

Hanbury Properties Ltd

Proposed Residential Development
Summer Lane
Pagham

Transport Statement

June 2015

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1 INTRODUCTION

- 1.1 Hanbury Properties has commissioned Vectos to provide traffic and transportation advice in support of an outline application for a residential development accessed via Summer Lane in Pagham. The development comprises some 90 dwellings.
- 1.2 The application site currently operates as farm land and is located on the western edge of Pagham. Access to the site is provided from Summer Lane, which connects with Pagham Road to the east. Pagham Road provides connections with Chichester and the wider road network to the north, along with connections towards Bognor Regis to the east.
- 1.3 This Transport Statement (TS) considers the transportation implications associated with the development proposal, its consistency with national and local policy and the accessibility of the site to sustainable modes of travel.
- 1.4 The structure and content of the TS has been prepared in accordance with the Department for Transport (DfT) *Guidance on Transport Assessment* (2007).
- 1.5 Pre-application advice has been sought from West Sussex County Council (WSCC) in order to inform the detail of the TS. Based on this advice, the key issues to address include:
- The accessibility of the site to sustainable transport modes and local facilities;
 - The suitability of Summer Lane in providing appropriate access to the wider road network; and
 - The impact of development traffic on the surrounding road network.
- 1.6 In considering the relevant transport implications, the TS has been structured as follows:
- Section 2- Existing Conditions;
 - Section 3- Planning Policy;
 - Section 4- Development Proposals;
 - Section 5- Trip Generation;
 - Section 6- Traffic Distribution;
 - Section 7 – Highway Impact; and
 - Section 8- Summary and Conclusions.

2 EXISTING CONDITIONS

- 2.1 This section of the TS summarises the location of the development site at a strategic and local level, and describes the existing transport networks for all modes of transport relevant to the site.

Site Location

- 2.2 The site is represented by two plots located on undeveloped land north and south of Summer Lane. The northern plot is bound by residential development to the north and east; greenfield to the west and Summer Lane to the south. The southern plot is bound by residential development to the east, greenfield to the west and south and Summer Lane to the north. The northern plot will be developed for housing; the southern plot will be a landscaped naturalised area. The site is located in a predominantly residential area, although there is a parade of shops located within 20 metres of the junction with Pagham Road, including a small convenience store and post office.
- 2.3 There are two play schools located within a 650 metre walk distance of the site. The nearest infant school, Rose Green Infant school is some 1.5 kilometres to the north of the site.
- 2.4 There are shops located on The Parade, approximately 1.5km to the east of the site. This includes a convenience store, healthcare and food outlets.
- 2.5 **Figure 1** illustrates the site in relation to the local context whilst **Figure 2** shows the strategic location of the site.

Walking & Cycling

Pedestrian

- 2.6 There is a footway on the southern side of Summer Lane that leads to Pagham Road to the east. Footways on both sides of Pagham Road provide connections to local facilities and bus services in close proximity to Summer Lane.
- 2.7 Central Government guidance states 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 two kilometres.

- 2.8 A two kilometre walking distance covers all of Pagham and into the neighbouring built up area to the east towards Bognor Regis. It covers a variety of local services and facilities including shops, a primary school and local bus services. A two kilometre walk isochrone is shown at **Figure 3**.

Cyclists

- 2.9 Central Government research states that cycling has the potential to substitute for short car trips, particularly those under five kilometres, and to form part of a longer journey by public transport
- 2.10 Cycling is an attractive form of travel and it is reasonable to expect that for typical able bodied people a cycle distance of five kilometres is readily achievable and attractive. The propensity for people to choose to cycle will depend on journey purpose and individual ethos as well as having a safe place to store their bicycle at the end of their journey.
- 2.11 Whilst there are limited dedicated cycling facilities in the vicinity of the site, there is the opportunity for cyclists to use the roads. A five kilometre cycle isochrone is included within this report as **Figure 4**. This figure demonstrates that a significant number of destinations can be accessed within five kilometres including Rose Green, Pagham, Aldwick and the outskirts of North Bersted, Bognor Regis and North Mundham. Bognor Regis Rail Station can also be reached within this distance.

Public Transport

Bus Services

- 2.12 The closest bus stops to the site are located adjacent to the Summer Lane junction with Pagham Road within 250 metres walk distance of the proposed site access. Both northbound and southbound bus stops benefit from bus shelters and timetable information.
- 2.13 There are several routes that service the above bus stops, the most frequent of which is route 60. **Table 2.1** below summarises each route and the frequencies of each service.

