Land South of Ashford Road, Sellindge

TRANSPORT ASSESSMENT

Report prepared for
Gladman Developments Ltd

November 2023

Report Reference 1687/4/B

ASHLEY HELME
ASSOCIATES

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Transport Assessment

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1 Introduction

1.1 Ashley Helme Associates Limited (AHA) are appointed by Gladman Developments Ltd to prepare a Transport Assessment (TA) report to support the planning application for residential development on land south of Ashford Road, Sellindge (henceforth referred to as the Site). The location of the Site is indicated on Figure 1.1, in the context of the local highway network.

1.2 The Site is presently agricultural land. The proposed development comprises a residential development of up to 54 dwellings. All matters are reserved, except access. The Site is the subject of a planning application (ref 20/0604/FH). The TA provides an update to the report submitted in 2020.

1.3 The Site forms part of a wider allocation (outlined at Policy SS1 in the Folkstone and Hythe Core Strategy Review). A separate planning application for a residential development for 105 dwellings on the adjacent Potten Farm site will be submitted at the same time as the Grove House application. The allocation also includes the potential for further development on the Rotherwood site (to the east of Potten Farm and south east of this Site).

1.4 The transport policy context for the proposed development is outlined in Chapter 2. The principles of the access strategy adopted for the proposed development are also discussed in Chapter 2, and this provides the means to achieve transport policy objectives. It is fundamental to the approach of the applicant, as represented in this TA, that a holistic view is taken of the consideration of access to the proposed development by all modes of transport.

1.5 The issues addressed within the TA fall broadly into the following areas:

(i) Accessibility by non-car modes, and
(ii) The vehicular traffic impact on the operational performance of the local highway network, assessed quantitatively for the TA defined study network.

1.6 The local highway network is described in Chapter 3. The proposed Site access arrangements are outlined in Chapter 4.

1.6 The transport sustainability of the proposed development is a key issue, as set out in the National Planning Policy Framework (NPPF), and also Planning Practice Guidance. Accessibility issues are identified in Chapter 2, and an accessibility appraisal of the Site by non-car modes is presented in Chapters 5 (Walk & Cycle) and 6 (Public Transport), using an accessibility mapping methodology.

1.7 A Travel Plan (TP) report supports the planning application and is summarised in Chapter 7 of the TA report.

1.8 The estimation of the development generated traffic and associated With Development traffic flows is presented in Chapter 8. Modelling of the impact of development traffic on the highway network is described in Chapter 9.

1.8 The conclusions of the TA are presented in Chapter 10.

2 Policies & Principles of Access Strategy

2.1 A holistic approach is adopted for the desired access strategy. Due cognisance is taken of a range of relevant policy documents and considerations that represent current national and local policies. These include:

- National Planning Policy Framework (NPPF), September 2023,
- Planning Practice Guidance (PPG), March 2014,
- Folkstone & Hythe Core Strategy Review (March 2022),
- Kent County Council Local Transport Plan 4 (2014-2031),
- Folkstone and Hythe Places and Policies Local Plan (September 2020).

2.2 A general thrust of current national and local policies is to promote and deliver sustainable transport objectives, and this is a key factor in defining the access strategy for the proposed development.

2.3 There are a range of documents that provide advice and guidance identifying that the historic approach of adopting rigid highway design standards and considering this in isolation is not appropriate or desirable in today's world. This includes, for example, Manual for Streets (MfS) and the associated Manual for Streets 2 (MfS2).

2.4 NPPF: Achieving Sustainable Transport

2.4.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these should be applied.

2.4.2 Paragraph 7 of NPPF sets out that:

"The purpose of the planning system is to contribute to the achievement of sustainable development. At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs. At a similarly high level, members of the United Nations – including the United Kingdom – have agreed to pursue the 17 Global Goals for Sustainable Development in the period to 2030. These address social progress, economic well-being and environmental protection.''

2.4.3 In paragraph 10, NPPF makes it clear that:

"So that sustainable development is pursued in a positive way, at the heart of the Framework is a ***presumption in favour of sustainable development."***

2.5 NPPF: Promoting Sustainable Transport

2.5.1 The Government's commitment to sustainable development is emphasised in NPPF. Paragraph 104 advises development promoters to consider transport issues from the earliest stages of plan-making and development proposals, so that:

a) *the potential impacts of development on transport networks can be addressed;*

b) *opportunities from existing or proposed transport infrastructure, and changing technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*

c) *opportunities to promote walking, cycling and public transport use are identified and pursued;*

d) *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*

e) *patterns of movement, streets, parking and other transport considerations are integral to design of schemes, and contribute to making high quality places.''*

2.5.2 This is expanded in paragraph 105, which states:

"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."

The proposed development respects and reflects this NPPF transport sustainability related objective.

2.5.3 NPPF states in paragraph 110 that:

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

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

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

c) *the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code 46; and*

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

2.5.4 NPPF makes it clear in paragraph 111 that:

''Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on ***highway safety****, or the* ***residual cumulative impacts on the road network*** *would be* ***severe.****''* (AHA emphasis).

2.5.5 NPPF offers specific transport advice with respect to development proposals. In paragraph 112, NPPF sets out that development should:

"a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;

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

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

2.6 PPG

2.6.1 The Department for Communities and Local Government (DCLG) launched the Planning Practice Guidance (PPG) web-based resource on 6 March 2014. The PPG includes advice on when transport assessments and transport statements are required, and what they should contain.

2.6.2 The PPG states that:

"Travel Plans, Transport Assessments and Statements can positively contribute to:

- *encouraging sustainable travel;*
- *lessening traffic generation and its detrimental impacts;*
- *reducing carbon emissions and climate impacts;*
- *creating accessible, connected, inclusive communities;*
- *improving health outcomes and quality of life;*
- *improving road safety; and*
- *reducing the need for new development to increase existing road capacity or provide new roads."*

2.6.3 With respect to Transport Assessments and Statements, PPG sets out that:

''The key issues to consider at the start of preparing a Transport Assessment or Statement may include:

- *the planning context of the development proposal;*
- *appropriate study parameters (i.e. area, scope and duration of study);*
- *assessment of public transport capacity, walking/ cycling capacity and road network capacity;*
- *road trip generation and trip distribution methodologies and/or assumptions about the development proposal;*
- *measures to promote sustainable travel;*
- *safety implications of development; and*
- *mitigation measures (where applicable) – including scope and implementation strategy.''*

2.6.4 With respect to Travel Plans, PPG sets out that:

''Travel Plans should set explicit outcomes rather than just identify processes to be followed (such as encouraging active travel or supporting the use of low emission vehicles). They should address all journeys resulting from a proposed development by anyone who may need to visit or stay and they should seek to fit in with wider strategies for transport in the area.

They should evaluate and consider:

- *benchmark travel data including trip generation databases;*
- *information concerning the nature of the proposed development and the forecast level of trips by all modes of transport likely to be associated with the development;*
- *relevant information about existing travel habits in the surrounding area;*
- *proposals to reduce the need for travel to and from the site via all modes of transport; and*
- *provision of improved public transport services.''*

2.7 Folkstone & Hythe Core Strategy Review (March 2022)

2.7.1 The Folkstone and Hythe District Council (FHDC) Core Strategy Review was adopted on the 30th March 2022.

2.7.2 The Core Strategy Review sets out a long-term vision for the district from 2019/20 to 2036/37. As the focus of many organisations is more immediate, the Core Strategy Review can guide their forward planning and lead the co-ordination of long-term development

2.7.3 The FHDC Core Strategy Review states:

''Land to the south and north east of Ashford Road in Sellindge forms a broad location for development to create an improved village centre with a mix of uses, a village green/common, pedestrian and cycle enhancements to Ashford Road and other community facilities together with new residential development of circa 600 dwellings.

The first phase has planning permission for approximately 250 dwellings. The second phase for the remaining dwellings hereby allocated comprising Site A (land to the west of Phase 1) and Site B (land to the east of phase 1) as identified in Figure 5.8 is the subject of this policy. Planning permission will not be granted for any development pursuant of this policy unless and until the Council is satisfied that the requirements of Policy CSD5 (d). are met.

Proposals for the second phase for the residential-led development should be accompanied by a masterplan for Sites A and B which shows how the sites will be integrated with Phase 1 and the existing settlement. Development shall meet all the following criteria:

a. The residential development element shall not commence until the primary school extension (to 1 FE) and the Parish Council administrative accommodation to be provided in phase 1 are under construction with a programmed completion date;

b. Total residential development within phase 2 of circa 350 dwellings (including Classes C2 and C3) with 22 per cent affordable housing subject to viability and a minimum of 10 per cent of dwellings designed to meet the needs of the ageing population;

c. Development shall be designed to minimise water usage, as required by the Water Cycle Study. Total wateruseperdwellingshallnotexceed110litresperpersonperdayofpotable water (including external water use);

d. Proposals must provide:

i. Prior to the commencement of development, land and an appropriate level of funding to enable the upgrading of Sellindge Primary school to 1.5 forms of entry (1.5 FE);
ii. Prior to first occupation, new nursery facilities of sufficient size to meet the needs of the residents;
iii. Prior to the completion of the second phase, a replacement village hall to a specification that meets the prospective needs of future residents; and
iv. Prior to the commencement of development, a proportionate contribution towards the upgrading and/or expansion of existing local medical facilities or otherwise towards a new healthcare facility to meet the needs of the residents;

e. The design and layout of the development shall be landscape-led and include within it structural landscaping with woodland planting to be provided on the rural edge of the development, particularly around the western boundary of Site A, to retain the rural character, and on the eastern boundary of Site B, to avoid or minimise adverse impacts on the Kent Downs AONB and views into and out of the AONB. All landscaping shall be planted at an early stage of the development and provide new habitats for priority nature conservation species. Applications shall be accompanied by a landscape and visual impact assessment that should inform the landscaping scheme and address structural and local landscape matters;

f. Approximately 1,000sqm of business (B1 Class) floorspace shall be provided, achieving BREEAM 'excellent' rating;

g. Proposals should protect and conserve the setting of non-designated built heritage assets such as Grove House and Potten Farm, protect and where possible enhance important historic natural heritage assets, such as hedgerows, in accordance with their particular significance;

h. Any archaeological remains should be evaluated and potential impact mitigated in accordance with Places and Policies Local Plan Policy HE2;

i. Provide, or contribute to, convenient and safe links within the sites and externally to ensure there is ease of access by a range of transport modes to new and existing development and facilities within the village and cycle and pedestrian access to Westenhanger Station;

j. Deliver pedestrian and cycle enhancements to the A20 through informal traffic-calming features and associated highways improvement extending the principles of the Rural Masterplan; Provide noise and air pollution mitigation measures between the M20/High Speed 1 transport corridor and the built development, to integrate with structural planting and habitat creation; and

k. Contribute to improvements in the local wastewater infrastructure and other utilities as required to meet the needs of the development including:

i. The delivery of sewage infrastructure, in liaison with the service provider, aligned with occupation of the development; and
ii. Future access to existing sewage infrastructure for maintenance and upsizing purposes.''

2.8 Kent County Council KCC Local Transport Plan 4 (2014-2031)

2.8.1 The Local Transport Plan (LTP4) explains how Kent County Council will work towards their transport vision over the coming years. The plan builds on the success of the previous LTP3 (2011-2016) and incorporates the strategic priorities from Growth without Gridlock (2010), Kent's transport delivery plan.

2.8.2 The LTP4 states the 'Outcomes for Transport', and says that the ambition for Kent is *'To deliver safe and effective transport, ensuring that all Kent's communities and businesses benefit, the environment is enhanced and economic growth is supported.'*

2.8.3 The LTP4 states that this ambition will be realised through five overarching policies which align with the vision in' Increasing Opportunities, Improving Outcomes: KCC's Strategic Statement 2015-2020'. The five 'Outcomes for Transport' and their policies are as follows:

- *'Outcome 1: Economic growth and minimised congestion,*
  Policy: Deliver resilient transport infrastructure and schemes that reduce congestion and improve journey time reliability to enable economic growth and appropriate development, meeting demand from a growing population,
- *Outcome 2: Affordable and accessible door-to-door journeys,*
  Policy: Promote affordable, accessible and connected transport to enable access for all to jobs, education, health and other services,
- *Outcome 3: Safer travel,*

Policy: Provide a safer road, footway and cycleway network to reduce the likelihood of casualties, and encourage other transport providers to improve safety on their networks,

- *Outcome 4: Enhanced environment,*
  Policy: Deliver schemes to reduce the environmental footprint of transport, and enhance the historic and natural environment,
- *Outcome 5: Better health and wellbeing,*
  Policy: Provide and promote active travel choices for all members of the community to encourage good health and wellbeing, and implement measures to improve local air quality.'

2.8.4 The underlying theme of the LTP is to promote policies and measures to foster and achieve improved opportunities for travel choices by non-car modes. This provides the context for specific local measures to be considered, promoted and introduced.

2.9 Folkstone and Hythe Places and Policies Plan

2.9.1 The Folkstone and Hythe Places and Policies Local Plan was adopted on 16 September 2020. The Places and Policies Local Plan identifies small and medium sized sites for development across the district. It also sets out detailed development management policies to assess planning applications.

2.9.2 Policy T1 of the Places and Policies Local Plan states:

''Street Hierarchy and Site Layout

Planning permission for major developments will be granted if the Design and Access Statement submitted as part of the application demonstrates attention has been paid to street design.

An application should show that:

1. The street hierarchy considers pedestrians first and private motor vehicles last;
2. Permeability is provided through and beyond the site for all users;
3. An environment is created that is safe for all street users, which encourages walking, cycling and the use of public transport;
4. A range of street types is created providing legibility throughout the development, meeting the needs of all users, and not allowing vehicles to dominate;
5. Active frontages are created throughout the development, particularly in relation to publicly-accessible areas, for the purposes of natural surveillance and creating characterful places; and
6. Appropriate street furniture and signage is included only when necessary for reasons of safety, orientation or comfort of residents and visitors.

Developers should ensure, with the support of Kent County Council as Highways Authority, that active travel routes are provided as a priority, both within developments and linking sites to other services, community facilities and transport hubs.''

2.11 Principles of the Access Strategy

2.11.1 The access strategy for the development provides the means to achieve the identified policy objectives by optimising the opportunity for access to/from the Site by non-car modes. This is in accordance with all local and national policies.

2.11.2 The accessibility of the Site for those travelling on foot and cycle is reviewed in Chapter 5, and takes account of the existing and proposed facilities. The current accessibility of the Site by public transport is outlined in Chapter 6 herein, together with the development proposals for public transport. The proposed development takes account of the needs of the mobility impaired.

2.11.3 The Access Strategy for the development is cohesive, reflecting the need to appropriately consider and enable provision for the movement of people and goods. This is in accordance with the aims and spirit of NPPF. This includes considering, inter alia:

- Permeability of the Site from/connection to the surrounding locality, for all modes of transport, motorised and non-motorised,
- Internal access arrangements, all to be the subject of reserved matters application(s), should minimise distance travelled by all modes (where appropriate),
- Emergency access requirements must be met.

2.11.4 The development proposals adopt an integrated approach to managing travel demand, offering safe and sustainable access for all, through a choice of sustainable transport alternatives, between homes and employment and a range of services and facilities, such as retail, health, education, and leisure.

2.12 Summary

2.12.1 In summary, the development proposal respects and promotes the principles of transport sustainability, and is consistent with national and local transport policy objectives.

3 Highway Network

3.1 The location of the Site is indicated on Figure 1.1 in the context of the local highway network.

3.2 The Site has frontage on A20 Ashford Road which is public highway.

3.3 A20 Ashford Road

3.3.1 The A20 Ashford Road is aligned along the northern boundary of the application Site. A20 Ashford Road is a single carriageway road, measuring circa 6.6m-6.8m wide in the vicinity of the Site frontage. There is existing footway provision on both sides of the road. The footway on the northern side of the A20 Ashford Road benefits from dropped kerbs.

3.3.2 A20 Ashford Road is subject to a 40mph speed limit; however, the speed limit changes to 30mph at the eastern boundary of the Site. The A20 Ashford Road is a bus route and there are existing bus stops located along the frontage of the Site.

3.3.3 There is an existing public house located opposite the Site frontage. There is a parking lay-by on the south side of the A20 Ashford Road to the west of the Site frontage, measuring circa 44m long. The A20 Ashford Road benefits from street lighting.

3.4 Study Network

3.4.1 Traffic generated by the Site will pass through the following junctions that comprise the TA study network of junctions:

REF	JUNCTION	CONTROL
SJ1A	Grove Farm Site Access/ A20 Ashford Road	Priority Control;
SJ2	A20 Ashford Road/ Swan Lane/ Unnamed Road	Priority Control;
SJ3	A20 Ashford Road/ B2067 Otterpool Lane	Traffic Signals.

3.4.2 The TA study junction network is shown on Figure 3.1. The local highway authority Kent County Council (KCC) is responsible for TA study junctions SJ1-SJ3.

3.5 Existing Junction Geometry

3.5.1 The existing study network junctions are presented on the following drawings:

REF	JUNCTION	DRAWING
SJ2	A20 Ashford Road/ Swan Lane/ The Cygnets	1687/02
SJ3	A20 Ashford Road/ B2067 Otterpool Lane	1687/03.

3.5.2 SJ2: A20 Ashford Road/ Swan Lane/ Unnamed Road

3.5.2.1 SJ2 is a priority-controlled junction and is located circa 440m east of the eastern boundary of the Site. The existing junction arrangements are presented on Drg No 1687/02.

3.5.2.2 Swan Lane and The Cygnets form the minor arms of the junction and give way to traffic on A20 Ashford Road. A20 Ashford Road is a single carriageway road. The junction is subject to a 30mph speed limit.

3.5.2.3 There is existing footway, dropped kerbs and tactile paving on all arms of the junction. The northern side of the A20 Ashford Road benefits from shared footway/ cycleway. There are bus stops either side of the junction on A20 Ashford Road. The junction benefits from street lighting.

3.5.3 SJ3: A20 Ashford Road/ B2067 Otterpool Lane

3.5.3.1 SJ3 is a traffic signal-controlled junction located to the south east of SJ2. The existing junction arrangements are presented on Drg No 1687/03.

3.5.3.2 The B2067 Otterpool Lane forms the southern arm of the junction. The A20 Ashford Road forms the eastern and western arms of the junction. A20 Ashford Road is a single carriageway road which flares to form two lane entry at the traffic signals on both the eastern and western arms. The eastern arm of the junction has a left turn lane into B2067 Otterpool Lane; the western arm of the junction has a right turn lane into B2067 Otterpool Lane. On the western arm of the A20 Ashford Road, there is a lay-by circa 75m west of the junction. There are warnings of vehicle height restrictions three-quarters of a mile on A20 Ashford Road to the west of the junction. The junction is subject to a 50mph speed limit.

3.5.3.3 There is an existing pedestrian crossing on B2067 Otterpool Lane at the traffic signals. There is existing footway on the south side of both the eastern and western arms of the junction on A20 Ashford Road. The junction benefits from street lighting.

3.6 Collision History

3.6.1 The latest five-year collision records from Kent County Council (KCC) for the period 01.04.18 to 31.04.23 are reviewed for the TA study junctions as well as along the site frontage. Plans of the reported accidents are included in Appendix A.

3.6.2 Distribution of Collisions

3.6.2.1 A summary of the KCC collision data is set out below:

	2018	2019	2020	2021	2022	2023	TOTAL
A20 Ashford Road (near Site)	0	1	0	0	0	0	1
SJ2	0	1	0	0	0	0	1
SJ3	0	0	1	0	0	0	1
TOTAL	**0**	**2**	**1**	**0**	**0**	**0**	**3.**

3.6.3 Severity

3.6.3.1 The severity of the recorded collisions is set out below:

	Slight	Serious	Fatal	TOTAL
A20 Ashford Road (near the Site)	1	0	0	1
SJ2	1	0	0	1
SJ3	0	1	0	1
TOTAL	**2**	**1**	**0**	**3.**

3.6.4.1 There have only been **three** recorded collisions across the TA study network in the last five years. Two of the recorded collisions was classified as 'slight' and one is classified as 'serious'.

3.6.4 Ashford Road

3.6.4.1 There has been a single recorded collision on the A20 Ashford Road in the vicinity of the Site. The collision occurred on the A20 circa 100m west of the Site. The collision occurred in 2019 and is classified as slight. A vehicle travelling northwest along the road appears to have lost control and collided with two parked vehicles.

3.6.5 SJ2

3.6.5.1 There has been a single recorded collision at SJ2. The collision occurred in 2019 and is classified as slight. A vehicle travelling northwest approached a set of road works which narrowed the road. The vehicle failed to give-way to a vehicle travelling in the opposite direction which had the right of way and a collision took place. The driver of the vehicle that failed to give-way was arrested for drink driving.

3.6.6 SJ3

3.6.6.1 There is a single recorded collision at SJ3 that occurred in 2020 and is classified as serious. A car travelling in a northwest direction travelled through a red light. This caused another vehicle to brake which was then struck in the rear by a following vehicle.

3.6.7 Summary

3.6.7.1 Whilst all collisions are regrettable, it is concluded there is **no** pattern of collisions in the vicinity of the Site or at the TA study junctions that raises concern or that gives rise to the need for remediation measures.

4 Proposed Site Access Arrangements

4.1 Design Philosophy

4.1.1 It is accepted that the way a new residential scheme relates to its surrounding area is key to its success. Guidance on the design of residential developments is set out in documents such as Manual for Streets (MfS). This advocates that residential design should:

- Be based on a hierarchical design process placing pedestrians at the top.
- Recognise that streets fulfil a community function with spaces for social interaction.
- Create an inclusive environment that recognises the needs of all ages and abilities.
- Focus on pedestrian desire lines.
- Create a permeable network of streets with strong connectivity to a range of routes.

4.1.2 The starting point of a new residential scheme is to first identify the existing places/amenities near to the site and their relative importance. Then, from this, form an understanding of how an area works to enable proposed points of connection and linkage to be identified, both within and outside the site, so that important desire lines are achieved. MfS recognises that:

- A permeable and well-connected movement network can positively affect how much people walk or cycle or use public transport which helps to achieve a sustainable environment and good quality of life for its community,

- A good range of local amenities within easy access of residents can help to create a walkable neighbourhood, and

- Walking and cycling are important modes of travel, offering a more sustainable alternative to the car, making a positive contribution to the overall character of the place, public health and to tackle climate change through carbon emissions reductions.

4.1.3 MfS advocates residential design that creates walkable neighbourhoods. MfS sets out in para 4.4.1 that:

"Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes (up to about 800m) walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and PPG13 states that walking offers the greatest potential to replace short car trips, particularly those under 2km. MfS encourages a reduction in the need to travel by car through the creation of mixed-use neighbourhoods with interconnected street patterns, where daily needs are within walking distance of most residents."

4.1.4 A holistic approach to the Site access arrangements is at the core of the development Site access strategy. Thus, there is a cohesive 'package' of development access arrangements for differing modes of travel, comprising, walk, cycle, bus and motor vehicles. Further information about walk and cycle modes is presented in Chapter 5, and about public transport in Chapter 6.

4.2 Site Access Strategy

4.2.1 The planning application seeks outline consent with all matters reserved, except access. This TA considers access for vehicles, cyclists and pedestrians via a single access on A20 Ashford Road.

4.3 Design Considerations

4.3.1 Design Guidance

4.3.1.1 The design guidance considered includes Manual for Streets 1 (MfS1), MfS2 and the Design Manual for Roads and Bridges (DMRB).

4.3.1.2 MfS2 states that:

"…most MfS advice can be applied to a highway regardless of speed limit. ***It is therefore recommended that as a starting point for any scheme affecting non-trunk roads, designers should start with MfS."*** (para 1.3.2)

The A20 Ashford Road is not a trunk road.

4.3.1.3 MfS continues in para 1.3.3:

"Where designers do refer to DMRB for detailed technical guidance on specific aspects, for example on strategic inter-urban and non-trunk roads, it is recommended that they ***bear in mind the key principles of MfS****, and apply DMRB in a way that* ***respects local context****. It is further recommended that DMRB or other standards and guidance is* ***only used*** *when the guidance contained in MfS is not sufficient or where particular evidence leads a designer to conclude that MfS is not applicable."*

4.4 Site Access Arrangements

4.4.1 The proposed Site Access arrangements on the A20 Ashford Road are shown on Drg No. 1687/04/E. The access arrangements presented on Drg No 1687/04/D were agreed with Kent County Council (KCC) highways officers as part of 2020 application for 55 dwellings, though it

was recognised at the time that the access proposals could serve the wider allocated sites, either in part or in full.

4.4.2 The key features of the proposed Site Access/A20 Ashford Road arrangements and associated highway works shown on Drg No 1687/04/E, include:

(i) Introduce new Site Access, forming a 'T' junction with the A20 Ashford Road;
(ii) Junction to operate under priority control;
(iii) Introduce 3.0m wide ghost island right turn lane on A20 Ashford Road;
(iv) Introduce 3.0m shared footway/cycleway on the east side of the Site access road and on the south side of the A20. Introduce 2.0m footway on the west side of the access road;
(v) Introduce pedestrian refuge with dropped kerbs and tactile paving circa 20m east of the Site access on Ashford Road;
(vi) Remove the existing parking layby on Ashford Road;
(vii) Relocate both bus stops in the vicinity of the Site;
(viii) Provide 2.4m x 111m visibility splay to the left, for vehicles emerging from the Site Access;
(ix) Provide 2.4m x 109m visibility splay to the right, for vehicles emerging from the Site Access.

4.4.3 It is recognised that the guidance set out in LTN 1/20 (Cycle infrastructure design) recommends that footways and cycleways are segregated. However, given that there is an existing shared footway/cycleway on the north side of the A20 to the east of the Site, for consistency it is proposed to provide a 3.0m shared footway/cycleway on the south side of the A20. It is also proposed to provide a Toucan crossing on the A20 to link the shared footway/cycleway. These works are shown on Drg No 1687/07.

4.4.4 Speed Surveys

4.4.4.1 There is a 40mph speed limit on the A20 Ashford Road which changes to a 30mph speed limit at the eastern boundary of the Site.

4.4.4.2 To assist with the design of the Site access junction, the applicant commissioned an Automatic Traffic Count (ATC) survey on the A20 Ashford Road in the vicinity of the Site. This involved the installation of pneumatic tubes across the A20 Ashford Road near the middle of the Site frontage, within the 40mph speed limit.

4.4.4.3 The surveys for the ATC were undertaken between 29 October 2019 and 4 November 2019 (inclusive) and recorded data over the full 24-hour period of each survey day. The ATC data is included in Appendix B.

4.4.5 Vehicle Speeds: Average

4.4.5.1 The recorded 5-day 20 hour average speeds over the 20-hour period are:

(i) Eastbound = 36.1mph
(ii) Westbound = 36.3mph.

4.4.5.2 The ATC survey confirms that average vehicle speeds along the A20 Ashford Road, in the vicinity of the application Site, are within the 40mph speed limit.

4.4.6 Vehicle Speeds: 85th Percentile

4.4.6.1 The recorded 5-day 20 hour 85%ile speeds are:

(i) Eastbound = 42.4mph
(ii) Westbound = 41.8mph,

4.4.6.2 The proposed Site access is in the vicinity of where the ATC was installed. The approach adopted to derive a **Design Speed** is to use the recorded speeds collected by the ATC.

4.4.7 Stopping Sight Distance

4.4.7.1 The visibility standards in DMRB are based on the Stopping Sight Distance (SSD). This is derived from the 85%le WWJS together with assumptions regarding driver perception/reaction times and rate of deceleration.

