



**BEVIN BEVIN & CO,
FORMER ARUNDEL BREWERY,
ARUNDEL**

Proposed Residential Development

Transport Planning Statement

**Prepared on behalf of
T. Hollister (Chertsey) Limited**

PJC/MCAR11/1429/TPS01

April 2013



DOCUMENT CONTROL

Project: Bevin Bevin & Co, Former Arundel Brewery, Arundel
Proposed Residential Development

Document: Transport Planning Statement

Client: T. Hollister (Chertsey) Limited

Reference: PJC/MCAR11/1429/TPS01

Document Checking:

Author:	PJC	Date:	<u>22/04/2013</u>
Checked by:	CME	Date:	<u>22/04/2013</u>
Approved by:	PMF	Date:	<u>22/04/2013</u>

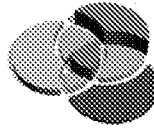
Status:

<u>Issue</u>	<u>Date</u>	<u>Status</u>	<u>Issued by</u>
1.	8/03/2013	1 st Draft	PJC
2.	22/04/2013	FINAL	PJC
3.			
4.			
5.			
6.			
7.			

© Copyright Russell Giles Partnership Limited 2013

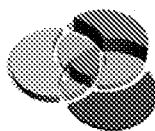
No part of this publication may be reproduced by any means without the prior permission of Russell Giles Partnership Limited.

Bevin Bevin & Co,
Former Arundel Brewery, Arundel
PJC/MCAR11/1429/TPS01
April 2013



CONTENTS

1	INTRODUCTION.....	1
1.1	Background.....	1
1.2	Scope of Transport Planning Statement	3
2	EXISTING SITE AND SURROUNDINGS AND ACCESSIBILITY TO SERVICES.....	5
2.1	Site Location & Local Highway Network	5
2.2	Accessibility to Services.....	7
	<i>Arun District Council Settlement Sustainability Study</i>	<i>7</i>
	<i>Accessibility to Bus.....</i>	<i>7</i>
	<i>Accessibility to Further Education Facility</i>	<i>8</i>
	<i>Accessibility to Petrol Station</i>	<i>8</i>
	<i>Accessibility to Secondary School</i>	<i>9</i>
	<i>Accessibility to Train.....</i>	<i>9</i>
2.3	Walking and Cycling.....	10
	<i>Bus</i>	<i>12</i>
	<i>Rail</i>	<i>13</i>
	<i>Summary</i>	<i>13</i>
3	ACCESS LAYOUT AND HIGHWAY SAFETY VEHICULAR ACCESS	15
3.1	Site Access.....	15
3.2	Internal Layout	18
3.3	Personal Injury Accident Data.....	19
3.4	Road Safety Audit and Designer's Response	20
4	TRAFFIC GENERATION.....	22
	<i>Existing Traffic Generation.....</i>	<i>22</i>
	<i>Proposed Traffic Generation</i>	<i>24</i>
	<i>Net Traffic Impact</i>	<i>25</i>
5	PARKING PROVISION.....	27
6	SUMMARY AND CONCLUSIONS	29



PLANS

Plan 01

Site Location & Accessibility Plan

DRAWINGS

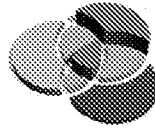
2011/1429/001
2011/1429/002
2011/1429/003

Visibility Splays
Site Access Track – Fire Tender
Site Access Track – Medium Sized Car

APPENDICES

Appendix A
Appendix B
Appendix C
Appendix D
Appendix E
Appendix F
Appendix G

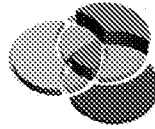
Site Layout Plan
ADC 2007 Settlement Sustainability Appraisal
Personal Injury Accident (PIA) Data
Stage 1 Road Safety Audit and Designers Response
TRICS Outputs
Application Site Traffic Figures
Parking Demand Calculator Outputs



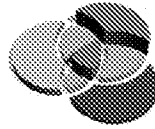
1 INTRODUCTION

1.1 Background

- 1.1.1 RGP is instructed by T. Hollister (Chertsey) Limited to provide highways and transport planning advice in relation to a proposed residential development of the Bevin Bevin & Co Kitchen and Household Goods Wholesaler on Brewery Hill in the town of Arundel. The proposed site plan is attached hereto at **Appendix A**.
- 1.1.2 A significant proportion of the site comprise Grade II Listed Buildings together with the existing brick and flint wall which is also listed and is considered to contribute to / enhance the setting of the listed buildings.
- 1.1.3 The contexts of the proposals are reflective of the constraints in the local built environment and the conservation status of the site requiring that the setting of the main buildings and the boundary wall are protected and / or enhanced. In this respect, the existing boundary wall and current access into the site will remain unchanged.
- 1.1.4 The purpose of this Transport Planning Statement is to provide a summary of the principal highway-related matters, including the associated benefits and suitability of the site, from a highway perspective, resulting from redevelopment of the site for residential purposes.
- 1.1.5 The site comprises a Grade II Listed Warehouse building and a number of associated buildings which have been used by Bevin Bevin & Co over the past 50 years as a Domestic Hardware Wholesaler. This use ceased in July 2011 when the sites occupiers ceased trading from the site due to retirement.
- 1.1.6 Prior to this use, the site had originally been established as a brewery with association to the historic Eagle Brewery in Arundel.
- 1.1.7 The proposed development would retain and convert the existing Grade II Listed brewery building together with the retention and conversion of the existing warehouse buildings which will be converted into residential dwellings and the removal of unlisted structures on site and their replacement with new build dwellings.
- 1.1.8 The proposals seek to deliver a total of 13 dwellings as set out below with all units to be open market dwellings;
- (i) 4 x 1 bed apartments;
 - (ii) 3 x 2 bed apartments;



- (iii) 2 x 2 bedroom houses;
 - (iv) 4 x 3 bedroom houses;
- 1.1.9 A total provision of 23 car parking spaces is proposed on the site together with cycle parking in the form of a secure cycle store and provision of Sheffield type cycle stands within under-croft parking areas and courtyards.
- 1.1.10 The layout of the site is taken around the existing open courtyard with parking arranged to the frontages of the proposed buildings in addition to an element of under-croft parking beneath some dwellings.
- 1.1.11 The proposals would see the existing access to the south eastern flank of the boundary wall retained to serve for access to the site for vehicles, pedestrians and cyclists. Due to the status of the buildings and the surrounding boundary wall, no changes are proposed to the boundary wall or the access.
- 1.1.12 The site would be serviced via roadside collection for the purposes of refuse collection, for example, in line with service / deliveries for the majority of adjacent properties.
- 1.1.13 This TPS has been produced in accordance with the Department for Transport's (DfT) "Guidance on Transport Assessment" document and WSCC's "Transport Assessment Methodology" document. These documents influence the structure and scope of this report and define the methodology used in the assessment work.
- 1.1.14 Based on the published DfT thresholds for the preparation of Transport Assessments (reflected in the WSCC Transport Assessment Methodology) it is accepted that a development of this scale in this location would be adequately supported by the preparation of a Transport Planning Statement.
- 1.1.15 This report has also been compiled with consideration of National Planning Policy Framework (NPPF) which supersedes all previous PPG and PPS Guidance.
- 1.1.16 Therefore the content of PPG13 is no longer relevant to the proposals and NPPF should be considered in assessing the proposals (however, traditionally accepted guidance set out in PPG13 in respect to acceptable walking and cycling distances relative to residential development have been considered later in this report).
- 1.1.17 Paragraphs 29 to 41 of NPPF hold particular relevance to the promotion of sustainable transport and, where necessary, supporting cost effective improvements to the transport network that effectively limit the significant impacts of the development.



- 1.1.18 NPPF re-enforces that transport policies provide an important role in facilitating sustainable development and contributing to wider sustainability and health objectives. The NPPF states that:

“The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel.”

“... the Government recognises that different policies and measures will still be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural areas.”

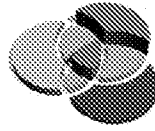
“... decisions should take account of whether: ...opportunities for sustainable transport modes have been taken up depending on the nature and location of the site... safe and suitable access to the site can be achieved for all people... improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development.”

“... developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised. However this needs to take account of policies set out elsewhere in this Framework, particularly in rural areas.”

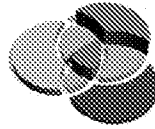
- 1.1.19 It is made clear in Paragraph 32 of NPPF that Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.
- 1.1.20 The proposals are also considered in respect of current highway design guidance contained within Manual for Streets together with West Sussex County Council current policy in respect to Road Safety Audits, Travel Planning, Residential Parking Standards and the West Sussex County Council Local Design Guide, Supplementary Guidance for Residential Development Proposals.

1.2 Scope of Transport Planning Statement

- 1.2.1 RGP has considered the scope of this Transport Planning Statement in line with the extent of the proposals and the advice contained within the West Sussex County Council Transport Assessment Methodology together with consideration of the Authorities supporting Policies in respect to parking provision and Road Safety Audits and Travel Planning.
- 1.2.2 The main highways and transportation issues relating to the proposals are considered within the following sections of this report:
- (i) **Section 2** describes the existing site, its local surroundings and considers the accessibility credentials of the site by non-car modes of transport;



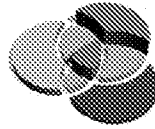
- (ii) **Section 3** highlights the access, layout and servicing arrangements and reviews the supporting Stage 1 Road Safety Audit and highway safety implications of the proposals in relation to the recently recorded Personal Injury Accident data;
- (iii) **Section 4** highlights the traffic generation potential of the proposed development in reflection of the existing use on site and the associated traffic impact on the local highway network together with Travel Planning opportunities;
- (iv) **Section 5** discusses the parking proposals with reference to current West Sussex County Council residential parking standards;
- (v) **Section 6** contains a summary of conclusions of the report and RGP's recommendations.



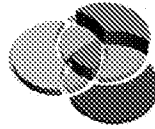
2 EXISTING SITE AND SURROUNDINGS AND ACCESSIBILITY TO SERVICES

2.1 Site Location & Local Highway Network

- 2.1.1 The site is located on Brewery Hill in Arundel, which runs north and south between Tarrant Street and River Road the west of the Town Centre as shown on the location and facilities **Plan 01**, attached hereto.
- 2.1.2 The site is contained within the predominantly residential area of Arundel together with a level of commercial, retail and pub / restaurant uses within the Tarrant Street frontage. The site is within a short walking distance of a wide range of service and facilities including education, healthcare, employment, local retail and town centre uses, community centre and playing fields / open space in addition to good access to public transport.
- 2.1.3 All roads relative to the site within Arundel are subject to 30mph speed limits and given due consideration to the constraints of the local highway network and local observations, traffic speeds are observed contained well below 30mph.
- 2.1.4 Brewery Hill forms a junction at its northern end with Tarrant Street and at its southern extent with River Road. The highway provides access to a limited number of private drives and accesses to residential dwellings together with the historic access to the Bevin Bevin & Co site.
- 2.1.5 Brewery Hill is an historic lane within Arundel and is characterised by its narrow and winding nature and comprises a relatively steep slope between the higher level of Tarrant Street and the level of River Road. There is limited pavement to the northern extent of Brewery Hill with the remainder of the highway not being supported by pavements. There is also limited street lighting on Brewery Hill.
- 2.1.6 The majority of the length of Brewery Hill is controlled by double yellow (no waiting at any time) restrictions with the exception of a length of highway adjacent to the application sites south eastern wall where the carriageway widens sufficiently to accommodate some parking. The available spaces are not under any signposted parking controls.
- 2.1.7 The nature and alignment of Brewery Hill results in characteristic very low traffic speeds together with the limited level of development served by the highway resulting in very low traffic flows. At points on Brewery Hill, traffic would be required to give way to traffic travelling in the opposite direction due to the narrow width.
- 2.1.8 At its northern extent, Brewery Hill forms a junction with Tarrant Street with the junction taking the form of a crossover of the Tarrant Street pavement. This form of junction typifies both the historic nature of Brewery Hill and the low traffic flows through the junction.



- 2.1.9 The junction with Tarrant Street leads to a very narrow and sloping section of Brewery Hill and it is likely that this junction does not accommodate vehicle movement other than typical private cars and small vans associated with development on Brewery Hill. The alignment of this length of Brewery Hill would restrict larger vehicles and it is therefore highly unlikely that any vehicles larger than small vans would enter or exit Brewery Hill via this junction.
- 2.1.10 Tarrant Street forms a one way street with traffic travelling east to west from the High Street to Surrey Street requiring all traffic movements between Tarrant Street and Brewery Hill to be left in / left out.
- 2.1.11 Tarrant Street is occupied by a range of retail and café / pub uses and provides a relatively wide footway allowing for good pedestrian movement within the town centre. Tarrant Street is relatively heavily parked with parking controls providing for limited waiting during working hours.
- 2.1.12 At its southern extent, Brewery Hill forms a junction with River Road with the junction taking the form of a priority junction. To the west, River Road provides access to further residential areas and Arun Street which in turn provides access to the one way Tarrant Street and the wider local network.
- 2.1.13 This route to the site (via the south west) would provide for access to the site for larger vehicles when considered in respect to the historic use of the site and also when considered in respect to public service vehicles accessing both the site and adjacent properties.
- 2.1.14 To the east, River Road provides for limited residential access (by car) as well as a pedestrian route towards High Street and Arundel town centre. There are bollards in the carriageway restricting through vehicle movements on River Road but providing for pedestrian and cycle access resulting in a low level of traffic movements and speeds on River Road.
- 2.1.15 To the west, Tarrant Street and Surrey Street provide direct vehicular access to the A284 Arundel By-Pass / A27 / Ford Road roundabout providing vehicle traffic good access to the Strategic Road network.
- 2.1.16 To the east, the High Street provides access to Queen Street and The Causeway, in turn providing vehicular access to the A27 Trunk Road and all mode access towards Arundel Rail Station.
- 2.1.17 Arundel is well located in respect to the wider highway network with excellent access to the Strategic and Trunk road networks providing access to the wider area for those journeys which need to be undertaken by car.



- 2.1.18 While it is acknowledged that the town centre is constrained and the immediate highway network is characterised by its historical nature, it must be noted that wider access to the highway network is good and the application is considered to be in a sustainable location, thereby minimising the need for local short distance car journeys and the proposals would broadly reflect the potential traffic which would be generated by the existing permitted use on site.

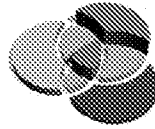
2.2 Accessibility to Services

Arun District Council Settlement Sustainability Study

- 2.2.1 Arun District Council undertook and published a district wide Arun Settlements Sustainability Study in 2007 which assessed the sustainability of the district's settlements in order to inform decisions on their role in accommodating future growth to 2026. The study looked at the demographic characteristics, the accessibility to key facilities and services, the employment and commuting patterns and the accessibility to public transport for each settlement.
- 2.2.2 Key indicators representing services and facilities considered within the context of the report were assessed for a number of the Districts main towns including Arundel. The data relative to Arundel is provided at **Appendix B** of this report.
- 2.2.3 It is noted that the Arun District Study concluded that Arundel scored either 'Very Good Accessibility' or Excellent Accessibility' on all but 5 of the key indicators.
- 2.2.4 The key indicators which Arundel scored poorly on are Accessibility to Bus; Accessibility to Further Education Facility; Accessibility to Petrol Station; Accessibility to Secondary School and; Accessibility to Train.
- 2.2.5 These services need to be considered more appropriately in the context of the current proposals.

Accessibility to Bus

- 2.2.6 It is clear from the availability of current bus service data that Arundel is served by regular bus services. Notwithstanding this, the generally accepted level of accessibility to bus services as suggested by the Institute of Highways and Transportation would require new residential dwellings to be within a 400m walking distance of a bus stop.



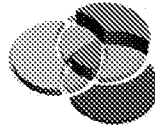
- 2.2.7 As is demonstrated in this report, the site is well within a 400m walking distance of bus stops. Furthermore, the bus stops are served by regular services including the flagship Coastliner 700 service which provides regular weekday and weekend services between key local centres on the south coast. The timetable of the service would support typical journey to work or education patterns together with leisure journeys.
- 2.2.8 Arundel is also served by a number of school buses providing sustainable alternatives for secondary education students accessing local secondary schools.
- 2.2.9 It is therefore considered that, contrary to the Arun District Study, the proposed site does benefit from good levels of accessibility to bus services contributing to the sites and the towns overall accessibility.

Accessibility to Further Education Facility

- 2.2.10 Arundel is a relatively small settlement and would be unlikely to sustain a Further Education Facility in its own right. However, a number of local and regional major centres do sustain high quality Further Education Facilities (including Brighton, Chichester, Portsmouth, Southampton and major centres to the north such as Guildford and London).
- 2.2.11 All key Further Education Establishments are accessible by public transport or, for the transport of bulky good at the beginning and end of terms, by the strategic highway network.
- 2.2.12 It also needs to be noted that it is common practice for students of Further Education to travel to an institution of their choice based on the choice of course and spend the majority of their course living within the chosen town or city.
- 2.2.13 It is therefore considered that, in transport terms, the indicator for access to Further Education is not a valid one for the purposes of assessing the accessibility credentials of the proposed development.

Accessibility to Petrol Station

- 2.2.14 The requirement to access a petrol station suggests the user is travelling by car.
- 2.2.15 Comprehensive service stations comprising fuel, convenience goods and fast food outlets are located approximately 7km to the west (at Fontewell) and 2km to the east (Crossbush) via the A27. Further petrol stations are located to the north on the A29 and south on the A259 within reasonable distances.



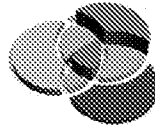
- 2.2.16 As a vehicle needs to be travelling on the highway network to require a petrol station, it is evident that such services are accessible to those who need them (i.e. motorists travelling on the highway network) within a short distance of Arundel on all routes to major local destinations.
- 2.2.17 In real terms if a vehicle requires fuel as part of a journey, there are a number of options within a short distance and there is no identified requirement for a petrol station within the town centre. It should also be noted that the other potential benefits of a petrol station (such as access to convenience goods) are already provided by nearby town centre uses).
- 2.2.18 It is therefore considered that, in transport terms, the indicator for access to Further Education is not a valid one for the purposes of assessing the accessibility credentials of the proposed development.

Accessibility to Secondary School

- 2.2.19 Arundel is a relatively small settlement and the general pattern of secondary education in the County reflects these establishments being located in larger settlements to the south in addition to a number of sixth form and technical colleges within the general locality.
- 2.2.20 All of the major local centres are accessible by regular bus and rail services and the local area benefits from a number of school bus services providing for sustainable choice in travelling to secondary school or sixth form and technical colleges within the locality including Littlehampton, Yapton, Worthing and Eastergate.
- 2.2.21 It is considered normal practice for secondary school age children to have to travel further to schools. With the success of local school travel plans it is likely that a significant proportion of these trips may be undertaken by public transport, car sharing or in a number of cases, linked trips with parent / carers then continuing a journey to work.

Accessibility to Train

- 2.2.22 While the Study concludes that Arundel has poor accessibility to a train station, it should be noted that a major rail line and station are within an approximate 1km walk of the site and Arundel Centre. This represents a 15minute walk time or an approximate 5 minute cycle journey based on the West Sussex County Council Cycle Journey Planning website.
- 2.2.23 Sustainable access to the train is enhanced by the position of a signalised pedestrian crossing of the A27 on the approach to the station and the station itself provides a significant level of secure and covered cycle parking.



- 2.2.24 While Arundel is not unusual in not having a rail line running through the centre of the settlement, it is considered that the location and accessibility of a mainline station would provide realistic choice in respect to travel by sustainable modes.
- 2.2.25 When considering the outcomes of the Arun Settlement Sustainability Study in 2007, it is suggested that the study may be somewhat skewed when considering real terms transport and accessibility sustainability for a development of the scale of that being proposed.
- 2.2.26 In transport terms, it is evident that the site benefits from good levels of accessibility to both bus and rail services which provide frequent services to major local centres.
- 2.2.27 While it would be unusual for a town the size of Arundel to accommodate both secondary and further education, it is clear that these serviced and facilities are available and accessible.
- 2.2.28 Finally, it is considered that the indicator of access to a petrol station is not relevant given the inherent need to be travelling by car, on the highway to require a petrol station together with the fact that a number of such facilities are available a short drive from the site.

