



LAND NORTH OF WOODCROFT FARM (PHASE 3), HORNDEAN

TRANSPORT ASSESSMENT

November 2024

Grainger PLC

**RESIDENTIAL DEVELOPMENT
LAND NORTH OF WOODCROFT FARM (PHASE 3)
HORNDEAN**

TRANSPORT ASSESSMENT

CONTROLLED DOCUMENT

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1. INTRODUCTION

- 1.1 This Transport Assessment (TA) has been prepared by Paul Basham Associates on behalf of Grainger PLC to support an outline planning application for a residential development of up to 164 units with associated vehicular access and landscaping (all matters reserved except access) at Land to the north of Woodcroft Farm, Horndean. The site will be referred to as Woodcroft Farm Phase 3.
- 1.2 Paul Basham Associates have prepared a Framework Travel Plan (TP) and Walking, Cycling, Horse-Riding Assessment and Review (WCHAR) in conjunction with this application.
- 1.3 The existing site comprises a circa 7-hectare area of grazing land and is located within the southernmost extent of East Hampshire District Council (EHDC) boundary. The site is bound to the west by Clarendon Farm and existing residential development to the east. Immediately to the north of the site lies James Copse; an Ancient Replanted Woodland and SINC (sites of importance for nature conservation), beyond which are further open grazing fields, existing residential developments and a solar farm.
- 1.4 Along its southern boundary, the site abuts the previously consented development known as Catherington Park (APP/13/00804). This falls within the boundary of Havant Borough Council (HBC) and consists of a 288 residential dwelling scheme, with a dedicated vehicular access onto Eagle Avenue.
- 1.5 The site location is shown within **Figure 1** and the site masterplan is attached as **Appendix A**.

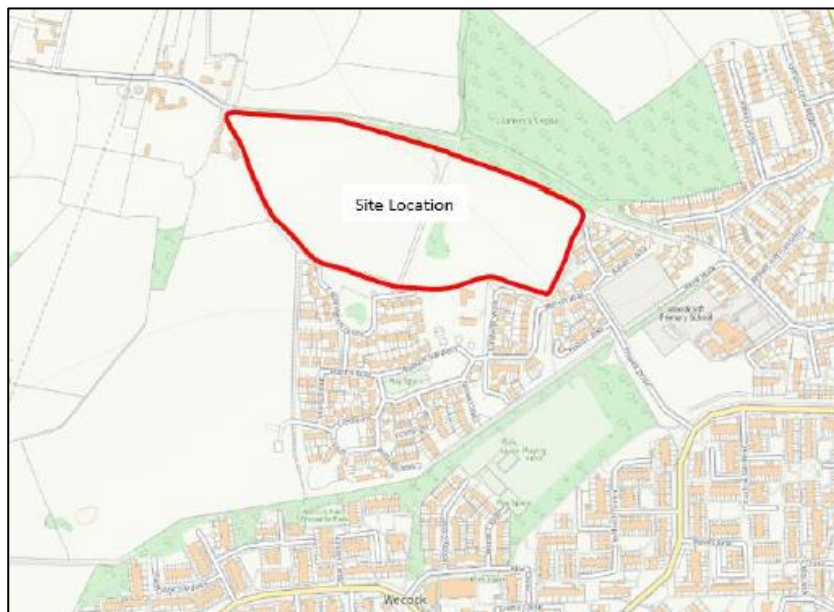


Figure 1: Site Location

- 1.6 As outlined above, the site is located adjacent to a number of local planning authority boundaries, all within Hampshire County Council's (HCC) highway authority boundary. The site itself is located within East Hampshire and adjoins Havant Borough Council (HBC) to the south and east.

Site History

- 1.7 East Hampshire District Council's Local Plan Site Allocations document is currently at the Regulation 18 stage. The development site is within the site allocations under HD-024 Land at Woodcroft Farm for 164 units and access from the Catherington Park development in East Hampshire District Council Local Plan (2021-2040).
- 1.8 East Hampshire District Council Local Plan (2021-2040) was at planning committee on 10th January 2024 (report number: EHDC/2023/099). A 6-week public consultation will be publicised on the Council's webpage, and the Council's social media from 22nd January to 4th March 2024.

Catherington Park Development

- 1.9 The Catherington Park development planning application, located directly south of the site, was submitted for the *'Development of 288 residential units comprising 9 x one bedroom, 110 x two bedroom, 124 x three bedroom and 45 x four bedroom, retention of existing farmhouse, new access road from Eagle Avenue, internal access roads, associated car parking, open space and landscaping and including works to trees'* in 2013 and granted permission in May 2015. The site is now in its final stages of being built out, with the final units being constructed and occupied. All internal roads and a priority junction with Eagle Avenue are constructed.
- 1.10 The Catherington Park development was designed with the knowledge that the land to the north (Woodcroft Farm Phase 3 – this application) could come forward. Therefore, there are two areas within the site where roads can be continued to provide access into the proposed development site and the main site access was designed to accommodate future capacity of Phase 3 Woodcroft Farm.
- 1.11 The access at Eagle Avenue was originally designed as a mini-roundabout to accommodate future capacity. However, in the interim period a bellmouth junction was implemented and is currently in place. This TA will include an assessment of the existing bellmouth junction to determine the suitability of the existing access and make reference to the proposed mini-roundabout design which is currently going through the S278 process.
- 1.12 As part of Catherington Park Condition 25 (Phasing plan for off-site highways works) it was agreed *that 'prior to the mini roundabout being constructed on Eagle Avenue, a temporary bellmouth arrangement*

will be put in place and an appropriate trigger for the addition of the roundabout will be agreed with HCC'.

- 1.13 Therefore, the site has a vehicular access arrangement, agreed at planning and secured through S106, to support all future development to Catherington Park and the land north of Catherington Park. Details of the agreed junction arrangement at Eagle Avenue are being implemented by Linden Homes in agreement with HCC.

Public Consultation

- 1.14 An in person public consultation was undertaken on the 5th December 2023 at the Acorn Community Centre, Eagle Avenue, Waterloooville. This was to allow the public to find out about the proposals and to provide their feedback on the scheme. The main comments relating to transport were:
- Concern with the development being served from Catherington Park due to the current parking concerns at the site, especially opposite junctions;
 - Concern over development traffic utilising one point of access (Merritt Way) more than the other access point;
 - Concerns the development will further constrain the parking available within Catherington Park (including in terms of construction);
 - Concerns over speed limits, road markings and potential for yellow lines added to junctions to stop parking opposite turnings;
 - Concern over construction traffic routing and management
- 1.15 A number of people were concerned about the route into the development, due to the current on-street parking in the Catherington Park development, especially opposite junctions. These roads are under Linden Homes management currently and are yet to be adopted therefore parking restrictions, such as double yellow lining, cannot currently be implemented. This feedback has been passed onto Linden Homes for them to action to improve the safety of the junctions (within Catherington Park) which would be utilised by the development.
- 1.16 To address the concerns about development traffic utilising one point of vehicular access over another, the development proposes two separate development parcels (an eastern and western parcel) which have separate points of vehicular access and no through route (apart from for emergency vehicles).
- 1.17 To minimise concerns that the development will result in displaced parking within Catherington Park, parking will be provided for all units and visitors in line with EHDC parking standards guidance.

- 1.18 In response to concern over construction traffic routing, and management and parking of construction vehicles at the development, a Construction Traffic Management Plan (CTMP) will be provided (which can be conditioned as part of the planning approval) which will set out the site set up, construction parking, construction routing and all other on-site facilities.
- 1.19 Construction traffic will be routed through Merritt Way and the eastern access to the site to ensure a large proportion of the Catherington Park development remains clear of construction vehicles.
- 1.20 Therefore, comments from the public consultation have been taken on board and fed into the design of the development proposals.

Pre-Application Advice – HCC

- 1.21 The scope of the highways input required for this application has been discussed at length with HCC, as the highway authority, through pre-application consultations. More specifically, the main comments raised by HCC are as follows: **(Appendix B)**
- The TA assessment work should follow the decide and provide model.
 - The Highway Authority will require a full WCHAR as part of any future planning application to provide an updated review of the walking and cycling facilities available from the proposed development.
 - The WCHAR should include a Healthy Street Audit and consideration should also be given to the use of Active Travel England's Route Check Tool.
 - Along the western side of the access road, there is a footway which runs to the back of the fence line which separates the path from Powell Drive. The footway is currently of a poor quality and a limited width and should therefore be widened and resurfaced.
 - HCC have suggested areas to consider within a full WCHAR and that the applicant should engage with HCC's Countryside Services team to further discuss improvement schemes.
 - The Milton Road corridor has been reviewed as part of Havant's adopted LCWIP which should be considered within the WCHAR.
 - The PSN does not quantify the level of development which is to be served via each access point; however, the Highway Authority have concerns with the use of Wilkes Way to access a significant proportion of the proposed site due to the layout of the Catherington Park development and the on-street parking which is currently present.
 - The Highway Authority wishes to flag at this stage that Wilkes Way is unlikely to be suitable to access significant levels of development.
 - Merritt Way – The Highway Authority have concerns with the current layout shown given the constraints in movement. To understand the impacts on day-to-day interactions through the

access, the applicant is required to provide tracking for a dot com delivery vehicle passing a family car along the access road.

- Merritt Way – Pedestrian and cyclist visibility splays will need to be provided from the crossing point to demonstrate that TG3 compliant splays are available.
- Wilkes Way – Revised tracking will need to be undertaken to demonstrate that the movements can be safely undertaken. Tracking for a dot com delivery vehicle passing a car should also be shown throughout the new access road to demonstrate that these manoeuvres can be undertaken.
- Wilkes Way – Two pinch points are provided along the access road, supported by raised tables. Although confirmation has not been provided as to whether the access road will be adopted, the applicant should note that the provision of raised tables is not supported by HCC's Asset Management team and should therefore be removed from the design.
- A Stage 1 Road Safety Audit (RSA) will be required for both access proposals, although the applicant is advised to first address the comments raised within this response before an RSA is undertaken.
- Further details of the emergency access.
- As a result of the distribution exercise, the following junctions are also due to be surveyed: Lovedean Lane/Milton Road; Lovedean Lane/A3 Portsmouth Road; and A3 Portsmouth Road/Catherington Lane/B2149. Details of this assessment are required.
- The note does not propose to model the existing junction with Powell Drive/Eagle Avenue, nor its planned mini roundabout design. Given the time that has passed since the original assessments were undertaken, the Highway Authority requires updated junction modelling for both junction options, which will require additional traffic surveys.
- It should be noted the existing priority junction between Milton Road and Lovedean Lane is due to be upgraded to a mini roundabout as part of the mitigation package secured through the Catherington Park development. Future junction modelling work will therefore need to take the revised junction form into account.
- The applicant should engage with the Highway Authority to agree the modelling scenarios associated with the Decide and Provide approach.

1.22 The comments were received from HCC on the 14th March 2024 and therefore, not all comments have been addressed within this TA and some comments will be addressed post planning should they continue to be required.

1.23 The following comments have been addressed within this TA:

- Updated access design from Wilkes Way
- Update tracking along both access roads
- Stage 1 RSA and Designers Response
- Healthy Streets Assessment and Active Travel England Toolkit
- Address some of the WCHAR comments within Chapter 4 of this report
- Details of the emergency access arrangements
- Distribution of development traffic
- Modelling of the agreed junctions and site access (Powell Drive/Eagle Avenue)

1.24 In support of this application a site visit was conducted in August 2023 and, traffic count surveys and constabulary collision data were obtained.

2. PLANNING POLICY

2.1 This TA has been produced in accordance with relevant national, regional and local policy. For reference this includes:

- National Planning Policy Framework (NPPF) (December 2023);
- HCC Local Transport Plan 4 (March 2024);
- EHDC Local Cycling and Walking Infrastructure Plan (LCWIP) (August 2020);
- EHDC Local Plan (Reg 18): Site Allocations (2021-2040);
- East Hampshire District Council Local Plan (Reg 18);
- East Hampshire District Local Plan: Joint Core Strategy (June 2014);
- East Hampshire Local Plan second review – saved policies (2006);
- Department for Transport (DfT) Circular (01/2022); and
- Active Travel England Toolkit.

National Planning Policy Framework (NPPF)

2.2 The NPPF (December 2023) acts as the central guidance for development planning. As defined in NPPF Annex 2: Glossary, a Travel Plan is ‘a long-term management strategy for an organisation or site that seeks to deliver sustainable transport objectives and is regularly reviewed’ and is a requirement for developments which generate a significant amount of movement. The following NPPF paragraphs are relevant to the Transport Statement:

Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:	
a)	<i>The potential impacts of development on transport networks can be addressed;</i>
b)	<i>Opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;</i>
c)	<i>Opportunities to promote walking, cycling and public transport use are identified and pursued;</i>
d)	<i>The environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and</i>
e)	<i>Patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.</i>
(NPPF Para.108)	
The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.	
(NPPF Para.109)	
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.	
(NPPF, Para. 115)	
All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.	
(NPPF Para. 117)	

Hampshire County Council Local Transport Plan 4 (LTP4)

- 2.3 LTP4 was adopted in March 2024 and sets out core policies which are used to determine how HCC plans and delivers all aspects of transport. LTP4 details the vision for 2050, transport policies, a roadmap for 2050 and wider strategies. The LTP4 policies which are relevant to this development are outlined below.

Guiding Principle 1: Give people a choice of high-quality travel options. • Provide a choice of high-quality travel options and reduce dependency on the private car by: - providing better walking, cycling and public transport choices - creating opportunities to 'live locally' (including homeworking) - owning fewer cars and using them less • Use vehicles more efficiently to reduce per vehicle emissions, e.g. fuller loads and more efficient routes for movement of goods, smaller vehicles, well used public transport and more car sharing • Replace our petrol and diesel vehicles (which emit CO2) with zero emission vehicles • Offset any remaining emissions that cannot be eliminated by the above
Guiding Principle 2: Provide a transport system that promotes high quality, prosperous places and puts people first. Planning for people and places means: • Creating high quality places, which encourage active and public transport use, enable social interaction, and create stronger communities; • Creating safe, healthy, accessible, and inclusive transport options that provide more equitable access to services, opportunities and life chances, leisure and recreation, and which tackle the adverse impacts of transport on the environment; and • Supporting and promoting key transport strategic infrastructure (primarily public and active transport) that serve economic hubs, international gateways or improve connectivity in the sub-region.
Policy C1: Putting people and places at the heart of our decisions • Develop and apply a Movement and Place Framework to manage the transport network in accordance with its function in different locations, i.e. to decide what type of measures are needed where; • Prioritise the needs of walking and cycling, public transport users and delivery vehicles, in accordance with the specific function of different types of location; • Use a 'Healthy Streets' approach and our 'Hampshire Walking and Cycling Principles' to plan and design welcoming, comfortable, safe and inclusive networks for everyone regardless of ability, confidence, age and disability; • Seek opportunities to create or reallocate road space to create better walking and cycling routes and faster routes for buses; and • Support targeted highway capacity improvements where there is a strong economic, safety, health, social or environmental case and where the Movement and Place Framework is achieved
Policy C3: Transport strategies and schemes to be developed in accordance with consideration of all users. Ensure that transport strategies and schemes give appropriate consideration (in the following order) to the following Road User Utility Framework: - opportunities to reduce travel demand and the need to travel; - vulnerable users, including people with disabilities or long-term mobility-related health conditions; - people who walk; - people who cycle and ride horses; - people who use public transport (bus, coach, rail, taxi, community transport); - delivery of goods; and - other motor vehicles.
Policy C5: Support local living and reduce demands on transport • Support measures that enable residents to make greater use of local services and facilities and will create stronger communities (based around the liveable neighbourhood concept); • Enable local communities to deliver community-led place and transport improvements where there is funding to do so; • Support the roll out of superfast/gigabit broadband to enable home working and online access to services, so that people can travel less for these services - especially in rural areas, where the provision of the necessary infrastructure by the private sector may be slower;
Policy C6: Encourage sustainable travel behaviour • Raise awareness of the impacts of individual travel choices and encourage personal and community behaviour change;

- Work with local communities, educational establishments, businesses, local media and other organisations to deliver travel planning and safety advice, and other evidence-based interventions to encourage people to walk, cycle, scoot and use public transport and car-sharing more, using innovative ways of reinforcing the messages about sustainable, healthy, and active travel;
- Deliver transport infrastructure which will provide affordable, safe, attractive and easy to use alternatives to the private Car (with supporting behaviour change interventions where feasible);
- Ensure that sustainable travel options cater for all groups, including individuals living with disabilities, limited mobility or long-term limiting health conditions and those individuals within society who are disadvantaged;
- Develop and implement a Hampshire-wide parking strategy which is aligned with the LTP4 outcomes; and
- Monitor the effectiveness of our approach and adapt it to changing transport needs.

HCC Local Cycling and Walking Infrastructure Plan (LCWIP)

- 2.4 East Hampshire District Council Local Cycling and Walking Infrastructure Plan (LCWIP) V1.2 was produced in August 2020 setting out the walking and cycling plans within East Hampshire. There are no proposals in the direct vicinity of the site, however, there are proposals for improvements to the cycle network within Horndean and the surrounding areas. Therefore, when considering the likely trip generations to areas further afield, improvements to pedestrian and cycle infrastructure in line with the desires of the LCWIP will be considered.

EHDC Local Plan (Reg 18): Site Allocations

- 2.5 East Hampshire District Council's Local Plan Site Allocations document is currently at the Regulation 18 stage. The development site is within the site allocations under HD-024 Land at Woodcroft Farm. The details of the allocation are outlined below:

164 units for housing

Access:

Potential to connect the site to the public rights of way network, improving permeability for walking and cycling modes and enabling healthy & active lifestyles.

Connection to the local road network could be achieved through recent housing development to the south and east. The access road to the north-west is unlikely to be suitable as a principal access route for motor vehicles.

New vehicular connections via recent development to the south and improvements to the adjoining rights of way networks (e.g. new connections) would be necessary to support development. Improved pedestrian connections through to the Wecock Recreation Ground and on to the community centre at Wecock Farm should be investigated.

(HD-024 – Land at Woodcroft Farm)

East Hampshire District Council Local Plan (Reg 18)

- 2.6 In addition to the site allocations, EHDC Reg 18 Local Plan (2021-2040) sets out a number of policies. Those relevant to this TA are outlined below:

Development of more than ten new homes or more than 500m² of non-residential floorspace should be situated in the most sustainable locations, taking account of the settlement hierarchy, to reduce demands on transport and reliance on private car travel.

Development will be permitted that:

- a) provides linkages to existing or proposed transport infrastructure and networks, prioritising connections to public transport services and routes promoted in the LCWIP;
- b) provides attractive and well-designed walking and cycling networks with relevant supporting infrastructure that will improve the perceived safety and security of these modes;

- c) provides inclusively designed streets that are safe and accessible for all of the community and relevant services, including emergency and refuse vehicles;
- d) takes appropriate measures to avoid the harmful effects of poor air quality, to people and the environment, including in connection with internationally designated biodiversity sites;
- e) provides well-designed parking provision for a range of vehicles, including cycle, electric and ultra-low emission vehicles, in accordance with the standards set out in Appendix F;
- f) protects or enhances the character of historic rural roads, particularly within the setting of the South Downs National Park;
- g) does not have a severe impact on the operation of, safety of, or accessibility to the local or strategic highway networks;
- h) mitigates impacts on the local or strategic highway networks, caused from the development itself and/or the cumulative effects of development, through the provision of, or contributions towards, necessary and relevant transport improvements; and
- i) recognises the importance of adequate lorry parking as part of any proposals for large distribution centres, particularly when such parking provision is likely to be required overnight.

(Policy DGC2 Sustainable Transport)

In order to help meet affordable housing needs, all development which increases the supply of housing by 10 dwellings or more (or is on sites of over 0.5 hectares) will be required to provide at least:

- i. 40% of the net number of dwellings as affordable housing, of which
- ii. 70% will be affordable housing for rent, of which a minimum of 25% should be provided as social rent; and
- iii. The remainder (30%) as other affordable home ownership products to be agreed with the Local Authority.

(Policy H3 Affordable Housing)

EHDC Local Plan: Joint Core Strategy (June 2014)

- 2.7 The Joint Core Strategy was adopted by EHDC in May 2014 and South Downs National Park in June 2014 and is the current live and adopted policy. The purpose of this document is to provide a policy framework that plans for new development to deliver the vision. The vision for East Hampshire is:

“By 2028, East Hampshire will be a better place where people live, work and build businesses in safe, attractive and prosperous towns and villages. They will have good access to a range of housing, jobs, leisure and community facilities, and enjoy a high quality built, historic and natural environment.”

- 2.8 The transport and access objectives are listed below:

- To reduce the need to travel, particularly by car, through careful planning of development and the location of services, whilst recognising that the car will remain part of the mix of transport modes, particularly for those in the rural areas;
- To improve accessibility to all services, particularly for those who may need them most, but are least able to access them; and
- To increase the use of public and community transport, cycling and walking where travel remains necessary.

- 2.9 The policies relating to this TA are listed below:

Policy CP1 Presumption in favour of sustainable development

When considering development proposals, the Council and National Park Authority will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework (NPPF).

Planning applications that accord with the policies in this Local Plan (and, where relevant, with policies in neighbourhood plans) will be approved without delay, unless material considerations indicate otherwise.

Policy CP29 Design

New development will be required to:

- f) make provision for waste and recycling bin storage and collection within the site;
- k) provide car parking in a way that secures a high quality environment and is conveniently located, within curtilage wherever possible, taking account of relatively high levels of car ownership where necessary.

Policy CP31 Transport

Through implementation of the Hampshire Local Transport Plan (2011 – 2031), the fullest possible use of sustainable modes of transport (including cycling, walking and public and community transport) and reduced dependence on the private car will be encouraged.

Development proposals will include a range of mitigating measures and, where appropriate, will be required to:

- a) enhance the quality, viability, availability, accessibility and frequency of public transport and alternative community transport provision, especially in rural areas, to ensure that those without access to a private car have access to services and facilities necessary for their well-being;
- b) protect and provide safe and convenient cycle and pedestrian links that integrate with existing cycle and pedestrian networks, such as the South Downs Way and Shipwrights Way, and reflect the amenity and rural character of the area;
- c) ensure that highway design and associated signing meets the needs of vehicular traffic and the need for safety whilst also placing a high priority on meeting the needs of pedestrians, cyclists and public transport users and without detriment to the quality of the environment;
- d) plan for new highway infrastructure that will reduce congestion, improve highway safety, increase accessibility to the District's town and district centres and enhance economic prosperity of the District;
- e) improve access to rail stations at Rowlands Castle, Petersfield, Liss, Liphook, Alton and Bentley Station by sustainable modes of transport and, where appropriate, provide additional car and cycle parking at rail stations;
- f) provide adequate, convenient and secure vehicle and cycle parking in accordance with adopted standards;
- g) ensure that the type and volume of traffic generated would not harm the countryside or the rural character of local roads;
- i) improve access for people with impaired mobility to all forms of transport and to all developments to which the public will reasonably expect to have access;
- j) produce and implement transport assessments and travel plans for proposals that are likely to have significant transport implications;
- k) include measures, to be funded by the developer, that address the impact of the new development so as to ensure the continued safe and efficient operation of the strategic and local road networks.

EHDC Local Plan second review

- 2.10 A number of policies remain extant from the Local Plan second review, which was adopted in March 2006. Chapter 4 of this document relates to transport, energy and pollution. The policies within this chapter are listed below.

Public Transport Provision and Improvement – T2

Planning permission will not be granted for development likely to generate a significant level of travel demand unless:

- a) it is, or arrangements are made for it to be, well-served by public transport; and
- b) its layout is designed to ensure that existing and/or future bus routes lie within easy walking distance of the entire scheme with conveniently sited bus stops with shelters.

Pedestrians and Cyclists – T3

Development proposals which are likely to generate significant levels of travel demand will only be permitted where the development can be served effectively by walking and cycling. Development proposals should provide safe and convenient pedestrian and cyclist facilities which should link, where feasible, with the existing or proposed pedestrian network and the District-wide cycle network. Where appropriate, contributions will be sought for the provision of new, and/or the improvement of the existing pedestrian and cycle routes. In new residential development, where practicable opportunities exist, access routes into the site for cyclists and pedestrians should be separate from roads, particularly if this would create an advantage over motorised transport in the distance to local facilities and services.

Pedestrians and Cyclists -T4 - Development will not be permitted where it would adversely affect the amenity of users of footpaths, bridleways, or cycleways or where the rights of way network or cycle network is disrupted and no equally attractive, safe and convenient satisfactory remedial measures, such as re-routing, can be undertaken.

- 2.11 Reference has been made to the above policies when designing the development to ensure it meets the standards set out by national, regional and local policies and looks to promote a sustainable development.

Department for Transport (DfT) Circular (01/2022)

- 2.12 The “Strategic Road network and the delivery of sustainable development” policy published by the DfT in December 2022 and is the policy of the secretary of state in relation to the Strategic Road Network. It sets out how National Highways engages with the planning system and fulfil its remit to be a delivery partner for sustainable economic growth, whilst maintain managing and operating a safe and efficient strategic road network. The relevant section of this document are set out below.

New development should be facilitating a reduction in the need to travel by private car and focused on locations that are or can be made sustainable. In this regard, recent research on the location of development found that walking times between new homes and a range of key amenities regularly exceeded 30 minutes, reinforcing car dependency. Developments in the right places and served by the right sustainable infrastructure delivered alongside or ahead of occupancy must be a key consideration when planning for growth in all local authority areas.

(Paragraph 12)

Successful development depends upon a movement network that makes connections to destinations, places and communities, both within the site and beyond its boundaries. The company will support development promoters and local authorities in applying the principles of Manual for Streets, the National Design Guide on Movement, inclusive mobility and local transport note 1/20 to ensure priority is given to pedestrian and cycle movements, and that well-considered parking, servicing and utilities infrastructure for all users is incorporated into development proposals.

(Paragraph 17)

Capacity enhancements such as modifications to existing junctions or road widening to facilitate development should be determined on a case-by-case basis. The general principle should be accepted where proposals would include measures to improve community connectivity and public transport accessibility, and this will be weighed against any negative safety, traffic flow, environmental and deliverability considerations, impacts on the permeability and attractiveness of local walking, wheeling and cycling routes, and alternative options to manage down the traffic impact of planned development or improve the local road network as a first preference.

(Paragraph 23)

The DMRB sets out the details of the Secretary of State's requirements for access, design and audit in the highway scheme design process to which development proposals must conform. In this regard, GG 104 (or its subsequent update) identifies the framework and approach for safety risk assessment to be applied when undertaking any activity that may have an impact on safety on the SRN. Moreover, a Walking, Cycling & Horse-Riding Assessment and Review in compliance with GG 142 must be completed during the options or concept stage of a development that proposes modifications to the SRN, which enables opportunities for new or improved facilities for pedestrians, cyclists and horse-riders to be identified. In turn, development promoters should prepare a preliminary design and Stage 1 Road Safety Audit (see GG 119) before planning permission is applied for, to demonstrate that road safety issues have been considered. Early engagement with the company is therefore encouraged to ensure that the above and further highway standards in the DMRB are appropriately addressed.

(Paragraph 25)

Where the company is requested to do so, it will engage with local planning authorities and development promoters at the pre-application stage on the scope of transport assessments/statements and travel plans. This process should determine the inputs and methodology relevant to establishing the potential impacts on the SRN and net zero principles that will inform the design and use of the scheme. Development promoters are strongly encouraged to engage with the company to resolve any potential issues and maximise opportunities for walking, wheeling, cycling, public transport and shared travel, as early as possible.

(Paragraph 47)

Where a transport assessment is required, this should start with a vision of what the development is seeking to achieve and then test a set of scenarios to determine the optimum design and transport infrastructure to realise this vision. Where such development has not been identified in an up-to-date development plan (or an emerging plan that is at an advanced stage), developers should demonstrate that the development would be located in an area of high accessibility by sustainable transport modes and would not create a significant constraint to the delivery of any planned improvements to the transport network or allocated sites.

(Paragraph 48)

A transport assessment for consideration by the company must also consider existing and forecast levels of traffic on the SRN, alongside any additional trips from committed developments that would impact on the same sections (link or junction) as the proposed development. Assumptions underpinning projected levels of traffic should be clearly stated to avoid the default factoring up of baseline traffic. The scenario(s) to be assessed, which depending on the development and local circumstances may include sensitivity testing, should be agreed with the company; where a scenario with particularly high or low growth is proposed, this should be supported by appropriate evidence. Planned improvements to the SRN or local road network should also be considered in any assessment where there is a high degree of certainty that this will be delivered.

(Paragraph 49)

An opening year assessment to include trips generated by the proposed development, forecasted growth and committed development shall be carried out to establish the residual transport impacts of a proposed development. For multi-phase developments, additional assessments shall be provided based on the opening of each phase.

(Paragraph 50)

Where a transport assessment indicates that a development would have an unacceptable safety impact or the residual cumulative impacts on the SRN would be severe, the developer must identify when, in relation to the occupation of the development, transport improvements become necessary.

(Paragraph 51)

The scope and phasing of necessary transport improvements will normally be defined by the company in planning conditions that seek to manage development in line with the completion of these works. In such circumstances, modifications to the SRN must have regard to the need to future-proof the network, while its delivery may require a funding agreement between the development promoter and the company.

(Paragraph 52)

As a result of investigations undertaken by the company, development promoter and/or local highway authority, it may become apparent that a different form of intervention would better address cumulative development impacts than the option(s) already identified through the plan-making process. In this situation, the company will work with the local planning authority and development promoter(s) to explore a cost sharing mechanism or the phased delivery of a more comprehensive scheme.

(Paragraph 53)

Active Travel England Toolkit

- 2.13 Active Travel England have produced a toolkit to assess merits for active travel in the development proposal for any development over 150 units in size. The guidance indicates the importance of moving away from 'predict and provide' and towards 'vision and validate'/'decide and provide' which is also supported by the DfT Circular 01/2022.
- 2.14 Active Travel England (ATE) states that Transport Assessments should:
- Forecast the multi-modal movements generated by a development, quantifying the additional trip generation and the distribution and assignment;
 - Provide a qualitative analysis of the current infrastructure in the surrounding area (which may include using the Cycling Level of Service Tool in LTN 1/20), taking into account how additional movements across all modes of transport will impact upon the capacity of public transport, walking, wheeling and cycling networks; and
 - Provide detail (and justification) of any proposed improvements to infrastructure and the proposed delivery mechanism, as well as any other supporting strategies that seek to enable an increase in walking, wheeling and cycling rates.
- 2.15 This TA has forecast the multi-modal movements generated by the development using 'predict and provide' to fully understand the potential impact on the local road network. Should it be required a 'decide and provide' assessment can be provided post planning.
- 2.16 An analysis has also been given on the current walking and cycling infrastructure in the surrounding area. As this is an outline planning application it is proposed that a full WCHAR will be included as part of the RM application, which will also detail any additional improvements not mentioned within this TA.
- 2.17 High quality walking infrastructure from the site to public transport should be provided, which allows people to carry out daily duties. ATE expect walking routes to:
- be 2m wide (with limited pinch points of 1.5m due to street furniture) and localised widening to accommodate peak usage;
 - be step-free;
 - have a smooth, even surface;
 - be uncluttered;
 - have street lighting; and
 - include appropriate crossings in compliance with LTN 1/20 Table 10-2 and Inclusive Mobility.

- 2.18 The development proposals and site design will take this into consideration when tying into the surrounding pedestrian infrastructure. The existing pedestrian infrastructure within the Catherington Park development, along Eagle Avenue and Milton Road (which provides access to schools and local facilities) is all step free and of suitable width as aforementioned.
- 2.19 The Active Travel Toolkit has been utilised to determine the sustainability of the proposed development site. The site passes 24 of the criteria within the checklist and all internal aspects excluded from the checklist as these will be considered for the Reserved Matters application for the site.

3. EXISTING SITE CONDITIONS

- 3.1 The site is located directly north of the Linden Homes 'Catherington Park' housing development, c1km north of Wecock Farm. The site is bound by agricultural fields to the west and southwest, Catherington Park and other residences to the south and east (which are within HBC) and are bound by agricultural fields to the north (located within EHDC). The site itself is also within EHDC's local authority boundary.
- 3.2 As aforementioned, the application site covers approximately a 7-hectare area of grazing land and is located within the southernmost extent of East Hampshire District Council (EHDC) boundary. The site is bound to the west by Clarendon Farm and existing residential development to the east. Immediately to the north of the site lies James Copse; an Ancient Replanted Woodland and SINC, beyond which are further open grazing fields, existing residential developments and a solar farm.
- 3.3 Byway 119/46/1 runs along the site's northern boundary, bridleway 108/1b/1 runs along the eastern boundary and bridleway 119/30/1 runs along the site's western boundary.
- 3.4 The proposed site has a gated access into the field located at the northwestern corner of the site, shown in **Photograph 1**. This is believed to be the only vehicular access point currently afforded into the site. The field access to the northwestern corner provides vehicular access from an unnamed road (accessed from Anmore Lane/Broadway Lane) and to the east of the access, Byway 119/46/1 can be accessed.



Photograph 1: Gated Field Access to Site (north-western corner)

- 3.5 An access from Anmore Lane/Broadway Lane has been explored (and detailed later within this report) however, due to visibility restrictions, this access will be closed up and not used as access to the site.

- 3.6 At present, there is no vehicular route from the 'Catherington Park' development into the proposed site, however, **Photographs 2** and **3** show the intended points of access into the site as both sections of road can be extended. The area around Wilkes Way is still under construction, however, the end of the road (location of the skip in **Photograph 3**) links to the boundary of the proposed development site.



Photograph 2: End of Road at Merritt Way



Photograph 3: End of Road at Wilkes Way

- 3.7 The access design and reason to connect in these locations (Merritt Way and Wilkes Way) will be detailed within **Chapter 5** of this TA.

Local Highways Network

- 3.8 The site is accessed via an unnamed road from Anmore Lane/Broadway Lane located to the west/northwest of the site. Anmore Lane/Broadway Lane are subject to the national speed limit in the vicinity of the junction which provides access to the site and the roads are rural in nature with no white lining present and no road edge markings.
- 3.9 The road, which is a single-track road allowing for one-way vehicle movement, provides access to a small number of residential properties, the site and further agricultural fields to the north and west of the site and ends as it meets Byway 119/46/1. There are informal passing places along the road allowing vehicles to pass one another.
- 3.10 To the south and west, Anmore Lane provides a connection to Anmore, Denmead and the B2150, and to the north Broadway Lane provides a connection to Lovedean Lane (via Day Lane) and Hinton Manor Lane. The rural roads provide a connection to the wider highways network.
- 3.11 Directly south of the site is the 'Catherington Park' development which is accessed from Powell Drive. Powell Drive is subject to a 30mph speed limit and forms a simple priority junction with Eagle Avenue.

Eagle Avenue provides a connection to Milton Road to the east and to the southwest Eagle Avenue becomes Hart Plain Avenue which also connects to Milton Road further south.

- 3.12 The local road network provides connections to the A3 Portsmouth Road, the B2150, the A3 London Road, the A3(M) junction 3, the M275 and M27. Therefore, the site is well situated in terms of both the local and the strategic highways network.

Personal Injury Accident (PIA) Data

- 3.13 To understand whether there are any existing highways safety issues with the surrounding highway network, information has been obtained from Hampshire Constabulary for the latest available 5-year period (01.10.2018-30.09.2023).
- 3.14 The area reviewed, and the location of the personal injury accidents is shown in **Figure 2**, with the full PIA data report is attached as **Appendix C** with the accidents summarised within **Table 1**.

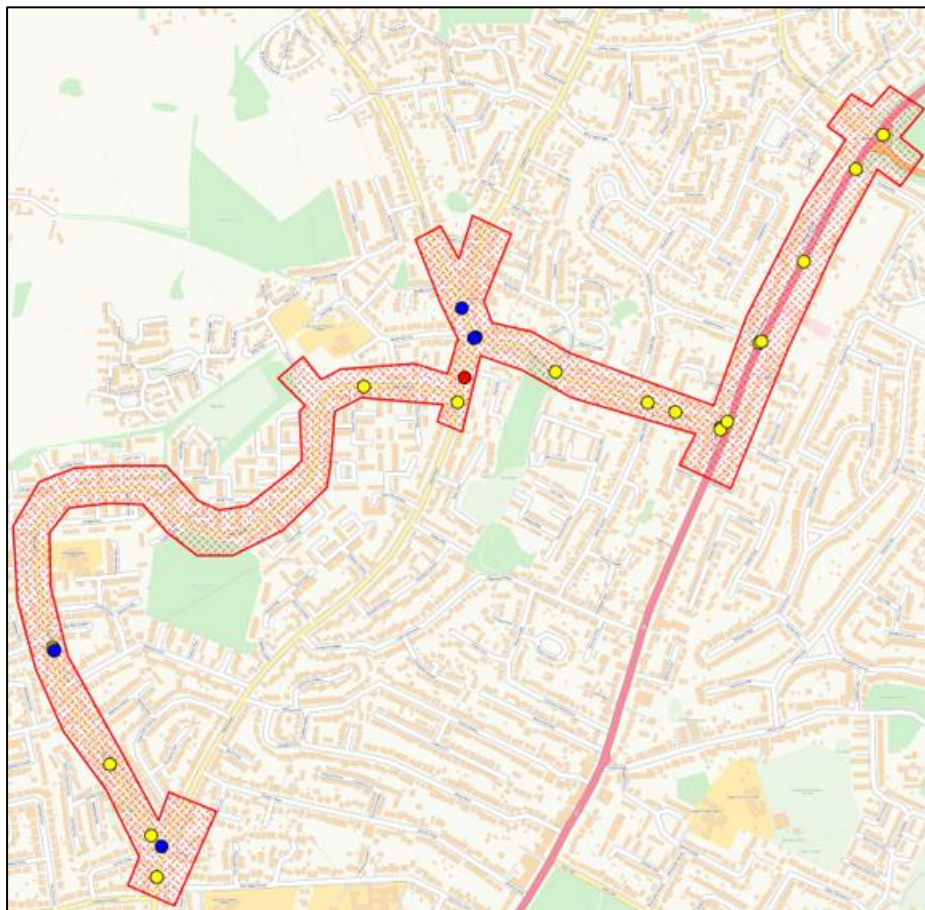


Figure 2: PIA Data Search Area

Location	Severity	Date/Time	Description	Reason
Eagle Avenue (Outside No. 23)	Slight	25.11.18 19:37	Vehicle 1 was parked with pedestrian leaning into window of passenger door. Vehicle 2 travelling west hits door of vehicle 1, knocking pedestrian into car	Failed to look properly
A3 Portsmouth Road (Junction with Rondor Court)	Slight	21.03.19 12:25	Car waiting to turn right, car behind stops but car behind them fails to notice cars have stopped and collides.	Following too close Failing to judge path/speed
Lovedean Lane (at Junction with A3)	Slight	20.04.19 09:33	Cyclist travelling on pavement fails to stop, travels across junction and is hit by car	Cyclist entering road from pavement Inexperienced driver
Milton Road (at the junction with Hart Plain Avenue)	Slight	07.07.19 19:30	Car travelling along Hart Plain Avenue failed to give way at the junction with Milton Road and collided	Failed to adhere to road markings
Lovedean Lane (at Junction with Milton Road)	Serious	09.08.20 13:57	Cyclist slows to turn right while vehicle behind failed to stop in time and collided	Failed to look properly
Lovedean Lane (at Junction with Milton Road)	Serious	17.09.20 17:43	Car turned right onto Lovedean Lane without giving way to cyclist travelling along Lovedean lane	Failed to look properly
A3 Portsmouth Road (at Junction with Dell Piece West)	Slight	08.11.20 13:17	Car fails to stop in time and collides with the rear of the car in front, stopped at the traffic lights	Failing to judge path/speed
Lovedean Lane (at Junction with Frogmore Lane)	Serious	01.12.20 12:16	Vehicle turned out of Frogmore Lane and immediately stopped to let pedestrian cross. Vehicle behind overtook stopped car and collided with pedestrian	Failing to judge path/speed Failed to look properly
Milton Road (outside no. 414)	Fatal	23.07.21 23:56	Motorcyclist lost control and fell into path of oncoming vehicle	Travelling too fast for conditions Loss of control
A3 Portsmouth Road (by Keydell Avenue)	Slight	29.07.21 19:15	Motorcyclist is struck by vehicle turning into their path	Failing to judge path
Hart Plain Avenue (Outside One Stop)	Slight	06.08.21 18:10	Vehicle parked outside One Stop struck by another vehicle and injures pedestrian stood nearby	Failed to look properly
Milton Road (outside no. 159)	Slight	06.08.21 19:03	Cyclist travelling on pavement falls into carriageway in the path of a car	Poor/defective road surface
Lovedean Lane (at Junction with A3)	Slight	24.08.21 17:46	Car turning right from Lovedean Lane onto A3 fails to see vehicle turning right from A3 to Lovedean Lane and collides	Poor turn
Hart Plain Avenue (Outside 156)	Slight	22.10.21 18:18	Vehicle edging out behind parked car collides with cyclist	Stationary or parked vehicle
Hart Plain Avenue/Milton Road	Serious	25.03.22 17:45	Cyclist collides with car	Failed to look properly
Lovedean Lane (at Junction with Gladys Avenue)	Slight	26.04.22 08:02	Van turning right failed to look properly and collided with motorcycle	Failed to look properly Failing to judge path/speed
Milton Road (at the Junction with Eagle Avenue)	Slight	12.05.22 09:18	Car driving through road works loses control and collides with wall	Poor turn
A3 Portsmouth Road (at Junction with Hazleton Way)	Slight	12.05.22 14:15	Car slows mid junction for unknown reason, car behind fails to slow in time and collides and another vehicle collides with the middle vehicle	Following too close Failing to judge path/speed
A3 London Road (at Junction with Lovedean lane)	Slight	16.08.22 09:09	Motorcyclist turned left, vehicle slipped and caused rider to fall	Slippery Road
Junction of Keydell Avenue/A3 Portsmouth Road	Slight	09.12.22 07:49	Car pulls out of Keydell Avenue into path of motorcyclist and collides	Failed to look properly

Junction of Lovedean Lane/Parklands Avenue	Slight	26.01.23 18:18	Vehicle 1 slips on oil and collides with vehicle 2 and 3.	Travelling too fast for conditions Debris on road
Hart Plain Avenue (Outside 112)	Slight	26.02.23 20:13	Car loses control and collides with bus and overturns	Reckless driving Impaired by drugs
Lovedean Lane (Outside no. 9B)	Slight	18.05.23 16:32	Parked vehicle began to roll due to handbrake fault and collided with wall	Defective breaks
Hart Plain Avenue (south of Chaplains Avenue)	Serious	18.09.23 13:45	Vehicle stopped and opened door into path of mobility scooter, causing rider to fall	Failed to look properly

Table 1: Personal Injury Accident Data

- 3.15 As summarised within **Table 1**, there were a total of 24 recorded accidents over the latest available 5-year period (01.10.2018-30.09.2023). Of these, there was 1 accident classed Fatal, 5 serious and 18 which were slight in severity.
- 3.16 Of these incidents, 12 involved drivers, 1 involved a passenger, 5 involved motorcyclists, 6 involved cyclists, 3 involved a pedestrian and 1 involved a mobility scooter, totalling 27 casualties across the 24 accidents.
- 3.17 There is no indication that there is any pattern in the data which suggests there is fault with the road surface or junction layout and there are no specific clusters of recorded incidents. All incidents were of separate nature and due to drivers/riders failing to look properly, following other vehicles too closely, travelling too fast for the road conditions or having impairments on the car. In addition, we have not been made aware of there being any recorded accidents within the Catherington Park development.
- 3.18 Therefore, based on the information available there is not an existing issue with highway safety in the context of Paragraph 115 of the NPPF.

4. SITE ACCESSIBILITY

- 4.1 As aforementioned, the site is located directly north of the Linden Homes 'Catherington Park' housing development, c1km north of Wecock Farm. The site is located c2.4km west of Cowplain shops, c3.5km west of Horndean c3.7km north of Wellington Retail Park and c4.1km north of Waterloooville Town Centre.

Local Facilities

- 4.2 The site is located in proximity to a number of local facilities which are outlined within **Table 2**. The distances have been measured from the centre of the site.

Facility	Distance (from the centre of the site)	Walking Time (80m per minute)	Cycling Time (250m per minute)
Curlew Gardens Bus Stop	550m	7 minutes	2 minutes
Woodcroft Primary School	550m	7 minutes	2 minutes
Wecock Play Area	550m	7 minutes	2 minutes
Dove Close Bus Stops	750m	9 minutes	3 minutes
Tesco Express (Woodcroft Lane/Lovedean Lane Local Shop)	750m	9 minutes	3 minutes
Wecock Church	850m	10 minutes	3-4 minutes
Premier Convenience Store	900m	11 minutes	3-4 minutes
Eagle Avenue/Milton Road Local Shops	900m	11 minutes	3-4 minutes
Lovedean Pharmacy	950m	12 minutes	4 minutes
The Acorn Community Centre	1.1km	14 minutes	4-5 minutes
Wecock Recreation Ground and Skate Park	1.2km	15 minutes	5 minutes
Lovedean Village Hall	1.2km	15 minutes	5 minutes
Lovedean Post Office	1.3km	16 minutes	5 minutes
Rachel Madocks School	1.3km	16 minutes	5 minutes
Milton Road/Hart Plain Avenue Local Shops	1.9km	22 minutes	6-7 minutes
Hart Plain Infant School	2.4km	30 minutes	9-10 minutes
Cowplain Shops	2.4km	30 minutes	9-10 minutes
Hart Plain Junior School	2.5km	31 minutes	10 minutes
Vine Medical Group – Health Centre	2.5km	31 minutes	10 minutes
Horndean Technology College	2.7km	32 minutes	11 minutes
Morrisons (Horndean)	2.7km	34 minutes	11 minutes
The Cowplain School	2.8km	35 minutes	11 minutes
Horndean Shops	3.2km	40 minutes	13 minutes
Horizon Waterloooville Leisure Centre	3.5km	44 minutes	14 minutes
Horndean Shops	3.5km	44 minutes	14 minutes
Lidl	3.6km	45 minutes	14 minutes
Sainsburys	3.6km	45 minutes	14 minutes
Waterlooville Town Centre	4.1km	51 minutes	16 minutes

Table 2: Local Facilities

- 4.3 As summarised within **Table 2**, there are a variety of facilities including bus stops, schools, convenience stores and supermarkets, a pharmacy, post office and community and recreation areas all within 1.3km of the site. A number of facilities are within 800m of the site, fitting CIHT and MfS description of a 'walkable neighbourhood'.

