

# Development Plan Document (DPD) Second Publication Stage Representation Form

## Second Publication Amended Allocations & Development Management Development Plan Document (DPD)

The District Council have produced a guidance note to assist in the completion of this form. Copies have been provided in correspondence and additional copies are available at: Castle House, Libraries in the District and https://www.newark-sherwooddc.gov.uk/aadm-representation/

Newark and Sherwood District Council is seeking your comments on the Second Publication Amended Allocations & Development Management DPD ('Second Publication AADMDPD'). Comments received at this stage should be about whether the Plan is legally compliant, sound and whether it has met the duty to cooperate. All representations must be received by the Council by 5pm on Monday 6<sup>th</sup> November 2023.

This form has two parts- Part A- Personal / Agent Details and Part B- Your Representation(s) and further notification requests. (Please fill in a separate sheet (Part B) for each aspect or part of the Local Plan you wish to make representation on). Documents to support your representations (optional) should be referenced.

#### **Privacy Notice**

Apart from your comments below, the personal information you have provided will only be used by Newark & Sherwood District Council in accordance with the UK General Data Protection Regulation and the Data Protection Act 2018 and will not be shared with any third party.

The basis under which the Council uses personal data for this purpose is to undertake a public task.

The information that you have provided will be kept in accordance with the Council's retention schedule, which can be found at: <a href="https://www.newark-sherwooddc.gov.uk/dataprotection/">https://www.newark-sherwooddc.gov.uk/dataprotection/</a>

Please note the Council cannot accept anonymous responses. All representations received will be made available for public inspection and therefore cannot be treated as confidential. They will also be:

- Published in the public domain;
- Published on the Council's website:
- Shared with other organisations for the purpose of developing/adopting the Publication AADMDPD and forwarded to the Secretary of State for consideration;
- Made available to the Planning Inspector appointed by the Secretary of State to examine the Publication AADMDPD; and
- Used by the Inspector to contact you regarding the Examination of the Plan.

When making representations available on the Council's website, the Council will remove all telephone numbers, email addresses and signatures.

By submitting your Response Form/representation, you agree to your personal details being processed in accordance with these Data Protection Terms.

If you previously made a representation to the first Publication Allocations & Development Management DPD (November 2022) Regulation 19 stage, we would like to know how you want this to be treated. All representations made at that stage will be forwarded on to the Inspector unless you wish to supersede it with a new representation to this Second Publication Allocations & Development Management. Please make this clear at the beginning of your Representation. If your previous representation is no longer required because of the proposed changes made to this Second Publication AADMDPD, please let us know that you are happy for your previous representation to be withdrawn.

#### PART A- Personal / Agent Details

In circumstances where individuals/groups share a similar view, it would be helpful to the Inspector to make a single representation, stating how many people the submission is representing and how the representation was authorised.

#### 1. Personal Details

#### 2. Agents Details

\*If an agent is appointed, please complete only the Title, Name and Organisation boxes below but complete the full contact details of the agent in column two.

Title	Ms	
First Name	Lindsay	
Last Name	Ramsden	
Job Title (where relevant)	Group Strategic Land Director	
Organisation (where relevant)	Avant Homes	
Address Line 1	Avant Homes Yorkshire	
Line 2	Unit 2 Mariner Court	
Line 3	Peel Avenue	
Line 4	Durkar	
Post Code	WF4 3FL	
Telephone Number		
Email Address		
Name or Organisation: Avant	: Homes	

Part of the Second Publication AADMDPD:	Mark if Relevant (X)	Specify number/part/document:
Second Amended AADMDPD Paragraph Number		Paragraph Number:
Second Amended AADMDPD Policy Number		Policy Number:
Second Amended AADMDPD Policies Map Amendments		Part of Policy Map:
ntegrated Impact Assessment <sup>1</sup>		Paragraph Number:
Habitat Regulations Assessment		Paragraph Number:
Statement of Consultation		Paragraph Number:
Supporting Evidence Base		Document Name:
		Page/Paragraph:
1. Do you consider the DPD	to be LEGALLY COMPLIA	ANT?
Yes		No 🗌
Do you consider the DPI	O to comply with the Du	ty-to-Cooperate?
Yes 🗌		No 🗔
6. Do you consider the DPD	to be SOUND?	
Yes 🗌		No 🗌
	& Sherwood Developme	ce, Duty to Cooperate and the DPD being 'Sound' nt Plan Document Representation Guidance Notes ework (NPPF) (2023).

PART B- Representation(s)

<sup>&</sup>lt;sup>1</sup> The Integrated Impact Assessment (IIA) integrates Sustainability Appraisal (SA), Strategic Environmental Assessment (SEA), Equalities Impact Assessment (EqIA) and Health Impact Assessment (HIA). Sustainability Appraisals (SA) are a requirement of the Planning and Compulsory Purchase Act 2004 and Strategic Environmental Assessments (SEA) are required by European Directive EC/2001/42, which was transposed into UK law by the Environmental Assessment Regulations for Plans and Programmes (July 2004). The EqIA is a way of demonstrating the District Council is fulfilling the requirements of the Public Sector Equality Duty contained in section 149 of the Equality Act 2010. HIA is a recognised process for considering the health impacts of plans and undertaking this type of assessment is widely seen as best practice.

7.	The DPD is not sound because it is not:
	(1) Positively Prepared (2) Justified (3) Effective (4) Consistent with national policy
8.	Please provide precise details of why you believe the DPD is, or is not, legally compliant, sound or in compliance with the duty to cooperate in the box below.
	you wish to provide supplementary information to support your details, please ensure they are clearly eferenced.
	(Continue on a separate sheet/expand box if necessary)
9.	Please set out what change(s) you consider necessary to make the DPD legally compliant or sound, having regard to the test you have identified at 6 above where this relates to soundness. You will need to say why this change will make the DPD legally compliant or sound. It will be helpful if you are able to put forward your suggested revised wording of any policy or text. Please be as precise as possible.
	(Continue on a separate sheet/expand box if necessary)

Please note your Representation should cover succinctly all the information, evidence and supporting Information necessary to support/justify the Representation and the suggested change, as there will not normally be a subsequent opportunity to make further Representations based on the original

Representations at the Publication stage. After this stage, further submissions will be only at the request of the Inspector, based on the matters and issues he/she identifies for Examination.

10. If your Representation is seeking a change, do you consider it necessary to participate at the oral part of the examination?

No, I do not wish to participate at the oral Examination.  Yes, I wish to participate at the oral Examination.							
		☐Yes – wish Sessions	to participate in the Housing and Clip	ostone			
	ou wish to participate at the oral part one necessary.	of the Examinati	on, please outline why you conside	er this			
		(Continue on a	separate sheet/expand box if neces	ssary)			
	<b>note</b> the Inspector will determine the m dicated that they wish to participate at		and the responsibilities of the first of the state of the	ho			
	se tick the relevant boxes below to nts:	receive notificat	ions (via email) on the following				
DPD sub	omitted to the Secretary of State for Ins	pection		Yes			
Evamina	ation in Public hearing sessions						
Examino	ition in Fublic flearing sessions			Yes			
Planning	g Inspector's recommendations for the	DPD have been p	published.	□ Yes			
DPD has	been formally adopted.			Ü			
				Yes			
Signatu	re:	Date: 6 <sup>th</sup> 1	November 2023				
				i i			
Please i	return this form by 5pm on 6 <sup>th</sup> Noveml	per 2023 to one	of the addresses below:				
Email:	planningpolicy@newark-sherwooddo	.gov.uk					
Post:	Planning Policy & Infrastructure Busin	ness Unit					
	Newark & Sherwood District Council						
	Castle House Great North Road		Office Use Only				
Newark							
	NG24 1BY		Date of Receipt:				
Informa	ation is available at:		Representation No:				
	www.newark-sherwooddc.gov.uk/aadm-i	representation/					



#### Report Control

Project:	Land off Clipstone Drive, Clipstone, NG19 0JH
Client:	Avant Homes
Reference:	21.3031
File Origin:	Document1
Primary Author	lan Long
Checked By:	David Hutchinson

Issue	Date	Status	Checked By
1	20.09.2021	Draft	David Hutchinson

#### **TABLE OF CONTENTS**

1.	Introduction	2
2.	Response to Consultation Questions	3
	Question 1 - Core Policy 1 - Affordable Housing Provision	3
	Question 3 - Core Policy 3 - Housing Mix, Type and Density	3
	Question 13 – Policy DM2 – Development on Allocated Sites	4
	Question 16 – Policy DM5a & b - Design	6
	Policy DM5a – The Design Process 6	
	Policy DM5b - Design 6	

#### 1. INTRODUCTION

- 1.1 These representations have been prepared by Boyer on behalf of Avant Homes in regard to the 'Amended Allocations and Development Management Policies Development Plan Document: Options Report' consultation being conducted as part of the development of the emerging Local Plan Review.
- 1.2 The below representations provides Avant Homes' response to the topics contained in the consultation, specifically in relation to several questions posed in the Options Report.
- 1.3 This representation continues the promotion of 'Land off Clipstone Drive, Clipstone' which had previously been on behalf of Retail Ventures Ltd but now has been taken on by Avant Homes.
- 1.4 Avant Homes have a proven and established track record of delivering housing in a timely manner in Clipstone, as well as elsewhere in the region.

#### 2. RESPONSE TO CONSULTATION QUESTIONS

#### **Question 1 - Core Policy 1 - Affordable Housing Provision**

- 2.1 This representation supports the proposal to align the requirements of Core Policy 1 with the updated National Planning Policy Framework (NPPF). This approach will ensure that the housing mix for proposals can be developed to accord both with local and national planning policy. Therefore, the emerging policy will accord with Paragraph 16d of the updated NPPF.
- 2.2 Nonetheless, the proposed wording of Core Policy 1 contains a repetition of the wording found in Paragraph 65 of the NPPF. The Council should avoid the unnecessary duplication of policies contained in the NPPF, as is required in Paragraph 16f, and as such, the wording should be amended accordingly.
- 2.3 Further to this, the wording of Core Policy 1 should be updated to reflect the position stated in the 24<sup>th</sup> May 2021 Written Ministerial Statement in relation to First Homes, and specifically updated to contain the requirement for a minimum of 25% of all affordable housing units secured through developer contributions to be First Homes. Clarity should also be provided that where cash contributions for affordable housing are secured instead of on-site units, a minimum of 25% of these contributions should be used to secure First Homes. Where a mixture of cash contributions towards affordable housing and on-site units are secured, 25% of the overall value of affordable housing contributions should be applied to First Homes.

#### Question 3 - Core Policy 3 - Housing Mix, Type and Density

- 2.4 The wording of the amended Policy should be updated to reflect that the housing mix, type and density of schemes should vary at the local level across the District, to respond to localised needs and demands. The Integrated Impact Assessment which has been produced to inform the consultation states that "providing for a mix, type and density of new housing development which is able to respond to the housing needs of the District can help promote the creation of sustainable communities". By this merit, it is imperative that the wording of the amended Policy be updated to allow for the identified variations in local housing needs, which have been informed by the Council's own evidence base.
- 2.5 For example, the 'Mansfield Fringe Area', which Clipstone is a part of, is shown in the 'District Wide Housing Needs Assessment Sub Area Summaries' (December 2020) to have an overall housing mix demand (as a percentage) to be 34.3% requiring the '4 or more bedroom house' category whereas for Newark & Sherwood District there was a demand of 10.4% for the same category.
- 2.6 Simultaneously, it was found for the Mansfield Fringe Area there was a demand of 26.9% for the '3-bedroom house' category whereas it was 39.9% for Newark & Sherwood District, which was the largest requirement of any category. Naturally, this has informed the proposed policy amendment, which seeks for an "emphasis on 2 and 3-bedroom family housing".

- 2.7 Whilst it may be that other areas in the District have a greater preference for these house types, it is unreasonable to over-emphasise or over rely on these house types in the Mansfield Fringe Area when there is a stated need for an increased provision of 4 or more bedroomed houses. Indeed, we consider that the wording of the Policy prior to the proposed amendment was more appropriate, as it stated that "the District Council will seek to secure an appropriate mix of housing types to reflect local housing need. Such a mix will be dependent on the local characteristics of the site, the viability of the development and any localised housing need information".
- 2.8 The NPPF is clear in Paragraphs 61 and 62 that strategic policies should be informed by a local housing needs assessment, such as the District Wide Housing Needs Assessment and its associated Sub Area Summaries document, and that the context, size, type and tenure of housing needed for different groups in the community should be assessed and reflected in planning policies.

#### Question 13 - Policy DM2 - Development on Allocated Sites

- 2.9 This representation supports the wording contained in the 'preferred approach' amendment to Policy DM2. Further to this, we wish to emphasise the importance of the comprehensive delivery of allocated sites, and that where comprehensive development cannot be achieved that proposals for allocated sites ensure that they do not prejudice the overall deliverability of the whole allocation. As is considered in the draft Policy, development proposals which prejudice proper overall delivery should be refused.
- 2.10 The NPPG guidance makes clear that plan-makers need to assess the suitability, availability and achievability of sites, including whether the site is economically viable. This provides information on which a judgement can be made as to whether a site can be considered deliverable within the plan period.
- 2.11 A site can be considered available for development, when, on the best information available there is confidence that there are no legal or ownership impediments to development. For example, land controlled by a developer or landowner who has expressed an intention to develop may be considered available.
- 2.12 A site can be considered achievable for development where there is a reasonable prospect that the particular type of development will be developed on the site at a particular point in time. This is essentially a judgement about the economic viability of a site, and the capacity of the developer to complete and sell the development over a certain period.
- 2.13 Where constraints have been identified, the assessment will need to consider what action could be taken to overcome them.
- 2.14 We consider it appropriate for an additional allocation to be made in Clipstone, to protect the housing land supply of the District and to support the Government's objective to significantly boost the supply of homes, as contained in Paragraph 60 of the NPPF.

- 2.15 In response to this, and in response to other allocated sites which may not come forward as expected elsewhere in the District, we propose the allocation of 'Land off Clipstone Drive, Clipstone' which could be developed for residential purposes delivering in the order of approximately 800 dwellings. 'Land off Clipstone Drive, Clipstone' benefits from being sited in a highly sustainable location being located between the main body of the settlement and the recently developed land off Cavendish Way to the north east. It therefore has the potential to improve connectivity by bridging the gap between the core of the village and the new development for the benefit of all residents.
- 2.16 The site benefits from having access to the south-west from Clipstone Drive with the possibility of pedestrian accessibility into the parcel of land to the north-east where Persimmon Homes obtained full planning permission for 107no. dwellings (app. ref: 17/00582/FULM).
- 2.17 Further to this, the site also benefits from being located entirely within Flood Zone 1 and does not contain any trees or groupings of trees which are protected by Tree Preservation Orders. There are also no listed buildings nor scheduled ancient monuments on or within proximity to the site. The site has no landscape value and its development would effectively infill existing development to the north-east and south-west, demonstrating that this is a logical location for development.
- 2.18 The most recently published SHELAA assessment (2010) of the submitted site provided an overall conclusion that stated that "potential contamination issues at the site if necessary". It is considered that this element could be further investigated prior to the submission of an application with appropriate mitigation measures incorporated into the scheme, if needed.
- 2.19 The SHELAA assessment also stated that there are "highway access constraints in this location". In response to this, an Access Technical Note has been produced by Ardent Consulting, which sought to establish an agreement with Nottinghamshire County Council for an 'in-principle' access strategy that was proposed to consist of two adopted accesses from Clipstone Drive and Cavendish Way. This would enable an 800-unit development of the site to have more than a single point of access, which had been noted as the primary highway constraint to the site.
- 2.20 More recently, pre-application engagement was made with the Council in September 2020, with the response concluding that, at the current time, an application would not be supported due to the site being outside of the settlement boundary of Clipstone. The response advised that the site should be put forward for allocation during the Local Plan review.
- 2.21 'Land off Clipstone Drive, Clipstone' is now controlled by Avant Homes, who have a proven and established track record of delivering housing in a timely manner in Clipstone, as well as elsewhere in the region.
- 2.22 The allocation of the site will act to reinforce the five-year housing land supply of the District in the short to medium term, and the developer would be able to get on-site promptly due to the relative lack of pre-development preparatory works or infrastructure which is required.

- 2.23 This site would make a material contribution towards not only meeting the housing requirements of the District, but could also support the economic and housing needs of Mansfield whose boundary is located within metres of the site and with Clipstone being referred to as a settlement in the 'Mansfield Fringe Area' in the Allocations and Development Management DPD (2013). Therefore, the allocation of land off Clipstone Drive, Clipstone is accordant with the general thrust of the NPPF and in particular the duty for local planning authorities to have regard to the specific needs of neighbouring authorities.
- 2.24 In conclusion, there are no material reasons why land off Clipstone Drive, Clipstone could not be allocated for housing as part of this Local Plan Review process. As such, further allocations should be considered to ensure that the housing land needs of the District are met, being mindful of the Government's aspiration to deliver 300,000 dwellings a year.

#### Question 16 - Policy DM5a & b - Design

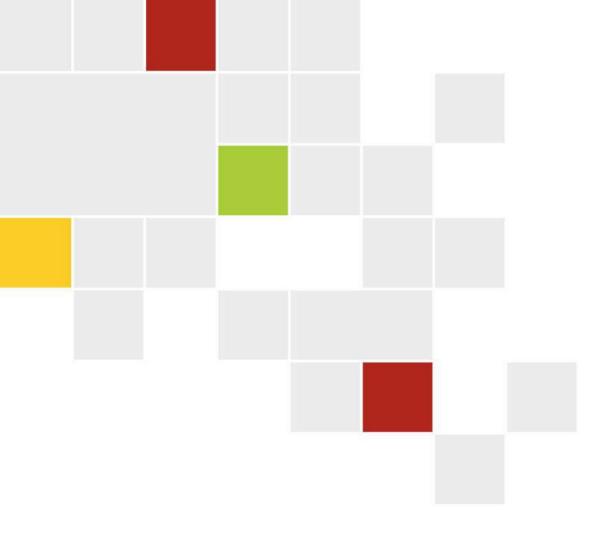
Policy DM5a - The Design Process

- 2.25 The proposed preferred approach for Policy DM5a seeks to introduce a requirement for new residential development to "perform positively" against the Building for a Healthy Life guidance. Whilst we are supportive of its use as guidance, we consider it appropriate that conformity to Building for a Healthy Life be voluntary as opposed to a mandatory policy requirement, as meeting the requirements of the guidance can have potentially significant impacts upon the viability and the deliverability of sites. This should be reflected in the wording of the policy, or alternatively adherence to Building for a Healthy Life guidance should be kept in the policy subtext only.
- 2.26 Further clarity should be provided regarding what the Council consider a "robust site and contextual appraisal" to include, in addition to the stated constraints and opportunities. This will ensure that there is as little ambiguity in the design process as possible, particularly in the early stages of the development of the design and in ensuring that these are translated through to the latter design stages and eventual submission design.
- 2.27 We query the inclusion of the statement "the District Council expects applicants to ensure that their design teams are well skilled, creative and passionate about creating great places whilst also being well informed in best practice and innovation" as this is something of a throwaway comment that is not supported by corresponding paragraph/s in the NPPF.

Policy DM5b - Design

2.28 It is acknowledged that Policy DM5b (1. Access) seeks to encourage the integration of sustainable and active modes of travel, however the wording of the Policy should be amended to include reference to the provisions of Paragraph 105 of the NPPF. This Paragraph also seeks to maximise sustainable transport solutions; however, it recognises that opportunities for this will differ between urban and rural areas. As is considered in the Paragraph, "this should be taken into account in both plan-making and decision-making".

- 2.29 For Policy DM5b (2. Parking), reference is made to development proposals being "in accordance with the adopted Residential Cycle and Car Parking Design Guide SPD". In effect, this ordains the SPD with the same decision-making weight as an adopted DPD, which has not been subject to examination and does not itself form part of the emerging Amended Allocations & Development Management DPD.
- 2.30 Per Paragraph 16d of the NPPF, Local Plan policies should be "clearly written and unambiguous". As such, the wording for Policy DM5b (2. Parking) should be updated to contain the cycle and car parking requirements, noting that further information is available in the associated SPD.





LCR/Consultation/Group Strat 6<sup>th</sup> November 2023

ISSUED BY EMAIL ONLY

Dear Sir/Madam,

Consultation Response to Newark and Sherwood Second Publication Amended Allocations and Development Management DPD

RE: Land at Cavendish Way, Clipstone

I write in relation to the above consultation and following our previous comments submitted to the earlier versions of the proposed Allocations and Development Management DPD. For the avoidance of doubt, the previous comments remain of relevance (but not repeated) and a copy is attached for ease of reference.

Further comments are set out below:

#### Clipstone (Pg 109)

The urban boundary for Clipstone should be amended to include the land at Cavendish Way, Clipstone as per the attached red line plan. This land is well related to the settlement and local facilities and services. It is also not technically constrained and is available, deliverable and achievable for development in the short term. Avant has a legal interest in the land which would ensure that development would be forthcoming upon allocation of the site and we would work with the Council to bring the site forward in phases if required. Previous representations have included further detailed information regarding the access into the site and this confirms that access is achievable and is not a constraint to development (attached again for ease of reference).

The current proposed Plan relies heavily on the delivery of Allocation Ref Cl/MU/1 to deliver 120 dwellings and 12 ha of employment provision. This site has been proposed for allocation for a number of years and it would seem reasonable for questions to be raised in relation to its likely delivery/viability in the short term. A first phase at Clipstone could easily contribute to the housing requirement in the short term and would undoubtedly deliver in advance of the Allocation Ref CL/MU/1.

Avant Homes Ltd, Avant House, 6 and 9 Tallys End, Barlborough, Chesterfield S43 4WP





Clipstone is identified as a sustainable settlement within the Plan and is well placed to accept further development at Cavendish Way –as a phased development site. Worst case, this site should be identified as safeguarded land in order to enable development to come forward if the deliver of Allocation Cl/MU/1 continues to be delayed.

#### Policy DM2: Development on Allocated Sites

It is noted that this policy has been amended to remove the reference to Developer Contributions and Planning Obligations SPD. This deletion is supported by Avant and allows appropriate evidence at the relevant time to be taken into account. However, the Council should identify what evidence is expected to be relied upon i.e, SHELAA, 5YLS etc. By stating which evidence is likely to be used, developers would know exactly which evidence to review and consider in terms of understanding development opportunities on new sites.

#### Policy DM5a: The Design Process

Avant Homes consider that the changes to this policy are unsound and are not consistent with national policy. It is noted that the policy amendments include reference to the National Design Guide and locally adopted Design Codes and requires all new residential development to perform positively against Building for a Healthy Life.

Whilst Avant do seek to work in accordance with the Building for Healthy Life criteria, it is noted that this is not understood to be a 'standard' to be achieved, and aims to guide development as much as possible in terms of considering design and the creation of successful places. In that context, it is not considered appropriate to state that Developers should meet the standard of those objectives in Local Plan policy (when it is actually a voluntary position) —particularly, without setting out and understanding what would be specifically required as part of future development schemes.

#### Policy DM7 Biodiversity and Green Infrastructure

Avant consider that this Policy is unsound by virtue of it being outdated when considered against latest national policy. Biodiversity Net Gain is currently an area of continuous movement and the current position is that the implementation date for Mandatory Biodiversity Net Gain has been put back from November 23 to January 24, and additional guidance is emerging and expected.

Clearly, Avant Homes recognise the importance of Biodiversity, Net Gain and Green Infrastructure. However, any requirements need to be proportionate, reasonable and not stifle development unnecessary and

Avant Homes Ltd, Avant House, 6 and 9 Tallys End, Barlborough, Chesterfield S43 4WP





timescales should be in line with those set by National Policy in order to avoid adding delays and complexity to an already slow planning system. Any policy requirement should therefore be set at a maximum of 10% BNG required for a maximum of 30 years, with each site being assessed independently and as part of a greater understanding of wider issues and package of each development site.

