outlined are in line with the guidance set out within the Sandleford Park SPD.

A343 Andover Road/Warren Road

4.21 The Sandleford Park allocation boundary includes both the application site and land at New Warren Farm to the west, which is being brought forward through a separate planning application by Donnington New Homes. The Donnington New Homes planning application is known as 'Sandleford Park West' and seeks to provide up to 500 residential dwellings on land at New Warren Farm and Sanfoin.

4.22 Donnington New Homes propose that vehicular access to the Sandleford Park West site will be gained by improving and extending Warren Road. Initially Warren Road would be widened to 4.8m to serve up to 150 new homes. Thereafter, a further widening would be

required to 6.0 to serve additional development. Improving Warren Road would provide an additional point of access which the SPD seeks. As shown on the strategic masterplan (**Appendix A**), the main access road connects Sandleford Park and Sandleford Park West.

Highway Mitigation

4.23 A number of highway mitigation schemes have been developed through extensive discussions with WBC, which sought to improve not only the local highway network but also pedestrian and cycle facilities.

4.24 **Table 4.1** below provides a summary of the highway mitigation package, which has been agreed with WBC. These improvements will be delivered by Bloor Homes.

Table 4.1: Proposed Highway Mitigation – Bloor Homes

No.	Scheme	Drawing Number
1	A339/B4640 Swan Roundabout improvements with VMS and A339 PROW Greenham 9 crossing	81311-041-108 (West Berks drawing)
2	A339 – A343 to Pinchington Lane speed reduction signage	Drawing to be provided
3	Rupert Road, Chandos Road and Wendan Road pedestrian improvement's	Drawing to be provided
4	Monks Lane Eastern Site Access	172985_A_07.1 (Vectos drawing)
5	Monks Lane Western Site Access	172985_A_08 (Vectos drawing)
6	A339 access	4768-SK-100 (WSP drawing)
7	Provision of bus services into development	-
8	Travel Plan measures	-
9	Newtown Road / Pound Street and Bartholomew Street / Market Street traffic signals upgrade	-
10	A339/A343 St Johns Road Roundabout	172985_A_11 (Vectos drawing)
11	A339/Pinchington Lane/Monks Lane/Newtown Road	172985_A_01 Rev C

4.25 As part of the planning application for Sandleford Park West (Ref: 18/00828/OUTMAJ) submitted by DNH, a series of highway mitigation measures have also been developed. **Table**

4.2 below provides a summary of the highway improvements agreed to be delivered by DNH as part of their planning application.

Table 4.2: Proposed Highway Mitigation – Donnington New Homes

Scheme	Drawing Number
A343 Andover Road – Warren Road to Monks Lane Cycle Route	172985_A_05.2 (Vectos drawing)
A343 Andover Road – Monks Lane to Buckingham Road pedestrian / cycle improvements	18/00828/S278/PHI/OP1/P1 Rev A
A343 Andover Road/Monks Lane Junction	81311-59-001 (West Berks drawing)
A343 access – 4.8 metres wide with 1.5-metre-wide footway one side A343 access – 6.0 metres wide with 2.0-metre-wide footway both sides	A090455-SK23 (WYG drawing) A090455-SK13 (WYG drawing)
Kendrick Road emergency access	A090455-SK24 (WYG drawing)
Travel Plan measures	-
Newtown Road / Pound Street and Bartholomew Street / Market Street traffic signals upgrade	-
A339/A343 St Johns Road Roundabout	172985_A_11 (Vectos drawing)
A339/Pinchington Lane/Monks Lane/Newtown Road	172985_A_01 Rev C

4.26 It is noted that the proposed improvements at the St Johns Road roundabout, Newtown Road / Pound Street and Bartholomew Street / Market Street traffic signals upgrade and A339/Pinchington Lane/Monks Lane are included in both **Table 4.1** and **Table 4.2**. This is because traffic generated by either the Bloor Homes or DNH development will increase traffic flows at these junctions, which requires the mitigation to be delivered. As such, these mitigation measures will be jointly funded.

Sustainable Access Strategy

4.27 The proposed development will seek to maximise the number of trips undertaken by sustainable modes. The development site is well connected and benefits from good

pedestrian /cycle links to the town centre. The proposed development will build on this as follows by:

- creating a series of high-quality pedestrian and cycle links within the site, which connect to the surrounding infrastructure;
- provision of wayfinding signage to promote further walking and cycling trips;
- the inclusion of a local centre and primary school, which will allow residents to access a number of facilities within walking distance, thereby reducing the need to use the private car;
- the provision of a new/improved bus service linked to the town centre; and
- the implementation of a Travel Plan.

4.28 More details regarding the sustainable access strategy are provided within Section 8.

Servicing Arrangements

4.29 As the planning application will be in outline, the site layout has been prepared for illustrative purposes only. The detailed site layout will form part of a future reserved matters planning application in due course, but will be based on the principles of MfS, and with regard to refuse collection, will have regard to the maximum carry-distances set out in part H of the Building Regulations.

Construction Traffic Management Plan

4.30 At this stage, there is not a contractor appointed to advise on the detail of the construction of the proposed development. Notwithstanding this, a Draft Construction Traffic Management Plan has been prepared and can be viewed at **Appendix G**.

5 TRIP GENERATION AND DISTRIBUTION

5.1 This section provides details of the methodology used to calculate the traffic generation associated with the proposed development along with the predicted trip distribution.

5.2 Following discussions with WBC, Hampshire County Council (HCC) and Highways England (HE) as part of the current planning application for the proposed application site (Ref: 18/00764/OUTMAJ), the trip generation and traffic distribution summarised below has been agreed.

Trip Generation

Residential Units

5.3 The residential trip rates applied to the proposed development are summarised within **Table 5.1**. These trip rates have been agreed with WBC, HCC and HE.

Table 5.1 – Residential Vehicle Trip Rates and Trip Generation

	AM Peak			PM Peak		
	Arr	**Dep**	**Two-way**	**Arr**	**Dep**	**Two-way**
Vehicle Trip Rate (trips/unit)	0.06	0.45	0.51	0.37	0.16	0.53
Trip Generation (1000 units)	60	450	510	370	160	530

5.4 Based on the above trip rates, the proposed development is likely to generate approximately 510 and 530 two-way vehicle trips in the morning and evening peak period respectively.

Care Home

5.5 In June 2017, a planning application (reference: 17/01446/COMIND) was submitted to WBC for the construction of a care home on land adjacent to Newbury RFC, Monks Lane, Newbury. This application was granted planning permission in January 2018.

5.6 It was agreed through discussions with WBC that these trip rates should be used to assess the likely traffic generation of the proposed care home. The trip rates and proposed traffic flows for the proposed care home are summarised in **Table 5.2** below.

Table 5.2 – Care Home Vehicle Trip Rates and Trip Generation (from application 17/01446/COMIND)

	AM Peak			PM Peak		
	Arr	Dep	Two-way	Arr	Dep	Two-way
Vehicle Trip Rate	0.076	0.072	0.148	0.051	0.094	0.145
Trip Generation (80 bed care home)	6	6	12	4	8	12

5.7 **Table 5.2** demonstrates that the proposed 80 bed extra care facility is likely to generate approximately 12 two-way vehicle trips in the morning and evening peak periods.

Primary School

Staff

5.8 To estimate the likely number of staff trips generated by the proposed primary school, assumptions agreed with WBC as part of the consented Land adjacent to Hilltop Oxford Road (Ref: 14/02480/OUTMAJ) have been used.

5.9 Based on the agreed approach, it is considered that the proposed 2-form entry primary school will employ approximately 46 staff members. In line with the agreed methodology, a 67% car driver mode share will be applied. This equates to 31 vehicle staff trips.

5.10 It is acknowledged that primary school teachers do not turn up immediately prior to school opening (usually around 0830) or depart when school closes (usually around 15:30) and a high proportion are likely to arrive/depart before or after these times.

5.11 In light of this, it was agreed that a 25% arrival/departure rate during the AM and PM peak hours will be applied. This would result in 8 vehicle staff arrivals in the AM peak and 8 departures during the PM peak. It has been assumed that there are no staff vehicle departures during the AM peak or arrivals during the PM peak.

Pupils

5.12 It is assumed that the proposed primary school will serve the education demand generated by the proposed development. Whilst a small number of pupils may attend the school who do not live within the proposed development, it is reasonable to assume that these pupils will live close enough to the school to allow them to walk, cycle or scoot to school.

5.13 In light of the above, it is considered that the proposed primary school is unlikely to generate a significant volume of additional traffic. Therefore, for the purposes of the traffic impact assessment, no additional traffic has been considered for the proposed primary school, other than for staff as noted above.

5.14 Planning permission (Ref: 17/00158) has been granted for High Wood Primary School scheme in 2017. The consented development would be located to the south of Newbury College and would be accessed via the A339. Access to the school is discussed in greater detail below.

5.15 The school is currently proposed to provide a 1-form entry but will be designed to expand to provide a 2-from entry school at a later date if required. The new school is required as all existing schools in the locality are at capacity with no further room for expansion.

Local Centre

5.16 As noted at paragraph 4.2, the development proposes a local centre comprising flexible commercial floorspace (A1-A5 up to 2,150sqm, B1a up to 200sqm) and D1 use (up to 500sqm). Given the scale of the local centre, it is considered that it is unlikely to attract/generate a significant amount of traffic in its own right.

5.17 In light of this, for the purposes of the traffic impact assessment, traffic generated by the local centre is considered to be negligible. This approach has been agreed with WBC.

Total Trip Generation

5.18 **Table 5.3** summarises the total traffic flows likely to be generated by the proposed development.

Table 5.3 – Total Traffic Flows

	AM Peak			PM Peak		
	Arr	**Dep**	**Two-way**	**Arr**	**Dep**	**Two-way**
Total Traffic Flows	74	456	530	374	176	550

5.19 **Table 5.3** indicates the proposed development is likely to result in approximately 530 and 550 two-way vehicle trips in the morning and evening peak periods.

5.20 In terms of trip generation, this scenario is considered to represent a “worst case,” as it doesn’t take into consideration any internalisation of vehicle trips as a result of having a

primary school or local amenities on-site. Therefore, this methodology is considered to be a robust assessment of the proposed developments potential impacts of the surrounding highway network.

Trip Distribution

Proposed Development

5.21 Trips have been assigned to the road network using the distribution agreed with WBC, HCC and HE as part of the current planning application (Ref:18/00764/OUTMAJ) for the site. The flow diagrams have been included at **Appendix H**.

Sandleford Park West

5.22 As noted previously, the Sandleford Park allocation boundary includes both the application site and land at New Warren Farm to the west, which is being brought forward through a separate planning application by Donnington New Homes. The Donnington New Homes planning application seeks to provide up to 500 residential dwellings on land at New Warren Farm and Sanfoin.

5.23 As part of an assessment to understand the likely impact of the proposed development, an assessment of the Strategic Development (1,500 units) has also been undertaken. **Table 5.4** below provides a summary of the total development traffic assumed to be generated by the proposed strategic development.

Table 5.4 – Total Vehicle Traffic Flows (1,500 dwellings)

	AM Peak			PM Peak		
	Arr	**Dep**	**Two-way**	**Arr**	**Dep**	**Two-way**
Total Traffic Flows	140	706	846	579	289	868

5.24 **Table 5.4** indicates that the strategic development would generate approximately 846 and 868 two-way vehicle trips in the morning and evening peak periods respectively.

5.25 The proposed trip generation for the strategic site has been agreed with WBC.

Trip Distribution

5.26 Trips have been assigned to the road network using the distribution agreed with WBC, HCC and HE as part of the current planning application (Ref:18/00764/OUTMAJ). The flow diagrams have been included at **Appendix H**.

6 ASSESSMENT METHODOLOGY

6.1 This section of the report summarises the methodology used to assess the impact of the development proposal on the local highway network.

VISSIM Model

6.2 The Newbury VISSIM model has been used to assess the impact of the proposed development. VISSIM is an area wide model that offers an improved assessment tool for assessing the impact of development traffic on a highway network when compared to stand-alone junction models. This is especially important when traffic from different junctions interacts with each other as it does in some locations in Newbury. VISSIM is also better at accounting for driver behaviour than individual junction modelling.

6.3 The VISSIM model has been validated by WBC for use to assess the existing and proposed highway mitigation.

6.4 WSP, on behalf of WBC, have produced a VISSIM Modelling Report, which summarises the following:

- A summary of the VISSIM model including a plan of the VISSIM model network;
- Committed highway schemes included within the VISSIM model; and
- Traffic demand forecasting methodology including agreed committed developments.

6.5 The VISSIM Modelling Report can be viewed at **Appendix I**.

VISSIM Modelling Scenarios

6.6 The following scenarios are based on information agreed between WBC and DNH:

First Set

- Development of a Reference Case model for 2031 for the AM peak period and the PM peak period;
- Development and assignment of three scenario models with and without mitigation measures for the Sandleford Development which includes (**Table 6.1**):

Table 6.1: First Set - Sandleford Park VISSIM Modelling Scenarios

Scenario	Test Year	Dwellings	Accesses			
			Warren Road	Monks Lane (W)	Monks Lane (E)	A339 College
A	2031	1,500 on whole site	Yes	Yes	Yes	Yes
C	2031	1,000 (Bloor Homes)		Yes	Yes	Yes
D	2031	500 (DNH)	Yes			

6.7 Following further discussions between WBC and DNH, an additional scenario was added to the First Set of model runs, which is summarised in **Table 6.2** below.

Table 6.2: Additional VISSIM Modelling Scenario

Scenario	Test Year	Dwellings	Accesses			
			Warren Road	Monks Lane (W)	Monks Lane (E)	A339 College
G	TBC	1,100 on whole site	Yes (100 units)	Yes (1,000 units)		

Second Set

- Development of two Reference Case models for 2023 and 2026 for the AM and the PM peak periods
- Development and assignment of three scenario models with and without mitigation measures for the Sandleford Development which includes (**Table 6.3**):

Table 6.3: Second Set - Sandleford Park VISSIM Modelling Scenarios

Scenario	Test Year	Dwellings	Accesses			
			Warren Road	Monks Lane (W)	Monks Lane (E)	A339 College
E	2023	300 + 180	Yes (300 units)	Yes (180 units)	Yes (180 units)	
F	2026	500 + 480	Yes (500 units)	Yes (480 units)	Yes (480 units)	Yes (480 units)

6.8 The purpose of Scenario E and F were to determine the likely trigger points for the implementation of the highway mitigation, primarily at the A339/Pinchington Lane and St Johns Road roundabout junctions.

6.9 The proposed improvements at the A339/Pinchington Lane and St Johns Road roundabout junctions, which both developments will have an impact on, will be secured via a financial contribution and delivered by WBC. WBC will also deliver the new A339/Newbury College junction (Ref: 17/00158) by 2021.

6.10 Following further discussions, WBC have indicated that they would like to allow a period of time in between the completion of the A339/Newbury College access and the commencement of further major highways works on the A339 at Pinchington Lane and St Johns Road roundabout.

6.11 WBC also noted that based on the current housing projections provided by Bloor Homes and DNH, the likely volume of traffic generated by the proposed developments prior to the implementation of the A339 highways mitigation will not result in an unacceptable impact on the local highway network. In light of these discussions, WBC advised that Scenario E and F were no longer required to determine the trigger points for highways mitigation.

Highways Mitigation

6.12 As part of the current planning application for the site (Ref: 18/00764/OUTMAJ), highway mitigation schemes for the A339/Pinchington Lane/Newbury College/Monks Lane junctions and the St Johns Road roundabout were proposed. The proposed mitigation schemes were prepared following extensive consultation with WBC.

6.13 These mitigation schemes were tested within the VISSIM model. Following further interrogation of the VISSIM model, the proposed mitigation schemes have been revised to ensure the junctions operate efficiently.

6.14 The proposed highways work at A339/Pinchington Lane/Newbury College/Monks Lane junctions (Drawing 172985/A/01 Rev C, **Appendix J**) and the St Johns Road roundabout (Drawing: 172985/A/12) can be viewed at **Appendix K**. These layouts have been agreed with WBC and DNH and have been tested within the VISSIM model.

6.15 Additional highway mitigation (**Appendix L**) assessed within the VISSIM modelling include:

- Monks Lane/Andover Road double-mini roundabouts - localised widening on Monks Lane (Drawing 81311-59-001)

- Swan Roundabout - white lining, signage and the installation of an uncontrolled pedestrian crossing (Drawing 81311-041-108)
- Proposed Newbury College/A339 junction - new signalised junction (Drawing 4768-SK-100).

6.16 **Table 4.1** and **Table 4.2** provide a complete summary of the highways mitigation to be delivered as part of the Bloor Homes (Ref: 18/00764/OUTMAJ) and DNH (Ref: Ref: 18/00828/OUTMAJ).

6.17 It is noted that the proposed improvements at the St Johns Road roundabout and A339/Pinchington Lane/Monks Lane are included in both **Table 4.1** and **Table 4.2**. This is because traffic generated by either the Bloor Homes or DNH development will increase traffic flows at these junctions, which requires the mitigation to be delivered. As such, these mitigation measures will be funded jointly.

7 TRAFFIC IMPACT

VISSIM Model Results

7.1 The impact of the proposed Bloor Homes and DNH (Ref: Ref: 18/00828/OUTMAJ) developments has been considered within the VISSIM model for the assessment scenarios summarised within section 6.

7.2 Scenario A assesses both the Bloor Homes and DNH (Ref: 18/00828/OUTMAJ) developments coming forward with four access points. As such, it has been agreed with WBC that Scenario A is the correct test to assess the proposed highway mitigation.

7.3 A brief summary of the results for Scenario A are provided below. The WSP VISSIM model report, which can be viewed at **Appendix I,** provides a more detailed summary of the modelling results.

Journey Times

7.4 An overview of the journey time data indicates that the proposed development generally results in only minor increases in journey times on most links when compared to the 2031 without development scenario.

7.5 The largest increase in journey times as a result of the proposed development was experienced on the A339 northbound, which increased by approximately three and a half minutes in the AM Peak and three minutes during the PM peak. The A339 southbound experiences a reduction in journey time of approximately 1 minute compared to the 2031 without development scenario during the PM peak.

7.6 As summarised below, the remining links only experience minor changes in journey times as a result of the proposed development compared to the 2031 reference case:

- Faraday Road to Markey Street experiences a 3 second increase in journey time as a result of the proposed development during the AM peak and a 40 second decrease in journey time during the PM peak;
- Journey times on Park Road to Turnpike Road do not change during the AM peak and experience a 16 second increase during the PM peak.

- Kings Road (eastbound & westbound) experience a reduction in journey times during both the AM and PM peaks except for westbound during the AM peak, which sees journey times likely to increase by 52 seconds.

Average Speed

7.7 The average speed across the network did not change as a result of the proposed development during the AM peak, remaining at 15mph. During the PM peak, the average speed reduced from 15mph to 14mph as a result of development traffic.

Queue Lengths

AM Peak

- The A339/Fleming Road junction experiences a negligible increase in queues (increase of circa 3-5 vehicles) as a result of the proposed development.
- The Bear Lane junction experiences an imperceptible impact on queueing as a result of the development.
- The St Johns roundabout (northbound) experiences an increase in queue length as a result of the proposals. The number of vehicles queueing on this arm increases to 80 from 14. There is a negligible impact on queueing on the other arms of this junction as a result of the development.
- The largest increase in queues at the Pinchington Lane/A339 junction is on the southbound left-turn arm, which increases from 3 to 19 vehicles. The other remining junction arms experience a negligible increase in queue lengths.
- The proposed development results in a negligible increase (circa 1-2 vehicles) in queues at the Bartholomew Street/Pound Street junction.
- The modelling indicates that the A343/Newtown Road junction experiences a minor increase in queues as a result of the proposed development. The largest increase in queues is observed on the Newtown Road (northbound) arm, which is predicted to increase from 9 to 20 vehicles.
- The Monks Lane/Newtown Road junction is anticipated to experience an increase in queues of approximately 6-10 vehicles on its eastern and southern arms.
- The modelling indicates that the development may result in increased queues at the Kings Road/Hambridge Road junction. The development is likely to result in an increase in queues of 16 vehicles on the southbound arm.
- The modelling results indicate that the proposed development is likely to increase queues at the Hambridge Road/Bone Lane (southbound) by approx. 25 vehicles.

PM Peak

- The A339/Fleming Road junction experiences a negligible increase in queues as a result of the proposed development. The southbound arm is anticipated to see a reduction in queueing by 18 vehicles.
- The Bear Lane junction experiences a negligible impact on queueing as a result of the development except for the northbound arm, which may experience as increase of approximately 24 vehicles.
- The St Johns roundabout northbound and eastbound arm experience an increase in queue length as a result of the proposals. The number of vehicles queueing on the northbound arm increases to 47 from 12 whilst the southbound arm increases from 13 to 32 vehicles. However, queues on the A339 southbound decrease from 67 to 24 vehicles.
- The Pinchington Lane/A339 junction experiences a negligible impact on queueing as a result of the development.
- The proposed development results in a negligible increase in queues at the Bartholomew Street/Pound Street junction.
- The modelling indicates that the A343/Newtown Road junction experiences a negligible increase in queues as a result of the proposed development.
- The Monks Lane/Newtown Road junction is anticipated to experience a negligible increase in queues as a result of the proposed development.
- The modelling indicates that the development is likely to result in a negligible increase in queues as a result of the proposed development.
- The proposed development will also see a reduction in queue lengths across all the links comprising the Robin Hood Gyratory.

Summary

7.8 It was acknowledged by WBC that Newbury already experiences peak period congestion particularly along the A339 corridor. The VISSIM modelling (Scenario A) indicates that in overall terms the proposed development is shown to result in a negligible impact on the future operation of the local highway network.

7.9 With the inclusion of the proposed highway improvement schemes at Pinchington Lane/A339/Monks Lane junction, the impact of the proposed development at these junctions in the year 2031 during both peak periods is considered minor and not severe.

7.10 Whilst the model results indicate additional queueing on the northbound arm at St Johns Road roundabout in 2031 with the development, the overall impact of the development as this junction is considered minor and not severe.

7.11 The negligible impact of the development across the network is also demonstrated in the average traffic speeds, which remain unchanged in the AM peak and a negligible reduction of 1mph in the PM peak with the inclusion of development traffic in 2031. Journey times throughout the network also only experience minor increases as a result of the proposals.

7.12 As summarised within the WSP VISSIM Modelling Report (**Appendix I**), following the completion of the VISSIM modelling, the results for Scenario A have been accepted by WBC.

8 SUSTAINABLE TRANSPORT STRATEGY

Introduction

8.1 The proposed development will seek to maximise the number of trips undertaken by sustainable modes. The site is already well connected and benefits from good pedestrian /cycle links to the surrounding area. However, the proposals seek to enhance these further to facilitate a change in travel behaviour for existing residents in the area as well as offering an attractive alternative to car travel for new residents.

Pedestrian and Cycling Strategy

8.2 The pedestrian and cycle strategy has been developed through extensive discussions with WBC. Plans illustrating the proposed pedestrian and cycling strategy are shown at **Figure 5** and **Figure 6** respectively.

8.3 The site will be designed with a network of pedestrian and cycle routes connecting with the existing surrounding network. Access for pedestrians and cyclists is proposed via the two proposed site accesses on Monks Lane.

8.4 As detailed in Section 2, an existing public right of way (GREE/9/1) runs east to west through the site and provides a connection for pedestrians and cyclists from the A339 Newtown Road (opposite the access to the St Gabriel's School) in the east to the A343 Andover Road via Warren Road to the west.

8.5 It is proposed to improve the surface of the path, which is at present an unsurfaced track. It is also proposed to provide a cycle route adjacent to the PROW, which would extend through the site and link to the local centre. A preliminary plan of the proposed cycle path can be viewed at **Appendix E**.

8.6 It is also proposed to provide a new uncontrolled crossing on the A339 adjacent to the PROWs access onto the A339. The proposals will provide dedicated crossing facilities for pedestrians and cyclists wishing to access St Gabriel's School, Greenham Business Park and the walking routes on the eastern side of the A339. Drawing 81311-041-108 at **Appendix L** shows the proposed crossing.

8.7 The existing pedestrian and cycle network is well catered for on Monks Lane including wide well-lit footways and the shared footway/cycleway, which is situated along the extents of

Monks Lane. Two toucan crossings are also provided on Monks Lane offering access for both pedestrians and cyclists to travel north towards the town centre along Rupert Road and Newtown Road.

8.8 Newtown Road has a dedicated cycle lane, which connects to the town centre, and Rupert Road is a designated quiet route. To enhance the use of Rupert Road for both pedestrian and cyclists, way-finding signage is proposed in the form of 'gateway maps' and directional signs in order to enhance the legibility of the route and provide a feeling of continuity between the site and surrounding facilities. The prominence of this route for cyclists could be enhanced through additional road markings including the use of cycle symbols.

8.9 Additional way-finding signage is proposed in the form of 'gateway maps' and directional signs in order to enhance the legibility of the routes and provide a feeling of continuity between the site and surrounding facilities within a short distance of the site. The location of the proposed signage can be viewed at **Figure 6**.

8.10 The proposed way-finding and gateway maps will be the same design and those already located within the town centre.

8.11 It is considered these improvements will encourage not only residents of the site but also residents of the surrounding areas to walk/cycle to local employment destinations and other key destinations such as Newbury town centre, nearby schools and retail.

8.12 As noted within Section 6, a mitigation scheme is proposed as part of the development to upgrade the existing Newbury College/Monks Lane/Pinchington Lane/A339 roundabout junctions to signalised junctions (**Appendix J**).

8.13 Currently the Newbury College/Monks Lane roundabout only provides uncontrolled pedestrian crossings. The proposed mitigation scheme will provide dedicated signalised pedestrian crossings on the Monks Lane, Newbury College and Newtown Road arms.

8.14 The A339/Pinchington Lane junction currently provides a signalised pedestrian crossing on the A339 southern arm and a signalised crossing further east on Pinchington Lane. The proposals will retain these crossings whilst providing an additional signalised crossing on the A339 (north) arm.

8.15 It is considered that the inclusion of additional pedestrian crossings will improve pedestrian accessibility not only for the additional pedestrian demand generated by the proposed development but also for existing pedestrians accessing the nearby retail on Pinchington Lane, Newbury College and the surrounding residential area.

8.16 A summary of the proposed improvements is provided in **Table 8.1** below.

Table 8.1: Summary of Proposed Improvements

Improvement	Pedestrian / Cycle Benefit
Improved surfacing and lighting of PROW GREE/9/1	Pedestrian
Series of Pedestrian Wayfinding Signs (7 No. Monolith signs)	Pedestrian
Provision of new signalised pedestrian crossings at the Newbury College/Monks Lane/Pinchington Lane/A339 roundabout junctions	Pedestrian
New Cycle Signage at key locations and along 2 key routes to town centre	Cycle
New Shared footway/cycleway along Andover Road (Warren Road – Monks Lane)	Cycle
New on-road cycle route on Andover Road (southbound)	Cycle
New cycleway to run alongside GREE/9/1	Cycle

Public Transport

8.17 A development objective is to ensure residents have access to a fast and efficient bus service to key destinations. Following discussions with Reading Buses and WBC, several potential bus service options have been developed, which are summarised below.

8.18 It is proposed that the initial phases of the development would be served by existing bus services/stops on Monks Lane. There is also the potential to divert the No.2 service, which currently runs along Monks Lane, into the site via the Monks Lane eastern access, travel through the site and exit via the western access back onto Monks Lane.

8.19 As the central element of the development is built out, an option would be to divert the No103 bus service into the site. The bus would enter the site via the western site access from Monks Lane and then undertake a loop of the local centre and route back north along the main access road exiting via Monks Lane or the proposed college access onto the A339. The

local centre is also be within walking distance of the proposed Sandleford Park West development.

8.20 The No.103 is currently an hourly service. The proposals would seek to increase the frequency to half-hourly during the peak periods. Whilst, WBC have indicated that a service that loops within a development and re-traces its route is not desirable, it would nevertheless be acceptable and provide residents of the Sandleford Park development with convenient access to public transport.

8.21 The developers of both Sandleford Park and Sandleford Park West have undertaken to construct the main spine road to the boundary of their land within a prescribed time from when their respective developments commence (72 months). At that point, the main spine road will connect from Monks Lane to Andover Road and will enable a bus route to be created through the two developments. When the link road is provided, there is the potential to divert the No.2 service which currently runs along Andover Road and Monks Lane to enter the site via Warren Road and exit on Monks Lane.

8.22 There is also the option to create a new bus service providing a fast and direct route between the site and Newbury bus station/train station via Newtown Road. The proposed service would provide a 30-minute frequency, which could be increased to a 15-minute frequency when the site is fully occupied.

8.23 There are currently several bus service proposals being considered. In light of this, further discussions with Reading Buses and WBC will be required to agree the most appropriate public transport strategy and understand how the sites will be served by public transport as the sites are constructed and occupied.

Travel Plan

8.24 As part of the development proposals, an overarching Framework Travel Plan will be submitted to support this planning application. This will encourage the use of non-car modes of travel and ensure the sustainability of the Proposed Development. This has been prepared as a standalone document.

8.25 During the reserved matters application, separate Travel Plans for each proposed land use (i.e. residential, care home and school) will be produced and implemented.

8.26 A Travel Plan sets out the tools and measures deemed necessary to enable residents of the site to make informed decision about their travel, with the ultimate objective of reducing single occupancy vehicle trips. The travel plan includes targets to reduce travel by single occupancy vehicles, and a commitment to monitor travel against these targets through a series of travel surveys.

