

Appendix 4.1

Scoping Report (January 2018)



READING METROPOLITAN

EIA SCOPING REPORT

**Request for Scoping Opinion under Town and Country Planning
(Environmental Impact Assessment) Regulations 2017**

On behalf of Hermes Investment Management.



January 2018

Our Ref: OXF10985

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GLOSSARY

ADF:	Average Daylight Factor
AOD:	Above ordnance datum
AQMA:	Air Quality Management Area
AVR:	Actual Visual Representation
BS:	British Standard
BSI:	British Standard Institution
EIA:	Environmental Impact Assessment
EPUK:	Environmental Protection UK
ES:	Environmental Statement
FRA:	Flood Risk Assessment
ha:	Hectare
HIA:	Health Impact Assessment
IAQM:	Institute of Air Quality Management
IEA:	Institute of Environmental Assessment
HEMA:	Institute of Environmental Management and Assessment
ILP:	Institution of Lighting Professionals
LAQM	Local Air Quality Management
NPPF:	National Planning Policy Framework
NPPG:	National Planning Policy Guidance
NSL:	No Sky Line
NSR:	Noise Sensitive Receptor
NTS:	Non-Technical Summary
OS:	Ordnance Survey
OPP:	Outline Planning Permission
RSAF:	Reading Station Area Framework
SFRA:	Strategic Flood Risk Assessment
SuDS:	Sustainable Drainage Systems

TVIA: Townscape and Visual Impact Assessment

VSC: Vertical Sky Component

VVMs: Visually verifiable montages

1 INTRODUCTION

- 1.1 This Scoping Report has been prepared by RPS on behalf of Hermes Investment Management (the applicant). It proposes the scope of environmental assessment for the proposed Reading Metropolitan development.
- 1.2 Environmental Impact Assessment (EIA) is the process of identifying and assessing the significant effects likely to arise from a proposed development. EIA is not required for all developments. In the case of the proposed Reading Metropolitan development, it is considered that EIA is required. Further details are provided at Chapter 3 of this report.
- 1.3 This report sets out the proposed scope of the Environmental Statement (the report of the EIA process), which will be prepared in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (S.I. 2017 No. 571) (referred to hereafter as the EIA Regulations). The Environmental Statement (ES) will accompany the planning application to be submitted to the local planning authority, Reading Borough Council.
- 1.4 The aim of this report is to provide information to Reading Borough Council to enable a Scoping Opinion to be made under Regulation 15 of the EIA Regulations. A letter to the Council requesting such an opinion accompanies this report.

Purpose of EIA

- 1.5 EIA is the process of identifying and assessing the significant effects likely to arise from a proposed development. This requires consideration of the likely changes to the environment where these arise as a consequence of the proposed development, through comparison with the existing and likely future baseline conditions in the absence of the proposed development.

Purpose of Scoping

- 1.6 The process of identifying the issues to consider within an ES (establishing the scope of the assessment) is known as scoping. Scoping is not a mandatory requirement under the EIA Regulations. However, it is recognised as a useful part of the assessment process which helps to identify the main effects that a project is likely to have on the environment.
- 1.7 The scoping of the EIA process by which these main or significant effects are identified is, therefore, an important preliminary procedure, which sets the context for the study. Through the scoping exercise, the key environmental issues are identified at an early stage, which permits subsequent work to concentrate on those environmental topics for which significant effects may arise as a result of a proposed development.

Purpose of this Scoping Report

- 1.8 This document sets out details of the proposed development at Reading Metropolitan; the proposed EIA methodology and the proposed scope of technical assessments utilising baseline technical work submitted with this report; and invites comments from Reading Borough Council and its consultees regarding the scope of works. The intention of this scoping exercise is to gain agreement from all key parties regarding the proposed methodology and scope of assessment.

1.10 This Scoping Report has been informed by the following:

- Draft Transport Assessment (TA);
- Daylight and sunlight assessment;
- Desk-top studies, site visits and surveys;
- Review of relevant websites, such as those provided by statutory consultees;
- Local planning policy;
- The EIA Regulations and EIA good practice guidance; and
- Experience of other similar developments.

Consultation

1.11 As part of the consultation process, the Applicant will engage with the local community in order to inform local people about the proposals, to explain the development and its likely effects and to take on board any concerns or issues. The ES will include a summary of the pre-application public consultation carried out.

2 THE SITE AND THE PROPOSED DEVELOPMENT

The Site and its Surroundings

- 2.1 The proposed Reading Metropolitan development is located in central Reading, a rapidly growing town in Berkshire with extensive retail and leisure facilities, and excellent transport links. The site was formerly a mail sorting centre (see Figure 1). The site totals approximately 2.2 hectares (ha) and is triangular in shape. The southern boundary abuts Reading Station, while the western boundary abuts Caversham Road and the north eastern boundary backs onto large retail units, restaurant facilities and a multi-storey car park.
- 2.2 The proposed development site currently comprises the former mail sorting centre, a three storey office building and ground level car parking. The site is being used by Network Rail for the duration of works to Reading Station, and will become available for redevelopment on completion of the station.
- 2.3 The closest properties are to the north and west of the site. To the north, these are located on the far side of Vastern Road approximately 105 metres from the site boundary, separated by large retail units and a main road. To the west, the residential area is again separated from the development site by Caversham Road and retail units. The distance from the western site boundary to the residential area is approximately 80 metres.

Project Description

- 2.4 At this time, the proposed development includes:
- Demolition of existing buildings;
 - Residential units, approximately 65,188 m² total floor space (gross external area);
 - Office areas, approximately 3,230 m² total floor space (gross external area);
 - Commercial units on lower levels, approximately 2,200 m² total floor space (gross external area);
 - Landscape planting;
 - Public open space; and
 - Underground parking, provision for 150 vehicles.
- 2.5 Figure 2 provides an illustrative design for the proposed development and Figure 3 shows a typical illustrative floorplan for the residential units.
- 2.6 A mix of housing types (affordable and market housing) would be provided including one bed, two bed and studio apartments. The development would comprise of eight mixed use tower blocks, ranging between five and 24 stories high (including ground floor). These would be arranged in a graduated manner, from lower blocks in the west to higher blocks in the east.
- 2.7 Vehicular access would be provided to the site via two entry points; the western access and the eastern access. The western access point would be a priority junction with Caversham Road

(A329), with the exit onto Caversham Road being for cyclists only, and entrance from Caversham Road being a left-in only access for vehicles. The eastern access would be via a signalised junction with Vastern Road via Trooper Potts Way. Pedestrian access would be provided via the same entry points as for vehicles, and the site layout would be designed to maximise pedestrian permeability between the two accesses. Internal footways within the site would connect with existing footways outside of the site to the east and west.

- 2.8 The illustrative floorplan (Figure 3) provides opportunities for significant green infrastructure delivery through communal green podiums for private use of residents. Provision is also made for two public green spaces, a Central Square and a Station Square.

Planning History

- 2.9 An outline planning application was submitted to Reading Borough Council for the development site in February 2011 (Ref: 11/00276/OUT) and was granted consent in March 2012. The consented scheme description was as follows:

"All matters reserved with the exception of means of access, for the demolition of existing buildings; site preparation; and redevelopment of the application site for a mix of uses from amongst employment and business uses (use class B1) and residential accommodation (C3); Hotel (C1), retail floor space (A1), food and drink uses (A3, A4 and A5), leisure uses (D2), car parking, public and private open space, landscaping works, highways, access and associated works."

- 2.10 The consented scheme is smaller in scale than the proposed development and included a greater area for commercial and retail uses. Since the consent was granted, further consultation and viability studies have resulted in project design changes. This includes an increase in public and private open space, with a distance between buildings of 20 metres or more.

- 2.11 The previous project was considered to be EIA development and an ES was submitted as part of the planning application in 2011. The following topic areas were considered as part of the EIA process:

- Planning Policy;
- Socio-economic Issues;
- Traffic and Transportation;
- Air Quality;
- Noise and Vibration;
- Water Resources and Flood Risk;
- Ground Conditions;
- Waste;
- Townscape and Visual Impact;
- Daylight, Sunlight and Overshadowing;

- Wind Microclimate;
- Ecology and Conservation; and
- Archaeology.

2.12 Information submitted as part of this previous ES (hereafter referred to as the ‘previous 2011 ES’) has been used to inform this scoping report.

Planning Context

2.13 Reading Borough Council defines plans for the development of Reading through a number of planning documents. The current Development Framework consists of the following documents:

- Core Strategy (Reading Borough Council, 2008; amended in 2015);
- The Reading Station Area Framework 2010 (Reading Borough Council, 2010);
- The Reading City Centre Framework 2009 (Reading Borough Council, 2009b);
- Reading Central Area Action Plan (Reading Borough Council, 2009a); and
- Sites and Detailed Policies Document (Reading Borough Council, 2012; amended 2015).

2.14 These documents are due to be replaced by the Draft Reading Borough Local Plan (Reading Borough Council, 2017) in 2018, which details Reading’s development up to 2036.

2.15 The site is located within Central Reading, as defined in the Core Strategy (Reading Borough Council, 2015a) and within a region marked as an area for major development for residential, retail, office and leisure facilities. These areas are also identified in the Draft Reading Borough Local Plan (Reading Borough Council, 2017). The site is allocated in the Reading Central Area Action Plan under Policy RC1e. This policy relates to the land north of Reading station and states that:

“There will be retail and leisure development on the ground floor with other uses including residential and offices on upper floors.”

2.16 The site area is allocated in the Draft Reading Borough Local Plan under Policy CR11e: North of Station. This policy states that:

“There will be retail and leisure development on the ground floor activating the streets and spaces including the new northern station square, with other uses including residential and offices on upper floors. Public car parking will be provided. A high quality route incorporating a green link should be provided through to the Thames. Development should take account of mitigation required as a result of a Flood Risk Assessment.”

2.17 Currently, under the Development Framework documents, Reading Borough Council aims to provide 521 new dwellings per annum between 2016 and 2026. Under the Draft Reading Borough Local Plan (Reading Borough Council, 2017), 658 new dwellings are required per annum from 2018-2036. Reading Borough Council intends to target development on land which has been previously developed, within areas that are already established as regional hubs of facilities and employment.

3 GENERAL APPROACH TO EIA

Requirement for Environmental Impact Assessment

- 3.1 The legislative framework for EIA is set by European Directive 2011/92/EU, as amended by Directive 2014/52/EU (collectively referred to as the EIA Directive). Directive 2014/52/EU required Member States to transpose its requirements into national law by 16 May 2017 and set out arrangements for a transitional period from the regime laid down by Directive 2011/92/EU.
- 3.2 The EIA Directive requires EIA to be completed in support of an application for development consent for certain types of project. For projects of this type in England, the European legislative requirements are transposed into law by the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.
- 3.3 The process of identifying whether or not EIA is required for a development is known as screening. Projects of the type listed in Schedule 1 of the Regulations require EIA in all cases. Projects of the type listed in Schedule 2 may require EIA in certain circumstances.
- 3.4 Schedule 2 identifies development types that require EIA if they are likely to lead to significant effects on the environment by virtue of factors such as their nature, size or location. Schedule 2 development is defined within the EIA Regulations as development of a description mentioned in Column 1 of the table in Schedule 2 where:
- a) any part of that development is to be carried out in a sensitive area; or
 - b) any applicable threshold or criterion in the corresponding part of Column 2 of that table is respectively exceeded or met in relation to that development.
- 3.5 The proposed development would fall within the category of 10(b) 'Urban development projects' of Schedule 2 of the EIA Regulations. The site is not located within a sensitive area as defined in the EIA Regulations and therefore part (a) would not apply. In relation to part (b) the following thresholds apply:
- i. The development includes more than 1 ha of urban development which is not dwellinghouse development;
 - ii. The development includes more than 150 dwellings; or
 - iii. The overall area of the development exceeds 5 ha.
- 3.6 It is likely that the proposed development would include more than 150 dwellings and would exceed threshold (ii). The proposed development is therefore considered to be Schedule 2 development.
- 3.7 Schedule 2 development requires screening against the criteria set out in Schedule 3 of the EIA Regulations. The purpose of screening is to identify whether there are likely to be any significant environmental effects. The criteria set out in Schedule 3 of the EIA Regulations to assist in this regard include the characteristics of the development, location of development and characteristics of the potential impact. Taking into account the nature and scope of the proposed development, and that the consented (smaller) scheme was considered to be EIA development, it is considered that EIA is required in this case.
-

Information Required

- 3.8 Although there is no statutory provision as to the form of an ES, it must contain the information specified in Regulation 18(3), including any relevant information specified in Schedule 4 of the EIA Regulations, as set out in Appendix 1 of this report. The information supplied in the ES will provide a clear understanding of the likely significant effects of the project upon the environment. The following sections outline the overall approach to EIA in order to meet these legal requirements.

Structure of the Environmental Statement (ES)

- 3.9 The ES will be structured logically, enabling all relevant environmental information to be found quickly and easily. The ES will describe the EIA process and its findings, and will include the following sections:

- Non-Technical Summary (as a standalone document);
- Written Statement;
- Figures; and
- Appendices.

EIA Methodology

Relevant EIA Guidance

- 3.10 The EIA process will take into account relevant government or institute guidance, including:
- Department for Communities and Local Government (2014) Planning Practice Guidance at <http://planningguidance.planningportal.gov.uk>;
 - Department of the Environment, Transport and the Regions (DETR) (1997) Mitigation Measures in Environmental Statements. HMSO;
 - Highways Agency *et al.* (2008) Design Manual for Roads and Bridges, Volume 11, Section 2, Part 5. HA 205/08;
 - Institute of Environmental Management and Assessment (2004) Guidelines for Environmental Impact Assessment;
 - Institute of Environmental Management and Assessment (2011) The State of Environmental Impact Assessment Practice in the UK. Special Report;
 - Institute of Environmental Management and Assessment (2015a) Environmental Impact Assessment: Guide to Shaping Quality Development;
 - Institute of Environmental Management and Assessment (2015b) Climate Change Resilience and Adaptation;
 - Institute of Environmental Management and Assessment (2016) Environmental Impact Assessment: Guide to Delivering Quality Development;

- Institute of Environmental Management and Assessment (2017a) Environmental Impact Assessment: Assessing Greenhouse Gas Emissions and Evaluating their Significance; and
 - Institute of Environmental Management and Assessment (2017b) Health in Environmental Impact Assessment: A Primer for a Proportional Approach.
- 3.11 Other topic-specific specialist methodologies and good practice guidelines will be drawn on as necessary.

Key Elements of the General Approach

- 3.12 The assessment of each environmental topic will form a separate chapter of the ES. For each environmental topic, the following will be addressed:
- Methodology and assessment criteria;
 - Description of the environmental baseline (existing conditions);
 - Identification of likely effects;
 - Evaluation and assessment of the significance of identified effects, taking into account any measures designed to reduce or avoid environmental effects which form part of the project and to which the developer is committed; and
 - Identification of any further mitigation measures envisaged to avoid, reduce and, if possible, remedy adverse effects (in addition to those measures that form part of the project).

Methodology and Assessment Criteria

- 3.13 Each topic chapter will provide details of the methodology for baseline data collection and the approach to the assessment of effects. Details of the proposed approach for each topic are provided in Chapter 5 of this Scoping Report. Each identified environmental topic will be considered by a specialist in that area. The identification and evaluation of effects will take into account relevant topic-specific guidance where available.

Description of the Environmental Baseline

- 3.14 The existing and likely future environmental conditions in the absence of the project are known as 'baseline conditions'. Each topic based chapter will include a description of the current (baseline) environmental conditions. Where appropriate, this will be supported by baseline technical reports attached as separate appendices. The baseline conditions at the site and within the study area form the basis of the assessment, enabling the likely significant effects to be identified through a comparison with the baseline conditions.
- 3.15 The baseline for the assessment of environmental effects will primarily be drawn from existing conditions during the main period of the EIA work. Consideration will also be given to any likely changes between the time of survey and the future baseline for the construction and operation of the project. In some cases, these changes may include the construction or operation of other planned developments in the area. Where such developments are built and operational at the time of writing and data collection, these will be considered to form part of the baseline environment. Where sufficient and robust information is available, such as expected traffic growth figures, other future developments will be considered as part of the future baseline

conditions. In all other cases, planned future developments will be considered within the assessment of cumulative effects.

- 3.16 The consideration of future baseline conditions will also take into account the likely effects of climate change, as far as these are known at the time of writing. This will be based on information available from the UK Climate Projections project (UKCP09), which provides information on plausible changes in climate for the UK (Environment Agency and Met Office, 2016) and on published documents such as the UK Climate Change Risk Assessment 2017 (Committee on Climate Change, 2016).

Assessment of Effects

- 3.17 The EIA Regulations require the identification of the likely significant environmental effects of the project. Each topic chapter will take into account both the sensitivity of receptors affected and the magnitude of the likely impact in determining the significance of the effect.

Sensitivity or Importance of Receptors

- 3.18 Receptors are defined as the physical resource or user group that would be affected by a proposed development. The baseline studies will identify potential environmental receptors for each topic and will evaluate their sensitivity to the proposed development. The sensitivity or importance of a receptor may depend, for example, on its frequency or extent of occurrence at an international, national, regional or local level.

Magnitude of Impact

- 3.19 Impacts are defined as the physical changes to the environment attributable to the project. For each topic, the likely environmental impacts will be identified. The magnitude of the impact will be described using defined criteria within each topic chapter.

- 3.20 The categorisation of the impact magnitude may take into account the following four factors:

- Extent;
- Duration;
- Frequency; and
- Reversibility.

- 3.21 Impacts will be defined as either adverse or beneficial. Depending on discipline, they may also be described as:

- Direct: Arise from activities associated with the project. These tend to be either spatially or temporally concurrent;
- Indirect: Impacts on the environment which are not a direct result of the project, often produced away from the project site or as a result of a complex pathway.

- 3.22 Impacts will be divided into those occurring during the construction phase and those occurring during operation. Where appropriate, some chapters may refer to these as temporary and permanent impacts.

Significance of Effects

- 3.23 Effect is the term used to express the consequence of an impact (expressed as the 'significance of effect'), which is determined by correlating the magnitude of the impact to the sensitivity of the receptor or resource.
- 3.24 The magnitude of an impact does not directly translate into significance of effect. For example, a significant effect may arise as a result of a relatively modest impact on a resource of national value, or a large impact on a resource of local value. In broad terms, therefore, the significance of the effect can depend on both the impact magnitude and the sensitivity or importance of the receptor.
- 3.25 Levels of significance that will be used in the assessment include, in descending order:
- Substantial;
 - Major;
 - Moderate;
 - Minor;
 - Negligible.
- 3.26 Where an effect is described as 'negligible' this means that there is either no effect or that the effect would be beneath levels of perception, within normal bounds of variation or within the margin of forecasting error. Effects may be adverse or beneficial. These significance levels will be defined separately for each topic within the methodology sections. In all cases, the judgement made as to significance will be that of the author of the relevant chapter with reference to appropriate standards/guidelines where relevant.

Cumulative Effects

- 3.27 The cumulative effects of the proposed development in conjunction with other proposed schemes will be considered. The cumulative effects assessment will consider developments that are in the planning system of relevance to the proposed development at the time of submission. Developments that are built and operational at the time of assessment will be considered as part of the baseline. A list of proposed developments and planning policy allocations to be included within the cumulative assessment will be issued to Reading Borough Council for comment when the preparation of the ES begins.
- 3.28 In addition to planning applications, any relevant adopted and emerging Local Plan allocations will be identified.

Mitigation and Monitoring Measures

- 3.29 The EIA Regulations require that where significant effects are identified, '*a description of any features of the proposed development, or measures envisaged in order to avoid, prevent or reduce or, if possible, offset likely significant adverse effects on the environment*' should be included in the ES.

- 3.30 The development of mitigation measures is part of an iterative EIA process. Therefore, measures will be developed throughout the EIA process in response to the findings of initial assessments. The project that forms the subject of the planning application will include a range of measures designed to reduce or prevent significant adverse environmental effects arising, where practicable. In some cases, these measures may result in enhancement of environmental conditions.
- 3.31 The topic chapters will therefore take into account all measures that form part of the proposed development, including:
- Measures included as part of the project design (sometimes referred to as primary mitigation);
 - Measures to be adopted during construction to avoid and minimise environmental effects, such as pollution control measures. These measures would be implemented through the Code of Construction Practice; and
 - Measures required as a result of legislative requirements.
- 3.32 Where required, further mitigation measures will be identified within topic chapters. These are measures that could further prevent, reduce and, where possible, offset any residual adverse effects on the environment.
- 3.33 In some cases, monitoring measures may be appropriate, for example, to ensure that proposed planting becomes established. Where appropriate, monitoring measures will be set out.

Summary Tables

- 3.34 Summary tables will be used to summarise the effects of the proposed development for each environmental topic.

4 SCOPE OF ASSESSMENT

Work Undertaken to Date

- 4.1 An assessment of daylight and sunlight effects has been undertaken, the methodology for which is provided in Appendix 2. A Draft TA in relation to the proposed development has been undertaken, and consultation with the local Highways Authority is currently ongoing. The Draft TA is presented in Appendix 3. In addition, a noise survey has been undertaken at the site. However, at the time of writing the results were not available.
- 4.2 The scoping process has taken into account the findings of the 2011 ES associated with the consented scheme for the site.

Topics Scoped Out of Assessment

- 4.3 Taking into account the findings of the above study and the findings of the previous 2011 ES, together with knowledge of the site and surrounding area, it is proposed that the following topics are not included in the scope of the ES:

Planning Policy Context

- 4.4 The ES will provide an overview of relevant legislative and planning policy context within each topic chapter. The assessment will have regard to national and local policy documents, where relevant. However, it is not proposed to include a separate chapter on Planning Policy Context in the ES. A Planning Statement will be submitted with the planning application.

Material Assets

- 4.5 The EIA Regulations refer to 'material assets', including architectural and archaeological heritage. The phrase 'material assets' has a broad scope, which may include assets of human or natural origin, valued for socio-economic or heritage reasons. Material assets are in practice considered across a range of topic areas within an ES, in particular the socio-economics and heritage chapters. These topics are proposed to be included within the ES (see Table 4.3). Therefore, no separate consideration of material assets is considered necessary.

Climate Change

- 4.6 The EIA Regulations require consideration of climate change. Although a separate climate change chapter is not proposed, climate change would be considered throughout the ES. The proposed approach to this is set out below.

Climate Change Resilience

- 4.7 Resilience to future climate change will be considered during the design process. The design of the proposed development will take account, for example, future flood risk and resilience to extreme weather events. The conceptual surface water drainage strategy for the project will be designed to take flood risk into account, with an allowance for climate change. The ES will set out details of the proposed development's resilience to climate change in Chapter 2 (Project Description) and Chapter 7 (Hydrology and Flood Risk).

Climate Change: Changes to Future Environmental Conditions

- 4.8 Consideration of predicted changes in baseline environmental conditions, including changes resulting from climate change, will be set out within each ES topic chapter (Chapters 5 to 12), where robust information is available at the time of writing.
- 4.9 This will be based on information available from the UK Climate Projections project (UKCP09), which provides information on plausible changes in climate for the UK (Environment Agency and Met Office, 2016) and on published documents such as the UK Climate Change Risk Assessment 2017 (Committee on Climate Change, 2016).
- 4.10 Climate data from the UKCP09 database will be compiled for a 25 km² grid square containing the site, based on a medium emissions scenario¹. Mean air temperature and annual average precipitation data for the period 2020 to 2079 will be used to inform the consideration of how environmental conditions may change at the site and within the study area in future.
- 4.11 The assessment of effects for each topic will take into account identified trends or changes predicted to arise as a result of climate change.

Effects of the Project on Climate

- 4.12 Greenhouse gas emissions can occur throughout the lifecycle of a development, including during construction and operation of a proposed development. This can be affected by factors such as material use and energy demand.
- 4.13 An assessment of the amount of carbon generated from operational traffic will be included within Chapter 9 (Air Quality) of the ES. The operational process of the proposed development would not include the combustion of materials.
- 4.14 At the outline stage, detailed information relating to construction and embodied carbon within the various proposed land uses is not likely to be available. However, the design of the proposed development will give consideration to measures to minimise and mitigate greenhouse gas emissions, where possible, such as measures to control energy demand and improve energy efficiency. Such measures will be set out in the project description chapter (Chapter 2) of the ES.
- 4.15 No further assessment of greenhouse gas emissions is considered necessary or appropriate at this stage.
- 4.16 Taking into account the above approach, it is not considered that a separate chapter on climate change is required to form part of the ES.

Health

- 4.17 Consideration has been given to the potential health pathways associated with the proposed development. The following potential health effects have been identified:

¹ A medium emission scenario in UKCP09 relates to a population scenario of 8.7 billion by 2050 falling to 7.1 billion by 2100 and an intermediate use of fossil fuels and non-fossil fuels.

- Changes to local air quality during construction (dust);
- Contaminated land;
- Changes in traffic flows, noise levels and air quality during construction and operation; and
- Employment opportunities.

4.18 All of these potential effects are proposed to be included within the EIA process, as part of the assessments of traffic, air quality, noise and socio-economics. These assessments will be included in Chapters 8, 9, 10 and 12 of the ES. Given the nature of the proposed development and the lack of any additional health pathways, separate health assessment in the form of an additional chapter or Health Impact Assessment is not considered necessary in this instance and is proposed to be scoped out of the EIA process.

Radiation and Heat

4.19 Given the nature of the proposed development (residential, employment space, and associated open space), no significant radiation or heat effects are anticipated and these effects have been scoped out of the assessment.

Agriculture and Land use

4.20 The proposed development is not located on agricultural land, and therefore an assessment on agriculture and land use is proposed to be scoped out of the assessment.

Ecology and Nature Conservation

Habitats

4.21 The majority of the proposed site is comprised of existing buildings and hard standing, therefore the potential for ecological features of high value is considered to be low. A number of trees are located within the site along the western boundary, adjacent to Caversham Road. On the western boundary of the site between the boundary fence and the car parking areas is amenity grassland. There are no statutory or non-statutory designated sites located within 2 km of the site.

4.22 The previous 2011 ES contained a chapter on ecology and reported that a phase 1 habitat survey was undertaken in 2010. The survey identified some areas of scattered scrub containing the occasional *Buddleia davidii*. The land use within site has not changed significantly since the previous ecology survey, and it is considered likely that the existing habitats will be similar in extent and nature conservation value to that recorded in 2010. An update phase 1 habitat survey of the site will be completed to verify this assumption.

Species

4.23 The buildings present on site are large steel-clad structures, which are not likely to support any bat roosts or nesting birds. There are no other habitats on site suitable for other species. As part of the survey work undertaken for the previous 2011 ES, a bat survey was undertaken. The bat surveys were undertaken in 2010 and revealed that there was no evidence of bat roosts and the opportunities for roosting were thought to be limited. The bat emergence survey identified three bat passes of common pipistrelles along the southern boundary of the site. It was identified that the southern boundary provided a foraging and commuting route for a small number of species.

An update walkover survey of the site to assess its potential to support animal species will be completed as part of the update phase 1 habitat survey. It is considered likely that the potential for the site to support animal species will be low, with the existing buildings continuing to be of low potential bat roost value. In line with current best practice guidance in relation to bat surveys (Bat Conservation Trust, 2016), the site will be subject to a single after dark bat activity survey completed during the bat active period to verify continued bat roosting absence. No other protected animal species survey work is considered necessary.

Conclusions of the Previous 2011 ES

- 4.24 The previous 2011 ES concluded that the effects on habitats and present species on site would be negligible during construction and operation and no significant effects were identified.

Proposed Development

- 4.25 The proposed development would include the following measures which would further reduce the effect on ecology and nature conservation:

- A lighting strategy would be produced at the detailed design stage for both the construction and operational phases of the development. This would seek to reduce the amount of light spill to the scattered trees along the western boundary and on any areas of new landscaping proposed as part of the development.
- Prior to the demolition of the on site buildings a further bat survey would be undertaken to identify whether bats have moved into the site. Should bats be found to be using the buildings as a roost a mitigation strategy would be produced to ensure no significant effects arise during demolition.

- 4.26 As the surveys undertaken for the previous ES are seven years old, it is proposed to undertake a further phase 1 habitat survey and bat survey. The results of these surveys will be appended to the ES. However, it is not considered likely that the results would vary considerably since 2010 and the results of the previous assessment are not likely to change. With the measures set out above in place, no significant effects are considered likely. Therefore, the topic of ecology and nature conservation is proposed to be scoped out of the EIA process.

Historic Environment

- 4.27 There are no scheduled monuments, registered battlefields, registered park and gardens or listed buildings located within the site. The closest scheduled monument is Reading Abbey located approximately 330 metres south east of the site. The closest listed building to the site is the main building of Reading General Station (Grade II), located approximately 120 metres to the south and separated by the new reading station building and platforms.
- 4.28 An assessment of effects on the historic environment was included within the previous 2011 ES. The Archaeological Desk Based Assessment identified that due to the topographical (floodplain) location there would be low or low-nil potential for settlement evidence pre-dating the 19th century. There is, however, a moderate potential for 8th/9th century burials, late prehistoric palaeoenvironmental deposits, Medieval drainage ditches and prehistoric lithics.
- 4.29 Two geoarchaeological boreholes were undertaken on the site, which revealed made ground overlying alluvium and river sand and gravels. The boreholes showed that truncation had

occurred to topsoils, subsoils and alluvium. As the site is currently occupied by large buildings, any surviving archaeological remains are likely to be of only County or Local importance.

- 4.30 The previous 2011 ES concluded that only minor adverse effects would occur during construction, which were not considered to be significant. No effects were considered likely during the operation of the site.
- 4.31 It is not considered likely that there would be any significant effects on designated assets, due to the distance and intervening development between scheduled monuments and listed buildings, and the site. The previous ES identified that the likely effect on buried archaeology would not be significant. The excavation of basements and foundations of the proposed development are considered to be similar to those proposed for the consented development and therefore the resultant effects are not considered likely to change. Therefore, it is not considered that there would be significant effects in relation to cultural heritage and this topic is proposed to be scoped out of the assessment.

Daylight, Sunlight and Overshadowing

- 4.32 Occupants of residential buildings have an expectation of daylight and sunlight. Therefore, an assessment has been undertaken to consider the effects of the proposed development on these existing receptors. Commercial, retail and restaurant buildings, which generally use electric lighting throughout the day, do not have the same expectation of natural daylight/sunlight. Therefore, these buildings have not been considered as part of the assessment.
- 4.33 The site is located adjacent to Reading train station to the south and existing commercial, retail and restaurant buildings to the north and west. To the east of the site is located a multi-storey car park. The closest residential properties to the site are assumed to be properties fronting on to Vastern Road, approximately 105 metres to the north east of the site, and properties on Northfield Road, approximately 80 metres west. As these properties are located at a reasonable distance from the site, the baseline daylight/sunlight levels are expected to be high.
- 4.34 An assessment of daylight and sunlight effects on existing receptors has been undertaken based on the Building Research Establishment 'Site Layout Planning for Daylight and Sunlight - A Guide to Good Practice 2nd Edition, 2011 (BRE Guidelines) (BRE, 2011); British Standard 8206 Part 2: 2008 – Code of Practice for Daylighting (BS 8206) (BSI, 2008); and Institution of Lighting Professional (ILP) Guidance Notes for the Reduction of Obtrusive Light GN01:2011 (ILP, 2011). Details of the methodology used in this assessment are provided in Appendix 2.

Likely Effects

- 4.35 Given the change in massing height compared with the existing baseline condition (low-level collection of buildings) and relative positioning of properties, it is inevitable that alterations in daylight would occur in excess of the recommended 20% vertical sky component (VSC) reduction value set by the BRE Guidelines (BRE, 2011), although this is likely to be small and isolated to a few windows overlooking the development site.
- 4.36 It is not envisaged that the overall effects would be considered significant because of the flexibility allowed within the BRE Guidelines. In consideration of this, overall daylight and sunlight levels would remain commensurate with the wider urban context and fall within recommendations set out in national and local planning policy.

- 4.37 With regard to the potential solar glare effects from the proposed development and owing to its mainly residential nature, it is unlikely that the scheme would be highly glazed and, in addition, there are no proposed areas of highly glazed commercial space which are usually considered problematic in terms of solar glare. For this reason, no significant solar glare effects are considered likely and attention would be taken through the design process to ensure that the design evolves in a way that would minimise or prevent any potential solar glare effects.
- 4.38 The assessments undertaken to date have concluded that the proposed development would not have significant adverse effects on the daylight and sunlight levels of existing residential receptors and that the environment would be suitable for future residential receptors. Therefore, the topic of daylight, sunlight and overshadowing is proposed to be scoped out of the assessment.