In summary, Avant consider the following points need further review from the Council prior to adopting the Local Plan in its proposed format:

- The land at Cavendish Way, Clipstone should be allocated for development in the short term. It is available, deliverable and achievable in terms of development and Avant have a legal interest in the land to ensure delivery of residential development in the immediate/short-term. From our preliminary investigations, the site does not have any technical constraints and is located in a sustainable and complementary position to the existing residential envelope.
- Design Policy DM5a is unnecessary restrictive;
- Affordable Housing (as per previous reps) remains in conflict with national policy; and,
- The policy position on Biodiversity needs updating and to be consistent with national policy.

I trust that the above is useful, but any further queries, please do not hesitate to contact me.

**Yours Sincerely** 

For and on behalf of Avant Homes

Lindsay Ramsden BSc (Hons) MRTPI Group Strategic Land Director

Enc Copy of September 2021 Submission Site Location Plan.

Avant Homes Ltd, Avant House, 6 and 9 Tallys End, Barlborough, Chesterfield S43 4WP

T: 01246 573700 avanthomes.co.uk



LCR/Consultation/Group Strat 6<sup>th</sup> November 2023

ISSUED BY EMAIL ONLY

Dear Sir/Madam,

Consultation Response to Newark and Sherwood Second Publication Amended Allocations and Development Management DPD

RE: Land at Cavendish Way, Clipstone

I write in relation to the above consultation and following our previous comments submitted to the earlier versions of the proposed Allocations and Development Management DPD. For the avoidance of doubt, the previous comments remain of relevance (but not repeated) and a copy is attached for ease of reference.

Further comments are set out below:

#### Clipstone (Pg 109)

The urban boundary for Clipstone should be amended to include the land at Cavendish Way, Clipstone as per the attached red line plan. This land is well related to the settlement and local facilities and services. It is also not technically constrained and is available, deliverable and achievable for development in the short term. Avant has a legal interest in the land which would ensure that development would be forthcoming upon allocation of the site and we would work with the Council to bring the site forward in phases if required. Previous representations have included further detailed information regarding the access into the site and this confirms that access is achievable and is not a constraint to development (attached again for ease of reference).

The current proposed Plan relies heavily on the delivery of Allocation Ref Cl/MU/1 to deliver 120 dwellings and 12 ha of employment provision. This site has been proposed for allocation for a number of years and it would seem reasonable for questions to be raised in relation to its likely delivery/viability in the short term. A first phase at Clipstone could easily contribute to the housing requirement in the short term and would undoubtedly deliver in advance of the Allocation Ref CL/MU/1.

Avant Homes Ltd, Avant House, 6 and 9 Tallys End, Barlborough, Chesterfield S43 4WP





Clipstone is identified as a sustainable settlement within the Plan and is well placed to accept further development at Cavendish Way –as a phased development site. Worst case, this site should be identified as safeguarded land in order to enable development to come forward if the deliver of Allocation Cl/MU/1 continues to be delayed.

#### Policy DM2: Development on Allocated Sites

It is noted that this policy has been amended to remove the reference to Developer Contributions and Planning Obligations SPD. This deletion is supported by Avant and allows appropriate evidence at the relevant time to be taken into account. However, the Council should identify what evidence is expected to be relied upon i.e, SHELAA, 5YLS etc. By stating which evidence is likely to be used, developers would know exactly which evidence to review and consider in terms of understanding development opportunities on new sites.

#### Policy DM5a: The Design Process

Avant Homes consider that the changes to this policy are unsound and are not consistent with national policy. It is noted that the policy amendments include reference to the National Design Guide and locally adopted Design Codes and requires all new residential development to perform positively against Building for a Healthy Life.

Whilst Avant do seek to work in accordance with the Building for Healthy Life criteria, it is noted that this is not understood to be a 'standard' to be achieved, and aims to guide development as much as possible in terms of considering design and the creation of successful places. In that context, it is not considered appropriate to state that Developers should meet the standard of those objectives in Local Plan policy (when it is actually a voluntary position) —particularly, without setting out and understanding what would be specifically required as part of future development schemes.

#### Policy DM7 Biodiversity and Green Infrastructure

Avant consider that this Policy is unsound by virtue of it being outdated when considered against latest national policy. Biodiversity Net Gain is currently an area of continuous movement and the current position is that the implementation date for Mandatory Biodiversity Net Gain has been put back from November 23 to January 24, and additional guidance is emerging and expected.

Clearly, Avant Homes recognise the importance of Biodiversity, Net Gain and Green Infrastructure. However, any requirements need to be proportionate, reasonable and not stifle development unnecessary and

Avant Homes Ltd, Avant House, 6 and 9 Tallys End, Barlborough, Chesterfield S43 4WP





timescales should be in line with those set by National Policy in order to avoid adding delays and complexity to an already slow planning system. Any policy requirement should therefore be set at a maximum of 10% BNG required for a maximum of 30 years, with each site being assessed independently and as part of a greater understanding of wider issues and package of each development site.

In summary, Avant consider the following points need further review from the Council prior to adopting the Local Plan in its proposed format:

- The land at Cavendish Way, Clipstone should be allocated for development in the short term. It is available, deliverable and achievable in terms of development and Avant have a legal interest in the land to ensure delivery of residential development in the immediate/short-term. From our preliminary investigations, the site does not have any technical constraints and is located in a sustainable and complementary position to the existing residential envelope.
- Design Policy DM5a is unnecessary restrictive;
- Affordable Housing (as per previous reps) remains in conflict with national policy; and,
- The policy position on Biodiversity needs updating and to be consistent with national policy.

I trust that the above is useful, but any further queries, please do not hesitate to contact me.

**Yours Sincerely** 

For and on behalf of Avant Homes

Lindsay Ramsden BSc (Hons) MRTPI Group Strategic Land Director

Enc Copy of September 2021 Submission Site Location Plan.

Avant Homes Ltd, Avant House, 6 and 9 Tallys End, Barlborough, Chesterfield S43 4WP

T: 01246 573700 avanthomes.co.uk



LCR/Consultation/Group Strat 6<sup>th</sup> November 2023

ISSUED BY EMAIL ONLY

Dear Sir/Madam,

Consultation Response to Newark and Sherwood Second Publication Amended Allocations and Development Management DPD

RE: Land at Cavendish Way, Clipstone

I write in relation to the above consultation and following our previous comments submitted to the earlier versions of the proposed Allocations and Development Management DPD. For the avoidance of doubt, the previous comments remain of relevance (but not repeated) and a copy is attached for ease of reference.

Further comments are set out below:

#### Clipstone (Pg 109)

The urban boundary for Clipstone should be amended to include the land at Cavendish Way, Clipstone as per the attached red line plan. This land is well related to the settlement and local facilities and services. It is also not technically constrained and is available, deliverable and achievable for development in the short term. Avant has a legal interest in the land which would ensure that development would be forthcoming upon allocation of the site and we would work with the Council to bring the site forward in phases if required. Previous representations have included further detailed information regarding the access into the site and this confirms that access is achievable and is not a constraint to development (attached again for ease of reference).

The current proposed Plan relies heavily on the delivery of Allocation Ref Cl/MU/1 to deliver 120 dwellings and 12 ha of employment provision. This site has been proposed for allocation for a number of years and it would seem reasonable for questions to be raised in relation to its likely delivery/viability in the short term. A first phase at Clipstone could easily contribute to the housing requirement in the short term and would undoubtedly deliver in advance of the Allocation Ref CL/MU/1.

Avant Homes Ltd, Avant House, 6 and 9 Tallys End, Barlborough, Chesterfield S43 4WP





Clipstone is identified as a sustainable settlement within the Plan and is well placed to accept further development at Cavendish Way –as a phased development site. Worst case, this site should be identified as safeguarded land in order to enable development to come forward if the deliver of Allocation Cl/MU/1 continues to be delayed.

#### Policy DM2: Development on Allocated Sites

It is noted that this policy has been amended to remove the reference to Developer Contributions and Planning Obligations SPD. This deletion is supported by Avant and allows appropriate evidence at the relevant time to be taken into account. However, the Council should identify what evidence is expected to be relied upon i.e, SHELAA, 5YLS etc. By stating which evidence is likely to be used, developers would know exactly which evidence to review and consider in terms of understanding development opportunities on new sites.

#### Policy DM5a: The Design Process

Avant Homes consider that the changes to this policy are unsound and are not consistent with national policy. It is noted that the policy amendments include reference to the National Design Guide and locally adopted Design Codes and requires all new residential development to perform positively against Building for a Healthy Life.

Whilst Avant do seek to work in accordance with the Building for Healthy Life criteria, it is noted that this is not understood to be a 'standard' to be achieved, and aims to guide development as much as possible in terms of considering design and the creation of successful places. In that context, it is not considered appropriate to state that Developers should meet the standard of those objectives in Local Plan policy (when it is actually a voluntary position) —particularly, without setting out and understanding what would be specifically required as part of future development schemes.

#### Policy DM7 Biodiversity and Green Infrastructure

Avant consider that this Policy is unsound by virtue of it being outdated when considered against latest national policy. Biodiversity Net Gain is currently an area of continuous movement and the current position is that the implementation date for Mandatory Biodiversity Net Gain has been put back from November 23 to January 24, and additional guidance is emerging and expected.

Clearly, Avant Homes recognise the importance of Biodiversity, Net Gain and Green Infrastructure. However, any requirements need to be proportionate, reasonable and not stifle development unnecessary and

Avant Homes Ltd, Avant House, 6 and 9 Tallys End, Barlborough, Chesterfield S43 4WP





timescales should be in line with those set by National Policy in order to avoid adding delays and complexity to an already slow planning system. Any policy requirement should therefore be set at a maximum of 10% BNG required for a maximum of 30 years, with each site being assessed independently and as part of a greater understanding of wider issues and package of each development site.

In summary, Avant consider the following points need further review from the Council prior to adopting the Local Plan in its proposed format:

- The land at Cavendish Way, Clipstone should be allocated for development in the short term. It is available, deliverable and achievable in terms of development and Avant have a legal interest in the land to ensure delivery of residential development in the immediate/short-term. From our preliminary investigations, the site does not have any technical constraints and is located in a sustainable and complementary position to the existing residential envelope.
- Design Policy DM5a is unnecessary restrictive;
- Affordable Housing (as per previous reps) remains in conflict with national policy; and,
- The policy position on Biodiversity needs updating and to be consistent with national policy.

I trust that the above is useful, but any further queries, please do not hesitate to contact me.

**Yours Sincerely** 

For and on behalf of Avant Homes

Lindsay Ramsden BSc (Hons) MRTPI Group Strategic Land Director

Enc Copy of September 2021 Submission Site Location Plan.

Avant Homes Ltd, Avant House, 6 and 9 Tallys End, Barlborough, Chesterfield S43 4WP

T: 01246 573700 avanthomes.co.uk

### **ARDENT**

**CAVENDISH PARK 2017** 

LAND AT CLIPSTONE DRIVE, CLIPSTONE

**ACCESS TECHNICAL NOTE** 

REPORT REF. 181710-04 PROJECT NO. 181710 MAY 2019 Project Title : Land at Clipstone Drive, Clipstone

Report Title : Access Technical Note

Project Ref : 181710

Report Ref : 181710-04

**Date** : May 2019

#### 1.0 INTRODUCTION AND EXISTING SITE DETAILS

- 1.1 Ardent Consulting Engineers (ACE) have been instructed by Cavendish Park 2017 to prepare an initial Access Technical Note (ATN) for a proposed residential development consisting of up to 800 dwellings. The site is located on land to the northeast of Clipstone Drive in Clipstone, Nottinghamshire.
- 1.2 The purpose of the ATN is to agree a suitable 'in principle' access strategy with Nottinghamshire County Council (NCC). Details of the internal site layout and detailed assessment of off-site impact shall be addressed as part of a future planning application.
- 1.3 The site is located at the north-eastern edge of Clipstone Drive and consists of agricultural field land. The surrounding network and site boundary are shown in Plate 1 below.

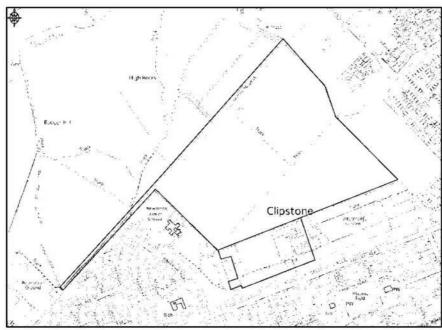


Plate 1: Site Location Plan

May 2019

- 1.4 Initially it was confirmed that the site consisted of approximately 31.5 hectares of agricultural field land, highlighted by the redline within Plate 1 above. However, it has recently been highlighted that an additional plot of land at the southern edge of the site is to potentially be included within the proposals, but access cannot be achieved from this specific location due to third party land constraints. This is shown by the blue line boundary within Plate 1. However, for the purpose of this review just the red line boundary has been taken into account at this stage.
- 1.5 A Scoping Study was produced and submitted to NCC prior a pre-application meeting. NCC subsequently provided their pre-application response with the following distribution related comments. NCC's comments are included at **Appendix A** for reference.

"The list of junctions requiring assessment needs expanding. Many of the routes around Mansfield/Clipstone are congested at peak times. So I would refer you back to GoTA recommendation to look at junctions where there is an increase of 30 two way movements. Consequently the list should include the B6030/A614, A6117/Sandlands Way and others which are likely to include, but not necessarily limited to:

- A60/A6117
- A617/A6117
- A617/A6191
- A6075/B6034
- A614/B6034
- A614/A6075/A616"
- 1.6 A revised distribution model is currently being produced and shall be submitted to NCC as part of a future planning application.
- 1.7 A pre-application meeting was held between Nottinghamshire County Council (NCC) and Ardent Consulting Engineers in September 2018, with their comments taken into consideration within this Access Technical Note. Whilst NCC highlighted that there are several key highways issues to address, their initial response with regards to access included, the following points: -

May 2019

- The reduction in dwellings to 800 is well received as this would reduce the impact within the surrounding network;
- Two points of access would be required;
- The site should initial be designed to include a 'complex' route to help prevent rat-running through the site. Should they not find this sufficient there could be scope to physically restrict vehicle movements through the site.
- Access via Clipstone Drive should be suitable subject to sufficient improvement schemes; and
- An improvement scheme along Newlands Drive would be required. NCC
  highlighted that they would like to see narrowing to the existing wide
  footways to provide parallel parking bays to ensure that two-way movements
  are not restricted.
- 1.8 The response to the Scoping Study makes reference to the potential to extend a bus serve through the site. During the pre-application meeting NCC confirmed that the proposed bus service 16 could be potentially be extended into the site, although no discussions have taken place with operators at this stage. To accommodate a bus service, minimal carriageway widths of 6m should be provided (subject to tracking) or on a road serving a school, carriageways of 6.75m wide should be provided in all cases.
- 1.9 Further to the pre-application meeting with NCC, this ATN focuses solely on the principle of access with other issues / aspects of the development (such as off-site impact) dealt with at a later date.

#### 2.0 PROPOSED DEVELOPMENT TRIP GENERATION

Within the agreed Scoping Study (ACE Report Reference 181710-01B), the TRICS database was examined to identify suitable trip rates to calculate the potential peak hour and daily person trip movements that could be generated by the proposed 1000 residential development. However, it has now been confirmed by the Client that the proposals are to be reduced to 800 units and therefore the proposed trip generation has been recalculated based on 800 units and is shown within this section of the report.

- 2.2 The category 'Residential -Privately Owned' was searched, specifying a range of between 100 and 2000 dwellings, excluding sites within Greater London, Scotland, Ireland, Northern Ireland and weekend surveys. This search resulted in 12 surveys taken from 12 sites. A site in West Horsham (TRICS reference WS-03-A-06) ranked 3rd during the morning peak (0800-0900 hours) and 5th during the evening peak (1700-1800 hours) with regards to trip rates.
- 2.3 This site was considered to be a suitable comparison for the proposed development as it was within a residential 'edge of town' location (Broadbridge Heath) on the edge of Horsham, within close proximity to a major classified road, includes a primary school within similar distance to the proposed site and has a comparable number of dwellings. Full details of the TRICS search are contained at **Appendix B** for reference.
- 2.4 The following person trip rates (per dwelling) within **Table 2.1** were considered applicable to the proposed development by NCC within the Scoping Study. Based on these trip rates, the development of 800 dwellings (previously 1000 units within the submitted Scoping Study) would generate the following total person movements by all means of travel.

Site		Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)			Weekday 12-hour (07:00-19:00)		
	Arr	Dep	Total	Arr	Dep	Total	Arr	Dep	Total	
Person Trip Rates (per dwelling)	0.202	0.904		0.568	0.311	-	3.793	3.981	•	
Person Trip Generation (800 dwellings)	162	723	885	454	249	703	3034	3185	6219	

Table 2.1 - Proposed Residential Units Total Person Trip Generation

#### Modal Split

2.5 The mode of travel for the proposed residential site was determined from the 'Residential Population' dataset provided within the 2011 specification Census database for the Newark and Sherwood 002 ward (see **Appendix C**). These were presented within the Scoping Study and did not raise concern from NCC.

2.6 The resulting percentages have now been applied to the predicted residential person trip levels for the 800-unit scheme. The resulting development person trip breakdown by mode of travel is outlined at **Table 2.2** below.

Mode	Adjusted Share	Weekday AM Peak (08:00-09:00)		Weekday PM Peak (17:00- 18:00)			Weekday 12-hour (07:00-19:00)			
		Arr	Dep	Total	Arr	Dep	Total	Arr	Dep	Total
<b>Car Driver</b> Car	78.3%	127	566	693	356	195	551	2376	2494	4870
Passenger Light	6.7%	11	48	59	30	17	47	202	212	415
rail/tram	0.1%	0	1	1	0	0	1	3	3	6
Rail	0.5%	1	3	4	2	1	3	14	15	28
Bus	4.8%	8	34	42	22	12	34	145	152	297
Taxi	0.4%	1	3	3	2	1	3	12	12	24
Motorcycle	0.8%	1	6	7	4	2	6	25	26	51
Bicycle	1.1%	2	8	10	5	3	8	32	33	65
Walk	7.0%	11	50	62	32	17	49	211	222	433
Other	0.5%	1	3	4	2	1	3	15	15	30
Total	100.0%	162	723	885	454	249	703	3034	3185	6219

Table 2.2 - Predicted Weekday Residential Trip Generation by Mode

2.7 Based on the above calculations, **Table 2.2** confirms the vehicular trip movements for the proposed 800 dwelling development, during the peak periods and daily (12-hour period). These final vehicular movements shall be used as the basis for assessing off-site impact within the surrounding existing highway network as part of the TA (subject to confirmation of the final number of units proposed).

#### 3.0 ACCESS ARRANGEMENT

#### Access Overview

3.1 It is considered that suitable access strategy could be achieved to serve this specific site to serve up to 800 residential units but is likely to result in off-site improvements being required. The proposed residential development would be served via two adopted accesses at Clipstone Drive and Cavendish Way as indicatively shown within Plate 2.

3.2 It may be possible to 'split' the development such that there is no through road other than emergency access (and possibly a bus gate), which may be one option to overcome any concerns over general traffic rat-running through the site, or too much traffic using the westernmost access.

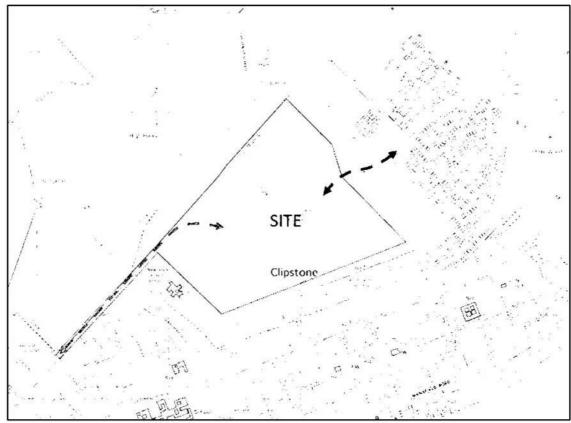


Plate 2: Potential site access locations

#### Access via Cavendish Way

Residential Access Road to serve the site from Cavendish Way in accordance with the requirements of 'The 6Cs Design Guide'. This includes the extension of the existing carriageway into the site and includes a 6.75 metres wide carriageway with 2 metres wide footways on both sides. Ordnance Survey Mapping highlights that further development has been constructed via the southwestern arm of the Cavendish Way / Ward Road roundabout. Please note that topographical survey mapping has not yet been provided for this specific location. This arm includes an approximately 7.3m wide carriageway (based on OS mapping) with footways extending along both side of the road. Highway Land Boundary information obtained from Nottinghamshire County Council (shown in **Appendix D**) shows that the

Cavendish Way / Ward Road roundabout junction itself is within publicly maintained land. This access arrangement is suitable to serve up to 400 units from a single point of access or up to 1000 units when supported by a secondary access, based on guidance within the 6Cs Design Guide.

- 3.4 The new southwestern road extending towards the eastern edge of the site (highlighted as green hatching within **Drawing Number 181710-001A**) is not yet included within publicly maintained land. NCC's pre-application response states that... "The extension of Cavendish Way from the Ward Road roundabout is not yet subject to a Section 38 Agreement, and the extent of a potential adoption is not determined/agreed". However, it has been confirmed that there is a 'contractual obligation' between the Avant site and the Client for this section of carriageway to be adopted.
- 3.5 It should be noted that there is a section of land to the west of this existing carriageway (highlighted as red hatching) measuring approximately 17m in length that is outside of the redline boundary. Since the meeting with NCC, it has been confirmed that this is under the ownership of the Client and will not prevent / restrict access from being provided at this location.
- 3.6 To assess the suitability of access via the existing Cavendish Way / Ward Road four-arm roundabout for access, and to establish the level of additional dwellings that could be potentially served via this specific junction with regards to capacity, the impact of the proposals at the Cavendish Way / Ward Road roundabout has been modelled using ARCADY.
- 3.7 To produce suitable baseline peak period traffic flows at the Cavendish Way / Ward Road roundabout for both the existing and consented developments accessed via Cavendish Way, NSDC's online planning portal has been initially reviewed. This highlighted a number of planning applications for a large variation of development scenarios at Cavendish Way. Therefore, the following scenarios were considered robust for the purpose of this assessment
  - Planning application 12-00966-OUTM 599 residential units plus a new local centre – northwest of Cavendish Way;

- Planning application 18-00509-FULM 171 residential units southwest of the Cavendish Way / Ward Road roundabout; and
- The existing 380 units (approx.) southeast of Cavendish Way.
- 3.8 For clarity the above three sites totalling 1150 units (consented and existing) are indicatively shown within **Plate 3**.

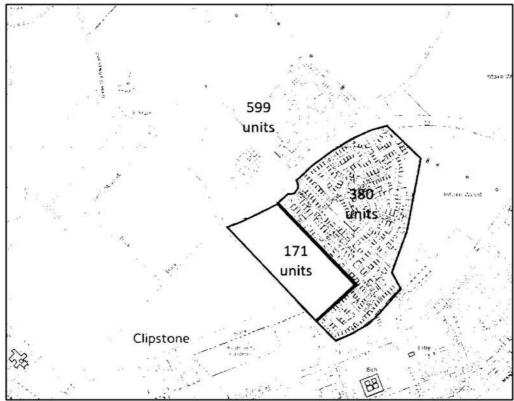


Plate 3: Sites used for baseline flows

3.9 The submitted Transport Assessment for application 12-00966-OUTM included a detailed assessment of potential vehicular movement for the 599-unit scheme at the north-western edge of Cavendish Way (highlighted as yellow in **Plate 3**). This development is primarily served by the Cavendish Way / Ward Road roundabout, with a secondary point of access (priority-controlled T-junction) located approximately 160 metres northeast. For the purpose of this assessment, it is considered that approximately 70% of all movements associated with the 599-unit scheme would use the Cavendish Way / Ward Road roundabout. For completeness, the peak period vehicle movements associated with the overall 599-unit scheme have been extracted from the submitted Transport Assessment and are shown within **Table 3.3**. It should be noted that 70% of the below vehicle movements have been

considered within the assessment of the Cavendish Way / Ward Road roundabout due to the existence of the second point of access.