4.4.7.2 The SSDs in DMRB assume:

(i) Driver perception/reaction time: 2 seconds, and
(ii) Deceleration rate: 3.68 m/s^2 (absolute minimum), 2.45 m/s^2 (desirable minimum).

4.4.7.3 Based on an **eastbound** Design Speed of 42.4mph for the Site Access (18.105m/s), the calculated SSDs are:

ADVICE	PERCEPTION/REACT TIME(s)	DECEL RATE (m/s^2)	SSD(m)
DMRB	2.0	3.68 (absolute min)	87
DMRB	2.0	2.45 (desirable min)	111.

4.4.7.4 Based on a **westbound** Design Speed of 39.1mph for the Site Access (17.479m/s), the calculated SSDs are:

ADVICE	PERCEPTION/REACT TIME(s)	DECEL RATE (m/s²)	SSD(m)
DMRB	2.0	3.68 (absolute min)	85
DMRB	2.0	2.45 (desirable min)	109.

4.4.7.5 Drg No. 1687/04/E demonstrates that DMRB desirable minimum standards are achievable for a vehicle leaving the Site.

4.4.8 Swept Path Analysis

4.4.8.1 Swept path analysis of the proposed Site Access junction has been undertaken to examine if the proposed junction can accommodate the tracking movements of larger vehicles. For this exercise, vehicles are adopted that might be generated by the proposed development, albeit on an occasional basis. The results for the Site Access are set out on the following drawings:

(i)	10.14m Refuse Vehicle (3 axle)	1687/SP/02/D,
(ii)	8.68m Fire Appliance	1687/SP/03/D.

4.4.8.2 The swept path analysis shown on Drg Nos 1687/SP/02/D and 1687/SP/03/D confirms that all of the 'test' vehicles can complete all turns at the junction.

4.4.9 Stage 1 Road Safety Audit

4.4.9.1 As set out previously, the access arrangements indicated on Drg No 1687/04/D were agreed as part of the previous application for 55 dwellings (ref 20/0604/FH). As part of that process, AHA commissioned a Stage 1 Road Safety Audit (RSA) of the proposed access arrangements (Drg No 1687/04/A). The Stage 1 RSA was undertaken by sixTEN Highways & Traffic in September 2020. In response to the Stage 1 RSA, AHA prepared Designers Response report 1687/3 and made changes to the original access proposals.

4.4.9.2 Further revisions were made to the access proposals and those indicated on Drg No 1687/04/D were agreed with KCC highways.

4.4.9.3 In preparing this updated TA report, the agreed access proposals have been reviewed and it is considered that it would be beneficial to provide a shared footway/cycleway between the Site access and the existing shared footway/cycleway on the north side of the A20 to the east of the Site. This is shown on Drg No 1687/04/E and Drg No 1687/07. Further discussions with KCC will be required regarding these proposals and an updated Safety Audit may be required.

4.5 Internal Roads

4.5.1 The internal road layout for the outline application is to be the subject of reserved matters application(s).

4.6 Mobility Impaired

4.6.1 The needs of those with mobility impairment are an important component of the detailed design of the development. This is advocated in NPPF. The detailed design of the internal layout of the development, which must be the subject of reserved matters approval, will describe the facilities to be provided on Site to assist the mobility impaired, taking account of guidance and standards together with good practice and local/national policies.

4.7 Summary

4.7.1 The planning application seeks the determination of access.

4.7.2 The scheme is to be served by an access point formed on the A20 Ashford Road. This is presented on Drg No. 1687/04/E. The access proposals include the provision of pedestrian and cycle improvements on the A20, including a pedestrian island and a Toucan crossing. These are shown on Drg No 1687/07.

4.7.3 Swept path tracking of the access proposals is undertaken and the results are presented on Drg Nos 1687/SP/02/D and 1755/SP/03/D.

4.7.4 A stage 1 Road Safety Audit (RSA) was previously undertaken of the access arrangements. However, a segregated cycle lane on the south side of the A20 is now proposed and this feature was not part of the original scheme that was safety audited. Therefore, subject to discussions with KCC regarding the latest proposals, an updated Safety Audit may be required and will be commissioned in due course.

5 Walk & Cycle

5.1 Walk

5.1.1 It is established and acknowledged that walking is the most important mode of travel at local level, and offers the greatest potential to replace short car trips, particularly under 2km.

5.1.2 National Travel Survey (2022)

5.1.2.1 The National Travel Survey (NTS) of 2022 is a household survey of personal residents of England travelling within the UK. NTS 2022 confirms that 31% of **all** trips are undertaken on foot. However, for trips less than 1 mile (1.6km), 83% of journeys are carried out on foot.

5.1.2.2 The NTS establishes that:

(i) 83% of all trips under 1 mile (1.6km) are made by foot,
(ii) Nearly all walks recorded in the NTS were under 5 miles (99.8%),
(iii) Walking accounts for 31% of all trips and 4% of distance travelled,
(iv) 53% of trips to and from school were made by walking, by children aged 5-10 and 41% of trips to and from school were by foot for children aged 11-16,
(v) Most trips to/from school for a trip length of under 1 mile were made by walking (8^5 for children aged 5-10 and 90% for children aged 11-16).

5.1.3 Manual for Streets

5.1.3.1 The 'walkable neighbourhood' concept is set out in MfS1 and endorsed in MfS2. MfS1 explains that:

"Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800 m) walking distance of residential areas which residents may access comfortably on foot. However, this is ***not an upper limit*** *and PPG13 states that walking offers the greatest potential to replace short car trips, particularly those under 2 km."* (MfS para 4.4.1, AHA emphasis)

5.1.4 Development Generated Walk Trips

5.1.4.1 AHA has interrogated the TRICS database for suitable trip generation rates (refer Chapter 8). Multi-modal trip rates have been adopted and a copy of the TRICS data is included in Appendix E.

5.1.4.2 The TRICS data provides the following pedestrian trip generation rates:

	ARR	DEP	TWO-WAY
AM	0.028	0.076	0.104
PM	0.073	0.040	0.113
12-hour	0.381	0.407	0.788.

5.1.4.3 On this basis the proposed development is estimated to generate the following pedestrian trips:

	ARR	DEP	TWO-WAY
AM	2	4	6
PM	4	2	6
12-hour	21	22	43.

5.1.4.4 The majority of these trips are likely to be to/from the east of the Site as that where the majority of amenities within the village are located.

5.1.5 Walk Isochrones and Local Amenities

5.1.5.1 The CIHT provides guidance about journeys on foot. It does not provide a definitive view of distances, but does suggest a preferred maximum distance of 2000m for walk commuting trips. A 400m distance corresponds to a walk time of 5 minutes, based upon a typical normal walking speed. Figure 5.1 presents the development 400m, 800m, 1200m, 1600m and 2000m walk isochrones, (ie reflecting 5, 10, 15, 20 and 25-minute walk journeys), and taking account of the pedestrian infrastructure.

5.1.5.2 The walk isochrones presented in Figure 5.1 are created using Basemap TRACC software, a digital mapping and transport data program. The TRACC software enables installation of maps to create a road network. Amendments have been made to the road network to allow for the inclusion of public rights of way and pedestrian access points.

5.1.5.3 The TRACC software adopts the Department for Transport speeds and hence, a walk speed of 4.8km/h is automatically assumed across the road network. However, it is possible to alter the walk speed on all roads to reflect for example, changes in gradient or no accessibility by footway. The walk isochrones presented in Figure 5.1 take into account the absence of footway on certain roads and the walk speed on these routes has been adjusted to 0km/h.

5.1.5.4 Indicated on Figure 5.1 are examples of local facilities near to the Site. Figure 5.1 shows that bus services, a public house and convenience store (Potten Farm Shop) are accessible within a 400m walk of the Site.

5.1.5.5 There are further amenities within an 800m walk of the Site:

(i) Additional bus services,
(ii) Primary School,
(iii) Nursery,
(iv) Place of Worship,
(v) Community Centre/ Social Club,
(vi) Health Centre,
(vii) Sports Ground/ Sports Club,

5.1.5.6 There is also a supermarket and post office within a 1200m walk of the Site.

5.1.5.7 It is demonstrated that there is a good range of amenities within walking distance of the proposed development.

5.1.6 Public Rights of Way

5.1.6.1 Figure 5.2 presents the existing Public Rights of Way (PROW) near to the Site. Footpath No HE310/1 runs close to the western boundary of the Site. The Development Framework Plan shows that this footpath can be retained in its current alignment.

5.1.6.2 Figure 5.2 shows that there is an extensive network of footpaths in/near Sellindge, providing good opportunity for leisure walking in the vicinity of the Site.

5.1.7 Proposed Pedestrian Infrastructure Enhancements

5.1.7.1 It is proposed that the following pedestrian infrastructure provided as part of the Site Access arrangements:

(i) Introduce 3.0m shared footway/cycleway on the east side of the Site access road and on the south side of the A20. Introduce 2.0m footway on the west side of the access road;
(ii) Introduce a Toucan crossing on the A20 to the east of the Site access;
(iii) Introduce pedestrian refuge with dropped kerbs and tactile paving circa 20m east of the Site access on Ashford Road.

5.1.7.2 These works outlined above link to other recent improvements to pedestrian and cycle infrastructure on Ashford Road, and are consistent with those recent improvements. The existing and proposed pedestrian infrastructure within the village offer positive encouragement to residents to elect to walk to nearby amenities, which is in accordance with both local and national policies.

5.1.8 Walk Routes to Schools

5.1.8.1 The nearest primary school to the Site is Sellindge Primary School on the A20 Ashford Road and is located to east of the Site on Ashford Road, about a 575m walk from the Site centroid.

5.1.8.2 The most direct walk route to the school is along A20 Ashford Road. There is continuous footway and street lighting along this route. There is also an existing zebra crossing on A20 Ashford Road in the vicinity of the primary school.

5.1.8.3 The applicant proposes to widen the existing footway on the south side of A20 Ashford Road to form a 3.0m wide footway/cycleway. It is also proposed to provide a pedestrian island to provide a crossing point to the closest bus stops on the A20 and a Toucan crossing further east to provide a link to the existing shared footway/cycleway on the north side of the road.

5.2 Cycle

5.2.1 It is recognised that cycling also has potential to substitute for short car trips, particularly those under 5km, and to form part of a longer journey by public transport.

5.2.2 Gear Change, A Bold Vision for Cycling and Walking (DfT, 2020) states:

"58% of car journeys in 2018 were under 5 miles. And in urban areas, more than 40% of journeys were under 2 miles in 2017-18. For many people, these journeys are perfectly suited to cycling and walking." (Page 11)

5.2.3 Development Generated Cycle Trips

5.2.3.1 As set out in paragraph 5.1.4, AHA has interrogated the TRICS database for suitable multi-modal trip generation rates (refer Chapter 8).

5.2.3.2 The TRICS data provides the following cycle trip generation rates:

	ARR	DEP	TWO-WAY
AM (0800-0900)	0.005	0.015	0.020
PM (1600-1700)	0.013	0.008	0.021
12-hour	0.056	0.061	0.117.

5.2.3.3 On this basis the proposed development is estimated to generate the following cycle trips:

	ARR	DEP	TWO-WAY
AM	0	1	1
PM	1	0	1
12-hour	3	3	6.

5.2.3.4 The majority of these cycle trips are likely to be to/from the east of the Site as that where the majority of amenities within the village are located.

5.2.4 Cycle Isochrones and Local Amenities

5.2.4.1 It is recognised that cycling also has potential to substitute for short car trips, particularly those under 5km, and to form part of a longer journey by public transport.

5.2.4.3 The cycle isochrones presented in Figure 5.3 were created using Basemap TRACC software. The TRACC software adopts a 16km/h cycle speed across the road network. The cycle isochrones presented in Figure 5.3 discounts footpaths which do not permit cyclists.

5.2.4.4 Figure 5.3 indicates the 2km and 5km cycle isochrones for the Site. Review of Figure 5.3 highlights that Sellindge is within a 2km cycle ride of the Site. Figure 5.3 also shows that Brabourne Lees, Lympne Industrial Estate, and some of Lympne and Westenhanger are within a 5km cycle ride of the Site.

5.2.5 Cycle infrastructure Improvements

5.2.5.1 It is proposed to introduce shared footway/cycleway on the south side of the A20 to connect to the existing shared footway/cycleway on the north side of the carriageway. At the crossing point, it is proposed to introduce a Toucan crossing to assist pedestrian and cycle crossing movements.

5.3 Summary

5.3.1 Transport sustainability is a principle underlying the proposed development. Encouraging walk and cycle journeys is recognised as important. The location of the Site provides a good context for journeys of residents to be undertaken on foot and by cycle. There is good walk and cycle infrastructure between the Site and nearby amenities, thereby offering opportunity to foster a sustainable community, in accordance with the aims of local policies and national policy in NPPF.

6 Public Transport

6.1 The proposed development affords opportunity for development generated public transport journeys to be made by bus and rail.

6.2 Public Transport Journeys Generated by the Development

6.2.1 As set out in paragraph 5.1.4, AHA has interrogated the TRICS database for suitable multi-modal trip generation rates (refer Chapter 8).

6.2.2 The TRICS data provides the following public transport (bus/tram/rail) generation rates:

	ARR	DEP	TWO-WAY
AM (0800-0900)	0.001	0.024	0.025
PM (1800-1900)	0.019	0.007	0.026
12-hour	0.073	0.083	0.156.

6.2.3 On this basis the proposed development of 105 dwellings is estimated to generate the following public transport trips:

	ARR	DEP	TWO-WAY
AM	0	1	1
PM	1	0	1
12-hour	4	5	9.

6.2.4 The above trips are likely to be predominately bus and rail trips, given that these are the public transport options available to residents of the proposed development.

6.3 Bus

6.3.1 Existing Bus Stops

6.3.1.1 Figure 5.1 identifies the locations of existing bus stops in the vicinity of the Site. The nearest bus stops are on the A20 Ashford Road. The westbound stop is within a circa 130m walk of the Site centroid and the eastbound stop is within a circa 200m walk.

6.3.1.2 The bus stops comprise flag and pole with timetable information.

6.3.2 Bus Services & Frequency

6.3.2.1 Service No 10 calls at the stops closest to the Site. The Service No 10 operates between Folkstone and Ashford, with an hourly frequency in both directions, Monday-Saturday.

6.3.2.2 The first and last journeys **to** these destinations are:

DAY	TO ASHFORD		TO HYTHE		TO FOLKESTONE	
	FIRST	LAST	FIRST	LAST	FIRST	LAST
Monday to Friday	0903	1930	0642	1839	0706	1739
Saturday	0903	1930	0739	1839	0739	1739.

6.3.2.3 The first and last journeys **from** these destinations are:

DAY	FROM ASHFORD		FROM HYTHE		FROM FOLKESTONE	
	FIRST	LAST	FIRST	LAST	FIRST	LAST
Monday to Friday	0620	1804	0834	1915	0910	1810
Saturday	0704	1804	0834	1915	0910	1810.

6.3.2.4 The typical approximate journey times to these destinations are:

LOCATION	JOURNEY TIME (MINS)
Hythe, Red Lion Square	31
Ashford International Railway Station	36
Folkestone, Bus Station	56.

6.3.2.5 The 18A bus service operates between Canterbury and Ashford, calling at the bus stops closest to the Site. The service operates on Monday-Fridays on school days only. The No 18A has two service each day. The AM service that leaves Ashford at 0657, calls at Sellindge (the Dukes Head) at 0720 and arrives at Canterbury Bus Station at 0825. The return journey leaves Canterbury Bus Station at 1615, calls at Sellindge at 1713 and arrives back at Ashford at 1740.

6.3.2.6 The 971 bus service calls at stops on Swan Lane, which are within a circa 1200m walk of the Site. The 971 service operates between Harvey Grammer School (Folkstone) and Newingreen, also calling at Sellindge. The service operates a single journey Mondays-Fridays on school days only. The service departs Harvey Grammar School at 1538, calls at Sellindge (opposite Downs Way) at 1630 and arrives at Newingreen at 1639.

6.3.2.7 It is demonstrated that there is opportunity for residents of the Site to undertake journeys by bus to a variety of destinations, including Ashford, Folkstone, Hythe and Canterbury.

6.4 Rail

6.4.1 The closest rail station to the Site is Westenhanger, which is located on the South Eastern Main Line and is within a circa 5.5km cycle ride of the Site. There is also a small car park at the station. There is presently no cycle parking at Westenhanger, but cycles can be carried on all off-peak services calling at Westenhanger, and peak services away from London (towards Folkestone and Dover). Folding bikes (such a Bromptons), can be taken on any train at any time.

6.4.2 Rail services between Ramsgate and London Charing Cross call at Westenhanger. The frequency of service at Westenhanger station is typically 1 train per hour in each direction. Services calling at Westenhanger rail station offer travel to a good range of destinations, including, among others:

DESTINATION	JOURNEY TIME (mins)
Ashford International	10
Folkestone West	8
Folkestone Central	10
Dover Priory	22
Ramsgate	75
Tonbridge	50
Sevenoaks	60
London Bridge	85
London Waterloo East	90
London Charing Cross	95.

6.4.3 Ashford International Rail Station is accessible by the No 10 bus services and is a circa 36 minute journey time from the bus stops closest to the Site. Ashford International connects several railway lines including High Speed 1 and the South East Main Line.

6.4.4 In addition to those destinations on the South Eastern Main Line (as set out above), trains are available from Ashford International to a number of locations, including:

DESTINATION	JOURNEY TIME (mins)
Canterbury West	22
Maidstone East	30
Ebbsfleet	18
Stratford International	29
St Pancras International	38.

6.4.5 It is demonstrated that there is opportunity for residents of the Site to undertake journeys by rail to a good range of destinations.

6.5 Summary

6.5.1 The location of the Site provides good opportunity for residents to undertake public transport journeys to a range of destination for a range of journey purposes. This is in accordance with the aims and objectives of current national and local policies.

7 Travel Plan

7.1 The TP for the proposed development is prepared in accordance with best practice and experience, and the 2014 PPG. The outcomes approach is adopted for the development TP.

7.2 The key objectives of the TP are to:

- Contribute to traffic reduction and other sustainable transport objectives set out in national, regional and local policies,
- Improve accessibility of the Site by sustainable modes of transport and address traffic and parking issues,
- Widen choice of travel mode for all those travelling to/from the Site.

7.3 Specific outcomes sought from the TP are to:

- Achieve the minimum number of additional single occupancy car traffic movements to/from the development,
- Address the access needs of site users, by supporting walking, cycling and public transport,
- Reduce the need for travel to/from the Site.

7.4 The TP explicitly considers accessibility by the sustainable travel modes and the proposed measures to encourage their use. These are summarised below:

- Walk & Cycle: Improved pedestrian infrastructure,
- Public Transport: Improved links to existing infrastructure,
- Electric vehicles: Provision of a 32Amp single phase electrical supply to allow for the future inclusion of an individual electric car charging point for each property,
- Car Share: To be promoted by the Travel Plan Co-ordinator (TPC),
- Work at home: Provision of infrastructure for high speed broadband service to be delivered to the new houses,
- Behavioural strategies: To be promoted by the TPC.

7.5 The residential TP target is set as maximum AM and PM peak hour 2-way vehicle trip rates of **0.472 and 0.457 vehicles/hour/dwelling** respectively.

7.6 The TP is to operate for a period of 5 years after first occupation of the development.

7.7 The developer will appoint a TPC, to introduce, manage, operate and monitor the TP. As part of the ongoing management of the TP, the TPC will maintain a dialogue with the Council, and

monitor emerging best practice information, to provide the most efficient platform for maximising the effectiveness of the TP.

7.8 The developer is required to finance the TP. A sufficient revenue budget will be identified to employ the TPC for a period of 5 years, on a sufficient basis to introduce and manage the TP initiatives, and thereafter as required to:

- Manage the initiatives,
- Finance the measures identified in this and subsequent TP Monitoring and Review reports as agreed with the Council, and
- Enable the TPC postholder to carry out the duties identified above.

7.9 The TP Action Plan is set out in Chapter 9 of the TP. The TP includes a summary table that identifies measures that are proposed, and indicates the timing for the measures and funding information. This illustrates the holistic approach adopted for the TP, aimed at encouraging from the outset a positive sustainable transport awareness and culture for the development. The TP measures will be reviewed and amended as appropriate, in consultation with and requiring the agreement of the local authority, as part of the ongoing dynamic monitoring and review process for the TP.

8 Traffic Flows

8.1 Study Network

8.1.1 The TA study network of junctions comprises:

REF	JUNCTION	CONTROL
SJ1A	Grove House Access/ A20 Ashford Road	Priority Control;
SJ2	A20 Ashford Road/ Swan Lane/ The Cygnets	Priority Control;
SJ3	A20 Ashford Road/ B2067 Otterpool Lane	Traffic Signals.

8.2 Peak Periods

8.2.1 The times when the combination is greatest, of traffic generated by the proposed residential development and the existing highway network traffic, are the weekday AM & PM peak hours. The TA includes quantitative analysis of the traffic impact of the proposed development for these periods.

8.3 Traffic Counts

8.3.1 AHA has available the following traffic count data for the TA study network:

- A20 Ashford Road: Traffic Count Data 24 June 2021;
- SJ2-SJ3: Classified turning counts undertaken on 12 September 2023.

8.3.2 Analysis of the traffic count data identifies the peak hours for traffic flows at the study junctions as:

- AM: 0830-0930, and
- PM: 1630-1730.

Quantitative analysis is undertaken for these peak hours.

8.3.3 Figure C1, Appendix C, presents the AM & PM peak hour traffic count flows at the study junctions. The flows are presented in PCU.

8.4 Traffic Growth

8.4.1 For the purposes of quantitative testing of the local highway network, it is assumed that the development will be fully constructed and operational by year **2031.**

8.4.2 The National Transport Model (NTM) is used as a basis for deriving local growth factors. The NTM growth factors adopted to estimate year 2031 traffic flows, from the count data, are set out in Technical File Note 1B, Appendix D. The future growth assumptions have been adjusted to reflect the fact that the Otterpool application is estimated to 2684 homes and employment uses by 2031.

8.4.3 Factored Counts

8.4.3.1 Figure C2, Appendix C presents the 2031 AM & PM peak hour traffic flows at all of the study network junctions.

8.5 Committed Developments

8.5.1 The following committed developments/pending applications are included in the TA quantitative assessment:

(i) Y14/0873/SH: 190 dwellings,
(ii) Y16/1122/SH: 162 dwellings,
(iii) Y19/0257/FH: mixed use development (2684 dwellings assumed to be built by 2031),

8.5.2 The Otterpool scheme is a large mixed-use development that includes the construction of up to 8500 homes. It is assumed for the purposes of the quantitative analysis that 32% of this development will be built out and occupied by the future assessment year of 2031.

8.5.3 The committed development AM & PM peak hour traffic flows are presented on:

(i) Y14/0873/SH: Figure C3, Appendix C,
(ii) Y16/1122/SH: Figure C4, Appendix C,
(iii) Y19/0257/FH: Figure C5, Appendix C.

8.5.4 The total committed development impact is presented on Figure C6, Appendix C.

8.6 2031 Base

8.6.1 The 2031 Base traffic flows comprise the growthed traffic counts plus the committed development traffic and are presented on Figure C7, Appendix C.

8.7 Distribution of Development Generated Traffic

8.7.1 It is necessary to estimate the % distribution of the proposed development generated traffic.

8.7.2 The distribution of development generated traffic is based on an interrogation of the 2011 Census Data, which is summarised in Table 8.1.

8.7.3 The % distribution of traffic generated at the study junctions by the proposed residential development that is adopted for the purpose of the TA quantitative analysis is presented on Figure C8, Appendix C.

8.7.4 The previous TA report agreed a % distribution with KCC. The same % distribution is adopted for this updated TA report.

8.7.5 The application for the residential development on up to 54 dwellings at the Site is outline with all matters reserved, except access. However, for the purposes of TA quantitative assessment it is assumed that the Site could accommodate up to 55 dwellings. An application for a residential development of up to 105 dwellings at the Potten Farm site is to run parallel to this application. It is also outline with all matters reserved, including access. The latter development may introduce a separate access on the A20 or it could rely on the access proposed as part of this application. AHA is not aware of any application for a proposed development at the Rotherwood site at present, but it is assumed this could come forward at some point in the future. The Rotherwood Site will be reliant on access through Grove House/Potten Farm. Consequently, the following scenarios are tested:

(i) Scenario 1: Traffic Generated by Grove House using the proposed Site access on the A20,

(ii) Scenario 2: Traffic generated by Grove House and Potten Farm and using only the Grove House access.

(iii) Scenario 3: Traffic generated by the Grove House, Potten Farm and Rotherwood sites using only the Grove House access.

8.7.6 The % distribution adopted for Scenarios 1-3 are presented on the following figures:

(i) Scenario 1&2: Figure C8, Appendix C,

(ii) Scenario 3: Figure C9, Appendix C,

8.8 Generated Traffic

8.8.1 The proposed development at the Site comprises up to 55 dwellings. However, it is part of a wider allocation of up to 255 dwellings (105 at the Potten Farm site and 95 at the Rotherwood site).

8.8.2 Trip generation rates were agreed with KCC and adopted in the previous TA are set out below:

PEAK	ARR	DEP	2-WAY
AM	0.140	0.300	0.440
PM	0.320	0.180	0.500.

8.8.3 However, the TA report was prepared in March 2020 and adopted trip rates from another application which was submitted in 2014. Therefore, the TRICS data used in the TA that supported the 20/0604/FH application is quite old now. Consequently, a new TRICS interrogation is undertaken.

8.8.4 TRICS is interrogated for information about trip generation rates for Houses. Criteria adopted for this interrogation include:

- Houses privately owned,
- Sites between 200-300 units,
- All surveys 2015 or more recent,
- Sites in Ireland, Northern Ireland and Greater London excluded on the basis that they may have significantly different travel characteristics,
- If a site has multiple survey date entries, include only the most recent survey used within the identified TRICS sample, (to avoid statistical bias in the trip rates identified for use in the analysis),
- Surveys undertaking during covid pandemic restrictions excluded.

8.8.5 A copy of the TRIC output data is included in Appendix E. Average trip generation rates are adopted and these are set out below:

	ARR	DEP	2-WAY
AM (0800-0900)	0.163	0.361	0.524
PM (1700-1800)	0.351	0.157	0.508.

8.8.6 Review of the above trip generation rates show that these are higher than those adopted previously. Therefore, the newer trip generation rates are adopted for robustness. The

consequent estimate of traffic (in vehicles) generated by the proposed development of 55 dwellings in the AM and PM peak hours is:

PEAK	ARR	DEP	2-WAY
AM	9	20	29
PM	19	9	28.

8.8.7 As set out previously, the TA quantitative analysis includes an assessment of the wider allocation that comprises both the application for the 55 dwellings at Grove House, 105 dwellings at Potten Farm (the subject of a separate planning application) and the 95 dwellings at the Rotherwood site (no application at present). The estimate of the traffic generated by the 105 dwellings at Potten Farm is set out below:

PEAK	ARR	DEP	2-WAY
AM	17	38	55
PM	37	16	53.

8.8.8 The estimate of the traffic generated by the 95 dwellings at the Rotherwood site is set out below:

PEAK	ARR	DEP	2-WAY
AM	16	34	50
PM	33	15	48.

8.8.9 The estimate of the traffic generated by the Grove House, Potten Farm and Rotherwood developments, totalling 255 dwellings, is set out below:

PEAK	ARR	DEP	2-WAY
AM	42	92	134
PM	89	40	129.

8.8.10 The estimate of the AM and PM peak hour traffic generated by the Potten Farm, Grove House and Rotherwood developments on the local highway network (Rotherwood at the access junctions only) for the 2 scenarios are set out on the following figures:

(i) Scenario 1: Figure C10, Appendix C,
(ii) Scenario 2: Figure C11, Appendix C,
(iii) Scenario 3: Figure C12, Appendix C.

