

Transport Assessment

Proposed Development:

Cabbagefield Row,

Swanmore Road,

Leigh Park



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Issue	Issue date	Compiled	Checked	Authorised
1	04-08-2021	RS	RW	RW

Executive Summary

Cabbagefield Row is a greenfield site to the north of Swanmore Road in the Warren Park area of Leigh Park. The site is allocated for residential development within the adopted Havant Borough Local Plan (Allocations) July 2014 Policy UE6A and within the emerging Havant Borough Local Plan 2036 (Submission Version) Policy H34.

This Transport Assessment has been prepared to support an outline planning application for up to 150 new residential dwellings, with vehicles access via a new priority junction on Swanmore Road. A second access is proposed in the south-west corner of the site onto Swanmore Road for pedestrians, cyclists and for emergency vehicle use only.

This Transport Assessment summarises the existing situation, local and national transport policy, the local highway network and modal choices available to future residents and considers the likely transport impact of the proposed development through a trip forecasting exercise.

The proposals are in accordance with current policies and guidance provided by Havant Borough Council and Hampshire County Council and are compliant with national guidance documents such as Manual for Streets and the National Planning Policy Framework 2019 (NPPF).

Robust trip rates have been used, agreed in pre-application scoping discussions with HCC highways, distributed and assigned to the local highway network. A capacity assessment was undertaken of the proposed access with Swanmore Road which operates with plenty of capacity at peak times. Further capacity assessments were undertaken on:

- St Clares Avenue/Woolston Road priority junction;
- Woolston Road/Middle Park Way Mini roundabout;
- Swanmore Road/Middle Park Way priority junction;
- Dunsbury way/Middle Park Way junction.

The assessment of these junctions demonstrates that they will also continue to operate within capacity at peak times with no layout alterations required. The trip forecasting exercise concludes the new trips generated can be accommodated on the local highway network in the agreed forecast years of 2023 and 2028.

There are a number of local amenities and essential facilities within walking/cycling distance of the site. There are several Public Rights of Way (PRoW) located within the vicinity of the site, with bridleway 108/121/1 running along the northern site boundary, and bridleway 108/120/2 along the eastern boundary. There are also shared cycle routes within the site vicinity that provide safe and convenient access to the town centre and also local schools.

A Framework Travel Plan is included with this report which would be converted to a full Travel Plan following planning consent. The Travel Plan would encourage sustainable travel to all site users by promoting a range of sustainable travel measures. The Travel Plan would be monitored over at least 5 years with the aim of achieving a set of agreed targets over the period.

Proposed transport mitigation measures:

1. New shared cycleway/footway across the site frontage and local connections, for example to the nearby bus stops;
2. Separate access for pedestrians, and cyclists only;
3. Footpath connections to the existing bridleways which run to the north and east of the site boundary;
4. Informal pedestrian crossing facilities on Swanmore Road;
5. Residential Travel Plan with 5 year monitoring, including Residential Travel Welcome Pack.

Overall, there are no material highway or transport impacts that cannot be mitigated as a result of the proposed development.

1 Introduction

- 1.1 This Transport Assessment (TA) report has been prepared for Portsmouth City Council in conjunction with the above development and no responsibility is accepted to any third party for all or part of this study in connection with this or any other development.
- 1.2 GTA Civils and Transport Limited has been commissioned by Portsmouth City Council to prepare a Transport Assessment to support an outline planning application for up to 150 residential units on land which is allocated within the adopted Havant Borough Local Plan (Allocations) July 2014 Policy UE6A and within the emerging Havant Borough Local Plan 2036 (Submission Version) Policy H34.
- 1.3 Specifically, the report has been prepared to investigate and advise on the impacts of the proposed residential development on the local transport network.

Policy Context

- 1.4 This Transport Assessment has been written in accordance with the following frameworks:
 - National Planning Policy Framework (NPPF);
 - National Planning Policy Guidance (NPPG);
 - Manual for Streets 1 & 2 (2007);
 - Hampshire County Council's Local Transport Plan (2011-2031);
 - Havant Borough Council Local Plan (Core Strategy) adopted March 2011;
 - Havant Borough Council Local Plan (Allocations) adopted July 2014;
 - Emerging Havant Borough Council Local Plan submitted for examination February 2021.

Scoping

- 1.5 This Transport Assessment has been written following submission of a Highways Scoping Note to Hampshire County Council for pre-application advice. The scoping note is provided in **Appendix A** along with the advice received from the HCC highways officer. In addition, to various email exchanges of advice, there has been one virtual meeting held with the HCC highways officer, the meeting was held on 12/05/2021 following submission of the Scoping Note. In summary the discussions included agreement of:
 - PIA data to be obtained from Hampshire Constabulary (5 years) – agreed study area as shown in SN with the area extended to include the Dunsbury Way/Middle Park Way junction and also extending the assessment of Woolston Road to the junction with Middle Park Way;
 - Review swapping main access location (south-western corner of the site) with the emergency access (south-eastern corner of the site), as the south-western location is preferred;
 - Traffic survey locations, including 2 x ATC required with speeds taken at the end of the visibility splays in compliance with HCC TG3;

- WCHAR assessment in accordance with HCC TG19 to be provided;
- Provision of footway on north side of Swanmore Road required, providing access to bus stops. This will provide continuation of the proposed Havant Thicket footway link to the bus stop;
- TRICS trip rate data – if development is fully affordable and mix is fixed at this stage then affordable housing trip rates can be applied. Prefer for private housing trip rates to be used for robustness;
- Capacity assessments will be undertaken at:
 - Site Access
 - St Clares Avenue/Woolston Road priority junction
 - Woolston Road/Middle Park Way mini-roundabout
 - Swanmore Road/Middle Park Way priority junction
 - Dunsbury Way/Middle Park Way junction
- Distribution will be guided by Census 2011 JtW data. Traffic growth based on TEMPro (Trip End Model Presentation Program) software 7.2. Assessment periods will be 2023 (full occupation), and 2028;
- Recommended temporary construction access should utilise emergency vehicle access.

1.6 Further correspondence with the highways officer have taken place, where the following points have been discussed/agreed:

- The date of ATC and MCC surveys;
- The main access located in the south-eastern corner of the site is preferred to the original proposal from a highway planning perspective;
- Vertical alignment requirements of the access – the vertical profile of Swanmore Road should be demonstrated with a long section plan showing visibility in accordance with the standards can be achieved.
- Consider crossing locations on Swanmore Road at the site access and emergency access and achievable visibility splays, to demonstrate visibility is not obstructed;
- Departure from Standard application will be required to depart from DMRB CD123 Para 2.4 which requires staggered junction separation distance of 50m for a 30mph road (there is allowance for a relaxation where the minor arm is not a through road).

1.7 The Havant Thicket proposals have been considered throughout this report with reference to planning application (APP/20/00991 and APP/20/00990), which at the time of writing is awaiting planning decision. The Havant Thicket application proposed changes to the highway on Swanmore Road, this includes footway and cycle access provision along Swanmore Road as well as changes to the rights of way network.

- 1.8 The formal HCC pre-application response received 28th April 2021 is considered throughout this report and is also included at **Appendix A**.

2 Policy and Guidance

National Planning Policy Framework (NPPF)

- 2.1 The National Planning Policy Framework, first published in 2012 with revisions up to July 2021, sets out the Governments planning policies for England and how these are expected to be applied. The NPPF provides a framework within which locally prepared plans for housing and other development can be produced.
- 2.2 NPPF supports sustainable development, with a 'presumption in favour of sustainable development', as set out in paragraph 10 and 11:

*"10. So that sustainable transport is pursued in a positive way, at the heart of the Framework is a **presumption in favour of sustainable development** (paragraph 11):*

11. Plans and decisions should apply a presumption in favour of sustainable development.

*For **plan-making** this means that:*

- a) All plans should promote a sustainable pattern of development that seeks to: meet the development needs of their area; align growth and infrastructure; improve the environment; mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects;*
- b) strategic policies should as a minimum, provide for objectively assessed needs for housing and other uses, as well as any needs that cannot be met within neighbouring areas, unless:*
 - i. the application of policies in this Framework that protect areas or assets of particular importance provides a strong reason for restricting the overall scale, type or distribution of development in the plan area; or*
 - ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.*

*For **decision-taking** this means:*

- c) approving development proposals that accord with an up-to-date development plan without delay; or*
- d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:*
 - iii. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*
 - iv. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."*

2.3 In the context of sustainable transport and in considering development proposals the NPPF states in paragraphs 110-113:

Paragraph 110, "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 the development and its location;*
- b) safe and suitable access to the site can be achieved for all users;*
- c) the design of streets, parking areas, other transport elements and the content of the associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and*
- d) 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.*

Paragraph 111, "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."

Paragraph 112, "Within this context, applications for development 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."*

Paragraph 113, "All developments that will generate significant 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."

National Planning Practice Guide (NPPG)

- 2.4 National Planning Practice Guidance (NPPG) is supplementary advice intended to expand on and support the principles and practices of the National Planning Policy Framework (NPPF). It is managed and maintained by the Department of Communities & Local Government. Amongst other things, NPPG provides advice on the need for, and the preparation of, Travel Plans, Transport Statements and Transport Assessments.
- 2.5 NPPG states that Travel Plans, Transport Assessments and Transport Assessments can positively contribute to:
- encouraging sustainable travel;
 - lessening traffic generation and its detrimental impacts;
 - reducing carbon emissions and climate impacts;
 - creating accessible, connected, inclusive communities;
 - improving health outcomes and quality of life;
 - improving road safety; and
 - reducing the need for new development to increase existing road capacity or provide new roads.
- 2.6 NPPG advises that the key transport issues to be considered in a transport evidence base should:
- assess the existing situation and likely generation of trips over time by all modes and the impact on the locality in economic, social and environmental terms; and
 - consider the cumulative impacts of existing and proposed development on transport networks.

Manual for Streets (MfS)

- 2.7 MfS and MfS2 was published in 2007 and 2010 and are referred to throughout the report.
- 2.8 The purpose of MfS was to help rebalance the function of residential streets which had on many occasions resulted in places that were dominated by motor vehicles, which failed to make a positive contribution to the quality of life. MfS demonstrates the benefits that flow from good design and assigns a higher priority to pedestrians and cyclists, setting out an approach to residential streets that recognises their role in creating places that work for all members of the community. MfS refocuses on the place function of residential streets, giving clear guidance on how to achieve well-designed streets and spaces that serve the community in a range of ways.
- 2.9 The 'Department for Transport' and 'Department for Communities and Local Government' support the guidance provided in the manuals, though importantly, they do not outline any new policies or legal requirements.
- 2.10 Some of the key aims for streets in the introduction, are as follows:
- help build and strengthen the communities they serve;
 - meet the needs of all;
 - form part of a well-connected network;
- It also discourages designs that:
- primarily meet motor traffic needs;
 - are difficult to serve by public transport.
- 2.11 MfS 2 applies the same principles to a wider variety of situations including both rural and urban. Both aim to deliver contextually sensitive designs, which involves understanding the unique landscape and role of individual modes of transport in the area.
- 2.12 The Companion Document to the Manual for Streets was Hampshire County Council's formal highways guidance on the Hampshire approach to street design. It did not replace or duplicate the national guidance but sat alongside it as local guidance.
- 2.13 Over time the County Council's policies have evolved and been updated. This has resulted in parts of the Companion Guide becoming out-of-date. The Technical Guidance Notes will be the new source of information about adoptable standards in Hampshire.

Hampshire County Council Local Transport Plan (2011-2031)

- 2.14 The Hampshire County Council (HCC) Local Transport Plan was adopted in March 2011 and reviewed in April 2013. The HCC Local Transport Plan sets out the vision for the transport network in Hampshire County for the next 20 years, in order to reduce carbon emissions, stimulate economic prosperity and provide alternatives to private vehicle journeys through improved local travel options.

Hampshire County Council Technical Guidance Notes

- 2.15 The technical guidance (TG) notes detail what the adoptable standards are within Hampshire. The Technical Guidance Notes replace most of the content of Hampshire County Council's companion guide to Manual for Streets, which has become out-of-date.

TG3 Stopping Sight Distances

- 2.16 DMRB visibility standards apply where the Design Speed is above 60kph and for all traffic signals regardless of Design Speed. MfS criteria shall apply where the Design Speed is up to and including 60kph.
- 2.17 The Design Speed for new residential estates and new roads with a proposed Speed Limit of 30mph or less shall be determined based on the proposed Speed Limit for the new road in accordance with MfS2 Section 8. Refer also to TG1–Alignment Design and TG2–Highway Cross Sections.
- 2.18 SSD's shall be based on the Design Speed in accordance with Table 3 in TD 9/93 or Table 7.1 in MfS as appropriate. On existing roads where the Design Speed falls between the tabulated values in TD 9/93 or MfS, the higher value shall be used. Alternatively, the SSD may be calculated from first principles. HCC has developed a SSD calculator which is available at <https://www.hants.gov.uk/transport/developers/technical-guidance> and is used later in this report.

TG17 Departure from Standard

- 2.19 If a design does not comply with the Design Standards as required/detailed in the Technical Guidance Notes (this includes any cross reference to DMRB or other published standards), then a Departure from Standard is to be sought for each element of the design that does not comply.

To seek a DfS, complete the "Request for a Departure from Standard" form. On the form the following are required:

- a. Detail the reasons why the standard cannot reasonably be achieved,*
- b. Detail what other options were looked at and dismissed (including why they were dismissed),*
- c. Provide a fully detailed case including an assessment of the risks involved in adopting such proposals,*

d. Detail the mitigation measures proposed and/or mitigating site specific circumstances (eg cul-de-sac location, low traffic speeds etc),

e. Detail any other DfSs or Relaxations in the vicinity of the DfS being requested.

You are also to supply:

f. A Road Safety Audit covering the proposed design (the Road Safety Audit Brief must have identified the DfS or if the DfS was not identified at the audit stage then a separate signed report/covering letter from the Auditors must be supplied),

g. Measured traffic speeds and 85%ile assessment where it is on the existing highway network,

h. Accident History (including analysis) for the previous 5 year period where it is on the existing highway network.