- 4.4 The Chartered Institution of Highways and Transportation's (CIHT) 'Planning for Walking' (April 2015) document identifies that the average length of pedestrian journeys is now 1.37km (page 6). Therefore, the development provides a good opportunity to promote journeys by walking and other sustainable modes of travel, given many amenities are within this average length, thus reducing the reliance on motorised vehicles.
- 4.5 In addition, MfS also states that walking has the potential to replace journeys up to 2km, making a greater range of facilities within a walkable distance from the site.
- 4.6 CIHT 'Planning for Cycling' document suggests that 80% of cycle trips undertaken are less than 5 miles (8km), with 40% being less than 2 miles (3.2km). Therefore, there is potential for all facilities stated within **Table 2** to be accessed by bike.
- 4.7 Moreover, as the 'Catherington Park' development is located directly south of the proposed development site, the location has already been deemed as a suitable area for development. It is also noted that the site has been allocated twice under Regulation 18 Local Plan Review consultations as a housing site (SA37) for 170-180 dwellings.

Pedestrian Infrastructure – Public Rights of Way

- 4.8 At present, there are no footways in the direct vicinity of the site to the west due to the semi-rural location and nature of the road. However, there are a number of PRowS in the vicinity of the site to the north, west, east and south as shown within **Figure 3**.

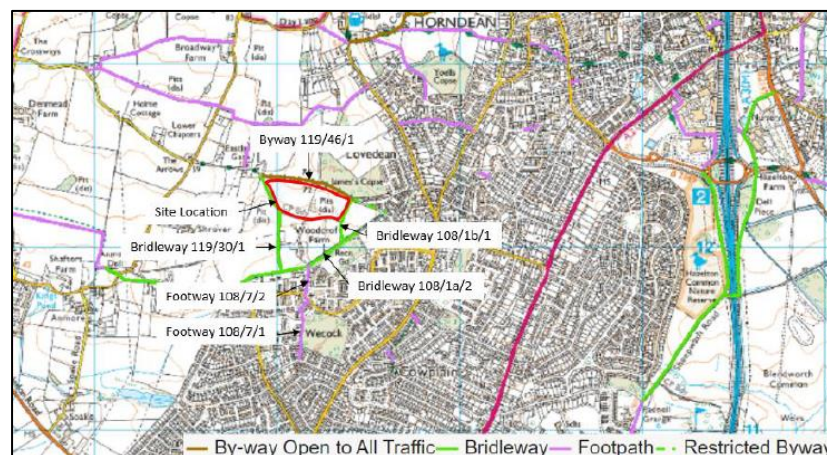


Figure 3: Public Rights of Way

- 4.9 As shown within **Figure 3**, the site is bound by byway 119/46/1 to the north, bridleway 108/1b/1 to the east and bridleway 119/30/1 to the west. Both bridleways also provide a connection to the Catherington Park development.

- 4.10 It is understood that the current condition of byway 119/46/1 has rough surfacing with craters/ditches which makes the route unusable for most, which was pointed out during Public Consultation. In addition, the byway and the two bridleways are overgrown by vegetation and there is a lack of lighting along the route. However, it is understood that volunteers are working to maintain these routes to ensure there is a connection to the Catherington park development, local recreational routes and local facilities. The condition of the byway and bridleway are shown within **Photographs 4 and 5**.



Photograph 4: Byway Conditions



Photograph 5: Bridleway Conditions

- 4.11 As suggested by HCC during pre-application, liaison with HCC's Countryside Services team is expected to occur to further discuss improvement schemes for the PRow routes in the vicinity of the site, which are currently in poor condition. This would be done to support the future Reserve Matters application.
- 4.12 Bridleway 108/1b/1 (**Figure 3**) connects through the 'Catherington Park' development and connects to a path which routes around the perimeter of the site to provide a connection to the footways within the Catherington Park development and connects to Woodcroft Lane via Reed Close (**Photograph 6**).



Photograph 6: Footway in Catherington Park Development (Reed Close Connection)

- 4.13 The footpath within the Catherington Park development then provides a connection to Woodcroft Lane and James Copse Road, as well as connecting to the footways in the development which link to further PRow routes and footways within the surrounding road network.
- 4.14 The two bridleways connect to bridleway 108/1a/4 to the south of the site which runs c.280m north of Eagle Avenue to the north of the recreation ground. Bridleway 108/1a/4 provides a connection to footpath 108/7/2 which connects to Eagle Avenue and also connects to Powell Drive, as shown in **Photograph 7**. From Eagle Avenue footpath 108/7/1 can be accessed which provides a connection to Wecock Farm and connects to footways that provide connections to local facilities.



Photograph 7: Footway from Powell Drive which connects to Bridleway 108/1a/4 and Recreation Ground

- 4.15 Therefore, these routes are suitable to be utilised by residents of the development to access local facilities and connect to further pedestrian infrastructure in the local area. The routes adjacent to, and through, Catherington Park has also led to improvements to surfacing and maintenance through the implementation of said development. In addition, there are a number of other routes in the area which provide a connection or shortened route to local facilities.
- 4.16 As aforementioned and suggested by HCC during pre-application, some of the routes including Bridleway 1b may not be suitable all year round due to the current width and surface conditions and therefore liaison with HCC's Countryside Services team is expected to support the Reserve Matters application, to discuss improvement schemes for the route.

Pedestrian Infrastructure within the Catherington Park Development

- 4.17 The Catherington Park development is flanked with footways and pedestrian crossing points. Merritt Way, which the site will connect into has footways measuring c.2m on both sides of the carriageway (**Photograph 8**) and a dropped kerb, tactile paving crossing point is located across Baker Close (**Photograph 9**) providing a connection to the southern footway which continues along Powell Drive.



Photograph 8: Footways along Merritt Way



Photograph 9: Crossing Point across Baker Close

- 4.18 A footway is provided along the eastern side of the carriageway along Powell Drive and a footpath is available on the western side from the junction with Eagle Avenue which continues into the 'Catherington Park' development site. The footway along Powell Drive provides a connection to Woodcroft Primary School, as shown in **Photograph 10**.



Photograph 10: Entrance to Woodcroft Primary School

- 4.19 Powell Drive is supported with a dropped kerb and tactile paving crossing point between the two footways/footpath at the junction with Eagle Avenue, as shown within **Photograph 11**.



Photograph 11: Crossing Point at Junction of Powell Drive and Eagle Avenue

- 4.20 Footways flank both sides of the carriageway of Eagle Avenue, shown in **Photograph 12**, providing a connection to the bus stops along Eagle Avenue and the footways along Milton Road which provide connections to local shops. There are also dropped kerbs with tactile paving provided to allow access to the footways on both side of the carriageway (**Photograph 13**).



Photograph 12: Footways Along Eagle Avenue



Photograph 13: Crossing Point along Eagle Avenue

- 4.21 Further pedestrian infrastructure in the form of footways, shared footway/cycleways and pedestrian crossing points are provided to the north, east and south of the development, providing connections to further facilities.
- 4.22 Footways are of a suitable width at c1.8m-c2m (in line with the HCC's requirements) and include dropped kerb and tactile paving crossing points between footways and across junctions. It is not anticipated that any of the footways within the Catherington Park development or along Eagle Avenue will need to be upgraded as these are deemed sufficient as they are newly surfaced and appropriate crossing points with tactile paving are provided.
- 4.23 HCC have proposed a number of footway connections that should be considered for improvement. These will be looked at in more detail within a full WCHAR provided as part of the Reserve Matters application.

Cycle Infrastructure

- 4.24 There is no designated cycle infrastructure in the direct vicinity of the site, however, the road widths and low speed limits (30mph) along Eagle Avenue, Milton Road and roads in the 'Catherington Park' development encourage on-road cycling due to their low speed environments.
- 4.25 In addition, there is a good provision of shared footways/cycleways to the south of the site along Milton Road, Sunnymead Drive, Hart Plain Avenue (E) and B2150 Hambledon Road which provide connections to local facilities.
- 4.26 Although outside of Havant Borough, the HBC Cycle Map shows the designated cycle routes in the vicinity of the site. An extract of the map is shown within **Figure 4**.

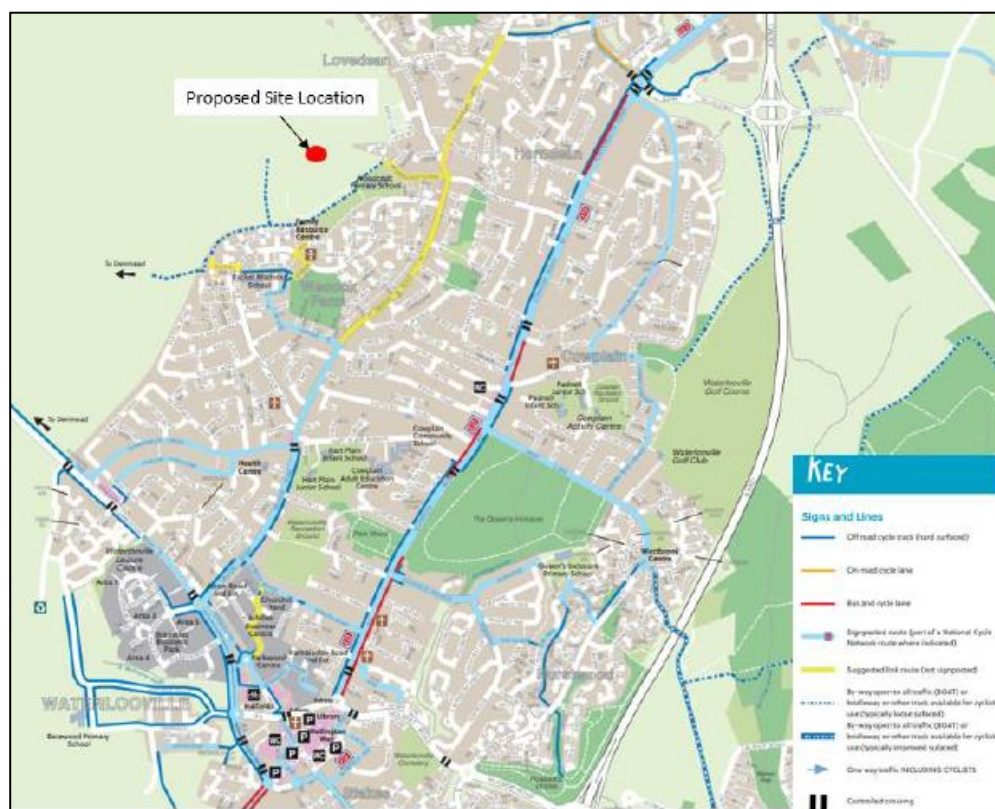


Figure 4: Extract from Havant Borough Council Cycle Map

- 4.27 As shown in **Figure 4**, the site is located in proximity to a ‘suggested’ cycle route along Milton Road and Woodcroft Lane. This route would provide access to several local shops and to Woodcroft Primary School.
- 4.28 To the south and east of the site, National Cycle Network (NCN) route 222, several off-road cycle lanes and on-road cycle lanes are provided which provide access to local facilities as well as those further afield in Waterlooville, Horndean, Cowplain, Havant and Rowlands Castle. Therefore, cycling in the local area would be a realistic option.
- 4.29 As summarised within **Table 2**, there are a wide range of facilities within 8km of the site, which based upon CIHT’s planning for cycling document, have the potential to be undertaken by bike. Therefore, with the wide range of cycle routes it will make cycling an attractive mode of transport for residents.
- 4.30 In addition, the Milton Road corridor has been reviewed as part of Havant’s adopted LCWIP and is set out as route 359. As part of this route the LCWIP suggests that a review of the Lovedean Lane/Milton Road priority junction should be undertaken to explore improvements for cycle route continuity through the junction. It also suggests reviewing the Milton Road/Eagle Avenue mini roundabout to better support cycle movements and the northern extent of Milton Road between the Lovedean Lane

and Hart Plain Avenue junction. This can be fully explored within the WCHAR, provided at the Reserve Matters stage, to determine whether the proposed development could provide improvements at this junction to support pedestrian and cycle movements.

Public Transport

Bus Services

- 4.31 There are three bus stops located in proximity to the site, all located along Eagle Avenue. Curlew Gardens Bus Stop is located to the east of the junction with Powell Drive and is a c.6 ½ minute walk from the site. The other two bus stops 'Dove Close' are located c.180m south the junction with Powell Drive and is a c.9-minute walk from the site. The bus stops offering northbound/eastbound services consist of a flagpole and the southbound bus stop consists of a flagpole, timetable and sheltered seating area (Photographs 14-16).



Photograph 14: Curlew Gardens Bus Stop



Photograph 15: Dove Close Bus Stop (Northbound)

- 4.32 At present there are no seating facilities or covered areas for passengers to wait and no real-time bus information available at either bus stop. Consideration of any improvements to the bus stops will be included as part of the WCHAR, produced to support the Reserve Matters application.



Photograph 16: Dove Close Bus Stop (Southbound)

4.33 In addition, further services are available from the ‘Milton Road Roundabout’ bus stop located on Hambledon Road and from bus stops along the A3 (‘Lovedean Lane’ bus stop being the closest to the site at c1.3km). These bus stops have a sheltered seating area with a timetable and flagpole whilst the bus stops along the A3 also benefit from real-time bus information.

4.34 The bus services available from these stops are summarised within **Table 3**.

Service	Destination	Monday-Friday	Saturday	Sunday
7 The Star	City Centre- Wecock Farm	Every 12 minutes First Bus: 04:10 Last Bus: 22:45	Every 20 minutes First Bus: 04:10 Last Bus: 00:43	Every 30 minutes First Bus: 06:00 Last Bus: 22:45
39	Havant – Wecock Farm	Every 15 minutes First Bus: 06:00 Last Bus: 22:05	Every 15 minutes First Bus: 06:30 Last Bus: 22:05	Hourly First Bus: 07:55 Last Bus: 18:55
37X	Cowplain - Alton	Once per day First Bus: 08:33 (College Service)	N/A	N/A
8 The Star	The Hard - Clanfield	Every 20 minutes First Bus: 04:23 Last Bus: 23:10	Every 20 minutes First Bus: 04:34 Last Bus: 01:10	Every 30 minutes First Bus: 06:55 Last Bus: 22:10

Table 3: Bus Services

4.35 As summarised within **Table 3**, there are services as frequent as every 12-15 minutes between Havant and Wecock Farm and services as frequent as every 20 minutes between Portsmouth, Wecock Farm and Clanfield Monday-Saturday. Services are as frequent as every 30 minutes on a Sunday.

4.36 The provision of bus services is suitable for both commuter and leisure travel to/from the site making bus services a viable option for reducing the use of the private car.

Rail Services

- 4.37 The closest Railway Stations to the site are Rowlands Castle (7.4km) which can be accessed by bike in 24 ½ minutes, Bedhampton (8.9km) which can be accessed by bike in 29 ½ minutes and Havant Railway Station (9.2km) which can be accessed by bike in 31 minutes. In addition, bus service 39 provides a connection to Havant Bus Station (c.40-minute journey) which is a 5-minute walk from Havant Railway Station.
- 4.38 Rowlands Castle Station provides 26 car parking spaces and 4 cycle storage spaces. The Station provides hourly services towards Portsmouth (30-minute journey) and London Waterloo (1 hour journey). These services also call at Petersfield (10-minutes), Liss (15-minutes), Liphook (23-minutes), Havant (5-minutes), Bedhampton (10-minutes) and Hilsea (15-minutes).
- 4.39 Bedhampton Station provides no car parking but does provide 20 cycle storage spaces. The Station provides hourly services to London Waterloo (1 hour 30-minute journey), hourly services to Littlehampton (45-minute journey) and two services an hour towards Portsmouth (14-minute journey). These services also call at Hilsea, Fratton, Havant, Emsworth, Chichester, Rowlands Castle and Petersfield.
- 4.40 Havant Railway Station provides 492 car parking spaces and 92 cycle storage spaces and is accessible by public transport. The station provides hourly services to London Victoria (1 hour 50-minute journey), London Waterloo (1 hour 30-minute journey), Littlehampton (40-minute journey) and Southampton Central (40-minute journey), as well as two services an hour towards Portsmouth (15-minute journey). These services also call at Brighton, Worthing, Cosham, Fareham, Fratton, Rowlands Castle, Petersfield, Chichester, Horsham and Crawley.
- 4.41 Therefore, with three railway stations accessible within a c30-minute cycle, or accessible by car along with Havant being accessible by bus, the availability of rail services to a variety of destinations makes train travel an attractive form of transport for both commuter and leisure travel.

Accessibility Summary

- 4.42 In summary, the site is located in proximity to a number of local facilities, with bus stops accessible within 400m of the site and facilities within 800m of the site (CIHT's walkable neighbourhood) and within CIHT's average pedestrian journey length (1.37km). There is a good provision of pedestrian footways, shared footway/cycleways, crossing points, cycle routes and public rights of way which provide a connection towards local facilities.

4.43 In terms of public transport there are bus services as frequent as every 12-15 minutes between Havant and Wecock Farm and services as frequent as every 20 minutes between Portsmouth, Wecock Farm and Clanfield Monday-Saturday, which reduce to a frequency of 30 minutes on a Sunday. In addition, there are three railway stations: Rowlands Castle (7.4km) which can be accessed by bike in 24 ½ minutes, Bedhampton (8.9km) which can be accessed by bike in 29 ½ minutes and Havant Railway Station (9.2km) which can be accessed by bike in 31 minutes. In addition, bus service 39 provides a connection to Havant Bus Station (c.40-minute journey) which is a 5-minute walk from Havant Railway Station. Therefore, bus and rail travel can be utilised by both commuters and leisure travellers.

5. PROPOSED DEVELOPMENT

- 5.1 The proposed development will comprise of up to 164 residential units with associated vehicular access and landscaping at Land to the north of Woodcroft Farm, Horndean.
- 5.2 The development is split into development two parcels, each with their own point of access from the Catherington Park development (south of the proposed development). Whilst the application is at Outline stage the exact split of residential units is still to be confirmed, but based on current proposals the western parcel will provide access to a higher number of units than the eastern parcel (circa 60% of traffic from the western parcel and 40% from the eastern).
- 5.3 As this application is outline, the current unit types are unknown although they are likely to be a mixture of 1-2 bed flats and 2, 3 and 4 bed houses. The indicative layout is shown within **Appendix A**.

Access Design

- 5.4 As aforementioned, the site abuts the HBC 288-dwelling scheme 'Catherington Park' to the south, which is now occupied, and takes access from Eagle Avenue. It is proposed that this new development would take vehicular and pedestrian access through the 'Catherington Park' development, utilising its connections to the local highway network, as identified within **Appendix A**.
- 5.5 There is an existing field access that can be used by vehicles, located at the north-western corner of the site. This access connects to the Anmore Lane/Broadway Lane crossroads to the northwest of the development. This access was considered as part of the proposals, however, there is not sufficient visibility at the junction and therefore, as alternative access arrangements are available through the Catherington Park development, this access point will not be utilised. As part of these proposals this access would be permanently closed, with no vehicular access available in this direction.
- 5.6 In addition, the EHDC Local Plan (2021-2040), HDN1, LAA Reference HD-024, which is currently at Reg 18 stage, states that 'connection to the local road network could be achieved through recent housing development to the south and east. The access road to the north-west is unlikely to be suitable as a principal access route for motor vehicles.'

Main Access to the Wider Development

- 5.7 The access at Eagle Avenue was originally designed as a mini-roundabout to accommodate future capacity, and this was secured as part of the S106 for the development. However, in the interim period, as part of the Catherington Park application (APP/13/00804) a bellmouth junction was implemented and is currently in place.

- 5.8 As part of Catherington Park Condition 25 (Phasing plan for off-site highways works) it was agreed *that 'prior to the mini roundabout being constructed on Eagle Avenue, a temporary bellmouth arrangement will be put in place and an appropriate trigger for the addition of the roundabout will be agreed with HCC'*. The S278 design for the roundabout is currently being approved by HCC and therefore will be implemented in line with the S106 agreement.
- 5.9 Therefore, the site has a mini-roundabout vehicular access arrangement, agreed at planning and secured through the S106, to support all future development to Catherington Park and the land north of Catherington Park. Details of the agreed junction arrangement at Eagle Avenue are being implemented by Linden Homes in agreement with HCC through the S278 process. It is not expected that this development would need to implement any changes to the agreed access, however, this will be discussed in further detail in chapter 9 of this report.
- 5.10 It has been confirmed by HCC within the pre-application process that the mini-roundabout is still due to be implemented at Powell Drive/Eagle Avenue. The Section 278 technical approval for the works has been granted and the Highway Authority await confirmation from the developer of Catherington Park as to when they intend to commence works on the access.

Access from Catherington Park into Proposed Site

- 5.11 The development proposal currently splits the site into an eastern and western parcel which will both have a vehicular access into the Catherington Park development. The proposed location of these access points are shown on **Appendix A** and discussed below.
- 5.12 At present, the roads within the Catherington Park development are not adopted, however, these have been built to an adoptable standard and it is understood that once construction is completed, these roads will be offered up for adoption to HCC.

Eastern Parcel

- 5.13 The eastern parcel will take access from Merritt Way (**Photograph 2**). Merritt Way is accessed to the east of Powell Drive and the road currently forms a dead end at the boundary with the proposed development site. The existing carriageway is of sufficient width, at 6m to ensure that two-way vehicle movements are achievable. In addition, there are no known reports of collisions over this section of carriageway.
- 5.14 The access road will be a continuation of the existing carriageway and will measure c.6m in width to allow to ensure two-way vehicle movement is achievable. A swept path analysis of a car and refuse vehicle and a car and delivery van passing along the access road is provided within **Appendix D**. Once

into the development parcel, the road width will reduce to c5-5.5m, still allowing for two-way vehicle movements.

- 5.15 Due to the alignment of the access road a forward visibility splay is required around the bend into the development parcel. A forward visibility splay of 1.5m x 25m (20mph) in line with MfS and HCC TG3 guidance for 20mph speed limit roads has been provided to show that visibility from the access road into the development parcel is achievable and is attached as **Appendix D**.
- 5.16 On the western side of the access road, as shown within **Appendix D**, a shared footway/cycleway measuring 3m in width, to comply with LTN 1/20, will be provided and will continue into the development parcel. Footways will then continue within the internal layout with cycle provision being a mix of on-road routes and shared footway/cycleways of which full details will be provided in a future Reserved Matters application. Where the shared footway/cycleway meets the existing footway along Merritt Way, corduroy paving will be provided along with signage to mark the start/end of the shared footway/cycleway and a dropped kerb will be provided to allow cyclists on and off the carriageway.
- 5.17 The access design, visibility and vehicle tracking for the eastern parcel is shown within **Appendix D**.

Western Parcel

- 5.18 A further vehicular access is proposed for the western parcel, taking access from Wilkes Way (**Photograph 3**). Wilkes Way is accessed off Hudson Gardens, which is accessed from Merrit Way to the west of the junction with Powell Drive. The carriageway is designed to support two-way vehicle movements and there have been no reported collisions over this section of the development.
- 5.19 It is understood from HCC that there is concern about this access location due to the presence of on-street parking along this section of carriageway.
- 5.20 Currently, the roads within Catherington Park are not adopted and therefore parking restrictions cannot be implemented. It is intended however that once the carriageway is adopted, discussion on parking restrictions (such as double yellow lining) can be had with HCC to ensure that if issues remain suitable measures can be implemented.
- 5.21 The access will be a continuation of the existing carriageway and will measure c6m wide, reducing down to c5.5m and then c5m before connecting to the internal roads within the development parcel.
- 5.22 It is proposed that this access road will include a singular traffic calming feature-based upon comments provided by HCC at pre-application (**Appendix B**). in line with guidance from HCC's Technical Guidance document 11: Traffic Calming this will be in the form of a build out in the vicinity of the badger set to

reduce traffic speeds in the area and provide pedestrian crossing point between the existing footway which runs north-south through the site. The road will reduce to c3.8m in width for the build out ensuring all vehicles can pass, in single file, without conflict. The build-out and access design is shown within **Appendix E**.

- 5.23 It has been ensured that an 11.2m refuse vehicle and a large car and a delivery van and large car are able to pass simultaneously at points along the access road and navigate the proposed traffic calming feature. A swept path analysis is provided within **Appendix E**.
- 5.24 In addition, a forward visibility splay assessment has been undertaken to ensure visibility of 1.5m x 25m is achievable, in line with MfS and HCC TG3 guidance for 20mph speed limit roads. Inter visibility between vehicles approaching the traffic calming features has also been assessed. These are attached within **Appendix E**.
- 5.25 On the southern side of the access road, a shared footway/cycleway measuring 3m in width is proposed. This has been designed in accordance with LTN 1/20 guidance. The shared footway/cycleway would connect to the existing footway along Wilkes Way and continue into the development. Signage and corduroy paving will be provided to mark the start/end of the shared footway/cycleway and a dropped kerb will be provided to allow cyclists on/off the carriageway.
- 5.26 In addition, c10m before the first internal junction, a shared footway/cycleway will also be provided on the northern side of the access road, which will continue north to provide a connection to the shared footway/cycleway (also the emergency access) provided between the eastern and western parcel. This is also shown within **Appendix E**.

Stage 1 Road Safety Audit

- 5.27 A Stage 1 Road Safety Audit (RSA) has been undertaken for the proposed access points discussed above. Since the RSA, there have been amendments made to the design of the western access road, however, this has been covered within the Designers Response (attached as **Appendix F**) which responds to the comments raised.
- 5.28 The main comments raised by the auditors were:
- Insufficient construction details for the proposed footway/cycleway;
 - Lack of restraints system could increase loss of control collision;
 - The proposed build outs causing ponding;
 - Insufficient construction details for the raised tables;

- Insufficient information on visibility at access could lead to side impact collisions or rear end shunts; and
- Insufficient information on visibility at access could lead to side impact collisions or rear end shunts.

5.29 In terms of the insufficient construction details for the proposed footway/cycleway, the auditors recommended that the PSV of the footway / cycleway link surface material should be a minimum of 50PSV. This is agreed and it has been suggested that the PSV of the footway / cycleway link surface material will be a minimum of 50PSV and finalised at the detailed design stage.

5.30 In response to 'the lack of restraints system could increase loss of control collision' the auditors suggested that a road restraints risk assessment for local roads should be undertaken to determine whether protection is needed. This is agreed and should any protection be required this can be installed.

5.31 In terms of the proposed build outs causing ponding, there has been a change in design meaning there is now only one build out proposed and no raised tables and therefore, ponding may no longer be flagged as an issue. However, the auditor suggested the carriageway profile should be checked or that suitable drainage should be provided which is agreed and will be noted as part of future RSA stages.

5.32 As for the insufficient construction details for the raised tables, these have been removed from the proposed access design and no longer require comment.

5.33 In terms of the two points raised on visibility splays, a visibility splay assessment has been undertaken (Drawing 167.0006-0006-P03 at **Appendix E**) which shows that visibility to 20mph (25m) is achievable from the existing junction within Catherington Park to the proposed western access road. In addition, as recommended, a Stage 2 Safety Audit will be undertaken which will include a full visibility assessment.

5.34 In view of the Designers Response and the awareness of local collision information It is considered that in the context of paragraph 115 of the NPPF the proposed development would not have an unacceptable impact on highway safety.

Emergency Access

5.35 In addition, an emergency access will be provided between the eastern and western parcels, as shown in **Appendix A**. This is proposed to operate as a shared footway/cycle way link measuring c. 3m in width, in line with LTN 1/20 guidance, but would support the movement of emergency vehicles, between the development parcels if required.

Pedestrian/Cycle Access

- 5.36 Pedestrian access from the development site would connect with the existing provision in 'Catherington Park', which includes the existing footways provided along Powell Drive, Merritt Way and Wilkes Way. As aforementioned, shared footway/cycleways would be provided as part of the new vehicular access points at the top of Merritt Way and Wilkes Way, where a c3m wide shared footway/cycleway, which is LTN 1/20 compliant, would be provided on one side of the carriageway. A mixture on footways, shared footway/cycleways and on-road cycle routes would be provided throughout the development.
- 5.37 Moreover, a shared footway/cycleway (which is also the emergency access) will be provided between the eastern and western parcel, providing a connection to the footways and roads around the development. This will measure at least 3m in width to accord with LTN 1/20 requirements.
- 5.38 As shown within **Appendix A**, the site is also proposing a pedestrian connection from the development site to tie into Byway 119/46/1 to the north of the site. Two of these connections would be new connection points from new footpaths within the site, while one connection would be from the existing footpath which connects from Catherington Park to byway 119/46/1. This would increase connectivity from the site, providing a connection to existing PRoWs and also provides a connection to Woodcroft Lane, where Woodcroft Primary School can be accessed via the main school access.

Internal Layout

- 5.39 The internal layout will be designed to a 20mph speed limit in line with MfS guidance. It will be ensured that visibility splays of 2.4m x 25m are achievable from all internal junctions and any required forward visibility splays are achievable at 1.5m x 25m. This approach has been agreed with HCC at the pre-application stage.
- 5.40 It will be ensured that the internal roads can accommodate the required swept paths and that the layout follows a similar principle to the Catherington Park development, although this will be discussed as part of any future Reserved Matters application.

Car and Cycle Parking

- 5.41 EHDC 'Vehicle Parking Standards' SPD sets out the required car and cycle parking for new developments. Therefore, car and cycle parking at the development will be provided in line with these standards, although this will be discussed as part of any future Reserved Matters application.
- 5.42 Electric vehicle charging infrastructure would be provided in accordance with the latest building regulation requirements.

Servicing

- 5.43 It will be ensured that an 11.2m refuse vehicle is able to enter/egress and turn around on site. It will also be ensured that the refuse vehicle can get within 25m of each unit or 10m of any units utilising euro-bins.
- 5.44 In addition, it will be ensured that a fire tender can enter/egress and turn around on site. It will also be ensured that the fire tender can get within 45m of each unit in line with building regulations.
- 5.45 The outline application would be all matters reserved except for access and the details of the internal layout would be subject to a separate Reserved Matters application at the appropriate time.

6. TRIP GENERATION

- 6.1 The existing site is an agricultural field and as such it is not expected that there are any regular daily vehicular trips associated with the site apart from the occasional agricultural vehicle, which would access and egress the site via the north-western gated access. Therefore, for the purpose of this trip assessment, it is assumed that all trips from the site are new trips.
- 6.2 In its consideration of trip generation this TA has firstly reviewed likely trip generation utilising a Predict and Provide approach within this section, as per accepted industry standards. It is noted that approaches to trip generation prediction are evolving, specifically toward a Predict and Provide approach. HCC have specified that a Predict and Provide approach should be utilised in the undertaking of junction modelling. This approach is set out within Section 7 and draws upon data set out within this section as appropriate.

Vehicular Trip Generation

- 6.3 To understand the likely trip generation associated with the proposed development, vehicle trip rates have been derived from the TRICS (v7.10.2) database utilising the following parameters (which were agreed by HCC at pre-application):
- Residential – Private Houses
 - 100-350 units
 - Edge of Town and Suburban Area
 - Weekday Surveys
 - Sites with no Travel Plan
 - Sites in England (excluding Greater London)
- 6.4 The full outputs from TRICS are attached as **Appendix G** and the results are summarised within **Table 4**.

	AM Peak (0800-0900)		PM Peak (1700-1800)		Daily (12 hours)
	Arrivals	Departures	Arrivals	Departures	
Trip Rate	0.144	0.368	0.358	0.152	4.456
Trip Generation (164 units)	24	60	59	25	731

Table 4: Proposed Development Trip Generation

- 6.5 As summarised in **Table 4**, the proposed development could potentially generate up to 84 two-way movements in the AM and PM peaks, and up to 731 vehicle movements over a 12-hour period.
- 6.6 When compared to the trip rates utilised for the Catherington Park development, a higher rate of arrivals and lower rate of departures can be expected in the AM peak and lower rate of arrivals and

higher rate of departures can be expected in the PM peak. The difference in the trip rates is minimal with the highest variation of 0.06 in the trip rates. Therefore, the trip rates derived from the TRICS (v7.10.2) database are anticipated to be suitable for the proposed development.

- 6.7 Although the Catherington Park development trip generation was accepted with a 10% reduction based on the fact that the site has a Travel Plan and the proposed site will have a Travel Plan in place which will aim for a minimum of 10% reduction in vehicle trips. However, to represent a worse-case scenario the proposed trip generation for the site will not apply this 10% reduction.
- 6.8 Based on the scale of development (up to 164 units) and the fact the site access was designed with the proposed development in mind, the trip generation is not anticipated to have significant impact on the operation of the highways network in the context of the NPPF. This will be assessed further within the TA.

Catherington Park Trip Generation

- 6.9 The trip generation for the 'Catherington Park' development has also been reviewed, to understand the expected trip generation for the existing development. The traffic flows from Figures 6.2 and 6.3 within the TA for application APP/13/00804 have been reviewed within **Table 5**.

APP/13/00804	AM Peak (0800-0900)		PM Peak (1700-1800)	
	Arrivals	Departures	Arrivals	Departures
Vehicular Trip rate	0.113	0.391	0.298	0.172
Traffic Generation (294 units)	33	115	88	51
Traffic Generation (294) with a 10% reduction for having a Travel Plan	30	103	79	46

Table 5: 'Catherington Park' APP/13/00804 Approved Trip Generation

- 6.10 The 'Catherington Park' development (294 residences) was accepted with a trip generation of 133 vehicle movements in the AM peak and 125 two-way movements in the PM peak. The trip generation was accepted with a 10% reduction based upon the fact that the site has a Travel Plan and the 10% reduction in trips was utilised for the Catherington Park development trip generation and trip distribution. It is also worth noting that the trip rates agreed for Catherington Park (shown in **Table 5**) are comparable to those proposed in **Table 4**, with those for the proposed development being slightly higher and therefore are considered suitable and robust.
- 6.11 In addition, a MCC traffic count (detailed within **Chapter 7**) was undertaken at the Powell Drive/Eagle Avenue junction on Thursday 9th November 2023 to understand the existing traffic flows associated with the junction. These are summarised within **Table 6**.

	AM Peak (0800-0900)		PM Peak (1700-1800)	
	Arrivals	Departures	Arrivals	Departures
Recorded Vehicle Trips (Powell Drive/Eagle Avenue)	45	89	89	41

Table 6: Recorded Vehicle Trip Generation (Powell Drive/Eagle Avenue)

- 6.12 As summarised within **Table 6**, the existing Catherington Park development, which is in its final stages of construction, currently generates 134 two-way vehicle movements in the AM peak and 130 two-way vehicle movements in the PM peak which is similar to that predicted in **Table 5**. It is understood that c10 units are still unoccupied and a number of construction vehicles are still on site throughout the day, which will be included within the existing trip generation shown in **Table 6**. The existing flows are similar to those proposed within the outline application for the site and suggest the development is operating as expected.

Net Impact – Vehicular Trips

- 6.13 As the Catherington Park development is not yet fully occupied and construction vehicles are still on site and the fact the MCC traffic count and approved trip generation are similar, the trip generation of 133 vehicle movements in the AM peak and 125 two-way movements in the PM peak (APP/13/00804 Approved Trip Generation) will be utilised to assess the percentage impact of the proposed development on the site access.
- 6.14 Therefore, based on the information provided in **Tables 4** and **5**, the proposed development could generate an additional 103 (63% increase) two-way movements in the AM peak and 84 movements (67% increase) in the PM peak compared to Catherington Park on its own.
- 6.15 The Powell Drive/Eagle Avenue junction was designed as a priority junction to support the lower level of traffic flows while the Catherington Park development was being built out. The mini-roundabout design (condition 25 of application APP/13/00804) was designed to accommodate the full Catherington Park development traffic and ensured there was capacity which could additional development to the north of Catherington Park and therefore, the increase in vehicle movements is not anticipated to have a significant impact on the operation of the local highways network or site access junction, in the context of the NPPF. The full impact of the increase in trips will be evaluated within **Chapter 7** of this TA.

Multi-modal Trip Generation

- 6.16 To understand the likely pedestrian, cycle and public transport trip generation associated with the proposed development, vehicle trip rates have been derived from the TRICS (v7.10.2) database utilising same parameters as the vehicular trip generation. The trip rates and generation are summarised within **Table 7**.

	AM Peak (0800-0900)		PM Peak (1700-1800)		Daily (12 hours)
	Arrivals	Departures	Arrivals	Departures	
Pedestrian Trip Rate	0.032	0.108	0.044	0.021	0.863
Pedestrian Trip Generation (164 units)	5	18	7	3	142
Cyclist Trip Rate	0.006	0.008	0.008	0.002	0.081
Cyclist Trip Generation (164 units)	1	1	1	0	13
Public Transport Trip Rate	0.002	0.079	0.027	0.002	0.374
Public Transport Trip Generation (164 units)	0	13	4	0	61

Table 7: Proposed Development Multi-Modal Trip Generation

- 6.17 As summarised in **Table 7**, the proposed development site could be expected to produce up to 36 two-way pedestrian movements in the AM peak (23 sole pedestrian movements and 13 pedestrian movements associated with those utilising public transport), 15 two-way pedestrian movements in the PM peak (11 sole pedestrian movements and 4 pedestrian movements associated with those utilising public transport), and up to 203 pedestrian movements over a 12-hour period (142 sole pedestrian movements and 61 pedestrian movements associated with those utilising public transport).
- 6.18 Pedestrian infrastructure will be provided throughout the internal layout of the site, with the shared footway/cycleway connecting the eastern and western parcel, plus the provision of footways and crossing points within the Catherington Park development linking to wider infrastructure and PRoW. This is deemed sufficient to accommodate the increase in pedestrian movements.
- 6.19 As summarised in **Table 7**, the proposed development site could be expected to produce up to 2 two-way cycle movements in the AM peak, 2 two-way cycle movements in the PM peak and up to 13 cycle movements over a 12-hour period.
- 6.20 The low posted speed limit of surrounding roads, shared footway/cycleway between the two parcels of the development site and proximity of cycle routes is deemed sufficient to support the increase in cycle movements.
- 6.21 As summarised in **Table 7**, the proposed development site could be expected to produce up to 13 additional public transport trips in the AM peak, 4 additional public transport trips in the PM peak and up to 61 public transport trips over a 12-hour period.

- 6.22 Bus services are as frequent as every 12-15 minutes and there are three railway stations accessible in a circa 30-minute cycle. Therefore, the development is deemed the current provision is suitable to accommodate the proposed increase in trips.
- 6.23 Therefore, the proposed increase in vehicular and multi-modal trips to/from the site is not anticipated to have a significant impact on the operation of the surrounding highways, pedestrian, cycle or public transport network in the context of the NPPF.
- 6.24 It was requested by HCC at pre-application that 'Decide and Provide' rather than 'Predict and Provide' be utilised when determining the site's trip generation. On this basis a Decide and Provide approach to trip generation is set out below utilising the data and principles set out in **Section 6** above.

7. DECIDE AND PROVIDE

- 7.1 Following discussions with HCC it was agreed that a Decide and Approach would be required by HCC to determine highway impact. To inform this section of the report, discussions have been had with HCC (attached as **Appendix H**) to agree an approach for the decide and provide trip generation and come to an agreement on the percentage reduction in vehicle trips generated.
- 7.2 A justification was issued to HCC utilising census data (existing modal split of the area), TRICS historic data trends and supporting information including a Travel Plan and the sustainability of the area. Originally, based upon this data, a 15% reduction in vehicular trips was sought, however, HCC have confirmed (**Appendix H**) a 27% reduction should be sought in vehicular trips with 10% coming from the decide and provide approach and the remaining 17% from the Travel Plan.
- 7.3 Therefore, this section of the TA sets out the decide and provide element along with the proposed vehicular trip reduction. An updated Travel Plan stating a 17% reduction has been submitted to support the application and should be read in conjunction with this report

Approach

- 7.4 The decide and provide approach is a vision-led rather than a forecast-led (predict and provide) way of predicting the future trips for a proposed development, with a strong focus on the shift to sustainable transport modes and looks at providing for the best-case in terms of modal shift, rather than the worst-case.
- 7.5 The decide and provide approach looks at changes in past vehicle and person trips rates utilising the TRICS database, sustainability of the site, sustainable travel improvements being made as part of the development proposals, census data and travel plans to understand the likelihood of private car trips reducing and sustainable travel mode trips increasing.
- 7.6 This section of the TA builds upon the multi-modal trip generation for the site set out in Section 6 above, to understand the existing modal split for the site based upon a predict and provide approach, which assumes a continued increase in car trips.
- 7.7 To then complete a decide and provide approach and determine an appropriate percentage reduction for vehicle trips, the TRICS database has been re-examined to understand the reduction in vehicle trips between 2001-2024 (in line with the decide and provide guidance).
- 7.8 The proposed percentage reduction to trips and resulting reduced person trip generation based on the decide and provide approach are detailed below.

Trip Reductions

- 7.9 To determine an appropriate percentage reduction for the vehicle trip rates in line with decide and provide guidance, the historic trends of the total vehicle trip rates have been reviewed on the TRICS database using the same parameters set out above (and within **Appendix G**). The following 5-year periods have been assessed with the following daily vehicle trip rates presented within Table 8.

Year	Total Vehicle Trip Rate	% Reduction from previous
2001-2005	6.081	-
2005-2010	6.052	-0.5%
2010-2015	4.653	-23%
2015-2020	4.759	+2%
2020-2024	2.642	-44%

Table 8: TRICS Historic Data

- 7.10 Overall, there has been 57% reduction in vehicle trips over a 20+ year period (2001-2024) which equates to an average of a 3% reduction per year.
- 7.11 Across the 5-year period (2024 to 2029) a 15% reduction in total vehicle trips can therefore be expected with an average of 3% reduction in vehicle trips each year.

Census Data

- 7.12 The 2011 census data (ref: WU03EW) for method of travel to work has been reviewed to understand the modal split for East Hampshire 014 (super output area where the site is located), identified in **Figure X**. It should be noted that 2021 census data has not been utilised due to the survey being undertaken during the COVID-19 pandemic, which changed travel patterns.

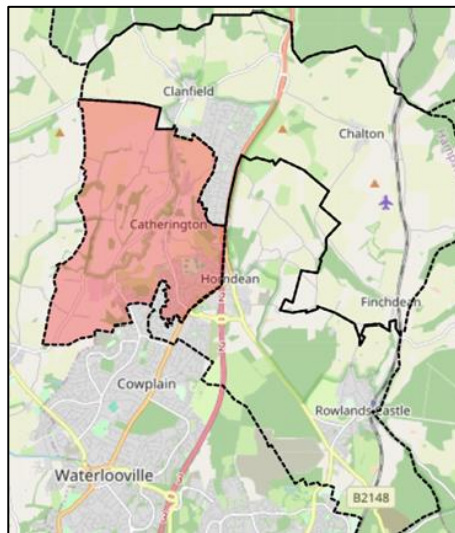


Figure 5: East Hampshire 014

- 7.13 The modal split for East Hampshire 014 is demonstrated within **Table 9**, with full outputs attached as **Appendix I**.

Method of Travel	Modal Split
Rail (including underground/metro/light rail)	3%
Bus (including minibus/coach)	3%
Car (including car share)	87%
Cycle	1%
Walking	4%
Other inc. taxi/motorcycle	1%
Work from Home	0%

Table 9: East Hampshire 014 Modal Split (2011 census)

Catherington Park Modal Split

- 7.14 HCC have provided information on the modal split for the end of year 3 Travel Plan monitoring report for Catherington Park. It was confirmed that the modal split for the development is 70% private car use and 30% sustainable travel modes.
- 7.15 Based upon the fact that the 2011 census data suggests an 87% baseline in vehicular trips for the development and the Catherington Park development has a mode split of 70%, HCC have confirmed (**Appendix H**) that with the implementation of a Travel Plan, with a target of a 17% reduction in car trips is deemed achievable and realistic based on a similar site.

Travel Plan

- 7.16 Following conversations with HCC, a Travel Plan has been submitted alongside this TA which seeks to achieve a 17% reduction in modal shift, based upon the results from the year 3 monitoring report for Catherington Park. This document should be read in conjunction with this report.

WCHAR and Sustainable Travel Measures/Improvements

- 7.17 In addition to the TA and TP for the site, a Walking, Cycling and Horse-Riding Assessment Review (WCHAR) has been undertaken to determine the suitability of local walking, cycling and equestrian routes in the vicinity of the site for routes to local facilities.
- 7.18 The WCHAR has been submitted alongside this TA and details the full routes, however, as a summary the development proposes to make enhancements to the local area through bus stop enhancements, crossing point enhancements and contributions towards the desired LCWIP route in the vicinity of the site.
- 7.19 With these improvements in mind and the desire from HCC through their Local Transport Plan 4 to reduce the car dependency to move the site closer to the 50/50 split for private car/sustainable modes by 2030, which has also been identified by Active Travel England, HCC have requested a further 10% reduction in vehicle trips based on sustainable travel improvements.

Proposed Car Reduction – Decide and Provide

- 7.20 From on the information provided above and based on discussions with HCC (**Appendix H**) there has been an agreement that the proposed development will seek to achieve a 27% overall reduction in vehicle trips, reducing the mode share from 87% to 60% and increasing sustainable travel modes to 40%. HCC have requested that work from home is not included in the modal shift.
- 7.21 **Table 10** shows the proposed modal split for the development based upon the 2011 census data (**Table 9**) with a 15% mode shift applied.

Method of Travel	Proposed 2029 Modal Split (10% from sustainable enhancements)	Proposed 2029 Modal Split (17% from Travel Plan)	% change	
			10% Change (sustainable enhancements)	17% change from Travel Plan
Rail (including underground/metro/light rail)	3%	3%	no change	
Bus (including minibus/coach)	7%	13%	+4%	+6%
Car (including car share)	77%	60%	-10%	-17%
Cycle	4%	8%	+3%	+4%
Walking	7%	14%	+3%	+7%
Other inc. taxi/motorcycle	1%	1%	No change	

Table 10: Proposed development Modal Split

- 7.22 As summarised within **Table 10**, the proposed development could be expected to reduce vehicle trips from 87% to 60%, increasing sustainable travel modes by 27% by 2029 (operational year), as agreed with HCC.

Decide and Provide Justification

- 7.23 Whilst there is expected to be a reduction in vehicle movements it is anticipated that the 27% of trips will be redistributed to walking, cycling and public transport trips.
- 7.24 It should be noted that due to the location of the site, we have not increased the rail travel, however this does not mean that measures such as the Travel Plan will not promote this travel mode, it is however anticipated that due to the distance to the rail station people are likely to get a lift in the car, or potentially cycle.
- 7.25 Using Active Travel England's latest guidance, and the 800m walking distance to local facilities that was mentioned within HCC response (**Appendix H**), the centre of the site is within 800m walk of amenities which include Woodcroft Primary School (550m), Tesco Express (800m), Wecock Play and Skate Park (625m), The Acorn Community Centre (800m), Premier Shops (800m) and whilst a café is not located within 800m, there is a fish and chip shop and pizza restaurant located 800m away..