Traffic and Transport

- 4.39 The draft Transport Assessment prepared by Steer Davies Gleave (Appendix 3) demonstrates that there would be a reduction in car driver and total people trips compared to the 2012 consented scheme. This is a result of the change in quantum for each individual land use as part of the proposed development and a reduction in on-site car parking provision, which would alter the mode share. The net change in trips between the 2012 consented scheme and current proposed development is summarised in Table 4.1:

Table 4.1: Net change in total person and car driver trips between 2012 consented scheme and 2018 Proposed Development

Mode	AM Peak (08:00 - 09:00)			PM Peak (17:00 - 18:00)			Daily (07:00 - 19:00)		
	Arr	Dep	Total	Arr	Dep	Total	Arr	Dep	Total
Car Driver	-103	-11	-113	8	-90	-82	-738	-741	-1,477
Total People	-691	141	-549	302	-575	-272	-4,120	-4,268	-8,388

- 4.40 Due to the amended vehicular access arrangements at the site since the time of the previous consent, a highways assessment has been undertaken as part of the draft Transport Assessment to demonstrate the effect of the development traffic upon key highway links. There would be a reduction in vehicular traffic as part of the proposed development compared to the 2012 consented scheme upon all key highway links, with the exception of minimal increases on:
- Trooper Potts Way (southbound) during the PM peak;
 - A329 Vastern Road (eastbound) during the PM peak; and
 - A329 Caversham Road (northbound) during the PM peak.
- 4.41 It has therefore been concluded that a revised assessment of the Reading Transport Model within the full Transport Assessment is not necessary, as there would be an overall daily (12 hour) reduction of approximately 1,500 two-way car driver trips in comparison to the 2012 consented scheme.
- 4.42 The net change in public transport, pedestrian and cyclist trips as a result of the revised design has also been assessed as part of the draft Transport Assessment, summarised in Table 4.2 below.

Table 4.2: Net change in public transport, pedestrian, cyclist trips between 2012 OPP and 2017 proposed development

Mode	2012 OPP Daily Trips (two-way)	2017 Proposed Development Daily Trips (two-way)	Net Change
Bus	6,052	1,563	-4,489
Rail/Underground	3,880	1,891	-1,989
Pedestrian	4,003	4,926	924
Cyclists	1,139	290	-848

- 4.43 The proposed development would result in a reduction in public transport and cyclist trips directly associated with the development compared to the consented scheme. The increase of 924 two-way pedestrian trips in comparison with the 2012 consented scheme is not considered likely to result in any significant effects, particularly when considering the distribution across the 12 hour daily profile (i.e. an additional 77 trips per hour) and improvements to local pedestrian infrastructure since the previous application (e.g. Station Square and pedestrian route through the railway station).
- 4.44 Considering the above, no further environmental assessments are considered to be required as part of this EIA process, as effects would be less than reported in the previous ES for:
- Severance;
 - Driver delay;
 - Pedestrian delay and amenity;
 - Accidents and safety; and
 - Hazardous loads.
- 4.45 The previous 2011 ES concluded that there would be no significant effects on any of the above. As effects arising from the current proposed development would be less than those associated with the consented scheme, the topic of traffic and transport is proposed to be scoped out of the assessment.

Content of the Environmental Statement

- 4.46 Table 4.3 identifies the chapters that are proposed for inclusion in the ES. Further details of the approach to the assessment and its scope are provided in Chapter 5 of this Scoping Report.

Table 4.3: Structure of ES

Structure of ES	
Non-Technical Summary	Summary of the ES using non-technical terminology
Chapter 1	Introduction
Chapter 2	Project Description
Chapter 3	Need and Alternatives Considered
Chapter 4	Environmental Assessment Methodology
Chapter 5	Townscape and Visual Resources
Chapter 6	Geology, Hydrogeology and Ground Conditions
Chapter 7	Hydrology and Flood Risk
Chapter 8	Air Quality
Chapter 9	Noise and Vibration
Chapter 10	Wind and Microclimate
Chapter 11	Community and Socio-economics
Chapter 12	Further Information

5 TECHNICAL ASSESSMENTS

Chapter 1: Introduction

- 5.1 This chapter will provide the introduction to the ES, including details of the application, need for EIA and the structure of the ES.

Chapter 2: Project Description

- 5.2 The ES will include a description of the project, which will form the basis of the assessment of effects. The EIA Regulations require an ES to include:

'A description of the proposed development comprising information on the site, design, size and other relevant features of the development.'

- 5.3 The project description chapter will include details of the site, together with a description of the key components of the proposed development. The description will include the following information, as far as practicable at the time of writing:

- Construction phase (including demolition of existing buildings) – a description of the key works, activities and processes that would be required during the construction phase; and
- Operational phase – a description of the completed development and its use.

- 5.4 Where options remain at the time of the assessment (with regard to construction techniques, for example), the ES will provide a clear explanation of the assumptions made. Where appropriate, the realistic worst case scenario will be assessed.

- 5.5 Where mitigation measures have been identified and developed through the EIA process and have been incorporated as part of the design of the proposed development, details of these measures will be set out within the project description chapter.

Chapter 3: Need and Alternatives Considered

- 5.6 This chapter will briefly set out the need for the proposed development. In addition, the EIA Regulations require the alternatives considered by the applicant to be set out in the ES:

'A description of the reasonable alternatives studied by the developer, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment.'

- 5.7 This chapter will summarise the reasons for the selection of the site and provide a description of the alternatives considered during the EIA process, including a description of the alternative design and layout options that have been considered.

Chapter 4: Environmental Assessment Methodology

- 5.8 Details of the overall approach to EIA will be set out in this chapter, together with details of the scoping process, consultation undertaken and the overall approach to the assessment of significance. Topic-specific methodologies, such as survey methods, will be provided in each topic chapter.

Chapter 5: Townscape and Visual Resources

Baseline Information

- 5.9 The site is comprised of large steel-clad buildings formerly used as a Post Office sorting office with relevant parking, storage and distribution facilities. The site is located immediately north of Reading railway station and is bounded to the north by retail and restaurant facilities along Vastern Road. To the west lies Caversham Road and to the east a multi-storey car park. Reading town centre to the south of the site centres around the Oracle shopping centre, surrounding streets and Reading railway station and comprises predominantly commercial and retail uses. To the north of Vastern Road and to the west of Caversham Road residential areas become more prominent. Within the immediate context of the site, there are a number of significant scale commercial and other buildings giving variation to the skyline of the town. These are located south of the railway and on key approaches to the town, for example Thames Tower (recently refurbished and extended to 14 storeys), Reading Bridge House (11 storeys) and One Reading (11 storeys).
- 5.10 Whilst there appears to be little change in landform elevation within the central area of Reading, the area to the south of the railway station sits on a very slight rise in topography at about 45 metres above ordnance datum (AOD) and on land with a very gently rounded hill-top profile. This is the highest part of the town centre. The site itself sits at approximately 38 metres AOD. Thereafter, landform slopes gently towards the River Thames and River Kennett which flow to the north and south of the site respectively. To the north of the River Thames, landform rises more abruptly to form the northsides of the Thames river valley. The higher ground of the Chiltern Hills rises further to the north of Reading and to the south the ground undulates between 35-50 metres AOD.
- 5.11 The site is not subject to any statutory designation or non-statutory local landscape designation.
- 5.12 The Reading Tall Building Strategy (Entec, 2008) identifies 26 character areas in the Reading area which have been categorised based on architectural style, presence of townscape designations, urban grain and townscape scale, townscape condition and views. This exercise followed the approach recommended by CABE/English Heritage (now Historic England) in their publication 'Guidance on Tall Buildings' (English Heritage & CABE, 2007). Whilst this publication has since been updated by the Historic England advice note on 'Tall Buildings' (Historic England, 2015), the recommendation that a townscape character assessment is undertaken as part of baseline studies prior to defining areas considered to be suitable for tall buildings, remains in the latest guidance. The site is located within Townscape Character Area 22 (Vastern Road). This Character Area is dominated by large warehouse and retail units which are currently low buildings with extensive parking. The character area is described as: *'...an unexceptional area of townscape which does not respond well to the surrounding residential land use'* and *'...unattractive and creates a weak and uninspiring area of townscape'*. The Reading Tall Building Strategy also identifies Character Area 22 as an appropriate location for tall buildings due to the absence of any key views or visual focal points. The report also states that the tallest buildings should be located towards the south of the character area, adjacent to the railway line.
- 5.13 The Reading Station Area Framework (adopted 2010) (RSAF) (Reading Borough Council, 2010) is a further key document which would be reviewed as part of the assessment of townscape and visual effects. It builds on the findings of the Reading Tall Building Strategy and contains further detail to inform the townscape design proposals for new development within the town centre. The

RSAF places the site within a larger development area termed the 'Station Area Cluster', which includes land to the north and south of the railway station. However, its extents are different to those of the 'Preferred Tall Buildings Locations' defined in the Reading Tall Building Strategy.

- 5.14 Existing visual receptors include the retail and restaurant facilities to properties north of the site, users of Reading train station and the nearby railway line, residential buildings to the north and west, users of the surrounding road network and pedestrians in Reading town centre.
- 5.15 The Reading Tall Buildings Strategy (2008) identified a number of both near distance and contextual views looking towards Reading town centre, seven of which specifically related to character area 22 within which the site sits. The RSAF also identifies 26 longer distance views and 61 shorter distance views, which it advises should be taken into account when considering development proposals within the 'Reading Station Area'. It also identifies two further views which will be created by new development within the 'Reading Station Area'. Generally, new development will be expected to make a 'positive contribution' to these views. The previous 2011 ES, which accompanied the planning application for the 2012 consented scheme, included an assessment of potential effects of the proposed development on 15 viewpoints for which verifiable image views were prepared. These were accompanied by a further eight viewpoints, which were included for information.
- 5.16 The proposed development is likely to have its greatest impact upon views from areas within a broad arc from the west, through north to east of the site. To the south, existing buildings would naturally limit or curtail views to the site and any buildings on it. A list of key viewpoints to be included in the assessment would be developed in association with officers of Reading Borough Council. This exercise would start with the 18 verifiable viewpoints included within the ES for the consented scheme. However, this initial list would be supplemented with a viewpoint from Balmore Park, from which an open prospect over the town centre from a local high-point is available.

Proposed Approach

Baseline Studies

- 5.17 The Townscape and Visual Impact Assessment (TVIA) will identify the baseline condition and character of the townscape and its visual relationship with its surroundings. The assessment will consider two key areas:
- Townscape character: A review of the character of the site and its surroundings will be undertaken with reference to published assessment documents and field survey; and
 - Visual amenity: Taking into account the findings of the site visits and field appraisal, a range of viewpoints will be identified that are considered representative of views towards the site from surrounding areas.
- 5.18 Baseline information on the townscape will be gathered through a combination of desk studies, consultation and field surveys. Documents that will be used in the assessment may include aerial photographs, Ordnance Survey maps and published townscape character assessments.
- 5.19 Field surveys will be carried out to gain a better understanding of the townscape to determine its character and condition and identify visual receptors and visual barriers. The surveys will

establish the townscape resources that combine to give the townscape a distinct sense of place. Consultations will also take place with key statutory organisations/consultees.

Assessment of Effects

- 5.20 The townscape and visual resources chapter will identify and assess the likely significant effects that would arise as a result of the proposed development on the townscape resources (fabric, character and resource) and visual amenity of the area in the context of the current baseline.
- 5.21 The assessment process will be based on the current published guidelines for landscape and visual assessment provided in the Guidelines for Landscape and Visual Impact Assessment, 3rd edition (known as GLVIA3) (Landscape Institute and Institute of Environmental Management and Assessment, 2013), guidelines for character assessment provided in Landscape Character Assessment: Guidance for England and Scotland (Countryside Agency and Scottish Natural Heritage, 2002), also with reference to 'An approach to landscape character assessment' (Natural England, 2014) where appropriate. In addition to the above, reference would also be made to the CABE/English Heritage 2007 document which includes (Section 4) a list of 'criteria for evaluation' of tall buildings; the most relevant of which is the 'relationship to context' given the townscape setting of the site. However, the key guidance document for the assessment would remain that set out in GLVIA3.
- 5.22 The geographical extent of potential visibility will be established for proposed buildings by production of a computer-generated Zone of Theoretical Visibility (ZTV) plan. The ZTV would not take into account screening provided by vegetation or buildings, and would simply reflect the topography of the study area. The ZTV would be verified by a site visit and amended as required.
- 5.23 The key townscape and visual receptors will be identified, together with the likely impacts on them. Taking into account the sensitivity of these receptors and the predicted magnitude of the impact, the significance of effects will be set out.
- 5.24 The assessment would include a number of visually verifiable montages; the locations of which and level of representation ('AVR' or Actual Visual Representation) would be determined in association with officers of Reading Borough Council. However, it is anticipated that a range of 'AVR' levels including wirelines and fully rendered images would be required. These would be necessary both to inform the assessment and to accurately convey the likely impact of the proposed development upon views for local visual receptors
- 5.25 The central area of Reading to the north and south of the railway station is an evolving townscape. In addition to the proposed development, there are several other proposed re-developments which also have planning consent or have planning applications with Reading Borough Council which are well advanced. The most important of these are the proposals for the Station Hill site to the south of the railway station which proposes tall buildings of varying height within up to six individual development blocks. This proposal has planning consent for a tall building cluster, which would be visible within the local setting to buildings within the proposed development. The relationship of this tall building cluster to those within the site is an important element of the development strategy described in the RSAF. Whilst subject to discussion and agreement of Reading Borough Council, consideration would be given to whether the Station Hill site should be considered to be part of the future baseline rather than considered as part of the assessment of cumulative effects.

Issues Proposed to be Scoped Out

- 5.26 5.48 The proposed development would have no effect on seascape. An assessment of seascape effects is proposed to be scoped out of the assessment. The site is not immediately adjacent to a wide extent of existing residential properties, and as such a residential amenity assessment, other than the consideration of private viewpoints, is proposed to be scoped out of the EIA process.

Chapter 6: Geology, Hydrogeology and Ground ConditionsBaseline Information

- 5.27 The proposed development site is not located within a statutory designated geological Site of Special Scientific Interest (SSSI) nor a Local Geological Site (LGS). The proposed development site is not located within a groundwater Source Protection Zone for portable groundwater supply, as defined by the Environment Agency.
- 5.28 Made Ground at the proposed development site comprises brick, stone chippings, ashes and clinker at a depth between 1.6 and 2.2 metres. The 1:50,000 geological map shows that the superficial geology comprises the Langley Silt Member (made up of soft grey clay containing gravels and shells), which is underlain by River Terraced Deposits (RTD) (comprising medium to coarse gravels and sands and some shells) and the Upper Chalk (Seaford Chalk Formation and Newhaven Chalk Formation).
- 5.29 The groundwater regime at the proposed development site is characterised by a principal aquifer located within the Upper Chalk bedrock, as defined by the Environment Agency aquifer designated map. This constitutes the principal aquifer for the Thames region. The aquifer comprises layers of rock or drift deposit providing a high level of water storage and may support water supply and/or river base flow on a strategic scale.
- 5.30 There are no groundwater abstraction locations on the site.
- 5.31 Details of ground contamination at the proposed development site are based on a geo-archaeological ground investigation undertaken previously at the site in December 2010 and January 2011 (as reported in the previous 2011 ES). Soil chemical data were screened against site specific assessment criteria. Samples were taken from Made Ground and the Langley Silt Member and groundwater. Chemical data indicated that contaminated concentrations in soils and groundwater were generally low in the localised area of the proposed development site. Concentrations of lead within Made Ground soil samples exceeded the residential assessment criteria, and elevated concentrations of polycyclic aromatic Hydrocarbons (PAH) and petroleum hydrocarbons were identified within groundwater samples.

Proposed Approach*Baseline studies*

- 5.32 The following baseline investigation will be undertaken for the site:
- Purchase of Groundsure/Envirocheck Report for the proposed development site;
 - Review of historical maps of the site and surrounding area to determine the likelihood of historical contamination to be present within the soils and groundwater;

- Review of the British Geological Survey (BGS) 1:50,000 geological map;
- Review of BGS Aquifer Designation Maps;
- Review of Environment Agency information on groundwater vulnerability and Source Protection Zones;
- Review of MAGIC (Multi-Agency-Geographic-Information for the Countryside) (www.magic.gov.uk);
- Review of the available information including geology, hydrogeology and hydrology to provide an understanding of the environmental setting of the site;
- Review of Environment Agency and the local planning authority records to identify whether the site has been subject to any enforcement action and/or reported pollution incidents;
- Review of existing ground investigation reports to determine the ground conditions of the proposed development site and to provide an overview of levels of contamination within soil and groundwater; and
- A site walkover visit to identify any visual evidence of potential contaminant sources and identify key site features.

Assessment of Effects

- 5.33 The chapter will provide an assessment of the likely impacts of the construction of the proposed development on human health, controlled waters and the environment, based upon the result of the technical assessments and known baseline conditions.
- 5.34 A risk assessment will be completed, taking into account the identified environmental and human receptors. Potential receptors to be addressed by this chapter of the ES will include:
- Future site users during the operation of the development;
 - Construction workers during demolition and development works;
 - Receptors neighbouring the site during construction of the proposed development;
 - Maintenance workers during the operation of the proposed development;
 - Groundwater in the principal and secondary aquifers beneath the site during construction and operation of the proposed development; and
 - Building materials and services during operation of the proposed development.
- 5.35 Assessment of potentially hazardous ground gas would be carried out in accordance with guidance within CIRIA C665 (CIRIA, 2007) and investigation into potential contamination will be undertaken in accordance with British Standard BS 10175:2011 (BSI, 2011).
- 5.36 An assessment of the magnitude of the likely impacts and significance of effects on identified receptors will be undertaken for the construction and operational phases of the development.

- 5.37 A review will be undertaken of potential development constraints, mitigation measures and/or remediation measures likely to be required during construction and operational phases of the proposed development.

Issues Proposed to be Scoped Out

- 5.38 As there are no geological designated sites located within or within close proximity of the site. Therefore, effects on these effects are proposed to be scoped out of the ES.

Chapter 7: Hydrology and Flood Risk

Baseline Information

- 5.39 The site surface water runoff currently drains through a surface water culvert, which runs from the proposed development site and discharges to the River Thames. Based on the topography of the area, the River Thames is the natural drainage point for the site, approximately 200 metres north east of the site boundary. The River Kennet lies approximately 750 metres from the development site to the south east, but due to the topography of the surrounding area, is likely to be hydrologically disconnected from the site and would not be affected by surface water runoff from the proposed development.
- 5.40 Foul water drainage for the site currently consists of a 300 mm diameter sewer, which runs adjacent to Caversham Road.
- 5.41 Surface water flooding can occur following heavy rainfall in topographically low areas or in areas where the installed drainage has reached capacity. The risk of surface water flooding at the site is highly variable, ranging from a high risk of flooding in small areas, to areas of low and very low risk. This is likely due to the drainage design of the site and the capacity of the on site infiltration systems. The areas of high risk have a less than 3.3% chance of flooding, whilst low risk areas have a greater than 0.1% chance of flooding. It must be noted that the severity of surface water flooding such as this is difficult to predict as it is highly dependent on the rainfall location and intensity, as well as land use changes.
- 5.42 The threat of flooding from the River Thames places the proposed development site within Flood Zone 2. This zone has a medium probability of fluvial flooding, equating to between a 1 in 100 and 1 in 1000 annual probability. The River Kennet poses no fluvial flood risk to the development site.
- 5.43 Below the site lies a principal aquifer, meaning that it has the potential to be used as a potable water source. The aquifer has a high water level, making it vulnerable to contamination from surface sources of pollutants leaching to the groundwater.
- 5.44 The site is shown by the Environment Agency as being within both a surface water management catchment and a ground water management catchment area.

Proposed Approach

Baseline Studies

- 5.45 The main sources of information to be used in the assessment will include:
- Ordnance Survey maps;

- SoilScapes maps;
- Hydrogeology map of England and Wales;
- Environment Agency flood mapping and related data;
- Natural England website for designated site details; and
- MAGIC website.

5.46 Data will be sought from key statutory and non-statutory organisations/consultees, including:

- Reading Borough Council;
- Environment Agency; and
- Thames Water.

5.47 Subject to the availability of existing modelling and survey data the following data and surveys are anticipated to be obtained:

- Locally held flooding and Ordinary Watercourse data;
- Local authority Strategic Flood Risk Assessment (SFRA);
- Infiltration testing and other ground investigations (if appropriate); and
- Topographical survey.

5.48 A foul water capacity check for the existing sewerage network and treatment works will be undertaken. This will inform a Foul Drainage Strategy for the application.

Assessment of Effects

5.49 On the basis of the work undertaken to date, the key issue to be addressed will be the potential for an increase in flood risk as a result of increased surface water runoff from proposed hardstanding areas. A Flood Risk Assessment (FRA) will be prepared to support the application. This will include an assessment of the risk to the development from all relevant flooding sources (i.e. fluvial, surface water, sewers, groundwater and artificial sources) and will also include the preparation of a conceptual surface water drainage strategy. The FRA will assess the potential for Sustainable Drainage Systems (SuDS) to be incorporated into the design to attenuate surface water on site, in order to ensure that there is no increase in runoff rates as a result of the proposed development. The target runoff rate will be agreed through consultation with the Environment Agency and the Lead Local Flood Authority. The indicative attenuation requirements identified during initial investigations will be refined and a conceptual drainage strategy will be produced.

5.50 As well as assessing the potential impacts of the proposed development on flood risk (and identifying appropriate measures to mitigate this), the ES chapter will consider potential impacts of the development on local hydrology, including impacts on the quality of runoff from the site (during both construction and operational phases). Mitigation measures will be proposed, if necessary.

- 5.51 The key ground and surface water receptors and receptors potentially affected by flooding will be identified, together with the likely impacts on them. Taking into account the sensitivity of these receptors and the predicted magnitude of the impact, the significance of effects will be set out.

Issues Proposed to be Scoped Out

- 5.52 The site has been reviewed as part of the Level 2 Strategic Flood Risk Assessment (Peter Brett Associates, 2017) and was considered suitable for development subject to it being designed in such a way that it remains safe throughout its lifetime. It is therefore considered the site has been sequential tested and passed. Therefore, a sequential test will be scoped out of the ES.

Chapter 8: Air Quality

Baseline Information

- 5.53 Defra's UK Ambient Air Quality Interactive Map indicates that in 2015 the background NO₂ annual mean concentration level for the site was 30.74 µg/m³. The annual average for PM₁₀ (particulate matter 10 micrometres in diameter or less) was 15.88 µg/m³ and PM_{2.5} was 10.2 µg/m³. NO_x concentrations monitored at the proposed location were above the target annual levels of 30 µg/m³. The annual target for NO₂ is 40 µg/m³ and for PM₁₀ and PM_{2.5} the targets are 40 µg/m³ and 25 µg/m³ respectively. Therefore, the background concentrations at the site are well below the annual targets.
- 5.54 The closest potential air quality residential receptors are to the north and west of the site, on the far side of Vastern Road approximately 105 metres from the site boundary, and behind the retail units on the far side of Caversham Road, approximately 80 metres from the site boundary. Other receptors include the restaurant, supermarket and superstore abutting the north eastern site boundary, retail units on the opposite side of Caversham Road, and Reading Station abutting the southern boundary of the site.
- 5.55 Reading Borough Council has defined an Air Quality Management Area (AQMA) through central Reading and along a number of main roads. The Council has identified in the Air Quality Annual Status Report (Reading Borough Council, 2016) that the proposed development site is within a designated AQMA.

Proposed Approach

Baseline Studies

- 5.56 The ES chapter will include a review of the planning authority's recent air quality monitoring reports and background pollutant concentrations from Reading Borough Council monitoring sites and the Defra background maps. Site surveys measuring air quality are not likely to be necessary. Sensitive air quality and dust receptors close to the site will be identified.

Assessment of Effects

- 5.57 The air quality assessment will include consideration of construction and operational effects, including consideration of the effects of construction dust, traffic emissions and the suitability of air quality at the proposed development site for future residents.

- 5.58 The approach to the air quality assessment will be consistent with the EPUK/IAQM guidance document (EPUK/IAQM, 2017) and, where relevant, Defra's Local Air Quality Management Technical Guidance: LAQM TG (16) (Defra, 2016).
- 5.59 For the construction phase, a dust assessment will be undertaken in accordance with the IAQM guidance (IAQM, 2014). The IAQM dust guidance sets out 350 metres as the distance from the site boundary and 50 metres from the site traffic route(s) (up to 500 metres of the entrance) from which there could potentially be nuisance dust and PM₁₀ effects on human receptors. The methodology establishes the risk of impact for demolition, earthworks, construction and trackout, without any mitigation. The risk of impact is then used to determine the appropriate mitigation measures.
- 5.60 A quantitative prediction of traffic impacts during both construction and operation will be undertaken using the ADMS-Roads model. Using the threshold criteria for determining when an assessment is required set out in the EPUK/IAQM guidance, the extent of the study area for the assessment will be determined by the local road network on which annual average daily light duty vehicle flows are expected to increase by more than 500 and annual average daily heavy duty vehicle flows are expected to increase by more than 100. Receptors will be selected in locations within the study area where concentrations are already high and/or where concentrations are expected to change most as a consequence of the development.
- 5.61 An assessment to quantify the carbon emissions due to the operational traffic generated by the proposed development will be undertaken. This will include quantifying the CO₂ emissions for the 'with development' and 'without development' scenarios in order to determine the development contribution. The development contribution will be compared to recent published CO₂ data for Reading.
- 5.62 The key air quality and dust receptors will be identified, together with the likely impacts on them. Taking into account the sensitivity of these receptors and the predicted magnitude of the impact, the significance of effects will be set out.

Issues Proposed to be Scoped Out

- 5.63 The proposed development is not anticipated to include any centralised means of providing heat and/or power and therefore an assessment of emissions from combustion point sources is proposed to be scoped out of the assessment. Additionally, the operation of the proposed development is not likely to generate dust and therefore an assessment of operational dust effects is also proposed to be scoped out of the assessment. Finally, any dust and air quality impacts on ecological receptors will not be included in the assessment. This is due to the lack of a sensitive ecological receptors in the vicinity of the site (e.g. statutory designated sites). No significant odour sources near to the site have been identified and thus the impact of odours upon receptors within the development has been scoped out of the assessment.

Chapter 9: Noise and Vibration

Baseline Information

- 5.64 Existing noise and vibration sensitive receptors (NVSRs) include residential areas to the north, on the far side of Vastern Road approximately 105 metres from the site boundary, and across Caversham Road to the west, approximately 80 metres from the site boundary. Other lower sensitivity receptors include the restaurant, supermarket and superstore abutting the north

eastern site boundary, retail units on the opposite side of Caversham Road, and Reading Station abutting the southern boundary of the site.

- 5.65 There are a number of existing noise and vibration sources in the area. Immediate sources include Reading Train Station itself, the movement of trains on the train tracks, and the existing road network including Caversham Road and Vastern Road. A noise survey was undertaken in December 2017, which indicated some noise from mechanical services plant associated with commercial buildings, and from pedestrians.
- 5.66 Access restrictions mean that a vibration survey has not yet been carried out. However, vibration was imperceptible to the surveyor when walking the site.

Proposed Approach

Baseline Studies

- 5.67 The ES chapter will include a desk based review of the site and the surrounding area to identify any potential noise sources and any potential NVSRs. A noise survey has been undertaken to determine the baseline sound environment at these NVSRs and will also be supplemented with any existing baseline data held by Reading Borough Council.
- 5.68 Measured data have taken account of weather conditions during the survey to obtain a dataset from which representative baseline sound levels for the assessment can be derived.

Assessment of Effects

- 5.69 The chapter will include consideration of noise effects arising during the construction and operational phases of the proposed development. For the construction phase, this will also include vibration effects. Impacts will be assessed against the baseline conditions recorded at the agreed NVSRs.
- 5.70 A qualitative assessment of the construction phase will be undertaken based upon the guidance contained within British Standard 5228-1:2009+A1:2014 'Noise and vibration control on construction and open sites – Part 1: Noise' and BS 5228-2:2009+A1:2014 'Noise and vibration control on construction and open sites – Part 2: Vibration', the national Planning Policy on Noise and Reading Borough Council's policies.
- 5.71 A qualitative assessment of the operational phase (primarily noise emissions from building services plant) will be undertaken based upon the methodology contained within British Standard BS 4142:2014 'Methods for rating and assessing industrial and commercial sound'. It is unlikely that detailed design information will be available at this stage to inform the assessment. Therefore, either a generic assessment will be provided based upon the information provided or suitable design criteria will be specified.
- 5.72 Residential amenity within the development will be assessed in outline, in accordance with British Standard 8233:2014 'Guidance on sound insulation and noise reduction for buildings'. The assessment will identify whether a natural ventilation strategy is feasible for residential premises, and will provide outline guidance on the acoustic requirements of facades and glazing to control noise intrusion to the residential properties.

- 5.73 A quantitative assessment of the noise effects of changes in the traffic flow characteristics on the local road network will be undertaken based upon the guidance contained within the 'Calculation of Road Traffic Noise' (CRTN) (Department of Transport, 1988) and the Design Manual for Roads and Bridges (DMRB) (Highways Agency *et. al.*, 2012).
- 5.74 Where necessary, outline mitigation measures will be identified, in accordance with best practice and Reading Borough Council's policies, to ensure that acceptable noise and vibration levels prevail during the construction and operational phases and ensure that acceptable noise levels can be achieved for the proposed development. The key NVSRs will be identified, together with the likely impacts on them. Taking into account the sensitivity of these receptors and the predicted magnitude of the impact, the significance of effects will be set out.

Issues Proposed to be Scoped Out

- 5.75 There are no significant sources of vibration associated with the operation of the proposed development, and no ground borne vibration was perceptible to the surveyor on a site visit. Therefore assessment of vibration effects during operation is proposed to be scoped out of the ES.

Chapter 10: Wind Microclimate

Baseline Information

- 5.76 The UK Meteorological Office provides data on the number of hours that wind occurs and the ranges of wind speed and direction. The nearest station to the site with approximately 30 years of good quality wind data is at London Heathrow International Airport in west London. The data show that the prevailing winds at the site are from the south west, with colder north easterly winds occurring during the spring months. This is typical for many areas of southern England.
- 5.77 The data obtained from Heathrow will be corrected to take account of the terrain and surroundings of the site. This is typically done using a detailed terrain modelling tool such as ESDU 1008 or Breve 3.2. Seasonal wind statistics are then used in wind tunnel studies, as described below, to quantify the wind microclimate conditions across the site.

Proposed Approach

- 5.78 A qualitative assessment of the likely wind environment around the proposed development has been undertaken. The proposed development would be comprised of multiple blocks, which increase in height with the lowest blocks located in the east and highest in the west of the site. This configuration would provide some shelter to the taller buildings in the east of the site but also allow for some circulation of air between the blocks. The orientation of the blocks could result in the channelling of wind between the buildings and the taller buildings are likely to cause down-draughting. However, the stepped nature of the buildings is likely to help reduce the impacts at ground level.
- 5.79 The ES will include the results of wind tunnel testing, which will identify areas that are windier than required from a comfort and safety point of view. The following configurations will be tested and presented;
- Existing Site (baseline);

- Proposed Development with existing surroundings; and
 - Proposed Development with existing and consented buildings in the area,
- 5.80 The study will focus on areas that are frequently used (e.g. building entrances, walkways, etc.) and areas where increased windiness is expected (e.g. building corners). Mitigation measures to reduce the level of wind at ground level will be outlined. Taking into account the intended pedestrian activities in each location and the predicted magnitude of the impact, the significance of effects will be set out.

Issues Proposed to be Scoped Out

- 5.81 The wind conditions during demolition or construction phases will be assessed using a qualitative approach, as it is impractical to wind tunnel test demolition/ construction stages.