Table 2.1 Local Bus Services

Service	Route	Operator	Frequencies (Mins)		
			Mon - Fri	Saturday	Sunday
60	(Elmer -) Bognor Regis - Chichester - Midhurst	Stagecoach South	15	15	60
660	Chichester - Bognor Regis	Stagecoach South	14:58, 15:46	N/A	N/A
904	Drayton - North Bersted	Stagecoach South	Monday and Friday only 14:29	N/A	02:29
C4	Bognor Regis - Chichester Sainsbury's – Pick Up only	Compass Travel	09:47 not Monday or Wednesday	N/A	N/A

- 2.14 Route 60 runs a frequent service from the early morning into the evenings, and provides connections to both Bognor Regis Town Centre and Chichester City Centre.

Rail Services

- 2.15 Chichester Railway station is accessed via bus route 60. The station has several services which are outlined in **Table 2.2** below.

Table 2.2 Rail Services from Chichester Station

Destination	Frequency (per hr)	Journey time
London Victoria	2	95 - 103
Brighton	3	45 – 55
Southampton Central	2	55
Portsmouth Harbour	2	27
Littlehampton	1	17 - 21

Highway Network

Summer Lane

- 2.16 Summer lane is a cul-de-sac providing access to a number of residential properties. The width of Summer Lane varies along its length, with areas of localised narrowing reducing the carriageway width to a minimum of 4.8 metres. Further west, Summer Lane becomes a farm track.
- 2.17 Due to the number of private drives and accesses, on-street parking on Summer Lane is limited to a small section along the northern edge, close to Pagham Road.

- 2.18 Summer Lane is an adopted public highway until the western edge of property no 7. Beyond this, the road is private and within the applicant's ownership, but is also a public footpath (route 100) identified on the definitive public right of way plan.

Pagham Road

- 2.19 Pagham Road runs through the centre of the village on a north-south alignment providing access to residential areas within Pagham to the south. To the north, Pagham Road leads towards connections with the A27 and Chichester with further connections to Bognor Regis via Sefter Road.
- 2.20 The road varies in width, but is generally in excess of 7.3m wide. Adjacent to the junction with Summer Lane the road is above 8.5m wide. Approaching the junction with Summer Lane from the north, there are parked cars on the road that reduce the effective carriageway widths and reduce vehicle speeds.

Personal Injury Accident Data (PIA)

- 2.21 Personal Injury Accident (PIA) data has been acquired from Sussex Safer Roads Partnership on behalf of Sussex Police for the latest available 5 year period (1st May 2009 to 30th April 2014) and is attached as **Appendix A**. The assessment includes the stretch of Pagham Road from its junction with Sefter Road to its junction with Church Way. The entire length of Summer Lane has also been included.
- 2.22 A total of 15 accidents took place within this study area, four of which were recorded as serious with the remaining eleven classified as slight injuries. It is noteworthy that no accidents occurred along Summer Lane or at its junction with Pagham Road during the survey period. There are no significant clusters of accidents recorded. Consideration is given to each section of road in the following paragraphs.

Pagham Road Junction with Sefter Road

- 2.23 A total of three accidents took place at the junction of Pagham Road with Sefter Road, all of which were reported as slight in nature. Two accidents involved side-on collisions between a vehicle navigating along Pagham Road colliding with a vehicle exiting Sefter Road. The third accident reportedly involved a vehicle losing control whilst being pursued by a police car.

Pagham Road Junction with Hook Lane

- 2.24 A total of four accidents took place at the junction of Pagham Road with Hook Lane, all of which were reported as slight in nature. Two accidents involved side-on collisions between a vehicle navigating along Pagham Road colliding with a vehicle exiting Hook Lane. A third accident involved a collision between a car and pedal cycle, although no cause was reported. The fourth accident involved a rear shunt between two vehicles attempting to exit Hook Lane.