- 7.26 The closest bus stop is located on Eagle Avenue at circa 540m walk from the centre of the site. Whilst the is just above the 400m preferred walk distance to a high frequency bus route outlined by Chartered Institution of Highways & Transportation (CIHT), an additional 2-minute walk time (140m) is not considered to dissuade people from travel by bus, due to the activeness of the frequency of services. The bus stops benefit from a service every 15 minutes throughout the day starting at 5.30am and running until 11pm. For the location and nature of the site, this is a significant service and one that can warrant the increase in bus trips from the development site.
- 7.27 It should also be noted that a proportion of residents are likely to work from home (based on 2021 census data) due to the significant increase in this method of working since 2020. A review of Census 2021 data suggests that 35% were working from home in the MSOA EHDC 0014 where the site falls, whilst it is acknowledged that the data was collected through COVID-19, the significance of people now working at home should not be discounted.
- 7.28 An updated Travel Plan has been submitted which aims to reduce car journeys by 17%, with further reductions based on the 10% decide and provide reduction.
- 7.29 Along with this, initial measures identified within our WCHAR, improvements to pedestrian and cycling permeability, and upgrades to bus stops delivered as part of the site's implementation will assist in achieving the modal shift. The off-site improvements will also aid in reducing background traffic as these will make walking and cycling more attractive for active travel users beyond the boundary of the development site.
- 7.30 Therefore, a reduction of 27% for vehicle trips resulting in a 27% shift to sustainable modes of travel is deemed suitable for the development.

Decide and Provide Trip Generation

- 7.31 Based on the percentage splits set out in **Table 10** as part of the decide and provide approach (27% vehicular reduction), the multi-modal trip generation for the site has been updated and these percentage splits are outlined within **Table 10**. As aforementioned, the AM peak period of 08:00-09:00 and PM peak period of 17:00-18:00 have been utilised to understand the potential trip generation for the site as these are the highest trip rate periods on the TRICS database.

Vehicular Trip Generation

	AM Peak (0800-0900)		PM Peak (1700-1800)		Daily (12 hours)
	Arrivals	Departures	Arrivals	Departures	
Vehicular Trip Rate (-27%) – 60% mode share	0.099	0.254	0.247	0.105	3.073
Trip Generation (164 units)	16	42	41	17	504
Reduction in vehicle trips	-8	-18	-18	-8	-227

Table 11: Vehicular Trip Generation (with decide and provide 27% reduction)

- 7.32 Based on the decide and provide approach (**Table 11**) that would see a 27% reduction in vehicle trips, it can be anticipated that the proposed 164-unit residential development could potentially generate up to 58 two-way vehicle movements in the AM peak period, up to 58 two-way vehicle movements in the PM peak period and up to 504 vehicle movements over a 12-hour period.
- 7.33 Compared to the predict and provide approach this is a reduction of 24 vehicle movements in the AM and PM peak periods, and a reduction of 227 vehicle movements over a 12-hour period, based on the 27% reduction in vehicle trips from 87% to 60%.

Multi-Modal trip Generation

	Daily (12 hours)	Difference from predict and provide approach
Pedestrian Trip Generation (164 units) – 14% mode share	255	+113
Cyclist Trip Generation (164 units) – 8% mode share	74	+61
Public Transport Trip Generation (164 units) -13% mode share	163	+102

Table 12: Multi-modal Trip Generation (with decide and provide 27% increase)

- 7.34 As summarised in **Table 12**, each of the modes would see an increase in mode share compared to the original TRICS outputs found in **Table 7**. The proposed development, when compared to the predict and provide approach would result in an increase of 113 pedestrian movements (increase in 215 pedestrian movements when assuming all those utilising public transport will start/end their journey by walking), 102 public transport movements (bus) and 61 cycle movements over a 12-hour period.
- 7.35 It is of note that peak hour mode shares have not been reviewed as the trip rate figures were too small to apply individual increases to, therefore only daily trips have been reviewed.

7.36 The increase in those walking, cycling and utilising public transport has been assessed further through the WCHAR. The report proposes improvements and upgrades to surfacing and crossing points, contribution towards the LCWIP routes and enhancements to the Curlew Gardens bus stop.

8. TRAFFIC FLOW DATA AND SURVEYS

- 8.1 To assist with the existing trip generation of the site and the modelling and percentage impact assessments for surrounding junctions, traffic surveys have been undertaken to establish the baseline conditions.
- 8.2 With consideration to previous assessments of the site (undertaken in 2010 as part of application APP/13/00804), 10 junctions were surveyed to determine the likely trip distribution from the development site and through each junction to aid with junction capacity assessments. This data suggested that in the AM peak 64% of traffic would turn left out of the development and 36% would turn right, while in the PM peak 62% would turn left and 38% turn right.
- 8.3 Therefore, based upon the observed traffic flows in 2010 and the percentage of development traffic turning left toward the Eagle Avenue/Milton Road junction and right towards the Hart Plain Avenue/Milton Road junction, MCC surveys were undertaken at Powell Drive/Eagle Avenue junction (site access), Eagle Avenue/Milton Road junction and Hart Plain Avenue/Milton Road junction to determine the existing trip distributions and help to determine other junctions which would require traffic surveys to be undertaken.
- 8.4 Based upon the results of the first three surveys, it was determined that a large proportion of the development flows would travel through the Lovedean Lane/Milton Road junction. Based upon the proximity to the A3 London Road and A3 Portsmouth Road, it was also anticipated that a large proportion of the development traffic could potentially utilise the A3 London Road/ Lovedean Lane/ A3 Portsmouth Road/ Prochurch Road junction and the A3 Portsmouth Road/ Catherington Lane/ B2149 Dell Piece West junction.
- 8.5 Therefore, to establish the baseline traffic flows on the local road network, camera surveys (CCTV and/or Enumerators) were undertaken at the following 6 junctions (identified within **Figure 6**):
- Junction 1 - Powell Drive/Eagle Avenue
 - Junction 2 - Milton Road/Eagle Avenue
 - Junction 3 – Hart Plain Avenue/Milton Road
 - Junction 4 – Milton Road/Lovedean Lane
 - Junction 5 – A3 London Road/ Lovedean Lane/ A3 Portsmouth Road/ Prochurch Road
 - Junction 6 – A3 Portsmouth Road/ Catherington Lane/ B2149 Dell Piece West

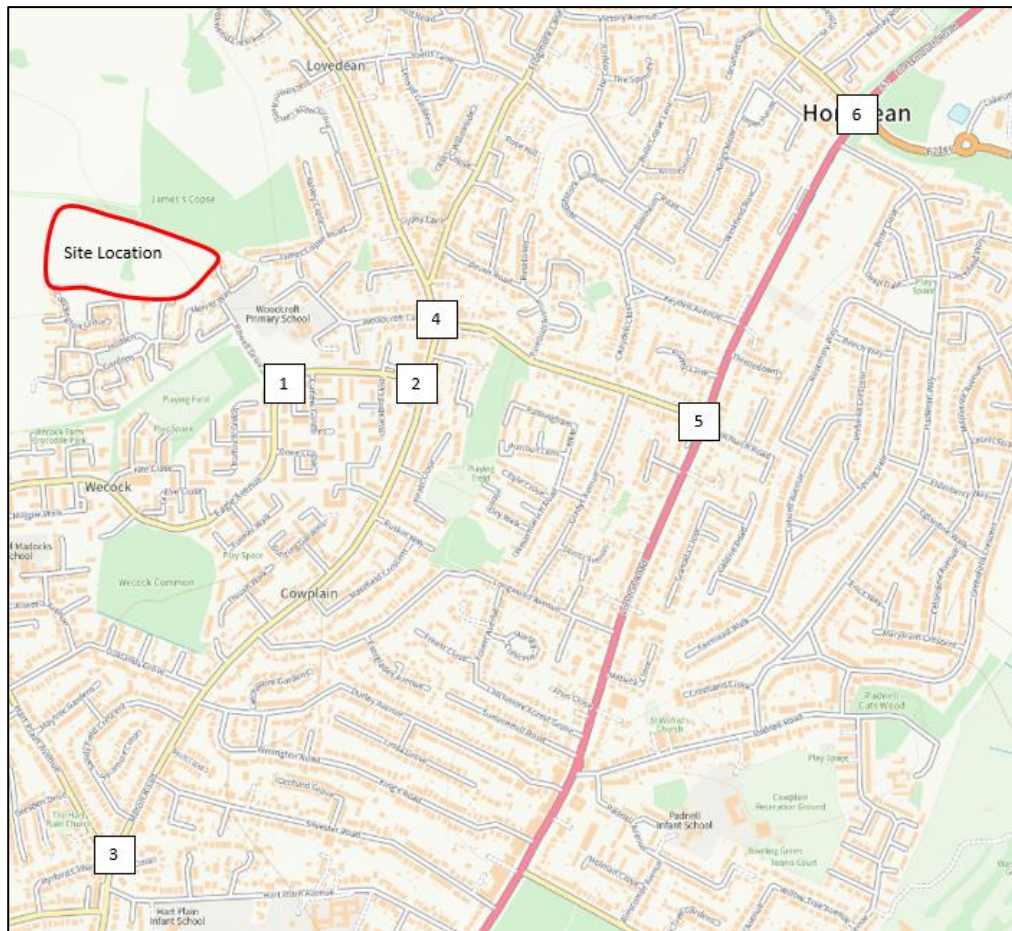


Figure 6: Survey Locations

8.6 From the assessment undertaken, it was identified that all of the junctions had different AM peak and PM peak periods. A summary of each junction and their associated peak periods is provided in **Table 13**, with the full outputs attached as **Appendix J**

Junction	AM Peak Period		PM Peak Period	
	Time Period	Total Flows	Time Period	Total Flows
Powell Drive/Eagle Avenue	08:00-09:00	448	16:45-17:45	453
Milton Road/Eagle Avenue	08:00-09:00	1259	16:30-17:30	1213
Hart Plain Avenue/Milton Road	08:15-09:15	1339	16:15-17:15	1640
Milton Road/Lovedean Lane	08:00-09:00	1333	16:00-17:00	1332
A3 London Road/ Lovedean Lane/ A3 Portsmouth Road/ Prochurch Road	07:45-08:45	1373	16:15-17:15	1461
A3 Portsmouth Road/ Catherington Lane/ B2149 Dell Piece West	07:45-08:45	2965	16:00-17:00	2939

Table 13: Summary of Junction Peak Periods

8.7 As the peak hours at each junction varies, for terms of a robust assessment, the peak hours of 07:45-08:45 and 16:00-17:00 have been utilised for modelling and traffic distribution purposes to cover the

busiest periods across the 6 junctions (**Table 13**), detailed within Chapter 8 of this TA. This has been agreed with HCC at the pre-application stage.

- 8.8 The results of the surveys for the peak hours (07:45-08:45 and 16:00-17:00) are attached as **Appendix J**.

TEMPro Growth Factors

- 8.9 The baseline traffic surveys were undertaken in 2023 at the 6 junctions detailed above. In line with HCC guidance, analysis of the traffic impact will be undertaken for 2029, five years from the date of the planning application submission.
- 8.10 A growth factor has been applied to provide the 2029 baseline flows. These can then be used to assess the capacity at the Powell Drive/Eagle Avenue junction, Milton Road/Eagle Avenue junction and the Lovedean Lane/Milton Road junction and assess the percentage impact of the development at the remaining junctions, based upon the development trips being sent through these junctions. The growth factors obtained from the TEMPro database are displayed within **Table 9**.

TEMPro	Growth Factor	
2023-2029	AM	1.0571
	PM	1.0591

Table 14: TEMPro Growth Factors

- 8.11 As agreed with HCC at the pre-application stage, the development is only required to assess the impact of the proposed development for the following scenarios:
- 2023 baseline (year of the survey data)
 - 2029 forecast
 - 2029 forecast + Proposed Development
- 8.12 Although we are now in 2024, as the traffic surveys were completed in November and December 2023, the baseline year of 2023 has been utilised as this represents the existing traffic flows which were observed within the last 3-months. Therefore, it is unlikely these flows have significantly increased.
- 8.13 Committed developments in the area have been considered to establish the predicted traffic pressures on the local road network before the development traffic is added. All developments which are over 50 units and would utilise the same wider highways network as the proposed development site have been included within the committed developments which will be utilised within the modelling scenarios.

- 8.14 The search concluded that there are no committed developments in the local area which will utilise the same junctions as the proposed development and therefore, no committed developments have been included within the junction capacity assessment.

9. TRIP DISTRIBUTION

- 9.1 As aforementioned, for application APP/13/00804 observed traffic counts were utilised to determine trip distribution rather than census data as observed data includes all trips rather than just journey to work data and gives a better understanding of how trips are currently distributed on the network. Therefore, this site will also be supported with observed traffic flows instead of census data to determine the trip distribution for the development site.
- 9.2 As the surveys utilised to determine the trip distribution for the 'Catherington Park' development (APP/13/00804) were undertaken in 2010, updated surveys have been undertaken as part of this pre-application.
- 9.3 As all development traffic will utilise the Powell Drive/Eagle Avenue junction and then will either pass through the Eagle Avenue/Milton Road or Hart Plain Avenue/Milton Road junctions, traffic count and queue length surveys were undertaken at these junctions on Thursday 9th November 2023 between the hours of 07:00-10:00 and 16:00-19:00 to cover the peak hour periods (attached as **Appendix J**).
- 9.4 Using this information, an initial review of the Powell Drive/Eagle Avenue junction for the peak hours of 07:45-08:45 and 16:00-17:00 hours (peak hour period for the junction with the highest vehicle flows from the MCC surveys) was undertaken to confirm how existing residents of Catherington Park were currently distributing onto the network.

Internal split

- 9.5 At this stage, the exact split of development traffic between the eastern and western parcel is unknown as the internal site plan is not set. However, the western parcel will have a higher number of units and therefore it is anticipated circa 60% of the development traffic will utilise the western access onto Wilkes Way and 40% will utilise the eastern access onto Merritt Way.

Powell Drive/Eagle Avenue

- 9.6 From this initial assessment it was evident that the majority (90% in the AM peak and 91% in the PM peak) of the development traffic travels to/from the east of the site, utilising the Eagle Avenue/Milton Road junction and minimal vehicular traffic from the development site travels south of the development. In terms of arrivals to the site, 74% arrive from the east in the AM peak and 90% arrive from the east in the PM peak. This is shown within **Figure 7**, with the full distribution diagrams attached as **Appendix I**.

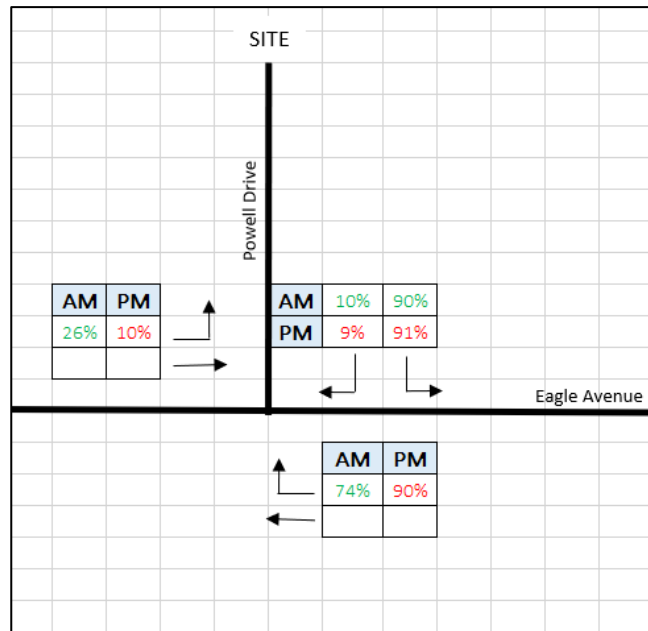


Figure 7: Trip Distributions from Site Access

- 9.7 The results of the MCC survey indicate that the majority (90% in the AM peak and 91% in the PM peak) of the departing development traffic will travel east and utilise the Eagle Avenue/Milton Road mini-roundabout and 74% in the AM peak and 90% in the PM peak will arrive at the site from the east.
- 9.8 The remaining (10% in the AM peak and 9% in the PM peak) will head west from the site access and then utilise the Hart Plain Avenue/Milton Road junction to the south. In the AM peak 26% will arrive from the west and in the PM peak 10% will arrive from the west.

Hart Plain Avenue/Milton Road

- 9.9 As aforementioned, 10% of the development traffic in the AM peak and 9% of the development traffic in the PM peak head west out of Powell Drive to utilise the Hart Plain Avenue/Milton Road junction located south of the site. In both the AM and PM peak 2% of the traffic will head north along Milton Road and disperses along a variety of junctions which provide access to the A3. In the AM peak 8% will head south along Milton Road and in the PM peak 7% will head south along Milton Road which provides a connection to the B2150 Hambledon Road.
- 9.10 In terms of arrivals to the site in the AM peak, 24% of traffic comes from the south of Milton Road and 2% comes from the north of Milton Road and in the PM peak 6% of traffic comes from the south of Milton Road and 3% comes from the north of Milton Road.

Eagle Avenue/Milton Road

- 9.11 Of the 90% of the AM peak traffic which travels east from the development to utilise the Eagle Avenue/Milton Road junction, 55% heads north along Milton Road to utilise the Milton Road/Lovedean

Lane junction and 35% heads south along Milton Road and disperse along a variety of junctions which provide access to the A3.

- 9.12 In the PM peak, of the 91% which travel east from Powell Drive, 65% head north along Milton Road to utilise the Milton Road/Lovedean Lane junction and 26% head south along Milton Road and disperse along a variety of junctions which provide access to the A3.
- 9.13 In terms of arrivals to the site, in the AM peak 16% arrive from the south of Milton Road and 58% arrive from the north and in the PM peak 23% arrive from the south of Milton Road and 67% arrive from the north.

Milton Road/Lovedean Lane

- 9.14 In the AM peak, 36% of the development traffic heads west at the Lovedean Lane/Milton Road junction to head north along Lovedean Lane where there are a variety of junctions traffic can disperse upon, or continue towards Catherington, while 19% head east to reach the A3 London Road/ Lovedean Lane/ A3 Portsmouth Road/ Prochurch Road junction.
- 9.15 In the AM peak 46% of the development traffic heads west at the Lovedean Lane/Milton Road junction to head north along Lovedean Lane, while 19% heads east to reach the A3 London Road/ Lovedean Lane/ A3 Portsmouth Road/ Prochurch Road junction.
- 9.16 In terms of arrivals to the site, in the AM peak 43% arrive from the west and 15% arrive from the east while in the PM peak 33% arrive from the west and 34% arrive from the east.

A3 London Road/ Lovedean Lane/ A3 Portsmouth Road/ Prochurch Road

- 9.17 Of the 19% of traffic which utilises the A3 London Road/ Lovedean Lane/ A3 Portsmouth Road/ Prochurch Road junction in both the AM and PM peak period, 14% heads north along the A3 Portsmouth Road to reach the A3 Portsmouth Road/ Catherington Lane/ B2149 Dell Piece West junction while the remaining 5% heads south along A3 London Road.
- 9.18 In terms of arrivals to the site, in the AM peak 3% arrive from the south from the A3 London Road, 10% arrive from the north from the A3 Portsmouth Road and 2% arrive from the east from Prochurch Road. In the PM peak 9% arrive from the south from the A3 London Road, 22% arrive from the north from the A3 Portsmouth Road and 2% arrive from the east from Prochurch Road.

A3 Portsmouth Road/ Catherington Lane/ B2149 Dell Piece West

- 9.19 Of the 14% of development traffic in both the AM and PM peak periods which utilise the A3 Portsmouth Road/ Catherington Lane/ B2149 Dell Piece West junction, 2% head west to utilise Catherington Lane,

3% in the AM peak and 4% in the PM peak continue north on the A3 Portsmouth Road and 9% in the AM peak and 8% in the PM peak head east along the B2149 Dell Piece West.

9.20 In terms of arrivals to the site, in the AM and PM peak period, 2% of traffic arrives from the west (Catherington Lane). In the AM peak 3% of traffic arrives from the north (A3 Portsmouth Road) and in the PM peak 8% of traffic arrives from the north. In the AM peak 5% arrive from the west (Dell Piece West) and in the PM peak 12% of traffic arrives from the west.

9.21 The arrivals and departures from the site and are detailed within the distribution diagrams attached as **Appendix K**.

10. JUNCTION CAPACITY ASSESSMENT

- 10.1 To identify the highway impact of the development proposals, junction capacity analysis has been undertaken at the site access (Powell Drive/Eagle Avenue), Eagle Avenue/Milton Road junction and Milton Road/Lovedean Lane junction based upon the fact that the development trips will equate to an increase of more than 30 vehicles at these junctions in the AM/PM peak periods.
- 10.2 As aforementioned, to assess the impact of the proposed development, the three junctions have been assessed for the following scenarios:
- 2023 baseline (year the surveys were undertaken)
 - 2029 forecast
 - 2029 forecast + Proposed Development
- 10.3 As aforementioned, although we are now in 2024, as the traffic surveys were completed in November and December 2023, the baseline year of 2023 has been utilised for validation of the base models against observed conditions.
- 10.4 The general junction modelling scenarios were agreed with HCC at the pre-application stage. HCC also requested that the Powell Drive/Eagle Avenue junction be modelled for the current priority junction and the proposed mini-roundabout and that the Milton Road/Lovedean Lane junction is modelled for the approved mini-roundabout design.
- 10.5 It should be noted that the trip generation, trip distribution and modelling is based upon the 'Decide and Provide' approach set out within **Section 7** and agreed with HCC during consultee discussions.
- 10.6 A percentage impact assessment has been undertaken at the remaining three junctions based upon the fact that the development trips will equate to less than 30 vehicle movements in the AM/PM peak periods.

Junction Modelling Software:

- 10.7 The capacity of the junction has been assessed using Junctions 9 software which provides a Ratio of Flow to Capacity (RFC) value, which identifies what proportion of each arm's total capacity is currently being utilised. RFC values exceeding 0.85 signify the point at which the capacity of the arm is being approached, and the potential to improve capacity could be explored, whilst RFC values of 1.0 or greater represent a junction operating above capacity. Junctions 9 software also provides values for junction delay (in seconds) and queue length in vehicles.

- 10.8 All modelling has been completed using ‘vehicle’ values rather than PCUs and as such the appended traffic flow diagrams are also all in vehicles. To provide a robust assessment, a 10% HGV rate has been applied throughout.

Modelling Results

Powell Drive/Eagle Avenue

- 10.9 To ensure that the site access has sufficient capacity to accommodate the proposed development, modelling has been undertaken for all scenarios. The results are summarised within **Table 15** and the full outputs are attached as **Appendix L**.

Scenario	Arm	AM Peak (07:45-08:45)			PM Peak (16:00-17:00)		
		RFC	Max Queue	Delay (seconds)	RFC	Max Queue	Delay (seconds)
2023 Baseline	Powell Drive	0.19	0.3	8.20	0.08	0.1	7.03
	Eagle Avenue	0.06	0.1	6.53	0.13	0.2	6.48
2029 Forecast	Powell Drive	0.21	0.3	8.38	0.09	0.1	7.08
	Eagle Avenue	0.06	0.1	6.53	0.14	0.3	6.50
2029 Forecast + Development	Powell Drive	0.28	0.4	9.30	0.12	0.1	7.40
	Eagle Avenue	0.09	0.1	6.73	0.22	0.4	7.17

Table 15: Powell Drive/Eagle Avenue Junction Capacity Assessment

- 10.10 **Table 15** demonstrates that the Powell Drive/Eagle Avenue t-junction works well within capacity for all scenarios with the longest delay of 9.30 seconds in the AM peak and 7.40 seconds in the PM peak. Therefore, the scheme would not have a severe residual cumulative impact on the operation of the current T-junction in the context of the NPPF (Paragraph 115).
- 10.11 A queue length survey was undertaken on Thursday 9th November (at the same time as the MCC traffic count) and are attached within **Appendix J**. The model was validated against the observed queue lengths and was considered reflective of observed conditions therefore no manual intercept adjustments were required.
- 10.12 It should be noted that within application APP/13/00804 for the Catherington Park development, it was proposed that the site access would be in the form of a mini roundabout. As aforementioned, as part of Catherington Park Condition 25 (Phasing plan for off-site highways works) it was agreed *that ‘prior to the mini roundabout being constructed on Eagle Avenue, a temporary bellmouth arrangement will be put in place and an appropriate trigger for the addition of the roundabout will be agreed with HCC’*. This ‘temporary arrangement’ is still in place, and from our assessment the current arrangement, as a T-

junction, would continue to function without the need to wait for the implementation of the roundabout design.

10.13 HCC requested within their pre-application comments that further modelling of the mini-roundabout arrangement should be included, as the Section 278 technical approval for the works has been granted. HCC have supplied us with the roundabout design however no dimensions were given. We have therefore scaled from the PDF plans into CAD and recorded dimensions we believe to be correct for the design which is to implemented and this approach has been agreed by HCC.

10.14 The results of the modelling are outlined in **Table 16** with the outputs attached within **Appendix L**.

Scenario	Arm	AM Peak (07:45-08:45)			PM Peak (16:00-17:00)		
		RFC	Max Queue	Delay (seconds)	RFC	Max Queue	Delay (seconds)
2029 Forecast+ Development	Eagle Avenue (E)	0.16	0.2	4.32	0.29	0.4	5.04
	Powell Drive	0.20	0.3	5.78	0.08	0.1	4.88
	Eagle Avenue (W)	0.21	0.3	4.59	0.15	0.2	4.39

Table 16: Powell Drive/Eagle Avenue Roundabout Capacity Assessment

10.15 As summarised within **Table 16**, the Powell Drive/Eagle Avenue junction would operate within theoretical capacity on all arms in both the AM and PM peak period for the 2029 Forecast + Proposed Development scenario, based on the decide and provide development vehicle trip generation. The highest RFC expected would be 0.21 with the largest delay of 5.79 seconds on the Powell Drive arm in the AM peak.

10.16 Therefore, it is evident that the proposed development will not affect the operation of the proposed roundabout at the site access and no mitigation is required.

10.17 It should also be noted that the results of the modelling are slightly below the original modelling for the roundabout provided within the TA of application 13/00804 however this is likely to be due to obtaining updated traffic flows in 2023 which are potentially lower than the predicted 2028 trips as well as the application of a decide and provide approach to assessment flows.

Eagle Avenue/Milton Road

10.18 As circa 90% of the development departures utilise the Eagle Avenue/Milton Road mini roundabout junction, the junction has been modelled to ensure it has sufficient capacity to accommodate the

proposed development. All scenarios have been modelled, and the results are summarised within **Table 17** and the full outputs are attached as **Appendix L**.

Scenario	Arm	AM Peak (07:45-08:45)			PM Peak (16:00-17:00)		
		RFC	Max Queue	Delay (seconds)	RFC	Max Queue	Delay (seconds)
Baseline 2023	Eagle Avenue	0.75	3.2	18.23	0.58	1.5	10.42
	Milton Road (N)	0.74	3.1	15.19	0.49	1.0	7.54
	Milton Road (S)	0.70	2.5	11.37	0.70	2.5	11.78
2029 Forecast	Eagle Avenue	0.79	3.8	21.07	0.60	1.6	11.14
	Milton Road (N)	0.78	3.7	17.71	0.52	1.2	8.12
	Milton Road (S)	0.72	2.8	12.33	0.73	2.9	13.07
2029 Forecast + Development	Eagle Avenue	0.83	5.0	26.54	0.62	1.8	11.72
	Milton Road (N)	0.80	4.1	19.34	0.55	1.4	8.81
	Milton Road (S)	0.73	2.8	12.62	0.71	2.7	11.99

Table 17: Eagle Avenue/Milton Road mini roundabout Junction Capacity Assessment

10.19 As summarised within **Table 17**, the Eagle Avenue/Milton Road junction works within capacity with an RFC value lower than 0.85 in both the AM and PM peak periods. Therefore, as the junction still operates within capacity, no mitigation is suggested for the junction.

10.20 Moreover, as the development is located in a sustainable location with good pedestrian and public transport links, emphasis will be put on sustainable travel modes for the site. Therefore, instead of any junction improvements, contributions towards sustainable travel would be provided instead, which aligns with the DfT guidance and HCC LWCIP and LTP4.

10.21 The results of the junction capacity assessment outlined within **Table 17** have been validated against the recorded queue lengths (**Appendix J**) to ensure the results of the capacity assessment are reflective of how the junction is currently operating.

10.22 The existing queue lengths along each arm is summarised within **Table 18**. In order to validate the model to ensure the existing queue lengths were shown within the junctions 9 model, the flows along each arm were amended, outlined in **Table 19**.

Recorded Queue Lengths		AM Peak (07:45-08:45)	PM Peak (16:00-17:00)
		Recorded Queue	
2023 Baseline	Eagle Avenue	4	2
	Milton Road (N)	3	1
	Milton Road (S)	3	3

Table 18: Eagle Avenue/Milton Road Recorded Queue Lengths

Change in Vehicle Flows (to match queue length)		AM Peak (07:45-08:45)			PM Peak (16:00-17:00)		
		Eagle Avenue	Milton Road (N)	Milton Road (S)	Eagle Avenue	Milton Road (N)	Milton Road (S)
2023 Baseline	Eagle Avenue	-	+150	+150	-	+110	+180
	Milton Road (N)	+90	-	+70	+90	-	-190
	Milton Road (S)	+190	+170	-	+190	+90	-

Table 19: Eagle Avenue/Milton Road Change in flows

10.23 As summarised within **Table 19**, in order for the model to match the observed queues (**Table 18** and **Appendix J**) at the junction in the AM and PM peak periods flows were added and reduced from the roundabout arms to allow the model to represent how the existing junction is operating which is still within capacity with the addition of the proposed development traffic and therefore would not have a severe residual cumulative impact on the operation of the junction in the context of the NPPF (Paragraph 115).

Milton Road/Lovedean Lane

10.24 As circa 55% of the development departures utilise the Milton Road/Lovedean Lane junction, the junction has been modelled to ensure it has sufficient capacity to accommodate the proposed development. All scenarios have been modelled, and the results are summarised within **Table 20** and the full outputs are attached as **Appendix L**.

Scenario	Arm	AM Peak (07:45-08:45)			PM Peak (16:00-17:00)		
		RFC	Max Queue	Delay (seconds)	RFC	Max Queue	Delay (seconds)
2023 Baseline	Lovedean Lane	0.89	7.0	59.25	0.80	4.0	36.49
	Milton Road	0.68	2.5	19.04	0.80	4.9	31.51
2029 Forecast	Lovedean Lane	0.97	13.0	99.94	0.88	6.4	55.33
	Milton Road	0.72	3.2	21.81	0.85	6.6	39.48
2029 Forecast + Development	Lovedean Lane	1.04	22.1	152.88	0.91	8.2	68.75
	Milton Road	0.75	3.6	24.09	0.88	8.4	48.34

Table 20: Milton Road/Lovedean Lane Junction Capacity Assessment

10.25 As summarised within **Table 20**, the Milton Road/Lovedean Lane junction is nearing capacity in the AM peak period for the 2023 Baseline data with an RFC of 0.89 and delay of 59.25 seconds along the Milton Road arm. By 2029, the results of the junction capacity assessment indicate the Milton Road arm will be nearing capacity in both the AM and PM peak periods with an RFC of 0.97 in the AM peak and 0.88 in the PM peak.

10.26 At the 2029 Forecast + Development scenario, the junction is expected to operate above capacity with an RFC of 1.04 on the Milton Road arm in the AM peak period. However, the development will only result in an increase of 0.07 in RFC value from the 2029 Forecast which is a marginal increase, however, the queue length is expected to increase by 9 vehicles.

10.27 In the PM peak period, both the Milton Road and Lovedean Lane arm are expected to be reaching capacity with an RFC of 0.91 along Milton Road and 0.88 along Lovedean Lane, with queues of 8 vehicles along each arm, suggesting an increase in 2 vehicles.

10.28 However, in order to validate the model against the recorded queue lengths (**Table 21**), flows were increased and decreased on the Milton Road and Lovedean Lane arms for right turn movements, which is summarised within **Table 22**.

Recorded Queue Lengths		AM Peak (07:45-08:45)	PM Peak (16:00-17:00)
		Recorded Queue	
2023 Baseline	Milton Road	3	4
	Lovedean Lane (W)	7	5

Table 21: Milton Road/Lovedean Lane Recorded Queue Lengths

Change in Vehicle Flows (to match queue length)		AM Peak (07:45-08:45)		PM Peak (16:00-17:00)	
		Milton Road	Lovedean Lane (W)	Milton Road	Lovedean Lane (W)
2023 Baseline	Milton Road	-	-55	-	-65
	Lovedean Lane (W)	-10	-	+110	-

Table 22: Milton Road/Lovedean Lane Change in flows

10.29 The increasing and decreasing values on the Milton Road and Lovedean Lane arms turning right was done to show as close as possible the existing queue length on each of the arms to represent how the junction is currently operating.

10.30 Although the operation of the junction is set to be nearing capacity in the 2023 baseline and 2029 forecast scenario and overcapacity in the AM peak in the 2029 forecast + development scenario, no additional mitigation is proposed for the junction. This is because as part of application APP/13/00804 a mini-roundabout was accepted as a mitigation measure and secured within the S106. HCC have confirmed that the S278 works have been signed off and will get delivered in accordance with the S106 agreement between HCC and Vistry. The mini roundabout will be an improvement to the junction and assist with a more even traffic flow and therefore, is expected to be able to accommodate the proposed development and therefore the proposals are not expected to have a severe residual cumulative impact on the operation of the planned junction in the context of the NPPF (Paragraph 115).

10.31 HCC requested within their pre-application comments that further modelling of the mini-roundabout arrangement should be included, as the Section 278 technical approval for the works has been granted. HCC have supplied us with the roundabout design however no dimensions were given. We have therefore scaled from the PDF plans into CAD and recorded dimensions we believe to be correct for the design which is to implemented and this approach has been agreed with HCC.

10.32 The results of the modelling are outlined in **Table 23** with the outputs attached within **Appendix L**.

Scenario	Arm	AM Peak (07:45-08:45)			PM Peak (16:00-17:00)		
		RFC	Max Queue	Delay (seconds)	RFC	Max Queue	Delay (seconds)
Baseline 2029 + Development	Lovedean Lane (E)	0.50	1.1	10.34	0.66	2.1	14.50
	Milton Road	0.75	3.2	21.64	0.70	2.5	17.46
	Lovedean Lane (W)	0.61	1.7	10.22	0.50	1.1	7.97

Table 23: Milton Road/Lovedean Lane Roundabout Capacity Assessment

10.33 As summarised within **Table 23**, the Milton Road/Lovedean Lane junction would operate within theoretical capacity on all arms in both the AM and PM peak period for the Baseline 2029 + Proposed Development scenario, based on the decide and provide development vehicle trip generation. The highest RFC value would be expected to be 0.75 on the Milton Road arm in the AM peak, which would also experience the longest delay of 21.64 seconds.

10.34 This assessment shows that the proposed junction would theoretically operate within capacity, therefore, it is not anticipated that any mitigation to the design will be required as vehicle traffic can be accommodated.

10.35 In addition, as outlined in the WCHAR the proposed development will implement or provide contributions to upgrading walking and cycling infrastructure in the vicinity of the site which could potentially further alleviate background traffic that currently uses the Milton Road/Lovedean lane roundabout, as people will be encouraged to travel sustainably.

10.36 It should also be noted that the results of the modelling are slightly below the original modelling for the roundabout provided within the TA of application 13/00804 which suggested an RFC value of 0.93 would be in place by Baseline 2018 + Catherington Park development.

10.37 It is unlikely there is any major discrepancy in the models, however this can be confirmed once the exact roundabout dimensions have been provided.

10.38 The most likely cause for the reduction in RFC value is due to the model using updated baseline data from 2023 showing actual traffic trends and a reduction in forecast future trips from the decide and provide approach.

Percentage Impact Assessments

Hart Plain Avenue/Milton Road

- 10.39 As only 10% of the development traffic departures in the AM peak and 9% of the development traffic departures in the PM peak and 26% of arrivals in the AM and 10% of arrivals in the PM will utilise the Hart Plain Avenue/Milton Road junction, equating to fewer than 30 vehicle movements, it has been deemed that a junction capacity assessment is not required due to the low addition of vehicles during the peak periods. However, a percentage impact assessment has been undertaken.
- 10.40 In the AM peak period an additional 8 vehicle will utilise the Hart Plain Avenue/Milton Road junction (4 arrivals and 4 departures). Based upon the 2023 baseline data, the junction currently experiences 183 departures from Hart Plain Avenue to Milton Road and 153 arrivals from Milton Road to Hart Plain Avenue. There are a total of 1281 vehicle movements through the junction throughout the AM peak period. Therefore, the proposed development could an increase of 0.6% of total traffic.
- 10.41 In the PM peak period, an additional 9 vehicles will utilise the Hart Plain Avenue/Milton Road junction (4 arrivals and 2 departures). Based upon the 2023 Baseline data, the junction currently experiences 171 departures from Hart Plain Avenue to Milton Road and 316 arrivals from Milton Road to Hart Plain Avenue. There are a total of 1614 vehicle movements through the junction throughout the AM peak period. Therefore, the proposed development could see an overall increase of 0.4% of total traffic.
- 10.42 Therefore, as the junction will experience < 1% increase in total traffic in the AM peak and PM peaks, it is not anticipated that the proposed development trips would have a severe residual cumulative impact on the operation of the junction in the context of the NPPF (Paragraph 115).

A3 London Road/ Lovedean Lane/ A3 Portsmouth Road/ Prochurch Road

- 10.43 As only 19% of the development traffic departures in the AM peak and PM peak and 25% of arrivals in the AM and 34% of arrivals in the PM will utilise the A3 London Road/ Lovedean Lane/ A3 Portsmouth Road/ Prochurch Road junction, equating to 30 of fewer vehicle movements, it has been deemed that a junction capacity assessment is not required due to the low addition of vehicles during the peak periods. However, a percentage impact assessment has been undertaken.
- 10.44 In the AM peak period an additional 8 vehicles will utilise the A3 London Road/ Lovedean Lane/ A3 Portsmouth Road/ Prochurch Road junction (5 arrivals and 3 departures). Based upon the 2023 Baseline data, the junction currently experiences 369 departures from Lovedean Lane and 303 arrivals into Lovedean Lane. There are a total of 1373 vehicle movements through the junction throughout the AM peak period. Therefore, the proposed development could see a 0.8% increase in departures from

Lovedean Lane and a 1.6% increase in arrivals. However, there would be an overall increase of 0.5% of total traffic.

10.45 In the PM peak period an additional 17 vehicles will utilise the A3 London Road/ Lovedean Lane/ A3 Portsmouth Road/ Prochurch Road junction (14 arrivals and 3 departures). Based upon the 2023 baseline data, the junction currently experiences 293 departures from Lovedean Lane and 465 arrivals into Lovedean Lane. There are a total of 1157 vehicle movements through the junction throughout the AM peak period. Therefore, the proposed development could see a 1% increase in departures from Lovedean Lane and a 3% increase in arrivals. However, there would be an overall increase of 1.5% of total traffic.

10.46 Therefore, although the junction will see an increase of 17 vehicle movements during the PM peak period, this only equates to an increase of 1.2% of total vehicle movements. Therefore, it is not anticipated that the proposed development trips would have a severe residual cumulative impact on the operation of the junction or the surrounding highways network in the context of the NPPF (Paragraph 115).

A3 Portsmouth Road/ Catherington Lane/ B2149 Dell Piece West

10.47 As only 14% of the development traffic departures in the AM peak and PM peak and 15% of arrivals in the AM and 34% of arrivals in the PM will utilise the A3 Portsmouth Road/ Catherington Lane/ B2149 Dell Piece West junction, equating to fewer than 30 vehicle movements, it has been deemed that a junction capacity assessment is not required due to the low addition of vehicles during the peak periods. However, a percentage impact assessment has been undertaken.

10.48 In the AM peak period an additional 7 vehicles will utilise the A3 Portsmouth Road/ Catherington Lane/ B2149 Dell Piece West junction (1 arrivals and 6 departures). Based upon the 2023 baseline data, the junction currently experiences 1068 departures from the A3 Portsmouth Road and 567 arrivals onto the A3 Portsmouth Road. There are a total of 2965 vehicle movements through the junction throughout the AM peak period. Therefore, the proposed development could see a 0.5% increase in departures from A3 Portsmouth Road and a 0.4% increase in arrivals. However, there would be an overall increase of 0.2% of total traffic.

10.49 In the PM peak period, an additional 11 vehicles will utilise the A3 Portsmouth Road/ Catherington Lane/ B2149 Dell Piece West junction (9 arrivals and 2 departures). Based upon the 2023 baseline data, the junction currently experiences 708 departures from the A3 Portsmouth Road and 1035 arrivals onto the A3 Portsmouth Road. There are a total of 2939 vehicle movements through the junction throughout the

AM peak period. Therefore, the proposed development could see a 0.3% increase in departures from A3 Portsmouth Road and a 0.9% increase in arrivals. However, there would be an overall increase of 0.4% of total traffic.

10.50 Therefore, as there is a total increase of less than 1% of traffic in both the AM and PM peak period, it is not anticipated that the proposed development trips would have a severe residual cumulative impact on the operation of the junction or the surrounding highways network in the context of the NPPF (Paragraph 115).

10.51 In summary, there is no mitigation proposed for any of the 6 junctions surveyed due to either the low number of development trips passing through the junction, the junction confirming to work within capacity or the fact previously approved mitigation is yet to be implemented.

11. SUMMARY AND CONCLUSIONS

- 11.1 This Transport Assessment (TA) has been prepared by Paul Basham Associates on behalf of Grainger PLC to support an outline planning application for a residential development of up to 164 units with associated vehicular access and landscaping (all matters reserved except access) at Land to the north of Woodcroft Farm, Horndean. The site will be referred to as Woodcroft Farm Phase 3.
- 11.2 The existing site comprises of a c.7-hectare area of grazing land and is located within the southernmost extent of East Hampshire District Council (EHDC) boundary. The site is bound to the west by Clarendon Farm (Winchester District) and existing residential development to the east. Immediately to the north of the site lies James Copse; an Ancient Replanted Woodland and SINC, beyond which are further open grazing fields, existing residential developments and a solar farm.
- 11.3 Along its southern boundary, the site abuts the previously consented development known as Catherington Park (APP/13/00804) which consists of a 288 residential dwelling scheme, with a dedicated vehicular access onto Eagle Avenue. The site is now in its final stages of being constructed and occupied. All internal roads and a priority junction with Eagle Avenue are constructed. The Catherington Park development was designed with the knowledge that the land to the north (Woodcroft Farm Phase 3 – this application) could come forward. Therefore, there are two areas within the site where roads can be continued to provide a access into the proposed development site and the main site access was designed to accommodate future capacity of Phase 3 Woodcroft Farm.
- 11.4 East Hampshire District Council's Local Plan Site Allocations document is currently at the Regulation 18 stage. The development site is within the site allocations under HDN1, LAA Reference HD-024 Land at Woodcroft Farm for 164 units and access from the Catherington Park development.
- 11.5 A public consultation was undertaken on the 5th December 2023. The main comments surrounded parking, access and construction traffic. Feedback and comments from the public consultation have been taken on board and fed into the design of the development proposals.
- 11.6 HCC have provided pre-application advice and the comments provided have been addressed within this TA.
- 11.7 The TA has been written in accordance and with reference to the following policy documents: National Planning Policy Framework (NPPF) (December 2023); HCC Local Transport Plan 4 (2050); EHDC Local Cycling and Walking Infrastructure Plan (LCWIP) (August 2020); EHDC Local Plan (Reg 18): Site Allocations (2021-2040); East Hampshire District Council Local Plan (Reg 18); East Hampshire District

Local Plan: Joint Core Strategy (June 2014); East Hampshire Local Plan second review – saved policies (2006); Active Travel England Toolkit; and DfT Circular (01/2022).

- 11.8 The site is located directly north of the Linden Homes ‘Catherington Park’ housing development, c1km north of Wecock Farm. The site is bound by agricultural fields to the west and southwest (which fall within WCC’s boundary), Catherington Park and other residences to the south and east (which are within HBC) and are bound by agricultural fields to the north (located within EHDC). The proposed site has a gated access into the field located at the northwestern corner of the site, which is believed to be the only vehicular access point currently afforded into the site. The field access to the northwestern corner provides vehicular access from an unnamed road (accessed from Anmore Lane/Broadway Lane) and to the east of the access, Byway 119/46/1 can be accessed.
- 11.9 The site is situated with good connections to both the local (Anmore Lane, Cathrington Park, Eagle Avenue, Milton Road) and strategic highways network (A3 London Road, A3 Portsmouth Road, the B2150, the A3(M) junction 3, the M275 and M27).
- 11.10 To understand whether there are any existing highways safety issues with the surrounding highway network, information has been obtained from Hampshire Constabulary for the latest available 5-year period (01.10.2028-30.09.2023) which confirmed there were 24 recorded accidents which occurred within the search area. All incidents were of separate nature and due to drivers/riders failing to look properly, following other vehicles too closely, travelling too fast for the road conditions or having impairments on the car. Therefore, there is no reason to believe there is issues with the highways network at this junction.
- 11.11 The site is located in proximity to a number of local facilities, with bus stops accessible within 400m of the site and facilities within 800m of the site (CIHT’s walkable neighbourhood) and within CIHT’s average pedestrian journey length (1.37km). There is a good provision of pedestrian footways, shared footway/cycleways, crossing points and public rights of way which provide a connection towards local facilities.
- 11.12 In terms of public transport there are bus services as frequent as every 12-15 minutes between Havant and Wecock Farm and services as frequent as every 20 minutes between Portsmouth, Wecock Farm and Clanfield Monday-Saturday. Services are as frequent as every 30 minutes on a Sunday. In addition, there are three railways stations: Rowlands Castle (7.4km) which can be accessed by bike in 24 ½ minutes, Bedhampton (8.9km) which can be accessed by bike in 29 ½ minutes and Havant Railway Station (9.2km) which can be accessed by bike in 31 minutes. In addition, bus service 39 provides a

connection to Havant Bus Station (c40-minute journey) which is a 5-minute walk from Havant Railway Station. Therefore, bus and rail travel can be utilised by both commuters and leisure travellers.

- 11.13 The proposed development will comprise of up to 200 residential units with associated access, parking and landscaping at the site known as 'Land to the north of Woodcroft Farm, Horndean'. The development is split into two development parcels, each with their own point of vehicular access from the Catherington Park development (south of the proposed development).
- 11.14 Based on current proposals the western parcel will provide access to a higher number of units than the eastern parcel. As this application is outline, the current unit types are unknown although they are likely to be a mixture of 1-2 bed flats and 2, 3 and 4 bed houses.
- 11.15 The eastern access via Merritt Way will measure 6m in width and have a 3m wide shared footway/cycleway provided on the western side of the access road. Forward visibility is achievable to a 20mph speed limit (25m) and a swept path analysis of the access has been undertaken.
- 11.16 The western access onto Wilkes Way will initially measure c6m in width, reducing to c5.5m into the development. One traffic calming feature will be present along the access road to help to reduce vehicle speeds in the area.
- 11.17 As with the eastern access, a 3m wide shared footway/cycleway will be provided on the southern side of the access road and continue into the development. A shared footway/cycleway will also be provided on the northern side of the access road c10m south of the first internal junction, which will continue north to provide a connection to the shared footway/cycleway (also the emergency access) provided between the eastern and western parcels.
- 11.18 Both designs have been the subjects of a Stage 1 Road Safety Audit and the recommendations have been reviewed and agreed where necessary. With this review and the awareness of local collision information It is considered that in the context of paragraph 115 of the NPPF the proposed development would not have an unacceptable impact on highway safety.
- 11.19 All matters are reserved apart from access; however, it will be ensured that car and cycle parking is provided in line with EHDC standards and will ensure refuse and fire vehicles can get within the required distances of all units.
- 11.20 Trip rates have been derived from the TRICS database and suggests that the proposed development could potentially generate up to 103 two-way movements in the AM peak, 102 movements in the PM peak and up to 891 vehicle movements over a 12-hour period.