Chapter 11: Community and Socio-economics

Baseline Information

- 5.82 In 2016, the population of Reading borough stood at 162,700; with approximately 109,600 aged 16-64, 33,400 aged 65+ and 19,700 aged 0-15 (Office for National Statistics (ONS), 2017a)
- 5.83 The latest full year data show that average dwelling price stood at £366,973 in 2016 in Reading, with average flat prices at £230,604 and average detached house prices at £587,671. Affordability ratios stood at 8.4 (median) and 10.3 (lower quartile). This means the Reading area is comparatively less affordable than the England average.
- 5.84 In the year to 2017, the Annual Population Survey indicates that Reading had an economic activity rate of 79.8% and an employment rate of 78.8%. In Reading, 54.8% of employed residents are employed in job roles classed as skilled.
- 5.85 The latest available estimates suggest that there are 86,400 people in employment across Reading. There are 23,500 people that are economically inactive in Reading, though this number includes the student population and people in retirement.
- 5.86 The most recent UK Business Counts indicate that there are 7,040 business units in the Reading local authority area.
- 5.87 Reading Borough Council reports 39 state funded primary schools within the borough (including infant and junior schools) and seven special primary schools. There are ten state funded secondary schools, and six special secondary schools. Initial research indicates that there are six primary schools within a 1 km radius of the site. These are E P Collier Primary School, Civitas Academy, Oxford Road Primary School, Thameside Primary School, The Heights Primary School and St Annes Catholic Primary School.
- 5.88 An initial review of the latest published capacity and roll data for schools suggest the following:
- E P Collier Primary School – 325 pupils with a capacity of 472;
 - Civitas Academy – 98 pupils with a capacity of 420;
 - Oxford Road Primary School – 289 pupils with a capacity of 292;

- Thameside Primary School - 403 pupils with a capacity of 420;
 - The Heights Primary School – 167 pupils with a capacity of 350; and
 - St Annes Catholic Primary School – 200 pupils with a capacity of 237.
- 5.89 The data indicate that there is likely to be the capacity for an increased intake spread across local primary schools.
- 5.90 The site is within the secondary school catchment area for Highdown School, and is in close proximity to two other secondary schools; Kendrick School (Girls) and Reading School (Boys). All three secondary schools are for year groups 7 to 13 (age 11 to 18). Initial research indicates the following capacity at these schools:
- Highdown School – 1271 pupils with a capacity of 1440;
 - Kendrick School – 742 pupils with a capacity of 760; and
 - Reading School (Boys) – 961 pupils with a capacity of 887.
- 5.91 Whilst Kendrick School and Reading School are currently operating near or over capacity, the data for Highdown School indicate that is likely to have the capacity for an increased intake.
- 5.92 There are numerous health practices with GP provision within the site catchment, these include Reading Walk-In Health Centre, London Street Surgery, Abbey Medical Centre and Russell Street Surgery. These practices are accepting patients.
- 5.93 Sports and leisure facilities are in abundance in the area, with numerous gyms, a public swimming pool, martial arts classes, laser clay shooting and a football club all being offered with 1 km of the proposed development site. There are no public rights of way passing through the site or adjacent to the site boundary.

Proposed Approach

Baseline Studies

- 5.94 The existing data will be supplemented in order to provide a full baseline desktop study. The baseline data informing the assessment will include the following:
- National population data sets and projections produced by the ONS including mid-year estimates and population projections;
 - Labour market data from the Annual Population Survey and ONS Census 2011;
 - Business Register and Employment Survey data from the ONS;
 - Housing market data from the Department for Communities and Local Government (housing stock), house prices (Land Registry) and local authority annual monitoring reports/planning data where relevant;
 - Department for Education and Council data on school capacity, rolls and forecasts;

- Department for Health data on General Practice facilities in the area, supplemented by Clinical Commissioning Group data;
- Ordnance Survey or other mapping of social and community infrastructure, including the Berkshire County Council definitive rights of way map; and
- Local authority sports, leisure and greenspace audit data, supplemented by primary data from the design team where appropriate.

5.95 The baseline data collection process will also include systematic uses of online sources where the datasets described above do not provide sufficient detail. Consultations will be carried out with the relevant authorities to fill any gaps in the evidence and verify collected data.

Assessment of Effects

5.96 The ES chapter will assess the potential effects on community resources and the socio-economic effects arising during the construction and operation of Reading Metropolitan. The sensitivity of each receptor will be identified, dependent upon a combination of data on the current position, judgement about the priority attached to it in policy terms and assessment of key economic and social challenges.

5.97 There are no standard criteria for assessing the significance of effects on socio-economics generally, and on social and community infrastructure specifically. Therefore, account will be taken of the requirements for EIA as set out in the 2017 EIA Regulations.

5.98 The key elements of the assessment will be:

- Definition of receptors and establishment of baseline socio-economic conditions for assessment using desk-based analysis of national and local data as well as supplementary consultation if necessary;
- Review of local policy context, with a focus on key socio-economic challenges, opportunities and priorities relating to each of the sub-topic areas;
- Assessment of likely effects of the proposed development on a series of receptors, including the scale of change in relation to baseline conditions in those receptors, taking into account social and community infrastructure forming part of the proposed development;
- Assessment of the significance of these effects, and whether they positive or adverse; and
- Identification of any further mitigation necessary.

5.99 The chapter would assess temporary and permanent effects including:

- The size and characteristics of the population that the proposed development would be expected to accommodate, setting these in the context of the impact areas;
- The effect of the new dwellings on the area's housing supply and housing market;
- Economic effects; direct and indirect employment impacts; and the potential for out-migration and effects on property values; and

- The demand for the full range of social and community infrastructure described above that would be generated by the proposed development's resident population. Comparison would be made between this demand and the supply of such infrastructure.

5.100 The assessment would draw conclusions on the scale or magnitude of impacts in relation to the baseline position for the receptor, and conclusions about the significance of effects.

Issues Proposed to be Scoped Out

5.101 Temporary effects on population and employment during construction would be considered at an appropriate level of detail and the ES would set out details of the employment likely to be generated. However, given the temporary nature of the effects and the extent to which such effects can be affected by the nature of the agreements between the developers and building contractors, such assessment would not include detailed, quantitative assessment of labour demand impacts or supply chain/induced economic effects. Over an extended period of time, it is reasonable to anticipate that labour would be sourced from an area that extends beyond Reading, and this would further dampen the size of the effect locally.

Cumulative Effects

5.102 As set out in Section 3 of this report, each topic chapter will consider the potential for significant cumulative effects with other major proposed developments. Other developments considered within the cumulative assessment will include those that are:

- Under construction;
- Permitted, but not yet implemented;
- Submitted, but not yet determined; and
- Identified in the Development Plan (and emerging Development Plans - with appropriate weight being given as they move closer to adoption) recognising that much information on any relevant proposals will be limited.

5.103 An indicative list of other proposed developments and allocations to be considered within the EIA process will be agreed with Reading Borough Council. In general, only those planning applications from the last three years will be included within the list of cumulative developments (including those amended or extended within the last three years). Comments will be invited on the content of this list and the extent to which allocations from neighbouring authorities may need to be considered. The list of developments will be updated prior to submission of the application to capture any new developments which come forward during the preparation of the ES.

5.104 Each topic author will review the overall list of developments and allocations and identify those relevant to their topic. The chapter will include an assessment of the potential for significant cumulative effects with the relevant developments.

Summary of Issues Proposed to be Scoped Out of Topic Chapters

5.105 The table below provides a summary of the main issues to be scoped out as detailed above in each topic section.

Table 5.1: Issues Proposed to be Scoped Out of Topic Chapters

Chapter Title	Scoped Out
Chapter 5: Townscape and Visual Resources	• Seascape. • Residential amenity assessment.
Chapter 6: Geology, Hydrogeology and Ground Conditions	• Geological designated sites.
Chapter 7: Hydrology and Flood Risk	• Sequential Test.
Chapter 8: Air Quality	• Emissions from combustion point sources. • Operational dust effects. • Air quality effects on ecological designated sites. • Odour effects.
Chapter 9: Noise and Vibration	• Operational vibration effects.
Chapter 10: Wind and Microclimate	• Quantitative assessment/wind tunnel testing of construction/demolition phase.
Chapter 11: Community and Socio-economics	• Quantitative assessment of construction phase employment.

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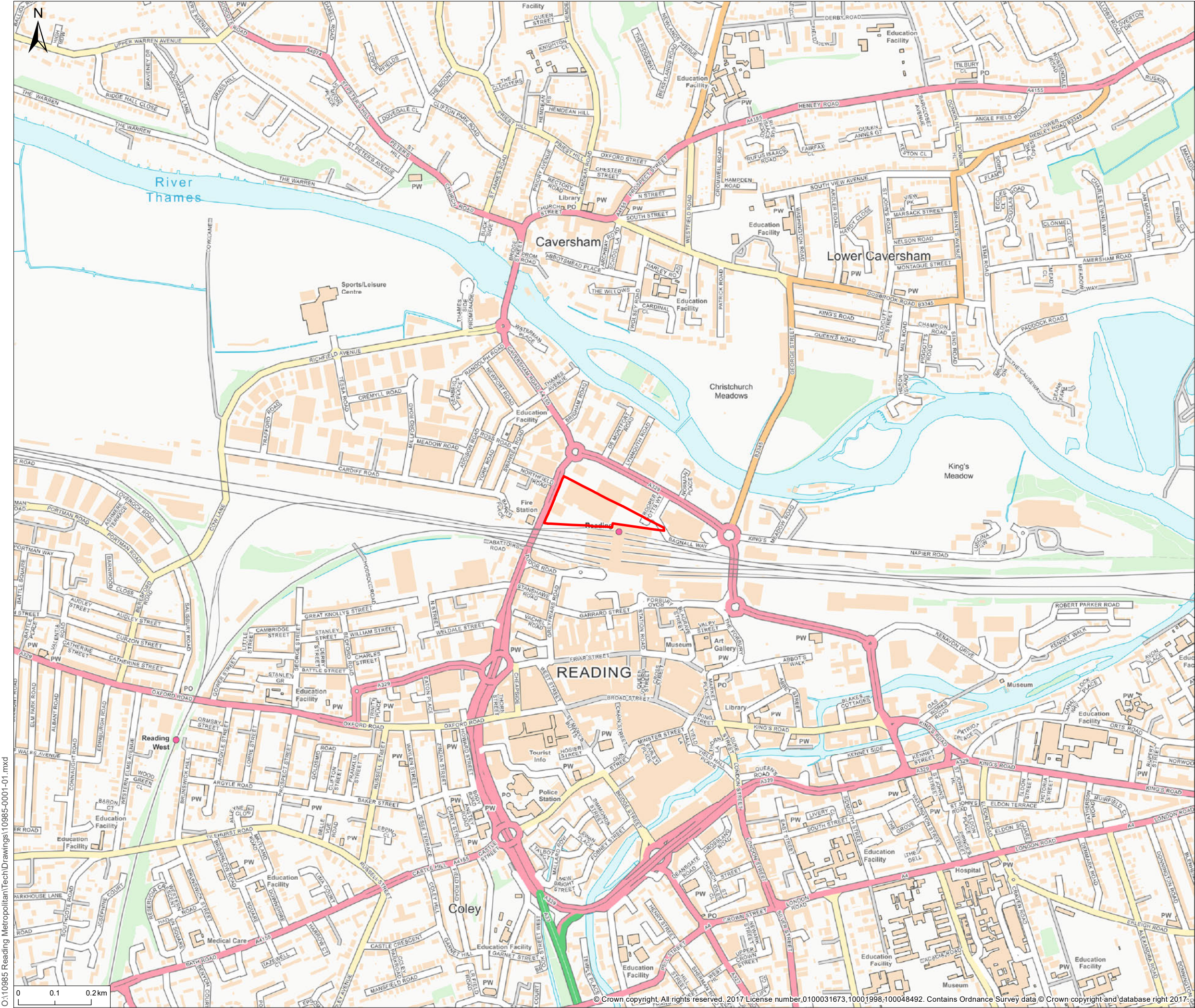
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FIGURE 1: SITE LOCATION PLAN



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Legend

 Site boundary

Rev	Description	Date	Initial	Checked



20 Western Avenue, Milton Park, Abingdon, Oxfordshire, OX14 4SH
T: +44(0)1235 821 888 E: rpsox@rpsgroup.com F: +44(0)1235 834 698

Client **Hermes Investment Management**

Project **Reading Metropolitan**

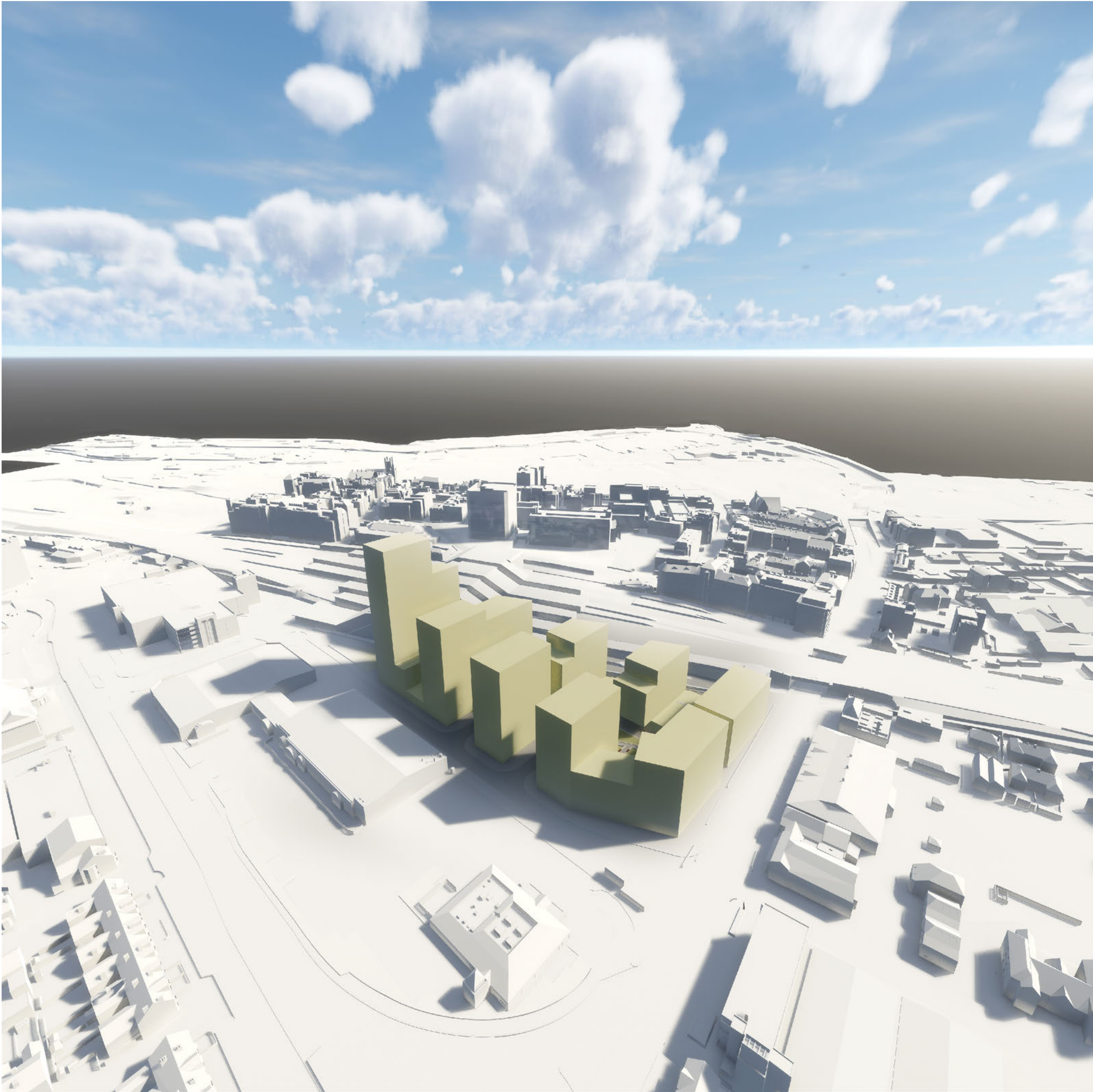
Title **Site Location Plan**

Status	Drawn By:	PM/Checked By
FINAL	CR	NB
Job Ref	Scale @ A3	Date Created
OXF10985	1:10,000	JAN 2018

Figure Number	Rev
1	-

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FIGURE 2: ILLUSTRATIVE DESIGN



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Rev	Description	Date	Initial	Checked



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Client **Hermes Investment Management**

Project **Reading Metropolitan**

Title **Illustrative Design**

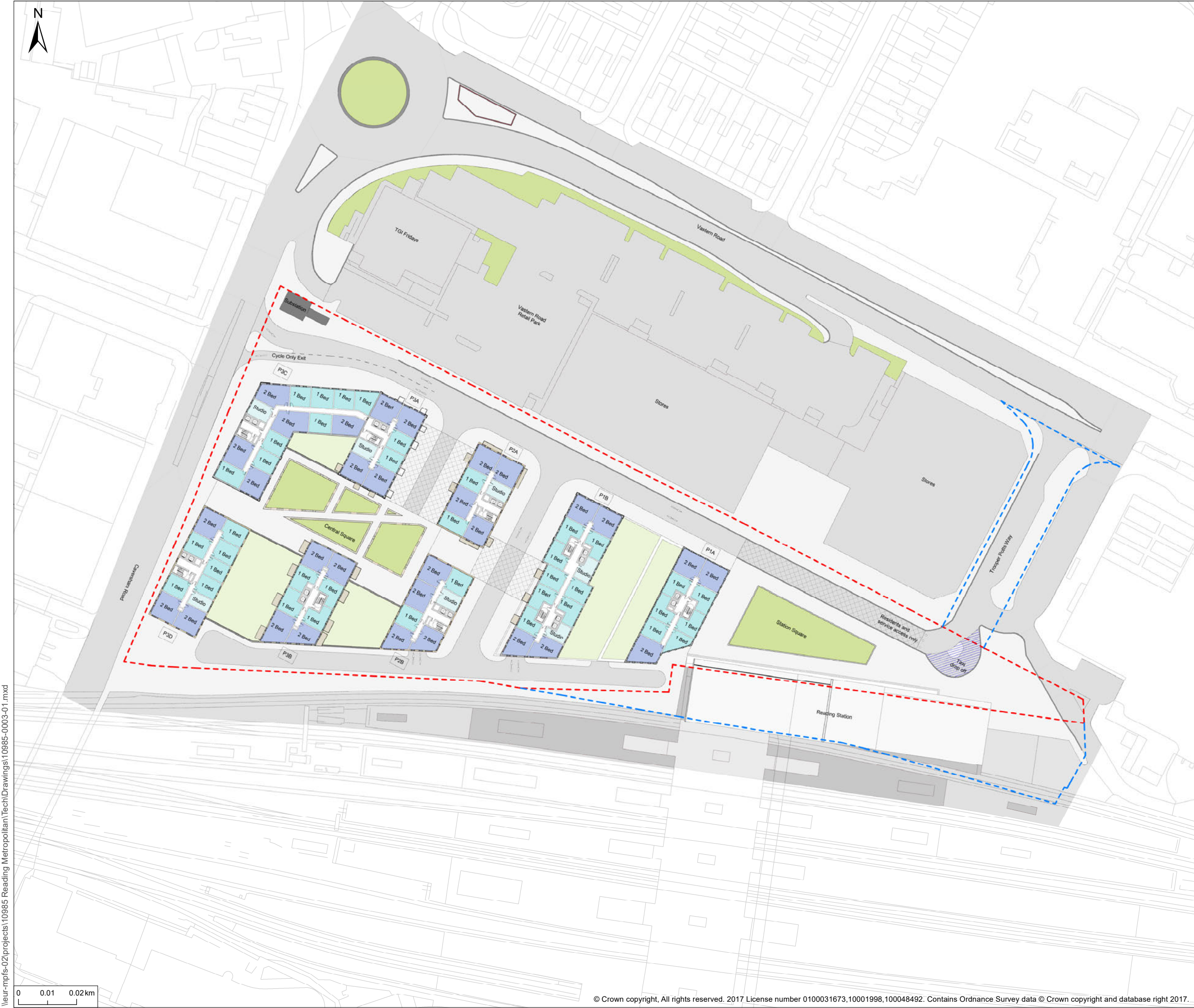
Status	Drawn By:	PM/Checked By
FINAL	CR	NB

Job Ref	Scale @ A3	Date Created
OXF10985	NTS	JAN 2018

Figure Number	Rev
2	-

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FIGURE 3: TYPICAL ILLUSTRATIVE FLOOR PLAN



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- Legend**
- Site boundary
 - 1 Bed
 - 2 Bed
 - Studio
 - Blank wall to avoid over looking

Rev	Description	Date	Initial	Checked



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Client **Hermes Investment Management**

Project **Reading Metropolitan**

Title **Typical Illustrative floor plan**

Status	Drawn By:	PM/Checked By
FINAL	CR	NB
Job Ref	Scale @ A3	Date Created
OXF10985	1:1,250	JAN 2018
Figure Number		Rev
3		-

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APPENDIX 1: REQUIRED CONTENTS OF AN ENVIRONMENTAL STATEMENT

Town and Country Planning (Environmental Impact Assessment) Regulations 2017

Regulation 18(3)

‘An environmental statement is a statement which includes at least –

- (a) a description of the proposed development comprising information on the site, design, size and other relevant features of the development;
- (b) a description of the likely significant effects of the proposed development on the environment;
- (c) a description of any features of the proposed development, or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;
- (d) a description of the reasonable alternatives studied by the developer, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment;
- (e) a non-technical summary of the information referred to in sub-paragraphs (a) to (d); and
- (f) any additional information specified in Schedule 4 relevant to the specific characteristics of the particular development or type of development and to the environmental features likely to be significantly affected.’

Schedule 4: Information for Inclusion in Environmental Statements

1. A description of the development, including in particular:

a description of the location of the development;

a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases;

a description of the main characteristics of the operational phase of the development (in particular any production processes), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used;

an estimate, by type and quantity, of expected residues and emissions (such as water, air and soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases.

2. A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studies by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting chosen option, including a comparison of the environmental effects.
3. A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changed from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.
4. A description of the factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example flora and fauna), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural aspects, and landscape.
5. A description of the likely significant effects of the development on the environment resulting from, inter alia:

the construction and existence of the development, including, where relevant, demolition works;

the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;

the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances and the disposal and recovery of waste;

the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);

the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;

the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change;

the technologies and the substances use.

The description of the likely significant effects on the factors specified in regulation 4(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project, including in particular those established under Council Directive 92/43/EEC and Directive 2009/147/EC.

6. A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.
7. A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both construction and operational phases.
8. A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to EU legislation such as Directive 2012/18/EU of the European Parliament and of the Council or Council Directive 2009/71/Euratom or UK environmental assessments may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.
9. A non-technical summary of the information provided under paragraphs 1 to 8.
10. A reference list detailing the sources used for the descriptions and assessments included in the environmental statement.

APPENDIX 2: DAYLIGHT, SUNLIGHT AND OVERSHADOWING METHODOLOGY

- A.1 The BRE Guidelines provide advice and target values on site layout planning to achieve good sunlight, daylight and overshadowing levels at buildings and at open spaces such as amenity areas. The BRE Guidelines are intended to be used in conjunction with the interior daylight recommendations in the British Standard (BS) 8206 Part 2: 2008 (British Standard, 2008). The BRE Guidelines state that the numerical target values are purely advisory, and that the target values given may be varied to meet the needs of the development and its location. The document also states in its own introduction on page 1 that:

“The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document should not be seen as an instrument of planning policy”

- A.2 The technical analyses carried out to inform the daylight, sunlight, overshadowing, light pollution and solar glare assessment have been undertaken by creating a digital 3D model of the existing site and proposed development and the site's existing surroundings, based on measured survey data.
- A.3 In order to assess the likely effect on existing surrounding properties, the use of the Vertical Sky Component (VSC) provides a detailed method of assessment.
- A.4 The VSC is expressed as a ratio of the maximum value of daylight achievable for a completely unobstructed vertical wall. The maximum value is almost 40%. This is because daylight hitting a window can only come from one direction, immediately halving the available light. The value is limited further by the angle of the sun. This is why if the VSC is greater than 27%, enough sunlight should be reaching the existing window. Any reduction below this level should be kept to a minimum.
- A.5 Windows to some existing rooms may already fail to achieve this target under existing conditions. In these circumstances, it is possible to accept a reduction to the existing level to no less than 80% of its former value.
- A.6 To summarise the above, a room is considered to continue to receive good levels of daylight if the window can receive a VSC of at least 27%. If a window receives a VSC below 27% in the existing scenario, a reduction of less than 0.8 times its former value (20%), as a result of the proposed development, is considered acceptable.
- A.7 In conjunction with the VSC tests, the BRE Guidelines and British Standard 8206-Part2:2008 (British Standard, 2008) suggest that the distribution of daylight is assessed using the No Sky Line (NSL) test. This test separates those areas of the working plane that can receive direct skylight and those that cannot.
- A.8 The BRE Guidelines suggest that the daylight distribution test is undertaken to existing surrounding properties where the internal arrangements are known. To assess the impact of any reduction, the BRE Guidelines (BRE, 2011) suggest:
- A.9 If, following the construction of a new development, the NSL moves so that the area of the existing room, which does not receive direct sunlight, is reduced to less than 0.8 times its former value, this will be noticeable to the occupants and more of the room will appear poorly lit.

- A.10 The 3D model uses Waldram Diagrams to establish the VSC and 3D geometric calculations for the NSL assessments. This model, which is orientated to north by the use of Ordinance Survey (OS) information, also enables the path of the sun to be tracked throughout the year to establish the shadow cast by the existing and proposed development.
- A.11 In relation to room layouts, assumptions have been made in regards to the likely use and internal configuration of the rooms behind the fenestration observed. In such cases a standard 4.2 metre (14 foot) room depth has been assumed, unless the building form dictated otherwise. This is common practice where access for surveying is unavailable.
- A.12 Floor levels have been assumed for those adjoining properties where access has not been obtained. This dictates the level of the working plane which is the point at which rights of light assessments are carried out. It is also relevant for the NSL assessments.
- A.13 The effects of the proposed development on the daylight, sunlight and overshadowing, in relation to the identified receptors around the site, have been based on a comparison of the baseline conditions and the predicted conditions with the proposed development in place.
- A.14 Only those surrounding properties which have windows facing towards the site were included for assessment. If a nearby property has no windows facing the site, these properties would not be affected by the proposed development in terms of light.
- A.15 The methodologies used in the daylight, sunlight, overshadowing, light pollution and solar glare analyses are:
- A.16 Daylight: The principles set out in section 2 of the BRE Guidelines (BRE, 2011) (Light from the Sky) together with the concept of Average Daylight Factor (ADF) as set out in both Appendix C of the BRE Guidelines (Interior Daylighting Recommendations) and in BS 8206. Each neighbouring residential property will be assessed for the VSC, NSL and ADF;
- A.17 Sunlight: The sun light protractor method and sunlight availability indicator for 51.50 N as set out in Appendix A of the BRE Guidelines (BRE, 2011). Each neighbouring residential property will be assessed for the Total and Winter Annual Probable Sunlight Hours for sunlight;
- A.18 Sun on Ground: The method for assessing sun on the ground is the 'sun-on-ground indicator'. The BRE Guidelines suggest that the spring equinox (March 21st) is a suitable date for the assessment. Using specialist software, the path of the sun is tracked to determine where the sun would reach the ground and where it would not. This assessment reviews the total percentage of an area that receives at least 2 hours of direct sunlight on March 21st;
- A.19 Transient Overshadowing: The BRE Guidelines suggest that where large buildings are proposed which may affect a number of gardens or open spaces, it is useful to plot a shadow plan to illustrate the location of shadows at different times of the day and year. For the purpose of this assessment the overshadowing was mapped for the following three key dates in the year:
- 21st March (spring equinox);
 - 21st June (summer solstice);
 - 21st December (winter solstice).

- A.20 September 21st (autumn equinox) provides the same overshadowing images as March 21st (spring equinox) as the sun follows the same path at these corresponding times of year.
- A.21 For each of these dates, the overshadowing is calculated at hourly intervals throughout the day from 08:00 am to 19:00 pm. Some images are not included because the sun would not be present during these times (e.g. from approximately 16:00 pm onwards on 21st December) and thus no shadow can be cast. The indicators are calculated for different latitudes, London being at 51.5° north.
- A.22 Light Pollution: Quantitative criteria for acceptable levels of light pollution are detailed within the ILP Guidance (ILP, 2011). An analysis of the potential for light pollution resulting from the proposed development to impact nearby receptors has been conducted, as well as to proposed sensitive receptors within the site. The assessment has been undertaken by preparing a computer-generated 3D model of the proposed development and using specialist lighting simulation software. The light fittings used for this lighting simulation represent typical recessed office luminaires regularly spaced on the proposed office ceilings achieving an average illuminance of 400 lux across the working plane. This sees all luminaires switched on at once and no blinds or shading devices being deployed for the purpose of the light pollution assessment.
- A.23 Solar Glare: Page 28 of the 2011 BRE Guidelines (BRE, 2011), makes the following statement in regards to the potential for reflected solar glare from a proposed development:
- “Glare or solar dazzle can occur when sunlight is reflected from a glazed façade. This can affect road users outside and the occupants of adjoining buildings. The problem can occur either when there are large areas of reflective glass or cladding on the façade, or when there are areas of glass or cladding which slope back so that high altitude sunlight can be reflected along the ground. Thus solar dazzle is only a long term problem for some heavily glazed (or mirror clad) buildings...”*
- A.24 Solar glare is particularly relevant at pedestrian and vehicular junctions, where glare can cause temporary blinding of drivers or pedestrians and has potential to cause accidents. Therefore, the assessment considers potentially sensitive viewpoints surrounding the site. The viewpoints are generally located at the minimum stopping distance and at the driver’s eye height. The focal point is a relevant traffic element, such as signals or incoming traffic.
- A.25 The potential for reflected solar glare or dazzle from the glazed or reflective façades of the development are assessed using specialist lighting software. The assessment shows the path of the sun for the entire year around the development. From this computer generated angular images are produced for each selected viewpoint, indicating the area which sees the reflection of the sun path at any point during the year. A modified diagram portraying a standardised extent of human vision is then overlaid onto the image.
- A.26 Internal daylight: The BRE recognises the importance for receiving adequate daylight within the proposed residential accommodation. The use of the ADF is used to determine the average illuminance on the working plane in a room, divided by the illuminance on an unobstructed surface outdoors. This analysis is undertaken in accordance with BS 8206 Part 2:2008.

APPENDIX 3: DRAFT TRANSPORT ASSESSMENT



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- A Indicative Ground Floor Layout**
- B TRICS Output Data – Residential**
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- D TRICS Output Data – Retail**
- E TRICS Output Data - Restaurant**
- F TRICS Output Data – Leisure**
- G Net change in development vehicular trips upon external highway network**

1 Introduction

- 1.1 This draft Transport Assessment has been prepared by Steer Davies Gleave on behalf of Hermes Investment Management (the 'Applicant') for the forthcoming planning application for the redevelopment of the Royal Mail site at Caversham Road, Reading, otherwise known as 'Reading Metropolitan'. The site is located within Reading Borough Council (RBC). The proposed redevelopment comprises the demolition of the existing former Royal Mail buildings to provide a mixed-use development including offices, residential, retail, leisure and restaurant uses.
- 1.2 An indicative ground floor plan has been provided at Appendix A for reference.
- 1.3 This Transport Assessment has been prepared in draft to address comments raised by RBC during pre-application meetings on both Wednesday 25 October 2017 and Friday 24 November 2017 regarding the redevelopment proposals. The report outlines the net change in impact upon transport networks in comparison to the 2012 Consented Scheme. It also considers any relevant changes in baseline conditions and the policy context.
- 1.4 This version of the draft Transport Assessment has been prepared following RBC's initial review of this draft report and incorporates discussions from both pre-application meetings. The full Transport Assessment will include all details related to the transport elements of the proposed scheme once the final design has been determined.
- 1.5 The following sections of this draft report have been updated to respond to RBC's highway officer comments:
- paragraph 2.21 – exact dates of 2010 and 2017 traffic surveys have been stated;
 - paragraph 4.9 – description of revised vehicular access arrangements that will eliminate any possibility of 'rat running' through the site, which has been incorporated in subsequent highway assessment impacts of the proposed scheme and evaluation of net change;
 - paragraph 4.11 – confirmation that the existing taxi ranks within vicinity of the site's eastern access will not be amended as part of the proposals;
 - paragraph 4.17 – refined details are included regarding car parking provision allocated to individual land use;
 - paragraph 4.22 – confirmation that all delivery and servicing activity will be taking within the site's boundaries;
 - paragraph 5.13 – the trip generation for the restaurant element of the scheme has been amended to assume 50% of trips will be pass-by, instead of 100% as initially assessed;
 - Tables 5.6 and 5.7 – adjustments to mode share for residential and office trip generation to reflect updated car parking provision allocated to each land use;

- Tables 5.11 and 5.12 – revised forecast multi-modal site wide trip generation and associated net change in trips against the 2012 Consented Scheme; and
- Chapter 6 – highlights the net change in development vehicular traffic flows upon the external highway network between the 2012 Consented Scheme and 2017 Proposed Scheme. This illustrates that no further junction assessment modelling is required to support the scheme and there are no significant issues with the visibility at the eastern access point (A329 Vastern Road) for vehicles egressing the site.