8.9 2031 With Development Scenarios

8.9.1 The estimate of the AM and PM peak hour 2031 With Development traffic flows for Scenarios 1-4 are set out on the following figures:

(i) Scenario 1: Figure C13, Appendix C,
(ii) Scenario 2: Figure C14, Appendix C,
(iii) Scenario 3: Figure C15, Appendix C,

8.10 Junction Modelling

8.10.1 Junction modelling is undertaken and discussed in Chapter 9.

9 Operational Performance of the Highway Network

9.1 The computer program PICADY (within Junctions 10) is used to model the performance of a priority (give-way) control junction. PICADY predicts the ratio of flow to capacity (RFC) and associated queues and delays for the minor (give-way) entry to the junction and for the major road. PICADY is used to model the operational performance of SJ1A and SJ2.

9.2 The computer program LINSIG is used to model the performance of a traffic signal junction. LINSIG predicts the degree of saturation (DS) and the associated queues and delays of the signal arm lanes. LINSIG is used to model the operational performance of SJ3.

9.3 The application for the residential development on up to 55 dwellings at the Grove House Site is outline with all matters reserved, except access. An application for a residential development of up to 105 dwellings at the Potten Farm site is to run parallel to this application. It is also outline with all matters reserved, including access. The latter development may introduce a separate access on the A20 or it could rely on the access proposed as part of the Grove House application. AHA is not aware of any application for a proposed development at the Rotherwood site at present, but it is assumed this could come forward at some point in the future. The Rotherwood Site will be reliant on access through Grove House/Potten Farm. Consequently, the following scenarios are tested:

(i) Scenario 1: Traffic Generated by Grove House using the proposed Site access on the A20,
(ii) Scenario 2: Traffic generated by Grove House and Potten Farm and using only the Grove House access.
(iii) Scenario 3: Traffic generated by the Grove House, Potten Farm and Rotherwood sites using only the Grove House access.

9.4 Modelling of the TA Study Junctions is undertaken as follows:

(i) SJ1A: 2031 With Development (Scenarios 1-3),
(ii) SJ2: 2031 Base and With Development (Scenarios 1-2),
(iii) SJ3: 2031 Base and With Development (Scenarios 1-2).

9.5 Given that there is no application for development of the Rotherwood site, only the modelling of the Grove House access point consider the traffic generated by this potential future development.

9.6 SJ1A: A20 Ashford Road/Grove Farm Access

9.6.1 Table 9.1 presents the results of the PICADY modelling of SJ1A for the AM and PM peak hours for Scenarios 2, 3 and 4. Review of Table 9.1 shows that the priority-controlled junction is predicted to operate with a high degree of spare capacity and negligible queues/delays in the year 2031 AM & PM peak hour With Development situation in Scenarios 1-3.

9.7 SJ2: A20 Ashford Road/Swan Lane/The Cygnets

9.7.1 Table 9.2 presents the results of the PICADY modelling of the A20 Ashford Road/Swan Lane junction (SJ2). Review of Table 9.3 shows that the priority-controlled junction is predicted to operate with spare capacity and negligible queues/delays in the year 2031 AM & PM peak hour Base situation.

9.7.2 The PICADY modelling predicts that the junction will continue to operate with spare capacity and negligible queues/delays in the 2031 With Development in Scenarios 1 and 2.

9.8 SJ3: A20 Ashford Road/B2067 Otterpool Lane

9.8.1 Table 9.3 presents the results of the LINSIG modelling of the A20 Ashford Road/Otterpool Lane junction (SJ3). Review of Table 9.4 shows that the traffic signal junction is predicted to operate with spare capacity in the year 2031 AM & PM peak hour Base situation.

9.8.2 The LINSIG modelling also predicts that the junction will continue to operate with spare capacity in the 2031 With Development situation in Scenarios 1 and 2.

9.9 Summary

9.9.1 Junction analysis and modelling is undertaken for the year 2031 for the AM & PM peak hour Base and With Development situations. It is concluded that the proposed residential development **does not** have a detrimental impact on the operational performance of the TA highway network.

10 Summary & Conclusions

10.1 Ashley Helme Associates Limited are appointed by Gladman Developments Ltd to prepare a Transport Assessment report to support the planning application for residential development on land South of Ashford Road, Sellindge. The Site is presently agricultural land. The proposed development comprises a residential development of up to 54 dwellings.

10.2 Access Strategy

10.2.1 The planning application seeks outline consent with all matters reserved, except access. This TA considers access for vehicles, cyclists and pedestrians via a single access on A20 Ashford Road.

10.2.2 The proposed Site Access arrangements on the A20 Ashford Road are shown on Drg No. 1687/04/E. Access arrangements were agreed with Kent County Council (KCC) highways officers as part of 2020 application for 55 dwellings, though it was recognised at the time that the access proposals would likely serve the wider allocated Site. The access arrangements have been subsequently updated to improve the cycle connectivity of the Site.

10.2.3 The key features of the proposed Site Access/A20 Ashford Road arrangements and associated highway works shown on Drg No 1687/04/E, include:

(i) Introduce new Site Access, forming a 'T' junction with the A20 Ashford Road;
(ii) Junction to operate under priority control;
(iii) Introduce 3.0m wide ghost island right turn lane on A20 Ashford Road;
(iv) Introduce 3.0m shared footway/cycleway on the east side of the Site access road and on the south side of the A20. Introduce 2.0m footway on the west side of the access road;
(v) Introduce pedestrian refuge with dropped kerbs and tactile paving circa 20m east of the Site access on Ashford Road;
(vi) Widen the existing footway on the southern side of the A20 Ashford Road to 2.0m;
(vii) Remove the existing parking layby on Ashford Road;
(viii) Relocate both bus stops in the vicinity of the Site;
(ix) Provide 2.4m x 111m visibility splay to the left, for vehicles emerging from the Site Access;
(x) Provide 2.4m x 109m visibility splay to the right, for vehicles emerging from the Site Access.

10.2.4 It is recognised that the guidance set out in LTN 1/20 (Cycle infrastructure design) recommends that footways and cycleways are segregated. However, given that there is an existing shared footway/cycleway on the north side of the A20 to the east of the Site, for consistency it is proposed to provide a 3.0m shared footway/cycleway on the south side of the A20. It is also proposed to provide a Toucan crossing on the A20 to link the shared footway/cycleway. This is shown on Drg No 1687/07.

10.2.4 The swept path analysis shown on Drg Nos 1687/SP/02/D and 1687/SP/03/D confirms that all of the 'test' vehicles can complete all turns at the junction.

10.3 Walk and Cycle

10.3.1 The principle of transport sustainability underlies the masterplan development. The location of the Site provides a good context for journeys to be undertaken on foot and by cycle, and the masterplan access strategy reflects this with the provision of good permeability and connectivity for pedestrians and cyclists.

10.3.2 The proposed residential development is to provide pedestrian and cycle access via the main Site access on Ashford Road. In addition, the applicant proposes a range of complementary measures, including:

(i) 2.0m wide footway on the west side of the Site Access. A 3.0m wide shared footway/cycle access on the east side of the access road and on the south side of the A20 to connect to the existing shared footway/cycleway to the west;
(ii) Introduce dropped kerbs and tactile paving at the proposed Site Access;
(iii) Introduce a Toucan crossing to the east of the Site access to provide a link to the existing shared footway/cycleway;
(iv) Introduce pedestrian refuge with dropped kerbs and tactile paving on Ashford Road in the vicinity of the Site Access.

10.3.3 The package of measures will encourage residents of the proposed development to access local amenities and nearby public transport facilities. The measures are designed for all users, and have particular emphasis for those with mobility impairment. This is consistent with the aims and objectives of NPPF.

10.3.4 The location of the Site and nearby local amenities, offer a good opportunity for fostering a sustainable community. This is in accordance with the aims of local policies and national policy in NPPF.

10.4 Public Transport

10.4.1 Encouraging public transport journeys is an important component of the development access strategy.

10.4.2 Existing bus services, that offer frequent travel to Ashford, Hythe and Folkestone are accessible within a short walk of the Site. The services offer opportunity to complete work, education, shopping and leisure trips by bus.

10.4.3 The10 bus service provides opportunity for future residents of the Site to access Ashford International Rail Station. Trains calling at this station offer frequent travel to destinations including Canterbury West, Maidstone East, Stratford International and St Pancras International.

10.4.4 It is demonstrated that the Site has good public transport accessibility, with opportunities for frequent travel by bus and rail to/from the Site, including weekdays and weekends. This is in accordance with the aims and objectives of current national and local policies.

10.5 Traffic Impact

10.5.1 A TA study network of junctions is identified and comprises:

REF	JUNCTION	CONTROL
SJ1A	Site Access/ A20 Ashford Road	Priority Control;
SJ2	A20 Ashford Road/ Swan Lane/The Cygnets	Priority Control;
SJ3	A20 Ashford Road/ B2067 Otterpool Lane	Traffic Signals.

10.5.2 The application for the residential development on up to 54 dwellings at the Grove House Site is outline with all matters reserved, except access. An application for a residential development of up to 105 dwellings at the Potten Farm site is to run parallel to this application. It is also outline with all matters reserved, including access. The latter development may introduce a separate access on the A20 or it could rely on the access proposed as part of the Grove House application. AHA is not aware of any application for a proposed development at the Rotherwood site at present, but it is assumed this could come forward at some point in the future. The Rotherwood Site will be reliant on access through Grove House/Potten Farm. Consequently, the following scenarios are tested:

(i)	Scenario 1:	Traffic Generated by Grove House using the proposed Site Access on the A20,
(ii)	Scenario 2:	Traffic generated by Grove House and Potten Farm and using only the Grove House access.
(iii)	Scenario 3:	Traffic generated by the Grove House, Potten Farm and Rotherwood sites using only the Grove House access.

10.5.3 Modelling of the TA Study Junctions is undertaken as follows:

(i)	SJ1A:	2031 With Development (Scenarios 1-3),
(ii)	SJ2:	2031 Base and With Development (Scenarios 1-2),
(iii)	SJ3:	2031 Base and With Development (Scenarios 1-2).

10.5.4 Given that there is no application for development of the Rotherwood site, only the modelling of the Grove House access points consider the traffic generated by this potential future development.

10.5.3 Junction analysis and modelling is undertaken for the year 2031 for the AM & PM peak hour With Development and Sensitivity Test situations. It is concluded that the proposed residential development has **no material detrimental impact** on the operational performance of the TA highway network.

10.6 Summary

10.6.1 It is concluded that the proposed development is in accordance with national and local transport policies, and that there are no transport/highways reasons for refusal of planning permission.

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Figures

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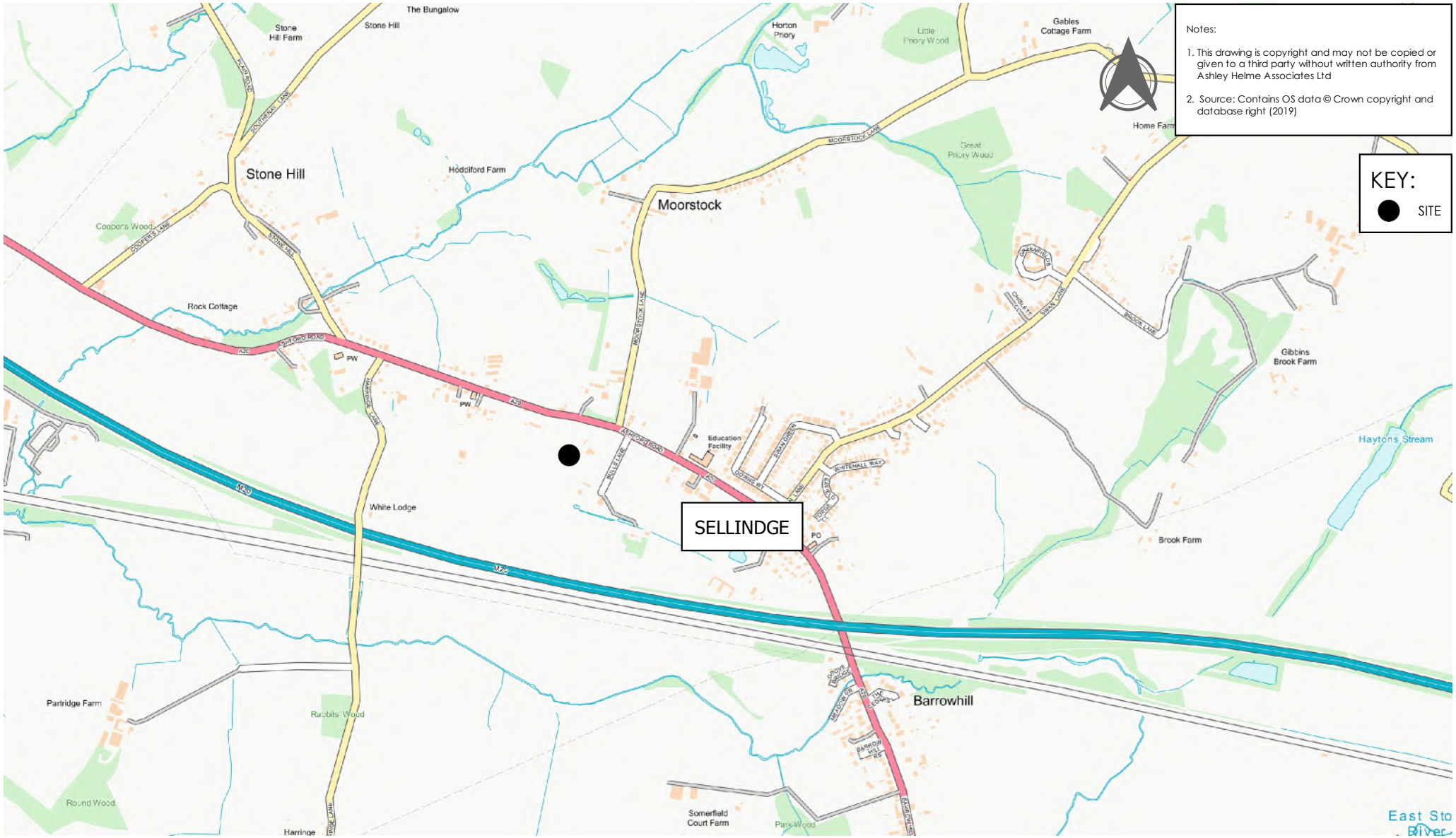
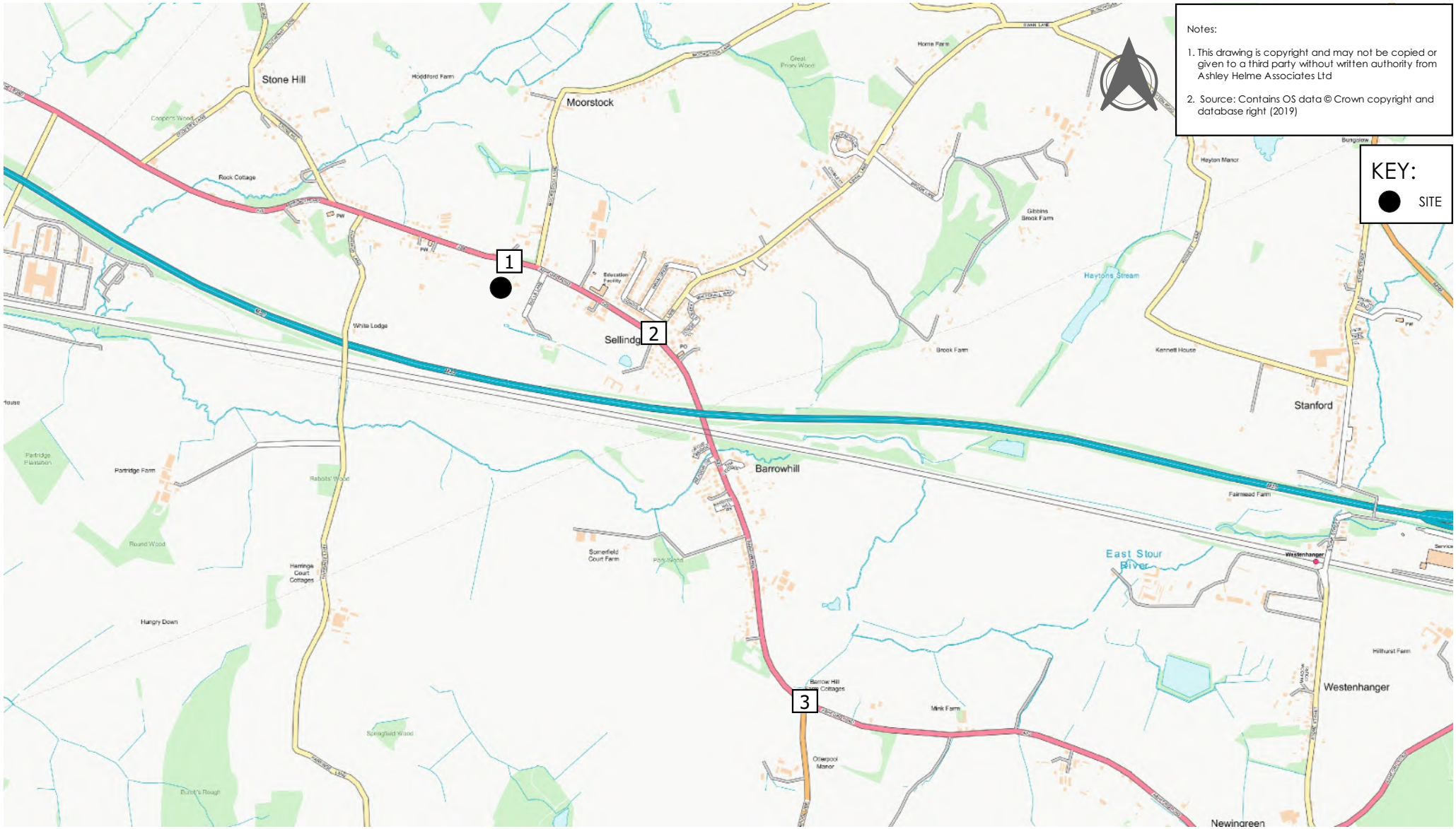
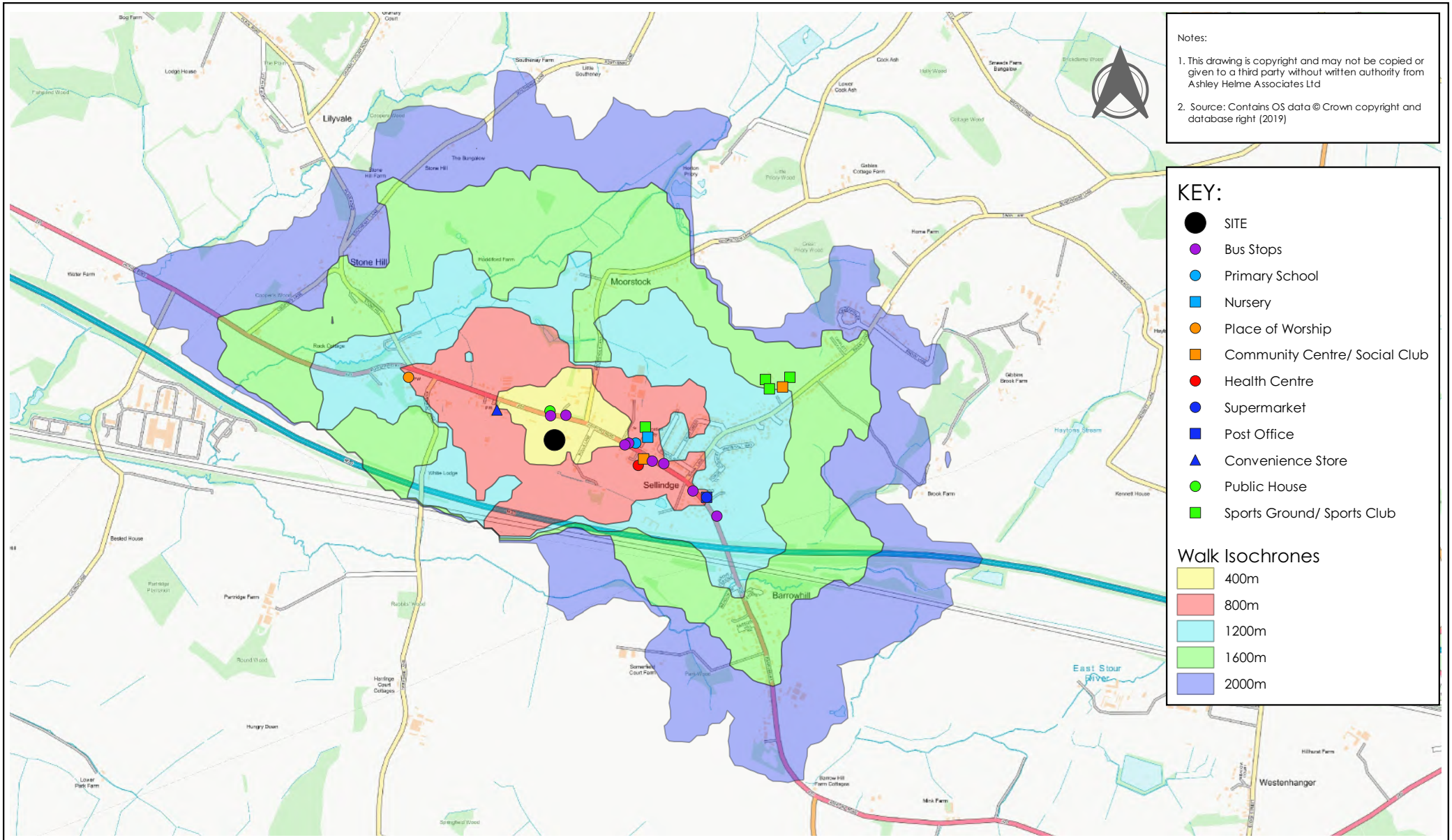


Project: ASHFORD ROAD, SELLINDGE	Title: LOCATION PLAN	FIGURE 1.1	ASHLEY HELME ASSOCIATES
Client: GLADMAN DEVELOPMENTS		Date: OCTOBER 2019 / Scale: NTS	



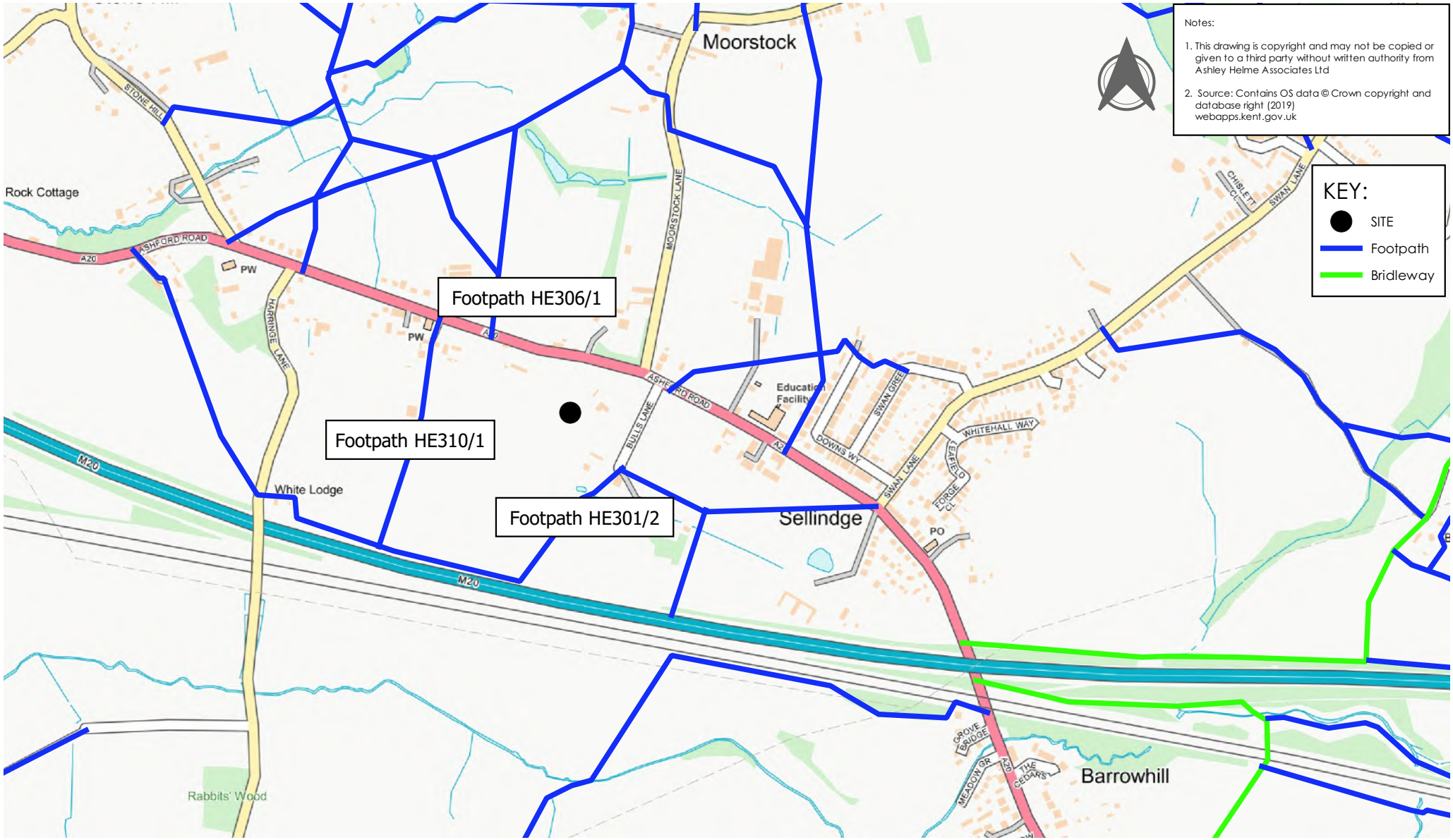
Project: ASHFORD ROAD, SELLINDGE	Title: STUDY JUNCTIONS	FIGURE 3.1	
Client: GLADMAN DEVELOPMENTS		Date: OCTOBER 2019	Scale: NTS