11.21 The 'Catherington Park' development (294 residences) was accepted with a trip generation of 133 vehicle movements in the AM peak and 125 two-way movements in the PM peak. The proposed development could generate an additional 63% increase two-way movements in the AM peak and a 67% increase in the PM peak compared to Catherington Park on its own. The Powell Drive/Eagle Avenue junction was designed to accommodate additional development to the north of Catherington Park and therefore, the increase in vehicle movements is not anticipated to have a significant impact on the operation of the local highways network or site access junction, in the context of the NPPF.

11.22 In terms of multi-modal trips the proposed development site could be expected to produce up to 36 two-way movements in the AM peak and 15 two-way pedestrian movements in the PM peak. There is a good provision of pedestrian and cycle infrastructure and public transport services in the vicinity of the site. Therefore, the proposed increase in vehicular and multi-modal trips to/from the site is not anticipated to have a significant impact on the operation of the surrounding highways, pedestrian, cycle or public transport network in the context of the NPPF.

11.23 Therefore, to establish the baseline traffic flows on the local road network, camera surveys (CCTV and/or Enumerators) were undertaken at the following 6 junctions:

- Junction 1 - Powell Drive/Eagle Avenue
- Junction 2 - Milton Road/Eagle Avenue
- Junction 3 – Hart Plain Avenue/Milton Road
- Junction 4 – Milton Road/Lovedean Lane
- Junction 5 – A3 London Road/ Lovedean Lane/ A3 Portsmouth Road/ Prochurch Road
- Junction 6 – A3 Portsmouth Road/ Catherington Lane/ B2149 Dell Piece West

11.24 As the peak hours at each junction varies, for terms of a robust assessment, the peak hours of 07:45-08:45 and 16:00-17:00 have been utilised for modelling and traffic distribution purposes to cover the busiest periods across the 6 junctions.

11.25 TEMPro growth factors of 1.0571 in the AM peak and 1.0591 in the PM peak were utilised to understand the forecast information for 2029, 5 years from the planning application.

11.26 As agreed with HCC at the pre-application stage the following scenarios were assessed:

- 2023 baseline
- 2029 forecast
- 2029 forecast + Proposed Development

- 11.27 The traffic surveys undertaken at the Powell Drive/Eagle Avenue junction were utilised to understand the development trip distribution, based upon the current trip split at the junction. The remaining 5 junctions were then utilised to understand the existing trip distribution and the same percentage split was applied to the development distributions.
- 11.28 Junction Capacity Assessments were undertaken for the Powell Drive/Eagle Avenue junction, Eagle Avenue/Milton Road mini roundabout and Milton Road/Lovedean Lane junction. The Powell Drive/Eagle Avenue junction works well within capacity at all scenarios, the Eagle Avenue/Milton Road mini roundabout works within capacity in all scenarios however is nearing capacity in the AM peak for the 2029 Forecast + Proposed Development scenario and the Milton Road/Lovedean Lane junction is expected to operate above capacity with an RFC of 1.04 on the Milton Road arm in the AM peak period during the 2029 Forecast + Proposed Development scenario and operate close to capacity in the PM peak. However following the implementation of the consented roundabout scheme the Milton Road/Lovedean Lane junction operates under capacity in the 2029 Forecast + Development scenario with maximum RFCs of 0.75 in the AM peak.
- 11.29 No mitigation is suggested for any of the three junctions modelled. As part of application APP/13/00804 a mini roundabout was proposed and accepted as a mitigation measure for the Powell Drive/Eagle Avenue junction and Milton Road/Lovedean Lane junction, secured through a S106. The mini roundabout designs are with HCC for technical approval through the section 278 process and will be implemented by HCC/Vistry.
- 11.30 The percentage Impact Assessments indicate that the Hart Plain Avenue/Milton Road junction and the A3 Portsmouth Road/ Catherington Lane/ B2149 Dell Piece West junction will experience less than a 1% increase in the AM and PM peak periods and The A3 London Road/ Lovedean Lane/ A3 Portsmouth Road/ Prochurch Road junction will experience less than a 1% increase in the AM peak and a 1.5% increase in the PM peak.
- 11.31 Based upon the results of the junction capacity assessments and percentage impact assessments, it is not anticipated that the proposed development trips will have a significant impact on the operation of the junction or the surrounding highways network in the context of Paragraph 115 of the NPPF.
- 11.32 Therefore, we ask East Hampshire District Council and Hampshire County Council to look favourably upon this development in terms of highways.

Appendix A



- Core development boundary
- Land owned by Grainger plc
- Indicative Residential Units
- Indicative Private Garden
- Indicative Main Access Road
- Indicative Secondary Street
- Indicative Shared Street
- Indicative Private Drives
- Indicative Courtyard/private drive
- Indicative pedestrian streets
- Indicative Cycling Route
- Public Right of Way (PRoW)
- Existing Footpath
- Indicative Footpath
- Indicative SuDS
- Existing Vegetation
- Indicative New Trees
- Indicative Orchard
- LEAP (Locally Equipped Area for Play)
- Ecological Enhancement
- LAP (Local Area for Play)

Land at Woodcroft Farm
on behalf of Grainger plc

Published for the purposes of identification only and although believed to be correct accuracy is not guaranteed.
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drawing no.	IM001	drawing	Illustrative Masterplan
revision	D(18.03.24)	scale	1:2,500@A3
drawn by	AIL/JM	checked by	PF
date	08.11.2023	job no.	445315

Appendix B



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For attention of Caroline Duff

Thank you for your pre-application enquiry into the proposed residential development located to the north of Woodcroft Farm on the border between East Hampshire and Havant.

A Pre-Application Scoping Note (PSN) has been supplied, supported by proposed access drawings. Following a review of this document, the Highway Authority wish to make the following comments.

Existing Conditions

The proposed development forms an extension of the development consented under planning reference APP/13/00804, now referred to as Catherington Park. The permission granted the erection of 288 dwellings, alongside the provision of a new vehicular access onto Eagle Avenue.

The site has mostly been constructed and occupied, with vehicular access provided in the form of a bellmouth junction onto Eagle Avenue. The bellmouth junction is due to be replaced by a 3-arm mini roundabout which will form the permanent access point into the development.

The site abuts Byway 119/46/1 and bridleways 108/1b/1 and 119/30/1 located to the north, east and west respectively. The site is bordered to the south by the Catherington Park development which will be integrated into the proposed development via new vehicular and pedestrian connection points.

Transport Assessment Methodology

For any new application, the Highway Authority are seeking for a more balanced analysis of the transport proposals within the TA work, aligned with the Decide and Provide approach. This would assess and prioritise opportunities to significantly improve sustainable transport provision for all modes (walking, cycling and public transport) before determining if there are remaining significant

Director of Hampshire 2050
Gary Westbrook

residual impacts to safe and efficient highway operation. The TA assessment work should follow the decide and provide model.

Sustainable Transport Provision

Walking and Cycling

A review of the pedestrian facilities through Catherington Park has been undertaken within the PSN, although it should be noted that the road has not been brought up to adoptable standard yet whilst construction remains ongoing. The Highway Authority will require a full WCHAR as part of any future planning application to provide an updated review of the walking and cycling facilities available from the proposed development to key local facilities and amenities. As requested within the PSN, the Highway Authority has set out the scope of the WCHAR below:

- Local bus stops;
- Woodcroft Primary School;
- Lovedean Pharmacy;
- The nearest post office or bank;
- Tesco Express;
- The Cowplain School; and
- Horndean Technology College.

The WCHAR should include a Healthy Street Audit and consideration should also be given to the use of Active Travel England's Route Check Tool to consolidate the requirements of the WCHAR and Healthy Streets Assessment.

Along the western side of the access road, there is a footway which runs to the back of the fence line which separates the path from Powell Drive. The path provides access to Wecock recreation ground and a leisure route to Hobby Close. The footway is currently of a poor quality and a limited width and should therefore be widened and resurfaced to provide an attractive and alternative route to the existing footway on the eastern side of Powell Drive.

Bridleway 1b runs through the centre of the Catherington Park development and provides direct access to Woodcroft Lane which can in turn be used to access Woodcroft pre-school and the Tesco Express, forming an important utility link which should be upgraded given that the width and surface quality currently varies and therefore may not be available for use all year round. The applicant should engage with HCC's Countryside Services team to further discuss improvement schemes for the route.

The Milton Road corridor has been reviewed as part of Havant's adopted LCWIP. The potential improvement measures for pedestrians and cyclists should be taken into consideration when undertaking the WCHAR from the proposed site, particularly given that this route will be utilised to access the schools along Hart Plain Avenue.

Bus

The nearest bus stops to the site are located on Eagle Avenue approximately 600m from the site. The stop serving the eastbound service is located within proximity to the site access and consists of a flagpole and timetable only. Through the WCHAR assessment, the applicant should investigate upgrading the facilities at this stop to include a shelter and RTI to provide sheltered waiting facilities.

The nearest westbound bus stop is located approximately 725m near to Dove Close. Although the stop benefits from a shelter, it is old and does not include RTI. Improvements to this bus stop should also be investigated through the WCHAR, particularly given the walking distance from the site.

The buses provide frequent services into Havant and Wecock Farm (15 minute service) and are therefore likely to be well utilised by occupants of the site.

Rail

The nearest rail service to the site is located in Rowlands Castle, approximately 7.5km from the site. Given the identified distance, it is unlikely that occupants of the site will choose to utilise this mode of transport, unless they travel via private car. It is considered unlikely that cyclists will choose to access the station given the lack of dedicated cycle facilities and the need to cross the A3(M) to access Rowlands Castle.

Personal Injury Accident (PIA) Data

The PSN proposes to gather accident data from Hampshire Constabulary for the most recently available 5-year period which is considered acceptable. The proposed scope of assessment is set out in Figure 4 which has been reviewed and is considered acceptable.

Proposed Development

The proposed development will form a continuation of the Catherington Park development, taking access from two separate roads; Wilkes Way and Gardiner Walk. The Catherington Park development is currently served via a bellmouth junction onto Eagle Avenue, although this is due to be upgraded to a mini roundabout in line with the Section 106 requirements for the extant permission.

The PSN does not quantify the level of development which is to be served via each access point; however, the Highway Authority have concerns with the use of Wilkes Way to access a significant proportion of the proposed site due to the layout of the Catherington Park development and the on-street parking which is currently present. Further assessment work will be required to demonstrate that both access points are considered suitable once the quantum of development has been approved, but the Highway Authority wishes to flag at this stage that Wilkes Way is unlikely to be suitable to access significant levels of development.

Site Access

Merriitt Way

The carriageway alignment from Merriitt Way extends the existing carriageway, cutting across Bridleway 108/1b/1, before bending sharply to the left. Drawing number 167.0006-0003 Rev P01 has been provided which shows tracking for a refuse vehicle passing a family car along the new access road and two-family cars passing. The tracking for the refuse vehicle and car passing demonstrates that this movement is restricted and results in a car having to wait at the top of the access road whilst a refuse vehicle approaches. To confirm that an approaching car has sufficient visibility to anticipate an oncoming vehicle, forward visibility splays are required. Once in the new site, the angle of the bend means that a car would also have to wait whilst the refuse manoeuvres past the first property. The Highway Authority have concerns with the current layout shown given the constraints in movement. To understand the impacts on day-to-day interactions through the access, the applicant is required to provide tracking for a dot com delivery vehicle passing a family car along the access road.

Pedestrian and cyclist visibility splays will need to be provided from the crossing point to demonstrate that TG3 compliant splays are available. Drawing number 167.0006.0001 P01 indicates that a footway will be provided on the northern side of the access road to tie into the new development. Further details of this arrangement, including the footway provision within the new development, would be welcomed to understand how the existing facilities will be extended.

Wilkes Way

The alignment of the proposed access is shown in drawing number 167.0006.0002 P03. The road extends to the north before routing north west. An initial carriageway width of 6.0m has been shown which varies heading north west into the proposed site, reducing to 5.0m at its narrowest. On the southern side of the road, a 3.0m wide shared use path is provided, crossing to the northern side of the carriageway as you enter the site. A pinch point is provided centrally, presumably to improve the crossing movements to the public footpath.

Tracking has been provided in drawing number 167.0006.004 P03 for a refuse vehicle attempting to pass a family car. The tracking appears to be very tight in places and it is noted that there is conflict through the 5.0m section of road and around the bend heading out of Wilkes Way. Revised tracking will need to be undertaken to demonstrate that the movements can be safely undertaken. Tracking for a dot com delivery vehicle passing a car should also be shown throughout the new access road to demonstrate that these manoeuvres can be undertaken.

Two pinch points are provided along the access road, supported by raised tables. Although confirmation has not been provided as to whether the access road will be adopted, the applicant should note that the provision of raised tables is not supported by HCC's Asset Management team and should therefore be removed from the design. The Highway Authority is also concerned with the proximity of the two pinch points which makes it two vehicles to safely

manoeuvre concurrently. To reduce the speed of vehicles entering and egressing the site, the traffic calming features could be rationalised to provide one priority give-way system. This could be incorporated into the Footpath crossing to aid crossing movements in this location. A consistent and appropriate carriageway width can then be provided.

A Stage 1 Road Safety Audit will be required for both access proposals, although the applicant is advised to first address the comments raised within this response before an RSA is undertaken.

Emergency Access

The PSN notes that an emergency access will be provided in the form of a shared pedestrian and cycle link which provides a connection between the two parcels. Further details of this arrangement are sought when the internal site layout has been developed.

Eagle Avenue Bellmouth/Mini Roundabout

Access into the Catherington Park development is currently provided via a bellmouth junction with Eagle Avenue. This is due to be upgraded to a mini roundabout inline with the mitigation requirements identified at planning. Section 278 technical approval for the works has been granted and the Highway Authority await confirmation from the developer as to when they intend to commence works on the access.

Any development expansion of the Woodcroft site would need to be dependent on the delivery of the mini-roundabout site access works and any associated mitigation works, specifically the Milton Road/Lovedean Lane junction improvements.

Internal Layout

Although an internal layout has not been provided for the site, it is noted that the internal roads will be designed to a 20mph design speed, with visibility shown to 25m from side roads and forward visibility splays of 25m available, the principle of which is considered acceptable.

Comments are also provided around the need to ensure that the layout accommodate all swept paths, access will be available to refuse vehicles within 25m of each property and that fire tenders and refuse vehicles can navigate and manoeuvre within the site. These principles are also considered acceptable.

As the internal layout is drawn up, a Stage 1 Road Safety Audit should be provided to ensure that any identified safety concerns are addressed at the earliest possible stage.

Trip Generation

To ascertain the peak hour traffic movements from the site, the PSN has utilised the industry standard TRICS database. The Highway Authority agrees with the parameters utilised within the assessment.

Based on the identified parameters, Table 3 proposes a two-way AM peak hour trip rate of 0.512 and a PM peak trip rate of 0.51, corresponding to 103 and 102 respective vehicle movements.

An assessment has also been undertaken to review the trip rate associated with the consented Catherington Park site, which agreed trip rates of 0.504 and 0.47 in the respective peak hours. Given that the proposed trip rate is broadly inline with the rates accepted through the previous development, the Highway Authority considers them to be suitable as a baseline scenario.

The assessment methodology outlined within the PSN adopts a traditional 'Predict and Provide' approach to determining the traffic impact of the development. As previously outlined within this response, the Highway Authority now seeks a more balanced approach towards investigating traffic impact, aligned with the 'Decide and Provide' approach. The applicant should engage with the Highway Authority to determine the assessment scenarios to consider under the Decide and Provide approach, along with how improvements to sustainable modes of travel may feed into this process.

Trip Distribution

To forecast trip distribution from the proposed development, the PSN proposed to utilise turning count data, matching the approach agreed through the Catherington Park application. The Highway Authority considers this approach to be acceptable.

The PSN has surveyed the following junctions:

- Powell Drive/Eagle Avenue;
- Eagle Avenue/Milton Road; and
- Hart Plain Avenue/Milton Road.

The data derived from these surveys has been used to form the basis for the distribution exercise. From the site access, 13% of traffic turns right towards Hart Plain Avenue, whilst the remaining 87% turns left towards Milton Road in the AM peak, altering slightly to a 17% - 83% split in the PM peak. For inbound trips, 78% turn right from into the site from Eagle Avenue in the AM peak, whilst the remaining 22% turn left in. 93% of trips turn right in the PM peak, leaving only 7% left turning in.

As a result of the distribution exercise, the following junctions are also due to be surveyed:

- Lovedean Lane/Milton Road;
- Lovedean Lane/A3 Portsmouth Road; and
- A3 Portsmouth Road/Catherington Lane/B2149.

Whilst an initial analysis has been undertaken to identify the local network peak hours, the Highway Authority requires a breakdown of the peak hours

associated with the above junctions before confirmation can be provided on which times should be utilised within the modelling work.

Junction Modelling

The PSN proposes to undertake junction modelling at the 3 junctions noted above.

The note does not propose to model the existing junction with Powell Drive/Eagle Avenue, nor the mini roundabout. Given the time that has passed since the original assessments were undertaken, the Highway Authority requires updated junction modelling for both junctions, which will require additional traffic surveys.

It should be noted the existing priority junction between Milton Road and Lovedean Lane is due to be upgraded to a mini roundabout as part of the mitigation package secured through the Catherington Park development. Future junction modelling work will therefore need to take the revised junction form into account.

To factor up the existing traffic flows, TEMPRO growth rates of 1.0571 in the AM peak and 1.0591 in the PM peak have been applied to 2029, which is considered suitable as a reference case scenario.

Junction Modelling Scenarios

The following junction modelling scenarios are proposed:

- 2023 Baseline;
- 2029 Baseline;
- 2029 Baseline + Committed Development; and
- 2029 Baseline + Committed Development + Proposed Development.

As previously noted, the applicant should engage with the Highway Authority to agree the modelling scenarios associated with the Decide and Provide approach.

Summary

The Highway Authority would welcome further discussion with the applicant regarding the points raised within this pre-app response.

Yours Sincerely,

Chris Hirst – Senior Transport Planner.

Appendix C

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

Selected Polygon:AW WOODCROFT FARM, WATERLOOVILLE BACS/S

44180441787 25/11/2018 Time 1937 Vehicles 2 Casualties 1 Slight
E:468638 N: 111986 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Dry
Darkness: street lights present and lit Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 2	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH1 (CAR) WAS PARKED OUTSIDE NO.23. CAS1 (PEDESTRIAN) WAS LEANING IN THE PASSENGER DOOR TO GET SOMETHING OUT. VEH2 (CAR) TRAVELLING W ALONG EAGLE AVENUE HITS THE DOOR OF VEH1, KNOCKING CAS1 INTO THE CAR.
Occurred on EAGLE AVENUE, OUTSIDE NO.23, WATERLOOVILLE, HAMPSHIRE.

Vehicle Reference 1 Car Parked
Vehicle movement from Park to Parked No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 32 Female
Not hit and run Breath test Driver not contacted Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 32 Female Pedestrian Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

In carr not crossing Standing still

Movement U/K

Vehicle Reference 2 Car Going ahead other
Vehicle movement from E to W No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver Not traced
Not hit and run Breath test Driver not contacted Left hand drive: No

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44190098653 21/03/2019 Time 1225 Vehicles 3 Casualties 2 Slight
E:469666 N: 112278 First Road: A 3 Road Type Single carriageway
Speed limit: 30 Junction Detail: Pri Drive Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Following too close	Vehicle 1	Very Likely
2nd:	Failed to judge other persons path or speed	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH3 (CAR) TRAVELLING SW ALONG A3 PORTSMOUTH ROAD STOPPED WAITING TO TURN RIGHT INTO DRIVEWAY. VEH2 (CAR) COMES TO A STOP BEHIND VEH3. VEH1 (CAR) FAILS TO NOTICE THEY HAVE STOPPD AND COLLIDES WITH REAR OF VEH2, PUSHING IT INTO REAR OF VEH3.
Occurred on A3 PORTSMOUTH ROAD AT JUNCTION WITH RONDOR COURT, WATERLOOVILLE, HAMPSHIRE.

Vehicle Reference 1 Car Going ahead other
Vehicle movement from NE to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 19 Male
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Car Going ahead but held up
Vehicle movement from NE to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 43 Female
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 2 Vehicle: 2 Age: 43 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -HC - RPU Statistics Request ("AW
WOODCROFT FARM, WATERLOOVILLE
BACS/SR/0124/003")

Vehicle Reference 3 Car Waiting to turn right
Vehicle movement from NE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 28 Female
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 3 Age: 28 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

4419013594620/04/2019Time0933Vehicles2Casualties1Slight

E:469471N:111889First Road: URoad TypeSingle carriagewayA3

Speed limit: 30Junction Detail: T & Stag JctGive way or controlled

Crossing: Control NoneFacilities: None within 50mRoad surfaceDry

DaylightFine without high winds

Special Conditions at Site NoneCarriageway Hazards: None

Place accident reported: At sceneDfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Cyclist entering road from pavement	Vehicle 1	Very Likely
2nd:	Inexperienced or learner driver/rider	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH1 (P/CYCLE) TRAVELLING SW ALONG A3 LONDON ROAD ON THE WESTERN PAVEMENT. VEH2 (CAR) TRAVELLING SE ALONG LOVEDEAN LANE. VEH1 FAILS TO STOP IN TIME AND TRAVELS ACROSS THE LOVEDEAN LANE JUNCTION AND IS HIT BY VEH2.
Occurred on LOVEDEAN LANE AT JUNCTION WITH A3 LONDON ROAD, WATERLOOVILLE, HAMPSHIRE.

Vehicle Reference1Pedal CycleGoing ahead other

Vehicle movement fromNE to SWNo tow / articulationLeaving the main road

On main carriagewayNo skidding, jack-knifing or overturning

Location at impactMid Junction - on roundabout or rFirst impactFrontHit vehicle:

Hit object in roadNoneOff road: None

Did not leave carrAge of Driver15Male

Not hit and runBreath testNot applicableLeft hand drive: No

Casualty Reference: 1Vehicle: 1Age: 15MaleDriver/riderSeverity: Slight

Not a pupil

SeatbeltNot ApplicableCycle helmet: Not known

Vehicle Reference2CarGoing ahead other

Vehicle movement fromNW to SENo tow / articulationLeaving the main road

On main carriagewayNo skidding, jack-knifing or overturning

Location at impactJct ApproachFirst impactNearsideHit vehicle:

Hit object in roadNoneOff road: None

Did not leave carrAge of Driver59Male

Not hit and runBreath testNegativeLeft hand drive: No

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44190236010 07/07/2019 Time 1930 Vehicles 2 Casualties 1 Slight
E:468154 N: 110839 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: Pelican, puffin, toucan etc. Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

	Causation		
	Factor:	Participant:	Confidence:
1st:			
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH2 TRAVELLING W ALONG HART PLAIN AVENUE TURNED RIGHT ONTO MILTON ROAD WITHOUT GIVING WAY TO VEH1 (CAR) TRAVELLING N ALONG MILTON ROAD.
Occurred on MILTON ROAD AT JUNCTION WITH HART PLAIN AVENUE, WATERLOOVILLE, HAMPSHIRE.

Vehicle Reference 1 Car Going ahead other
Vehicle movement from S to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 72 Female
Not hit and run Breath test Driver not contacted
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 72 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Vehicle Reference 2 Car Turning right
Vehicle movement from E to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 28 Male
Not hit and run Breath test Driver not contacted
Left hand drive: No

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44200301541 09/08/2020 Time 1357 Vehicles 2 Casualties 1 Serious
E:468899 N: 112101 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 2 (P/CYCLE) TRAVELLING SE ALONG LOVEDEAN LANE HAS SLOWED IN PREPARATION TO TURN RIGHT ON TO MILTON ROAD. VEH 1 (CAR) TRAVELLING SE ALONG LOVEDEAN LANE BEHIND VEH 2 HAS FAILED TO STOP IN TIME AND COLLIDED WITH THE REAR OF VEH 2. VEH 1 FAILED TO STOP A
Occurred on LOVEDEAN LANE AT THE JUNCTION WITH MILTON ROAD, WATERLOOVILLE, HAMPSHIRE.

Vehicle Reference 1 Car Stopping
Vehicle movement from NW to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 57 Male
Hit and run Breath test Not requested
Left hand drive: No

Vehicle Reference 2 Pedal Cycle Going ahead but held up
Vehicle movement from NW to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Leaving main road First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 61 Male
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 61 Male Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Yes

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -HC - RPU Statistics Request ("AW
WOODCROFT FARM, WATERLOOVILLE
BACS/SR/0124/003")

Notes:

44200361030 17/09/2020 Time 1743 Vehicles 2 Casualties 1 Serious
E:468895 N: 112099 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH1 (CAR) TRAVELLING N ALONG MILTON ROAD WENT TO TURN RIGHT ONTO LOVEDEAN LANE
WITHOUT GIVING WAY TO VEH2 (P/CYCLE) TRAVELLNG NW ALONG LOVEDEAN LANE.

Occurred on LOVEDEAN LANE AT JUNCTION WITH MILTON ROAD, WATERLOOVILLE, HAMPSHIRE.

Vehicle Reference 1 Car Turning right
Vehicle movement from S to E No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 20 Female
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Pedal Cycle Going ahead right bend
Vehicle movement from E to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 27 Male
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 27 Male Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Yes

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

4420043325208/11/2020Time1317Vehicles2Casualties1Slight

E:469851N:112574First Road: A 3Road TypeSingle carriageway

Speed limit: 30Junction Detail: CrossroadsAutomatic traffic signalB 2149

Crossing: Control NoneFacilities: Ped. phase at traffic signal junctionRoad surfaceDry

DaylightFine without high winds

Special Conditions at Site NoneCarriageway Hazards: None

Place accident reported: At sceneDfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Failed to judge other persons path or speed	Vehicle 2	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 2 (CAR) TRAVELLING SE ALONG A3 PORTSMOUTH ROAD, FAILS TO STOP IN TIME AND COLLIDES WITH THE REAR OF VEH 1 (VAN) STATIONARY AT THE TRAFFIC LIGHTS.
Occurred on A3 PORTSMOUTH ROAD AT JUNCTION WITH B2149 DELL PIECE WEST, HORNDEAN, HAMPSHIRE

Vehicle Reference

Vehicle movement from

On main carriageway

Location at impact

Hit object in road

Did not leave carr

Not hit and run

Van or Goods 3.5 tonnes mgw and under

NE to SW

Jct Approach

None

Breath test

Negative

Going ahead but held up

No tow / articulation

No skidding, jack-knifing or overturning

First impact

Off road:

Age of Driver

40

Male

Leaving the main road

Back

None

Hit vehicle:

Left hand drive:

No

Vehicle Reference

Vehicle movement from

On main carriageway

Location at impact

Hit object in road

Did not leave carr

Not hit and run

2 Car

NE to SW

Jct Approach

None

Breath test

Negative

Going ahead other

No tow / articulation

No skidding, jack-knifing or overturning

First impact

Off road:

Age of Driver

37

Male

Leaving the main road

Front

None

Hit vehicle:

Left hand drive:

No

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44200464320 01/12/2020 Time 1216 Vehicles 2 Casualties 1 Serious
E:468867 N: 112169 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Failed to judge other persons path or speed	Vehicle 1	Very Likely
2nd:	Failed to look properly	Vehicle 1	Possible
3rd:			
4th:			
5th:			
6th:			

VEH2 (VAN) TRAVELLING SW ALONG FROGMORE LANE TURNED LEFT ONTO LOVEDEAN AND THEN IMMEDIATELY STOPPED TO LET CAS1 (PEDESTRIAN) CROSS THE ROAD TRAVELLING W. VEH1 (CAR) TRAVELLING SE ALONG LOVEDEAN LANE OVERTOOK VEH2 & COLLIDED WITH CAS1.
Occurred on LOVEDEAN LANE AT JUNCTION WITH FROGMORE LANE, WATERLOOVILLE, HAMPSHIRE.

Vehicle Reference 1 Car Overtaking moving vehicle O/S
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Cleared junction or waiting/park First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 22 Female
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 95 Female Pedestrian Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist
In carr elsewhere W bound
Driver's nearside

Vehicle Reference 2 Van or Goods 3.5 tonnes mgw and under Going ahead but held up
Vehicle movement from NE to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Cleared junction or waiting/park First impact Did not impact Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 29 Female
Not hit and run Breath test Negative
Left hand drive: No

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44210292771 23/07/2021 Time 2356 Vehicles 2 Casualties 1 Fatal
E:468873 N: 112007 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Darkness: street lights present and lit Raining without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Slippery road (due to weather)	Vehicle 1	Possible
2nd:	Travelling too fast for conditions	Vehicle 1	Possible
3rd:	Loss of control	Vehicle 1	
4th:			
5th:			
6th:			

VEH 1 (M/CYCLE) TRAVELLING N ALONG MILTON ROAD HAS LOST CONTROL, DROPPED THE VEHICLE. THE RIDER HAS SLID ACROSS THE CARRIAGEWAY AND INTO THE PATH OF ONCOMING VEH 2 (CAR) TRAVELLING S ALONG MILTON ROAD.
Occurred on MILTON ROAD, OUT SIDE NUMBER 414, WATERLOOVILLE, HAMPSHIRE.

Vehicle Reference 1 Motor Cycle over 50 cc and up to 125cc Going ahead other
Vehicle movement from S to N No tow / articulation Leaving the main road
On main carriageway Skidded
Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 35 Male
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 35 Male Driver/rider Severity: Fatal
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Vehicle Reference 2 Car Going ahead other
Vehicle movement from N to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 56 Female
Not hit and run Breath test Negative
Left hand drive: No

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44210301422 29/07/2021 Time 1915 Vehicles 2 Casualties 1 Slight
E:469561 N: 112088 First Road: A 3 Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

	Causation		
	Factor:	Participant:	Confidence:
1st:			
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (M/CYCLE) TRAVELLING N ON A3 PORTSMOUTH ROAD IS STRUCK BY VEH 2 (CAR) TURNING LEFT INTO HIS PATH

Occurred on CORNER OF A3 PORTSMOUTH ROAD AND KEYDELL AVENUE COSHAM

Vehicle Reference 1 Motor Cycle over 125 cc and up to 500cc Going ahead other
Vehicle movement from S to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 60 Male
Not hit and run Breath test Driver not contacted
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 60 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Vehicle Reference 2 Car Turning left
Vehicle movement from S to W No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver Unknown
Not hit and run Breath test Driver not contacted
Left hand drive: No

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44210312971 06/08/2021 Time 1810 Vehicles 2 Casualties 1 Slight
E:467914 N: 111368 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

	Causation		
	Factor:	Participant:	Confidence:
1st:			
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) PARKED OUTSIDE ONE STOP SHOP WHEN VEH 2 (VAN) DRIVES PAST, COLLIDING WITH VEH 1 AND INJURING PEDESTRIAN STANDING NEARBY
Occurred on OUTSIDE ONE STOP SHOP ON HART PLAIN AVENUE

Vehicle Reference 1 Car Parked
Vehicle movement from Park to Parked No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 24 Female
Not hit and run Breath test Not requested
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 42 Male Pedestrian Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist
In carr not crossing Standing still
In carr not crossing

Vehicle Reference 2 Van or Goods 3.5 tonnes mgw and under Going ahead other
Vehicle movement from N to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 35 Male
Hit and run Breath test Not requested
Left hand drive: No

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -HC - RPU Statistics Request ("AW
WOODCROFT FARM, WATERLOOVILLE
BACS/SR/0124/003")

Notes:

44210312934 06/08/2021 Time 1903 Vehicles 2 Casualties 1 Slight
E:468141 N: 110936 First Road: U Road Type 2
Speed limit: 30 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Poor or defective road surface	Vehicle 002	Possible
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING E TO W ON HART PLAINE AVENUE . VEH 2 (P/CYCLE) TRAVELLING ON
PAVEMENT W TO E FALLS INTO CARRIAGEWAY COLLIDING WITH VEH 1
Occurred on OUTSIDE 159 MILTON ROAD HART PLAINE AVENUE, HAVANT

Vehicle Reference 1 Car Going ahead other
Vehicle movement from W to E No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 25 Female
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Pedal Cycle Going ahead other
Vehicle movement from E to W No tow / articulation Leaving the main road
Cycleway or shared use footway (not part of main car No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 39 Male
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 39 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: No

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44210338283 24/08/2021 Time 1746 Vehicles 2 Casualties 1 Slight
E:469471 N: 111885 First Road: A 3 Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Poor turn or manoeuvre	Vehicle 001	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING W ON LOVEDEAN LANE AND TURNING R ONTO A3 FAILS TO SEE VEH 2 (CAR) TURNING R INTO LOVEDEAN LANE FROM A3 LONDON ROAD AND COLLIDES
Occurred on JUNCTION OF LOVEDEAN ROAD WITH A3 LONDON/PORTSMOUTH ROAD

Vehicle Reference 1 Car Turning right
Vehicle movement from N to W No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Entering main road First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 22 Female
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 22 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Worn but not i Cycle helmet: Not a cyclist

Vehicle Reference 2 Car Turning right
Vehicle movement from S to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Leaving main road First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 24 Male
Not hit and run Breath test Negative
Left hand drive: No

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -HC - RPU Statistics Request ("AW
WOODCROFT FARM, WATERLOOVILLE
BACS/SR/0124/003")

Notes:

44210424969 22/10/2021 Time 1818 Vehicles 2 Casualties 1 Slight
E:467912 N: 111375 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: Pri Drive Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Darkness: street lights present and lit Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Stationary or parked vehicle	Vehicle 001	Possible
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING S TO N ALONG HART PLAIN AVE AND EDGING OUT FROM BEHIND PARKED
CARS COLLIDES WITH VEH 2 (P/CYCLE) TRAVELLING N TO S ON HART PLAIN AVE
Occurred on OUTSIDE 156 HART PLAIN AVENUE

Vehicle Reference 1 Car Turning right
Vehicle movement from S to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Entering main road First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 29 Female
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Pedal Cycle Going ahead other
Vehicle movement from N to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 35 Male
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 35 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Yes

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44220119520 25/03/2022 Time 1745 Vehicles 2 Casualties 1 Serious
E:468165 N: 110911 First Road: U Road Type Single carriageway
Speed limit: 20 Junction Detail: Crossroads Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

	Causation		
	Factor:	Participant:	Confidence:
1st:			
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (P/CYCLE) TRAVELLING NORTH ACROSS HART PLAIN AVENUE COLLIDES WITH VEH 2 (CAR) TRAVELLING S TO N ALONG MILTON ROAD AND TURNING LEFT INTO HART PLAIN
Occurred on HART PLAIN AVENUE/MILTON ROAD,COWPLAIN, PORTSMOUTH

Vehicle Reference 1 Pedal Cycle Going ahead other
Vehicle movement from S to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 29 Male
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 29 Male Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not known

Vehicle Reference 2 Car Turning left
Vehicle movement from S to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver Unknown
Not hit and run Breath test Driver not contacted
Left hand drive: No

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44220162409 26/04/2022 Time 0802 Vehicles 2 Casualties 1 Slight
E:469301 N: 111948 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:	Failed to judge other persons path or speed	Vehicle 1	Possible
3rd:			
4th:			
5th:			
6th:			

VEH1 (VAN) TRAVELLING W ALONG LOVEDEAN LANE FAILED TO LOOK PROPERLY AND TURNED RIGHT ACROSS THE CARRIAGEWAY INTO A HOUSE AND COLLIDED WITH VEH2 (M/CYCLE) TRAVELLING E ALONG LOVEDEAN LANE
Occurred on LOVEDEAN LANE AT JUNCTION WITH GLADYS AVENUE, COWPLAIN, HAMPSHIRE

Vehicle Reference 1 Van or Goods 3.5 tonnes mgw and under Turning right
Vehicle movement from E to W No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Cleared junction or waiting/park First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 36 Male
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Motorcycle over 500cc Going ahead other
Vehicle movement from W to E No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 36 Male
Not hit and run Breath test Not requested
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 36 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44220186729 12/05/2022 Time 0918 Vehicles 1 Casualties 1 Slight
E:468857 N: 111949 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: Mini roundabout Give way or controlled Unclassified
Crossing: Control None Facilities: Central reservation Road surface Dry
Daylight Fine without high winds
Special Conditions at Site Road works Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Poor turn or manoeuvre	Vehicle 001	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH1 CAR TRAVELLING S ALONG MILTON ROAD, DRIVING THROUGH ROADWORKS, LOOSES CONTROL, MOUNTS THE PAVEMENT AND COLLIDES WITH A WALL.

Occurred on MILTON ROAD AT JUNCTION WITH EAGLE AVENUE, WATERLOOVILLE, HAMPSHIRE

Vehicle Reference 1 Car Going ahead other
Vehicle movement from N to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Leaving roundabout First impact Front Hit vehicle:
Hit object in road Kerb Off road: Wall or fence
O/S Age of Driver 81 Female
Not hit and run Breath test Not requested Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 81 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44220187268 12/05/2022 Time 1415 Vehicles 3 Casualties 2 Slight
E:469787 N: 112494 First Road: A 3 Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Automatic traffic signal Unclassified
Crossing: Control None Facilities: Ped. phase at traffic signal junction Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Following too close	Vehicle 002	Possible
2nd:	Failed to judge other persons path or speed	Vehicle 002	Possible
3rd:			
4th:			
5th:			
6th:			

VEH1 CAR TRAV SW ALONG A3 PORTSMOUTH ROAD, SLOWS MID JUNCTION FOR UNKNOWN REASONS,
VEH2 TRAV SW ALONG A3 BEHIND VEH1, FAILS TO SLOW IN TIME AND COLLIDES WITH REAR OF VEH1,
VEH3 CAR TRAV SW BEHIND VEH 2 ALONG A3 COLLIDES WITH REAR VEH2.
Occurred on A3 PORTSMOUTH ROAD AT JUNCTION WITH HAZLETON WAY, WATERLOOVILLE,
HAMPSHIRE

Vehicle Reference 1 Car Stopping
Vehicle movement from NE to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 66 Male
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Car Going ahead other
Vehicle movement from NE to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 54 Female
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 54 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -HC - RPU Statistics Request ("AW
WOODCROFT FARM, WATERLOOVILLE
BACS/SR/0124/003")

Vehicle Reference	3	Car		Going ahead other	
Vehicle movement from	NE	to SW	No tow / articulation	Leaving the main road	
On main carriageway			No skidding, jack-knifing or overturning		
Location at impact	Jct Approach		First impact	Front	Hit vehicle:
Hit object in road	None		Off road:	None	
Did not leave carr			Age of Driver	58	Male
Not hit and run	Breath test	Negative	Left hand drive:	No	
Casualty Reference:	2	Vehicle: 3	Age: 58	Male	Driver/rider
Not a pupil					Severity: Slight
Seatbelt	Not Applicable	Cycle helmet:	Not a cyclist		

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -HC - RPU Statistics Request ("AW
WOODCROFT FARM, WATERLOOVILLE
BACS/SR/0124/003")

44220331989 16/08/2022 Time 0909 Vehicles 1 Casualties 1 Slight
E:469487 N: 111904 First Road: A 3 Road Type Single carriageway
Speed limit: 40 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: Central reservation Road surface Wet/Damp
Daylight Raining without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Slippery road (due to weather)	Vehicle 1	Possible
2nd:			
3rd:			
4th:			
5th:			
6th:			

CAS1 (RIDER) RIDING VEH1 (M/CYCLE), TRAV E ALONG LOVEDEAN LANE, TURNED LEFT TO TRAVEL N
ALONG A3, BRAKED CAUSING VEH1 TO SLIDE FROM UNDER CAS1 AND MINOR INJURIES SUSTAINED TO
CAS1.

Occurred on A3 LONDON RD, AT JCT WITH LOVEDEAN LANE, PORTSMOUTH, HAMPSHIRE.

Vehicle Reference 1 Motor Cycle over 50 cc and up to 125cc Turning left
Vehicle movement from W to N No tow / articulation Leaving the main road
On main carriageway Skidded
Location at impact Cleared junction or waiting/park First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 19 Male
Non-stop, not hit Breath test Driver not contacted Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 19 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44220497440 09/12/2022 Time 0749 Vehicles 2 Casualties 1 Slight
E:469567 N: 112091 First Road: A 3 Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Darkness: street lighting unknown Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 001	Possible
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING SE ALONG KEYDELL AVENUE PULLS OUT RIGHT ONTO PORTSMOUTH ROAD COLLIDING WITH VEH 2 (M/CYCLE) TRAVELLING SW ALONG PORTSMOUTH ROAD
Occurred on JUNCTION OF KEYDELL AVENUE/PORTSMOUTH ROAD, COWPLAIN, HAMPSHIRE

Vehicle Reference 1 Car Turning right
Vehicle movement from NW to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 48 Male
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Motor Cycle over 50 cc and up to 125cc Going ahead other
Vehicle movement from NE to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 21 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 21 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44230035228 26/01/2023 Time 1818 Vehicles 3 Casualties 3 Slight
E:469086 N: 112020 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Darkness: street lights present and lit Fine without high winds
Special Conditions at Site Oil or Diesel Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Travelling too fast for conditions	Vehicle 001	Very Likely
2nd:	Deposit on road (eg oil, mud, chippings)	Vehicle 001	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING SE ALONG LOVEDEAN LANE SLIPS ON OIL AND COLLIDES WITH VEH 2 (CAR) TRAVELLING SE IN FRONT, WAITING IN QUEUE AND ALSO WITH VEH 3 (CAR) TRAVELLING NW ALONG LOVEDEAN LANE.
Occurred on JUNCTION OF LOVEDEAN LANE/PARKLANDS AVENUE, COWPLAIN, HAMPSHIRE

Vehicle Reference 1 Car Going ahead other
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway Skidded
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 19 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 19 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Vehicle Reference 2 Car Going ahead but held up
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 38 Male
Not hit and run Breath test Negative
Left hand drive: No

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -HC - RPU Statistics Request ("AW
WOODCROFT FARM, WATERLOOVILLE
BACS/SR/0124/003")

Vehicle Reference 3 Car Going ahead other
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 34 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 2 Vehicle: 3 Age: 34 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Casualty Reference: 3 Vehicle: 3 Age: 31 Female Passenger Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Front seat

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44230079886 26/02/2023 Time 2013 Vehicles 1 Casualties 1 Slight
E:468044 N: 111103 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Dry
Darkness: street lights present and lit Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Careless/Reckless/In a hurry	Vehicle 1	Very Likely
2nd:	Impaired by drugs (illicit or medicinal)	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING NW ALONG HART PLAIN AVENUE LOST CONTROL, COLLIDED WITH A BUS STOP SIGN TO THE OFFSIDE AND OVERTURNED.

Occurred on HART PLAIN AVENUE OUTSIDE NUMBER 112, WATERLOOVILLE, HAMPSHIRE

Vehicle Reference 1 Car Going ahead other
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway Skidded and overturned
Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 28 Female
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 28 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Worn but not i Cycle helmet: Not a cyclist

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44230196274 18/05/2023 Time 1632 Vehicles 1 Casualties 1 Slight
E:469366 N: 111926 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation			
	Factor:	Participant:	Confidence:
1st:	Defective brakes	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH1 (CAR) PARKED ALONG LOVEDEAN LANE BEGAN TO ROLL DUE TO A HANDBRAKE FAULT AND COLLIDED WITH A WALL

Occurred on LOVEDEAN LANE, OUTSIDE HOUSE NO.9B, COWPLAIN, HAMPSHIRE

Vehicle Reference 1 Car Parked
Vehicle movement from Park to Parked No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle:
Hit object in road None Off road: Wall or fence
Nearside Age of Driver 38 Female
Not hit and run Breath test Not requested Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 38 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

44230384460 18/09/2023 Time 1345 Vehicles 2 Casualties 1 Serious
E:467915 N: 111369 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

	Causation		
Factor:		Participant:	Confidence:
1st:			
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING S STOPPED OUTSIDE ONE STOP. THE DRIVER OPENED THE OFFSIDE DOOR INTO THE PATH OF VEH 2 (MOBILITY SCOOTER) TRAVELLING S. VEH 2 THEN COLLIDED WITH VEH 1'S DOOR CAUSING THE RIDER TO FALL.