Planning Background

Outline Planning Application

- 1.6 An Outline Planning Application (OPA) was submitted to RBC for the redevelopment of Royal Mail site in February 2011 (LPA Ref: 11/00276/OUT). The application was granted Outline Planning Permission (OPP) in March 2012 by RBC, with the scheme hereafter referred to as the ‘2012 Consented Scheme’.
- 1.7 The 2012 OPP secured approval for the following:
- “All matters reserved with the exception of means of access, for the demolition of existing buildings; site preparation; and redevelopment of the application site for a mix of uses from amongst employment and business uses (use class B1) and residential accommodation (C3); Hotel (C1), retail floor space (A1), food and drink uses (A3, A4 and A5), leisure uses (D2), car parking, public and private open space, landscaping works, highways, access and associated works.”*
- 1.8 The permission allowed for an overall gross external floorspace of all uses of 65,095 sqm, which included:
- 40,092 sqm GEA of residential (Use Class C3);
 - 1,286 sqm GEA of retail (Use Class A1-A5);
 - 16,156 sqm GEA of office floorspace (Use Class B1);
 - 4,493 sqm GEA of hotel (Use Class C1);
 - 300 sqm GEA of gymnasium (Use Class D2); and
 - 1,958 sqm GEA of plant space.
- 1.9 The 2012 Consented Scheme OPP was subject to a Transport Assessment (February 2011), Environmental Statement (August 2011) and Framework Travel Plan (February 2011) prepared by Steer Davies Gleave. A subsequent Transport Assessment Addendum was submitted in August 2011 to reflect changes in traffic distribution following amendments requested by RBC to vehicular access arrangements at the site which provide a left-in only junction with Caversham Road (the site’s western access) and a left-in/left-out junction with Vastern Road (the site’s eastern access).

Current proposals

- 1.10 The current planning application seeks permission for the following quantum per land use:
- 65,188 sqm GEA of residential (Use Class C3);
 - 2,200 sqm GEA of retail (Use Class A1-A5);
 - 3,230 sqm GEA of office floorspace (Use Class B1);
 - 800 sqm GEA of gymnasium (Use Class D2); and
 - 5,559 sqm GEA of ground floor space (entrances, refuse areas, plant, cycle parking, residential amenities).

- 1.11 Amendments to parking provision and site access since the 2012 OPP will be discussed within this draft Transport Assessment.
- 1.12 These proposals are hereafter referred to as the 2017 Proposed Development.

Application documents

- 1.13 The full Transport Assessment submitted as part of the forthcoming planning application should be read in conjunction with the updated suite of standalone documents that will be prepared in due course, as follows:
- Framework Travel Plan; and
 - Traffic and Transport Chapter for Environmental Statement.
- 1.14 This draft Transport Assessment considers the transport related impacts of the proposed revisions in comparison to the 2012 Consented Scheme. For this reason, this report should also be read in conjunction with the February 2011 Transport Assessment and the associated August 2011 Transport Assessment Addendum.

Consultation

- 1.15 Scoping discussions have taken place between the Applicant and RBC's planning officer to confirm their requirements for the Transport Assessment and the key elements to include, which has informed the scope and preparation of this draft document.

Report structure

- 1.16 The remainder of this report will be structured as follows:
- **Chapter 2:** describes the existing transport conditions at the site, and any significant changes since the 2012 Consented Scheme;
 - **Chapter 3:** describes the relevant planning policy context under which this application will be submitted;
 - **Chapter 4:** describes the revised development proposals, including the proposed amendments that form part of this application;
 - **Chapter 5:** outlines the multi-modal trip generation forecasts for the Royal Mail site and an overall comparison against the 2012 Consented Scheme;
 - **Chapter 6:** details the impact of the 2017 Proposed Development on the highway network and public transport network;
 - **Chapter 7:** provides a summary of servicing, deliveries and waste arrangements;
 - **Chapter 8:** details the impact of construction traffic on the highway network; and
 - **Chapter 9:** provides a summary of the draft Transport Assessment and concluding remarks regarding the 2017 Proposed Development.

2 Existing Situation

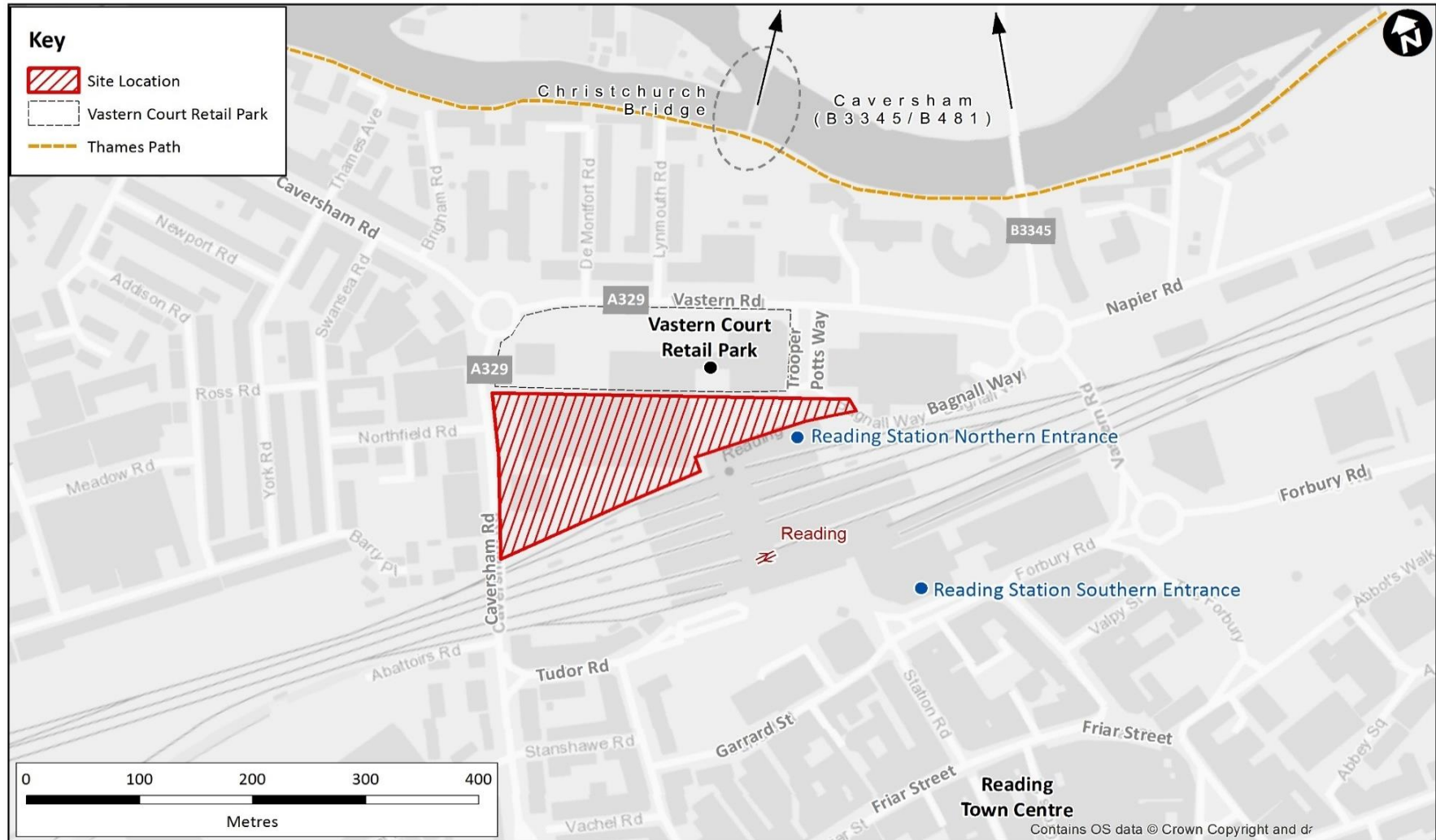
Introduction

- 2.1 The full Transport Assessment will provide a comprehensive review of all local transport networks per mode within the vicinity of the site. For this draft report only the key changes in the baseline transport conditions have been detailed.

Site Location

- 2.2 The boundaries of the site remain unchanged from the 2012 OPP. Following a site visit undertaken by Steer Davies Gleave on Friday 6 October 2017, the site is still vacant following the departure of Royal Mail in June 2009 and the disused sorting offices remain on site. The site is currently used by Network Rail following the ongoing Reading railway station improvement works.
- 2.3 A site location plan can be seen at Figure 2.1.

Figure 2.1: Site Location Plan



Pedestrian Facilities

- 2.4 The improvements to Reading railway station that were completed in summer 2014 has enhanced connectivity between the area north of the station and Reading town centre towards the south of the station, through the provision of a new walk-through between the two station entrances (available for non-ticket holders). This has significantly reduced the journey time for pedestrians since the 2012 OPP for accessing the town centre area, as previously pedestrians were required to walk via A329 Vastern Road and Forbury Gardens.
- 2.5 The public realm outside the railway station's northern entrance along Trooper Potts Way has also been significantly improved since 2012, with footway provision on both sides of the carriageway along Trooper Potts Way commensurate with dropped kerbs and tactile paving at all informal pedestrian crossing points. This will benefit site users accessing the new bus stops (NA, NB, NC, ND and NE) for the station and those travelling towards northern destinations including the Thames Path and Christchurch Bridge (for Caversham).
- 2.6 There have also been significant improvements to the A329 Vastern Road / Trooper Potts Way junction, which was previously did not provide a pedestrian crossing over the A329 due to the presence of a central reservation. With the Reading railway station northern entrance completion, a signalised pedestrian crossing has been provided across Trooper Potts Way and across the A329 east of the junction, with dropped kerbs and tactile paving. This will enhance the safety of pedestrians leaving the site's eastern access point and crossing the dual carriageway which experiences high traffic volumes.
- 2.7 Christchurch Bridge was completed in September 2015 and provides a pedestrian link over the River Thames between the Thames Path near Lynmouth Road and Christchurch Meadows. This will reduce the journey time for site users to reach Caversham than the 2012 OPP from the site's eastern access, via Trooper Potts Way and Norman Place.

Cycle Facilities

- 2.8 Cycle infrastructure remains similar to that detailed in the 2011 Transport Assessment.
- 2.9 The completed Christchurch Bridge across the River Thames is appropriate for cyclists and forms part of the North Reading designated cycle route, enabling a shorter journey time to reach Caversham and other northern suburbs of Reading. It links to National Cycle Network Route 5.

Public Transport Facilities

Public Transport Accessibility Level (PTAL)

- 2.10 The site achieved a PTAL rating of 6a ('Excellent' level of public transport services) in the peak hours and 5 during the off-peak period at the time of the 2011 Transport Assessment. It is likely that the site will achieve the same rating in the AM peak and a higher rating than 5 during the off-peak period, given the improvements in public transport services as outlined below. The introduction of Crossrail in December 2019 will significantly improve the PTAL rating in future years. A detailed PTAL assessment will be included as part of the full Transport Assessment.

National Rail services

- 2.11 The improvements to Reading railway station were completed in summer 2014, which comprises five new platforms, two new pedestrian entrances (including the northern

entrance adjacent to the site), design of track layout, a new pedestrian link bridge and retail outlets. This has enhanced the public realm at the northern entrance adjacent to the site and provides a pedestrian link to the area south of the station, including Station Road and Friar Street. The rail service frequency to key destinations remains similar to that outlined in the 2011 Transport Assessment, with a few improvements as outlined in Table 2.1, and service frequency to key destinations that were not previously mentioned.

Table 2.1: Changes in Reading railway station services between 2012 OPP and 2017

Destination	Peak frequency	Off-peak frequency
London Paddington*	Every 5 – 10 minutes	Every 5 – 10 minutes
Gatwick Airport	Every 60 minutes	Every 60 minutes
Guildford	Every 30 minutes	Every 30 minutes
Bournemouth	Every 60 minutes	Every 60 minutes
Didcot Parkway	Every 15 minutes	Every 20 minutes
Bristol Parkway	Every 30 minutes	Every 30 minutes
Swindon	Every 15 minutes	Every 15 minutes

*Note: Fast services only (less than 35 minutes journey time). Additional services are available to London Paddington via stopping services.

- 2.12 Reading railway station is currently subject to further improvements associated with modernising the Great Western route, namely the electrification of the route. This will increase the passenger capacity with new rolling stock and shorter journey times. The station is managed by Network Rail.

Crossrail

- 2.13 Reading railway station will form the terminus for Crossrail services on the north-western branch, with the route estimated for completion in December 2019. Peak services will operate every 15 minutes providing a direct connection to stations in central and east London, including Bond Street, Farringdon and Canary Wharf. Off-peak services will operate every 30 minutes. Fast services to London Paddington operated by Great Western Railway will be unaffected by Crossrail services.

Bus services

- 2.14 The public realm and highway improvements adjacent to the railway's station northern entrance have provided new bus stops (NA, NB, NC, ND and NE) which have shelters, detailed public transport and real time information. These are located next to the site's eastern access on Trooper Potts Way. The following services call at these bus stops: 800, 22, 23, 24, 25, X39, X40 and X80.
- 2.15 Reading buses routes 23 and 25, Thames Travel services X39/40 and Carousel service X80 did not previously call near the site at the time of 2012 OPP, enhancing the options for potential bus passengers from the site. A summary of these routes and any amendments to other services since 2012 OPP is provided in Table 2.2.

Table 2.2: Changes in local bus services between 2012 OPP and 2017

Route no. (provider)	Destinations	Peak frequency	Off-peak frequency
22 (Reading Buses)	Reading Station – Caversham	Every 30 mins	Every 30 mins
23 (Reading Buses)	Reading Station – Henley Road – Peppard Road – Queensway	Every 20 mins	Every 20 mins
24 (Reading Buses)	Reading Station – Caversham library – Chalgrove Way	Every 15-20 mins	Every 20 mins
25 (Reading Buses)	Reading Station – Peppard Road – Sonning Common – Peppard Common	Every 30 mins	Every 30 mins
X80 (Carousel)	Reading Station – Caversham – Henley-on-Thames – Marlow – High Wycombe	Every 30 mins	Every 30 mins
X39/40B (Thames Travel)	Reading Station – Caversham – Woodcote – Henley-on-Thames – Wallingford – Oxford	Every 30 mins	Every 30 mins

Taxi Services

- 2.16 There is a taxi rank located immediately outside of the northern entrance of Reading railway station and the site's proposed eastern access, with taxi-only access provided from Trooper Potts Way. There is an additional taxi rank on the eastern side of Trooper Potts Way. Both of these taxi ranks will be retained as part of the proposed redevelopment. It is not anticipated many site users will undertake journeys by taxi due to the large choice of sustainable modes available within proximity to the site.

Car Clubs

- 2.17 There are more car club vehicles available in comparison to that at the time of the 2012 OPP. Additional car club vehicles local to the site are detailed below:
- Co-Wheels Car Club – one vehicle available at Reading Council Magistrates Court car park (12 minute walk from site's western pedestrian access); and
 - Carvenient Car – Garrard Street (5 minute walk) and New Bright Street (15 minute walk).
- 2.18 The provision of car club vehicles within walking distance of the site will enable site users to undertake private vehicle trips when required without the responsibility of owning one themselves.

Road Safety

- 2.19 It is proposed to include an analysis of Personal Injury Accident (PIA) data in the full Transport Assessment for the most recent three year period available from RBC. Data will be collected for the same area as the 2011 Transport Assessment, to include the following areas:
- A329 Vastern Road between the roundabout junction with B3345 George Street / Bagnall Way / King's Meadow Road, and the roundabout junction with the A4155 Caversham Road;
 - A329 Caversham Road between the roundabout junction with the A4155 Caversham Road and the signalised T-junction with Great Knollys Street; and
 - A4155 Caversham Road between the roundabout junction with the A329 and the roundabout junction with Richfield Avenue / Waterman Place.

Local Highway Network

- 2.20 The highway network local to the site remains similar to that at the time of the 2012 OPP, with the only significant difference related to the Trooper Potts Way highway scheme and signalisation of its junction with the A329 Vastern Road. Trooper Potts Way operates a left-out / left-in only arrangement due to the central reservation along the A329 Vastern Road. There is a separate carriageway adjacent to Trooper Potts Way for buses only where the new bus stops are located, which connects to the priority junction with Bagnall Way (which is westbound only and cannot be entered at this point) and the Royal Mail site eastern access outside the station entrance.

Baseline Traffic Flows

- 2.21 The complete set of raw survey data mentioned in the following paragraphs will be included as part of the full Transport Assessment, as per requested by RBC.

2010 Traffic Survey Data

- 2.22 Traffic surveys were undertaken by Nationwide Data Collection as part of the February 2011 Transport Assessment prepared by Steer Davies Gleave to obtain baseline traffic volumes. These were undertaken in early March 2010 on neutral weekdays and outside of the Easter school holidays, and comprised the following surveys:

- **Automatic Traffic Count (ATC)** survey over a 24-hour 7-day weekly period (2 – 8 March 2010), including speed, classification and direction. Undertaken at the following locations:
 1. Royal Mail Access Road (Trooper Potts Way);
 2. A329 Vastern Road immediately west of signalised junction with Trooper Potts Way (due to central hatched area, distance and guard this was treated as two separate counts, eastbound and westbound); and
 3. A329 Caversham Road immediately south of junction with Northfield Road and the controlled pedestrian crossing (due to the central island this again was treated as two separate counts).
- **Manual Classified Count (MCC)** survey undertaken on a neutral weekday (Wednesday 3 March 2010) between 07:00 – 10:00 (AM period), 12:00 – 15:00 (lunchtime period) and 16:00 – 19:00 (PM period). Located at the priority junction between Trooper Potts Way / Bagnall Way / Royal Mail Depot site access.

- 2.23 A summary of the 2010 traffic survey data is presented in Table 2.3, including all vehicular movements. The proportion of cyclists and motorcyclists of all traffic is also identified.

Table 2.3: March 2010 Traffic Survey Data Summary

Survey location	AM Peak vehicular flow (08:00 – 09:00)		PM Peak vehicular flow (17:00 – 18:00)	
	Total vehicles	Proportion of cyclists and motorcyclists	Total vehicles	Proportion of cyclists and motorcyclists
ATC Survey*				
Site 1 - Trooper Potts Way (2-way)	76	5%	86	5%
Site 2 - A329 Vastern Road (Eastbound)	1105	2%	595	3%
Site 3 - A329 Vastern Road (Westbound)	780	2%	991	1%
Site 4 - A329 Caversham Road (Northbound)	1418	1%	1273	1%
Site 5 - A329 Caversham Road (Southbound)	1213	1%	1220	1%
MCC Survey				
Site 1 - Trooper Potts Way / Bagnall Way / Royal Mail Depot Site access	107	7%	78	8%

*Note: ATC data presents an average from the 5 individual weekdays (2nd, 3rd, 4th, 5th, 8th March 2010)

2017 Traffic Survey Data

- 2.24 Traffic surveys were undertaken in October 2017 by Traffic Data Centre in the same format as March 2010, to provide comparative data to assess the change in baseline traffic flows over the duration of seven years. The ATC surveys were undertaken between 11 – 17 October 2017, and the MCC survey was undertaken on Wednesday 11 October 2017.
- 2.25 A summary of the 2017 traffic survey data is presented in Table 2.4.

Table 2.4: October 2017 Traffic Survey Data Summary

Survey location	AM Peak vehicular flow (08:00 – 09:00)		PM Peak vehicular flow (17:00 – 18:00)	
	Total vehicles	Proportion of cyclists and motorcyclists	Total vehicles	Proportion of cyclists and motorcyclists
ATC Survey*				
Site 1 - Trooper Potts Way (2-way)	106	6%	134	6%
Site 2 - A329 Vastern Road (Eastbound)	1022	2%	700	2%
Site 3 - A329 Vastern Road (Westbound)	699	2%	886	2%
Site 4 - A329 Caversham Road (Northbound)	1165	1%	1080	1%
Site 5 - A329 Caversham Road (Southbound)	1132	1%	982	1%
MCC Survey				
Site 1 - Trooper Potts Way / Bagnall Way / Royal Mail Depot Site access	171	30%	210	23%

*Note: ATC data presents an average from the 5 individual weekdays (11th, 12th, 13th, 16th and 17th October 2017)

Net Change in Baseline Traffic Flows

- 2.26 The net change in baseline traffic flows and proportion of cyclists and motorcyclists between the 2012 OPP and 2017 October surveys is presented in Table 2.5.

Table 2.5: Net Change in baseline traffic flows 2010 – 2017

Survey location	AM Peak vehicular flow (08:00 – 09:00)		PM Peak vehicular flow (17:00 – 18:00)	
	Total vehicles	Proportion of cyclists and motorcyclists	Total vehicles	Proportion of cyclists and motorcyclists
ATC Survey*				
Site 1 - Trooper Potts Way (2-way)	30	1%	49	1%
Site 2 - A329 Vastern Road (Eastbound)	-83	0%	105	-1%
Site 3 - A329 Vastern Road (Westbound)	-81	0%	-105	1%
Site 4 - A329 Caversham Road (Northbound)	-253	0%	-193	-1%
Site 5 - A329 Caversham Road (Southbound)	-81	0%	-238	0%
MCC Survey				
Site 1 - Trooper Potts Way / Bagnall Way / Royal Mail Depot Site access	64	23%	132	16%

- 2.27 Table 2.5 highlights that in the AM peak there has been a decrease in the total traffic volume for A329 Vastern Road and Caversham Road in both directions. Particularly significant is a reduction of circa 250 vehicles northbound on the A329 Caversham Road. The ATC and MCC survey at Trooper Potts Way demonstrates there has been an increase in traffic flows along the carriageway and turning movements at the priority junction with Bagnall Way and the site access. This change is expected due to the completion of the revised highway layout at the station's northern entrance, operation of the new bus stops, and completion of the expansive cycle hub in the multi-storey car park.
- 2.28 In the PM peak, there has been a decrease in total traffic volume as the same roads in the AM peak (with the exception of Vastern Road eastbound). Similarly to the AM peak, Trooper Potts Way and the priority roundabout junction with Bagnall Way experiences an increase in traffic since 2010.

Summary

- 2.29 This chapter has highlighted there have been improvements to the pedestrian and cyclist infrastructure within proximity to the site, and enhancements to public transport services within the acceptable walking distance of the site. These will contribute to the uptake of sustainable modes of travel compared to the 2012 OPP.
- 2.30 ATC and MCC traffic surveys demonstrate that there has been a reduction in existing traffic volumes since 2010 on the A329 for the majority of external links.

3 Planning Policy and Guidance

Introduction

- 3.1 This chapter considers any change in policy since the 2011 Transport Assessment that must be considered for the proposed redevelopment. The policies will be expanded upon further as part of the full Transport Assessment, however the latest version of the parking standards guidance has been set out within this draft report.
- 3.2 The national, regional and local policy context for the forthcoming development has been revised and updated since the 2012 OPP, and the following documents have been adopted since and will be considered as part of the full Transport Assessment:
- National Planning Policy Framework (NPPF, 2012);
 - Planning Practice Guidance (PPG, 2014);
 - Reading Borough Third Local Transport Plan 2011 – 2026; and
 - Reading Borough LDF – Revised Parking Standards and Design (adopted October 2011).
- 3.3 RBC is currently in the process of preparing a new Local Plan for the period up until 2036, however it is anticipated this will not be adopted until late 2018.
- 3.4 Policy documents detailed in the 2011 Transport Assessment that have been superseded since and are no longer considered valid include the following:
- Department for Transport's Guidance on Transport Assessment (2007);
 - White Paper: The Future of Transport: A Network for 2030 (2004);
 - Planning Policy Guidance 13 (PPG 13): Transport (2011);
 - Planning Policy Statement 3 (PPS3): Housing (2010);
 - Planning Policy Statement 4 (PPS4): Planning for Sustainable Economic Growth;
 - Sustainable Communities: Building for the Future (2003);
 - The South East Plan (2009);
 - Reading Borough Council Local Transport Plan 2006 – 2011; and
 - Reading Borough Council Parking Standards and Design SPD (September 2009).

Reading Borough Council Local Development Framework – Revised Parking Standards and Design (adopted October 2011)

- 3.5 The parking standards and principles outlined in the above guidance do not vary significantly from the previous version of the guidance (2009) that was used to inform the 2012 Consented Scheme. For clarity the standards from the 2011 guidance are outlined in the following narrative.

Car parking standards

3.6 The car parking standards are set as maximums (with the exception of Class Use C3 Residential) in accordance with city centre zones (the site is located within Zone 1: Central Core Area). Where comprehensive and mixed-use development schemes are likely, developers are encouraged to provide shared parking for facilities which are likely to generate peak parking levels during different periods of the day. Electric vehicle charging points will also be encouraged where appropriate.

3.7 The car parking standards per land use are set out as follows:

- **Retail** – public parking will be provided in line with RBC’s current parking strategy (2004), which states public spaces across the town centre should not exceed 8000 in total. Some private parking may be permitted;
- **Commercial / office** – 1 space per 250 sqm;
- **Hotels** – 0.25 spaces / bedroom. Major hotel developments where multiple facilities are provided will be considered on their merits. Ancillary facilities (restaurants, bars etc) will be treated as Class Use A3/D2 when available to non-residents; and
- **Residential** – as set out in Table 3.1.

Table 3.1: RBC Zone 1 residential (Class Use C3) maximum car parking standards (October 2011)

Dwelling type	Bedrooms	Number of parking spaces per unit
Flat	1-2	0.5
	3+	1
House	1	0.5
	2	1
	3	1
	4+	2
Visitor parking	0	0

Note: Should a developer require fewer spaces than are set out in Table 3.1, there would need to be a demonstration that there would be no detrimental highway impact.

3.8 For delivery and servicing standards, loading bay requirements for developments within Zone 1 will be based on the merits of the application.

Cycle parking standards

3.9 Cycle parking standards for Zone 1 should be applied as minimum standards, and mixed-use developments could share parking provision between uses.

- **Commercial /office** – 1 space per 200 sqm;
- **Residential;**
 - 1-2 bed flat – 0.5 spaces per unit
 - 3+ bed flat – 1 space per unit
 - 1 bed house – 1 space per unit
 - 2-3 bed house – 2 spaces per unit
 - 4+ bed house – 2 spaces per unit
- **Hotel** – 1 space per 6 staff; and
- **Retail** – as set out in Table 3.2.

Table 3.2: RBC Zone 1 retail cycle parking standards (October 2011)

Retail type	Long stay (employees)	Short stay (visitor)
A1 Food Retail	1 space per 6 staff	1 space per 300 sqm
A1 Non-Food Retail up to 1000sqm		1 space per 250 sqm
A1 Non-Food Retail over 1000 sqm		1 space per 300 sqm
A2 Financial and Professional Services		N/A
A3 Restaurants and Cafes		1 space per 300 sqm
A4 Eating Establishment		1 space per 300 sqm
A5 Hot Food Take Away		1 space per 300 sqm

- 3.10 The size of motorcycle bays should be 1500mm wide x 2800mm deep. For developments of 10 or more residential units, motorcycle parking provision should be at least 2% of the maximum total car parking provision.
- 3.11 For all developments with **up to 200** regular car parking spaces, three disabled spaces or 5% of total capacity should be provided.
- 3.12 For developments with **over 200** regular car parking spaces:
- **Retail** – three disabled spaces plus 4% of total capacity;
 - **Commercial / office** – six disabled spaces plus 2% of total capacity; and
 - **Residential / hotel** – four disabled spaces plus 4% of total capacity.
- 3.13 For developments of at least 10 residential units in Zone 1-2, developers will be required to support or provide a car club and must have a minimum of two cars. Free memberships should be offered for first six months for residents.

4 Development Proposals

Overview

- 4.1 This chapter details the key transport elements of the proposed scheme and any significant changes since the 2012 OPP. It is of note that the design proposals are evolving and this draft Transport Assessment takes into consideration the most recent design principles. It is anticipated that the proposals may be amended by the time of preparing the full Transport Assessment.
- 4.2 The proposed site covers circa 2.2 ha comprising the former Royal Mail sorting office, a three storey office building, other ancillary buildings and surface car parking. The former sorting office operations were transferred to Swindon in 2009 and the buildings have since been let to Network Rail for the process of facilitating Reading railway station improvements, however they will vacate the site once the railway works are complete and the site will be demolished.
- 4.3 The site's boundary remains unchanged from the 2012 OPP, and is bordered to the north by the Vastern Court Retail Park, to the east by Bagnall Way and the multi-storey car park for Reading railway station, to the south by Reading railway station and the Great Western railway tracks, and to the west by the A329 Caversham Road.

2012 Consented Scheme

- 4.4 The overarching permitted scheme following grant of OPP in March 2012 is detailed for reference in Table 4.1, which is in accordance with the illustrative residential led scheme.

Table 4.1: 2012 OPP Area Schedule – Illustrative Residential Led Scheme (GEA sqm)

Land Use	Site-wide floor area (GEA sqm)
Residential (C3)	40,902 (308 units)
Retail (A1-A5)	1,286
Office (B1)	16,156
Hotel (C1)	4,493
Health Centre / Gym (D2)	300
Servicing / Plant	1,958
TOTAL	65,095

Proposed Masterplan

- 4.5 The revised proposal includes retail, office and residential use together with underground car parking, a gymnasium and a restaurant. The retail and leisure uses are provided throughout the site fronting public spaces with office and residential uses above. The revised masterplan

reflects three phases of development. The indicative ground floor layout is shown at Appendix A.

- 4.6 The proposed changes in quantum per land use between the 2012 Consented Scheme and 2017 revised proposals are illustrated in Table 4.2, excluding plant / cycle parking / refuse areas.

Table 4.2: Net Change in quantum per land use (GEA sqm) from 2012 Consented Scheme to 2017 Proposed Development

Land Use	2012 Consented Scheme	2017 Proposed Development	Net Change
Residential (C3)	40,902	65,188	24,286
Retail (A1-A5)	1,286	2,200	914
Office (B1)	16,156	3,230	-12,926
Hotel (C1)	4,493	0	-4,493
Leisure Centre / Gym (D2)	300	800	500
Total	63,137	71,418	8,281

- 4.7 The consented mix of residential units from the 2012 OPP and the proposed mix of units is presented in Table 4.3.

Table 4.3: Net Change in residential units from 2012 Consented Scheme to 2017 Proposed Development

Type	2012 Consented Scheme	2017 Proposed Development	Net Change
Studio flat	0	65	65
1 bed flat	113	355	242
2 bed flat	181	389	208
3 bed flat	14	0	-14
Total	308	809	501

- 4.8 The tables demonstrate that overall there is a site wide increase of 8,281 sqm in gross external floor area. There is a significant decrease in land use for office and hotel use, however this is offset by an increase of 501 residential units and an increase in retail and leisure floor space. It is not known at this stage the exact retail use, however for trip generation assessment purposes within this report the 'worst case' scenario has been tested.

Vehicular Access

- 4.9 The vehicular access to the site is proposed to remain as per previous arrangements from the Transport Assessment Addendum (July 2011) submitted to amend the previous Transport Assessment (February 2011) as part of the OPP. The access arrangements reduce the occurrence of vehicular 'rat-running' through the site, and have been approved in principle by RBC. These arrangements are detailed as follows:

1. **western access** – priority junction with A329 Caversham Road, which will operate as left-in only for vehicles, and contra-flow left-out only cycle lane for cyclists; and
2. **eastern access** – vehicular traffic for both left-in / left-out movements will be directed to the signalised junction with the A329 Vastern Road via Trooper Potts Way, via the existing access point adjacent to Station Square.

- 4.10 The access arrangements are illustrated in Appendix A.

- 4.11 No changes are proposed to the recently signalised junction between Trooper Potts Way and A329 Vastern Road, which will remain left-in / left-out only for general traffic. There will also be no amendments to either taxi rank located at Reading railway station's northern entrance.
- 4.12 Vehicular traffic to all plots can enter the site by either junction, at the most convenient point to that plot, however they will be restricted to exiting the site via the eastern access only. The internal access through the site to connect the eastern and western junctions will permit the two-way flow of traffic east of the north-south internal access road. The internal access roads will provide direct access to all buildings and the basement car park entry.

Pedestrian Access

- 4.13 Pedestrian access will be provided from the same western and eastern access points as for vehicular use, and the site layout will be designed to maximise pedestrian permeability between the two accesses. Dedicated footpaths through the site will connect with the existing footways on Trooper Potts Way, Station Square and Caversham Road.

Cyclist Access

- 4.14 Cyclists will be able to use both site entrances for ingress and egress movements, with a dedicated contra-flow left-out only cycle lane provided at the A329 Caversham Road access.

Parking Provision

Car parking

- 4.15 The 2012 Consented Scheme provided parking for 301 spaces in total, with 210 of these located in the basement / semi-basement, and the remaining 91 spaces at street level.
- 4.16 The 2012 OPP outlined that a maximum of 301 car parking spaces would be provided site-wide. The 2017 Proposed Development will provide a significantly lower level of parking with 150 spaces across all land uses, following discussions with RBC, given the reduction in car ownership levels and enhanced public transport improvements local to the site.
- 4.17 In accordance with RBC's parking standards, a maximum of 12 car parking spaces will be allocated to the office use within the basement, with additional on-street visitor parking within the site. The remaining 138 spaces will be allocated for residential parking. No car parking will be allocated to the retail / restaurant element of the scheme in accordance with the Section 106 Agreement.
- 4.18 It is anticipated that no parking will be allocated to the gym use either (with exception of disabled parking) provided the good access to public transport facilities and likelihood that the majority of the trips to the facility will be from site users.
- 4.19 The volume and location of disabled parking, on-street parking and car club bays will be discussed within the full Transport Assessment.
- 4.20 In accordance with the previous Section 106 Agreement for the 2012 OPP, it is likely that dedicated car club spaces will be provided on site or membership provided to residents. This will furthermore support the reduction in car parking provision since the 2012 OPP for site users that require intermittent access to a vehicle.