ASHLEY HELME ASSOCIATES

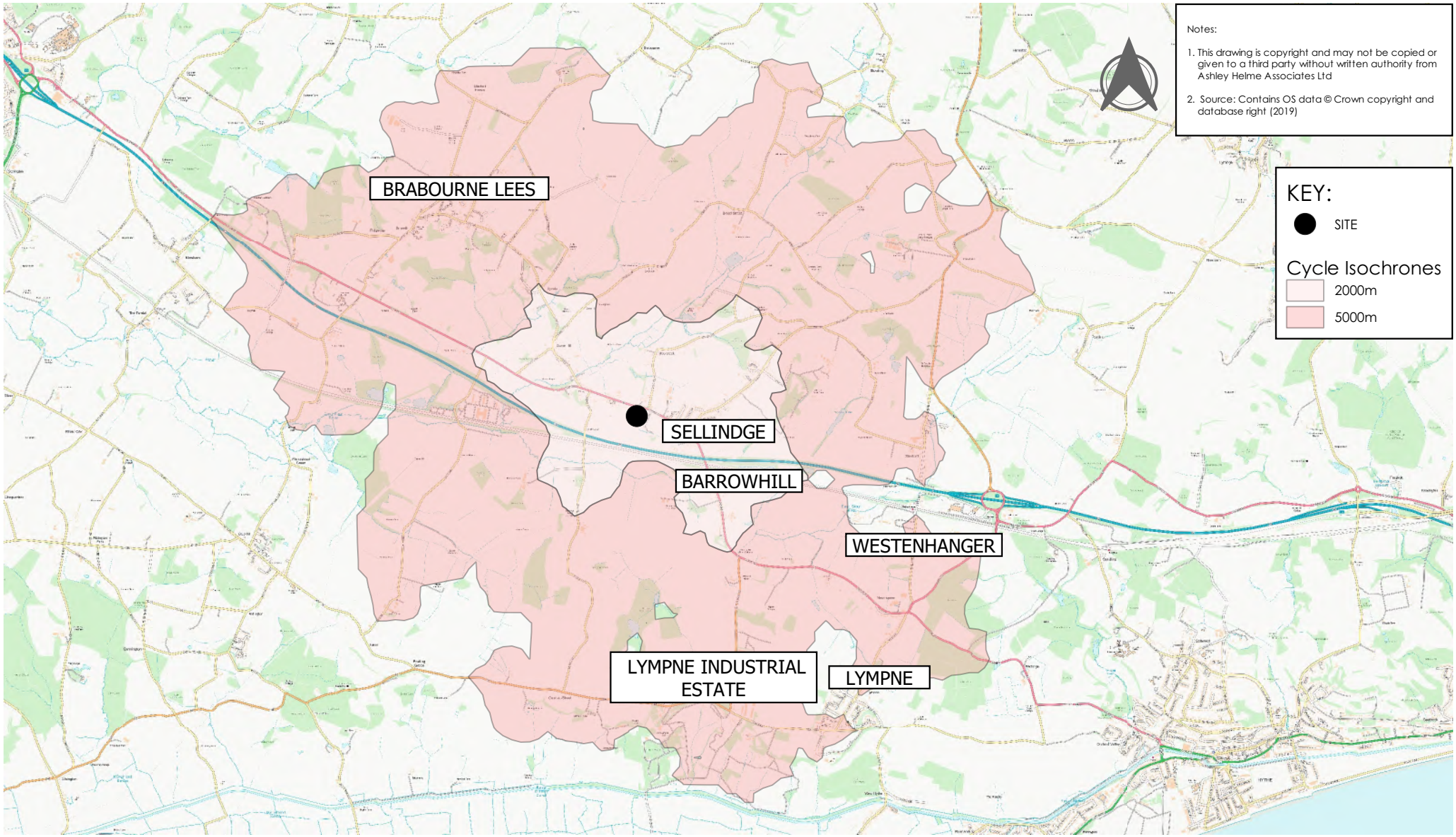


Project: ASHFORD ROAD, SELLINDGE	Title: WALK ISOCHRONES AND AMENITIES	FIGURE 5.1	
Client: GLADMAN DEVELOPMENTS		Date: OCTOBER 2019	Scale: NTS

ASHLEY HELME ASSOCIATES



Project: ASHFORD ROAD, SELLINDGE	Title: PUBLIC RIGHTS OF WAY (PROW)	FIGURE 5.2	ASHLEY HELME ASSOCIATES
Client: GLADMAN DEVELOPMENTS		Date: OCTOBER 2019 / Scale: NTS	



Project: ASHFORD ROAD, SELLINDGE	Title: CYCLE ISOCHRONES	FIGURE 5.3	
Client: GLADMAN DEVELOPMENTS		Date: OCTOBER 2019	Scale: NTS

ASHLEY HELME ASSOCIATES

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Tables

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AREA OF WORKPLACE RESIDENT POPULATION	ROUTE ASSIGNMENT						
	A20 (W)	SWAN LANE	A20 ASHFORD ROAD	A261 (SE)	B2067 (S)		
LOCAL AUTHORITY/COUNTY/REGION						TOTAL	%
Thurrock	2					**2**	0.1
Lewisham	2					**2**	0.1
Bexley	7					**7**	0.4
Bromley	5					**5**	0.3
Greenwich	6					**6**	0.3
Medway	21					**21**	1.1
Hastings	4					**4**	0.2
Rother	8					**8**	0.4
Ashford	476					**476**	25.6
Canterbury		102				**102**	5.5
Dartford	11					**11**	0.6
Dover			115			**115**	6.2
Gravesham	6					**6**	0.3
Maidstone	62					**62**	3.3
Sevenoaks	6					**6**	0.3
Swale	18					**18**	1.0
Thanet			13			**13**	0.7
Tonbridge and Malling	35					**35**	1.9
Tunbridge Wells	8					**8**	0.4
Tandridge	3					**3**	0.2
Crawley	3					**3**	0.2
MIDDLE SUPER OUTPUT AREA						TOTAL	%
Shepway 001		29				**29**	1.6
Shepway 002			10			**10**	0.5
Shepway 003			10	10		**20**	1.1
Shepway 004			7	6		**13**	0.7
Shepway 005			18	18		**36**	1.9
Shepway 006			67	68		**135**	7.3
Shepway 008			24	71		**95**	5.1
Shepway 009					165	**165**	8.9
Shepway 010				116		**116**	6.2
Shepway 011	45					**45**	2.4
Shepway 012					45	**45**	2.4
Shepway 013					71	**71**	3.8
Shepway 014			43	44		**87**	4.7
Shepway 015			38	39		**77**	4.1
TOTAL	**728**	**131**	**345**	**372**	**281**	**1857**	100.0
%	39.2	7.1	18.6	20.0	15.1	100.0	

Table 8.1 **2011 Census Distribution**
Place of Work
Residents in Shepway 009 Middle Super Output Area

MOVEMENT	AM PEAK HOUR			PM PEAK HOUR		
	RFC	QUEUE (pcu)	DELAY (mins/veh)	RFC	QUEUE (pcu)	DELAY (mins/veh)
2031 With Development (Scenario 1)[2]						
Grove House Site Access	0.15	0.1	0.15	0.02	0.0	0.15
A20 Ashford Road	0.01	0.0	0.10	0.01	0.0	0.11
2031 With Development (Scenario 2)[3]						
Grove House Site Access	0.14	0.2	0.17	0.06	0.1	0.16
A20 Ashford Road	0.02	0.0	0.11	0.04	0.0	0.11
2031 With Development (Scenario 3)[4]						
Grove House Site Access	0.23	0.3	0.19	0.11	0.1	0.17
A20 Ashford Road	0.03	0.0	0.11	0.07	0.1	0.11

Notes:
1. Refer Drg No 1687/04/E for access drawing.
2. Refer Figure C13, Appendix C for 2031 With Development (Scenario 2) traffic flows.
3. Refer Figure C14, Appendix C for 2031 With Development (Scenario 3) traffic flows.
4. Refer Figure C15, Appendix D for 2031 With Development (Scenario 4) traffic flows.

Table 9.1 PICADY RESULTS SJ1A Grove House Access/A20 Ashford Road

MOVEMENT	AM PEAK HOUR			PM PEAK HOUR		
	RFC	QUEUE (pcu)	DELAY (secs/veh)	RFC	QUEUE (pcu)	DELAY (secs/veh)
2031 Base[2]						
Unnamed Road	0.00	0.0	0.00	0.00	0.0	0.00
A20 Ashford Road (E)	0.22	0.5	5.90	0.16	0.3	6.09
Swan Lane	0.38	0.7	16.59	0.33	0.5	14.72
A20 Ashford Road (W)	0.00	0.0	5.19	0.01	0.0	4.79
2031 With Development (Scenario 1)[3]						
Unnamed Road	0.00	0.0	0.00	0.00	0.0	0.00
A20 Ashford Road (E)	0.22	0.5	5.91	0.16	0.3	6.06
Swan Lane	0.39	0.7	16.98	0.34	0.6	15.07
A20 Ashford Road (W)	0.00	0.0	5.15	0.01	0.0	4.78
2031 With Development (Scenario 2)[4]						
Unnamed Road	0.00	0.0	0.00	0.00	0.0	0.00
A20 Ashford Road (E)	0.22	0.6	5.93	0.16	0.4	5.98
Swan Lane	0.40	0.7	17.63	0.35	0.6	15.57
A20 Ashford Road (W)	0.00	0.0	5.08	0.01	0.0	4.77

Notes:
1. Refer Drg No 1755/03 for proposed Site access drawing.
2. Refer Figure C7, Appendix C for 2031 Base traffic flows.
3. Refer Figure C13, Appendix C for 2031 With Development (Scenario 1) traffic flows.
4. Refer Figure C14, Appendix C for 2031 With Development (Scenario 2) traffic flows.

Table 9.2 PICADY RESULTS SJ2 A20 Ashford Road/Swan Lane

MOVEMENT	AM PEAK HOUR			PM PEAK HOUR		
	DS	QUEUE (pcu)	DELAY (secs/veh)	DS	QUEUE (pcu)	DELAY (secs/veh)
2031 Base[2]						
A20 Ashford Road (E)	58.4	7.1	27.5	61.6	6.4	41.9
B2067 Otterpool Lane	58.9	6.1	44.2	63.0	10.6	30.6
A20 Ashford Road (W)	57.4	3.9	23.4	60.9	5.2	28.9
2031 With Development (Scenario 1)[3]						
A20 Ashford Road (E)	59.0	7.1	27.6	63.4	6.5	42.4
B2067 Otterpool Lane	59.7	6.2	44.5	63.4	10.7	30.7
A20 Ashford Road (W)	58.7	4.1	23.7	61.9	5.4	29.2
2031 With Development (Scenario 2)[3]						
A20 Ashford Road (E)	60.7	7.7	28.4	65.3	6.9	42.5
B2067 Otterpool Lane	60.0	6.1	44.5	65.3	11.0	31.7
A20 Ashford Road (W)	58.7	4.2	23.1	62.9	5.5	29.2

Notes:
1. Refer Drg No 1755/02 for proposed Site access drawing.
2. Refer Figure C7, Appendix C for 2031 Base traffic flows.
3. Refer Figure C13, Appendix C for 2031 With Development (Scenario 1) traffic flows.
4. Refer Figure C14, Appendix C for 2031 With Development (Scenario 2) traffic flows.

Table 9.3 LINSIG RESULTS SJ3 A20 Ashford Road/Otterpool Lane

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A Collision Data

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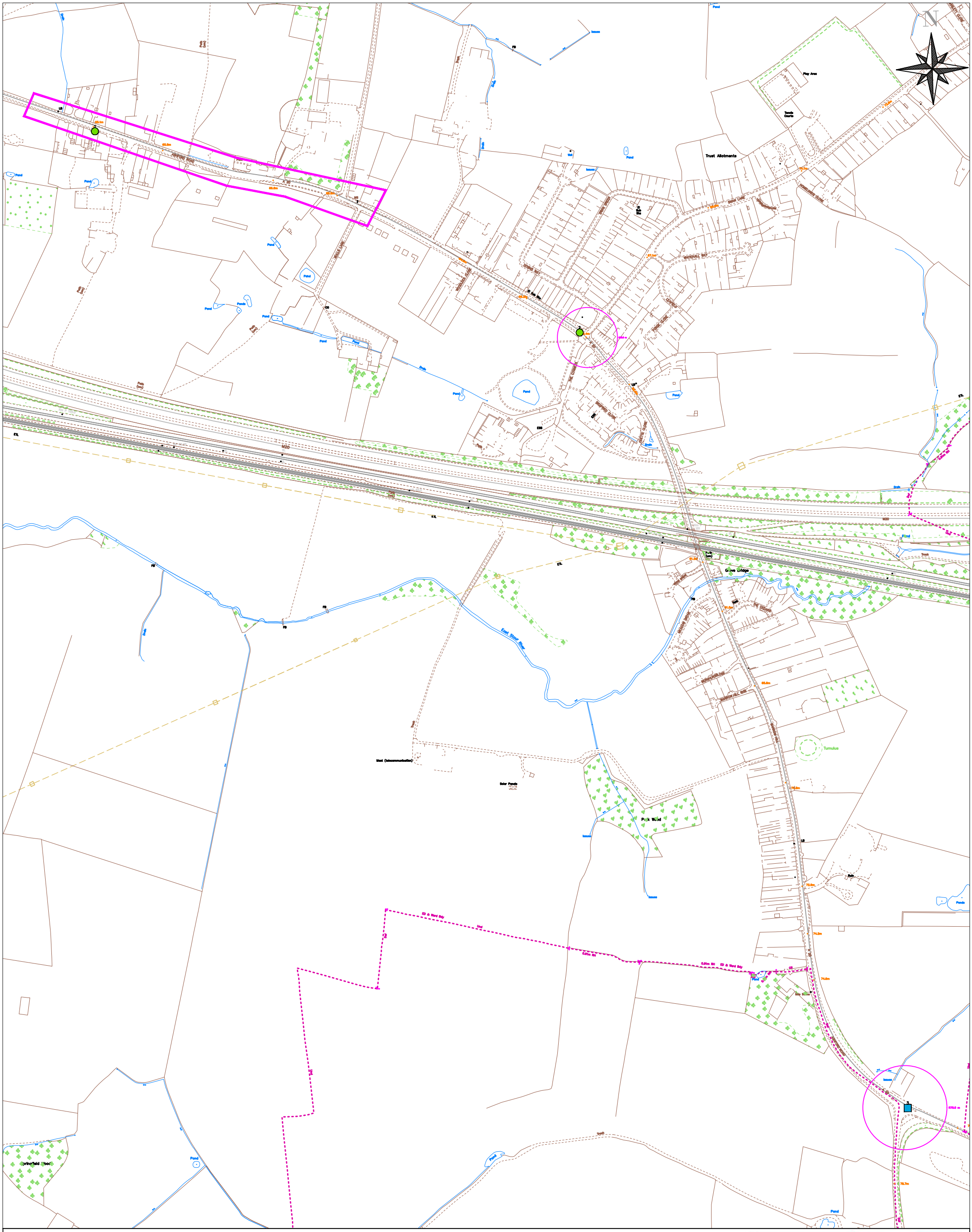

Location: A20, Sellindge

5 years personal injury crash data up to 31/03/2023

KCC Ref number: EXT/225/23

Crash Severity
Slight
Serious
Fatal

Kent County Council
kent.gov.uk

Date: 15-September-2023
Time: 08:18:39

Title: **A20 Sellindge**

Requested output:**D - Print Crash Report**

Date: 15-September-2023

Accident Date BETWEEN '01-Apr-2018' AND '31-Mar-2023'

There were 3 reported crashes resulting in injury

D-PRINT CRASH REPORT

15-Sep-2023
08:18:39

A20 Sellindge
Accident Date BETWEEN '01-Apr-2018' AND '31-Mar-2023'

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
1	**Road No A20 Grid 609691E** **Section 425 Ref 138376N**	SLIGHT	16/08/2019	6	21:13	DRK STL	Wet/Damp	Rain		O/TAKE +VE	
	A20 MAIN RD, SELLINDGE (MAPPED TO COORDS)								Shepway		
	A witness was travelling northwest on Ashford Rd when V1 overtook them at speed. V1 pulled back in front of them but swerved towards the nearside kerb before crashing into V2, which was parked in a parking space. The force of the impact caused V2 to damage the wall of an adjacent property. V1 continued out of control and then collided with V3, which was also parked outside the property. V1 then overturned before coming to a stop on its roof.						Veh1, car, SE -> NW Veh2, car, P -> P Veh3, car, P -> P				Casualties 1 Vehicles 3
2	**Road No A20 Grid 610498E** **Section 433 Ref 138041N**	SLIGHT	11/01/2019	6	19:13	DRK STL	Wet/Damp	Fine		+VE	
	A20 ASHFORD RD J/W C213 SWAN LANE, SELLINDGE								Shepway		
	V1 WAS TRAVELLING NORTHWEST ON ASHFORD RD AND APPROACHED A SET OF ROADWORKS WHICH NARROWED THE ROAD. V1 FAILED TO STOP AND HIT V2 HEAD ON WHICH WAS TRAVELLING IN THE OPPOSITE DIRECTION AND HAD THE RIGHT OF WAY. D1 WAS ARRESTED FOR DRINK DRIVING.						Veh1, car, SE -> NW Veh2, car, NW -> SE				Casualties 2 Vehicles 2
3	**Road No A20 Grid 611044E** **Section 442 Ref 136750N**	SERIOUS	28/07/2020	3	10:35	L	Dry	Fine			
	A20 ASHFORD RD J/W B2067 OTTERPOOL LANE, SELLINDGE.								Shepway		
	It appears that V1 jumped a red light at the traffic lights on Ashford Rd and Otterpool Lane, causing V3 to brake suddenly. V2 went into the back of V3 causing damage to the rear of V3. V2 received damage to its front. V1 did not stop at the accident.						Veh1, car, S -> NW Veh2, car, SE -> NW Veh3, car, SE -> NW				Casualties 2 Vehicles 3

Key

Involved

PED	*Pedestrian*
HGV	*Heavy Goods Vehicle*
GV	*Goods Vehicle*
M/C	*Motor Cycle*
P/C	*Pedal Cycle*
PSV	*Bus/Coach*

Street Lighting

L	*Daylight*
STL	*Street Lights*
USL	*Street LIghts Unlit*
NSL	*No Street Lights*
STU	*Street Lights Unknown*

FACTORS

+VE	*Positive Breath Test*
R.TURN	*Right Turn Manoeuvre*
O/TAKE	*Overtaking Manoeuvre*
S.VEH	*Single Vehicle*

Special Conditions

ATS OUT	*Traffic Lights Not Working*
ATS DEF	*Traffic Lights Defective*
SIGNS	*Road Signs Defective or Obscurred*
RD WRKS	*Road Works*
Surface	*Road Surface Defective*

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B ATC Data

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Sellindge, Kent ATC 01, Ashford Road

Produced by Streetwise Services Ltd.

Channel 1 - Eastbound

	29/10/2019 Tuesday	30/10/2019 Wednesday	31/10/2019 Thursday	01/11/2019 Friday	02/11/2019 Saturday	03/11/2019 Sunday	04/11/2019 Monday	5-DAY MEAN	7-DAY MEAN
Vehicle Flow	2559	2638	2478	2501	1953	2897	2806	**2596**	**2547**
Mean Speed	34.5	36.1	36.6	36.6	37.6	36.1	35.4	**35.9**	**36.1**
85%ile Speed	41.2	42.5	44.1	43.2	44.7	44.4	41.0	**42.4**	**43.0**
No. Vehicles > 30 MPH Limit	1856	2072	1979	1913	1594	2276	2168	**1998**	**1980**
% Vehicles > 30 MPH Limit	72.5	78.5	79.9	76.5	81.6	78.6	77.3	**76.9**	**77.8**
No. Vehicles > 45 MPH	50	82	61	67	95	111	88	**70**	**79**
% Vehicles > 45 MPH	2.0	3.1	2.5	2.7	4.9	3.8	3.1	**2.7**	**3.1**

Channel 2 - Westbound

	29/10/2019 Tuesday	30/10/2019 Wednesday	31/10/2019 Thursday	01/11/2019 Friday	02/11/2019 Saturday	03/11/2019 Sunday	04/11/2019 Monday	5-DAY MEAN	7-DAY MEAN
Vehicle Flow	2239	2140	2148	2343	1915	2860	2508	**2276**	**2308**
Mean Speed	36.7	38.5	37.2	35.3	36.1	35.5	34.9	**36.5**	**36.3**
85%ile Speed	41.4	44.0	42.9	40.5	41.9	40.4	40.2	**41.8**	**41.6**
No. Vehicles > 30 MPH Limit	1915	1906	1879	1938	1646	2312	2045	**1937**	**1949**
% Vehicles > 30 MPH Limit	85.5	89.1	87.5	82.7	86.0	80.8	81.5	**85.3**	**84.7**
No. Vehicles > 45 MPH	60	65	52	43	48	56	47	**53**	**53**
% Vehicles > 45 MPH	2.7	3.0	2.4	1.8	2.5	2.0	1.9	**2.4**	**2.3**

Channels 1+2 - Eastbound & Westbound

	29/10/2019 Tuesday	30/10/2019 Wednesday	31/10/2019 Thursday	01/11/2019 Friday	02/11/2019 Saturday	03/11/2019 Sunday	04/11/2019 Monday	5-DAY MEAN	7-DAY MEAN
Vehicle Flow	4798	4778	4626	4844	3868	5757	5314	**4872**	**4855**
Mean Speed	35.6	37.3	36.9	36.0	36.9	35.8	35.2	**36.2**	**36.2**
85%ile Speed	41.3	43.2	43.5	41.9	43.3	42.4	40.6	**42.1**	**42.3**
No. Vehicles > 30 MPH Limit	3771	3978	3858	3851	3240	4588	4213	**3934**	**3928**
% Vehicles > 30 MPH Limit	78.6	83.3	83.4	79.5	83.8	79.7	79.3	**80.8**	**81.1**
No. Vehicles > 45 MPH	110	147	113	110	143	167	135	**123**	**132**
% Vehicles > 45 MPH	2.3	3.1	2.4	2.3	3.7	2.9	2.5	**2.5**	**2.7**

Note: All figures are based on data from the hours 0000-0700, 0900-1600 & 1800-2400.

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C Traffic Flows

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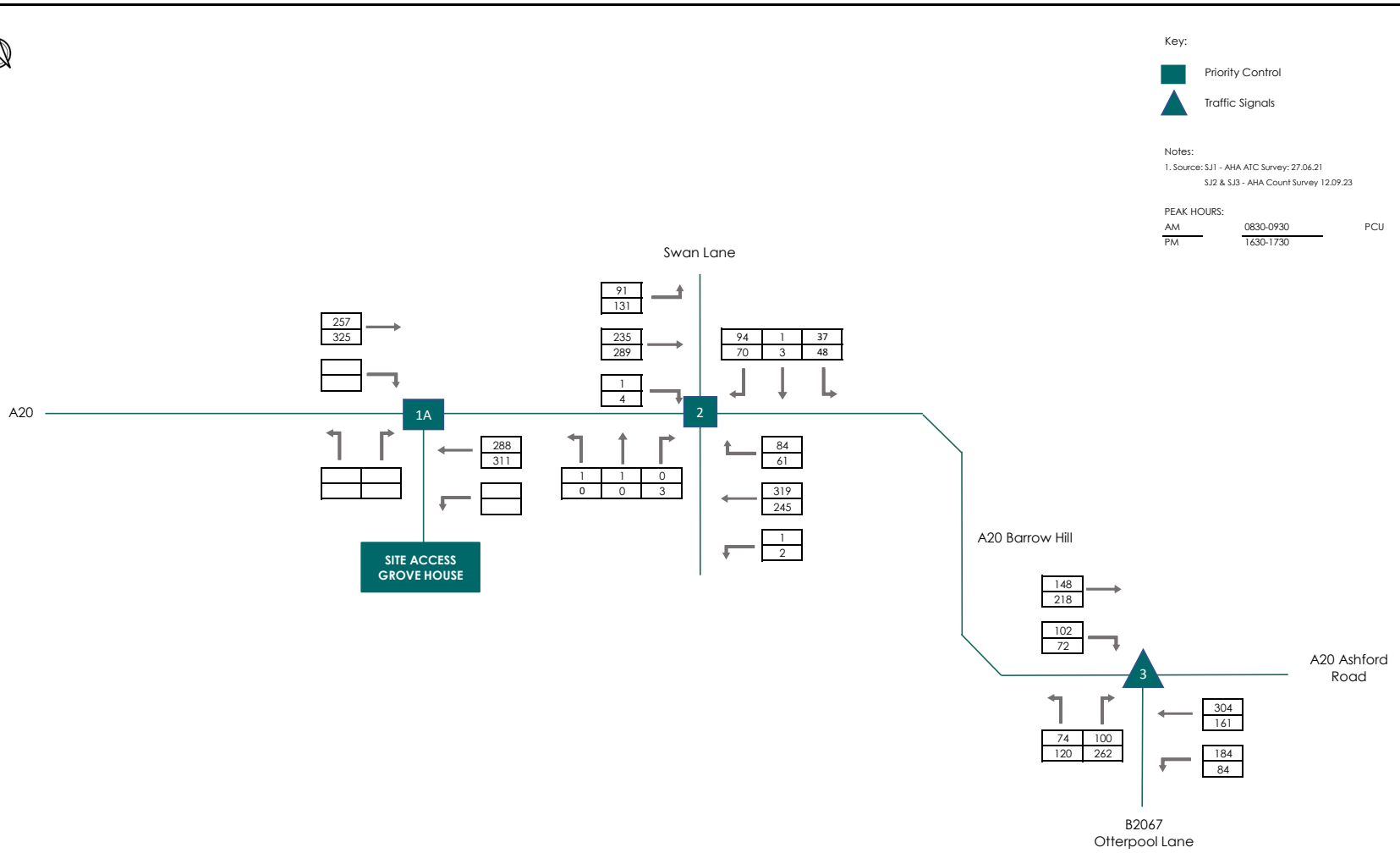