2.3 Walking and Cycling

- 2.3.1 Key to the consideration of the sites accessibility credentials is the ability for future residents of the site, to be able to access the proposed site and other relevant local facilities without significant journey time or without a dependence on the private car.
- 2.3.2 As with any new development it is important to understand how occupiers of the proposed facility will travel to and from the site.
- 2.3.3 A review of the opportunity for users of the site to travel by alternative modes of travel has therefore been undertaken to understand whether the development proposals conform to the key principles of the National Planning Policy Framework (the Framework) with particular relevance to paragraphs 29 – 32 and 35 – 37 contained within Chapter 4 – Promoting Sustainable Transport.
- (i) Providing choice for use of sustainable transport and encouraging solutions which support reductions in greenhouse gas emissions and reduce congestion;
 - (ii) Provide for the efficient delivery of goods and supplies;
 - (iii) Reduce the need to travel, especially by car;



(iv) Provide safe and suitable access to the site for all people;

2.3.4 It is considered that the site benefits from its location relative to the pedestrian network and cycling opportunities. As has historically been accepted through PPG13 (though superseded by the NPPF), the sites accessibility to the wider catchment area is considered within a walking distance of 2km.

2.3.5 PPG 13 stated that:

... "Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres"...

... "Cycling also has the potential to substitute for short car trips, particularly those under 5km and to form part of a longer journey by public transport"...

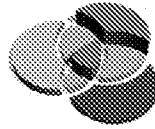
2.3.6 Accessibility **Plan 01** illustrates the accessibility credentials of the site's location and the education, healthcare including Dental Surgery, retail, employment, community and public transport facilities which are available within a short distance of the site, predominantly within a 1km radius of the site.

2.3.7 Walking and cycling play a vital role in healthy and active lifestyles and if convenient and safe links are available there is significant opportunity to reduce the need for local car trips, thus reducing the traffic volumes on the surrounding highway network.

2.3.8 Brewery Hill, east of the site, is a narrow side street with a narrow footway along its western edge. Tarrant Street development, towards the northern boundary of the site, has a footway along its entire length on the southern edge and along the majority of its northern edge.

2.3.9 To the south, River Road provides a pedestrian and cycle route towards the town centre which, by way of the bollards part way along River Road, would comprise a relatively traffic free route to the centre.

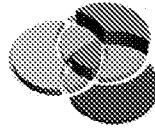
2.3.10 Pedestrian facilities into the town centre are of a good quality with extensive, wide and well lit footways. These include dropped kerbs with tactile paving at designated crossing points and numerous way-finding signs to areas of interest.



- 2.3.11 There are continuous, well maintained footways linking the site with Arundel train station and a signalised pedestrian crossing is positioned close the station on the A27 to provide for safe and convenient pedestrian access to the public transport network. This footway and crossing are anticipated to be a regularly route for residents and the position of these is highlighted on **Plan 01**.
- 2.3.12 The location of the site means that all likely destinations in Arundel are within the commonly accepted cycle distance of 5km. Many roads have low traffic levels and are considered conducive to cycling, making it an attractive mode of travel for residents for local journeys. In addition, Sheffield style cycle racks are located at principal sites around Arundel, including the town hall and rail station.

Bus

- 2.3.13 The nearest bus stops to the site are located on Maltravers Street approximately 100m (1 minute walk) north west of the site. These are served by routes 69 between Pulborough and Worthing, 85 between Billingshurst and Chichester, and the Coastliner 700 between Brighton and Portsmouth.
- 2.3.14 The Coastliner 700 service provides a flagship local bus route which provide weekday and weekend journeys between key local centres on the south coast at a high frequency providing for excellent bus travel for both commuting and leisure purposes. All these key centres provide a range of employment and education facilities including sixth form and technical colleges all accessible by bus.
- 2.3.15 The River Bank bus stop, 200m east of the site at the bottom of the high street, is also served by these buses and is of a higher standard with sheltered seating and timetabled information on display.
- 2.3.16 In addition to these services National Express route 315 operates from the stops on Queens Street, 300m (4 minutes' walk) south-east of the site. This service runs daily between Helston and Eastbourne stopping at Plymouth, Bournemouth, Southampton, Brighton and numerous other towns on the south coast.
- 2.3.17 In addition to these timetabled public services, a number of school buses operate in order to provide for travel to local secondary schools.
- 2.3.18 A summary of the bus services in Arundel is included in **Table 2** below and extensive timetables can be found at <http://www.travelinesoutheast.org.uk>.



BUS SUMMARY			
Bus No.	Route Summary	Typical Frequency	Hours of Operation
69	Arundel - Worthing	Tue, Thur: 1 per day	10:00-14:30
85	Arundel - Chichester	Mon-Sat: Every 2 hours	07:00-17:00
315	Helston - Eastbourne	Mon-Sun: 1 per day	Towards Helston: 10:00 Towards Eastbourne: 18:40
700	Portsmouth - Brighton	Mon-Sat: 2 per hour Sun: 1 per hour	Mon-Sat: 05:40-00:00 Sun: 07:15-21:15

Table 2: Timetable of Local Bus Services

Rail

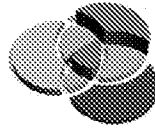
- 2.3.19 Arundel train station is located approximately 1km (15 minutes' walk) south east of the site on the A27.
- 2.3.20 The station is on the Arun Valley Line which runs between Chichester, Emsworth, Havant, Portsmouth and beyond to the west; Pulborough, Horsham, Crawley, Gatwick and London Victoria to the north with connections to Bognor Regis, Littlehampton, Worthing, Brighton and other major centres. All these key centres provide a range of employment and education facilities including sixth form and technical colleges all accessible by rail.
- 2.3.21 Services typically run every 30 minutes between Chichester / Bognor Regis and London Victoria. Journey times to London Victoria are 1 hour 30 minutes, calling at 10 stations en route including Crawley, Gatwick Airport, Redhill and Clapham Junction. In the opposing direction journeys to Bognor Regis take between 16 and 19 minutes, stopping at only Ford and Barnham.
- 2.3.22 Details of services from Arundel station are included in **Plan 01** and full timetables are available to view at www.nationalrail.co.uk.

Summary

- 2.3.23 The site is well located to allow convenient walking, cycling and public transport trips to a number of likely destinations. The day to day requirements of residents can largely be met within Arundel itself as demonstrated through the Districts Settlement Sustainability Study; even where Arundel appears to have scored low in the study, in real highway and access terms the site would clearly fare better in respect to access to services and facilities.



- 2.3.24 Arundel town centre provides a comprehensive range of convenience retail stores and community uses, schools, medical facilities and leisure facilities. Arundel High Street is within 200m of the site and it's expected that walking would be the preferred form of transport for all trips to the amenities here. In addition there are good bus and rail links to nearby cities as well as to Gatwick Airport and into London.
- 2.3.25 Local education for nursery and primary aged children is accessible within the immediate area with public transport providing a choice of modes of travel to secondary education including sixth form and technical colleges in key local centres.
- 2.3.26 The proposed development lies within a highly accessible location, with the Arundel area providing good quality retail, employment, healthcare, educational and community / leisure facilities within walking and cycling distance.
- 2.3.27 Employment opportunities are presented throughout the area with town centre and the outlying areas surrounding the town centre, providing local employment opportunities within a short walk, reducing the need for car travel or commuting.
- 2.3.28 In the event that wider travel is necessary, regular public transport services are provided within a walking distance from the site, which would further reduce the need for the use of the private car.
- 2.3.29 It is also noted that the 2007 Arun Settlement Sustainability Study concludes that Arundel town provides very good levels of accessibility to the majority of key indicators considered within the study.
- 2.3.30 It is therefore concluded that the site benefits from very good levels of sustainability which provide choice for use of sustainable transport thereby facilitating solutions which support reductions in greenhouse gas emissions and reduce congestion; provide for the efficient delivery of goods and supplies; reduce the need to travel, especially by car; and provide safe and suitable access to the site for all people.



3 ACCESS LAYOUT AND HIGHWAY SAFETY VEHICULAR ACCESS

3.1 Site Access

- 3.1.1 Access to the site will be retained via the current gated access to the south eastern boundary wall of the site. The gated access provides a width of 3.7m between the pillars providing adequate width for vehicles movements through the access.
- 3.1.2 Either side of the gate, the highway and the internal layout provide for additional width. It is important to note the advice contained within Manual for Streets when considering the implications of the narrow gated access.
- 3.1.3 While a width of 3.7m is adequate for typical domestic vehicles to enter and exit, there is a need to consider access for fire and rescue vehicles. The general advice within Manual for Streets (reflecting current Building Regulations) is that;

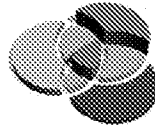
There should be a minimum carriageway width of 3.7m between kerbs:

There should be vehicle access for a pump appliance within 45m of single family houses and dwelling entrance for flats / maisonettes).

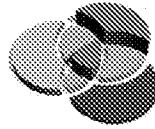
- 3.1.4 Manual for Streets goes on to clarify (by way of advice from the Association of Chief Fire Officers) that the requirements are:

A 3.7m carriageway (kerb to kerb) is required for operating space at the scene of a fire. Simply to reach the a fire, the access route could be reduced to 2.75m over short distances, provided the pump appliance can get to within 45m of dwelling entrances.

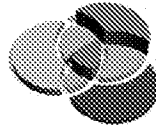
- 3.1.5 It is evident therefore, that the existing access to the Bevin Bevin & Co site is adequate for fire and rescue vehicle access. The access is also considered adequate for its use for residential purposes for the proposed development of 13 units given the modest level of traffic likely to be generated through the proposals.
- 3.1.6 Anticipated traffic generation for the proposed site suggests up to 1 arrival and 4 departures in the AM peak (5 movements) and 4 arrivals and 2 departures in the PM peak (6 movements).
- 3.1.7 This is not likely to result in simultaneous entry and exit movements through the access and given the very low traffic flows and speeds on Brewery Hill, there is a very low risk of any conflict.



- 3.1.8 It is also evident that the 2.7m width of the access would provide for the safe movement of pedestrians and cyclists. Manual for Streets at Para 7.2.3 makes it clear that a width of 3.7m over a short length is acceptable and would not result in drivers potentially being in conflict with other road users.
- 3.1.9 It is therefore considered that the existing site access, which has served commercial uses for a number of years is adequate to provide for safe and convenient access for emergency vehicles and private traffic.
- 3.1.10 In line with Manual for Streets (7.1.1, 7.2.1, 7.2.2 and 7.23.) the highway and access are considered appropriate for the context and use of the street and the site and the only restraint in access width is that of the protected wall which retains sufficient width for the requirements set out in Manual for Streets.
- 3.1.11 Due to the historic layout of Brewery Hill, any vehicle passing through the highway will be travelling at low speeds and the principles contained in Manual for Streets and Manual for Streets 2 can be applied in respect to visibility from the access and it is considered appropriate to reduce the 'X' distance from 2.4m to that of 2m.
- 3.1.12 Consideration is given to the low traffic volumes and speeds on Brewery Hill and the low traffic generation and speeds from the proposed development, together with supporting guidance within Manual for Streets and Manual for Streets 2.
- 3.1.13 In particular consideration is given to Paragraphs 7.7.7 and 10.5.8 of Manual for Streets and Manual for Streets 2 respectively, where it is accepted that a minimum 'X distance' figure of 2m may be considered in some slow speed situations where flows on the minor arm are low.
- 3.1.14 This position is also supported at Para. 4.9 of the WSCC Local Design Guide, Supplementary Guidance for Residential Development Proposals, whereby a reduction in the 'x' distance to 2m may be considered in some very lightly trafficked and slow speed situations.
- 3.1.15 The traffic generation characteristics of the proposed development are detailed later in this report and it is demonstrated that the extent of anticipated traffic movement is very low, together with limited traffic movements on Brewery Hill. Therefore, it is considered that a reduction in the 'X distance' to 2m would be appropriate in its application to the site access in addition to the ability for an emerging vehicle to slowly exit the site, gradually widening the extent of visibility.



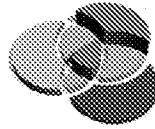
- 3.1.16 While this reduction may result in some vehicles protruding slightly into Brewery Hill, this is on the context of the parking space to the immediate east of the access resulting in any passing traffic being on the outside of the bend providing adequate inter-visibility to allow drivers / cyclists to see any overhang and manoeuvre round this without undue difficulty, particularly in respect to the likely slow speeds through Brewery Hill.
- 3.1.17 As detailed in Manual for Streets 2 in Para. 10.5.8 it is considered acceptable in some low speed situations when flows on the minor arm are low (and in this case low flows on the major arm), using a lower X distance value will result in the front of some vehicles protruding slightly into the running carriageway of the major arm and many drivers will tend to cautiously nose out into traffic.
- 3.1.18 Para 10.5.9 states that while the Y distance should be based on the recommended stopping sight distances but Manual for Streets states that unless there is evidence to suggest otherwise (PIA data for example), a reduction in Y distance would not necessarily lead to a significant problem.
- 3.1.19 The current layout would retain a 'Y' distance of 13m to the east in reflection of the existing layout to be retained and visibility to the south (towards the River Road junction) will remain unchanged. This is commensurate with stopping sight distance for a vehicle travelling at approximately 12mph (20kph) – a realistic speed for vehicles travelling through this part of Brewery Hill.
- 3.1.20 The access is shown in detail with respect to the achievable visibility splays and tracking manoeuvres on **RGP drawing number 2101/1429/001, 2011/1429/002 and 2011/1429/003 (Access Visibility Splays and Vehicle Tracking drawings)**.
- 3.1.21 The area of highway to the east of the access is regularly used for parking of private cars as well as an area to the east of the eastern boundary wall and this relationship will remain.
- 3.1.22 The interaction of these parked vehicles with vehicles manoeuvring through the access have not historically resulted in any recorded safety issues and the very low flow of vehicles locally would mean there would not be any capacity issues. The location of the parked vehicles results in vehicles travelling through Brewery Hill doing so on the outside of the bend resulting in some clearance between the typical vehicle track and those emerging from the site.
- 3.1.23 As detailed in Para 10.7.1 and 10.7.2 of Manual for Streets 2 state that parking in visibility splays in built up areas is common yet it does not appear to create significant problems and goes on to demonstrate how drivers on the minor arm would nose out carefully until they can see on-coming traffic.



- 3.1.24 This scenario has been in place for a significant period of time given the historic use of the site and the layout will remain the same. It should be noted that any vehicle emerging from the site will only need to be concerned with visibility to the left on exiting the site. Visibility in this direction is dictated by the tight bend in the road and narrow nature of the road which would result in very low speeds.
- 3.1.25 In practice, it would be possible to observe on-coming vehicles through the windows etc. of any parked vehicle providing greater inter-visibility than that illustrated on Drawing Number 2011/1492/001
- 3.1.26 It should be noted that the site access, in its current form, has been in use for a significant period of time to serve a B8 use Kitchen and Household Goods Wholesaler. This use involved regular vehicle movements including private and commercial vehicles (including HGV's) with no recorded incidents in respect to local highway safety
- 3.1.27 While the geometry of the access may not be considered to be to current design standards, it must be noted that the layout, which cannot be altered due to the status of the buildings, was laid out many years ago and has operated safely and conveniently for a number of years serving commercial uses..
- 3.1.28 A review of the Personal Injury Accident (PIA) data reveals there have been no recorded incidents on the immediate highway which can be attributed to the use of the access. It is evident that any vehicle moving through the area would be doing so at a very low speed with minimal requirements for stopping sight distances and minimum risk of conflict with traffic given the very low flows.
- 3.1.29 It is considered that the site provides for safe and convenient access for vehicles pedestrians and cyclists. The site has provided for access in this form for a number of years and the proposals seek to continue the use of this access, albeit with a more sympathetic mix of traffic to the immediate area than that which would be attracted by the permitted B8 use.

3.2 Internal Layout

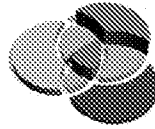
- 3.2.1 The layout of the proposals retains the general configuration of the existing built forms within the site. Given the Grade II Listed status of a number of the buildings on site and the requirement to retain or enhance the setting of these buildings, it is necessary to minimise the extent of alteration to the general layout.
- 3.2.2 The applicant has undertaken pre-application consultation with the Arun District Council Heritage Officer who has provided generally supportive feedback regarding the layout and form of the proposed site.



- 3.2.3 The site focuses around the internal courtyard leading to pedestrian access to the dwellings and vehicular access to the parking spaces and under-croft parking areas.
- 3.2.4 As with the existing layout, manoeuvring for private vehicles is retained within the site.
- 3.2.5 Cycle parking is provided through a combination of sheds / storage within private courtyards, Sheffield type stands to the rear wall of under-croft parking areas and a shared cycle store.
- 3.2.6 There is also a communal bin store to provide for efficient collection by the refuse teams. Refuse collection for the existing site and adjacent dwellings is taken from street-side operation and this will continue with the proposed site eliminating the need for refuse vehicles to enter and turn within the site.
- 3.2.7 The site does provide for turning of a large fire tender as detailed earlier in this report in order to ensure emergency access to the site is not restricted.

3.3 Personal Injury Accident Data

- 3.3.1 RGP have obtained the most recent 5 year Personal Injury Accident (PIA) Data from West Sussex County Council and Sussex Police in order to understand the pattern of recorded PIA's local to the site. The Data is appended to this report at **Appendix C**.
- 3.3.2 A total of 8 PIA's are recorded within the wider vicinity of the site, three of which are recorded as resulting in serious injury and 5 of which are recorded as resulting in slight injury.
- 3.3.3 No PIA's are recorded in the immediate vicinity of the site or the proposed access point or similar private points of access, providing no evidence to suggest any related accident patterns.
- 3.3.4 From a review of the circumstances surrounding the recorded PIA's it is suggested that the likely causes are a result of slow speed vehicle manoeuvres with failure to observe on the part of both pedestrians and drivers and the failure of drivers to observe other road users (powered two wheelers) / proceed with caution.
- 3.3.5 Of the recorded PIA's 6 involved pedestrian, of which 2 involved pedestrian misjudgement / failure to observe vehicle manoeuvres and 4 involved vehicles manoeuvring and failing to observe adjacent pedestrian. Of these 6 incidents, 4 involved very elderly pedestrians and one involved a very young infant in a pushchair.



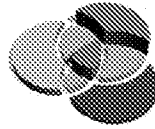
- 3.3.6 The two other PIA's involved drivers manoeuvring from a parking space and an obscured junction failing to observe oncoming mopeds, suggesting a failure of drivers to observe or proceed with caution.
- 3.3.7 Of the PIA's recorded as resulting in serious injury, 2 involved elderly pedestrians and one involved a moped rider.
- 3.3.8 There is no evidence in the PIA data to suggest there are any inadequacies in the local highway or the immediate network adjacent to the site which results in a cluster of PIA's nor that the proposed development related traffic would exacerbate the incidence of PIA's.

3.4 Road Safety Audit and Designer's Response

- 3.4.1 In line with WSCC policy, for all developments over 10 dwellings and / or an intensification of use of an existing access, an independent Stage I Road Safety Audit was commissioned on the access arrangement.
- 3.4.2 The Audit was undertaken by The Safety Forum (TSF) and the report is enclosed herewith at **Appendix D**, and was based on the Architects layout together with the Audit Team being supplied with the most recent 5 year Personal Injury Accident data and RGP Drawings 2103/1429/001, 2013/1429/002 (Access Visibility Splays and Fire Appliance Tracking) and consideration of traffic movements within the Audit Brief. The Audit Brief is also provided at Appendix D
- 3.4.3 This section summarises RGP's Designer's Response to the audit report, by consideration of each of the points raised. A formal copy of the Designer's Response is appended at the back of the Stage 1 Road Safety Audit.
- (i) **Item 3.1** Visibility from the access is obscured by parked vehicles, recommending measures be taken to maximise visibility from the access.
- (ii) **Item 3.2** The width of the access is too narrow for two way traffic recommending the access is widened.
- 3.4.4 Measures are proposed (provision of a bollard to restrict parking in the immediate vicinity of the access) to address Item 3.1 and these are shown in the submitted drawing.
- 3.4.5 However, given the status of the wall and setting, it is not possible to widen the access. However, as detailed in this Transport Planning Statement, the access is considered of adequate width to allow for the anticipated level of site traffic and also to provide for safe and convenient pedestrian / cycle access without conflict with vehicles.