Site		day AM ::00-09:0		Weekday PM Peak (17:00-18:00)		
	Arr	Dep	Total	Arr	Dep	Total
Person Trip Rates (per dwelling)	0.243	0.491	*	0.478	0.248	-
Person Trip Generation (599 dwellings)	146	294	440	286	149	435

Table 3.3 - Application 12-00966-OUTM Vehicular Trip Generation

- 3.10 The submitted Transport Assessment for planning application 18-00509-FULM included a detailed assessment of potential vehicular movement for the 171-unit scheme at the south-western edge of the Cavendish Way / Ward Road roundabout (highlighted as blue in **Plate 3**). This development is to be served by three points of access with a new junction at the unnamed road to the southwest of the Cavendish Way / Ward Road roundabout, along with the extension of Waterfield Way and Hilcote Drive at the north-eastern edge of the site. No proposed vehicular distribution appears to have been established between the three accesses. Therefore, for the purpose of this assessment is has been considered reasonable that 50% of all movements will occur at the new junction at the unnamed road to the southwest of the Cavendish Way / Ward Road roundabout, with the remaining 50% split over the two additional accesses then entering the roundabout via Ward Road.
- 3.11 For completeness, the peak period vehicle movements associated with the overall 171-unit scheme have been extracted from the submitted Transport Assessment and are shown within **Table 3.4**.

Site				Weekday AM Peak Weekday PM (08:00-09:00) (17:00-18					
	Arr	Dep	Total	Arr	Dep	Total			
Person Trip Rates (per dwelling)	0.149	0.372		0.346	0.169	l's			
Person Trip Generation (171 dwellings)	26	64	90	60	29	89			

Table 3.4 - Application 18-00509-FULM Vehicular Trip Generation

3.12 Further to the above, Cavendish Way serves approximately 380 existing dwellings at the south-eastern edge of Cavendish Way (highlighted as red in Plate 3). This existing development is served by the Cavendish Way / Ward Road roundabout (Ward Road), with a secondary point of access (Emmerson Drive) located approximately 270 metres northeast of the roundabout. For the purposes of this assessment, it is considered that approximately 50% of all movements associated with the existing development would use the Cavendish Way / Ward Road roundabout, with the remaining 50% via Emmerson Drive. However, no details of this particular aspect of the site could be obtained from the online planning database.

3.13 Therefore, for the purpose of this assessment the trip rates available for the recently consented 171-unit development (planning application 18-00509-FULM) where used to calculate the potential peak period vehicular movements associated with the existing site. These are shown within Table 3.5.

Site		day AM :00-09:0		Weekday PM I (17:00-18:0			
	Arr	Dep	Total	Arr	Dep	Total	
Person Trip Rates (per dwelling)	0.149	0.372	1	0.346	0.169	•	
Person Trip Generation (380 dwellings)	57	141	198	131	64	195	

Table 3.5 - Existing 380 dwelling development Vehicular Trip Generation

- 3.14 In light of the above information, Figure 1B has been produced to demonstrate the calculated baseline PCU flows at the Cavendish Way / Ward Road roundabout based on the combined 1150 consented and existing dwellings served via Cavendish Way. To establish the level of development that could be suitability served via the Cavendish Way / Ward Road roundabout with regards to capacity, vehicular movements associated with the full proposed 800-unit development have been initially assigned through Cavendish Way and is shown within Figure 2B. This assessment has been undertaken to ensure that if any restrictions were implemented at the proposed Clipstone Drive access with regards to the number of dwellings that could be served from that specific location, that this would not result in detrimental impact at the Cavendish Way / Ward Road roundabout. Figure 3B therefore shows the proposed development plus baseline traffic flows at the Cavendish Way / Ward Road roundabout.
- 3.15 The impact of the proposals at the Cavendish Way / Ward Road roundabout were modelled using ARCADY. ARCADY provides a measure of the capacity of simple and ghost-island priority-controlled junctions. The Ratio of Flow to Capacity (RFC) is used to measure the predicted flow of vehicles against the junction's capacity (based on its geometry) at a priority junction. Typically, a value of 0.85 or less is seen to represent a practical degree of reserve capacity. Arms at a junction with an RFC

greater than 0.85 are likely to experience congestion and delay. Values that exceed a 1.0 RFC value indicate where an arm is at or over full capacity.

3.16 The junction was tested using the proposed development + baseline flows shown within Figure 3B, along with baseline traffic flows within Figure 1B for comparison. The full ARCADY results are included at Appendix E, whilst Plate 4 shows the summarised results.

	AM					PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
					EXISTING LAYOUT	- Baseline I	Flows			
Arm 1	0.1	2.50	0.11	А		0.3	2.88	0.22	Α	
Arm 2	0.1	3.28	0.09	Α	405 %	0.0	3.32	0.04	Α	327 °6
Arm 3	0.0	2.78	0.03	А	[Arm 4]	0.0	2.80	0.01	Α	[Arm 1]
Arm 4	0.2	2.55	0.14	А		0.1	2.28	0.07	А	100000000 PM
	9				EXISTING LAYOUT - Pro	posed + Bas	eline Flo	ws		
Arm 1	0.2	2.77	0.19	А		0.9	4.21	0.47	А	
Arm 2	0.1	3.55	0.10	Α	72 ° o	0.1	4.23	0.06	Α	103 %
Arm 3	1.0	5.42	0.50	А	[Arm 3]	0.2	3.37	0.18	Α	[Arm 1]
Arm 4	0.2	3.64	0.19	Α		0.1	2.51	0.07	Α	

Plate 4: ARCADY Summary Results for Cavendish Way / Ward Road Roundabout

- 3.17 The above results confirm that the junction would operate well within acceptable limits of capacity during both peak hours, both with and without the development in place. This assessment demonstrates that the Cavendish Way / Ward Road roundabout could accommodate the entire 800-unit development with regards to capacity. In practice, part of the site (extent yet to be confirmed) is likely to be served via Clipstone Drive. Nevertheless, these findings do suggest that if there are any issues with providing access from Clipstone Drive to the west, the whole development could in theory be served via a primary access at Cavendish Way, subject to a suitable emergency access from Clipstone Drive (see paragraph 2.23). Based on this initial assessment, no mitigating improvements are considered to be required at this specific junction to accommodate access from the east.
- 3.18 Subject to Cavendish Way being adopted and measures put in place within the site to restrict rat-running, it is considered that an access in this location should be sufficient.

# Access via Clipstone Drive

- 3.19 **ACE Drawing Number 181710-003B** shows the general layout of a Residential Access Road to serve the site as a secondary point of access from Clipstone Drive (based on the recently received Topographical Survey Mapping).
- 3.20 The proposed extension / improvement scheme at Clipstone Drive would provide a continuous carriageway width of 5.5 metres, extending from the junction with Newlands Drive into the development site. A continuous 2 metres wide footway is shown extending along one side of the carriageway. Due to existing width restraints, footways along both sides of carriageway cannot be provided.
- 3.21 Based on initial discussions with NCC, the above arrangement is likely to require further traffic calming measures along Clipstone Drive due to the straight nature of the carriageway. In line with existing surrounding traffic calming, this would be in the form of kerb build-outs and vertical traffic calming (speed cushions) as shown within ACE Drawing Number 181710-003B.
- 3.22 It is also likely that a substantial improvement scheme would be required along the length of Newlands Drive if access is provided from Clipstone Drive. This could also result in a change of priority at the Newlands Drive / Clipstone Drive prioritycontrolled T-junction.

# Access via Clipstone Drive (Potential Emergency Access)

- 3.23 Clipstone Drive extends between the B6030 (Clipstone Road East) to the southwest via a priority-controlled T-junction and becomes a shared surface track approximately 650m to the northeast, extending to Squires Lane on the approach to Kings Clipstone. ACE Drawing Number 181710-004A shows how Clipstone Drive could be improved along the shared surface track section based on the recently received Topographical Survey Mapping, to provide a hard surface arrangement with potential lighting to make the route more appealing to pedestrians and cyclists.
- 3.24 This layout includes a 3.7 metres wide hard surface arrangement with collapsible bollards on Clipstone Drive and at the site frontage, to be utilised as an emergency

access. It is considered that this arrangement would assist with the proposals by improving the existing bridleway and could also be proposed as a secondary point of access (emergency vehicles only) should there be any major issues with a primary point of access at Clipstone Drive.

#### 4.0 SUMMARY AND CONCLUSIONS

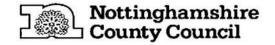
- 4.1 The purpose of the ATN is to agree a suitable 'in principle' access strategy with Nottinghamshire County Council (NCC). Details of the internal site layout and detailed assessment of off-site impact shall be addressed as part of a future planning application.
- 4.2 Within the agreed Scoping Study (ACE Report Reference 181710-01B), the TRICS database was examined to identify suitable trip rates to calculate the potential peak hour and daily person trip movements that could be generated by the proposed 1000 residential development. However, it has now been confirmed by the Client that the proposals are to be reduced to 800 units and therefore the proposed trip generation has been recalculated within this ATN based on 800 units.
- ACE Drawing Number 181710-001A shows the general layout of a Major Residential Access Road to serve the site from Cavendish Way in accordance with the requirements of 'The 6Cs Design Guide'. This includes the extension of the existing carriageway into the site and includes a 6.75 metres wide carriageway with 2 metres wide footways on both sides. Ordnance Survey Mapping highlights that further development has been constructed via the southwestern arm of the Cavendish Way / Ward Road roundabout. Please note that topographical survey mapping has not yet been provided for this specific location. This arm includes an approximately 7.3m wide carriageway (based on OS mapping) with footways extending along both side of the road.
- 4.4 To assess the suitability of access via the existing Cavendish Way / Ward Road four-arm roundabout for access, and to establish the level of additional dwellings that could be potentially served via this specific junction with regards to capacity, the impact of the proposals at the Cavendish Way / Ward Road roundabout has been modelled using ARCADY. The results of the ARCADY assessment highlight's that the

# Land at Clipstone Drive, Clipstone

junction would operate well within acceptable limits of capacity during both peak hours, both with and without the development in place. This assessment demonstrates that the Cavendish Way / Ward Road roundabout could accommodate the entire 800-unit development with regards to capacity. In practice, part of the site (extent yet to be confirmed) is likely to be served via Clipstone Drive.

- ACE Drawing Number 181710-003B shows the general layout of a Residential Access Road to serve the site as a secondary point of access from Clipstone Drive (based on the recently received Topographical Survey Mapping). The proposed extension / improvement scheme at Clipstone Drive would provide a continuous carriageway width of 5.5 metres, extending from the junction with Newlands Drive into the development site. A continuous 2 metres wide footway is shown extending along one side of the carriageway. Due to existing width restraints, footways along both sides of carriageway cannot be provided. In line with existing surrounding traffic calming, kerb build-outs and vertical traffic calming (speed cushions) have bene included along Clipstone Drive.
- 4.6 **ACE Drawing Number 181710-004A** shows how Clipstone Drive could be improved along the shared surface track section based on the recently received Topographical Survey Mapping, to provide a hard surface arrangement with potential lighting to make the route more appealing to pedestrians and cyclists. This layout includes a 3.7 metres wide hard surface arrangement with collapsible bollards on Clipstone Drive and at the site frontage, to be utilised as an emergency access. It is considered that this arrangement would assist with the proposals by improving the existing bridleway and could also be proposed as a secondary point of access (emergency vehicles only) should there be any major issues with a primary point of access at Clipstone Drive.
- 4.7 Based on the above information, it is considered that suitable access strategy could be achieved to serve this specific site to serve up to 800 residential units. It is recommended that two vehicular access are proposed with the first being at Cavendish Way and the second at Clavering Walk.

Appendix A NCC's Initial Pre-application Response



# **TOWN AND COUNTRY PLANNING ACT**

HIGHWAY REPORT ON PROPOSALS FOR DEVELOPMENT (PRE-PLANNING APPLICATION ADVICE)

DISTRICT: Newark Date received 29/08/2018

OFFICER: by D.C. 29/08/2018 00:00:00

PROPOSAL: Scoping Study D.C. No.

LOCATION: Clipstone Drive, Clipstone.

APPLICANT: Andrew Gilinicz

These comments refer to the Scoping Study ref. 181710-01B, dated JULY 2018.

Firstly you should be aware that the site is not allocated for development within the Newark and Sherwood District Council's LDF Allocations & Development Management Development Plan Document and therefore may automatically be seen to contravene Planning Authority Policy. You may wish to get this confirmed.

Notwithstanding the above, I will comment on the submitted material as follows:

- Access to the site is difficult in the context of a proposal for 1000 dwelling.
   Clipstone Drive offers the most direct route to/from Mansfield but, for the most
   part, is sub-standard; 4.5-4.8 metres wide, with one footway and with traffic
   calming road humps and priority build-outs. It is clearly not suitable to take
   significant additional traffic.
- 2. North-east of Newlands Drive, Clipstone Drive widens a little to 5.5m.
- Newlands Drive itself is 6.0m wide and serves as a bus route for much of Clipstone.
   A 6m wide carriageway would normally be expected to serve 400 dwellings. To add significantly more traffic to this road would be seen as unsuitable.
- 4. Cavendish Way is a cul-de-sac with development already amounting to 1150 dwellings approx. (existing or approved). Traffic generated by the proposal would be mostly attracted to the Mansfield area and therefore unlikely to travel eastwards on Cavendish Way in order to then travel westwards on the B6030 if other options are open.
- The extension of Cavendish Way from the Ward Road roundabout is not yet subject to a Section 38 Agreement, and the extent of a potential adoption is not determined/agreed.
- 6. You have, so far, considered committed development within the Newark and Sherwood District, but it is important that you also consider that occurring in the Mansfield District. A list of sites is appended for your further consideration.
- 7. In terms of traffic distribution, there are a number of queries to be addressed:

- a) You state that "any areas with 2 or fewer car trips were omitted from the calculations". It is our experience that such small numbers can accumulate on routes and become significant. It is recommended that you include these.
- b) You have used Google Maps route planning tools. Have you taken account of time of day of travel and chosen a route based on the recommendation or time or distance?
- c) You have assumed a 50/50 split at both site accesses. This needs further explanation/justification.
- 8. The list of junctions requiring assessment needs expanding. Many of the routes around Mansfield/Clipstone are congested at peak times. So I would refer you back to GoTA recommendation to look at junctions where there is an increase of 30 two-way movements. Consequently the list should include the B6030/A614, A6117/Sandlands Way and others which are likely to include, but not necessarily limited to:
  - A60/A6117
  - A617/A6117
  - A617/A6191
  - A6075/B6034
  - A614/B6034
  - A614/A6075/A616
- Future year assessment should be 10 years i.e. 2029 assuming a 2019 planning application.
- 10. Given that the proposal will open up a through route from Cavendish Way to Clipstone Drive, all existing and approved dwelling residents off Cavendish Way will be offered a choice of vehicle route, with some choosing Clipstone Drive over Cavendish Way to head westwards and return. Your TA should take account of this.

# Conclusion

The proposal has serious concerns attached to it:

- It would appear to be contrary to Local Planning Policy
- Immediate access via Clipstone Drive and Newlands Drive is considered inadequate to serve the development.
- Access to Cavendish Way is not secured.
- Committed development in the Mansfield area has not been considered.
- Traffic distribution is being questioned.
- The list of junctions being assessed is, so far, limited.
- No account has been taken of possible re-routing of trips made by existing residents of the Cavendish Way area.

Whilst these comments are intended to be helpful, they may be subject to change in view of any future submissions and/or further information that comes to light.

D.Albans

Principal development Control Officer

14 Sept. 2018

# Committed development in Mansfield area (with unit numbers & planning reference)

Chesterfield Rd N, Pleasley Hill Regeneration 151+12 units 2014/0147/ST Penniment Farm 430 units + commercial 2010/0805/ST & 2005/0075/NT & 2015/0502/ST

Skegby Lane Mans 120 units 2013/0435/ST Brownlow Rd Mans 64 units 2013/0212/ST

Debdale Lane Mans Woodhouse 90 units 2012/0433/NT Sherwood Rise Mans Woodhouse 279 units 2003/0461/NT & 2010/0128/NT The Ridge Mans 43 units 2012/0442/NT Sandlands Way Mans 329 units 2007/1120/NT, 2010/0835/NT & 2012/0449/NT Mansfield General Hospital Mans 54 units 2015/0712/NT Pump Hollow Rd FT 64 units 2016/0038/NT Ravensdale Rd, Bath Mill 20 units 2015/0238/ST Netherfield La, Warsop nr 3 Lions PH 32 units 2015/0635/NT

Sandhurst Ave Mans 107 units 2012/0350/ST
Bannatynes Mans 30 units 2013/0482/ST
Berry Hill Hall Mans 18 units 2003/0768/ET & 2007/0769/ST
Lindhurst Mans 1700 units + commercial 2015/0045/ST
Sherwood Ave 46 units 2015/0181/ST
Nottingham Rd opp Rushley PH 66 dwgs 2016/0440/ST

Greenshank Rd Warsop Vale 156 units 2006/0071/NT & 2011/0463/NT Wood St Market Warsop 255 units 2006/0079/NT & 2010/0444 NT Birch St M Warsop 30 units 2014/0302/NT Spion Kop 58 units 2011/0318/NT Park Hall Rd Mans Woodhouse 130 units 2013/0593/NT

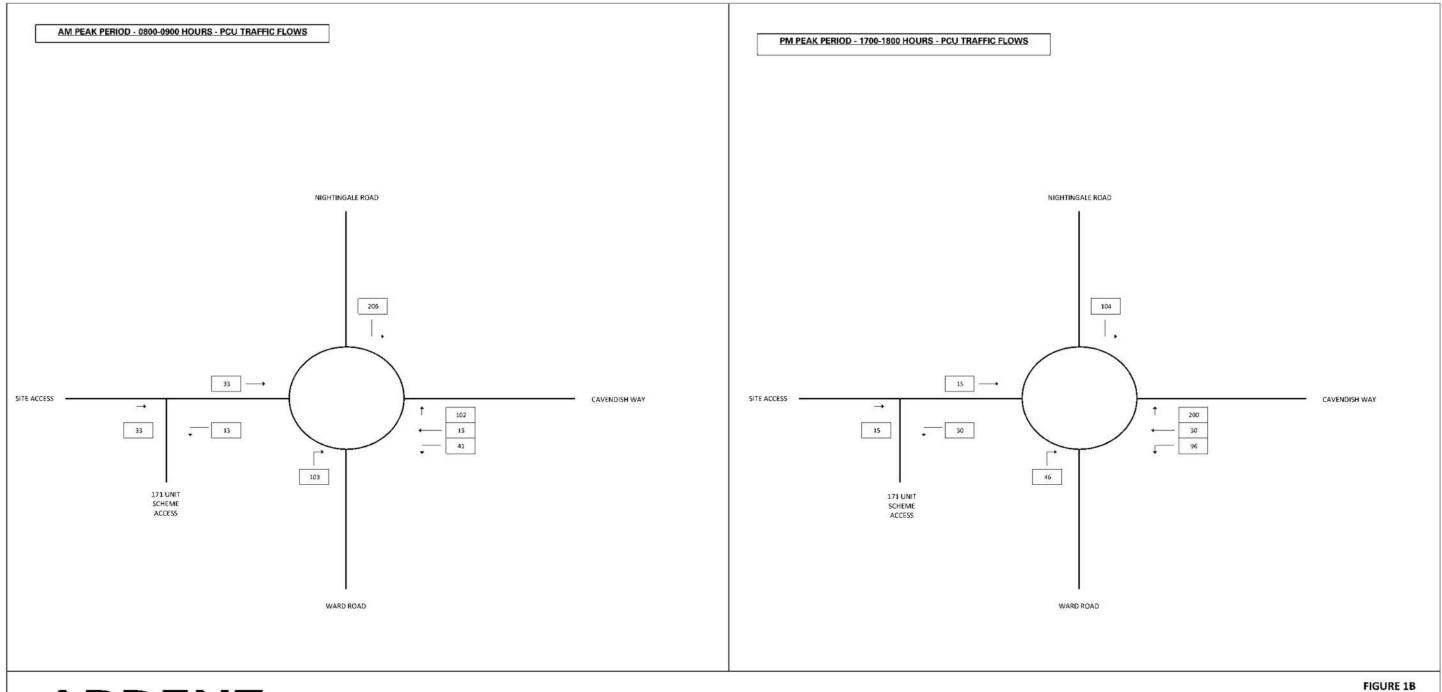
# Committed development in Ashfield area (with unit numbers & planning reference)

Gilcroft St, Skegby 243 units V/2011/0503 Stoneyford Rd, Sutton 50 units V/2013/0647 Mansfield Rd, Skegby 37 units V/2012/0566 Unwin Rd, Sutton 95 units V/2014/0543 & V/2009/0295 Mansfield Rd, Sutton 50 units V/2012/0297 Kingfisher Way, Sutton 66 units V/2012/0225 & V/2014/0353 Brand La, S/H 216 dwgs V/2016/0208

Alfreton Rd, Sutton 102 units V/2013/0550
Station House, Outram St, 28 units V/2008/0663
Mill La, Huth 86 units V/2007/0485
Larwood Park, Sutton 225 units V/2011/0560 & V/2013/0656
Annesley Colliery, Newstead 176 units V/2010/0433, V/2011/0184 & V/2014/0090
Lindley La, Kirkby 296 units V/2008/0025 & V/2008/0113

Rolls Royce, Hucknall 900 units V/2013/0123
Darlinson Court, Hucknall 39 units V/2013/0645
Broomhill Farm, Hucknall 141 units V/2013/0409
Garden Rd, Hucknall 217 units V/2006/0564
Papplewick La, Hucknall 619 units V/2007/0518, V/2010/0351, V/2013/0070, V/2013/0071 & V/2014/0350
Watnall Rd, Huck 118 dwgs + commercial V/2009/0452
Annesley Rd, Huck Inter. Clothing 60 dwgs V/2015/0629