Travel Plan Policy

8.27 The NPPF was published in March 2012 and sets out national policy for delivering sustainable growth and development in England. The NPPF details how it expects policy to be applied and it aims to make the planning system less complex and more accessible.

8.28 The NPPF states that sustainable transport is about "*giving people a real choice about how they travel*" whilst recognising that solutions will "*vary from urban to rural areas*". It advises that decisions should take account of amongst others whether "*safe and secure access to the site can be achieved for all people*", and that "*development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe*".

Travel Plan Mission Statement

8.29 The predominant aim of a Travel Plan is to put in place the management tools deemed necessary to enable residents to make more informed decisions about their travel to and from their home. This is achieved by setting out a strategy for eliminating the barriers keeping residents from using sustainable modes (which in effect self manages single-occupancy vehicle use) and raising awareness amongst residents of the alternative modes of transport available to them.

8.30 A Travel Plan is part of a continuous process for improvement, requiring monitoring, review and revision to ensure it remains relevant to the proposed development.

8.31 The Travel Plan can be viewed at **Appendix M.**

9 SUMMARY AND CONCLUSIONS

Summary

Introduction

9.1 Vectos has been commissioned by Bloor Homes and the Sandleford Farm Partnership to provide traffic and transportation advice in relation to a proposed residential development at Sandleford Park, south of Monks Lane in Newbury.

Proposed Development

9.2 The planning application seeks outline permission with all matters reserved (except for access) for the following development:

> *Up to 1,000 new homes; an 80 bed extra care facility (Use Class C3) as part of the affordable housing provision; a new 2 form entry primary school (D1); expansion land for Park House Academy School; a local centre to comprise flexible commercial floorspace (A1-A5 up to 2,150 sq m, B1a up to 200 sq m) and D1 use (up to 500sq m); the formation of new means of access onto Monks Lane; new open space including the laying out of a new country park; drainage infrastructure; walking and cycling infrastructure and other associated infrastructure works*

9.3 It is proposed that vehicular access to the site will be achieved via two accesses from Monks Lane. The eastern access from Monks Lane will be a priority-controlled junction, whilst the western access from Monks Lane will be a 3-arm roundabout. These two accesses will be designed in accordance with current government guidance (Manual for Streets). An emergency access will also be provided linking the A339 to the central part of the proposed site.

9.4 There is an extant planning consent for a new primary school and new signal-controlled access junction onto the A339 to the east of the development. It is intended that an internal road within the development will be designed to connect with this new access in order to, potentially, provide an additional point of access to the A339.

9.5 Donnington New Homes are proposing additional development known as Sandleford Park West. This will have an access via an improved Warren Road onto Andover Road. The

internal roads within the application site will be designed to link with the new access to Andover Road when it becomes available.

Sustainable Transport Strategy

9.6 The site is well connected to the surrounding areas including adjacent residential areas, the town centre and local schools via existing pedestrian and cycle routes. The proposed development has been developed with pedestrians and cyclists in mind and suitable routes will be provided within the site and to link to external footpaths and cycle routes.

9.7 Primary education and small-scale retail facilities will be provided on site which will reduce the need to travel. Furthermore, residents of the proposed development will be within a short walk of several primary schools, a secondary school and larger retail destinations.

9.8 In discussions with WBC, a series of walking and cycling improvement schemes have been put forward to encourage sustainable patterns of movement. These improvements will benefit the wider community as well as residents and visitors to the site.

9.9 It is envisaged that the development will be served by a regular bus service that will enter the site via Monks Lane. Discussions with bus operators are currently ongoing to develop the most appropriate solution.

9.10 A FTP has been prepared with a series of measures to promote sustainable forms of travel. The FTP will include a Welcome Pack for residents with information on nearby walking/cycling routes and public transport options.

9.11 WBC policy supports aims to reduce the reliance on private car trips and to promote sustainable forms of travel. The development proposals are consistent with this approach and seek to provide alternative modes of transport for residents / visitors of the development. A number of measures will also assist existing residents / visitors in Newbury thus assisting modal shift in West Berkshire.

Traffic Impact

9.12 To assess the traffic implications of the proposed development and the application being brought forward by DNH, the Newbury VISSIM model has been used. The data inputted in to the VISSIM model has been agreed with WBC, HCC and HE. The VISSIM model has been

validated by WBC for use to assess the existing highway network and the proposed highway mitigation.

9.13 With the inclusion of the proposed highway improvement schemes at Pinchington Lane/A339/Monks Lane junction, the impact of the proposed developments at these junctions in the year 2031 during both peak periods is considered minor and not severe.

9.14 Whilst the model results indicate additional queueing on the northbound arm at St Johns Road roundabout in 2031 with the development, the overall impact of the development as this junction is considered minor.

9.15 The VISSIM modelling indicates that the development is likely to result in a negligible impact on the future operation of the local highway network. Following completion of the VISSIM modelling, WBC agree that the proposals will not result in a severe impact on the highway network.

Policy Compliance

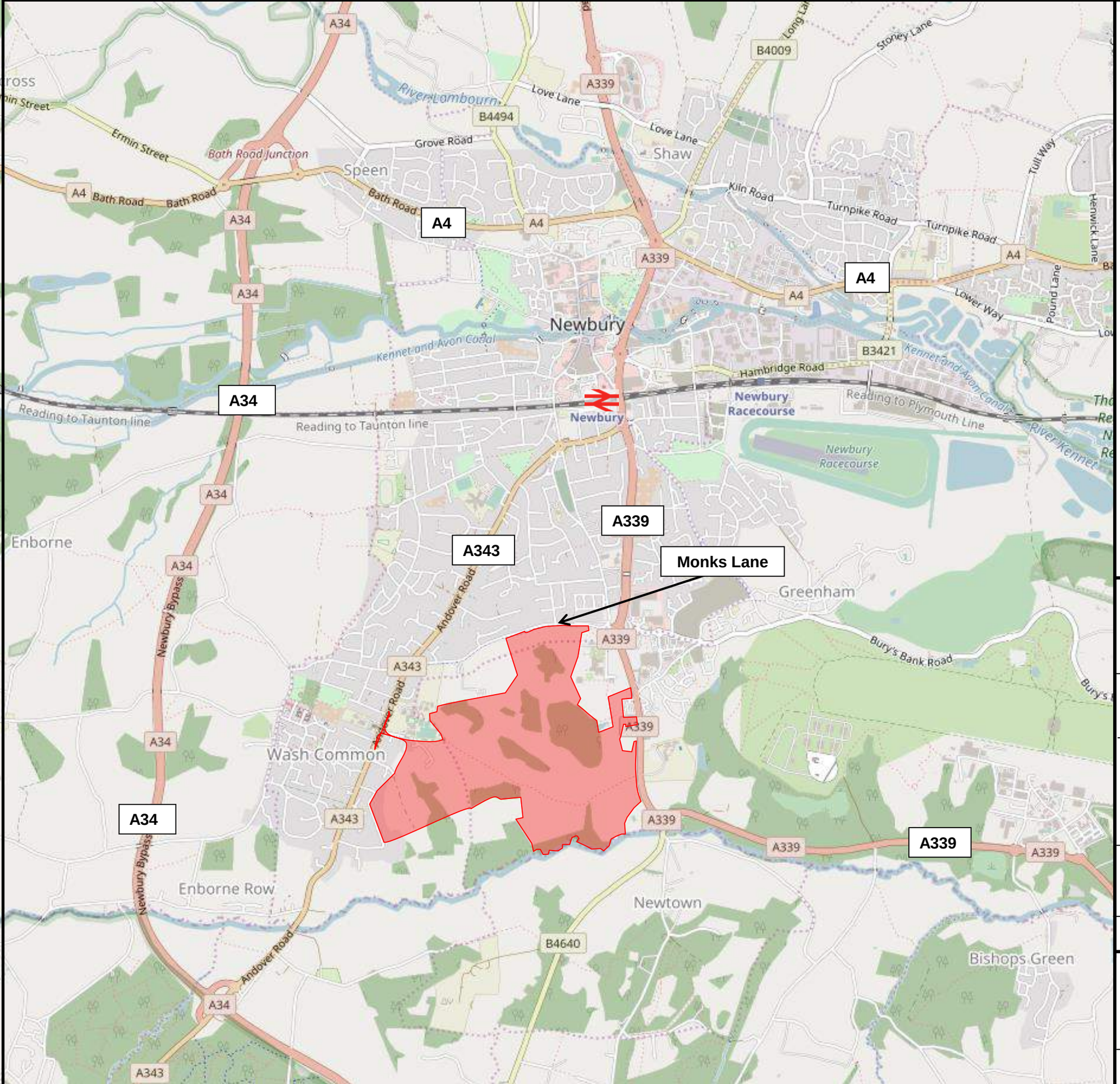
9.16 A review has been undertaken of the relevant local and national policy. It is considered that the site complies with the transport tests set out in NPPF, i.e.:

- The opportunities for sustainable transport modes have been taken up;
- Safe and suitable access can be achieved for all people;
- The residual cumulative impacts of the development are not severe.

Conclusion

9.17 It is therefore concluded that the site represents a suitable and sustainable location for residential development and there is no highways or transport reason why the planning application should not be granted consent.

FIGURES



Key

Site Location

Newbury Station

Bloor Homes Southern

Sandleford Park

Strategic Site Location Plan

SCALES:

NTS

DRAWN:	CHECKED:	DATE:	REVISION:
AV	AW	31/10/2017	FINAL

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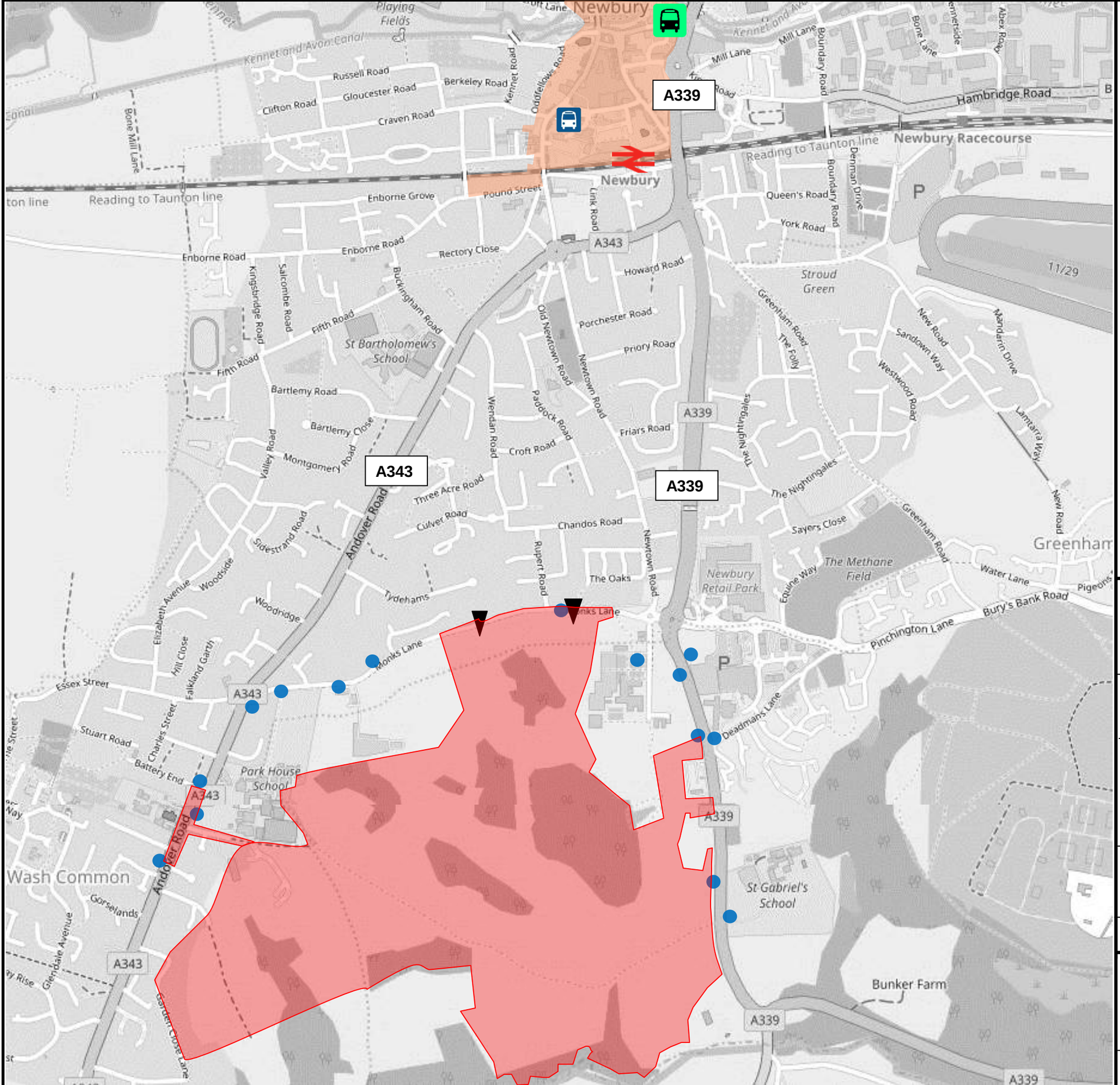
DRAWING REFERENCE:

Figure 1



Key

- Proposed Site Accesses
- Site Location
- Town Centre Area
- Newbury Station
- Existing Bus Station
- Proposed Bus Station
- Bus Stop

Bloor Homes Southern

Sandleford Park

Local Location Plan

SCALES: NTS

DRAWN:	CHECKED:	DATE:	REVISION:
AV	AW	31/10/2017	FINAL

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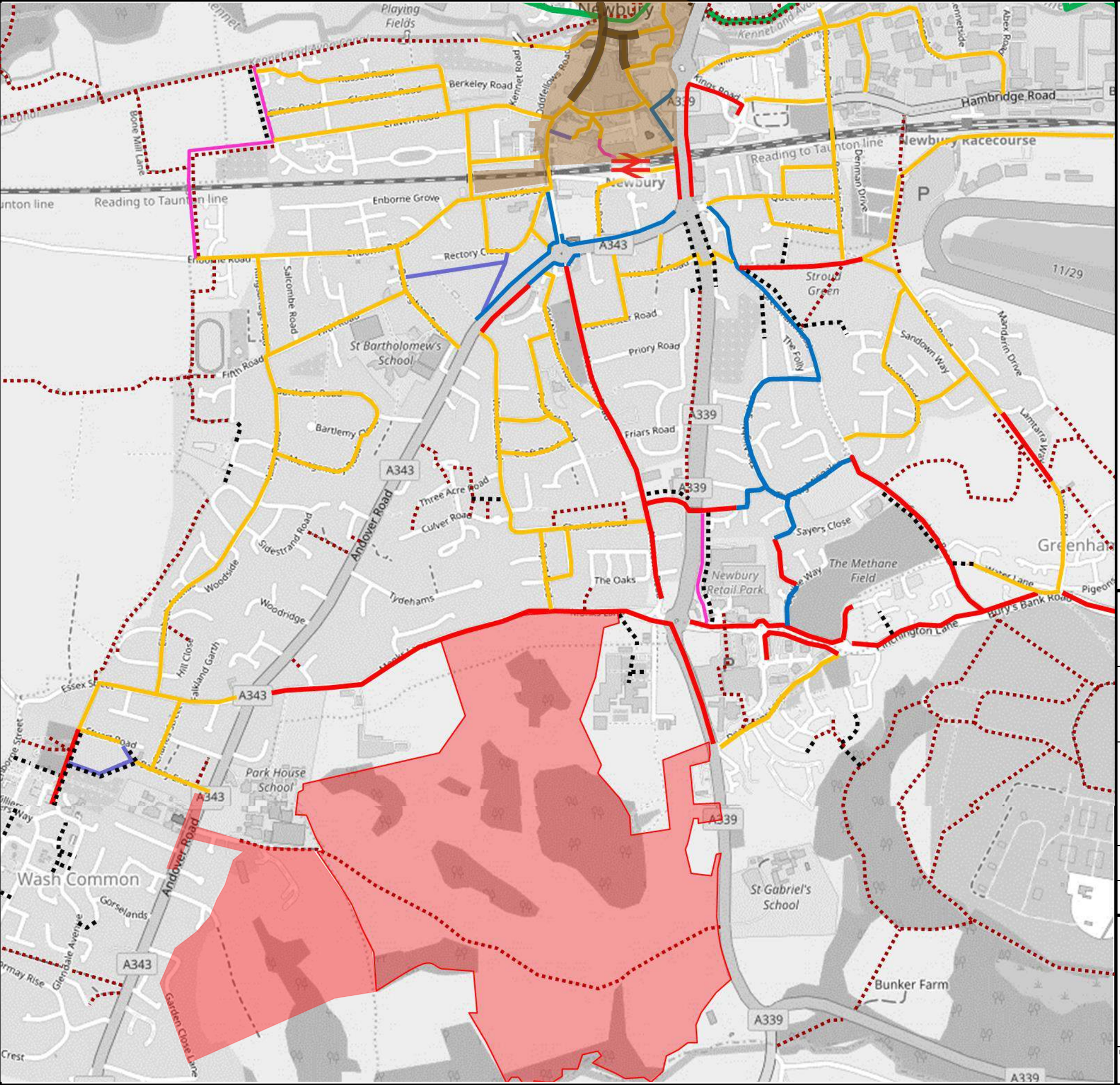
DRAWING REFERENCE: Figure 2



Key

- Approximate Site Location
- Town Centre Area
- Newbury Station
- Links (dismounted)
- Links (suitable for cycling)
- National Cycle Route 4
- Signed Cycle Path – off carriageway (cycleway or shared footpath/cycleway)
- On-road Singed cycleway
- Quiet Route (mainly on road; some tracks included where surfacing may vary)
- Pedestrianised Area (10am-5pm)
- Generally accessible walking route
- Less accessible walking route

Bloor Homes Southern

Sandleford Park

Existing Pedestrian and Cycle Routes

SCALES:	NTS		
DRAWN: AV	CHECKED: AW	DATE: 25/10/2017	REVISION: FINAL

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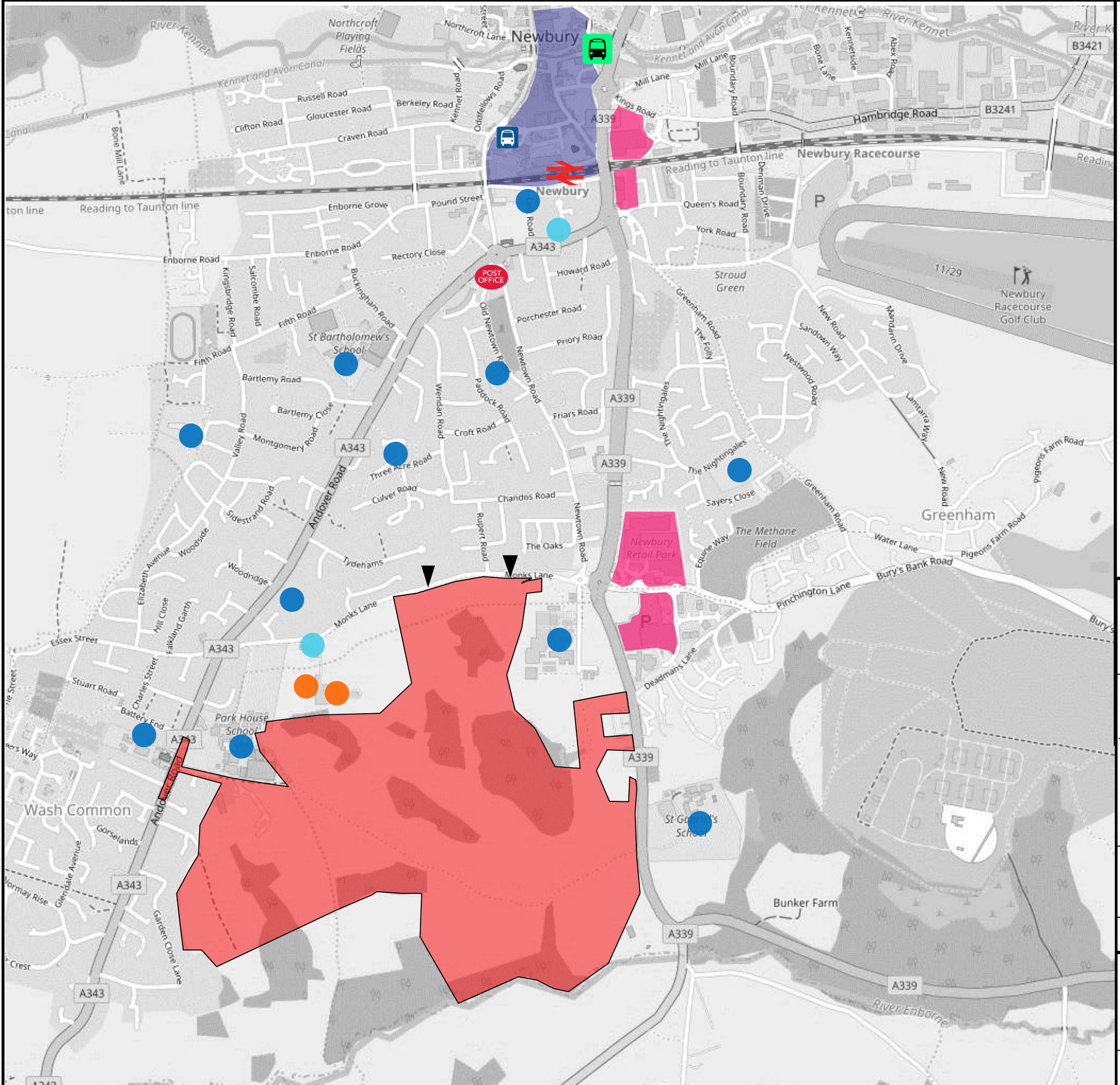
DRAWING REFERENCE:

Figure 3



Key

- Proposed Site Accesses
- Site Location
- Town Centre Area
- Newbury Station
- Existing Bus Station
- Proposed Bus Station
- Post Office
- Retail
- Education
- Leisure
- Healthcare Facilities

Bloor Homes Southern

Sandleford Park

Local Facilities Plan

SCALES:

NTS

DRAWN:	CHECKED:	DATE:	REVISION:
AV	AW	31/10/2017	FINAL

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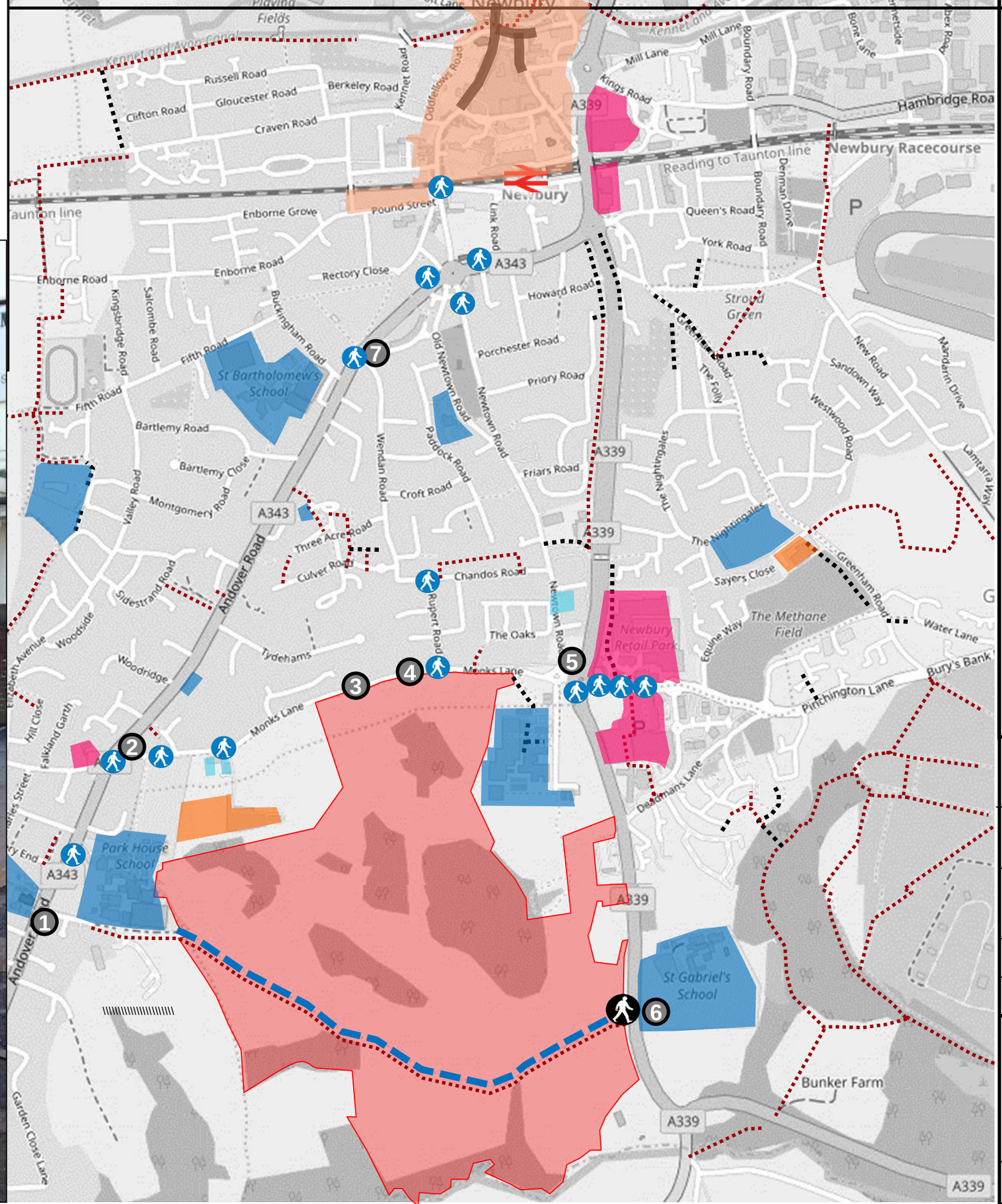
DRAWING REFERENCE:

Figure 4

Provide legible directional signage to enhance the feeling of continuity along the route and increase user confidence
(see photo below)

① ② ③ ④



KEY

- Site Location
- Town Centre Area
- Existing Pedestrian Crossing
- Pedestrianised Area (10am-5pm)
- Generally accessible walking route
- Less accessible walking route
- Improved PROW & Creation of Cycleway

Local Amenities

- Existing Bus Station
- Proposed Bus Station
- Education
- Retail
- Leisure
- Healthcare Facilities
- Proposed Pedestrian Crossing

Bloor Homes South Midlands

Sandleford Park

Improvements to the Pedestrian Network

SCALES:			
NTS			
DRAWN:	CHECKED:	DATE:	REVISION:
AV	AW	26/10/2017	FINAL

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DRAWING REFERENCE:

Figure 5

Proposed legible directional signage to enhance the feeling of continuity along the route and increase user confidence

1 2 3 4

Indicative Signs

Key

- Site Location
- Town Centre Area
- Existing Pedestrian Crossing
- Upgrade to a Toucan Crossing
- Proposed Informal Crossing
- Existing Cycle Network
- Cycle Routes to town Centre
- Improved PROW & Creation of Cycleway
- Proposed Cycleway
- Existing Bus Station
- Proposed Bus Station
- Education
- Retail
- Leisure
- Healthcare Facilities

Bloor Homes South Midlands

Sandleford Park

Improvements to the Cycle Network

SCALES:			
NTS			
DRAWN:	CHECKED:	DATE:	REVISION:
AV	AW	26/10/2017	FINAL

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DRAWING REFERENCE:

Figure 6

APPENDIX A

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Rev	Date	Description	Drawn	Chkd
-	12/12/19	Combined masterplan	CR	AB

Client
Bloor Homes & Donnington New Homes

Boyer

Project
Sandleford Park
Newbury

Drawing Title
Illustrative Layout

Drawing No. 171 Job Ref. 14.273
Scale @A0 1:2000 Revision -
Scale Bar 0 20 40 60m
N

APPENDIX B

DO NOT SCALE

WORK IN PROGRESS

CONTRACTORS STORE

CONTRACTORS STORE & OFFICES

College Land Boundary

Vehicular entrance including gates

Vehicular exit including gates

1:500

1:500

1:500

1:1000

REV	DATE	BY	DESCRIPTION	CHK	APD
B	30/11/2017	AMS	DESIGN AMENDMENTS – CLIENT'S COMMENTS	FL	SP
A	16/11/2017	AMS	FIRST ISSUE	FL	SP

DRAWING STATUS: FOR INFORMATION ONLY

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Regus House, Southampton International Business Park
George Curl Way, Southampton, Hampshire, SO18 2RZ
Tel: +44 (0)2380 302529 Fax: +44 (0)2380 302001
www.wsp.com

CLIENT: West Berkshire Council

ARCHITECT: -

PROJECT: A339 Sandleford, Newbury

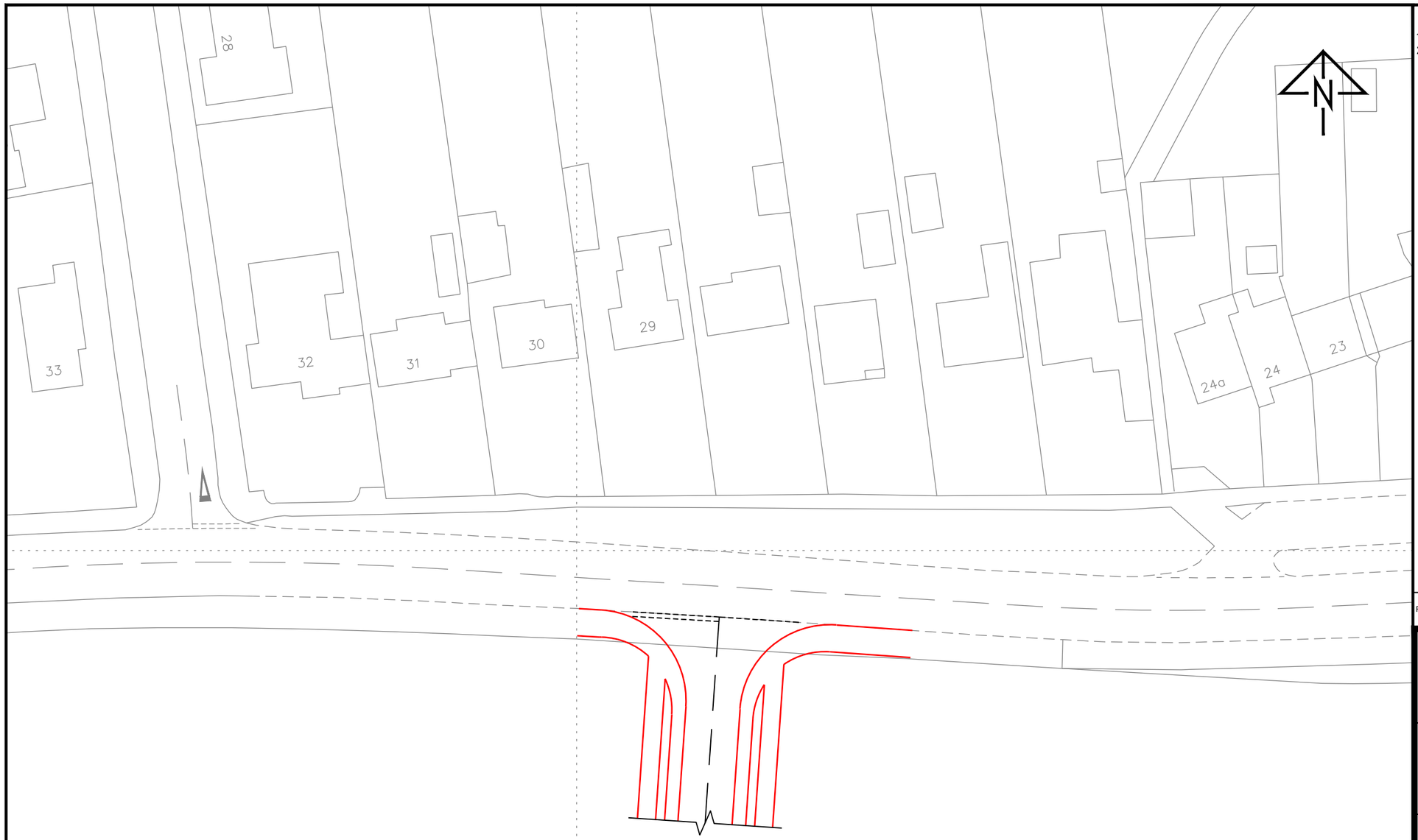
TITLE: General Arrangement Plan

SCALE @ A1:	CHECKED:	APPROVED:
AS SHOW	FL	SB
CAD FILE: PL011-27599-010 ROAD LAYOUT - REV C	DESIGN-DRAWN: AMS	DATE: September 2017

PROJECT No:	DRAWING No:	REV:
70034768	4768-SK-100	B

X:\PROJECTS\170000\172985 – SANDLEFORD PARK\INCOMING\WEST BERKSHIRE COUNCIL\2018-01-23 – A339-NEW COLLEGE ACCESS JUNCTION\PL011-27599-010 ROAD LAYOUT – REV C.DWG 24/01/2018 09:36:59 David Noyce

APPENDIX C



Notes:

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2. White lining is indicative only.