Occurred on HART PLAIN AVENUE 30 METRES SOUTH OF CHAPLAINS AVENUE, WATERLOOVILLE, HAMPSHIRE

Vehicle Reference 1 Car Parked
Vehicle movement from Park to Parked No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver Female
Not hit and run Breath test Driver not contacted
Left hand drive: No

Vehicle Reference 2 Mobility Scooter Going ahead other
Vehicle movement from N to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 69 Male
Not hit and run Breath test Driver not contacted
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 69 Male Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/10/2018 and 30/09/2023** (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW WOODCROFT FARM, WATERLOOVILLE BACS/SR/0124/003")

Notes:

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only (excluding 2-wheels)	0	1	11	12
2-wheeled motor vehicles	1	0	4	5
Pedal cycles	0	3	3	6
Horses & other	0	1	0	1
Total	1	5	18	24

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	1	11	12
Passenger	0	0	1	1
Motorcycle rider	1	0	4	5
Cyclist	0	3	3	6
Pedestrian	0	1	2	3
Other	0	0	0	0
Total	1	5	21	27

Appendix D

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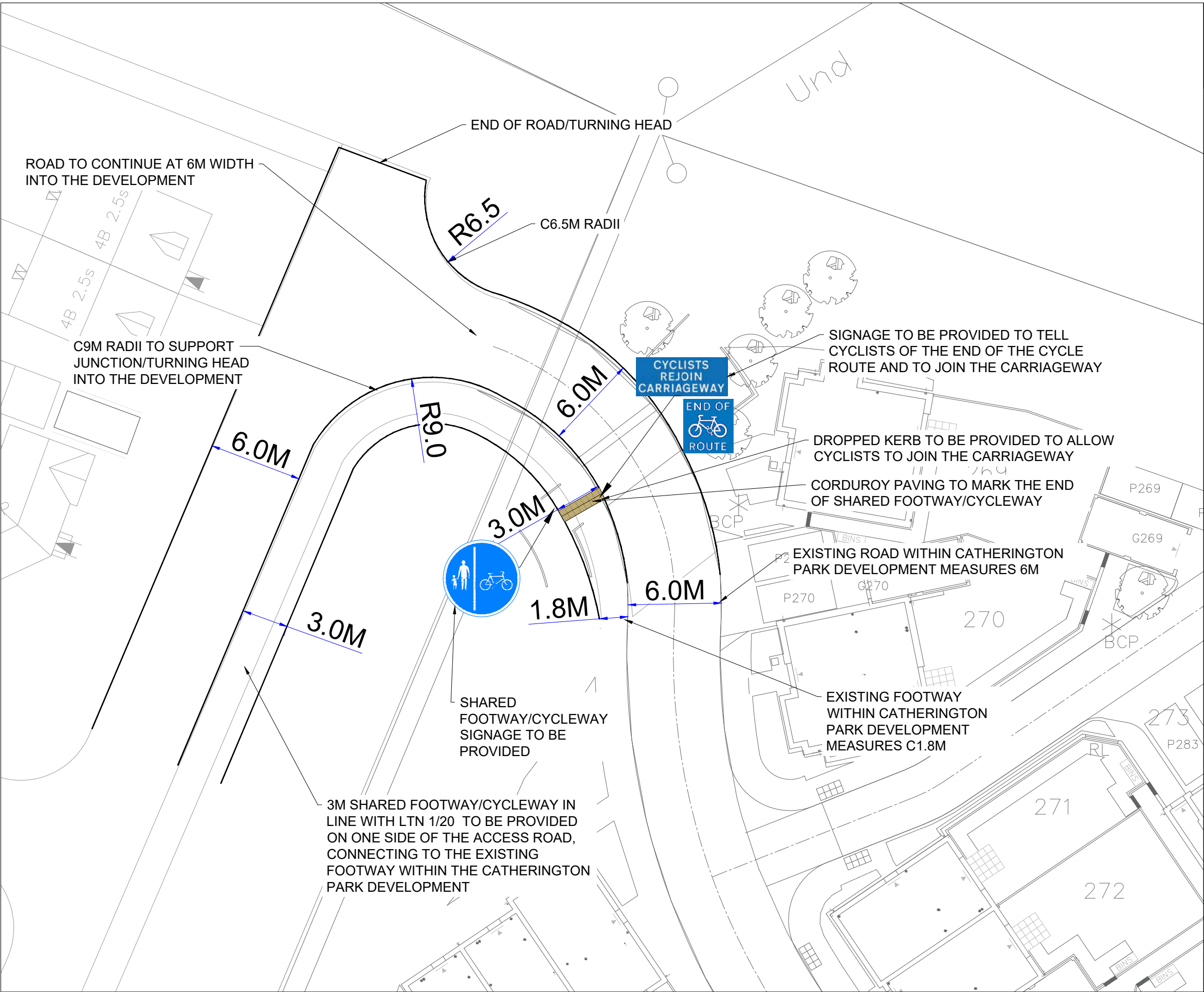
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P04	UPDATED LAYOUT	26.03.24	CID	KCH
P03	UPDATED LAYOUT	21.02.24	CID	TAF
P02	UPDATED ACCESS DESIGN	14.02.24	CID	KCH
P01	FIRST ISSUE	28.11.23	CID	SKB
Rev	Description	Date	By	App'd

Date Created	Drawn By	Approved By	Suitability Code
27.11.23	CID	SKB	-
PBA Project Number	Scale	(AT A3)	
167.0006	1:250		

PBA Drawing No:	Revision
167.0006-0001	P04



Project Name
LAND NORTH OF WOODCROFT FARM, HORNDEAN
Project Phase
PRELIMINARY

Title
ACCESS DESIGN EASTERN PARCEL

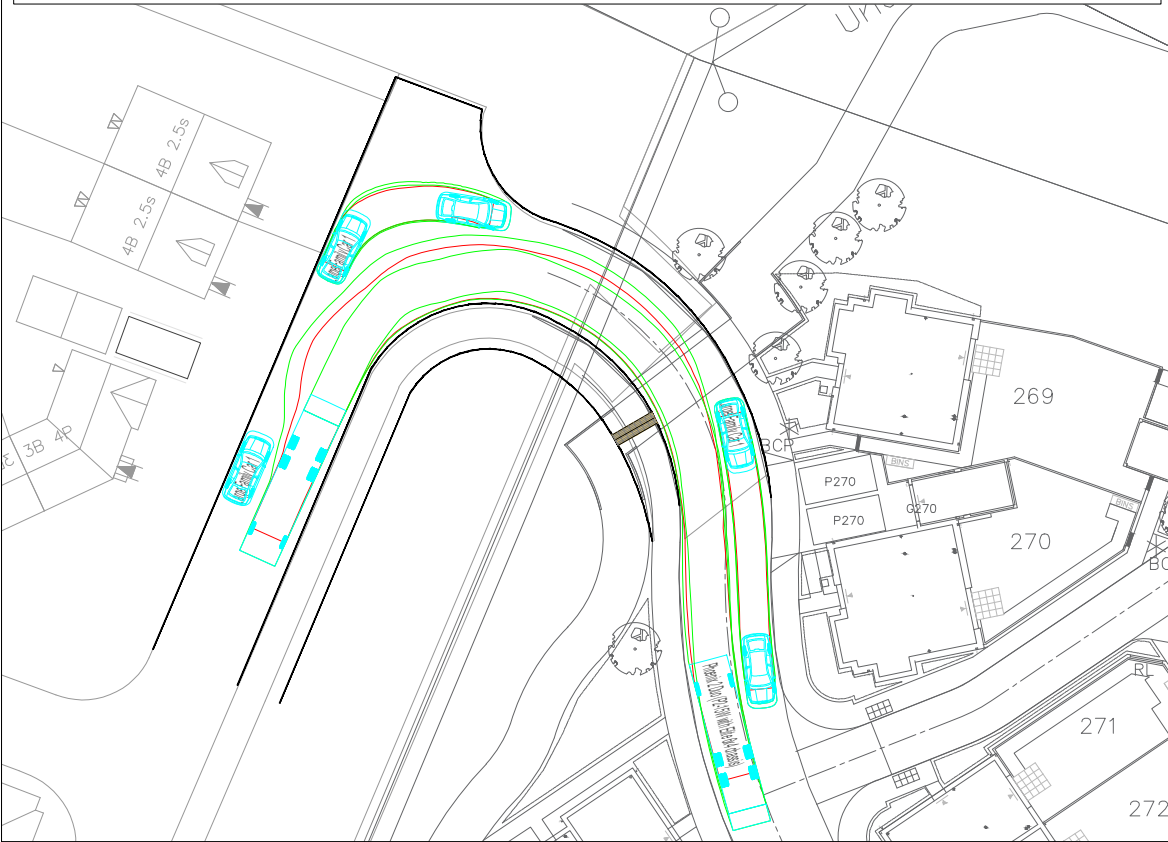


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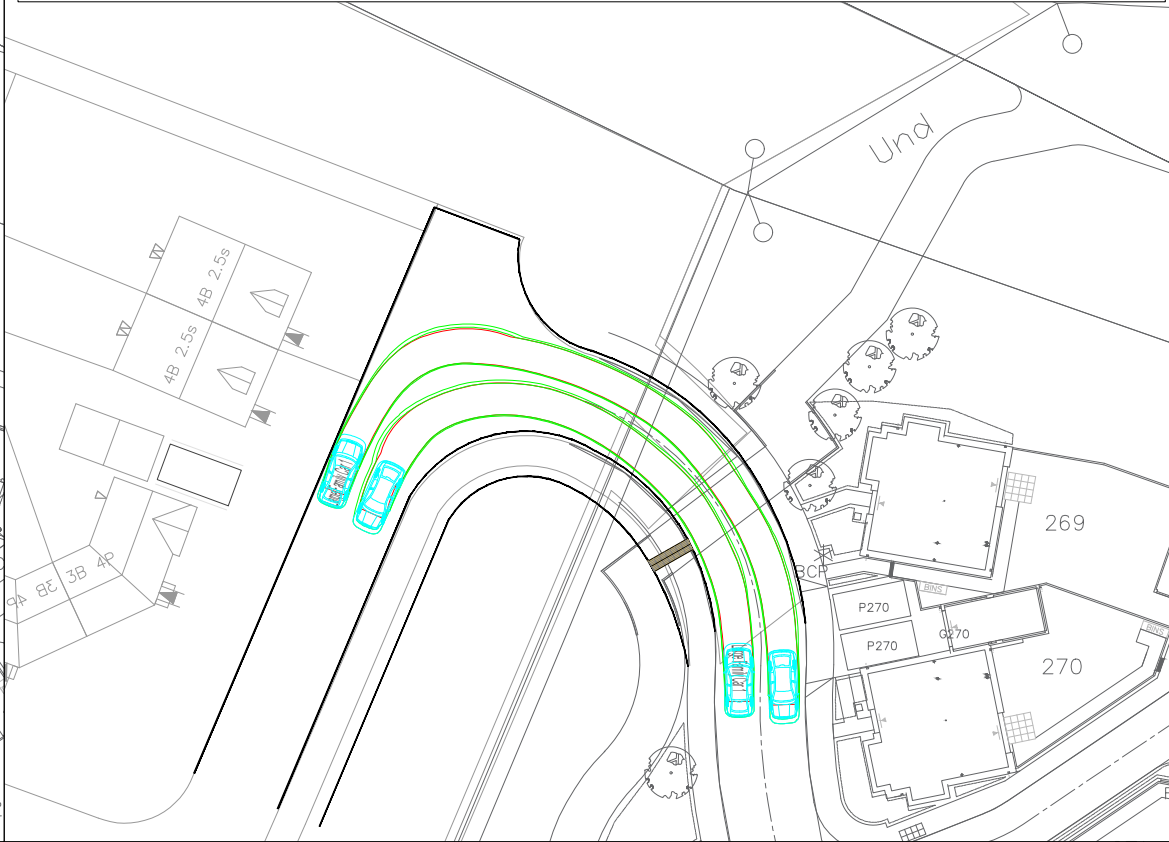
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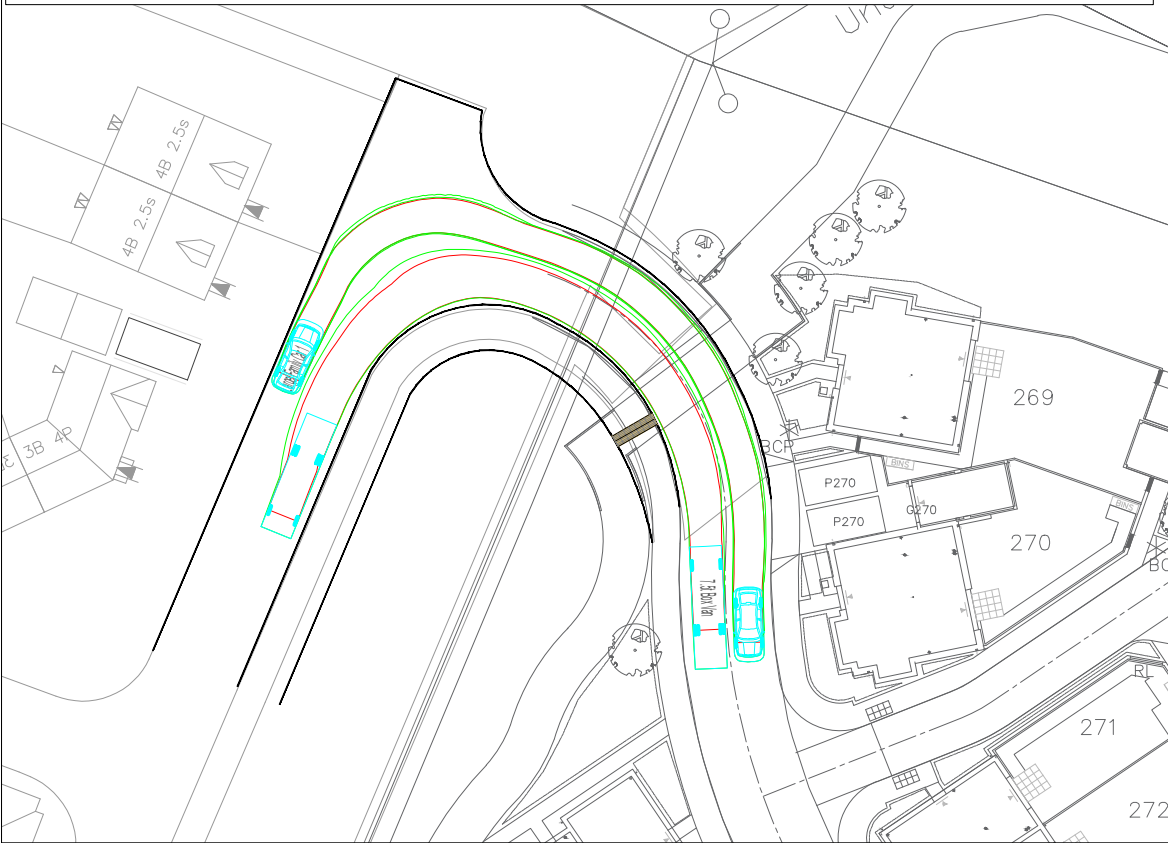
CAR PASSING A REFUSE VEHICLE ALONG THE EASTERN ACCESS ROAD



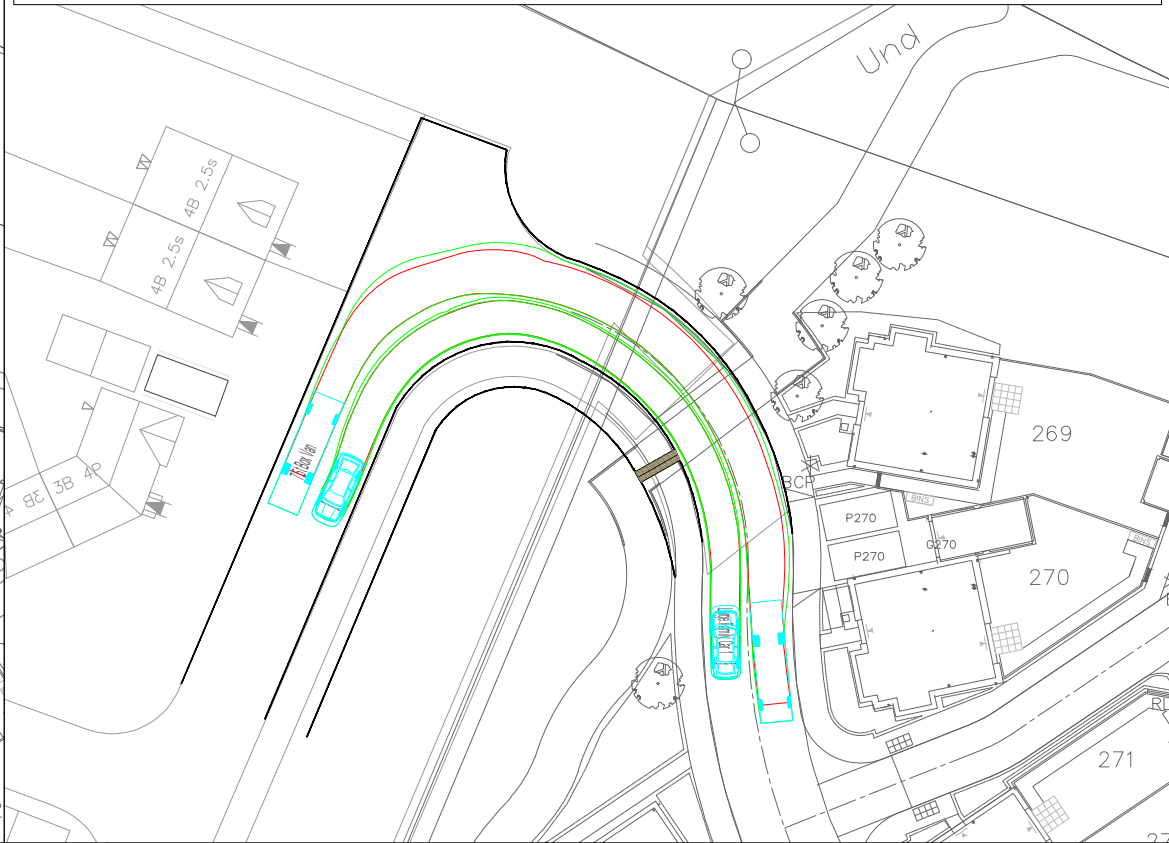
CAR PASSING SIMULTANEOUSLY ALONG THE EASTERN ACCESS ROAD



CAR PASSING A DELIVERY VAN ENTERING FROM THE EASTERN ACCESS ROAD



CAR PASSING A DELIVERY VAN EXITING FROM THE EASTERN ACCESS ROAD

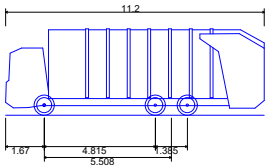


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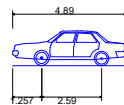
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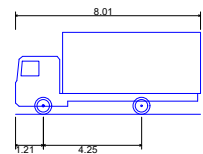
VEHICLE PROFILE



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)
Overall Length 11.200m
Overall Width 2.530m
Overall Body Height 3.751m
Min Body Ground Clearance 0.304m
Track Width 2.500m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 9.500m



Large Family Car 1
Overall Length 4.890m
Overall Width 1.940m
Overall Body Height 1.512m
Min Body Ground Clearance 0.273m
Max Track Width 1.890m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 5.100m



7.5t Box Van
Overall Length 8.010m
Overall Width 2.100m
Overall Body Height 3.556m
Min Body Ground Clearance 0.351m
Track Width 2.064m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 7.400m



Project Name
LAND NORTH OF WOODCROFT FARM, HORNDEAN

Title
SWEEP PATH ANALYSIS OF THE EASTERN ACCESS ROAD



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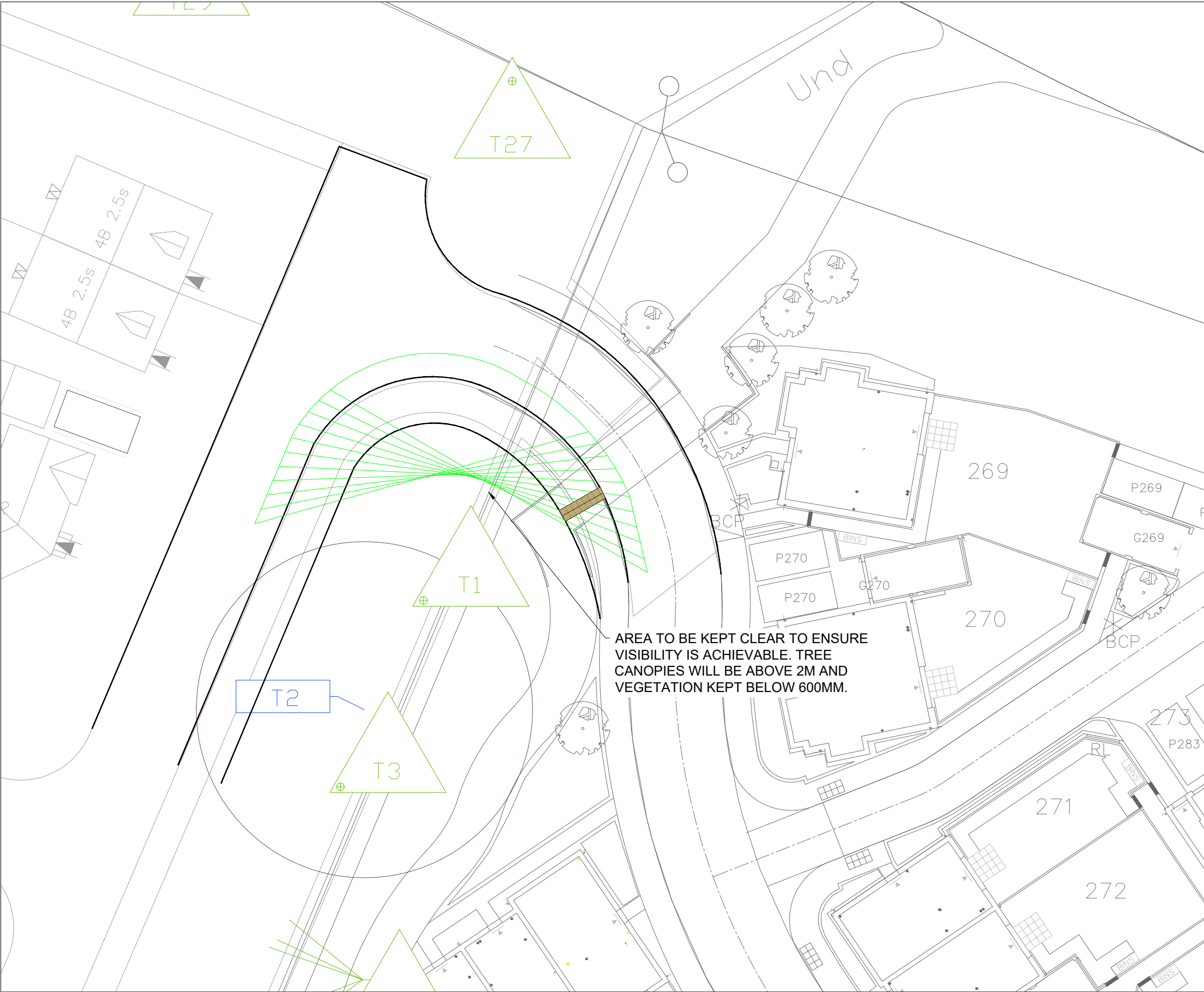


P04	UPDATED LAYOUT AND HCC COMMENTS	26.03.24	CID	KCH
P03	UPDATED LAYOUT	21.02.24	CID	TAF
P02	UPDATED ACCESS DESIGN	14.02.24	CID	KCH
P01	FIRST ISSUE	28.11.23	CID	SKB

Rev	Description	Date	By	App'd
	Date Created	28.11.23	Drawn By	CID
	Approved By	SKB	Suitability Code	-

PBA Project Number	Scale	(AT A3)
167.0006	1:500	

PBA Drawing No:	Revision
167.0006-0003	P04



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6. VISIBILITY SPLAY MEASURED TO A 20MPH SPEED LIMIT (25M) IN LINE WITH MANUAL FOR STREETS GUIDANCE.

KEY
FORWARD VISIBILITY SPLAY (TO 25M)



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P03	UPDATED LAYOUT	26.03.24	CID	KCH
P02	UPDATED LAYOUT	21.02.24	CID	TAF
P01	FIRST ISSUE	14.02.24	CID	KCH
Rev	Description	Date	By	App'd
Date Created	Drawn By	Approved By	Suitability Code	
12.02.24	CID	KCH	-	
PBA Project Number		Scale	(AT A3)	
167.0006		1:250		
PBA Drawing No:			Revision	
167.0006-0005			P03	

Project Name
LAND NORTH OF WOODCROFT FARM, HORNDEAN

Project Phase
PRELIMINARY

Title
EASTERN PARCEL FORWARD VISIBILITY AT ACCESS

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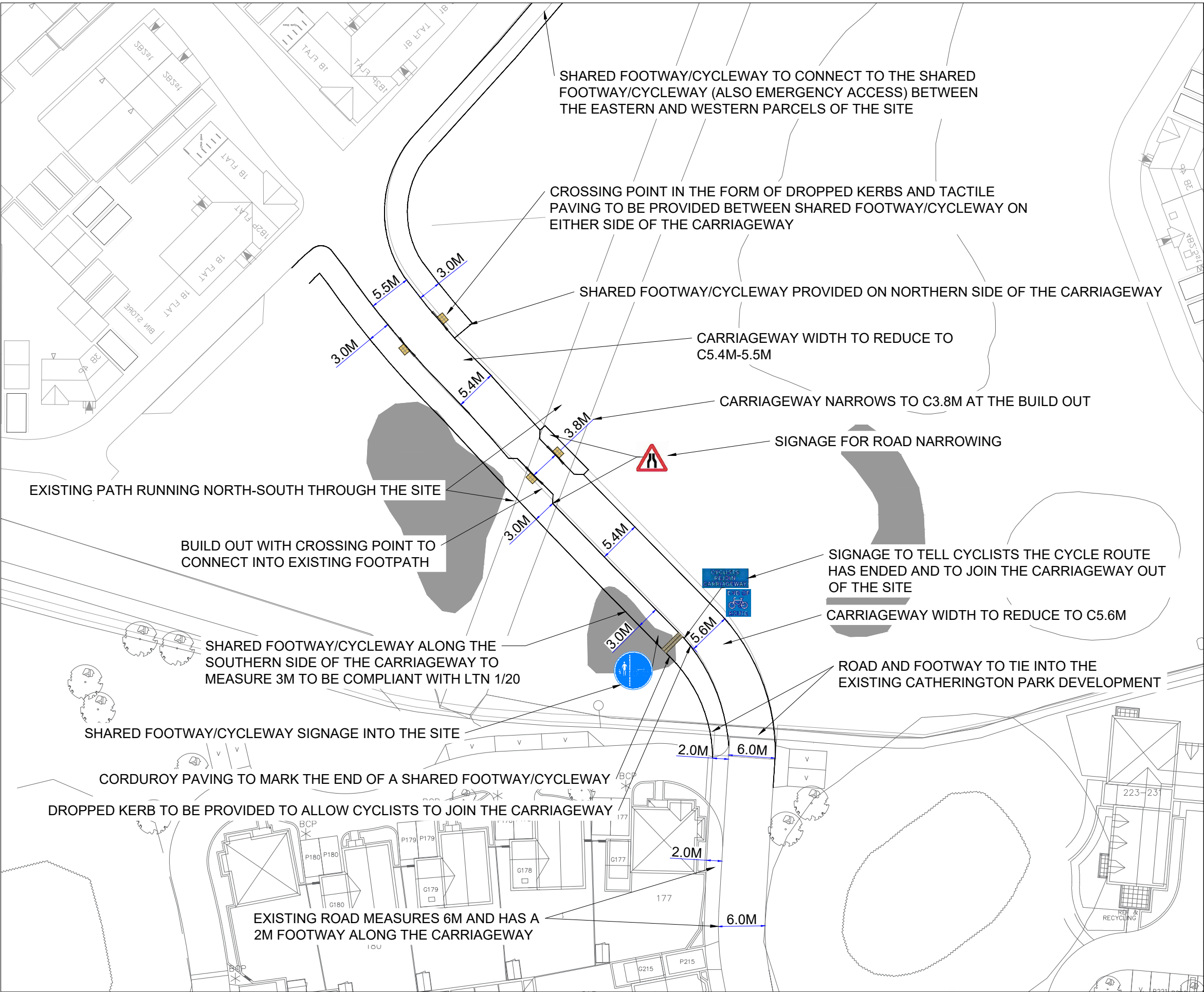
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P02	UPDATED ACCESS DESIGN	15.02.24	CID	KCH
P01	FIRST ISSUE	28.11.23	CID	SKB

Rev	Description	Date	By	App'd
27.11.23			CID	SKB

PBA Project Number	Scale	
167.0006	1:500	(AT A3)

PBA Drawing No:	Revision
167.0006-0002	P04

Project Name
LAND NORTH OF WOODCROFT
FARM, HORNDEAN

Title
ACCESS DESIGN
WESTERN PARCEL

Project Phase
PRELIMINARY

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CAR AND REFUSE VEHICLE PASSING ALONG THE WESTERN ACCESS ROAD



CAR AND DELIVERY VAN PASSING ALONG THE WESTERN ACCESS ROAD

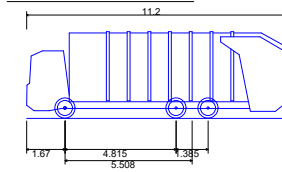


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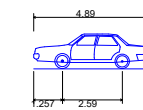
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6. ALL VEHICLES HAVE BEEN TRACKED AT 10MPH.

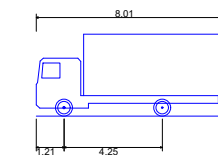
VEHICLE PROFILE



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)	
Overall Length	11.200m
Overall Width	2.530m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.500m



Large Family Car 1	
Overall Length	4.890m
Overall Width	1.940m
Overall Body Height	1.512m
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7.5t Box Van	
Overall Length	8.010m
Overall Width	2.100m
Overall Body Height	3.556m
Min Body Ground Clearance	0.351m
Track Width	2.064m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.400m



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P02	UPDATED ACCESS DESIGN	15.02.24	CID	KCH
P01	FIRST ISSUE	28.11.23	CID	SKB
	<i>Rev.</i> <i>Description</i>	<i>Date</i>	<i>Rv</i>	<i>App'd</i>

Rev	Description	Drawn By	Approved By	Date	By	Appr
	Date Created 28.11.23	CID	SKB		Suitability Code	-
PBA Project Number 167.0006			Scale 1:500 (AT A3)			

PBA Drawing No:	Revision
167.0006-0004	P04

Project Name

LAND NORTH OF WOODCROFT
FARM, HORNDEAN

Project Phase

PRELIMINARY

Title

SWEPT PATH ANALYSIS OF THE WESTERN ACCESS ROAD

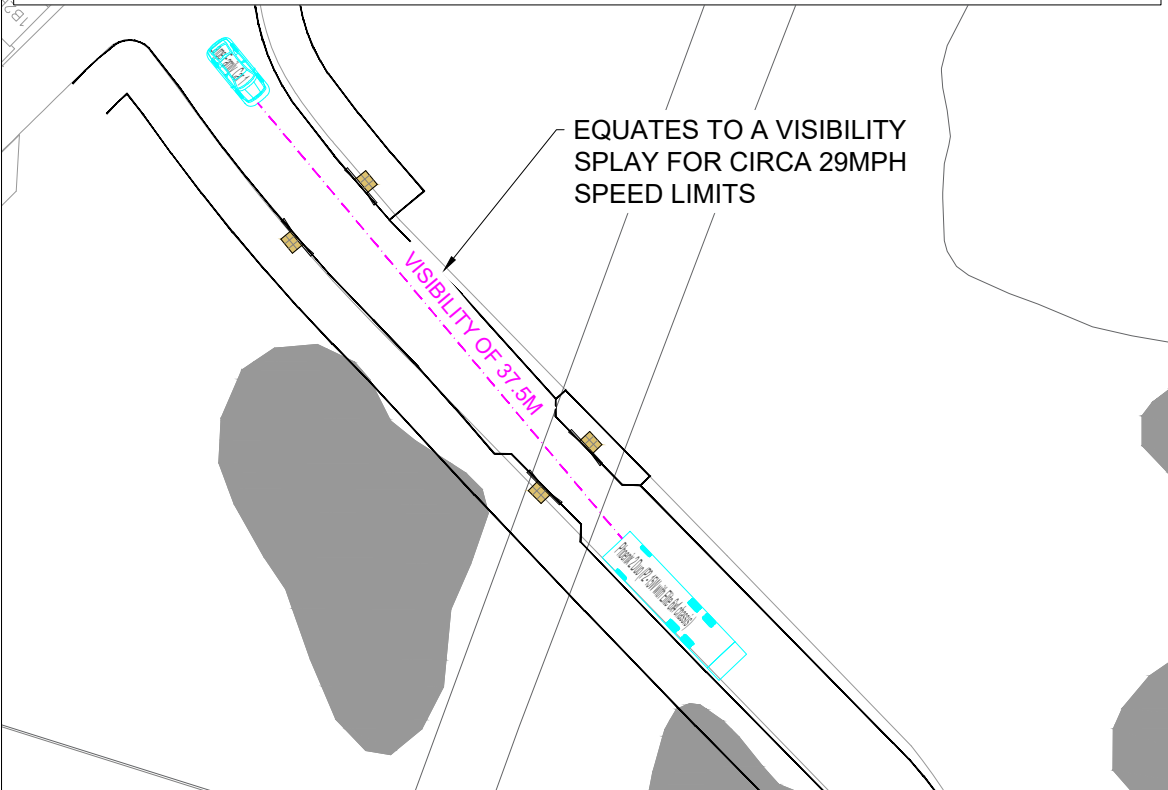
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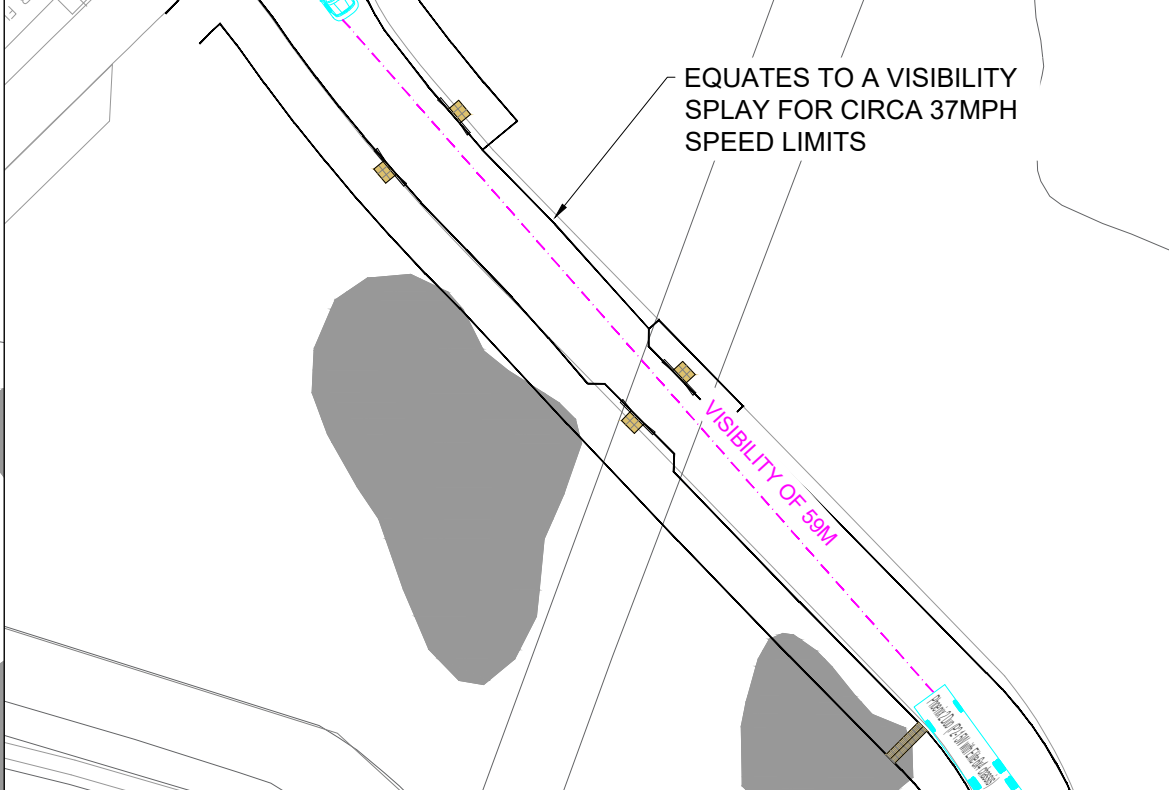
Client

The Grainger logo, consisting of the word "grainger" in a white, lowercase, sans-serif font, centered within a dark teal rectangular background.

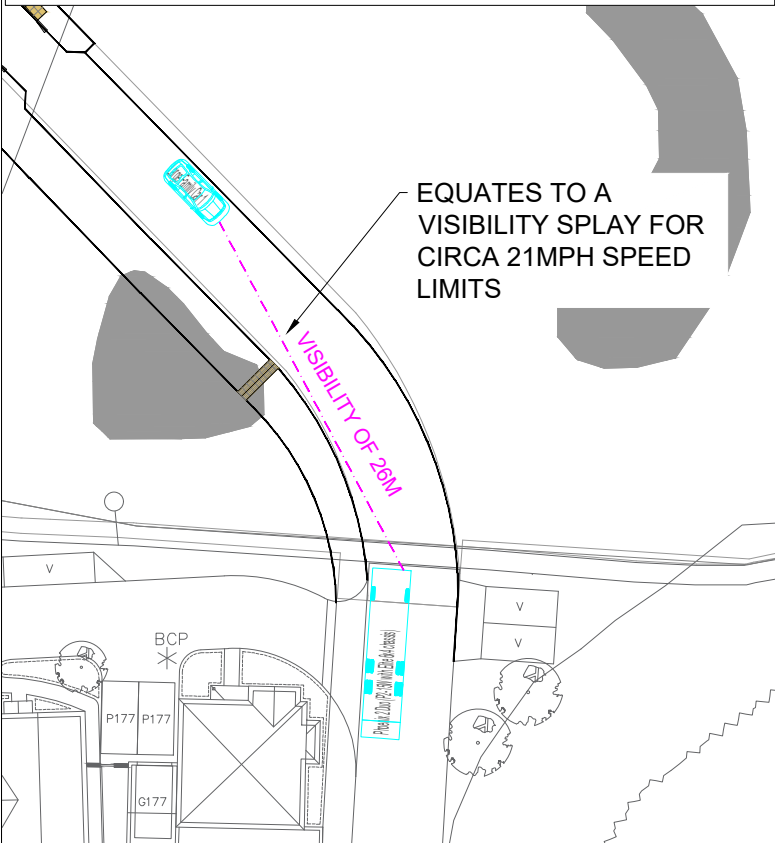
CAR AND REFUSE VEHICLE INTER VISIBILITY
BETWEEN FIRST INTERNAL JUNCTION AND BUILD
OUT



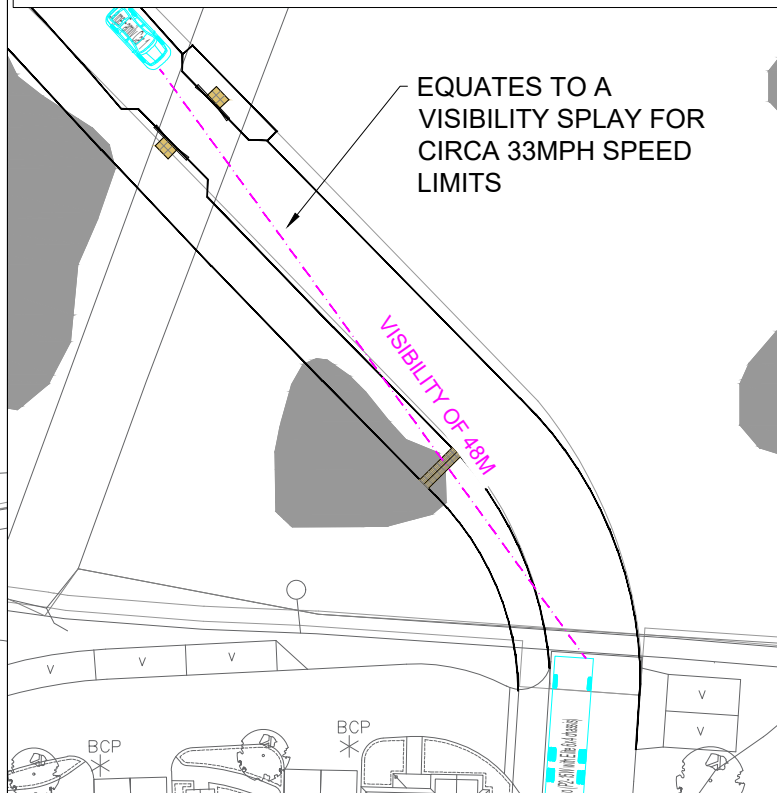
CAR AND REFUSE VEHICLE INTER VISIBILITY FROM
APPROACH TO FIRST BUILD OUT AND SOUTH OF
FIRST INTERNAL JUNCTION



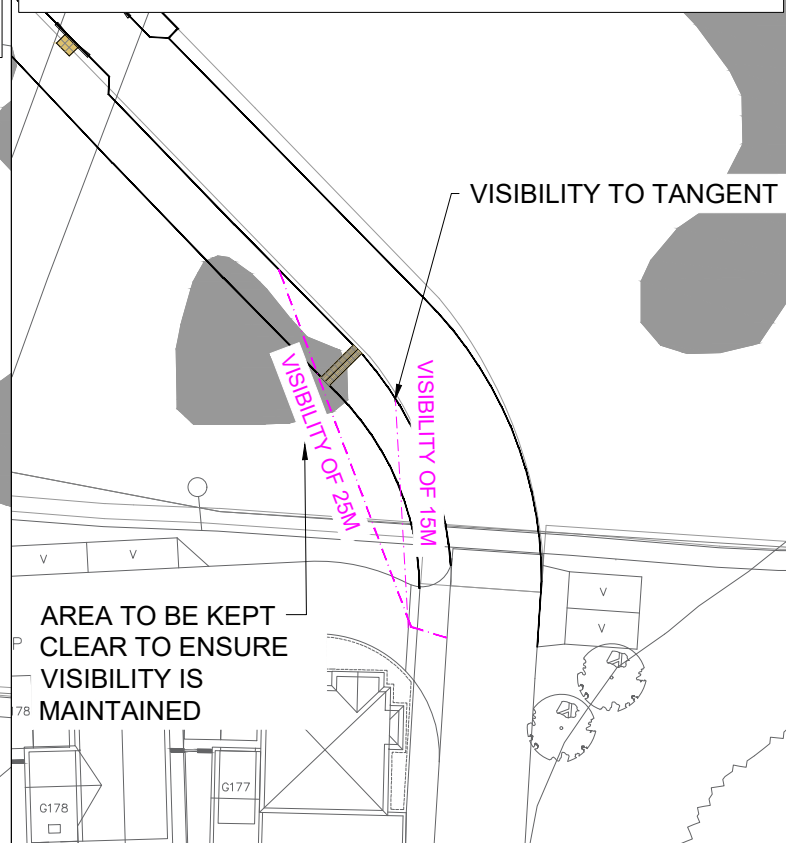
CAR AND REFUSE VEHICLE INTER
VISIBILITY AROUND THE BEND



CAR AND REFUSE VEHICLE INTER
VISIBILITY FROM CATHERINGTON
PARK TO FIRST BUILD OUT



VISIBILITY FROM CATHERINGTON
PARK JUNCTION (20MPH)

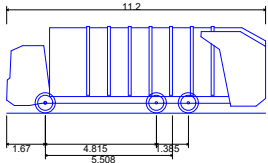


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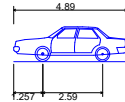
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6. VISIBILITY HAS BEEN MEASURED BETWEEN VEHICLES ON APPROACH TO BUILD OUTS.
7. VISIBILITY MEASUREMENTS HAVE BEEN BASED UPON SPEEDS UTILISING GUIDANCE SET OUT WITHIN MANUAL FOR STREETS.

VEHICLE PROFILE



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)
Overall Length 11.200m
Overall Width 2.530m
Overall Body Height 3.751m
Min Body Ground Clearance 0.304m
Track Width 2.500m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 9.500m



Large Family Car 1
Overall Length 4.890m
Overall Width 1.940m
Overall Body Height 1.512m
Min Body Ground Clearance 0.273m
Max Track Width 1.890m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 5.100m



PRELIMINARY

DRAWING/DESIGN IS STILL 'IN DEVELOPMENT'
YOU ARE ADVISED TO MAKE DUE ALLOWANCE

Project Name
LAND NORTH OF WOODCROFT
FARM, HORNDEAN

Title
WESTERN ACCESS ROAD
VEHICLE INTER VISIBILITY

Project Phase
PRELIMINARY

paulbasham
associates

Paul Basham Associates Ltd
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01329 711 000
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Client

grainger

P03	UPDATED LAYOUT	26.03.24	CID	KCH
P02	UPDATED LAYOUT	21.02.24	CID	TAF
P01	FIRST ISSUE	15.02.24	CID	KCH

Rev	Description	Date	By	App'd
	Date Created	14.02.24	Drawn By	CID
	Approved By	KCH	Suitability Code	-

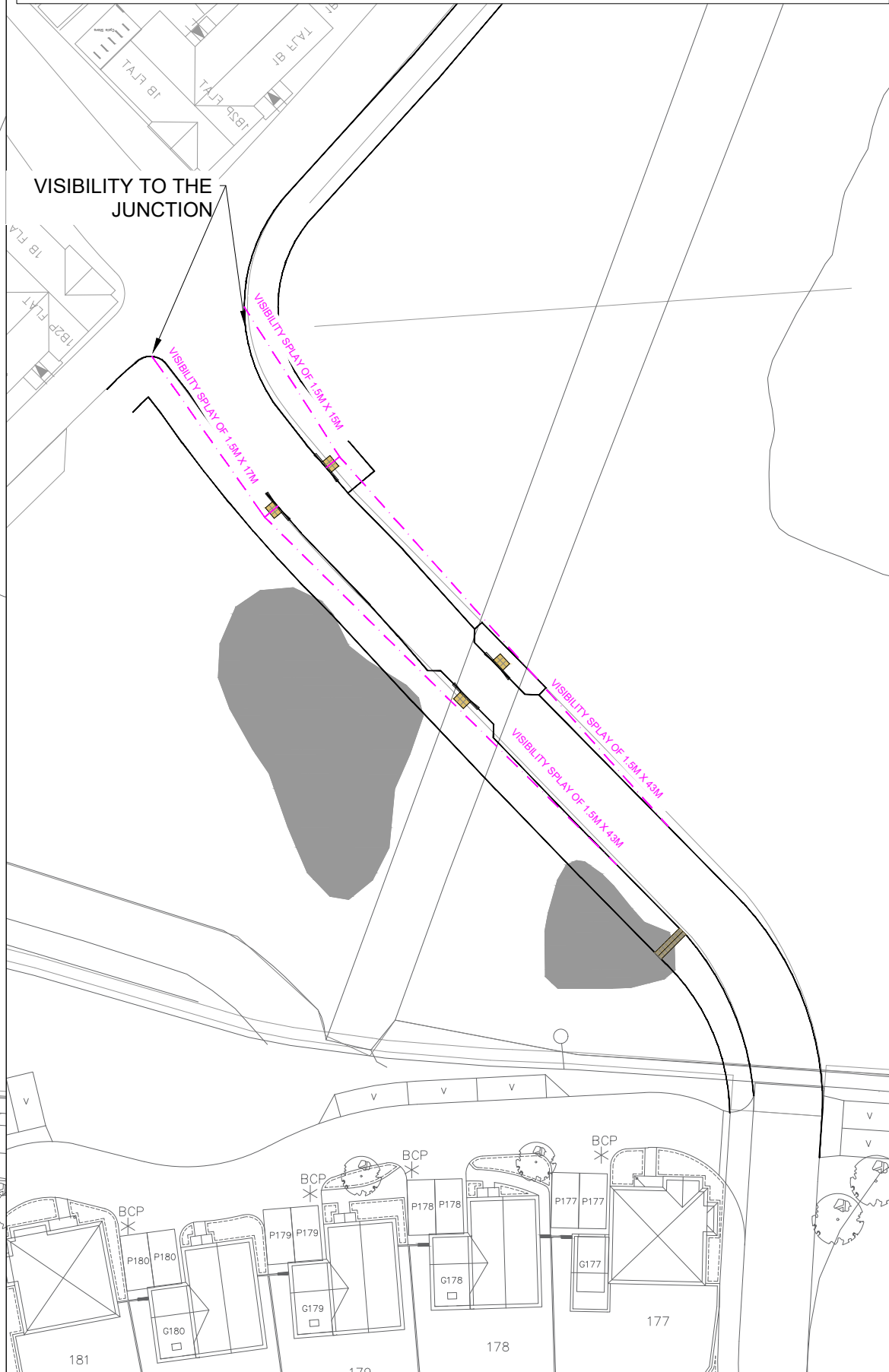
PBA Project Number	Scale	(AT A3)
167.0006	1:500	

PBA Drawing No:	Revison
167.0006-0006	P03

PEDESTRIAN VISIBILITY SPLAY FROM BUILD OUT CROSSING POINT



PEDESTRIAN VISIBILITY SPLAY FROM NORTHERN CROSSING POINT



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6. VISIBILITY SPLAYS HAVE BEEN MEASURED AT 1.5M X 43M IN LINE WITH MANUAL FOR STREETS GUIDANCE FOR 30MPH SPEED LIMIT ROADS. THIS IS ABOVE THE 20MPH DESIGN SPEED ACCEPTED BY HCC DURING PRE-APPLICATION.