TG19 Walking, Cycling and Horse-riding Assessment and Review

- 2.20 This Technical Guidance Note describes the process for undertaking a Walking, Cycling and Horse-Riding Assessment and Review (WCHAR). This shall be used to consider the needs of people walking, cycling or riding horses within the design of all highway improvement schemes.
- 2.21 The Assessment is the first stage of the process and should be carried out during the initial stages of planning a scheme, to investigate the existing infrastructure and identify potential opportunities to improve conditions for people walking, cycling and where appropriate, riding horses

Havant Borough Council Local Plan (Core Strategy) adopted March 2011

- 2.22 The Havant Borough Core Strategy (adopted March 2011) sets the planning framework until 2026. The HBC Core Strategy is one of the documents within the Havant Borough Local Development Framework (HBLDF), the HBLDF is made up of a collection of planning documents and the Core Strategy is the principal document setting out the broad detail and direction of development in the borough.
- 2.23 The Core Strategy is followed by a Development Delivery (Allocations) Plan that will detail where development will occur. In addition, a number of supplementary planning documents will provide more information on how policy is to be applied in particular circumstances or on particular issues/sites. However, the Core Strategy itself, taken as a whole, is the over-arching document which sets the overall policy framework for all other local development documents. All other local development documents must be consistent with the Core Strategy.
- 2.24 The Core Strategy vision will be delivered through the Core Strategy policies that are set out under the themes listed below; these broadly follow the key priorities of the Sustainable Community Strategy, Forward Together:
- Health and Wellbeing
 - Promoting Havant Borough's Economy
 - Regeneration and Community Support
 - Community Safety
 - Housing
 - Caring for Our Borough
 - Infrastructure, Implementation and Monitoring
- 2.25 Specifically, policies relevant to this Transport Statement are:

DM11 Planning for More Sustainable Travel

The council will seek to ensure that every opportunity is taken to increase integration of sustainable travel modes and availability of non-motorised modes by appropriate measures including:

- 1. Securing on-site and/or off-site interventions that promote integrated travel and access by non-motorised modes.*
- 2. Requiring safe and secure vehicular and cycle parking and turning facilities to adopted standards.*
- 3. Securing appropriate improvements to public and community transport (including infrastructure requirements) in accordance with the Hampshire Local Transport Plan and (where applicable) the relevant sub-regional transport strategy.*
- 4. Proposals for reducing opportunities for informal parking in the area surrounding the development where this would impact on the capacity, operation and safety of the local highway network and/or the amenity of the locality.*

5. Ensuring that new developments are located and designed at the outset to encourage lower vehicle speeds and safe, permeable, inclusive layouts that integrate with existing pedestrian, cycle and public transport routes. This will facilitate and encourage short distance trips by cycle and walking, including to public transport interchanges.

DM12 Mitigating the Impacts of Travel

New developments will be required to mitigate their travel impact, including the environmental impacts of travel (such as noise, air and visual pollution) and impacts on amenity, health and climate change by ensuring that, where relevant, the following criteria are met:

- 1. Adequate provision is made for integrated and improved transport infrastructure or appropriate mitigation measures, through direct improvements and S106 contributions in accordance with the Hampshire County Council Transport Contributions Policy.*
- 2. The submission of a transport assessment and travel plan alongside any planning application on proposals for major development or where a proposal is likely to have significant transport implications.*
- 3. The submission of a transport statement must accompany planning applications to explain changes to travel demand.*
- 4. A bond is provided which will be used to mitigate negative travel impacts of the development, should the travel plan fail to achieve its targets. This bond will be held by the relevant local transport authority.*
- 5. In relation to outline planning applications, a framework for the preparation of travel assessments and travel plans will be submitted with the planning application proposals.*

DM13 Car and Cycle Parking on Residential Development

Residential development will only be permitted where it provides car parking and cycle storage in accordance with the standards set out in the Residential Car Parking and Cycle Provision Supplementary Planning Document.

Havant Borough Council Local Plan (Allocations) adopted July 2014;

- 2.26 The Havant Borough Local Plan (Allocations), adopted in July 2014, follows on from the adopted Havant Borough Local Plan (Core Strategy). This document plans for the delivery of the Borough's vision for growth and prosperity up to 2026, which is set out in the Havant Borough Local Plan (Core Strategy). Together these plans provide the Borough with up-to-date policies to encourage investment in new jobs, provide enough land for new homes and protect its special environment.
- 2.27 The development site is included within Policy LP1 'Leigh Park Housing Allocations (Sites)' reference UE6a for residential development. Policy LP1 states:
The number of dwellings shown for each site is indicative, based on known site characteristics and density considerations. Planning permission will be granted provided that detailed proposals:
 - 1. Are broadly consistent with the indicative figure for the number of dwellings.*
 - 2. Take account of all site specific development requirements set out in the relevant site profile.*

Emerging Havant Borough Council Local Plan

2.28 The Havant Borough Local Plan was submitted for examination to the Secretary of State for Housing Communities and Local Government on 12 February 2021. Until adoption, the Submission Local Plan has limited weight in determining planning applications.

2.29 The site is included for development under Policy H34:

Residential development of about 155 dwellings will be permitted where:

- a. Sufficient information is submitted to address the site-specific planning considerations. This is to be agreed at the pre-application stage and is expected to include the following:*
 - i. Archaeological Assessment;*
 - ii. Flood Risk Assessment;*
 - iii. Drainage Strategy; iv. Transport Assessment and Travel Plan;*
 - iv. Landscape and Visual Impact Assessment;*
 - v. Contaminated Land Investigation Report;*
 - vi. Air Quality Assessment;*
 - vii. Ecological Assessment.*
- b. Appropriate mitigation measures, including buffers, are put in place for Bechstein's bats in line with Policy E15.*
- c. The design and layout:*
 - i. Provides access south onto Swanmore Road;*
 - ii. Provides a multi-user (non-motorised) link to Havant Bridleway 121 and Calshot Road;*
 - iii. Retains and enhances the on-site SINC as an alternative to a new open space within the development;*
 - iv. Retains and strengthens where possible the strong landscape boundary to the site;*
 - v. Retains and integrates existing trees and hedgerows; and*
 - vi. Allows for attenuation of flood waters in SuDS designed to prevent flooding beyond the site.*

Havant Supplementary Planning Document: Parking (2016)

2.30 Figure 2.1 below outlines the car and cycle parking standards set out in the Havant Parking Supplementary Planning Document and includes an extract of Table 4A, 4B and 4D.

Figure 2.1 – Residential Parking Standards

TABLE 4A			
C3 Dwelling Houses – Vehicle Parking			
Zone Size of dwelling	Minimum Car Parking Requirement	Havant Town Centre	Waterlooville Town Centre
1 Bed Unit	1 space	Max 1 space	Max 1 space
2 Bed Unit	2 spaces	Max 1 space	Max 1 space
3 Bed Unit	2 spaces	Max 1 space	Max 2 spaces
4+ Bed Unit	3 spaces	Max 2 spaces	Max 2 spaces

TABLE 4B			
C3 Dwelling Houses – Shared/Communal Parking (unallocated)			
Zone Size of dwelling	Minimum Car Parking Requirement	Havant Town Centre	Waterlooville Town Centre
1 Bed Unit	0.9 spaces	Max 0.5 spaces	0.6 spaces
2 Bed Unit	1.3 spaces	Max 0.8 spaces	1 space
3 Bed Unit	1.9 spaces	Max 1 spaces	1.4 spaces
4+ Bed Unit	2.4 spaces	Max 1.2 spaces	1.8 spaces

TABLE 4D		
C3 Dwelling Houses – Cycle Parking/Storage Provision		
Size of Dwelling	Long stay	Short Stay
1 Bed Unit	1 space per unit	In larger developments (schemes of 10 or more dwellings), short-term visitor parking will be expected at 20% of the long-term cycle parking standard.
2 Bed Unit	2 spaces per unit	
3 Bed Unit	2 spaces per unit	
4+ Bed Unit	2 spaces per unit	

2.31 Section 4 of the Havant Parking SPD states for electric vehicle charging parking that:

‘The NPPF states that there is an overall need to reduce the use of high-emission vehicles and that developments should be located and designed where practical to incorporate facilities for charging plug-in and other ultra-low emission vehicles.

Normal household sockets are adequate to charge electric vehicles however a survey must be completed first to ensure the wiring is good enough to handle the high electrical draw. A home charging point can be installed at a cost of £800-£1000. These guarantee safety and can charge the car around two and a half times faster than a standard UK socket. Recharging at home, at night, will be the most convenient and practical option for drivers by using cheaper off peak tariffs. Where possible, garages and car ports should have a home charging point or electric socket.

Electric charging points and parking for mobility scooters should be provided in new residential developments in a convenient location at ground floor level where possible. This particularly applies to flatted developments and elderly peoples housing where it may be difficult for occupants to charge scooters within the property itself.

- 2.32 Every property will be provided with an electricity supply from which an electric vehicle can be charged.

3 Existing Site Details

- 3.1 Cabbagefield Row is a greenfield site to the north of Swanmore Road in the Warren Park area of Leigh Park. Warren Park is a residential housing estate developed through the 1960s-70s by Portsmouth City Council.
- 3.2 East of the proposed development site is the Havant Thicket Reservoir, which is a planning application, awaiting decision at the time of writing. Park Lane Stream runs parallel to the west of Cabbagefield Row. The land to the north and west is woodland with a bridleway running along the northern boundary of the site.
- 3.3 The site is accessed from the south off Swanmore Road. An approximate site boundary area is shown below in red in **Figure 3.1**.

Figure 3.1 – Approximate Site Boundary



- 3.4 There is currently no development on the land and thus no associated trip generation.

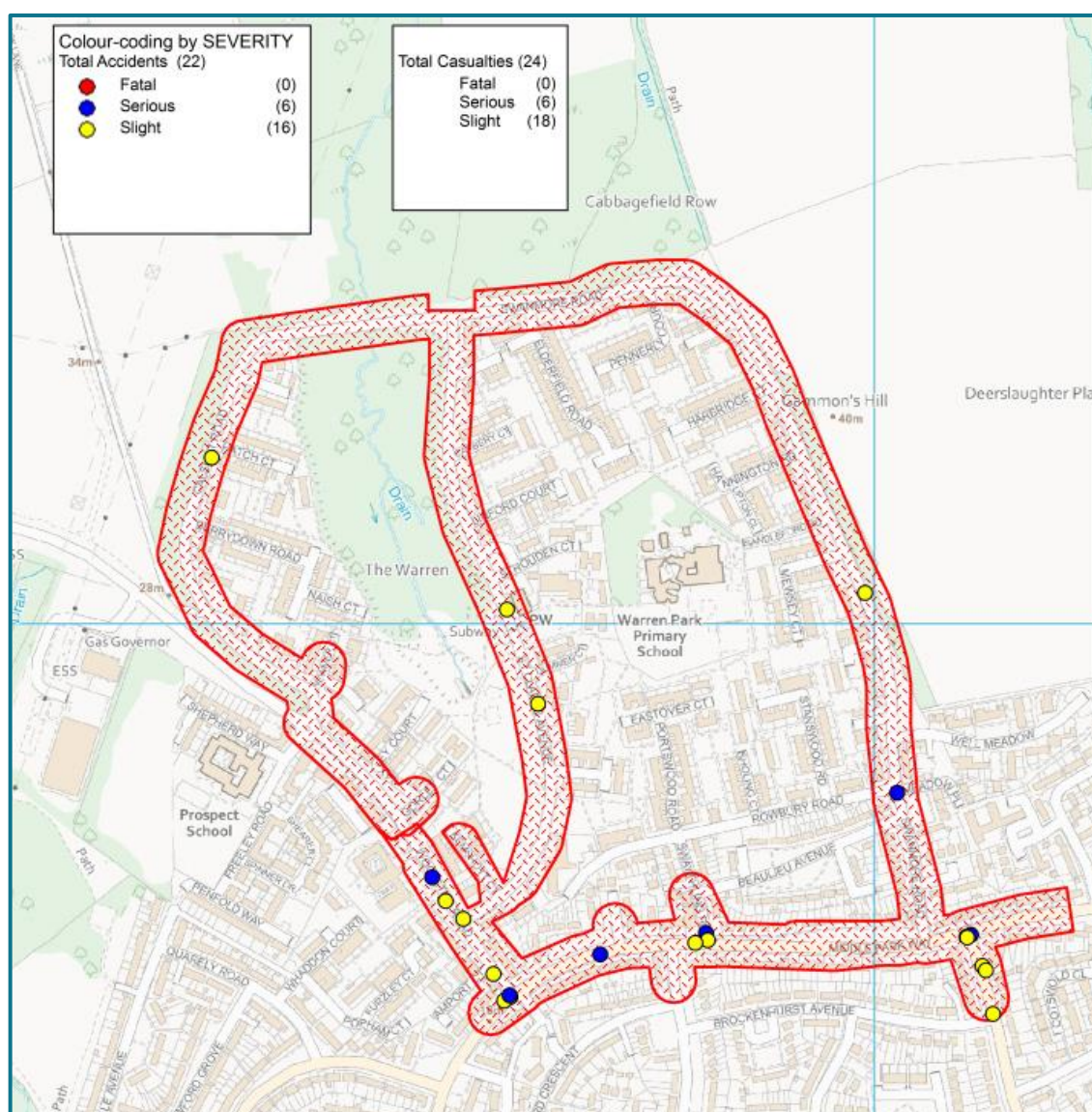
4 Local Highway Network

- 4.1 Swanmore Road is a single carriageway local residential road subject to a 30mph speed limit, which along with Calshot Road, loops around the Warren Park estate. Swanmore Road connects to Middle Park Way at its south-eastern end via a priority junction, and at the south-western end Calshot Road forms the northern arm of the Woolston Road / Fitzwygram Way / Freely Road roundabout junction.
- 4.2 There are continuous footways on the southern side of Swanmore Road / Calshot Road and access to residential properties or on-street parking areas. The footway/cycleway provisions on the north/east side of Swanmore Road end approximately 650m north of the junction with Middle Park Way, and provisions on the north/west side of Calshot Road end at the access to Park Lane approximately 175m north of the mini-roundabout with Woolston Road / Freeley Road / Fitzwygram Way. The road is subject to a 30mph speed limit.
- 4.3 Fitzwygram Way forms an access road to the Dunsbury Park development from the A3(M). From the A3 it provides access to the distribution and office developments at Dunsbury Park. At its western end it forms the eastern arm of the Hulbert Road / Fitzwygram Way roundabout. The eastern end of the route is formed by a bus only link approximately 200m in length, which makes up the western arm of the Fitzwygram Way / Woolston Road Roundabout. At the time of writing, the bus only link at the Woolston Road roundabout end of Fitzwygram Way is blocked by concrete blocks.
- 4.4 Middle Park Way functions as a local distributor road with residential frontages. There are a number of minor access junctions and roundabouts connecting Middle Park Way to the residential areas of Leigh Park. Speed control measures are present on Middle Park Way, with speed limits varying between 20mph and 30mph. The carriageway is bordered by verge, footway and shared use cycleway/footway. Middle Park Way connects to B2149 Petersfield Road at a priority junction to the east, and Purbrook Way/Park Lane to the south at a roundabout.
- 4.5 Purbrook Way connects to residential areas of Leigh Park, and provides a road link to the strategic road network, A3(M) at junctions 3 (via Hulbert Way) and 4. Purbrook Way is subject to a speed limit of 30mph and contains some sections of on-carriageway cycle lane along its length, with footways provided on both sides of the road.
- 4.6 The B2149 provides a key connection to the A3(M) at junction 2 to the north, and the A27 Havant bypass via Havant Town Centre to the south. Havant Town Centre is situated approximately 3.5km south of the site.