REV.	DETAILS	DRAWN	CHECKED	DATE
.	.	.	.	.

CLIENT:

Bloor Homes

PROJECT:

Sandleford Park
Newbury

DRAWING TITLE:

Eastern Site Access

SCALES:

1:500 at A3

DRAWN:	CHECKED:	DATE:
TF	ES	13.03.2018

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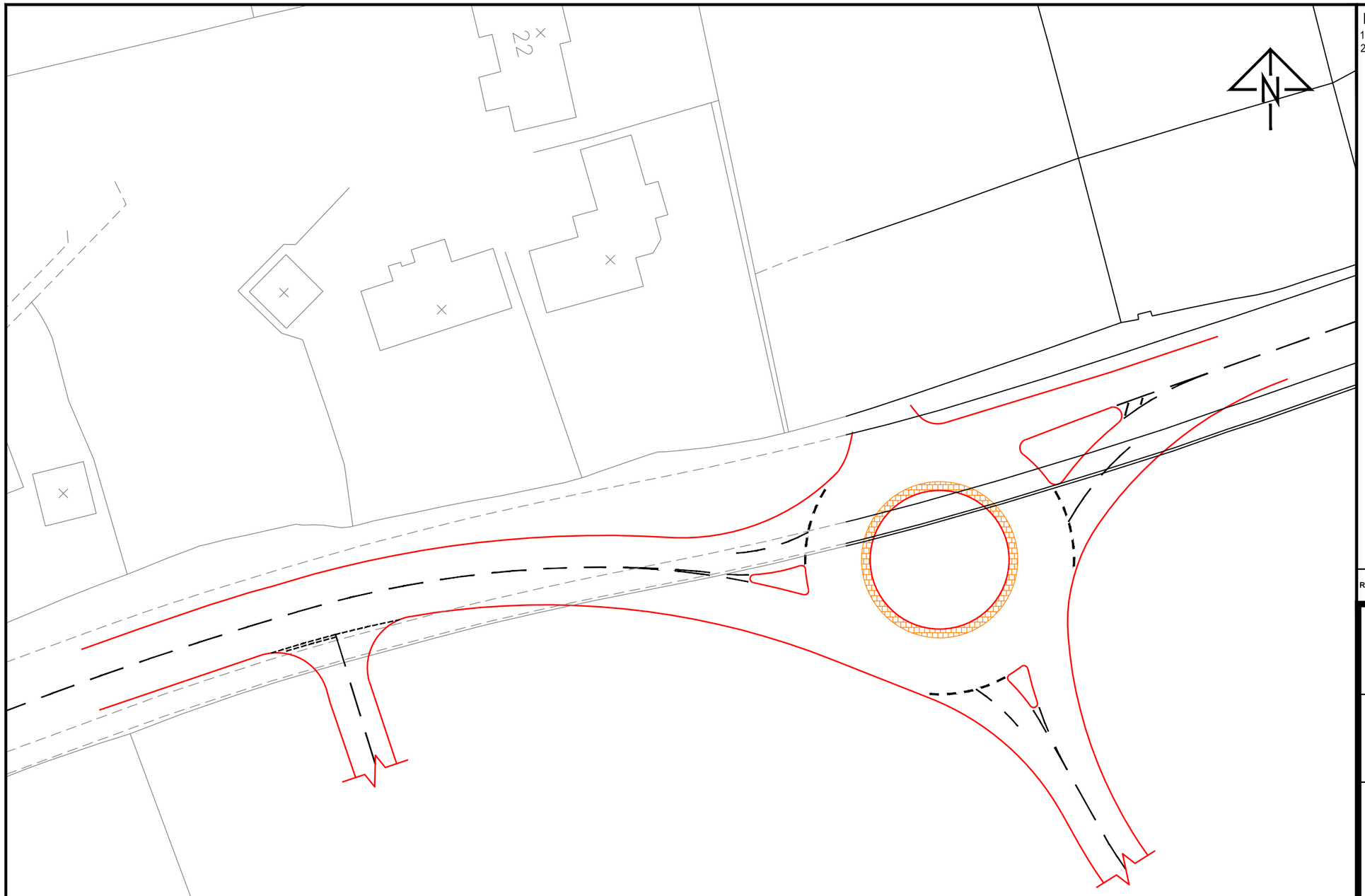
DRAWING NUMBER:	REVISION:
172985/A/07.1	·

APPENDIX D



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REV.	DETAILS	DRAWN	CHECKED	DATE
.	.	.	.	.

CLIENT:

Bloor Homes

PROJECT:

Sandleford Park
Newbury

DRAWING TITLE:

Western Junction Access

SCALES:

1:500 at A3

DRAWN:	CHECKED:	DATE:
SC	AW	19/03/2018

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DRAWING NUMBER: 172985/A/08

REVISION: .

APPENDIX E

Pedestrian crossing layout is based on West Berkshire Council drawing 81311-041-108

Proposed demountable bollards

Route of existing PRoW

Cycle route / emergency access to mirror existing public right of way from this location. Offset by 1.0m (refer to Section A-A)

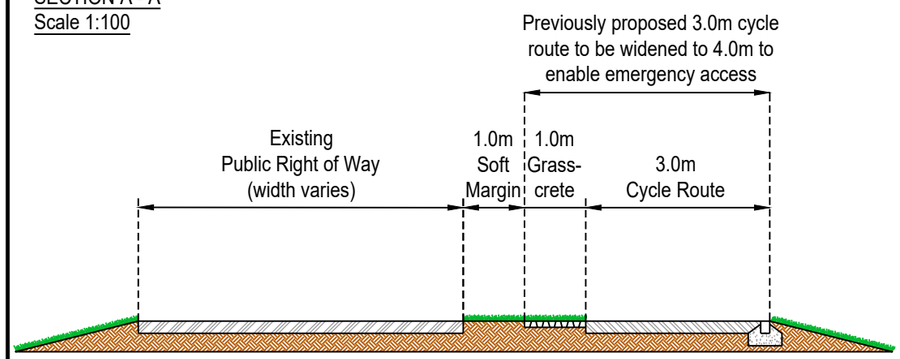
Links to proposed site

Indicative location for emergency access off A339

A

A

SECTION A - A
Scale 1:100



Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

REV.	DETAILS	DRAWN	CHECKED	DATE
-	-	-	-	-

CLIENT:
Bloor Homes

PROJECT:
Sandleford Park, Newbury

DRAWING TITLE:
Illustrative Cycle Route / Emergency Access Option 3

SCALES:
NTS / 1:100 at A3

DRAWN:	CHECKED:	DATE:
JB	AW	17.10.2019

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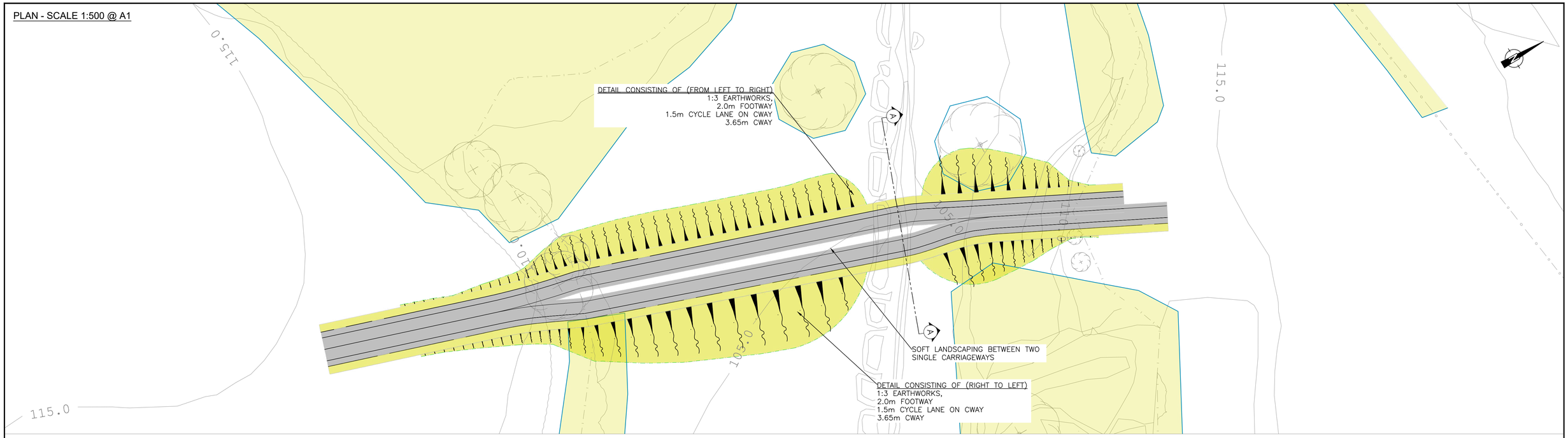
APPENDIX F

PLAN - SCALE 1:500 @ A1



LONGECTIONS - SCALE 1:500 @ A1

LONG SECTION: Alignment – Left Cway
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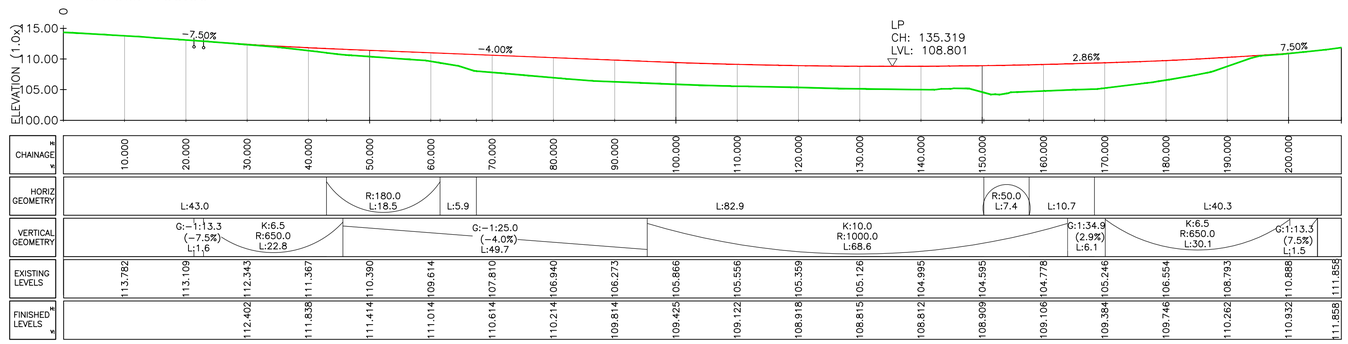
DATUM: 100.00



LONG SECTION: Alignment – Right Cway
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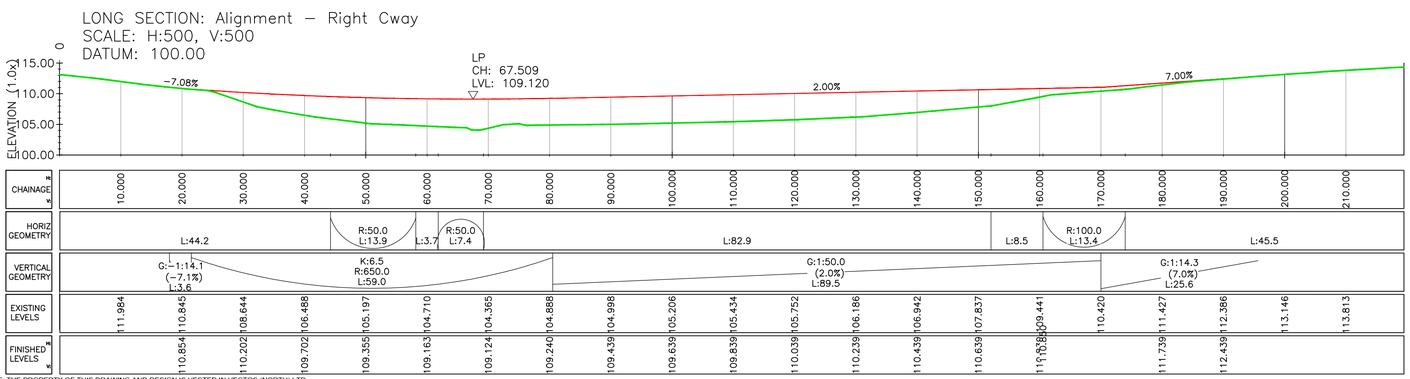

SECTION A-A (AT DITCH) - SCALE 1:500 @ A1

LONG SECTION: A
SCALE: H:500, V:500
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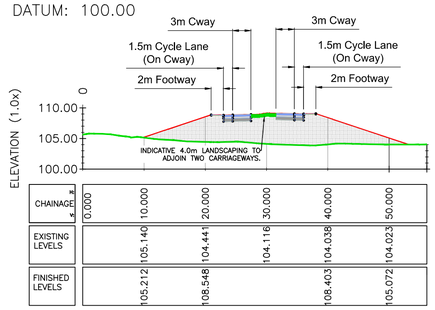

REV.	DETAILS	DRAWN	CHECKED	DATE	REV.	DETAILS	DRAWN	CHECKED	DATE
-	-	-	-	-	.	.	.	.	.

NOTES:

1. THIS IS NOT A CONSTRUCTION DRAWING AND INTENDED FOR ILLUSTRATIVE PURPOSES ONLY.
2. WHITE LINING IS INDICATIVE ONLY.

PROJECT: SANDLEFORD PARK, NEWBURY

CLIENT: BLOOR HOMES

DRAWING TITLE: PROPOSED ALIGNMENT & CROSS/LONGSECTIONS PARALELL OPTION

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DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING NUMBER:	REVISION:
TW	NS	04.10.19	Scale 1:500 at A1	VD17562-SK014	-

APPENDIX G

Bloor Homes & Sandleford Farm Partnership

Sandleford Park, Newbury

Construction Traffic Management Plan

December 2019

Network Building, 97 Tottenham Court Road, London W1T 4TP www.vectos.co.uk
Registered address: Vectos (South) Limited, Network Building, 97 Tottenham Court Road, London W1T 4TP. Company no. 7591661

Contents

Figures

1 INTRODUCTION

1.1 Vectos has been commissioned by Bloor Homes and the Sandleford Farm Partnership to provide traffic and transportation advice in relation to a proposed residential development at Sandleford Park, south of Monks Lane in Newbury. The local authority is West Berkshire Council (WBC).

1.2 The strategic location of the site is illustrated in **Figure 1**, whilst the local context of the site is illustrated in **Figure 2**.

1.3 The site currently comprises undeveloped land and is located to the south of Monks Lane, to the west of A339 and to the east of A343.

1.4 This Draft Construction Traffic Management Plan (CTMP) has been prepared to support a planning application which seeks outline permission with all matters reserved (except for access) for the following development:

> *Up to 1,000 new homes; an 80 bed extra care facility (Use Class C3) as part of the affordable housing provision; a new 2 form entry primary school (D1); expansion land for Park House Academy School; a local centre to comprise flexible commercial floorspace (A1-A5 up to 2,150 sq m, B1a up to 200 sq m) and D1 use (up to 500sq m); the formation of new means of access onto Monks Lane; new open space including the laying out of a new country park; drainage infrastructure; walking and cycling infrastructure and other associated infrastructure works*

1.5 This draft CTMP has been produced to support the planning submission and to feed into the wider Construction Environmental Management Plan (CEMP). It is an evolving document that will be updated and finalised once a contractor has been appointed for construction. It is expected that the provision of a final CEMP will be secured by planning condition.

1.6 The main aim of this CTMP is to manage all types of construction vehicle activity to and from the site during the construction period. The CTMP will improve the safety and reliability of construction related vehicle movement in relation to site, minimise any potential impacts on local traffic conditions and mitigate any potential for adverse environmental impacts.

1.7 The report is set out as listed below.

Chapter 2: CTMP Objectives – sets out the strategic aspirations of the CTMP, and sets out who is responsible for the CTMP;

Chapter 3: Construction Programme and Vehicle Arrangements – provides information on the key construction processes and vehicle arrangements;

Chapter 4: Mitigation Measures – identifies the measures and initiatives that will be used to promote a safe and efficient constriction period;

Chapter 5: Monitoring - presents the proposed methodology for monitoring.

2 CONSTRUCTION TRAFFIC MANAGEMENT PLAN OBJECTIVES

Objectives

2.1 This CTMP has been prepared with the following objectives:

- To ensure that construction traffic does not have a detrimental effect on the surrounding public highway and local community;
- To reduce the impact of construction traffic on the conventional network peak traffic hours; and
- To identify measures to ensure safe and efficient movement of Construction Traffic.

Responsibility for the CTMP

2.2 This Draft CTMP has been prepared on behalf of Bloor Homes & Sandleford Farm Partnership. The Applicant and their appointed contractor will be responsible for ensuring that the content of this report is adhered to. The contractor details will be set out in the final CTMP.

3 CONSTRUCTION PROGRAMME AND VEHICLE ARRANGEMENTS

Construction Programme

3.1 A programme of works will be put together by the appointed contractor, and the detailed construction phases, together with their duration and anticipated start and end dates will be shown on this programme. It is anticipated that the construction programme will last in the order of 10-15 years.

Deliveries and Collections

Access Route

3.1 The proposed construction traffic route is illustrated in **Figure 3**.

3.2 The appointed contractor will take all reasonable steps to ensure that construction traffic, where possible, travels to and from the site using strategic lorry routes and district access routes, as detailed in the *West Berkshire Freight Local Transport Plan Freight Strategy* documents, so as to limit any effect on local roads. The appointed contractor will ensure that all suppliers are aware of this.

3.3 From the A339, all construction vehicles will access the site via Monks Lane accessed from Pinchington Lane / Newtown Road roundabout. When exiting the site, vehicles will travel in an eastbound direction on Monks Lane, to re-join the A339.

3.4 All drivers will be fully trained and will be provided with a copy of a routing plan to ensure that they use the correct roads when driving to and from the site. Drivers will be aware of other road users, including pedestrians and cyclists, particularly when undertaking turning movements at the site access and egress point

Frequency of Deliveries and Collections

3.5 The number of deliveries/collections to the site on an average day/week will be confirmed by the contractor as part of the final CTMP. However, it is anticipated that there be approximately 30 vehicular movements per day, including 10 delivery vehicles.

3.6 Deliveries to the site will also be scheduled so as to avoid multiple HGVs on site at any time. The range and size of vehicles used during the construction period will need to be confirmed

after the contractor has been appointed; however, the following vehicles are likely to be used:

- Vans, up to transit size (2m x 5.7m)
- Box Lorry/Flatbed (2.5m x 8.4m)
- 6/8 Wheel Rigid Trucks, tippers, flat bed, concrete lorry etc (2.6m x 9.1m)

3.7 On a typical day, vehicles larger than those highlighted above are not expected to visit the site. There may be occasions when larger vehicles are required, such as cranes. These will be coordinated to arrive and depart the site during quieter periods (i.e. outside of the network peak periods).

3.8 To ensure safety, the movement of larger vehicles at the site will be managed by a trained marshal at the site access(es). Furthermore, the timings of any large vehicle movements will be co-ordinated so as to avoid the morning and evening peak periods (08:00-09:00 and 17:00-18:00). Timings will also be co-ordinated to avoid the afternoon school peak (3.15 – 4.15pm) to ensure the safety of vulnerable roads users.

Delivery/Collection Booking System

3.9 A booking system will be set up so that two vehicles do not arrive at the same time. If a vehicle is running late for a scheduled time slot, they will be expected to call ahead to agree a new time slot. If a vehicle arrives outside of their scheduled time slot, they will be turned away and rescheduled.

Banksmen

3.10 Qualified traffic marshals and banksmen will assist with the smooth movement of traffic when accessing the site on Monks Lane.

Construction Worker Travel

3.11 All construction workers will be encouraged to travel to the site via public transport or by walking/cycling. The site contractor will provide secure locker facilities so that workers can leave their tools on-site. This will make it easier to travel to and from the site by walking, cycling or public transport.

3.12 Notwithstanding the above, an area of parking will be designated within the site to accommodate contractors that will need to drive to the site.

Road Closures

3.13 The need for road closures to assist the construction process is not expected. If it is the case that they are required, all relevant temporary Traffic Management Orders will be applied for.

Pedestrian and Cyclist Safety

3.14 All construction vehicle movements from the highway will be controlled and monitored by a trained marshal. This will ensure that manoeuvres are carried out safely and that pedestrian and cyclist movements are not impeded by the movement of construction vehicles.

Freight Operator Recognition Scheme

3.15 Before commencing work on the contract, a driver licence check will be carried out with the DVLA for all regular drivers, and these will be re-checked on a regular basis. Within 60 days of the contract date, all regular drivers will also carry out the Safe Urban Driving (SUD) training course (or equivalent), unless this has been undertaken in the last three years.

Hours of Operation

3.16 The construction site will only operate between Monday and Friday 08:00-18:00 and Saturday 08:00-13:00.

3.17 The contractor will be required to limit construction vehicle movements during the AM peak hour (08:00-09:00) and PM peak hour (17:00-18:00).

4 MITIGATION MEASURES

4.1 The effects of construction traffic will be carefully managed. The following measures will be implemented by the Contractor to ensure that any disruption is minimised.

General

4.2 The Applicant and Contractor will write to all people in the immediate vicinity of the site prior to the start of the construction programme detailing the scope of the project and the contact details for the Contractor and the Site Manager, who they can contact in the event that they have any concerns or difficulties. The applicant will insist that all tendering Contractors are members of the Considerate Contractors Scheme.

Wheel Washing

4.3 During site strip and ground works operations, vehicles exiting the site may inadvertently carry deposits of clay or wet concrete, trapped on their tyres, out on to the surrounding car park and estate roads.

4.4 To ensure that this does not occur, a wheel-cleaning regime will be implemented throughout the duration of the contract.

4.5 The wheel-cleaning operation will be carried out as follows by an operative wearing appropriate Personal Protective Equipment:

- A suitable area will be allocated close to the exit point of the site;
- A filter bed of large single size granular material will be placed into an excavation over an area of approximately 3m by 10m by 0.3m deep;
- The excavated area will be lined with a filter membrane prior to single size stone being placed;
- The granular fill area will allow water from the cleaning operation to filter into the substrate and not migrate off site;
- Before exiting the site area, all vehicles will stop within the clearly defined and signed area and turn off the engine;
- If necessary any heavy deposits will be removed manually prior to accessing the area of granular fill. This will prevent excess mud deposits entering the soakaway area;

- The vehicle will move forward onto the granular fill area where the wheels will be washed using a high-pressure jet wash lance, ensuring that any residual deposits lodged in the tyres are removed;
- The vehicle will move forward during the cleaning process to ensure that the complete circumference of the wheel is clean; and,
- On completion wheels will be inspected and confirmed that the vehicle is fit to leave site.

Road Cleansing

4.6 The contractor will undertake to sweep the roads and footpaths on the local highway network as required on a daily basis insofar as is reasonably necessary to remove any spoil or debris deposited on the highway resulting from the construction period.

Dust and Noise Suppression

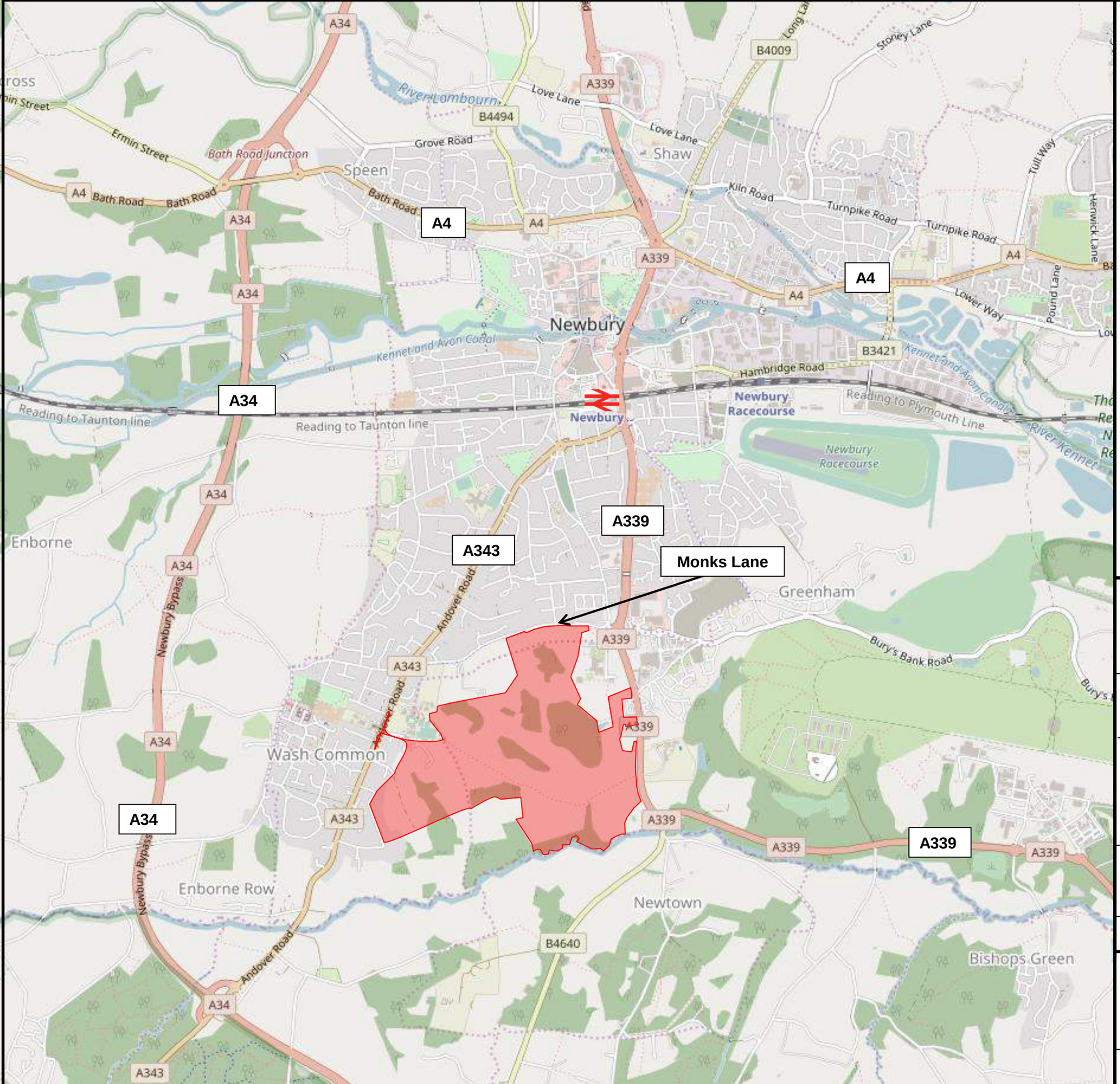
4.7 The contractor will take reasonable steps to minimise noise and supress dust, dirt and debris generated by the scheme working to the relevant British Standards and best working practices.