Project Name
LAND NORTH OF WOODCROFT FARM, HORNDEAN

Project Phase
PRELIMINARY

Title
PEDESTRIAN VISIBILITY SPLAYS ALONG THE WESTERN ACCESS ROAD

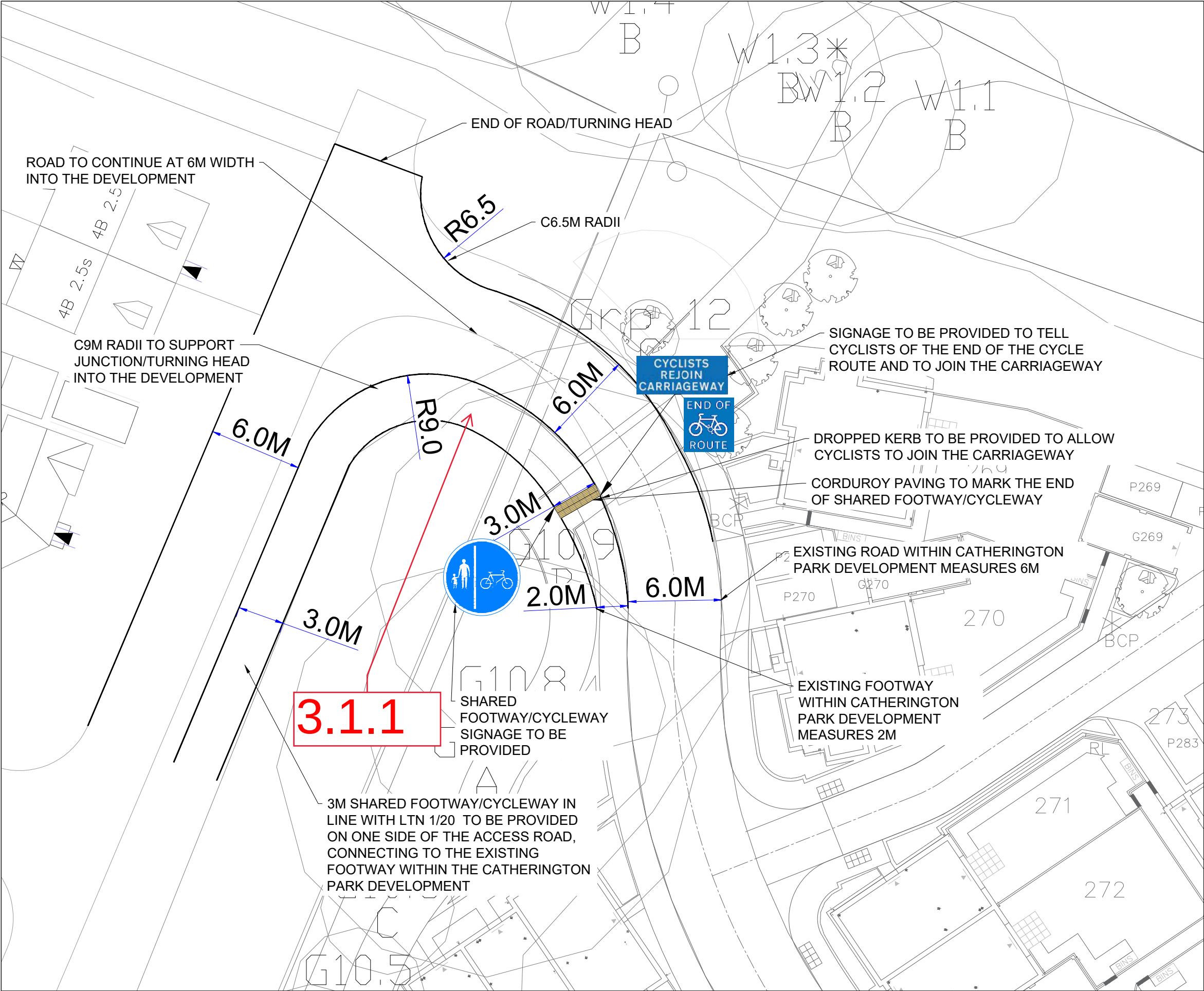
**paulbasham**
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Client

**grainger**

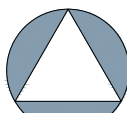
P01 FIRST ISSUE		26.03.24	CID	KCH
Rev	Description	Date	By	App'd
	Date Created	Drawn By	Approved By	Suitability Code
	26.03.24	CID	KCH	-
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167.0006		1:500		
PBA Drawing No:			Revision	
167.0006-0007			P01	



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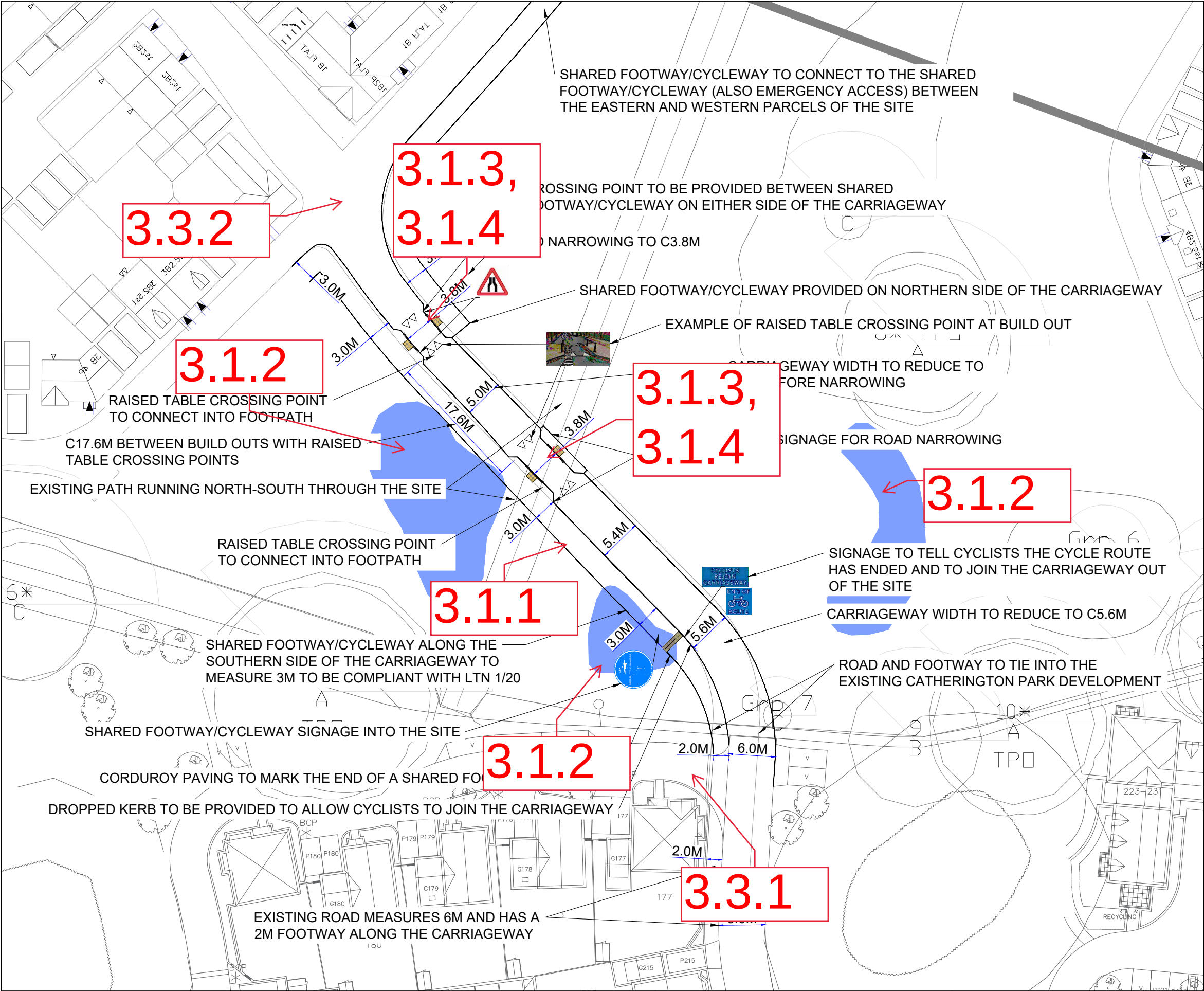


NORTH

PRELIMINARY

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P03	UPDATED LAYOUT	21.02.24	CID	TAF
P02	UPDATED ACCESS DESIGN	14.02.24	CID	KCH
P01	FIRST ISSUE	28.11.23	CID	SKB
Rev	Description	Date	By	App'd
Date Created	Drawn By	Approved By	Suitability Code	
27.11.23	CID	SKB	-	
PBA Project Number		Scale	(AT A3)	
167.0006		1:250		
PBA Drawing No:			Revision	
167.0006-0001			P03	



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27.11.23	CID	SKB	-	
PBA Project Number		Scale	(AT A3)	
167.0006		1:500		
PBA Drawing No:			Revision	
167.0006-0002			P03	

Project Name
LAND NORTH OF WOODCROFT FARM, HORNDEAN

Project Phase
PRELIMINARY

Title
ACCESS DESIGN
WESTERN PARCEL

Paul Basham Associates Ltd
The Bothy, Cams Hall Estate, Fareham, PO16 8UT
01329 711 000
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Client



Road Safety Audit Stage 1

Land north of Woodcroft Farm

Horndean

Hampshire

Date: 21st March 2024

Report produced for: Paul Basham Associates

Report produced by: M & S Traffic

DOCUMENT CONTROL SHEET

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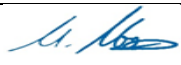
Project Title Land north of Woodcroft Farm, Horndean

Report Title Road Safety Audit Stage 1

Revision

Status Final

Record of Issue

Document Ref PBA/24/167.0006/1/MM	Prepared by: (Name)	Checked by: (Name)	Approved by (Signature)	Date Approved
Revision	Martin Morris	Bryan Shawyer		21 st March 2024
Designers Response				
Authority Response				

Distribution

Organisation	Contact	Copies
Paul Basham Associates	Kim Hammonds	-
Paul Basham Associates	Caroline Duff	

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1 INTRODUCTION

- 1.1.1 This report describes a Stage 1 Road Safety Audit carried out on two proposed accesses to extend a residential development to areas to the north of Woodcroft Farm, in Horndean, Hampshire.

The Audit was requested by the design organisation, Paul Basham Associates, The Bothy, Cams Hall Estate, Fareham, PO16 8UT on behalf of Hampshire County Council, as the Highway Authority.

- 1.2 The Audit Team membership was as follows:

Martin Morris, PGD, MCIHT, MSoRSA – Audit Team Member
Highways England Approved RSA Certificate of Competency

Bryan Shawyer B.Eng. (Hons), MSc, MCIHT, MSoRSA– Audit Team Member
Highways England Approved RSA Certificate of Competency

- 1.3 The audit was undertaken in accordance with GG 119, The Design Manual for Roads and Bridges. The documents available at the time the report was compiled are detailed in Appendix A.
- 1.4 The Audit took place at the Gillingham offices of M&S Traffic in March 2024 and comprised an examination of the documents provided as listed in Appendix A, plus a joint visit to the site of the proposed scheme on the 19th March 2024 between 14:00 and 14:30. Weather conditions at the time were overcast and the road surfaces were damp. There was no access available to the site.
- 1.5 The report has been compiled, only with regards to the safety implications for road users of the layout presented in the supplied drawings. It has not been examined or verified for compliance with any other standards or criteria. This safety audit does not perform any “Technical Check” function on these proposals. It is assumed that the Project Sponsor is satisfied that such a “Technical Check” has been successfully completed prior to requesting this safety audit.
- 1.6 The auditors have not been informed of any Departures from Standard.
- 1.7 All comments and recommendations are referenced to the detailed drawings and the locations have been detailed relating to the plans supplied with the audit brief, Appendix B.

2 SAFETY ISSUES RAISED AT PREVIOUS AUDITS

2.1 No previous Audits were supplied for assessment.

3 ITEMS RAISED AT THE STAGE 1 AUDIT

3.1 General

3.1.1 PROBLEM

Location: Proposed shared use footway / cycleway link eastern and western parcel links.

Summary: Insufficient construction details could lead to overshoot at junctions or cyclist loss of control collisions.

No construction details for the proposed footway / cycleway link were provided. Surfacing with an insufficient Polished Stone Value (PSV) could lead to overshoot at junctions or cyclist loss of control collisions in the event of sudden braking manoeuvres.

RECOMMENDATION

It is recommended that the PSV of the footway / cycleway link surface material should be a minimum of 50PSV.

3.1.2 PROBLEM

Location: Access road western parcel link.

Summary: Lack of restraint system could increase severity of a loss of control collision.

There appears to be three basins in close proximity to the access road, where no details have been provided of any proposed vehicle restraint systems to prevent vehicles from going down the embankment into the basins. Should vehicles leave the carriageway, the severity of a loss of control collision could be increased, or where the occupants risk drowning.

RECOMMENDATION

It is recommended that a road restraints risk assessment for local roads should be undertaken to determine whether protection is needed, and that protection should be installed should the assessment show that it is required.

3.1.3 PROBLEM

Location: Proposed buildouts western parcel link.

Summary: Ponding could lead to loss of control collisions.

Buildouts are proposed; however, this could lead to ponding on the northwestern side of the buildout or surface water being channelled into the carriageway. Ponding or surface water could lead to loss of control collisions, particularly in wet or icy conditions.

RECOMMENDATION

It is recommended the carriageway profile should be checked or that suitable drainage should be provided.

3.1.4 PROBLEM

Location: Proposed raised table western parcel link.

Summary: Insufficient construction detail on raised tables could lead to loss of control collisions.

No details of the ramp profiles or height of humps have been provided for assessment. There is concern that if the height is outside normal ranges, this could lead loss of control collisions, though is recognised that vehicle speeds are likely to be very low.

RECOMMENDATION

It is recommended that ramp profiles should be within normal accepted ranges.

3.2 Local Alignment

3.2.1 No comments were raised in this section.

3.3 Junctions

3.3.1 PROBLEM

Location: Proposed junction with internal road western parcel link.

Summary: Insufficient information on visibility at access could lead to side impact collisions or rear end shunts.

No details relating to the visibility splays at the access have been provided for assessment. There is concern that a lack of visibility could lead to side impact collisions or rear end shunts.

RECOMMENDATION

It is recommended that visibility splays should be provided for assessment.

3.3.2 **PROBLEM**

Location: Proposed northwestern junction with internal road western parcel link.

Summary: Insufficient information on visibility at access could lead to side impact collisions or rear end shunts.

No details relating to the visibility splays at the access have been provided for assessment. There is concern that a lack of visibility could lead to side impact collisions or rear end shunts. Further, Auditors are not sure how this junction is to operate.

RECOMMENDATION

It is recommended that visibility splays and the junction layout should be provided for assessment at Stage 2 Safety Audit.

3.4 **Non-Motorised User Provision**

3.4.1 No comments were raised in this section.

3.5 **Road Signs, Carriageway Markings and Lighting**

3.5.1 No comments were raised in this section.

4 ISSUES IDENTIFIED DURING THE AUDIT THAT ARE OUTSIDE THE TERMS OF REFERENCE

4.1 Any issues that the Audit Team wish to bring to the attention of the Client Organisation, which are not covered by the road safety implications of this audit have been included in the following section. These issues could include maintenance items, operational issues or poor existing provision. It should be understood however, that in raising these issues, the Audit Team do not warrant that a full review of the existing highway environment has been undertaken beyond the scope of the audit.

4.2 The Audit Team had no issues to raise within this section.

5 AUDITOR TEAM STATEMENT

5.1 We certify that this audit has been carried out following the principles of GG 119.

Audit Team Leader

Martin Morris
PGD, MCIHT, MSoRSA
Highways England Approved RSA Certificate of Competency

Signed:  Date: 21/03/2024

Audit Team Member

Bryan Shawyer
BEng (Hons), MSc, MCIHT, MSoRSA
Highways England Approved RSA Certificate of Competency

Signed:  Date: 21/03/2024

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Kent ME7 3EX



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www.mstraffic.co.uk

APPENDIX A

List of drawings and documentation submitted for auditing:

Drawing Number	Title
167.0006-0001-P03	Access Design Eastern Parcel
167.0006-0002-P03	Access Design Western Parcel
167.0006-0003-P03	Swept Path Analysis of the Eastern Access Road.
167.0006-0004-P03	Swept Path Analysis of the Western Access Road.
167.0006-0005-P03	Eastern Parcel Forward Visibility at Access Parcel
167.0006-0006-P03	Western Parcel Forward Visibility at Access Parcel

Supporting Documentation:

- Illustrative Masterplan

APPENDIX B

Plan attached showing the locations of the problems identified as part of this audit (location numbers refer to paragraph numbers in the report).

APPENDIX C: Road Safety Audit Decision Log.

Auditors: Martin Morris (Team Leader) and Bryan Shawyer (Team Member).

Scheme: Stage 1 RSA Land north of Woodcroft Farm, Horndean

Date Audit Completed: 21st March 2024

This response is to a Stage 1 Road Safety Audit to the design standard detailed within GG 119 of Volume 5, Section 2, Part 2, of the Design Manual for Roads and Bridges, as detailed by the Highways Agency.

RSA Problem	RSA Recommendation	Design Organisation response)	Overseeing Organisation response	Agreed RSA action
3.1.1 Proposed shared use footway / cycleway link eastern and western parcel links. Insufficient construction details could lead to overshoot at junctions or cyclist loss of control collisions. No construction details for the proposed footway / cycleway link were provided. Surfacing with an insufficient Polished Stone Value (PSV) could lead to overshoot at junctions or cyclist loss of control collisions in the event of sudden braking manoeuvres.	It is recommended that the PSV of the footway / cycleway link surface material should be a minimum of 50PSV.	Agreed. The PSV of the footway / cycleway link surface material will be a minimum of 50PSV and finalised at the detailed design stage.		
3.1.2 Access Road western parcel link.	It is recommended that a road restraints risk assessment for local	Acknowledged. A road restraints risk assessment for local roads will be undertaken to determine whether		

Lack of restraint system could increase severity of a loss of control collision. There appears to be three basins in close proximity to the access road, where no details have been provided of any proposed vehicle restraint systems to prevent vehicles from going down the embankment into the basins. Should vehicles leave the carriageway, the severity of a loss of control collision could be increased, or where the occupants risk drowning.	roads should be undertaken to determine whether protection is needed, and that protection should be installed should the assessment show that it is required.	protection is needed, and if required, protection will be installed.		
3.1.3 Proposed buildouts western parcel link. Ponding could lead to loss of control collisions. Buildouts are proposed; however, this could lead to ponding on the northwestern side of the buildout or surface water being channelled into the carriageway. Ponding or surface water could lead to loss of control collisions, particularly in wet or icy conditions.	It is recommended the carriageway profile should be checked or that suitable drainage should be provided.	Due to comments raised by HCC during the pre-application, there has been a reduction in build-outs along the western parcel access road and raised tables are no longer provided, reducing the occurrence of ponding. However, as part of the detailed design process, the carriageway profile will be checked and suitable drainage will be provided.		
3.1.4 Proposed raised table western parcel link. Insufficient construction detail on raised tables	It is recommended that ramp profiles should be within normal accepted ranges.	Due to comments raised by HCC during the pre-application, there has been a reduction in build-outs along the western parcel access road and raised tables are no longer provided.		

could lead to loss of control collisions. No details of the ramp profiles or height of humps have been provided for assessment. There is concern that if the height is outside normal ranges, this could lead loss of control collisions, though is recognised that vehicle speeds are likely to be very low.				
3.3.1 Proposed junction with internal road western parcel link. Insufficient information on visibility at access could lead to side impact collisions or rear end shunts. No details relating to the visibility splays at the access have been provided for assessment. There is concern that a lack of visibility could lead to side impact collisions or rear end shunts.	It is recommended that visibility splays should be provided for assessment.	Agreed. A visibility splay assessment has been undertaken (drawing 167.0006-0006-P03) which shows that visibility to 20mph (25m) is achievable from the existing junction within Catherington Park to the proposed western access road. This will be provided as an appendix within the TA.		
3.3.2 Proposed northwestern junction with internal road western parcel link. Insufficient information on	It is recommended that visibility splays and the junction layout should be provided for assessment at Stage 2 Safety Audit.	Agreed. At present, the internal layout will be finalised under a Reserved Matters application. A visibility splay assessment and the junction layout will be provided for assessment at Stage 2 Safety Audit.		

visibility at access could lead to side impact collisions or rear end shunts. No details relating to the visibility splays at the access have been provided for assessment. There is concern that a lack of visibility could lead to side impact collisions or rear end shunts. Further, Auditors are not sure how this junction is to operate.				
---	--	--	--	--

APPENDIX D: DESIGN ORGANISATION STATEMENT

PROJECT NAME: Stage 1 RSA Land north of Woodcroft Farm, Horndean	
On behalf of the Design Organisation I certify that: 1) The actions identified in response to the problems raised in this RSA have been discussed and agreed with the Overseeing Organisation	
Name	Caroline Duff
Signed	<i>C.J.Duff</i>
Position	Transport Planner
Organisation	Paul Basham Associates Ltd
Date	25.03.24

APPENDIX E: OVERSEEING ORGANISATION STATEMENT

PROJECT NAME: Stage 1 RSA Land north of Woodcroft Farm, Horndean	
On behalf of the Overseeing Organisation I certify that: 1) The actions identified in response to the problems raised in this RSA have been discussed and agreed with the Design Organisation; and 2) The agreed RSA actions will be progressed.	
Name	
Signed	
Position	
Organisation	
Date	

Calculation Reference: AUDIT-247601-230810-0837

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	EX ESSEX	1 days
	KC KENT	2 days
03	SOUTH WEST	
	DV DEVON	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
 Actual Range: 110 to 288 (units:)
 Range Selected by User: 100 to 350 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/15 to 12/10/22

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Tuesday	1 days
Wednesday	2 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	6

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	7
------------------	---

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3 7 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	3 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	4 days
1.6 to 2.0	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No 7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present 7 days

This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
-----------------------	-----	--

LIST OF SITES relevant to selection parameters

1	DV-03-A-02 MILLHEAD ROAD HONITON	HOUSES & BUNGALOWS	DEVON
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 116 Survey date: FRIDAY 25/09/15 Survey Type: MANUAL		
2	ES-03-A-03 SHEPHAM LANE POLEGATE	MIXED HOUSES & FLATS	EAST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings: 212 Survey date: MONDAY 11/07/16 Survey Type: MANUAL		
3	EX-03-A-03 KESTREL GROVE RAYLEIGH	MIXED HOUSES	ESSEX
	Edge of Town Residential Zone Total No of Dwellings: 123 Survey date: MONDAY 27/09/21 Survey Type: MANUAL		
4	KC-03-A-04 KILN BARN ROAD AYLESFORD DITTON	SEMI-DETACHED & TERRACED	KENT
	Edge of Town Residential Zone Total No of Dwellings: 110 Survey date: FRIDAY 22/09/17 Survey Type: MANUAL		
5	KC-03-A-07 RECULVER ROAD HERNE BAY	MIXED HOUSES	KENT
	Edge of Town Residential Zone Total No of Dwellings: 288 Survey date: WEDNESDAY 27/09/17 Survey Type: MANUAL		
6	SF-03-A-10 LOVETOFTS DRIVE IPSWICH WHITEHOUSE	TERRACED & SEMI-DETACHED	SUFFOLK
	Edge of Town Residential Zone Total No of Dwellings: 149 Survey date: TUESDAY 22/06/21 Survey Type: MANUAL		
7	ST-03-A-07 BEACONSIDE STAFFORD MARSTON GATE	DETACHED & SEMI-DETACHED	STAFFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 248 Survey date: WEDNESDAY 22/11/17 Survey Type: MANUAL		

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period
 Total People to Total Vehicles ratio (all time periods and directions): 1.94

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	178	0.090	7	178	0.254	7	178	0.344
08:00 - 09:00	7	178	0.144	7	178	0.368	7	178	0.512
09:00 - 10:00	7	178	0.127	7	178	0.165	7	178	0.292
10:00 - 11:00	7	178	0.122	7	178	0.140	7	178	0.262
11:00 - 12:00	7	178	0.136	7	178	0.162	7	178	0.298
12:00 - 13:00	7	178	0.151	7	178	0.148	7	178	0.299
13:00 - 14:00	7	178	0.158	7	178	0.139	7	178	0.297
14:00 - 15:00	7	178	0.184	7	178	0.161	7	178	0.345
15:00 - 16:00	7	178	0.249	7	178	0.161	7	178	0.410
16:00 - 17:00	7	178	0.262	7	178	0.177	7	178	0.439
17:00 - 18:00	7	178	0.358	7	178	0.152	7	178	0.510
18:00 - 19:00	7	178	0.273	7	178	0.175	7	178	0.448
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.254			2.202			4.456

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	110 - 288 (units:)
Survey date date range:	01/01/15 - 12/10/22
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL CYCLISTS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	178	0.004	7	178	0.007	7	178	0.011
08:00 - 09:00	7	178	0.006	7	178	0.008	7	178	0.014
09:00 - 10:00	7	178	0.001	7	178	0.002	7	178	0.003
10:00 - 11:00	7	178	0.000	7	178	0.002	7	178	0.002
11:00 - 12:00	7	178	0.002	7	178	0.006	7	178	0.008
12:00 - 13:00	7	178	0.002	7	178	0.002	7	178	0.004
13:00 - 14:00	7	178	0.001	7	178	0.001	7	178	0.002
14:00 - 15:00	7	178	0.002	7	178	0.002	7	178	0.004
15:00 - 16:00	7	178	0.003	7	178	0.005	7	178	0.008
16:00 - 17:00	7	178	0.004	7	178	0.004	7	178	0.008
17:00 - 18:00	7	178	0.008	7	178	0.002	7	178	0.010
18:00 - 19:00	7	178	0.005	7	178	0.002	7	178	0.007
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.038			0.043			0.081

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL PEDESTRIANS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	178	0.013	7	178	0.019	7	178	0.032
08:00 - 09:00	7	178	0.032	7	178	0.108	7	178	0.140
09:00 - 10:00	7	178	0.047	7	178	0.031	7	178	0.078
10:00 - 11:00	7	178	0.028	7	178	0.026	7	178	0.054
11:00 - 12:00	7	178	0.022	7	178	0.030	7	178	0.052
12:00 - 13:00	7	178	0.020	7	178	0.024	7	178	0.044
13:00 - 14:00	7	178	0.017	7	178	0.016	7	178	0.033
14:00 - 15:00	7	178	0.024	7	178	0.043	7	178	0.067
15:00 - 16:00	7	178	0.099	7	178	0.039	7	178	0.138
16:00 - 17:00	7	178	0.063	7	178	0.024	7	178	0.087
17:00 - 18:00	7	178	0.044	7	178	0.021	7	178	0.065
18:00 - 19:00	7	178	0.026	7	178	0.047	7	178	0.073
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.435			0.428			0.863

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	178	0.000	7	178	0.026	7	178	0.026
08:00 - 09:00	7	178	0.002	7	178	0.079	7	178	0.081
09:00 - 10:00	7	178	0.002	7	178	0.013	7	178	0.015
10:00 - 11:00	7	178	0.004	7	178	0.005	7	178	0.009
11:00 - 12:00	7	178	0.001	7	178	0.012	7	178	0.013
12:00 - 13:00	7	178	0.001	7	178	0.005	7	178	0.006
13:00 - 14:00	7	178	0.006	7	178	0.007	7	178	0.013
14:00 - 15:00	7	178	0.011	7	178	0.007	7	178	0.018
15:00 - 16:00	7	178	0.047	7	178	0.012	7	178	0.059
16:00 - 17:00	7	178	0.026	7	178	0.010	7	178	0.036
17:00 - 18:00	7	178	0.027	7	178	0.002	7	178	0.029
18:00 - 19:00	7	178	0.057	7	178	0.012	7	178	0.069
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.184			0.190			0.374

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL CARS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	178	0.067	7	178	0.223	7	178	0.290
08:00 - 09:00	7	178	0.120	7	178	0.336	7	178	0.456
09:00 - 10:00	7	178	0.100	7	178	0.141	7	178	0.241
10:00 - 11:00	7	178	0.102	7	178	0.125	7	178	0.227
11:00 - 12:00	7	178	0.110	7	178	0.133	7	178	0.243
12:00 - 13:00	7	178	0.125	7	178	0.118	7	178	0.243
13:00 - 14:00	7	178	0.127	7	178	0.113	7	178	0.240
14:00 - 15:00	7	178	0.156	7	178	0.129	7	178	0.285
15:00 - 16:00	7	178	0.222	7	178	0.123	7	178	0.345
16:00 - 17:00	7	178	0.232	7	178	0.144	7	178	0.376
17:00 - 18:00	7	178	0.315	7	178	0.132	7	178	0.447
18:00 - 19:00	7	178	0.254	7	178	0.159	7	178	0.413
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.930			1.876			3.806

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Hi Tom/Caroline,

Apologies for the delay in responding. I have now had the opportunity to discuss and consider your proposed decision and provide approach for Woodcroft Farm further.

I am content with the approach to work out the current predicted levels of private car use utilising a total person trip rate from TRICS using the percentage splits for the method of travel for each mode for East Hampshire 014 output area. As you lay out this currently suggests that 87% of trips are to be made via private car with the remaining 11% undertaken via sustainable modes without any mitigation (I have excluded taxi from these percentages).

This percentage split therefore provides a basis for what level of modal shift from the private car to sustainable modes could be feasible when considering elements such as the travel plan and additional sustainable transport mitigation measures which will be secured to reduce private car dependency from your site and increase realistic levels of modal shift to sustainable modes. I have reviewed the Year 3 monitoring report for the existing Catherington Park development which outlines c. 70% private car use and 30% sustainable modes uptake. This level of modal shift has mostly occurred through the implementation of the travel plan and additional connectivity improvements through the site onto the PRow network. There were limited additional sustainable transport improvements secured and as you are aware most of the mitigation for this site was secured in the form of capacity improvements due to the timeframes in which mitigation was secured.

Essentially, it could be considered that the implementation of the travel plan to support your development would bring private car levels down to c. 70% which has been achieved for the site to the south. We would however be seeking additional sustainable transport improvements from your site to further reduce the car dependency to move the site closer to the 50/50 split for private car/sustainable modes by 2030 which has been identified by Active Travel England. These improvement works will be secured as identified through your WCHAR assessment in addition to other deficiencies in the infrastructure as identified on the LCWIP and within my initial formal response on this application. I would therefore expect to seek an additional 10% reduction in private car trips and shift to sustainable modes that would occur because of the additional improvement works to be secured on top of the travel plan bringing this private car use down to 60% (which is more inline with the ATE targets) (a total reduction of private car trips of 27% from the initial 87%).

I don't agree with the offset of the 6% to work from home to reduce private car dependency. The decision and provide approach is not to eliminate trips on the network and not stop people travelling but is to lead to a shift for trips to sustainable modes where there are appropriate opportunities to do so, particularly for those shorter trips to the local facilities identified by ATE within their guidance. I acknowledge our position that a number of these facilities did fall within the ATE guidance with the exception of an indoor meeting place, post office or bank and GP surgery. Therefore, the approach seeks to reduce car dependency for these shorter trips, where infrastructure improvements for sustainable modes are sought towards these facilities. I also agree that there will be an element of uptake of bus travel however, walking and cycling infrastructure and the level of service of this is more within the control of the Highway Authority and therefore we would seek a greater percentage shift to both walking and cycling. Irrespective

of this position, any revised TRICS data from 2022 onwards would account for increased working from home which arose following the pandemic.

Given that the TA is providing a decide and provide approach the travel plan will also need to provide commentary as to what additional measures are to be put in place if these levels of sustainable transport uptake from this site are not achieved.

As a slightly separate point but still of influence and future reference for this approach, I think we are working backwards regarding aligning the WCHAR assessment inline with any agreed increase in sustainable transport uptake. The WCHAR should be identifying any deficits in the infrastructure that may require improvements and assess how these deficits can be improved to inform the levels of modal shift that are likely to be realistic for this development.

Notwithstanding, I do think the levels of sustainable mode uptake laid out above to be appropriate for this development given we have evidence of the levels of modal shift for the Catherington Park development to the south.

I trust the above points are clear. I am happy to pick up any questions that you may have on the approach when I return to work on the 30th September.

Kind regards,

Sophie

Sophie Osborne

**Senior Transport Planner – Highways Development Planning
Hampshire 2050**

Appendix I

All categories:

Method of travel to work (2001 specification)	Work mainly at or from home	Underground, metro, light rail or tram	Train	Bus, minibus or coach	Taxi	Motorcycle, scooter or moped	Driving a car or van	Passenger in a car or van	Bicycle	On foot	Other method of travel to work	
2693	0	3		79	88	3	23	2217	114	37	121	8
	0%	0%		3%	3%	0%	1%	82%	4%	1%	4%	0%

Appendix J

Waterlooville, Wednesday 29th November 2023

From:

1) 07:45

To:

1) 08:45

Class:

All Vehicles

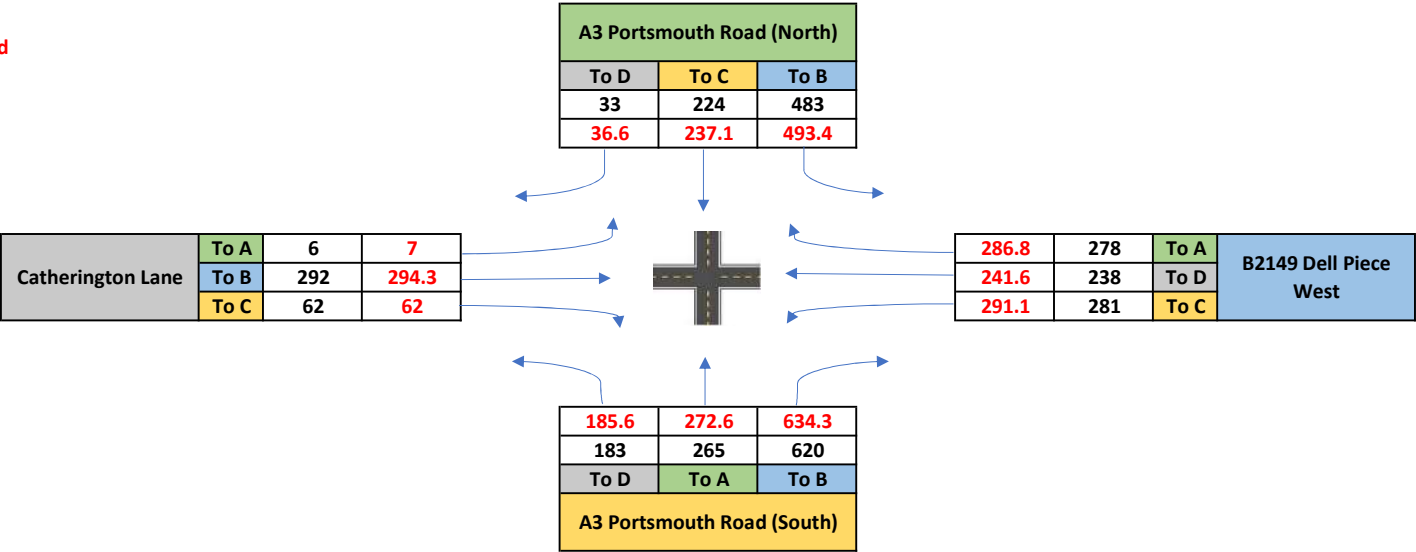
Show Peak Hour: ☐

Show PCUs: ☒

Show Session 2



PCUs in red



Waterlooville, Wednesday 29th November 2023

From:

2) 16:00

To:

2) 17:00

Class:

All Vehicles

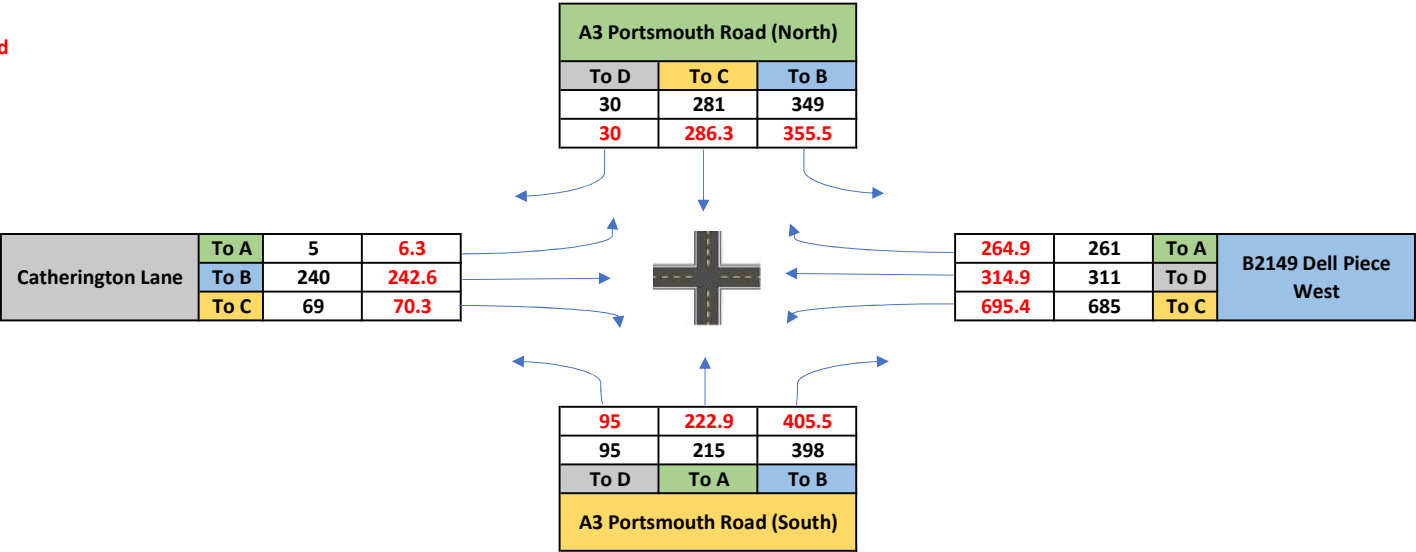
Show Peak Hour: ☐

Show PCUs: ☒

Show Session 2



PCUs in red



Waterlooville, Wednesday 29th November 2023

Junction: 8

Approach: A3 Portsmouth Road North



TIME	Left to B2149 Dell Piece West					Ahead to A3 Portsmouth Road (South)					Right to Catherington Lane				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	70	1	0	71	72.3	13	0	2	15	17.0	0	0	0	0	0.0
07:15 - 07:30	106	0	0	106	106.0	19	1	1	21	23.3	1	0	0	1	1.0
07:30 - 07:45	110	0	0	110	110.0	23	0	2	25	27.0	2	0	0	2	2.0
07:45 - 08:00	122	1	0	123	124.3	61	4	1	66	72.2	7	0	0	7	7.0
Hourly Total	408	2	0	410	412.6	116	5	6	127	139.5	10	0	0	10	10.0
08:00 - 08:15	105	2	0	107	109.6	47	1	1	49	51.3	5	1	1	7	9.3
08:15 - 08:30	127	3	0	130	133.9	47	1	1	49	51.3	9	1	0	10	11.3
08:30 - 08:45	121	2	0	123	125.6	58	1	1	60	62.3	9	0	0	9	9.0
08:45 - 09:00	163	3	0	166	169.9	61	2	2	65	69.6	5	1	0	6	7.3
Hourly Total	516	10	0	526	539.0	213	5	5	223	234.5	28	3	1	32	36.9
09:00 - 09:15	111	1	0	112	113.3	37	2	1	40	43.6	4	0	0	4	4.0
09:15 - 09:30	82	1	0	83	84.3	34	0	1	35	36.0	1	0	0	1	1.0
09:30 - 09:45	85	1	0	86	87.3	31	4	1	36	42.2	3	0	0	3	3.0
09:45 - 10:00	82	1	0	83	84.3	47	1	1	49	51.3	3	0	0	3	3.0
Hourly Total	360	4	0	364	369.2	149	7	4	160	173.1	11	0	0	11	11.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TOTAL	1284	16	0	1300	1320.8	478	17	15	510	547.1	49	3	1	53	57.9
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16:00 - 16:15	101	2	0	103	105.6	53	1	2	56	59.3	2	0	0	2	2.0
16:15 - 16:30	75	1	0	76	77.3	61	0	1	62	63.0	7	0	0	7	7.0
16:30 - 16:45	96	2	0	98	100.6	83	0	1	84	85.0	11	0	0	11	11.0
16:45 - 17:00	72	0	0	72	72.0	79	0	0	79	79.0	10	0	0	10	10.0
Hourly Total	344	5	0	349	355.5	276	1	4	281	286.3	30	0	0	30	30.0
17:00 - 17:15	79	2	0	81	83.6	85	0	3	88	91.0	5	0	0	5	5.0
17:15 - 17:30	69	2	0	71	73.6	66	0	0	66	66.0	7	0	0	7	7.0
17:30 - 17:45	88	1	0	89	90.3	87	0	2	89	91.0	9	0	0	9	9.0
17:45 - 18:00	48	2	0	50	52.6	50	0	2	52	54.0	7	0	0	7	7.0
Hourly Total	284	7	0	291	300.1	288	0	7	295	302.0	28	0	0	28	28.0
18:00 - 18:15	63	0	0	63	63.0	53	0	3	56	59.0	9	0	0	9	9.0
18:15 - 18:30	50	1	0	51	52.3	44	0	1	45	46.0	4	0	0	4	4.0
18:30 - 18:45	54	0	0	54	54.0	42	0	1	43	44.0	8	0	0	8	8.0
18:45 - 19:00	41	0	0	41	41.0	38	0	0	38	38.0	6	1	0	7	8.3
Hourly Total	208	1	0	209	210.3	177	0	5	182	187.0	27	1	0	28	29.3

TOTAL	836	13	0	849	865.9	741	1	16	758	775.3	85	1	0	86	87.3
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Waterlooville, Wednesday 29th November 2023

Junction: 8
Approach: B2149 Dell Piece West



TIME	Left to A3 Portsmouth Road (South)					Ahead to Catherington Lane					Right to A3 Portsmouth Road (North)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	56	4	0	60	65.2	20	1	0	21	22.3	20	0	0	20	20.0
07:15 - 07:30	58	0	1	59	60.0	38	1	0	39	40.3	29	1	1	31	33.3
07:30 - 07:45	57	0	1	58	59.0	38	0	0	38	38.0	54	2	0	56	58.6
07:45 - 08:00	66	1	0	67	68.3	61	0	1	62	63.0	73	1	0	74	75.3
Hourly Total	237	5	2	244	252.5	157	2	1	160	163.6	176	4	1	181	187.2
08:00 - 08:15	63	0	0	63	63.0	70	0	0	70	70.0	68	1	1	70	72.3
08:15 - 08:30	69	1	1	71	73.3	58	0	0	58	58.0	67	2	0	69	71.6
08:30 - 08:45	75	5	0	80	86.5	46	2	0	48	50.6	63	2	0	65	67.6
08:45 - 09:00	73	5	0	78	84.5	30	0	0	30	30.0	60	0	0	60	60.0
Hourly Total	280	11	1	292	307.3	204	2	0	206	208.6	258	5	1	264	271.5
09:00 - 09:15	89	5	0	94	100.5	34	1	0	35	36.3	62	0	0	62	62.0
09:15 - 09:30	94	3	0	97	100.9	38	1	1	40	42.3	51	3	0	54	57.9
09:30 - 09:45	78	2	0	80	82.6	49	3	0	52	55.9	57	2	0	59	61.6
09:45 - 10:00	84	2	0	86	88.6	30	0	0	30	30.0	36	1	0	37	38.3
Hourly Total	345	12	0	357	372.6	151	5	1	157	164.5	206	6	0	212	219.8
TOTAL	862	28	3	893	932.4	512	9	2	523	536.7	640	15	2	657	678.5

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

16:00 - 16:15	170	2	0	172	174.6	85	1	0	86	87.3	79	3	0	82	85.9
16:15 - 16:30	163	1	0	164	165.3	74	2	0	76	78.6	66	0	0	66	66.0
16:30 - 16:45	173	2	0	175	177.6	71	0	0	71	71.0	69	0	0	69	69.0
16:45 - 17:00	171	3	0	174	177.9	78	0	0	78	78.0	44	0	0	44	44.0
Hourly Total	677	8	0	685	695.4	308	3	0	311	314.9	258	3	0	261	264.9
17:00 - 17:15	146	2	0	148	150.6	79	0	0	79	79.0	51	0	0	51	51.0
17:15 - 17:30	164	1	0	165	166.3	87	0	0	87	87.0	66	0	0	66	66.0
17:30 - 17:45	175	0	0	175	175.0	85	0	0	85	85.0	54	0	0	54	54.0
17:45 - 18:00	177	0	0	177	177.0	83	0	0	83	83.0	69	0	0	69	69.0
Hourly Total	662	3	0	665	668.9	334	0	0	334	334.0	240	0	0	240	240.0
18:00 - 18:15	167	0	0	167	167.0	52	1	0	53	54.3	70	0	0	70	70.0
18:15 - 18:30	110	1	0	111	112.3	65	0	0	65	65.0	69	0	0	69	69.0
18:30 - 18:45	110	0	0	110	110.0	48	0	0	48	48.0	54	0	0	54	54.0
18:45 - 19:00	89	0	0	89	89.0	61	1	0	62	63.3	63	0	0	63	63.0
Hourly Total	476	1	0	477	478.3	226	2	0	228	230.6	256	0	0	256	256.0
TOTAL	1815	12	0	1827	1842.6	868	5	0	873	879.5	754	3	0	757	760.9

Waterlooville, Wednesday 29th November 2023

Junction: 8

Approach: A3 Portsmouth Road South



TIME	Left to Catherington Lane					Ahead to A3 Portsmouth Road (North)					Right to B2149 Dell Piece West				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	10	1	0	11	12.3	21	0	0	21	21.0	155	1	0	156	157.3
07:15 - 07:30	13	0	0	13	13.0	28	0	2	30	32.0	151	2	0	153	155.6
07:30 - 07:45	12	0	0	12	12.0	44	0	1	45	46.0	154	1	0	155	156.3
07:45 - 08:00	21	0	0	21	21.0	58	0	2	60	62.0	132	1	0	133	134.3
Hourly Total	56	1	0	57	58.3	151	0	5	156	161.0	592	5	0	597	603.5
08:00 - 08:15	59	0	0	59	59.0	45	2	0	47	49.6	139	4	0	143	148.2
08:15 - 08:30	87	1	0	88	89.3	66	0	0	66	66.0	148	4	0	152	157.2
08:30 - 08:45	14	1	0	15	16.3	89	0	3	92	95.0	190	2	0	192	194.6
08:45 - 09:00	13	0	0	13	13.0	54	1	1	56	58.3	133	1	0	134	135.3
Hourly Total	173	2	0	175	177.6	254	3	4	261	268.9	610	11	0	621	635.3
09:00 - 09:15	8	0	0	8	8.0	34	1	1	36	38.3	137	1	0	138	139.3
09:15 - 09:30	16	0	0	16	16.0	41	1	1	43	45.3	118	2	0	120	122.6
09:30 - 09:45	16	0	0	16	16.0	22	0	2	24	26.0	117	2	0	119	121.6
09:45 - 10:00	18	0	0	18	18.0	51	2	1	54	57.6	104	4	0	108	113.2
Hourly Total	58	0	0	58	58.0	148	4	5	157	167.2	476	9	0	485	496.7
TOTAL	287	3	0	290	293.9	553	7	14	574	597.1	1678	25	0	1703	1735.5