FIGURE C1 **TRAFFIC COUNT**

AM & PM PEAK HOURS

ASHLEY HELME ASSOCIATES

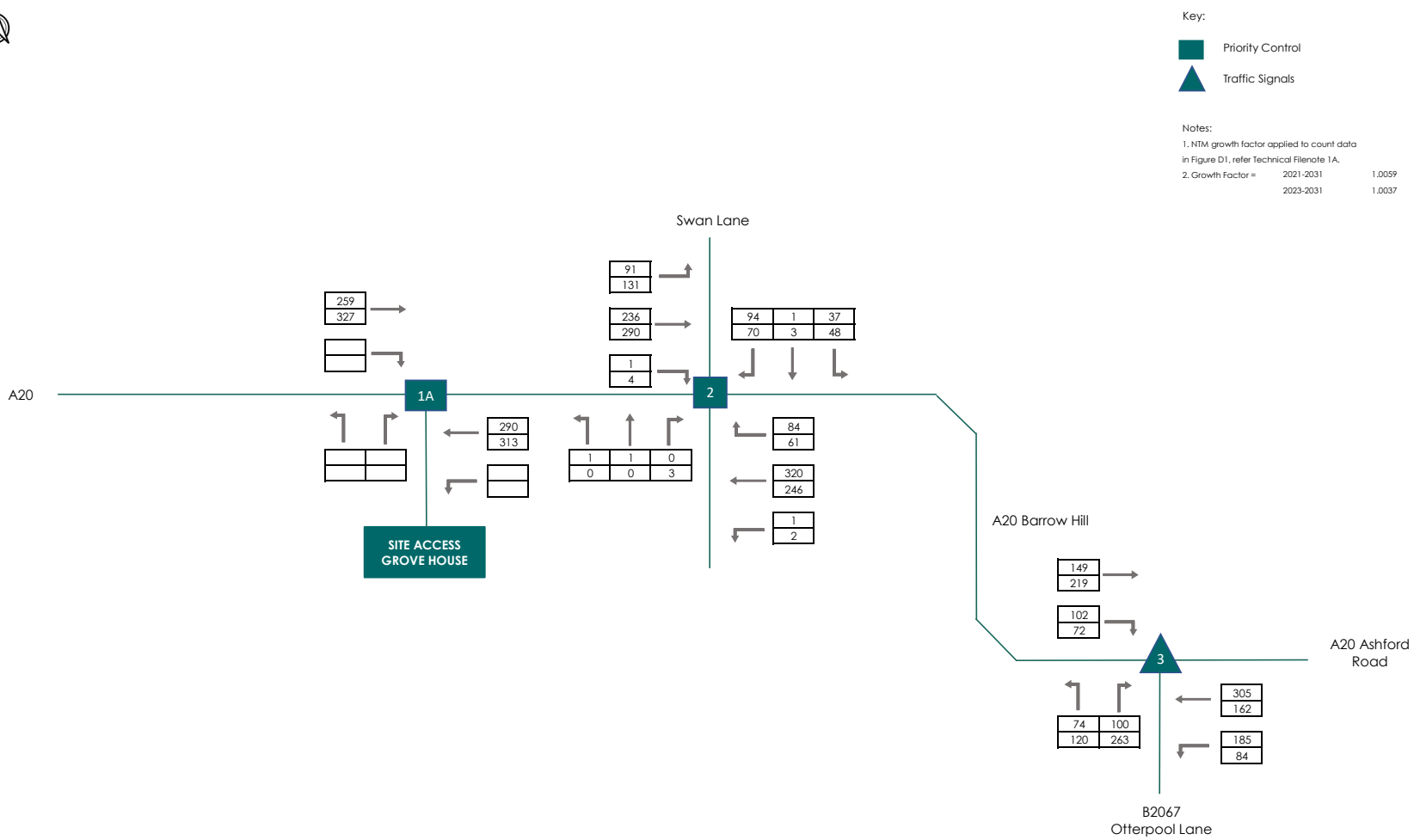

FIGURE C2 **FACTORED COUNT: 2031**

AM & PM PEAK HOURS

ASHLEY HELME ASSOCIATES

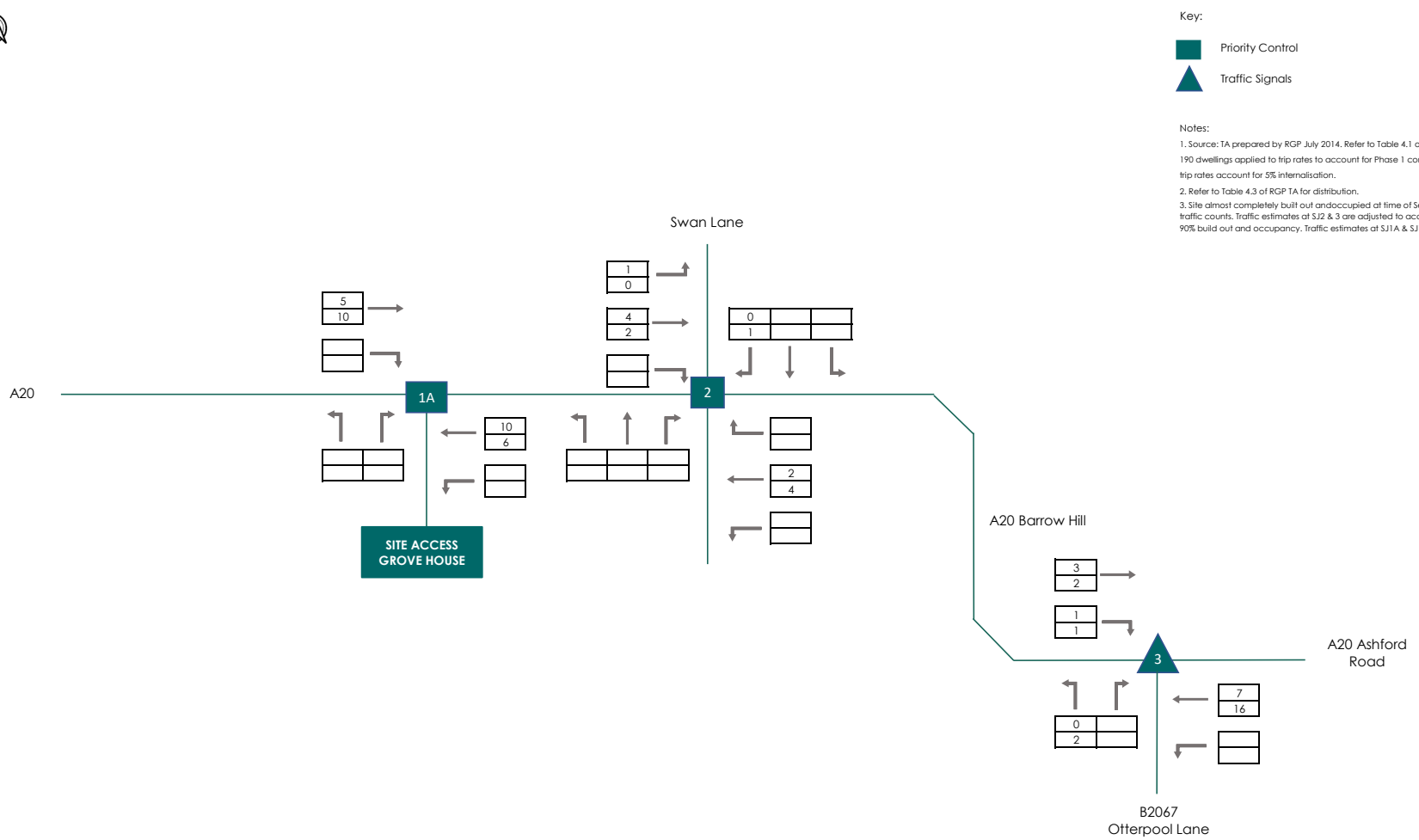

FIGURE C3 **COMMITTED DEVELOPMENT: Y14/0873/SH**

LAND ADJACENT TO THE SURGERY, MAIN ROAD, SELLINDGE

AM & PM PEAK HOURS

ASHLEY HELME ASSOCIATES

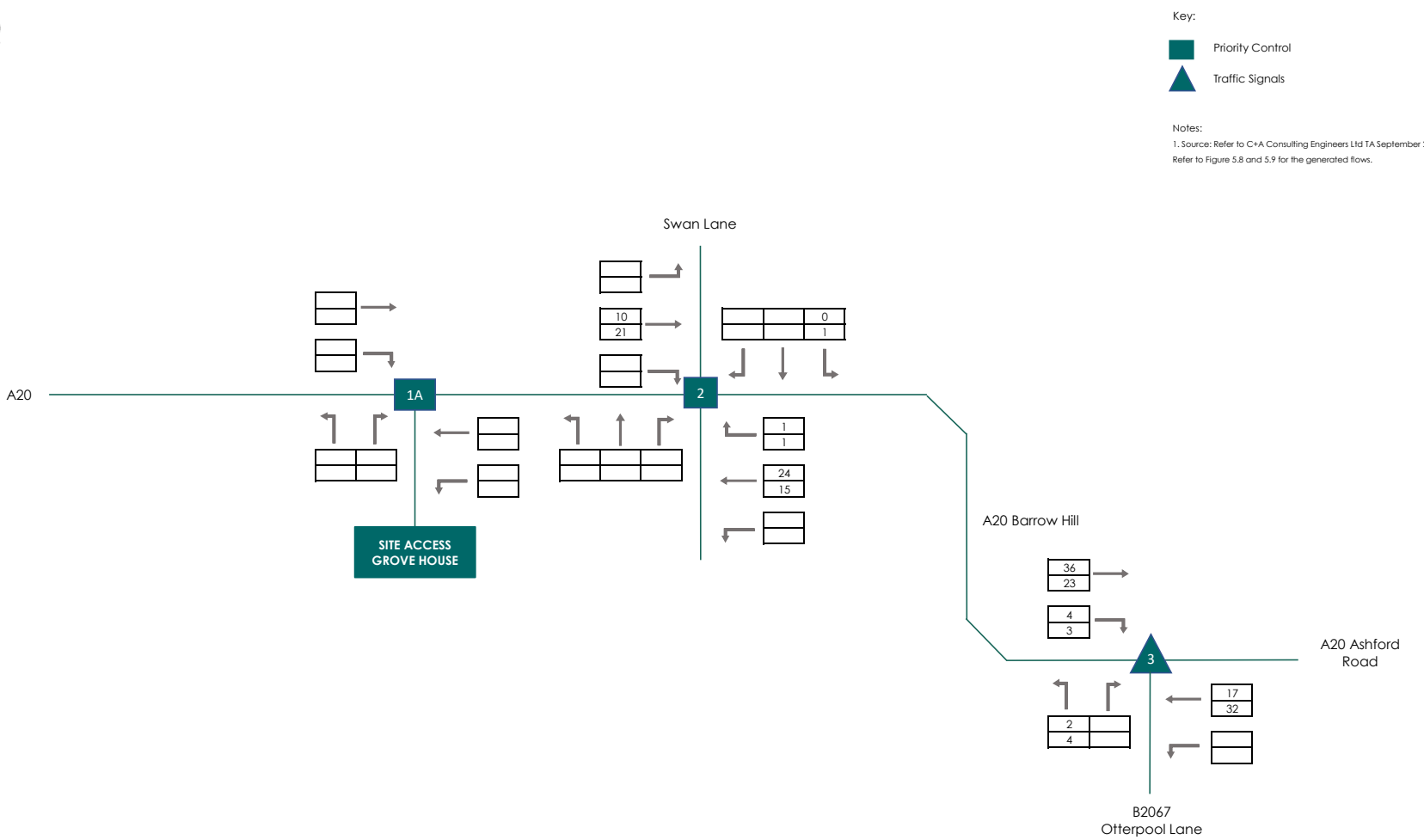

FIGURE C4 **COMMITTED DEVELOPMENT: Y16/1122/SH**

LAND NEAR THE RHODES HOUSE, MAIN ROAD, SELLINDGE

AM & PM PEAK HOURS

ASHLEY HELME ASSOCIATES

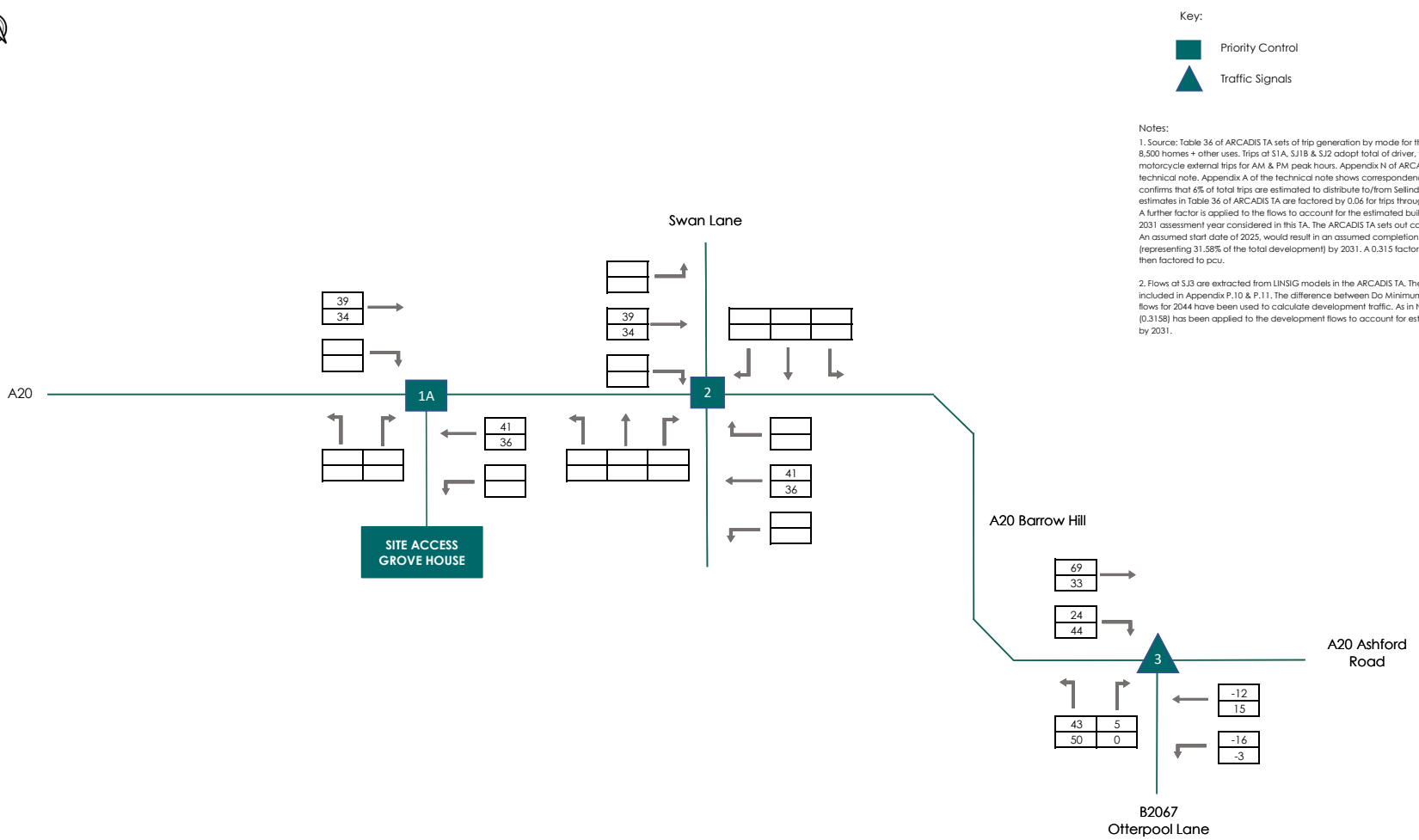

FIGURE C5 **COMMITTED DEVELOPMENT: Y19/0257/FH**

OTTERPOOL PARK

AM & PM PEAK HOURS

ASHLEY HELME ASSOCIATES

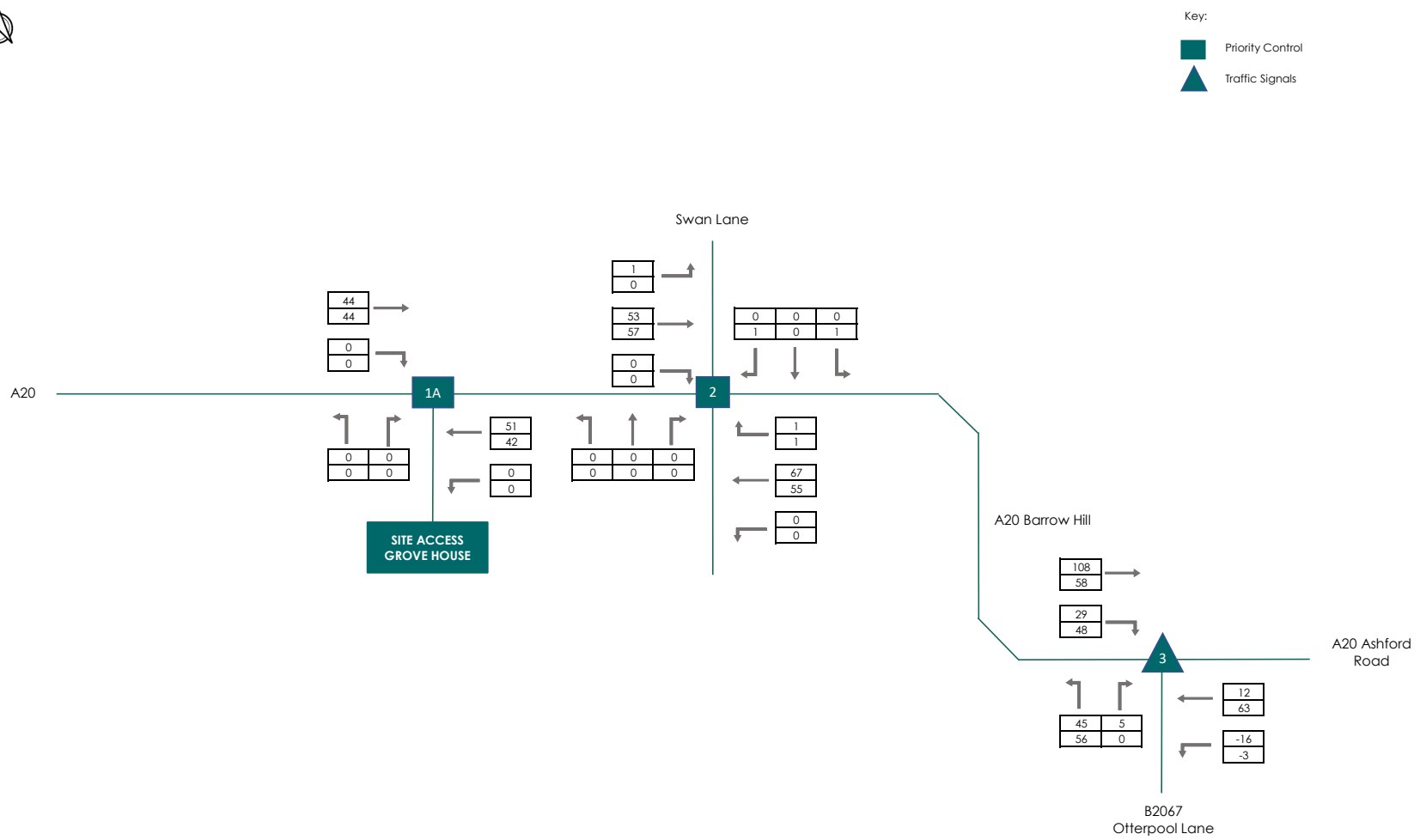

FIGURE C6 **COMMITTED DEVELOPMENT: TOTAL**

(C3 + C4 + C5)

AM & PM PEAK HOURS

ASHLEY HELME ASSOCIATES

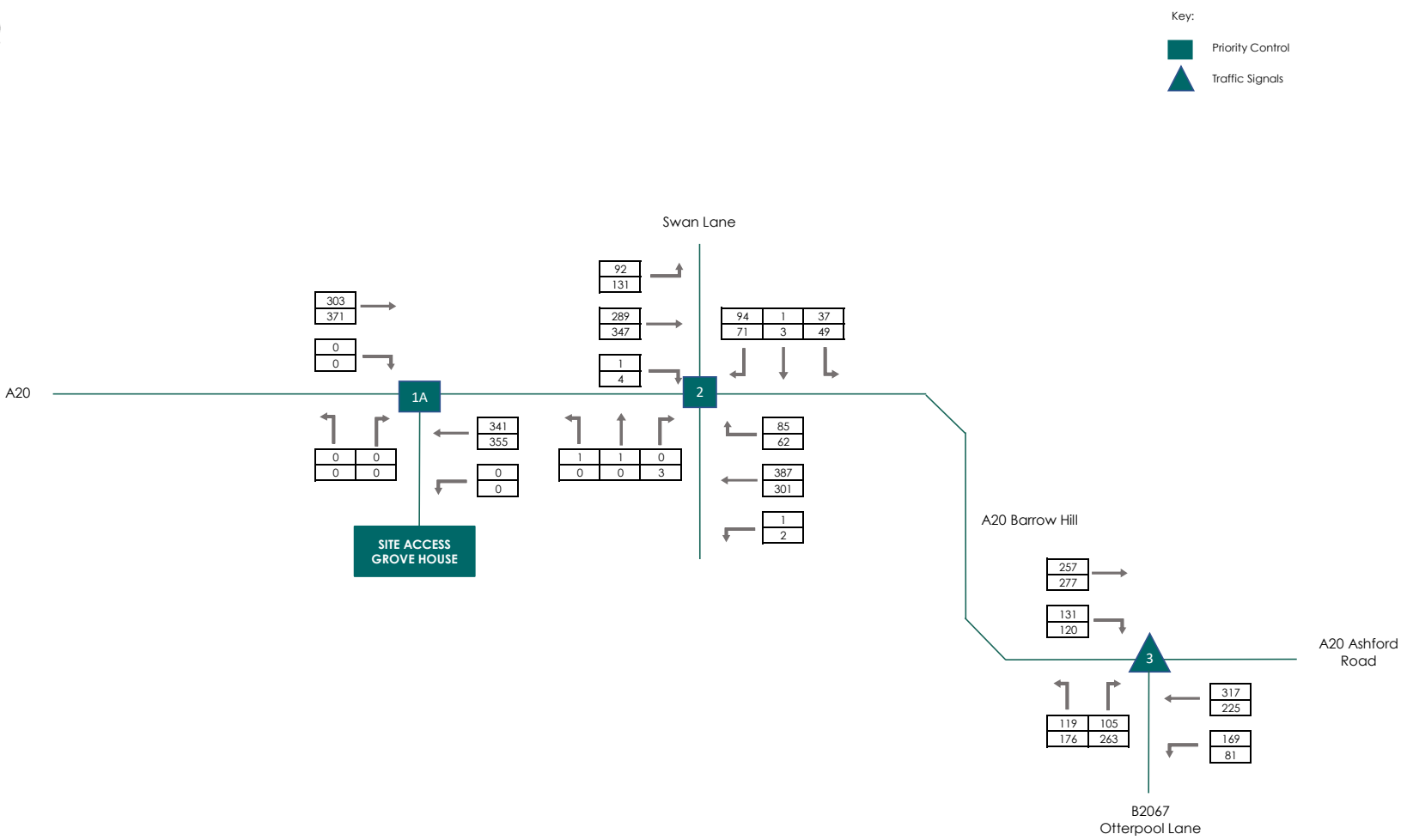

FIGURE C7 **BASE: 2031**

(C2 + C6)