Red added Jan 2017



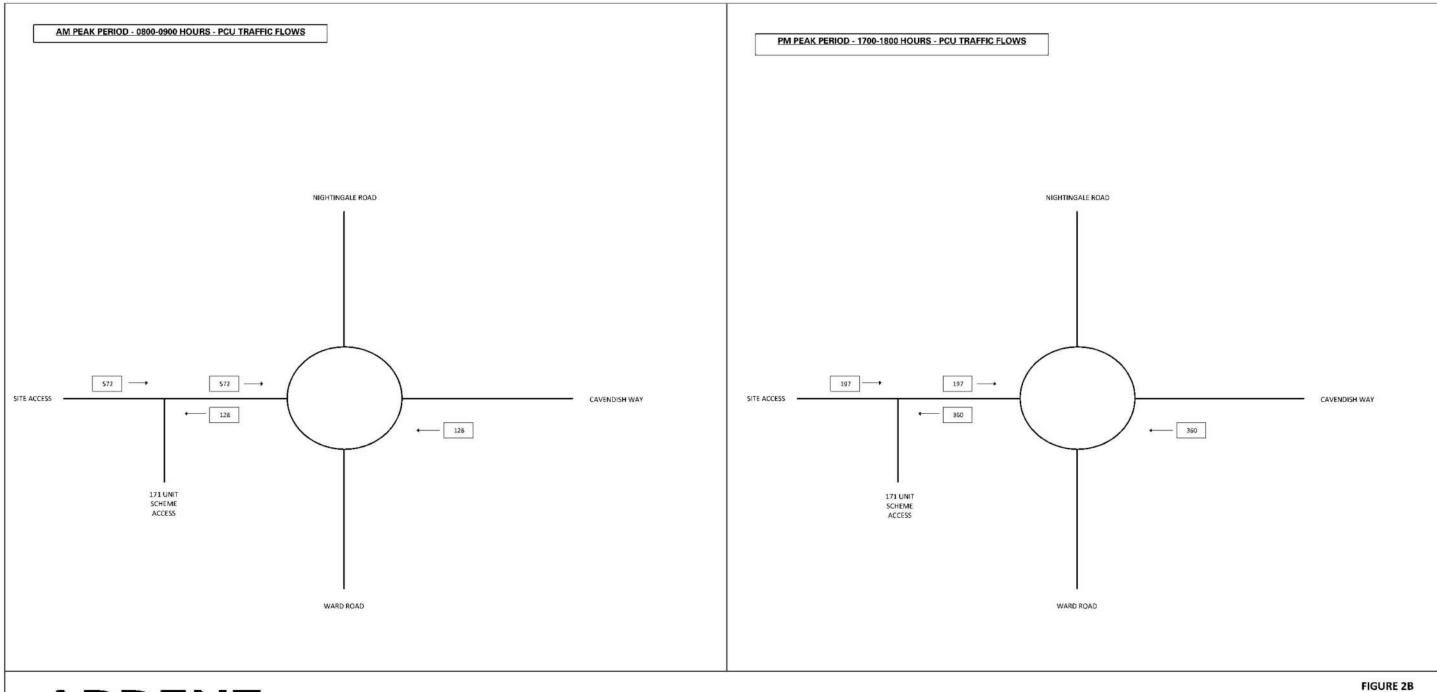
**ARDENT** 

BASELINE PCU TRAFFIC FLOWS - CAVINDISH WAY / WARD ROAD ROUNDABOUT

LAND AT CLIPSTONE DRIVE, CLIPSTONE

JOB NUMBER: 181710 DRAWN BY: AG

CHECKED BY: ATB



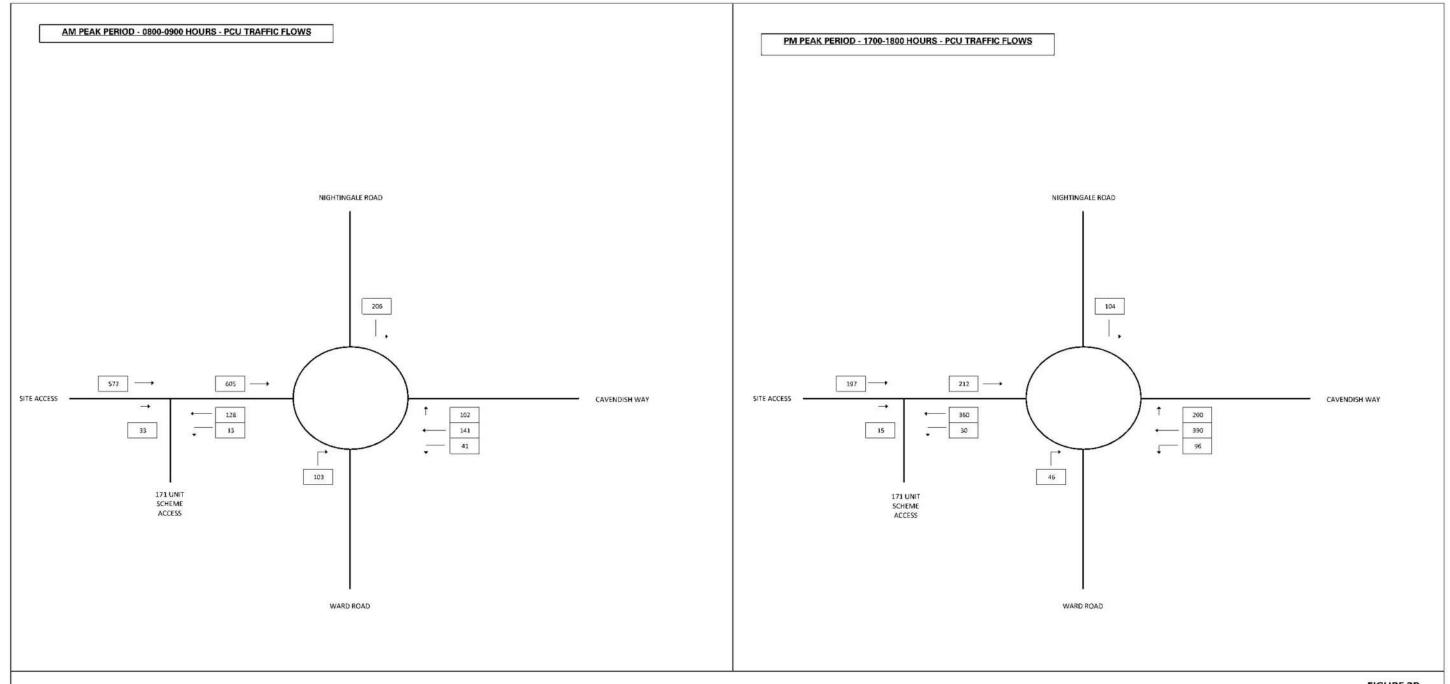
**ARDENT** 

PROPOSED DEVELOPMENT TRAFFIC FLOWS - CAVINDISH WAY / WARD ROAD ROUNDABOUT

LAND AT CLIPSTONE DRIVE, CLIPSTONE

JOB NUMBER: 181710 DRAWN BY: AG

CHECKED BY: ATB



**ARDENT** 

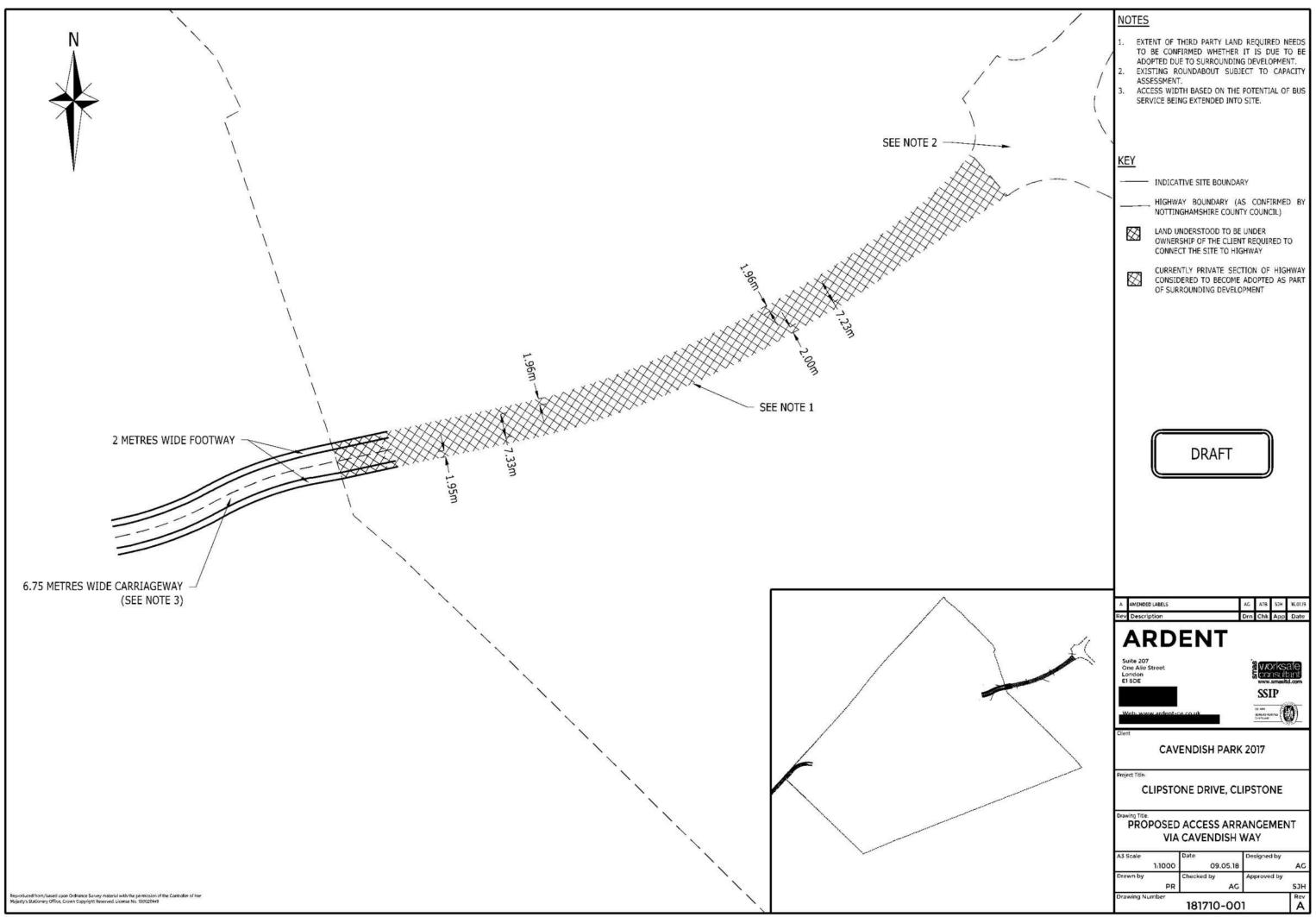
FIGURE 3B

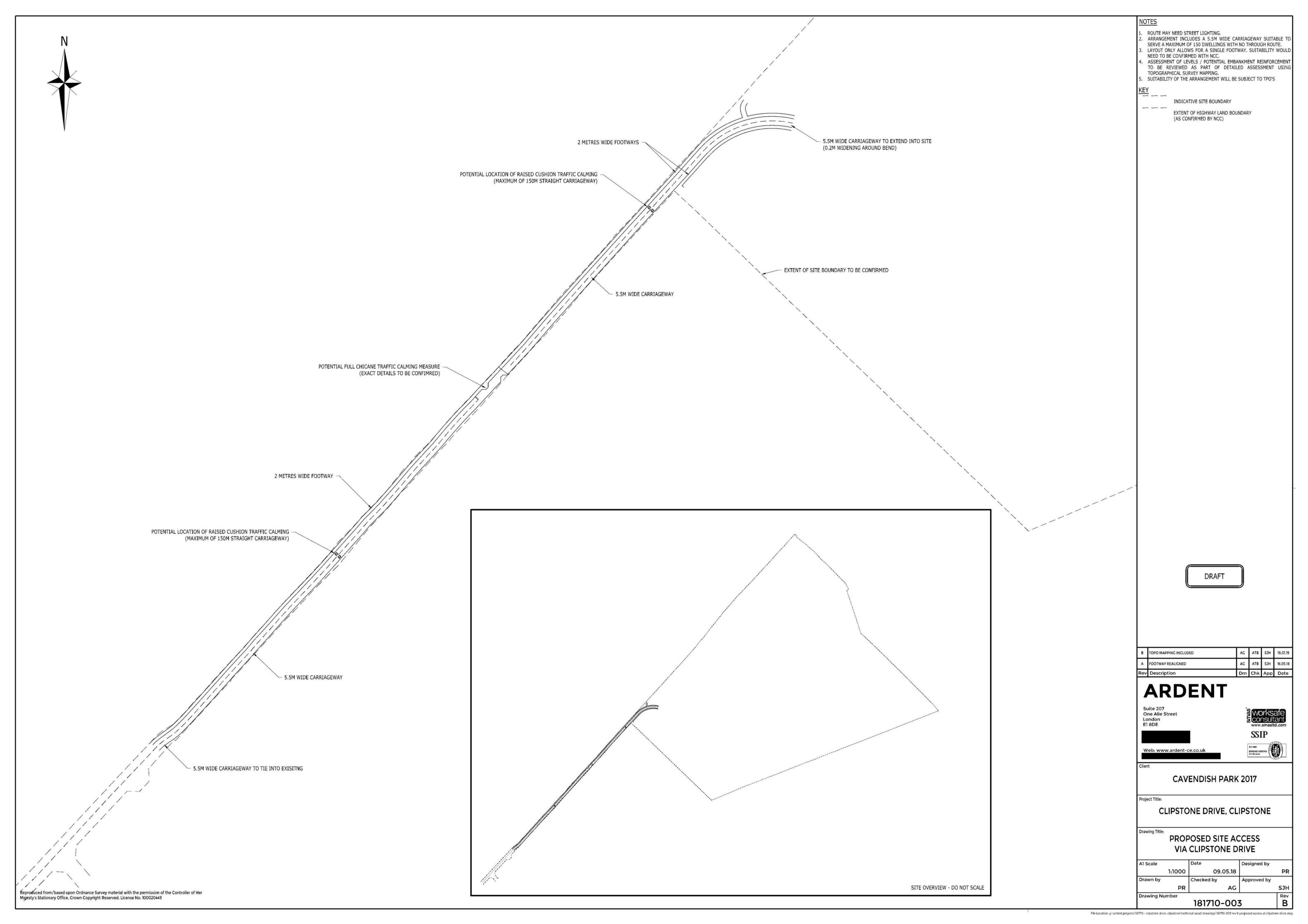
PROPOSED DEVELOPMENT + BASELINE TRAFFIC FLOWS - CAVINDISH WAY / WARD ROAD ROUNDABOUT

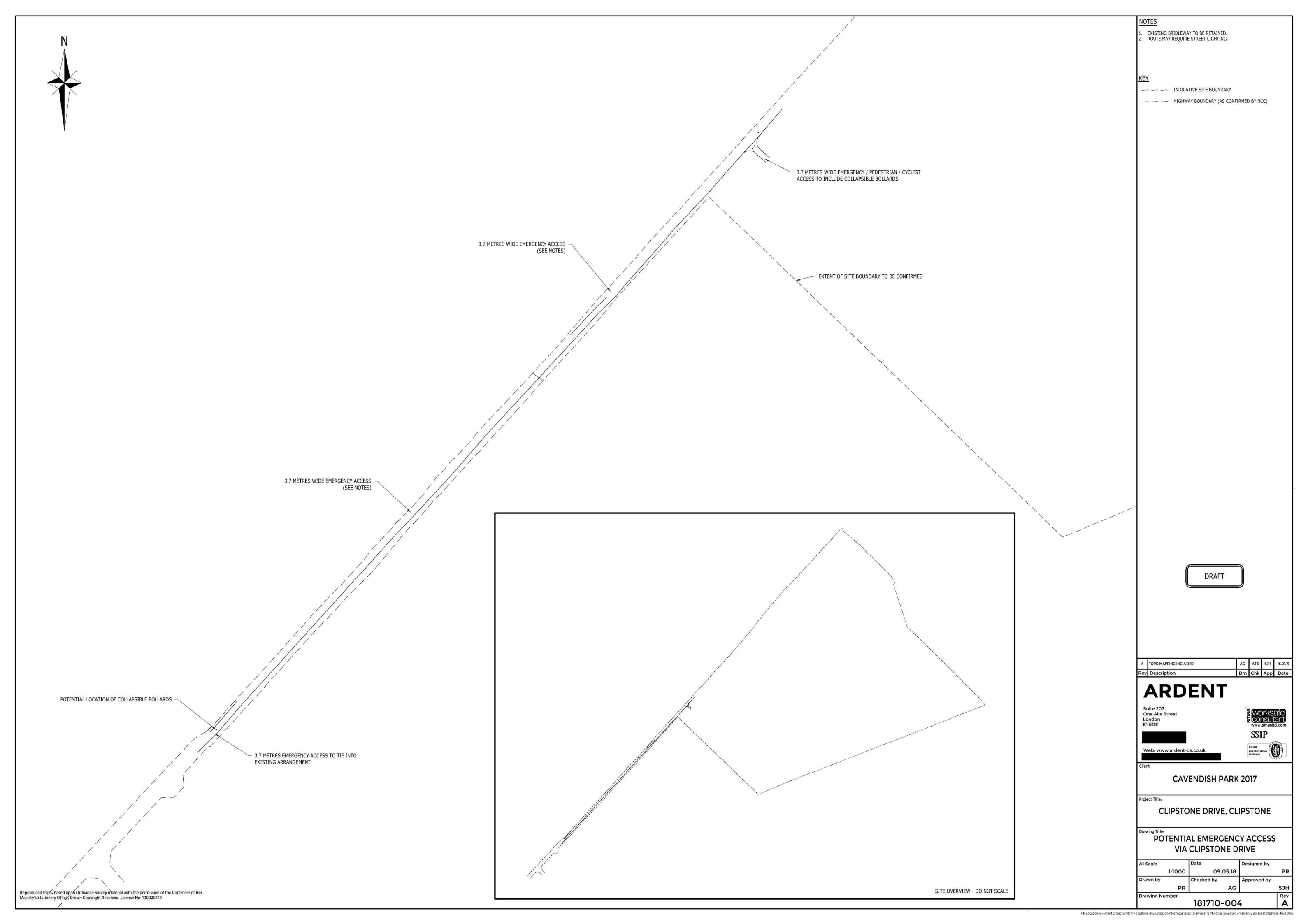
LAND AT CLIPSTONE DRIVE, CLIPSTONE

JOB NUMBER: 181710 DRAWN BY: AG

CHECKED BY: ATB







Appendix B
TRICS Output Data

Licence No: 437201

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE

#### TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL

Category : A - HOUSES PRIVATELY OWNED

**MULTI-MODAL VEHICLES** 

#### Selected regions and areas:

02	SOUT	HEASI
	ES	EAST SUSSEX

 ES
 EAST SUSSEX
 2 days

 KC
 KENT
 3 days

 WS
 WEST SUSSEX
 2 days

03 SOUTH WEST

DV DEVON 1 days

07 YORKSHIRE & NORTH LINCOLNSHIRE

NE NORTH EAST LINCOLNSHIRE 2 days
NY NORTH YORKSHIRE 1 days

09 NORTH

DH DURHAM 1 days

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

#### Secondary 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: Number of dwellings Actual Range: 110 to 805 (units: ) Range Selected by User: 100 to 2000 (units: )

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 27/09/17

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
 1 days

 Wednesday
 2 days

 Thursday
 2 days

 Friday
 4 days

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

Selected survey types:

Manual count 12 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 Centre 1
Suburban Area (PPS6 Out of Centre) 3
Edge of Town 7
Neighbourhood Centre (PPS6 Local Centre) 1

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 11 No Sub Category 1

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.

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18 Page 2

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Licence No: 437201

#### Secondary Filtering selection:

Use Class:

C3 12 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	3 days
5,001 to 10,000	2 days
10,001 to 15,000	4 days
15,001 to 20,000	1 days
20,001 to 25,000	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	5 days
50,001 to 75,000	3 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	3 days
1.1 to 1.5	9 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 2 days No 10 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 12 days

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

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18

Page 3 Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Licence No: 437201

LIST OF SITES relevant to selection parameters

DH-03-A-02 MIXED HOUSES DURHAM

LEAZES LANE

ST HELEN AUCKLAND **BISHOP AUCKLAND** 

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Number of dwellings: 125

Survey date: MONDAY Survey Type: MANUAL 27/03/17

DV-03-A-02 **HOUSES & BUNGALOWS** DEVON

MILLHEAD ROAD

HONITON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 116

Survey date: FRIDAY 25/09/15 Survey Type: MANUAL

ES-03-A-03 **MIXED HOUSES & FLATS EAST SUSSEX** 

SHEPHAM LANE

POLEGATE Edge of Town Residential Zone

Total Number of dwellings: 212

Survey date: MONDAY 11/07/16 Survey Type: MANUAL

ES-03-A-04 **MIXED HOUSES & FLATS EAST SUSSEX** 

**NEW LYDD ROAD** 

CAMBER Edge of Town Residential Zone

Total Number of dwellings: 134

Survey date: FRIDAY 15/07/16 Survey Type: MANUAL

KC-03-A-04 **SEMI-DETACHED & TERRACED** KENT

KILN BARN ROAD DITTON

**AYLESFORD** Edge of Town Residential Zone

Total Number of dwellings: 110

Survey date: FRIDAY 22/09/17 Survey Type: MANUAL

KC-03-A-06 **MIXED HOUSES & FLATS** KENT

MARGATE ROAD

HERNE BAY

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 363

Survey date: WEDNESDAY 27/09/17 Survey Type: MANUAL

KC-03-A-07 **MIXED HOUSES** KENT

RECULVER ROAD

HERNE BAY Edge of Town Residential Zone

Total Number of dwellings: 288

Survey date: WEDNESDAY 27/09/17 Survey Type: MANUAL NE-03-A-02 **SEMI DETACHED & DETACHED** NORTH EAST LINCOLNSHIRE

HANOVER WALK

**SCUNTHORPE** Edge of Town No Sub Category

Total Number of dwellings: 432

Survey date: MONDAY 12/05/14 Survey Type: MANUAL

NE-03-A-03 **PRIVATE HOUSES** NORTH EAST LINCOLNSHIRE

STATION ROAD

**SCUNTHORPE** Edge of Town Centre Residential Zone

Total Number of dwellings: 180

> Survey date: TUESDAY 20/05/14 Survey Type: MANUAL

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18 Page 4

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Licence No: 437201

LIST OF SITES relevant to selection parameters (Cont.)

10 NY-03-A-06 BUNGALOWS & SEMI DET. NORTH YORKSHIRE

HORSEFAIR

BOROUGHBRIDGE

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 115

Survey date: FRIDAY 14/10/11 Survey Type: MANUAL

11 WS-03-A-04 MIXED HOUSES WEST SUSSEX

HILLS FARM LANE BROADBRIDGE HEATH

HORSHAM Edge of Town Residential Zone

Total Number of dwellings: 151

Survey date: THURSDAY 11/12/14 Survey Type: MANUAL

12 WS-03-A-06 MIXED HOUSES WEST SUSSEX

**ELLIS ROAD** 

S BROADBRIDGE HEATH

WEST HORSHAM Edge of Town Residential Zone

Total Number of dwellings: 805

Survey date: THURSDAY 02/03/17 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.

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE

RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**MULTI-MODAL VEHICLES** 

Ranking Type: **TOTALS** Time Range: 08:00-09:00

WARNING: Using 85th and 15th percentile highlighted trip rates in data sets of under

20 surveys is not recommended by TRICS and may be misleading.

Median Values Mean Values

 Arrivals:
 0.117
 Arrivals:
 0.118

 Departures:
 0.335
 Departures:
 0.330

 Totals:
 0.452
 Totals:
 0.448

					72			Trip Ra	te (Sorted by 1	Totals)	Park Spaces
Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Arrivals	Departures	Totals	Per Dwelling
1	ES-03-A-03	MIXED HOUSES &	POLEGATE	EAST SUSSEX	212	Mon	11/07/16	0.165	0.462	0.627	1.68
2	KC-03-A-07	MIXED HOUSES	HERNE BAY	KENT	288	Wed	27/09/17	0.240	0.385	0.625	3.09
3	WS-03-A-06	MIXED HOUSES	WEST HORSHAM	WEST SUSSEX	805	Thu	02/03/17	0.163	0.460	0.623	2.14
4	KC-03-A-04	SEMI-DETACHED	AYLESFORD	KENT	110	Fri	22/09/17	0.127	0.473	0.600	1.77
5	NY-03-A-06	BUNGALOWS & SE	BOROUGHBRIDGE	NORTH YORKSHIRE	115	Fri	14/10/11	0.096	0.400	0.496	3.50
6	KC-03-A-06	MIXED HOUSES &	HERNE BAY	KENT	363	Wed	27/09/17	0.091	0.386	0.477	2.17
7	NE-03-A-03	PRIVATE HOUSES	SCUNTHORPE	NORTH EAST LINCOLNS	180	Tue	20/05/14	0.144	0.283	0.427	2.68
8	NE-03-A-02	SEMI DETACHED	SCUNTHORPE	NORTH EAST LINCOLNS	432	Mon	12/05/14	0.067	0.354	0.421	1.00
9	WS-03-A-04	MIXED HOUSES	HORSHAM	WEST SUSSEX	151	Thu	11/12/14	0.139	0.278	0.417	2.28
10	DV-03-A-02	<b>HOUSES &amp; BUNGA</b>	HONITON	DEVON	116	Fri	25/09/15	0.103	0.241	0.344	2.25
11	ES-03-A-04	MIXED HOUSES &	CAMBER	EAST SUSSEX	134	Fri	15/07/16	0.052	0.134	0.186	1.91
12	DH-03-A-02	MIXED HOUSES	BISHOP AUCKLAND	DURHAM	125	Mon	27/03/17	0.032	0.104	0.136	0.99

Licence No: 437201

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18 SITE DETAILS FOR WS-03-A-06 Page 1

Licence No: 437201

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE

Site Reference: WS-03-A-06 Multi-Modal Site

Created: Version: 7.4.2 10/04/17 Latitude/Longitude: 51.06687, -0.36834

Land Use Type: 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Region/Area SOUTH EASTWEST SUSSEX

Version/Creation Date: 7.4.2 10/04/17

Description: MIXED HOUSES Street: ELLIS ROAD

District: S BROADBRIDGE HEATH

Town: WEST HORSHAM Post Code: RH12 3LN

Planning Authority: HORSHAM DISTRICT C.