Pagham Road between Hook Lane and Summer Lane

- 2.25 Of those accidents that took place between Hook Lane and Summer Lane, three were reported as serious in nature. The first incident involved a single vehicle losing control and hitting a wall, reportedly for unknown reasons. The report noted a likely causation factor as *“illness or disability, mental or physical”*.
- 2.26 The second serious incident involved a side-on collision between a car and motorcycle, whereby the car attempted to turn right into a caravan park, colliding with the motorcycle travelling north.
- 2.27 The third and final serious incident involved a collision between a vehicle and pedestrian. The pedestrian reportedly walked into the carriageway into the oncoming vehicle whilst under the influence of alcohol.

Other Incidents

- 2.28 A fourth serious accident took place at the Church Lane junction with Pagham Road. This involved a side-on collision between two vehicles, and was reportedly due to the excessive speed of a vehicle travelling south along Pagham Road.

Summary

- 2.29 A total of 15 incidents took place in the vicinity of the site over the last five year period, four of which were classified as serious. Of those serious incidents, one involved the loss of control of a single vehicle, whilst a further incident involved a collision between a car and pedestrian whilst the pedestrian was under the influence. Neither incident is considered to be related to the nature of the road network.

- 2.30 A further two serious incidents involved side-on collisions at two priority junctions, although no incidents were reported to have occurred at the Summer Lane junction with Pagham Road.

3 POLICY

National Policy

National Planning Policy Framework (NPPF)

3.1 The overarching premise of the NPPF is a 'presumption in favour of sustainable development' (Paragraph 14). The NPPF also states that sustainable transport is about 'giving people a real choice about how they travel' whilst recognising that solutions will 'vary from urban to rural areas' (Paragraph 29)

3.2 On this basis the following core planning principle included in the NPPF (Paragraph 17) will form the context to the provision of transport for the proposed development and aim to:

'actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable'

3.3 Paragraph 32 states that:

"All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:

- the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*
- safe and suitable access to the site can be achieved for all people; and,*
- improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe".*

3.4 Paragraph 35 states that:

"Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to:

- *accommodate the efficient delivery of goods and supplies;*
- *give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;*
- *create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;*
- *incorporate facilities for charging plug-in and other ultra-low emission vehicles; and*
- *consider the needs of people with disabilities by all modes of transport."*

3.5 A key tool to facilitate this will be a Residential Travel Plan for the site which accompanies the TS and be undertaken in accordance with the national guidance, further details of which are set out in Section 4 of this report.

Local Policy

Arun District Local Plan 2003 (With saved Policies from 2007)

3.6 The primary aim of the Local Plan for Arun is to *"apply the principles of sustainable development to the assessment of proposals for developments"*.

3.7 The Local Plan continues to develop the policies that must be adhered to for planning applications such as this, the relevant policies including:

- Parking in New Developments;
- Public Transport; and
- Cycling and Walking.

3.8 Saved Policy GEN12 sets out guidance on parking in new developments. A provision that requires developments to look at the standards set by the District.

The Local Planning Authority may seek a lower provision than required by the standards for developments proposed in town centres and other areas accessible by other means of transport.

3.9 Saved Policy GEN 14 focuses on the plans of the District:

The Council will support the provision of comprehensive public transport services throughout the District, and encourage improvements to be made to services wherever possible. Where

appropriate, new development will be required to make provision for public transport facilities.

Where new development can only take place with improvements to public transport services, or such improvements would be likely to influence desirable travel patterns, the Local Planning Authority will seek contributions towards the cost of improvements.

3.10 Saved Policy GEN15 states that:

“Where appropriate, new development will be required to provide safe and attractive facilities for cyclists and pedestrians, both within the site and in the form of links to the surrounding area.”

4 DEVELOPMENT PROPOSALS

4.1 The development proposals involve the construction of 90 residential dwellings on land to the north of Summer Lane. It is proposed that the site is developed for a mixture of family homes of different sizes, as follows:

- 12 one-bed units;
- 33 two-bed units;
- 35 three-bed units; and
- 10 four-bed units;

4.2 As shown in **Appendix B**, the masterplan for the site illustrates how a hierarchy of internal roads have been designed into the scheme in accordance with the DfT's *Manual for Streets* (MfS) design guidance.

4.3 The overall concept being to control vehicle speeds to ensure that the roads within the site act as streets that can be used by pedestrians and cyclists as well as cars. This has been achieved by ensuring that the layout is not dominated by the needs of vehicles while ensuring that the necessary servicing, refuse collection and emergency access is provided to all areas.