Collision Data

- 4.7 In accordance with HCC requirements, a 5 year period of accident data was obtained from Hampshire Constabulary between 1st January 2016 and 31st December 2020. The study area includes the Dunsbury Way/Middle Park Way junction and the Woolston Road/Middle Park Way roundabout.
- 4.8 Within this period there were 22 incidents recorded within the study area which includes Swanmore Road, Calshot Road, Walston Road, St Clares Avenue, and the mid-section of Middle Park Way. **Figure 4.1** shows the locations of incidents within the study area.

Figure 4.1 – HCC Personal Injury Accident (PIA) Data Map



- 4.9 **Table 4.1** provides details of the incidents, summarising data from the detailed Hampshire Constabulary PIA report which is included at **Appendix B**.

Table 4.1 – Accident Details

Date	Category	Location	No. Vehicles	Vehicle Type	No. Casualties
31/03/2016	Slight	Dunsbury Way at jct w/Brockenhurst Ave	2	1 x Car 1 x Bus	1
26/07/2016	Serious	Woolston Rd adj Malmesbury Lawn	1	1 x Car 1 x Ped	1
08/12/2016	Slight	Middle Park Way jct w/Dunsbury Way	2	1 x Car 1 x Cycle	1
20/12/2016	Slight	St Clares Ave adj Church	2	1 x Car 1 x Cycle	1
08/04/2017	Slight	St Clares Ave adj 15-25 Waterlooille	2	1 x Mobility Scooter 1 x Car	1
12/07/2016	Slight	Woolston Road jct w/St Clares Ave	2	2 x Car	1
29/08/2017	Serious	Swanmore Rd jct w/Meadow Place	2	2 x Car	1
11/12/2017	Serious	Swaything Road jct w/Middle Park Way	1	1 x Van 1 x Ped	1
11/01/2018	Slight	Middle Park Way jct w/Woolston Rd	2	1 x Car 1 x M/C	1
19/01/2018	Serious	Middle Park Way jct w/Dunsbury Way	2	1 x Car 1 x M/C	1
06/04/2018	Slight	Calshot Rd jct w/Hatch Court	2	1 x Car 1 x Bus	1
25/09/2018	Slight	Woolston Rd jct w/Ampport Court	1	1 x Taxi 1 x Ped	1
02/10/2018	Slight	Dunsbury Way o/s The Swallow Pub	1	1 x Bus 1 x Passenger	1
10/10/2018	Slight	Swaythling Rd jct w/Middle Park Way	1	1 x Car 1 x Ped	1
24/10/2018	Slight	Dunsbury Way o/s The Swallow Pub	2	1 x Car 1 x Cycle	1
28/01/2019	Slight	Middle Park Way jct w/Woolston Rd	2	1 x Van 1 x Car	2
05/02/2019	Slight	Middle Park Way jct w/Swaythling Road	1	1 x Car 1 x Ped	1
07/07/2019	Serious	Middle Park Way jct w/Woolston Rd	1	1 x Cycle	1
23/07/2019	Slight	Swanmore Rd o/s 10-16 Stratfield Gardens	2	2 x Car	1
31/10/2019	Slight	Woolston Rd o/s No. 5	2	2 x Van	2
05/11/2019	Slight	Middle Park Way jct w/Dunsbury Way	2	2 x Car	1

06/08/2020	Serious	Middle Park Way o/s No. 216	2	1 x Car 1 x M/C	1
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4.10 In summary, upon review of the above data over the most recent 5-year period, police report in italics:

- 6 out of 22 reported serious incidents within the entire observed area, no fatal incidents were recorded;
- 14 out of 22 occurred in the direct vicinity of a junction;
- 3 out of 22 occurred on Swanmore Road/Calshot Road;
 - 29/08/2017 Serious (1 car, 1 motorcycle): *Possible factors: Failed to signal/misleading signal, travelling too fast for conditions in 20mph zone, failed to judge other persons path or speed*
 - 06/04/2018 Slight (1 bus, 1 car): *Very likely factors: Failed to judge other persons path or speed, stationary/parked vehicle*
 - 23/07/2019 Slight (2 cars): *Possible factors: Defective brakes, following too close.*
- 5 out of 22 incidents included casualties to pedestrians:
 1. 26/07/2016 Serious (1 car, 1 pedestrian): *Car driver travelling NW on Woolston Road, slammed on brakes to avoid hitting pedestrian who was crossing from the nearside with a pram. No impact occurred but casualty fell from the pram. Possible factors: travelling too fast for conditions, failure to look properly.*
 2. 11/12/2017 Serious (1 van, 1 pedestrian): *Van travelling south along Swaythling Road around righthand bend and collides with pedestrian travelling east across Swaythling Road. Driver failed to stop. Possible factors: Exceeding speed limit, failed to judge other persons path or speed, careless/reckless/in a hurry*
 3. 25/09/2018 Slight (1 taxi, 1 pedestrian): *Taxi pulls in on nearside of Woolston Road, passenger gets out of the taxi, the taxi then reversed and collided with the passenger. Possible factors: include taxi driver failure to look properly, and possibly made a poor turn/manoeuvre, careless/reckless/in a hurry*
 4. 10/10/2018 Slight (1 car, 1 pedestrian): *Car travelling west on Middle Park Way turns right into Swaythling Road the wrong way of the traffic island into the oncoming lane and collides with pedestrian crossing Swaythling Road travelling west. Driver factors include illegal turn/direction of travel, and aggressive driving.*
 5. 05/02/2019 Slight (1 car, 1 pedestrian): *Car travelling along Middle Park Way, pedestrian travelling south was drunk and crossed the road from the nearside without looking into the path of the car. Collision occurred on Middle Park Way at junction with Swaythling Road. Factors include: Casualty failed to look properly and impaired by alcohol*

It is evident that 3 of the incidents involving pedestrians occurred on Swaythling Road or Middle Park Way in the vicinity of the Middle Park Way / Swaythling Road junction. It is considered that the main factor causing the incidents is not a lack of pedestrian infrastructure, in this area there is a signalised crossing point on Middle Park Way, with footway provisions on both sides of each of the roads. Middle Park Way is within the 20mph zone and Swaythling

Road is subject to a 30mph speed limit. Dropped kerb crossing points are provided at regular intervals for the length of Swaythling Road.

- 4 out of 22 incidents included casualties to cyclists:
 1. 08/12/2016 Slight (1 car, 1 cycle): *Car travelling north along Dunsbury Way, fails to see and turns left onto Middle Park Way across the path of the cyclist travelling west along Middle Park Way. Likely factor: Car driver failed to look properly.* Cyclist using on-road cycle lane.
 2. 20/12/2016 Slight (1 car, 1 cycle): *Car parked on St Clares Ave, opened car door and cyclist travelling southeast on St Clares Ave collided with the door. Cyclist did not have any lights displayed at night time. Possible factors include: dazzling headlights, vehicle door opened or closed negligently, not displaying lights at night or in poor visibility.*
 3. 24/10/2018 Slight (1 car, 1 cycle): *Car reverses along Dunsbury Way travelling north, goes onto the pavement and collides with cyclist travelling north along the eastern pavement on Dunsbury Way. Likely factor: Car driver failed to look properly.* Dunsbury Way is a route recommended for cyclists on main road, using on-road cycle lanes.
 4. 07/07/2019 Serious (1 cycle): *Cyclist travelling northeast along Middle Park Way when rider falls from push bike, possibly due to a medical episode. Possible factor: illness or disability, mental or physical*

There are on-road cycle lanes provided at the location of all of the above incidents. The most common factor relating to these incidents was failing to look properly.

- 4.11 The locations of the incidents involving pedestrians and cyclists have been considered to not be as a result of a lack of footway crossings and cycleway provisions and are more likely the result of human error (i.e. failure of drivers to look properly, pedestrians/cyclists impaired by alcohol or illness/disability, and lack of cycle lights/PPE). There were no incidents involving equestrians.
- 4.12 Failure to look properly was the most common factor for all 22 incidents, other common factors include careless/reckless/aggressive driving, failure to signal/indicate, and failure to judge path of other vehicle.
- 4.13 The local accident incidence rate is low within 400m walking distance in each direction of the proposed site access location, therefore it is reasonable to conclude that the access proposals would not result in a highway safety concern.

Traffic Survey (ATC)

- 4.14 2 x ATC traffic surveys were undertaken at two locations for a period of 1 week on Swanmore Road within approximately 80m in each direction of the proposed site access. The locations of the ATC's are shown below in **Figure 4.2**, the locations were agreed by HCC through pre-application discussions.

Figure 4.2 – ATC Locations on Swanmore Road



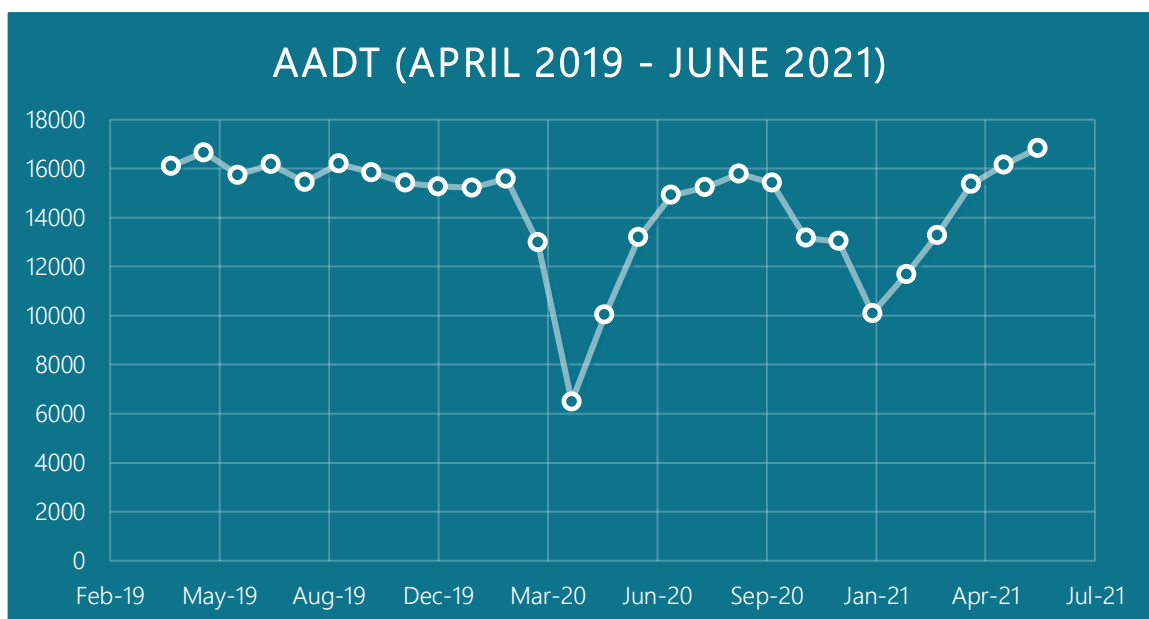
- 4.15 This revealed the following speeds:
- Site 1 (Sunday 20th March – Friday 26th March 2021):
 - Eastbound – 33mph (average 7-day 85th percentile)
 - Westbound – 33mph (average 7-day 85th percentile)
 - Site 2 (Friday 18th June – Thursday 24th June 2021):
 - Eastbound – 32mph (average 7-day 85th percentile)
 - Westbound – 32mph (average 7-day 85th percentile)

- 4.16 The full surveys are included at **Appendix C**.

Turning Count Survey (MCC)

- 4.17 At the request of the Highway Authority within the pre-application response, turning count surveys have been undertaken at:
- St Clares Avenue/Woolston Road priority junction;
 - Woolston Road/Middle Park Way Mini roundabout;
 - Swanmore Road/Middle Park Way priority junction; and
 - Dunsbury way/Middle Park Way junction.
- 4.18 The turning count surveys took place on Thursday 27th May for a period of 12 hours (0700-1900). The surveys have been used within the junction capacity assessments summarised in **Section 7.0**. The turning count data is included at **Appendix D**.
- 4.19 ATC survey data from a permanent traffic counter in West Sussex is shown below to consider any effect of the Covid-19 pandemic in May 2021, during a period when some constraints remained in place and potential effects of increased working at home.
- 4.20 A Covid-19 traffic growth factor has been derived by comparing AADT traffic flows on a primary route (permanent traffic counter data obtained from WSCC on A259 Southbourne, West of Thorney Road) from April 2019 to June 2021. The data is presented graphically below and highlights the first lockdown in March 2020 and the second lesser lockdown in January 2021, before traffic levels return approximately to pre-pandemic levels by May 2021.

Figure 4.2 – WSCC A259 AADT Data Review



- 4.21 The data demonstrates that traffic levels during the height of the national lockdown April 2020 were 60% lower than April 2019. However, traffic levels at the time of the MCC surveys (May 2021) were only 3% lower than May 2019. Traffic levels during June 2021 are now 7% higher than in June 2019.
- 4.22 Overall, on the basis of the May 2019 (AADT 16654) to May 2021 (AADT 16153) comparison, a Covid-19 growth factor of 1.03038 has been applied to the recorded MCC data used within the junction capacity assessments (*Calculation: $16654 \div 16163 = 1.03038$*).