Location: Edge of Town
Location Sub Category: Residential Zone

Use Class: C3

Population within 500m: 2700

Population within 1 Mile: 5,001 to 10,000 Population within 5 Miles: 75,001 to 100,000

Car ownership within 5 Miles: 1.1 to 1.5

Public Transport Provision Summary

Day	Period	Total buses/trams within 400m	Total Trains within 1000m	Total Services
Monday-Friday	0700-1900	94		94
Monday-Friday	0700-1000	22		22
Monday-Friday	1600-1900	18		18
Saturday	0700-1900	62		62
Sunday	0700-1900			

Is site associated with a travel plan: Yes

If not, are there any plans to implement

a Travel Plan in the future? Is survey data available before the

implementation of the Travel Plan? No
Is the location of the site hilly or flat: Flat
Urban Regeneration: No

Previous survey WS-03-M-05
Site area 33.15 hect
Number of dwellings 805
Housing Density 43.09

No. of developments for this Site: 1
No. of survey Days for this Site: 1

#### Comments

This site is located In the Broadbridge Heath area of West Horsham. The A281 is at the northern boundary of the site, and the A24 is just to the east (running north and south). The two roads meet at a junction to the north-east of the site. The site has a total of 8 access points, consisting of 4 vehicle accesses and 4 separate pedestrian accesses.

The Broadbridge Heath residential area is to the north, with open land to the south and west. Across the A24 to the east is further residential development.

#### Bus (or tram) site accessibility

- 3. Is there at least 1 bus (or tram) stop within the site frontage or within 400m of the site frontage? : Yes
- 4. If yes to question 3, where it is necessary to cross a road between the development and the stop, is there a conveniently placed crossing facility? : Yes
- 5. If yes to question 3, are there at least 2 buses (or trams) per hour (per direction between 0700 and 1900) with routes serving significant areas of population within a 5 kilometre radius? (Mon-Sat): Yes
- 6. If yes to question 5, what are the service characteristics? (please complete the outline information below)

Destination (town/area)	Number per hour	Approx. journey time
Horsham	2	12

11. Please enter general comments/views about the relevance, quality and importance of public transport

Ardent Consulting Engineers Suite 207, One

Suite 207, One Alie Street London E1 8DE

Licence No: 437201

# services relating to this development.

In addition to the individual bus service shown (which is a circular service in one direction only) there are are hourly services available to Pulborough (35 minutes journey time), Guildford (65 minutes journey time) and Horsham (12 minutes journey time). There are also 3 buses which pass the site once per day in each direction. The Horsham service shown in the table was introduced in March 2016, so after the previous survey was undertaken.

#### Design features encouraging non-car modes

#### 12. Pedestrians

There are local footpaths to nearby facilities, with a signalised crossing of a busy local road.

#### 13. Pedal cycles

There are local cycle paths available.

### 14. Public transport

The site is in proximity to local bus routes.

#### Design features encouraging non-car modes

Road Network Distance to Local Deve	elopments
Year of Analysis	2017
Nearest Primary School	2.2 kilometres
Nearest Secondary School	2.2 kilometres
Nearest Local Shop/Corner Shop	1.3 kilometres
Nearest Main Supermarket	1.9 kilometres
Nearest Doctors Surgery	4.1 kilometres
Nearest Hospital with Minor Injuries/A & E	4.9 kilometres
Nearest Sports/Leisure Centre	1.1 kilometres

Census Data	
Year of Census	2011
Census Output Area/Data Zone	E00161246
Number of people employed within Census Output Area	204
Number of households within Census Output Area	138
Number of people living within Census Output Area	325
Area of Census Output Area (hectares)	135.00
Population density within Census Output Area (per hectare)	2.40

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved

DEVELOPMENT DETAILS FOR WS-03-A-06 / 01

Wednesday 06/06/18
Page 3

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Licence No: 437201

Site reference: WS-03-A-06 Multi-Modal survey site

Trade name: WICKHURST GREEN

Site area (h/a): 33.15 Site area excluding public open spaces (h/a): 18.68

Open since 2013

Occupied dwellings 805
Unoccupied dwellings 13
Total dwellings 818

Housing Density 43.09
Privately owned units 652
Non-Privately owned units 153

Name of nearest site HIGHWOOD Distance to nearest similar site 0.0 Km

Average Bedrooms Per Unit

No of units with 1 bedroom

No of units with 2 bedrooms

No of units with 3 bedrooms

No of units with 3 bedrooms

Void units with 4+ bedrooms

Total bedrooms

Unit Density

3.11

249

249

249

2501

243

Residential unit types

400	Private	Non-Private	Total
Detached houses	215	5	220
Semi-detached houses	173	18	191
Terraced houses	244	84	328
Bungalows	0	0	0
Flats (in houses)	0	0	0
Flats (in blocks)	20	46	66
Town Houses	0	0	0
Other (specify below)			

Other:

# Comments

The nearest similar site is located less than 1 kilometre away.

At the time of the survey some construction was still taking place at the site. Construction traffic has been excluded from the survey.

Database right of TRICS Consortium Limited, 2018. All rights reserved TRICS 7.5.1 290318 B18.22 Wednesday 06/06/18 PARKING DETAILS FOR SITE WS-03-A-06 Page 4

London E1 8DE Suite 207, One Alie Street Ardent Consulting Engineers Licence No: 437201

Multi-Modal survey site

On-Site parking

Total no. of parking spaces 1726 52.066 Parking Spaces Per Hectare Parking Spaces Per dwelling 2.144 Arrivals Per Parking Space 1.14

Number of spaces

On-Street 93 Driveway 1141 Garages 492 0 Communal parking spaces

General Comments on Parking

There is no off-site paid parking locally.

Types of servicing vehicle parking taking place

on-site (internal, within specified bays or otherwise)

Yes

off-site (on-street, in designated loading/servicing bays)

off-site (in restricted areas e.g. double yellow lines)

Off-Site parking details

Is there off-site parking available

Yes

Off-Site parking included in the counts

Yes

Free On-Street parking available nearby

If yes, considered easy to find a space

Yes

If prepared to pay, easy to find somewhere to park off-site all day

Parking restrictions

Area subject to parking restrictions (controlled parking zone - CPZ)

Off-Street parking Off-Street parking available Yes, Public Off-Street Parking is Available

Approx. available spaces 1000

Parking located within a control parking zone (CPZ)

No

Charges for this Off-Street parking

No

Park & Ride

Park & Ride Type Facility providing relevant means of accessing the site

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18 TRAVEL PLAN DETAILS FOR SITE WS-03-A-06 Page 5

Licence No: 437201

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE

Additional Travel Plan Features

Residents are given a voucher (£50) towards the purchase of a new cycle (or a bus ticket).

The Travel Plan Co-ordinator publishes newsletters on an ad-hoc basis to make people aware of different options and initiatives.

Changes from Previous Survey

Provision has been made to maintain footpaths through the estate. This includes provision for crossing points on the main roads.

Travel Plan Type

Type Compulsory

Travel Plan History

Date of Travel Plan implementation June 2013

Has the Travel Plan been accredited, or received an award in recognition of its quality, from either a national body

such as ACT or a local authority?

Travel Plan Target Group

Main target market(s) for the Travel Plan

Staff Not present
Visitors Target group
Customers Not present
Students Not present
Patients Not present
All site users Target group
Other Target group
Residents

Travel Plan Co-Ordinator

Is there a Travel Plan co-ordinator - a member of staff

whose job it is to manage the implementation of the Travel Plan?

If YES to the above, do they work on the Travel Plan

full time or part time?

Pre-Travel Plan Mode Split

Was modal split data obtained

before the introduction of the Travel Plan?

Travel Plan Modal Split Targets

Did the Travel Plan identify

mode split targets?

Travel Plan Targets

The targets are to (1) reduce the number of vehicle trips generated weekdays between 0700 and 1900 by 15%, and (2) to reduce the net peak hour trip rate of the development to ensure there is no "material impact" on the surrounding network.

Yes

Part time

Changes in site environment and circumstances

Since the travel plan was implemented, have any of the following changes occurred?

Has there been large scale changes in numbers

of staff on site?

Has there been a change in site function from,

for example, call centre to head office;

or from administrative to sales, etc?

Have parking controls been implemented around a site

where previously many staff parked at no charge?

Has there been large scale changes in local

public transport services?

As routes through the development are opened, bus services will also begin to operate through the site.

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved

TRAVEL PLAN DETAILS FOR SITE WS-03-A-06

Page 6

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Licence No: 437201

Has the site been relocated to somewhere with different accessibility characteristics (e.g. from city centre to edge of town)?

No

Factors that may have affected trip rates

#### Additional Travel Plan comments

#### Cycling Measures

Covered cycle racks close to building entrances

Yes

Date implemented Capital cost

Annual operating cost

Good lighting in cycle parking areas

Yes

No

No

Date implemented Capital cost

Annual operating cost

Lockers/Facilities for staff who cycle

to store their clothing

Date implemented Capital cost

Annual operating cost

Secure well-lit/covered cycle parking compound

Yes

Date implemented Capital cost

Annual operating cost

CCTV coverage of cycle parking areas No

Date implemented Capital cost

Annual operating cost

Shower and changing facilities for staff

who cycle and walk
Date implemented

Capital cost

Annual operating cost

Good network of cycle routes linking the site

to main residential areas locally Yes

Date implemented Capital cost

Annual operating cost

Additional comments

Costs and dates of implementation for the elements shown are not known, as these were all undertaken as part of the original build costs for the site.

Provision has been made for cycle parking in garages (for houses) and in dedicated cycle parking areas (for flats). The local cycle network is being enlarged.

Car Sharing Measures

Car-share matching system where employer takes

active role in setting up car-share teams

(i.e. more than just a voluntary noticeboard)

No

Date implemented Capital cost

Annual operating cost

Guaranteed free ride home available to all

staff if they car-share and need to get

home in an emergency Date implemented

Capital cost

Annual operating cost

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved
TRAVEL PLAN DETAILS FOR SITE WS-03-A-06
Page 7

No

Yes

No

No

No

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Licence No: 437201

Priority parking spaces for car-sharers close

to building entrances
Date implemented

Capital cost Annual operating cost

Car Club available locally that could be used by

occupants of the site Yes

Does the site operate its own Car Club, or subscribe

to an independent Car Club organisation?

Additional comments

Car Parking Management

Limited availability of on-site parking spaces (on-site parking supply is set at less than demand for target group of Travel Plan)

and for target group or Traver rian)

Parking permit eligibility restrictions (e.g. only staff without viable public transport alternative are issued with a permit)

Date implemented Capital cost

Annual operating cost

Charging for parking for Travel Plan target group (e.g. staff, patients, visitors, etc.

Date implemented Capital cost Annual operating cost

Charge

Period of Charge

Parking enforcement (e.g. barrier control, parking attendants, clamping, ticketing) on-site No

Date implemented Capital cost Annual operating cost

. .

Additional comments

Financial Incentives

Daily payment of £2 or more to staff not to use the car (also known as cash-out)

No

Date implemented Capital cost Annual operating cost Daily payment value

Annual payment to give up entitlement to a

parking permit
Date implemented

Capital cost Annual operating cost Annual payment value

Site provides employees with season

ticket/cycle loans No

Date implemented
Capital cost

Annual operating cost Annual loans value

Additional comments

Residents are given a voucher (£50) towards the purchase of a new cycle (or a bus ticket).

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved

TRAVEL PLAN DETAILS FOR SITE WS-03-A-06

Page 8

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Licence No: 437201

Public Transport Measures

Bus waiting facilities (clean, grafitti-free bus shelter and seats close to (e.g. within 400 metres) the site's main entran

within 400 metres) the site's main entrance Yes

Date implemented Capital cost Annual operating cost

New/improved bus services close to the site

Yes

Date implemented

Capital cost 430000

Annual operating cost

Secure well-lit pedestrian routes to bus/tram

stops within 400 metres Yes

Date implemented Capital cost Annual operating cost

Secure well-lit pedestrian routes to railway stations within 1000 metres No

Date implemented Capital cost

Annual operating cost

Public transport information provided on site on paper and/or computer Yes

Date implemented June 2013

Capital cost

Annual operating cost

Publicity and awareness raising material

about local public transport Yes
Date implemented June 2013

Capital cost Annual operating cost

Personalised journey planning/travel assistance (e.g. helpline, etc).

Date implemented
Capital cost
Annual operating cost

# Additional comments

At the time of the survey the improved bus services were not available. However, there are plans to provide these as part of the wider development. As part of planning consent, the developer paid West Sussex County Council £430,000 to improve bus services in the area.

Travel information is available from bus service providers. The travel plan referred to a dedicated website that contains links - www.wickhurstgreentravelplan.com.

Costs for publicity and awareness raising material and public transport information being made available on-line are not

A travel pack is provided to new residents, and the Travel Plan Co-ordinator publishes newsletters on an ad-hoc basis to make people aware of different options and initiatives.

Provision has been made to maintain footpaths through the estate. This includes provision for crossing points on the main roads.

Shuttle Bus

Shuttle bus(es) to main staff/customer

residential areas No Date implemented Capital cost

Annual operating cost

Shuttle bus(es) to railway and/or bus station(s) No

Date implemented Capital cost

Annual operating cost

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved TRAVEL PLAN DETAILS FOR SITE WS-03-A-06

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Wednesday 06/06/18 Page 9 Licence No: 437201

Additional comments

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18 SURVEY DAY DETAILS FOR WS-03-A-06 / 01 Page 10

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Licence No: 437201

Site reference: WS-03-A-06 Survey date: 02/03/17 Day of week: Thursday

Multi-Modal survey site

Vehicles surveyed: Total vehicles
Survey type: Manual Count
AM weather: Cold and Cloudy
PM weather: Cold and Clear

Initial car park occupancy: Final car park occupancy:

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity
Data proportions in %

 Motor cars
 88
 Motor cycles
 0
 Public service
 0

 Light goods
 11
 OGV (1)
 0
 OGV (2)
 0

 Taxis
 1

Time	Arr 1974	Dep 2045	Totals 4019	Parking Accum
00:00-01:00			-	
01:00-02:00	,		la control of the con	
02:00-03:00				
03:00-04:00			7	
04:00-05:00				
05:00-06:00			6	
06:00-07:00				
07:00-08:00	78	295	373	(-217)
08:00-09:00	131	370	501	(-456)
09:00-10:00	139	153	292	(-470)
10:00-11:00	98	120	218	(-492)
11:00-12:00	123	135	258	(-504)
12:00-13:00	120	130	250	(-514)
13:00-14:00	129	137	266	(-522)
14:00-15:00	116	154	270	(-560)
15:00-16:00	214	138	352	(-484)
16:00-17:00	218	130	348	(-396)
17:00-18:00	293	134	427	(-237)
18:00-19:00	315	149	464	(-71)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

# Comments

All construction traffic was excluded from this survey.

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18 SURVEY DAY DETAILS FOR WS-03-A-06 / 07

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Page 11

Licence No: 437201

Site reference: WS-03-A-06 Survey date: 02/03/17 Day of week: Thursday

Multi-Modal survey site Vehicles surveyed: OGV

OGV (1) 100 Data proportions in % OGV (2) 0

1 occupant per OGV is assumed, and included in the vehicle occupants count

Time	Arr 8	Dep 8	Totals 16	Accumulation
00:00-01:00	1	48		
01:00-02:00				
02:00-03:00				
03:00-04:00				
04:00-05:00	1			
05:00-06:00			· ·	
06:00-07:00				
07:00-08:00	0	0	0	(0)
08:00-09:00	0	0	0	(0)
09:00-10:00	3	2	5	(1)
10:00-11:00	2	2	4	(1)
11:00-12:00	2	3	5	(0)
12:00-13:00	0	0	0	(0)
13:00-14:00	1	1	2	(0)
14:00-15:00	0	0	0	(0)
15:00-16:00	0	0	0	(0)
16:00-17:00	0	0	0	(0)
17:00-18:00	0	0	0	(0)
18:00-19:00	0	0	0	(0)
19:00-20:00	i .			
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00	1			

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved SURVEY DAY DETAILS FOR WS-03-A-06 / 05

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Wednesday 06/06/18 Page 12 Licence No: 437201

Survey date: 02/03/17

Day of week: Thursday

Site reference: WS-03-A-06 Multi-Modal survey site

Vehicles surveyed: PSV

Time	Arr 4	Dep 4	Totals 8	Accumulation
00:00-01:00		-26	e: e:	
01:00-02:00				
02:00-03:00	Ĩ			
03:00-04:00				
04:00-05:00	Ä			
05:00-06:00				
06:00-07:00				
07:00-08:00	1	1	2	(0)
08:00-09:00	1	1	2	(0)
09:00-10:00	0	0	0	(0)
10:00-11:00	0	0	0	(0)
11:00-12:00	0	0	0	(0)
12:00-13:00	0	0	0	(0)
13:00-14:00	0	0	0	(0)
14:00-15:00	0	0	0	(0)
15:00-16:00	1	1	2	(0)
16:00-17:00	1	1	2	(0)
17:00-18:00	0	0	0	(0)
18:00-19:00	0	0	0	(0)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00	i i		10	

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved SURVEY DAY DETAILS FOR WS-03-A-06 / 03

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Wednesday 06/06/18 Page 13 Licence No: 437201

Day of week: Thursday Site reference: WS-03-A-06 Survey date: 02/03/17

Multi-Modal survey site Vehicles surveyed: Taxis

Time	Arr 9	Dep 11	Totals 20	Accumulation
00:00-01:00		312		
01:00-02:00				
02:00-03:00	Ĭ			
03:00-04:00				
04:00-05:00				
05:00-06:00				
06:00-07:00				
07:00-08:00	0	0	0	(0)
08:00-09:00	0	0	0	(0)
09:00-10:00	1	1	2	(0)
10:00-11:00	3	4	7	(-1)
11:00-12:00	0	0	0	(-1)
12:00-13:00	1	2	3	(-2)
13:00-14:00	0	0	0	(-2)
14:00-15:00	1	1	2	(-2)
15:00-16:00	2	2	4	(-2)
16:00-17:00	1	1	2	(-2)
17:00-18:00	0	0	0	(-2)
18:00-19:00	0	0	0	(-2)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00		_		

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved SURVEY DAY DETAILS FOR WS-03-A-06 / 02

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Wednesday 06/06/18 Page 14 Licence No: 437201

Day of week: Thursday Site reference: WS-03-A-06 Survey date: 02/03/17

Multi-Modal survey site Vehicles surveyed: Cars

Time	Arr 1725	Dep 1791	Totals 3516	Accumulation
00:00-01:00		1.0		
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	57	269	326	(-212)
08:00-09:00	110	346	456	(-448)
09:00-10:00	112	133	245	(-469)
10:00-11:00	80	94	174	(-483)
11:00-12:00	98	108	206	(-493)
12:00-13:00	102	107	209	(-498)
13:00-14:00	106	110	216	(-502)
14:00-15:00	97	122	219	(-527)
15:00-16:00	189	115	304	(-453)
16:00-17:00	199	118	317	(-372)
17:00-18:00	273	127	400	(-226)
18:00-19:00	302	142	444	(-66)
19:00-20:00				20 12
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved SURVEY DAY DETAILS FOR WS-03-A-06 / 06

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Wednesday 06/06/18 Page 15 Licence No: 437201

Day of week: Thursday Site reference: WS-03-A-06 Survey date: 02/03/17

Multi-Modal survey site Vehicles surveyed: LGV

Time	Arr 221	Dep 222	Totals 443	Accumulation
00:00-01:00			73 25	
01:00-02:00				
02:00-03:00	j l			
03:00-04:00				
04:00-05:00				
05:00-06:00				
06:00-07:00				
07:00-08:00	20	20	40	(0)
08:00-09:00	20	20	40	(0)
09:00-10:00	23	17	40	(6)
10:00-11:00	13	20	33	(-1)
11:00-12:00	23	24	47	(-2)
12:00-13:00	16	21	37	(-7)
13:00-14:00	22	26	48	(-11)
14:00-15:00	17	31	48	(-25)
15:00-16:00	22	20	42	(-23)
16:00-17:00	15	10	25	(-18)
17:00-18:00	18	7	25	(-7)
18:00-19:00	12	6	18	(-1)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00			8	

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18 SURVEY DAY DETAILS FOR WS-03-A-06 / 04

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Page 16 Licence No: 437201

Survey date: 02/03/17

Day of week: Thursday

Site reference: WS-03-A-06 Multi-Modal survey site

Vehicles surveyed: Motor Cycles

Time	Arr 7	Dep 9	Totals 16	Accumulation
00:00-01:00		SV.		
01:00-02:00				
02:00-03:00	Ĩ			
03:00-04:00				
04:00-05:00	Ä			
05:00-06:00				
06:00-07:00				
07:00-08:00	0	5	5	(-5)
08:00-09:00	0	3	3	(-8)
09:00-10:00	0	0	0	(-8)
10:00-11:00	0	0	0	(-8)
11:00-12:00	0	0	0	(-8)
12:00-13:00	1	0	1	(-7)
13:00-14:00	0	0	0	(-7)
14:00-15:00	1	0	1	(-6)
15:00-16:00	0	0	0	(-6)
16:00-17:00	2	0	2	(-4)
17:00-18:00	2	0	2	(-2)
18:00-19:00	1	1	2	(-2)
19:00-20:00				100 101
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18 SURVEY DAY DETAILS FOR WS-03-A-06 / 09
Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Page 17 Licence No: 437201

Day of week: Thursday Site reference: WS-03-A-06 Survey date: 02/03/17

Multi-Modal survey site Vehicles surveyed: Cycles

Time	Arr 45	Dep 60	Totals 105	Accumulation
00:00-01:00		312	12	
01:00-02:00				
02:00-03:00	j I			
03:00-04:00				
04:00-05:00				
05:00-06:00				
06:00-07:00				
07:00-08:00	4	5	9	(-1)
08:00-09:00	1	6	7	(-6)
09:00-10:00	1	2	3	(-7)
10:00-11:00	0	0	0	(-7)
11:00-12:00	2	2	4	(-7)
12:00-13:00	0	3	3	(-10)
13:00-14:00	3	7	10	(-14)
14:00-15:00	1	1	2	(-14)
15:00-16:00	3	4	7	(-15)
16:00-17:00	10	12	22	(-17)
17:00-18:00	13	14	27	(-18)
18:00-19:00	7	4	11	(-15)
19:00-20:00				33 19
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18 Page 18 Licence No: 437201 SURVEY DAY DETAILS FOR WS-03-A-06 / 08

Suite 207, One Alie Street London E1 8DE Ardent Consulting Engineers

Site reference: WS-03-A-06 Survey date: 02/03/17 Day of week: Thursday

Multi-Modal survey site

People Surveyed: Car/LGV/Motorcycle occupants

This count consists of car occupants, light goods vehicle occupants, motorcycle riders and OGV occupants Taxi drivers and drivers of private vehicles picking up/dropping off passengers at the site are excluded from the count