4.4 Internal cycle and pedestrian routes link with existing and proposed external routes to maximise the uptake of these sustainable modes, with access to Summer Lane to connect to Pagham Road and to the existing public right of way.

4.5 The masterplan also shows a link to the Orchard Homes site. This link is not required to support the proposed development in terms of highway capacity however it does provide further highway connectivity in the surrounding area.

Summer Lane Alterations

4.6 The site is proposed to be accessed from Summer Lane via a simple priority junction, as illustrated in **Appendix C**. The design for the access has been considered in the context of West Sussex County Council's *Local Design Guide: Supplementary Guidance for Residential Development Proposals* dated January 2008 and the DfT's *Manual for Street (MfS) Design Guide*.

- 4.7 MfS states that to allow two large vehicles to pass a minimum width of 5.5 metres is needed and to allow a car to pass a larger vehicle then 4.8 metres is needed. Past this, a 4.1 metre width allows two cars to pass but not a larger vehicle. Para 5.1 of the WSCC guidance states that:-

“Where appropriate, proposals should demonstrate whether the design of street widths are adequate for the type and flow of traffic they would be expected to accommodate.”

- 4.8 The existing adopted section of Summer Lane achieves 4.8 metres and the section of road within the development site can be widened to also achieve this. The existing footway is however narrow, less than 1 metre in width at certain locations.
- 4.9 The proposals seek to improve the footway provision by maintaining a continuous footway of 1.8 metres in width connecting the development site with Pagham Road. It is proposed to relocate the footway on the northern side of Summer Lane in order to achieve this. At its narrowest Summer Lane would be 4.1 metres in width for a short distance, before reverting to 4.8 metres in width. The proposed alignment of this road is shown in Appendix C, which illustrates how two cars would be able to pass at the narrowest point.
- 4.10 In consultation with the Parish Council, a further area of off street parking has been proposed to compensate for the double yellow lines along Summer Lane.
- 4.11 The alterations to Summer Lane would be undertaken to adopted public highway standards.

Stage 1 Road Safety Audit

- 4.12 M.B. Projects Ltd has been commissioned to undertake a Stage 1 Road Safety Audit (RSA) to consider the suitability of the alterations to both Summer Lane and its junction with Pagham Road. The RSA has been written in line with the guidance given in HD19/03 and is attached to this note as **Appendix D**.
- 4.13 A Designer’s Response to the recommendations of the RSA has also been produced, which is attached as **Appendix E**. The response seeks to address any safety issues where appropriate. The response demonstrates that all issues can be addressed by:
- The inclusion of double yellow lines on both sides of Summer Lane for a length of 14 metres from the junction with Pagham Road;

- Dropped kerbs and tactile paving at the junction of Summer Lane with Pagham Road; and
- The provision of a pedestrian inter-visibility splay of 2 metres by 2 metres for pedestrians crossing Summer Lane from the south.

4.14 The remainder of the observations are either dealt with as part of the designer's response or will form part of detailed design.

Summer Lane/Pagham Road Junction

4.15 In order to accurately assess the visibility requirements of the Summer Lane/Pagham Road junction based on observed vehicle speeds, an automatic traffic counter (ATC) was placed on Pagham Road to the south of Summer Lane by an independent survey company between Tuesday 3rd and Monday 9th June 2014. The results of the survey are attached as **Appendix F**.

4.16 The speed survey allows for the 85th percentile wet weather speeds to be calculated, which are as follows:

- Northbound = 30.5mph; and
- Southbound = 30.6mph.

4.17 Appropriate 'Y' distance visibility splays have been calculated based on the formula set out in Manual for Streets (MfS) and the above 85th percentile speeds. This indicates the following requirement:

- Towards the south (based on northbound speeds) = 44.0 metres; and
- Towards the north (based on southbound speeds) = 44.1 metres.

4.18 **Appendix G** shows the existing visibility splays and road widths on Summer Lane at the junction with Pagham Road. To the north there is no issue with visibility, although to the south the fence around the garden of no 1 Summer Lane restricts the achievable visibility to a "y" distance of 35 metres, which is 9 metres lower than the required standard based on observed speeds.

4.19 Appendix C shows how visibility at the junction could be improved to comply with the MfS standards set out above. This has been achieved by building a kerb build-out to allow the give way line to be moved forward. This is feasible due to the width of Pagham Road, as even with kerb build-outs the road would be 7.3 metres wide. This would also assist with

reducing traffic speeds and would give an overall wider road safety benefit. These changes will provide betterment at the junction through providing increased visibility and a reduction in vehicle speeds.