AM & PM PEAK HOURS

ASHLEY HELME ASSOCIATES

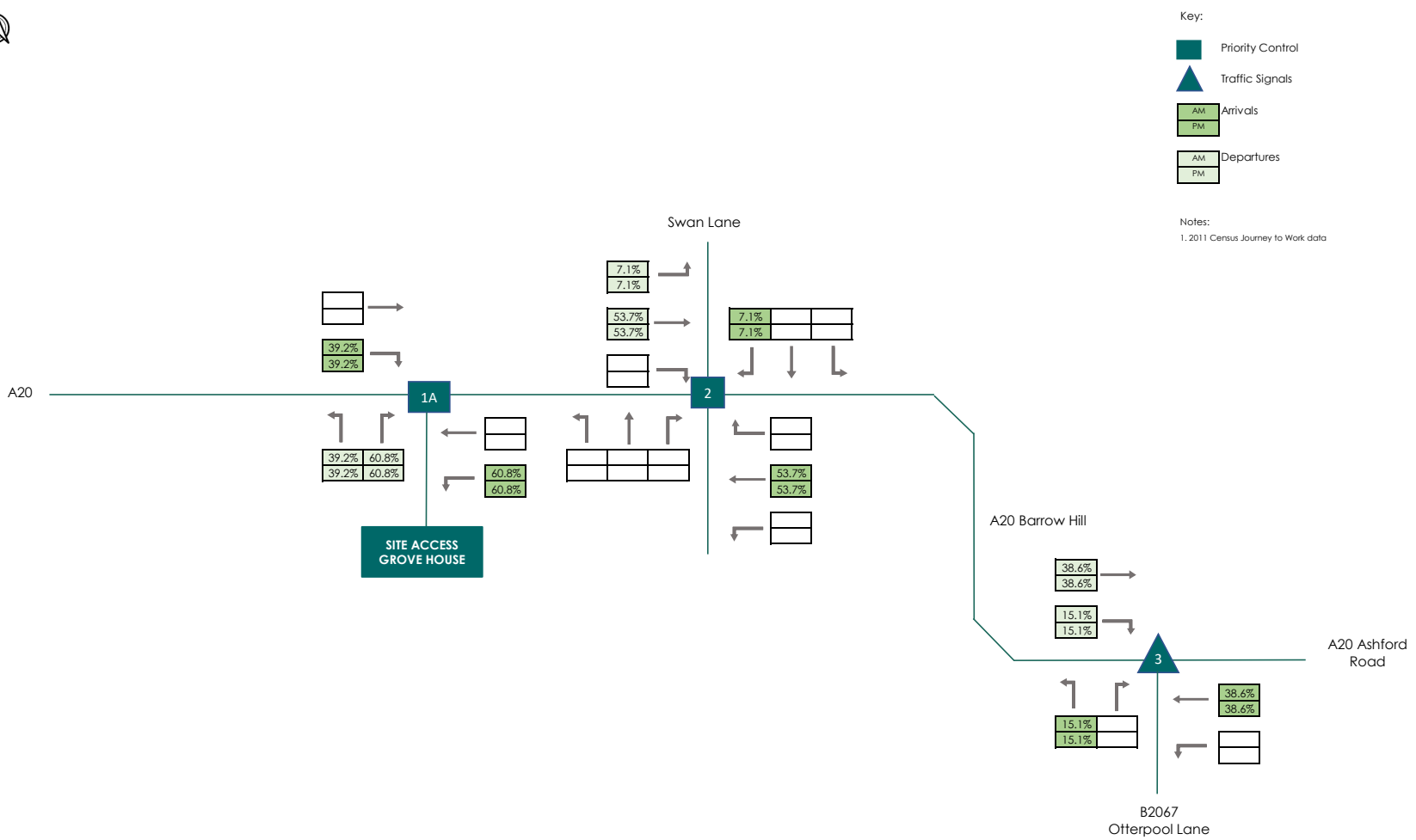

FIGURE C8 **% DISTRIBUTION: SCENARIO 1 & 2**

AM & PM PEAK HOURS

ASHLEY HELME ASSOCIATES

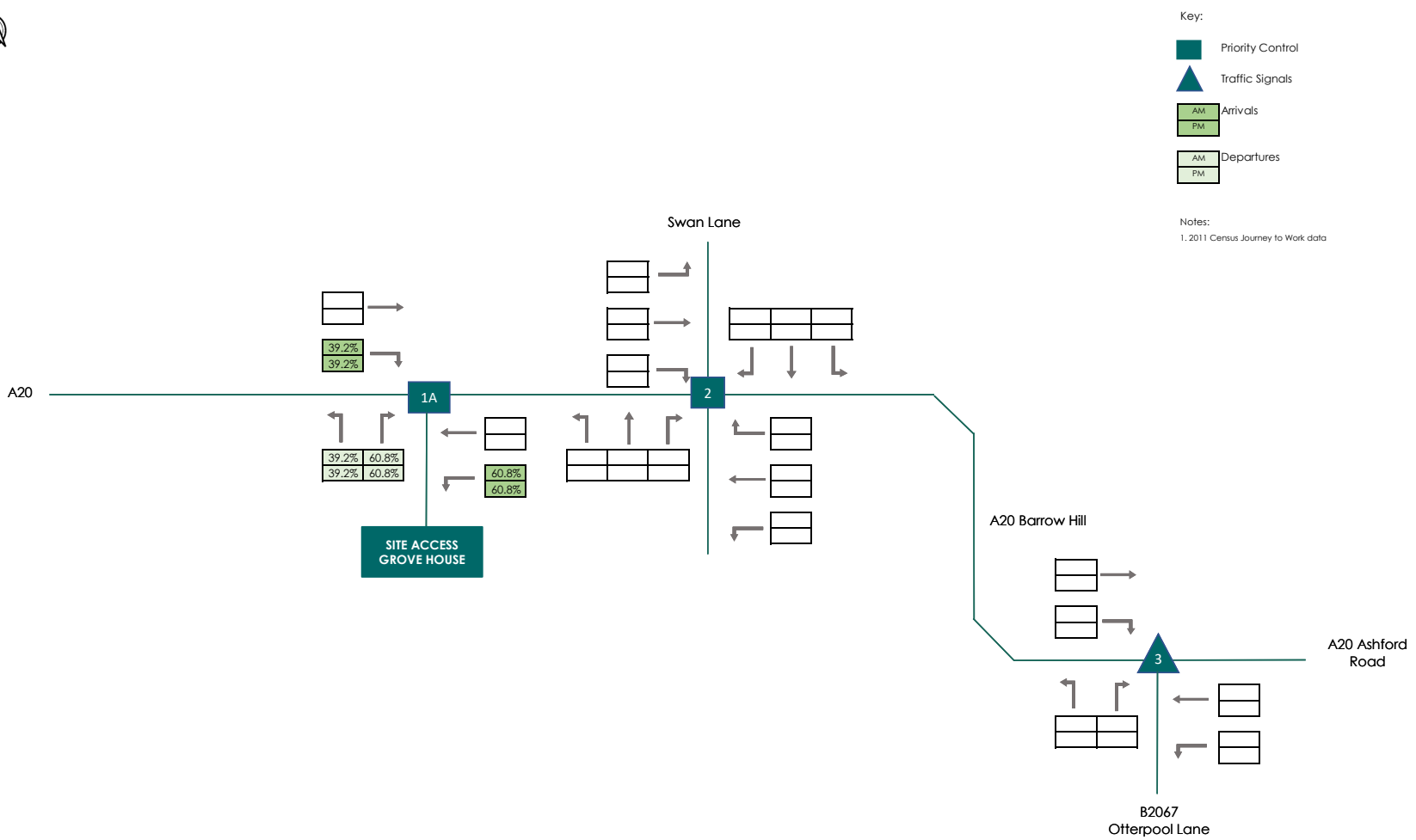

FIGURE C9 **% DISTRIBUTION: SCENARIO 3**

AM & PM PEAK HOURS

ASHLEY HELME ASSOCIATES

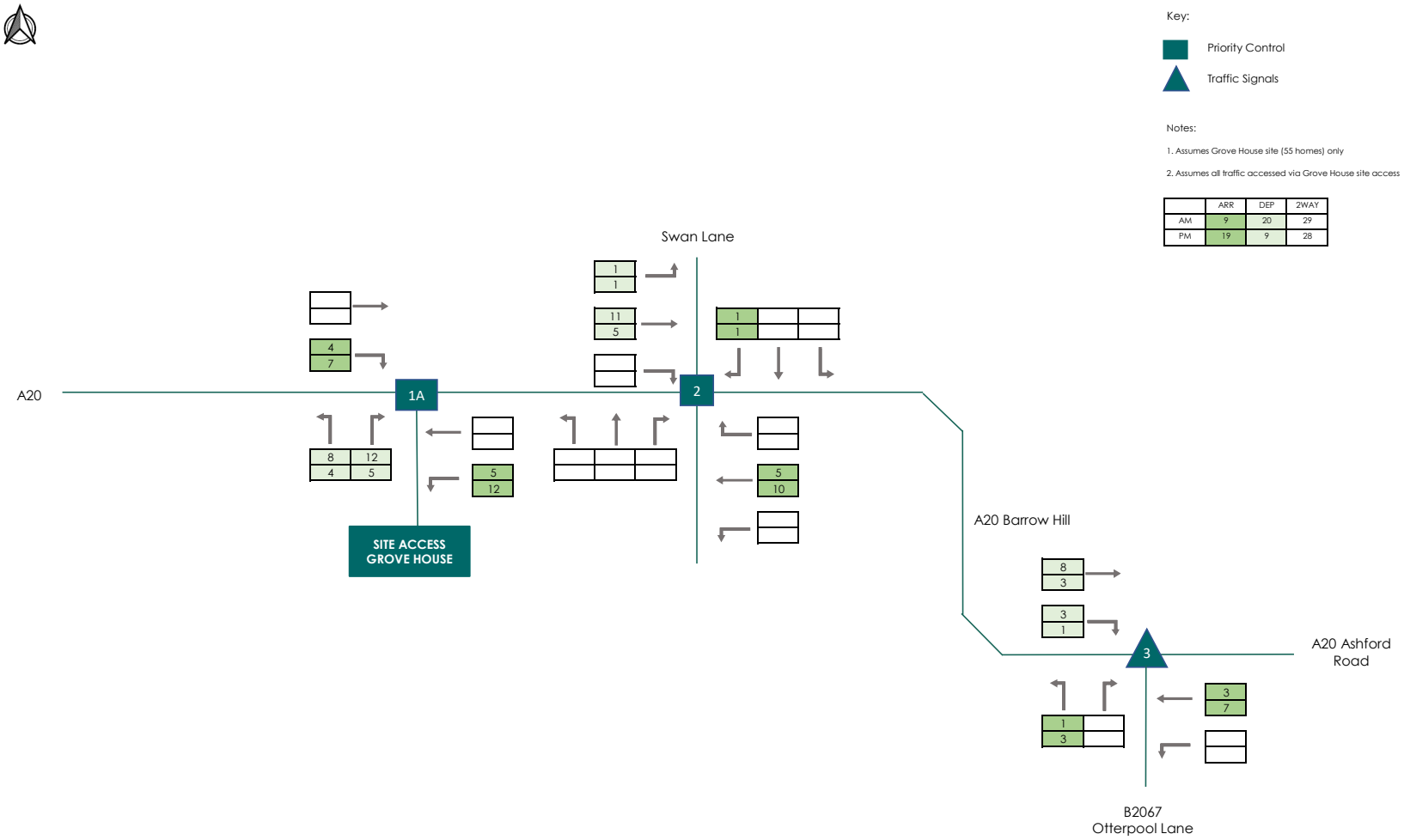

FIGURE C10 **GENERATED TRAFFIC: SCENARIO 1**

AM & PM PEAK HOURS

ASHLEY HELME ASSOCIATES

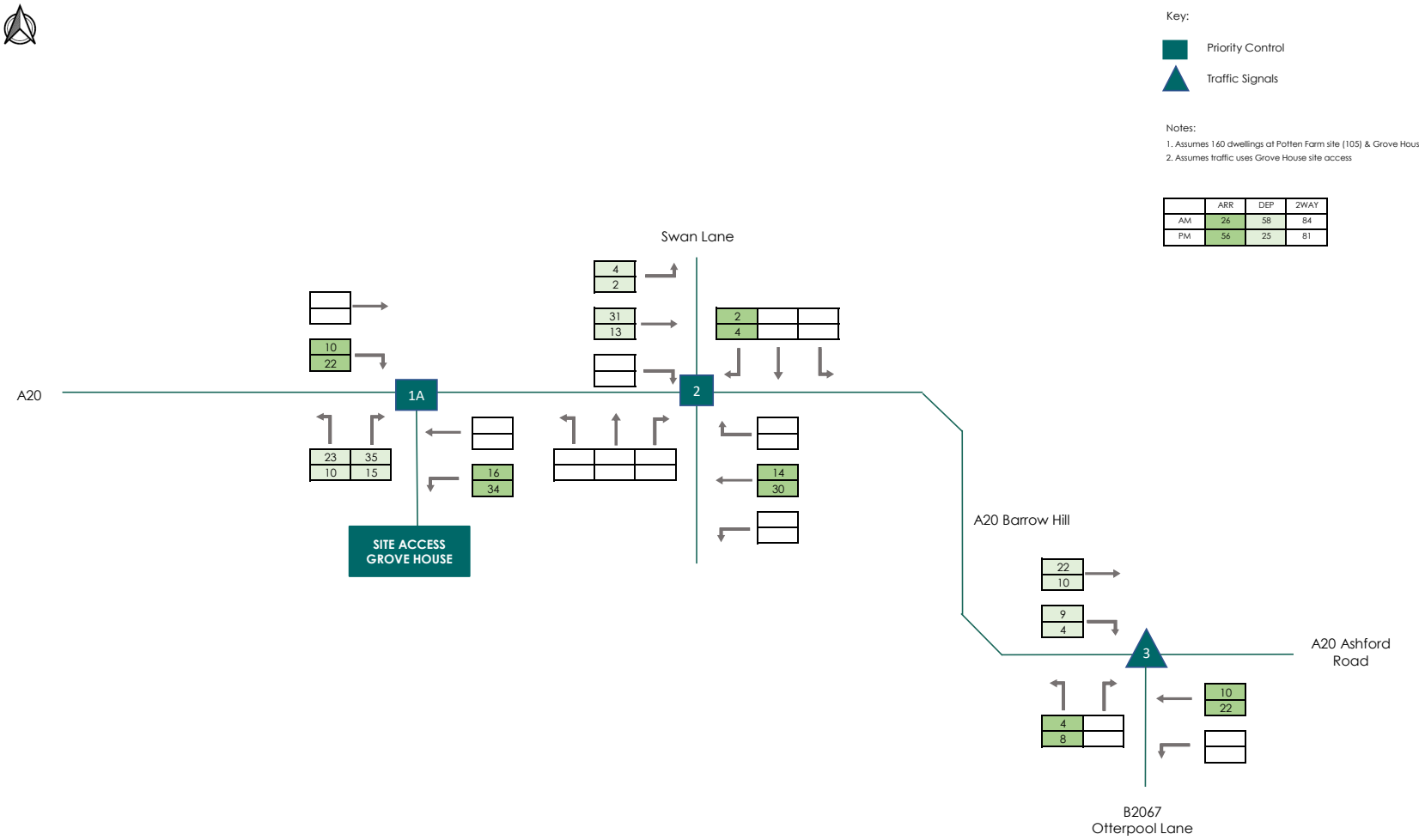

FIGURE C11 **GENERATED TRAFFIC: SCENARIO 2**

AM & PM PEAK HOURS

ASHLEY HELME ASSOCIATES

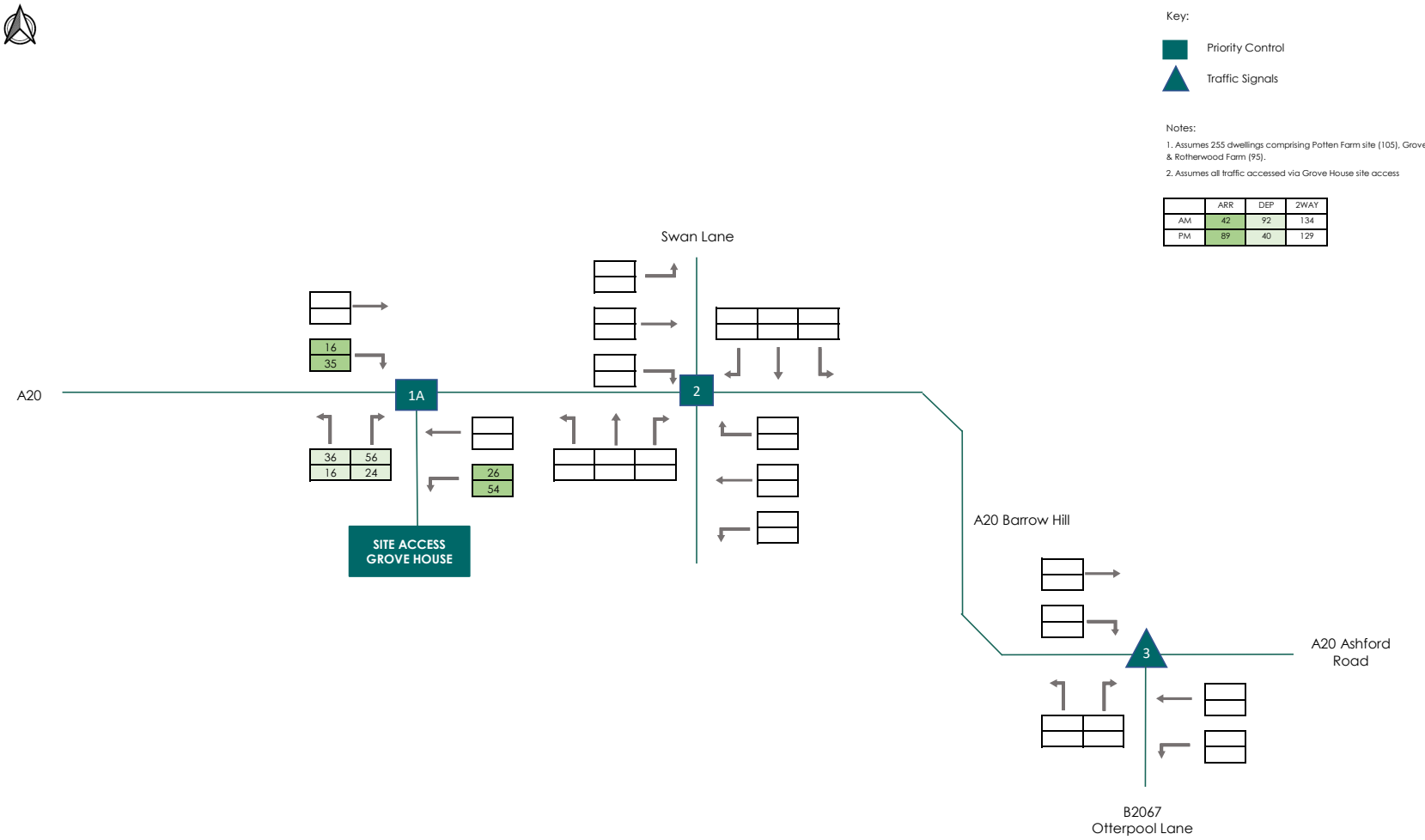

FIGURE C12 **GENERATED TRAFFIC: SCENARIO 3**

AM & PM PEAK HOURS

ASHLEY HELME ASSOCIATES

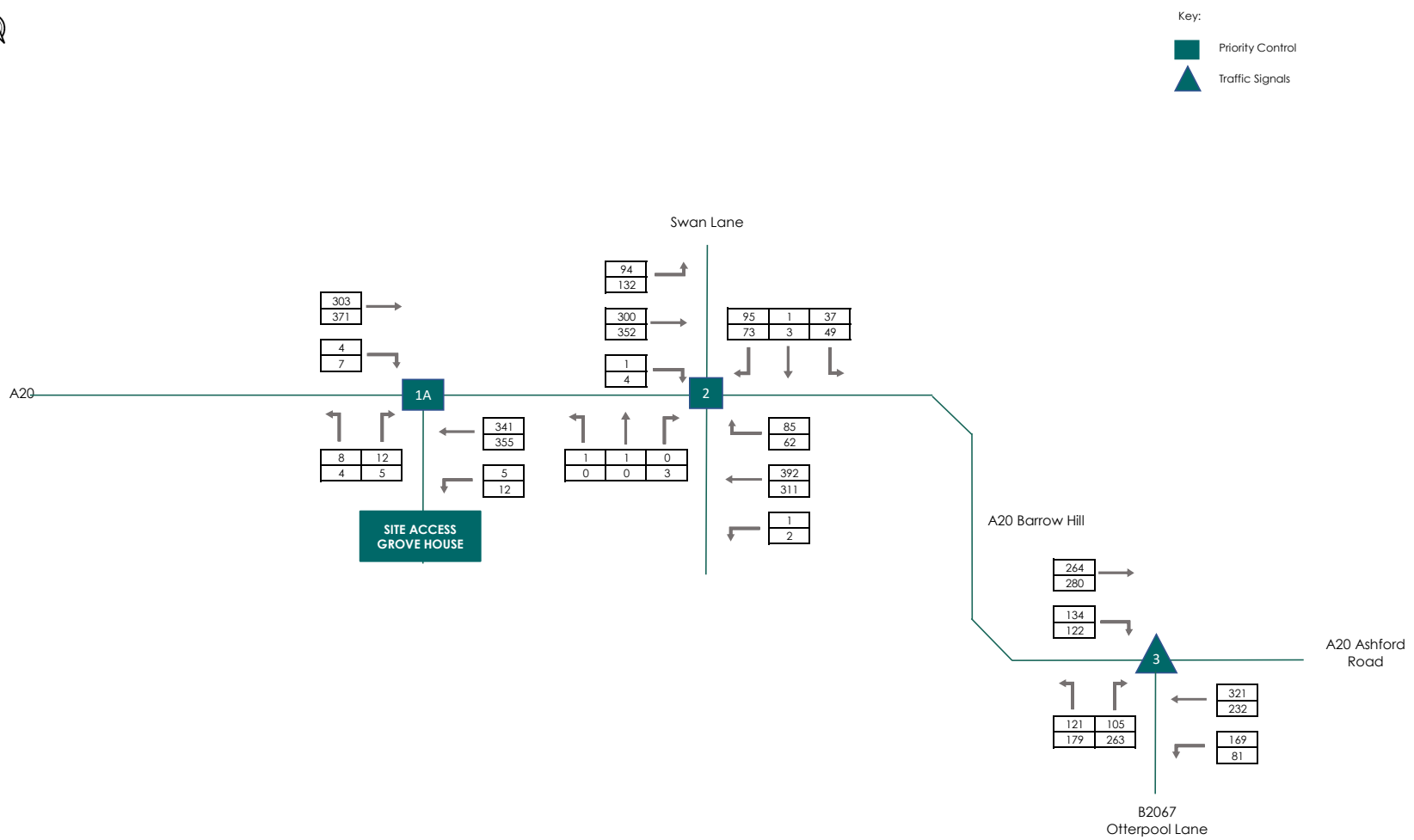

FIGURE C13 **2031 WITH DEVELOPMENT: SCENARIO 1**

(C7 + C10)

AM & PM PEAK HOURS

ASHLEY HELME ASSOCIATES

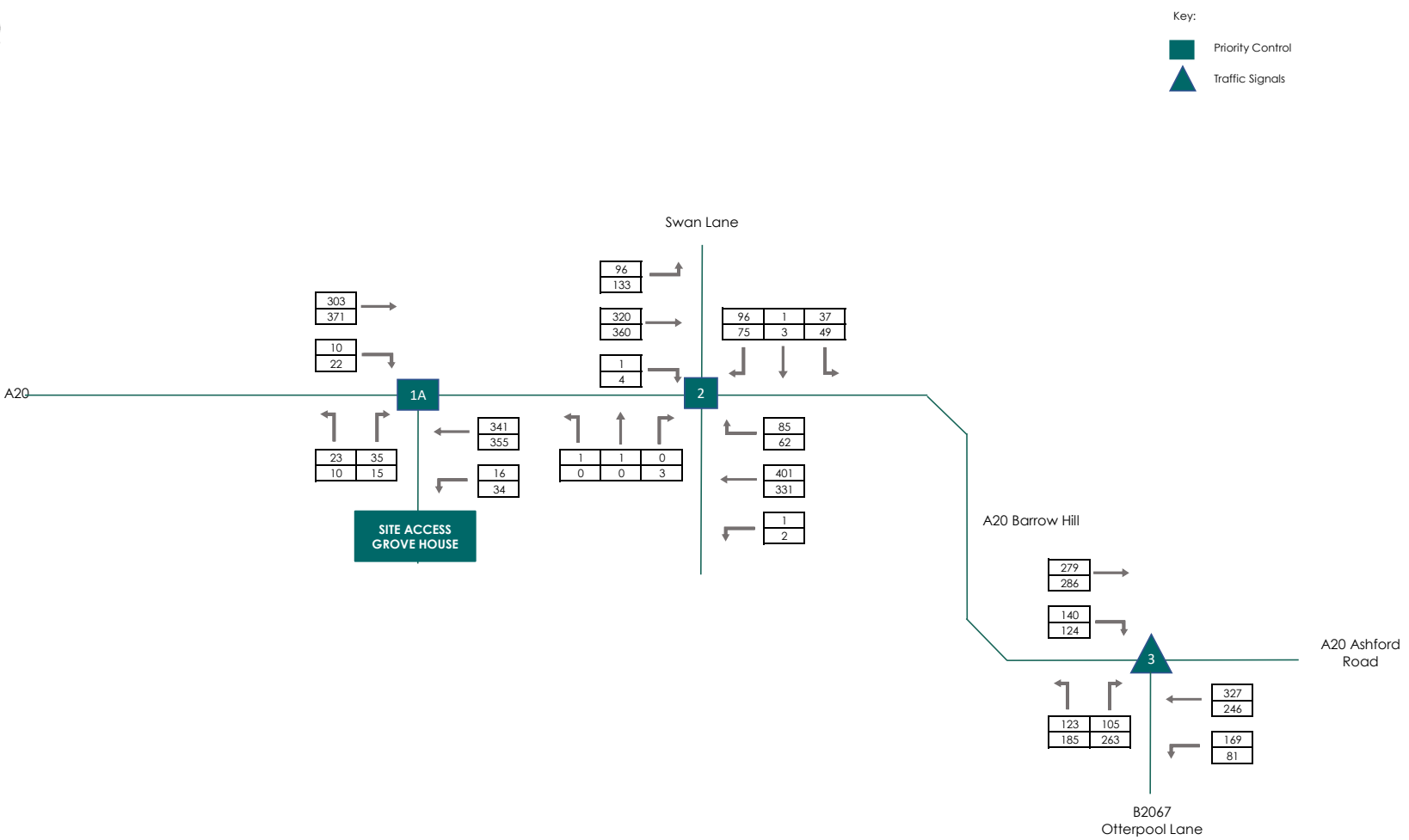

FIGURE C14 **2031 WITH DEVELOPMENT: SCENARIO 2**

(C7 + C11)

AM & PM PEAK HOURS

ASHLEY HELME ASSOCIATES

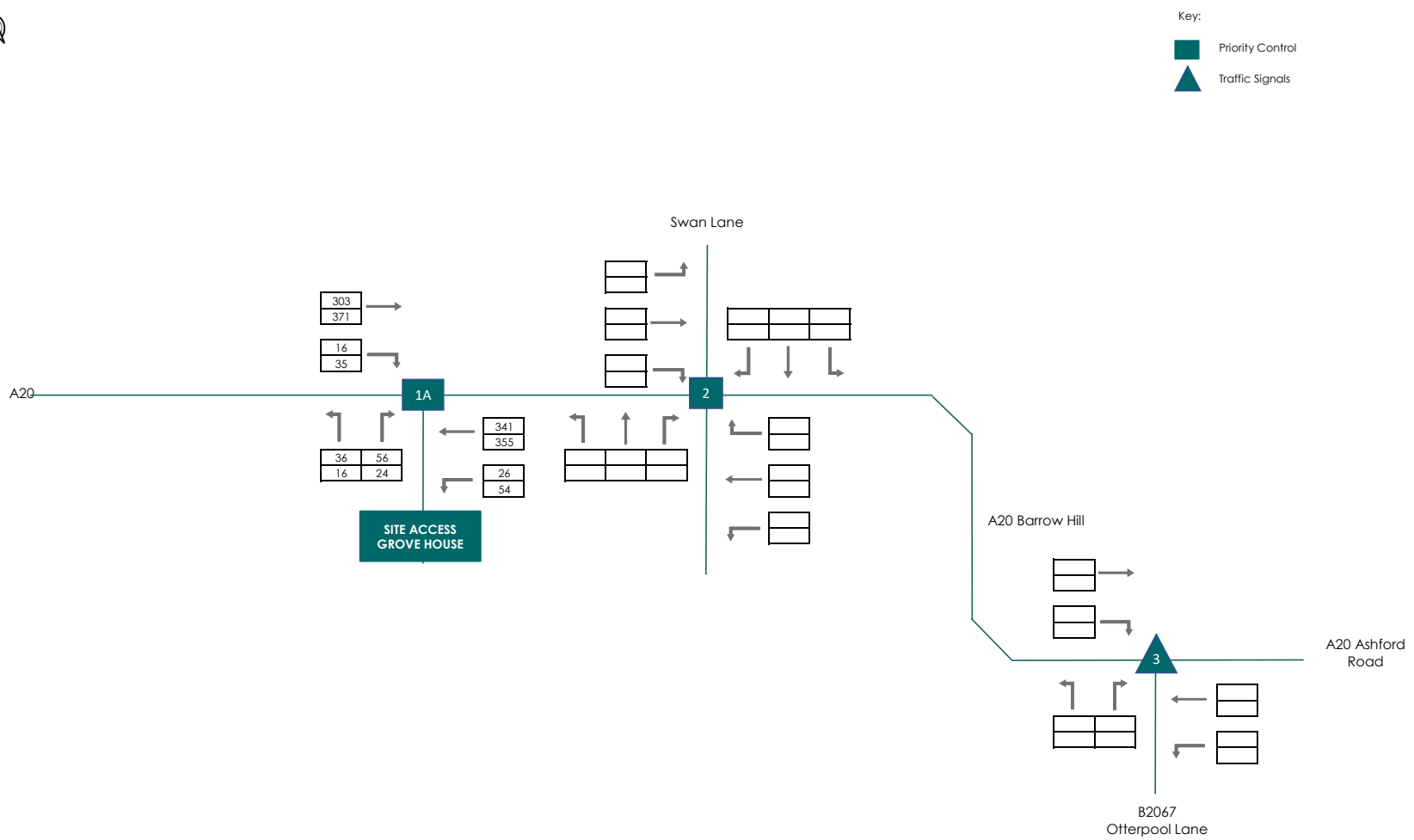

FIGURE C15 **2031 WITH DEVELOPMENT: SCENARIO 3**

(C7 + C12)

AM & PM PEAK HOURS

ASHLEY HELME ASSOCIATES

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D Technical File Note 1B

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TECHNICAL FILE NOTE 1A					
Project	Land off Ashford Road, Sellindge			Project No	1687
Contact		Originator	PL	Date	03/10/23

Traffic Growth: Tempro 8

Methodology

Methodology for growthing background traffic from count year (2022) to Development Year of Opening (2031) is to use the Tempro 8 Core Scenario for Shepway 009 geographical area.

Methodology removes housing and employment growth to account for the Otterpool Park development.

2021 to 2031 <Year of Opening>

AM peak period:	Origin	Destination
	0.9889	1.0223

PM peak period:	Origin	Destination
	1.0162	0.9960

Average of AM and PM peak period: 1.0059

2023 to 2031 <Year of Opening>

AM peak period:	Origin	Destination
	0.9896	1.0169

PM peak period:	Origin	Destination
	1.0125	0.9959

Average of AM and PM peak period: 1.0037

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E TRICS Data

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Calculation Reference: AUDIT-733101-230925-0912

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
	KC	KENT	1 days
	SC	SURREY	1 days
04	EAST ANGLIA		
	NF	NORFOLK	4 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: 207 to 300 (units:)
Range Selected by User: 200 to 300 (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 27/09/22

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	3 days
Tuesday	2 days
Wednesday	2 days
Thursday	1 days

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

Selected survey types:

Manual count	8 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 undertaking using machines.