Cycle parking

- 4.21 Long-stay and short-stay cycle parking will be provided within the confines of the site in accordance with RBC's Revised Parking Standards and Design guidance (adopted October

2011). Long-stay cycle parking will be provided in secure, convenient storage areas with good surveillance, with indicative locations shown at Appendix A.

Servicing Access

- 4.22 Delivery and servicing vehicles will enter the site either via the eastern or western access depending on the destination within the site, and will exit via the eastern entrance under all circumstances. Buildings would be serviced from the nearest safe kerbside location within the proposed internal road network, with the entrance to the refuse storage areas located adjacent to the kerbside (as indicated at Appendix A). No servicing will be undertaken from nearby public highways, such as Caversham Road. .

5 Travel Characteristics

- 5.1 This chapter examines data related to mode share and trip generation to ascertain the net change in total person and vehicular trip generation between the 2012 Consented Scheme and the 2017 Proposed Development. The following three data sources are considered:
- TRICS analysis for comparable sites;
 - census 'Journey to Work' data review; and
 - census car ownership data.
- 5.2 This chapter uses the data sources to forecast the proposed development's multi-modal trip generation and provides a comparison with the 2012 Consented Scheme multi-modal trip generation.

Trip Generation Methodology

- 5.3 Trip generation has been assessed in terms of peak and daily person trips by all modes. It is considered that the trip rates collated for all land uses to inform the 2012 OPP are no longer valid given changes in baseline conditions at the site.
- 5.4 The TRICS database (version 7.2.4) has been interrogated for similar sites to the proposed development to demonstrate whether there is a change in total person trips since that presented in the 2011 Transport Assessment. Sites were selected considering their size, location, public transport accessibility and level of car parking provision. Sites within Greater London were excluded from the selection due to different travel behaviour comparative to sites outside of London.

Residential trip rates

- 5.5 Person trip rates have been derived from the TRICS database for main land use category '03 – Residential' and sub-category 'C – Flats privately rented' for comparative sites with surveys undertaken between 2010 to 2016. Additional sites have therefore been included that did not comprise the 2011 TA assessment and provide a more robust reflection of the proposed site. The TRICS output data is attached at Appendix B, and the total person trip rates have been accepted for use by RBC.
- 5.6 The total residential person trip rates for peak hours and daily period are presented in Table 5.1, including a comparison with the trip rates used in the 2011 Transport Assessment.

Table 5.1: Net Change in residential total person trip rates between 2011 and 2017

	AM Peak (08:00 - 09:00)			PM Peak (17:00 - 18:00)			Daily (07:00 - 19:00)		
	Arr	Dep	Total	Arr	Dep	Total	Arr	Dep	Total
2011 TA Total Person Trip Rate	0.09	0.49	0.58	0.37	0.20	0.57	2.31	2.31	4.62
2017 Trip Rate	0.07	0.37	0.44	0.45	0.20	0.65	2.42	2.50	4.92
Net Change 2011 to 2017	-0.02	-0.12	-0.14	0.08	0.00	0.08	0.11	0.19	0.30

- 5.7 Table 5.1 demonstrates that there has been a marginal increase in person trip rates between the TRICS data used for the 2011 Transport Assessment and the data extracted to replicate more recent surveys from comparative sites, with an increase in daily two-way trip rate of 0.296. There has been a slight reduction of 0.14 two-way trips per dwelling in the AM peak however.

Office trip rates

- 5.8 Person trip rates have been derived from the TRICS database for main land use category '02 – Employment' and sub-category 'A – Office' for comparative sites with surveys undertaken between 2010 to 2016 (including on-site parking provision). Additional sites have therefore been included that did not comprise the 2011 TA assessment and provide a more robust reflection of the proposed site. The TRICS output data is attached at Appendix C.
- 5.9 The trip rates per 100 sqm are provided in Table 5.2, including a comparison against the office trip rates used to form the 2012 Consented Scheme.

Table 5.2: Net Change in office total person trip rates between 2011 and 2017

	AM Peak (08:00 - 09:00)			PM Peak (17:00 - 18:00)			Daily (07:00 - 19:00)		
	Arr	Dep	Total	Arr	Dep	Total	Arr	Dep	Total
2011 TA Total Person Trip Rate	2.28	0.17	2.45	0.31	2.11	2.42	12.09	12.09	24.18
2017 Trip Rate	2.00	0.16	2.16	0.11	1.73	1.85	10.69	10.51	21.19
Net Change 2011 to 2017	-0.28	-0.01	-0.29	-0.20	-0.38	-0.57	-1.40	-1.59	-2.99

- 5.10 Table 5.2 demonstrates that there is a decrease in total office person trips between the TRICS data used for the 2011 Transport Assessment and the more recent and robust data, of approximately three two-way trips per 100 sqm across the daily period.

Retail trip rates

- 5.11 The indicative proposed scheme provides 2,220 sqm GEA of retail space, with 15% of this allocated for a restaurant use (330 sqm). For trip generation purposes, it is assumed that the remaining 85% is allocated for A1 retail land use as this presents the worst-case scenario in terms of volume of trips in comparison to all other retail sub-categories. The TRICS output data is attached at Appendix D.
- 5.12 Person trip rates have been derived from the TRICS database for main land use category '01 – Retail' and sub-category 'O – Convenience Store'. The trip rates per 100 sqm are provided in Table 5.3, including a comparison against the retail trip rates used to form the 2012 Consented Scheme.

Table 5.3: Net Change in retail total person trip rates between 2011 and 2017

	AM Peak (08:00 - 09:00)			PM Peak (17:00 - 18:00)			Daily (07:00 - 19:00)		
	Arr	Dep	Total	Arr	Dep	Total	Arr	Dep	Total
2011 TA Total Person Trip Rate	12.43	10.06	22.49	21.45	21.15	42.6	370.1	370.1	740.2
2017 Trip Rate	25.41	23.72	49.13	38.06	38.57	76.62	386.68	386.23	772.91
Net Change 2011 to 2017	12.98	13.66	26.64	16.61	17.42	34.02	16.58	16.13	32.70

Restaurant Uses

- 5.13 It is assumed that 50% of the trips generated by the restaurant of 330 sqm (applying the 15% assumption to total retail land use) will be linked or pass-by trips and therefore not new trips to the local transport network, which has been agreed in principle with RBC.
- 5.14 For the remaining 50% of trips allocated to the restaurant use, person trip rates have been derived from the TRICS database for main land use category '06 – Hotel, food and drink' and sub-category 'B – Restaurants'. The trip rates per 100 sqm are provided in Table 5.4 and the TRICS output data is attached at Appendix E.
- 5.15 No trip rates were provided for this land use as part of the 2011 Transport Assessment as a restaurant was not previously included as part of the design proposals.

Table 5.4: Total person trip rates for proposed restaurant facility

	AM Peak (08:00 - 09:00)			PM Peak (17:00 - 18:00)			Daily (07:00 - 19:00)		
	Arr	Dep	Total	Arr	Dep	Total	Arr	Dep	Total
2017 Trip Rate	0.0	0.0	0.0	2.4	1.0	3.4	14.2	9.5	23.7

Leisure use trip rates

- 5.16 It is anticipated to provide a gymnasium / fitness centre of 800 sqm (GEA) at the north-west corner of the site. It is assumed that 25% of these trips will be linked or pass-by and therefore not new trips to the local transport network.
- 5.17 Person trip rates as shown in Table 5.5 have been derived from the TRICS database for main land use category '07 – Leisure' and sub-category 'K – Fitness Club (Private)' as a best representative of the proposed facility. The TRICS output data is attached at Appendix F.
- 5.18 No trip rates were provided for this land use as part of the 2011 Transport Assessment as it was assumed that the fitness centre was ancillary to the hotel use and would not generate any stand-alone trips.

Table 5.5: Total person trip rates for proposed leisure facility

	AM Peak (08:00 - 09:00)			PM Peak (17:00 - 18:00)			Daily (07:00 - 19:00)		
	Arr	Dep	Total	Arr	Dep	Total	Arr	Dep	Total
2017 Trip Rate	28.2	53.5	81.8	130.0	39.4	169.4	594.7	495.3	1090.0

Mode Share

Residential mode share

- 5.19 The 2011 census data has been extracted under the dataset QS701EW 'Method of travel to work' to help determine the mode share for the residential element of the proposed scheme. The data has been extracted for the output layer local to the site (E00082605).
- 5.20 The 2011 census data is considered a more accurate reflection of travel behaviour for site users rather than TRICS multi-modal data and provides the baseline position at this stage for the trip generation assessments. However, the car driver mode share has been further adjusted to reflect that situation whereby only 17 per cent of 809 residential units will have a car parking space allocated to them and the inability of residents to apply for on-street parking permits. The other modes have been adjusted accordingly.
- 5.21 The original census data mode share and adjusted residential mode share that will form the transport assessments is detailed in Table 5.6.

Table 5.6: Proposed residential mode share for 2017 assessment

Mode	Residential mode share (2011 census data)	Residential mode share (adjusted)	Net change in proportion
Underground, metro, light rail, tram	2%	2%	0%
Train	24%	26%	+2%
Bus, minibus or coach	8%	10%	+2%
Taxi	0%	0%	0%
Motorcycle, scooter or moped	1%	1%	0%
Driving a car or van	25%	17%	-8%
Passenger in a car or van	1%	2%	+1%
Bicycle	2%	5%	+3%
On foot	37%	37%	0%
Other method of travel to work	0%	0%	0%
TOTAL	100%	100%	0%

Commercial mode share

- 5.22 The TRICS mode share is presented in Table 5.7, based on comparative office developments. The mode share has been adjusted however as described below.
- 5.23 Based on the on-site parking strategy, only 12 car parking spaces will be allocated to the office use at basement level, with additional spaces provided on-street for visitor parking (exact quantum yet to be determined). Therefore the car driver mode share for commercial use has been reduced to account for only 12 employees having access to a car parking space, with the arrivals and departures spread over a two-hour AM and PM peak respectively. The car driver mode share for the AM, PM and daily periods has been calculated based on the proportion of car trips out of the total person trip generation for that time period (obtained by TRICS and as presented in Table 5.2).
- 5.24 For the daily vehicular trip generation, it has been assumed that there will be two sets of both arrivals and departures across the course of the day associated with the basement car

parking spaces, to account for potential vehicular trips in-between the peak periods (e.g. lunchtime journeys). This results in 48 two-way car driver trips over the daily profile.

- 5.25 The remaining proportion of mode share has been distributed between other modes in consideration of the site's proximity to excellent public transport facilities and the TRICS data. The proposed office mode share is subsequently presented in Table 5.7.

Table 5.7: Proposed office mode share for 2017 assessment by time period

Mode	Commercial mode share (TRICS data) – all time periods	Commercial mode share (adjusted)		
		AM Peak (08:00 – 09:00)	PM Peak (17:00 – 18:00)	Daily (07:00 – 19:00)
Underground, metro, light rail, tram	0%	2%	2%	2%
Train	3%	23%	22%	24%
Bus, minibus or coach	5%	11%	11%	12%
Taxi	0%	0%	0%	0%
Motorcycle, scooter or moped	0%	0%	0%	0%
Driving a car or van	30%	9%	10%	7%
Passenger in a car or van	32%	10%	10%	10%
Bicycle	1%	10%	10%	10%
On foot	30%	35%	35%	35%
Other method of travel to work	0%	0%	0%	0%
TOTAL	100%	100%	100%	100%

Retail and leisure facility mode share

- 5.26 The proposed mode share for the retail (including restaurant) and gymnasium / leisure uses on site has been extracted from TRICS multi-modal data for comparable sites, as this is considered a more accurate reflection of the travel behaviour from this particular land use than census data. For the gymnasium, the mode share has been based on the TRICS retail data as this presents a more realistic mode share for car drivers than the multi-modal data for private leisure facility. The retail and leisure mode share is presented in Table 5.8.

Table 5.8: Proposed retail and leisure use mode share for 2017 assessment

Mode	Retail and leisure mode share (TRICS multi-modal data)
Car Driver	7%
Car Passenger	8%
Bus	19%
Rail / Underground	10%
Pedestrians	55%
Cyclists	0%
Motorcyclist	0%
TOTAL	100%

Census car ownership data

- 5.27 Steer Davies Gleave has examined recent trends in Reading, to ascertain whether a lower volume of vehicular trips per household are applicable to the forthcoming development comparative to the 2012 Consented Scheme.
- 5.28 2001 and 2011 census data has been extracted to compare the car ownership ratio for all wards within Reading borough, using the KS017 dataset by ward for 2001 and the QS416EW dataset by ward for 2011. Both of these datasets show the number of households and sum of all private cars/vans per ward (including Abbey ward where the proposed site is located).
- 5.29 Table 5.9 summarises the net change in car ownership over the decade.

Table 5.9: Comparison between 2001 and 2011 Census Data for Car Ownership for Abbey Ward and Reading

Theme	Abbey ward	Reading (all wards)
2001 Census		
Number of households	4197	57,877
Number of cars/vans	3426	62,369
Car ownership ratio	0.8	1.1
2011 Census		
Number of households	6331	62,869
Number of cars/vans	4216	66,681
Car ownership ratio	0.7	1.1
Net Change		
Number of households	+2134	+4992
Number of cars/vans	+790	+4312
Car ownership ratio	-0.15	-0.02

- 5.30 Table 5.9 demonstrates that whilst there has been an overall increase in household numbers and number of private vehicles owned both at the individual ward level for the site and across the borough as a whole, the car ownership ratio has reduced. It is worth highlighting that Abbey ward has experienced a reduction of 0.2 in the ratio of cars owned per household, which is likely to be attributed to improvements in public transport services in central Reading and wards within the inner city. This provides additional justification for reducing the car mode share specific to the office and re-assignment to sustainable modes.

Trip Generation

2012 Consented Scheme

- 5.31 The 2012 Consented Scheme was based on the illustrative residential led scheme and comprised the following quantum per land use:
- Office (Class B1) – 16,156 sqm;
 - Retail (Class A1/A3/A4/A5) – 1,286 sqm;
 - Residential (Class C3) – 40,902 sqm;
 - Hotel (Class C1) – 4,493 sqm; and
 - Health centre / gymnasium – 300 sqm.
- 5.32 The ‘worst-case’ forecast site wide trips for the 2012 Consented Scheme presented in the 2011 Transport Assessment (based on Scheme 3) is detailed in Table 5.10.

Table 5.10: 2012 Consented Illustrative Residential Led Scheme Total Person Trip Generation

Mode	AM Peak (08:00 - 09:00)			PM Peak (17:00 - 18:00)			Daily (07:00 - 19:00)		
	Arr	Dep	Total	Arr	Dep	Total	Arr	Dep	Total
Car Driver	130	77	207	84	141	225	1,300	1,300	2,599
Total People	986	382	1,368	503	1,050	1,553	9,427	9,427	18,854

Proposed Development Trip Generation

- 5.33 The proposed development quantum is presented in Table 4.2 of this draft Transport Assessment, and forms the indicative trip generation from the site at this stage of the design proposals. Table 4.2 demonstrates that since the 2012 OPP an additional 501 residential units and an additional 914 sqm (GEA) of retail is proposed, with a reduction of 12,926 sqm (GEA) in office floor area, and the hotel is no longer planned on site. The changes in land use are likely to demonstrate a different profile in trip generation.
- 5.34 The full Transport Assessment will state the forecast multi-modal trip generation per individual land use, once the area schedule has been defined further. For this draft Transport Assessment, the forecast site-wide multi modal trip generation has been presented in Table 5.11 which combines all land uses. The trip generation has been calculated based on the total person trip rates and individual mode shares per land use developed in this chapter.

Table 5.11: Forecast site wide multi-modal trip generation

Mode	AM Peak (08:00 - 09:00)			PM Peak (17:00 - 18:00)			Daily (07:00 - 19:00)		
	Arr	Dep	Total	Arr	Dep	Total	Arr	Dep	Total
Car Driver	27	66	94	92	51	143	562	559	1122
Car Passenger	22	25	47	44	30	75	325	308	633
Bus	46	71	117	119	71	189	798	765	1563
Rail / Underground	50	108	158	148	85	233	948	943	1891
Pedestrians	140	234	373	379	222	601	2510	2417	4926
Cyclists	10	16	26	20	15	35	144	146	290
Motorcyclist	1	3	4	4	2	5	20	20	40
TOTAL	295	523	819	805	475	1281	5307	5159	10466

- 5.35 Table 5.10 highlights that circa 1,750 two-way private car trips are expected from the proposed development over the 12 hour daily profile, with circa 10,460 two-way person trips in total. A large proportion of these trips are assigned to sustainable modes, with over 1,900 daily trips assigned to rail / underground trips, approximately 1,550 to bus passengers and almost 5,000 journeys made by foot.
- 5.36 It may be likely that the forecast trip generation varies from that presented in Table 5.11 when preparing the full Transport Assessment once the design proposals and exact quantum per land use have been determined. The indicative assessment however provides a useful baseline situation to compare the forecast private vehicle and person trip generation with the 2012 OPP, as summarised in Table 5.12.

Table 5.12: Net change in trips between the 2012 OPP and 2017 Proposed Development

Mode	AM Peak (08:00 - 09:00)			PM Peak (17:00 - 18:00)			Daily (07:00 - 19:00)		
	Arr	Dep	Total	Arr	Dep	Total	Arr	Dep	Total
Car Driver	-103	-11	-113	8	-90	-82	-738	-741	-1477
Total People	-691	141	-549	302	-575	-272	-4120	-4268	-8388

- 5.37 This illustrates that the revised scheme significantly reduces the total number of two-way vehicular and person trips over the AM and PM peak hours and over 12 hour daily profile compared to the 2012 OPP. Therefore, the 2017 Proposed Development will have less impact upon the local transport network than the scheme previously granted consent in March 2012.

6 Transport Impact

- 6.1 This chapter considers the impact of the proposals upon the local transport networks, and a comparison with the forecast impact from the 2012 Consented Scheme.

Highways Impact

- 6.2 The car driver trip generation assessment undertaken in the previous chapter, as highlighted in Table 5.12 has demonstrated that there would be a reduction of 113 two-way car driver trips in the AM peak, 82 less trips in the PM peak and circa 1,500 trips over the 12 hour daily period in comparison to the 2012 Consented Scheme.

Vehicular trip distribution

- 6.3 The proposed vehicular access arrangements assume the same layout as the July 2011 Transport Assessment Addendum with left-in only at the western A329 Caversham Road access, and exit from all parts of the site via the eastern A329 Vastern Road junction. A highways impact assessment has been undertaken in response to RBC's comments on the first draft Transport Assessment to demonstrate the distribution of traffic upon the external highway network following the proposed alterations to the direction of movement from the site's accesses.
- 6.4 The assessment adopts the same key assumptions from the 2011 Transport Assessment Addendum in terms of the distribution of traffic at each access in accordance with the time period, as summarised in Table 6.1.

Table 6.1: Assumed distribution of site vehicular traffic per access

Access	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Arrivals	Departures	Arrivals	Departures
Caversham Road (west access)	35.3%	0.0%	21.0%	0.0%
Vastern Road (east access)	64.7%	100.0%	79.0%	100.0%

- 6.5 The assigned proportion of site traffic on the highway network is also assumed to be the same based on top ten origin and destination information from 2001 census data, as highlighted in Table 6.2. The same proportions are applicable for the AM and PM peak development traffic flows.

Table 6.2: Assigned proportion of site traffic per direction

Movement	South-east	South-west	North-west	North-east	Total
Arrivals	36.5%	29%	27.2%	7.3%	100%
Departures	55.4%	23%	15.8%	5.8%	100%

Net Change in Proposed Scheme Highway Impact

- 6.6 A highways assessment has been undertaken using the 2010 baseline traffic flows (undertaken in March 2010, as presented in Table 2.3 of this report) and the proposed private vehicle flows that were calculated as part of the 2011 Transport Assessment. The same exercise has been undertaken for the proposed 2017 scheme vehicular trips (using October 2017 baseline traffic flows), to demonstrate the net change in development traffic upon key highway links.
- 6.7 The net change in development flows on key points on the local highway network have been summarised in Table 6.3, with corresponding development traffic flow diagrams attached at Appendix G.

Table 6.3: Net change in development vehicular flows between 2012 Consented Scheme and 2017 Proposed Scheme

Highway Link	AM Peak (08:00 – 09:00)	PM Peak (17:00 – 18:00)
2012 Consented Scheme Development Flows		
Trooper Potts Way (north)	105	189
Trooper Potts Way (south)	109	96
A329 Vastern Road (Eastbound)	61	54
A329 Vastern Road (Westbound)	131	200
A329 Caversham Road (Northbound)	31	28
A329 Caversham Road (Southbound)	24	43
2017 Proposed Scheme Development Flows		
Trooper Potts Way (north)	91	81
Trooper Potts Way (south)	32	108
A329 Vastern Road (Eastbound)	18	60
A329 Vastern Road (Westbound)	98	94
A329 Caversham Road (Northbound)	9	31
A329 Caversham Road (Southbound)	21	19
Net Change in Development Flows		
Trooper Potts Way (north)	-14	-107
Trooper Potts Way (south)	-76	11
A329 Vastern Road (Eastbound)	-43	6
A329 Vastern Road (Westbound)	-33	-106
A329 Caversham Road (Northbound)	-22	3
A329 Caversham Road (Southbound)	-3	-25

- 6.8 Table 6.3 and Appendix G demonstrates that there will be a reduction in vehicular traffic associated with the proposed development in comparison with the consented scheme upon all highway links, with the exception of minimal increases on:

- Trooper Potts Way (southbound) during the PM peak;
- A329 Vastern Road (eastbound) during the PM peak; and
- A329 Caversham Road (northbound) during the PM peak.

6.9 There will still however be a reduction of 1,477 vehicle trips over the 12 hour daily period in comparison to the 2012 OPP. Additionally, it should be noted that the eastbound vehicular flows exiting the site from the Station Square access are anticipated to be lower than those agreed in the 2012 Consented Scheme.

Further traffic modelling

6.10 The Reading Transport Model (RTM) was used to assess the net impact of the vehicle trips from the 'worst case' scheme in the 2011 Transport Assessment Addendum in accordance with the likely re-assignment of traffic along Reading's highway network. The modelling was undertaken by Peter Brett Associates on behalf of RBC, with the forecast years set to 2020 (when site opening was originally anticipated for 2017).

6.11 It is not considered justified to include a revised assessment of the RTM for the 2017 Proposed Development as part of the full Transport Assessment, as there will be a reduction in 1,500 two-way daily car driver trips in comparison to the 2012 OPP (as demonstrated in Table 5.12). Additionally, there has been a reduction in existing traffic flows between 2010 and 2017 on the examined highway links on the A329 (with the exception of the A329 Vastern Road eastbound in the PM peak). This indicates that overall there is a lower traffic volume on the highway network near the site and less impact upon the performance of key junctions.

6.12 The highway impact analysis will be updated for the full Transport Assessment however once the final quantum per land use has been determined, and assumptions regarding distribution of traffic have been agreed by RBC. It will also consider additional scenarios to include local traffic growth rates extracted from TEMPRO, and any committed developments which need to be considered. It would be beneficial for RBC to confirm which committed developments to consider as part of the highways impact assessment.

Public Transport Impact

6.13 The forecast trip generation upon bus and rail networks has been outlined in the previous chapter of this draft Transport Assessment, which is significantly less than presented in the February 2011 Transport Assessment. This is summarised in Table 6.4.

Table 6.4: Net change in bus and rail trips between 2012 OPP and 2017 Proposed Development

Mode	2012 OPP Daily Trips (two-way)	2017 Proposed Development Daily Trips (two-way)	Net Change
Bus	6052	1563	-4489
Rail / Underground	3880	1891	-1989

6.14 It is not considered that there will be a detrimental impact upon the rail and bus network given the high frequency of services and range of potential routes that passengers will be using. It will be discussed further within the full Transport Assessment, however as demonstrated above the impact will be less than proposed from the 2011 Transport Assessment.

Pedestrian and Cyclist Impact

- 6.15 The forecast trip generation upon pedestrian and cyclist modes has been outlined in the previous chapter of this draft Transport Assessment, which is significantly less than presented in the February 2011 Transport Assessment. The net change is summarised in Table 6.5.

Table 6.5: Net change in pedestrian and cyclist trips between 2012 OPP and 2017 Proposed Development

Mode	2012 OPP Daily Trips (two-way)	2017 Proposed Development Daily Trips (two-way)	Net Change
Pedestrian	4003	4926	924
Cyclists	1139	290	-848

- 6.16 This demonstrates that there will be an increase of approximately 920 two-way pedestrian trips in comparison with the 2012 Consented Scheme, likely to be a result of a shift in mode share from private vehicle trips to pedestrian movements. The increase is not considered significant when considering this is over the 12 hour daily profile (i.e. an additional 77 trips per hour) and improvements to existing local pedestrian infrastructure since 2011.
- 6.17 There will be a reduction of circa 850 daily cycling trips in comparison to the 2012 Consented Scheme, which will have a positive impact upon the local cycle network.

7 Servicing and Waste Strategy

- 7.1 The full details of the servicing and waste collection arrangements will be outlined within the full Transport Assessment. It is anticipated that the operations will remain as per the 2012 OPP, with refuse collections undertaken on-street from the internal access road for all buildings. Refuse storage facilities will be provided within the confines of each building, with storage capacity and location provided in accordance with RBC's Waste Operations Service Standards – Appendix A (May 2016).
- 7.2 Deliveries will be undertaken from dedicated on-street loading bays provided within the site's boundary, accessible via the internal access route. Swept path analyses based on the revised site layout will be appended to the full Transport Assessment, using RBC vehicle standards. Delivery vehicles will be able to use either access to enter the site, but will exit the site via the eastern access only.
- 7.3 The forecast delivery and servicing trip generation will be outlined in the full Transport Assessment using updated servicing trip rates from Steer Davies Gleave's database, providing a more robust estimation compared to the 2011 Transport Assessment servicing trip rates (presented in Table 7.1 of the document). The 2011 Transport Assessment outlined that approximately 91 site-wide daily servicing trips would be generated based on the 'worst case'. It is anticipated that less servicing trips will be generated from the 2017 Proposed Development due to the change in land use, namely a significant reduction in office floor space which typically generates a higher volume of servicing trips than residential use.

8 Construction Impacts

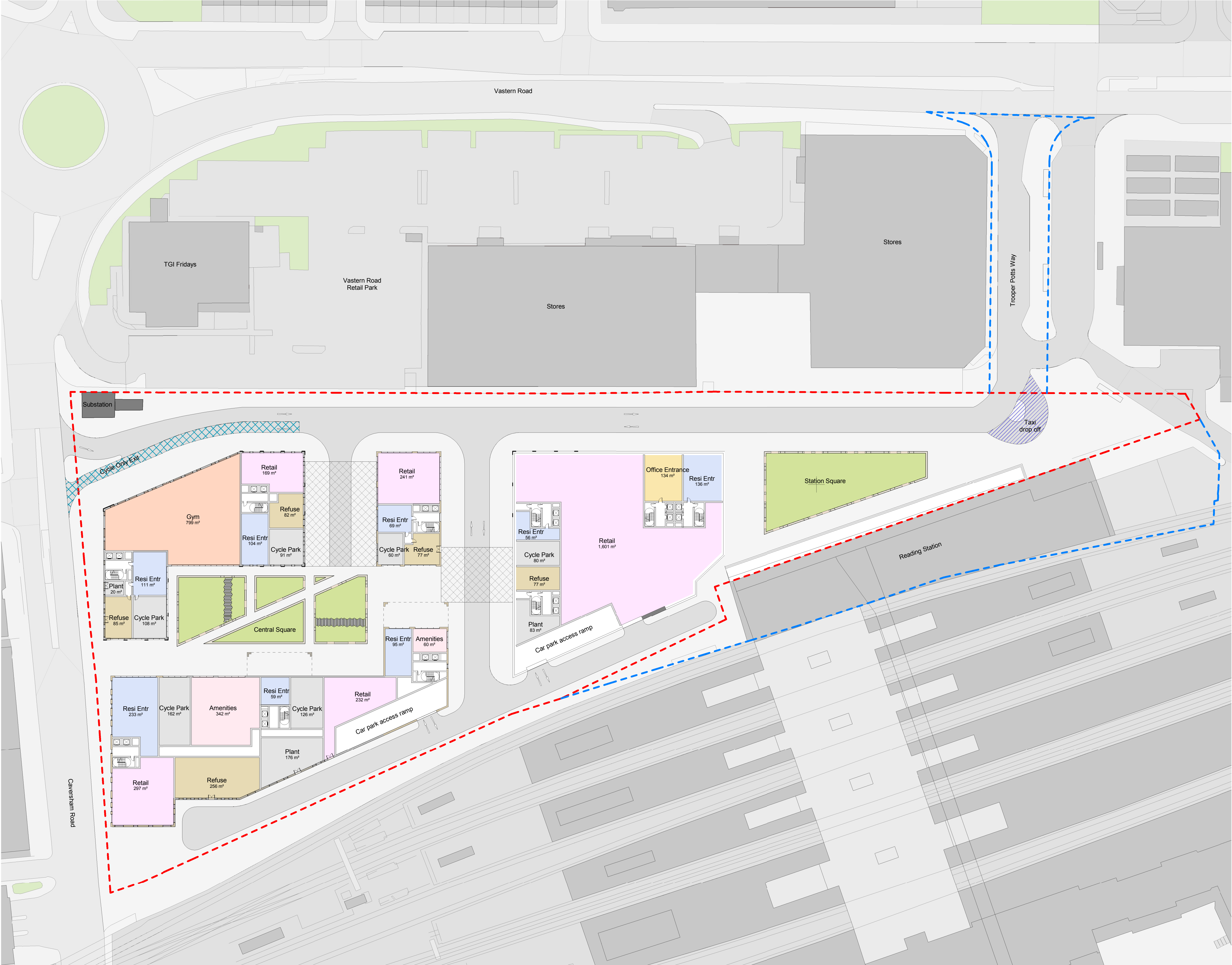
- 8.1 The indicative phasing of the construction works for the demolition of the existing former Royal Mail Sorting Office buildings and the construction of the 2017 Proposed Development will be provided within the full Transport Assessment, commensurate with the forecast number of construction vehicles per phase.
- 8.2 The mitigation measures to reduce the impact of the construction works upon the local transport network will also be detailed. It is not anticipated at this stage there will be any detrimental impact upon the external environment following implementation of the appropriate measures.

9 Summary and Conclusions

- 9.1 This draft Transport Assessment has been prepared by Steer Davies Gleave on behalf of Hermes Investment Management (the 'Applicant') for the forthcoming planning application to RBC involving the demolition of the existing former Royal Mail site and redevelopment of a mixed use scheme ('Reading Metropolitan'). The site is located immediately to the north of Reading railway station's northern entrance and to the south of Vastern Court Retail Park.
- 9.2 This revised version of the draft Transport Assessment has summarised the key elements of the scheme related to transport to address RBC's queries received to date, and it is anticipated that the full Transport Assessment submitted as part of the application will address additional elements of the scheme related to transport. It should be reiterated that the design proposals are currently evolving, and the full Transport Assessment will be based upon the final scheme design submitted for planning.
- 9.3 The indicative development proposals at this stage comprise the following land use:
- 65,188 sqm GEA of residential (Use Class C3);
 - 2,200 sqm GEA of retail (Use Class A1-A5);
 - 3,230 sqm GEA of office floorspace (Use Class B1);
 - 800 sqm GEA of gymnasium (Use Class D2); and
 - 5,559 sqm GEA of ground floor space (entrances, refuse areas, plant, cycle parking, residential amenities).
- 9.4 Overall there is a site wide increase of 8,281 sqm in gross external floor area (excluding plant, cycle parking and refuse areas) since the 2012 OPP achieved in March 2012 for an alternative mixed use scheme (LPA Ref: 11/00276/OUT). There is a significant decrease in land use for office and hotel use, however this is offset by an increase of 501 residential units and an increase in retail and leisure floor space.
- 9.5 The 2017 Proposed Scheme will reduce the total parking from the 2012 OPP with a maximum of 301 car parking spaces site-wide, to 150 car parking spaces site-wide. 12 will be allocated to the office use with the remaining 138 spaces allocated to residential units. This is considered acceptable by RBC considering the change in car ownership patterns local to the site. No car parking will be allocated to the retail, restaurant, and leisure element of the scheme considering the site's high PTAL rating. The proportion of these spaces between the different land uses will be confirmed within the full Transport Assessment, including the volume of disabled parking, on-street parking and any car club bays. Cycle parking will be provided in accordance with RBC's latest guidance.