Parking Standards

- 4.20 Residential car parking will be provided to local standards. Parking will be provided to ensure that it is well located to the houses that it serves, to ensure that on-street parking does not occur to any significant degree. This means that access to all parts of the site will be maintained at all times for use by larger vehicles (refuse trucks and delivery vehicles) and for the emergency services.
- 4.21 This approach recognises the need to provide sufficient parking spaces to avoid parking that would adversely affect the operation of surrounding streets, but not providing parking to a level that would encourage car usage. This is a balanced approach that is consistent with local and national planning policies.
- 4.22 Cycle parking will be provided at a minimum standard of 1 space per unit.

Travel Plan

- 4.23 A Travel Plan has been prepared to encourage travel to the site by sustainable modes and is attached as **Appendix H**.
- 4.24 The primary objective of the Travel Plan is to set out a long term strategy to facilitate and encourage modes of travel to the site by means other than the private car, which reflects current central and local government policy.
- 4.25 The strategy needs to be long term as changing travel habits takes time and will only occur through a combination of incentives, improved facilities, government initiatives and changes in individual attitudes.
- 4.26 The initiatives and measures are a mixture of 'hard' and 'soft' measures. Hard measures include the provision of facilities such as safe and secure cycle parking. Soft measures include initiatives such as providing information on public transport services. This can be achieved through the provision of this information as part of the "Welcome Pack" given to new residents.

5 TRIP GENERATION

- 5.1 This section of the report describes the likely traffic generation associated with 90 residential dwellings. To calculate the potential trip generation, trip rates have been derived from the TRICS database (2014a) using land use category 'houses privately owned'. Weekday only sites have been selected based on their location (suburban and edge of town) as well as those with similar population levels as the surrounding area. Furthermore, only those sites with a similar quantum of housing located within England (excluding Greater London) were selected (50-175 units).
- 5.2 The resultant trip rates are set out within **Table 5.1** below for both the morning and evening peak hours whilst all TRICS outputs are attached as **Appendix I**.

Table 5.1 - Trip Rates – Houses Privately Owned

Time Period	Arrivals	Departures	Total
Morning Peak (08:00-09:00 Hours)	0.134	0.370	0.504
Evening Peak (17:00-18:00 Hours)	0.347	0.203	0.550

- 5.3 Resultant traffic generation associated with 90 residential units is illustrated within **Table 5.2** below.

Table 5.2 - Resultant Traffic Generation Based on 90 Residential Units

Time Period	Arrivals	Departures	Total
Morning Peak (08:00-09:00 Hours)	12	33	45
Evening Peak (17:00-18:00 Hours)	31	18	50

- 5.4 The predicted levels of vehicular traffic do not take account of the potential shift from car usage to non-car modes of transport that would be achieved through the initiatives to encourage walking, cycling and the use of public transport. As such, these numbers can be considered as robust.
- 5.5 The distribution of these trips is considered in further detail within the following Section of this report.

6 TRAFFIC DISTRIBUTION

6.1 In order to understand the distribution of vehicular development trips on to the wider road network, reference has been made to 2011 Census 'Travel to Work' data. This identifies where residents of the relevant Arun middle super output area (Arun 019) travel to work. Census data outputs are included in **Appendix J**.

6.2 The destinations are based on car driver trips and these are summarised and ranked in **Table 6.1**.

Table 6.1 Trip Distribution

N	Destination	Percentage
B	Chichester	41%
-	Arun	39%
	Portsmouth	3%
F	Havant	3%
O	Worthing	3%
F	Horsham	1%
p	Crawley	1%
r	Fareham	1%
e	East Hampshire	1%
s	Winchester	1%
e	Sub-Total	91%
n	Remainder	9%
t	Total	100%

a
tional purposes, any areas apart from the Arun middle super output areas with percentages of less than 1% have been summarised within the 'remainder' row.

6.3 The geographical locations of the destinations (identified within **Table 6.1**) have been compared with the location of the site to determine the approximate direction of travel, with the most direct route for each destination chosen.