- 3.4.6 In respect Item 3.2 of the Safety Audit, an exception is sought from West Sussex County Council based on the details set out in the Designers Response.
- 3.4.7 As detailed in this report, there is a high level of sustainable access relative to the site together with evidence of low levels of car ownership and it is considered appropriate to retain the level of parking as proposed.
- 3.4.8 It is therefore considered that the Stage 1 Road Safety Audit Process has been completed and items raised by the Audit Team are accepted to be fully addressed at Detailed Design Stage.

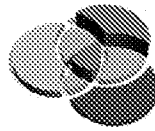


4 TRAFFIC GENERATION

- 4.1.1 It is necessary to understand the extent of the likely highway impact, in traffic terms, on the local highway network associated with the proposed development.
- 4.1.2 As the site currently benefits from a permitted B8 use and has historically been used as a Kitchen and Household Goods Wholesaler (wholesale warehouse) the extent of current traffic impact needs to be accounted for in understanding the likely extent of traffic impact from the proposed residential development.
- 4.1.3 Vehicle trip generation for the existing uses on site and the proposed development have been derived by an interrogation of the TRICS database and a comparison is made of the two uses (primarily during the AM and PM network peak periods) in order to determine the likely NET change in traffic movements which would result from the proposed change of use.
- 4.1.4 In addition to the use of the TRICS (Trip Rate Information Computer System) database, the historic occupant of the building has provided an account of the typical level of weekly traffic recorded at the site in the year prior the ceasing of trade.
- 4.1.5 TRICS is the industry standard tool for determining trip rates for a variety of land uses in a variety of geographical locations.
- 4.1.6 The Warehousing (Commercial) category has been used to assess the existing uses on site, taking into account the existing sites size, locality and available public transport levels. Full TRICS data is contained within **Appendix E**.
- 4.1.7 The Residential / Mixed Private Housing category was investigated in respect of the proposed 13 open market dwellings, taking into account size, locational aspects and public transport levels of the locality. Full TRICS data is contained within **Appendix E**.

Existing Traffic Generation

- 4.1.8 The TRICS database has been interrogated to understand the level of traffic associated with the site's existing use in comparison to the proposed residential scheme.
- 4.1.9 The Gross Floor Area (GFA) of the existing building has been used to determine the existing traffic generation potential for the site should the permitted B8 use be carried on. The GFA of the existing site is 2218sqm.



- 4.1.10 Table 4.1 provides a summary of the trip rates and Table 4.2 associated traffic generation for the existing public house use.

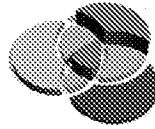
TRICS Trip Rates (B8 Wholesale Warehouse)			
	ARRIVALS	DEPARTURES	TOTAL
AM Peak Hour (08:00-09:00)	0.259	0.194	0.453
PM Peak Hour (17:00-18:00)	0.161	0.355	0.516
Daily Traffic	2.518	2.358	4.876

Table 4.1. TRICS Trip Rates (current use as Wholesale Warehouse)

Potential Traffic Generation (B8 Wholesale Warehouse 2218sqm)			
	ARRIVALS	DEPARTURES	TOTAL
AM Peak Hour (08:00-09:00)	6	4	10
PM Peak Hour (17:00-18:00)	3	8	11
Daily Traffic	56	52	108

Table 4.2. Potential Existing Traffic Generation for B8 Wholesale Warehouse

- 4.1.11 As outlined by Table 4.2 the existing permitted use as a B8 Commercial Warehouse could generate in the order of 10 AM peak movements and 11 PM peak movements and over 100 daily vehicle movements.
- 4.1.12 In support of the extent of traffic generation of the existing permitted use on site when in use by the historic occupiers (Bevin Bevin & Co), the applicants have provided an account of the typical weekly traffic movements associated with the business. These figures represent the operation of the business in the years leading to the cease of trading. Correspondence with the applicant regarding the historic traffic figures is appended to this report at **Appendix F**.
- 4.1.13 The historic data is split into three categories (Cars, Vans and HGV's) with average weekly movements in the region of 65 two-way cars trips; 15 two-way van trips and 28 two-way HGV trips. The business operated only on weekdays so this volume of traffic would be split across 5 days.



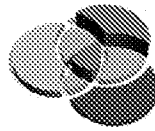
- 4.1.14 The total of 216 weekly movements represent a an average of 43 daily movements including an average of 5-6 HGV movements per day, which would be likely to have comprised rigid vehicles approaching for the south west via River Road given the constraints in the local highway and the scale of the business.
- 4.1.15 This level of traffic is broadly half of that predicted through the TRICS methodology and it is understood it represents a business which was operating at a low capacity due to its planned closure.
- 4.1.16 It must be noted that the existing permitted B8 use could be made operational without need for a planning application therefore the likely extent of traffic associated with the site needs to be considered for the purposed of this assessment. Therefore the TRICS data is used in the assessment but mindful of the differential between the TRICS data and the data provided by the sites occupiers to provide an indication of the likely NET change in traffic.

Proposed Traffic Generation

- 4.1.17 Table 4.3 provides a summary of the trip rates used and Table 4.4 summarises the likely associated traffic generation for the proposed residential use.
- 4.1.18 The proposals comprise a total of 13 residential dwellings all for sale as private tenure (no affordable housing) with the proposed mix of 4 x 1 bed apartments; 3 x 2 bed apartments; 2 x 2 bedroom houses and; 4 x 3 bedroom houses.
- 4.1.19 For the purposes of assessment the 'Residential – Mixed Private Housing category has been used within TRICS to represent the dwelling types and tenure with filter selections to represent the locality.

TRICS Trip Rates (Private Housing)			
	ARRIVALS	DEPARTURES	TOTAL
AM Peak Hour (08:00-09:00)	0.068	0.294	0.362
PM Peak Hour (17:00-18:00)	0.294	0.147	0.441
Daily Traffic	1.828	1.912	3.740

Table 4.3. TRICS Trip Rates (proposed use as Private Housing)



Potential Traffic Generation (Private Housing)			
	ARRIVALS	DEPARTURES	TOTAL
AM Peak Hour (08:00-09:00)	1	4	5
PM Peak Hour (17:00-18:00)	4	2	6
Daily Traffic	24	25	49

Table 4.4. Potential Traffic Generation for Residential Use

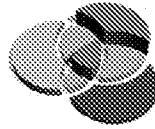
- 4.1.20 Based on the predicted traffic generation as derived from the TRICS database, it is likely the proposals would result in approximately 1 arrival and 4 departures in the AM peak (5 two-way movements); 4 arrivals and 2 departures through the PM peak (6 two-way movements) and; 24 arrivals and 25 departures between 07:00 and 19:00 (49 two way movements).
- 4.1.21 The level of anticipated peak hour traffic is considered to be very low with a total of 5 AM peak hour movements and 6 PM peak hour movements. While the existing access to the site would be considered narrow to provide for two way vehicle movement, the likely incidence of two vehicles meeting at the access is extremely unlikely and the low speeds of traffic would make any risk of conflict extremely low..

Net Traffic Impact

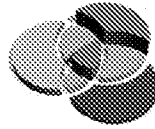
- 4.1.22 The trip rates derived from the TRICS database have been applied to both the current and proposed development on the site with **Table 4.5** below comparing the current permitted and proposed traffic generation and the overall net impact.

Net Change in Traffic			
	AM Peak	PM Peak	DAILY TOTAL
Existing Use (Warehouse)	10	11	108
Proposed Use (Residential)	24	25	49
Net Change	- 14	- 14	- 59

Table 4.5 – Summary of Net Traffic Generation



- 4.1.23 From the traffic generation data it is demonstrated that the proposed residential development would have the potential to generate in the region of 14 less vehicle movements in during the AM and 14 less vehicle movements during the PM peak and in the region of 59 less daily movements when a comparison is made with the TRICS data for the two land uses.
- 4.1.24 Also noteworthy is the differential between the anticipated residential traffic generation and that of the evidence provided by the historic occupier of the site. It is evident that the data provided by the occupier is broadly similar to that of the TRICS residential data.
- 4.1.25 It is demonstrated that the proposed development would be likely to result in a reduction when compared with the permitted use (and no material difference when compared with the historic data) in total weekday daily movements associated with the site with the resultant benefits for the local highway network in terms of both perceived capacity through Angmering Village as well as highway safety benefits.
- 4.1.26 Given the overall low level of traffic generation associated with the site and the potential reduction in traffic impact associated with the site, it has not been considered necessary to undertaken any detailed traffic modelling or assessment on either the site access junctions or the local highway network.
- 4.1.27 In addition to the significant reduction of daily traffic movements (or retention of a broadly similar level of traffic movement), it should be noted that the existing use of the site would attract a proportion of daily / weekly commercial vehicle and HGV movements through deliveries and collections as well as contractors vehicles for example.
- 4.1.28 All associated commercial and HGV movements would cease resulting in a reduction in the overall number of HGV movements through the predominantly residential area, with associated road safety benefits and the proposed residential use being wholly sympathetic to the locality.

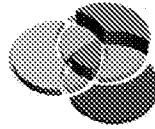


5 PARKING PROVISION

- 5.1.1 When providing parking for any new development it is important to consider local policy and parking standards that should be adopted. The relevant parking standards to be applied in this instance are set out in the West Sussex County Council Parking Standards which have been revised in respect to residential parking provision applying an evidence based approach through a parking demand calculator.
- 5.1.2 The proposed development of 13 residential dwellings would include parking provision of 23 spaces for the proposed development.
- 5.1.3 As required by the demand calculator the unit mix has been entered and the spaces per unit proposed. The allocation of spaces to the proposed units has been assumed where possible.
- 5.1.4 As illustrated by the outputs attached hereto at **Appendix G**, the overall parking demand has been calculated 26 spaces which comprise a residential requirement of 22 plus one unallocated space (total 23) and a visitor requirement of 3 spaces. On this basis, it is considered that the proposed provision of 23 parking spaces would provide for the overall residential demand.
- 5.1.5 It is noteworthy that the West Sussex County Council Guidance for Parking in New Residential Development (September 2010) suggests at Paragraph 2.7 (Principle C) that in some areas with high levels of accessibility to non-car modes of travel and to local facilities and amenities, it would be appropriate to consider lower levels of parking provision and it is demonstrated earlier in this report that the site is very well located in respect to good levels of accessibility to a wide range of key facilities and services.
- 5.1.6 It is therefore concluded that the proposed parking provision of 23 spaces, would not represent a significant shortfall from the calculated level of parking based on WSCC's calculator and would be sufficient to cater for the car ownership of the local area.
- 5.1.7 The proposals provide for the retention of all residential parking demand within the site. However, there is not scope to provide for visitor parking within the site itself but it should be noted that there are significant opportunities for any visitors to be able to park either on-street in the wider area (subject to compliance with parking restrictions) or to be able to park in the nearby off-street car parks (for example, the Crown Yard car park is 225m walking distance and the Mill Road car park is 375m walking distance).
- 5.1.8 It is considered (and demonstrated through the parking demand calculator) that the level of visitor parking demand is low (max three spaces) and this provision could easily be met locally without detriment to highway capacity or safety.

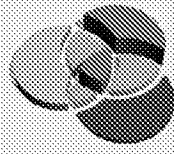


- 5.1.9 Alternatively, the internal layout (in respect to parking provision) can be revised so as to provide a minimum level of allocated parking and a higher level of unallocated parking.
- 5.1.10 The alternative parking option is to provide the flats / apartments with a total of one allocated space per dwelling and provide the houses with a total of two allocated spaces per dwelling.
- 5.1.11 This results in a total of 19 allocated spaces and a total of 4 unallocated / visitor spaces on the site. This second option would provide for adequate parking provision within the site to accommodate the anticipated parking demand.
- 5.1.12 The difference between the two options being represented by the higher level of unallocated residential parking and allowing a more flexible use of the total parking stock on site.
- 5.1.13 The two options for parking provision on site are considered acceptable and West Sussex County Council, as local highway authority, are requested to determine the most suitable approach.



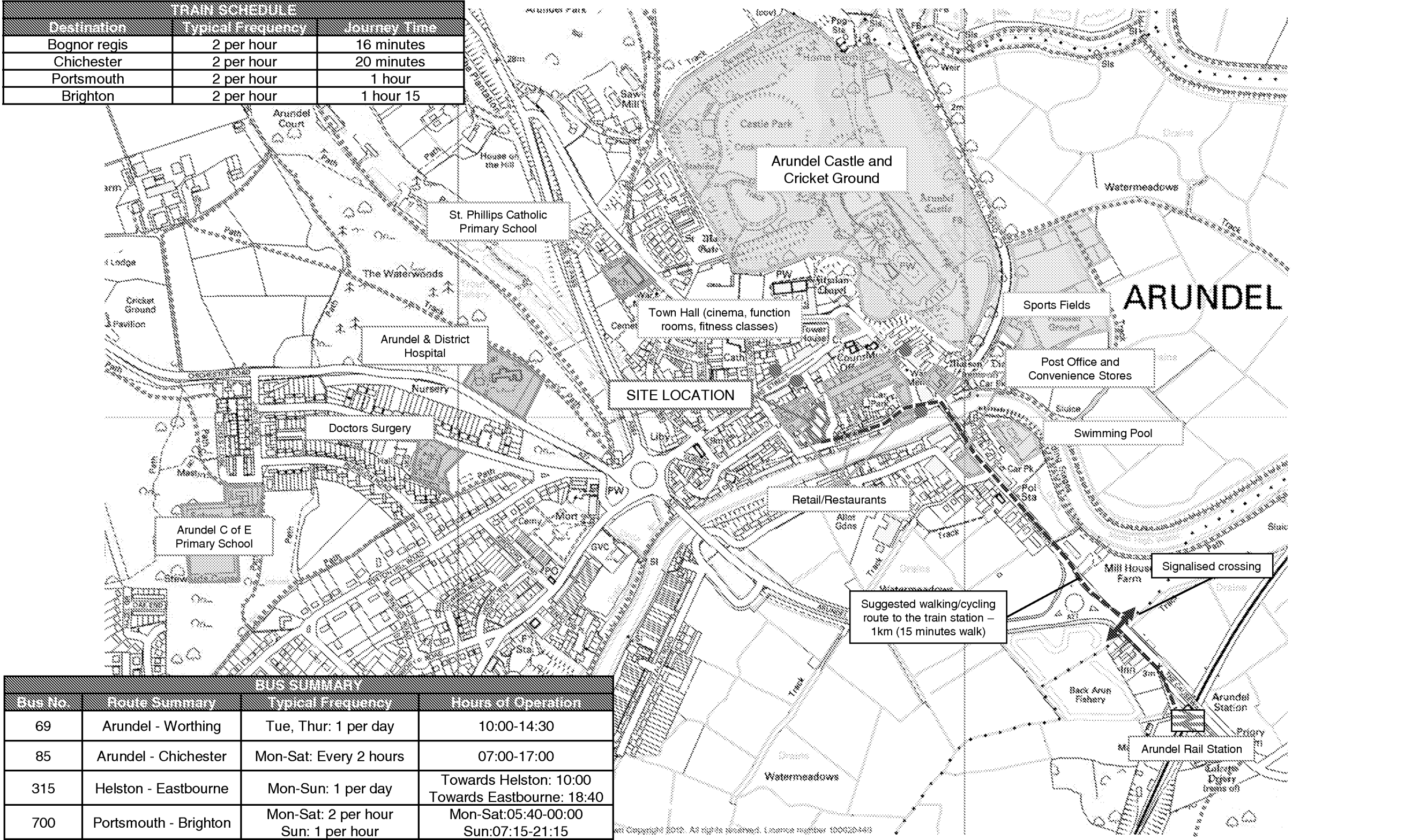
6 SUMMARY AND CONCLUSIONS

- 6.1.1 RGP is commissioned to advise on the highway and transportation matters relating to the proposed residential development of The former Bevin Bevin & Co site at Brewery Hill, Arundel to provide a total of 13 residential dwellings.
- 6.1.2 RGP make the following conclusions within this report:
- (i) The site is located in a very accessible location with many day-to-day facilities located within a short walk from the site including shops, healthcare and community services, leisure facilities, range of employment opportunities and schools. The site is located within a short distance of Arundel railway station together with various bus facilities making public transport a realistic alternative for longer distance journeys;
 - (ii) The traffic impact of the development proposals would be negligible on the condition of capacity and safety on the local highway network, indeed the proposals would potentially represent a reduction in traffic generated by the site when compared against the site's current permitted use;
 - (iii) The proposed parking provision generally accords with local policy and reflects the accessibility credentials of the site together with car ownership data for the locality.;
 - (iv) The access arrangements accord with general design guidance and have been the subject of an independent Road Safety Audit. The internal arrangement has been designed to ensure access to bicycle and car parking spaces is safe and convenient.
- 6.1.3 In light of the findings of this report, WSCC, as highway authority are respectfully requested to confirm that the proposals are acceptable from a highway and transportation perspective.