WCHAR

- 4.23 The HCC pre-application response states *"It is noted that the northern side of Swanmore Road is currently absent of any footway/cycle provision. Consideration must be given in accordance with LTN1/20 on how the site can be integrated for these trips. There is clear evidence of use of the northern verge of Swanmore Road by pedestrian traffic. Provision of a footway on the northern side between the site and existing provision is therefore likely to be necessary and this should be considered within the WCHAR assessment"*.
- 4.24 A Walking, Cycling, and Horse-Riding Assessment Report (WCHAR) has been conducted and included at **Appendix E** to fully consider walking and cycling from the site to key facilities and areas of employment. The key points of the assessment are summarised as follows:
- The roads in the vicinity of the site are residential in nature with a speed limit of 20 or 30mph in place. This, along with the generally level gradient, creates an environment which is conducive to on-road cycling.
 - Some verge clearance may be required at the St Clares Ave bus stops due to overgrowth covering the tactile paving.
 - Frequent bus services are available within short walking distance of the site, access to the bus stops on Swanmore Road will be provided as part of the site development.
 - It is proposed to maintain an open connection to the existing PROW (bridleway 108/120) along the northern site boundary and to the east of the site (bridleway 108/121).
 - The Havant Thicket proposals include a provision of shared use path from the Pennerly Court bus stops eastwards to a proposed new access off the north-eastern bend of Swanmore Road, and a connection to existing bridleway 108/121.
 - The development site and Havant Thicket proposals will extend existing footway/cycleway provisions on Swanmore Road/Calshot Road. The site proposals include a shared use path on the north side of Swanmore Road from the site access extending westwards to the St Clares Ave bus stops, and eastwards to the Pennerly Court bus stops.
 - An additional two crossings are proposed to accommodate the likely desire lines of residents of the future development, with one positioned west of the emergency access / east of the

Swanmore Road/St Clares Avenue junction and one positioned west of the main access / east of the Swanmore Road/Elderfield Road junction.

- With the new footways proposed as part of this development together with the Havant Thicket proposals, there will be continuous footway provision between the site and local amenities.

5 Site Accessibility & Travel Choices

Bus Services

- 5.1 The nearest bus stops to the site are on Swanmore Road, located approximately 42m (westbound) and 65m (eastbound) east of the site, within around a 1-minute walk of the proposed site access. The next nearest stop is situated approximately 74m (eastbound) west of the site. These bus stops are served by bus route number 23. The location of nearby bus stops is shown in **Figure 5.1**.

Figure 5.1 – Local Bus Stop Locations



- 5.2 All of the above highlighted bus stops are served by route number 23, operated by Stagecoach South. Weekday services are frequent with 1 bus every 10-20 minutes from 06:00am to 00:30am.
- 5.3 Havant bus station is located in Havant town centre at Elm Lane, adjacent to the Meridian Shopping Centre. This provides a bus stop for a number of services including 20, 21, 23, 27, 28A, 30, 31, 37, 39, 621, 630, 700 and 770. The two-storey bus station includes an enclosed waiting area, information point, toilets, refreshment shop and bus departure information displays. Residents of the future development can access the bus station via bus route 23 from the stops on Swanmore Road, this journey would take approximately 16-minutes, or by cycling approximately 13-minutes.

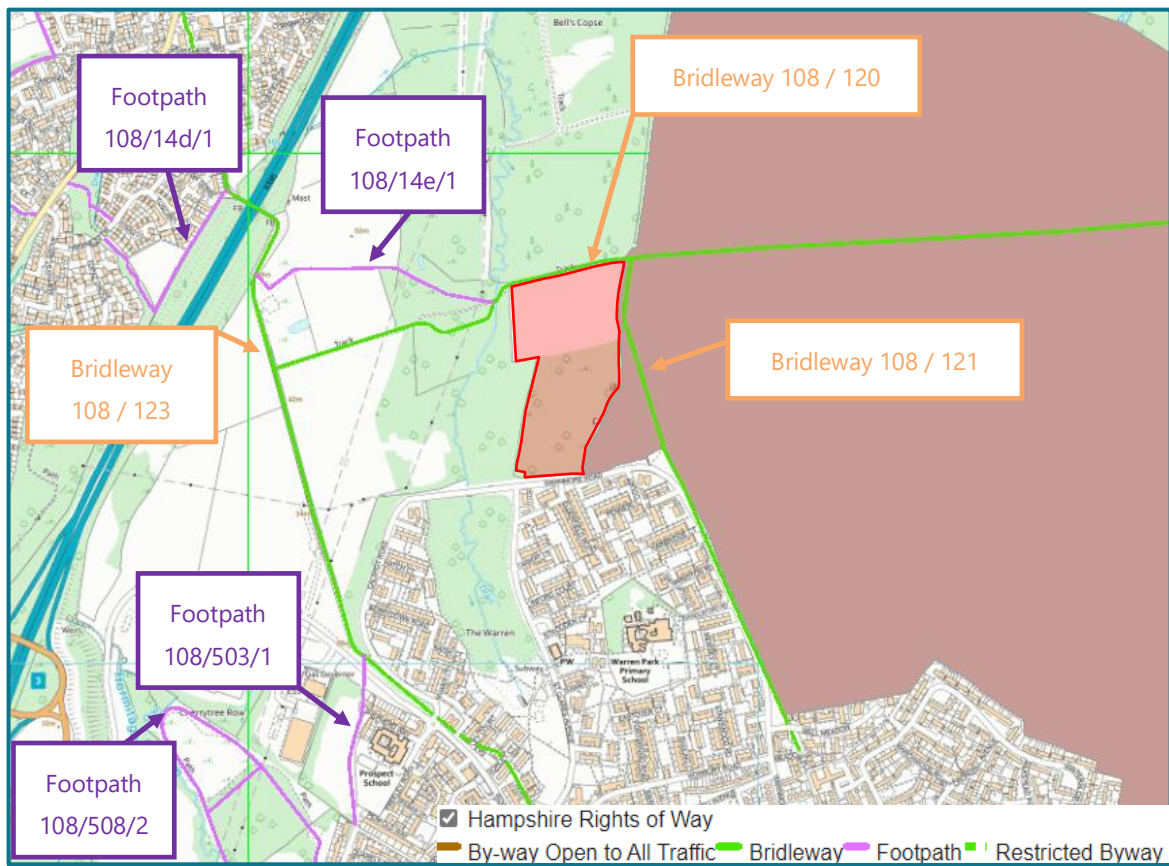
Rail

- 5.4 The nearest railway stations are Havant and Bedhampton.
- 5.5 Havant station is located approximately 3.5km south of the site (42-minute walk or 10-minute cycle). There is sheltered cycle storage available providing 92 spaces. Havant is a mainline station, the typical off-peak service in trains per hour is:
- 3 tph to London Waterloo via Guildford
 - 2 tph to London Victoria via Horsham
 - 2 tph to Brighton via Worthing
 - 1 tph to Littlehampton
 - 6 tph to Portsmouth & Southsea, of which 3 continue to Portsmouth Harbour
 - 2 tph to Southampton Central
- 5.6 Bedhampton is located approximately 3.4km (42-minute walk) south of the site. This journey would take approximately 11-minutes by cycling, there is sheltered cycle storage available providing 20 spaces. The typical off-peak service in trains per hour is:
- 1 tph to London Waterloo via Guildford
 - 1 tph to Littlehampton
 - 2 tph to Portsmouth & Southsea
- 5.7 During peak hours there are additional services to London Waterloo as well as service to Portsmouth Harbour, Brighton and London Victoria.
- 5.8 Services at these stations are operated by South Western Railway and Southern.
- 5.9 The stations are also served by bus route 23, this journey would take approximately 21-minutes (Havant) and 26-minutes (Bedhampton). The proposed new footways on Swanmore Road will provide safe and convenient access to the bus stops which provide frequent connections to the stations.

Walking and Cycling

- 5.10 The WCHAR assessment was carried out to investigate the existing infrastructure and identify potential opportunities to improve conditions for people walking, cycling and where appropriate, riding horses.
- 5.11 There are several Public Rights of Way (PRoW) located within the vicinity of the site, with bridleway 108/121/1 running along the northern site boundary, and bridleway 108/120/2 along the eastern boundary. **Figure 5.2** below illustrates the locations of these rights of way and the site in red.

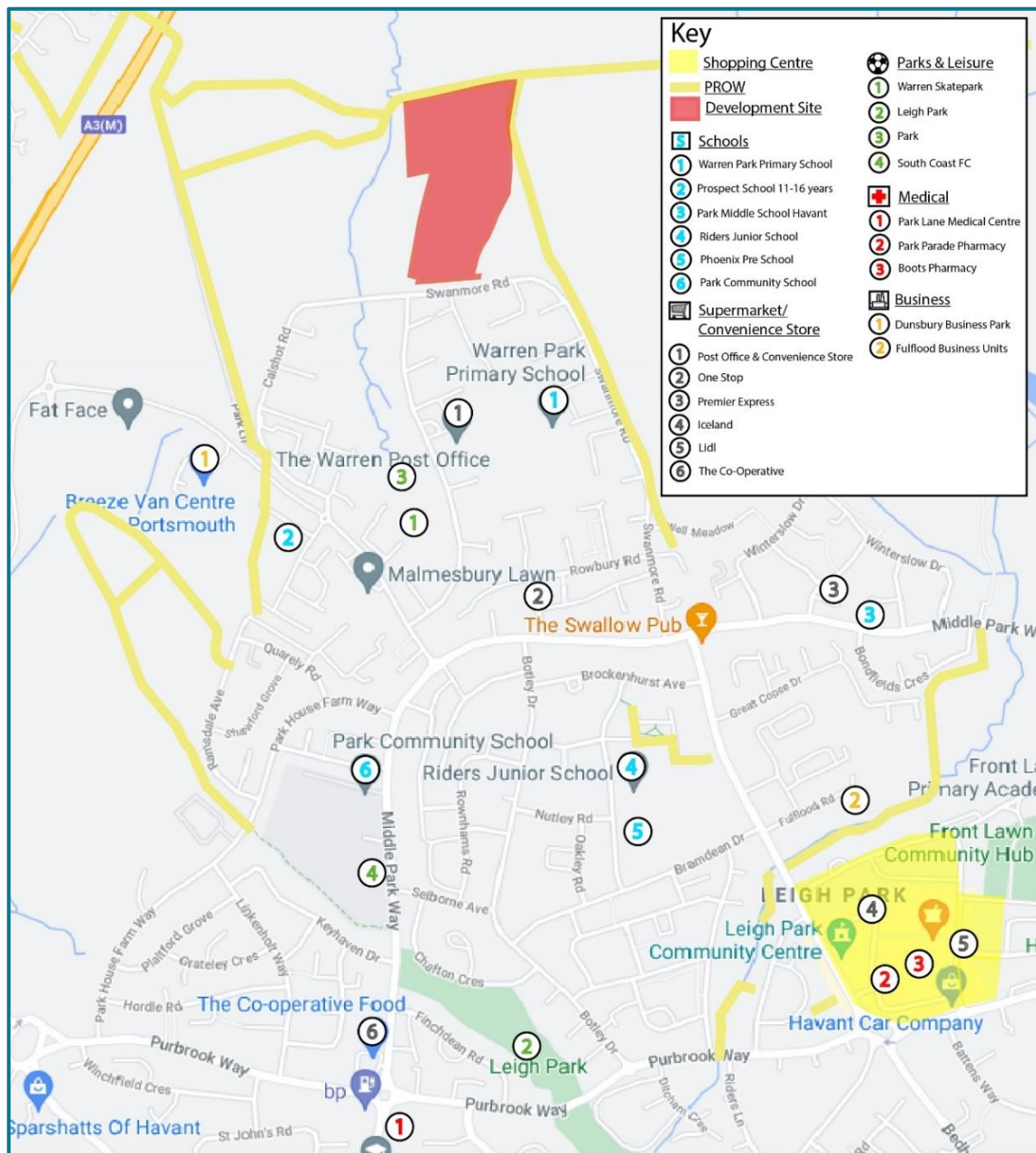
Figure 5.2 – Public Rights of Way (HCC PRoW)



Source: Hampshire Rights of Way online | Hantsweb (<https://maps.hants.gov.uk/rightsofwaydefinitivemap/largemap>)

- 5.12 There are a number of local amenities and essential facilities within walking/cycling distance of the site as indicated in Figure 5.3 below.