6.4 The Census data indicates that 98% of traffic will travel north along Pagham Road from the site; the remainder travel south on Pagham Road. Approximately 56% of development generated traffic will travel on the A259 between Arun and Chichester (noting that some traffic will travel on the A259 without actually reaching Chichester itself, such as people travelling to North Bersted and Shripney in the Arun 012 middle super output area). Remaining traffic is distributed towards Bognor Regis via Sefton Road or Hook Lane.

- 6.5 Based on the traffic generation, this would result in approximately 25 two-way vehicle trips on the A259 between Chichester and Arun during the AM peak and 28 two-way vehicle trips during the PM peak, most of which will use the A27 for onward access to other destinations (except motorists travelling to the Arun 012 middle super output area).

7 HIGHWAY IMPACT

- 7.1 This section of the TS considers the impact of the development proposals on the surrounding road network. Development traffic will disperse the further it travels from the site. This is particularly apparent for traffic heading towards Chichester and the A27, which amounts to less than 30 two-way movements in each peak hour.
- 7.2 On this basis, only the junction of Pagham Road with Summer Lane and Barton Close has been assessed in capacity terms, as it is this junction that all development traffic will pass through.

Traffic Surveys

- 7.3 Classified turning counts were undertaken at the above junction between the hours of 07:00-10:00 and 16:00-19:00 on Tuesday 3rd June 2014. This data has been utilised to determine weekday peak hour traffic movements at the junction. The morning peak period was identified as 08:00-09:00 and the evening peak period as 17:00-18:00 hours.
- 7.4 The raw survey data is presented at **Appendix K** for information.

Assessment Years

- 7.5 A future year assessment 5 years post-submission of the planning application has been assessed in addition to the observed year and will form the future base scenario. As the planning application is expected to be submitted in June 2015 the future year assessment is 2020.
- 7.6 The following scenarios have been assessed using Junctions 8.0 and are illustrated in **Figures 5-12**:
- 2014 Observed Traffic Flows;
 - Future Year 2020 Baseline Traffic Flows; and
 - Future Year Base plus Development (2020).
- 7.7 As set out in Section 4 of this TS, it is proposed to build-out the kerb line at the junction of Summer Lane and Pagham Road in order to improve visibility at the junction. Therefore the

'Future Year Base plus Development' scenario has been assessed using the proposed junction layout.

TEMPRO Factors

7.8 The TEMPRO database has been interrogated in order to determine appropriate growth factors to apply to the observed traffic flows, in order to assess the 2020 future base scenarios.

7.9 The selection criteria is as follows:

- Dataset version: 62
- Base Year: 2014
- Future Year: 2020
- Geographical Area: Rural Arun (45UC0)
- Period: Weekday AM or Weekday PM
- NTM Dataset: AF09
- Area Type: Rural
- Road Type: Minor

7.10 Outputs are set out below:

- 2014-2020 AM = 1.0882
- 2014-2020 PM = 1.0923

Capacity Results – Summer Lane/Pagham Road

7.11 The AM Peak and PM Peak results of the junction assessment are summarised below in **Table 7.1** and **Table 7.2** respectively.

Table 7.1 –AM Peak Summary Results

	Existing Junction Layout				Proposed Junction Layout	
	2014 Base		2020 Future Base		2020 Future Base + Development	
	RFC	Queue	RFC	Queue	RFC	Queue
B-C	0.00	0	0.00	0	0.00	0
B-AD	0.00	0	0.00	0	0.00	0
A-BCD	0.01	0	0.01	0	0.03	0
D-A	0.01	0	0.01	0	0.08	0
D-BC	0.01	0	0.01	0	0.01	0
C-ABD	0.00	0	0.00	0	0.00	0
<i>A= Pagham Road (N); B= Barton Close; C= Pagham Road (S); D= Summer Lane</i>						

Table 7.2 – PICADY Assessment PM Peak Summary Results

	Existing Junction Layout				Proposed Junction Layout	
	2014 Base		2020 Future Base		2020 Future Base + Development	
	RFC	Queue	RFC	Queue	RFC	Queue
B-C	0.00	0	0.00	0	0.00	0
B-AD	0.02	0	0.03	0	0.03	0
A-BCD	0.01	0	0.01	0	0.08	0
D-A	0.01	0	0.02	0	0.05	0
D-BC	0.01	0	0.01	0	0.01	0
C-ABD	0.00	0	0.00	0	0.00	0
<i>A= Pagham Road (N); B= Barton Close; C= Pagham Road (S); D= Summer Lane</i>						

7.12 It can be observed from the results presented in Tables 7.1 and 7.2 above that the junction currently operates significantly below design capacity. The development proposals, including amendments to the junction design, have a negligible impact on the operation of the junction, and a maximum RFC of just 0.08 was recorded from Pagham Road (N) during the AM Peak and the PM Peak periods.