- 9.6 Delivery and servicing will remain as per existing arrangements from the 2012 OPP, with operations undertaken from the nearest safe kerbside location within the proposal internal road network as considered most convenient.
- 9.7 The vehicular access will adopt the same approach as the 2011 Transport Assessment Addendum, permitting a left-in arrangement at both the western access to the A329 Caversham Road, and the eastern access to the A329 Vastern Road, and a left-out arrangement only at the eastern access to avoid 'rat running' through the site. Cyclists will be able to enter and exit from both access points, however. A two-way flow of traffic movement will be permitted along the internal road network within the site's boundary to increase the convenience for vehicle users at the site.
- 9.8 A multi-modal trip generation assessment has been undertaken based on the indicative 2017 Proposed Scheme using most recent census and TRICS data to provide a more accurate forecast. The change in land use results in a reduction of 8,388 two-way person daily trips and 1,477 two-way car driver daily trips than the 2012 OPP, and therefore the scheme is considered to have less impact upon the local transport networks than the previous consent. It is therefore considered that no further highway impact assessments are required as part of the full Transport Assessment to support the forthcoming planning application.
- 9.9 In summary, the revised proposals for Reading Metropolitan would not result in any material change to the assessments and conclusions of the 2011 Transport Assessment and Transport Assessment Addendum. The assessments will be developed for the full Transport Assessment but are not considered to raise any significant concerns at this stage in highways and transport terms.

A Indicative Ground Floor Layout



B TRICS Output Data - Residential

Calculation Reference: AUDIT-720101-171102-1102

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : C - FLATS PRIVATELY OWNED
 MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	EX ESSEX	2 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
	SF SUFFOLK	1 days
08	NORTH WEST	
	GM GREATER MANCHESTER	1 days
09	NORTH	
	CB CUMBRIA	1 days
11	SCOTLAND	
	SA SOUTH AYRSHIRE	1 days
	SR STIRLING	2 days

Secondary Filtering selection:

Parameter: Number of dwellings
 Actual Range: 6 to 154 (units:)
 Range Selected by User: 6 to 154 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 09/11/16

Selected survey days:

Tuesday	3 days
Wednesday	2 days
Thursday	4 days

Selected survey types:

Manual count	9 days
Directional ATC Count	0 days

Selected Locations:

Town Centre	2
Edge of Town Centre	7

Selected Location Sub Categories:

Residential Zone	4
Built-Up Zone	4
No Sub Category	1

Secondary Filtering selection:

Use Class:

C3	9 days
----	--------

Population within 1 mile:

10,001 to 15,000	3 days
15,001 to 20,000	2 days
25,001 to 50,000	4 days

Population within 5 miles:

50,001 to 75,000	3 days
75,001 to 100,000	3 days
125,001 to 250,000	2 days
500,001 or More	1 days

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	7 days

Travel Plan:

No	9 days
----	--------

PTAL Rating:

No PTAL Present	9 days
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LIST OF SITES relevant to selection parameters

1	CB-03-C-01 KING STREET	BLOCK OF FLATS		CUMBRIA
	CARLISLE Town Centre Built-Up Zone Total Number of dwellings:	40		
	Survey date: THURSDAY	12/06/14	Survey Type: MANUAL	
2	EX-03-C-01 WESTCLIFF PARADE WESTCLIFF SOUTHEND-ON-SEA Edge of Town Centre Residential Zone Total Number of dwellings:	6		ESSEX
	Survey date: TUESDAY	22/10/13	Survey Type: MANUAL	
3	EX-03-C-02 WESTCLIFF PARADE WESTCLIFF SOUTHEND-ON-SEA Edge of Town Centre Residential Zone Total Number of dwellings:	94		ESSEX
	Survey date: TUESDAY	22/10/13	Survey Type: MANUAL	
4	GM-03-C-02 WHITWORTH STREET W.	BLOCK OF FLATS		GREATER MANCHESTER
	MANCHESTER Town Centre Built-Up Zone Total Number of dwellings:	154		
	Survey date: THURSDAY	13/10/11	Survey Type: MANUAL	
5	NF-03-C-01 PAGE STAIR LANE	BLOCKS OF FLATS		NORFOLK
	KING'S LYNN Edge of Town Centre Built-Up Zone Total Number of dwellings:	51		
	Survey date: THURSDAY	11/12/14	Survey Type: MANUAL	
6	SA-03-C-01 RACECOURSE ROAD	BLOCK OF FLATS		SOUTH AYRSHIRE
	AYR Edge of Town Centre Residential Zone Total Number of dwellings:	51		
	Survey date: TUESDAY	16/09/14	Survey Type: MANUAL	
7	SF-03-C-01 STATION HILL	BLOCKS OF FLATS		SUFFOLK
	BURY ST EDMUNDS Edge of Town Centre Built-Up Zone Total Number of dwellings:	85		
	Survey date: THURSDAY	18/12/14	Survey Type: MANUAL	
8	SR-03-C-01 FORTHESIDE WAY	FLATS		STIRLING
	STIRLING Edge of Town Centre No Sub Category Total Number of dwellings:	80		
	Survey date: WEDNESDAY	18/06/14	Survey Type: MANUAL	

LIST OF SITES relevant to selection parameters (Cont.)

9 SR-03-C-02 FLATS
ROSEBERRY TERRACE

STIRLING

STIRLING

Edge of Town Centre

Residential Zone

Total Number of dwellings:

48

Survey date: WEDNESDAY

18/06/14

Survey Type: MANUAL

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	68	0.034	9	68	0.077	9	68	0.111
08:00 - 09:00	9	68	0.043	9	68	0.108	9	68	0.151
09:00 - 10:00	9	68	0.051	9	68	0.069	9	68	0.120
10:00 - 11:00	9	68	0.071	9	68	0.087	9	68	0.158
11:00 - 12:00	9	68	0.074	9	68	0.089	9	68	0.163
12:00 - 13:00	9	68	0.110	9	68	0.067	9	68	0.177
13:00 - 14:00	9	68	0.080	9	68	0.108	9	68	0.188
14:00 - 15:00	9	68	0.084	9	68	0.094	9	68	0.178
15:00 - 16:00	9	68	0.069	9	68	0.054	9	68	0.123
16:00 - 17:00	9	68	0.103	9	68	0.072	9	68	0.175
17:00 - 18:00	9	68	0.141	9	68	0.087	9	68	0.228
18:00 - 19:00	9	68	0.099	9	68	0.076	9	68	0.175
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.959			0.988			1.947

Parameter summary

Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/10 - 09/11/16
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL TAXIS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	68	0.002	9	68	0.002	9	68	0.004
08:00 - 09:00	9	68	0.000	9	68	0.002	9	68	0.002
09:00 - 10:00	9	68	0.000	9	68	0.000	9	68	0.000
10:00 - 11:00	9	68	0.002	9	68	0.002	9	68	0.004
11:00 - 12:00	9	68	0.005	9	68	0.005	9	68	0.010
12:00 - 13:00	9	68	0.003	9	68	0.003	9	68	0.006
13:00 - 14:00	9	68	0.007	9	68	0.007	9	68	0.014
14:00 - 15:00	9	68	0.002	9	68	0.002	9	68	0.004
15:00 - 16:00	9	68	0.002	9	68	0.002	9	68	0.004
16:00 - 17:00	9	68	0.007	9	68	0.005	9	68	0.012
17:00 - 18:00	9	68	0.007	9	68	0.003	9	68	0.010
18:00 - 19:00	9	68	0.002	9	68	0.003	9	68	0.005
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.039			0.036			0.075

Parameter summary

Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/10 - 09/11/16
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	68	0.000	9	68	0.000	9	68	0.000
08:00 - 09:00	9	68	0.002	9	68	0.000	9	68	0.002
09:00 - 10:00	9	68	0.003	9	68	0.005	9	68	0.008
10:00 - 11:00	9	68	0.000	9	68	0.000	9	68	0.000
11:00 - 12:00	9	68	0.000	9	68	0.000	9	68	0.000
12:00 - 13:00	9	68	0.002	9	68	0.002	9	68	0.004
13:00 - 14:00	9	68	0.002	9	68	0.002	9	68	0.004
14:00 - 15:00	9	68	0.002	9	68	0.002	9	68	0.004
15:00 - 16:00	9	68	0.000	9	68	0.000	9	68	0.000
16:00 - 17:00	9	68	0.000	9	68	0.000	9	68	0.000
17:00 - 18:00	9	68	0.000	9	68	0.000	9	68	0.000
18:00 - 19:00	9	68	0.000	9	68	0.000	9	68	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.011			0.011			0.022

Parameter summary

Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/10 - 09/11/16
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL PSVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	68	0.000	9	68	0.000	9	68	0.000
08:00 - 09:00	9	68	0.000	9	68	0.000	9	68	0.000
09:00 - 10:00	9	68	0.000	9	68	0.000	9	68	0.000
10:00 - 11:00	9	68	0.002	9	68	0.002	9	68	0.004
11:00 - 12:00	9	68	0.002	9	68	0.002	9	68	0.004
12:00 - 13:00	9	68	0.000	9	68	0.000	9	68	0.000
13:00 - 14:00	9	68	0.000	9	68	0.000	9	68	0.000
14:00 - 15:00	9	68	0.000	9	68	0.000	9	68	0.000
15:00 - 16:00	9	68	0.002	9	68	0.000	9	68	0.002
16:00 - 17:00	9	68	0.000	9	68	0.002	9	68	0.002
17:00 - 18:00	9	68	0.000	9	68	0.000	9	68	0.000
18:00 - 19:00	9	68	0.000	9	68	0.000	9	68	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.006			0.006			0.012

Parameter summary

Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/10 - 09/11/16
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL CYCLISTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	68	0.002	9	68	0.008	9	68	0.010
08:00 - 09:00	9	68	0.002	9	68	0.003	9	68	0.005
09:00 - 10:00	9	68	0.003	9	68	0.003	9	68	0.006
10:00 - 11:00	9	68	0.000	9	68	0.005	9	68	0.005
11:00 - 12:00	9	68	0.005	9	68	0.002	9	68	0.007
12:00 - 13:00	9	68	0.003	9	68	0.008	9	68	0.011
13:00 - 14:00	9	68	0.000	9	68	0.000	9	68	0.000
14:00 - 15:00	9	68	0.000	9	68	0.000	9	68	0.000
15:00 - 16:00	9	68	0.003	9	68	0.002	9	68	0.005
16:00 - 17:00	9	68	0.000	9	68	0.002	9	68	0.002
17:00 - 18:00	9	68	0.008	9	68	0.000	9	68	0.008
18:00 - 19:00	9	68	0.005	9	68	0.000	9	68	0.005
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.031			0.033			0.064

Parameter summary

Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/10 - 09/11/16
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
 MULTI-MODAL VEHICLE OCCUPANTS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	68	0.041	9	68	0.094	9	68	0.135
08:00 - 09:00	9	68	0.048	9	68	0.148	9	68	0.196
09:00 - 10:00	9	68	0.062	9	68	0.089	9	68	0.151
10:00 - 11:00	9	68	0.090	9	68	0.112	9	68	0.202
11:00 - 12:00	9	68	0.090	9	68	0.120	9	68	0.210
12:00 - 13:00	9	68	0.131	9	68	0.094	9	68	0.225
13:00 - 14:00	9	68	0.107	9	68	0.128	9	68	0.235
14:00 - 15:00	9	68	0.105	9	68	0.125	9	68	0.230
15:00 - 16:00	9	68	0.094	9	68	0.077	9	68	0.171
16:00 - 17:00	9	68	0.140	9	68	0.092	9	68	0.232
17:00 - 18:00	9	68	0.186	9	68	0.117	9	68	0.303
18:00 - 19:00	9	68	0.128	9	68	0.103	9	68	0.231
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.222			1.299			2.521

Parameter summary

Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/10 - 09/11/16
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL PEDESTRIANS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	68	0.010	9	68	0.026	9	68	0.036
08:00 - 09:00	9	68	0.015	9	68	0.140	9	68	0.155
09:00 - 10:00	9	68	0.028	9	68	0.103	9	68	0.131
10:00 - 11:00	9	68	0.046	9	68	0.048	9	68	0.094
11:00 - 12:00	9	68	0.067	9	68	0.053	9	68	0.120
12:00 - 13:00	9	68	0.082	9	68	0.080	9	68	0.162
13:00 - 14:00	9	68	0.080	9	68	0.072	9	68	0.152
14:00 - 15:00	9	68	0.094	9	68	0.051	9	68	0.145
15:00 - 16:00	9	68	0.085	9	68	0.077	9	68	0.162
16:00 - 17:00	9	68	0.126	9	68	0.122	9	68	0.248
17:00 - 18:00	9	68	0.154	9	68	0.076	9	68	0.230
18:00 - 19:00	9	68	0.097	9	68	0.043	9	68	0.140
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.884			0.891			1.775

Parameter summary

Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/10 - 09/11/16
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	68	0.000	9	68	0.025	9	68	0.025
08:00 - 09:00	9	68	0.002	9	68	0.043	9	68	0.045
09:00 - 10:00	9	68	0.003	9	68	0.016	9	68	0.019
10:00 - 11:00	9	68	0.003	9	68	0.010	9	68	0.013
11:00 - 12:00	9	68	0.005	9	68	0.005	9	68	0.010
12:00 - 13:00	9	68	0.008	9	68	0.015	9	68	0.023
13:00 - 14:00	9	68	0.003	9	68	0.008	9	68	0.011
14:00 - 15:00	9	68	0.003	9	68	0.002	9	68	0.005
15:00 - 16:00	9	68	0.026	9	68	0.007	9	68	0.033
16:00 - 17:00	9	68	0.031	9	68	0.007	9	68	0.038
17:00 - 18:00	9	68	0.030	9	68	0.002	9	68	0.032
18:00 - 19:00	9	68	0.010	9	68	0.002	9	68	0.012
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.124			0.142			0.266

Parameter summary

Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/10 - 09/11/16
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
 MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	68	0.002	9	68	0.041	9	68	0.043
08:00 - 09:00	9	68	0.003	9	68	0.039	9	68	0.042
09:00 - 10:00	9	68	0.000	9	68	0.011	9	68	0.011
10:00 - 11:00	9	68	0.002	9	68	0.005	9	68	0.007
11:00 - 12:00	9	68	0.002	9	68	0.007	9	68	0.009
12:00 - 13:00	9	68	0.003	9	68	0.011	9	68	0.014
13:00 - 14:00	9	68	0.002	9	68	0.005	9	68	0.007
14:00 - 15:00	9	68	0.005	9	68	0.002	9	68	0.007
15:00 - 16:00	9	68	0.011	9	68	0.000	9	68	0.011
16:00 - 17:00	9	68	0.015	9	68	0.008	9	68	0.023
17:00 - 18:00	9	68	0.071	9	68	0.003	9	68	0.074
18:00 - 19:00	9	68	0.025	9	68	0.000	9	68	0.025
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.141			0.132			0.273

Parameter summary

Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/10 - 09/11/16
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL COACH PASSENGERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	68	0.000	9	68	0.000	9	68	0.000
08:00 - 09:00	9	68	0.000	9	68	0.000	9	68	0.000
09:00 - 10:00	9	68	0.000	9	68	0.000	9	68	0.000
10:00 - 11:00	9	68	0.000	9	68	0.003	9	68	0.003
11:00 - 12:00	9	68	0.016	9	68	0.002	9	68	0.018
12:00 - 13:00	9	68	0.000	9	68	0.000	9	68	0.000
13:00 - 14:00	9	68	0.000	9	68	0.000	9	68	0.000
14:00 - 15:00	9	68	0.000	9	68	0.000	9	68	0.000
15:00 - 16:00	9	68	0.002	9	68	0.000	9	68	0.002
16:00 - 17:00	9	68	0.000	9	68	0.000	9	68	0.000
17:00 - 18:00	9	68	0.000	9	68	0.000	9	68	0.000
18:00 - 19:00	9	68	0.000	9	68	0.000	9	68	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.018			0.005			0.023

Parameter summary

Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/10 - 09/11/16
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	68	0.002	9	68	0.066	9	68	0.068
08:00 - 09:00	9	68	0.005	9	68	0.082	9	68	0.087
09:00 - 10:00	9	68	0.003	9	68	0.028	9	68	0.031
10:00 - 11:00	9	68	0.005	9	68	0.018	9	68	0.023
11:00 - 12:00	9	68	0.023	9	68	0.013	9	68	0.036
12:00 - 13:00	9	68	0.011	9	68	0.026	9	68	0.037
13:00 - 14:00	9	68	0.005	9	68	0.013	9	68	0.018
14:00 - 15:00	9	68	0.007	9	68	0.003	9	68	0.010
15:00 - 16:00	9	68	0.039	9	68	0.007	9	68	0.046
16:00 - 17:00	9	68	0.046	9	68	0.015	9	68	0.061
17:00 - 18:00	9	68	0.100	9	68	0.005	9	68	0.105
18:00 - 19:00	9	68	0.034	9	68	0.002	9	68	0.036
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.280			0.278			0.558

Parameter summary

Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/10 - 09/11/16
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	68	0.054	9	68	0.194	9	68	0.248
08:00 - 09:00	9	68	0.069	9	68	0.373	9	68	0.442
09:00 - 10:00	9	68	0.097	9	68	0.223	9	68	0.320
10:00 - 11:00	9	68	0.141	9	68	0.182	9	68	0.323
11:00 - 12:00	9	68	0.186	9	68	0.187	9	68	0.373
12:00 - 13:00	9	68	0.228	9	68	0.209	9	68	0.437
13:00 - 14:00	9	68	0.192	9	68	0.213	9	68	0.405
14:00 - 15:00	9	68	0.205	9	68	0.179	9	68	0.384
15:00 - 16:00	9	68	0.222	9	68	0.163	9	68	0.385
16:00 - 17:00	9	68	0.312	9	68	0.230	9	68	0.542
17:00 - 18:00	9	68	0.448	9	68	0.197	9	68	0.645
18:00 - 19:00	9	68	0.264	9	68	0.148	9	68	0.412
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.418			2.498			4.916

Parameter summary

Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/10 - 09/11/16
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

C TRICS Output Data - Office

Calculation Reference: AUDIT-720101-171024-1032

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : A - OFFICE

MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	EX ESSEX	1 days
	HF HERTFORDSHIRE	2 days
	KC KENT	2 days
	SO SLOUGH	2 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
08	NORTH WEST	
	GM GREATER MANCHESTER	1 days
09	NORTH	
	TV TEES VALLEY	1 days
10	WALES	
	MT MERTHYR TYDFIL	1 days
	PS POWYS	1 days
	SW SWANSEA	1 days
11	SCOTLAND	
	EB CITY OF EDINBURGH	1 days

Secondary Filtering selection:

Parameter: Gross floor area
 Actual Range: 610 to 45000 (units: sqm)
 Range Selected by User: 186 to 70291 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 26/09/16

Selected survey days:

Tuesday	3 days
Wednesday	6 days
Thursday	8 days

Selected survey types:

Manual count	17 days
Directional ATC Count	0 days

Selected Locations:

Town Centre	7
Edge of Town Centre	10

Selected Location Sub Categories:

Commercial Zone	1
Development Zone	1
Residential Zone	1
Built-Up Zone	12
High Street	1
No Sub Category	1

Secondary Filtering selection:

Use Class:

A1	1 days
B1	16 days

Population within 1 mile:

5,001 to 10,000	2 days
10,001 to 15,000	1 days
15,001 to 20,000	3 days
25,001 to 50,000	9 days
50,001 to 100,000	2 days

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
75,001 to 100,000	2 days
125,001 to 250,000	9 days
250,001 to 500,000	3 days
500,001 or More	1 days

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	11 days
1.6 to 2.0	2 days

Travel Plan:

Yes	8 days
No	9 days

PTAL Rating:

No PTAL Present	17 days
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LIST OF SITES relevant to selection parameters

1	CA-02-A-05 NEW ROAD	OFFICES		CAMBRIDGESHIRE
	PETERBOROUGH Town Centre Built-Up Zone			
	Total Gross floor area:	8793 sqm		
	Survey date: TUESDAY	16/12/14		Survey Type: MANUAL
2	EB-02-A-06 ST ANDREW SQUARE	REGUS OFFICES		CITY OF EDINBURGH
	EDINBURGH Town Centre Built-Up Zone			
	Total Gross floor area:	4500 sqm		
	Survey date: WEDNESDAY	16/03/16		Survey Type: MANUAL
3	ES-02-A-12 VICARAGE LANE	COUNCIL OFFICES		EAST SUSSEX
	HAILSHAM Edge of Town Centre Built-Up Zone			
	Total Gross floor area:	3640 sqm		
	Survey date: THURSDAY	26/11/15		Survey Type: MANUAL
4	EX-02-A-03 VICTORIA AVENUE	HMRC		ESSEX
	SOUTHEND-ON-SEA Town Centre Built-Up Zone			
	Total Gross floor area:	45000 sqm		
	Survey date: WEDNESDAY	23/10/13		Survey Type: MANUAL
5	GM-02-A-07 MOSELEY STREET	LAW OFFICES		GREATER MANCHESTER
	MANCHESTER Town Centre Built-Up Zone			
	Total Gross floor area:	4200 sqm		
	Survey date: WEDNESDAY	19/10/11		Survey Type: MANUAL
6	HF-02-A-03 60 VICTORIA STREET	OFFICE		HERTFORDSHIRE
	ST ALBANS Edge of Town Centre Built-Up Zone			
	Total Gross floor area:	610 sqm		
	Survey date: WEDNESDAY	16/10/13		Survey Type: MANUAL
7	HF-02-A-04 STATION WAY	OFFICES		HERTFORDSHIRE
	ST ALBANS Edge of Town Centre Residential Zone			
	Total Gross floor area:	5000 sqm		
	Survey date: THURSDAY	02/10/14		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	KC-02-A-09	COUNCIL OFFICES	KENT
	SANDLING ROAD		
	MAIDSTONE		
	Edge of Town Centre		
	Built-Up Zone		
	Total Gross floor area:	1500 sqm	
	Survey date: WEDNESDAY	19/10/11	Survey Type: MANUAL
9	KC-02-A-10	COUNCIL OFFICES	KENT
	SANDLING ROAD		
	MAIDSTONE		
	Edge of Town Centre		
	Built-Up Zone		
	Total Gross floor area:	2900 sqm	
	Survey date: WEDNESDAY	19/10/11	Survey Type: MANUAL
10	MT-02-A-02	COUNCIL OFFICES	MERTHYR TYDFIL
	CASTLE STREET		
	MERTHYR TYDFIL		
	Edge of Town Centre		
	Built-Up Zone		
	Total Gross floor area:	5250 sqm	
	Survey date: THURSDAY	17/10/13	Survey Type: MANUAL
11	NF-02-A-01	COUNCIL OFFICE	NORFOLK
	CHAPEL STREET		
	KING'S LYNN		
	Edge of Town Centre		
	Built-Up Zone		
	Total Gross floor area:	5500 sqm	
	Survey date: THURSDAY	30/09/10	Survey Type: MANUAL
12	PS-02-A-01	COUNCIL OFFICES	POWYS
	SEVERN ROAD		
	WELSHPOOL		
	Edge of Town Centre		
	No Sub Category		
	Total Gross floor area:	3920 sqm	
	Survey date: TUESDAY	12/05/15	Survey Type: MANUAL
13	SO-02-A-01	COUNCIL OFFICES	SLOUGH
	HIGH STREET		
	SLOUGH		
	Town Centre		
	High Street		
	Total Gross floor area:	1800 sqm	
	Survey date: THURSDAY	27/02/14	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

14	SO-02-A-02 BATH ROAD	COUNCIL OFFICES	SLOUGH
	SLOUGH Edge of Town Centre Built-Up Zone Total Gross floor area:	5050 sqm	
	Survey date: THURSDAY	27/02/14	Survey Type: MANUAL
15	SW-02-A-02 KINGS ROAD	OFFICE	SWANSEA
	SWANSEA Edge of Town Centre Development Zone Total Gross floor area:	2225 sqm	
	Survey date: THURSDAY	24/10/13	Survey Type: MANUAL
16	TV-02-A-04 CORPORATION ROAD	COUNCIL OFFICES	TEES VALLEY
	MIDDLESBROUGH Town Centre Commercial Zone Total Gross floor area:	3950 sqm	
	Survey date: TUESDAY	08/10/13	Survey Type: MANUAL
17	WK-02-A-01 WARWICK ROAD	OFFICES	WARWICKSHIRE
	COVENTRY Town Centre Built-Up Zone Total Gross floor area:	960 sqm	
	Survey date: THURSDAY	17/10/13	Survey Type: MANUAL

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	17	6165	0.568	17	6165	0.054	17	6165	0.622
08:00 - 09:00	17	6165	1.207	17	6165	0.142	17	6165	1.349
09:00 - 10:00	17	6165	0.825	17	6165	0.233	17	6165	1.058
10:00 - 11:00	17	6165	0.352	17	6165	0.270	17	6165	0.622
11:00 - 12:00	17	6165	0.278	17	6165	0.267	17	6165	0.545
12:00 - 13:00	17	6165	0.276	17	6165	0.309	17	6165	0.585
13:00 - 14:00	17	6165	0.300	17	6165	0.307	17	6165	0.607
14:00 - 15:00	17	6165	0.224	17	6165	0.284	17	6165	0.508
15:00 - 16:00	17	6165	0.193	17	6165	0.452	17	6165	0.645
16:00 - 17:00	17	6165	0.173	17	6165	0.870	17	6165	1.043
17:00 - 18:00	17	6165	0.104	17	6165	1.005	17	6165	1.109
18:00 - 19:00	17	6165	0.050	17	6165	0.261	17	6165	0.311
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.550			4.454			9.004

Parameter summary

Trip rate parameter range selected: 610 - 45000 (units: sqm)
 Survey date range: 01/01/10 - 26/09/16
 Number of weekdays (Monday-Friday): 17
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 4
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	17	6165	0.000	17	6165	0.000	17	6165	0.000
08:00 - 09:00	17	6165	0.007	17	6165	0.007	17	6165	0.014
09:00 - 10:00	17	6165	0.009	17	6165	0.009	17	6165	0.018
10:00 - 11:00	17	6165	0.015	17	6165	0.015	17	6165	0.030
11:00 - 12:00	17	6165	0.012	17	6165	0.012	17	6165	0.024
12:00 - 13:00	17	6165	0.010	17	6165	0.010	17	6165	0.020
13:00 - 14:00	17	6165	0.012	17	6165	0.012	17	6165	0.024
14:00 - 15:00	17	6165	0.008	17	6165	0.008	17	6165	0.016
15:00 - 16:00	17	6165	0.003	17	6165	0.003	17	6165	0.006
16:00 - 17:00	17	6165	0.004	17	6165	0.004	17	6165	0.008
17:00 - 18:00	17	6165	0.001	17	6165	0.000	17	6165	0.001
18:00 - 19:00	17	6165	0.001	17	6165	0.001	17	6165	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.082			0.081			0.163

Parameter summary

Trip rate parameter range selected: 610 - 45000 (units: sqm)
 Survey date range: 01/01/10 - 26/09/16
 Number of weekdays (Monday-Friday): 17
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 4
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	17	6165	0.003	17	6165	0.001	17	6165	0.004
08:00 - 09:00	17	6165	0.004	17	6165	0.005	17	6165	0.009
09:00 - 10:00	17	6165	0.002	17	6165	0.003	17	6165	0.005
10:00 - 11:00	17	6165	0.003	17	6165	0.003	17	6165	0.006
11:00 - 12:00	17	6165	0.001	17	6165	0.001	17	6165	0.002
12:00 - 13:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
13:00 - 14:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
14:00 - 15:00	17	6165	0.003	17	6165	0.002	17	6165	0.005
15:00 - 16:00	17	6165	0.004	17	6165	0.004	17	6165	0.008
16:00 - 17:00	17	6165	0.001	17	6165	0.001	17	6165	0.002
17:00 - 18:00	17	6165	0.003	17	6165	0.004	17	6165	0.007
18:00 - 19:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.024			0.024			0.048

Parameter summary

Trip rate parameter range selected: 610 - 45000 (units: sqm)
 Survey date range: 01/01/10 - 26/09/16
 Number of weekdays (Monday-Friday): 17
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 4
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	17	6165	0.000	17	6165	0.000	17	6165	0.000
08:00 - 09:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
09:00 - 10:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
10:00 - 11:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
11:00 - 12:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
12:00 - 13:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
13:00 - 14:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
14:00 - 15:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
15:00 - 16:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
16:00 - 17:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
17:00 - 18:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
18:00 - 19:00	17	6165	0.000	17	6165	0.000	17	6165	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

Parameter summary

Trip rate parameter range selected: 610 - 45000 (units: sqm)
 Survey date range: 01/01/10 - 26/09/16
 Number of weekdays (Monday-Friday): 17
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 4
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	17	6165	0.010	17	6165	0.002	17	6165	0.012
08:00 - 09:00	17	6165	0.036	17	6165	0.001	17	6165	0.037
09:00 - 10:00	17	6165	0.012	17	6165	0.001	17	6165	0.013
10:00 - 11:00	17	6165	0.010	17	6165	0.011	17	6165	0.021
11:00 - 12:00	17	6165	0.010	17	6165	0.008	17	6165	0.018
12:00 - 13:00	17	6165	0.008	17	6165	0.010	17	6165	0.018
13:00 - 14:00	17	6165	0.010	17	6165	0.006	17	6165	0.016
14:00 - 15:00	17	6165	0.002	17	6165	0.004	17	6165	0.006
15:00 - 16:00	17	6165	0.009	17	6165	0.010	17	6165	0.019
16:00 - 17:00	17	6165	0.005	17	6165	0.024	17	6165	0.029
17:00 - 18:00	17	6165	0.000	17	6165	0.026	17	6165	0.026
18:00 - 19:00	17	6165	0.002	17	6165	0.009	17	6165	0.011
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.114			0.112			0.226

Parameter summary

Trip rate parameter range selected: 610 - 45000 (units: sqm)
 Survey date range: 01/01/10 - 26/09/16
 Number of weekdays (Monday-Friday): 17
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 4
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	17	6165	0.611	17	6165	0.043	17	6165	0.654
08:00 - 09:00	17	6165	1.305	17	6165	0.076	17	6165	1.381
09:00 - 10:00	17	6165	0.878	17	6165	0.219	17	6165	1.097
10:00 - 11:00	17	6165	0.386	17	6165	0.269	17	6165	0.655
11:00 - 12:00	17	6165	0.310	17	6165	0.289	17	6165	0.599
12:00 - 13:00	17	6165	0.320	17	6165	0.340	17	6165	0.660
13:00 - 14:00	17	6165	0.340	17	6165	0.336	17	6165	0.676
14:00 - 15:00	17	6165	0.247	17	6165	0.328	17	6165	0.575
15:00 - 16:00	17	6165	0.222	17	6165	0.484	17	6165	0.706
16:00 - 17:00	17	6165	0.152	17	6165	0.953	17	6165	1.105
17:00 - 18:00	17	6165	0.073	17	6165	1.102	17	6165	1.175
18:00 - 19:00	17	6165	0.039	17	6165	0.280	17	6165	0.319
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.883			4.719			9.602

Parameter summary

Trip rate parameter range selected: 610 - 45000 (units: sqm)
 Survey date range: 01/01/10 - 26/09/16
 Number of weekdays (Monday-Friday): 17
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 4
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	17	6165	0.145	17	6165	0.006	17	6165	0.151
08:00 - 09:00	17	6165	0.312	17	6165	0.062	17	6165	0.374
09:00 - 10:00	17	6165	0.287	17	6165	0.097	17	6165	0.384
10:00 - 11:00	17	6165	0.297	17	6165	0.238	17	6165	0.535
11:00 - 12:00	17	6165	0.261	17	6165	0.381	17	6165	0.642
12:00 - 13:00	17	6165	1.017	17	6165	1.455	17	6165	2.472
13:00 - 14:00	17	6165	1.192	17	6165	0.857	17	6165	2.049
14:00 - 15:00	17	6165	0.541	17	6165	0.381	17	6165	0.922
15:00 - 16:00	17	6165	0.217	17	6165	0.337	17	6165	0.554
16:00 - 17:00	17	6165	0.122	17	6165	0.298	17	6165	0.420
17:00 - 18:00	17	6165	0.031	17	6165	0.313	17	6165	0.344
18:00 - 19:00	17	6165	0.010	17	6165	0.085	17	6165	0.095
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.432			4.510			8.942