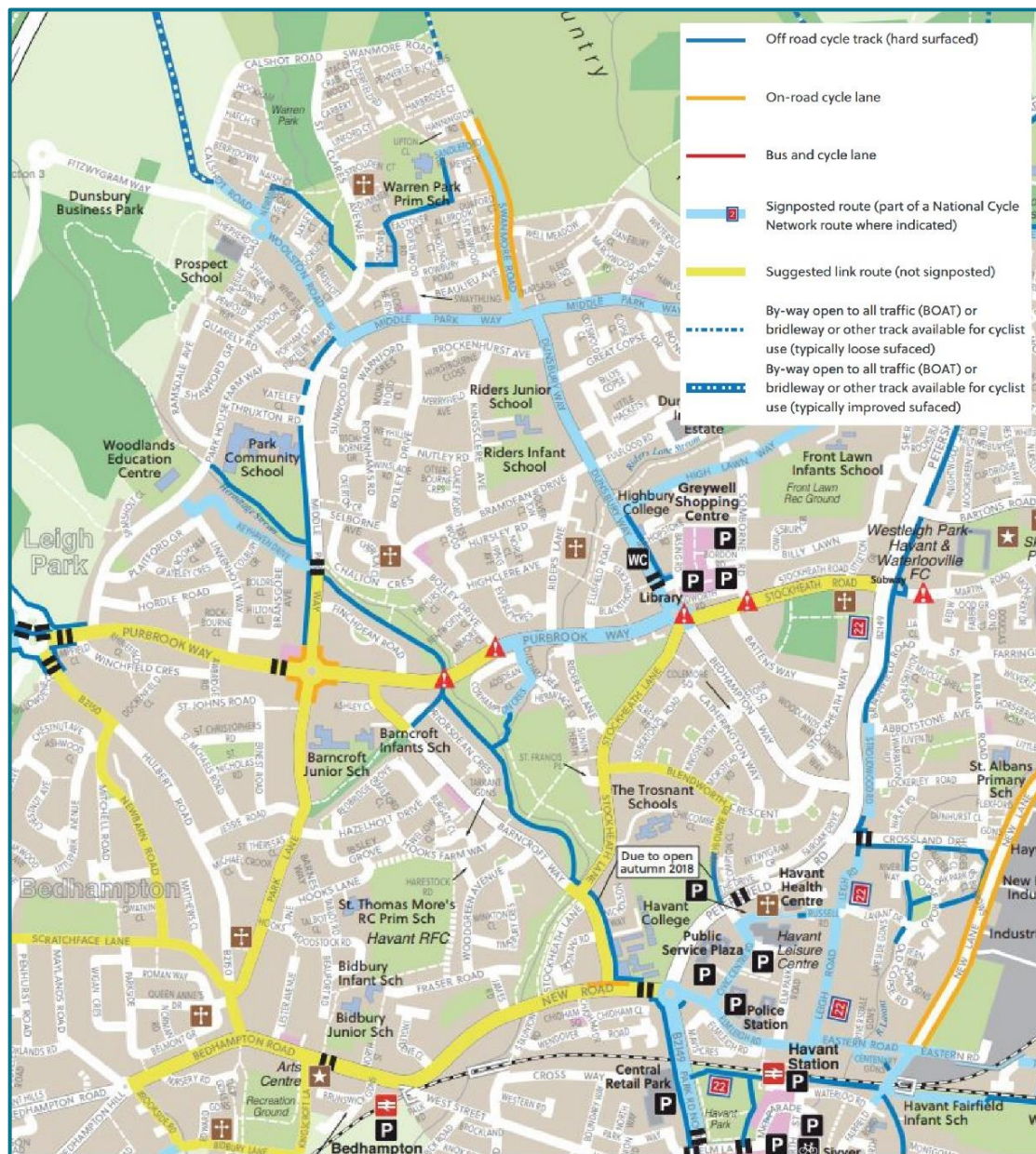
Figure 5.3 – Local amenities and facilities within the site vicinity



- 5.13 The Havant Thicket proposals include a provision of shared use path from the Pennerly Court bus stops eastwards to a proposed new access off the north-eastern bend of Swanmore Road, and a connection to existing bridleway 108/121.
- 5.14 A link is also proposed from this development site to connect with the Havant Thicket provisions on the north side of Swanmore Road, together with two new crossings providing access to the south side of Swanmore Road. This will provide residents with improved access to the surrounding area (i.e. Warren Park Primary School, the Warren Post Office, shops on Middle Park Way, Leigh Park centre / Greywell Shopping Centre via Dunsbury Way).

- 5.15 There are also shared cycle routes within the site vicinity that provide safe and convenient access to the town centre and also local schools.

Figure 5.4 – Extract of Havant Borough Council cycle map



- 5.16 Examples of key destinations and their proximity to the site are listed below in **Table 5.1**. Manual for Streets suggests 800m as being the maximum target distance to amenities for new developments. NPPF states that walking can be the most attractive alternative for short distance car trips up to 2km and cycling for distances up to 5km.
- 5.17 Walking times are based on a walk speed of 1.4m/s as referenced in IHT (2000) Guidelines for Providing for Journeys on Foot., and cycle times are based on an average cycle speed of 15.5km/h.

Table 5.1 – Accessibility of the Proposed Development Site to Key Services

Destination	Distance from Site (m)	Walk Time (mins)	Cycle Time (mins)
Warren Park Primary School	360	4	1
St Clares Church	360	4	1
The Warren Post Office	364	4	1
Prospect School 11-16 years	850	10	3
Dunsbury Business Park	1050	13	4
One Stop	1120	13	4
Park Community School	1200	14	5
Riders Junior School	1500	18	6
Fulflood Road Business Units	1500	18	6
Leigh Park Community Centre	1750	21	7
Retail, food, and pharmacies at Leigh Park Shopping Centre	1800	21	7
Leigh Park Library	1850	22	7
Park Lane Medical Centre	2100	25	8
Front Lawn Community Hub (Sports Complex)	2120	25	8
B&Q	2450	30	10
Asda	2600	32	10
Havant Leisure Centre	3000	36	12
Havant Health Centre	3005	36	12
Bedhampton Station	3400	41	13
Havant Station	3500	42	14
Havant Bus Station	3800	46	15

5.18 The site is within a reasonable proximity to a variety of amenities, facilities and services. Based on local highway characteristics, cycle routes and the distance from the site to key destinations, walking and cycling journeys are a viable option of travel for residents of the proposed development.

6 Proposed Development

- 6.1 The proposed development is for 150 dwellings on land which is allocated within the adopted Havant Borough Local Plan (Allocations) July 2014 Policy UE6A and within the emerging Havant Borough Local Plan 2036 (Submission Version) Policy H34.
- 6.2 Policy H34 contains design and layout considerations as follows:
- i. Provides access south onto Swanmore Road;
 - ii. Provides a multi-user (non-motorised) link to Havant Bridleway 121 and Calshot Road;
 - iii. Retains and enhances the on-site SINC as an alternative to a new open space within the development;
 - iv. Retains and strengthens where possible the strong landscape boundary to the site;
 - v. Retains and integrates existing trees and hedgerows; and
 - vi. Allows for attenuation of flood waters in SuDS designed to prevent flooding beyond the site.
- 6.3 A new vehicle access is proposed on Swanmore Road in the south-east corner of the site. A second emergency vehicle crossover access is proposed in the south-west corner of the site onto Swanmore Road, this will be restricted for use by all other vehicles by gate/bollard, and will be used primarily as a pedestrian and cyclist link to the site.
- 6.4 The northern area of the site will be retained as open publicly accessible land, with access retained to the adjacent bridleways. Due to ongoing anti-social behaviour with scrambler bikes, measures will be put in place to restrict motorised vehicle access to this area which will be addressed in detail in the Landscaping Reserved Matters application
- 6.5 The proposed site layout is contained in **Appendix F**.

Proposed Access

- 6.6 The plan which demonstrates the extent of highway boundary on Swanmore Road can be seen in **Appendix G** of this report. Access to the site is proposed in the form of a new simple priority junction off Swanmore Road, positioned in the south-eastern corner of the development site. A separate emergency access is proposed, positioned west of the main site access serving the site.
- 6.7 With reference to the requirements detailed within HCC's Advance Payments Code Guidance Note, the applicant intends to enter into a road adoption agreement with the highway authority, therefore the layout of the development intends to be constructed to HCC construction detail requirements.

- 6.8 Within the pre-application discussions with HCC, it was suggested to swap the positions of the accesses to the site as initially it was proposed that the main site access would be in the south-west corner of the site. However, to increase the separation distance, between the site access and St Clares Ave, the site access was altered to the location as proposed. It was also agreed with HCC that the secondary access will be designed as primarily a pedestrian/cycle link to the site with a vehicle crossover for emergency access.
- 6.9 With the access positioned in the location proposed, HCC have advised that a Departure from Standard application will be required due to the junction separation distance from the site access to Elderfield Road on the basis of DMRB CD123 Para 2.4 which requires a stagger distance of 50m for a 30mph road (there is allowance for a relaxation where the minor arm is not a through road). The DfS application will be required following any future planning permission at the S278 agreement stage at which time the DfS would be formally assessed as part of the detailed design check.
- 6.10 The access is proposed 6m from Elderfield Road (distance measured from the extent of the corner radii or corner taper closest to the proposed junction) or 30m measured from centre-line to centre-line. Elderfield Road is not a through-road and although the Departure from Standard is required, it is considered that the access is proposed in the most appropriate location, at a further distance from St Clares Avenue that initially proposed from the south-west corner of the development site.
- 6.11 Discussions with HCC have confirmed that the access location proposed in the south-eastern corner of the development site is the preferred layout from a highway planning perspective. The vertical profile of Swanmore Road is demonstrated on the access plan at **Appendix H**, showing that the required visibility at the access is achievable and will not require a Departure from Standard in relation to visibility splays.
- 6.12 HCC also requested details on traffic flows, speed survey data, drawings showing vehicle tracking (including a super large refuse vehicle = 11.2m length), visibility splays in compliance with TG3 with movements, further assessment by way of junction modelling and capacity assessments etc, all of which are included within this TA.
- 6.13 The speed surveys on Swanmore Road showed:
- Site 1 (Sunday 20th March – Friday 26th March 2021):
 - Eastbound – 33mph (average 7-day 85th percentile)
 - Westbound – 33mph (average 7-day 85th percentile)
 - Site 2 (Friday 18th June – Thursday 24th June 2021):
 - Eastbound – 32mph (average 7-day 85th percentile)

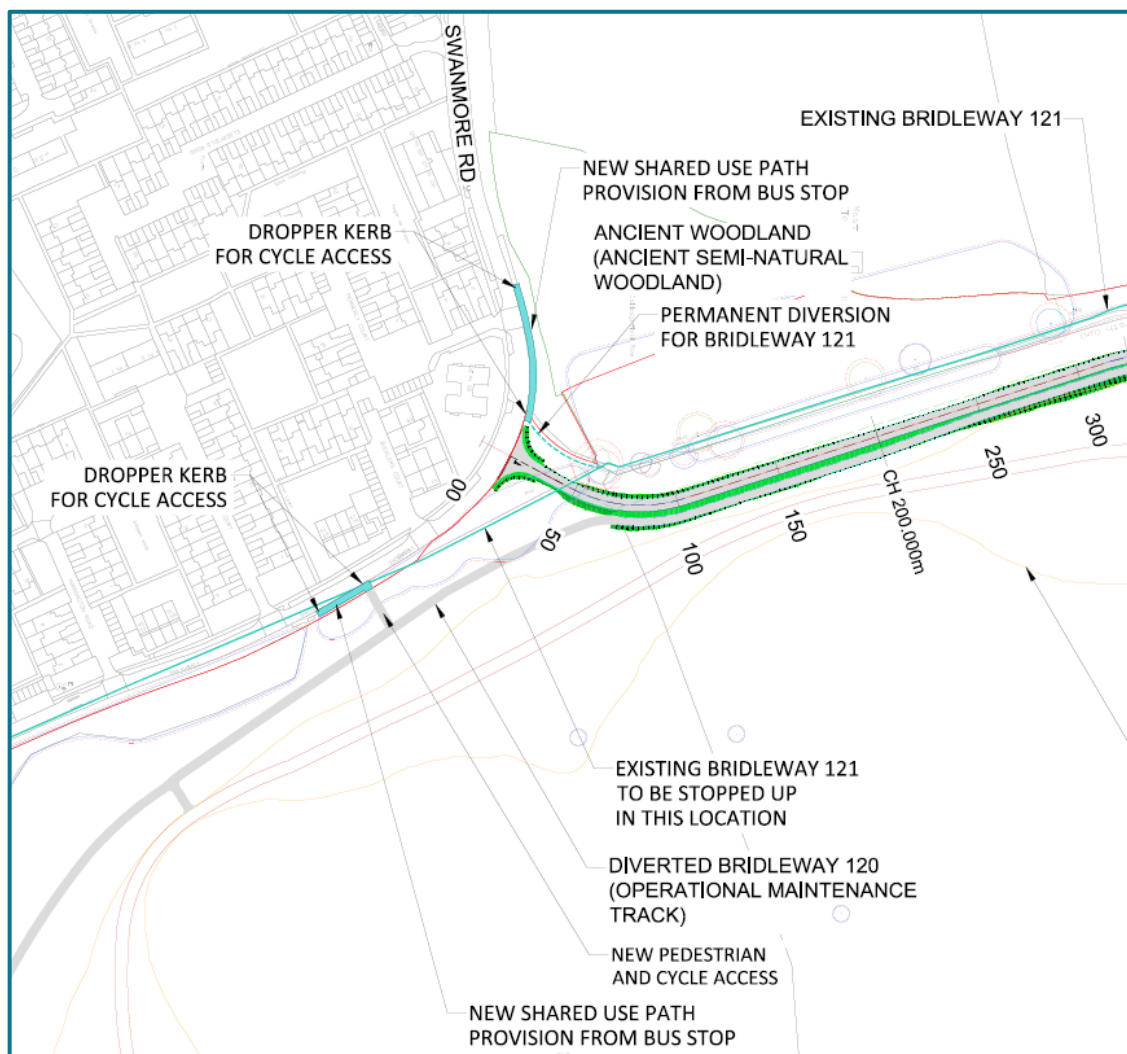
- Westbound – 32mph (average 7-day 85th percentile)

- 6.14 Visibility splays will be provided which are compliant with guidance contained within the Hampshire County Council 'TG3 Stopping Sight Distances and Visibility Splays' document and the HCC SSD Calculator. On the basis of the higher recorded 85thile vehicle speeds (33mph in each direction), visibility splays of 2.4m x 69m are required in each direction.
- 6.15 Visibility splays have been shown on the access layout plan included at **Appendix H**, demonstrating splays in accordance with the HCC requirements are readily achievable in each direction. Some minor vegetation cut back along the site frontage will be required in order to ensure the visibility splays remain unobstructed. All land is within the applicants ownership or public highway.

Pedestrian/Cycle Access

- 6.16 Two uncontrolled pedestrian crossing points provided with dropped kerbs and tactile paving, are proposed on Swanmore Road providing a link to the existing footway provision on the south side of Swanmore Road to accommodate the likely desire lines of residents of the future development. One will be positioned west of the emergency access / east of the Swanmore Road/St Clares Avenue junction and one positioned west of the main access / east of the Swanmore Road/Elderfield Road junction.
- 6.17 It is proposed to provide 2metre wide footways on both sides of the new vehicle access, extending across the site frontage on the north side of Swanmore Road, connecting to the Pennerly Court bus stop east of the proposed access, and to the existing St Clares Ave bus stop on Calshot Road to the west. There are existing crossings to the southern side of Swanmore Road from each of the bus stops.
- 6.18 Pedestrian visibility splays of 69m are included at the proposed crossing points on the access plan at **Appendix H**.
- 6.19 As requested by the Highway Authority through the pre-application formal response, the proposed footways will provide a continuation of the changes proposed to the highway as part of the Havant Thicket application (APP/20/00991 and APP/20/00990) which includes a provision of shared use path from the Pennerly Court bus stops eastwards to a proposed new access off the north-eastern bend of Swanmore Road, and a connection to existing bridleway 108/121 as shown in **Figure 6.1** below.