Time	1	2	3	4	5	6	7	Arr 2460	1	2	3	4	5	6	7	Dep 2636	Totals 5096	Accum
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	57	16	3	0	0	0	0	98	237	44	12	1	0	0	0	365	463	(-267)
08:00-09:00	113	17	0	0	0	0	0	147	227	87	45	7	3	0	0	579	726	(-699)
09:00-10:00	127	11	0	0	0	0	0	149	128	23	1	0	0	0	0	177	326	(-727)
10:00-11:00	87	8	0	0	0	0	0	103	107	10	1	0	0	0	0	130	233	(-754)
11:00-12:00	109	13	1	0	0	0	0	138	112	20	2	1	0	0	0	162	300	(-778)
12:00-13:00	104	13	1 2 2 2 2	0	0	0	0	136	99	26	3	1	0	0	0	164	300	(-806)
13:00-14:00	103	24	2	0	0	0	0	157	115	21	1	0	0	0	0	160	317	(-809)
14:00-15:00	93	19	2	1	0	0	0	141	118	32	4	0	0	0	0	194	335	(-862)
15:00-16:00	118	65	22	6	2	0	0		110	24	1	0	0	0	0	161	509	(-675)
16:00-17:00	158	41	17	1	0	0	0	295	95	26	5	1	1	0	0	171	466	(-551)
17:00-18:00	220	63	10	0	0	0	0	376	92	30	11	1	0	0	0	189	565	(-364)
18:00-19:00	267	42	3	3	0	0	0	372	115	33	1	0	0	0	0	184	556	(-176)
19:00-20:00																7,570-10		
20:00-21:00																		
21:00-22:00																		
22:00-23:00																		
23:00-24:00																		

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18 SURVEY DAY DETAILS FOR WS-03-A-06 / 10
Ardent Consulting Engineers Suite 207, One Alie Street Page 19 Licence No: 437201

London E1 8DE

Day of week: Thursday Site reference: WS-03-A-06 Survey date: 02/03/17

Multi-Modal survey site

People Surveyed: **Pedestrians** 

Time	Arr 501	Dep 468	Totals 969	Accumulation
00:00-01:00			17	
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	12	19	31	(-7)
08:00-09:00	15	134	149	(-126)
09:00-10:00	36	36	72	(-126)
10:00-11:00	26	30	56	(-130)
11:00-12:00	29	20	49	(-121)
12:00-13:00	27	31	58	(-125)
13:00-14:00	28	18	46	(-115)
14:00-15:00	24	37	61	(-128)
15:00-16:00	152	41	193	(-17)
16:00-17:00	62	33	95	(12)
17:00-18:00	54	47	101	(19)
18:00-19:00	36	22	58	(33)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				1

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18 SURVEY DAY DETAILS FOR WS-03-A-06 / 11
Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Page 20 Licence No: 437201

Day of week: Thursday Site reference: WS-03-A-06 Survey date: 02/03/17

Multi-Modal survey site

People Surveyed: **Public transport Users** 

Time	Arr 47	Dep 42	Totals 89	Accumulation
00:00-01:00		712		
01:00-02:00				
02:00-03:00				
03:00-04:00				
04:00-05:00				
05:00-06:00				
06:00-07:00			C.	
07:00-08:00	1	8	9	(-7)
08:00-09:00	0	9	9	(-16)
09:00-10:00	0	8	8	(-24)
10:00-11:00	2	3	5	(-25)
11:00-12:00	0	4	4	(-29)
12:00-13:00	1	1	2	(-29)
13:00-14:00	8	2	10	(-23)
14:00-15:00	3	1	4	(-21)
15:00-16:00	11	2	13	(-12)
16:00-17:00	6	4	10	(-10)
17:00-18:00	14	0	14	(4)
18:00-19:00	1	0	1	(5)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00			8	

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved SURVEY DAY DETAILS FOR WS-03-A-06 / 12

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Wednesday 06/06/18 Page 21 Licence No: 437201

Day of week: Thursday Site reference: WS-03-A-06 Survey date: 02/03/17

Multi-Modal survey site

People Surveyed: **Bus/Tram Passengers** 

Time	Arr 44	Dep 40	Totals 84	Accumulation
00:00-01:00		7)2		
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	1	7	8	(-6)
08:00-09:00	0	8	8	(-14)
09:00-10:00	0	8	8	(-22)
10:00-11:00	2	3	5	(-23)
11:00-12:00	0	4	4	(-27)
12:00-13:00	1	1	2	(-27)
13:00-14:00	8	2	10	(-21)
14:00-15:00	3	1	4	(-19)
15:00-16:00	9	2	11	(-12)
16:00-17:00	5	4	9	(-11)
17:00-18:00	14	0	14	(3)
18:00-19:00	1	0	1	(4)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18 SURVEY DAY DETAILS FOR WS-03-A-06 / 13
Ardent Consulting Engineers Suite 207, One Alie Street Page 22 Licence No: 437201

London E1 8DE

Day of week: Thursday Site reference: WS-03-A-06 Survey date: 02/03/17

Multi-Modal survey site

People Surveyed: **Coach Passengers** 

Time	Arr 3	Dep 2	Totals 5	Accumulation
00:00-01:00		210	95	
01:00-02:00				
02:00-03:00				
03:00-04:00				
04:00-05:00			150 150	
05:00-06:00				
06:00-07:00				
07:00-08:00	0	1	1	(-1)
08:00-09:00	0	1	1	(-2)
09:00-10:00	0	0	0	(-2)
10:00-11:00	0	0	0	(-2)
11:00-12:00	0	0	0	(-2)
12:00-13:00	0	0	0	(-2)
13:00-14:00	0	0	0	(-2)
14:00-15:00	0	0	0	(-2)
15:00-16:00	2	0	2	(0)
16:00-17:00	1	0	1	(1)
17:00-18:00	0	0	0	(1)
18:00-19:00	0	0	0	(1)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				-

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved SURVEY DAY DETAILS FOR WS-03-A-06
Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Wednesday 06/06/18 Page 23 Licence No: 437201

Day of week: Thursday Site reference: WS-03-A-06 Survey date: 02/03/17

Multi-Modal survey site

People Surveyed: Total people

Time	Arr 3053	Dep 3206	Totals 6259	Accumulation
00:00-01:00		110	7: 15	
01:00-02:00				
02:00-03:00				
03:00-04:00				
04:00-05:00			15	
05:00-06:00				
06:00-07:00				
07:00-08:00	115	397	512	(-282)
08:00-09:00	163	728	891	(-847)
09:00-10:00	186	223	409	(-884)
10:00-11:00	131	163	294	(-916)
11:00-12:00	169	188	357	(-935)
12:00-13:00	164	199	363	(-970)
13:00-14:00	196	187	383	(-961)
14:00-15:00	169	233	402	(-1025)
15:00-16:00	514	208	722	(-719)
16:00-17:00	373	220	593	(-566)
17:00-18:00	457	250	707	(-359)
18:00-19:00	416	210	626	(-153)
19:00-20:00			100	
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18 SURVEY DAY DETAILS FOR WS-03-A-06 / 14

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Page 24 Licence No: 437201

Site reference: WS-03-A-06 Survey date: 02/03/17 Day of week: Thursday

Multi-Modal survey site

Vehicles surveyed: Servicing Vehicles

			INBOUND			OUTBOUND					
Time	Car 0	LGV 190	OGV1 8	OGV2 0	Total 198	Car 0	LGV 190	OGV1 8	OGV2 0	Total 198	
00:00-01:0											
01:00-02:0				i ii					i i		
02:00-03:0											
03:00-04:0											
04:00-05:0											
05:00-06:0											
06:00-07:0											
07:00-08:0	0	20	0	0	20	0	6	0	0	6	
08:00-09:0	0	20	0	0	20	0	11	0	0	11	
09:00-10:0	0	23	3	0	26	0	14	2	0	16	
10:00-11:0	0	13	2	0	15	0	20	2	0	22	
11:00-12:0	0	23	2	0	25	0	24	3	0	27	
12:00-13:0	0	12	0	0	12	0	19	0	0	19	
13:00-14:0	0	20	1	0	21	0	22	1	0	23	
14:00-15:0	0	17	0	0	17	0	31	0	0	31	
15:00-16:0	0	21	0	0	21	0	20	0	0	20	
16:00-17:0	0	11	0	0	11	0	10	0	0	10	
17:00-18:0	0	6	0	0	6	0	7	0	0	7	
18:00-19:0	0	4	0	0	4	0	6	0	0	6	
19:00-20:0								7,535	3.00		
20:00-21:0											
21:00-22:0											
22:00-23:0											
23:00-24:0											

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Licence No: 437201

Calculation Reference: AUDIT-437201-180606-0652

#### TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL

Category : A - HOUSES PRIVATELY OWNED

**MULTI-MODAL VEHICLES** 

Selected regions and areas:

02 SOUTH EAST

WS WEST SUSSEX 1 days

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

#### Secondary 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: Number of dwellings Actual Range: 805 to 805 (units: ) Range Selected by User: 100 to 2000 (units: )

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 27/09/17

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:

Thursday 1 days

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

Selected survey types:

Manual count 1 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

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

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.

1

# Secondary Filtering selection:

Use Class:

C3 1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

5,001 to 10,000 1 days

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

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18 Page 2

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Licence No: 437201

#### Secondary Filtering selection (Cont.):

Population within 5 miles:

75,001 to 100,000 1 days

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

Car ownership within 5 miles: 1.1 to 1.5

1.1 to 1.5 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 1 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 1 days

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

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Wednesday 06/06/18 Page 3

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Licence No: 437201

# LIST OF SITES relevant to selection parameters

1 WS-03-A-06 MIXED HOUSES WEST SUSSEX

ELLIS ROAD S BROADBRIDGE HEATH WEST HORSHAM Edge of Town Residential Zone

Total Number of dwellings: 805

Survey date: THURSDAY 02/03/17 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
DH-03-A-02	not similar	
DV-03-A-02	not similar	
ES-03-A-03	not similar	
ES-03-A-04	not similar	
KC-03-A-04	not similar	
KC-03-A-06	not similar	
KC-03-A-07	not similar	
NE-03-A-02	not similar	
NE-03-A-03	not similar	
NY-03-A-06	not similar	
WS-03-A-04	not similar	

Licence No: 437201

Ardent Consulting Engineers

Suite 207, One Alie Street

London E1 8DE

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

		ARRIVALS		į.	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	54/5	D 1,1 E E E E	,,,,,,	5475	211222	11000	54/5	5,,,,,,	
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	1	805	0.097	1	805	0.366	1	805	0.463
08:00 - 09:00	1	805	0.163	1	805	0.460	1	805	0.623
09:00 - 10:00	1	805	0.173	1	805	0.190	1	805	0.363
10:00 - 11:00	1	805	0.122	1	805	0.149	1	805	0.271
11:00 - 12:00	1	805	0.153	1	805	0.168	1	805	0.321
12:00 - 13:00	1	805	0.149	1	805	0.161	1	805	0.310
13:00 - 14:00	1	805	0.160	1	805	0.170	1	805	0.330
14:00 - 15:00	1	805	0.144	1	805	0.191	1	805	0.335
15:00 - 16:00	1	805	0.266	1	805	0.171	1	805	0.437
16:00 - 17:00	1	805	0.271	1	805	0.161	1	805	0.432
17:00 - 18:00	1	805	0.364	1	805	0.166	1	805	0.530
18:00 - 19:00	1	805	0.391	1	805	0.185	1	805	0.576
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.453		-	2.538		· · · · · · · · · · · · · · · · · · ·	4.991

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.

Wednesday 06/06/18 Page 5

Licence No: 437201

Ardent Consulting Engineers

Suite 207, One Alie Street

London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

#### **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Ardent Consulting Engineers Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

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		1	DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00	10			939			300		
01:00 - 02:00									
02:00 - 03:00				. 0					
03:00 - 04:00									
04:00 - 05:00				0	i i				
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	805	0.000	1	805	0.000	1	805	0.000
08:00 - 09:00	1	805	0.000	1	805	0.000	1	805	0.000
09:00 - 10:00	1	805	0.001	1	805	0.001	1	805	0.002
10:00 - 11:00	1	805	0.004	1	805	0.005	1	805	0.009
11:00 - 12:00	1	805	0.000	1	805	0.000	1	805	0.000
12:00 - 13:00	1	805	0.001	1	805	0.002	1	805	0.003
13:00 - 14:00	1	805	0.000	1	805	0.000	1	805	0.000
14:00 - 15:00	1	805	0.001	1	805	0.001	1	805	0.002
15:00 - 16:00	1	805	0.002	1	805	0.002	1	805	0.004
16:00 - 17:00	1	805	0.001	1	805	0.001	1	805	0.002
17:00 - 18:00	1	805	0.000	1	805	0.000	1	805	0.000
18:00 - 19:00	1	805	0.000	1	805	0.000	1	805	0.000
19:00 - 20:00									
20:00 - 21:00				ï					
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.010		-	0.012			0.022

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.

Wednesday 06/06/18 Page 7

Ardent Consulting Engineers Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

#### **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: ) 01/01/10 - 27/09/17 Survey date date range:

Number of weekdays (Monday-Friday): Number of Saturdays: 0 Number of Sundays: 0 Surveys automatically removed from selection: 0 Surveys manually removed from selection: 11

Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

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		1	DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00	70			. 224		Ī	200		
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00			i i	7	i i				
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	805	0.000	1	805	0.000	1	805	0.000
08:00 - 09:00	1	805	0.000	1	805	0.000	1	805	0.000
09:00 - 10:00	1	805	0.004	1	805	0.002	1	805	0.006
10:00 - 11:00	1	805	0.002	1	805	0.002	1	805	0.004
11:00 - 12:00	1	805	0.002	1	805	0.004	1	805	0.006
12:00 - 13:00	1	805	0.000	1	805	0.000	1	805	0.000
13:00 - 14:00	1	805	0.001	1	805	0.001	1	805	0.002
14:00 - 15:00	1	805	0.000	1	805	0.000	1	805	0.000
15:00 - 16:00	1	805	0.000	1	805	0.000	1	805	0.000
16:00 - 17:00	1	805	0.000	1	805	0.000	1	805	0.000
17:00 - 18:00	1	805	0.000	1	805	0.000	1	805	0.000
18:00 - 19:00	1	805	0.000	1	805	0.000	1	805	0.000
19:00 - 20:00									
20:00 - 21:00				ï					
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.009		-	0.009			0.018

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.

Wednesday 06/06/18 Page 9

Ardent Consulting Engineers

Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

#### **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

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			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00	W			V2000			200			
01:00 - 02:00										
02:00 - 03:00				i i						
03:00 - 04:00										
04:00 - 05:00					i i					
05:00 - 06:00										
06:00 - 07:00										
07:00 - 08:00	1	805	0.001	1	805	0.001	1	805	0.002	
08:00 - 09:00	1	805	0.001	1	805	0.001	1	805	0.002	
09:00 - 10:00	1	805	0.000	1	805	0.000	1	805	0.000	
10:00 - 11:00	1	805	0.000	1	805	0.000	1	805	0.000	
11:00 - 12:00	1	805	0.000	1	805	0.000	1	805	0.000	
12:00 - 13:00	1	805	0.000	1	805	0.000	1	805	0.000	
13:00 - 14:00	1	805	0.000	1	805	0.000	1	805	0.000	
14:00 - 15:00	1	805	0.000	1	805	0.000	1	805	0.000	
15:00 - 16:00	1	805	0.001	1	805	0.001	1	805	0.002	
16:00 - 17:00	1	805	0.001	1	805	0.001	1	805	0.002	
17:00 - 18:00	1	805	0.000	1	805	0.000	1	805	0.000	
18:00 - 19:00	1	805	0.000	1	805	0.000	1	805	0.000	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00					Î					
23:00 - 24:00										
Total Rates:			0.004			0.004		· · · · · · · · · · · · · · · · · · ·	0.008	

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.

Wednesday 06/06/18 Page 11

Licence No: 437201

Ardent Consulting Engineers Suite 207, 0

Suite 207, One Alie Street London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

### **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED  ${\bf MULTI\text{-}MODAL}$   ${\bf CYCLISTS}$ 

Calculation factor: 1 DWELLS

**BOLD** print indicates peak (busiest) period

		ARRIVALS		j	DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00	10			1,520			20			
01:00 - 02:00										
02:00 - 03:00				i i						
03:00 - 04:00										
04:00 - 05:00										
05:00 - 06:00										
06:00 - 07:00					ji .	i				
07:00 - 08:00	1	805	0.005	1	805	0.006	1	805	0.011	
08:00 - 09:00	1	805	0.001	1	805	0.007	1	805	0.008	
09:00 - 10:00	1	805	0.001	1	805	0.002	1	805	0.003	
10:00 - 11:00	1	805	0.000	1	805	0.000	1	805	0.000	
11:00 - 12:00	1	805	0.002	1	805	0.002	1	805	0.004	
12:00 - 13:00	1	805	0.000	1	805	0.004	1	805	0.004	
13:00 - 14:00	1	805	0.004	1	805	0.009	1	805	0.013	
14:00 - 15:00	1	805	0.001	1	805	0.001	1	805	0.002	
15:00 - 16:00	1	805	0.004	1	805	0.005	1	805	0.009	
16:00 - 17:00	1	805	0.012	1	805	0.015	1	805	0.027	
17:00 - 18:00	1	805	0.016	1	805	0.017	1	805	0.033	
18:00 - 19:00	1	805	0.009	1	805	0.005	1	805	0.014	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.055			0.073		·	0.128	

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.

Wednesday 06/06/18 Page 13

Licence No: 437201

Ardent Consulting Engineers

Suite 207, One Alie Street

London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

### **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**MULTI-MODAL VEHICLE OCCUPANTS** 

Calculation factor: 1 DWELLS

**BOLD** print indicates peak (busiest) period

		ARRIVALS		ä	DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00	70			- 999		Ī	200			
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	1	805	0.122	1	805	0.453	1	805	0.575	
08:00 - 09:00	1	805	0.183	1	805	0.719	1	805	0.902	
09:00 - 10:00	1	805	0.185	1	805	0.220	1	805	0.405	
10:00 - 11:00	1	805	0.128	1	805	0.161	1	805	0.289	
11:00 - 12:00	1	805	0.171	1	805	0.201	1	805	0.372	
12:00 - 13:00	1	805	0.169	1	805	0.204	1	805	0.373	
13:00 - 14:00	1	805	0.195	1	805	0.199	1	805	0.394	
14:00 - 15:00	1	805	0.175	1	805	0.241	1	805	0.416	
15:00 - 16:00	1	805	0.432	1	805	0.200	1	805	0.632	
16:00 - 17:00	1	805	0.366	1	805	0.212	1	805	0.578	
17:00 - 18:00	1	805	0.467	1	805	0.235	1	805	0.702	
18:00 - 19:00	1	805	0.462	1	805	0.229	1	805	0.691	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00				Ü						
Total Rates:			3.055			3.274			6.329	

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.

Wednesday 06/06/18 Page 15

Ardent Consulting Engineers Suite 207, One Ali

Suite 207, One Alie Street London E1 8DE

Licence No: 437201

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

### **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

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		1	DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00	10			1550			20			
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00										
05:00 - 06:00										
06:00 - 07:00					ji .	i				
07:00 - 08:00	1	805	0.015	1	805	0.024	1	805	0.039	
08:00 - 09:00	1	805	0.019	1	805	0.166	1	805	0.185	
09:00 - 10:00	1	805	0.045	1	805	0.045	1	805	0.090	
10:00 - 11:00	1	805	0.032	1	805	0.037	1	805	0.069	
11:00 - 12:00	1	805	0.036	1	805	0.025	1	805	0.061	
12:00 - 13:00	1	805	0.034	1	805	0.039	1	805	0.073	
13:00 - 14:00	1	805	0.035	1	805	0.022	1	805	0.057	
14:00 - 15:00	1	805	0.030	1	805	0.046	1	805	0.076	
15:00 - 16:00	1	805	0.189	1	805	0.051	1	805	0.240	
16:00 - 17:00	1	805	0.077	1	805	0.041	1	805	0.118	
17:00 - 18:00	1	805	0.067	1	805	0.058	1	805	0.125	
18:00 - 19:00	1	805	0.045	1	805	0.027	1	805	0.072	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00						The state of the s				
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.624		-	0.581		· · · · · · · · · · · · · · · · · · ·	1.205	

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.

Wednesday 06/06/18 Page 17

Ardent Consulting Engineers Sui

Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

### **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Page 18

Ardent Consulting Engineers Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

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			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00	10			- View [			950			
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00				7	i i					
05:00 - 06:00										
06:00 - 07:00										
07:00 - 08:00	1	805	0.001	1	805	0.009	1	805	0.010	
08:00 - 09:00	1	805	0.000	1	805	0.010	1	805	0.010	
09:00 - 10:00	1	805	0.000	1	805	0.010	1	805	0.010	
10:00 - 11:00	1	805	0.002	1	805	0.004	1	805	0.006	
11:00 - 12:00	1	805	0.000	1	805	0.005	1	805	0.005	
12:00 - 13:00	1	805	0.001	1	805	0.001	1	805	0.002	
13:00 - 14:00	1	805	0.010	1	805	0.002	1	805	0.012	
14:00 - 15:00	1	805	0.004	1	805	0.001	1	805	0.005	
15:00 - 16:00	1	805	0.011	1	805	0.002	1	805	0.013	
16:00 - 17:00	1	805	0.006	1	805	0.005	1	805	0.011	
17:00 - 18:00	1	805	0.017	1	805	0.000	1	805	0.017	
18:00 - 19:00	1	805	0.001	1	805	0.000	1	805	0.001	
19:00 - 20:00										
20:00 - 21:00				)						
21:00 - 22:00						i i				
22:00 - 23:00										
23:00 - 24:00										
Total Rates:		19	0.053			0.049			0.102	

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.

Wednesday 06/06/18 Page 19

Licence No: 437201

Ardent Consulting Engineers Suit

Suite 207, One Alie Street

London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

### **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Ardent Consulting Engineers Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

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		1	DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00	10			939			300		
01:00 - 02:00									
02:00 - 03:00				. 0					
03:00 - 04:00									
04:00 - 05:00			i i	0	i i				
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	805	0.000	1	805	0.000	1	805	0.000
08:00 - 09:00	1	805	0.000	1	805	0.000	1	805	0.000
09:00 - 10:00	1	805	0.000	1	805	0.000	1	805	0.000
10:00 - 11:00	1	805	0.000	1	805	0.000	1	805	0.000
11:00 - 12:00	1	805	0.000	1	805	0.000	1	805	0.000
12:00 - 13:00	1	805	0.000	1	805	0.000	1	805	0.000
13:00 - 14:00	1	805	0.000	1	805	0.000	1	805	0.000
14:00 - 15:00	1	805	0.000	1	805	0.000	1	805	0.000
15:00 - 16:00	1	805	0.000	1	805	0.000	1	805	0.000
16:00 - 17:00	1	805	0.000	1	805	0.000	1	805	0.000
17:00 - 18:00	1	805	0.000	1	805	0.000	1	805	0.000
18:00 - 19:00	1	805	0.000	1	805	0.000	1	805	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00						Ţ.			
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000		-	0.000		· · · · · · · · · · · · · · · · · · ·	0.000

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.

Wednesday 06/06/18 Page 21

Licence No: 437201

Ardent Consulting Engineers Suite 2

Suite 207, One Alie Street

London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

### **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**MULTI-MODAL COACH 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	Days	DVVLLLS	Nace	Days	DWLLLS	Nace	Days	DVVLLLS	Nace	
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00				-						
05:00 - 06:00										
06:00 - 07:00				1						
07:00 - 08:00	1	805	0.000	1	805	0.001	1	805	0.001	
08:00 - 09:00	1	805	0.000	1	805	0.001	1	805	0.001	
09:00 - 10:00	1	805	0.000	1	805	0.000	1	805	0.000	
10:00 - 11:00	1	805	0.000	1	805	0.000	1	805	0.000	
11:00 - 12:00	1	805	0.000	1	805	0.000	1	805	0.000	
12:00 - 13:00	1	805	0.000	1	805	0.000	1	805	0.000	
13:00 - 14:00	1	805	0.000	1	805	0.000	1	805	0.000	
14:00 - 15:00	1	805	0.000	1	805	0.000	1	805	0.000	
15:00 - 16:00	1	805	0.002	1	805	0.000	1	805	0.002	
16:00 - 17:00	1	805	0.001	1	805	0.000	1	805	0.001	
17:00 - 18:00	1	805	0.000	1	805	0.000	1	805	0.000	
18:00 - 19:00	1	805	0.000	1	805	0.000	1	805	0.000	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.003			0.002			0.005	

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.