Parameter summary

Trip rate parameter range selected: 610 - 45000 (units: sqm)
 Survey date range: 01/01/10 - 26/09/16
 Number of weekdays (Monday-Friday): 17
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 4
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL BUS/TRAM PASSENGERS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	17	6165	0.102	17	6165	0.000	17	6165	0.102
08:00 - 09:00	17	6165	0.191	17	6165	0.008	17	6165	0.199
09:00 - 10:00	17	6165	0.129	17	6165	0.017	17	6165	0.146
10:00 - 11:00	17	6165	0.078	17	6165	0.053	17	6165	0.131
11:00 - 12:00	17	6165	0.078	17	6165	0.073	17	6165	0.151
12:00 - 13:00	17	6165	0.073	17	6165	0.069	17	6165	0.142
13:00 - 14:00	17	6165	0.043	17	6165	0.050	17	6165	0.093
14:00 - 15:00	17	6165	0.052	17	6165	0.058	17	6165	0.110
15:00 - 16:00	17	6165	0.031	17	6165	0.090	17	6165	0.121
16:00 - 17:00	17	6165	0.027	17	6165	0.125	17	6165	0.152
17:00 - 18:00	17	6165	0.005	17	6165	0.171	17	6165	0.176
18:00 - 19:00	17	6165	0.001	17	6165	0.045	17	6165	0.046
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.810			0.759			1.569

Parameter summary

Trip rate parameter range selected: 610 - 45000 (units: sqm)
 Survey date range: 01/01/10 - 26/09/16
 Number of weekdays (Monday-Friday): 17
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 4
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL TOTAL RAIL PASSENGERS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	17	6165	0.099	17	6165	0.003	17	6165	0.102
08:00 - 09:00	17	6165	0.157	17	6165	0.009	17	6165	0.166
09:00 - 10:00	17	6165	0.111	17	6165	0.002	17	6165	0.113
10:00 - 11:00	17	6165	0.019	17	6165	0.006	17	6165	0.025
11:00 - 12:00	17	6165	0.014	17	6165	0.004	17	6165	0.018
12:00 - 13:00	17	6165	0.013	17	6165	0.010	17	6165	0.023
13:00 - 14:00	17	6165	0.005	17	6165	0.004	17	6165	0.009
14:00 - 15:00	17	6165	0.015	17	6165	0.037	17	6165	0.052
15:00 - 16:00	17	6165	0.009	17	6165	0.063	17	6165	0.072
16:00 - 17:00	17	6165	0.001	17	6165	0.117	17	6165	0.118
17:00 - 18:00	17	6165	0.004	17	6165	0.121	17	6165	0.125
18:00 - 19:00	17	6165	0.001	17	6165	0.035	17	6165	0.036
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.448			0.411			0.859

Parameter summary

Trip rate parameter range selected: 610 - 45000 (units: sqm)
 Survey date range: 01/01/10 - 26/09/16
 Number of weekdays (Monday-Friday): 17
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 4
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL COACH PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	17	6165	0.000	17	6165	0.000	17	6165	0.000
08:00 - 09:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
09:00 - 10:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
10:00 - 11:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
11:00 - 12:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
12:00 - 13:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
13:00 - 14:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
14:00 - 15:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
15:00 - 16:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
16:00 - 17:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
17:00 - 18:00	17	6165	0.000	17	6165	0.000	17	6165	0.000
18:00 - 19:00	17	6165	0.000	17	6165	0.000	17	6165	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

Parameter summary

Trip rate parameter range selected: 610 - 45000 (units: sqm)
 Survey date range: 01/01/10 - 26/09/16
 Number of weekdays (Monday-Friday): 17
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 4
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL PUBLIC TRANSPORT USERS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	17	6165	0.201	17	6165	0.003	17	6165	0.204
08:00 - 09:00	17	6165	0.348	17	6165	0.016	17	6165	0.364
09:00 - 10:00	17	6165	0.240	17	6165	0.019	17	6165	0.259
10:00 - 11:00	17	6165	0.097	17	6165	0.059	17	6165	0.156
11:00 - 12:00	17	6165	0.093	17	6165	0.076	17	6165	0.169
12:00 - 13:00	17	6165	0.087	17	6165	0.078	17	6165	0.165
13:00 - 14:00	17	6165	0.048	17	6165	0.053	17	6165	0.101
14:00 - 15:00	17	6165	0.067	17	6165	0.095	17	6165	0.162
15:00 - 16:00	17	6165	0.040	17	6165	0.153	17	6165	0.193
16:00 - 17:00	17	6165	0.028	17	6165	0.242	17	6165	0.270
17:00 - 18:00	17	6165	0.009	17	6165	0.292	17	6165	0.301
18:00 - 19:00	17	6165	0.002	17	6165	0.080	17	6165	0.082
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.260			1.166			2.426

Parameter summary

Trip rate parameter range selected: 610 - 45000 (units: sqm)
 Survey date range: 01/01/10 - 26/09/16
 Number of weekdays (Monday-Friday): 17
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 4
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	17	6165	0.968	17	6165	0.053	17	6165	1.021
08:00 - 09:00	17	6165	2.002	17	6165	0.156	17	6165	2.158
09:00 - 10:00	17	6165	1.417	17	6165	0.336	17	6165	1.753
10:00 - 11:00	17	6165	0.789	17	6165	0.577	17	6165	1.366
11:00 - 12:00	17	6165	0.673	17	6165	0.754	17	6165	1.427
12:00 - 13:00	17	6165	1.431	17	6165	1.883	17	6165	3.314
13:00 - 14:00	17	6165	1.589	17	6165	1.252	17	6165	2.841
14:00 - 15:00	17	6165	0.857	17	6165	0.808	17	6165	1.665
15:00 - 16:00	17	6165	0.488	17	6165	0.983	17	6165	1.471
16:00 - 17:00	17	6165	0.306	17	6165	1.517	17	6165	1.823
17:00 - 18:00	17	6165	0.113	17	6165	1.733	17	6165	1.846
18:00 - 19:00	17	6165	0.053	17	6165	0.453	17	6165	0.506
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			10.686			10.505			21.191

Parameter summary

Trip rate parameter range selected: 610 - 45000 (units: sqm)
 Survey date range: 01/01/10 - 26/09/16
 Number of weekdays (Monday-Friday): 17
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 4
 Surveys manually removed from selection: 0

D TRICS Output Data - Retail

Calculation Reference: AUDIT-720101-171101-1106

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
 Category : O - CONVENIENCE STORE
 MULTI-MODAL VEHICLES

Selected regions and areas:

07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
	SY SOUTH YORKSHIRE	1 days
11	SCOTLAND	
	EB CITY OF EDINBURGH	2 days
	GC GLASGOW CITY	1 days

Secondary Filtering selection:

Parameter: Gross floor area
 Actual Range: 219 to 1500 (units: sqm)
 Range Selected by User: 70 to 1500 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 07/04/17

Selected survey days:

Monday	1 days
Wednesday	2 days
Thursday	2 days

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

Selected Locations:

Town Centre	4
Edge of Town Centre	1

Selected Location Sub Categories:

Residential Zone	1
Built-Up Zone	4

Secondary Filtering selection:

Use Class:

A1	5 days
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Population within 1 mile:

15,001 to 20,000	1 days
25,001 to 50,000	1 days
50,001 to 100,000	3 days

Population within 5 miles:

75,001 to 100,000	2 days
250,001 to 500,000	2 days
500,001 or More	1 days

Car ownership within 5 miles:

0.6 to 1.0	5 days
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Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	5 days

Travel Plan:

No	5 days
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PTAL Rating:

No PTAL Present	5 days
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LIST OF SITES relevant to selection parameters

1	EB-01-O-01	SAINSBURY'S LOCAL	CITY OF EDINBURGH
	EARL GREY STREET		
	EDINBURGH		
	Town Centre		
	Built-Up Zone		
	Total Gross floor area:	350 sqm	
	Survey date: THURSDAY	28/05/15	Survey Type: MANUAL
2	EB-01-O-02	SAINSBURY'S LOCAL	CITY OF EDINBURGH
	ST ANDREW SQUARE		
	EDINBURGH		
	Town Centre		
	Built-Up Zone		
	Total Gross floor area:	1500 sqm	
	Survey date: THURSDAY	17/03/16	Survey Type: MANUAL
3	GC-01-O-01	SAINSBURY'S CENTRAL	GLASGOW CITY
	BUCHANAN STREET		
	GLASGOW		
	Town Centre		
	Built-Up Zone		
	Total Gross floor area:	1450 sqm	
	Survey date: WEDNESDAY	25/06/14	Survey Type: MANUAL
4	NY-01-O-02	SAINSBURY'S LOCAL	NORTH YORKSHIRE
	COLD BATH ROAD		
	HARROGATE		
	Edge of Town Centre		
	Residential Zone		
	Total Gross floor area:	220 sqm	
	Survey date: MONDAY	10/12/12	Survey Type: MANUAL
5	SY-01-O-01	SAINSBURY'S LOCAL	SOUTH YORKSHIRE
	DIVISION STREET		
	SHEFFIELD		
	Town Centre		
	Built-Up Zone		
	Total Gross floor area:	219 sqm	
	Survey date: WEDNESDAY	12/12/12	Survey Type: MANUAL

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	5	748	1.605	5	748	1.204	5	748	2.809
08:00 - 09:00	5	748	2.166	5	748	1.364	5	748	3.530
09:00 - 10:00	5	748	1.658	5	748	1.658	5	748	3.316
10:00 - 11:00	5	748	1.391	5	748	1.257	5	748	2.648
11:00 - 12:00	5	748	2.086	5	748	1.738	5	748	3.824
12:00 - 13:00	5	748	1.845	5	748	1.551	5	748	3.396
13:00 - 14:00	5	748	1.845	5	748	1.311	5	748	3.156
14:00 - 15:00	5	748	2.380	5	748	2.648	5	748	5.028
15:00 - 16:00	5	748	2.675	5	748	2.514	5	748	5.189
16:00 - 17:00	5	748	2.113	5	748	2.247	5	748	4.360
17:00 - 18:00	5	748	2.781	5	748	3.343	5	748	6.124
18:00 - 19:00	5	748	1.926	5	748	3.316	5	748	5.242
19:00 - 20:00	5	748	2.086	5	748	1.471	5	748	3.557
20:00 - 21:00	5	748	0.883	5	748	1.177	5	748	2.060
21:00 - 22:00	5	748	0.588	5	748	0.909	5	748	1.497
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			28.028			27.708			55.736

Parameter summary

Trip rate parameter range selected:	219 - 1500 (units: sqm)
Survey date date range:	01/01/09 - 07/04/17
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE

MULTI-MODAL TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	5	748	0.187	5	748	0.187	5	748	0.374
08:00 - 09:00	5	748	0.080	5	748	0.080	5	748	0.160
09:00 - 10:00	5	748	0.053	5	748	0.053	5	748	0.106
10:00 - 11:00	5	748	0.000	5	748	0.000	5	748	0.000
11:00 - 12:00	5	748	0.267	5	748	0.267	5	748	0.534
12:00 - 13:00	5	748	0.000	5	748	0.000	5	748	0.000
13:00 - 14:00	5	748	0.107	5	748	0.107	5	748	0.214
14:00 - 15:00	5	748	0.214	5	748	0.214	5	748	0.428
15:00 - 16:00	5	748	0.027	5	748	0.027	5	748	0.054
16:00 - 17:00	5	748	0.267	5	748	0.267	5	748	0.534
17:00 - 18:00	5	748	0.321	5	748	0.321	5	748	0.642
18:00 - 19:00	5	748	0.214	5	748	0.187	5	748	0.401
19:00 - 20:00	5	748	0.107	5	748	0.134	5	748	0.241
20:00 - 21:00	5	748	0.187	5	748	0.187	5	748	0.374
21:00 - 22:00	5	748	0.134	5	748	0.134	5	748	0.268
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.165			2.165			4.330

Parameter summary

Trip rate parameter range selected:	219 - 1500 (units: sqm)
Survey date date range:	01/01/09 - 07/04/17
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	5	748	0.107	5	748	0.107	5	748	0.214
08:00 - 09:00	5	748	0.000	5	748	0.000	5	748	0.000
09:00 - 10:00	5	748	0.027	5	748	0.027	5	748	0.054
10:00 - 11:00	5	748	0.000	5	748	0.000	5	748	0.000
11:00 - 12:00	5	748	0.053	5	748	0.053	5	748	0.106
12:00 - 13:00	5	748	0.000	5	748	0.000	5	748	0.000
13:00 - 14:00	5	748	0.000	5	748	0.000	5	748	0.000
14:00 - 15:00	5	748	0.000	5	748	0.000	5	748	0.000
15:00 - 16:00	5	748	0.000	5	748	0.000	5	748	0.000
16:00 - 17:00	5	748	0.000	5	748	0.000	5	748	0.000
17:00 - 18:00	5	748	0.000	5	748	0.000	5	748	0.000
18:00 - 19:00	5	748	0.000	5	748	0.000	5	748	0.000
19:00 - 20:00	5	748	0.000	5	748	0.000	5	748	0.000
20:00 - 21:00	5	748	0.000	5	748	0.000	5	748	0.000
21:00 - 22:00	5	748	0.027	5	748	0.000	5	748	0.027
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.214			0.187			0.401

Parameter summary

Trip rate parameter range selected:	219 - 1500 (units: sqm)
Survey date date range:	01/01/09 - 07/04/17
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
MULTI-MODAL PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	5	748	0.000	5	748	0.000	5	748	0.000
08:00 - 09:00	5	748	0.000	5	748	0.000	5	748	0.000
09:00 - 10:00	5	748	0.000	5	748	0.000	5	748	0.000
10:00 - 11:00	5	748	0.000	5	748	0.000	5	748	0.000
11:00 - 12:00	5	748	0.000	5	748	0.000	5	748	0.000
12:00 - 13:00	5	748	0.000	5	748	0.000	5	748	0.000
13:00 - 14:00	5	748	0.000	5	748	0.000	5	748	0.000
14:00 - 15:00	5	748	0.000	5	748	0.000	5	748	0.000
15:00 - 16:00	5	748	0.000	5	748	0.000	5	748	0.000
16:00 - 17:00	5	748	0.000	5	748	0.000	5	748	0.000
17:00 - 18:00	5	748	0.000	5	748	0.000	5	748	0.000
18:00 - 19:00	5	748	0.000	5	748	0.000	5	748	0.000
19:00 - 20:00	5	748	0.000	5	748	0.000	5	748	0.000
20:00 - 21:00	5	748	0.000	5	748	0.000	5	748	0.000
21:00 - 22:00	5	748	0.000	5	748	0.000	5	748	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

Parameter summary

Trip rate parameter range selected:	219 - 1500 (units: sqm)
Survey date date range:	01/01/09 - 07/04/17
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	5	748	0.080	5	748	0.053	5	748	0.133
08:00 - 09:00	5	748	0.187	5	748	0.321	5	748	0.508
09:00 - 10:00	5	748	0.053	5	748	0.027	5	748	0.080
10:00 - 11:00	5	748	0.053	5	748	0.080	5	748	0.133
11:00 - 12:00	5	748	0.107	5	748	0.107	5	748	0.214
12:00 - 13:00	5	748	0.107	5	748	0.107	5	748	0.214
13:00 - 14:00	5	748	0.187	5	748	0.053	5	748	0.240
14:00 - 15:00	5	748	0.053	5	748	0.080	5	748	0.133
15:00 - 16:00	5	748	0.134	5	748	0.080	5	748	0.214
16:00 - 17:00	5	748	0.107	5	748	0.160	5	748	0.267
17:00 - 18:00	5	748	0.107	5	748	0.294	5	748	0.401
18:00 - 19:00	5	748	0.107	5	748	0.160	5	748	0.267
19:00 - 20:00	5	748	0.080	5	748	0.187	5	748	0.267
20:00 - 21:00	5	748	0.134	5	748	0.107	5	748	0.241
21:00 - 22:00	5	748	0.053	5	748	0.160	5	748	0.213
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.549			1.976			3.525

Parameter summary

Trip rate parameter range selected:	219 - 1500 (units: sqm)
Survey date date range:	01/01/09 - 07/04/17
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
 MULTI-MODAL VEHICLE OCCUPANTS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	5	748	1.631	5	748	1.097	5	748	2.728
08:00 - 09:00	5	748	2.942	5	748	1.498	5	748	4.440
09:00 - 10:00	5	748	1.872	5	748	1.845	5	748	3.717
10:00 - 11:00	5	748	1.765	5	748	1.498	5	748	3.263
11:00 - 12:00	5	748	2.621	5	748	2.407	5	748	5.028
12:00 - 13:00	5	748	2.300	5	748	1.926	5	748	4.226
13:00 - 14:00	5	748	2.247	5	748	1.471	5	748	3.718
14:00 - 15:00	5	748	2.541	5	748	3.183	5	748	5.724
15:00 - 16:00	5	748	3.530	5	748	3.183	5	748	6.713
16:00 - 17:00	5	748	2.781	5	748	2.888	5	748	5.669
17:00 - 18:00	5	748	3.129	5	748	3.985	5	748	7.114
18:00 - 19:00	5	748	2.621	5	748	4.359	5	748	6.980
19:00 - 20:00	5	748	2.781	5	748	1.979	5	748	4.760
20:00 - 21:00	5	748	1.150	5	748	1.417	5	748	2.567
21:00 - 22:00	5	748	0.802	5	748	1.123	5	748	1.925
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			34.713			33.859			68.572

Parameter summary

Trip rate parameter range selected:	219 - 1500 (units: sqm)
Survey date date range:	01/01/09 - 07/04/17
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
 MULTI-MODAL PEDESTRIANS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	5	748	3.718	5	748	6.312	5	748	10.030
08:00 - 09:00	5	748	7.221	5	748	14.844	5	748	22.065
09:00 - 10:00	5	748	8.211	5	748	9.628	5	748	17.839
10:00 - 11:00	5	748	8.826	5	748	8.398	5	748	17.224
11:00 - 12:00	5	748	10.725	5	748	11.768	5	748	22.493
12:00 - 13:00	5	748	41.375	5	748	41.428	5	748	82.803
13:00 - 14:00	5	748	32.415	5	748	36.561	5	748	68.976
14:00 - 15:00	5	748	14.496	5	748	15.325	5	748	29.821
15:00 - 16:00	5	748	12.490	5	748	13.506	5	748	25.996
16:00 - 17:00	5	748	12.971	5	748	11.714	5	748	24.685
17:00 - 18:00	5	748	23.348	5	748	17.866	5	748	41.214
18:00 - 19:00	5	748	16.395	5	748	13.694	5	748	30.089
19:00 - 20:00	5	748	16.609	5	748	14.897	5	748	31.506
20:00 - 21:00	5	748	11.902	5	748	12.249	5	748	24.151
21:00 - 22:00	5	748	8.692	5	748	9.281	5	748	17.973
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			229.394			237.471			466.865

Parameter summary

Trip rate parameter range selected:	219 - 1500 (units: sqm)
Survey date date range:	01/01/09 - 07/04/17
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
 MULTI-MODAL BUS/TRAM PASSENGERS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	5	748	5.590	5	748	3.798	5	748	9.388
08:00 - 09:00	5	748	9.601	5	748	3.932	5	748	13.533
09:00 - 10:00	5	748	3.423	5	748	2.113	5	748	5.536
10:00 - 11:00	5	748	3.744	5	748	3.825	5	748	7.569
11:00 - 12:00	5	748	5.697	5	748	3.878	5	748	9.575
12:00 - 13:00	5	748	3.691	5	748	3.183	5	748	6.874
13:00 - 14:00	5	748	4.975	5	748	3.397	5	748	8.372
14:00 - 15:00	5	748	6.579	5	748	5.429	5	748	12.008
15:00 - 16:00	5	748	7.061	5	748	6.365	5	748	13.426
16:00 - 17:00	5	748	5.750	5	748	6.526	5	748	12.276
17:00 - 18:00	5	748	7.863	5	748	11.982	5	748	19.845
18:00 - 19:00	5	748	6.285	5	748	7.810	5	748	14.095
19:00 - 20:00	5	748	3.022	5	748	5.937	5	748	8.959
20:00 - 21:00	5	748	2.434	5	748	2.487	5	748	4.921
21:00 - 22:00	5	748	2.086	5	748	3.076	5	748	5.162
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			77.801			73.738			151.539

Parameter summary

Trip rate parameter range selected:	219 - 1500 (units: sqm)
Survey date date range:	01/01/09 - 07/04/17
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
 MULTI-MODAL TOTAL RAIL PASSENGERS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	5	748	3.209	5	748	1.417	5	748	4.626
08:00 - 09:00	5	748	5.456	5	748	3.129	5	748	8.585
09:00 - 10:00	5	748	2.300	5	748	1.872	5	748	4.172
10:00 - 11:00	5	748	1.578	5	748	1.204	5	748	2.782
11:00 - 12:00	5	748	3.343	5	748	2.541	5	748	5.884
12:00 - 13:00	5	748	2.434	5	748	1.551	5	748	3.985
13:00 - 14:00	5	748	4.306	5	748	4.868	5	748	9.174
14:00 - 15:00	5	748	3.076	5	748	2.835	5	748	5.911
15:00 - 16:00	5	748	3.691	5	748	3.611	5	748	7.302
16:00 - 17:00	5	748	2.621	5	748	3.958	5	748	6.579
17:00 - 18:00	5	748	3.611	5	748	4.440	5	748	8.051
18:00 - 19:00	5	748	2.541	5	748	3.771	5	748	6.312
19:00 - 20:00	5	748	2.487	5	748	2.354	5	748	4.841
20:00 - 21:00	5	748	1.712	5	748	1.391	5	748	3.103
21:00 - 22:00	5	748	0.856	5	748	0.241	5	748	1.097
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			43.221			39.183			82.404

Parameter summary

Trip rate parameter range selected:	219 - 1500 (units: sqm)
Survey date date range:	01/01/09 - 07/04/17
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
 MULTI-MODAL COACH PASSENGERS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	5	748	0.000	5	748	0.000	5	748	0.000
08:00 - 09:00	5	748	0.000	5	748	0.000	5	748	0.000
09:00 - 10:00	5	748	0.000	5	748	0.000	5	748	0.000
10:00 - 11:00	5	748	0.000	5	748	0.000	5	748	0.000
11:00 - 12:00	5	748	0.000	5	748	0.000	5	748	0.000
12:00 - 13:00	5	748	0.000	5	748	0.000	5	748	0.000
13:00 - 14:00	5	748	0.000	5	748	0.000	5	748	0.000
14:00 - 15:00	5	748	0.000	5	748	0.000	5	748	0.000
15:00 - 16:00	5	748	0.000	5	748	0.000	5	748	0.000
16:00 - 17:00	5	748	0.000	5	748	0.000	5	748	0.000
17:00 - 18:00	5	748	0.000	5	748	0.000	5	748	0.000
18:00 - 19:00	5	748	0.000	5	748	0.000	5	748	0.000
19:00 - 20:00	5	748	0.000	5	748	0.000	5	748	0.000
20:00 - 21:00	5	748	0.000	5	748	0.000	5	748	0.000
21:00 - 22:00	5	748	0.000	5	748	0.000	5	748	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

Parameter summary

Trip rate parameter range selected:	219 - 1500 (units: sqm)
Survey date date range:	01/01/09 - 07/04/17
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
 MULTI-MODAL PUBLIC TRANSPORT USERS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	5	748	8.799	5	748	5.215	5	748	14.014
08:00 - 09:00	5	748	15.058	5	748	7.061	5	748	22.119
09:00 - 10:00	5	748	5.723	5	748	3.985	5	748	9.708
10:00 - 11:00	5	748	5.322	5	748	5.028	5	748	10.350
11:00 - 12:00	5	748	9.040	5	748	6.419	5	748	15.459
12:00 - 13:00	5	748	6.125	5	748	4.734	5	748	10.859
13:00 - 14:00	5	748	9.281	5	748	8.264	5	748	17.545
14:00 - 15:00	5	748	9.655	5	748	8.264	5	748	17.919
15:00 - 16:00	5	748	10.752	5	748	9.976	5	748	20.728
16:00 - 17:00	5	748	8.371	5	748	10.484	5	748	18.855
17:00 - 18:00	5	748	11.474	5	748	16.422	5	748	27.896
18:00 - 19:00	5	748	8.826	5	748	11.581	5	748	20.407
19:00 - 20:00	5	748	5.509	5	748	8.291	5	748	13.800
20:00 - 21:00	5	748	4.145	5	748	3.878	5	748	8.023
21:00 - 22:00	5	748	2.942	5	748	3.316	5	748	6.258
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			121.022			112.918			233.940

Parameter summary

Trip rate parameter range selected:	219 - 1500 (units: sqm)
Survey date date range:	01/01/09 - 07/04/17
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
 MULTI-MODAL TOTAL PEOPLE
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	5	748	14.228	5	748	12.677	5	748	26.905
08:00 - 09:00	5	748	25.408	5	748	23.723	5	748	49.131
09:00 - 10:00	5	748	15.860	5	748	15.485	5	748	31.345
10:00 - 11:00	5	748	15.967	5	748	15.004	5	748	30.971
11:00 - 12:00	5	748	22.493	5	748	20.701	5	748	43.194
12:00 - 13:00	5	748	49.906	5	748	48.195	5	748	98.101
13:00 - 14:00	5	748	44.129	5	748	46.349	5	748	90.478
14:00 - 15:00	5	748	26.745	5	748	26.852	5	748	53.597
15:00 - 16:00	5	748	26.906	5	748	26.745	5	748	53.651
16:00 - 17:00	5	748	24.231	5	748	25.247	5	748	49.478
17:00 - 18:00	5	748	38.058	5	748	38.566	5	748	76.624
18:00 - 19:00	5	748	27.949	5	748	29.794	5	748	57.743
19:00 - 20:00	5	748	24.980	5	748	25.354	5	748	50.334
20:00 - 21:00	5	748	17.331	5	748	17.652	5	748	34.983
21:00 - 22:00	5	748	12.490	5	748	13.881	5	748	26.371
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			386.681			386.225			772.906

Parameter summary

Trip rate parameter range selected:	219 - 1500 (units: sqm)
Survey date date range:	01/01/09 - 07/04/17
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

E TRICS Output Data – Restaurant

Calculation Reference: AUDIT-720101-171214-1245

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK

Category : B - RESTAURANTS

MULTI-MODAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	DC DORSET	1 days
08	NORTH WEST	
	GM GREATER MANCHESTER	1 days

Secondary Filtering selection:

Parameter: Gross floor area
 Actual Range: 525 to 900 (units: sqm)
 Range Selected by User: 75 to 2400 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 17/09/16

Selected survey days:

Monday	1 days
Friday	1 days

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

Selected Locations:

Town Centre	1
Edge of Town Centre	1

Selected Location Sub Categories:

Built-Up Zone	1
High Street	1

Secondary Filtering selection:

Use Class:

A3	2 days
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Population within 1 mile:

15,001 to 20,000	1 days
25,001 to 50,000	1 days

Population within 5 miles:

25,001 to 50,000	1 days
500,001 or More	1 days

Car ownership within 5 miles:

0.5 or Less	1 days
1.1 to 1.5	1 days

Travel Plan:

No	2 days
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PTAL Rating:

No PTAL Present	2 days
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LIST OF SITES relevant to selection parameters

- | | | | |
|---|-------------------------|-----------|---------------------|
| 1 | DC-06-B-02 | PREZZO | DORSET |
| | HIGH WEST STREET | | |
| | DORCHESTER | | |
| | Town Centre | | |
| | High Street | | |
| | Total Gross floor area: | 525 sqm | |
| | Survey date: FRIDAY | 16/09/16 | Survey Type: MANUAL |
| 2 | GM-06-B-03 | PIZZA HUT | GREATER MANCHESTER |
| | WELLINGTON ROAD STH. | | |
| | STOCKPORT | | |
| | Edge of Town Centre | | |
| | Built-Up Zone | | |
| | Total Gross floor area: | 900 sqm | |
| | Survey date: MONDAY | 23/11/09 | Survey Type: MANUAL |

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.190	1	525	0.000	1	525	0.190
11:00 - 12:00	2	713	0.000	2	713	0.000	2	713	0.000
12:00 - 13:00	2	713	0.421	2	713	0.140	2	713	0.561
13:00 - 14:00	2	713	0.421	2	713	0.211	2	713	0.632
14:00 - 15:00	2	713	0.211	2	713	0.211	2	713	0.422
15:00 - 16:00	2	713	0.140	2	713	0.491	2	713	0.631
16:00 - 17:00	2	713	0.140	2	713	0.070	2	713	0.210
17:00 - 18:00	2	713	0.561	2	713	0.211	2	713	0.772
18:00 - 19:00	2	713	1.474	2	713	0.421	2	713	1.895
19:00 - 20:00	2	713	0.842	2	713	0.772	2	713	1.614
20:00 - 21:00	2	713	0.140	2	713	0.491	2	713	0.631
21:00 - 22:00	2	713	0.211	2	713	0.772	2	713	0.983
22:00 - 23:00	2	713	0.000	2	713	0.702	2	713	0.702
23:00 - 24:00	1	525	0.000	1	525	0.000	1	525	0.000
Total Rates:			4.751			4.492			9.243

Parameter summary

Trip rate parameter range selected:	525 - 900 (units: sqm)
Survey date date range:	01/01/09 - 17/09/16
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS

MULTI-MODAL TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.000	1	525	0.000	1	525	0.000
11:00 - 12:00	2	713	0.000	2	713	0.000	2	713	0.000
12:00 - 13:00	2	713	0.070	2	713	0.070	2	713	0.140
13:00 - 14:00	2	713	0.000	2	713	0.000	2	713	0.000
14:00 - 15:00	2	713	0.000	2	713	0.000	2	713	0.000
15:00 - 16:00	2	713	0.000	2	713	0.000	2	713	0.000
16:00 - 17:00	2	713	0.000	2	713	0.000	2	713	0.000
17:00 - 18:00	2	713	0.000	2	713	0.000	2	713	0.000
18:00 - 19:00	2	713	0.000	2	713	0.000	2	713	0.000
19:00 - 20:00	2	713	0.000	2	713	0.000	2	713	0.000
20:00 - 21:00	2	713	0.000	2	713	0.000	2	713	0.000
21:00 - 22:00	2	713	0.000	2	713	0.000	2	713	0.000
22:00 - 23:00	2	713	0.000	2	713	0.000	2	713	0.000
23:00 - 24:00	1	525	0.000	1	525	0.000	1	525	0.000
Total Rates:			0.070	0.070			0.140		

Parameter summary

Trip rate parameter range selected:	525 - 900 (units: sqm)
Survey date date range:	01/01/09 - 17/09/16
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
 MULTI-MODAL OGVS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.000	1	525	0.000	1	525	0.000
11:00 - 12:00	2	713	0.000	2	713	0.000	2	713	0.000
12:00 - 13:00	2	713	0.000	2	713	0.000	2	713	0.000
13:00 - 14:00	2	713	0.000	2	713	0.000	2	713	0.000
14:00 - 15:00	2	713	0.000	2	713	0.000	2	713	0.000
15:00 - 16:00	2	713	0.000	2	713	0.000	2	713	0.000
16:00 - 17:00	2	713	0.000	2	713	0.000	2	713	0.000
17:00 - 18:00	2	713	0.000	2	713	0.000	2	713	0.000
18:00 - 19:00	2	713	0.000	2	713	0.000	2	713	0.000
19:00 - 20:00	2	713	0.000	2	713	0.000	2	713	0.000
20:00 - 21:00	2	713	0.000	2	713	0.000	2	713	0.000
21:00 - 22:00	2	713	0.000	2	713	0.000	2	713	0.000
22:00 - 23:00	2	713	0.000	2	713	0.000	2	713	0.000
23:00 - 24:00	1	525	0.000	1	525	0.000	1	525	0.000
Total Rates:			0.000			0.000			0.000

Parameter summary

Trip rate parameter range selected:	525 - 900 (units: sqm)
Survey date date range:	01/01/09 - 17/09/16
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
 MULTI-MODAL PSVS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.000	1	525	0.000	1	525	0.000
11:00 - 12:00	2	713	0.000	2	713	0.000	2	713	0.000
12:00 - 13:00	2	713	0.000	2	713	0.000	2	713	0.000
13:00 - 14:00	2	713	0.000	2	713	0.000	2	713	0.000
14:00 - 15:00	2	713	0.000	2	713	0.000	2	713	0.000
15:00 - 16:00	2	713	0.000	2	713	0.000	2	713	0.000
16:00 - 17:00	2	713	0.000	2	713	0.000	2	713	0.000
17:00 - 18:00	2	713	0.000	2	713	0.000	2	713	0.000
18:00 - 19:00	2	713	0.000	2	713	0.000	2	713	0.000
19:00 - 20:00	2	713	0.000	2	713	0.000	2	713	0.000
20:00 - 21:00	2	713	0.000	2	713	0.000	2	713	0.000
21:00 - 22:00	2	713	0.000	2	713	0.000	2	713	0.000
22:00 - 23:00	2	713	0.000	2	713	0.000	2	713	0.000
23:00 - 24:00	1	525	0.000	1	525	0.000	1	525	0.000
Total Rates:			0.000			0.000			0.000