Figure 6.1 – Extract of Havant Thicket access route plan (drawing HTR-ATK-AR-RE-DR-D-005)



6.20 The shared use path provision is indicated on the access plan at **Appendix H**.

Car and Cycle Parking

6.21 A full application will need to provide vehicle parking in accordance with Havant Borough Council (HBC) standards. Parking standards are set out in HBC's document *Parking Supplementary Planning Document (SPD)* (July 2016).

6.22 **Figure 2.1** shows the minimum parking standards required for houses within the Havant Borough. The development site is not part of Havant or Waterlooville town centres and therefore the minimum standards are considered applicable to this site.

6.23 The parking standards state that account will need to be taken of the layout and design of the development, in particular:

- *With the exception of small residential developments an additional 20% of unallocated parking for visitors should be accommodated*
- *Tenure can influence car ownership. Rented accommodation, particularly social rented housing, can have fewer cars than owner occupied households of a similar size and type. However there is the potential for tenure to change over the life of most dwellings to owner occupied status. Reductions will only be considered for rented properties where there is evidence that the tenure is unlikely to change or the developers can demonstrate that lower standards would be appropriate.*
- *Within a two storey property bedrooms include all those rooms at first floor or above (assuming a conventional layout) where the size of room can accommodate a single sized bed and a small amount of furniture (for example approximately 5 square metres in area). Within other properties such as flats or bungalows a common sense approach will be adopted. Simply labelling rooms as reception rooms or studies will not mean that they won't be considered as potential bedrooms. The most likely and typical use of the property will be considered.*

6.24 The development mix, as shown on the site layout plan, is as follows:

- 12 x 1-bed (2 person) apartments;
- 36 x 2-bed (4 person) apartments;
- 72 x 3-bed (6 person) houses;
- 27 x 4-bed (8 person) houses;
- 3 x 5-bed (10 person) houses.
- **Total: 150 dwellings**

6.25 On the basis of the standards of HBC for shared/communal parking as shown in **Figure 2.1** (Table 4B), the minimum car parking requirement is as follows:

- 12 x 1-bed $0.9 \times 12 = 11$
- 36 x 2-bed $1.3 \times 36 = 47$
- 72 x 3-bed $72 \times 1.9 = 134$
- 27 x 4-bed $27 \times 2.4 = 65$
- 3 x 5-bed $5 \times 2.4 = 12$
- **Total: 269**

6.26 In accordance with HBC standards, an additional 20% of unallocated parking for visitors should be accommodated. The standards also state:

- *Rented accommodation, particularly social rented housing, can have fewer cars than owner occupied households of a similar size and type. However there is the potential for tenure to change over the life of most dwellings to owner occupied status. Reductions will only be considered for rented properties where there is evidence that the tenure is unlikely to change or the developers can demonstrate that lower standards would be appropriate.*

6.27 Therefore, 269 spaces + 54 visitor requirement = 323. The current site layout plan shows a total provision of 331 car parking spaces, therefore sufficient parking space is provided to meet the minimum standards set by HBC.

Local Car Ownership

6.28 A review of Census data of car ownership provides an indication of the likely level of car parking demand generated in this location. Census data for car ownership is provided in **Appendix I**.

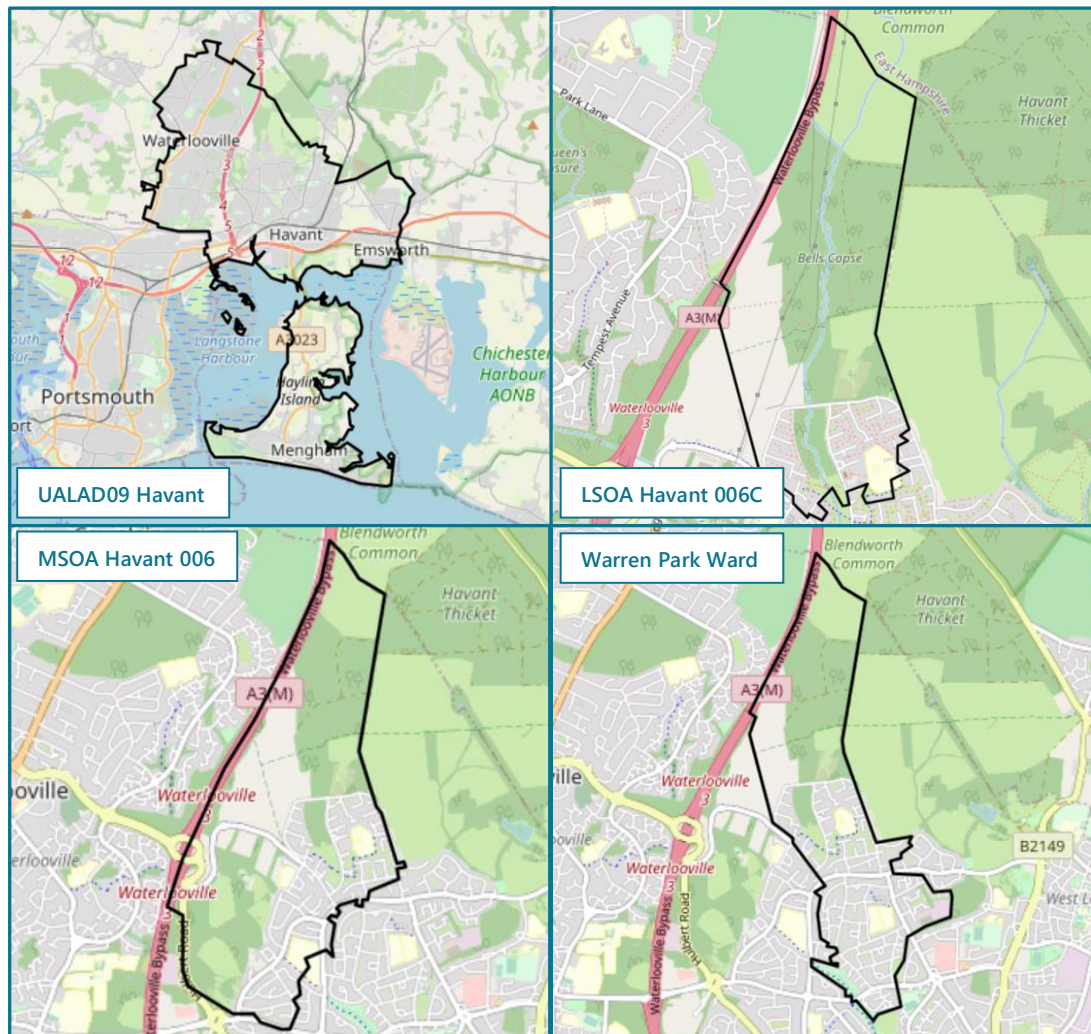
6.29 A comparison of car ownership data for areas where the site is located (this including Local Authority Havant, Lower Super Output Area Havant 006C, Middle Super Output Area 006, and the Warren Park ward) shows overall car ownership for each area as follows:

- UALAD09 Havant = 1.28
- LSOA Havant 006C = 1.04
- MSOA Havant 006 = 1.00
- Ward Warren Park = 0.95

6.30 Therefore, it is reasonable to conclude that car ownership and therefore parking demand will be approximately 1 vehicle owned per household. This provides further assurance that sufficient car parking is provided.

6.31 The locations of the above areas are shown in **Figure 6.2** below.

Figure 6.2 – Car Ownership Data Areas



Source: www.nomisweb.co.uk

6.32 Data in the Medium Super Output area Havant 006 in which the site is located (and the same area used to determine traffic distribution), includes data on a 2,247 household sample, shows:

- 31% of households have no car;
- 43% have 1 car;
- 21% have 2 cars;
- 5% have 3 or more cars.

Servicing & Emergency Access

6.33 The proposed layout will be set out to comply with the provisions in paragraph 6.8.9 of Manual for Streets 1 that requires refuse vehicles to be able to reach within 25metres of the storage point for collection, and that residents are not required to carry waste for more than 30metres. Refuse collection vehicles should not be required to reverse more than 12metres. The layout is compliant with these requirements.

- 6.34 The site is laid out so that emergency vehicles are able to gain access within 45m of the dwelling entrances, in line with requirements set out for emergency vehicles in paragraph 6.7.2 of Manual for Streets.
- 6.35 A swept path analysis plan is included at **Appendix J**, demonstrating that a service vehicle of 11.2 metres can enter and exit the site access.

Stage 1 Road Safety Audit (RSA1)

- 6.36 A Stage 1 Road Safety Audit was undertaken on the design of the access to serve the residential development, by EC Road Safety Limited in July 2021 and the site was examined in daylight hours when weather conditions were dry and bright on Wednesday 14th July 2021. The RSA1 has been included within **Appendix K** of this report.
- 6.37 The Road Safety Audit was carried out with the sole purpose of identifying any features of the design that could be removed or modified in order to improve the safety of the scheme. The problems identified have been noted in the Designer's Response report included in **Appendix L** which responds to the suggestions for safety improvements.
- 6.38 There were 4 problems raised through the RSA1 process, 2 of which have now been addressed and these changes are reflected on the access plan contained at **Appendix H** – confirmation from the auditor of the resolved points is included within the Designers Response. The remaining 2 problems raised will be resolved through the detailed S278 design phase. Therefore, the RSA1 has not raised any fundamental problems that cannot be resolved.

7 Trip Generation & Distribution

- 7.1 Vehicle trip generations for the development have been derived from the TRICS database. The development is proposed as fully affordable housing. Within the formal pre-application response, HCC requested the use of privately owned trip rates in order to ensure a robust assessment.
- 7.2 At this stage the unit mix of the residential dwellings may change, thus the site will be treated as privately-owned houses, this will provide a likely estimate for considering the potential traffic impact.

TRICS Assessment

- 7.3 The TRICS database has been examined for appropriate matches in relation to a residential development of up to 150 proposed units. The trip rates have been agreed with HCC Highways through pre-application discuss which took place throughout the scoping process.
- 7.4 The TRICS database has been interrogated for appropriate matches to the use of privately owned C3 residential houses, with the following relevant parameters being applied:
- Privately Owned Units;
 - Post 2012 surveys;
 - All regions in England, with the exception of London, including Scotland;
 - Weekdays only;
 - Edge of Town and Free standing location types;
 - Population within 1 mile (less than 25,000);
 - Population within 5 miles (less than 75,000);
 - Car ownership within 5 miles (1.1 to 2.0).
- 7.5 The full details of the TRICS assessment can be seen in **Appendix M**.
- 7.6 **Table 7.1** below provides TRICS trip rate data for a privately owned dwelling, based on the site selection criteria. **Table 7.2** shows the estimated trips for 250 privately owned houses.

Table 7.1 – Residential Privately Owned Houses (1 unit) – Weekday Trip Rate

Time Period	AM Peak (8:00 - 9:00)			PM Peak (17:00 - 18:00)			Daily (7:00 - 19:00)		
Direction	In	Out	2-Way	In	Out	2-Way	In	Out	2-Way
Privately Owned Houses	0.165	0.359	0.524	0.362	0.178	0.54	2.519	2.499	5.018

Table 7.2 – Residential Privately Owned Houses (150 units) – Weekday Trips

Time Period	AM Peak (8:00 - 9:00)			PM Peak (17:00 - 18:00)			Daily (7:00 - 19:00)		
Direction	In	Out	2-Way	In	Out	2-Way	In	Out	2-Way
Privately Owned Houses	25	54	79	54	27	81	378	375	753

Trip Generation Summary

7.7 Overall, a development of 150 dwellings will result in maximum trips over the course of an average weekday of:

- 79 additional two-way vehicle trips in the morning peak hour (0800-0900);
- 81 additional two-way vehicle trips in the evening peak hour (1700-1800);
- 753 additional two-way vehicle trips per weekday.

7.8 The inbound and outbound trips generated by the onsite residential use has been included within the distribution assessment.

Traffic Distribution

7.9 Distribution figures have been derived from a review of Census 2011 data for residents (WU03EW location of usual residence and place of work by method of travel to work) in the Havant 006 area (E02004767, super output area middle layer, see **Figure 7.1**).

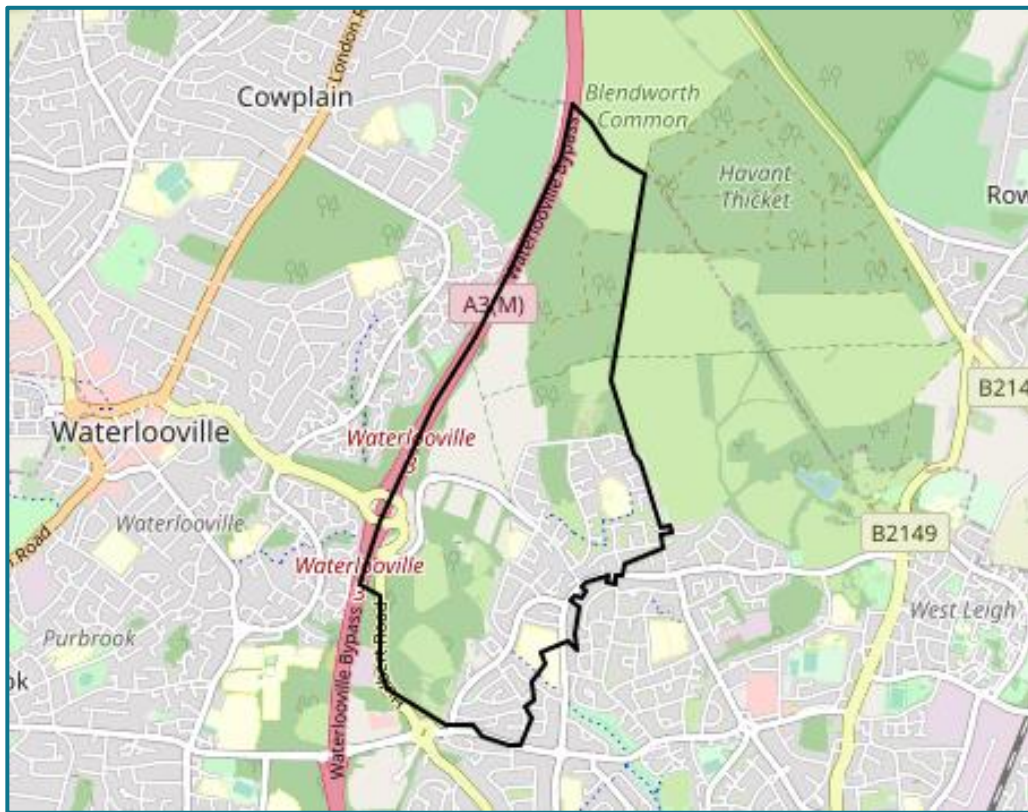
7.10 The directional routes people would use were established using Google maps route planner.