Wednesday 06/06/18 Page 23

Licence No: 437201

Ardent Consulting Engineers Suite

Suite 207, One Alie Street

London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

### **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

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		1	DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00	7.0			727		Ī	200			
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00					i i					
05:00 - 06:00										
06:00 - 07:00										
07:00 - 08:00	1	805	0.001	1	805	0.010	1	805	0.01	
08:00 - 09:00	1	805	0.000	1	805	0.011	1	805	0.01	
09:00 - 10:00	1	805	0.000	1	805	0.010	1	805	0.01	
10:00 - 11:00	1	805	0.002	1	805	0.004	1	805	0.00	
11:00 - 12:00	1	805	0.000	1	805	0.005	1	805	0.00	
12:00 - 13:00	1	805	0.001	1	805	0.001	1	805	0.00	
13:00 - 14:00	1	805	0.010	1	805	0.002	1	805	0.01	
14:00 - 15:00	1	805	0.004	1	805	0.001	1	805	0.00	
15:00 - 16:00	1	805	0.014	1	805	0.002	1	805	0.010	
16:00 - 17:00	1	805	0.007	1	805	0.005	1	805	0.01	
17:00 - 18:00	1	805	0.017	1	805	0.000	1	805	0.017	
18:00 - 19:00	1	805	0.001	1	805	0.000	1	805	0.00	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00						i i				
22:00 - 23:00										
23:00 - 24:00				Ü						
Total Rates:			0.057			0.051			0.108	

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.

Wednesday 06/06/18 Page 25

Licence No: 437201

Ardent Consulting Engineers

Suite 207, One Alie Street

London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

### **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

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

		ARRIVALS		-	DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00	W			. 7500			201			
01:00 - 02:00										
02:00 - 03:00				i i						
03:00 - 04:00										
04:00 - 05:00				i i						
05:00 - 06:00										
06:00 - 07:00					i i					
07:00 - 08:00	1	805	0.143	1	805	0.493	1	805	0.636	
08:00 - 09:00	1	805	0.202	1	805	0.904	1	805	1.106	
09:00 - 10:00	1	805	0.231	1	805	0.277	1	805	0.508	
10:00 - 11:00	1	805	0.163	1	805	0.202	1	805	0.365	
11:00 - 12:00	1	805	0.210	1	805	0.234	1	805	0.444	
12:00 - 13:00	1	805	0.204	1	805	0.247	1	805	0.451	
13:00 - 14:00	1	805	0.243	1	805	0.232	1	805	0.475	
14:00 - 15:00	1	805	0.210	1	805	0.289	1	805	0.499	
15:00 - 16:00	1	805	0.639	1	805	0.258	1	805	0.897	
16:00 - 17:00	1	805	0.463	1	805	0.273	1	805	0.736	
17:00 - 18:00	1	805	0.568	1	805	0.311	1	805	0.879	
18:00 - 19:00	1	805	0.517	1	805	0.261	1	805	0.778	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			3.793			3.981			7.774	

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.

Wednesday 06/06/18 Page 27

Licence No: 437201

Ardent Consulting Engineers Suit

Suite 207, One Alie Street

London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

### **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

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	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00	10			13500			300		
01:00 - 02:00									
02:00 - 03:00				Ü					
03:00 - 04:00									
04:00 - 05:00			i i	0	i i				
05:00 - 06:00									
06:00 - 07:00					i i				
07:00 - 08:00	1	805	0.071	1	805	0.334	1	805	0.405
08:00 - 09:00	1	805	0.137	1	805	0.430	1	805	0.567
09:00 - 10:00	1	805	0.139	1	805	0.165	1	805	0.304
10:00 - 11:00	1	805	0.099	1	805	0.117	1	805	0.216
11:00 - 12:00	1	805	0.122	1	805	0.134	1	805	0.256
12:00 - 13:00	1	805	0.127	1	805	0.133	1	805	0.260
13:00 - 14:00	1	805	0.132	1	805	0.137	1	805	0.269
14:00 - 15:00	1	805	0.120	1	805	0.152	1	805	0.272
15:00 - 16:00	1	805	0.235	1	805	0.143	1	805	0.378
16:00 - 17:00	1	805	0.247	1	805	0.147	1	805	0.394
17:00 - 18:00	1	805	0.339	1	805	0.158	1	805	0.497
18:00 - 19:00	1	805	0.375	1	805	0.176	1	805	0.551
19:00 - 20:00									
20:00 - 21:00				)					
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		191	2.143			2.226		·	4.369

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.

Wednesday 06/06/18 Page 29

Licence No: 437201

Ardent Consulting Engineers

Suite 207, One Alie Street

London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

# **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE Licence No: 437201

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		į.	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	1	805	0.025	1	805	0.025	1	805	0.05	
08:00 - 09:00	1	805	0.025	1	805	0.025	1	805	0.05	
09:00 - 10:00	1	805	0.029	1	805	0.021	1	805	0.05	
10:00 - 11:00	1	805	0.016	1	805	0.025	1	805	0.04	
11:00 - 12:00	1	805	0.029	1	805	0.030	1	805	0.05	
12:00 - 13:00	1	805	0.020	1	805	0.026	1	805	0.04	
13:00 - 14:00	1	805	0.027	1	805	0.032	1	805	0.05	
14:00 - 15:00	1	805	0.021	1	805	0.039	1	805	0.06	
15:00 - 16:00	1	805	0.027	1	805	0.025	1	805	0.05	
16:00 - 17:00	1	805	0.019	1	805	0.012	1	805	0.03	
17:00 - 18:00	1	805	0.022	1	805	0.009	1	805	0.03	
18:00 - 19:00	1	805	0.015	1	805	0.007	1	805	0.02	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00						ĵ				
22:00 - 23:00										
23:00 - 24:00				Ü		The state of the s				
Total Rates:			0.275			0.276			0.55	

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.

Wednesday 06/06/18 Page 31

Licence No: 437201

Ardent Consulting Engineers Suit

Suite 207, One Alie Street

London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

# **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Page 32

Ardent Consulting Engineers

Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

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			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00	10			1,520			20			
01:00 - 02:00										
02:00 - 03:00				i i						
03:00 - 04:00										
04:00 - 05:00										
05:00 - 06:00										
06:00 - 07:00					ii .	i				
07:00 - 08:00	1	805	0.000	1	805	0.006	1	805	0.006	
08:00 - 09:00	1	805	0.000	1	805	0.004	1	805	0.004	
09:00 - 10:00	1	805	0.000	1	805	0.000	1	805	0.000	
10:00 - 11:00	1	805	0.000	1	805	0.000	1	805	0.000	
11:00 - 12:00	1	805	0.000	1	805	0.000	1	805	0.000	
12:00 - 13:00	1	805	0.001	1	805	0.000	1	805	0.001	
13:00 - 14:00	1	805	0.000	1	805	0.000	1	805	0.000	
14:00 - 15:00	1	805	0.001	1	805	0.000	1	805	0.001	
15:00 - 16:00	1	805	0.000	1	805	0.000	1	805	0.000	
16:00 - 17:00	1	805	0.002	1	805	0.000	1	805	0.002	
17:00 - 18:00	1	805	0.002	1	805	0.000	1	805	0.002	
18:00 - 19:00	1	805	0.001	1	805	0.001	1	805	0.002	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:		1	0.007			0.011		· · · · · · · · · · · · · · · · · · ·	0.018	

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.

Wednesday 06/06/18 Page 33

Licence No: 437201

Ardent Consulting Engineers Suite 207, One Alie

Suite 207, One Alie Street London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

# **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

and other proprietary notices, and any disclaimer contained thereon.

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Ardent Consulting Engineers

Suite 207, One Alie Street London E1 8DE

Licence No: 437201

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**MULTI-MODAL Underground Passengers** 

Calculation factor: 1 DWELLS

**BOLD** print indicates peak (busiest) period

		ARRIVALS		1	DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00	10			939			300			
01:00 - 02:00										
02:00 - 03:00				. 0						
03:00 - 04:00										
04:00 - 05:00			i i	0	i i					
05:00 - 06:00										
06:00 - 07:00										
07:00 - 08:00	1	805	0.000	1	805	0.000	1	805	0.000	
08:00 - 09:00	1	805	0.000	1	805	0.000	1	805	0.000	
09:00 - 10:00	1	805	0.000	1	805	0.000	1	805	0.000	
10:00 - 11:00	1	805	0.000	1	805	0.000	1	805	0.000	
11:00 - 12:00	1	805	0.000	1	805	0.000	1	805	0.000	
12:00 - 13:00	1	805	0.000	1	805	0.000	1	805	0.000	
13:00 - 14:00	1	805	0.000	1	805	0.000	1	805	0.000	
14:00 - 15:00	1	805	0.000	1	805	0.000	1	805	0.000	
15:00 - 16:00	1	805	0.000	1	805	0.000	1	805	0.000	
16:00 - 17:00	1	805	0.000	1	805	0.000	1	805	0.000	
17:00 - 18:00	1	805	0.000	1	805	0.000	1	805	0.000	
18:00 - 19:00	1	805	0.000	1	805	0.000	1	805	0.000	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00						Ţ.				
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.000		-	0.000		· · · · · · · · · · · · · · · · · · ·	0.000	

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.

Wednesday 06/06/18 Page 35

Licence No: 437201

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

# **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17
Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0

Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Ardent Consulting Engineers

Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL DLR Passengers Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS			Į.	DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00	10			13549			20			
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00			j	0						
05:00 - 06:00										
06:00 - 07:00						i				
07:00 - 08:00	1	805	0.000	1	805	0.000	1	805	0.000	
08:00 - 09:00	1	805	0.000	1	805	0.000	1	805	0.000	
09:00 - 10:00	1	805	0.000	1	805	0.000	1	805	0.000	
10:00 - 11:00	1	805	0.000	1	805	0.000	1	805	0.000	
11:00 - 12:00	1	805	0.000	1	805	0.000	1	805	0.000	
12:00 - 13:00	1	805	0.000	1	805	0.000	1	805	0.000	
13:00 - 14:00	1	805	0.000	1	805	0.000	1	805	0.000	
14:00 - 15:00	1	805	0.000	1	805	0.000	1	805	0.000	
15:00 - 16:00	1	805	0.000	1	805	0.000	1	805	0.000	
16:00 - 17:00	1	805	0.000	1	805	0.000	1	805	0.000	
17:00 - 18:00	1	805	0.000	1	805	0.000	1	805	0.000	
18:00 - 19:00	1	805	0.000	1	805	0.000	1	805	0.000	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.000		•	0.000		·	0.000	

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.

Wednesday 06/06/18 Page 37

Licence No: 437201

Ardent Consulting Engineers

Suite 207, One Alie Street

and other proprietary notices, and any disclaimer contained thereon.

London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

# **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE

Licence No: 437201

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**MULTI-MODAL Overground Passengers** 

Calculation factor: 1 DWELLS

**BOLD** print indicates peak (busiest) period

		ARRIVALS		1	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	- 1									
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	1	805	0.000	1	805	0.000	1	805	0.00	
08:00 - 09:00	1	805	0.000	1	805	0.000	1	805	0.00	
09:00 - 10:00	1	805	0.000	1	805	0.000	1	805	0.00	
10:00 - 11:00	1	805	0.000	1	805	0.000	1	805	0.00	
11:00 - 12:00	1	805	0.000	1	805	0.000	1	805	0.00	
12:00 - 13:00	1	805	0.000	1	805	0.000	1	805	0.00	
13:00 - 14:00	1	805	0.000	1	805	0.000	1	805	0.00	
14:00 - 15:00	1	805	0.000	1	805	0.000	1	805	0.00	
15:00 - 16:00	1	805	0.000	1	805	0.000	1	805	0.00	
16:00 - 17:00	1	805	0.000	1	805	0.000	1	805	0.00	
17:00 - 18:00	1	805	0.000	1	805	0.000	1	805	0.00	
18:00 - 19:00	1	805	0.000	1	805	0.000	1	805	0.00	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00						Ţ.				
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.000			0.000			0.00	

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.

Wednesday 06/06/18 Page 39

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE

Licence No: 437201

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

# **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17
Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0

Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE

Licence No: 437201

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**MULTI-MODAL National Rail Passengers** 

Calculation factor: 1 DWELLS

**BOLD** print indicates peak (busiest) period

		ARRIVALS		1	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	1	805	0.000	1	805	0.000	1	805	0.00	
08:00 - 09:00	1	805	0.000	1	805	0.000	1	805	0.00	
09:00 - 10:00	1	805	0.000	1	805	0.000	1	805	0.00	
10:00 - 11:00	1	805	0.000	1	805	0.000	1	805	0.00	
11:00 - 12:00	1	805	0.000	1	805	0.000	1	805	0.00	
12:00 - 13:00	1	805	0.000	1	805	0.000	1	805	0.00	
13:00 - 14:00	1	805	0.000	1	805	0.000	1	805	0.00	
14:00 - 15:00	1	805	0.000	1	805	0.000	1	805	0.00	
15:00 - 16:00	1	805	0.000	1	805	0.000	1	805	0.00	
16:00 - 17:00	1	805	0.000	1	805	0.000	1	805	0.00	
17:00 - 18:00	1	805	0.000	1	805	0.000	1	805	0.00	
18:00 - 19:00	1	805	0.000	1	805	0.000	1	805	0.00	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00						Ţ.				
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.000			0.000			0.00	

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.

Wednesday 06/06/18 Page 41

Licence No: 437201

Ardent Consulting Engineers

Suite 207, One Alie Street

London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

# **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: ) Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Ardent Consulting Engineers

Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL Bus Passengers Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS			Į.	DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00	10			13549			20			
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00			j	0						
05:00 - 06:00										
06:00 - 07:00					ji .	i				
07:00 - 08:00	1	805	0.000	1	805	0.000	1	805	0.000	
08:00 - 09:00	1	805	0.000	1	805	0.000	1	805	0.000	
09:00 - 10:00	1	805	0.000	1	805	0.000	1	805	0.000	
10:00 - 11:00	1	805	0.000	1	805	0.000	1	805	0.000	
11:00 - 12:00	1	805	0.000	1	805	0.000	1	805	0.000	
12:00 - 13:00	1	805	0.000	1	805	0.000	1	805	0.000	
13:00 - 14:00	1	805	0.000	1	805	0.000	1	805	0.000	
14:00 - 15:00	1	805	0.000	1	805	0.000	1	805	0.000	
15:00 - 16:00	1	805	0.000	1	805	0.000	1	805	0.000	
16:00 - 17:00	1	805	0.000	1	805	0.000	1	805	0.000	
17:00 - 18:00	1	805	0.000	1	805	0.000	1	805	0.000	
18:00 - 19:00	1	805	0.000	1	805	0.000	1	805	0.000	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.000		•	0.000		·	0.000	

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.

Wednesday 06/06/18 Page 43

Licence No: 437201

Ardent Consulting Engineers Suite 207, One Alie

Suite 207, One Alie Street London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

# **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: ) Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Ardent Consulting Engineers

Suite 207, One Alie Street

London E1 8DE

Licence No: 437201

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL 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	Days	DVVLLLS	Nace	Days	DWLLLS	Nace	Days	DVVLLLS	Nace	
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	1	805	0.000	1	805	0.000	1	805	0.00	
08:00 - 09:00	1	805	0.000	1	805	0.000	1	805	0.00	
09:00 - 10:00	1	805	0.000	1	805	0.000	1	805	0.00	
10:00 - 11:00	1	805	0.000	1	805	0.000	1	805	0.00	
11:00 - 12:00	1	805	0.000	1	805	0.000	1	805	0.00	
12:00 - 13:00	1	805	0.000	1	805	0.000	1	805	0.00	
13:00 - 14:00	1	805	0.000	1	805	0.000	1	805	0.00	
14:00 - 15:00	1	805	0.000	1	805	0.000	1	805	0.00	
15:00 - 16:00	1	805	0.000	1	805	0.000	1	805	0.00	
16:00 - 17:00	1	805	0.000	1	805	0.000	1	805	0.00	
17:00 - 18:00	1	805	0.000	1	805	0.000	1	805	0.00	
18:00 - 19:00	1	805	0.000	1	805	0.000	1	805	0.00	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.000			0.000			0.00	

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.

Wednesday 06/06/18 Page 45

Licence No: 437201

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

# **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17
Number of weekdays (Monday-Friday): 1

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Ardent Consulting Engineers Suite 207, One Alie Street London E1 8DE

Licence No: 437201

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**MULTI-MODAL Water Service Passengers** 

Calculation factor: 1 DWELLS

**BOLD** print indicates peak (busiest) period

		ARRIVALS		1	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	1	805	0.000	1	805	0.000	1	805	0.00	
08:00 - 09:00	1	805	0.000	1	805	0.000	1	805	0.00	
09:00 - 10:00	1	805	0.000	1	805	0.000	1	805	0.00	
10:00 - 11:00	1	805	0.000	1	805	0.000	1	805	0.00	
11:00 - 12:00	1	805	0.000	1	805	0.000	1	805	0.00	
12:00 - 13:00	1	805	0.000	1	805	0.000	1	805	0.00	
13:00 - 14:00	1	805	0.000	1	805	0.000	1	805	0.00	
14:00 - 15:00	1	805	0.000	1	805	0.000	1	805	0.00	
15:00 - 16:00	1	805	0.000	1	805	0.000	1	805	0.00	
16:00 - 17:00	1	805	0.000	1	805	0.000	1	805	0.00	
17:00 - 18:00	1	805	0.000	1	805	0.000	1	805	0.00	
18:00 - 19:00	1	805	0.000	1	805	0.000	1	805	0.00	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00						Ţ.				
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.000			0.000			0.00	

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.

Wednesday 06/06/18 Page 47

Licence No: 437201

Ardent Consulting Engineers

Suite 207, One Alie Street

and other proprietary notices, and any disclaimer contained thereon.

London E1 8DE

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

# **Parameter summary**

Trip rate parameter range selected: 805 - 805 (units: )
Survey date date range: 01/01/10 - 27/09/17

Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 11

Appendix C Census Travel Data

#### QS701EW - Method of travel to work

ONS Crown Copyright Reserved [from Nomis on 6 June 2018]

population All usual residents aged 16 to 74

units Persons

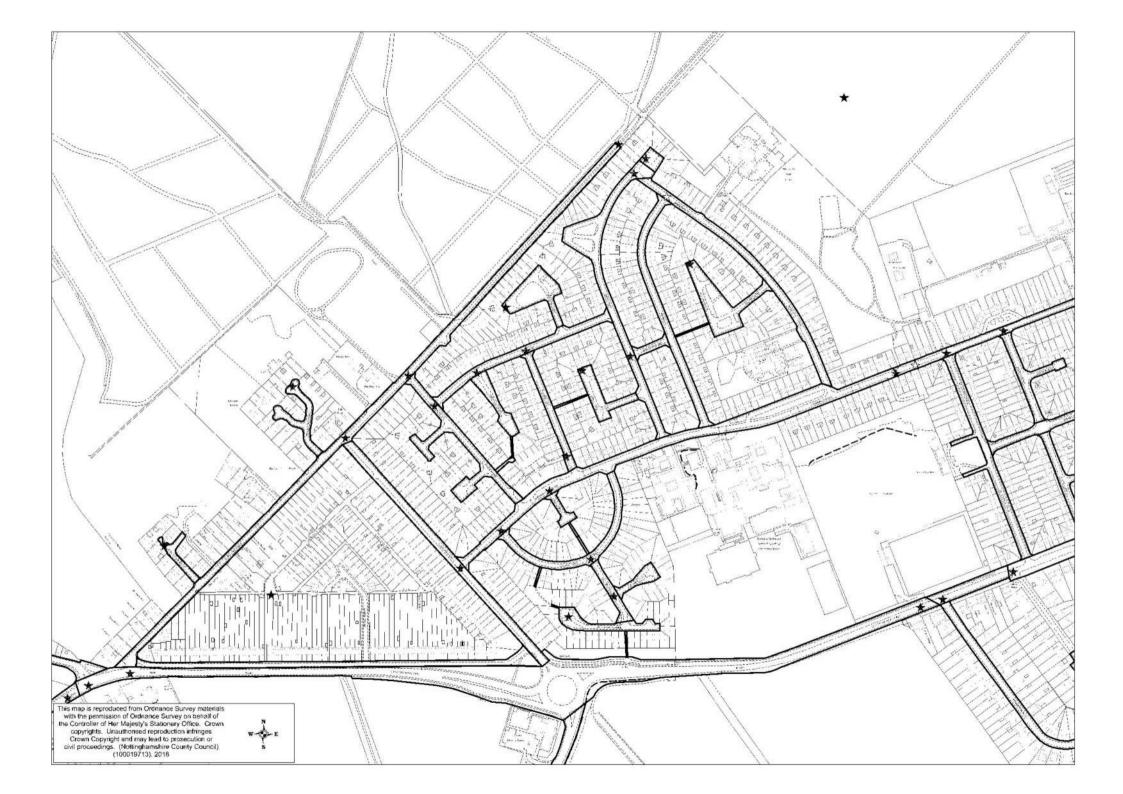
area type 2011 super output areas - middle layer area name E02005894 : Newark and Sherwood 002

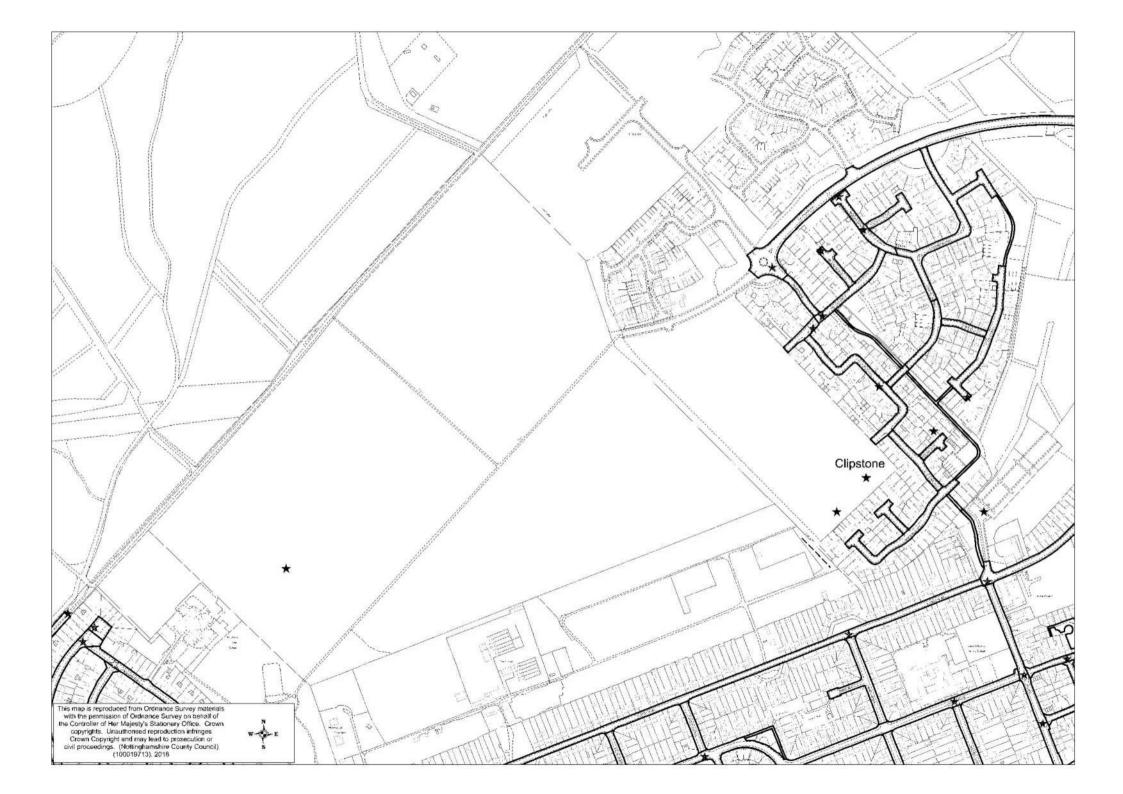
rural urban Total 800 UNITS

Method of Travel to Work	2011		AM ARR	AM DEP	AM TOTAL	PM ARR	M DEP P	M TOTAL			
Underground, metro, light rail,	4	0.1%	0	1	1	0	0	1	3	3	6
Train	20	0.5%	1	3	4	2	1	3	14	15	28
Bus, minibus or coach	209	4.8%	8	34	42	22	12	34	145	152	297
Taxi	17	0.4%	1	3	3	2	1	3	12	12	24
Motorcycle, scooter or moped	36	0.8%	1	6	7	4	2	6	25	26	51
Driving a car or van	3,430	78.3%	127	566	693	356	195	551	2376	2494	4870
Passenger in a car or van	292	6.7%	11	48	59	30	17	47	202	212	415
Bicycle	46	1.1%	2	8	9	5	3	7	32	33	65
On foot	305	7.0%	11	50	62	32	17	49	211	222	433
Other method of travel to work	21	0.5%	1	3	4	2	1	3	15	15	30
	4,380	100.0%	162	723	885	454	249	703	3034	3185	6219