PLANS

TRAIN SCHEDULE		
Destination	Typical Frequency	Journey Time
Bognor regis	2 per hour	16 minutes
Chichester	2 per hour	20 minutes
Portsmouth	2 per hour	1 hour
Brighton	2 per hour	1 hour 15



BUS SUMMARY			
Bus No.	Route Summary	Typical Frequency	Hours of Operation
69	Arundel - Worthing	Tue, Thur: 1 per day	10:00-14:30
85	Arundel - Chichester	Mon-Sat: Every 2 hours	07:00-17:00
315	Helston - Eastbourne	Mon-Sun: 1 per day	Towards Helston: 10:00 Towards Eastbourne: 18:40
700	Portsmouth - Brighton	Mon-Sat: 2 per hour Sun: 1 per hour	Mon-Sat:05:40-00:00 Sun:07:15-21:15

LEGEND

SITE LOCATION

RAIL STATION

LOCAL BUS STOPS

HEALTH CARE

EDUCATION

LEISURE / RECREATION

RETAIL

PUBLIC FOOTPATHS

Transport Planning and Infrastructure Design Consultants
The Old Stables, Fry's Yard, Bridge Street,
Godalming, Surrey, GU7 1HP
Tel: 01483 861681 Fax: 01483 861682
www.tap.co.uk

Client:

Martin Critchell

Project:

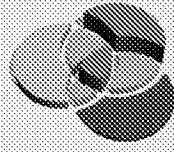
Brewery Hill, Arundel

Title:

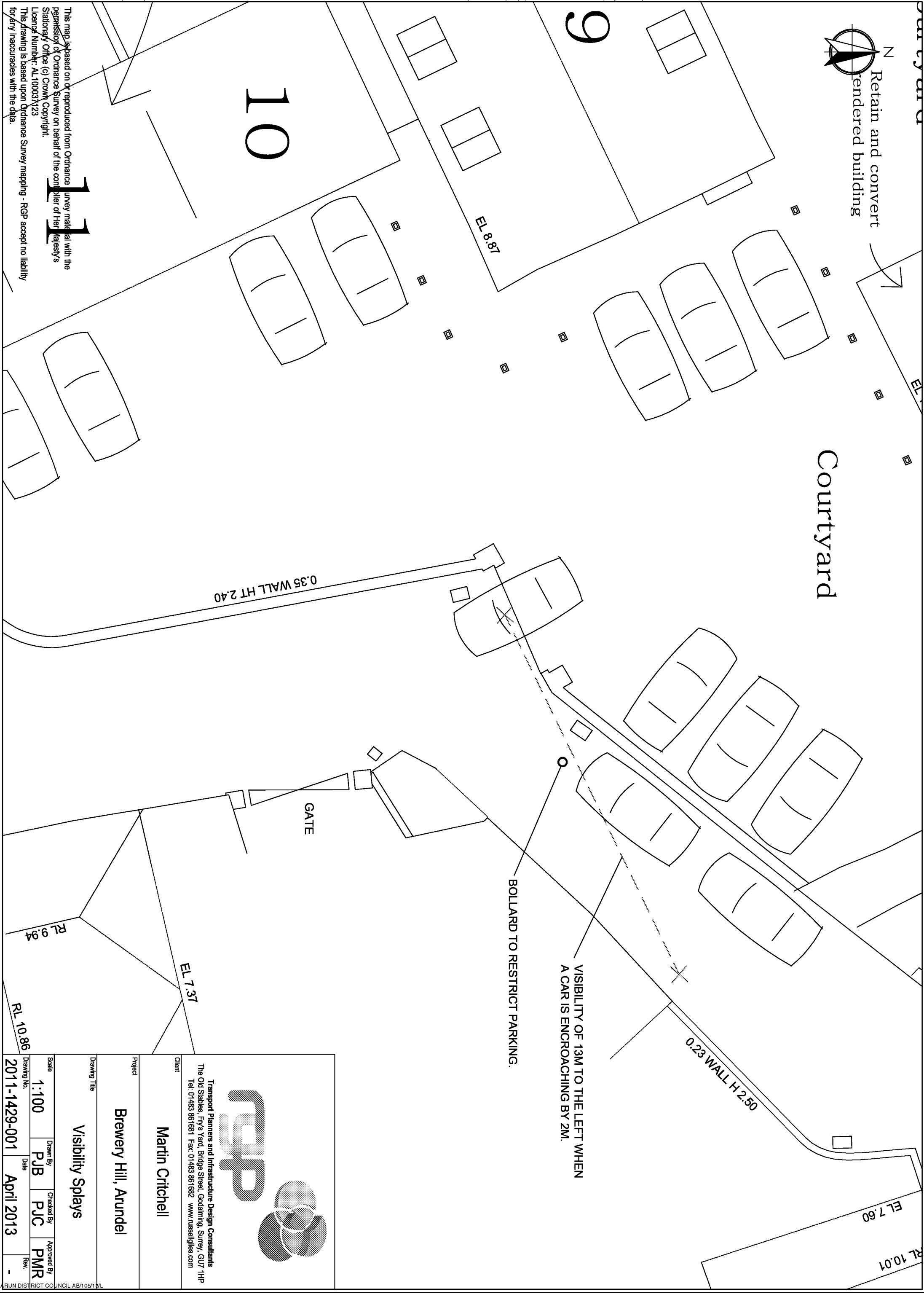
Site Location and Accessibility Plan

Plan No:	Job No:	Date:	Scale:
Plan 01	2011/1429	Jan 2013	NTS
Drawn By:	Checked By:	Approved By:	Rev:
PJB	PJC	PMR	-

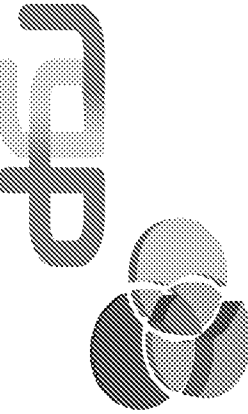
ARUN DISTRICT COUNCIL AB/105/13/L



DRAWINGS



Transport Planners and Infrastructure Design Consultants
The Old Stables, Fry's Yard, Bridge Street, Godalming, Surrey, GU7 1HP
Tel: 01483 861681 Fax: 01483 861682 www.russelldesigns.com



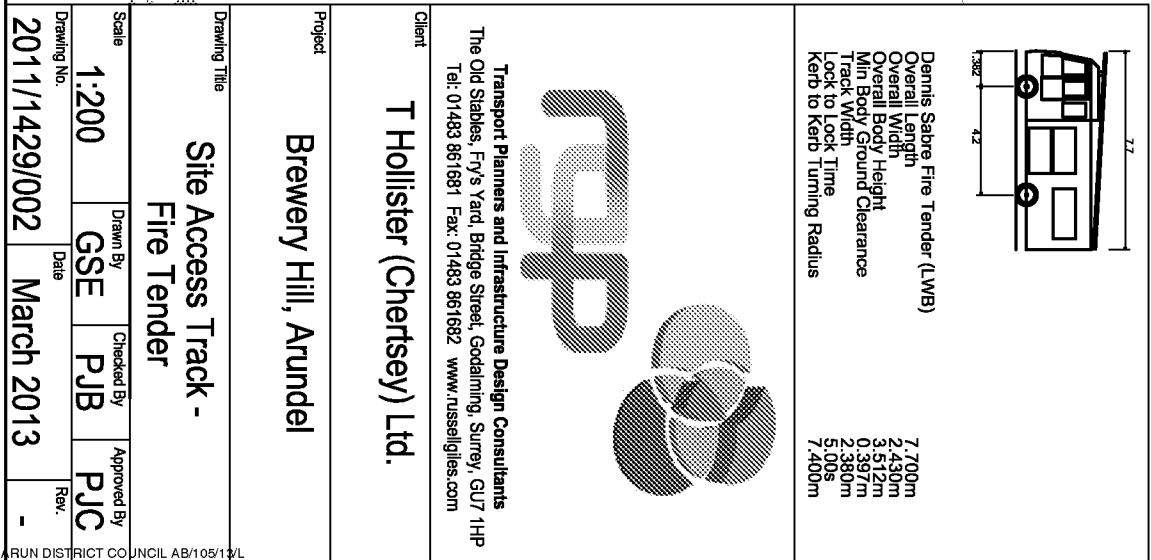
Client
Martin Critchell

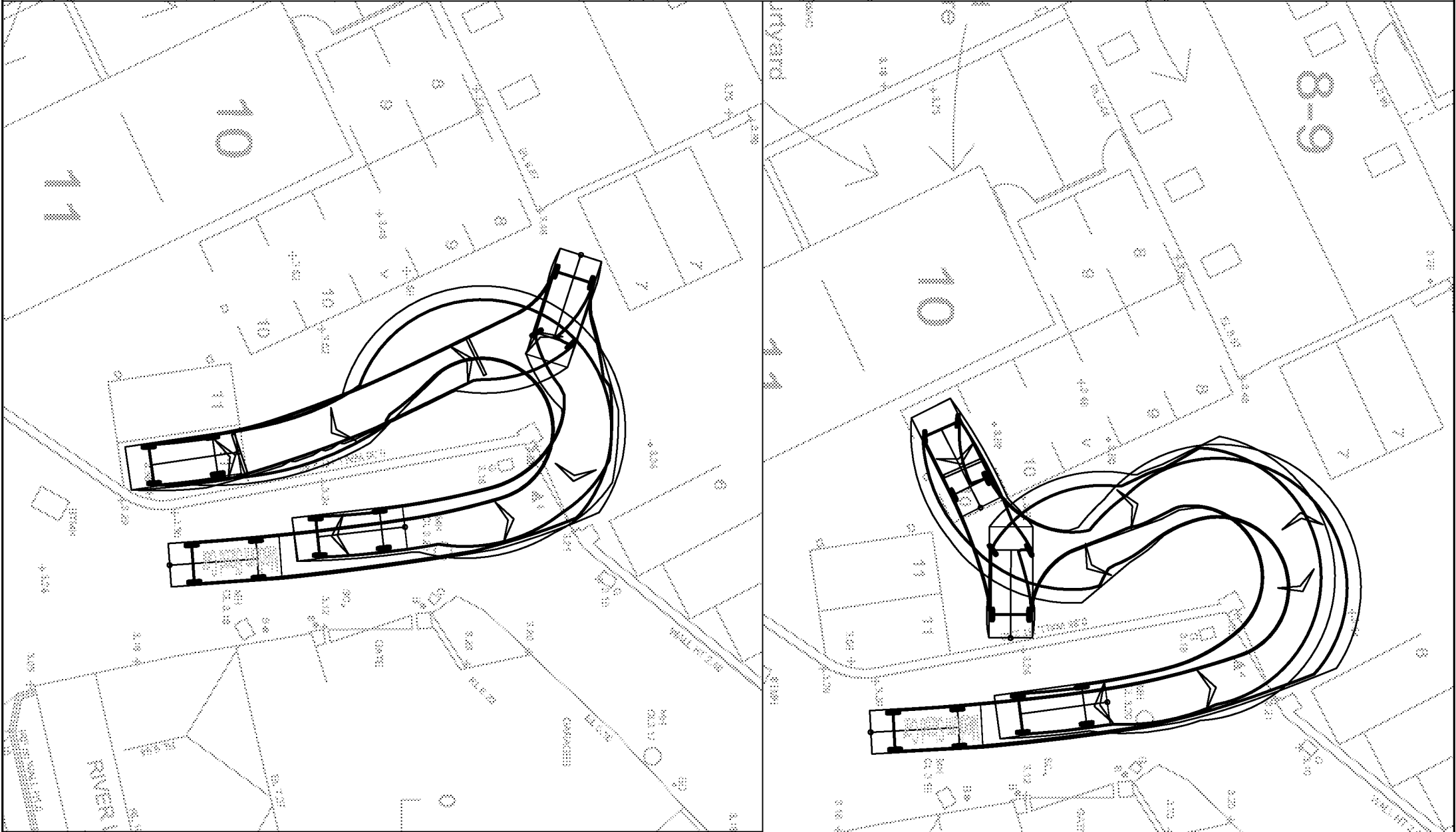
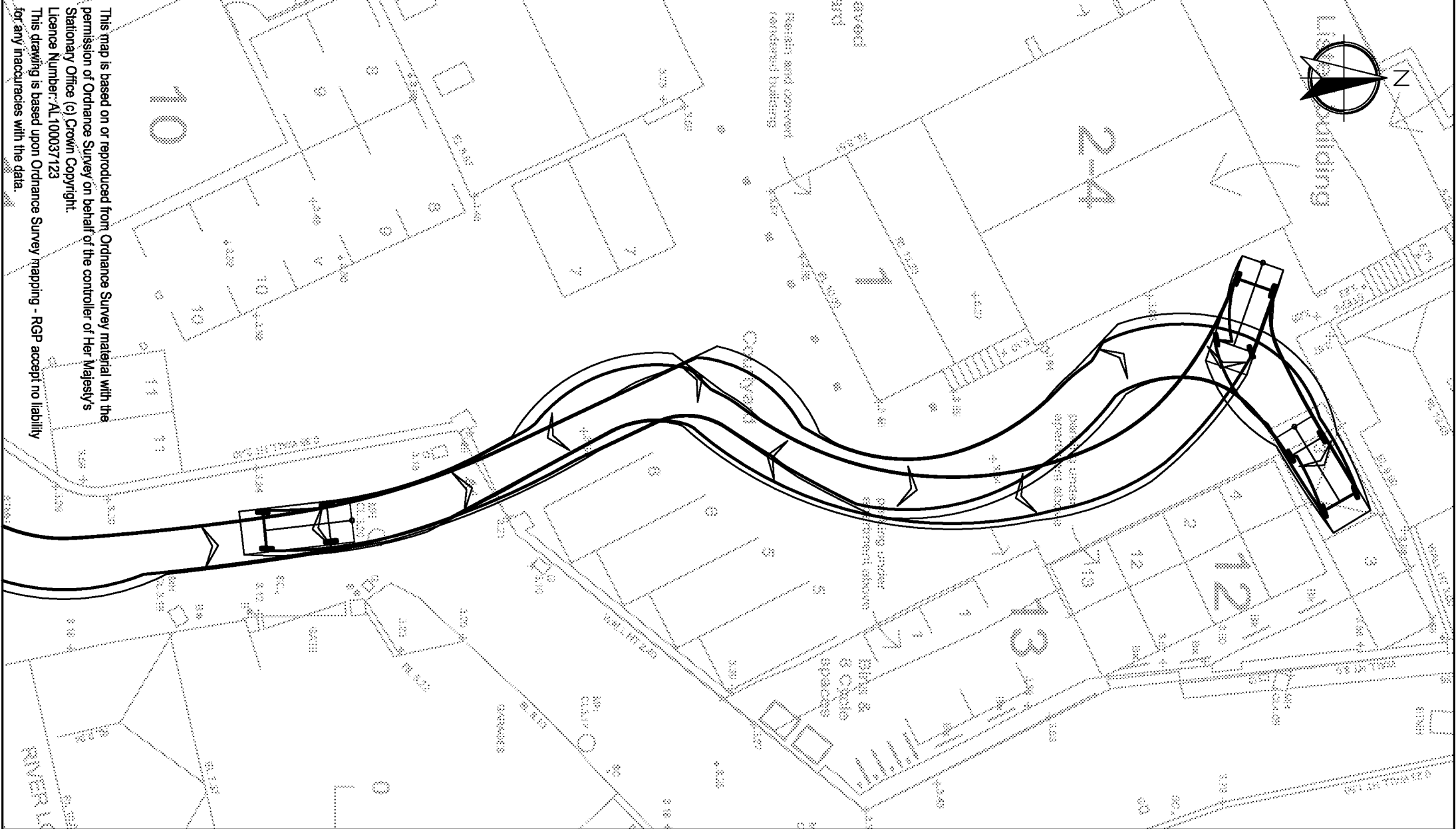
Project
Brewery Hill, Arundel

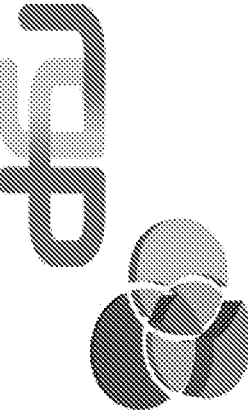
Drawing Title
Visibility Splays

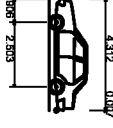
Scale	Drawn By	Checked By	Approved By
1:100	PJB	PJC	PMR

Drawing No. 2011-1429-001 **Date** April 2013 **Rev.** -

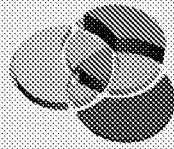




 Transport Planners and Infrastructure Design Consultants The Old Stables, Fry's Yard, Bridge Street, Godalming, Surrey, GU7 1HP Tel: 01483 861681 Fax: 01483 861682 www.russelldesigns.com		Client T Hollister (Chertsey) Ltd.	
Project Brewery Hill, Arundel		Drawing Title Site Access Track - Medium Sized Car	
Scale 1:200	Drawn By GSE	Checked By PJB	Approved By PJC
Drawing No. 2011/1429/003	Date March 2013	Rev. -	



Medium Sized Car	4.319m
Overall Length	1.986m
Overall Width	1.468m
Min Body Height	0.268m
Max Track Width	1.591m
Lock to Lock Time	4.005m
Keob to Keob Turning Radius	5.042m



APPENDIX A

Notes

1. Do not scale from this drawing, except for planning purposes. Use figured dimensions only.
2. All measurements should be checked on site prior to commencement of work.
3. Where applicable this drawing is to be read in conjunction with other consultants' drawings.
4. 1:250 Scale (see LIS 0337)
5. This drawing is the copyright of Martin Critchell Architects.



Location Plan

Ordnance Survey (c) Crown Copyright 2013. All rights reserved. Licence number 100020449

Site Area 2214m² (0.55 Acres)

23 parking spaces

SCHEDULE OF ACCOMMODATION

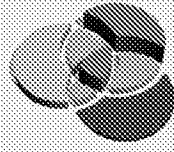
- 1 Convert rendered building into a 3 bed house
- 2 to 4 Convert listed building into 2 x 1 bed & 1 x 2 bed apartments
- 5 & 6 Convert structure into 2 x 2 bed houses
- 7 Rebuild structure as a 3 bed house
- 8 & 9 Part rebuild & convert building into 2 x 2 bed apartments
- 10 & 11 New build 2 x 3 bed houses
- 12 & 13 New build 2 x 1 bed apartment

For T. Hollister(Chertsey) Ltd		
Project Bevin Bevin & Co.Ltd. Brewery Hill Arundel West Sussex		
Drawn Location Plan Site/Roof Plan	Scale:BA1 1:1250 1:250	
Date 26.10.2012	Drawn	Checked
Job number 11.042	Drawing number 150	Revision C

Town Planners M A R T I N C R I T C H E L L A R C H I T E C T S		
Main Office ■ Northgate ■ Chichester ■ West Sussex ■ PO19 1BE Tel: 01243 531008 Fax: 01243 729297 e: martin@martincritchells.co.uk www.martincritchells.co.uk		
Rev	Date	Amendment
A	22.03.12	client's revisions
B	11.03.13	houses 10&11 amended
C	14.02.15	One down house omitted
Town	Date	Amendment
Checked		

Site/Roof Plan





APPENDIX B

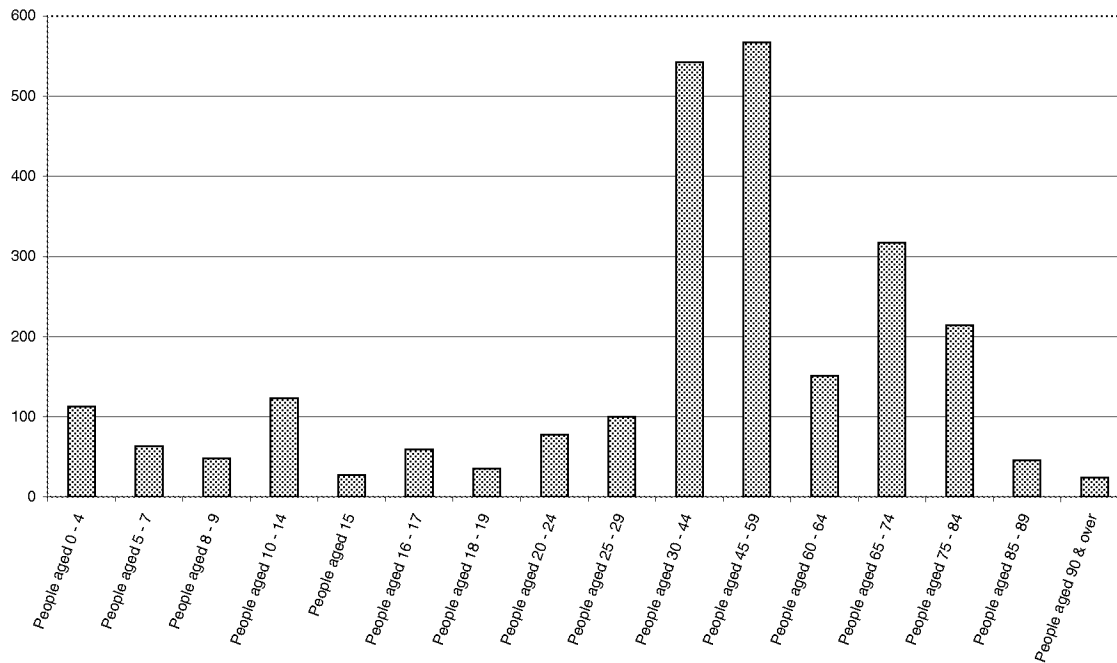
7.3 Arundel Settlement Results

Population Total: 2509 (1.8% of district total)