5 MONITORING

5.1 The movement of all construction related vehicles will be monitored by the appointed contractor to ensure that it is carried out in accordance with the details contained within this CTMP.

5.2 It is envisaged that regular meetings will be held to discuss the construction of the site. Construction traffic management will be an agenda item at all regular meetings and anticipated delivery vehicle movements will be discussed. Any activities not undertaken in accordance with the details contained within this CTMP will be discussed and corrective action taken as appropriate.

FIGURES



Key

Site Location

Newbury Station

Bloor Homes Southern

Sandleford Park

Strategic Site Location Plan

SCALES:

NTS

DRAWN:	CHECKED:	DATE:	REVISION:
AV	AW	31/10/2017	FINAL

vectos transport planning specialists

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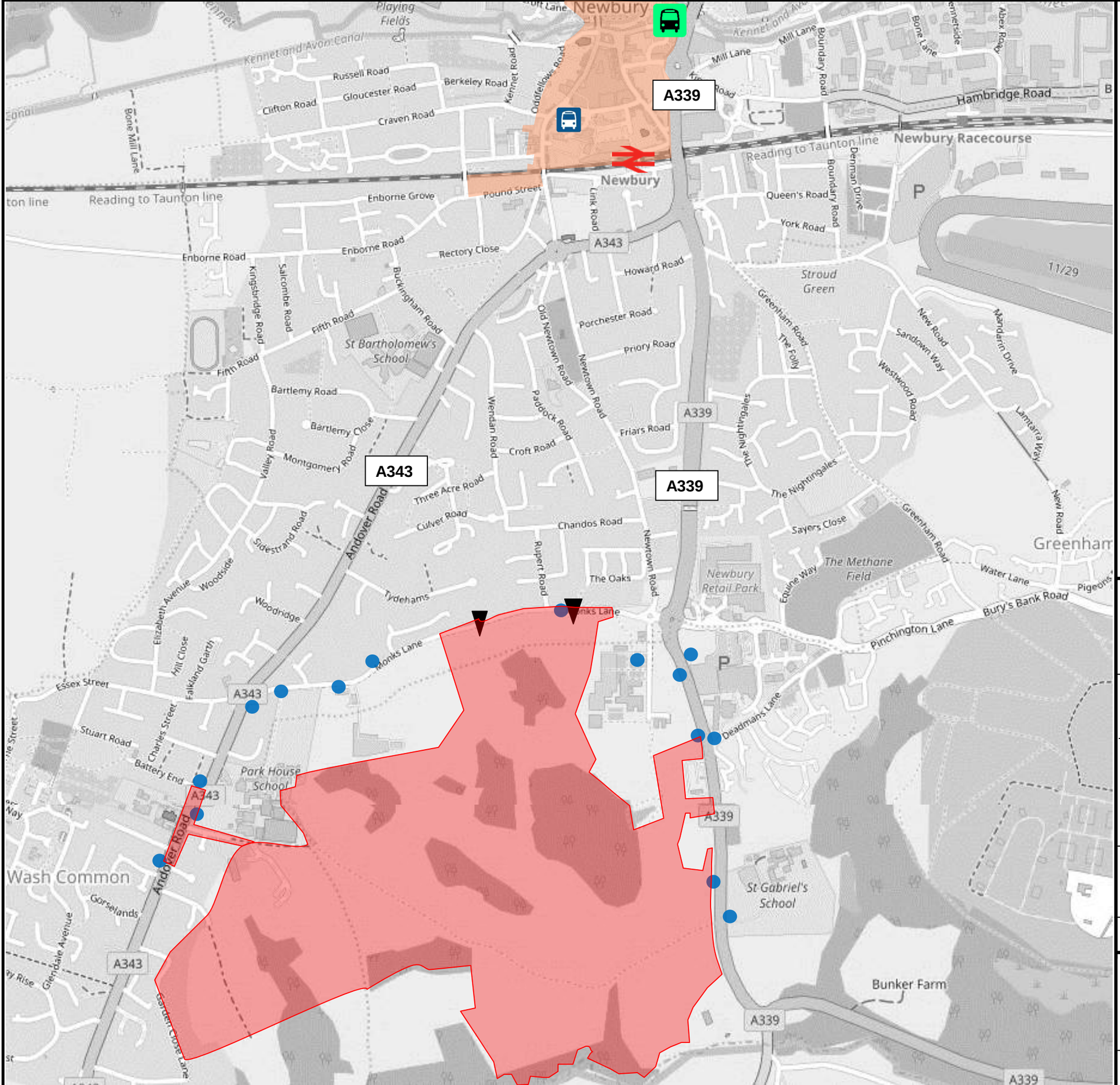
DRAWING REFERENCE:

Figure 1



Key

- Proposed Site Accesses
- Site Location
- Town Centre Area
- Newbury Station
- Existing Bus Station
- Proposed Bus Station
- Bus Stop

Bloor Homes Southern

Sandleford Park

Local Location Plan

SCALES: NTS

DRAWN:	CHECKED:	DATE:	REVISION:
AV	AW	31/10/2017	FINAL

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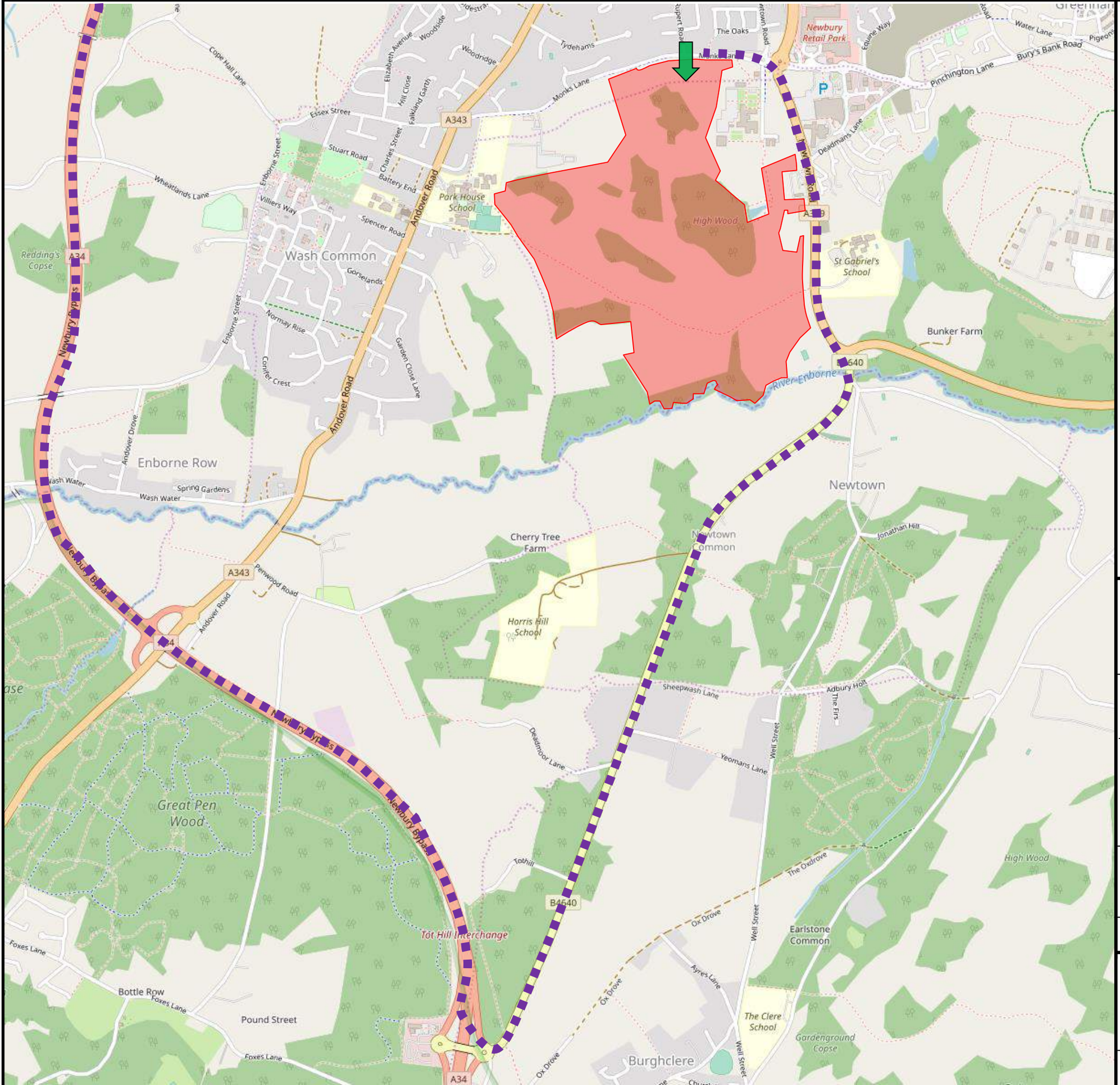
DRAWING REFERENCE: Figure 2



Key

Site Location

Construction Traffic Route

Site Access

Bloor Homes & Sandleford Farm Partnership

Sandleford Park

Construction Traffic Route

SCALES:

NTS

DRAWN:	CHECKED:	DATE:	REVISION:
AV	AW	31/10/2017	FINAL

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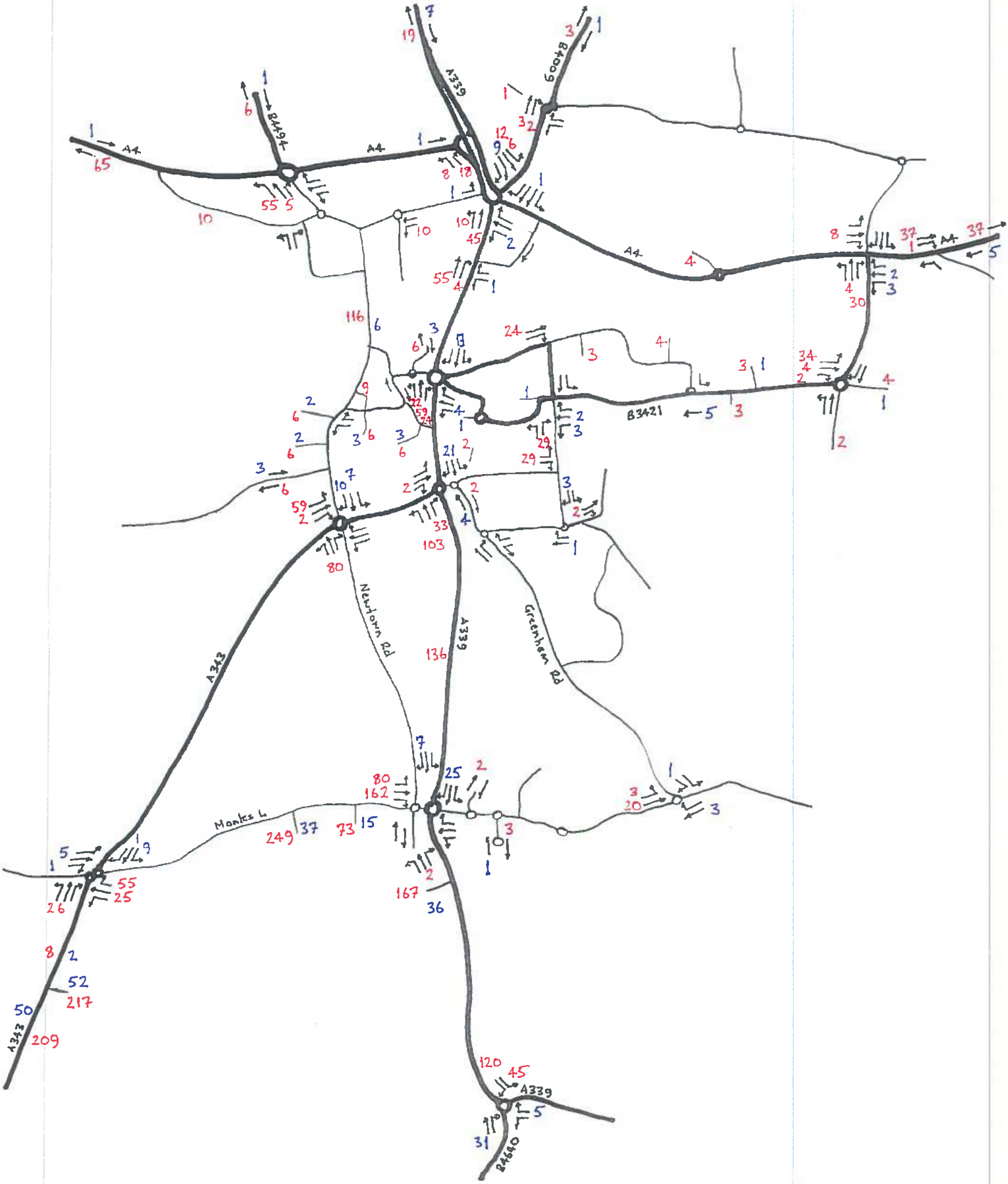
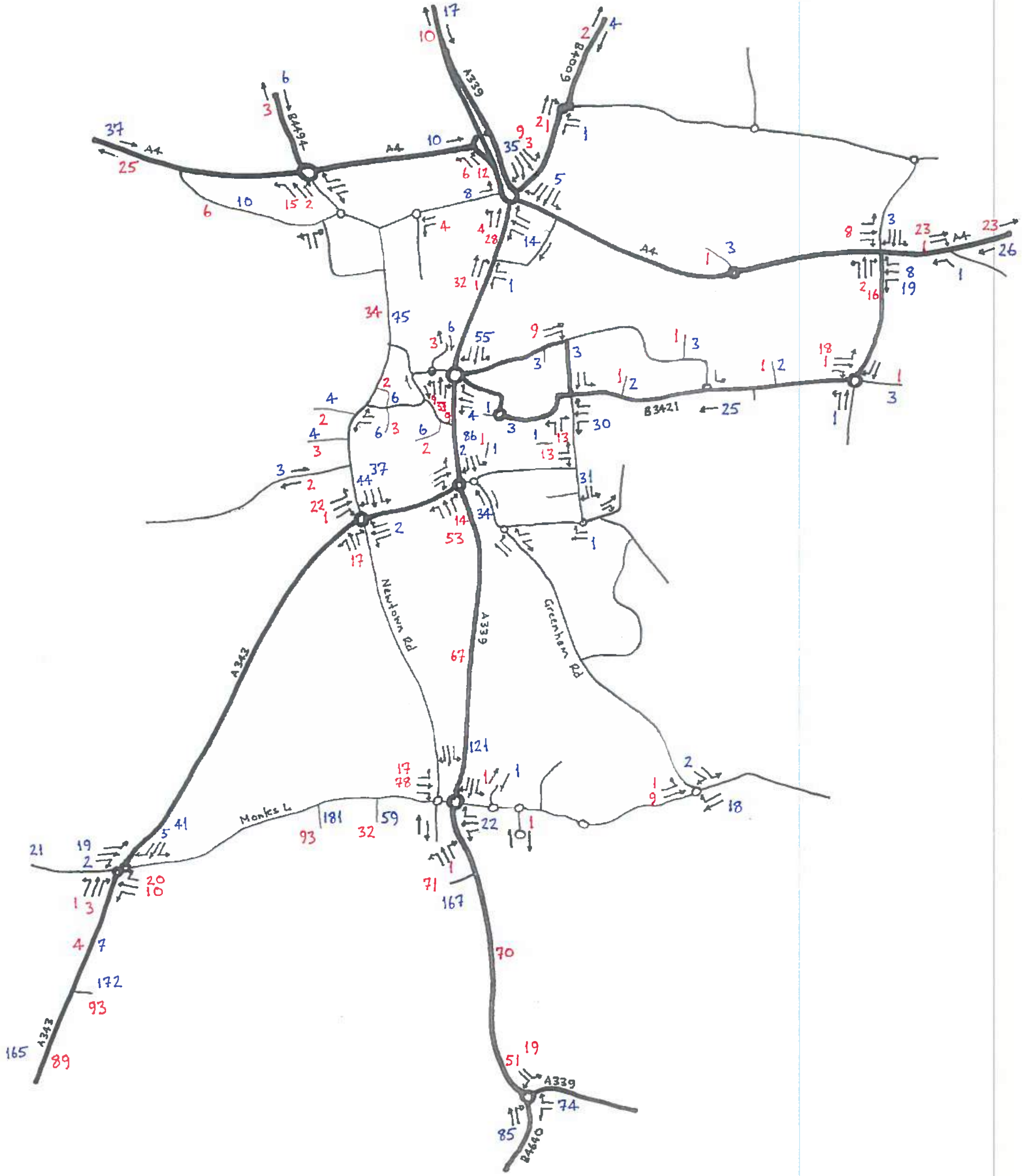
DRAWING REFERENCE:

Figure 3

APPENDIX H



Sandleford Park 2031 AM
Four accesses.



Sandleford Park 2031 PM
Four accesses.

APPENDIX I

West Berkshire Council

SANDLEFORD VISSIM MODELLING

Scenario appraisal report

NOVEMBER 2019

PUBLIC

West Berkshire **Council**

SANDLEFORD VISSIM MODELLING

Scenario appraisal report

TYPE OF DOCUMENT (VERSION) PUBLIC

PROJECT NO. 70032452

OUR REF. NO.

DATE: NOVEMBER 2019

West Berkshire **Council**

SANDLEFORD VISSIM MODELLING

Scenario appraisal report

WSP

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1.1.1.

QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	Final			
Date	25 November 2019			
Prepared by	David Barnfield			
Signature				
Checked by	Zoltan Tosaki			
Signature				
Authorised by	Craig Drennan			
Signature				
Project number	70016257			
Report number	70016257-RT-TP-001			
File reference	\\ser01bas1uk.uk.wspgroup.com\projects\70016257 - West Berkshire Council - Developer Requests\C Documents\Reports\wo 006 - Sandleford Park\TN 2031 Option and Mitigation Tests_25112019.docx			

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TABLES

FIGURES

APPENDICES

1. INTRODUCTION

1.1.1. In March 2017 West Berkshire Council (WBC) commissioned WSP to develop a micro-simulation VISSIM model of Newbury.

1.1.2. The Local Model Validation Report (LMVR) document contains details on the network and matrix development exercise for the 2017 Base Year model (Newbury 2017 LMVR_120418.pdf, April 2018).

1.1.3. WSP was commissioned by WBC to test a number of scenarios, to support the Sandelford Park development application. To provide base for scenario appraisal, first a 2031 Reference Case model was created.

1.1.4. The 2031 Reference Case model contains all committed developments and other highway infrastructure schemes which at the time of the modelling were known. The development of the 2031 Reference Case model is described in Chapter 2.

1.1.5. Following this, a series of development scenarios were run without including any mitigation measures in the test models. Each of the tested scenarios were representing different number of homes and road accesses varying throughout the scenarios. These scenarios are described in Chapter 4.

1.1.6. As the different tested scenarios show similar impact on the road network, as agreed with WBC only the worst performing – Scenario A – were taken forward to test various mitigation measures, in aim of the reducing the impact of the development traffic in the study area. Chapter 5 contains the details of the mitigation runs and how the concluding scenario was reached.

2. 2031 REFERENCE CASE MODEL

2.1. HIGHWAY NETWORK

2.1.1. Prior to and during the network development, instructions regarding the committed highway development schemes were received from WBC. The following list contains all the highway schemes which are included in the 2031 Reference Case model:

- Bear Lane Roundabout scheme, including new signalised junction at A339 / Cheap Street junction
- Signalisation of Cheap Street / Market Street junction
- Layout upgrade for Robin Hood Gyratory
- Kings Road Link Road between Sainsbury's roundabout and Boundary Road / Hambridge Road junction
- Hambridge Road / Boundary Road signalised junction
- Boundary Road bridge widening
- A339 Highwood Copse access, north of the Household Waste Recycling Centre.

2.1.2. The following describes each of the included highway development schemes with Appendix A containing the layout for each of the modelled schemes:

- **Bear Lane Roundabout** was modelled based on 'A339 / Bear Lane Roundabout Overall Layout' (WBC, nr:81624-004-1). Fundamentally the westbound exit is removed from the junction, and all associated turns are relocated to the new A339 / Cheap Street junction. This layout was tested with VISSIM in the past and proven to be beneficial to ease congestion at Bear Lane roundabout. This scheme also contains the implementation of the A339 / Cheap Street signalised junction.
- **Signalisation of Market Street / Cheap Street**: As part of the Bear Lane Roundabout modernisation, the junction is being signalised including allowing only one-way traffic northbound from Cheap Street, except for cyclists (not modelled). As part of this change the two signalised pedestrian crossings across Market Street and Cheap Street are relocated closer to the Market Street / Cheap Street junction, and they are operated together with the main traffic signal. Variations for this junction layout were tested for this junction, and this layout was selected by WBC. The traffic signal is running on a three-stage cycle at this junction.
- **Robin Hood Gyratory** is modelled based on the 'Robin Hood Improvements' (WBC, nr:81597-002-9) drawing. The main circulatory of the gyratory and many of its approach arms are enhanced compared to the existing layout, with changes to the lane allocation, lane flare extension or lane addition. This layout has not been tested prior to date. The scheme also includes the update of the traffic signal stages.
- **Kings Road Link Road**: As part of the planning application for the Sterling Industrial Estate (application number: 1401181FULEXT) east to Bear Lane Roundabout, Kings Road Link Road is established between the existing Sainsbury's Roundabout and Hambridge Road / Boundary Road junction. The new link road is two-way, so traffic travelling to the east on B3421 from Bear Lane can use the link road to Hambridge Road, instead of the Mill Lane – Bone Lane corridor. As part of the scheme the existing Kings Road is made two-way, but

broken between Windsor Court and Gordon Road. At the time of modelling it was not decided whether public transport services will travel through Kings Road or using Kings Road Link Road; so WSP was instructed to model buses using Kings Road Link Road.

- **Hambridge Road / Boundary Road**: Next to the Kings Road Link Road scheme, the Hambridge Road / Boundary Road junction is signalised for the 2022 Reference Case. The junction is modelled based on the 'Sterling Industrial Estate' drawing (Stuart Michael Associates, nr:3712.002 rev D). Based on base year model flows and on assumptions that 2/3 of the traffic on Mill Lane will relocate to Kings Road Link Road, a LINSIG model was developed to optimise signal timings. The LINSIG results were used to develop vehicle actuated signal timings from the Hambridge Road / Boundary Road junction to ensure to optimal split of green times between all phases.
- **Boundary Road railway bridge**: On the southern arm of the Hambridge Road / Boundary Road junction, the traffic signals were removed from the Boundary Road railway bridge as the result of the planned bridge widening. The Boundary Road railway bridge can bear two-way traffic in the Reference Case model.
- **Highwood Copse Primary School from A339**: On the A339 a new junction is added to access the planned Highwood Copse Primary School from A339. The junction was modelled based on the 'Highwood Copse Primary School' drawing (WBC, nr: PL011-27599-010 B). The design drawing includes the A339 / Highwood Copse access road and the changed access to the HWRC site. On the design drawing the HWRC exit is shown as a signalised junction, however it was modelled as a priority controlled junction, as requested by WBC.

2.2. TRAFFIC DEMAND FORECASTING

2.2.1. The 2031 Reference Case matrices are based on the 2017 Base Year matrices. The traffic growth is accessed via the TEMPRO (Trip End Model Presentation Program) version 7 program using the National Trip End Model (NTEM) version 7 datasets. For Light Goods Vehicles (LGV), Other Goods Vehicles (OGV1) and Other Goods Vehicles (OGV2) vehicles the Road Traffic Forecasts (RTF18) were used, and data was linearly interpolated for 2017 and 2031 to calculate traffic growth.

2.2.2. The growth includes committed development trips, which were identified by WBC. WBC provided a trip generation matrix in tabular format for each of the identified developments, with consideration to the VISSIM model extent. These trips in the model are assigned on a zonal level, so they are entering and leaving the model at given points, but they can use multiple paths in the model when available.

2.2.3. Table 2-2 contains all committed development sites which are contributing to the traffic growth in the Newbury VISSIM model. The figures shown in the origin and destination columns are the traffic volumes identified using the VISSIM model. The real traffic generation for some of the committed developments may be different than presented.

Table 2-1: Agreed committed development trip generation figures for the VISSIM 2031 Reference Case model

Committed development	AM peak		PM peak	
	Origin	Destination	Origin	Destination
Bayer	23	5	5	24
Newbury Racecourse - housing	456	61	162	375
Newbury Racecourse - bollards	0	0	0	0
North Newbury	142	38	81	145
Greenacre / Greenham Road	33	14	19	30
Pinchington Lane	17	8	10	16
Sterling Cables	19	-19	-27	24
Market Street	21	24	29	14
Coley Farm	29	14	13	27
Highwood Copse Primary School	16	13	9	1
Manydown	23	89	64	36
New Road	12	5	7	12
Pyle Hill	27	12	16	24
Newbury College Extension	57	94	116	85
Rugby Club	5	5	6	3
College – north of	6	2	3	6
Lower Way	63	16	21	39
TOTAL	**966**	**474**	**541**	**861**

2.2.4. Traffic growth was calculated for cars for the model area, using TEMPRO and the latest, 7.2 NTEM dataset. The calculated growth between 2017 and 2022 is 10.3% and 10.4% for the AM and PM peak periods respectively.

2.2.5. For light and heavy good vehicles, the growth is based on RTF18 data tables. For the 2017 to 2031 period traffic growth is 16.7%, 4.3% and 4.3% for LGV, OGV1 and OGV2 vehicles respectively. This applies equally for the AM peak and PM peak periods.

2.2.6. Traffic in the Newbury VISSIM models are categorised as light and heavy vehicles. The above calculated growth for the four vehicle classes were combined, weighted by the projected vehicle-kilometres for the West Berkshire Area. Table 2-3 shows the combined traffic growth for the AM peak and PM peak periods for light and heavy vehicles

Table 2-2: 2017-2031 calculated traffic growth based on TEMPRO and RTF18 datasets

	AM peak	PM peak
Light vehicles (cars and LGV)	11.3%	11.4%
Heavy vehicles (OGV1 and OGV2)	4.3%	4.3%

2.2.7. The above growth is based on the NTEM database, which includes all committed development trips realised for the forecasting period. Based on the committed and consented development trips by WBC, in both the AM peak and PM peak periods the number of generated trips for the Newbury model are higher than is indicated by the calculated TEMPRO growth for the 2017-2022 period.

2.2.8. The growth for any vehicle classes in the traffic matrices are a combination of two types of growth (background traffic growth and committed development traffic growth). The background traffic growth is applied uniformly for all zones where generic traffic growth is expected in the model. These zones were agreed with WBC prior to modelling.

2.2.9. The committed development growth is applied specifically for those zones which are associated with the development and the projected traffic distribution in the model. When the committed development growth is less than the calculated traffic growth (based on TEMPRO and RTF18) the difference is matched by the background traffic growth; ultimately the overall growth in the model equals to the calculated TEMPRO and RTF traffic growth.

2.2.10. When the committed development traffic growth is higher than the calculated traffic growth, the background traffic growth is kept at 0%, and the committed development traffic flow applies to the model.

2.2.11. For light vehicles in the Newbury 2031 Reference Case model the committed development traffic growth is below the calculated traffic growth. Therefore, growth of 2.5% is applied to the AM peak matrices, and 2.6% for the PM peak matrices, along with the committed development flows.

2.2.12. The applied traffic growth is shown in Table 2-4.

Table 2-3: 2017-2022 applied traffic growth, with consideration to committed development trips

Vehicle classes	AM peak	PM peak
Light vehicles (cars and LGV)	11.3%	11.4%
Heavy vehicles (OGV1 and OGV2)	4.3%	4.3%

3. MODEL RUN RESULT EVALUATION

3.1.1. This chapter will briefly examine the methods used to evaluate the future scenarios in comparison to the Reference Case.

3.1.2. Four main methods of comparison will be used:

- Network delay / vehicle: how many seconds a vehicle is delayed on its trip through the network. This is given in seconds.
- Journey times: these are 7 key routes through the network that were validated in the base year and provide a good idea of which links in the network suffer or improve from various changes. This is given in seconds.
- Queue comparison: Comparing the average queues at certain junctions and links. This is given in metres.
- Junction delays: Checking the delay / vehicle at key junctions or turning movements between scenarios to see specifically where extra delays or improvements occur. This is given in seconds.