Selected Locations:

Edge of Town	8

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	8

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.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	4 days - Selected

Secondary Filtering selection:

Use Class:

C3	8 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:

1,001 to 5,000	1 days
5,001 to 10,000	4 days
10,001 to 15,000	2 days
15,001 to 20,000	1 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	3 days
50,001 to 75,000	1 days
75,001 to 100,000	2 days
125,001 to 250,000	2 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	1 days
1.1 to 1.5	6 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:

Yes	5 days
No	3 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	8 days

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

LIST OF SITES relevant to selection parameters

1 ES-03-A-03 MIXED HOUSES & FLATS EAST SUSSEX
SHEPHAM LANE
POLEGATE

Edge of Town
Residential Zone
Total No of Dwellings: 212
Survey date: MONDAY *11/07/16* *Survey Type: MANUAL*

2 KC-03-A-07 MIXED HOUSES KENT
RECULVER ROAD
HERNE BAY

Edge of Town
Residential Zone
Total No of Dwellings: 288
Survey date: WEDNESDAY *27/09/17* *Survey Type: MANUAL*

3 NF-03-A-06 MIXED HOUSES NORFOLK
BEAUFORT WAY
GREAT YARMOUTH
BRADWELL
Edge of Town
Residential Zone
Total No of Dwellings: 275
Survey date: MONDAY *23/09/19* *Survey Type: MANUAL*

4 NF-03-A-30 MIXED HOUSES NORFOLK
BRANDON ROAD
SWAFFHAM

Edge of Town
Residential Zone
Total No of Dwellings: 266
Survey date: THURSDAY *23/09/21* *Survey Type: MANUAL*

5 NF-03-A-39 MIXED HOUSES NORFOLK
HEATH DRIVE
HOLT

Edge of Town
Residential Zone
Total No of Dwellings: 212
Survey date: TUESDAY *27/09/22* *Survey Type: MANUAL*

6 NF-03-A-46 MIXED HOUSES & FLATS NORFOLK
BURGH ROAD
AYLSHAM

Edge of Town
Residential Zone
Total No of Dwellings: 300
Survey date: TUESDAY *14/09/21* *Survey Type: MANUAL*

7 SC-03-A-05 MIXED HOUSES SURREY
REIGATE ROAD
HORLEY

Edge of Town
Residential Zone
Total No of Dwellings: 207
Survey date: MONDAY *01/04/19* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

8 ST-03-A-07 DETACHED & SEMI-DETACHED STAFFORDSHIRE
BEACONSIDE
STAFFORD
MARSTON GATE
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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
HC-03-A-26	Covid restrictions
HC-03-A-26	Covid survey

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): 1.81

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	8	251	0.094	8	251	0.284	8	251	0.378
08:00 - 09:00	8	251	0.163	8	251	0.361	8	251	0.524
09:00 - 10:00	8	251	0.141	8	251	0.183	8	251	0.324
10:00 - 11:00	8	251	0.116	8	251	0.130	8	251	0.246
11:00 - 12:00	8	251	0.145	8	251	0.159	8	251	0.304
12:00 - 13:00	8	251	0.154	8	251	0.140	8	251	0.294
13:00 - 14:00	8	251	0.156	8	251	0.141	8	251	0.297
14:00 - 15:00	8	251	0.169	8	251	0.179	8	251	0.348
15:00 - 16:00	8	251	0.264	8	251	0.160	8	251	0.424
16:00 - 17:00	8	251	0.286	8	251	0.178	8	251	0.464
17:00 - 18:00	8	251	0.351	8	251	0.157	8	251	0.508
18:00 - 19:00	8	251	0.281	8	251	0.173	8	251	0.454
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.320			2.245			4.565

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.*

Parameter summary

Trip rate parameter range selected:	207 - 300 (units:)
Survey date date range:	01/01/15 - 27/09/22
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	-1
Surveys manually removed from selection:	2

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 TAXIS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	8	251	0.003	8	251	0.003	8	251	0.006
08:00 - 09:00	8	251	0.004	8	251	0.004	8	251	0.008
09:00 - 10:00	8	251	0.003	8	251	0.003	8	251	0.006
10:00 - 11:00	8	251	0.000	8	251	0.000	8	251	0.000
11:00 - 12:00	8	251	0.000	8	251	0.001	8	251	0.001
12:00 - 13:00	8	251	0.000	8	251	0.000	8	251	0.000
13:00 - 14:00	8	251	0.000	8	251	0.000	8	251	0.000
14:00 - 15:00	8	251	0.004	8	251	0.002	8	251	0.006
15:00 - 16:00	8	251	0.002	8	251	0.004	8	251	0.006
16:00 - 17:00	8	251	0.004	8	251	0.004	8	251	0.008
17:00 - 18:00	8	251	0.001	8	251	0.001	8	251	0.002
18:00 - 19:00	8	251	0.001	8	251	0.001	8	251	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.022			0.023			0.045

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 OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	8	251	0.001	8	251	0.000	8	251	0.001
08:00 - 09:00	8	251	0.002	8	251	0.002	8	251	0.004
09:00 - 10:00	8	251	0.003	8	251	0.001	8	251	0.004
10:00 - 11:00	8	251	0.002	8	251	0.001	8	251	0.003
11:00 - 12:00	8	251	0.001	8	251	0.001	8	251	0.002
12:00 - 13:00	8	251	0.002	8	251	0.003	8	251	0.005
13:00 - 14:00	8	251	0.002	8	251	0.000	8	251	0.002
14:00 - 15:00	8	251	0.000	8	251	0.001	8	251	0.001
15:00 - 16:00	8	251	0.002	8	251	0.002	8	251	0.004
16:00 - 17:00	8	251	0.002	8	251	0.002	8	251	0.004
17:00 - 18:00	8	251	0.001	8	251	0.000	8	251	0.001
18:00 - 19:00	8	251	0.000	8	251	0.001	8	251	0.001
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.018			0.014			0.032

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 PSVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	8	251	0.001	8	251	0.001	8	251	0.002
08:00 - 09:00	8	251	0.000	8	251	0.000	8	251	0.000
09:00 - 10:00	8	251	0.001	8	251	0.001	8	251	0.002
10:00 - 11:00	8	251	0.001	8	251	0.001	8	251	0.002
11:00 - 12:00	8	251	0.001	8	251	0.001	8	251	0.002
12:00 - 13:00	8	251	0.001	8	251	0.001	8	251	0.002
13:00 - 14:00	8	251	0.001	8	251	0.001	8	251	0.002
14:00 - 15:00	8	251	0.001	8	251	0.001	8	251	0.002
15:00 - 16:00	8	251	0.001	8	251	0.001	8	251	0.002
16:00 - 17:00	8	251	0.001	8	251	0.001	8	251	0.002
17:00 - 18:00	8	251	0.001	8	251	0.001	8	251	0.002
18:00 - 19:00	8	251	0.000	8	251	0.000	8	251	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.010			0.010			0.020

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 CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	8	251	0.004	8	251	0.006	8	251	0.010
08:00 - 09:00	8	251	0.005	8	251	0.015	8	251	0.020
09:00 - 10:00	8	251	0.001	8	251	0.002	8	251	0.003
10:00 - 11:00	8	251	0.003	8	251	0.004	8	251	0.007
11:00 - 12:00	8	251	0.001	8	251	0.003	8	251	0.004
12:00 - 13:00	8	251	0.002	8	251	0.002	8	251	0.004
13:00 - 14:00	8	251	0.002	8	251	0.001	8	251	0.003
14:00 - 15:00	8	251	0.004	8	251	0.003	8	251	0.007
15:00 - 16:00	8	251	0.004	8	251	0.002	8	251	0.006
16:00 - 17:00	8	251	0.013	8	251	0.008	8	251	0.021
17:00 - 18:00	8	251	0.009	8	251	0.009	8	251	0.018
18:00 - 19:00	8	251	0.008	8	251	0.006	8	251	0.014
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.056			0.061			0.117

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	8	251	0.011	8	251	0.024	8	251	0.035
08:00 - 09:00	8	251	0.028	8	251	0.076	8	251	0.104
09:00 - 10:00	8	251	0.027	8	251	0.028	8	251	0.055
10:00 - 11:00	8	251	0.021	8	251	0.019	8	251	0.040
11:00 - 12:00	8	251	0.016	8	251	0.020	8	251	0.036
12:00 - 13:00	8	251	0.024	8	251	0.022	8	251	0.046
13:00 - 14:00	8	251	0.024	8	251	0.019	8	251	0.043
14:00 - 15:00	8	251	0.020	8	251	0.031	8	251	0.051
15:00 - 16:00	8	251	0.073	8	251	0.040	8	251	0.113
16:00 - 17:00	8	251	0.055	8	251	0.035	8	251	0.090
17:00 - 18:00	8	251	0.046	8	251	0.034	8	251	0.080
18:00 - 19:00	8	251	0.036	8	251	0.059	8	251	0.095
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.381			0.407			0.788

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 BUS/TRAM PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	8	251	0.000	8	251	0.018	8	251	0.018
08:00 - 09:00	8	251	0.000	8	251	0.013	8	251	0.013
09:00 - 10:00	8	251	0.001	8	251	0.002	8	251	0.003
10:00 - 11:00	8	251	0.002	8	251	0.002	8	251	0.004
11:00 - 12:00	8	251	0.000	8	251	0.001	8	251	0.001
12:00 - 13:00	8	251	0.000	8	251	0.001	8	251	0.001
13:00 - 14:00	8	251	0.000	8	251	0.005	8	251	0.005
14:00 - 15:00	8	251	0.002	8	251	0.001	8	251	0.003
15:00 - 16:00	8	251	0.012	8	251	0.004	8	251	0.016
16:00 - 17:00	8	251	0.013	8	251	0.004	8	251	0.017
17:00 - 18:00	8	251	0.009	8	251	0.002	8	251	0.011
18:00 - 19:00	8	251	0.014	8	251	0.006	8	251	0.020
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.053			0.059			0.112

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 TOTAL RAIL PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	8	251	0.000	8	251	0.006	8	251	0.006
08:00 - 09:00	8	251	0.000	8	251	0.006	8	251	0.006
09:00 - 10:00	8	251	0.000	8	251	0.002	8	251	0.002
10:00 - 11:00	8	251	0.000	8	251	0.003	8	251	0.003
11:00 - 12:00	8	251	0.000	8	251	0.001	8	251	0.001
12:00 - 13:00	8	251	0.000	8	251	0.000	8	251	0.000
13:00 - 14:00	8	251	0.001	8	251	0.000	8	251	0.001
14:00 - 15:00	8	251	0.001	8	251	0.000	8	251	0.001
15:00 - 16:00	8	251	0.005	8	251	0.001	8	251	0.006
16:00 - 17:00	8	251	0.003	8	251	0.000	8	251	0.003
17:00 - 18:00	8	251	0.003	8	251	0.001	8	251	0.004
18:00 - 19:00	8	251	0.005	8	251	0.001	8	251	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.018			0.021			0.039

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	8	251	0.001	8	251	0.024	8	251	0.025
08:00 - 09:00	8	251	0.000	8	251	0.020	8	251	0.020
09:00 - 10:00	8	251	0.001	8	251	0.004	8	251	0.005
10:00 - 11:00	8	251	0.002	8	251	0.006	8	251	0.008
11:00 - 12:00	8	251	0.000	8	251	0.003	8	251	0.003
12:00 - 13:00	8	251	0.000	8	251	0.001	8	251	0.001
13:00 - 14:00	8	251	0.001	8	251	0.005	8	251	0.006
14:00 - 15:00	8	251	0.003	8	251	0.001	8	251	0.004
15:00 - 16:00	8	251	0.017	8	251	0.005	8	251	0.022
16:00 - 17:00	8	251	0.016	8	251	0.004	8	251	0.020
17:00 - 18:00	8	251	0.013	8	251	0.003	8	251	0.016
18:00 - 19:00	8	251	0.019	8	251	0.007	8	251	0.026
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.073			0.083			0.156

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 TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 1.81

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	8	251	0.132	8	251	0.505	8	251	0.637
08:00 - 09:00	8	251	0.250	8	251	0.781	8	251	1.031
09:00 - 10:00	8	251	0.212	8	251	0.318	8	251	0.530
10:00 - 11:00	8	251	0.181	8	251	0.232	8	251	0.413
11:00 - 12:00	8	251	0.218	8	251	0.273	8	251	0.491
12:00 - 13:00	8	251	0.259	8	251	0.231	8	251	0.490
13:00 - 14:00	8	251	0.256	8	251	0.237	8	251	0.493
14:00 - 15:00	8	251	0.270	8	251	0.294	8	251	0.564
15:00 - 16:00	8	251	0.568	8	251	0.301	8	251	0.869
16:00 - 17:00	8	251	0.579	8	251	0.324	8	251	0.903
17:00 - 18:00	8	251	0.663	8	251	0.283	8	251	0.946
18:00 - 19:00	8	251	0.527	8	251	0.359	8	251	0.886
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.115			4.138			8.253

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	8	251	0.071	8	251	0.247	8	251	0.318
08:00 - 09:00	8	251	0.137	8	251	0.328	8	251	0.465
09:00 - 10:00	8	251	0.111	8	251	0.152	8	251	0.263
10:00 - 11:00	8	251	0.095	8	251	0.116	8	251	0.211
11:00 - 12:00	8	251	0.121	8	251	0.131	8	251	0.252
12:00 - 13:00	8	251	0.129	8	251	0.120	8	251	0.249
13:00 - 14:00	8	251	0.131	8	251	0.114	8	251	0.245
14:00 - 15:00	8	251	0.143	8	251	0.155	8	251	0.298
15:00 - 16:00	8	251	0.238	8	251	0.126	8	251	0.364
16:00 - 17:00	8	251	0.249	8	251	0.147	8	251	0.396
17:00 - 18:00	8	251	0.310	8	251	0.136	8	251	0.446
18:00 - 19:00	8	251	0.262	8	251	0.157	8	251	0.419
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.997			1.929			3.926

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 LGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	8	251	0.017	8	251	0.031	8	251	0.048
08:00 - 09:00	8	251	0.018	8	251	0.023	8	251	0.041
09:00 - 10:00	8	251	0.022	8	251	0.024	8	251	0.046
10:00 - 11:00	8	251	0.017	8	251	0.012	8	251	0.029
11:00 - 12:00	8	251	0.021	8	251	0.023	8	251	0.044
12:00 - 13:00	8	251	0.020	8	251	0.016	8	251	0.036
13:00 - 14:00	8	251	0.021	8	251	0.025	8	251	0.046
14:00 - 15:00	8	251	0.019	8	251	0.018	8	251	0.037
15:00 - 16:00	8	251	0.018	8	251	0.025	8	251	0.043
16:00 - 17:00	8	251	0.026	8	251	0.021	8	251	0.047
17:00 - 18:00	8	251	0.034	8	251	0.017	8	251	0.051
18:00 - 19:00	8	251	0.017	8	251	0.011	8	251	0.028
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.250			0.246			0.496

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 MOTOR CYCLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	8	251	0.000	8	251	0.001	8	251	0.001
08:00 - 09:00	8	251	0.001	8	251	0.002	8	251	0.003
09:00 - 10:00	8	251	0.000	8	251	0.000	8	251	0.000
10:00 - 11:00	8	251	0.000	8	251	0.000	8	251	0.000
11:00 - 12:00	8	251	0.000	8	251	0.000	8	251	0.000
12:00 - 13:00	8	251	0.000	8	251	0.000	8	251	0.000
13:00 - 14:00	8	251	0.000	8	251	0.000	8	251	0.000
14:00 - 15:00	8	251	0.001	8	251	0.000	8	251	0.001
15:00 - 16:00	8	251	0.002	8	251	0.002	8	251	0.004
16:00 - 17:00	8	251	0.004	8	251	0.002	8	251	0.006
17:00 - 18:00	8	251	0.003	8	251	0.001	8	251	0.004
18:00 - 19:00	8	251	0.000	8	251	0.002	8	251	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.011			0.010			0.021

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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Drawings

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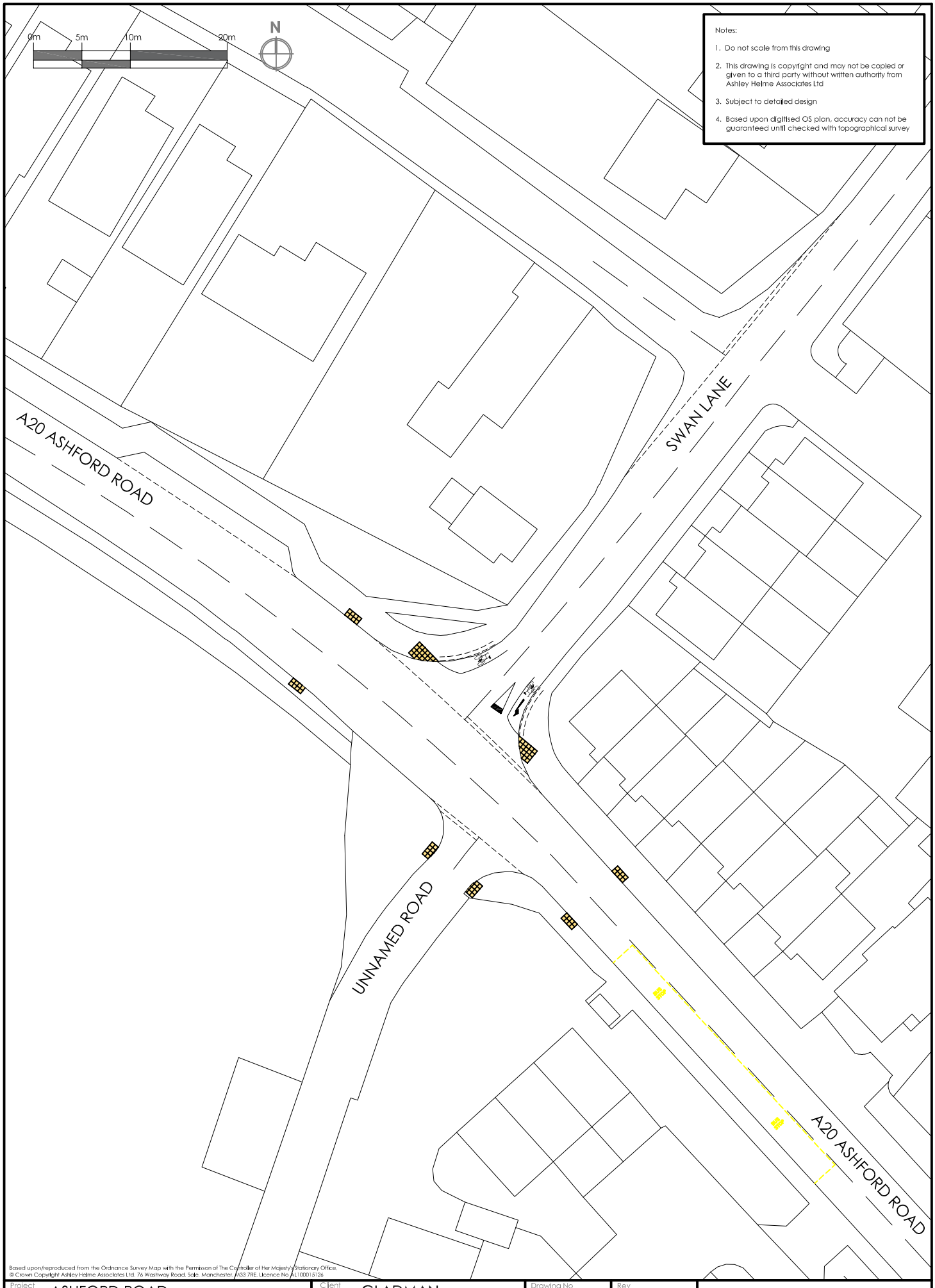

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Project: ASHFORD ROAD, SELLINDGE	Client: GLADMAN DEVELOPMENTS	Drawing No: 1687/02	Rev:
Title: EXISTING JUNCTION ARRANGEMENTS: STUDY JUNCTION 2		Date: OCT 2019	Scale: 1:500@A4

ASHLEY HELME ASSOCIATES

0m 5m 10m 20m

N

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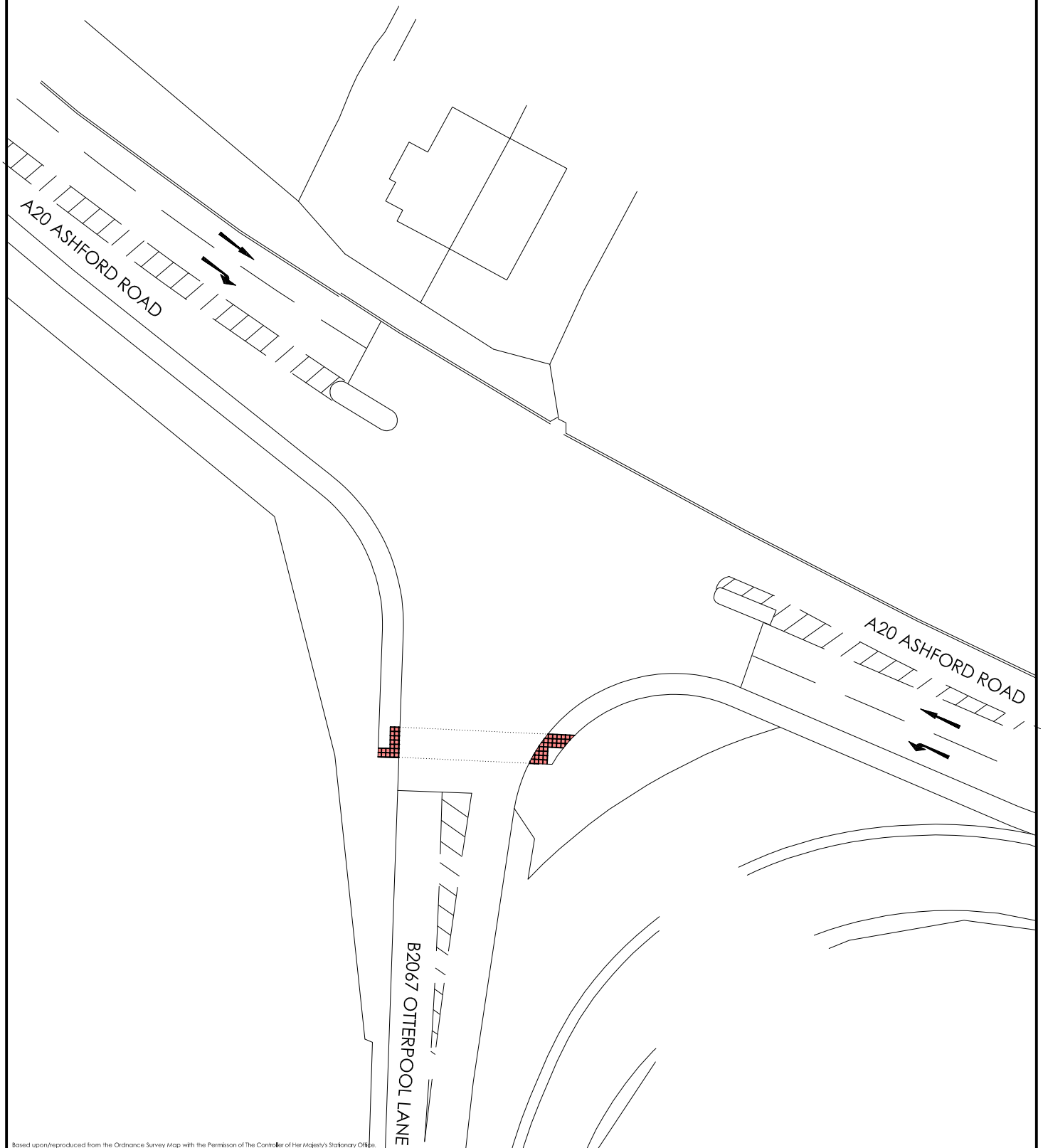

Project: ASHFORD ROAD, SELLINDGE	Client: GLADMAN DEVELOPMENTS	Drawing No: 1687/03	Rev:
Title: EXISTING JUNCTION ARRANGEMENTS: STUDY JUNCTION 3		Date: OCT 2019	Scale: 1:500@A4

ASHLEY HELME ASSOCIATES

0m 5m 10m 15m 20m 30m 40m 50m

N

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Introduce ghost island right turn lane

Relocate existing bus stop

Introduce pedestrian refuge with dropped kerbs and tactile paving

Relocate existing bus stop

Indicative relocated and improved bus stops

Duke's Head (PH)

Wellington Cottage

Remove existing parking layby

Introduce dropped kerbs and tactile paving

Introduce 3.0m wide shared footway/cycleway with 0.5m grass verge

Introduce dropped kerbs and tactile paving

Existing Speed Limit Change

ASHFORD ROAD

Fieldhead

Grass

Vegetation

Shed

Key:

- 2.4m x 111m visibility splay
- 2.4m x 109m visibility splay
- Proposed kerbline
- Proposed road markings
- Existing road markings

REV	Changes	DATE
E	Changes to taper geometry following KCC comments	02.10.23
D	Changes to taper geometry following KCC comments	02.12.20
C	Relocation of access by 5m to achieve 3.5m wide running lanes	13.10.20
B	Access position moved east by circa 10m following RSA comments	04.09.20
A	Visibility Splays Increased	14.08.20

Project: ASHFORD ROAD, SELLINDGE	Title: INDICATIVE SITE ACCESS ARRANGEMENTS	Drg No: 1687/04	Rev: E
Client: GLADMAN DEVELOPMENTS		Date: MARCH 2020	Scale: 1:500@A2

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0m 5m 10m 15m 20m 30m 40m 50m

N

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Duke's Head (PH)

Introduce pedestrian refuge with dropped kerbs and tactile paving

Relocate existing bus stop

Indicative relocated and improved bus stops

Existing Speed Limit Change

Proposed Toucan crossing to connect the new shared footway/cycleway to the existing shared footway/cycleway on the north side of the A20

Existing shared footway/cycleway on the north side of the A20

Introduce dropped kerbs and tactile paving

Introduce 3.0m wide shared footway/cycleway with 0.5m grass verge

Introduce dropped kerbs and tactile paving

MOORSTOCK LANE

ASHFORD ROAD

ASHFORD ROAD

BULLS LANE

Key:

- Proposed kerbline
- Proposed road markings
- Existing road markings

Project: ASHFORD ROAD, SELLINDGE	Title: PROPOSED PEDESTRIAN AND CYCLE IMPROVEMENTS	Drg No: 1687/07	Rev:
Client: GLADMAN DEVELOPMENTS		Date: OCTOBER 2023	Scale: 1:500@A2

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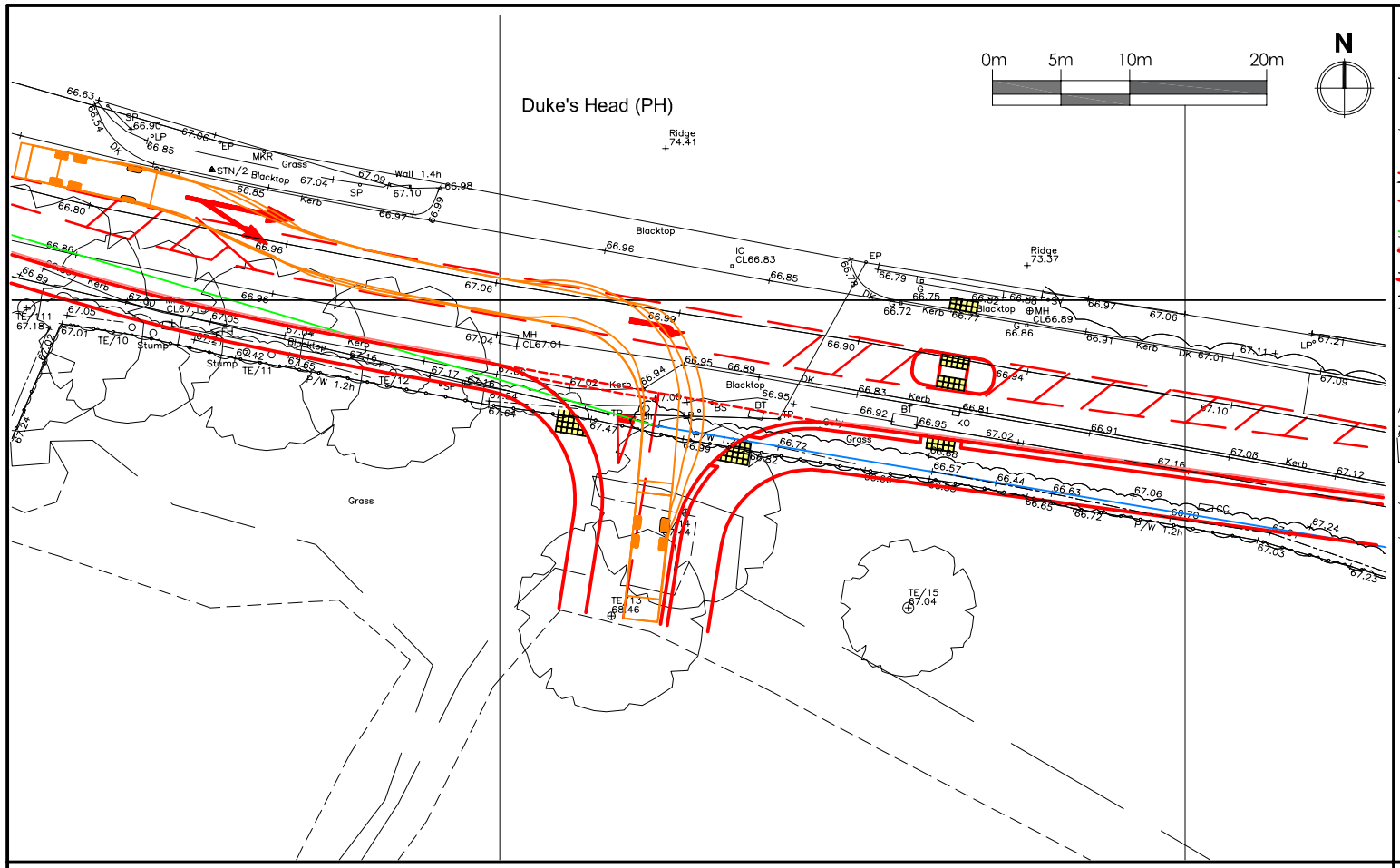