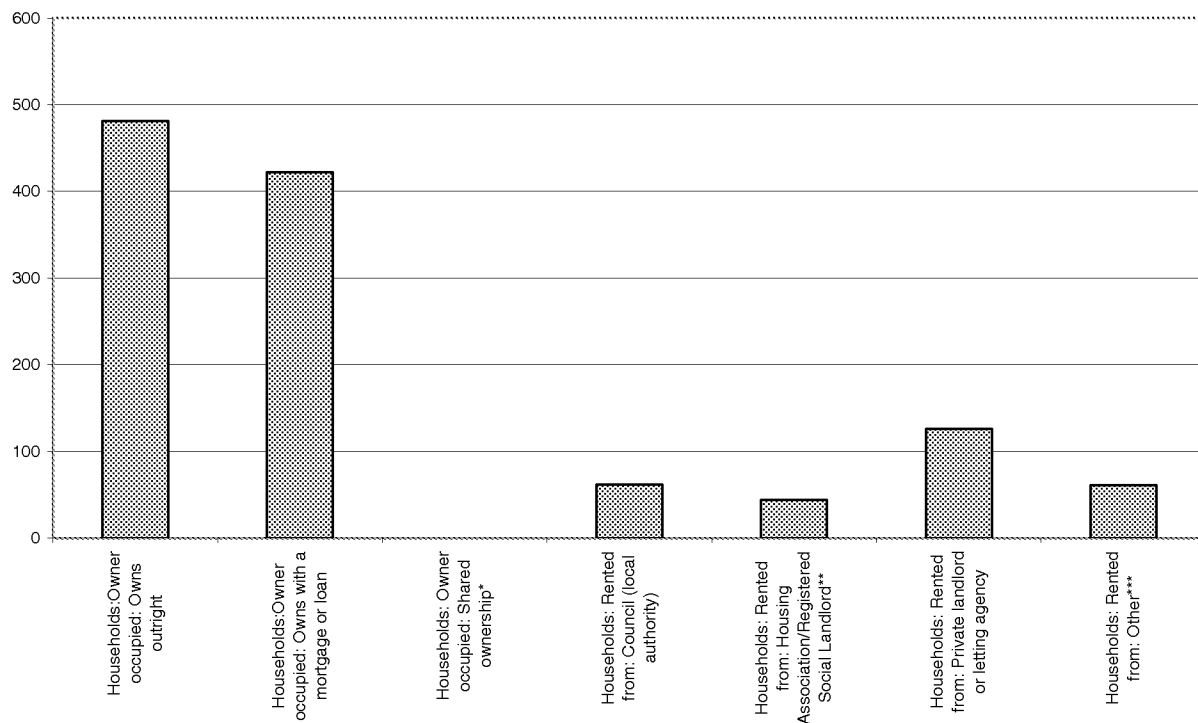
Population Male: 1188

Population Female: 1321

Graph 7.3 Arundel: Age



Graph 7.3: Arundel Tenure



Graph 7.3: Arundel Household Composition

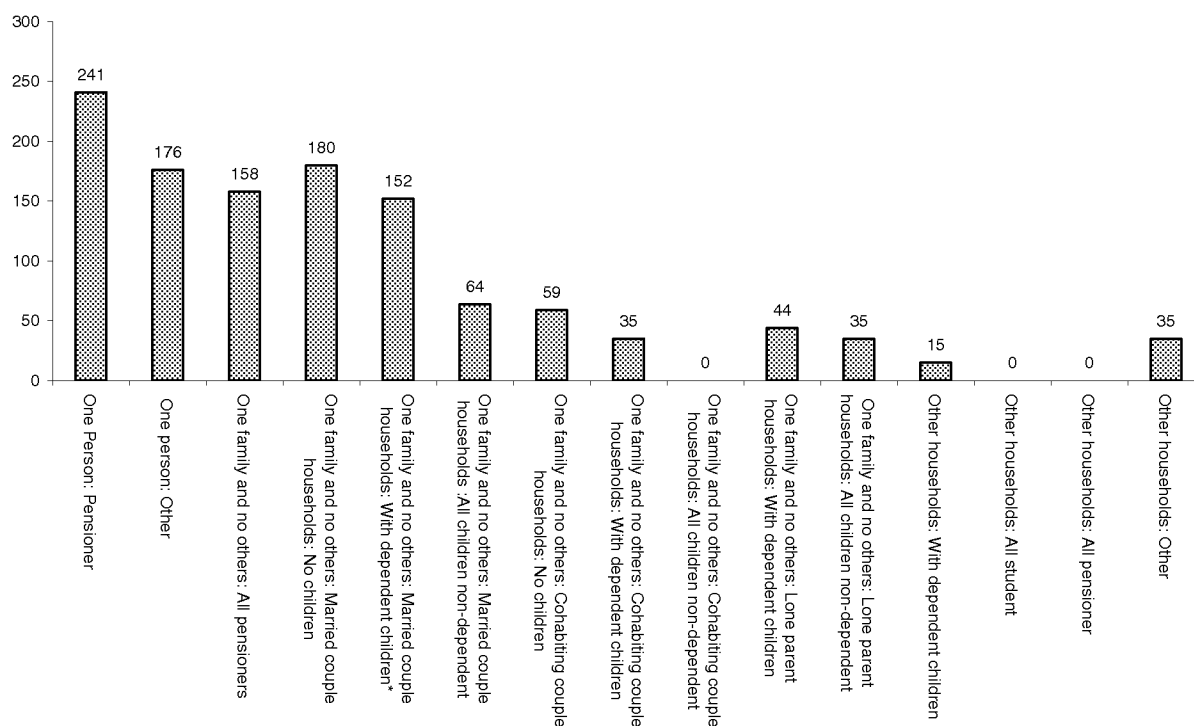


Table 7.3: Arundel Facilities Accessibility

Facility	Score	Accessibility Category
Bank	2.10	Very Good Accessibility
Bus	0.00	Very Poor Accessibility
Community Hall	2.10	Very Good Accessibility
Food Store	2.40	Very Good Accessibility
Further Education Institution	0.00	Very Poor Accessibility
G.P. Surgery	2.40	Very Good Accessibility
Petrol Station	0.00	Very Poor Accessibility
Pharmacy	2.00	Very Good Accessibility
Place of Worship	2.40	Very Good Accessibility
Post Office	2.60	Excellent Accessibility
Primary School	2.30	Very Good Accessibility
Secondary School	0.00	Very Poor Accessibility
Train Station	0.80	Poor Accessibility

Graph 7.3: Arundel Industry of Employed Residents

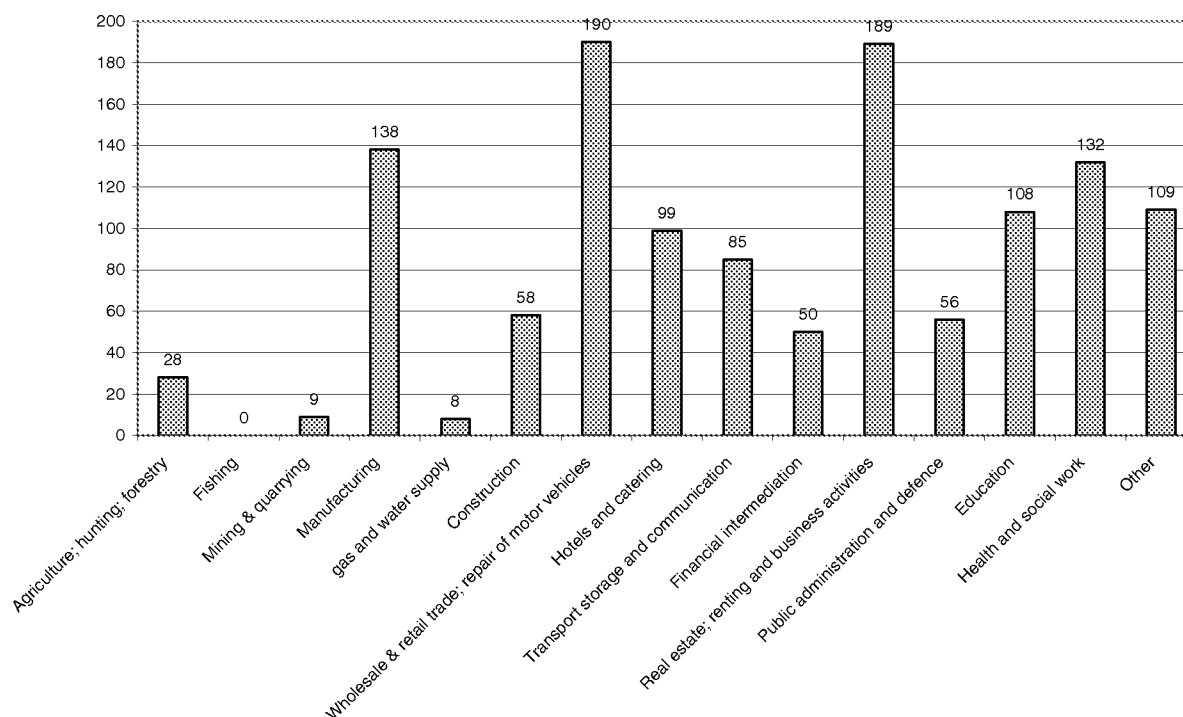
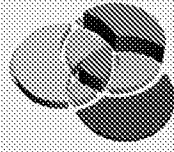


Table 7.3: Arundel Travel to Work Patterns

Trips originating from study settlement	1241 (49% of settlement population)
Trips starting and concluding in study settlement	454
Trips from study settlement to any other settlement	787
% of trips from settlement that are contained within the settlement	36.58%
Trips concluding in study settlement	1135
Trips into settlement from external settlements	681
% of employees in the settlement who live in the settlement	40.00%
Net flow of employees*	-106



APPENDIX C

Arundel (RGP)

Collision report 01/01/2008 to 31/12/2012

12 February 2013

Sussex Safer Roads
P A R T N E R S H I P

Safer Roads
Safer Communities
Sharing the Responsibility

Produced by Sussex Safer Roads Partnership on behalf of Sussex Police

Data regarding personal injury collisions is recorded by Sussex Police in accordance with the DfT Stats 19 requirements. The data is subsequently used by Sussex Safer Roads Partnership for monitoring and planning. While every effort is made to ensure that this data is accurate, it is subject to change should further information become available.

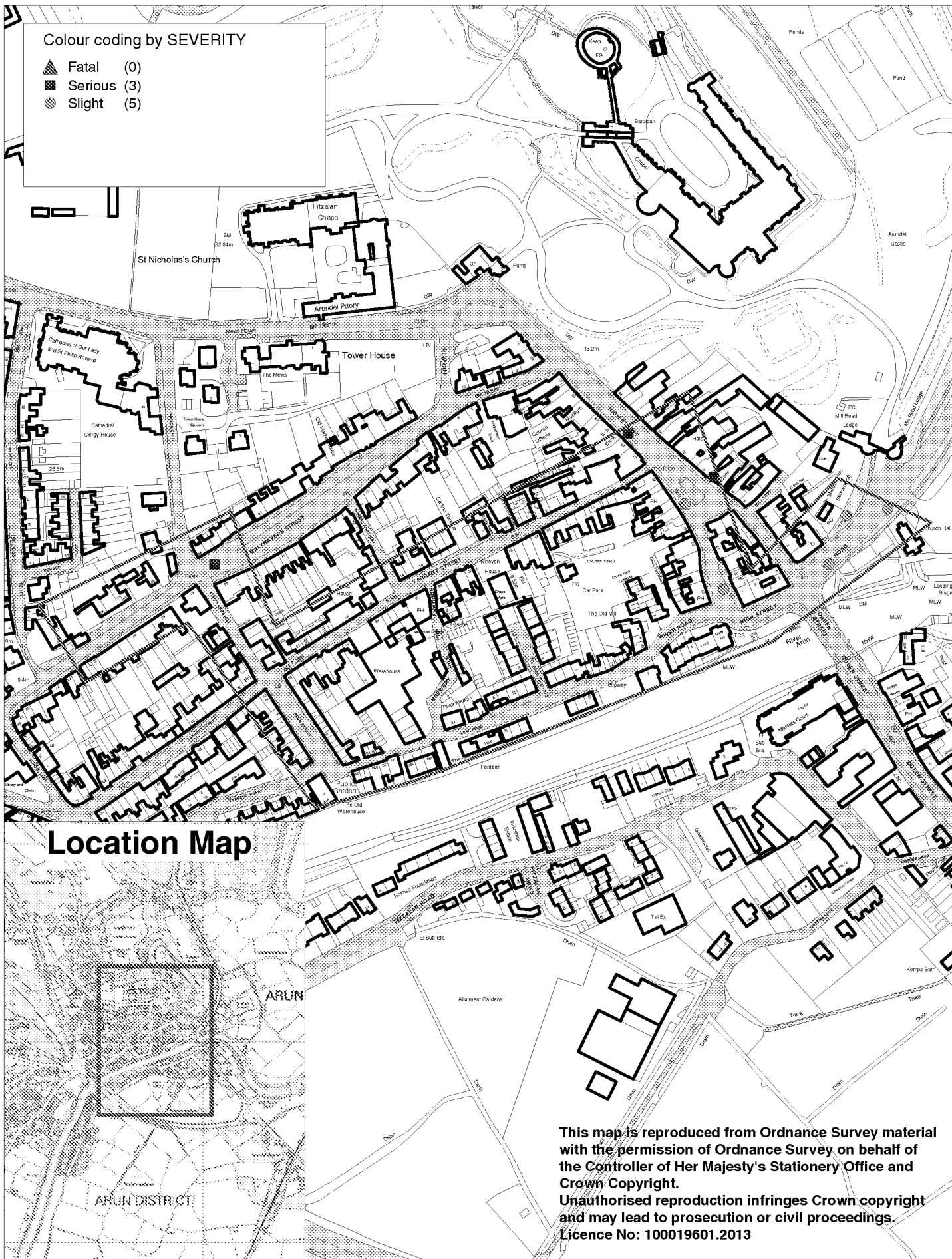
This data may not be fully validated and while every effort is made to ensure its accuracy any statistics provided may not match those published elsewhere.

Sussex Safer Roads Partnership does not hold collision data either where there are no recorded casualties or the incident has not been reported to Sussex Police.

For further information:

web: www.sussexsaferroads.gov.uk

email: data@sussexsaferroads.gov.uk



INTERMEDIATE ACCIDENT REPORT

Run on: 12/ 02/2013

Details of Personal Injury Accidents for Period - 01/01/2008 to 31/12/2012 (60) months

Selection: Notes:

Selected using Pre-defined Query :

Police Ref.	Day	Location Description	Vehicles				Casualties			
			Veh No	Type	Manv	Dir	Class	Sex	Age	Sev
Road No.	Date									
Grid Ref.	Time									
	DL									
	R.S.C									
	Weather									
	Speed									
	Account of Accident									

0805522 Saturday U HIGH STREET 10M NORTH OF U Veh 1 Car Going ahead RH bend E to N Ped F 85 Slight
U 19/07/2008 RIVER ROAD
 1535hrs
 Daylight:street lights present
E 501,905 Dry
N 107,036 Fine without high winds
 30 mph

V1 NEGOTIATES A RIGHT HAND BEND HEADING NORTH ALONG HIGH STREET. PEDESTRIAN IS BEGINNING TO CROSS ROAD, SEES CAR AND PANICS FALLING BACKWARDS ONTO PAVEMENT. NO CONTACT BETWEEN V1 AND PEDESTRIAN. MINOR INJURY.

0805885 Friday C0 HIGH STREET 25M NORTH OF U Veh 1 Car Reversing N to S Ped F 80 Serious
C 01/08/2008 MILL LANE
 1308hrs
 Daylight:street lights present
E 501,899 Dry
N 107,103 Fine without high winds
 30 mph

THE DRIVER OF VEHICLE 1 WAS REVERSING WITHIN THE LIMITED WAITING BAY WHEN HE FELT A BUMP. HE STOPPED HIS VEHICLE AND GOT OUT TO FIND AND ELDERLY FEMALE LYING ON THE ROAD/PAVEMENT. HIS OFFER TO CALL AN AMBULANCE/POLICE WAS DECLINED-HE DROVE THE LADY AND H ELPER TO THE GP SURGERY AT CANADA GROVE.

1104415 Friday U MILL ROAD 51m North of C0 QUEEN Veh 1 Car Reversing SW to NE Ped F 70 Slight
U 15/07/2011 STREET NEAR ST. RICHARDS HALL
 1630hrs
 Daylight: no street lighting
E 502,003 Dry
N 107,084 Fine without high winds
 30 mph

V2 WAS STATIONARY IN ROAD FACING SOUTH/WEST AND WAITING TO REVERSE IN A NORTHERLY DIRECTION IN ORDER TO PARK HIS CAR, STARTED HIS MANEOUVRE AND THEN HEARD A CRY, GOT OUT OF HIS CAR AND NOTICED AN ELDERLY FEMALE ON THE FLOOR WHO HAD SUSTAINED A MINOR INJURY. NO SOUND OF AN IMPACT WAS HEARD BY V2.

1103357 Tuesday C117 HIGH STREET of C117 Veh 1 Car Going ahead S to N Dri F 24 Slight
C 117 31/05/2011 TARRANT STREET Veh 1 Car Going ahead S to N Ped M 79 Serious
 1706hrs
 Daylight:street lights present
E 501,848 Dry
N 107,129 Fine without high winds
 30 mph

VEH 1 WAS TRAVELLING NORTH UP HILL ON MAIN ROAD WHEN PEDESTRIAN STEPED OUT INTO PATH FROM BETWEEN PARKED VEHICLES ON WEST SIDE OF ROAD. DRIVER OF VEHICLE 1 TOOK AVOIDING ACTION AND AVOIDED ANY COLLISION WITH PEDESTRIAN. HOWEVER FRONT NEAR SIDE TYRE CAME

Details of Personal Injury Accidents for Period - **01/01/2008** to **31/12/2012** (60) months

Selection:

Notes:

Selected using Pre-defined Query :

Police Ref.	Day	Location Description	Vehicles				Casualties		
			Veh No. / Type / Manv / Dir / Class				Sex / Age / Sev		
Road No.	Date								
Grid Ref.	Time								
	DL								
	R.S.C								
	Weather								
	Speed								
	Account of Accident								

TO REST ON PESTRIANS RIGHT FOOT.

1106605 Tuesday U MILL ROAD of C0 HIGH STREET Veh 1 Car U turn SW to SW Ped F 53 Slight
 18/10/2011 ARUNDEL POST OFFICE
 U 0855hrs
 Daylight: street lighting unknow
 E **501,968** Dry
 N **107,051** Fine without high winds
 30 mph

VEHICLE FROM A PARKED POSITION FACING NE CONDUCTED A U-TURN AND HIT THE PEDESTRIAN WITH NEARSIDE WING TOWARDS THE END OF THE MANOUVER. PEDESTRIAN WAS KNOCKED OVER RECEIVING MINOR INJURIES AND CAR DROVE OFF.

1107554 Wednesday U MILL ROAD 50m West of U HIGH Veh 2 M/C < 125 cc Going ahead S to N Dri M 27 Slight
 30/11/2011 STREET Veh 1 Car Starting S to N
 U 1130hrs
 Daylight:street lights present
 E **501,978** Wet/Damp
 N **107,080** Fine without high winds
 30 mph

VEHICLE 2 HAS EXITED THE ROUNABOUT ONTO MILL ROAD ARUNDEL. VEHICLE 2 HAS DRIVEN TOWARDS THE ARUNDEL CASTLE. WHILST PASSING THE POST OFFICE ON MILL ROAD, VEHICLE 1 HAS ENCROUCHED FROM A CAR PARKING SPACE WHICH WAS PARKED ON THE NORTH SIDE OF MILL LANE AND IN A PARKING SPACE. VEHICLE 1 ENCROUCHING ONTO THE CARRIAGEWAY HAS CAUSED VEHICLE 2 TO SERVE TO AVOID CONTACT. VEHICLE 2 HAS THEN LOST CONTROL AND RESULTED IN DRIVER OF VEHICLE 1 PUTTING THE VEHICLE TO THE GROUND. THIS HAS RESULTED IN A SMALL GRAZE TO LEFT ELBOW

1200195 Thursday U MALTRAVERS STREET of U Veh 2 M/C > 125 cc Going ahead E to W Dri M 62 Serious
 12/01/2012 SURREY STREET Veh 1 Car Turning right N to W
 U 1340hrs
 Daylight:street lights present
 E **501,601** Dry
 N **107,051** Fine without high winds
 30 mph

VEHICLE 1 WAS EXITING FROM SURREY STREET TO TURN RIGHT ONTO MALTRAVERS STREET. DRIVER OF VEH 1 STATES THAT HER VIEW OF THE ROAD WAS OBSCURED BY A VAN THAT WAS PARKED TO HER RIGHT ON MALTRAVERS STREET, HOWEVER PROCEEDED TO MOVE OUT ONTO MALTRAVERS STREET. THE DRIVER OF VEHICLE 1 FAILED TO SEE VEHICLE 2, A MOPED, APPROACHING FROM THE RIGHT AND AS VEHICLE 1 MOVED OUT IT COLLIDED WITH THE SIDE OF THE MOPED.