3.1.3. Details of the journey time routes are below in Figure 3-1 and Table 3-1:

Table 3-1: Journey time locations

Route	Start	End
1 (red)	A339 roundabout with B460	A339 roundabout with Vodafone
2 (pink)	A343 Junction with Garden Close Lane	Greenham roundabout with Bury's Bank Road
3 (purple)	B3421 Junction with A4	B3421 roundabout with A339
4 (green)	Market St Junction with Bartholomew St	Faraday Rd Junction with A4
5 (blue)	London Rd with Park End	A4 with Turnpike Rd roundabout
6 (yellow)	A4 with B4494 roundabout	B4009 with Kiln Rd roundabout
7 (black)	Essex St junction with Battle Rd	Bury's Bank Rd junction with Newbury and Crookham golf club

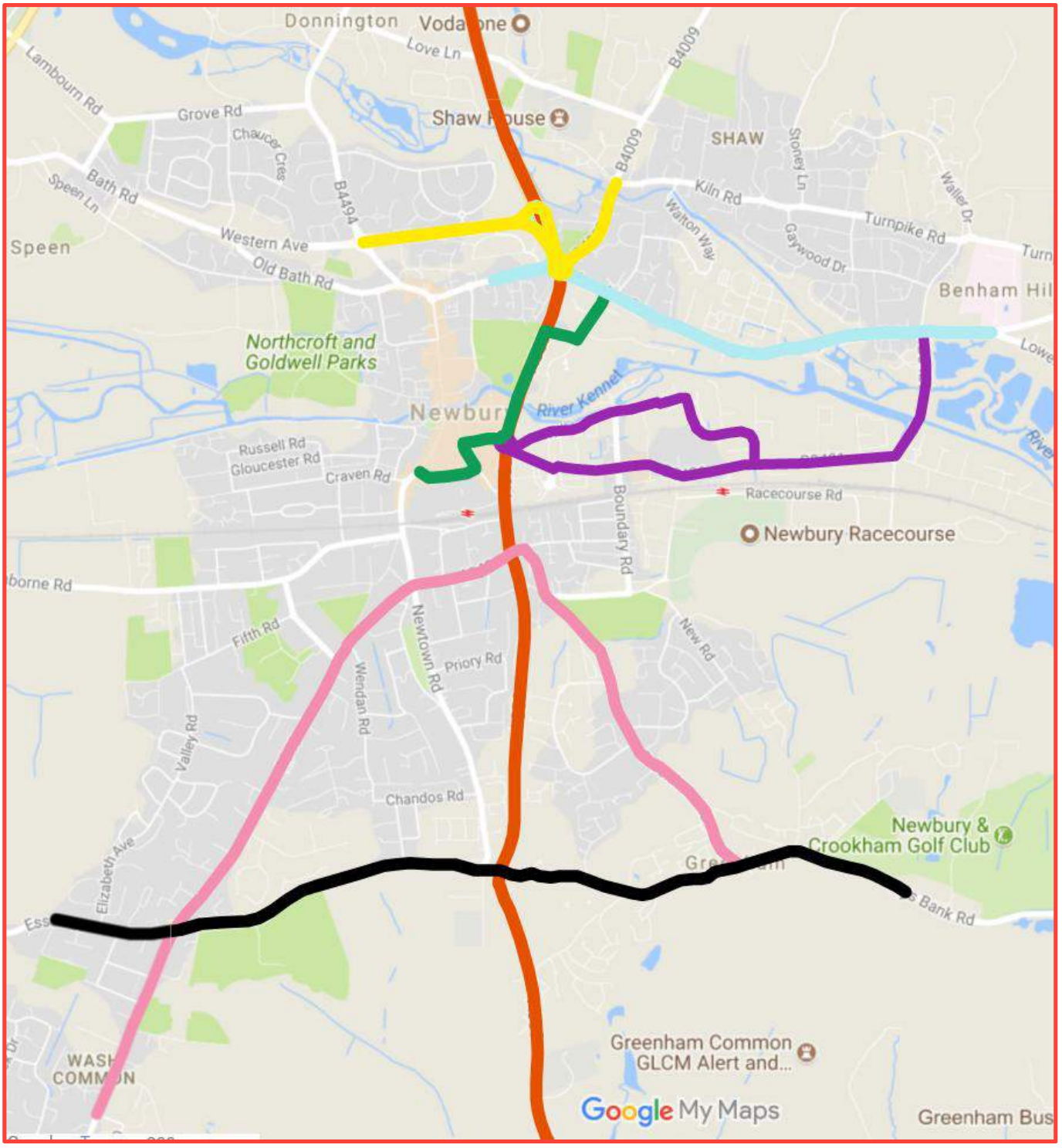


Figure 3-1: Journey time routes overview

4. NON-MITIGATION SCENARIOS

4.1. INTRODUCTION

4.1.1. Sandleford Park is an allocated development site in the south of Newbury for 500 to 1,500 new homes. As part of the housing development, three new highway accesses were considered as:

- Access to A343 at Warren Road
- Two accesses to Monks Lane, referred to as Monks Lane East (MLE) and Monks Lane West (MLW)
- Access to A339. This access – north to the existing Household Waste Recycling Centre – is planned independently from the Sandleford Park development.

4.1.2. Table 4-1 contains a summary of all the initially requested scenarios along with key information on the number of homes and accesses considered.

Table 4-1: Sandleford scenario overview

Scenario	Test year	Homes	Accesses			
			A343	Monks Lane Western	Monks Lane Eastern	A339 College
A	2031	1,500	Yes	Yes	Yes	Yes
B	2031	1,500		Yes	Yes	Yes
C	2031	1,000		Yes	Yes	Yes
D	2031	500	Yes			
G	2031	1,100	Yes	Yes	Yes	Yes

4.1.3. To scenario naming in this report is kept consistent with scenario naming in preceeding correspondence, where Scenario E and Scenario F were considered for testing, but they were removed from the final scope of work.

4.1.4. Table 4-2 summarises for each of the scenarios the total volume of induced traffic from the Sandleford Park development.

Table 4-2: Sandleford trip generation figures

Scenario	AM peak		PM peak	
	Inbound	Outbound	Inbound	Outbound
A	140	706	579	289
B	140	706	579	289
C	74	456	374	176
D	66	250	205	113
G	110	538	441	223

4.2. AM PEAK PERIOD RESULTS

4.2.1. This section contains a brief comparison of the results of these non-mitigated scenarios in the AM peak period.

4.2.2. Network performance results shows that all of the scenario option models operate slower than the 2031 Reference Case model, as all test scenarios add traffic to the network without any mitigation measures.

4.2.3. The average delay per vehicle increased from 167 seconds per vehicle (2031 Reference Case) to:

- 184 seconds in Scenario A
- 188 seconds in Scenario B
- 171 seconds in Scenario C
- 165 seconds in Scenario D
- 173 seconds in Scenario G.

4.2.4. Traffic generation associated with Scenario C, Scenario D, and Scenario G have less impact on the highway network, while Scenario A and Scenario B cause significantly higher delays through the network. Average speed decreases significantly in every scenario, except for Scenario D, where it remains 25 km/h as in the Reference Case model.

4.2.5. Table 4-3 summarises the journey time changes compared to the 2031 Reference Case model. Journey times routes where travel time changed less than 5% compared to the Reference Case model are not discussed in this chapter in details.

Table 4-3: Journey time change compared to the 2031 Reference Case model – AM peak

	Journey time routes	2031RC	ScnA	ScnB	ScnC	ScnD	ScnG
Red	A339 NB	09:53	-1%	13%	2%	-7%	21%
	A339 SB	08:06	6%	6%	4%	2%	9%
Pink	A343 – Greenham Road EB	10:04	23%	12%	15%	5%	11%
	Greenham Road – A343 WB	15:56	-13%	-34%	-11%	-15%	-44%
Purple	B3421 Hambridge Rd WB	07:04	-1%	2%	-7%	-8%	-12%
	B3421 Hambridge Rd EB	06:06	36%	18%	25%	14%	13%
Green	Market St to Faraday Rd NB	05:31	7%	38%	1%	-3%	-4%
	Faraday Rd to Market St SB	04:12	0%	2%	-1%	-3%	-2%
Blue	A4 London Rd EB	08:51	-1%	5%	-3%	-5%	-5%
	A4 London Rd WB	10:13	-6%	-2%	5%	3%	-1%
Yellow	Western Ave – Shaw Rd	02:36	0%	0%	0%	-1%	-1%
	Shaw Rd – Western Ave	03:07	2%	4%	3%	4%	2%
Black	Monks Ln – Pinchington Ln EB	07:32	2%	5%	1%	2%	6%
	Pinchington Ln – Monks Ln WB	07:21	-1%	1%	0%	-2%	5%

4.2.6. Three journey time routes are influenced the most by the development trip generation:

- A343 – Greenham Road EB
- Greenham Road – A343 WB
- B3421 Hambridge Rod EB.

4.2.7. The journey time on A343 – Greenham Rd EB increased by an average of 13% over all scenarios, and in the WB direction it decreased by an average 23%. Journey time increased significantoy on B3421 Hambridge Rd in the eastbound direction, by an average of 21% over all scenarios.

4.2.8. The journey time also increased significantly on the A339 in both directions in a majority of scenarios, by an average of 6% northbound and 5% southbound respectively, and decreased on B3421 Hambrige Road WB by an average of 5%.

4.2.9. The journey time does not change significantly on other routes, compared to the 2031 Reference Case model results.

4.3. PM PEAK PERIOD RESULTS

4.3.1. This section contains a brief summary of the non-mitigated results PM peak period model scenarios.

4.3.2. Similarly to the AM peak, network performance statistics show that each of the five tested scenarios performs worse than the 2031 Reference Case model. This increase in average delay per vehicle is expected and due to the higher traffic levels in the model with delay increases from 202 seconds / vehicle (2031 Reference Case) to:

- 229 seconds in Scenario A
- 227 seconds in Scenario B
- 218 seconds in Scenario C
- 206 seconds in Scenario D
- 231 seconds in Scenario G.

4.3.3. The development trip generation in Scenario C and Scenario D has less impact on the network, while Scenario A, B and G show higher delays.

Table 4-4: Journey time change compared to the 2031 Reference Case model – PM peak

	Route Names	2031RC	ScnA	ScnB	ScnC	ScnD	ScnG
Red	A339 NB	11:11	8%	3%	3%	-7%	5%
	A339 SB	12:25	17%	13%	5%	9%	13%
Pink	A343 – Greenham Road EB	08:35	3%	6%	3%	1%	4%
	Greenham Road – A343 WB	09:13	6%	4%	14%	13%	11%
Purple	B3421 Hambridge Rd WB	06:52	3%	4%	1%	-6%	12%
	B3421 Hambridge Rd EB	06:33	23%	14%	21%	10%	23%
Green	Market St to Faraday Rd NB	05:49	6%	8%	3%	3%	10%
	Faraday Rd to Market St SB	09:23	-7%	2%	-2%	-1%	-2%
Blue	A4 London Rd EB	09:27	9%	12%	4%	2%	11%
	A4 London Rd WB	06:46	23%	31%	14%	8%	8%
Yellow	Western Ave – Shaw Rd	02:40	3%	5%	-1%	-1%	3%
	Shaw Rd – Western Ave	04:51	-9%	-8%	-16%	-17%	-3%
Black	Monks Ln – Pinchington Ln EB	07:16	0%	1%	2%	2%	2%
	Pinchington Ln – Monks Ln WB	07:53	2%	0%	4%	-1%	1%

4.3.4. In the PM peak period journey time increases the most significantly on B3421 Hambridge Rd EB and on A4 London Rd WB, by 18% and 17% respectively across all tested scenarios.

4.3.5. The journey time increase is also significant on A339 SB and on Greenham Rd – A343 WB, where travel time increases by 11% and 10% respectively across all tested scenarios.

5. MITIGATION SCENARIO TESTING

5.1. INTRODUCTION

5.1.1. After reviewing the non-mitigated scenario options, WBC agreed that Scenario A needs to be tested first with mitigation, in favour to see if 1,500 homes could be placed on the site while traffic is only minimally disrupted on the surrounding highway network.

5.1.2. The first mitigation model result (Scenario A (Mit 1)) did not provide sufficient capacity and traffic delays were still high in the study area, so subsequently more mitigation measures were tested as Scenario A (Mit 1), Scenario A (Mit 2), Scenario A (Mit 3) and Scenario (Mit 4), as discussed in this chapter.

5.2. SCENARIO A MITIGATION 1

5.2.1. Scenario A (Mit 1) had two major road network changes:

- Replacing St John's roundabout with a signalised 4 arm crossroads. This proposed layout design is shown in Figure C-3
- Replacing the A339 / Pinchington Lane roundabout and the Monks Lane / Newtown Road roundabouts with signalised crossroads. This design is shown in Figure C-1.

5.2.2. The model was run both for the AM peak and the PM peak with this new layout and compared to both Scenario A and the 2031 Reference Case model.

AM Results Overview

5.2.3. The model performed significantly worse than Scenario A in the AM peak, implying the new junction schemes had a detrimental effect on road capacity. Average delay per vehicle increased from 184 seconds in Scenario A to 239 seconds in Scenario A (Mit1) and average speed decreased from 24 km/h to 21 km/h.

PM Results Overview

5.2.4. Similarly to the AM peak, average delay per vehicle increased from 229 seconds / vehicle in Scenario A to 669 seconds in Scenario A (Mit 1).

5.2.5. Table 5-1 compares the actual flow throughput for the two upgraded junctions. The traffic throughput reduce significantly at both junctions both in the AM peak and in the PM peak period, what also caused problems throughout the rest of the network, as traffic rerouted in the network to avoid these junctions. This is reflected in the journey time results.

Table 5-1: Junction flow throughput comparison – 2031 AM peak and PM peak

Scenario	Peak hour throughput (vehicles)			
	St Johns		A339 / Pinchington Lane / Monks Lane	
	AM	PM	AM	PM
Reference Case	4,268	4,268	4,500	4,541
Scenario A	4,241	4,481	4,641	4,641
Scenario A (Mit 1)	3,700	3,253	4,304	3,869

5.3. SCENARIO A MITIGATION 2

5.3.1. For Scenario A (Mit 1) changes at the A339 / St John's junction triggered most of the delays in the network, so for Scanerio A (Mit 2) this junction was converted back to the existing roundabout layout, and the mitigation measure described at Paragraph 5.2.1 for A339 / Pinchington Lane / Monks Lane was tested only.

AM Results Overview

5.3.2. While the Scenaro A (Mit 2) model results are better than the Scenario A (Mit 1) results, network performance results showed that Scenario A (Mit 2) still underperforms Scenario A, with delay / vehicle of 200 seconds compared to 184 seconds in Scenario A.

5.3.3. The journey times on A339 (Red Route) were increased slightly compared to Scenario A, as were delays on the Monks Lane – Pinchington Lane (Black Route), in both directions, implying the proposed signalised junction layout at A339 / Monks Lane / Pinchington Lane would perform worse than the existing roundabout layout.

5.3.4. At this junction the delay increased from 39 seconds to 81 seconds / vehicle, compared to the 2031 Reference Case model results.

PM Results Overview

5.3.5. The result trends are similar in the PM peak period to the AM peak period. The PM peak scenario (339 seconds per vehicle average delay) performed better than Scenario A (Mit 1) (669 seconds delay), but still worse than the non-mitigated Scenario A, where average delay per vehicle is 229 seconds per vehicle.

5.3.6. The journey times are on average 21% higher for Scenario A (Mit 2) than for the Reference Case; and 6% higher than for Scenario A considering all routes. The majority of the delay occurred on the A339 corridor (Red Route)

Conclusion

5.3.7. Mitigation measures for Scenario A (Mit 2) were deemed unsatisfactory by WBC due the higher than expected delays in the network. The mitigation scheme at A339 / Pinchington Lane / Monks Lane was redesigned and improved for the following Scenario A (Mit 3) test.

5.4. SCENARIO A MITIGATION 3

5.4.1. Several new changes were brought in for Scenario A (Mit 3):

- A new junction layout at A339 / Pinchington Lane / Monks Lane was improved to provide more capacity through the junction, shown in Appendix C, Figure C-2
- St John's roundabout was updated with a three-lane southbound entry, where the nearside lane was dedicated to left turn only. The circulatory carriageway of the roundabout remained two lanes
- Signal improvements along Newtown Road and Bartholomew Road through Newbury town centre were implemented, as discussed and agreed with WBC. The improved signal settings increase the capacity of the northbound flow on Bartholomew Road. At Newtown Road / Pound Street, the green time for the southbound right turn phase was reduced and more green time was allocated to the southbound and northbound signal phases

- At the Bartholomew Street / Market Street junction, a 10 second green time extension of the northbound signal phase if queue reached back to the Newtown Road / Pound Street junction.

AM Results Overview

5.4.2. The results for Scenario A (Mit 3) were a significant improvement on Scenario A (Mit 2) results. In the AM peak period with average delay reduced from 200 seconds / vehicle in Scenario A (Mit 2) to 179 seconds in Scenario A (Mit 3). This is comparable to the 184 seconds delay in Scenario A.

5.4.3. Journey times in Scenario A (Mit 3) improved significantly, and on average were only 3% higher than journey times in the Reference Case.

PM Results Overview

5.4.4. The PM peak scenario model also showed a large improvement (226 seconds delay per vehicle) and was at similar levels of delay as seen in Scenario A (229 seconds delay per vehicle).

5.4.5. The vehicle flow throughput at St John's Roundabout remained similar to Scenario A (Mit 2), despite the addition of the extra lane southbound.

Conclusion

5.4.6. The Scenario A (Mit 3) results were found to be acceptable to both WBC and the developers.

5.4.7. Upon observation of the model run videos, it was agreed to rerun the models with some minor changes at St John's Roundabout and at A339 / Pinchington Lane junction. These changes are described and evaluated in the following section.

5.5. SCENARIO A MITIGATION 4

5.5.1. Scenario A (Mit 4) was based on the Scenario A (Mit 3) model. Additionally to the changes described in Paragraph 5.4.1, the following changes were applied to the model:

- Signal timings at Hambridge Road / Boundary Road were adjusted to discourage cars using the southbound arm (the B3421) for rat running
- Signal timings at King's Road / King's Road were adjusted to encourage cars to use this route as opposed to going up Mill Lane and using the B3421 as a cut through
- A third circulatory lane was put in at St John's roundabout for the southbound movement as shown in Appendix C, Figure C-4
- Minor changes were made to the Scenario A (Mit 3) design at A339 / Pinchington Lane / Monks Lane:
    - The right turn movements from the west (Monks Lane) to the A339 southbound was changed to two lanes to match capacity with traffic demand, as shown in Appendix C, Figure C-5.
    - The green time was increased for the left turn from Pinchington Lane to A339 southbound.
    - The green time was reduced by 2 seconds for the A339 northbound signal stage in both the AM and the PM peak periods, in an attempt to reduce queueing on the northbound arm at St John's Roundabout.

AM Results Overview

5.5.2. In the AM peak period, Scenario A (Mit 4) performed similarly to Scenario A (Mit 3), with 181 seconds per vehicle delay.

5.5.3. The journey time on the A339 corridor increased significantly on the northbound corridor, and is 37% higher than in Reference Case model. The delay is mostly accumulated at St John's Roundabout, and caused by the additional circulatory lane and increased opposing traffic.

5.5.4. While delay increase on the southbound and northbound approaches, it decreases for the eastbound and westbound approaches significantly, increasing the throughput of the junction from 4,241 to 43,46 vehicles in the AM peak hour.

PM Results Overview

5.5.5. The PM peak results improved significantly compared to Scenario A (Mit 3) results, with delay per vehicle reducing from 226 seconds to 207 seconds per vehicle. With this Scenario A (Mit 4) results are better than than Scenario A results, and close to the Reference Case model results (202 seconds per vehicle delay).

5.5.6. The A339 northbound journey time also increased in the PM peak, but the southbound journey time improved significantly in Scenario A (Mit 4).

5.6. MITIGATION CONCLUSION

5.6.1. Through the running of four different mitigation test runs, Scenario A (Mit 4) has performed well and has a positive impact on the network, especially in the PM peak period, with similar results to the Reference Case model.

5.6.2. The proposed layout at A339 / Pinchington Lane / Monks Lane provides pedestrian crossing facilities and better control of traffic flow into Newbury, without significantly reducing the throughput of the junction, however delays at the junction are higher than with the existing layout.

6. SUMMARY

6.1.1. WBC commissioned WSP to undertake an assessment of the Sandleford Park development using the Newbury VISSIM model with a range of 500-1,500 homes and one to four accesses to the highway network for number of scenarios in a forecast year of 2031.

6.1.2. Five scenarios were tested; Scenario A, Scenario B, Scenario C, Sceanrio D and Scenario G. All but Scenario D had a significant impact in the AM peak or in the PM peak period. The development trip generation has a higher impact in the PM peak period, as – because of the background traffic – the network is more congested are therefore more sensitive to traffic demand changes.

6.1.3. Following the initial testing of the scenarios, Scenario A was brought forward to test some mitigation options and see whether the network could cope with the increased traffic demand.

6.1.4. Following a series of mitigation tests, Scenario A (Mit 4) was accepted by West Berkshire Council, Bloor Homes and Donnington New Homes.

Appendix A

NON-MITIGATION MODEL RUN RESULTS

AM PEAK

Table A-1 - Network performance statistics

	2031 RC	Scn A	Scn B	Scn C	Scn D	Scn G
Total Time Taken (hrs)	1,801	1,928	1,984	1,877	1,813	1,871
Total Distance (m)	44,698	45,797	46,434	45,865	45,364	43,788
Total Vehicles	18,615	19,228	19,322	19,164	18,843	18,503
Total Delay (hrs)	851	953	993	900	847	940
Average Time (mm:ss) / Vehicle	05:48	06:01	06:10	05:53	05:46	06:05
Average Time (mm:ss) / Mile	03:53	04:04	04:07	03:57	04:52	04:10
Average Distance (m) / Vehicle	2,401	2,382	2,403	2,393	2,407	2,364
Average Speed (kph)	25	24	23	24	25	24
Network Delay (s) / vehicle	165	178	185	169	162	171
Latent Delay (s) / vehicle	2	6	2	2	3	2
Total Delay (s) / vehicle	167	184	188	171	165	173

Table A-2 - Journey time route comparison (mm:ss)

	Route Names	2031 RC	Scn A	Scn B	Scn C	Scn D	Scn G
Red	A339 NB	09:53	09:48	11:08	10:02	09:15	12:01
	A339 SB	08:06	08:33	08:34	08:25	08:17	08:51
Pink	A343 – Greenham Road EB	10:04	12:21	11:15	11:32	10:35	11:10
	Greenham Road – A343 WB	15:56	13:56	10:36	14:12	13:31	08:56
Purple	B3421 Hambridge Rd WB	07:04	06:58	07:11	06:35	06:28	06:14
	B3421 Hambridge Rd EB	06:06	08:19	07:11	07:36	06:56	06:54
Green	Market St to Faraday Rd NB	05:31	05:54	07:35	05:35	05:20	05:19
	Faraday Rd to Market St SB	04:12	04:13	04:16	04:09	04:06	04:07
Blue	A4 London Rd EB	08:51	08:48	09:16	08:37	08:25	08:27
	A4 London Rd WB	10:13	09:36	10:00	10:42	10:33	10:05
Yellow	Western Ave – Shaw Rd	02:36	02:36	02:36	02:36	02:35	02:35
	Shaw Rd – Western Ave	03:07	03:11	03:14	03:13	03:16	03:12
Black	Monks Ln – Pinchington Ln EB	07:32	07:41	07:56	07:35	07:40	08:00
	Pinchington Ln – Monks Ln WB	07:21	07:18	07:27	07:22	07:14	07:42

Table A-3 - Journey time route comparison % change with 2031 Reference Case

	Route Names	2031 RC	Scn A	Scn B	Scn C	Scn D	Scn G
Red	A339 NB	09:53	-1%	13%	2%	-7%	21%
	A339 SB	08:06	6%	6%	4%	2%	9%
Pink	A343 – Greenham Road EB	10:04	23%	12%	15%	5%	11%
	Greenham Road – A343 WB	15:56	-13%	-34%	-11%	-15%	-44%
Purple	B3421 Hambridge Rd WB	07:04	-1%	2%	-7%	-8%	-12%
	B3421 Hambridge Rd EB	06:06	36%	18%	25%	14%	13%
Green	Market St to Faraday Rd NB	05:31	7%	38%	1%	-3%	-4%
	Faraday Rd to Market St SB	04:12	0%	2%	-1%	-3%	-2%
Blue	A4 London Rd EB	08:51	-1%	5%	-3%	-5%	-5%
	A4 London Rd WB	10:13	-6%	-2%	5%	3%	-1%
Yellow	Western Ave – Shaw Rd	02:36	0%	0%	0%	-1%	-1%
	Shaw Rd – Western Ave	03:07	2%	4%	3%	4%	2%
Black	Monks Ln – Pinchington Ln EB	07:32	2%	5%	1%	2%	6%
	Pinchington Ln – Monks Ln WB	07:21	-1%	1%	0%	-2%	5%

PM PEAK

Table A-4 - Network performance statistics

	2031 RC	Scn A	Scn B	Scn C	Scn D	Scn G
Total Time Taken (hrs)	1,870	2,051	2,038	1,992	1,913	2,040
Total Distance (m)	43,717	44,840	45,003	45,073	44,741	44,984
Total Vehicles	18,569	19,270	19,250	19,155	18,829	19,074
Total Delay (hrs)	942	1,094	1,078	1,030	960	1,081
Average Time (mm:ss) / Vehicle	11:02	11:23	11:21	11:14	11:06	11:25
Average Time (mm:ss) / Mile	04:08	04:25	04:22	04:16	04:08	04:23
Average Distance (m) / Vehicle	2,354	2,327	2,338	2,353	2,376	2,358
Average Speed (kph)	23	22	22	23	23	22
Network Delay (s) / vehicle	183	204	202	194	184	204
Latent Delay (s) / vehicle	20	25	25	24	23	27
Total Delay (s) / vehicle	202	229	227	218	206	231

Table A-5 – Journey time route comparison (s)

	Route Names	2031 RC	Scn A	Scn B	Scn C	Scn D	Scn G
Red	A339 NB	11:11	12:07	11:29	11:34	10:26	11:45
	A339 SB	12:25	14:30	14:01	13:02	13:31	14:05
Pink	A343 – Greenham Road EB	08:35	08:51	09:08	08:48	08:42	08:53
	Greenham Road – A343 WB	09:13	09:47	09:36	10:30	10:23	10:14
Purple	B3421 Hambridge Rd WB	06:52	07:05	07:06	06:55	06:27	07:40
	B3421 Hambridge Rd EB	06:33	08:04	07:29	07:53	07:12	08:04
Green	Market St to Faraday Rd NB	05:49	06:11	06:16	06:00	05:58	06:24
	Faraday Rd to Market St SB	09:23	08:42	09:33	09:14	09:18	09:13
Blue	A4 London Rd EB	09:27	10:20	10:33	09:50	09:38	10:26
	A4 London Rd WB	06:46	08:22	08:54	07:44	07:19	07:19
Yellow	Western Ave – Shaw Rd	02:40	02:45	02:48	02:39	02:39	02:46
	Shaw Rd – Western Ave	04:51	04:25	04:26	04:04	04:02	04:41
Black	Monks Ln – Pinchington Ln EB	07:16	07:15	07:20	07:25	07:24	07:24
	Pinchington Ln – Monks Ln WB	07:53	08:01	07:55	08:12	07:49	07:57

Table A-6 - Journey time route comparison % change with 2031 Reference Case

	Route Names	2031 RC	Scn A	Scn B	Scn C	Scn D	Scn G
Red	A339 NB	11:11	8%	3%	3%	-7%	5%
	A339 SB	12:25	17%	13%	5%	9%	13%
Pink	A343 – Greenham Road EB	08:35	3%	6%	3%	1%	4%
	Greenham Road – A343 WB	09:13	6%	4%	14%	13%	11%
Purple	B3421 Hambridge Rd WB	06:52	3%	4%	1%	-6%	12%
	B3421 Hambridge Rd EB	06:33	23%	14%	21%	10%	23%
Green	Market St to Faraday Rd NB	05:49	6%	8%	3%	3%	10%
	Faraday Rd to Market St SB	09:23	-7%	2%	-2%	-1%	-2%
Blue	A4 London Rd EB	09:27	9%	12%	4%	2%	11%
	A4 London Rd WB	06:46	23%	31%	14%	8%	8%
Yellow	Western Ave – Shaw Rd	02:40	3%	5%	-1%	-1%	3%
	Shaw Rd – Western Ave	04:51	-9%	-8%	-16%	-17%	-3%
Black	Monks Ln – Pinchington Ln EB	07:16	0%	1%	2%	2%	2%
	Pinchington Ln – Monks Ln WB	07:53	2%	0%	4%	-1%	1%