Parameter summary

Trip rate parameter range selected:	525 - 900 (units: sqm)
Survey date date range:	01/01/09 - 17/09/16
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
 MULTI-MODAL CYCLISTS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.000	1	525	0.000	1	525	0.000
11:00 - 12:00	2	713	0.000	2	713	0.000	2	713	0.000
12:00 - 13:00	2	713	0.000	2	713	0.000	2	713	0.000
13:00 - 14:00	2	713	0.000	2	713	0.000	2	713	0.000
14:00 - 15:00	2	713	0.000	2	713	0.000	2	713	0.000
15:00 - 16:00	2	713	0.000	2	713	0.000	2	713	0.000
16:00 - 17:00	2	713	0.000	2	713	0.000	2	713	0.000
17:00 - 18:00	2	713	0.000	2	713	0.000	2	713	0.000
18:00 - 19:00	2	713	0.000	2	713	0.000	2	713	0.000
19:00 - 20:00	2	713	0.000	2	713	0.000	2	713	0.000
20:00 - 21:00	2	713	0.000	2	713	0.000	2	713	0.000
21:00 - 22:00	2	713	0.000	2	713	0.000	2	713	0.000
22:00 - 23:00	2	713	0.000	2	713	0.000	2	713	0.000
23:00 - 24:00	1	525	0.000	1	525	0.000	1	525	0.000
Total Rates:			0.000			0.000			0.000

Parameter summary

Trip rate parameter range selected:	525 - 900 (units: sqm)
Survey date date range:	01/01/09 - 17/09/16
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.190	1	525	0.000	1	525	0.190
11:00 - 12:00	2	713	0.000	2	713	0.000	2	713	0.000
12:00 - 13:00	2	713	0.702	2	713	0.211	2	713	0.913
13:00 - 14:00	2	713	0.772	2	713	0.421	2	713	1.193
14:00 - 15:00	2	713	0.351	2	713	0.421	2	713	0.772
15:00 - 16:00	2	713	0.140	2	713	0.702	2	713	0.842
16:00 - 17:00	2	713	0.140	2	713	0.140	2	713	0.280
17:00 - 18:00	2	713	1.193	2	713	0.211	2	713	1.404
18:00 - 19:00	2	713	2.456	2	713	0.702	2	713	3.158
19:00 - 20:00	2	713	1.474	2	713	1.684	2	713	3.158
20:00 - 21:00	2	713	0.421	2	713	0.772	2	713	1.193
21:00 - 22:00	2	713	0.140	2	713	1.263	2	713	1.403
22:00 - 23:00	2	713	0.000	2	713	1.333	2	713	1.333
23:00 - 24:00	1	525	0.000	1	525	0.000	1	525	0.000
Total Rates:			7.979			7.860			15.839

Parameter summary

Trip rate parameter range selected:	525 - 900 (units: sqm)
Survey date date range:	01/01/09 - 17/09/16
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.381	1	525	0.000	1	525	0.381
11:00 - 12:00	2	713	0.281	2	713	0.070	2	713	0.351
12:00 - 13:00	2	713	1.123	2	713	0.561	2	713	1.684
13:00 - 14:00	2	713	0.632	2	713	0.912	2	713	1.544
14:00 - 15:00	2	713	0.351	2	713	0.281	2	713	0.632
15:00 - 16:00	2	713	0.281	2	713	0.561	2	713	0.842
16:00 - 17:00	2	713	0.842	2	713	0.632	2	713	1.474
17:00 - 18:00	2	713	0.632	2	713	0.351	2	713	0.983
18:00 - 19:00	2	713	0.632	2	713	0.632	2	713	1.264
19:00 - 20:00	2	713	0.281	2	713	0.702	2	713	0.983
20:00 - 21:00	2	713	0.281	2	713	0.000	2	713	0.281
21:00 - 22:00	2	713	0.140	2	713	0.281	2	713	0.421
22:00 - 23:00	2	713	0.000	2	713	0.491	2	713	0.491
23:00 - 24:00	1	525	0.000	1	525	0.571	1	525	0.571
Total Rates:			5.857				6.045	11.902	

Parameter summary

Trip rate parameter range selected:	525 - 900 (units: sqm)
Survey date date range:	01/01/09 - 17/09/16
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS

MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.190	1	525	0.000	1	525	0.190
11:00 - 12:00	2	713	0.140	2	713	0.070	2	713	0.210
12:00 - 13:00	2	713	0.000	2	713	0.070	2	713	0.070
13:00 - 14:00	2	713	0.561	2	713	0.211	2	713	0.772
14:00 - 15:00	2	713	0.000	2	713	0.140	2	713	0.140
15:00 - 16:00	2	713	0.140	2	713	0.281	2	713	0.421
16:00 - 17:00	2	713	0.421	2	713	0.421	2	713	0.842
17:00 - 18:00	2	713	0.561	2	713	0.211	2	713	0.772
18:00 - 19:00	2	713	0.421	2	713	0.561	2	713	0.982
19:00 - 20:00	2	713	0.000	2	713	0.140	2	713	0.140
20:00 - 21:00	2	713	0.000	2	713	0.000	2	713	0.000
21:00 - 22:00	2	713	0.000	2	713	0.070	2	713	0.070
22:00 - 23:00	2	713	0.000	2	713	0.000	2	713	0.000
23:00 - 24:00	1	525	0.000	1	525	0.190	1	525	0.190
Total Rates:			2.434			2.365			4.799

Parameter summary

Trip rate parameter range selected:	525 - 900 (units: sqm)
Survey date date range:	01/01/09 - 17/09/16
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS

MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.000	1	525	0.000	1	525	0.000
11:00 - 12:00	2	713	0.000	2	713	0.000	2	713	0.000
12:00 - 13:00	2	713	0.140	2	713	0.000	2	713	0.140
13:00 - 14:00	2	713	0.140	2	713	0.140	2	713	0.280
14:00 - 15:00	2	713	0.140	2	713	0.140	2	713	0.280
15:00 - 16:00	2	713	0.000	2	713	0.070	2	713	0.070
16:00 - 17:00	2	713	0.281	2	713	0.070	2	713	0.351
17:00 - 18:00	2	713	0.000	2	713	0.211	2	713	0.211
18:00 - 19:00	2	713	0.000	2	713	0.070	2	713	0.070
19:00 - 20:00	2	713	0.000	2	713	0.000	2	713	0.000
20:00 - 21:00	2	713	0.000	2	713	0.000	2	713	0.000
21:00 - 22:00	2	713	0.000	2	713	0.000	2	713	0.000
22:00 - 23:00	2	713	0.000	2	713	0.000	2	713	0.000
23:00 - 24:00	1	525	0.000	1	525	0.000	1	525	0.000
Total Rates:			0.701			0.701			1.402

Parameter summary

Trip rate parameter range selected:	525 - 900 (units: sqm)
Survey date date range:	01/01/09 - 17/09/16
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS

MULTI-MODAL COACH PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.000	1	525	0.000	1	525	0.000
11:00 - 12:00	2	713	0.000	2	713	0.000	2	713	0.000
12:00 - 13:00	2	713	0.000	2	713	0.000	2	713	0.000
13:00 - 14:00	2	713	0.000	2	713	0.000	2	713	0.000
14:00 - 15:00	2	713	0.000	2	713	0.000	2	713	0.000
15:00 - 16:00	2	713	0.000	2	713	0.000	2	713	0.000
16:00 - 17:00	2	713	0.000	2	713	0.000	2	713	0.000
17:00 - 18:00	2	713	0.000	2	713	0.000	2	713	0.000
18:00 - 19:00	2	713	0.000	2	713	0.000	2	713	0.000
19:00 - 20:00	2	713	0.000	2	713	0.000	2	713	0.000
20:00 - 21:00	2	713	0.000	2	713	0.000	2	713	0.000
21:00 - 22:00	2	713	0.000	2	713	0.000	2	713	0.000
22:00 - 23:00	2	713	0.000	2	713	0.000	2	713	0.000
23:00 - 24:00	1	525	0.000	1	525	0.000	1	525	0.000
Total Rates:			0.000				0.000		

Parameter summary

Trip rate parameter range selected:	525 - 900 (units: sqm)
Survey date date range:	01/01/09 - 17/09/16
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS			
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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										
08:00 - 09:00										
09:00 - 10:00										
10:00 - 11:00	1	525	0.190	1	525	0.000	1	525	0.190	
11:00 - 12:00	2	713	0.140	2	713	0.070	2	713	0.210	
12:00 - 13:00	2	713	0.140	2	713	0.070	2	713	0.210	
13:00 - 14:00	2	713	0.702	2	713	0.351	2	713	1.053	
14:00 - 15:00	2	713	0.140	2	713	0.281	2	713	0.421	
15:00 - 16:00	2	713	0.140	2	713	0.351	2	713	0.491	
16:00 - 17:00	2	713	0.702	2	713	0.491	2	713	1.193	
17:00 - 18:00	2	713	0.561	2	713	0.421	2	713	0.982	
18:00 - 19:00	2	713	0.421	2	713	0.632	2	713	1.053	
19:00 - 20:00	2	713	0.000	2	713	0.140	2	713	0.140	
20:00 - 21:00	2	713	0.000	2	713	0.000	2	713	0.000	
21:00 - 22:00	2	713	0.000	2	713	0.070	2	713	0.070	
22:00 - 23:00	2	713	0.000	2	713	0.000	2	713	0.000	
23:00 - 24:00	1	525	0.000	1	525	0.190	1	525	0.190	
Total Rates:			3.136				3.067			6.203

Parameter summary

Trip rate parameter range selected:	525 - 900 (units: sqm)
Survey date date range:	01/01/09 - 17/09/16
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.762	1	525	0.000	1	525	0.762
11:00 - 12:00	2	713	0.421	2	713	0.140	2	713	0.561
12:00 - 13:00	2	713	1.965	2	713	0.842	2	713	2.807
13:00 - 14:00	2	713	2.105	2	713	1.684	2	713	3.789
14:00 - 15:00	2	713	0.842	2	713	0.982	2	713	1.824
15:00 - 16:00	2	713	0.561	2	713	1.614	2	713	2.175
16:00 - 17:00	2	713	1.684	2	713	1.263	2	713	2.947
17:00 - 18:00	2	713	2.386	2	713	0.982	2	713	3.368
18:00 - 19:00	2	713	3.509	2	713	1.965	2	713	5.474
19:00 - 20:00	2	713	1.754	2	713	2.526	2	713	4.280
20:00 - 21:00	2	713	0.702	2	713	0.772	2	713	1.474
21:00 - 22:00	2	713	0.281	2	713	1.614	2	713	1.895
22:00 - 23:00	2	713	0.000	2	713	1.825	2	713	1.825
23:00 - 24:00	1	525	0.000	1	525	0.762	1	525	0.762
Total Rates:			16.972			16.971			33.943

Parameter summary

Trip rate parameter range selected:	525 - 900 (units: sqm)
Survey date date range:	01/01/09 - 17/09/16
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

F TRICS Output Data – Leisure

Calculation Reference: AUDIT-720101-171102-1104

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
 Category : K - FITNESS CLUB (PRIVATE)
 MULTI-MODAL VEHICLES

Selected regions and areas:

05 EAST MIDLANDS
 NT NOTTINGHAMSHIRE 1 days

Secondary Filtering selection:

Parameter: Site area
 Actual Range: 1.70 to 1.70 (units: hect)
 Range Selected by User: 0.14 to 2.00 (units: hect)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 06/04/17

Selected survey days:

Thursday 1 days

Selected survey types:

Manual count 1 days
 Directional ATC Count 0 days

Selected Locations:

Edge of Town Centre 1

Selected Location Sub Categories:

Commercial Zone 1

Secondary Filtering selection:

Use Class:

D2 1 days

Population within 1 mile:

25,001 to 50,000 1 days

Population within 5 miles:

500,001 or More 1 days

Car ownership within 5 miles:

0.6 to 1.0 1 days

Travel Plan:

No 1 days

PTAL Rating:

No PTAL Present 1 days

LIST OF SITES relevant to selection parameters

1	NT-07-K-02	VIRGIN ACTIVE	NOTTINGHAMSHIRE
	LONDON ROAD		
	NOTTINGHAM		
	Edge of Town Centre		
	Commercial Zone		
	Total Site area:	1.70 hect	
	Survey date: THURSDAY	27/06/13	Survey Type: MANUAL

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL VEHICLES

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	1	1.70	42.941	1	1.70	0.588	1	1.70	43.529
07:00 - 08:00	1	1.70	20.588	1	1.70	23.529	1	1.70	44.117
08:00 - 09:00	1	1.70	21.176	1	1.70	46.471	1	1.70	67.647
09:00 - 10:00	1	1.70	40.588	1	1.70	16.471	1	1.70	57.059
10:00 - 11:00	1	1.70	40.588	1	1.70	25.882	1	1.70	66.470
11:00 - 12:00	1	1.70	24.706	1	1.70	55.294	1	1.70	80.000
12:00 - 13:00	1	1.70	20.588	1	1.70	28.235	1	1.70	48.823
13:00 - 14:00	1	1.70	24.706	1	1.70	22.941	1	1.70	47.647
14:00 - 15:00	1	1.70	20.000	1	1.70	19.412	1	1.70	39.412
15:00 - 16:00	1	1.70	30.000	1	1.70	25.882	1	1.70	55.882
16:00 - 17:00	1	1.70	44.706	1	1.70	20.000	1	1.70	64.706
17:00 - 18:00	1	1.70	99.412	1	1.70	31.176	1	1.70	130.588
18:00 - 19:00	1	1.70	65.294	1	1.70	75.294	1	1.70	140.588
19:00 - 20:00	1	1.70	44.706	1	1.70	78.235	1	1.70	122.941
20:00 - 21:00	1	1.70	13.529	1	1.70	60.000	1	1.70	73.529
21:00 - 22:00	1	1.70	1.765	1	1.70	18.235	1	1.70	20.000
22:00 - 23:00	1	1.70	0.588	1	1.70	9.412	1	1.70	10.000
23:00 - 24:00									
Total Rates:			555.881			557.057			1112.938

Parameter summary

Trip rate parameter range selected:	1.70 to 1.70 (units: hect)
Survey date date range:	01/01/09 - 06/04/17
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:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL TAXIS

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	1	1.70	0.588	1	1.70	0.588	1	1.70	1.176
07:00 - 08:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
08:00 - 09:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
09:00 - 10:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
10:00 - 11:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
11:00 - 12:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
12:00 - 13:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
13:00 - 14:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
14:00 - 15:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
15:00 - 16:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
16:00 - 17:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
17:00 - 18:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
18:00 - 19:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
19:00 - 20:00	1	1.70	0.588	1	1.70	0.588	1	1.70	1.176
20:00 - 21:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
21:00 - 22:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
22:00 - 23:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
23:00 - 24:00									
Total Rates:			1.176			1.176			2.352

Parameter summary

Trip rate parameter range selected:	1.70 to 1.70 (units: hect)
Survey date date range:	01/01/09 - 06/04/17
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:	0

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
MULTI-MODAL OGVS
Calculation factor: 1 hect
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
07:00 - 08:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
08:00 - 09:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
09:00 - 10:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
10:00 - 11:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
11:00 - 12:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
12:00 - 13:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
13:00 - 14:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
14:00 - 15:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
15:00 - 16:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
16:00 - 17:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
17:00 - 18:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
18:00 - 19:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
19:00 - 20:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
20:00 - 21:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
21:00 - 22:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
22:00 - 23:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

Parameter summary

Trip rate parameter range selected:	1.70 to 1.70 (units: hect)
Survey date date range:	01/01/09 - 06/04/17
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:	0

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
 MULTI-MODAL PSVS
 Calculation factor: 1 hect
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
07:00 - 08:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
08:00 - 09:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
09:00 - 10:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
10:00 - 11:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
11:00 - 12:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
12:00 - 13:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
13:00 - 14:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
14:00 - 15:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
15:00 - 16:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
16:00 - 17:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
17:00 - 18:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
18:00 - 19:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
19:00 - 20:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
20:00 - 21:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
21:00 - 22:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
22:00 - 23:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

Parameter summary

Trip rate parameter range selected:	1.70 to 1.70 (units: hect)
Survey date date range:	01/01/09 - 06/04/17
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:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL CYCLISTS

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	1	1.70	2.353	1	1.70	0.000	1	1.70	2.353
07:00 - 08:00	1	1.70	0.588	1	1.70	0.588	1	1.70	1.176
08:00 - 09:00	1	1.70	0.588	1	1.70	1.765	1	1.70	2.353
09:00 - 10:00	1	1.70	2.941	1	1.70	0.588	1	1.70	3.529
10:00 - 11:00	1	1.70	0.588	1	1.70	1.176	1	1.70	1.764
11:00 - 12:00	1	1.70	1.765	1	1.70	3.529	1	1.70	5.294
12:00 - 13:00	1	1.70	1.765	1	1.70	1.176	1	1.70	2.941
13:00 - 14:00	1	1.70	0.588	1	1.70	1.176	1	1.70	1.764
14:00 - 15:00	1	1.70	1.176	1	1.70	0.000	1	1.70	1.176
15:00 - 16:00	1	1.70	0.588	1	1.70	1.176	1	1.70	1.764
16:00 - 17:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
17:00 - 18:00	1	1.70	0.588	1	1.70	0.000	1	1.70	0.588
18:00 - 19:00	1	1.70	1.176	1	1.70	1.765	1	1.70	2.941
19:00 - 20:00	1	1.70	0.588	1	1.70	0.588	1	1.70	1.176
20:00 - 21:00	1	1.70	1.176	1	1.70	1.176	1	1.70	2.352
21:00 - 22:00	1	1.70	0.000	1	1.70	1.765	1	1.70	1.765
22:00 - 23:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
23:00 - 24:00									
Total Rates:			16.468			16.468			32.936

Parameter summary

Trip rate parameter range selected:	1.70 to 1.70 (units: hect)
Survey date date range:	01/01/09 - 06/04/17
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:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	1	1.70	47.059	1	1.70	0.588	1	1.70	47.647
07:00 - 08:00	1	1.70	21.765	1	1.70	24.118	1	1.70	45.883
08:00 - 09:00	1	1.70	22.941	1	1.70	50.000	1	1.70	72.941
09:00 - 10:00	1	1.70	41.765	1	1.70	16.471	1	1.70	58.236
10:00 - 11:00	1	1.70	45.294	1	1.70	30.000	1	1.70	75.294
11:00 - 12:00	1	1.70	25.882	1	1.70	57.647	1	1.70	83.529
12:00 - 13:00	1	1.70	25.294	1	1.70	32.353	1	1.70	57.647
13:00 - 14:00	1	1.70	28.824	1	1.70	25.882	1	1.70	54.706
14:00 - 15:00	1	1.70	22.353	1	1.70	21.176	1	1.70	43.529
15:00 - 16:00	1	1.70	31.765	1	1.70	28.235	1	1.70	60.000
16:00 - 17:00	1	1.70	51.765	1	1.70	20.588	1	1.70	72.353
17:00 - 18:00	1	1.70	111.176	1	1.70	34.118	1	1.70	145.294
18:00 - 19:00	1	1.70	69.412	1	1.70	81.176	1	1.70	150.588
19:00 - 20:00	1	1.70	58.235	1	1.70	90.588	1	1.70	148.823
20:00 - 21:00	1	1.70	13.529	1	1.70	72.353	1	1.70	85.882
21:00 - 22:00	1	1.70	1.765	1	1.70	24.706	1	1.70	26.471
22:00 - 23:00	1	1.70	0.588	1	1.70	10.588	1	1.70	11.176
23:00 - 24:00									
Total Rates:			619.412			620.587			1239.999

Parameter summary

Trip rate parameter range selected:	1.70 to 1.70 (units: hect)
Survey date date range:	01/01/09 - 06/04/17
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:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL PEDESTRIANS

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	1	1.70	1.176	1	1.70	0.000	1	1.70	1.176
07:00 - 08:00	1	1.70	2.353	1	1.70	0.000	1	1.70	2.353
08:00 - 09:00	1	1.70	1.176	1	1.70	0.000	1	1.70	1.176
09:00 - 10:00	1	1.70	5.294	1	1.70	1.176	1	1.70	6.470
10:00 - 11:00	1	1.70	4.706	1	1.70	2.353	1	1.70	7.059
11:00 - 12:00	1	1.70	3.529	1	1.70	4.118	1	1.70	7.647
12:00 - 13:00	1	1.70	7.647	1	1.70	5.882	1	1.70	13.529
13:00 - 14:00	1	1.70	2.353	1	1.70	3.529	1	1.70	5.882
14:00 - 15:00	1	1.70	2.941	1	1.70	2.941	1	1.70	5.882
15:00 - 16:00	1	1.70	2.941	1	1.70	4.118	1	1.70	7.059
16:00 - 17:00	1	1.70	7.059	1	1.70	3.529	1	1.70	10.588
17:00 - 18:00	1	1.70	17.647	1	1.70	5.294	1	1.70	22.941
18:00 - 19:00	1	1.70	10.588	1	1.70	11.765	1	1.70	22.353
19:00 - 20:00	1	1.70	6.471	1	1.70	15.882	1	1.70	22.353
20:00 - 21:00	1	1.70	9.412	1	1.70	16.471	1	1.70	25.883
21:00 - 22:00	1	1.70	1.176	1	1.70	7.059	1	1.70	8.235
22:00 - 23:00	1	1.70	0.000	1	1.70	2.353	1	1.70	2.353
23:00 - 24:00									
Total Rates:			86.469			86.470			172.939

Parameter summary

Trip rate parameter range selected:	1.70 to 1.70 (units: hect)
Survey date date range:	01/01/09 - 06/04/17
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:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	1	1.70	0.588	1	1.70	0.000	1	1.70	0.588
07:00 - 08:00	1	1.70	1.176	1	1.70	1.765	1	1.70	2.941
08:00 - 09:00	1	1.70	2.941	1	1.70	1.765	1	1.70	4.706
09:00 - 10:00	1	1.70	1.765	1	1.70	1.765	1	1.70	3.530
10:00 - 11:00	1	1.70	2.353	1	1.70	1.176	1	1.70	3.529
11:00 - 12:00	1	1.70	0.588	1	1.70	1.176	1	1.70	1.764
12:00 - 13:00	1	1.70	0.000	1	1.70	0.588	1	1.70	0.588
13:00 - 14:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
14:00 - 15:00	1	1.70	0.000	1	1.70	1.176	1	1.70	1.176
15:00 - 16:00	1	1.70	0.588	1	1.70	0.588	1	1.70	1.176
16:00 - 17:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
17:00 - 18:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
18:00 - 19:00	1	1.70	1.176	1	1.70	0.588	1	1.70	1.764
19:00 - 20:00	1	1.70	0.000	1	1.70	0.588	1	1.70	0.588
20:00 - 21:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
21:00 - 22:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
22:00 - 23:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
23:00 - 24:00									
Total Rates:			11.175			11.175			22.350

Parameter summary

Trip rate parameter range selected:	1.70 to 1.70 (units: hect)
Survey date date range:	01/01/09 - 06/04/17
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:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	1	1.70	1.176	1	1.70	0.000	1	1.70	1.176
07:00 - 08:00	1	1.70	0.588	1	1.70	1.765	1	1.70	2.353
08:00 - 09:00	1	1.70	0.588	1	1.70	0.000	1	1.70	0.588
09:00 - 10:00	1	1.70	1.176	1	1.70	1.176	1	1.70	2.352
10:00 - 11:00	1	1.70	0.588	1	1.70	1.176	1	1.70	1.764
11:00 - 12:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
12:00 - 13:00	1	1.70	0.588	1	1.70	0.000	1	1.70	0.588
13:00 - 14:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
14:00 - 15:00	1	1.70	0.000	1	1.70	0.588	1	1.70	0.588
15:00 - 16:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
16:00 - 17:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
17:00 - 18:00	1	1.70	0.588	1	1.70	0.000	1	1.70	0.588
18:00 - 19:00	1	1.70	1.176	1	1.70	0.588	1	1.70	1.764
19:00 - 20:00	1	1.70	0.000	1	1.70	1.176	1	1.70	1.176
20:00 - 21:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
21:00 - 22:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
22:00 - 23:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
23:00 - 24:00									
Total Rates:			6.468			6.469			12.937

Parameter summary

Trip rate parameter range selected:	1.70 to 1.70 (units: hect)
Survey date date range:	01/01/09 - 06/04/17
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:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL COACH PASSENGERS

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
07:00 - 08:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
08:00 - 09:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
09:00 - 10:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
10:00 - 11:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
11:00 - 12:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
12:00 - 13:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
13:00 - 14:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
14:00 - 15:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
15:00 - 16:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
16:00 - 17:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
17:00 - 18:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
18:00 - 19:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
19:00 - 20:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
20:00 - 21:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
21:00 - 22:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
22:00 - 23:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

Parameter summary

Trip rate parameter range selected:	1.70 to 1.70 (units: hect)
Survey date date range:	01/01/09 - 06/04/17
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:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	1	1.70	1.765	1	1.70	0.000	1	1.70	1.765
07:00 - 08:00	1	1.70	1.765	1	1.70	3.529	1	1.70	5.294
08:00 - 09:00	1	1.70	3.529	1	1.70	1.765	1	1.70	5.294
09:00 - 10:00	1	1.70	2.941	1	1.70	2.941	1	1.70	5.882
10:00 - 11:00	1	1.70	2.941	1	1.70	2.353	1	1.70	5.294
11:00 - 12:00	1	1.70	0.588	1	1.70	1.176	1	1.70	1.764
12:00 - 13:00	1	1.70	0.588	1	1.70	0.588	1	1.70	1.176
13:00 - 14:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
14:00 - 15:00	1	1.70	0.000	1	1.70	1.765	1	1.70	1.765
15:00 - 16:00	1	1.70	0.588	1	1.70	0.588	1	1.70	1.176
16:00 - 17:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
17:00 - 18:00	1	1.70	0.588	1	1.70	0.000	1	1.70	0.588
18:00 - 19:00	1	1.70	2.353	1	1.70	1.176	1	1.70	3.529
19:00 - 20:00	1	1.70	0.000	1	1.70	1.765	1	1.70	1.765
20:00 - 21:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
21:00 - 22:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
22:00 - 23:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
23:00 - 24:00									
Total Rates:			17.646			17.646			35.292

Parameter summary

Trip rate parameter range selected:	1.70 to 1.70 (units: hect)
Survey date date range:	01/01/09 - 06/04/17
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:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	1	1.70	52.353	1	1.70	0.588	1	1.70	52.941
07:00 - 08:00	1	1.70	26.471	1	1.70	28.235	1	1.70	54.706
08:00 - 09:00	1	1.70	28.235	1	1.70	53.529	1	1.70	81.764
09:00 - 10:00	1	1.70	52.941	1	1.70	21.176	1	1.70	74.117
10:00 - 11:00	1	1.70	53.529	1	1.70	35.882	1	1.70	89.411
11:00 - 12:00	1	1.70	31.765	1	1.70	66.471	1	1.70	98.236
12:00 - 13:00	1	1.70	35.294	1	1.70	40.000	1	1.70	75.294
13:00 - 14:00	1	1.70	31.765	1	1.70	30.588	1	1.70	62.353
14:00 - 15:00	1	1.70	26.471	1	1.70	25.882	1	1.70	52.353
15:00 - 16:00	1	1.70	35.882	1	1.70	34.118	1	1.70	70.000
16:00 - 17:00	1	1.70	58.824	1	1.70	24.118	1	1.70	82.942
17:00 - 18:00	1	1.70	130.000	1	1.70	39.412	1	1.70	169.412
18:00 - 19:00	1	1.70	83.529	1	1.70	95.882	1	1.70	179.411
19:00 - 20:00	1	1.70	65.294	1	1.70	108.824	1	1.70	174.118
20:00 - 21:00	1	1.70	24.118	1	1.70	90.000	1	1.70	114.118
21:00 - 22:00	1	1.70	2.941	1	1.70	33.529	1	1.70	36.470
22:00 - 23:00	1	1.70	0.588	1	1.70	12.941	1	1.70	13.529
23:00 - 24:00									
Total Rates:			740.000			741.175			1481.175

Parameter summary

Trip rate parameter range selected:	1.70 to 1.70 (units: hect)
Survey date date range:	01/01/09 - 06/04/17
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:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL CARS

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	1	1.70	40.000	1	1.70	0.000	1	1.70	40.000
07:00 - 08:00	1	1.70	20.588	1	1.70	23.529	1	1.70	44.117
08:00 - 09:00	1	1.70	21.176	1	1.70	45.294	1	1.70	66.470
09:00 - 10:00	1	1.70	40.588	1	1.70	16.471	1	1.70	57.059
10:00 - 11:00	1	1.70	40.000	1	1.70	25.294	1	1.70	65.294
11:00 - 12:00	1	1.70	24.706	1	1.70	54.118	1	1.70	78.824
12:00 - 13:00	1	1.70	20.000	1	1.70	27.647	1	1.70	47.647
13:00 - 14:00	1	1.70	24.706	1	1.70	22.941	1	1.70	47.647
14:00 - 15:00	1	1.70	20.000	1	1.70	19.412	1	1.70	39.412
15:00 - 16:00	1	1.70	29.412	1	1.70	25.882	1	1.70	55.294
16:00 - 17:00	1	1.70	44.118	1	1.70	19.412	1	1.70	63.530
17:00 - 18:00	1	1.70	99.412	1	1.70	31.176	1	1.70	130.588
18:00 - 19:00	1	1.70	65.294	1	1.70	75.294	1	1.70	140.588
19:00 - 20:00	1	1.70	43.529	1	1.70	77.059	1	1.70	120.588
20:00 - 21:00	1	1.70	13.529	1	1.70	59.412	1	1.70	72.941
21:00 - 22:00	1	1.70	1.765	1	1.70	18.235	1	1.70	20.000
22:00 - 23:00	1	1.70	0.000	1	1.70	8.824	1	1.70	8.824
23:00 - 24:00									
Total Rates:			548.823			550.000			1098.823

Parameter summary

Trip rate parameter range selected:	1.70 to 1.70 (units: hect)
Survey date date range:	01/01/09 - 06/04/17
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:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL LGVS

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	1	1.70	1.176	1	1.70	0.000	1	1.70	1.176
07:00 - 08:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
08:00 - 09:00	1	1.70	0.000	1	1.70	0.588	1	1.70	0.588
09:00 - 10:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
10:00 - 11:00	1	1.70	0.000	1	1.70	0.588	1	1.70	0.588
11:00 - 12:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
12:00 - 13:00	1	1.70	0.588	1	1.70	0.588	1	1.70	1.176
13:00 - 14:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
14:00 - 15:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
15:00 - 16:00	1	1.70	0.588	1	1.70	0.000	1	1.70	0.588
16:00 - 17:00	1	1.70	0.000	1	1.70	0.588	1	1.70	0.588
17:00 - 18:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
18:00 - 19:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
19:00 - 20:00	1	1.70	0.588	1	1.70	0.000	1	1.70	0.588
20:00 - 21:00	1	1.70	0.000	1	1.70	0.588	1	1.70	0.588
21:00 - 22:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
22:00 - 23:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
23:00 - 24:00									
Total Rates:			2.940			2.940			5.880

Parameter summary

Trip rate parameter range selected:	1.70 to 1.70 (units: hect)
Survey date date range:	01/01/09 - 06/04/17
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:	0

Steer Davies Gleave Albion Street Leeds

Licence No: 720101

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL MOTOR CYCLES

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	1	1.70	1.176	1	1.70	0.000	1	1.70	1.176
07:00 - 08:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
08:00 - 09:00	1	1.70	0.000	1	1.70	0.588	1	1.70	0.588
09:00 - 10:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
10:00 - 11:00	1	1.70	0.588	1	1.70	0.000	1	1.70	0.588
11:00 - 12:00	1	1.70	0.000	1	1.70	1.176	1	1.70	1.176
12:00 - 13:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
13:00 - 14:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
14:00 - 15:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
15:00 - 16:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
16:00 - 17:00	1	1.70	0.588	1	1.70	0.000	1	1.70	0.588
17:00 - 18:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
18:00 - 19:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
19:00 - 20:00	1	1.70	0.000	1	1.70	0.588	1	1.70	0.588
20:00 - 21:00	1	1.70	0.000	1	1.70	0.000	1	1.70	0.000
21:00 - 22:00	1	1.70	0.588	1	1.70	0.000	1	1.70	0.588
22:00 - 23:00	1	1.70	0.000	1	1.70	0.588	1	1.70	0.588
23:00 - 24:00									
Total Rates:			2.940			2.940			5.880

Parameter summary

Trip rate parameter range selected:	1.70 to 1.70 (units: hect)
Survey date date range:	01/01/09 - 06/04/17
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:	0

G Net change in development vehicular trips upon external highway network

CONTROL INFORMATION

Prepared by	Prepared for
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SDG project/proposal number	Client contract/project number
23061101	Click here to enter text.
Author/originator	Reviewer/approver
Ali Goddard	Adrian Cole
Other contributors	Distribution
	<i>Client:</i> <i>SDG:</i>
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