1107439 Monday U HIGH STREET 70m South of U Veh 1 Goods 3.5 - 7.5t Starting S to N Ped M 3 Slight
 21/11/2011 TARRANT STREET O/S 41 HIGH
 U 1458hrs STREET
 Daylight:street lights present
 E **501,882** Dry
 N **107,087** Fine without high winds
 30 mph

Details of Personal Injury Accidents for Period - 01/01/2008 to 31/12/2012 (60) months

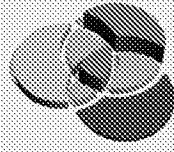
Selection:

Notes:

Selected using Pre-defined Query :

Police Ref.	Day	Location Description	Vehicles				Casualties	
	Date		Veh.No /	Type /	Manv /	Dir /	Class	Sex / Age / Sev
Road No.	Time							
Grid Ref.	Dist.							
	R.S.C							
	Weather							
	Speed							
	Account of Accident							

VI WAS PARKED FACING NORTH ON THE NEAR SIDE. A MOTHER WAS PUSHING HER CHILDREN IN A PUSHCHAIR WALKING SOUTH ALONG THE PAVEMENT. HER CHILD SWUNG HIS HEAD OUT TOWARDS V1. V1 Began to move off and in doing so clipped the child's head with its R/N/SIDE



APPENDIX D

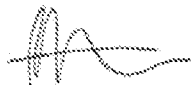
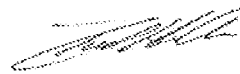
BREWERY HILL, ARUNDEL

PROPOSED RESIDENTIAL DEVELOPMENT ACCESS

Stage 1 Road Safety Audit

February 2013

RDW/LS/13/0631/RSA1

Revision Status	Prepared by: (Name)	Checked by: (Name)	Approved by: (Signature)	Date Approved:
Original	R Westhead	L Shaw		26 Feb 2013
Designer's Response	Paul Jackson-Cole	Chris Blamey		22nd April 2013
Authority's Response				
Audit Response				

Client:	
Russell Giles Partnership	The Safety Forum Ltd
The Old Stables Fry's Yard Bridge St Godalming Surrey GU7 1HP	PO Box 744 Godalming Surrey GU7 9DU
Date: 26 Feb 2013	

TABLE OF CONTENTS

1.0	INTRODUCTION	3
2.0	ITEMS CONSIDERED	5
3.0	MATTERS ARISING FROM THIS STAGE 1 AUDIT.	6
4.0	GENERAL OBSERVATIONS	7
5.0	AUDITOR STATEMENT	8

APPENDIX A Location Plan

APPENDIX B Designer's Response

1.0 INTRODUCTION

1.1 General

- 1.1.1 This report results from a Stage 1 Road Safety Audit (RSA) carried out on the existing access arrangements for the former brewery site on Brewery Hill, Arundel, to consider the implications of a new residential development within the site.
- 1.1.2 No new highway measures or amendments have been proposed. The proposed development is for the demolition of some existing buildings and construction of new residential units (totalling 14 units).
- 1.1.3 The Stage 1 RSA was carried out at the request of Russell Giles Partnership.
- 1.1.4 The Audit was carried out between 21st and 22nd February 2013 by consultants working on behalf of The Safety Forum Limited. The Audit Team, which is established from THE SAFETY FORUM LTD and independent of the project design team, has had no involvement with the project. The Auditors were:
- Rob Westhead
- Laurence Shaw
- 1.1.5 The report has been prepared in accordance with the Design Manual for Roads and Bridges (DMRB) Highways Directive (HD) 19/03.
- 1.1.6 Whilst reference is made to certain design standards, where safety may be compromised by a reduction in standard, this report is not intended to provide a design check. The Auditors have only reported on matters that might have an adverse effect on road safety in the context of the chosen design. No attempt has been made to comment on the justification of the scheme or the appropriateness of the design. Consequently, the Auditors accept no responsibility for the design or construction of the scheme
- 1.1.7 The Audit consisted of a desktop study and a site visit. The site visit was carried out on 22nd February 2013, between 12:45 and 13:15 hours. The weather was dry and overcast.
- 1.1.8 The recommendations in this report are aimed at addressing the road safety problems; however there may be other alternative acceptable ways to overcome a specific problem, when other practical issues are considered. The recommendations contained herein do not absolve the Designer of his/her responsibilities.

-
- 1.1.9 The Auditors would be pleased to discuss the acceptability of alternative solutions to problems identified during the Audit, and would encourage the Designer to consult them on this matter.
 - 1.1.10 The LHA response to the RSA should be formally recorded and reported to the Designer and the RSA Team so that a record of the Audit process is contained in the *As Built* design pack to be provided and retained by the LHA on final completion.

2.0 ITEMS CONSIDERED

- 2.1 The Road Safety Audit was undertaken on the scheme detailed in the following Russell Giles Partnership documentation.

Drawing No.	Rev	Title
11042150	-	Location Plan Site / Roof Plan
2013-1429-001	-	Visibility Splays
2013-1429-002	-	Site Access Track – Fire Tender
-	-	Collision Report 01/01/2008-31/12/2012

- 2.2 No departures from standards have been submitted to the Audit Team.

3.0 MATTERS ARISING FROM THIS STAGE 1 AUDIT.

3.1 PROBLEM

LOCATION: Access to development site on Brewery Hill.

SUMMARY: Visibility from access obscured by parked vehicles.

During the site visit it was noted that the existing walls around the site access restrict visibility from the access until a vehicle has already edged out onto Brewery Hill. Also, parked cars to the east of the access can further obscure visibility between vehicles exiting the development site and southbound traffic on Brewery Hill.

RECOMMENDATION

Relocation of the site access slightly south, and possible relocation of parking, could afford maximum available visibility from / to the access.

3.2 PROBLEM

LOCATION: Access to development site on Brewery Hill.

SUMMARY: Site access too narrow for two-way traffic.

The Audit Team note that the site access is too narrow for two-way traffic and visibility is obscured through the access by the high walls. This could lead to conflict between opposing traffic within the access or between vehicular traffic and pedestrians or cycle traffic.

RECOMMENDATION

Widen the access to provide space and adequate visibility for two-way traffic. Provision should also be made for pedestrians moving through the access so they are not in conflict with vehicular traffic.

4.0 GENERAL OBSERVATIONS

No comments.

5.0 AUDITOR STATEMENT

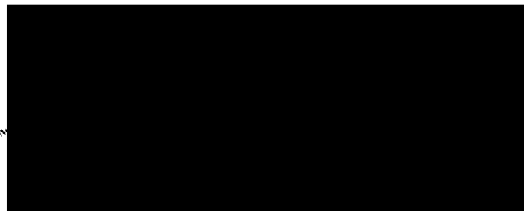
5.1 I certify that this audit has been carried out in accordance with HD 19/03.

AUDIT TEAM LEADER

Rob Westhead
The Safety Forum Ltd
PO Box 744
Godalming
Surrey
GU7 9DU

AUDIT TEAM MEMBER

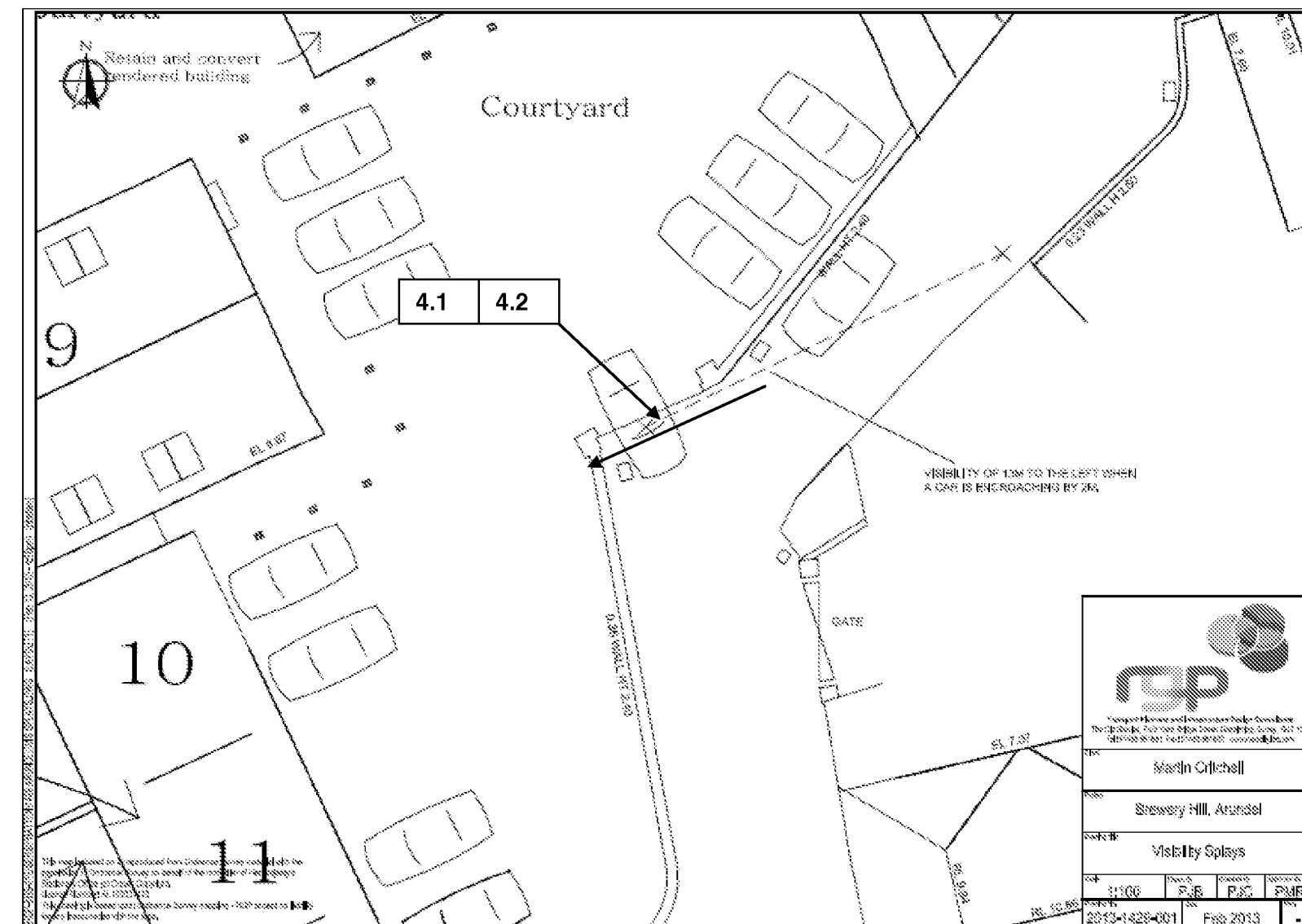
Laurence Shaw



Signed: Rob Westhead

Date: 26 February 2013

APPENDIX A: LOCATION PLAN



APPENDIX B: DESIGNERS RESPONSE

Auditors: Rob Westhead (Team Leader) and Laurence Shaw (Team Member). Date Audit Completed: 26 February 2013.

Scheme: Brewery Hill, Arundel. Proposed residential development access.

This response is to a Stage 1 Road Safety Audit to the design standard detailed within HD19/03 of Volume 5, Section 2, Part 2, of the Design Manual for Roads and Bridges, as detailed by the Highways Agency.

Problem no. in safety audit report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measure (detail description)
3.1	YES	YES	The Audit Team were made aware of the Grade II Listed status of the buildings and the conservation status of the boundary wall including restrictions on any works to the wall. Visibility from the access is considered in relation to Para 7.7.7 of Manual for Streets and 10.5.8 of Manual for Streets 2 and Para 4.9 of the WSCC Local design Guide for Residential Development whereby it is considered acceptable for both a reduced 'X' distance to 2m together with the act of drivers cautiously nosing out into traffic in low flow and low speed scenarios allowing visibility splays to gradually open up. The presence of the parked cars adjacent to the access do not act to significantly restrict the existing level of visibility from the site and it is again accepted practice (Para 10.7.1 and 10.7.2 of Manual for Streets 2) that the presence of parked vehicles does not appear to create significant problems and goes on to demonstrate how drivers on the minor arm would noes out carefully until they can see on-coming traffic. The proposals represent a very low flow and low speed highway

			environment with the retention of an existing access which has been in place for a number of years. (further details are contained within the supporting Transport Planning Statement at Section). While the Auditors comments are accepted, the suggestion to re-locate the access further south is not achievable within the protected status of the buildings and wall. However, the Auditors suggestion to provide measures to re-locate the parking to maximise visibility can be achieved by installing a bollard to the immediate east of the existing access to ensure any parked vehicles do not encroach onto the access. The provision of a bollard to restrict parking in the vicinity of the existing access and maximise visibility is illustrated on RGP Drawing No. 2011/1429/001 Revision A. The exact form and location of the bollard will be agreed with West Sussex County Council.
3.2	NO	NO	The Audit Team were made aware of the Grade II Listed status of the buildings and the conservation status of the boundary wall including restrictions on any works to the wall. The gated access provides a width of 3.7m between the pillars providing adequate width for vehicles movements through the access. Either side of the gate, the highway and the internal layout provide for additional width. It is important to note the advice contained within Manual for Streets when considering the implications of the narrow gated access. While a width of 3.7m is adequate for typical domestic vehicles to enter and exit, there is a need to consider access for fire and rescue vehicles. The general advice within Manual for Streets (reflecting current Building Regulations) is that; There should be a minimum carriageway width of 3.7m between kerbs:

			There should be vehicle access for a pump appliance within 45m of single family houses and dwelling entrance for flats / maisonettes). Manual for Streets goes on to clarify (by way of advice from the Association of Chief Fire Officers) that the requirements are: A 3.7m carriageway (kerb to kerb) is required for operating space at the scene of a fire. Simply to reach the a fire, the access route could be reduced to 2.75m over short distances, provided the pump appliance can get to within 45m of dwelling entrances. It is evident therefore, that the existing access to the Bevin Bevin & Co site is adequate for fire and rescue vehicle access. The access is also considered adequate for its use for residential purposes for the proposed development of 13 units given the modest level of traffic likely to be generated through the proposals. Anticipated traffic generation for the proposed site suggests up to 1 arrival and 4 departures in the AM peak (5 movements) and 4 arrivals and 2 departures in the PM peak (6 movements). This is not likely to result in simultaneous entry and exit movements through the access and given the very low traffic flows and speeds on Brewery Hill, there is a very low risk of any conflict. It is also evident that the 2.7m width of the access would provide for the safe movement of pedestrians and cyclists. Manual for Streets at Para 7.2.3 makes it clear that a width of 3.7m over a short length is acceptable and would not result in drivers potentially being in conflict with other road users. It is therefore considered that the existing site access, which has served commercial uses for a number of years is adequate to provide for safe and convenient access for emergency vehicles and private traffic.
--	--	--	--

Principal Engineer's Statement:

Road Safety Audit for Brewery Hill, Arundel. Proposed residential development access.

I certify that I have considered the items raised in the Stage 1 Road Safety Audit Report and I am content to accept all of its recommendations except for the ones listed above. I have stated my reasons for not accepting them and I seek the Chief Engineer's endorsement of my proposals.



Paul Jackson-Cole

22nd April 2013

..... Date.....

Principal Engineer

Chief Engineer's Decision:

I accept these proposals by the Principal Engineer.

..... Date.....

Chief Engineer

George Ellenger

From: Paul Jackson-Cole
Sent: 21 February 2013 11:03
To: Richard Moore; Rob Westhead
Subject: Brewery Hill, Arundel Stage 1 Road Safety Audit
Attachments: 2011-1429-001 Vis Splays.pdf; 2011-1429-002 Tracking.pdf; Arundel Brewery Dwg 150 Site Plan & Location Plan.pdf; Arundel PIA (RGP).pdf

Richard / Rob,

Further to recent discussions, can I please ask The Safety Forum to carry out a Stage 1 Road Safety Audit in respect to the proposed residential development at a site to the west of Brewery Hill in Arundel. A location plan is included within the attached site layout plan.

The site currently comprises a Grade II Listed Warehouse building and a number of associated buildings which have been used by Bevin Bevin & Co over the past 50 years as a Domestic Hardware Wholesaler. This use ceased in July 2011 when the sites occupiers ceased trading from the site due to retirement. Prior to this use, the site had originally been established as a brewery with association to the historic Eagle Brewery in Arundel.

The proposed development would retain and convert the existing Grade II Listed brewery building together with the conversion of the existing warehouse buildings which will be converted into residential dwellings and the removal of unlisted structures on site and their replacement with new build dwellings. Given the listed status, the general layout and setting of the buildings (including the boundary wall) are not proposed to be altered.

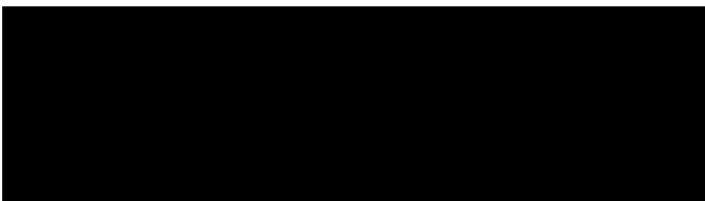
The proposals seek to deliver a total of 14 open market dwellings and the anticipated level of traffic generation would be marginally greater than that of the current permitted use but would not attract the level of commercial van and rigid HGV movements associated with the existing permitted use.

Attached is the proposed site access layout together with tracking plots for large fire tender (please note that refuse collection will be via street frontage). Also attached is a copy of the most recent personal injury accident data provided by Sussex Police.

I would be grateful if you could please arrange for the Audit to be carried out and provide an indication of the timeframe for the Audit to be completed.

Kind regards,
Paul

Paul Jackson-Cole

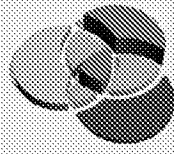


llianis



RGP and Russell Giles Partnership are trading names of Russell Giles Partnership Limited | Registered in England No. 4237810

This Email is confidential and is for the intended recipient only. If you are not the intended recipient, please contact the author and do not disclose or use the contents in any way. The author bears no responsibility for any legal action or disputes arising from views or professional advice expressed which do not relate to the business of Russell Giles Partnership Limited.