Appendix B

MITIGATION MODEL RUN RESULTS

AM PEAK

Table B-1 – Network performance statistics mitigation scenarios

	2031 RC	Scn A	Scn A (Mit 1)	Scn A (Mit 2)	Scn A (Mit 3)	Scn A (Mit 4)
Total Time Taken (hrs)	1,801	1,928	2,181	2,017	1,927	1,945
Total Distance (km)	44,698	45,797	44,691	45,429	46,154	46,064
Total Vehicles	18,615	19,228	19,251	19,322	19,361	19,372
Total Delay (hrs)	851	953	1,230	1,053	946	964
Average Time (mm:ss) / Vehicle	05:48	06:01	06:47	06:16	05:58	06:01
Average Time (mm:ss) / Mile	03:53	04:04	04:43	04:17	04:02	04:05
Average Distance (m) / Vehicle	2,401	2,382	2,322	2,351	2,384	2,378
Average Speed (kph)	25	24	21	23	24	24
Network Delay (s) / Vehicle	165	178	230	196	176	179
Latent Delay (s) / Vehicle	2	6	9	3	3	2
Total Delay (s) / Vehicle	167	184	239	200	179	181

Table B-2 – Journey time route comparison

Route Names	2031 RC	Scn A	Scn A (Mit 1)	Scn A (Mit 2)	Scn A (Mit 3)	Scn A (Mit 4)
A339 Northbound	09:53	09:48	14:19	10:07	09:33	13:32
A339 Southbound	08:06	08:33	09:30	08:57	09:22	09:09
Garden Cl Ln to Bury Banks Rd	10:04	12:21	13:06	12:32	10:41	10:31
Bury Banks Rd to Garden Cl Ln	15:56	13:56	16:36	17:32	15:30	09:29
B3421 Westbound	07:04	06:58	07:08	06:32	06:30	06:27
B3421 Eastbound	06:06	08:19	06:29	06:12	06:10	06:58
Market St to Faraday Rd	05:31	05:54	06:07	05:27	06:28	06:38
Faraday Rd to Market St	04:12	04:13	04:23	04:09	04:09	04:16
Park Rd to Turnpike Rd	08:51	08:48	08:24	08:53	08:48	08:44
Turnpike Rd to Park Rd	10:13	09:36	10:38	10:29	10:07	10:12
B4494 to Kiln Rd	02:36	02:36	02:35	02:36	02:37	02:37
Kiln Road to B4493	03:07	03:11	03:13	03:17	03:08	03:08
Battle Rd to Golf Club	07:32	07:41	08:24	08:22	08:23	08:21
Golf Club to Battle Rd	07:21	07:18	10:37	10:12	07:57	07:45

Table B-3 – Journey time route comparison % change with 2031 Reference Case

	Route Names	2031 RC	Scn A	Scn A (Mit 1)	Scn A (Mit 2)	Scn A (Mit 3)	Scn A (Mit 4)
Red	A339 NB	09:53	-1%	45%	2%	-3%	37%
	A339 SB	08:06	6%	17%	11%	16%	13%
Pink	A343 – Greenham Road EB	10:04	23%	30%	25%	6%	5%
	Greenham Road – A343 WB	15:56	-13%	4%	10%	-3%	-40%
Purple	B3421 Hambridge Rd WB	07:04	-1%	1%	-8%	-8%	-9%
	B3421 Hambridge Rd EB	06:06	36%	6%	2%	1%	14%
Green	Market St to Faraday Rd NB	05:31	7%	11%	-1%	17%	20%
	Faraday Rd to Market St SB	04:12	0%	4%	-1%	-1%	1%
Blue	A4 London Rd EB	08:51	-1%	-5%	0%	-1%	-1%
	A4 London Rd WB	10:13	-6%	4%	3%	-1%	0%
Yellow	Western Ave – Shaw Rd	02:36	0%	-1%	0%	0%	1%
	Shaw Rd – Western Ave	03:07	2%	3%	5%	0%	0%
Black	Monks Ln – Pinchington Ln EB	07:32	2%	11%	11%	11%	11%
	Pinchington Ln – Monks Ln WB	07:21	-1%	44%	39%	8%	5%

PM PEAK

Table B-4 - Network performance statistics mitigation scenarios

	2031 RC	Scn A	Scn A (Mit 1)	Scn A (Mit 2)	Scn A (Mit 3)	Scn A (Mit 4)
Total Time Taken (hrs)	1,870	2,051	3,099	2,251	2,064	1,992
Total Distance (km)	43,717	44,840	33,486	41,367	45,108	45,785
Total Vehicles	18,569	19,270	16,803	18,361	19,399	19,463
Total Delay (hrs)	942	1,094	2,386	1,370	1,105	1,020
Average Time (mm:ss) / Vehicle	06:02	06:23	11:04	07:21	06:23	06:08
Average Time (mm:ss) / Mile	04:08	04:25	08:58	05:15	04:25	04:12
Average Distance (m) / Vehicle	2,354	2,327	1,992	2,253	2,325	2,352
Average Speed (kph)	23	22	11	18	22	23
Network Delay (s) / Vehicle	183	204	511	269	205	189
Latent Delay (s) / Vehicle	20	25	158	70	21	19
Total Delay (s) / Vehicle	202	229	669	339	226	207

Table B-5 – Journey time route comparison

	Route Names	2031 RC	Scn A	Scn A (Mit 1)	Scn A (Mit 2)	Scn A (Mit 3)	Scn A (Mit 4)
Red	A339 NB	11:11	12:07	16:48	15:02	11:50	13:53
	A339 SB	12:25	14:30	13:32	16:47	13:43	11:06
Pink	A343 – Greenham Road EB	08:35	08:51	09:22	08:47	09:14	09:42
	Greenham Road – A343 WB	09:13	09:47	22:24	11:44	10:51	09:00
Purple	B3421 Hambridge Rd WB	06:52	07:05	09:34	07:34	06:59	06:12
	B3421 Hambridge Rd EB	06:33	08:04	11:27	06:14	07:52	05:45
Green	Market St to Faraday Rd NB	05:49	06:11	07:38	07:35	06:10	07:51
	Faraday Rd to Market St SB	09:23	08:42	08:41	10:45	08:33	08:43
Blue	A4 London Rd EB	09:27	10:20	12:18	11:29	10:11	08:57
	A4 London Rd WB	06:46	08:22	22:31	08:10	07:40	07:02
Yellow	Western Ave – Shaw Rd	02:40	02:45	03:24	03:30	02:46	02:32
	Shaw Rd – Western Ave	04:51	04:25	03:59	05:51	04:19	03:45
Black	Monks Ln – Pinchington Ln EB	07:16	07:15	13:49	05:53	08:30	08:31
	Pinchington Ln – Monks Ln WB	07:53	08:01	11:52	13:16	08:14	08:06

Table B-6 - Journey time route comparison % change with 2031 Reference Case

	Route Names	2031 RC	Scn A	Scn A (Mit 1)	Scn A (Mit 2)	Scn A (Mit 3)	Scn A (Mit 4)
Red	A339 NB	09:53	8%	50%	34%	6%	24%
	A339 SB	08:06	17%	9%	35%	10%	-11%
Pink	A343 – Greenham Road EB	10:04	3%	9%	2%	8%	13%
	Greenham Road – A343 WB	15:56	6%	143%	27%	18%	-2%
Purple	B3421 Hambridge Rd WB	07:04	3%	39%	10%	2%	-10%
	B3421 Hambridge Rd EB	06:06	23%	75%	-5%	20%	-12%
Green	Market St to Faraday Rd NB	05:31	6%	31%	30%	6%	35%
	Faraday Rd to Market St SB	04:12	-7%	-7%	15%	-9%	-7%
Blue	A4 London Rd EB	08:51	9%	30%	22%	8%	-5%
	A4 London Rd WB	10:13	23%	232%	21%	13%	4%
Yellow	Western Ave – Shaw Rd	02:36	3%	27%	31%	3%	-5%
	Shaw Rd – Western Ave	03:07	-9%	-18%	21%	-11%	-23%
Black	Monks Ln – Pinchington Ln EB	07:32	0%	90%	-19%	17%	17%
	Pinchington Ln – Monks Ln WB	07:21	2%	51%	68%	5%	3%

Appendix C

JUNCTION LAYOUTS

Figure C-1 - A339 / Pinchington Lane / Monks Lane v1

Figure C-2 - A339 / Pinchington Lane / Monks lane layout v2

Figure C-3 - St John's crossroad layout

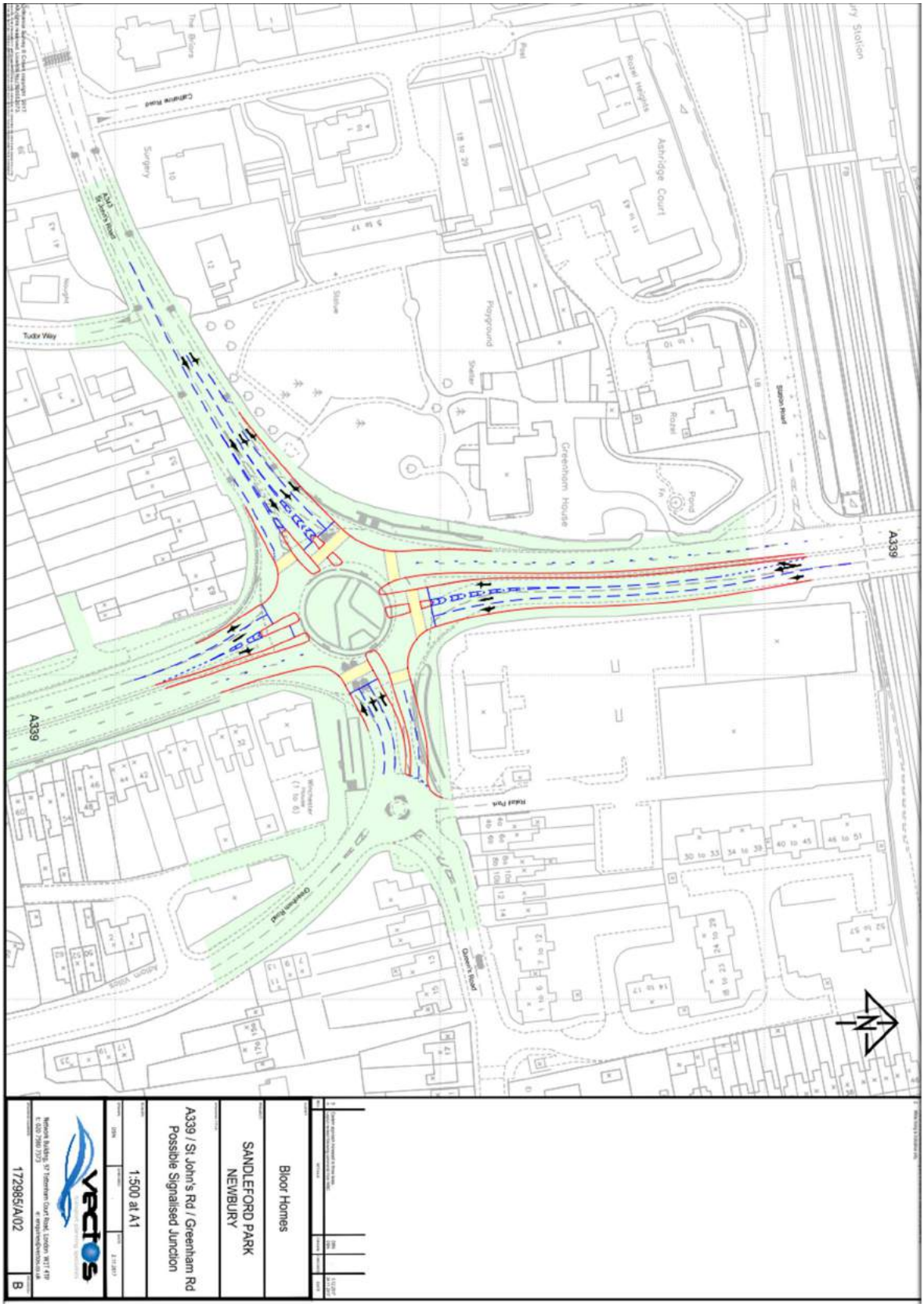


Figure C-4 - St John's updated roundabout layout

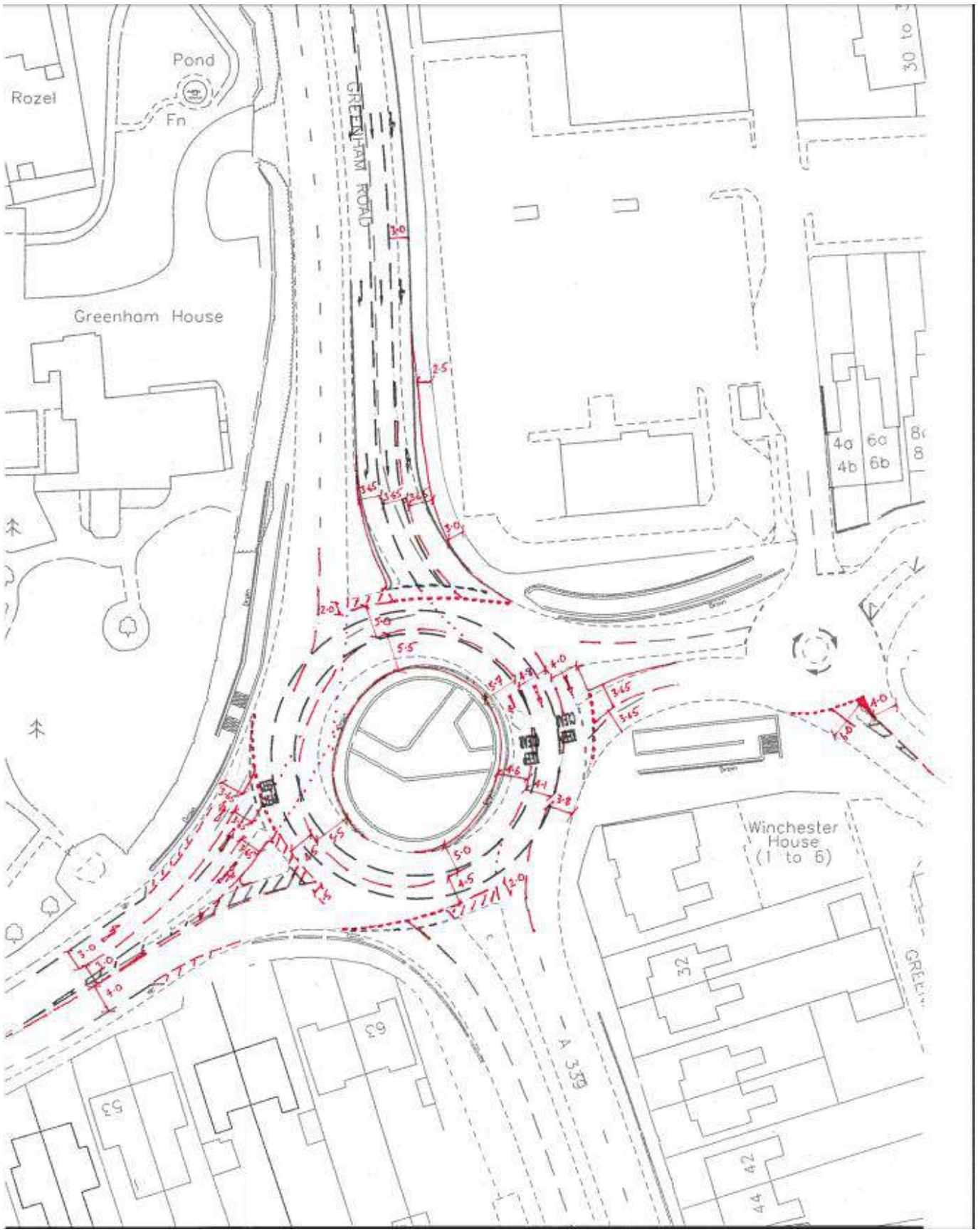
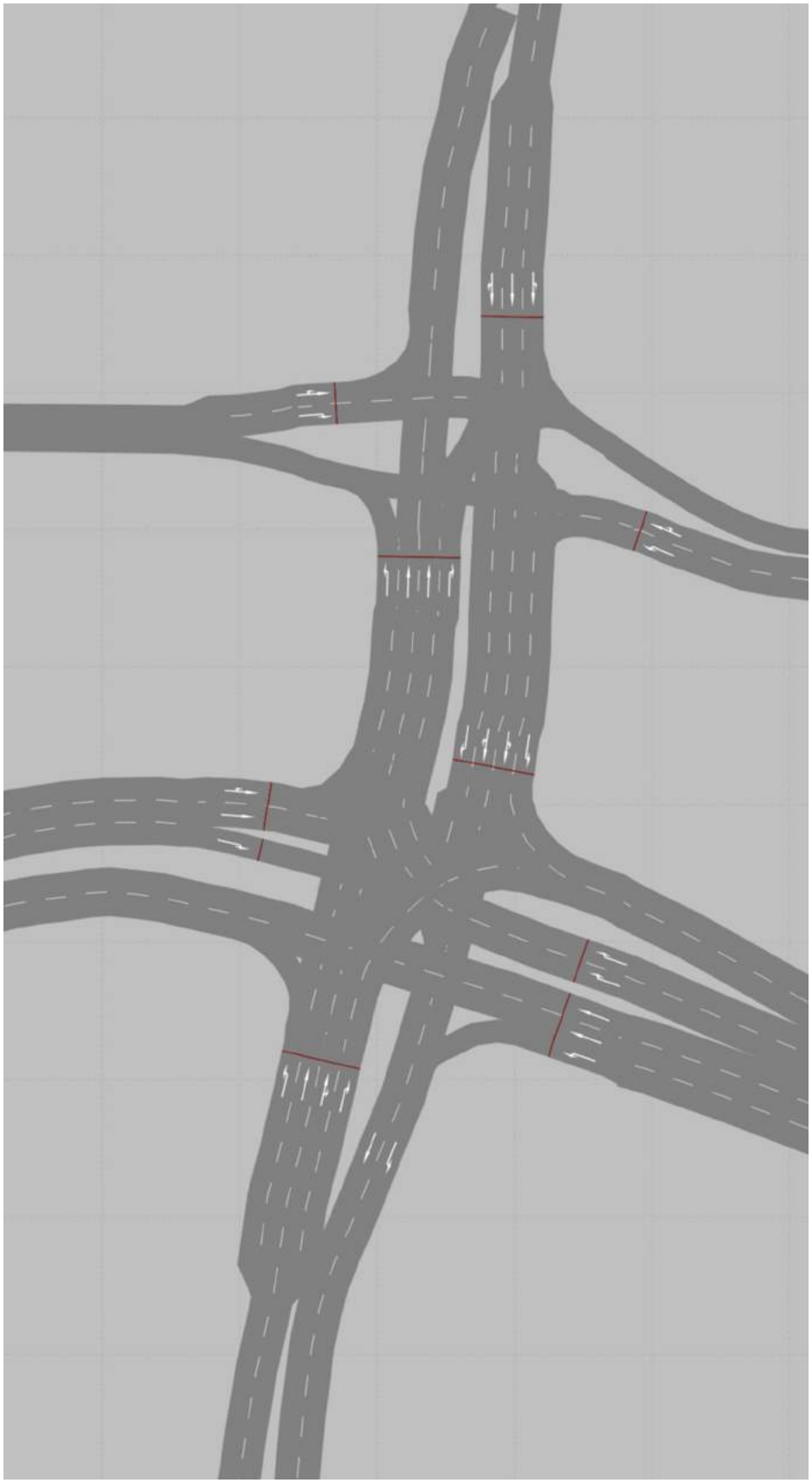


Figure C-5 - A339 / Pinchington Lane / Monks Lane updated lane allocation



Grosvenor House
2 Grosvenor Square
Southampton, Hampshire
SO15 2BE

wsp.com

APPENDIX J

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

Retaining wall

Retaining wall / embankment regrading

Proposed widening to be provided by others

Ties into consented Newbury College proposals

Ties into consented Newbury College proposals

Monks Lane

Newtown Road

A339

Sandleford Parade

Retail Park Access

Pinchington Lane

Newbury College Access

The Triangle

Path

Playground

El Sub Sta

LB

Garage

Newbury Retail Park

Kingdom Hall

The Two Watermills (PH)

Nursery

Sandleford Close

Sandleford Grove

The Shieling

Claremont

Allways

Oaklands

Quest Cottage

Primrose House

High Noon

Lincoln House

Shelter

Filling Station

REV	DETAILS	DRAWN	CHECKED	DATE
C	Revisions following additional modelling.	DSN	AW	15.4.2019
B	Revisions following comments from WBC.	DSN	KH	7.3.2018
A	Junctions revised following initial comments from WBC.	DSN	KH	13.12.2017

CLIENT:
Bloor Homes

PROJECT:
SANDLEFORD PARK
NEWBURY

DRAWING TITLE:
A339 / Pinchington Lane / Monks Lane Junction
Possible Signalisation Scheme

SCALES:
1:500 at A0

DRAWN:	CHECKED:	DATE:
DSN	.	27.10.2017

vectos
transport planning specialists
Network Building, 97 Tottenham Court Road, London W1T 4TP
t: 020 7580 7373
e: enquiries@vectos.co.uk

DRAWING NUMBER:	REVISION:
172985/A/01	C

APPENDIX K

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

REV.	DETAILS	DRAWN	CHECKED	DATE
.	.	.	.	.

CLIENT:

Bloor Homes

PROJECT:

Sandleford Park
Newbury

DRAWING TITLE:

Proposed Capacity Improvements
A339 / A343 Roundabout

SCALES:

1:1000 at A3

DRAWN:	CHECKED:	DATE:
JM	AW	21.06.2019

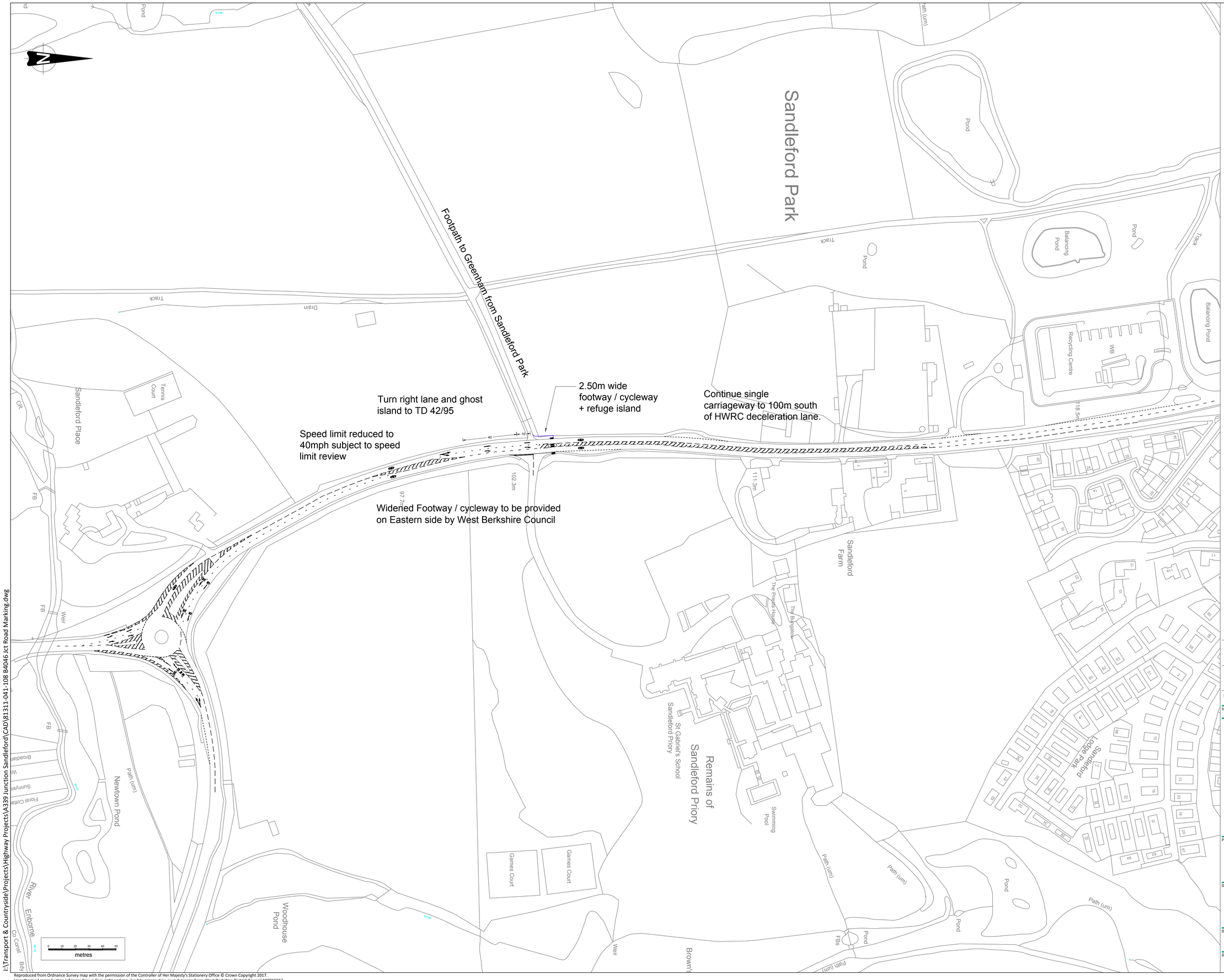
vectos transport planning specialists

Network Building, 97 Tottenham Court Road, London W1T 4TP
t: 020 7580 7373 e: enquiries@vectos.co.uk

DRAWING NUMBER: 172985/A/12

REVISION: .

APPNEDIX L



KEY

Road Markings

NOTES

1) All dimensions are shown in metres unless shown otherwise.

2) This drawing shows a proposed option and is subject to change following the location, depth and height of existing utility services.

3) WBC Standard Details must be adhered to at all times unless specified by a WBC Engineer.

4) Prior to any excavations the contractor will establish the location of existing utility services.

DRAFT

REV	DESCRIPTION	DR	AU	REV DATE
B				
A				

Status

West Berkshire Council

Transport & Countryside | Council Offices
Market Street | Newbury | RG14 5LD

Project Title

A339 Sandleford

Drawing Title

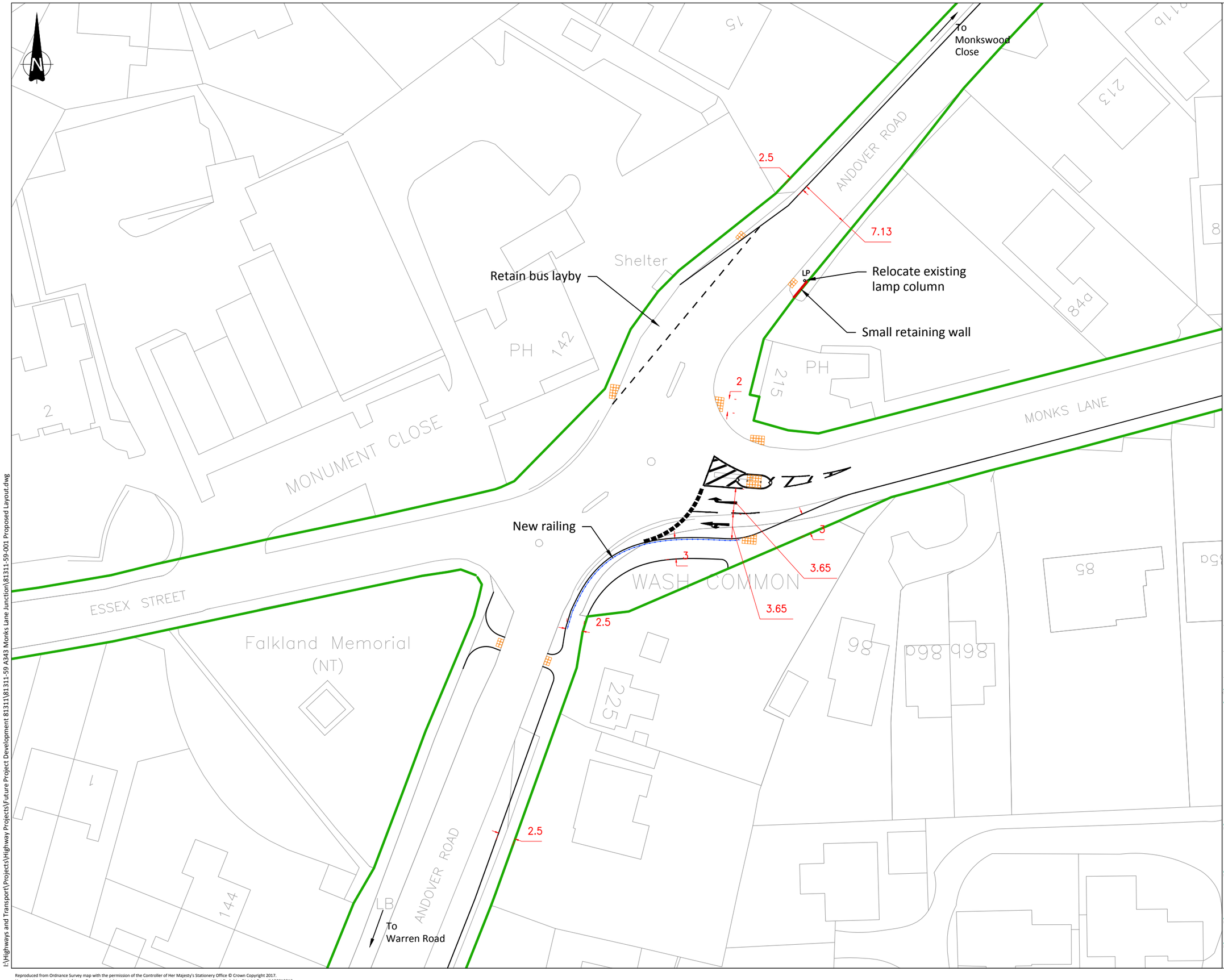
A339/B4640 Junction Road Marking

Date	Drawn By	Checked By	Paper Size	Drawing Scale
18/04/2016	AT	NS	A1	1:1250

Drawing Number: 81311-041-108

Revision

I:\Transport & Countryside\Projects\Highway Projects\A339 Junction Sandleford\CAD\81311-041-108 B4046 Jct Road Marking.dwg



NOTES

1) Do not scale from this drawing.