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

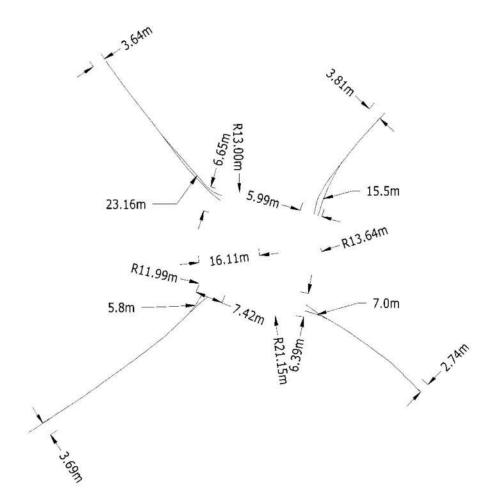
Appendix D NCC's Highway Land Boundary Plan

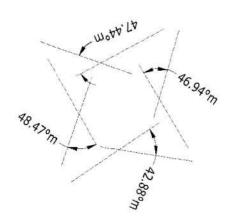




Appendix E
ARCADY Output Data







DRAFT

Rev Description Drn Chk App Date

# **ARDENT**

Suite 207 One Alie Street London El BDE

SSIP SERVICES SAME AS A SAME A SAME AS A SAME A

**CAVENDISH PARK 2017** 

CLIPSTONE DRIVE, CLIPSTONE

CAVENDISH WAY ROUNDABOUT
- ARCADY MEASUREMENTS

A3 Scale 09.05.18 1:1000 181710-SK01

Reproduced from/based upon Ordinance Survey material with the permission of the Controller of Her Majesty's Stationary Office, Crown Copyright Reserved, License No. 100020449



# **Junctions 9**

# **ARCADY 9 - Roundabout Module**

Version: 9.5.0.6896 © Copyright TRL Limited, 2018

For sales and distribution information, program advice and maintenance, contact TRL:

www.trlsoftware.co.uk

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Cavendish Way\_Ward Road Roundabout.j9

Path: Y:\ARDENT PROJECTS\181710 - Clipstone Drive, Clipstone\Transport\ARCADY

Report generation date: 25/04/2019 10:37:33

»EXISTING LAYOUT - Baseline Flows, AM

»EXISTING LAYOUT - Baseline Flows, PM

»EXISTING LAYOUT - Proposed + Baseline Flows, AM

»EXISTING LAYOUT - Proposed + Baseline Flows, PM

#### Summary of junction performance

			3	AM		PM						
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity		
					EXISTING LAYOUT	「 - Baseline I	Flows					
Arm 1	0.1	2.50	0.11	Α		0.3	2.88	0.22	Α	8		
Arm 2	0.1	3.28	0.09	Α	405 %	0.0	3.32	0.04	Α	327 %		
Arm 3	0.0	2.78	0.03	Α	[Arm 4]	0.0	2.80	0.01	Α	[Arm 1]		
Arm 4	0.2	2.55	0.14	Α		0.1	2.28	0.07	Α	(A)		
					EXISTING LAYOUT - Pro	posed + Bas	eline Flo	ws				
Arm 1	0.2	2.77	0.19	Α		0.9	4.21	0.47	Α			
Arm 2	0.1	3.55	0.10	Α	72 %	0.1	4.23	0.06	Α	103 %		
Arm 3	1.0	5.42	0.50	Α	[Arm 3]	0.2	3.37	0.18	Α	[Arm 1]		
Arm 4	0.2	3.64	0.19	Α	1500006.35	0.1	2.51	0.07	Α			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

#### File summary

#### File Description

Title	
Location	
Site number	
Date	25/04/2019
Version	
Status	(new file)
Identifier	
Client	
Johnumber	
Enumerator	ARDENTCE\ntransport
Description	



# Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	5	-Min	perMin

# **Analysis Options**

Vehicle	Calculate Queue	Calculate detailed	Calculate residual capacity	Residual capacity	RFC	Average Delay	Queue threshold
length (m)	Percentiles	queueing delay		criteria type	Threshold	threshold (s)	(PCU)
5.75			✓	Delay	0.85	36.00	20.00

# **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D2	Baseline Flows	PM	ONE HOUR	16:45	18:15	15	✓
D3	Proposed + Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	Proposed + Baseline Flows	PM	ONE HOUR	16:45	18,15	15	✓

# **Analysis Set Details**

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	EXISTING LAYOUT	<b>✓</b>	100.000	100.000

2



# **EXISTING LAYOUT - Baseline Flows, AM**

# **Data Errors and Warnings**

Severity	verity Area Item		Description			
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.			

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	2.70	A

# **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	405	Arm 4

# Arms

#### Arms

Arm	Name	Description
1	CAVENDISH WAY	
2	WARD ROAD	
3	SITE ACCESS	
4	NIGHTINGALE ROAD	

# **Roundabout Geometry**

Am	V - Approach road half- width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.81	5.99	15.5	13.6	16.1	23.5	
2	2.74	6.39	7.0	21.2	16.1	21.4	
3	3.69	7.42	5.8	12.0	16.1	24.2	
4	3.64	6.65	23.2	13.0	16.1	23.7	

# Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Am	Final slope	Final intercept (PCU/hr)
1	0.647	1610
2	0.590	1285
3	0.614	1469
4	0.672	1739

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓



Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓ ·	✓ ·	HV Percentages	2.00

# Demand overview (Traffic)

Am	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	156	100.000
2		ONE HOUR	✓	103	100.000
3		ONE HOUR	✓	33	100.000
4		ONE HOUR	1	206	100.000

# **Origin-Destination Data**

# Demand (PCU/hr)

	То						
		1	2	3	4		
	1	0	41	13	102		
From	2	103	0	0	0		
	3	33	0	0	0		
	4	206	0	0	0		

# **Vehicle Mix**

# **Heavy Vehicle Percentages**

	То						
		1	2	3	4		
	1	0	0	0	0		
From	2	0	0	0	0		
	3	0	0	0	0		
	4	0	0	0	0		

# Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.11	2.50	0.1	Α	143	215
2	0.09	3.28	0.1	Α	95	142
3	0.03	2.78	0.0	Α	30	45
4	0.14	2.55	0.2	А	189	284

# Main Results for each time segment

# 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	117	29	0	1610	0.073	117	257	0.0	0.1	2.411	Α
2	78	19	86	1234	0.063	77	31	0.0	0.1	3.112	A
3	25	6	154	1374	0.018	25	10	0.0	0.0	2.667	Α
4	155	39	102	1671	0.093	155	77	0.0	0.1	2.375	Α



# 08:00 - 08:15

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	140	35	0	1610	0.087	140	307	0.1	0.1	2.449	A
2	93	23	103	1224	0.076	93	37	0.1	0.1	3.181	Α
3	30	7	184	1356	0.022	30	12	0.0	0.0	2.714	Α
4	185	46	122	1657	0.112	185	92	0.1	0.1	2.445	А

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	172	43	0	1610	0.107	172	376	0.1	0.1	2.503	Α
2	113	28	127	1210	0.094	113	45	0.1	0.1	3.281	А
3	36	9	226	1330	0.027	36	14	0.0	0.0	2.781	Α
4	227	57	150	1639	0.138	227	112	0.1	0.2	2.549	Α

# 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	172	43	0	1610	0.107	172	377	0.1	0.1	2.503	Α
2	113	28	127	1210	0.094	113	45	0.1	0.1	3.281	Α
3	36	9	226	1330	0.027	36	14	0.0	0.0	2.781	Α
4	227	57	150	1638	0.138	227	112	0.2	0.2	2.549	Α

# 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	140	35	0	1610	0.087	140	308	0.1	0.1	2.449	A
2	93	23	103	1224	0.076	93	37	0.1	0.1	3.184	А
3	30	7	184	1356	0.022	30	12	0.0	0.0	2.714	A
4	185	46	122	1657	0.112	185	92	0.2	0.1	2.446	Α

# 09:00 - 09:15

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	117	29	0	1610	0.073	118	258	0.1	0.1	2.414	A
2	78	19	87	1234	0.063	78	31	0.1	0.1	3.115	Α
3	25	6	154	1374	0.018	25	10	0.0	0.0	2.669	Α
4	155	39	102	1670	0.093	155	77	0.1	0.1	2.375	Α

5



# **EXISTING LAYOUT - Baseline Flows, PM**

#### **Data Errors and Warnings**

Severity	Area Item		Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

# **Junction Network**

#### **Junctions**

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	2.79	A

# **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	327	Arm 1

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Baseline Flows	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

# **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	<b>✓</b>	326	100.000
2		ONE HOUR	✓	46	100.000
3		ONE HOUR	<b>✓</b>	15	100.000
4		ONE HOUR	1	104	100.000

# **Origin-Destination Data**

#### Demand (PCU/hr)

			То		
		1	2	3	4
1	1	0	96	30	200
From	2	46	0	0	0
	3	15	0	0	0
1	4	104	0	0	0

# **Vehicle Mix**



# **Heavy Vehicle Percentages**

			To		
		1	2	3	4
	1	0	0	0	0
From	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

# Results

# Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.22	2.88	0.3	Α	299	449
2	0.04	3.32	0.0	Α	42	63
3	0.01	2.80	0.0	Α	14	21
4	0.07	2.28	0.1	Α	95	143

# Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	245	61	0	1610	0.152	245	124	0.0	0.2	2.636	Α
2	35	9	173	1183	0.029	35	72	0.0	0.0	3.133	Α
3	11	3	185	1355	0.008	11	23	0.0	0.0	2.677	Α
4	78	20	46	1708	0.046	78	150	0.0	0.0	2.208	A

# 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	293	73	0	1610	0.182	293	148	0.2	0.2	2.733	Α
2	41	10	207	1163	0.036	41	86	0.0	0.0	3.208	Α
3	13	3	221	1333	0.010	13	27	0.0	0.0	2.727	Α
4	93	23	55	1702	0.055	93	180	0.0	0.1	2.237	А

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	359	90	0	1610	0.223	359	182	0.2	0.3	2.877	Α
2	51	13	253	1136	0.045	51	106	0.0	0.0	3.317	Α
3	17	4	271	1303	0.013	17	33	0.0	0.0	2.798	Α
4	115	29	67	1694	0.068	114	220	0.1	0.1	2.278	Α

# 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	359	90	0	1610	0.223	359	182	0.3	0.3	2.877	Α
2	51	13	253	1136	0.045	51	106	0.0	0.0	3.317	Α
3	17	4	271	1303	0.013	17	33	0.0	0.0	2.798	Α
4	115	29	67	1694	0.068	115	220	0.1	0.1	2.278	Α



# 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	293	73	0	1610	0.182	293	148	0.3	0.2	2.736	Α
2	41	10	207	1163	0.036	41	86	0.0	0.0	3.211	Α
3	13	3	221	1333	0.010	13	27	0.0	0.0	2.727	Α
4	93	23	55	1702	0.055	94	180	0.1	0.1	2.237	Α

#### 18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	245	61	0	1610	0.152	246	124	0.2	0.2	2.640	Α
2	35	9	173	1183	0.029	35	72	0.0	0.0	3.137	Α
3	11	3	185	1355	800.0	11	23	0.0	0.0	2.678	Α
4	78	20	46	1708	0.046	78	151	0.1	0.0	2.208	A

8



# EXISTING LAYOUT - Proposed + Baseline Flows, AM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.33	Α

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold		
Left	Normal/unknown	72	Arm 3		

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Proposed + Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	
✓	✓	HV Percentages	2.00	

# Demand overview (Traffic)

Ann	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	<b>✓</b>	284	100.000
2		ONE HOUR	1	103	100.000
3		ONE HOUR	<b>✓</b>	605	100.000
4		ONE HOUR	/	206	100.000

# Origin-Destination Data

# Demand (PCU/hr)

		То									
		1	2	3	4						
	1	0	41	141	102						
From	2	103	0	0	0						
	3	605	0	0	0						
	4	206	0	0	0						

# **Vehicle Mix**



# **Heavy Vehicle Percentages**

		To							
		1	2	3	4				
	1	0	0	0	0				
From	2	0	0	0	0				
	3	0	0	0	0				
	4	0	0	0	0				

# Results

# Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.19	2.77	0.2	Α	261	391
2	0.10	3.55	0.1	Α	95	142
3	0.50	5.42	1.0	Α	555	833
4	0.19	3.64	0.2	Α	189	284

# Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	214	53	0	1610	0.133	213	685	0.0	0.2	2.576	Α
2	78	19	182	1177	0.066	77	31	0.0	0.1	3.272	Α
3	455	114	154	1374	0.331	454	106	0.0	0.5	3.902	Α
4	155	39	531	1382	0.112	155	77	0.0	0.1	2.930	A

# 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	255	64	0	1610	0.159	255	821	0.2	0.2	2.657	А
2	93	23	218	1156	0.080	93	37	0.1	0.1	3.384	А
3	544	136	184	1356	0.401	543	127	0.5	0.7	4.427	А
4	185	46	636	1312	0.141	185	92	0,1	0.2	3,195	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	313	78	0	1610	0.194	312	1005	0.2	0.2	2.774	Α
2	113	28	267	1127	0.101	113	45	0.1	0.1	3.550	Α
3	666	167	226	1330	0.501	665	155	0.7	1.0	5.398	Α
4	227	57	778	1216	0.187	227	112	0.2	0.2	3.638	Α

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	313	78	0	1610	0.194	313	1006	0.2	0.2	2.774	Α
2	113	28	268	1127	0.101	113	45	0.1	0.1	3.550	A
3	666	167	226	1330	0.501	666	155	1.0	1.0	5.420	Α
4	227	57	779	1215	0.187	227	112	0.2	0.2	3.642	Α



# 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	255	64	0	1610	0.159	256	823	0.2	0.2	2.660	Α
2	93	23	219	1156	0.080	93	37	0.1	0.1	3.387	Α
3	544	136	184	1356	0.401	545	127	1.0	0.7	4.448	Α
4	185	46	638	1310	0.141	185	92	0.2	0.2	3.203	Α

#### 09:00 - 09:15

Amı	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	214	53	0	1610	0.133	214	689	0.2	0.2	2.580	Α
2	78	19	183	1177	0.066	78	31	0.1	0.1	3.276	Α
3	455	114	154	1374	0.332	456	106	0.7	0.5	3.926	Α
4	155	39	534	1380	0.112	155	77	0.2	0.1	2.940	A

11



# **EXISTING LAYOUT - Proposed + Baseline Flows, PM**

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.87	Α

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	103	Arm 1

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Proposed + Baseline Flows	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

# **Demand overview (Traffic)**

Am	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	<b>V</b>	686	100.000
2		ONE HOUR	1	46	100.000
3		ONE HOUR	✓	212	100.000
4		ONE HOUR	<b>✓</b>	104	100.000

# Origin-Destination Data

# Demand (PCU/hr)

			То		
		1	2	3	4
	1	0	96	390	200
From	2	46	0	0	0
	3	212	0	0	0
	4	104	0	0	0

# **Vehicle Mix**



# Heavy Vehicle Percentages

			To		
		1	2	3	4
	1	0	0	0	0
From	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

# Results

# Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.47	4.21	0.9	Α	629	944
2	0.06	4.23	0.1	Α	42	63
3	0.18	3.37	0.2	Α	195	292
4	0.07	2.51	0.1	Α	95	143

# Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	516	129	0	1610	0.321	515	272	0.0	0.5	3.281	Α
2	35	9	443	1024	0.034	34	72	0.0	0.0	3.638	Α
3	160	40	185	1356	0.118	159	293	0.0	0.1	3.007	Α
4	78	20	194	1609	0.049	78	150	0.0	0.1	2.351	A

# 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	617	154	0	1610	0.383	616	325	0.5	0.6	3.621	Α
2	41	10	530	972	0.043	41	86	0.0	0.0	3.866	Α
3	191	48	221	1333	0.143	190	350	0.1	0.2	3.150	А
4	93	23	232	1583	0.059	93	180	0,1	0.1	2.416	А

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	755	189	0	1610	0.469	754	398	0.6	0.9	4.203	Α
2	51	13	649	902	0.056	51	106	0.0	0.1	4.227	Α
3	233	58	270	1303	0.179	233	429	0.2	0.2	3.365	Α
4	115	29	284	1548	0.074	114	220	0.1	0.1	2.510	Α

# 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	755	189	0	1610	0.469	755	399	0.9	0.9	4.213	Α
2	51	13	650	902	0.056	51	106	0.1	0.1	4.229	Α
3	233	58	271	1303	0.179	233	429	0.2	0.2	3.366	А
4	115	29	284	1548	0.074	115	220	0.1	0.1	2.510	Α



# 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	617	154	0	1610	0.383	618	326	0.9	0.6	3.634	A
2	41	10	531	972	0.043	41	86	0.1	0.0	3.870	Α
3	191	48	222	1333	0.143	191	351	0.2	0.2	3.152	Α
4	93	23	232	1583	0.059	94	180	0.1	0.1	2.416	Α

#### 18:00 - 18:15

Amı	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	516	129	0	1610	0.321	517	273	0.6	0.5	3.295	А
2	35	9	445	1023	0.034	35	72	0.0	0.0	3.643	Α
3	160	40	185	1355	0.118	160	294	0.2	0.1	3.011	A
4	78	20	194	1608	0.049	78	151	0.1	0.1	2.354	Α

14



LCR/Consultation/Group Strat 6<sup>th</sup> November 2023

ISSUED BY EMAIL ONLY

Dear Sir/Madam,

Consultation Response to Newark and Sherwood Second Publication Amended Allocations and Development Management DPD

RE: Land at Cavendish Way, Clipstone

I write in relation to the above consultation and following our previous comments submitted to the earlier versions of the proposed Allocations and Development Management DPD. For the avoidance of doubt, the previous comments remain of relevance (but not repeated) and a copy is attached for ease of reference.

Further comments are set out below:

# Clipstone (Pg 109)

The urban boundary for Clipstone should be amended to include the land at Cavendish Way, Clipstone as per the attached red line plan. This land is well related to the settlement and local facilities and services. It is also not technically constrained and is available, deliverable and achievable for development in the short term. Avant has a legal interest in the land which would ensure that development would be forthcoming upon allocation of the site and we would work with the Council to bring the site forward in phases if required. Previous representations have included further detailed information regarding the access into the site and this confirms that access is achievable and is not a constraint to development (attached again for ease of reference).

The current proposed Plan relies heavily on the delivery of Allocation Ref Cl/MU/1 to deliver 120 dwellings and 12 ha of employment provision. This site has been proposed for allocation for a number of years and it would seem reasonable for questions to be raised in relation to its likely delivery/viability in the short term. A first phase at Clipstone could easily contribute to the housing requirement in the short term and would undoubtedly deliver in advance of the Allocation Ref CL/MU/1.

Avant Homes Ltd, Avant House, 6 and 9 Tallys End, Barlborough, Chesterfield S43 4WP



GOOD. BETTER. DIFFERENT



Clipstone is identified as a sustainable settlement within the Plan and is well placed to accept further development at Cavendish Way –as a phased development site. Worst case, this site should be identified as safeguarded land in order to enable development to come forward if the deliver of Allocation Cl/MU/1 continues to be delayed.

#### Policy DM2: Development on Allocated Sites

It is noted that this policy has been amended to remove the reference to Developer Contributions and Planning Obligations SPD. This deletion is supported by Avant and allows appropriate evidence at the relevant time to be taken into account. However, the Council should identify what evidence is expected to be relied upon i.e, SHELAA, 5YLS etc. By stating which evidence is likely to be used, developers would know exactly which evidence to review and consider in terms of understanding development opportunities on new sites.

# Policy DM5a: The Design Process

Avant Homes consider that the changes to this policy are unsound and are not consistent with national policy. It is noted that the policy amendments include reference to the National Design Guide and locally adopted Design Codes and requires all new residential development to perform positively against Building for a Healthy Life.

Whilst Avant do seek to work in accordance with the Building for Healthy Life criteria, it is noted that this is not understood to be a 'standard' to be achieved, and aims to guide development as much as possible in terms of considering design and the creation of successful places. In that context, it is not considered appropriate to state that Developers should meet the standard of those objectives in Local Plan policy (when it is actually a voluntary position) —particularly, without setting out and understanding what would be specifically required as part of future development schemes.

# Policy DM7 Biodiversity and Green Infrastructure

Avant consider that this Policy is unsound by virtue of it being outdated when considered against latest national policy. Biodiversity Net Gain is currently an area of continuous movement and the current position is that the implementation date for Mandatory Biodiversity Net Gain has been put back from November 23 to January 24, and additional guidance is emerging and expected.

Clearly, Avant Homes recognise the importance of Biodiversity, Net Gain and Green Infrastructure. However, any requirements need to be proportionate, reasonable and not stifle development unnecessary and

Avant Homes Ltd, Avant House, 6 and 9 Tallys End, Barlborough, Chesterfield S43 4WP



GOOD. BETTER. DIFFERENT



timescales should be in line with those set by National Policy in order to avoid adding delays and complexity to an already slow planning system. Any policy requirement should therefore be set at a maximum of 10% BNG required for a maximum of 30 years, with each site being assessed independently and as part of a greater understanding of wider issues and package of each development site.

In summary, Avant consider the following points need further review from the Council prior to adopting the Local Plan in its proposed format:

- The land at Cavendish Way, Clipstone should be allocated for development in the short term. It is available, deliverable and achievable in terms of development and Avant have a legal interest in the land to ensure delivery of residential development in the immediate/short-term. From our preliminary investigations, the site does not have any technical constraints and is located in a sustainable and complementary position to the existing residential envelope.
- Design Policy DM5a is unnecessary restrictive;
- Affordable Housing (as per previous reps) remains in conflict with national policy; and,
- The policy position on Biodiversity needs updating and to be consistent with national policy.

I trust that the above is useful, but any further queries, please do not hesitate to contact me.

**Yours Sincerely** 

For and on behalf of Avant Homes

Lindsay Ramsden BSc (Hons) MRTPI Group Strategic Land Director

Enc Copy of September 2021 Submission Site Location Plan.

Avant Homes Ltd, Avant House, 6 and 9 Tallys End, Barlborough, Chesterfield S43 4WP

T: 01246 573700 avanthomes.co.uk

GOOD. BETTER.
DIFFERENT