APPENDIX E

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : K - MIXED PRIVATE HOUSING

VEHICLES

Selected regions and areas:

02 SOUTH EAST	
WS WEST SUSSEX	1 days
03 SOUTH WEST	
DC DORSET	1 days
04 EAST ANGLIA	
CA CAMBRIDGESHIRE	1 days
05 EAST MIDLANDS	
LN LINCOLNSHIRE	1 days
07 YORKSHIRE & NORTH LINCOLNSHIRE	
NY NORTH YORKSHIRE	2 days
11 SCOTLAND	
AD ABERDEEN CITY	1 days
FI FIFE	1 days

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

Filtering Stage 2 selection:

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

Parameter: Number of dwellings
 Actual Range: 19 to 61 (units:)
 Range Selected by User: 19 to 788 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/04 to 18/10/11

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

Selected survey days:

Monday	1 days
Tuesday	2 days
Wednesday	3 days
Friday	2 days

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

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	3
Suburban Area (PPS6 Out of Centre)	5

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

Selected Location Sub Categories:

Residential Zone	6
No Sub Category	2

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

Filtering Stage 3 selection:

Use Class:

C3 7 days

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

Population within 1 mile:

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

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

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	4 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	4 days
1.6 to 2.0	1 days

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

Travel Plan:

No 8 days

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

LIST OF SITES relevant to selection parameters

1	AD-03-K-01	SEMI DET./ FLATS, ABERDEEN	ABERDEEN CITY
	ASHGROVE ROAD		
	ABERDEEN		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	24	
	Survey date: WEDNESDAY	11/05/05	Survey Type: MANUAL
2	CA-03-K-01	TERRACED/ FLATS, PETERBORO	CAMBRIDGESHIRE
	SOVEREIGN HOUSE		
	ALDERMANS DRIVE		
	PETERBOROUGH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	40	
	Survey date: TUESDAY	18/10/11	Survey Type: MANUAL
3	DC-03-K-03	MIXED HOUSING, DORCHESTER	DORSET
	MAUMBURY MEWS		
	DORCHESTER		
	Edge of Town Centre		
	No Sub Category		
	Total Number of dwellings:	24	
	Survey date: FRIDAY	04/07/08	Survey Type: MANUAL
4	FI-03-K-01	MIXED HOUSING, DUNFERMLINE	FIFE
	WOODMILL ROAD		
	DUNFERMLINE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	36	
	Survey date: FRIDAY	20/04/07	Survey Type: MANUAL
5	LN-03-K-01	TERRACED/ FLATS, LINCOLN	LINCOLNSHIRE
	DE WINT AVENUE		
	LINCOLN		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	56	
	Survey date: WEDNESDAY	18/05/05	Survey Type: MANUAL
6	NY-03-K-01	MIXED HOUSING, BORO'BRIDGE	NORTH YORKSHIRE
	HORSEFAIR		
	BOROUGHBRIDGE		
	Edge of Town Centre		
	Residential Zone		
	Total Number of dwellings:	19	
	Survey date: TUESDAY	16/09/08	Survey Type: MANUAL
7	NY-03-K-02	MIXED HOUSING, BORO'BRIDGE	NORTH YORKSHIRE
	HORSEFAIR		
	BOROUGHBRIDGE		
	Edge of Town Centre		
	Residential Zone		
	Total Number of dwellings:	19	
	Survey date: MONDAY	10/10/11	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	WS-03-K-02 RUSSELL WAY	MIXED HOUSING, CRAWLEY	WEST SUSSEX
	CRAWLEY		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Number of dwellings:	61	
	Survey date: WEDNESDAY	28/11/07	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/K - MIXED PRIVATE HOUSING

VEHICLES

Calculation factor: 1 DWELLS

Estimated TRIP rate value per 14 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	8	35	0.047	0.652	8	35	0.262	3.663	8	35	0.309	4.315
08:00 - 09:00	8	35	0.068	0.953	8	35	0.294	4.115	8	35	0.362	5.068
09:00 - 10:00	8	35	0.118	1.656	8	35	0.133	1.857	8	35	0.251	3.513
10:00 - 11:00	8	35	0.118	1.656	8	35	0.140	1.957	8	35	0.258	3.613
11:00 - 12:00	8	35	0.104	1.455	8	35	0.129	1.806	8	35	0.233	3.261
12:00 - 13:00	8	35	0.115	1.606	8	35	0.093	1.305	8	35	0.208	2.911
13:00 - 14:00	8	35	0.140	1.957	8	35	0.168	2.358	8	35	0.308	4.315
14:00 - 15:00	8	35	0.115	1.606	8	35	0.151	2.108	8	35	0.266	3.714
15:00 - 16:00	8	35	0.215	3.011	8	35	0.140	1.957	8	35	0.355	4.968
16:00 - 17:00	8	35	0.254	3.563	8	35	0.147	2.057	8	35	0.401	5.620
17:00 - 18:00	8	35	0.294	4.115	8	35	0.147	2.057	8	35	0.441	6.172
18:00 - 19:00	8	35	0.240	3.362	8	35	0.108	1.505	8	35	0.348	4.867
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			1.828	25.592			1.912	26.745			3.740	52.337

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

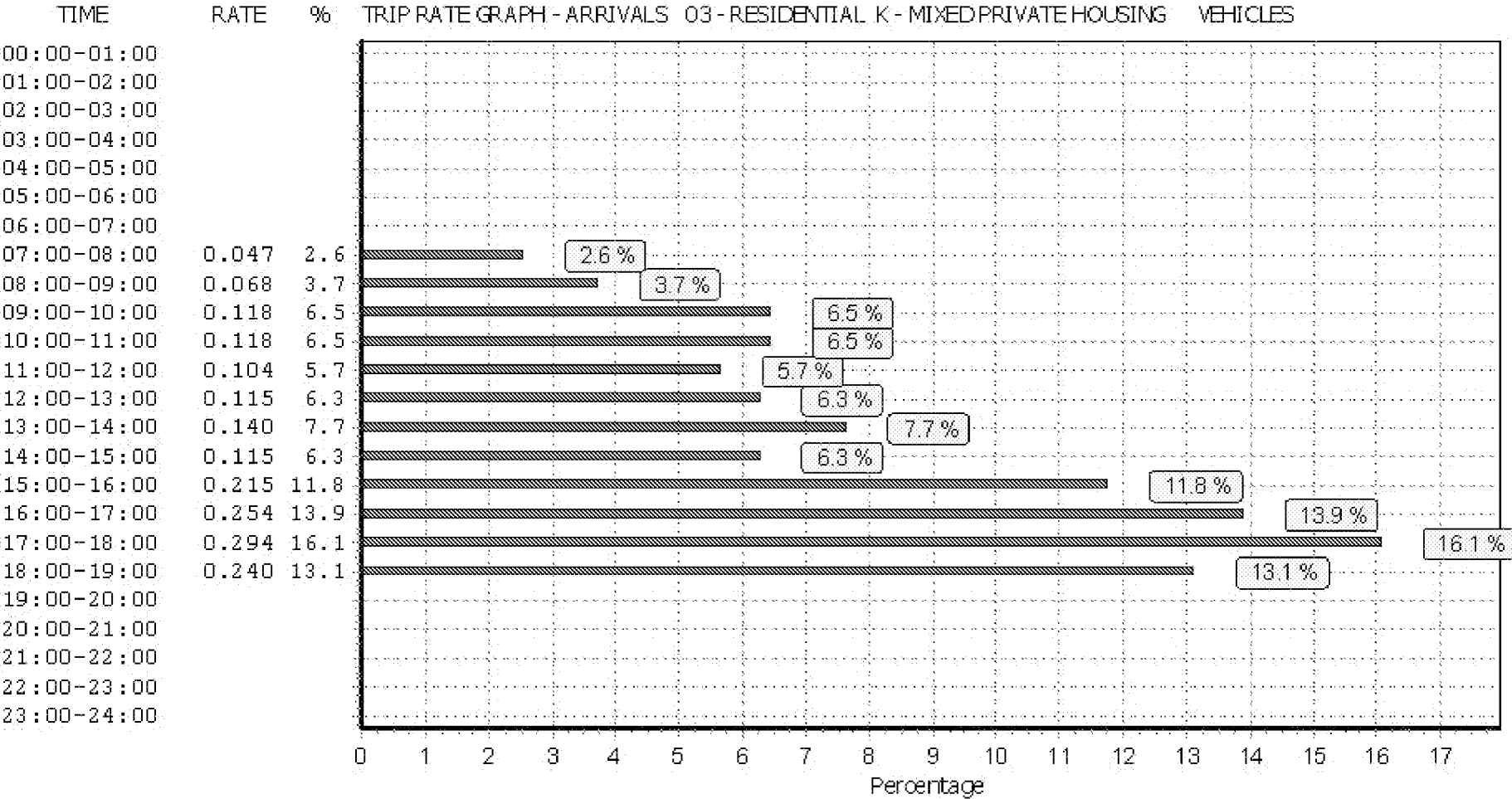
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

Parameter summary

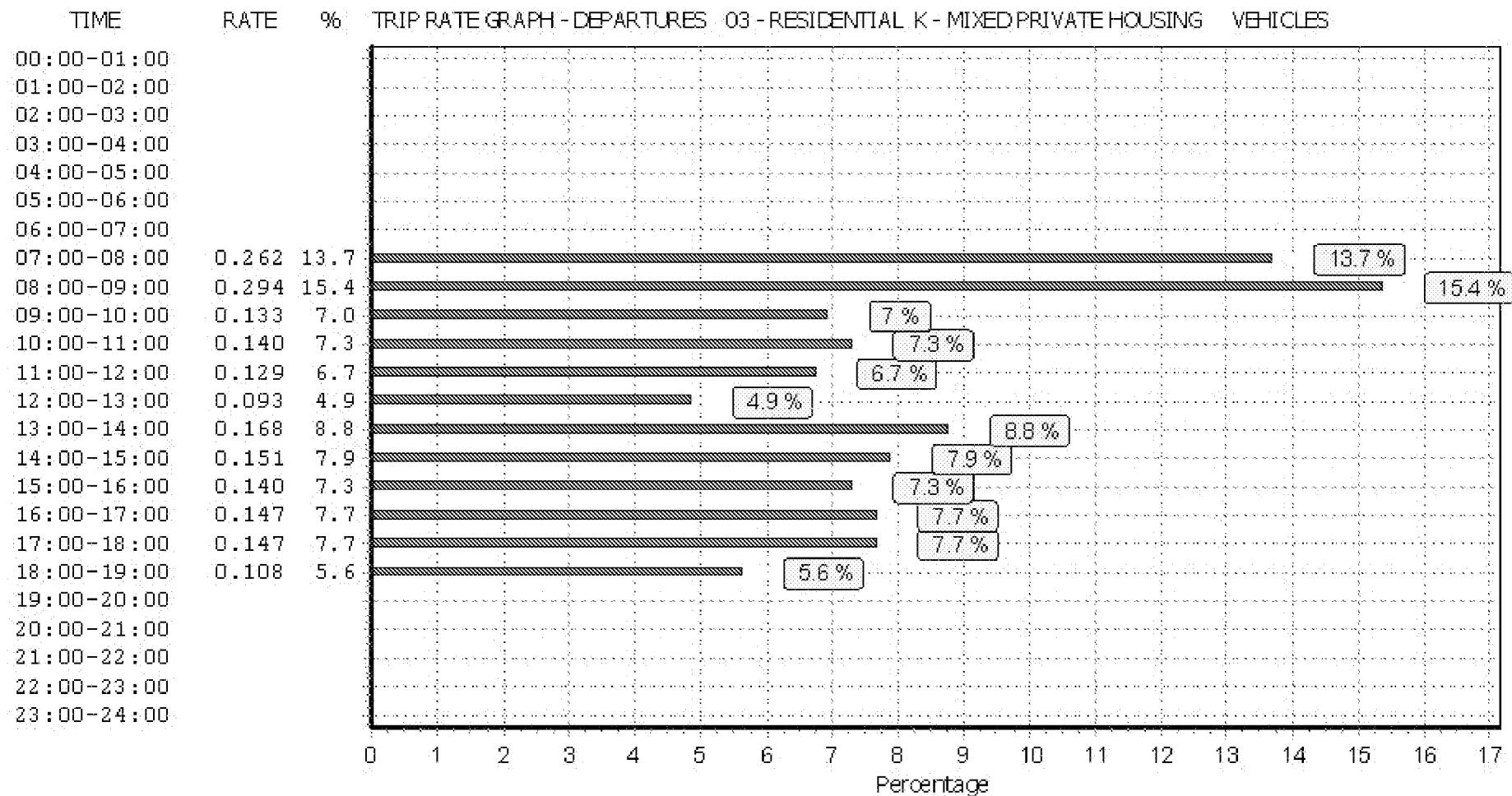
Trip rate parameter range selected: 19 - 61 (units:)
 Survey date range: 01/01/04 - 18/10/11
 Number of weekdays (Monday-Friday): 8
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 2

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

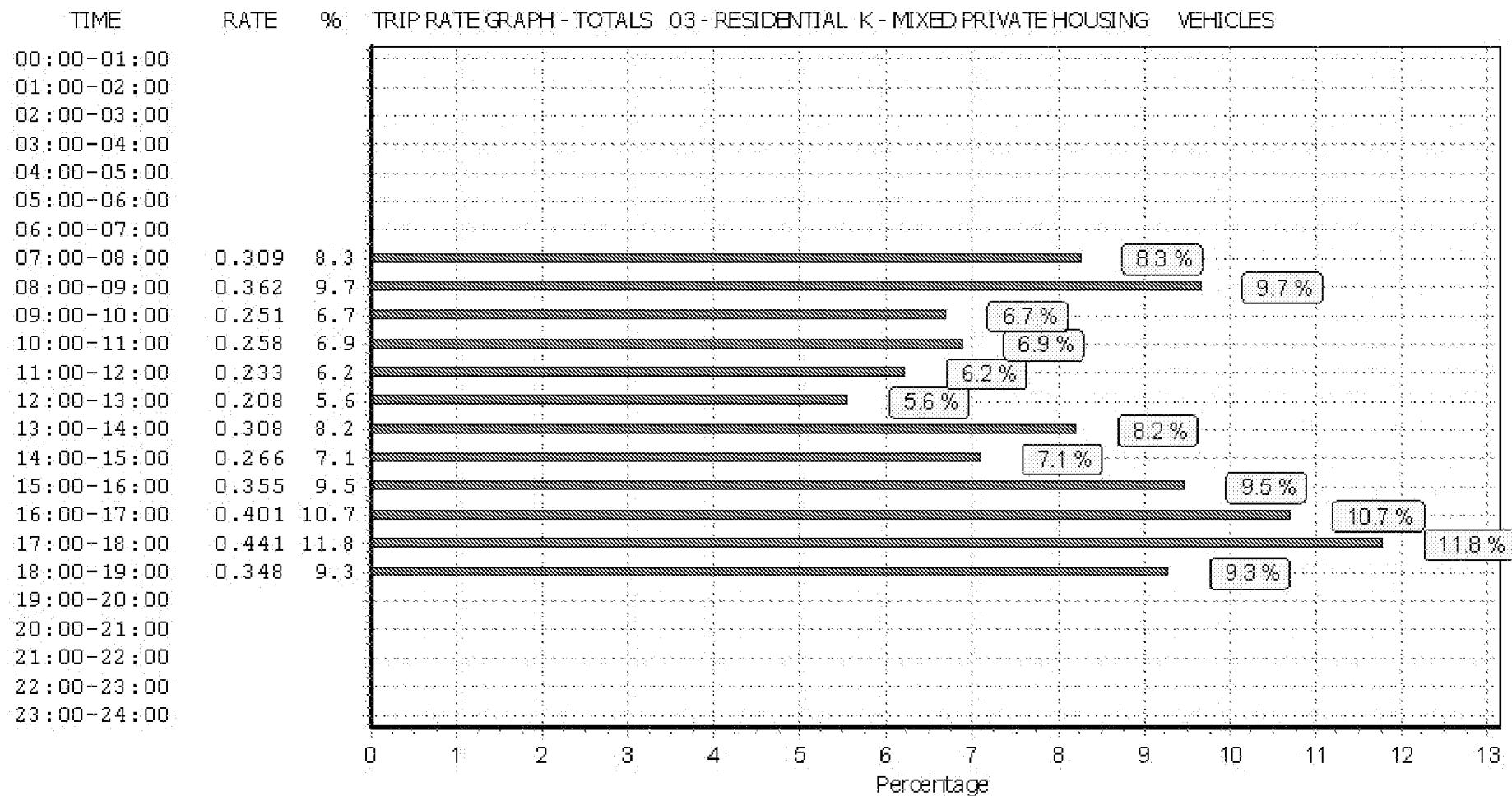
Licence No: 728001



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : F - WAREHOUSING (COMMERCIAL)

VEHICLES

Selected regions and areas:

05 EAST MIDLANDS
DS DERBYSHIRE 1 days
08 NORTH WEST
LC LANCASHIRE 1 days

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

Filtering Stage 2 selection:

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

Parameter: Gross floor area
Actual Range: 1200 to 1900 (units: sqm)
Range Selected by User: 387 to 80066 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/04 to 18/10/11

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

Selected survey days:

Tuesday 1 days
Friday 1 days

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

Selected survey types:

Manual count 2 days
Directional ATC Count 0 days

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

Selected Locations:

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

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

Selected Location Sub Categories:

Commercial Zone 1
Residential Zone 1

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

Filtering Stage 3 selection:

Use Class:

B8 1 days

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

Population within 1 mile:

10,001 to 15,000 1 days

25,001 to 50,000 1 days

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

Population within 5 miles:

125,001 to 250,000 2 days

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

Car ownership within 5 miles:

0.6 to 1.0 1 days

1.1 to 1.5 1 days

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

Travel Plan:

No 2 days

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

LIST OF SITES relevant to selection parameters

1	DS-02-F-01	ARMADILLO S. STORAGE, DERBY	DERBYSHIRE
		FORRESTERS BUSINESS P..	
		SINFIN LANE	
		DERBY	
		Edge of Town Centre	
		Commercial Zone	
		Total Gross floor area:	1900 sqm
		Survey date: TUESDAY	05/07/11
			Survey Type: MANUAL
2	LC-02-F-02	WAREHOUSING, PRESTON	LANCASHIRE
		CHORLEY ROAD	
		WALTON-LE-DALE	
		PRESTON	
		Suburban Area (PPS6 Out of Centre)	
		Residential Zone	
		Total Gross floor area:	1200 sqm
		Survey date: FRIDAY	22/06/07
			Survey Type: MANUAL

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

RGP Fry's Yard Godalming

Licence No: 728001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

VEHICLES

Calculation factor: 100 sqm

Estimated TRIP rate value per 100 SQM shown in shaded columns

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate
00:00 - 00:30												
00:30 - 01:00												
01:00 - 01:30												
01:30 - 02:00												
02:00 - 02:30												
02:30 - 03:00												
03:00 - 03:30												
03:30 - 04:00												
04:00 - 04:30												
04:30 - 05:00												
05:00 - 05:30												
05:30 - 06:00												
06:00 - 06:30												
06:30 - 07:00												
07:00 - 07:30	2	1550	0.097	0.097	2	1550	0.065	0.065	2	1550	0.162	0.162
07:30 - 08:00	2	1550	0.226	0.226	2	1550	0.097	0.097	2	1550	0.323	0.323
08:00 - 08:30	2	1550	0.194	0.194	2	1550	0.065	0.065	2	1550	0.259	0.259
08:30 - 09:00	2	1550	0.065	0.065	2	1550	0.129	0.129	2	1550	0.194	0.194
09:00 - 09:30	2	1550	0.000	0.000	2	1550	0.097	0.097	2	1550	0.097	0.097
09:30 - 10:00	2	1550	0.097	0.097	2	1550	0.032	0.032	2	1550	0.129	0.129
10:00 - 10:30	2	1550	0.129	0.129	2	1550	0.129	0.129	2	1550	0.258	0.258
10:30 - 11:00	2	1550	0.097	0.097	2	1550	0.161	0.161	2	1550	0.258	0.258
11:00 - 11:30	2	1550	0.097	0.097	2	1550	0.000	0.000	2	1550	0.097	0.097
11:30 - 12:00	2	1550	0.097	0.097	2	1550	0.065	0.065	2	1550	0.162	0.162
12:00 - 12:30	2	1550	0.161	0.161	2	1550	0.290	0.290	2	1550	0.451	0.451
12:30 - 13:00	2	1550	0.194	0.194	2	1550	0.000	0.000	2	1550	0.194	0.194
13:00 - 13:30	2	1550	0.129	0.129	2	1550	0.097	0.097	2	1550	0.226	0.226
13:30 - 14:00	2	1550	0.129	0.129	2	1550	0.065	0.065	2	1550	0.194	0.194
14:00 - 14:30	2	1550	0.032	0.032	2	1550	0.000	0.000	2	1550	0.032	0.032
14:30 - 15:00	2	1550	0.032	0.032	2	1550	0.065	0.065	2	1550	0.097	0.097
15:00 - 15:30	2	1550	0.129	0.129	2	1550	0.065	0.065	2	1550	0.194	0.194
15:30 - 16:00	2	1550	0.129	0.129	2	1550	0.129	0.129	2	1550	0.258	0.258
16:00 - 16:30	2	1550	0.194	0.194	2	1550	0.194	0.194	2	1550	0.388	0.388
16:30 - 17:00	2	1550	0.129	0.129	2	1550	0.161	0.161	2	1550	0.290	0.290
17:00 - 17:30	2	1550	0.129	0.129	2	1550	0.161	0.161	2	1550	0.290	0.290
17:30 - 18:00	2	1550	0.032	0.032	2	1550	0.194	0.194	2	1550	0.226	0.226
18:00 - 18:30	2	1550	0.000	0.000	2	1550	0.097	0.097	2	1550	0.097	0.097
18:30 - 19:00	2	1550	0.000	0.000	2	1550	0.000	0.000	2	1550	0.000	0.000
19:00 - 19:30												
19:30 - 20:00												
20:00 - 20:30												
20:30 - 21:00												
21:00 - 21:30												
21:30 - 22:00												
22:00 - 22:30												
22:30 - 23:00												
23:00 - 23:30												
23:30 - 24:00												
Total Rates:			2.518	2.518			2.358	2.358			4.876	4.876