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

16:00 - 16:15	17	0	0	17	17.0	44	1	1	46	48.3	98	2	0	100	102.6
16:15 - 16:30	16	0	0	16	16.0	61	2	1	64	67.6	109	0	0	109	109.0
16:30 - 16:45	25	0	0	25	25.0	47	0	0	47	47.0	92	2	1	95	98.6
16:45 - 17:00	37	0	0	37	37.0	56	0	2	58	60.0	93	1	0	94	95.3
Hourly Total	95	0	0	95	95.0	208	3	4	215	222.9	392	5	1	398	405.5
17:00 - 17:15	28	0	0	28	28.0	52	0	2	54	56.0	101	1	0	102	103.3
17:15 - 17:30	16	0	0	16	16.0	58	0	1	59	60.0	78	0	1	79	80.0
17:30 - 17:45	25	0	0	25	25.0	47	1	1	49	51.3	80	0	0	80	80.0
17:45 - 18:00	27	0	0	27	27.0	44	0	2	46	48.0	77	0	0	77	77.0
Hourly Total	96	0	0	96	96.0	201	1	6	208	215.3	336	1	1	338	340.3
18:00 - 18:15	9	0	0	9	9.0	39	0	1	40	41.0	64	0	1	65	66.0
18:15 - 18:30	16	0	0	16	16.0	37	1	1	39	41.3	61	0	0	61	61.0
18:30 - 18:45	16	0	0	16	16.0	32	0	1	33	34.0	75	1	1	77	79.3
18:45 - 19:00	23	0	0	23	23.0	48	0	2	50	52.0	58	1	1	60	62.3
Hourly Total	64	0	0	64	64.0	156	1	5	162	168.3	258	2	3	263	268.6
TOTAL	255	0	0	255	255.0	565	5	15	585	606.5	986	8	5	999	1014.4

Waterlooville, Wednesday 29th November 2023

Junction: 8
Approach: Catherington Lane



TIME	Left to A3 Portsmouth Road (North)					Ahead to B2149 Dell Piece West					Right to A3 Portsmouth Road (South)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	1	0	0	1	1.0	85	0	0	85	85.0	12	0	0	12	12.0
07:15 - 07:30	0	0	0	0	0.0	82	2	0	84	86.6	8	0	0	8	8.0
07:30 - 07:45	1	0	0	1	1.0	99	0	0	99	99.0	12	0	0	12	12.0
07:45 - 08:00	1	0	0	1	1.0	69	1	0	70	71.3	11	0	0	11	11.0
Hourly Total	3	0	0	3	3.0	335	3	0	338	341.9	43	0	0	43	43.0
08:00 - 08:15	0	0	1	1	2.0	82	0	0	82	82.0	16	0	0	16	16.0
08:15 - 08:30	3	0	0	3	3.0	77	0	1	78	79.0	18	0	0	18	18.0
08:30 - 08:45	1	0	0	1	1.0	62	0	0	62	62.0	17	0	0	17	17.0
08:45 - 09:00	1	0	0	1	1.0	66	1	0	67	68.3	13	0	0	13	13.0
Hourly Total	5	0	1	6	7.0	287	1	1	289	291.3	64	0	0	64	64.0
09:00 - 09:15	1	0	0	1	1.0	79	0	0	79	79.0	23	1	0	24	25.3
09:15 - 09:30	0	0	0	0	0.0	59	1	0	60	61.3	17	0	0	17	17.0
09:30 - 09:45	2	0	0	2	2.0	65	2	1	68	71.6	12	0	0	12	12.0
09:45 - 10:00	2	0	0	2	2.0	51	1	0	52	53.3	19	1	0	20	21.3
Hourly Total	5	0	0	5	5.0	254	4	1	259	265.2	71	2	0	73	75.6
TOTAL	13	0	1	14	15.0	876	8	2	886	898.4	178	2	0	180	182.6

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

16:00 - 16:15	0	1	0	1	2.3	58	0	0	58	58.0	16	0	0	16	16.0
16:15 - 16:30	0	0	0	0	0.0	69	1	0	70	71.3	18	0	0	18	18.0
16:30 - 16:45	2	0	0	2	2.0	52	1	0	53	54.3	16	0	0	16	16.0
16:45 - 17:00	2	0	0	2	2.0	59	0	0	59	59.0	18	1	0	19	20.3
Hourly Total	4	1	0	5	6.3	238	2	0	240	242.6	68	1	0	69	70.3
17:00 - 17:15	2	0	0	2	2.0	43	1	0	44	45.3	22	0	0	22	22.0
17:15 - 17:30	9	1	0	10	11.3	43	0	0	43	43.0	22	0	0	22	22.0
17:30 - 17:45	1	0	0	1	1.0	40	0	0	40	40.0	20	0	0	20	20.0
17:45 - 18:00	5	0	0	5	5.0	46	0	0	46	46.0	14	0	0	14	14.0
Hourly Total	17	1	0	18	19.3	172	1	0	173	174.3	78	0	0	78	78.0
18:00 - 18:15	1	0	0	1	1.0	48	0	0	48	48.0	18	0	0	18	18.0
18:15 - 18:30	2	0	0	2	2.0	44	0	0	44	44.0	27	0	0	27	27.0
18:30 - 18:45	2	0	0	2	2.0	40	0	0	40	40.0	23	0	0	23	23.0
18:45 - 19:00	2	0	0	2	2.0	36	0	0	36	36.0	11	0	0	11	11.0
Hourly Total	7	0	0	7	7.0	168	0	0	168	168.0	79	0	0	79	79.0
TOTAL	28	2	0	30	32.6	578	3	0	581	584.9	225	1	0	226	227.3

Waterlooville, Wednesday 29th November 2023

Site 8

Queues are stationary vehicles each 5 minutes
LANE 1 is nearside lane



TIME	A3 Portsmouth Road (North)			
	LANE 1	LANE 2 (BUS LANE)	LANE 3	LANE 4
07:00	0	0	0	0
07:05	3	0	0	0
07:10	0	0	0	0
07:15	8	0	0	0
07:20	18	0	4	1
07:25	12	0	3	0
07:30	13	0	3	0
07:35	16	0	7	0
07:40	0	0	6	0
07:45	17	0	7	0
07:50	0	0	9	0
07:55	23	0	12	0
08:00	9	0	8	2
08:05	0	0	7	1
08:10	17	0	7	2
08:15	0	0	3	1
08:20	0	0	0	0
08:25	13	0	12	0
08:30	12	0	12	2
08:35	0	0	0	2
08:40	15	0	3	2
08:45	17	0	8	4
08:50	18	0	12	0
08:55	0	0	12	2
09:00	0	0	0	0
09:05	10	0	5	0
09:10	14	0	5	1
09:15	9	0	3	0
09:20	11	0	9	0
09:25	0	0	0	0
09:30	5	0	7	0
09:35	0	0	1	0
09:40	6	0	7	0
09:45	0	0	6	0
09:50	7	0	3	1
09:55	13	0	6	1
10:00	8	0	4	0

16:00	0	0	10	0
16:05	0	0	0	0
16:10	0	0	16	0
16:15	0	0	8	1
16:20	0	0	0	0
16:25	18	0	9	0
16:30	11	0	17	3
16:35	10	0	10	0
16:40	0	0	0	1
16:45	11	0	11	5
16:50	9	0	10	5
16:55	0	0	14	2
17:00	0	0	6	0
17:05	0	0	0	0
17:10	12	1	15	1
17:15	6	0	14	1
17:20	0	0	8	0
17:25	1	0	0	0
17:30	3	0	8	0
17:35	0	0	0	0
17:40	0	0	0	1
17:45	2	0	7	0
17:50	3	0	1	0
17:55	0	0	0	0
18:00	8	0	13	1
18:05	9	0	7	0
18:10	2	0	5	2
18:15	0	0	6	0
18:20	10	2	0	1
18:25	0	0	0	0
18:30	1	0	0	1
18:35	0	0	0	0
18:40	0	0	5	0
18:45	2	0	2	1
18:50	3	0	2	1
18:55	0	0	6	0
19:00	0	0	5	0

B2149 Dell Piece West		
LANE 1	LANE 2	LANE 3
1	2	5
2	0	2
6	3	5
1	3	1
3	0	5
3	10	11
0	0	0
4	9	12
0	0	0
4	8	11
0	0	0
4	17	21
5	5	9
0	0	0
2	11	11
0	0	0
0	10	12
5	7	8
0	0	0
3	4	20
1	10	10
4	5	10
4	6	6
0	0	0
10	2	16
2	5	13
3	4	12
4	2	5
5	7	19
2	2	0
4	6	4
4	0	1
3	3	7
0	0	0
5	6	4
5	6	1
1	3	10

0	0	0
8	12	12
0	0	0
0	0	0
14	10	14
15	20	11
16	16	10
20	8	14
10	11	9
21	11	4
17	13	6
0	0	0
0	0	0
18	20	11
20	15	9
10	24	11
0	0	0
0	13	9
15	10	8
16	17	8
10	13	6
12	11	13
15	16	14
11	9	11
0	9	17
0	8	8
0	7	9
0	0	0
12	7	11
4	0	3
2	1	4
12	5	3
0	0	0
7	5	3
2	5	11
0	0	0
0	0	0

A3 Portsmouth Road (South)		
LANE 1	LANE 2	LANE 3
1	1	14
0	2	18
0	0	5
0	3	21
0	0	20
0	0	0
2	1	20
0	0	22
3	9	0
1	8	26
0	0	32
4	11	16
3	9	24
1	7	15
0	0	0
6	4	22
0	0	26
0	12	25
1	12	21
2	8	25
0	0	0
2	13	24
3	4	0
0	11	17
0	0	0
4	4	15
1	5	16
0	0	0
0	0	0
0	0	0
0	1	16
0	0	0
0	1	1
4	4	17
0	1	1
0	1	1
0	0	0

3	6	18
0	0	0
2	4	20
0	0	18
0	0	16
0	0	0
3	4	20
2	6	14
0	0	13
0	0	0
3	12	10
4	2	9
1	8	7
2	5	12
1	13	18
0	8	13
1	6	13
0	1	0
2	2	11
2	4	16
0	0	11
0	0	0
1	7	6
0	0	12
0	0	0
0	0	0
0	0	0
2	3	2
0	0	0
0	0	4
0	1	0
0	0	0
0	2	0
0	0	7
0	2	0
0	0	0
0	5	5
0	4	6

Catherington Lane	
LANE 1	LANE 2
0	0
0	0
12	0
0	0
15	0
7	2
0	0
15	0
16	1
0	0
13	1
0	0
0	0
19	1
3	1
15	1
14	1
0	0
12	0
6	1
11	2
13	2
0	0
5	0
14	2
0	0
9	2
0	0
4	4
6	2
0	0
10	0
9	0
8	0
0	0
8	0

9	0
10	0
10	0
8	0
12	5
9	2
0	0
0	0
11	3
14	3
12	1
9	0
7	1
14	3
0	0
0	0
5	2
8	2
10	1
9	1
0	0
11	1
12	3
12	1
0	0
5	2
8	3
4	2
4	3
7	0
4	3
5	2
3	2
5	2
10	1

Waterlooville, Thursday 9th November 2023

From:

1) 07:45

To:

1) 08:45

Class:

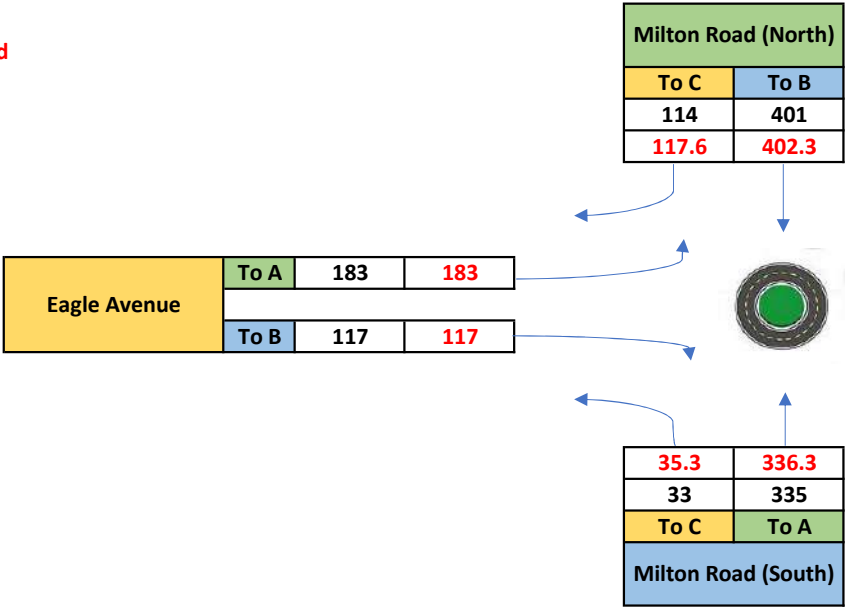
All Vehicles

Show Peak Hour: ☐

Show PCUs: ☒

Show Session 2

PCUs in red



Waterlooville, Thursday 9th November 2023

From:

2) 16:00

To:

2) 17:00

Class:

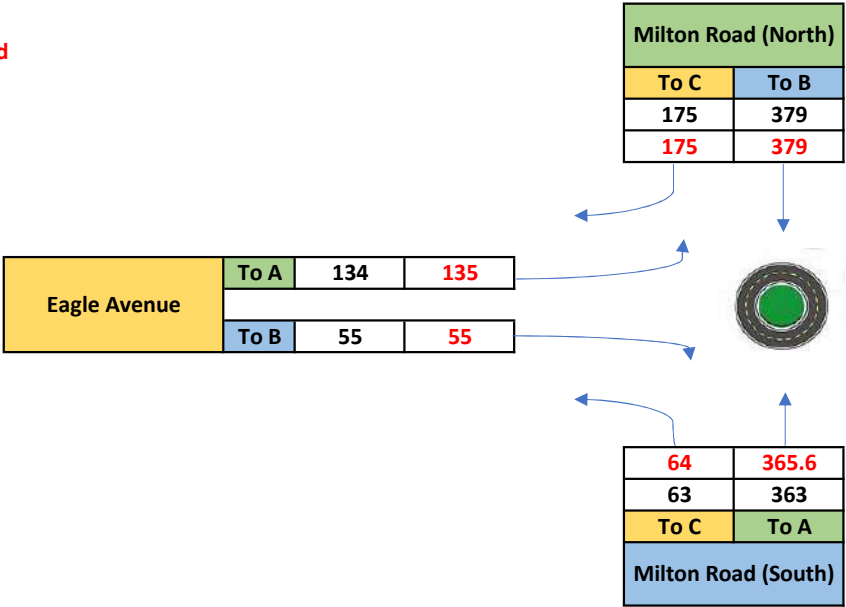
All Vehicles

Show Peak Hour: ☐

Show PCUs: ☒

Show Session 2

PCUs in red



Waterlooville, Thursday 9th November 2023

Junction: 1

Approach: Milton Road North



TIME	Ahead to Milton Road (South)					Right to Eagle Avenue				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	61	0	0	61	61.0	13	0	0	13	13.0
07:15 - 07:30	66	0	0	66	66.0	9	0	1	10	11.0
07:30 - 07:45	80	0	0	80	80.0	12	0	1	13	14.0
07:45 - 08:00	115	0	0	115	115.0	21	0	1	22	23.0
Hourly Total	322	0	0	322	322.0	55	0	3	58	61.0
08:00 - 08:15	105	0	0	105	105.0	19	0	0	19	19.0
08:15 - 08:30	91	1	0	92	93.3	36	0	0	36	36.0
08:30 - 08:45	89	0	0	89	89.0	35	2	0	37	39.6
08:45 - 09:00	188	0	0	188	188.0	35	0	0	35	35.0
Hourly Total	473	1	0	474	475.3	125	2	0	127	129.6
09:00 - 09:15	99	0	0	99	99.0	30	0	0	30	30.0
09:15 - 09:30	76	1	0	77	78.3	17	0	0	17	17.0
09:30 - 09:45	72	0	0	72	72.0	28	1	0	29	30.3
09:45 - 10:00	87	0	0	87	87.0	14	0	0	14	14.0
Hourly Total	334	1	0	335	336.3	89	1	0	90	91.3

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TOTAL	1129	2	0	1131	1133.6	269	3	3	275	281.9
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16:00 - 16:15	92	0	0	92	92.0	45	0	0	45	45.0
16:15 - 16:30	103	0	0	103	103.0	41	0	0	41	41.0
16:30 - 16:45	95	0	0	95	95.0	50	0	0	50	50.0
16:45 - 17:00	89	0	0	89	89.0	39	0	0	39	39.0
Hourly Total	379	0	0	379	379.0	175	0	0	175	175.0
17:00 - 17:15	94	0	0	94	94.0	49	0	0	49	49.0
17:15 - 17:30	99	0	0	99	99.0	59	0	0	59	59.0
17:30 - 17:45	97	0	0	97	97.0	55	0	0	55	55.0
17:45 - 18:00	91	0	0	91	91.0	45	0	0	45	45.0
Hourly Total	381	0	0	381	381.0	208	0	0	208	208.0
18:00 - 18:15	86	0	0	86	86.0	41	0	0	41	41.0
18:15 - 18:30	77	0	0	77	77.0	42	0	0	42	42.0
18:30 - 18:45	69	0	0	69	69.0	29	0	0	29	29.0
18:45 - 19:00	58	0	0	58	58.0	18	0	0	18	18.0
Hourly Total	290	0	0	290	290.0	130	0	0	130	130.0

TOTAL	1050	0	0	1050	1050.0	513	0	0	513	513.0
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Waterlooville, Thursday 9th November 2023

Junction: 1
Approach: Milton Road South



TIME	Left to Eagle Avenue					Ahead to Milton Road (North)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	4	0	1	5	6.0	40	0	0	40	40.0
07:15 - 07:30	6	0	0	6	6.0	65	0	0	65	65.0
07:30 - 07:45	5	0	0	5	5.0	70	0	0	70	70.0
07:45 - 08:00	3	0	1	4	5.0	90	0	0	90	90.0
Hourly Total	18	0	2	20	22.0	265	0	0	265	265.0
08:00 - 08:15	12	0	0	12	12.0	74	0	0	74	74.0
08:15 - 08:30	11	1	0	12	13.3	91	0	0	91	91.0
08:30 - 08:45	5	0	0	5	5.0	79	1	0	80	81.3
08:45 - 09:00	22	0	0	22	22.0	76	0	0	76	76.0
Hourly Total	50	1	0	51	52.3	320	1	0	321	322.3
09:00 - 09:15	5	0	0	5	5.0	78	0	0	78	78.0
09:15 - 09:30	5	0	0	5	5.0	47	1	0	48	49.3
09:30 - 09:45	8	0	0	8	8.0	62	0	0	62	62.0
09:45 - 10:00	7	0	0	7	7.0	68	0	0	68	68.0
Hourly Total	25	0	0	25	25.0	255	1	0	256	257.3

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TOTAL	93	1	2	96	99.3	840	2	0	842	844.6
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16:00 - 16:15	12	0	0	12	12.0	88	0	0	88	88.0
16:15 - 16:30	18	0	1	19	20.0	89	0	0	89	89.0
16:30 - 16:45	15	0	0	15	15.0	83	1	0	84	85.3
16:45 - 17:00	17	0	0	17	17.0	101	1	0	102	103.3
Hourly Total	62	0	1	63	64.0	361	2	0	363	365.6
17:00 - 17:15	15	0	0	15	15.0	113	1	0	114	115.3
17:15 - 17:30	22	0	0	22	22.0	92	0	0	92	92.0
17:30 - 17:45	17	0	0	17	17.0	75	0	0	75	75.0
17:45 - 18:00	13	0	0	13	13.0	95	0	0	95	95.0
Hourly Total	67	0	0	67	67.0	375	1	0	376	377.3
18:00 - 18:15	11	0	0	11	11.0	85	0	0	85	85.0
18:15 - 18:30	12	0	0	12	12.0	74	0	0	74	74.0
18:30 - 18:45	12	0	0	12	12.0	71	0	0	71	71.0
18:45 - 19:00	13	0	0	13	13.0	67	0	0	67	67.0
Hourly Total	48	0	0	48	48.0	297	0	0	297	297.0

TOTAL	177	0	1	178	179.0	1033	3	0	1036	1039.9
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Waterlooville, Thursday 9th November 2023

Junction: 1
Approach: Eagle Avenue



TIME	Left to Milton Road (North)					Right to Milton Road (South)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	46	1	0	47	48.3	20	0	0	20	20.0
07:15 - 07:30	39	0	0	39	39.0	13	0	0	13	13.0
07:30 - 07:45	46	0	0	46	46.0	29	1	0	30	31.3
07:45 - 08:00	41	0	0	41	41.0	23	0	0	23	23.0
Hourly Total	172	1	0	173	174.3	85	1	0	86	87.3
08:00 - 08:15	59	0	0	59	59.0	37	0	0	37	37.0
08:15 - 08:30	49	0	0	49	49.0	37	0	0	37	37.0
08:30 - 08:45	34	0	0	34	34.0	20	0	0	20	20.0
08:45 - 09:00	29	0	0	29	29.0	21	0	0	21	21.0
Hourly Total	171	0	0	171	171.0	115	0	0	115	115.0
09:00 - 09:15	27	2	0	29	31.6	21	0	0	21	21.0
09:15 - 09:30	24	0	0	24	24.0	13	0	0	13	13.0
09:30 - 09:45	21	1	0	22	23.3	10	0	0	10	10.0
09:45 - 10:00	18	0	0	18	18.0	9	0	0	9	9.0
Hourly Total	90	3	0	93	96.9	53	0	0	53	53.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TOTAL	433	4	0	437	442.2	253	1	0	254	255.3
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16:00 - 16:15	31	0	0	31	31.0	16	0	0	16	16.0
16:15 - 16:30	47	0	0	47	47.0	12	0	0	12	12.0
16:30 - 16:45	27	0	1	28	29.0	16	0	0	16	16.0
16:45 - 17:00	28	0	0	28	28.0	11	0	0	11	11.0
Hourly Total	133	0	1	134	135.0	55	0	0	55	55.0
17:00 - 17:15	27	0	0	27	27.0	19	0	0	19	19.0
17:15 - 17:30	25	0	1	26	27.0	23	0	0	23	23.0
17:30 - 17:45	25	0	0	25	25.0	15	0	0	15	15.0
17:45 - 18:00	28	0	0	28	28.0	16	0	0	16	16.0
Hourly Total	105	0	1	106	107.0	73	0	0	73	73.0
18:00 - 18:15	27	0	1	28	29.0	15	0	0	15	15.0
18:15 - 18:30	27	0	1	28	29.0	14	0	0	14	14.0
18:30 - 18:45	23	0	1	24	25.0	13	0	0	13	13.0
18:45 - 19:00	20	0	1	21	22.0	15	0	0	15	15.0
Hourly Total	97	0	4	101	105.0	57	0	0	57	57.0

TOTAL	335	0	6	341	347.0	185	0	0	185	185.0
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Waterlooville, Thursday 9th November 2023

Site 1

Queues are stationary vehicles each 5 minutes



TIME	Milton Road (North)	Milton Road (South)	Eagle Avenue
07:00	0	0	0
07:05	0	0	0
07:10	2	0	0
07:15	3	0	0
07:20	0	0	0
07:25	2	0	0
07:30	4	0	0
07:35	2	3	0
07:40	0	2	0
07:45	2	0	2
07:50	5	3	0
07:55	0	0	4
08:00	0	6	3
08:05	3	2	7
08:10	5	2	0
08:15	3	5	3
08:20	3	0	8
08:25	0	7	0
08:30	4	2	3
08:35	0	0	5
08:40	2	5	2
08:45	0	2	0
08:50	0	0	0
08:55	0	2	0
09:00	0	0	0
09:05	0	0	0
09:10	0	0	0
09:15	0	0	0
09:20	0	0	0
09:25	0	0	0
09:30	0	0	0
09:35	0	2	0
09:40	0	0	0
09:45	0	0	0
09:50	0	0	0
09:55	0	0	0
10:00	0	0	0

16:00	0	3	2
16:05	3	9	7
16:10	0	2	0
16:15	0	5	3
16:20	0	0	3
16:25	0	2	0
16:30	2	3	0
16:35	0	0	3
16:40	0	3	2
16:45	0	0	0
16:50	0	0	0
16:55	0	0	0
17:00	0	2	0
17:05	0	0	4
17:10	2	7	2
17:15	0	8	0
17:20	0	2	5
17:25	2	2	3
17:30	0	0	0
17:35	0	0	0
17:40	0	0	2
17:45	0	0	0
17:50	0	7	7
17:55	0	2	2
18:00	0	0	0
18:05	0	0	0
18:10	0	0	0
18:15	0	0	0
18:20	0	0	0
18:25	0	2	0
18:30	0	0	0
18:35	0	0	2
18:40	0	0	0
18:45	0	0	0
18:50	0	2	0
18:55	0	2	0
19:00	0	0	0

Waterlooville, Thursday 9th November 2023

From:

1) 07:45

To:

1) 08:45

Class:

All Vehicles

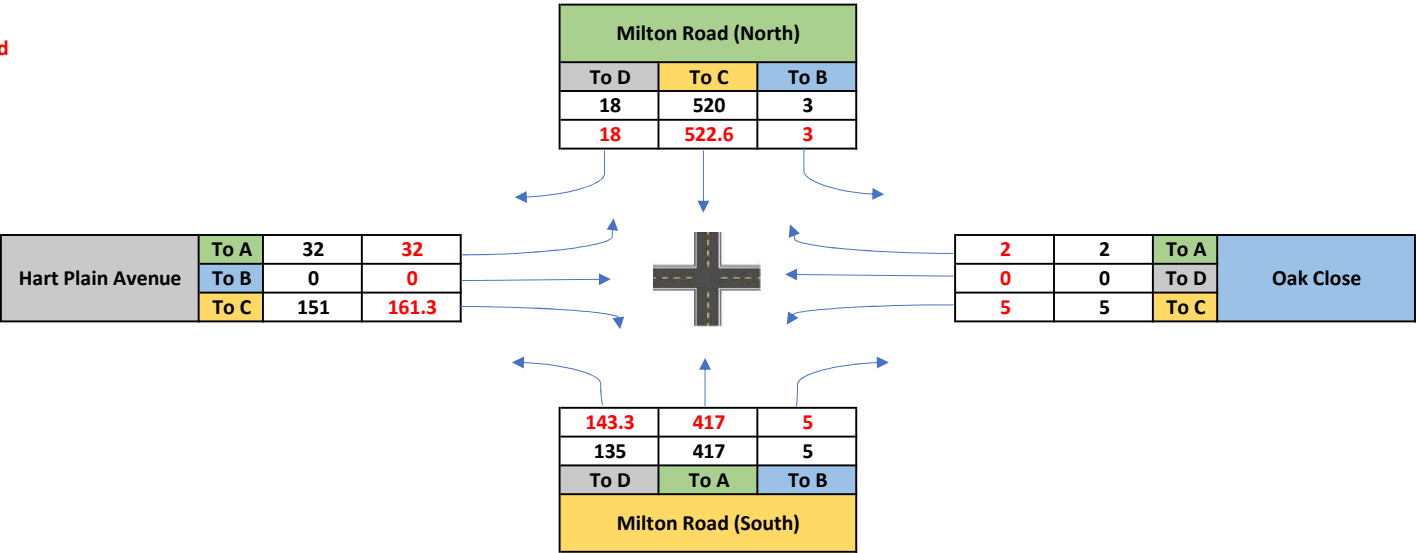
Show Peak Hour: ☐

Show PCUs: ☒

Show Session 1



PCUs in red



Waterlooville, Thursday 9th November 2023

From:

2) 16:00

To:

2) 17:00

Class:

All Vehicles

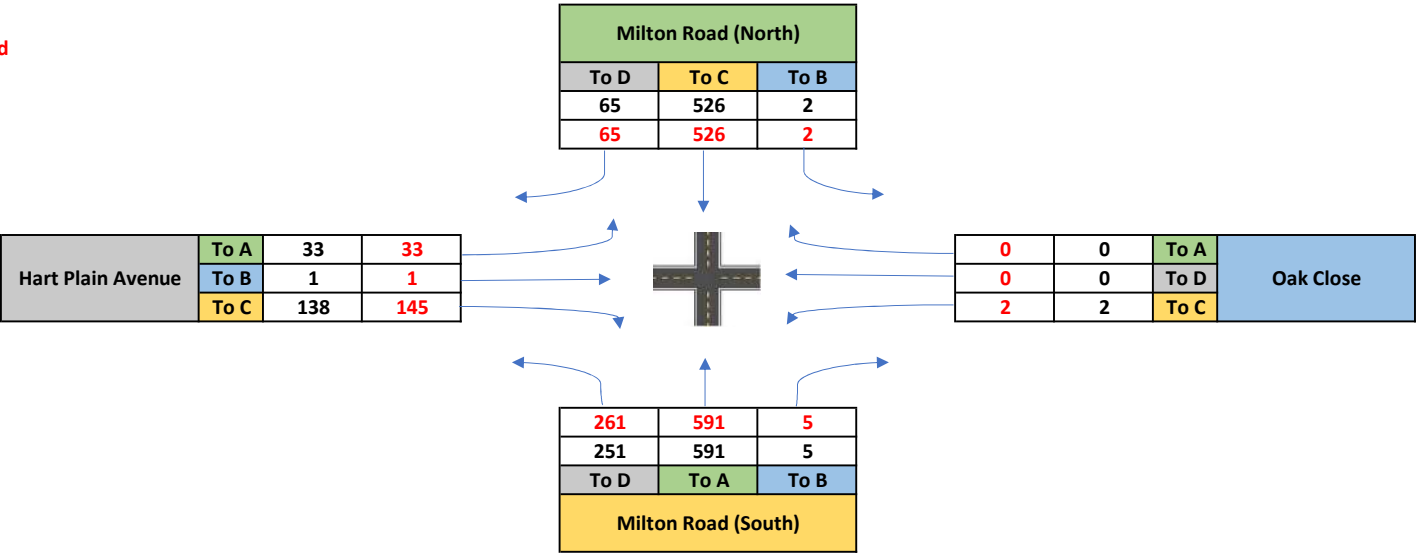
Show Peak Hour: ☐

Show PCUs: ☒

Show Session 1



PCUs in red



Waterlooville, Thursday 9th November 2023

Junction: 2
Approach: Milton Road North



TIME	Left to Oak Close					Ahead to Milton Road (South)					Right to Hart Plain Avenue				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	93	0	0	93	93.0	1	0	0	1	1.0
07:15 - 07:30	0	0	0	0	0.0	123	0	0	123	123.0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0.0	134	1	0	135	136.3	3	0	0	3	3.0
07:45 - 08:00	0	0	0	0	0.0	137	0	0	137	137.0	4	0	0	4	4.0
Hourly Total	0	0	0	0	0.0	487	1	0	488	489.3	8	0	0	8	8.0
08:00 - 08:15	1	0	0	1	1.0	128	0	0	128	128.0	5	0	0	5	5.0
08:15 - 08:30	0	0	0	0	0.0	129	1	0	130	131.3	4	0	0	4	4.0
08:30 - 08:45	2	0	0	2	2.0	124	1	0	125	126.3	5	0	0	5	5.0
08:45 - 09:00	0	0	0	0	0.0	144	0	0	144	144.0	3	0	0	3	3.0
Hourly Total	3	0	0	3	3.0	525	2	0	527	529.6	17	0	0	17	17.0
09:00 - 09:15	0	0	0	0	0.0	159	0	0	159	159.0	4	0	0	4	4.0
09:15 - 09:30	0	0	0	0	0.0	137	1	0	138	139.3	3	0	0	3	3.0
09:30 - 09:45	0	0	0	0	0.0	101	0	0	101	101.0	3	0	0	3	3.0
09:45 - 10:00	0	0	0	0	0.0	116	0	0	116	116.0	3	0	0	3	3.0
Hourly Total	0	0	0	0	0.0	513	1	0	514	515.3	13	0	0	13	13.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TOTAL	3	0	0	3	3.0	1525	4	0	1529	1534.2	38	0	0	38	38.0
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16:00 - 16:15	1	0	0	1	1.0	117	0	0	117	117.0	10	0	0	10	10.0
16:15 - 16:30	0	0	0	0	0.0	129	0	0	129	129.0	14	0	0	14	14.0
16:30 - 16:45	1	0	0	1	1.0	135	0	0	135	135.0	21	0	0	21	21.0
16:45 - 17:00	0	0	0	0	0.0	145	0	0	145	145.0	20	0	0	20	20.0
Hourly Total	2	0	0	2	2.0	526	0	0	526	526.0	65	0	0	65	65.0
17:00 - 17:15	0	0	0	0	0.0	134	0	0	134	134.0	15	0	0	15	15.0
17:15 - 17:30	0	0	0	0	0.0	123	0	0	123	123.0	13	0	0	13	13.0
17:30 - 17:45	1	0	0	1	1.0	122	0	0	122	122.0	11	0	0	11	11.0
17:45 - 18:00	0	0	0	0	0.0	108	0	0	108	108.0	10	0	0	10	10.0
Hourly Total	1	0	0	1	1.0	487	0	0	487	487.0	49	0	0	49	49.0
18:00 - 18:15	2	0	0	2	2.0	103	0	0	103	103.0	8	0	0	8	8.0
18:15 - 18:30	0	0	0	0	0.0	105	0	0	105	105.0	7	0	0	7	7.0
18:30 - 18:45	0	0	0	0	0.0	101	0	0	101	101.0	10	0	0	10	10.0
18:45 - 19:00	0	0	0	0	0.0	95	0	0	95	95.0	14	0	0	14	14.0
Hourly Total	2	0	0	2	2.0	404	0	0	404	404.0	39	0	0	39	39.0

TOTAL	5	0	0	5	5.0	1417	0	0	1417	1417.0	153	0	0	153	153.0
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Waterloo, Thursday 9th November 2023

Junction: 2
Approach: Milton Road South



TIME	Left to Hart Plain Avenue					Ahead to Milton Road (North)					Right to Oak Close				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	11	1	1	13	15.3	40	0	1	41	42.0	0	0	0	0	0.0
07:15 - 07:30	14	0	1	15	16.0	69	0	0	69	69.0	0	0	0	0	0.0
07:30 - 07:45	16	0	2	18	20.0	88	0	0	88	88.0	0	0	0	0	0.0
07:45 - 08:00	22	0	2	24	26.0	93	0	0	93	93.0	0	0	0	0	0.0
Hourly Total	63	1	6	70	77.3	290	0	1	291	292.0	0	0	0	0	0.0
08:00 - 08:15	25	0	2	27	29.0	98	0	0	98	98.0	1	0	0	1	1.0
08:15 - 08:30	32	0	1	33	34.0	109	0	0	109	109.0	0	0	0	0	0.0
08:30 - 08:45	48	1	2	51	54.3	117	0	0	117	117.0	4	0	0	4	4.0
08:45 - 09:00	35	0	2	37	39.0	112	0	0	112	112.0	0	0	0	0	0.0
Hourly Total	140	1	7	148	156.3	436	0	0	436	436.0	5	0	0	5	5.0
09:00 - 09:15	29	0	2	31	33.0	101	0	0	101	101.0	1	0	0	1	1.0
09:15 - 09:30	28	1	2	31	34.3	86	0	0	86	86.0	0	0	0	0	0.0
09:30 - 09:45	26	0	2	28	30.0	73	0	0	73	73.0	1	0	0	1	1.0
09:45 - 10:00	23	0	3	26	29.0	93	1	0	94	95.3	0	0	0	0	0.0
Hourly Total	106	1	9	116	126.3	353	1	0	354	355.3	2	0	0	2	2.0
TOTAL	309	3	22	334	359.9	1079	1	1	1081	1083.3	7	0	0	7	7.0
16:00 - 16:15	60	0	3	63	66.0	155	0	0	155	155.0	3	0	0	3	3.0
16:15 - 16:30	58	0	3	61	64.0	145	0	0	145	145.0	1	0	0	1	1.0
16:30 - 16:45	61	0	2	63	65.0	132	0	0	132	132.0	0	0	0	0	0.0
16:45 - 17:00	62	0	2	64	66.0	159	0	0	159	159.0	1	0	0	1	1.0
Hourly Total	241	0	10	251	261.0	591	0	0	591	591.0	5	0	0	5	5.0
17:00 - 17:15	66	0	3	69	72.0	148	0	0	148	148.0	0	0	0	0	0.0
17:15 - 17:30	60	0	0	60	60.0	132	0	0	132	132.0	1	0	0	1	1.0
17:30 - 17:45	59	0	2	61	63.0	136	0	0	136	136.0	0	0	0	0	0.0
17:45 - 18:00	55	0	1	56	57.0	128	0	0	128	128.0	1	0	0	1	1.0
Hourly Total	240	0	6	246	252.0	544	0	0	544	544.0	2	0	0	2	2.0
18:00 - 18:15	53	0	2	55	57.0	129	0	0	129	129.0	1	0	0	1	1.0
18:15 - 18:30	48	0	3	51	54.0	122	0	0	122	122.0	0	0	0	0	0.0
18:30 - 18:45	39	0	0	39	39.0	113	0	0	113	113.0	0	0	0	0	0.0
18:45 - 19:00	30	0	3	33	36.0	98	0	0	98	98.0	2	0	0	2	2.0
Hourly Total	170	0	8	178	186.0	462	0	0	462	462.0	3	0	0	3	3.0
TOTAL	651	0	24	675	699.0	1597	0	0	1597	1597.0	10	0	0	10	10.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

Waterloo, Thursday 9th November 2023

Junction: 2
Approach: Hart Plain Avenue



TIME	Left to Milton Road (North)					Ahead to Oak Close					Right to Milton Road (South)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	3	0	0	3	3.0	0	0	0	0	0.0	36	0	3	39	42.0
07:15 - 07:30	8	0	0	8	8.0	0	0	0	0	0.0	64	0	1	65	66.0
07:30 - 07:45	9	0	0	9	9.0	0	0	0	0	0.0	53	0	2	55	57.0
07:45 - 08:00	11	0	0	11	11.0	0	0	0	0	0.0	49	0	2	51	53.0
Hourly Total	31	0	0	31	31.0	0	0	0	0	0.0	202	0	8	210	218.0
08:00 - 08:15	10	0	0	10	10.0	0	0	0	0	0.0	39	0	3	42	45.0
08:15 - 08:30	7	0	0	7	7.0	0	0	0	0	0.0	25	0	2	27	29.0
08:30 - 08:45	4	0	0	4	4.0	0	0	0	0	0.0	28	1	2	31	34.3
08:45 - 09:00	6	0	0	6	6.0	0	0	0	0	0.0	31	0	2	33	35.0
Hourly Total	27	0	0	27	27.0	0	0	0	0	0.0	123	1	9	133	143.3
09:00 - 09:15	12	0	0	12	12.0	0	0	0	0	0.0	38	0	1	39	40.0
09:15 - 09:30	7	0	0	7	7.0	0	0	0	0	0.0	33	1	2	36	39.3
09:30 - 09:45	5	0	0	5	5.0	0	0	0	0	0.0	34	1	2	37	40.3
09:45 - 10:00	4	0	0	4	4.0	0	0	0	0	0.0	40	0	4	44	48.0
Hourly Total	28	0	0	28	28.0	0	0	0	0	0.0	145	2	9	156	167.6
TOTAL	86	0	0	86	86.0	0	0	0	0	0.0	470	3	26	499	528.9
16:00 - 16:15	5	0	0	5	5.0	0	0	0	0	0.0	32	0	2	34	36.0
16:15 - 16:30	7	0	0	7	7.0	1	0	0	1	1.0	31	0	2	33	35.0
16:30 - 16:45	10	0	0	10	10.0	0	0	0	0	0.0	35	0	1	36	37.0
16:45 - 17:00	11	0	0	11	11.0	0	0	0	0	0.0	33	0	2	35	37.0
Hourly Total	33	0	0	33	33.0	1	0	0	1	1.0	131	0	7	138	145.0
17:00 - 17:15	10	0	0	10	10.0	1	0	0	1	1.0	37	0	1	38	39.0
17:15 - 17:30	11	0	0	11	11.0	0	0	0	0	0.0	41	0	3	44	47.0
17:30 - 17:45	12	0	0	12	12.0	0	0	0	0	0.0	35	0	1	36	37.0
17:45 - 18:00	10	0	0	10	10.0	0	0	0	0	0.0	38	0	3	41	44.0
Hourly Total	43	0	0	43	43.0	1	0	0	1	1.0	151	0	8	159	167.0
18:00 - 18:15	9	0	0	9	9.0	0	0	0	0	0.0	44	0	3	47	50.0
18:15 - 18:30	7	0	0	7	7.0	0	0	0	0	0.0	40	0	1	41	42.0
18:30 - 18:45	11	0	0	11	11.0	0	0	0	0	0.0	49	0	2	51	53.0
18:45 - 19:00	14	0	0	14	14.0	0	0	0	0	0.0	57	0	1	58	59.0
Hourly Total	41	0	0	41	41.0	0	0	0	0	0.0	190	0	7	197	204.0
TOTAL	117	0	0	117	117.0	2	0	0	2	2.0	472	0	22	494	516.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

Waterlooville, Thursday 9th November 2023

Junction: 2
Approach: Oak Close



TIME	Left to Milton Road (South)					Ahead to Hart Plain Avenue					Right to Milton Road (North)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
07:30 - 07:45	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
07:45 - 08:00	2	0	0	2	2.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	3	0	0	3	3.0	0	0	0	0	0.0	0	0	0	0	0.0
08:00 - 08:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	0	0.0	0	0	0	0	0.0	2	0	0	2	2.0
08:30 - 08:45	3	0	0	3	3.0	0	0	0	0	0.0	0	0	0	0	0.0
08:45 - 09:00	1	0	0	1	1.0	1	0	0	1	1.0	0	0	0	0	0.0
Hourly Total	4	0	0	4	4.0	1	0	0	1	1.0	2	0	0	2	2.0
09:00 - 09:15	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
09:45 - 10:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	1	0	0	1	1.0	0	0	0	0	0.0	1	0	0	1	1.0
TOTAL	8	0	0	8	8.0	1	0	0	1	1.0	3	0	0	3	3.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

16:00 - 16:15	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
16:15 - 16:30	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	2	0	0	2	2.0	0	0	0	0	0.0	0	0	0	0	0.0
17:00 - 17:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
17:15 - 17:30	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
17:30 - 17:45	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
17:45 - 18:00	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	3	0	0	3	3.0	0	0	0	0	0.0	0	0	0	0	0.0
18:00 - 18:15	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
18:15 - 18:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
Hourly Total	0	0	0	0	0.0	0	0	0	0	0.0	2	0	0	2	2.0
TOTAL	5	0	0	5	5.0	0	0	0	0	0.0	2	0	0	2	2.0

Waterlooville, Thursday 9th November 2023

Site 2

Queues are stationary vehicles each 5 minutes



TIME	Milton Road (North) RIGHT TURN	Oak Close	Milton Road (South) RIGHT TURN	Hart Plain Avenue
07:00	0	0	0	2
07:05	0	0	0	3
07:10	0	0	0	2
07:15	0	0	0	0
07:20	0	0	0	5
07:25	0	0	0	2
07:30	0	0	0	6
07:35	0	0	0	12
07:40	0	0	0	7
07:45	0	0	3	10
07:50	0	0	6	10
07:55	0	0	0	12
08:00	0	0	2	7
08:05	0	0	6	12
08:10	0	0	2	6
08:15	0	0	8	7
08:20	0	0	2	10
08:25	0	0	5	11
08:30	0	0	10	12
08:35	0	0	4	6
08:40	0	0	4	8
08:45	0	0	2	3
08:50	0	0	12	7
08:55	0	0	0	5
09:00	0	0	5	5
09:05	0	0	6	5
09:10	0	0	0	8
09:15	0	0	0	4
09:20	0	0	4	7
09:25	0	0	2	6
09:30	0	0	0	4
09:35	0	0	0	7
09:40	0	0	0	6
09:45	0	0	0	4
09:50	0	0	0	6
09:55	0	0	0	6
10:00	0	0	0	4

16:00	0	0	2	8
16:05	0	0	0	10
16:10	0	0	4	12
16:15	0	0	2	7
16:20	0	0	5	13
16:25	0	0	5	10
16:30	0	0	2	5
16:35	0	0	6	9
16:40	0	0	0	6
16:45	0	0	6	12
16:50	0	0	2	7
16:55	0	0	5	10
17:00	0	0	7	3
17:05	0	0	2	8
17:10	0	0	8	8
17:15	0	0	0	7
17:20	0	0	8	4
17:25	0	0	3	6
17:30	0	0	5	4
17:35	0	0	2	3
17:40	0	0	0	3
17:45	0	0	0	4
17:50	0	0	4	0
17:55	0	0	2	3
18:00	0	0	0	7
18:05	0	0	5	4
18:10	0	0	2	6
18:15	0	0	0	6
18:20	0	0	0	9
18:25	0	0	0	5
18:30	0	0	3	10
18:35	0	0	0	5
18:40	0	0	3	8
18:45	0	0	3	4
18:50	0	0	0	8
18:55	0	0	0	8
19:00	0	0	2	7

Waterlooville, Wednesday 29th November 2023

From:

1) 07:45

To:

1) 08:45

Class:

All Vehicles

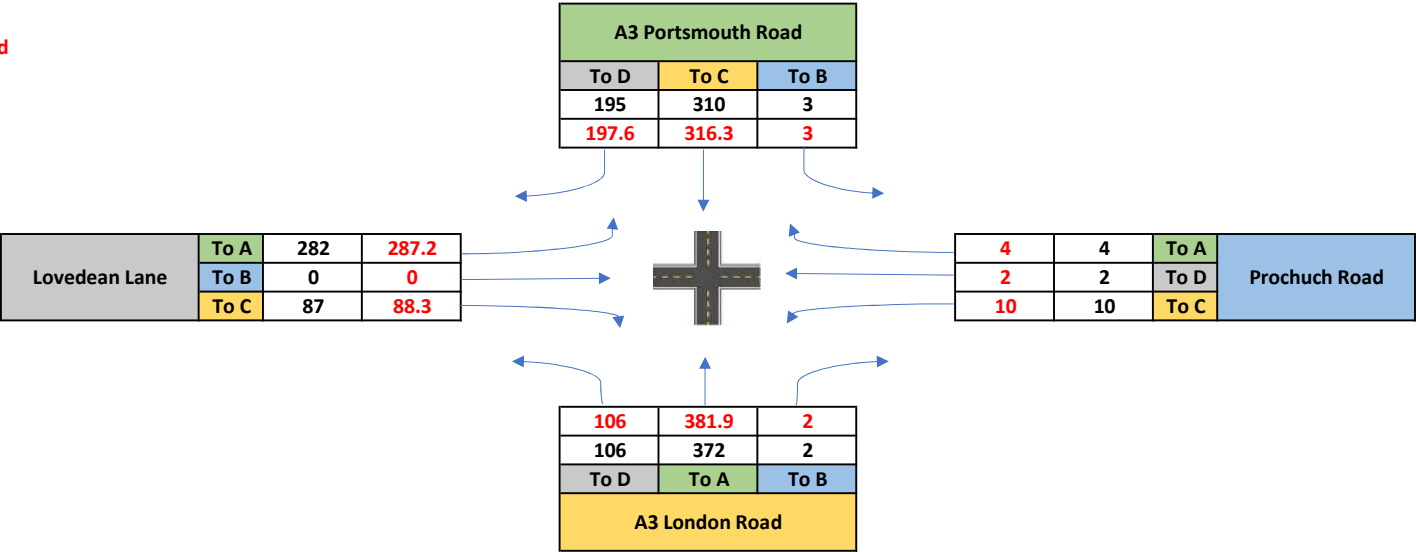
Show Peak Hour: ☐

Show PCUs: ☒

Show Session 2



PCUs in red



Waterlooville, Wednesday 29th November 2023

From:

2) 16:00

To:

2) 17:00

Class:

All Vehicles

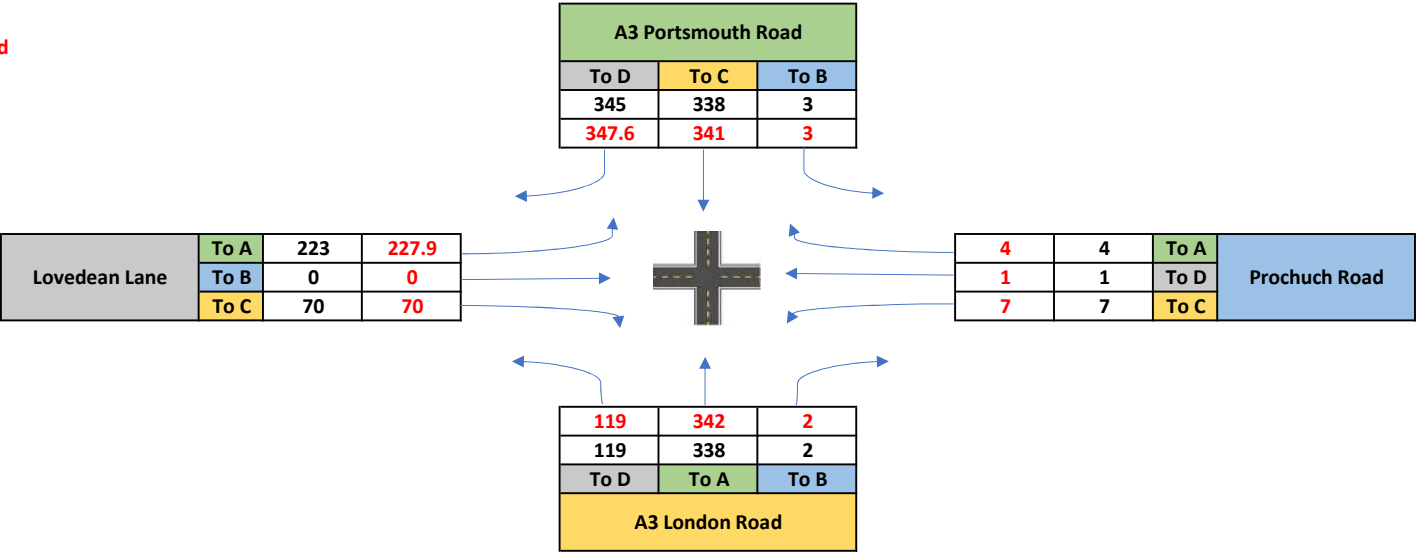
Show Peak Hour: ☐

Show PCUs: ☒

Show Session 2



PCUs in red



Waterlooville, Wednesday 29th November 2023

Junction: 7
Approach: A3 Portsmouth Road



TIME	Left to Prochuch Road					Ahead to A3 London Road					Right to Lovedean Lane				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	25	1	1	27	29.3	37	1	0	38	39.3
07:15 - 07:30	0	0	0	0	0.0	35	1	1	37	39.3	36	0	1	37	38.0
07:30 - 07:45	0	0	0	0	0.0	46	0	0	46	46.0	37	2	2	41	45.6
07:45 - 08:00	0	0	0	0	0.0	70	0	2	72	74.0	39	0	0	39	39.0
Hourly Total	0	0	0	0	0.0	176	2	4	182	188.6	149	3	3	155	161.9
08:00 - 08:15	0	0	0	0	0.0	94	1	1	96	98.3	45	0	0	45	45.0
08:15 - 08:30	1	0	0	1	1.0	79	0	2	81	83.0	51	0	0	51	51.0
08:30 - 08:45	2	0	0	2	2.0	61	0	0	61	61.0	58	2	0	60	62.6
08:45 - 09:00	0	0	0	0	0.0	67	0	2	69	71.0	55	4	0	59	64.2
Hourly Total	3	0	0	3	3.0	301	1	5	307	313.3	209	6	0	215	222.8
09:00 - 09:15	3	0	0	3	3.0	74	0	1	75	76.0	50	0	0	50	50.0
09:15 - 09:30	1	0	0	1	1.0	70	0	1	71	72.0	51	2	0	53	55.6
09:30 - 09:45	0	0	0	0	0.0	64	2	1	67	70.6	52	0	0	52	52.0
09:45 - 10:00	1	0	0	1	1.0	61	1	1	63	65.3	50	1	0	51	52.3
Hourly Total	5	0	0	5	5.0	269	3	4	276	283.9	203	3	0	206	209.9

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TOTAL	8	0	0	8	8.0	746	6	13	765	785.8	561	12	3	576	594.6
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16:00 - 16:15	1	0	0	1	1.0	81	0	1	82	83.0	88	1	0	89	90.3
16:15 - 16:30	1	0	0	1	1.0	83	0	0	83	83.0	86	1	0	87	88.3
16:30 - 16:45	1	0	0	1	1.0	84	0	2	86	88.0	88	0	0	88	88.0
16:45 - 17:00	0	0	0	0	0.0	87	0	0	87	87.0	81	0	0	81	81.0
Hourly Total	3	0	0	3	3.0	335	0	3	338	341.0	343	2	0	345	347.6
17:00 - 17:15	2	0	0	2	2.0	95	0	2	97	99.0	90	0	0	90	90.0
17:15 - 17:30	1	0	0	1	1.0	90	0	0	90	90.0	86	0	0	86	86.0
17:30 - 17:45	1	0	0	1	1.0	86	0	2	88	90.0	80	0	0	80	80.0
17:45 - 18:00	2	0	0	2	2.0	84	0	1	85	86.0	77	0	0	77	77.0
Hourly Total	6	0	0	6	6.0	355	0	5	360	365.0	333	0	0	333	333.0
18:00 - 18:15	1	0	0	1	1.0	80	0	3	83	86.0	61	0	0	61	61.0
18:15 - 18:30	1	0	0	1	1.0	78	0	0	78	78.0	65	0	0	65	65.0
18:30 - 18:45	0	0	0	0	0.0	66	0	2	68	70.0	64	0	0	64	64.0
18:45 - 19:00	1	0	0	1	1.0	61	0	0	61	61.0	63	0	0	63	63.0
Hourly Total	3	0	0	3	3.0	285	0	5	290	295.0	253	0	0	253	253.0

TOTAL	12	0	0	12	12.0	975	0	13	988	1001.0	929	2	0	931	933.6
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Waterlooville, Wednesday 29th November 2023

Junction: 7
Approach: Prochuch Road



TIME	Left to A3 London Road					Ahead to Lovedean Lane					Right to A3 Portsmouth Road				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	0	0	0	0	0.0	2	0	0	2	2.0
07:15 - 07:30	0	0	0	0	0.0	0	0	0	0	0.0	3	0	0	3	3.0
07:30 - 07:45	2	0	0	2	2.0	0	0	0	0	0.0	0	0	0	0	0.0
07:45 - 08:00	2	0	0	2	2.0	1	0	0	1	1.0	1	0	0	1	1.0
Hourly Total	4	0	0	4	4.0	1	0	0	1	1.0	6	0	0	6	6.0
08:00 - 08:15	3	0	0	3	3.0	1	0	0	1	1.0	1	0	0	1	1.0
08:15 - 08:30	2	0	0	2	2.0	0	0	0	0	0.0	2	0	0	2	2.0
08:30 - 08:45	3	0	0	3	3.0	0	0	0	0	0.0	0	0	0	0	0.0
08:45 - 09:00	0	0	0	0	0.0	0	0	0	0	0.0	2	0	0	2	2.0
Hourly Total	8	0	0	8	8.0	1	0	0	1	1.0	5	0	0	5	5.0
09:00 - 09:15	2	0	0	2	2.0	1	0	0	1	1.0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
09:30 - 09:45	3	0	0	3	3.0	1	0	0	1	1.0	0	0	0	0	0.0
09:45 - 10:00	4	0	0	4	4.0	2	0	0	2	2.0	0	0	0	0	0.0
Hourly Total	9	0	0	9	9.0	4	0	0	4	4.0	0	0	0	0	0.0
TOTAL	21	0	0	21	21.0	6	0	0	6	6.0	11	0	0	11	11.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

16:00 - 16:15	1	0	0	1	1.0	1	0	0	1	1.0	2	0	0	2	2.0
16:15 - 16:30	2	0	0	2	2.0	0	0	0	0	0.0	2	0	0	2	2.0
16:30 - 16:45	3	0	0	3	3.0	0	0	0	0	0.0	0	0	0	0	0.0
16:45 - 17:00	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	7	0	0	7	7.0	1	0	0	1	1.0	4	0	0	4	4.0
17:00 - 17:15	0	0	0	0	0.0	1	0	0	1	1.0	0	0	0	0	0.0
17:15 - 17:30	1	0	0	1	1.0	0	0	0	0	0.0	2	0	0	2	2.0
17:30 - 17:45	1	0	0	1	1.0	1	0	0	1	1.0	0	0	0	0	0.0
17:45 - 18:00	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	3	0	0	3	3.0	2	0	0	2	2.0	2	0	0	2	2.0
18:00 - 18:15	0	0	0	0	0.0	1	0	0	1	1.0	1	0	0	1	1.0
18:15 - 18:30	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
18:45 - 19:00	1	0	0	1	1.0	1	0	0	1	1.0	0	0	0	0	0.0
Hourly Total	2	0	0	2	2.0	2	0	0	2	2.0	2	0	0	2	2.0
TOTAL	12	0	0	12	12.0	5	0	0	5	5.0	8	0	0	8	8.0

Waterlooville, Wednesday 29th November 2023

Junction: 7
Approach: A3 London Road



TIME	Left to Lovedean Lane					Ahead to A3 Portsmouth Road					Right to Prochuch Road				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	9	0	0	9	9.0	49	0	0	49	49.0	1	0	0	1	1.0
07:15 - 07:30	11	1	0	12	13.3	66	0	1	67	68.0	1	0	0	1	1.0
07:30 - 07:45	13	0	0	13	13.0	73	0	1	74	75.0	2	0	0	2	2.0
07:45 - 08:00	22	0	0	22	22.0	87	0	2	89	91.0	0	0	0	0	0.0
Hourly Total	55	1	0	56	57.3	275	0	4	279	283.0	4	0	0	4	4.0
08:00 - 08:15	27	0	0	27	27.0	100	2	0	102	104.6	0	0	0	0	0.0
08:15 - 08:30	31	0	0	31	31.0	96	0	1	97	98.0	1	0	0	1	1.0
08:30 - 08:45	26	0	0	26	26.0	80	1	3	84	88.3	1	0	0	1	1.0
08:45 - 09:00	24	0	0	24	24.0	68	0	0	68	68.0	3	0	0	3	3.0
Hourly Total	108	0	0	108	108.0	344	3	4	351	358.9	5	0	0	5	5.0
09:00 - 09:15	17	1	0	18	19.3	69	0	1	70	71.0	1	0	0	1	1.0
09:15 - 09:30	13	0	0	13	13.0	70	0	1	71	72.0	0	0	0	0	0.0
09:30 - 09:45	12	0	0	12	12.0	72	2	1	75	78.6	0	0	0	0	0.0
09:45 - 10:00	14	0	0	14	14.0	77	1	1	79	81.3	1	0	0	1	1.0
Hourly Total	56	1	0	57	58.3	288	3	4	295	302.9	2	0	0	2	2.0
TOTAL	219	2	0	221	223.6	907	6	12	925	944.8	11	0	0	11	11.0
16:00 - 16:15	29	0	0	29	29.0	85	0	1	86	87.0	1	0	0	1	1.0
16:15 - 16:30	28	0	0	28	28.0	83	0	1	84	85.0	0	0	0	0	0.0
16:30 - 16:45	29	0	0	29	29.0	82	0	1	83	84.0	1	0	0	1	1.0
16:45 - 17:00	33	0	0	33	33.0	84	0	1	85	86.0	0	0	0	0	0.0
Hourly Total	119	0	0	119	119.0	334	0	4	338	342.0	2	0	0	2	2.0
17:00 - 17:15	36	0	0	36	36.0	83	0	1	84	85.0	0	0	0	0	0.0
17:15 - 17:30	28	0	0	28	28.0	82	0	1	83	84.0	1	0	0	1	1.0
17:30 - 17:45	23	0	0	23	23.0	76	0	1	77	78.0	0	0	0	0	0.0
17:45 - 18:00	24	0	0	24	24.0	79	0	1	80	81.0	3	0	0	3	3.0
Hourly Total	111	0	0	111	111.0	320	0	4	324	328.0	4	0	0	4	4.0
18:00 - 18:15	22	0	0	22	22.0	67	0	1	68	69.0	1	0	0	1	1.0
18:15 - 18:30	23	0	0	23	23.0	59	0	1	60	61.0	1	0	0	1	1.0
18:30 - 18:45	14	0	0	14	14.0	65	0	1	66	67.0	0	0	0	0	0.0
18:45 - 19:00	13	1	0	14	15.3	59	0	2	61	63.0	2	0	0	2	2.0
Hourly Total	72	1	0	73	74.3	250	0	5	255	260.0	4	0	0	4	4.0
TOTAL	302	1	0	303	304.3	904	0	13	917	930.0	10	0	0	10	10.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

Waterlooville, Wednesday 29th November 2023

Junction: 7
Approach: Lovedean Lane



TIME	Left to A3 Portsmouth Road					Ahead to Prochuch Road					Right to A3 London Road				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	93	0	0	93	93.0	0	0	0	0	0.0	7	0	0	7	7.0
07:15 - 07:30	80	0	0	80	80.0	0	0	0	0	0.0	11	0	0	11	11.0
07:30 - 07:45	85	0	0	85	85.0	0	0	0	0	0.0	19	0	0	19	19.0
07:45 - 08:00	70	1	0	71	72.3	0	0	0	0	0.0	21	1	0	22	23.3
Hourly Total	328	1	0	329	330.3	0	0	0	0	0.0	58	1	0	59	60.3
08:00 - 08:15	69	1	0	70	71.3	0	0	0	0	0.0	22	0	0	22	22.0
08:15 - 08:30	72	2	0	74	76.6	0	0	0	0	0.0	26	0	0	26	26.0
08:30 - 08:45	67	0	0	67	67.0	0	0	0	0	0.0	17	0	0	17	17.0
08:45 - 09:00	61	0	0	61	61.0	0	0	0	0	0.0	13	0	0	13	13.0
Hourly Total	269	3	0	272	275.9	0	0	0	0	0.0	78	0	0	78	78.0
09:00 - 09:15	65	1	0	66	67.3	0	0	0	0	0.0	15	0	0	15	15.0
09:15 - 09:30	66	0	0	66	66.0	0	0	0	0	0.0	14	2	0	16	18.6
09:30 - 09:45	63	0	0	63	63.0	0	0	0	0	0.0	16	1	0	17	18.3
09:45 - 10:00	60	1	0	61	62.3	0	0	0	0	0.0	19	0	0	19	19.0
Hourly Total	254	2	0	256	258.6	0	0	0	0	0.0	64	3	0	67	70.9
TOTAL	851	6	0	857	864.8	0	0	0	0	0.0	200	4	0	204	209.2
16:00 - 16:15	54	0	0	54	54.0	0	0	0	0	0.0	26	0	0	26	26.0
16:15 - 16:30	56	1	0	57	58.3	0	0	0	0	0.0	19	0	0	19	19.0
16:30 - 16:45	55	1	1	57	59.3	0	0	0	0	0.0	13	0	0	13	13.0
16:45 - 17:00	54	1	0	55	56.3	0	0	0	0	0.0	12	0	0	12	12.0
Hourly Total	219	3	1	223	227.9	0	0	0	0	0.0	70	0	0	70	70.0
17:00 - 17:15	61	0	0	61	61.0	1	0	0	1	1.0	11	0	0	11	11.0
17:15 - 17:30	57	0	1	58	59.0	0	0	0	0	0.0	8	0	0	8	8.0
17:30 - 17:45	54	0	0	54	54.0	0	0	0	0	0.0	14	0	0	14	14.0
17:45 - 18:00	55	0	0	55	55.0	0	0	0	0	0.0	13	0	0	13	13.0
Hourly Total	227	0	1	228	229.0	1	0	0	1	1.0	46	0	0	46	46.0
18:00 - 18:15	45	1	1	47	49.3	0	0	0	0	0.0	12	0	0	12	12.0
18:15 - 18:30	42	0	0	42	42.0	1	0	0	1	1.0	12	0	0	12	12.0
18:30 - 18:45	39	0	1	40	41.0	0	0	0	0	0.0	12	0	0	12	12.0
18:45 - 19:00	41	0	1	42	43.0	0	0	0	0	0.0	11	1	0	12	13.3
Hourly Total	167	1	3	171	175.3	1	0	0	1	1.0	47	1	0	48	49.3
TOTAL	613	4	5	622	632.2	2	0	0	2	2.0	163	1	0	164	165.3

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

Waterlooville, Wednesday 29th November 2023

Site 7

Queues are stationary vehicles each 5 minutes



TIME	A3 Portsmouth Road RIGHT TURN	Prochurch Road	A3 London Road RIGHT TURN	Lovedean Lane
07:00	0	0	0	0
07:05	2	0	0	0
07:10	0	0	0	0
07:15	0	0	0	0
07:20	0	0	0	2
07:25	0	0	0	0
07:30	3	0	0	4
07:35	0	0	0	2
07:40	0	0	0	3
07:45	2	0	0	0
07:50	3	0	0	2
07:55	3	0	0	4
08:00	2	0	0	4
08:05	6	0	0	5
08:10	5	0	0	0
08:15	2	0	0	2
08:20	7	0	0	3
08:25	3	0	0	7
08:30	8	0	0	6
08:35	8	0	0	2
08:40	3	0	0	3
08:45	2	0	0	4
08:50	2	0	0	4
08:55	7	0	0	2
09:00	5	0	0	2
09:05	2	0	0	2
09:10	3	0	0	5
09:15	4	0	0	4
09:20	4	0	0	0
09:25	4	0	0	3
09:30	2	0	0	6
09:35	4	0	0	4
09:40	0	0	0	4
09:45	3	0	0	2
09:50	0	0	0	5
09:55	2	0	0	2
10:00	2	0	0	2

16:00	4	0	0	8
16:05	7	0	0	3
16:10	8	0	0	5
16:15	8	0	0	2
16:20	3	0	0	2
16:25	6	0	0	7
16:30	2	0	0	5
16:35	5	0	0	5
16:40	7	0	0	3
16:45	6	0	0	2
16:50	6	0	0	0
16:55	3	0	0	9
17:00	2	0	0	4
17:05	5	0	0	0
17:10	4	0	0	8
17:15	3	0	0	4
17:20	5	0	0	5
17:25	5	0	0	3
17:30	6	0	0	3
17:35	2	0	0	5
17:40	3	0	0	2
17:45	5	0	0	3
17:50	5	0	0	0
17:55	5	0	0	3
18:00	3	0	0	2
18:05	2	0	0	5
18:10	4	0	0	0
18:15	3	0	0	5
18:20	3	0	0	2
18:25	3	0	0	5
18:30	2	0	0	5
18:35	5	0	0	5
18:40	2	0	0	2
18:45	3	0	0	4
18:50	3	0	0	3
18:55	4	0	0	2
19:00	2	0	0	3

Waterlooville, Wednesday 29th November 2023

From:

1) 07:45

To:

1) 08:45

Class:

All Vehicles

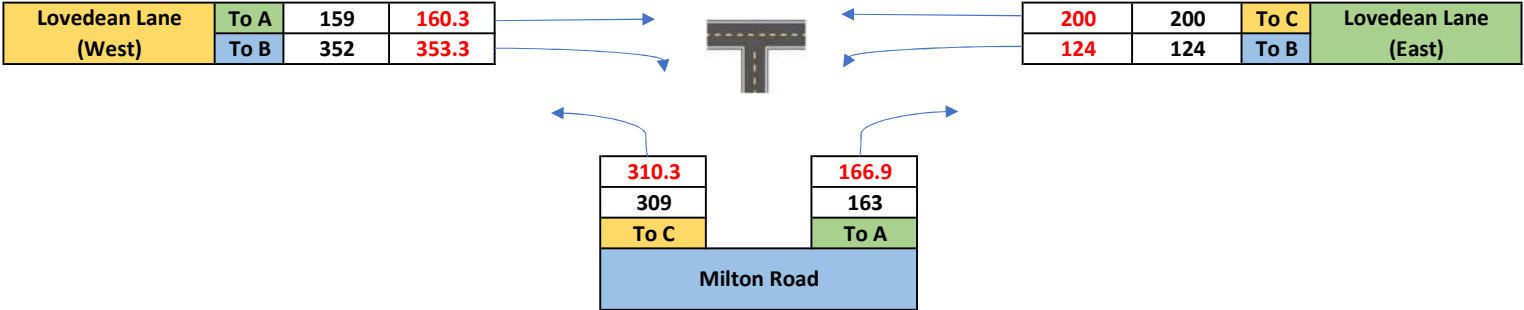
Show Peak Hour:

Show PCUs:

Show Session 2



PCUs in red



Waterlooville, Wednesday 29th November 2023

From:

2) 16:00

To:

2) 17:00

Class:

All Vehicles

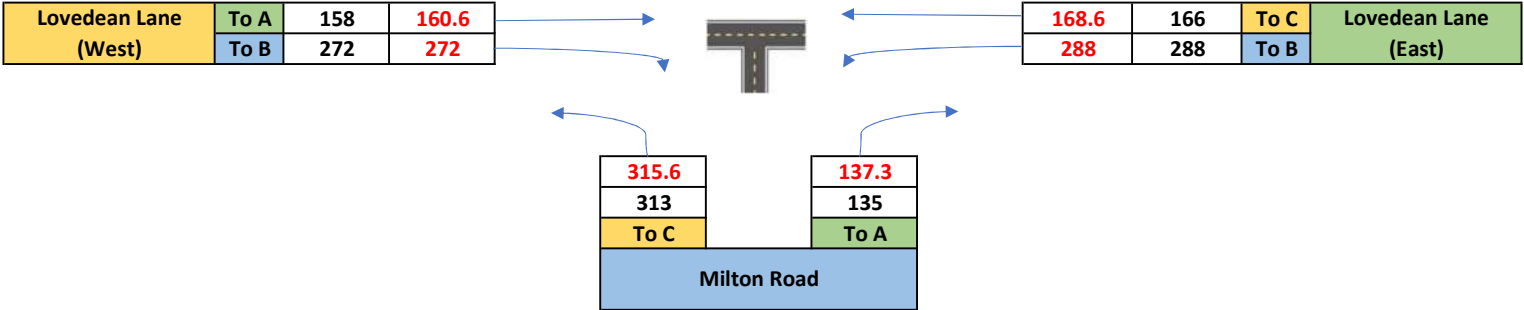
Show Peak Hour:

Show PCUs:

Show Session 2



PCUs in red



Waterlooville, Wednesday 29th November 2023

Junction: 6
Approach: Lovedean Lane East



TIME	Left to Milton Road					Ahead to Lovedean Lane (West)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	25	1	0	26	27.3	19	0	0	19	19.0
07:15 - 07:30	24	1	1	26	28.3	20	0	0	20	20.0
07:30 - 07:45	22	0	2	24	26.0	19	2	0	21	23.6
07:45 - 08:00	23	0	0	23	23.0	35	0	0	35	35.0
Hourly Total	94	2	3	99	104.6	93	2	0	95	97.6
08:00 - 08:15	25	0	0	25	25.0	64	0	0	64	64.0
08:15 - 08:30	36	0	0	36	36.0	54	0	0	54	54.0
08:30 - 08:45	40	0	0	40	40.0	47	0	0	47	47.0
08:45 - 09:00	47	1	0	48	49.3	38	3	0	41	44.9
Hourly Total	148	1	0	149	150.3	203	3	0	206	209.9
09:00 - 09:15	40	0	0	40	40.0	34	1	0	35	36.3
09:15 - 09:30	34	0	0	34	34.0	29	2	0	31	33.6
09:30 - 09:45	30	0	0	30	30.0	25	0	0	25	25.0
09:45 - 10:00	28	0	0	28	28.0	24	1	0	25	26.3
Hourly Total	132	0	0	132	132.0	112	4	0	116	121.2

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TOTAL	374	3	3	380	386.9	408	9	0	417	428.7
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16:00 - 16:15	68	0	0	68	68.0	37	1	0	38	39.3
16:15 - 16:30	76	0	0	76	76.0	38	1	0	39	40.3
16:30 - 16:45	81	0	0	81	81.0	41	0	0	41	41.0
16:45 - 17:00	63	0	0	63	63.0	48	0	0	48	48.0
Hourly Total	288	0	0	288	288.0	164	2	0	166	168.6
17:00 - 17:15	52	0	0	52	52.0	55	0	0	55	55.0
17:15 - 17:30	67	0	0	67	67.0	49	0	0	49	49.0
17:30 - 17:45	65	0	0	65	65.0	43	0	0	43	43.0
17:45 - 18:00	71	0	0	71	71.0	44	0	0	44	44.0
Hourly Total	255	0	0	255	255.0	191	0	0	191	191.0
18:00 - 18:15	59	0	0	59	59.0	42	0	0	42	42.0
18:15 - 18:30	43	0	0	43	43.0	43	0	0	43	43.0
18:30 - 18:45	41	0	0	41	41.0	37	0	0	37	37.0
18:45 - 19:00	42	0	0	42	42.0	30	1	0	31	32.3
Hourly Total	185	0	0	185	185.0	152	1	0	153	154.3

TOTAL	728	0	0	728	728.0	507	3	0	510	513.9
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Waterlooville, Wednesday 29th November 2023

Junction: 6
Approach: Milton Road



TIME	Left to Lovedean Lane (West)					Right to Lovedean Lane (East)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	32	0	0	32	32.0	50	0	0	50	50.0
07:15 - 07:30	50	0	0	50	50.0	48	0	0	48	48.0
07:30 - 07:45	69	1	0	70	71.3	51	1	0	52	53.3
07:45 - 08:00	75	1	0	76	77.3	44	1	0	45	46.3
Hourly Total	226	2	0	228	230.6	193	2	0	195	197.6
08:00 - 08:15	86	0	0	86	86.0	36	1	0	37	38.3
08:15 - 08:30	78	0	0	78	78.0	39	1	0	40	41.3
08:30 - 08:45	69	0	0	69	69.0	41	0	0	41	41.0
08:45 - 09:00	53	0	0	53	53.0	43	0	0	43	43.0
Hourly Total	286	0	0	286	286.0	159	2	0	161	163.6
09:00 - 09:15	47	1	0	48	49.3	39	0	0	39	39.0
09:15 - 09:30	44	0	0	44	44.0	36	0	0	36	36.0
09:30 - 09:45	45	1	0	46	47.3	31	0	0	31	31.0
09:45 - 10:00	47	0	0	47	47.0	26	1	0	27	28.3
Hourly Total	183	2	0	185	187.6	132	1	0	133	134.3

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TOTAL	695	4	0	699	704.2	484	5	0	489	495.5
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16:00 - 16:15	79	0	0	79	79.0	38	0	0	38	38.0
16:15 - 16:30	81	1	0	82	83.3	35	1	0	36	37.3
16:30 - 16:45	80	1	0	81	82.3	29	0	1	30	31.0
16:45 - 17:00	71	0	0	71	71.0	31	0	0	31	31.0
Hourly Total	311	2	0	313	315.6	133	1	1	135	137.3
17:00 - 17:15	74	0	0	74	74.0	34	0	0	34	34.0
17:15 - 17:30	77	0	0	77	77.0	30	0	1	31	32.0
17:30 - 17:45	80	0	0	80	80.0	32	0	0	32	32.0
17:45 - 18:00	81	0	0	81	81.0	30	0	0	30	30.0
Hourly Total	312	0	0	312	312.0	126	0	1	127	128.0
18:00 - 18:15	74	0	0	74	74.0	31	0	1	32	33.0
18:15 - 18:30	63	0	0	63	63.0	34	0	0	34	34.0
18:30 - 18:45	61	0	0	61	61.0	33	0	1	34	35.0
18:45 - 19:00	64	0	0	64	64.0	31	1	1	33	35.3
Hourly Total	262	0	0	262	262.0	129	1	3	133	137.3

TOTAL	885	2	0	887	889.6	388	2	5	395	402.6
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Waterlooville, Wednesday 29th November 2023

Junction: 6
Approach: Lovedean Lane West



TIME	Ahead to Lovedean Lane (East)					Right to Milton Road				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	32	0	0	32	32.0	40	0	0	40	40.0
07:15 - 07:30	33	0	0	33	33.0	47	0	0	47	47.0
07:30 - 07:45	30	0	0	30	30.0	53	0	0	53	53.0
07:45 - 08:00	36	0	0	36	36.0	74	0	0	74	74.0
Hourly Total	131	0	0	131	131.0	214	0	0	214	214.0
08:00 - 08:15	41	0	0	41	41.0	93	0	0	93	93.0
08:15 - 08:30	43	1	0	44	45.3	90	0	0	90	90.0
08:30 - 08:45	38	0	0	38	38.0	94	1	0	95	96.3
08:45 - 09:00	34	0	0	34	34.0	96	0	0	96	96.0
Hourly Total	156	1	0	157	158.3	373	1	0	374	375.3
09:00 - 09:15	32	1	0	33	34.3	85	0	0	85	85.0
09:15 - 09:30	34	3	0	37	40.9	73	1	0	74	75.3
09:30 - 09:45	38	1	0	39	40.3	66	0	0	66	66.0
09:45 - 10:00	40	0	0	40	40.0	51	0	0	51	51.0
Hourly Total	144	5	0	149	155.5	275	1	0	276	277.3

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TOTAL	431	6	0	437	444.8	862	2	0	864	866.6
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16:00 - 16:15	42	0	0	42	42.0	61	0	0	61	61.0
16:15 - 16:30	39	0	0	39	39.0	66	0	0	66	66.0
16:30 - 16:45	37	1	0	38	39.3	73	0	0	73	73.0
16:45 - 17:00	38	1	0	39	40.3	72	0	0	72	72.0
Hourly Total	156	2	0	158	160.6	272	0	0	272	272.0
17:00 - 17:15	36	0	0	36	36.0	75	0	0	75	75.0
17:15 - 17:30	33	0	0	33	33.0	76	0	0	76	76.0
17:30 - 17:45	37	0	0	37	37.0	70	0	0	70	70.0
17:45 - 18:00	35	0	0	35	35.0	74	0	0	74	74.0
Hourly Total	141	0	0	141	141.0	295	0	0	295	295.0
18:00 - 18:15	24	1	0	25	26.3	63	0	0	63	63.0
18:15 - 18:30	18	0	0	18	18.0	62	0	0	62	62.0
18:30 - 18:45	15	0	0	15	15.0	51	0	0	51	51.0
18:45 - 19:00	16	0	0	16	16.0	43	0	0	43	43.0
Hourly Total	73	1	0	74	75.3	219	0	0	219	219.0

TOTAL	370	3	0	373	376.9	786	0	0	786	786.0
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Waterlooville, Wednesday 29th November 2023

Site 6

Queues are stationary vehicles each 5 minutes



TIME	Milton Road	Lovedean Lane (West) RIGHT TURN
07:00	2	0
07:05	4	0
07:10	0	2
07:15	3	0
07:20	2	0
07:25	4	0
07:30	5	2
07:35	7	2
07:40	3	0
07:45	2	2
07:50	9	2
07:55	5	2
08:00	4	2
08:05	10	3
08:10	6	0
08:15	7	4
08:20	7	2
08:25	10	2
08:30	8	2
08:35	9	5
08:40	3	3
08:45	7	4
08:50	2	4
08:55	6	6
09:00	8	3
09:05	4	2
09:10	4	2
09:15	2	0
09:20	5	3
09:25	3	2
09:30	5	2
09:35	3	2
09:40	3	0
09:45	2	4
09:50	7	2
09:55	4	0
10:00	3	2

16:00	2	2
16:05	4	0
16:10	3	3
16:15	2	5
16:20	6	2
16:25	6	3
16:30	4	5
16:35	3	5
16:40	6	5
16:45	5	2
16:50	7	7
16:55	3	3
17:00	5	4
17:05	7	4
17:10	7	6
17:15	7	3
17:20	9	6
17:25	2	5
17:30	5	3
17:35	4	0
17:40	6	3
17:45	4	2
17:50	4	2
17:55	4	0
18:00	3	2
18:05	5	3
18:10	3	2
18:15	5	0
18:20	5	3
18:25	5	2
18:30	2	0
18:35	7	4
18:40	4	0
18:45	3	2
18:50	2	2
18:55	5	0
19:00	2	2

Waterlooville, Thursday 9th November 2023

From:

1) 07:45

To:

1) 08:45

Class:

All Vehicles

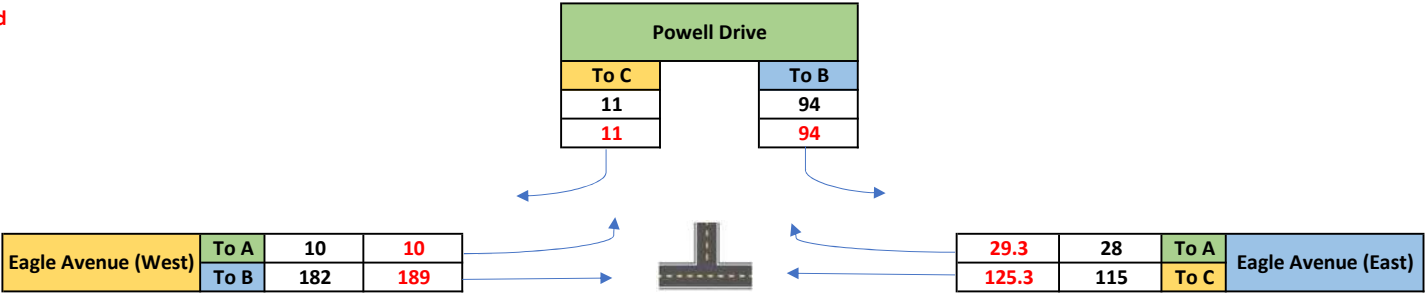
Show Peak Hour: ☐

Show PCUs: ☒

Show Session 1



PCUs in red



Waterlooville, Thursday 9th November 2023

From: 2) 16:00

To: 2) 17:00

Class: All Vehicles

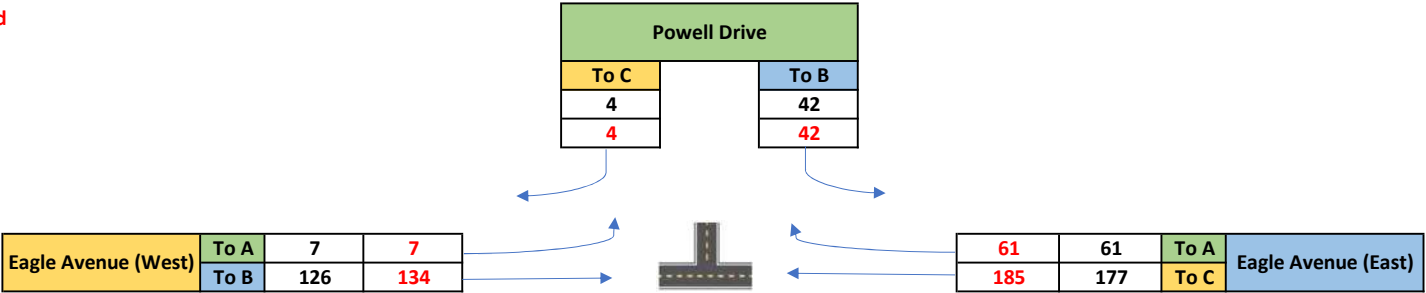
Show Peak Hour: ☐

Show PCUs: ☒

Show Session 1



PCUs in red



Waterlooville, Thursday 9th November 2023

Junction: 5
Approach: Powell Drive



TIME	Left to Eagle Avenue (East)					Right to Eagle Avenue (West)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	22	0	0	22	22.0	0	0	0	0	0.0
07:15 - 07:30	19	0	0	19	19.0	0	0	0	0	0.0
07:30 - 07:45	24	0	0	24	24.0	1	0	0	1	1.0
07:45 - 08:00	31	0	0	31	31.0	2	0	0	2	2.0
Hourly Total	96	0	0	96	96.0	3	0	0	3	3.0
08:00 - 08:15	21	0	0	21	21.0	5	0	0	5	5.0
08:15 - 08:30	24	0	0	24	24.0	4	0	0	4	4.0
08:30 - 08:45	18	0	0	18	18.0	0	0	0	0	0.0
08:45 - 09:00	14	0	0	14	14.0	3	0	0	3	3.0
Hourly Total	77	0	0	77	77.0	12	0	0	12	12.0
09:00 - 09:15	6	1	0	7	8.3	0	0	0	0	0.0
09:15 - 09:30	13	0	0	13	13.0	0	0	0	0	0.0
09:30 - 09:45	7	0	0	7	7.0	2	0	0	2	2.0
09:45 - 10:00	6	0	0	6	6.0	3	0	0	3	3.0
Hourly Total	32	1	0	33	34.3	5	0	0	5	5.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TOTAL	205	1	0	206	207.3	20	0	0	20	20.0
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16:00 - 16:15	10	0	0	10	10.0	0	0	0	0	0.0
16:15 - 16:30	9	0	0	9	9.0	1	0	0	1	1.0
16:30 - 16:45	9	0	0	9	9.0	1	0	0	1	1.0
16:45 - 17:00	14	0	0	14	14.0	2	0	0	2	2.0
Hourly Total	42	0	0	42	42.0	4	0	0	4	4.0
17:00 - 17:15	9	0	0	9	9.0	3	0	0	3	3.0
17:15 - 17:30	8	0	0	8	8.0	2	0	0	2	2.0
17:30 - 17:45	8	0	0	8	8.0	1	0	0	1	1.0
17:45 - 18:00	9	0	0	9	9.0	1	0	0	1	1.0
Hourly Total	34	0	0	34	34.0	7	0	0	7	7.0
18:00 - 18:15	16	0	0	16	16.0	0	0	0	0	0.0
18:15 - 18:30	8	0	0	8	8.0	0	0	0	0	0.0
18:30 - 18:45	11	0	0	11	11.0	1	0	0	1	1.0
18:45 - 19:00	9	0	0	9	9.0	1	0	0	1	1.0
Hourly Total	44	0	0	44	44.0	2	0	0	2	2.0

TOTAL	120	0	0	120	120.0	13	0	0	13	13.0
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Waterlooville, Thursday 9th November 2023

Junction: 5
Approach: Eagle Avenue East



TIME	Ahead to Eagle Avenue (West)					Right to Powell Drive				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	13	0	2	15	17.0	5	0	0	5	5.0
07:15 - 07:30	8	0	2	10	12.0	8	0	0	8	8.0
07:30 - 07:45	11	0	2	13	15.0	4	0	0	4	4.0
07:45 - 08:00	20	0	3	23	26.0	4	0	0	4	4.0
Hourly Total	52	0	9	61	70.0	21	0	0	21	21.0
08:00 - 08:15	22	0	2	24	26.0	6	0	0	6	6.0
08:15 - 08:30	35	1	2	38	41.3	5	0	0	5	5.0
08:30 - 08:45	28	0	2	30	32.0	12	1	0	13	14.3
08:45 - 09:00	34	0	2	36	38.0	11	0	0	11	11.0
Hourly Total	119	1	8	128	137.3	34	1	0	35	36.3
09:00 - 09:15	32	0	2	34	36.0	7	0	0	7	7.0
09:15 - 09:30	15	1	2	18	21.3	4	0	0	4	4.0
09:30 - 09:45	20	1	2	23	26.3	10	0	0	10	10.0
09:45 - 10:00	17	0	2	19	21.0	5	0	0	5	5.0
Hourly Total	84	2	8	94	104.6	26	0	0	26	26.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TOTAL	255	3	25	283	311.9	81	1	0	82	83.3
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16:00 - 16:15	38	0	2	40	42.0	18	0	0	18	18.0
16:15 - 16:30	43	0	2	45	47.0	9	0	0	9	9.0
16:30 - 16:45	46	0	2	48	50.0	18	0	0	18	18.0
16:45 - 17:00	42	0	2	44	46.0	16	0	0	16	16.0
Hourly Total	169	0	8	177	185.0	61	0	0	61	61.0
17:00 - 17:15	44	0	3	47	50.0	19	0	0	19	19.0
17:15 - 17:30	54	0	1	55	56.0	25	0	0	25	25.0
17:30 - 17:45	49	0	3	52	55.0	19	0	0	19	19.0
17:45 - 18:00	31	0	0	31	31.0	22	0	0	22	22.0
Hourly Total	178	0	7	185	192.0	85	0	0	85	85.0
18:00 - 18:15	31	0	2	33	35.0	24	0	0	24	24.0
18:15 - 18:30	25	0	1	26	27.0	20	0	0	20	20.0
18:30 - 18:45	23	0	1	24	25.0	20	0	0	20	20.0
18:45 - 19:00	17	0	2	19	21.0	9	0	0	9	9.0
Hourly Total	96	0	6	102	108.0	73	0	0	73	73.0

TOTAL	443	0	21	464	485.0	219	0	0	219	219.0
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Waterlooville, Thursday 9th November 2023

Junction: 5
Approach: Eagle Avenue West



TIME	Left to Powell Drive					Ahead to Eagle Avenue (East)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	39	0	1	40	41.0
07:15 - 07:30	1	0	0	1	1.0	32	0	1	33	34.0
07:30 - 07:45	1	0	0	1	1.0	46	1	2	49	52.3
07:45 - 08:00	2	0	0	2	2.0	31	0	2	33	35.0
Hourly Total	4	0	0	4	4.0	148	1	6	155	162.3
08:00 - 08:15	1	0	0	1	1.0	61	0	1	62	63.0
08:15 - 08:30	3	0	0	3	3.0	56	0	2	58	60.0
08:30 - 08:45	4	0	0	4	4.0	27	0	2	29	31.0
08:45 - 09:00	2	0	0	2	2.0	34	0	3	37	40.0
Hourly Total	10	0	0	10	10.0	178	0	8	186	194.0
09:00 - 09:15	0	0	0	0	0.0	41	0	2	43	45.0
09:15 - 09:30	1	0	0	1	1.0	26	0	2	28	30.0
09:30 - 09:45	2	0	0	2	2.0	19	1	2	22	25.3
09:45 - 10:00	5	0	0	5	5.0	20	0	2	22	24.0
Hourly Total	8	0	0	8	8.0	106	1	8	115	124.3
TOTAL	22	0	0	22	22.0	432	2	22	456	480.6
16:00 - 16:15	2	0	0	2	2.0	31	0	1	32	33.0
16:15 - 16:30	1	0	0	1	1.0	42	0	3	45	48.0
16:30 - 16:45	2	0	0	2	2.0	27	0	2	29	31.0
16:45 - 17:00	2	0	0	2	2.0	18	0	2	20	22.0
Hourly Total	7	0	0	7	7.0	118	0	8	126	134.0
17:00 - 17:15	2	0	0	2	2.0	31	0	3	34	37.0
17:15 - 17:30	0	0	0	0	0.0	36	0	1	37	38.0
17:30 - 17:45	2	0	0	2	2.0	28	0	4	32	36.0
17:45 - 18:00	0	0	0	0	0.0	35	0	0	35	35.0
Hourly Total	4	0	0	4	4.0	130	0	8	138	146.0
18:00 - 18:15	3	0	0	3	3.0	25	0	4	29	33.0
18:15 - 18:30	6	0	0	6	6.0	30	0	2	32	34.0
18:30 - 18:45	1	0	0	1	1.0	17	0	1	18	19.0
18:45 - 19:00	1	0	0	1	1.0	22	0	2	24	26.0
Hourly Total	11	0	0	11	11.0	94	0	9	103	112.0
TOTAL	22	0	0	22	22.0	342	0	25	367	392.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

Waterlooville, Thursday 9th November 2023

Site 5

Queues are stationary vehicles each 5 minutes



TIME	Powell Drive	Eagle Avenue (East) RIGHT TURN
07:00	0	0
07:05	0	0
07:10	0	0
07:15	0	0
07:20	0	0
07:25	0	0
07:30	0	0
07:35	0	0
07:40	0	0
07:45	0	0
07:50	0	0
07:55	0	0
08:00	0	0
08:05	0	0
08:10	0	0
08:15	0	0
08:20	0	0
08:25	0	0
08:30	0	0
08:35	0	0
08:40	0	0
08:45	0	0
08:50	0	0
08:55	0	0
09:00	0	0
09:05	0	0
09:10	0	0
09:15	0	0
09:20	0	0
09:25	0	0
09:30	0	0
09:35	0	0
09:40	0	0
09:45	0	0
09:50	0	0
09:55	0	0
10:00	0	0

16:00	0	0
16:05	0	0
16:10	0	0
16:15	0	0
16:20	0	0
16:25	0	0
16:30	0	0
16:35	0	0
16:40	0	0
16:45	0	0
16:50	0	0
16:55	0	0
17:00	0	0
17:05	0	0
17:10	0	0
17:15	0	0
17:20	0	0
17:25	0	0
17:30	0	0
17:35	0	0
17:40	0	0
17:45	0	0
17:50	0	0
17:55	0	0
18:00	0	0
18:05	0	0
18:10	0	0
18:15	0	0
18:20	0	0
18:25	0	0
18:30	0	0
18:35	0	0
18:40	0	0
18:45	0	0
18:50	0	0
18:55	0	0
19:00	0	0