2) All dimensions are shown in metres unless shown otherwise.

3) This drawing shows a proposed option and is subject to change following the location, depth and height of existing utility services.

4) WBC Standard Details must be adhered to at all times unless specified by the Overseeing Organisation.

5) Prior to any excavations the contractor will establish the location of existing utility services.

KEY

- Highway boundary
- Alterations to kerbline
- New railing
- Buff coloured tactile paving

DRAFT

REV	DESCRIPTION	DR	AU	REV DATE
B				
A				

Status

West Berkshire Council
Transport and Countryside | Council Offices
Market Street | Newbury | RG14 5LD

Project Title

A343 Monks Lane Junction
Pedestrian and Cycle Way Improvements

Drawing Title

Proposed Layout

Date	Drawn By	Checked By	Paper Size	Drawing Scale
17/08/17	JK	JW	A3	1:500

Drawing Number: 81311/59/001

Revision

I:\Highways and Transport\Projects\Highway Projects\Future Project Development 81311\81311-59 A343 Monks Lane Junction\81311-59-001 Proposed Layout.dwg

APPENDIX M

Bloor Homes & Sandleford Farm Partnership

Sandleford Park, Newbury

Travel Plan

December 2019

Network Building, 97 Tottenham Court Road, London W1T 4TP www.vectos.co.uk
Registered address: Vectos (South) Limited, Network Building, 97 Tottenham Court Road, London W1T 4TP. Company no. 7591661

Contents

Figures

1 INTRODUCTION

1.1 Vectos has been commissioned by Bloor Homes and the Sandleford Farm Partnership to provide traffic and transportation advice in relation to the proposed residential development at Sandleford Park, south of Monks Lane in Newbury. The local unitary authority is West Berkshire Council (WBC).

1.2 The strategic location of the site is illustrated in **Figure 1**, whilst the local context of the site is illustrated in **Figure 2**. The site currently comprises undeveloped land and is located to the south of Monks Lane, to the west of A339 and to the east of A343.

1.3 This Travel Plan (TP) has been prepared to support a planning application on land at Sandleford Park.

1.4 The development at Sandleford Park seeks outline permission with all matters reserved (except for access) for the following development:

> *Up to 1,000 new homes; an 80 bed extra care facility (Use Class C3) as part of the affordable housing provision; a new 2 form entry primary school (D1); expansion land for Park House Academy School; a local centre to comprise flexible commercial floorspace (A1-A5 up to 2,150 sq m, B1a up to 200 sq m) and D1 use (up to 500sq m); the formation of new means of access onto Monks Lane; new open space including the laying out of a new country park; drainage infrastructure; walking and cycling infrastructure and other associated infrastructure works*

1.5 Once this application is approved, reserved matters applications will need to be submitted as each parcel of the land is developed. An Interim / Full Travel Plan will need to be submitted as part of any reserved matters application for each of the following land uses:

- Residential (dwellings/care home);
- Retail; and
- School (nursery/primary/secondary).

1.6 It is envisaged that each of these Travel Plans will be based on the principles of this Overarching Travel Plan and they will aim to implement the broad measures which are agreed within this document.

1.7 The overarching principles outlines within this Travel Plan will also be implemented and the land at New Warren Farm to the west, which is being brought forward through a separate planning application (Ref: 18/00828/OUTMAJ) by Donnington New Homes (DNH) for 500 dwellings. DNH will prepare and submit a separate Travel Plan for their application site.

Scope

1.8 This Travel Plan (TP) sets out broad physical measures that will be implemented as part of the development proposals. Once the development proceeds through to the occupation process, the TP will be used to develop a full Travel Plan for the site and an individual Travel Plan for the proposed primary school.

1.9 This Travel Plan sets the framework against which the site will develop the full Travel Plan.

1.10 This report has been written as a stand-alone document and contains all of the relevant information required to effectively implement and monitor the Travel Plan.

Travel Plan Mission Statement

1.11 The purpose of this Travel Plan is to set out an overarching strategy to ensure that travel made by residents and visitors of the development is carried out in the most sustainable means possible.

1.12 The predominant aim of this Travel Plan is to put in place the management tools deemed necessary to enable users to make more informed decisions about their travel which at the same time minimises the adverse impacts of the Site on the environment. This is achieved by setting out a strategy for eliminating the barriers that prevent people from using sustainable modes which in effect self manages single-occupancy vehicle use.

Policy Context

National Planning Policy Framework (NPPF) (February 2019)

1.13 The National Planning Policy Framework (NPPF) was published by the Ministry of Housing, Communities and Local Government in February 2019. This replaces the previous version of the NPPF which was updated in July 2018 after it was originally published in March 2012.

1.14 The NPPF sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally prepared plans for housing and other development can be produced.

1.15 The three overarching objectives to achieve sustainable development outlined within the NPPF include:

a) ***an economic objective*** *– to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;*
b) ***a social objective*** *– to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and*
c) ***an environmental objective*** *– to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.*

1.16 Chapter 9 covers the promotion of 'Sustainable Transport' and states in relation to parking standards:

"If setting local parking standards for residential and non-residential development, policies should take into account:
a) the accessibility of the development;
b) the type, mix and use of development;
c) the availability of and opportunities for public transport;
d) local car ownership levels; and
e) the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles.

1.17 It goes on to state that "Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they

are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of this Framework). In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists."

Considering Development Proposals

1.18 NPPF states that in assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

"a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;

b) safe and suitable access to the site can be achieved for all users; and

c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."

1.19 Guidance is provided on the consideration of proposals. It is referenced that "*Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe".*

1.20 Within the above context it is stated that all applications for developments should:

"a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;
b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;

d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and

e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations"

1.21 With regard to the necessary documentation to be provided it is stated that "*All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed*".

Local Policy - West Berkshire District Local Plan 1991-2006 (Saved Policies 2007)

1.22 Planning applications within Newbury are assessed against the policies set within West Berkshire District Local Plan, which was adopted in September 2007 and covers the period between 1991 and 2006.

1.23 The saved transportation policy relevant to this development is Policy 1, which states:

"The transportation needs of new development should be met through the provision of a range of facilities associated with different transport modes including public transport, walking, cycling and parking provision. The level of parking provision will depend on the availability of alternative modes, having regard to the maximum standards adopted by West Berkshire Council Standards."

Local Policy - West Berkshire Council, Core Strategy, Adopted July 2012

1.24 The Core Strategy forms part of the Local Plan for the District and set out an overall planning strategy to 2026.

1.25 The policies set within the Core Strategy relevant to the proposals are set out below:

- Policy CS 3: *Sandleford Strategic Site Allocation* - Land at Sandleford Park will provide a sustainable and high quality mix used use development with up to 2,000 dwellings, two vehicular accesses off Monks Lane with an additional sustainable transport link for pedestrians, cyclists and buses provided from Warren Road onto Andover Road. Further infrastructure improvements will be delivered in accordance with the Infrastructure Delivery Plan.

- Policy CS 13: *Transport* – Development that generates a transport impact will be required to a) reduce the need to travel, b) improve and promote opportunities for healthy and safe travel, c) improve travel choice and facilitate sustainable travel particularly within and between main urban areas and rural service centres, d) demonstrate good access to key services and facilities, e) minimise the impact of all forms of travel on the environment, f) mitigate the impact on the local transport network and the strategic road network, and g) prepare Transport Assessments/Statements and Travel Plans to support planning proposals in accordance with national guidance.

1.26 Policy CS14: *Design Principles* – New developments must demonstrate high quality and sustainable design that respects and enhances the character and appearance of the area and makes a positive contribution to the quality of life in West Berkshire. Development proposals will be expected to make good provision for access by all transport modes and ensure environments are accessible to all and give priority to pedestrian and cycle access.

Sandleford Park Supplementary Planning Document, March 2015

1.27 The Sandleford Park Supplementary Planning Document (SPD) is a document that provide a framework for the future development of the allocated site of Sandleford Park.

1.28 It has been developed in collaboration between West Berkshire Council and the Sandleford Park Landowners. It was first adopted in September 2013 and then updated in March 2015.

1.29 The document sets out several strategic objectives for the Sandleford Park Development. From a highway's perspective, the development principles are as follows:

- The layout and design of Sandleford Park will promote a hierarchy of streets, spaces and routes which create a legible and permeable place.
- The scheme will integrate with the existing surrounding development to ensure connections to the wider area.
- Sandleford Park will promote alternative forms of transport to the private car.
- The layout of buildings and spaces will lead to a connected and safe neighbourhood where pedestrians and cyclists have priority and the impact of vehicles is kept to a minimum.

- Car Parking and Cycle Parking will meet the needs of residents and visitors.
- The design of buildings and spaces will be accessible to all members of the community.

1.30 Whilst Core Strategy Policy 3 defines that access to Sandleford Park will be provided from Monks Lane, the SPD encourages additional points of access to be explored, namely to the A339 Newtown Road and to the A343 Andover Road via Warren Road. These additional points of access are explained in the following Section.

1.31 With regards parking standards, the SPD sets out that car parking will be in line with guidance and principles in the Manual for Streets.

1.32 A more detailed policy analysis is included in the Transport Assessment.

Structure of Report

1.33 The remainder of this document is structured as follows:

- Section 2 – sets out the existing situation
- Section 3 - sets out the objectives and modal share targets for the site
- Section 4 – outlines the Travel Plan strategy including how it will be managed
- Section 5 - sets out the measures that form the basis of the Overarching Travel Plan
- Section 6 – sets out the Monitoring and Review schedule
- Section 7 – provides details of the action plan

2 EXISTING SITUATION

Overview

2.1 This section of the report describes the location of the site in relation to its surrounding area and the accessibility of the site by non-car modes of transport.

Site Location & Existing Use

2.2 The site location with respect to the strategic highway network is shown in **Figure 1** and a more detailed location plan is shown in **Figure 2**.

2.3 The site currently comprises undeveloped land.

2.4 The site is located to the south of Monks Lane, to the west of A339 and to the east of A343, approximately 1.8km from Newbury town centre.

Highway Network

2.5 The site is located to the south of Monks Lane, which is subject to a 30mph speed limit and has an east-west alignment. To the east, Monks Lane forms a 4-arm roundabout junction with Newtown Road and Newbury College.

2.6 Further to the east, Newtown Road forms a 4-arm roundabout with A339 and Pinchington Lane. The A339 is the main route into Newbury and provides a connection to the M4 to the north via the A34, as well as providing access into Basingstoke town centre and onto the M3 to the south.

2.7 To the west, Monks Lane forms a 4-arm double mini roundabout with Andover Road (A343) and Essex Street. The A343 provides access to the A339 to the north and to the A34 to the south.

Accessibility by Non-Car Modes

2.8 The site is currently accessible by public transport while existing infrastructure and environment provide easy access to pedestrians and cyclists.

Pedestrians

2.9 **Figure 3** presents the existing walking network within the vicinity of the site.

2.10 Footways are provided along both sides of Monks Lane. These footways also benefit from street lighting. In addition, in some places, these footways are separated from the carriageway by grass verges.

2.11 Crossing points in the form of a toucan crossing and a puffin crossing are located along Monks Lane near its junction with Rupert Road and access to Newbury Rugby Club, respectively. These crossing facilities provide a link to the existing residential area located to the north of Monks Lane. Dropped kerbs with tactile paving are provided at both crossings.

2.12 The toucan crossing, located circa 30 metres west of the Monks Lane/Rupert Road junction, connects the footways along Monks Lane with the footway on Rupert Road. These footways along Rupert Road provide a link through the predominantly residential area to the north of the application site as well as providing access into Newbury Town Centre via Newtown Road and Andover Road.

2.13 To the west of the site, at the Monks Lane/Andover Road/Essex Street roundabout, pedestrian crossings in the form of pedestrian refuges and zebra crossings are provided on the Monks Lane and Essex Street arm respectively. These crossing points provide access to nearby local amenities including a convenience stores, takeaway and a café.

2.14 Approximately 250 metres south of the Monks Lane/Andover Road/Essex Street roundabout, a signal-controlled pedestrian crossing point is provided allowing pedestrians to cross between the eastern and western footways and providing access to Falkland Primary School and Park House School (secondary and sixth form) located to the west and east of Andover Road, respectively.

2.15 Approximately 500 metres to the east of the site, the footways along Monks Lane connect into the footways located along Pinchington Lane providing a continuous pedestrian route to the nearby Tesco supermarket and retail park, which includes a Homebase, Next, Boots, Sports Direct, Argos and New Look stores.

2.16 In addition to the footways located along the adopted public highway surrounding the site, the site is connected to the public rights of way network via foot path NEWB/5/1 and GREE/9/1. Foot path GREE/9/1 runs east to west through the site from the A339 Newtown Road to the east and connects into the public foot path NEWB/5/1 to the west. Foot path

NEWB/5/1 provides a connection into Warren Road and therefore, on to the A343 Andover Road to the west.

2.17 In addition to the above, there is currently a pedestrian access from Monks Lane to Newbury College providing direct access to the facility.

2.18 Central Government research states that walking has the potential to substitute for short car trips, particularly those under 2km. As noted above, the northern quarter of the proposed development site is within 2km of Newbury town centre and Newbury Rail Station with the remainder of the site within a 5km radius to the centre. In addition, there are a host of everyday facilities closer to the site. As such, it is considered that the proposed site is accessible to local facilities by walking.

Cyclists

2.19 **Figure 3** also presents the existing cycling network within the vicinity of the site.

2.20 The site benefits from a well-established local cycle network within Newbury. There is an extensive identified network of cycle routes that permeate through Newbury and comprises both signed on and off carriageway routes and various 'quiet routes' (i.e. lightly trafficked roads).

2.21 Signed cycle paths (cycleway or shared footway / cycleway) run along Monks Lane, which connect to a signed cycle route on Newtown Road travelling north towards the town centre. It should also be noted that the cycleway along Monks Lane is classified as an 'Urban Cycle Route'.

2.22 Some sections of the local roads include on-road signed cycleways. These are sections of A343, Greenlands Road, St John's Road, Bartholomew Street and A343 connecting onto other cycleways or shared foot paths. In addition, the majority of the local surrounding streets include quiet roads ideal for cycling which are mainly on road.

2.23 In addition, there is a section of Andover Road, near the roundabout with Newtown Road, which benefits from segregated cycle lanes providing access into the town centre.

2.24 In terms of long distance cycle routes, National Cycle Route 4 (NCR 4), which runs from London to Fishguard, passes through Newbury and lies approximately 2.3km to the north of

the application site. NCR 4 provides connection to Thatcham approximately 4.0 km to the east of the centre of Newbury and to Hungerford 13.5km to the west.

2.25 Central Government research states that cycling has the potential to substitute for short car trips, particularly those under 5km, and to form part of a longer journey by public transport. The propensity for people to choose to cycle will depend on journey purpose and individual ethos as well as having a safe place to store their bicycle at the end of their journey.

2.26 As detailed in **Figure 3**, the site benefits from cycle connection to Newbury Station using a combination of signed on and off-carriageway cycleways and quiet routes. The cycle journey time between the site and Newbury is relatively short at approximately 8 mins.

Local Amenities

2.27 A number of key facilities are located close to the site including educational and public transport facilities, as summarised in **Table 2.1** below. The location of these local services in relation to the site is illustrated on **Figure 4**.

Table 2.1: Local Facilities

Facility Type	Facility	Approximate Distance from nearest proposed access (metres)	Approximate Walking Time (minutes)	Approximate Cycle Time (minutes)
Education	Newbury College	500	6	2
	Park House School	100	1	1
	St George's Pre-School	1000	12	3
	St John The Evangelist C.E. Nursery and Infant School	1100	13	3
	Falkland Primary School	200	2	1
	St Gabriel's School and Sandleford Nursery	1200	15	5
	The Willows Primary School	1300	16	5
	St Bartholomew's School	1800	21	5
	John Rankin Nursery, Infant, Junior School	1800	22	6
	St Nicolas CofE Junior School	1800	22	6
Supermarket	Tesco	550	8	2
	M&S	550	8	2
	Budgens	750	10	3
Retail	Newbury Retail Park (including Argos, Boots, Homebase, McDonald's,	550	8	2

	Next, New Look, Sports Direct, TK Maxx,)			
	Kennet Shopping Newbury	2000	24	6
Leisure	David Lloyd	500	6	1
	Newbury Rugby Club	500	7	2
Medical Centre	Wash Common Pharmacy/Dental Practice	350	5	1
	Falklands Surgery	500	6	1
	Eastfield House Surgery	1700	20	5
Other	St John's Post Office	1400	16	4
	Newbury Railway Station	2000	24	6
	Bus Station	2200	27	7

2.28 It is clear from **Table 2.1** that there are a range of facilities within a 2km catchment.

Public Transport

Local Bus Services

2.29 The nearest bus stops to the site are located on Monks Lane, approximately 150 meters from the proposed site access.

2.30 **Table 2.2** below summarises the routes and service frequencies from Monks Lane.

Table 2.2: Local Bus Services

No.	Operator	Route	Average Frequency		
			Weekday	Saturday	Sunday
2	Kennections	Newbury - Wash Common – Greenham	Hourly		Hourly
8	Kennections	Newbury – Greenham (-Wash Common)	Hourly		No Service
103	Newbury & District	Newbury – Greenham Business Park	Hourly	No Service	

2.31 As shown in **Table 2.2** the site benefits from being in close proximity of a number of bus services. Connection is provided between the site and Newbury Station using services 2 and 103.

Rail

2.32 Newbury railway station lies on the Reading to Taunton line which is a major branch of the Great Western Main Line. The station is served by local services operated by Great Western Railway (branded as GWR) from Reading to Newbury and Bedwyn, and by inter-city trains

operated by GWR from London Paddington to the West Country with regular services throughout the day (frequency 30 – 60 minutes) into Reading and London Paddington. The average journey times are provided in **Table 2.3** below.

Table 2.3 – Train Services from Newbury Rail Station

Service	Destinations	Approximate Frequency in Both Directions	
		Monday - Saturday	Sunday
Bedwyn to London Paddington	Bedwyn, Hungerford, Kintbury, **Newbury Station**, Thatcham, Theale, Reading Station, London Paddington	2 services p/hr 14-32 minutes	60 – 120 mins
Newbury Station to Reading	**Newbury Station**, Newbury Racecourse, Thatcham, Midgham, Aldermaston, Theale, Reading West Reading Station	15 mins	2 services p/hour
London Paddington to Taunton	London Paddington, Reading Station, **Newbury Station**, Pewsey, Westbury, Castle Cary, Taunton	60 – 120 mins	120 mins

Existing Travel Behaviour

Mode Share

2.33 The site is located within the Local Authority of West Berkshire. In order to establish the existing travel behaviour of residents within the ward, the 2011 'Journey to Work' Census data has been reviewed based on the existing residents living within Super Output Area E01016293.

2.34 **Table 2.4** below provides a breakdown of person trips by mode.

Table 2.4: Modal Share based on 2011 Census Data

Travel Mode	% Mode Share
Car Driver	73%
Car Passenger	6%
Rail	6%
Bus	3%
Walk	9%
Cycle	2%
Motorcycle	1%
Total	**100%**

2.35 The information presented in **Table 2.4** indicates that the majority of residents living within Super Output Area E01016293 currently travel to/from work via single occupancy vehicle. However, it should be noted that 20% of existing residents travel to/from work via sustainable modes of transport, including public transport, walking or cycling.

Summary of Accessibility

2.36 This section has demonstrated that the application site is readily accessible by a variety of modes of transport, which have the potential to reduce reliance on the private car. In particular, the site is located within close proximity to existing footways and cycle routes.

2.37 In addition, a number of local bus services are accessible from the site, which provide access into Newbury town centre and to Newbury railway station enabling onward connections to local and regional centres.

3 OBJECTIVES, BENEFITS AND TARGETS

Introduction

3.1 This chapter sets out the overarching objectives for the Travel Plan, as well as targets for the short and medium term. It includes indicators through which progress towards meeting the targets will be measured. Further information on monitoring and review of the Travel Plan can be found in **Section 6**.

Objectives

3.2 Objectives are the high-level aims of the Travel Plan and help to give the Travel Plan direction and provide a clear focus.

3.3 The Travel Plan's overriding objective is to:

Put in place the management tools deemed necessary so that residents/employees/pupils of the proposed development are able to make informed choices about their travel, while at the same time minimising the adverse impacts of their travel on the environment and surrounding highway network.

3.4 The sub-objectives are to:

- Raise awareness of and promote the use of sustainable and low emission travel modes available to residents;
- Promote healthy lifestyles and sustainable, vibrant local communities;
- Encourage good urban design principles that maximise the permeability of the development for walking and cycling;
- Improve existing infrastructure and ensure connectivity and assimilation both within the development and between the existing wider community; and
- Avoid reliance on car usage, especially single occupancy vehicles.

3.5 These objectives will be achieved by introducing a package of physical and management measures that will facilitate resident and pupil travel by sustainable modes.

Benefits

3.6 The achievement of the objectives will bring about a wide range of benefits for residents, employees, occupiers and the wider community as set out below. This is in comparison to the situation with no Travel Plan and therefore potentially higher car use:

3.7 Employee and resident benefits:

- An excellent opportunity for daily exercise through cycling and walking;
- The opportunity to save money by using alternative modes of travel to the car; and
- Improved quality, safety and reliability of journeys to and from work.

3.8 Occupier benefits:

- A demonstration of the environmental and safety credentials of the organisation;
- Reduced infrastructure and maintenance costs associated with reduced parking provision compared with unfettered provision;
- An incentive to recruiting and retaining staff; and
- A healthier and more productive workforce.

3.9 Wider community benefits:

- A reduced level of traffic generated by the development and therefore less impact on the highway network;
- Improvements to congestion levels, delay, queuing and safety;
- On-going improvements to air quality and noise; and
- Improvements to cycle and pedestrian routes and public transport services available to the local community.
- A reduction in unnecessary vehicular trips associated with the development and in the local area generally, and an increase in the use of alternative modes of transport, in particular walking, cycling and bus travel.

Targets

3.10 Travel Plan targets are measurable goals by which progress can be assessed. These targets should be reviewed through a programme of monitoring to ensure they remain SMART (Specific, Measurable, Achievable, Realistic and Timed).

3.11 Targets come in two forms – Action Targets and Aim Targets:

- **Action Targets** are non-quantifiable actions that need to be achieved by a certain time; and,
- **Aim Targets** are quantifiable and in the case of this Travel Plan relate to the degree of modal shift the plan is seeking to achieve.

Action Targets

3.12 An initial list of early actions to be implemented includes the following:

- The Site Owner will appoint a residential Travel Plan Manager (TPM) and a commercial TPM at least 2 months prior to the first occupation of the site. These TPMs will act as Travel Co-ordinators as well as oversee the Travel Plans;
- To provide travel information to each house hold; and
- To coordinate baseline travel surveys.

3.13 Bloor Homes and Sandleford Farm Partnership will appoint a TPM to start within the period 2 months prior to the anticipated first occupation of the residential development. On appointment, the contact details for the TPM will be provided to the Council (Transport Policy). The TPM will act as the Travel Plan Coordinator (TPC).

Aim Targets

3.14 **Table 3.1** outlines the Aim Targets set out for the site. The targets are set to measure progress towards the main objectives over the life of the TP. In terms of the residential targets, in line with the District's other strategic housing site, the measures should be required as a minimum to be for the life of the build-out, plus one-year post occupation of 99% of the residential dwellings on site.

3.15 The initial implementation of the measures for the first time and regular contact with the Council for support and review is suitable for a period of five years for the school. However, it is important to note that the School Travel Plan should become an integral part of operating the school which is worked on continuously, as one of their core operating plans.

3.16 The Site will be developed to enable and encourage sustainable travel by its residents. Therefore, the Aim Targets (**Table 3.1**) for single occupancy vehicle trips are lower than the

existing travel patterns for the surrounding area. Subsequently, the cycling/walking and bus usage Aim Targets are also higher than the surrounding area.

3.17 A baseline residential travel survey will be undertaken 12 months following the occupation of the 100th dwelling. These survey results will form the results of the Year 0 survey.

3.18 A 'hands-up survey' to be undertaken by the school to determine how pupils travel. This will be undertaken during the first year of operation and each year thereafter. **Table 3.1** below provides indicative mode shift targets for the school. Targets will be set once the baseline survey has been undertaken.

3.19 It is suggested that the Council include the new school within their annual monitoring review in relation to travel to school and share these results with the Travel Plan Coordinator for the school to hold an annual review meeting during the initial years.

3.20 This Travel Plan recognises that it is not possible to set out accurate targets far in the future, even when based on actual modal share data (i.e. when the baseline survey has been undertaken). Given this, it should be acknowledged that the targets will change over time as results from on-going monitoring become available. This will be discussed with relevant officers at WBC.

Table 3.1 – Travel Plan AIM Targets

Target	Indicator	Mode Split		
		Baseline (Year 0)	**Interim**	**Final**
School Travel Plan				
Achieve a 10% reduction in single occupancy vehicle trips for journeys to school	Modal split monitoring surveys for SOV use	TBC	-7%	-10%
Achieve a 7% increase in walking journeys to school	Modal split monitoring surveys for walking journeys	TBC	4%+	7%+
Achieve a 3% increase in cycle journeys to school	Modal split monitoring surveys for cycling journeys	TBC	2%+	3%+
Residential Travel Plan				
Achieve a 10% reduction in single occupancy vehicle trips to the town centre (for leisure, employment, commuting purposes)	Modal split monitoring surveys for SOV use	73%	68%	63%
Achieve a 4% increase in residents using the bus	Modal split monitoring surveys for bus use	3%	5%	7%

Achieve a 4% increase in residents using the train	Modal split monitoring surveys for train use	6%	8%	10%
Achieve a 2% increase in cycle/walking journeys	Modal split monitoring surveys for walking/cycle use	11%	12%	13%

4 TRAVEL PLAN STRATEGY

Management

Travel Plan Co-ordinator

4.1 A Travel Plan Co-ordinator/s (TPC) will be appointed to implement and administer the residential and commercial Travel Plans.

4.2 The feasibility of appointing a single residential TPC to administer a Travel Plan for both the proposed site and the adjacent Donnington New Homes (Ref: 18/00828/OUTMAJ) site will be investigated, with each developer picking up their individual share of the cost.

4.3 The TPC will have overall responsibility for ensuring that the delivery of the proposed measures and initiatives are successfully delivered on time and to budget.

4.4 The TPCs will be expected to work with key stakeholders including WBC, residents of the site and school staff.

4.5 The TPCs will have to understand and implement local transport initiatives and promote the Travel Plan at a local area level. On appointment of the TPM, the contact details for the TPM will be provided to the Council (Transport Policy). The TPM will act as the Residential Travel Plan Coordinator (TPC) as well as oversee the Occupier Travel Plans.

4.6 The TPCs will implement and administer the residential and employment Travel Plans on a part-time basis. The TPC will have overall responsibility for ensuring that the proposed measures and initiatives are successfully delivered on time and to budget.

4.7 The duties of the TPCs will therefore include:

- To provide guidance to, and be the main point of contact for residents and pupils/parents within the development site requiring travel information;
- To offer a personalised Travel Planning service for all residents;
- To communicate information regarding relevant national and local initiatives related to the promotion of sustainable travel;
- Demonstrate how the budget will be used and justify the need for the level of budget (if the TPC requires more money than originally allocated);
- Take responsibility for data collection and review of the Travel Plan;

- Design and implement effective marketing and awareness-raising campaigns to promote the Travel Plan;
- Meet with West Berkshire Council (Transport Policy) on a regular basis, and liaise with other external organisations e.g. bus operators
- Co-ordinate the monitoring programme for the Travel Plan, including target setting (in agreement with WBC) and make necessary changes if the targets are not being met.
- To coordinate an annual review meeting in the initial years to discuss the Council's annual monitoring results.

Time Allocation

4.8 The TPC will undertake the management of the Travel Plan as listed at paragraph 4.1.

4.9 It is expected that upon implementation of the Travel Plan and during monitoring and reporting times, the TPC will be busiest and may need to spend more time on the Travel Plan. It is also expected that as the Travel Plan progresses the level of input required by the TPC will reduce. However, momentum needs to be kept up with good communication and marketing of initiatives and events. With a long build programme there will be residents moving in over an extended period of time. Therefore, activity surrounding the Travel Plan will be required to engage and provide an awareness of the benefits for all residents.

Reporting

4.10 Each TPC will prepare a full report on an annual basis on the progress of their Travel Plan. The reports will include the following:

- Progress on the implementation of measures and initiatives to promote sustainable transport use;
- Latest survey results (surveys undertaken annually); and
- Any revisions to targets and measures.

4.11 The reports will be provided to WBC Travel Plan Officers.

Marketing Strategy

4.12 An essential element of the Travel Plan strategy, and one which largely determines its success, is the promotion of the Travel Plan. In order to promote and increase awareness of the Travel Plan, the following measures will be adopted:

- Distribution of travel information packs to all future residents and parents of pupils at the development. This will include website details, maps, public transport routes and frequencies and details of local amenities;
- Display of key Travel Plan information on the Travel Plan website, public notice boards, including posters and/ or leaflets;

4.13 The types of information to be provided include:

- Public transport timetables (Including the Newbury rail timetable to popular areas such as Thatcham, Theale, Reading and London Paddington, and also bus timetables connecting from the site to Newbury Station), infrastructure locations and telephone enquiry lines;
- Local taxi numbers;
- Walking and cycling routes including to Newbury Station;
- Community guides about facilities and services within and near to the development;
- Travel planning websites and contact details; and
- Information on home shopping sites.