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

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

Parameter summary

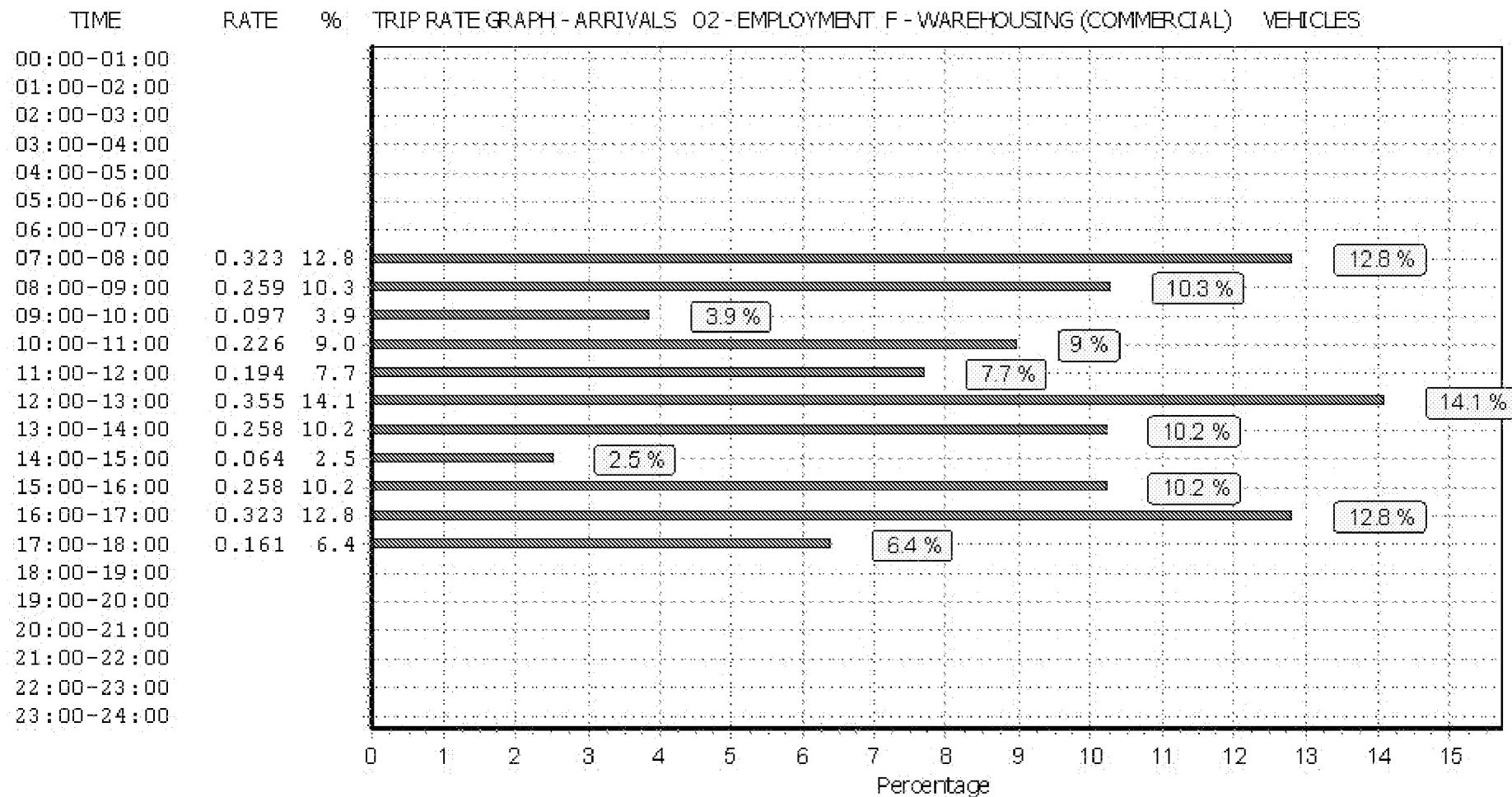
Trip rate parameter range selected:	1200 - 1900 (units: sqm)
Survey date date range:	01/01/04 - 18/10/11
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

Warehouse 1

RGP Fry's Yard Godalming

Licence No: 728001

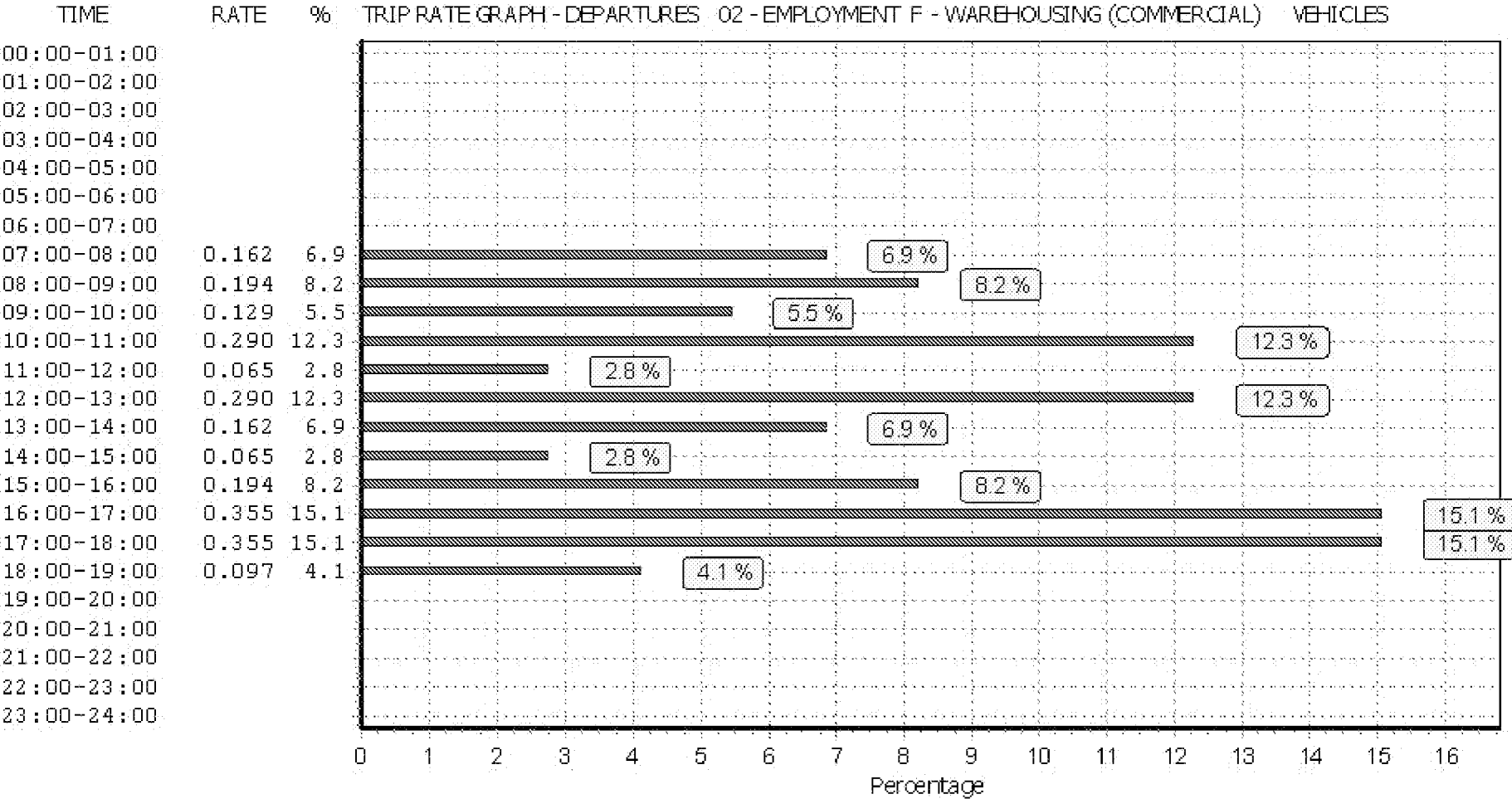


This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

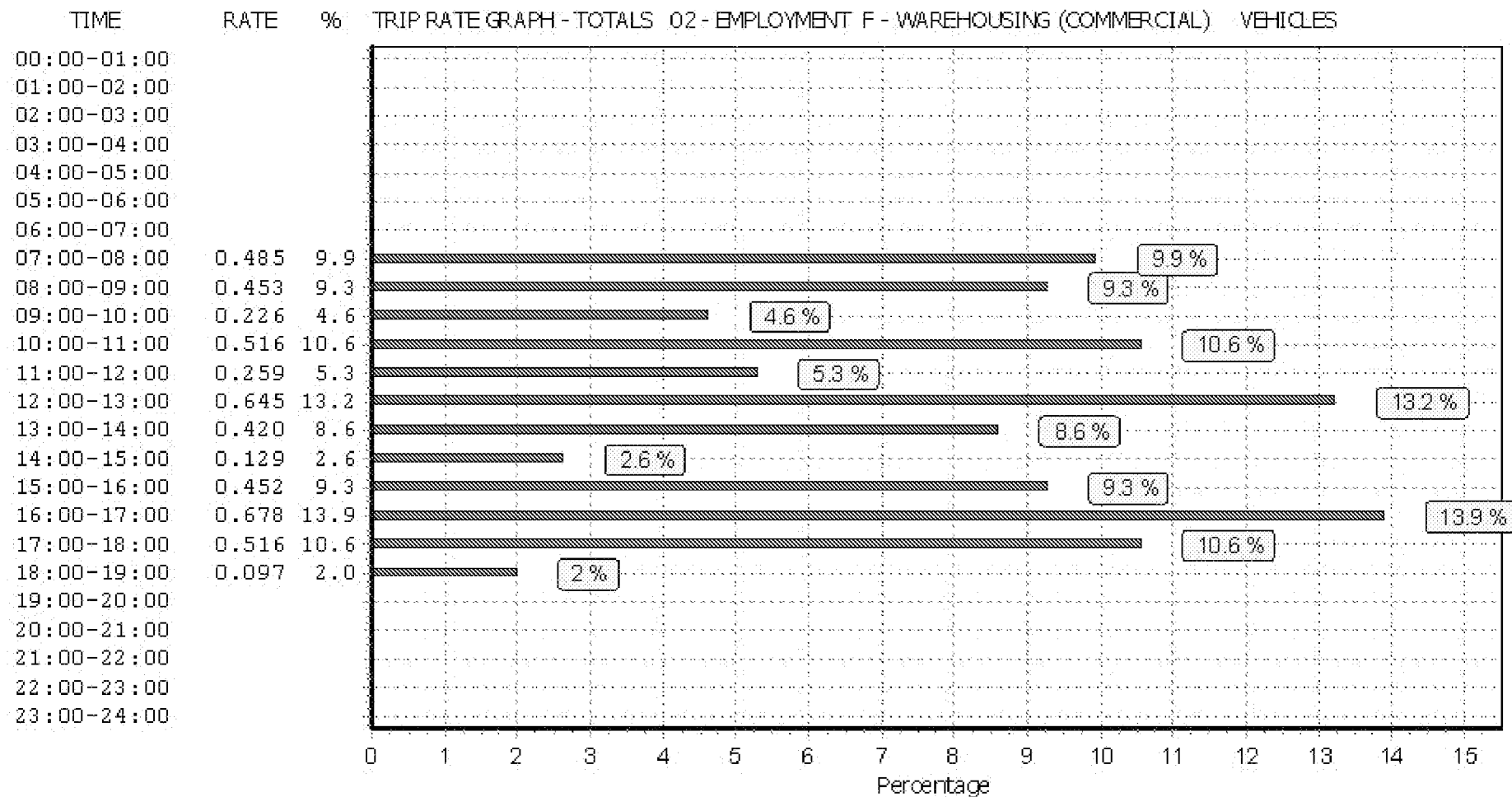
Warehouse 1

RGP Fry's Yard Godalming

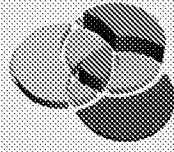
Licence No: 728001



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



APPENDIX F

George Ellenger

From: John Sadler <jsadler@claudwaterer.co.uk>
Sent: 11 January 2013 11:10
To: Paul Jackson-Cole
Subject: RE: Bevins vehicles all movements when trading.

Hi Just a note that Bevins worked a five day week not weekends .
Regards John

From: Paul Jackson-Cole
Sent: 11 January 2013 10:21
To: John Sadler
Cc: Amanda Sutton
Subject: RE: Bevins vehicles all movements when trading.

Hello John,

The figures are the same as those provided by Amanda earlier. However, it is helpful that Mr. Hollister has stated these are one way movements -- so effectively accounting for both arrivals and depatures the 216 movements per week (either 43 or 36 daily movements depending upon 5 or 6 day week) is maybe a more representative figure for the type of use on site.

Interrogating the potential traffic figures of the proposed 14 units it is likely the proposals would result in approximately 35 daily arrivals and 36 daily departures (approximately 71 daily movements) -- albeit that these will predominantly be private cars as opposed to trades vehicles and delivery vehicles.

While there is a clear highway safety benefit in private cars (and these being more sympathetic to the surrounding uses and the nature of the local network), WSCC may look at the increase and automatically consider a Safety Audit necessary. As discussed, given the likely level of local scrutiny of an application, it is worthwhile including the Audit in the highway documents for submission. For WSCC this avoids any doubt and ensures we have the right documents first time round and for the local stakeholders / interested parties, it provides a robust assessment and should address the likely comments which may be raised.

Kind regards,
Paul

Paul Jackson-Cole

Principal Consultant
RGP -- Transport Planning and Infrastructure Design Consultants
T: + 44 (0) 1243 210418
E: p.jackson-cole@rgp.co.uk
W: www.rgp.co.uk

From: John Sadler <jsadler@claudwaterer.co.uk>
Sent: 10 January 2013 15:45
To: Paul Jackson-Cole
Cc: Amanda Sutton
Subject: FW: Bevins vehicles all movements when trading.

Hi Paul

I had this from client it may be that you have a pr forma that could be filled out so he and we understand what constitutes traffic movement , I can also get John to phone you

Regards John

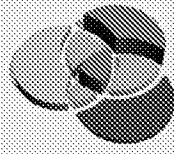
From: jo hollister [REDACTED]
Sent: 08 January 2013 20:20
To: John Sadler
Subject: Re: Bevins vehicles all movements when trading.

John , these are the figures you require.John H.

On Sun, Sep 25, 2011 at 7:46 PM, jo hollister <jojohnholl@gmail.com> wrote:
Hi John,

CARS our own reps , office staff , manufactures reps & agents, customers , others. week 65	Total per
VANS	15
LORRIES	28
Total vehicles coming in one average week 108 .[Is that 216 movements ?].	

John H. {figs.not sent by me to Martin}



APPENDIX G

Please input the ward name for your development location below by double clicking in the box or click box and use the drop down menu to the right of the box. The spreadsheet will automatically show the District and Ward of this location. If the ward is not known please input postcode into the Ward Finder. The tool will allow input up to 3 wards in the boxes below. Please refer to notes for more details.

Ward 1	Arundel
District	Arun
Ward 2	Angmering
District	Arun
Ward 3	Wick with Toddington
District	Arun
Ward Tempo Factor 2009-2026	1.082615
District Tempo Factor 2009-2026	1.067644



Ward Finder			
Postcode		Ward	

No special provision need be made for visitors where at least half of the total parking provision at a development is unallocated. In other circumstances, it may be appropriate to allow for additional demand for visitor parking of up to 0.2 spaces per dwelling.

The tool is expressed as number of Rooms (Per Unit). If data is not available in this format and no Bedrooms is used this will need to be converted. A general guide for conversion is as follows but in some cases.

Houses	Flats
1 bed = 3 rooms	Studio = 1 room
2 bed = 4 rooms	1 bed = 2 rooms
3 bed = 5 rooms	2 bed = 3 rooms
4 bed = 6 rooms	3 bed = 4 rooms
5 bed = 7 rooms	4 bed = 5 rooms

Ward data used can be checked by the user by referring to the District-Ward Data Tables. The W Tables highlight if the Census data does not include data for certain dwelling sizes. In such cases ownership values have been obtained using the nearest sized dwelling with same tenure and we example, if no data is available for a private house with 1 room then data for a private house with has been used. The Car Ownership Data is highlighted in purple where such an approach has been used. Where Census data contains small samples for certain sized dwellings this is highlighted in red if green if ≤ 50 in the Total Demand column. In such cases, other wards should be selected to achieve sample size.

DEVELOPMENT MIX				
Ref.	Unit Type	Unit Tenure	Habitable Rooms (Per Unit)	No. of Units (Total)
A	Flats	Private	2	4
B	Flats	Private	3	3
C	Houses	Private	4	2
D	Houses	Private	5	4
E				
F				
G				
H				
I				
J				
K				
L				
M				
N				
O				
P				
Q				
R				
S				
Total			13	

[illegible][illegible]

PROJECT
CENTRE
PEOPLE | PASSION | PLACES

Peverel

This parking demand tool has been compiled by West Sussex County Council. If you have queries relating to the information provided or require additional information please contact darryl.hemmings@westsussex.gov.uk.

Please input the ward name for your development location below by double clicking in the box or click box and use the drop down menu to the right of the box. The spreadsheet will automatically show the District and Ward of this location. If the ward is not known please input postcode into the Ward Finder. The tool will allow input up to 3 wards in the boxes below. Please refer to notes for more details.

Ward 1	Arundel
District	Arun
Ward 2	Angmering
District	Arun
Ward 3	Wick with Toddington
District	Arun
Ward Tempro Factor 2009-2026	1.082615
District Tempro Factor 2009-2026	1.067644

Report Summary Table	
----------------------	--

DEVELOPMENT MIX				
Ref.	Unit Type	Unit Tenure	Habitable Rooms (Per Unit)	No. of Units (Total)
A	Flats	Private	2	4
B	Flats	Private	3	3
C	Houses	Private	4	2
D	Houses	Private	5	4
E				
F				
G				
H				
I				
J				
K				
L				
M				
N				
O				
P				
Q				
R				
S				
Total			13	

**ALLOCATED
PARKING**

[illegible]

Ward Finder

Postcode		Ward	
----------	--	------	--

Note:

No special provision need be made for visitors where at least half of the total parking provision for a development is unallocated. In other circumstances, it may be appropriate to allow for additional demand for visitor parking of up to 0.2 spaces per dwelling.

In areas of parking constraint, levels of provision below predicted demand may be applicable.

The tool is expressed as number of Rooms (Per Unit). If data is not available in this format and no Bedrooms is used this will need to be converted. A general guide for conversion is as follows but in some cases.

Houses	Flats
1 bed = 3 rooms	Studio = 1 room
2 bed = 4 rooms	1 bed = 2 rooms
3 bed = 5 rooms	2 bed = 3 rooms
4 bed = 6 rooms	3 bed = 4 rooms
5 bed = 7 rooms	4 bed = 5 rooms

Garages will count as 1 space when allocating spaces.

Ward data used can be checked by the user by referring to the District-Ward Data Tables. The Wards table highlight if the Census data does not include data for certain dwelling sizes. In such cases ownership values have been obtained using the nearest sized dwelling with same tenure and use, for example, if no data is available for a private house with 1 room then data for a private house with 2 rooms is used. The Car Ownership Data is highlighted in purple where such an approach has been used. Where Census data contains small samples for certain sized dwellings this is highlighted in red if green if <50 in the Total Demand column. In such cases, other wards should be selected to achieve sample size.

PARKING DEMAND

Allocated No.	Unallocated for Residents		Unallocated for Visitors		Total Demand
	per unit	Total	per unit	Total	
4	0	1	0	1	5
3	0	0	0	1	4
4	0	0	0	0	5
8	0	1	0	1	9
19		1.51		2.60	23

PROJECT
CENTRE
PEOPLE | PASSION | PLACES