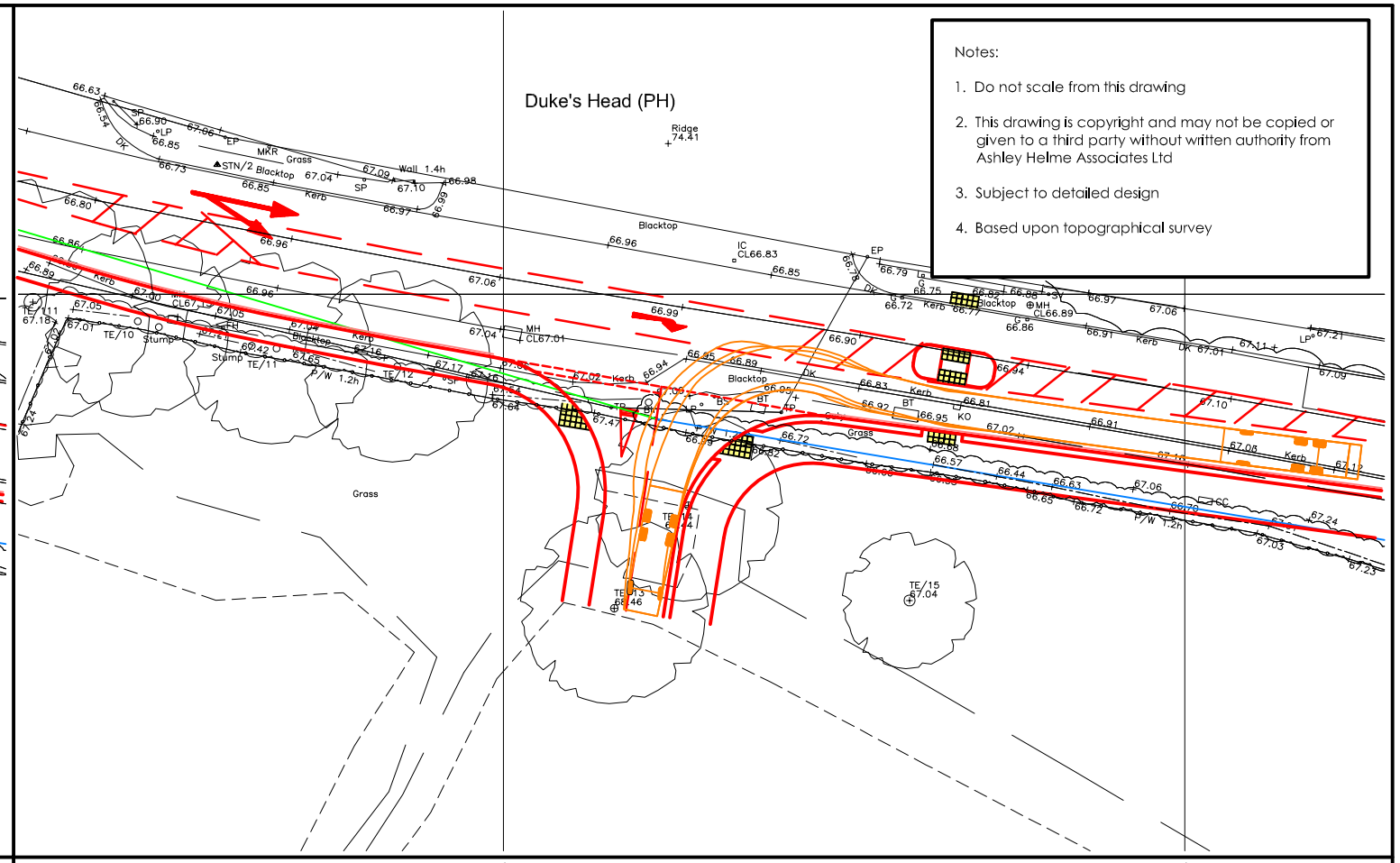

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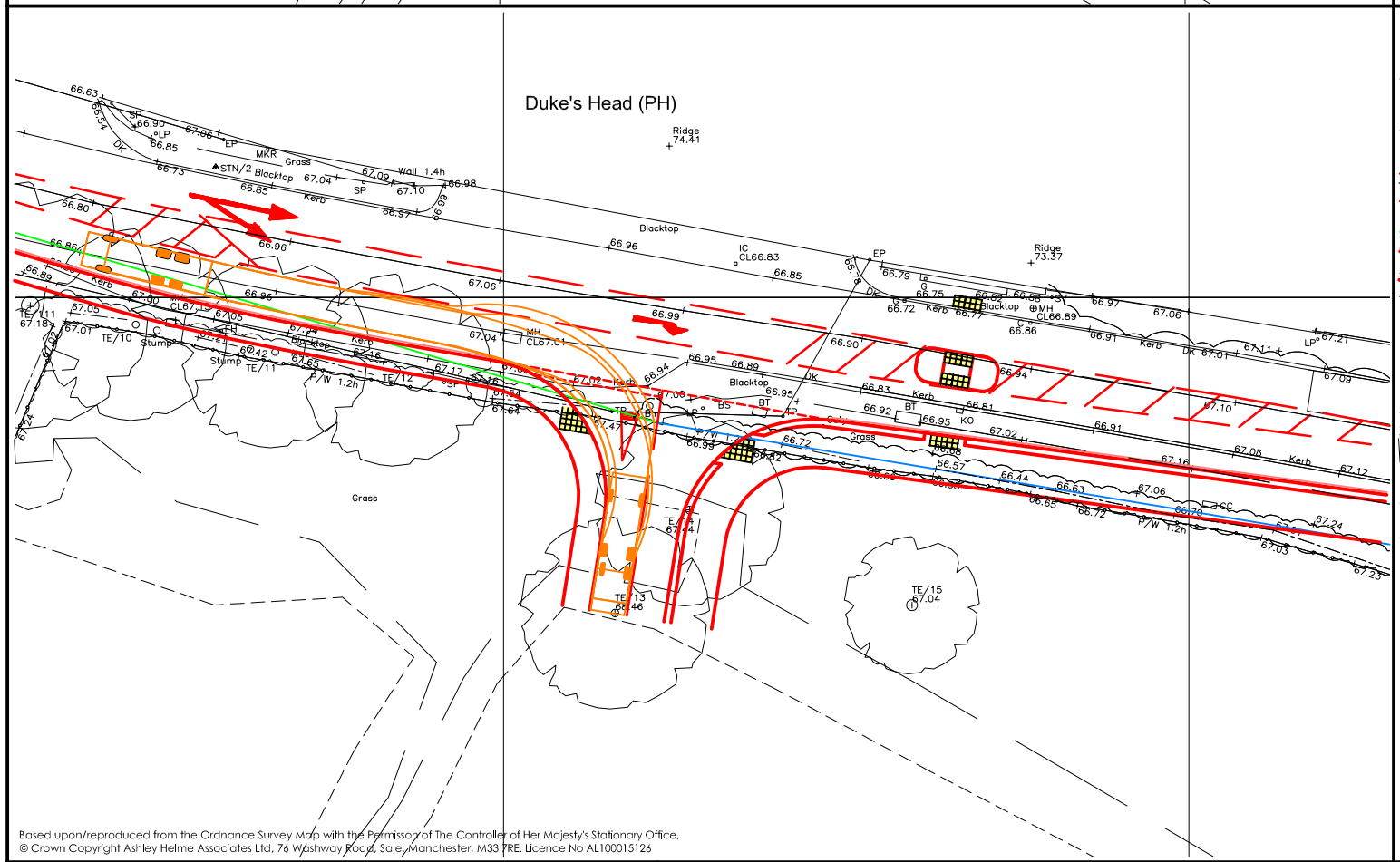

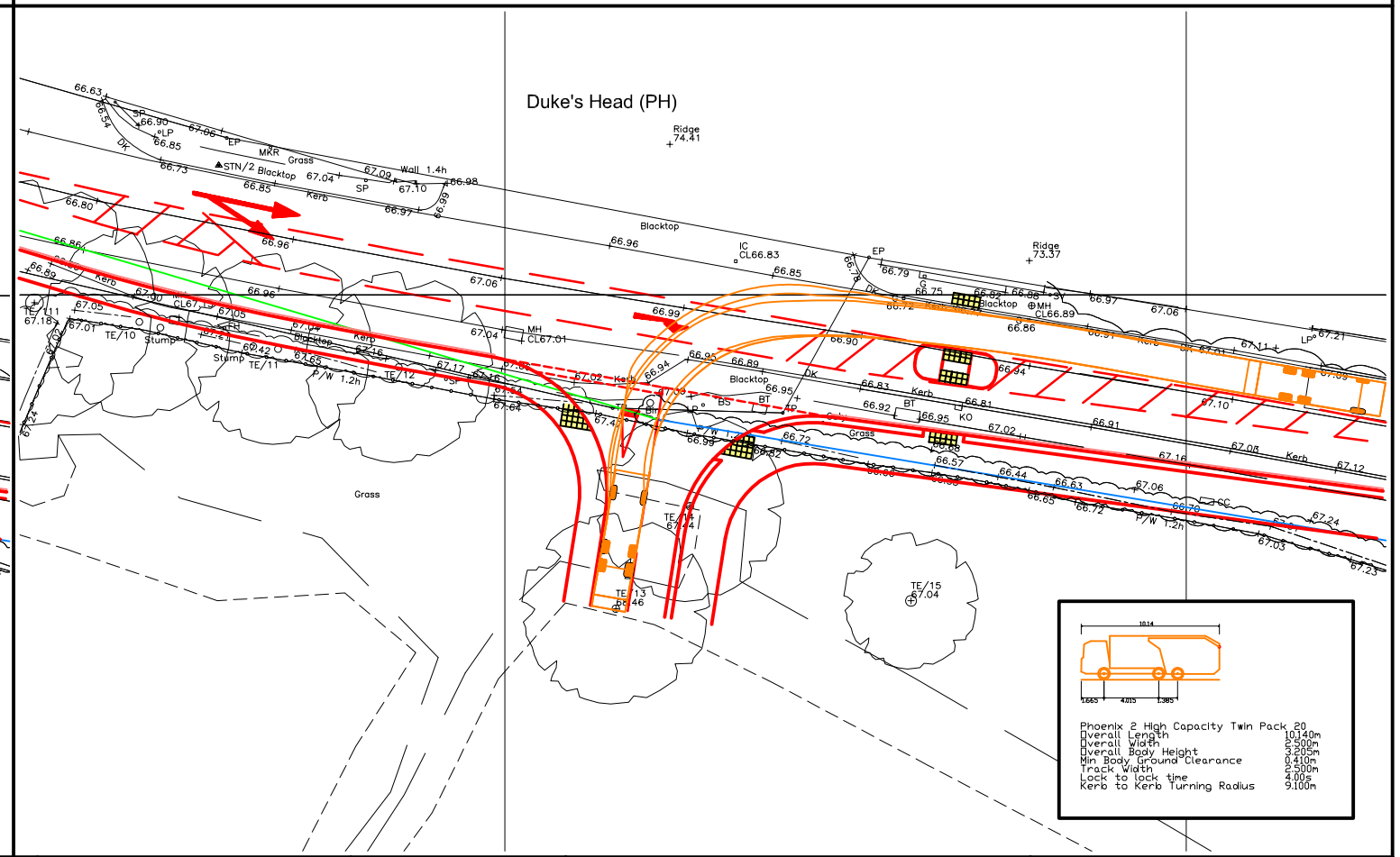

Project: LAND OFF ASHFORD ROAD, SELLINDGE	Title: SWEPT PATH ANALYSIS: REFUSE VEHICLE	Drawing No: 1687/SP/02	Rev: D
Client: GLADMAN DEVELOPMENTS		Date: MARCH 2020	Scale: 1:500@A3

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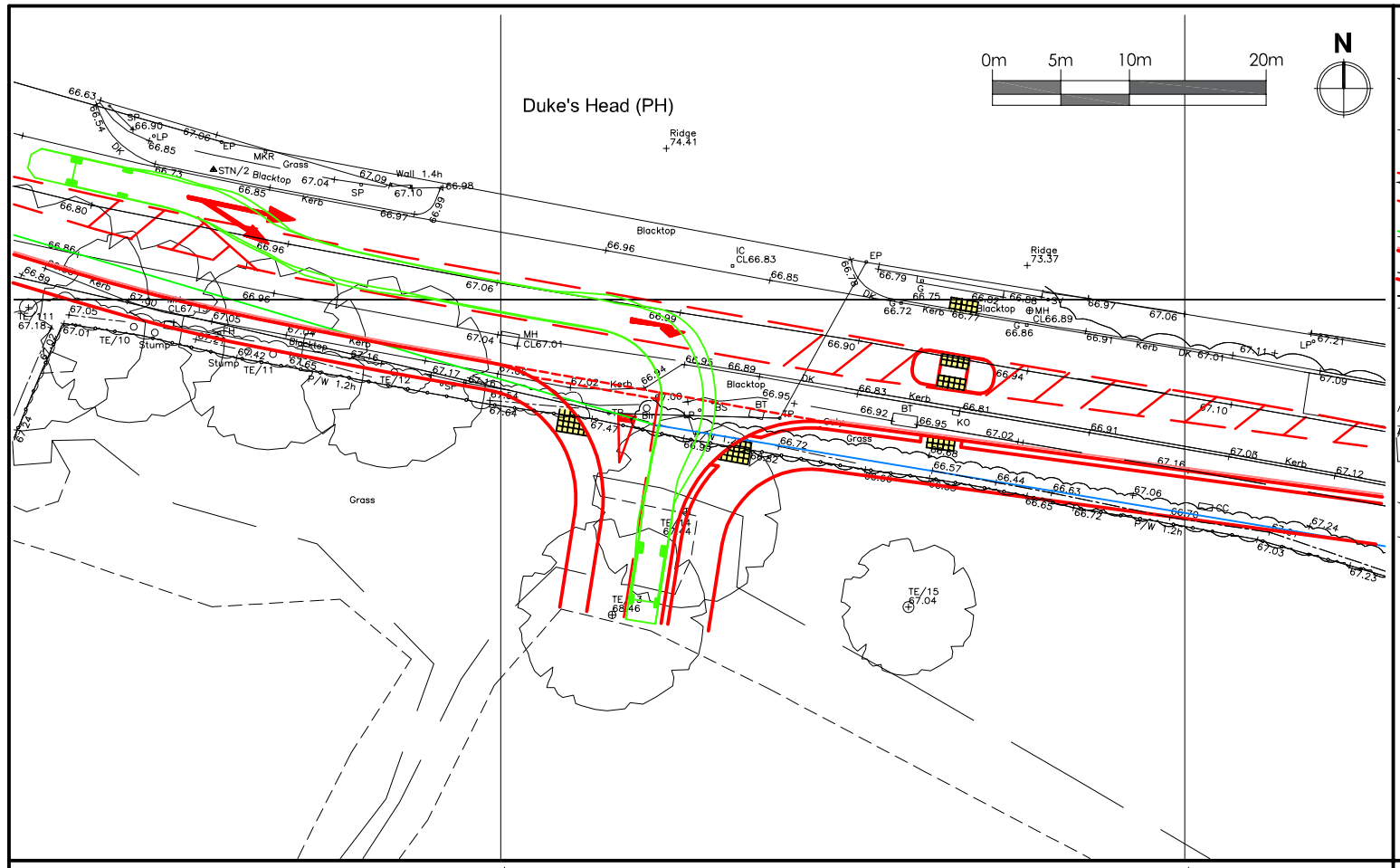

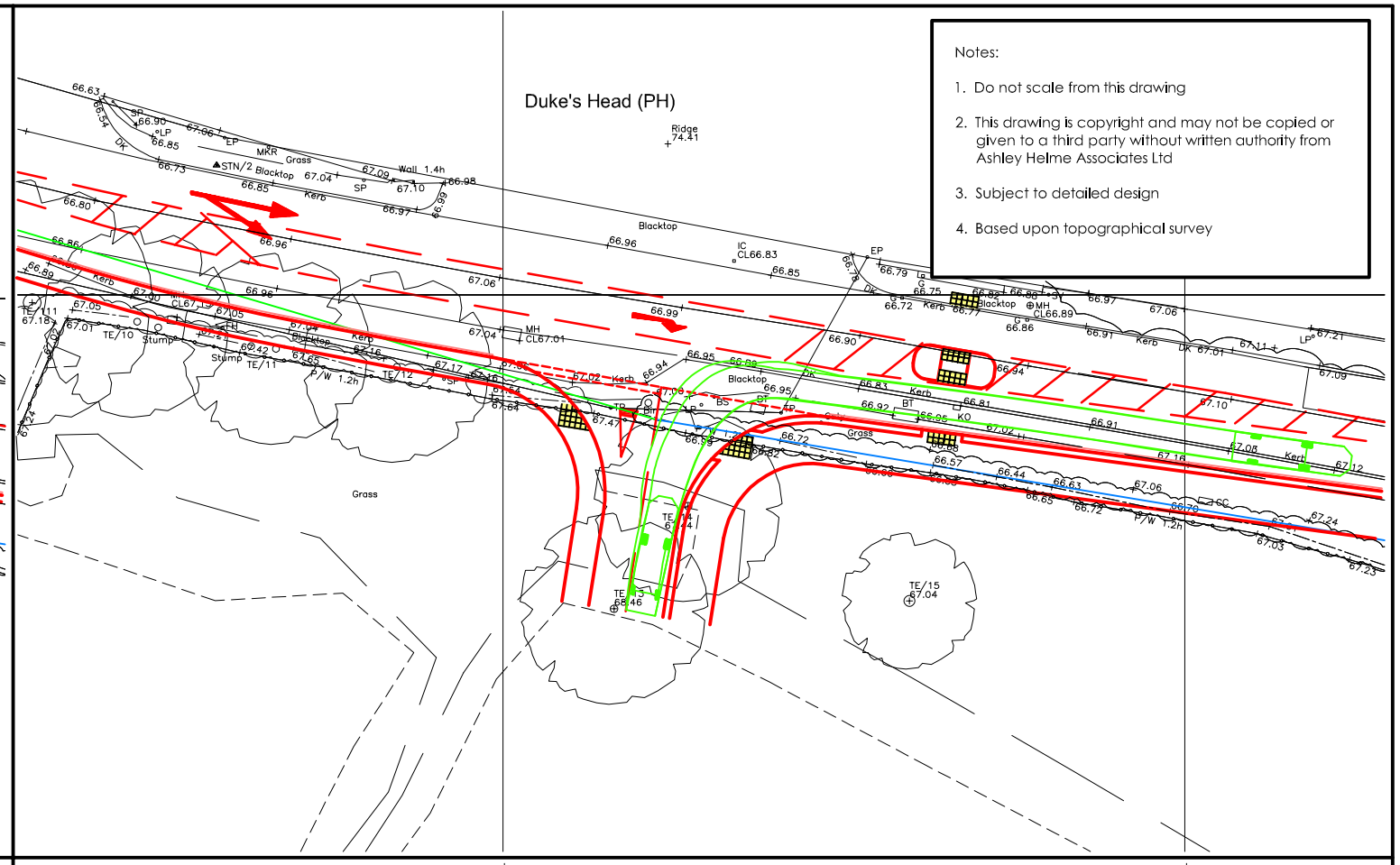

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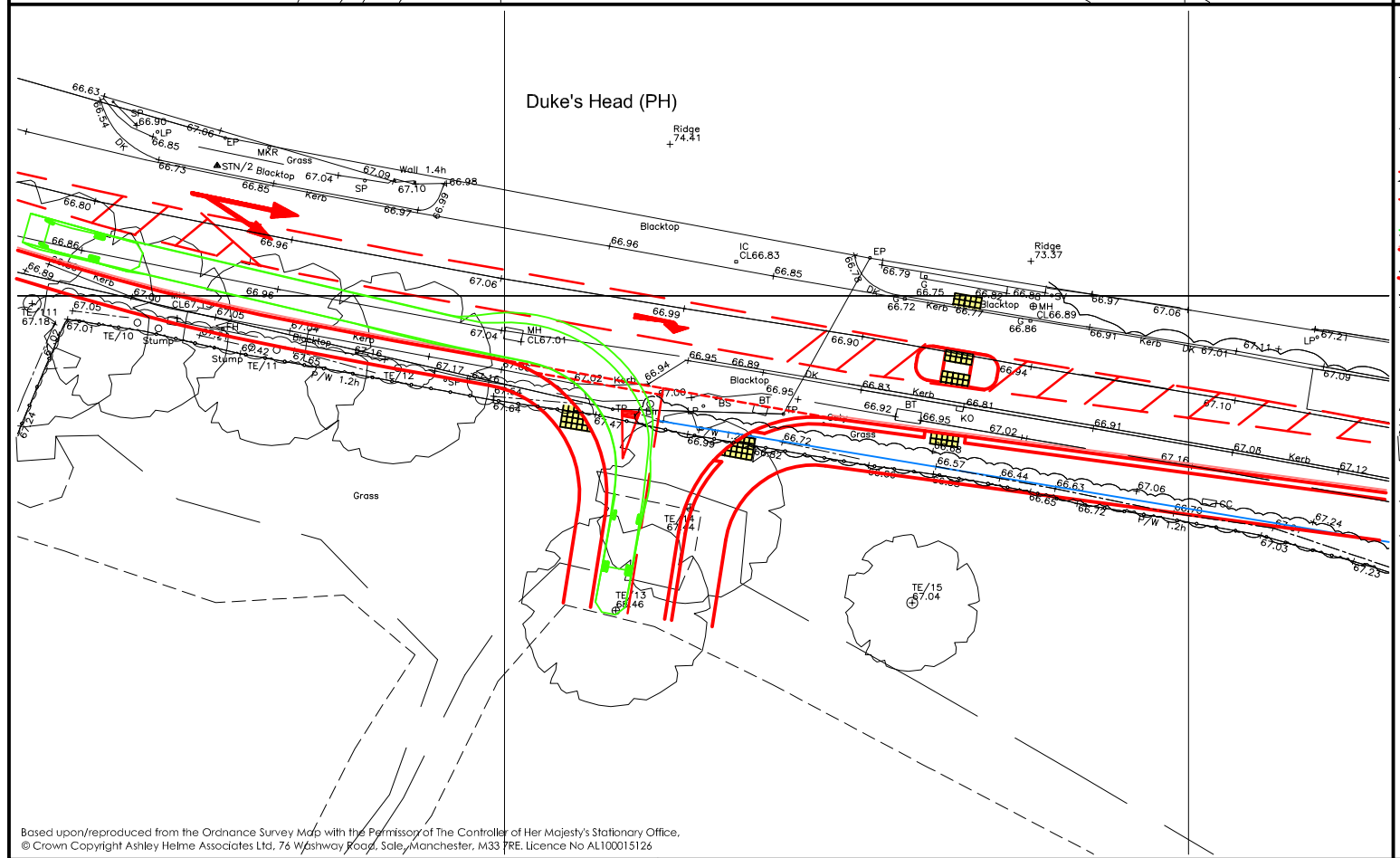

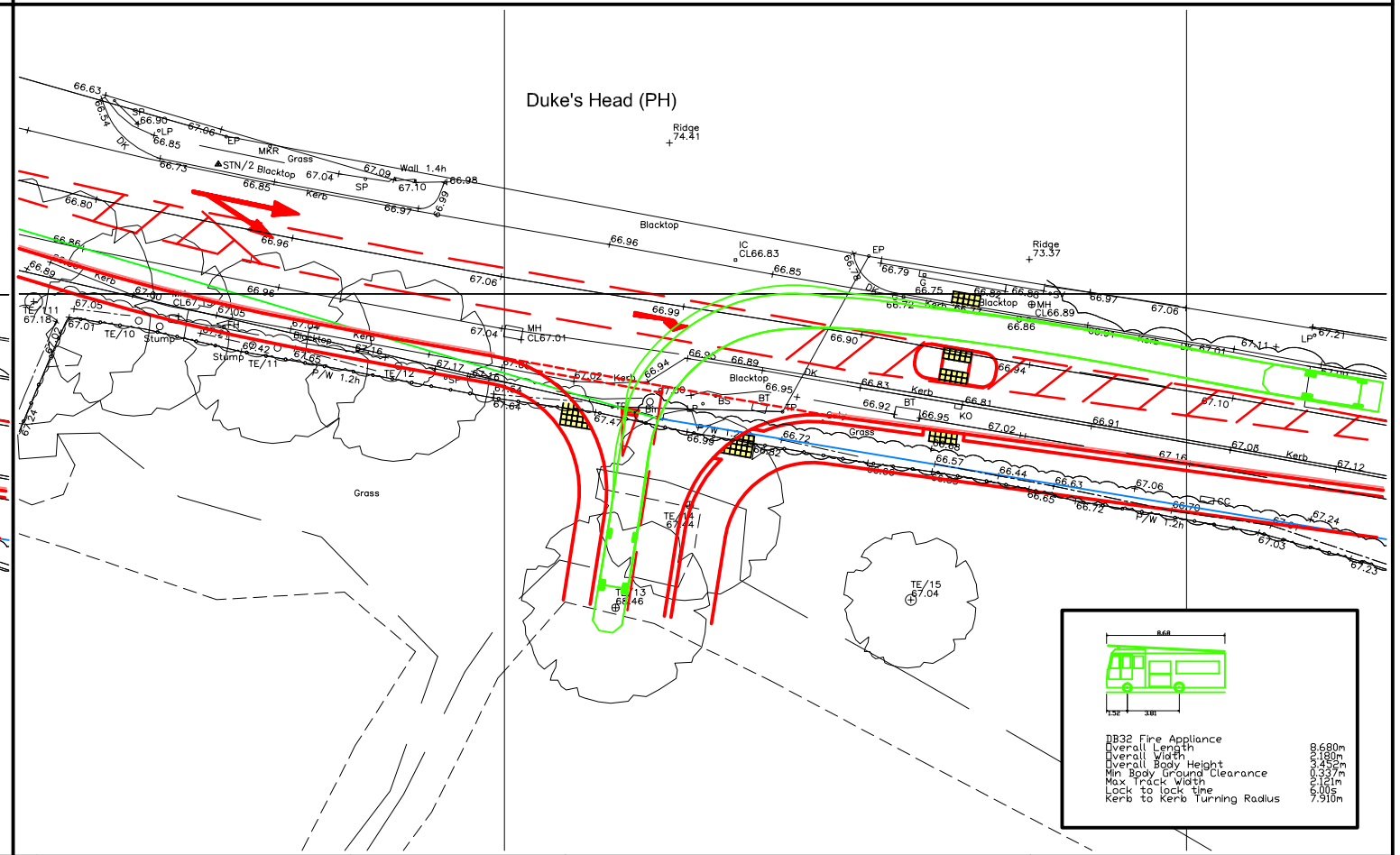

Project: LAND OFF ASHFORD ROAD, SELLINDGE	Title: SWEPT PATH ANALYSIS: FIRE APPLIANCE	Drawing No: 1687/SP/03	Rev: D
Client: GLADMAN DEVELOPMENTS		Date: MARCH 2020	Scale: 1:500@A3

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