4.14 The travel packs will be distributed to all households upon initial occupation and to pupils' parents upon their enrolment at the primary school. The packs will also include locations of accessible public transport for those with mobility impairments. Information regarding the website will be included within the travel pack.

4.15 A Travel Plan website will also be created, which will act as a focal point for all travel information relating to the Site. The website will provide up-to-date links to walking, cycling and public transport services and advertise sustainable transport events.

5 MEASURES AND INITIATIVES

Introduction

5.1 This section of the Travel Plan outlines the specific physical and management measures to be undertaken as part of the Travel Plan, in addition to a number of possible initiatives that could be implemented, should they be deemed appropriate.

5.2 The measures outlined below are not exhaustive and the TPC will be free to investigate other potential initiatives. An Action Plan is also included within this section which sets out the measures.

Information

5.3 All households upon occupation of the development and pupils upon their enrolment will be provided with Travel Packs.

5.4 The Travel Pack could include the following information:

- Name and contact details of the relevant TPC and their availability to speak with residents/ parents;
- An introduction to the Travel Plan, its purpose etc., and a summary document;
- Bus route maps and timetables and any other public transport information;
- Walking and cycling route maps, with particular emphasis on access to local facilities, the town centre and Newbury Rail Station;
- Details regarding cycle training and associated discounts on cycles and cycling equipment at local cycle stores;
- Information on Car Clubs and Car Sharing;
- Distribution of travel incentives (discount vouchers) for bus and rail travel for each new household;
- An introduction to the travel plan website.

Walking and Cycling

Promotion

5.5 Walking and cycling routes will be advertised within the local centre, the website and in welcome packs. In addition, events such as Walk to School Weeks and National Bike Week

will also be promoted as part of the Travel Plan and the TPC should investigate these events further.

5.6 Cycle training will be offered and funded by the TPC. The TPC will also liaise with local retailers to provide discount vouchers for bicycles and associated equipment. Furthermore, a discount voucher should be provided to residents when buying bike or cycling equipment once they have completed the cycle training provided through the Travel Plan and provide the developer with a receipt of purchase to the maximum value of £50.

5.7 Focusing on initiatives for the School Travel Plan, the Bikeability Cycle Training will be provided, along with engagement in the Council's reward scheme 'Go Kinetic'. Walking Buses and Cycle trains should also be utilised where appropriate.

5.8 The journey sharing platform 'FAXI', is currently used by the council to promote car sharing. This 'app' could also potentially extend its use for residents who would like to link with others for walking and cycling journeys, to boost confidence and help those with perceived vulnerability or safety issues.

5.9 Welcome packs will promote the use of car sharing to residents and parents of pupils at the site. The TPC will encourage residents/ parents to sign up to existing car sharing databases such as www.liftshare.com/uk or www.faxi.co.uk. The TPC will consider setting up a local car sharing scheme if sufficient demand is identified.

Infrastructure Improvements

5.10 The site will be designed with a network of pedestrian and cycle routes connecting with the existing surrounding network. Access for pedestrians and cyclists is proposed via the two proposed site accesses on Monks Lane.

5.11 An existing public right of way (GREE/9/1) runs east to west through the site and provides a connection for pedestrians and cyclists from the A339 Newtown Road (opposite the access to the St Gabriel's School) in the east to the A343 Andover Road via Warren Road to the west.

5.12 It is proposed to improve the surface of the path, which is at present an unsurfaced track. It is also proposed to provide a cycle route adjacent to the PROW, which would extend through

the site and link to the local centre. A new uncontrolled pedestrian crossing is also proposed on the A339, which links the site to Greenham Business Park.

5.13 The existing pedestrian and cycle network is well catered for on Monks Lane including wide well-lit footways and the shared footway/cycleway, which is situated along the extents of Monks Lane. Two toucan crossings are also provided on Monks Lane offering access for both pedestrians and cyclists to travel north towards the town centre along Rupert Road and Newtown Road.

5.14 Newtown Road has a dedicated cycle lane, which connects to the town centre, and Rupert Road is a designated quiet route. To enhance the use of Rupert Road for both pedestrian and cyclists, way-finding signage is proposed in the form of 'gateway maps' and directional signs in order to enhance the legibility of the route and provide a feeling of continuity between the site and surrounding facilities.

5.15 Way-finding signage is proposed in the form of 'gateway maps' and directional signs in order to enhance the legibility of the routes and provide a feeling of continuity between the site and surrounding facilities within a short distance of the site.

5.16 It is considered these improvements will encourage not only residents of the site but also residents of the surrounding areas to walk/cycle to local employment destinations and other key destinations such as Newbury town centre, nearby schools and retail.

5.17 A mitigation scheme is proposed as part of the development to upgrade the existing Newbury College/Monks Lane/Pinchington Lane/A339 roundabout junctions to signalised junctions. Currently the Newbury College/Monks Lane roundabout only provides uncontrolled pedestrian crossings. The proposed mitigation scheme will provide dedicated signalised pedestrian crossings on the Monks Lane, Newbury College and Newtown Road arms.

5.18 The A339/Pinchington Lane junction currently provides a signalised pedestrian crossing on the A339 southern arm and a signalised crossing further east on Pinchington Lane. The proposals will retain these crossings whilst providing an additional signalised crossing on the A339 (north) arm.

5.19 It is considered that the inclusion of additional pedestrian crossings will improve pedestrian accessibility not only for the additional pedestrian demand generated by the proposed

development but also for existing pedestrians accessing the nearby retail on Pinchington Lane, Newbury College and the surrounding residential area.

5.20 Wayfinding signage including gateway maps and directional signs are also proposed to support the pedestrian and cycling strategy.

5.21 A summary of the proposed improvements is provided in **Table 5.1** below.

Table 5.1: Summary of Proposed Improvements

Improvement	Pedestrian / Cycle Benefit
Improved surfacing and lighting of PROW GREE/9/1	Pedestrian
Series of Pedestrian Wayfinding Signs (7 No. Monolith signs)	Pedestrian
Provision of new signalised pedestrian crossings at the Newbury College/Monks Lane/Pinchington Lane/A339 roundabout junctions	Pedestrian
New cycleway to run alongside GREE/9/1	Cycle

Public Transport

5.22 Up-to-date details of bus and train services, including route information and service frequencies, will be provided within residents' welcome packs and will be on display on public noticeboards and the website. National Rail and national Journey Planner websites and enquiry phone numbers will be advertised through all relevant means.

5.23 The TPC will liaise with the relevant service operators to provide bus travel incentives. This will include each household being reimbursed upon request with a valid receipt of purchase (worth up to £50) to obtain free/discounted bus and rail travel. This incentive could be followed by a discounted period of travel. This would serve to encourage future residents to use the bus and subsequently continue using this as their main mode of transport.

Reducing Private Car Travel

Car Sharing

5.24 Welcome packs will promote the use of car sharing to residents and parents of pupils at the site. The TPC will encourage residents/ parents to sign up to existing car sharing databases such as www.liftshare.com/uk or www.faxi.co.uk. For example, the existing group for

Newbury Town Centre on FAXI, which is particularly useful for those who work within the town centre.

Car Clubs

5.25 There is an existing Car Club 'Co-Wheels' within Newbury. In light of this, the Travel Plan will include contact details and requirements for signing up within the Travel Plan provided to residents / parents.

Electric Vehicle Charging Points

5.26 Electric vehicle charging points will be provided at the local centre, in line with policy standards. The usage of these spaces will be monitored by the TPC and passive spaces will be converted to active when this is deemed to be required by the TPC. In addition, electric vehicle charging points will be provided in line with Residential Parking Policy P1 and as a customer extra, further provision will also be made at the school.

School Drop-Off/ Pick-Up

5.27 When further details regarding the proposed primary school are known, discussions will take place, regarding drop-off and pick-up arrangements and waiting restrictions to ensure that congestion does not occur during peak periods. The discussions will include representatives from the school and WBC's Highways and Transport Policy teams.

6 MONITORING AND REVIEW

6.1 The residential and retail Travel Plans are part of a continuous process for improvement, requiring monitoring, review and revision to ensure they remain relevant. This chapter sets out the proposals for monitoring and review of the Travel Plans.

6.2 The monitoring programme will begin with the initial travel surveys, to be undertaken 12 months following the occupation of the 100th dwelling.

6.3 Further surveys will be carried out annually, to monitor progress towards the interim and final targets. Monitoring surveys will be undertaken for 5 years after the site has been completed.

6.4 Other monitoring methods will be necessary to review how the Travel Plan is performing, particularly in relation to the Residential Travel Plan. These could include bus passenger monitoring, possible ATC surveys, junction surveys and a cycle monitoring. The Council currently operate a cycle monitoring programme, which Sandleford Park Travel Plan could potentially use to survey cycle use.

6.5 In order to discuss monitoring and review of the Travel Plan and to provide support, ideas and suitable links with local initiatives and events, the TPM will meet with the Council (Transport Policy) on a regular basis. This is likely to be twice a year but could be more depending on the initiatives being carried out and any joint working that is necessary.

6.6 Additional monitoring of comments received from residents, parents and students relating to the operation and implications of the Travel Plans are also useful to judge whether the implementation or proportion of certain measures needs to be modified.

Reporting

6.7 An Annual Travel Plan Review will be undertaken every year for each Travel Plan, by the TPC, to assess the progress of the Plans, and more robust measures will be introduced should it be identified that targets are not being met.

6.8 The reviews will outline the results of the survey, measures that have been implemented and any changes to targets and measures as a result of the survey data. The reports will also incorporate the results of monitoring throughout the preceding period.

6.9 The reports will be issued to WBC. The TPC will be available to provide additional information to the councils if required to do so.

7 ACTION PLAN

7.1 The Action Plan outlined below in **Table 7.1** sets out the measures included within the Travel Plans that are directed at influencing residential travel. The Action Plan will be revised every year following each Annual Travel Plan Review.

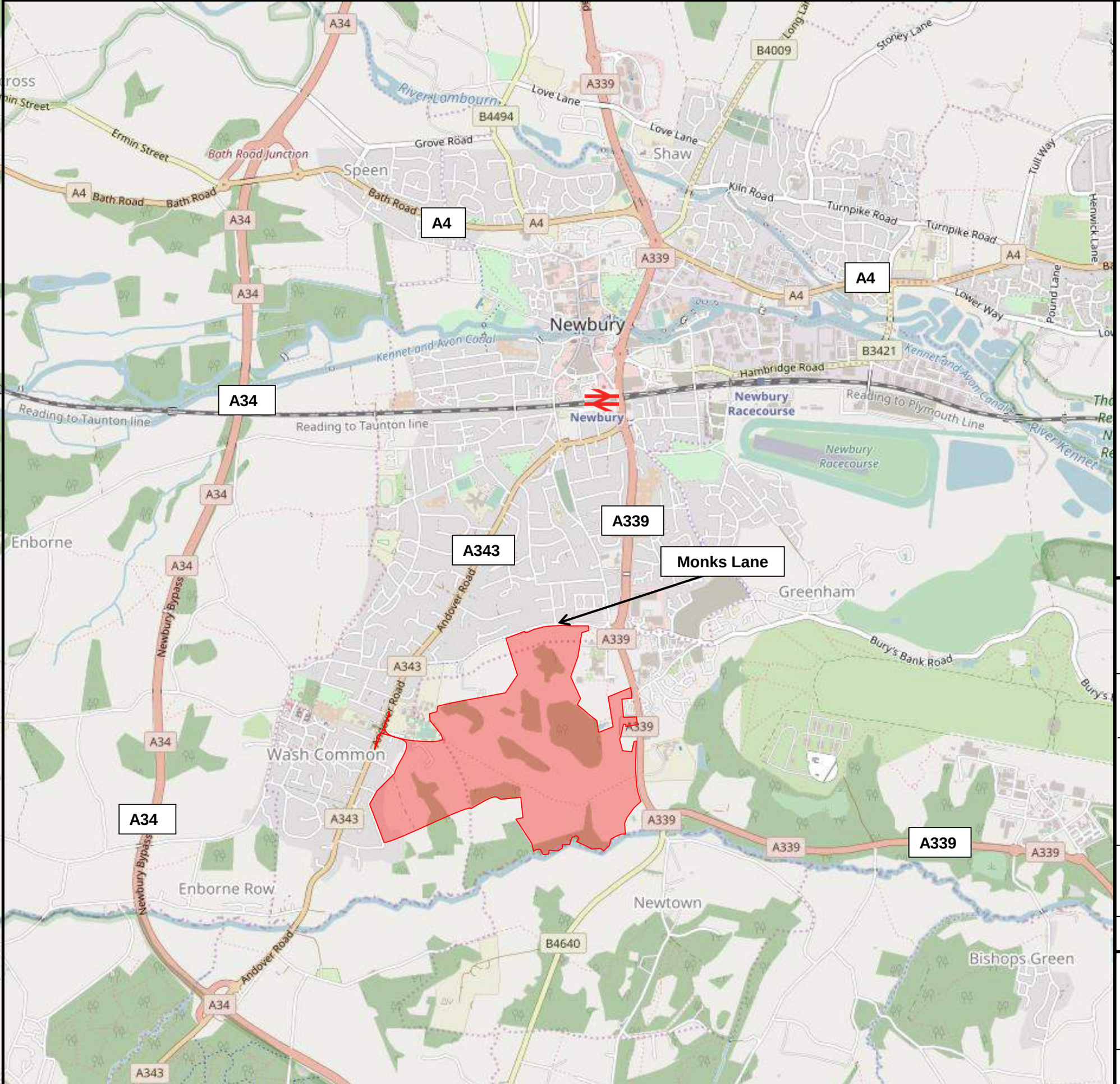
Table 7.1 – Action Plan for Travel Plan Measures

Measures	Notes	Status/Target Date	Method of Monitoring	Responsibility
General				
Appointment of a Travel Plan Coordinator/s	The TPCs will be a part-time role – to be implemented within 2 months prior to site occupation	2 months prior to occupation of site	N/A	Developers / School
Travel Plan Monitoring Surveys	The TPCs will undertake a Travel Plan survey. The survey will be undertaken annually from the point of the 1st survey.	Annually	Travel Plan survey	TPC
Information Provision				
Travel Information Packs for all residents/ parents	Households and parents will receive a travel pack outlining the sustainable options for travelling to the site and the existence and purpose of the Travel Plan.	Upon initial occupation of each unit	N/A	TPC
Cycling				
Infrastructure improvements provided	See paragraphs 5.5 – 5.12	As part of development/ s278 works	N/A	Developer
Cycle Training Provision	TPC will provide cycle training	On-going	TPC to monitor participation levels and interest	TPC
Bicycle and equipment discount	TPC to liaise with local retailers to provide incentive vouchers	On-going	TPC to monitor usage of vouchers	TPC

Provide cycle route maps and other information relating to cycle facilities	Provided as part of welcome packs and on web site	On-going	N/A	TPC
Encourage cycling through awareness events such as National Bike Week and social bike rides	Events to be promoted by notice boards in prominent location(s).	Annual event – summer or spring	TPC to monitor participation levels and interest	TPC
Walking				
Site to be linked to existing network	See paragraphs 5.5 – 5.18	As part of development	N/A	Developer
Residents and parents to be provided with information related to safe walking routes	As part of welcome packs and on web site	On-going	NA	TPC
Public Transport				
Bus/Rail Travel Incentives	TPC will liaise with service operators. Upon proof of purchase a refund of £50 will be made available to residents	On-going	TPC to monitor usage	TPC
Notice board with timetable, route and fare information	As part of welcome packs and on web site	On-going	N/A	TPC
Taxi Services	Ensure that taxi contact details are available for residents and parents	On-going	N/A	TPC
Car Travel				
Residents, parents and employees will be encouraged to sign up to an existing car sharing database	www.liftshare.com/uk or www.faxi.co.uk	On-going	TPC to monitor uptake	TPC

Car Club	Car club details will be included within the Travel Plan for residents and parents to sign up to.	On-going	TPC to monitor usage of vehicle	TPC/ Developer
Electric Vehicle Charging Points	Charging points will be provided in line with policy standards and as customer extras. Additional points will be installed at the local centre	As part of development	Local Centre use will be monitored by TPC through registration of use.	TPC/ Developer

FIGURES



Key

Site Location

Newbury Station

Bloor Homes Southern

Sandleford Park

Strategic Site Location Plan

SCALES:

NTS

DRAWN:	CHECKED:	DATE:	REVISION:
AV	AW	31/10/2017	FINAL

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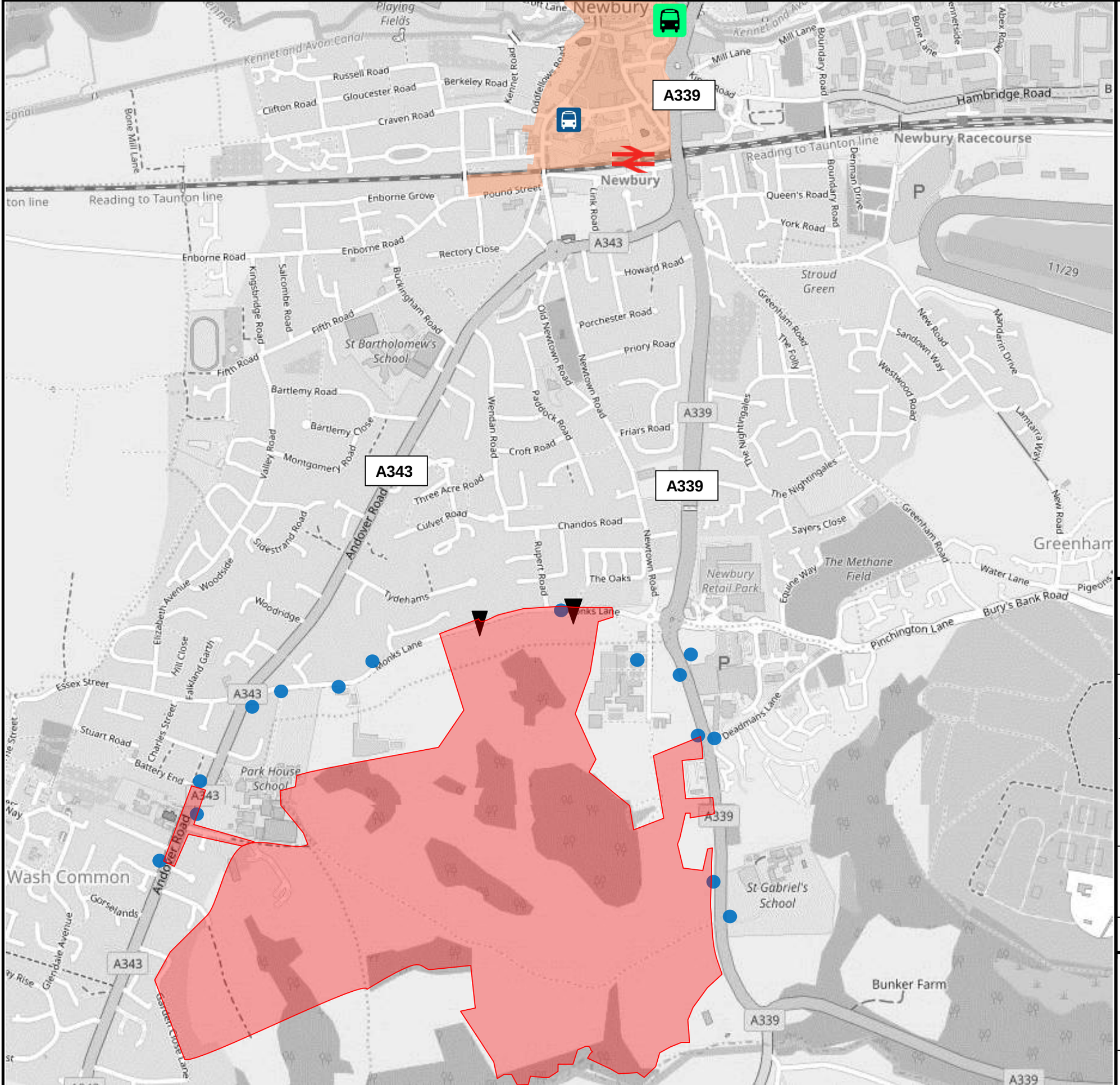
DRAWING REFERENCE:

Figure 1



Key

- Proposed Site Accesses
- Site Location
- Town Centre Area
- Newbury Station
- Existing Bus Station
- Proposed Bus Station
- Bus Stop

Bloor Homes Southern

Sandleford Park

Local Location Plan

SCALES: NTS

DRAWN:	CHECKED:	DATE:	REVISION:
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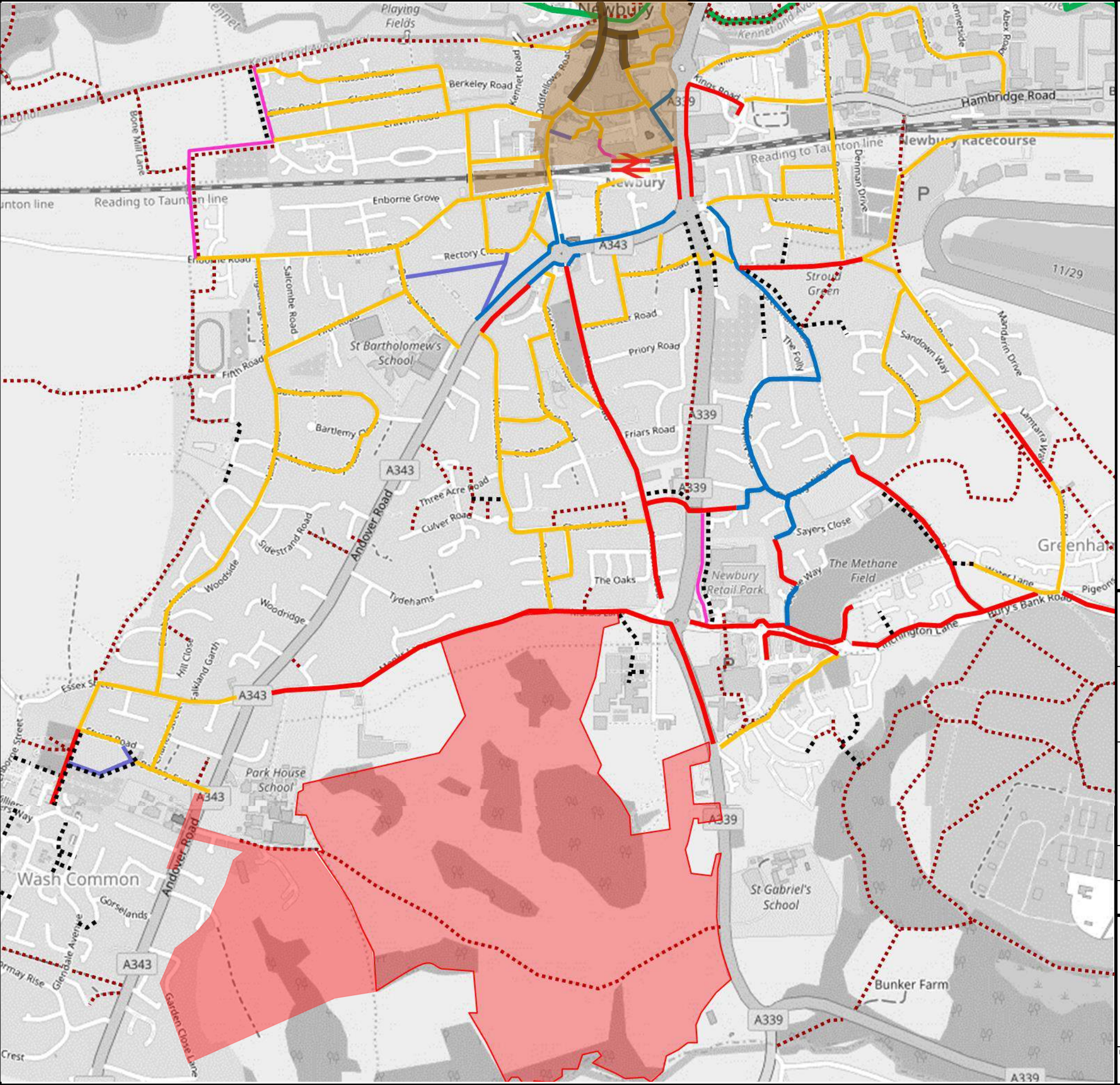
DRAWING REFERENCE: Figure 2



Key

- Approximate Site Location
- Town Centre Area
- Newbury Station
- Links (dismounted)
- Links (suitable for cycling)
- National Cycle Route 4
- Signed Cycle Path – off carriageway (cycleway or shared footpath/cycleway)
- On-road Singed cycleway
- Quiet Route (mainly on road; some tracks included where surfacing may vary)
- Pedestrianised Area (10am-5pm)
- Generally accessible walking route
- Less accessible walking route

Bloor Homes Southern

Sandleford Park

Existing Pedestrian and Cycle Routes

SCALES:	NTS		
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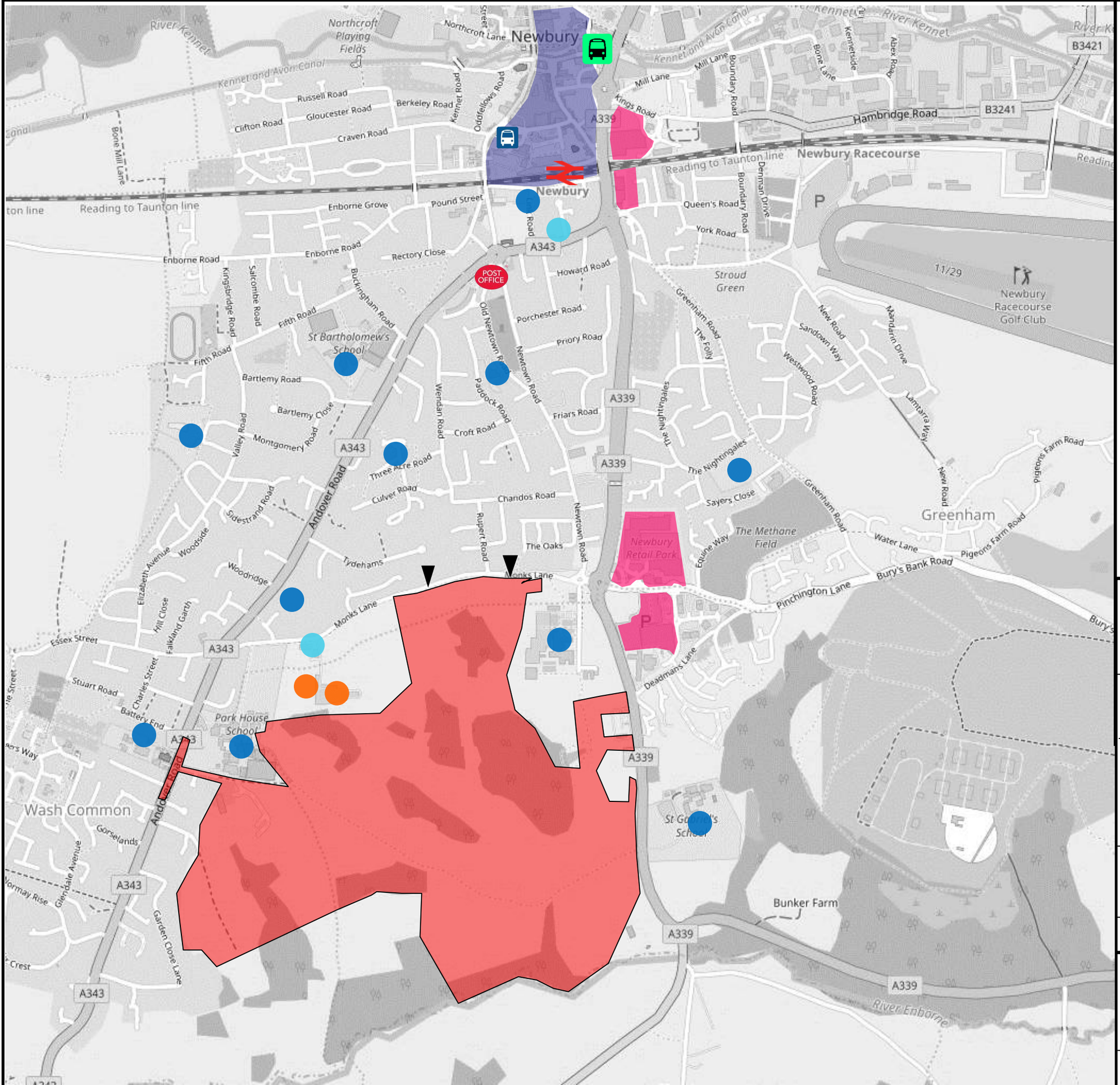
DRAWING REFERENCE:

Figure 3



Key

- Proposed Site Accesses
- Site Location
- Town Centre Area
- Newbury Station
- Existing Bus Station
- Proposed Bus Station
- Post Office
- Retail
- Education
- Leisure
- Healthcare Facilities

Bloor Homes Southern

Sandleford Park

Local Facilities Plan

SCALES:

NTS

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Figure 4