7.11 A distribution model has been formed which demonstrates the likely number of movements across 5 junctions, using routes derived from the Census 2011 review and applying TRICS vehicle trip generations to the local highway network. The model includes the following junctions:

- Site access on Swanmore Road;
- St Clares Avenue/Woolston Road priority junction;
- Woolston Road/Middle Park Way mini roundabout;
- Swanmore Road/Middle Park Way priority junction; and
- Dunsbury way/Middle Park Way junction.

7.12 The distribution model for both the AM peak hour (0800-0900) and the PM peak hour (1700-1800) is included at **Appendix N**.

Figure 7.1 – Havant 006 Area (Usual residence location)



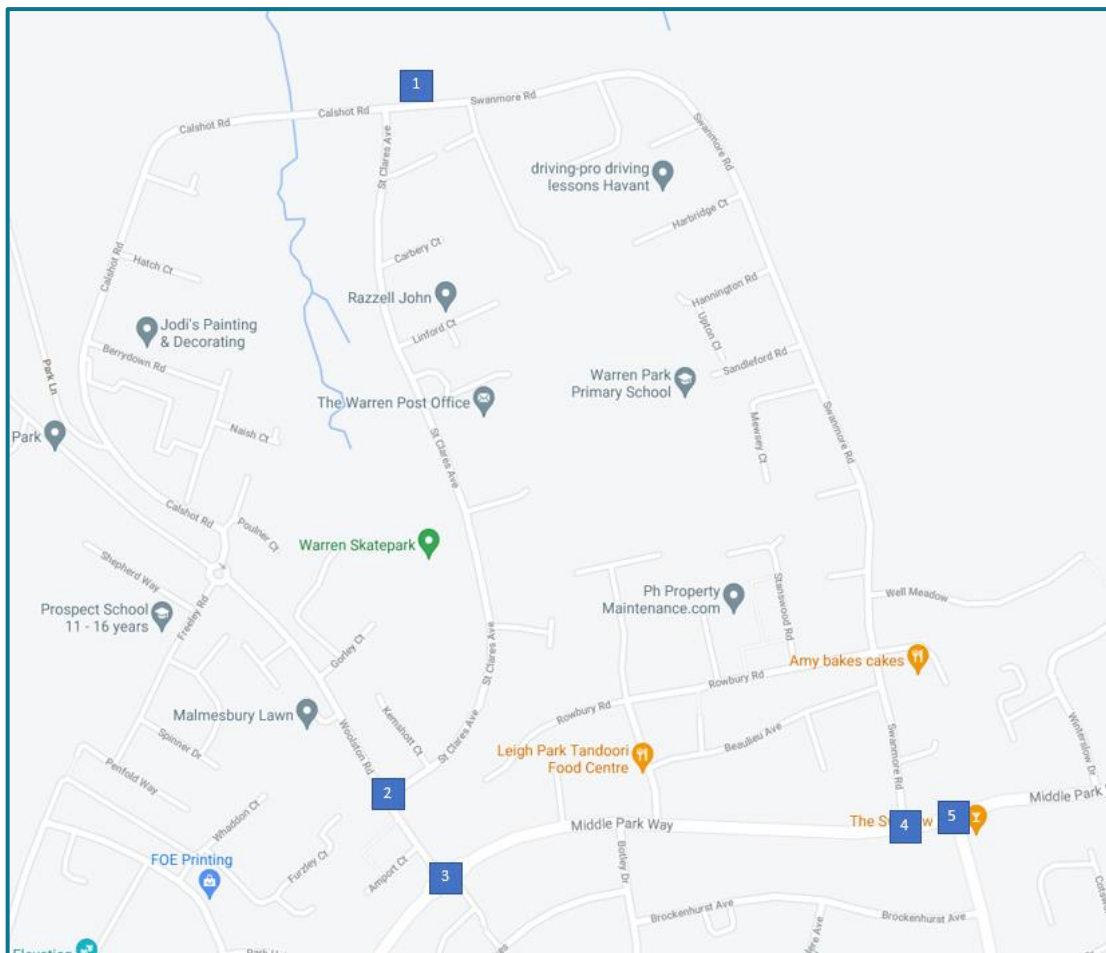
Source: www.nomisweb.co.uk

8 Assessment of Impact

8.1 ARCADY and PICADY junction capacity assessments have been undertaken using Junctions 9 software. The model covers the AM peak (0800-0900) and PM peak (1700-1800) as these are the busiest periods on the road and the peak movements derived from the trip generation assessment. The assessments are of the following junctions:

1. Site access on Swanmore Road;
2. St Clares Avenue/Woolston Road priority junction;
3. Woolston Road/Middle Park Way mini roundabout;
4. Swanmore Road/Middle Park Way priority junction; and
5. Dunsbury way/Middle Park Way junction.

Figure 8.1 – Locations of Junctions to be assessed



Traffic Flow Data

- 8.2 As previously outlined, the ATC and MCC survey data has been analysed further to provide traffic flows multiplied by the identified Covid-19 growth factor as the surveys were undertaken during the pandemic (1 x ATC in March 2021, 1 x ATC in June 2021, and the 4 x MCC in May 2021).
- 8.3 A Covid-19 traffic growth factor has been derived by comparing AADT traffic flows on a primary route (permanent traffic counter data obtained from WSCC on A259 Southbourne, West of Thorney Road) from April 2019 to June 2021, to consider any effect of the Covid-19 pandemic in May 2021 during a period where some constraints remained in place and potential effects of increased working from home.
- 8.4 The data demonstrates that traffic levels during the height of the national lockdown April 2020 were 60% lower than April 2019. However, traffic levels at the time of the MCC surveys (May 2021) were only 3% lower than May 2019. Traffic levels during June 2021 are now 7% higher than in June 2019. Overall, on the basis of the May 2019 to May 2021 comparison, a Covid-19 growth factor of 1.03038 has been applied to the recorded MCC data used within the junction capacity assessments.
- 8.5 There were two ATC surveys undertaken on Swanmore Road, one was undertaken Saturday 20th March – Friday 26th March, and the other was undertaken Friday 18th June – Thursday 24th June. When comparing the total 7-day traffic flows of the March week to the June week, the westbound flows were 6% lower and eastbound flows were 5% lower in June. However, to ensure robustness the highest AM and PM peak traffic flows recorded in both directions have been applied.
- AM Peak 08:00-09:00 total two-way flow = 181
 - Westbound = 105 (*recorded on Friday 18th June*)
 - Eastbound = 76 (*recorded on both Monday 22nd March and Monday 21st June*)
 - PM Peak 17:00-18:00 total two-way flow = 161
 - Westbound = 81 (*recorded on Wednesday 24th March*)
 - Eastbound = 80 (*recorded on Wednesday 24th March*)
- 8.6 The ATC recorded traffic flow numbers detailed above have also been applied with the same Covid-19 growth factor of 1.03038 to provide a representation of vehicle movements on Swanmore Road under pre-pandemic conditions, as follows:
- AM Peak 08:00-09:00 total two-way flow = 186.5
 - Westbound = 108.2
 - Eastbound = 78.3
 - PM Peak 17:00-18:00 total two-way flow = 165.9
 - Westbound = 83.5
 - Eastbound = 82.4

Impact on Highway Safety

- 8.7 A distribution model has been formed which demonstrates the likely number of movements across 5 junctions, applying TRICS vehicle trip generations for residents to the local highway network. During peak hours the number of additional vehicles entering and exiting the site onto Swanmore Road as a result of the development is as follows:
- AM peak hour (0800-0900) = 25 inbound + 54 outbound = 79 two-way trips;
 - PM peak hour (1700-1800) = 54 inbound + 27 outbound = 81 two-way trips.
- 8.8 This equates to less than 1.5 additional vehicles every 1 minute during peak hours and the impact is not considered to represent a significant increase in vehicles that would worsen the existing highway safety of the surrounding highway network. There is no evidence that the proposed development will lead to an increase in the risk of accidents.

Traffic Growth Forecast

- 8.9 The vehicle flows from the traffic surveys with the Covid-19 factor applied, have been used within the PICADY/ARCADY assessments. The traffic impact on junction capacity assessments have been undertaken for the following assessment scenarios, as agreed with HCC during pre-application discussions:
- 2021 Base Year
 - 2023 Open Year
 - 2023 Open Year + Development Traffic
 - 2028 Forecast Year
 - 2028 Forecast Year + Development
- 8.10 This assessment makes use of Temprow derived growth factors for MSOA Havant 006 to determine 2023 and 2028 forecast flows:
- 2023 AM 1.0211 PM 1.0203
 - 2028 AM 1.0677 PM 1.0653
- 8.11 The results of the junction capacity assessments for the above scenarios are presented in **Table 8.1-8.5** below. Detailed Junctions 9 output reports are included at **Appendix O**.

Site Access with Swanmore Road

- 8.12 The results of the PICADY assessment for the two scenarios (2023 Open year + development and 2028 forecast year + development) are presented in **Table 8.1** below for the site access on Swanmore Road.

Table 8.1 – Junctions 9 (PICADY) model results for Site Access with Swanmore Road

	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Queue (PCU)	Delay (s)	*RFC	Queue (PCU)	Delay (s)	*RFC
2023 Open + Development						
Site Access	0.1	8.01	0.12	0.1	7.54	0.06
Swanmore Road	0.0	5.36	0.01	0.0	5.53	0.03
2028 Forecast + Development						
Site Access	0.1	8.12	0.12	0.1	7.61	0.06
Swanmore Road	0.0	5.35	0.01	0.0	5.54	0.03

**RFC= Ratio of Flow to Capacity, 1.00 is complete saturation of junction, RFC's of 0.85 and above represent a junction which will begin to experience congestion due to traffic volumes.*

- 8.13 The site access junction operates well within capacity. The data input to the model includes 3% of westbound movements and 2% of eastbound movements on Swanmore Road as being HGVs in the AM peak period, and 2% for each direction of movements in the PM peak period, based on the June ATC data (using the highest HGV figures recorded out of the 5 weekdays).

St Clares Avenue/Woolston Road

- 8.14 The results of the assessment for the five scenarios are presented in **Table 8.2** below for the St Clares Avenue junction with Woolston Road.

Table 8.2 – Junctions 9 (PICADY) model results for St Clares Avenue jct w/Woolston Road

	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Queue (PCU)	Delay (s)	*RFC	Queue (PCU)	Delay (s)	*RFC
2021 Base Year						
St Clares Avenue	0.3	8.23	0.25	0.2	7.77	0.2
Woolston Road	0.2	6.19	0.17	0.3	6.37	0.21
2023 Open Year						
St Clares Avenue	0.3	8.31	0.25	0.3	7.83	0.2
Woolston Road	0.2	6.21	0.17	0.3	6.37	0.21
2023 Open Year + Development						
St Clares Avenue	0.5	9.21	0.33	0.3	8.19	0.24
Woolston Road	0.3	6.48	0.21	0.5	7.05	0.28
2028 Forecast Year						
St Clares Avenue	0.4	8.47	0.27	0.3	7.94	0.21

Woolston Road	0.3	6.26	0.18	0.3	6.43	0.22
2028 Forecast Year + Development						
St Clares Avenue	0.5	9.46	0.35	0.3	8.33	0.25
Woolston Road	0.3	6.55	0.22	0.5	7.17	0.3

**RFC= Ratio of Flow to Capacity, 1.00 is complete saturation of junction, RFC's of 0.85 and above represent a junction which will begin to experience congestion due to traffic volumes.*

- 8.15 The St Clares Avenue / Woolston Road junction also operates within capacity for all scenarios. The model input includes the HGV vehicle mix as recorded in the MCC data. In all scenarios the RFC figure is below 0.85.

Woolston Road/Middle Park Way

8.16 The results of the assessment for the five scenarios are presented in **Table 8.3** below for the mini-roundabout junction of Woolston Road / Middle Park Way.

Table 8.3 – Junctions 9 (ARCADY) model results for Woolston Road/Middle Park Way

	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Queue (PCU)	Delay (s)	*RFC	Queue (PCU)	Delay (s)	*RFC
2021 Base Year						
Middle Park Way (E)	1.0	7.77	0.49	0.6	6.05	0.38
Middle Park Way (SW)	0.9	6.86	0.46	1.6	9.57	0.62
Woolston Road	0.7	9.83	0.43	0.5	9.24	0.34
2023 Open Year						
Middle Park Way (E)	1.0	7.99	0.50	0.6	6.14	0.39
Middle Park Way (SW)	0.9	7.0	0.47	1.7	9.91	0.63
Woolston Road	0.8	10.11	0.44	0.5	9.46	0.35
2023 Open Year + Development						
Middle Park Way (E)	1.1	8.53	0.52	0.6	6.3	0.39
Middle Park Way (SW)	1.0	7.29	0.49	2.1	11.3	0.68
Woolston Road	1.0	11.58	0.51	0.6	10.06	0.39
2028 Forecast Year						
Middle Park Way (E)	1.1	8.49	0.53	0.7	6.36	0.4
Middle Park Way (SW)	1.0	7.32	0.50	1.9	10.75	0.66
Woolston Road	0.9	10.76	0.47	0.6	9.99	0.37
2028 Forecast Year + Development						
Middle Park Way (E)	1.2	9.14	0.55	0.7	6.54	0.41
Middle Park Way (SW)	1.1	7.67	0.52	2.4	12.5	0.71
Woolston Road	1.2	12.54	0.54	0.7	10.69	0.41

*RFC= Ratio of Flow to Capacity, 1.00 is complete saturation of junction, RFC's of 0.85 and above represent a junction which will begin to experience congestion due to traffic volumes.

8.17 The Middle Park Way / Woolston Road roundabout junction also operates within capacity for all scenarios. The model input includes the HGV vehicle mix as recorded in the MCC data. In all scenarios the RFC figure is below 0.85.

Swanmore Road / Middle Park Way

8.18 The results of the assessment for the five scenarios are presented in **Table 8.4** below for the Swanmore Road junction with Middle Park Way.

Table 8.4 – Junctions 9 (PICADY) model results for Swanmore Road / Middle Park Way

	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Queue (PCU)	Delay (s)	*RFC	Queue (PCU)	Delay (s)	*RFC
2021 Base Year						
Swanmore Road	0.7	12.99	0.41	0.6	12.61	0.39
Middle Park Way	0.4	5.85	0.22	0.4	5.99	0.2
2023 Open Year						
Swanmore Road	0.7	13.32	0.42	0.7	12.89	0.4
Middle Park Way	0.4	5.88	0.23	0.4	6.02	0.21
2023 Open Year + Development						
Swanmore Road	0.8	13.8	0.45	0.7	13.24	0.42
Middle Park Way	0.5	5.99	0.24	0.5	6.26	0.24
2028 Forecast Year						
Swanmore Road	0.8	14.1	0.44	0.7	13.59	0.42
Middle Park Way	0.5	5.95	0.24	0.4	6.08	0.22
2028 Forecast Year + Development						
Swanmore Road	0.9	14.67	0.47	0.8	13.99	0.44
Middle Park Way	0.5	6.07	0.26	0.5	6.35	0.25

**RFC= Ratio of Flow to Capacity, 1.00 is complete saturation of junction, RFC's of 0.85 and above represent a junction which will begin to experience congestion due to traffic volumes.*

8.19 The Swanmore Road / Middle Park Way junction also operates within capacity for all scenarios. The model input includes the HGV vehicle mix as recorded in the MCC data. In all scenarios the RFC figure is below 0.85.

Dunsbury Way / Middle Park Way

8.20 The results of the assessment for the five scenarios are presented in **Table 8.5** below for the Dunsbury Way junction with Middle Park Way.

Table 8.5 – Junctions 9 (PICADY) model results for Dunsbury Way / Middle Park Way

	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Queue (PCU)	Delay (s)	*RFC	Queue (PCU)	Delay (s)	*RFC
2021 Base Year						
Dunsbury Way	0.7	12.99	0.41	0.6	12.61	0.39
Middle Park Way	0.4	5.85	0.22	0.4	5.99	0.2
2023 Open Year						
Dunsbury Way	0.7	13.32	0.42	0.7	12.89	0.4
Middle Park Way	0.4	5.88	0.23	0.4	6.02	0.21
2023 Open Year + Development						
Dunsbury Way	0.8	13.8	0.45	0.7	13.24	0.42
Middle Park Way	0.5	5.99	0.24	0.5	6.26	0.24
2028 Forecast Year						
Dunsbury Way	0.8	14.1	0.44	0.7	13.59	0.42
Middle Park Way	0.5	5.95	0.24	0.4	6.08	0.22
2028 Forecast Year + Development						
Dunsbury Way	0.9	14.67	0.47	0.8	13.99	0.44
Middle Park Way	0.5	6.07	0.26	0.5	6.35	0.25

**RFC= Ratio of Flow to Capacity, 1.00 is complete saturation of junction, RFC's of 0.85 and above represent a junction which will begin to experience congestion due to traffic volumes.*

8.21 The Dunsbury Way / Middle Park Way junction also operates within capacity for all scenarios. The model input includes the HGV vehicle mix as recorded in the MCC data. In all scenarios the RFC figure is below 0.85.

Summary of Impact

- 8.22 The model results indicate that all assessed junctions would operate well within capacity.
- 8.23 The indicator of operation capacity within the PICADY and ARCADY models is depicted in the ratio of flow to capacity (RFC), whereby a ratio of below 0.85 indicates normal operation, and a ratio of 1.00 is complete saturation of a junction. The maximum RFC for the 2028 forecast + development scenario for each junction is as follows:
- Site access on Swanmore Road = 0.12
 - St Clares Avenue/Woolston Road priority junction = 0.35
 - Woolston Road/Middle Park Way mini roundabout = 0.71
 - Swanmore Road/Middle Park Way priority junction = 0.47
 - Dunsbury way/Middle Park Way junction = 0.47
- 8.24 TEMPro growth factors have been applied within this assessment for long range forecasts up to 2028. TEMPro is continuously updated and the growth factors predict continuous traffic growth which can be used to ascertain estimates of future travel demand. Therefore, this assessment includes consideration of traffic flows generated by future development.

Proposed Mitigation Measures

- 8.25 The development will include the following proposed mitigation measures in order to encourage more sustainable travel:
1. New shared cycleway/footway across the site frontage and local connections, for example to the nearby bus stops;
 2. Separate access for pedestrians, and cyclists only;
 3. Footpath connections to the existing bridleways which run to the north and east of the site boundary;
 4. Informal pedestrian crossing facilities on Swanmore Road;
 5. Residential Travel Plan with 5 year monitoring, including Residential Travel Welcome Pack.

9 Travel Plan Framework

Context

- 9.1 A development of this size is likely to require a full Travel Plan which provides information to new occupants of travel facilities in the area. Travel Plans are usually secured by a Condition of Planning Permission. This section of the Transport Assessment briefly sets out HCC travel plan requirements and the draft form and content of a Travel Plan for this proposed development.
- 9.2 HCC online guidance for developers (*source: [Information for highways developers | Hampshire County Council \(hants.gov.uk\)](https://www.hants.gov.uk/information-for-highways-developers)*) outlines a travel plan is required for an application of 100 or more households. Therefore, for a development of up to 150 dwellings, a Travel Plan will be required as part of the planning application.
- 9.3 HCC's 'Guide to Development Related Travel Plans' (January 2009) guidance contains details of Travel Plan requirements. In compliance with the guidance, the content of the Travel Plan will reflect local circumstances and will be site specific including the elements outlined in **Table 9.1** below (extract of Table 4.1 of the HCC guide to travel plans).

Table 9.1 – Elements of a Travel Plan (Table 4.1 extract from HCC TP guide)

Section	Content
Executive Summary	For longer plans, it will be appropriate to provide a succinct summary
Background	Overview of the site, the organisation and transport facilities. Reference to relevant national and local travel plan policy
Purpose	Explanation of need for the plan and its benefits so those tasked with its implementation, and other stakeholders, will be clear about what the plan is seeking to achieve.
Travel Survey and Site Audit	Sets out all the information and data that pertains to the site and the existing or forecast travel patterns.
Objectives	Sets out in broad terms what the plan is seeking to achieve. This may relate to economic, environmental or social factors. Should be in line with Hampshire County Council's Local Transport Plan.
Targets	Identification of SMART targets (Specific, Measurable, Achievable, Realistic and Time-bound) For each target there will be associated indicators to measure progress.
Travel Plan Strategy and Action Plan	A strategy for implementation including: travel plan coordinator role, management of the plan, development timetable, marketing and promotion and an Action Plan to outline the implementation programme for the proposed measures
Measures	A clear description of the measures proposed to encourage sustainable travel, reduce car dependence and achieve the stated targets and objectives.

Monitoring	Information on when and how monitoring will be undertaken together with identifying who will be responsible.
Management arrangements	Clear identification of who is responsible for ensuring that the travel plan is delivered. Proposals for the longer term management structure such as a steering group or community trust should be clearly set out to ensure involvement and commitment of all parties.
Enforcement	Consideration should be given to the means by which the travel plan will be enforced. It should include the heads of terms by which a Section 106 agreement will be reached. This might include a sanction should the travel plan fail to deliver key measures and targets.

9.4 Residential travel plans will take a different form to those for standard employment sites and are likely to achieve the greatest impacts in larger scale development (i.e. over 100 dwellings). The main objectives of a residential travel plan are to:

- address residents' need for access to a full range of facilities and activities;
- reduce the traffic generated by the development;
- encourage good design principles and support the local community

Mitigation Measures

9.5 The inclusion of travel planning principles at an early stage can also provide an opportunity to make a fundamental shift towards the provision of streets for people and social activity rather than purely a means of car access to properties. Appendix F of the HCC guide to travel plans outlines a range of measures that should be considered in residential travel plans.

9.6 Potential mechanisms and measures to be considered in the full residential Travel Plan include:

Walking

There is great potential for promoting walking as a means of accessing local facilities. To encourage this, measures could include:

- Displaying information and advice concerning safe pedestrian routes to and from the site at a location accessible to residents;
- Distributing information to all new residents as part of the standard residential travel 'Welcome' packs;
- Provision of a new shared cycleway / footway on Swanmore Road, linking with the existing footway/cycleway provisions;
- Provision of safe pedestrian crossing points at the site access and Swanmore Road.

Cycling

The following measures to promote cycling as a means of accessing local facilities could also be promoted by measures including:

- Displaying information and advice concerning safe cycle routes in a location accessible to residents;
- Distributing information to all new residents as part of the standard travel 'Welcome' packs;
- Provision of a new shared cycleway / footway on Swanmore Road, linking with the existing footway/cycleway provisions.

Public Transport

Promotion of the use of public transport for accessing facilities further from the site could be encouraged through measures such as:

- Displaying up-to-date details of bus services, including bus stop locations, route information and service frequencies, in a location accessible to residents;
- Displaying route disruption notices and alternative routes, when essential maintenance is in place;
- Providing details of ticketing options to residents;
- Provision of up to date bus timetables and rail maps;
- Distributing information to all new residents as part of the standard travel 'Welcome' packs;
- Potential improvements to the bus stop infrastructure on the south side of Swanmore Road, i.e. possible upgrade of the existing tactile paved crossing points at the bus stops on Swanmore Road as part of the proposed shared cycleway/footway.

- 9.7 The Travel Packs would include a map showing local footways, cycle routes and bus stops and bus services, together with information on the site Travel Plan contact details for the Travel Plan Co-ordinator, and links to the bespoke website.

Action Plan

- 9.8 The Travel Plan would contain an Action Plan, setting out timetables, responsibilities and monitoring of agreed Travel Plan elements linked to the respective Travel Plan objectives.

Monitoring and Review

- 9.9 A programme of monitoring and review will be agreed with the local authorities. Monitoring, review and update of the Travel Plan will be carried out to a timetable agreed with the local authorities. HCC guidance on travel plans states that monitoring will normally be required for a minimum of five years, but in the case of larger developments may be required for a longer period. Where relevant, the developer is encouraged to use the UK Standard for Monitoring Travel plans system developed by TRICS, all monitoring surveys will be TRICS SAM compliant.

- 9.10 Dates for travel plan review meetings will be identified within the travel plan for years one, three, and five as a minimum and beyond depending on the nature of the development. The review meetings will involve (as necessary) representatives of the occupier, the local planning authority, the County Council (Development Control Highways and the Travel Plan team), public transport operators and community representatives
- 9.11 The Travel Plan Co-ordinator will be responsible for the preparation and dissemination of the Monitoring Report.
- 9.12 The local authority reserves the right to observe the monitoring or request (at the developer/occupiers' cost) an independent audit of the information collected. In addition to this, the local authority will carry out random monitoring of up to ten sites per year. This will be done via a traffic count and vehicle occupancy count or other suitable method. If the results collated by the local authority are dissimilar to those submitted by the developer/organisation, the two parties will meet to discuss a suitable way forward. Further surveys may be carried out with input from both the local authority and the developer/organisation to ensure that both parties accept the results obtained.

10 Conclusion

- 10.1 This Transport Assessment has been prepared to support an outline planning application for up to 150 dwellings with vehicle access via a new priority junction on Swanmore Road. A second access is proposed in the south-west corner of the site onto Swanmore Road for pedestrians, cyclists and emergency vehicle use only. This report has summarised the existing situation and has provided an overview of the proposed development from a transport perspective.
- 10.2 Key transport-relevant elements of the development, including access and vehicle swept path drawing, trip generation and the impacts upon the surrounding transport networks, have been considered from a policy context.
- 10.3 It is considered that the proposals are in accordance with current policies and guidance provided by Havant Borough Council and Hampshire County Council and are compliant with national guidance documents such as Manual for Streets and the National Planning Policy Framework 2019 (NPPF).
- 10.4 The development of up to 150 residential units will provide:
- Car and cycle parking compliant with HBC standards, including electric vehicle charging provision;
 - A new vehicular access point onto Swanmore Road in the form of a priority junction;
 - A second access in the south-west corner of the site for pedestrians, cyclists and emergency vehicle use only;
 - Footpath connections to the existing bridleways which run to the north and east of the site boundary;
 - Two new uncontrolled pedestrian crossing points on Swanmore Road providing safe crossing points;
 - An extension of the Havant Thicket proposed shared use path from the Pennerly Court bus stops to the east of the site access, across the site frontage, up to the St Clares Ave bus stops to the west of the site;
 - Residential Travel Plan with 5 year monitoring, including Residential Travel Welcome Pack.
- 10.5 There were 4 problems raised through the RSA1 process, 2 of which have now been addressed. The remaining 2 problems raised will be resolved through the detailed S278 design phase. Therefore, the RSA1 has not raised any fundamental problems that cannot be resolved.
- 10.6 The site can be easily accessed by sustainable forms of transport such as walking/cycling/bus/train and have frequent services during peak hours. The site is well located within walking and cycling distance of nearby amenities and services (including local schools, shops, community services and

employment opportunities), compliant with Manual for Streets (MfS1) and IHT recommended guidelines for providing journeys on foot.

- 10.7 Robust trip rates have been used, agreed in pre-application scoping discussions with HCC highways, distributed and assigned to the local highway network. Junction capacity assessments have been undertaken and demonstrate all junctions assessed operate with plenty of capacity at peak times with no layout alterations required. The trip forecasting exercise concludes the new trips generated can be accommodated on the local highway network in the agreed forecast years of 2023 and 2028.
- 10.8 A Framework Travel Plan is included with this report which would be converted to a full Travel Plan following planning consent. The Travel Plan would encourage sustainable travel to all site users by promoting a range of sustainable travel measures. The Travel Plan would be monitored over at least 5 years with the aim of achieving a set of agreed targets over the period.
- 10.9 In conclusion, there are no unacceptable highway or transport impacts that cannot be mitigated as a result of the proposed development.

- End of Report -



Civil Engineering - Transport Planning - Flood Risk

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