7.13 The Junctions 8.0 outputs are presented at **Appendix L** for information.

8 SUMMARY & CONCLUSIONS

- 8.1 Hanbury Properties has commissioned Vectos to provide transportation advice in support of an outline application for a residential development accessed via Summer Lane in Pagham. The development comprises some 90 dwellings.
- 8.2 The application site currently operates as farm land and is located on the western edge of Pagham. Access to the site is provided from Summer Lane, which connects with Pagham Road to the east.
- 8.3 Pre-application advice has been sought from West Sussex County Council (WSSCC) in order to inform the detail of the TS.
- 8.4 The TS considers the transportation implications associated with the development proposal, and demonstrates that:
- The site is located within a short walk of a number of local facilities alongside regular bus services into Chichester and Bognor Regis;
 - The site accords with both national and local policy guidance;
 - The proposals include improvements to Summer Lane to control vehicles speeds whilst also providing an improved footway provision connecting with Pagham Road;
 - A kerb build-out is proposed at the junction of Summer Lane with Pagham Road that improves visibility for vehicles departing Summer Lane, ensuring the junction conforms with the requirements of MfS;
 - Due to the distribution of development traffic on the surrounding road network, only a small number of vehicles will access the A27 during the peak hours; and
 - Junction capacity testing demonstrates that the development will have no impact on the surrounding road network.
- 8.5 On the basis of the above, it is not considered that the development will have a severe impact as described within the NPPF, and therefore should not be resisted in planning terms.

FIGURES



Key:



Site Location

Hanbury Properties

Summer Lane, Pagham

Site Location: Strategic Context



Network Building, 97 Tottenham Court Road, London W1T 4TP
Tel: 020 7530 7373 Email: london@vectos.co.uk www.vectos.co.uk

DRAWN:

SO'D

CHECKED:

ID

DATE:

13/05/15

SCALES:

NTS

DRAWING REFERENCE:

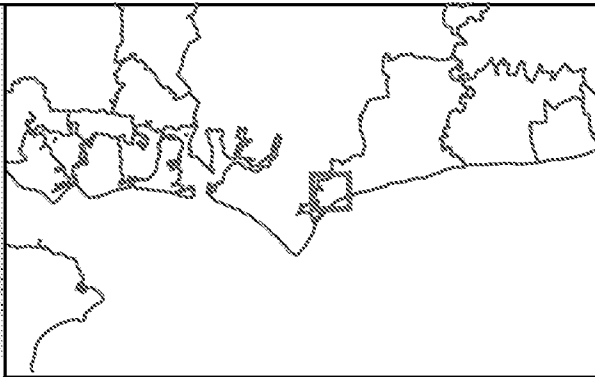
Figure 1



Key:

Site Location

ARUN DISTRICT COUNCIL P/58/15/OUT

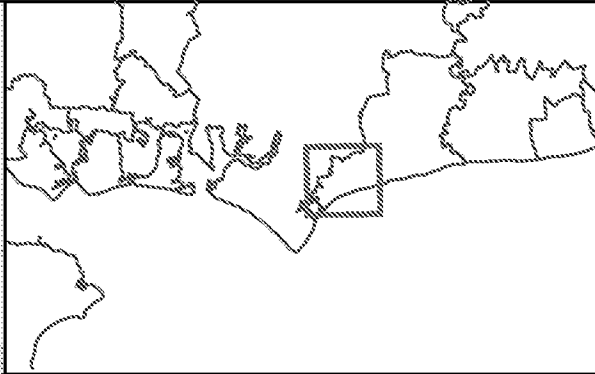
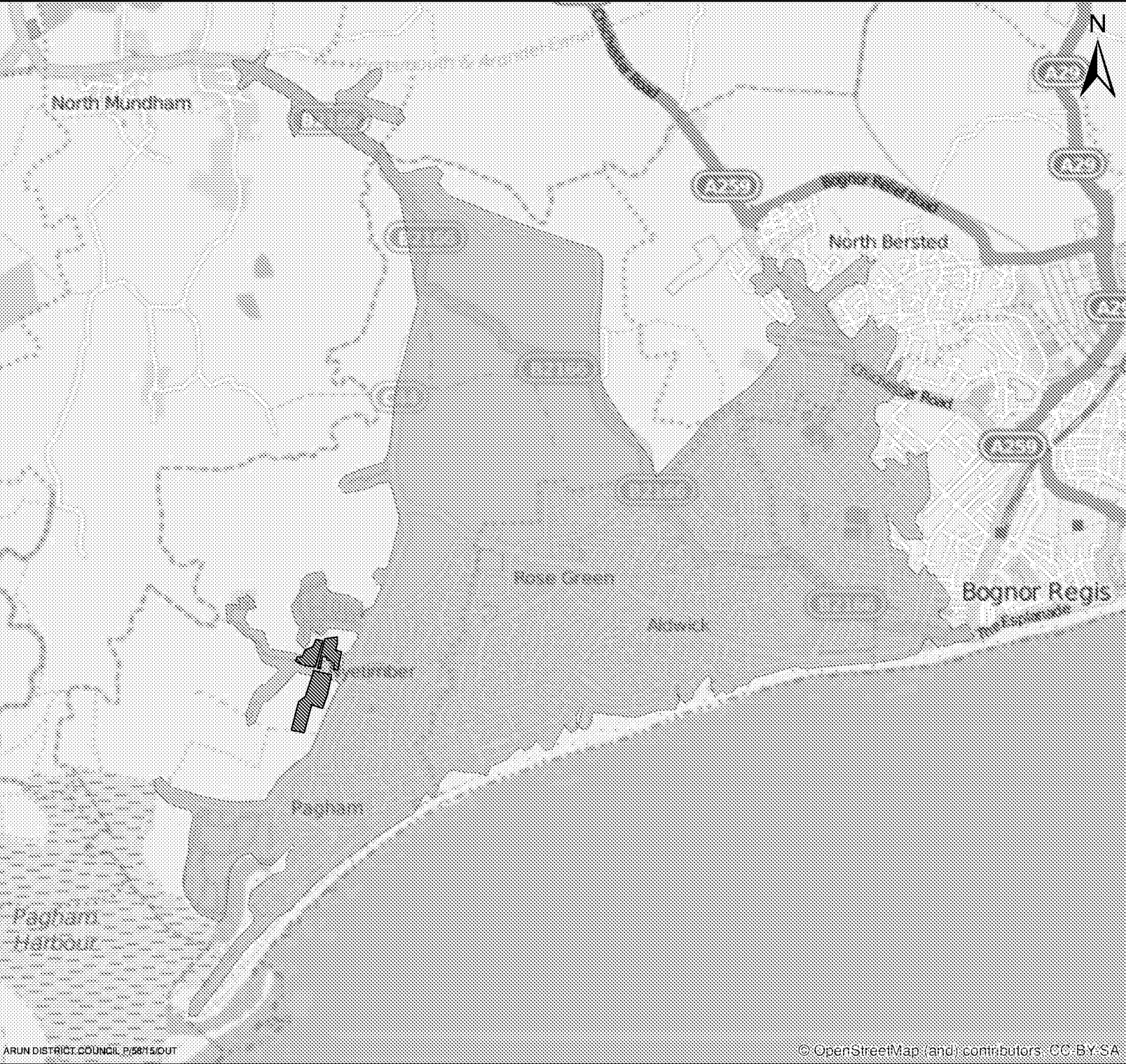


Legend

Site

2km Walking Isochrone

TITLE: 2km Walking Catchment		
CLIENT: Hanbury Properties		
LOCATION: Summer Lane, Pagham		
		
FIGURE: Figure 3		
DRAWN BY: H.J	CHECKED BY: S.G.H	DATE: 18/05/2015



Legend

Site

5km Cycling Isochrone

TITLE: 2km Walking Catchment		
CLIENT: Hanbury Properties		
LOCATION: Summer Lane, Pagham		
		
FIGURE: Figure 4		
DRAWN BY: H.J	CHECKED BY: S.G.H	DATE: 18/05/2015

APPENDIX A

Public Highway Collision Data

Pagham Road – Pagham – Vectos

Collision report 01/05/2009 – 30/04/2014

Date produced
23 May 2014

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.

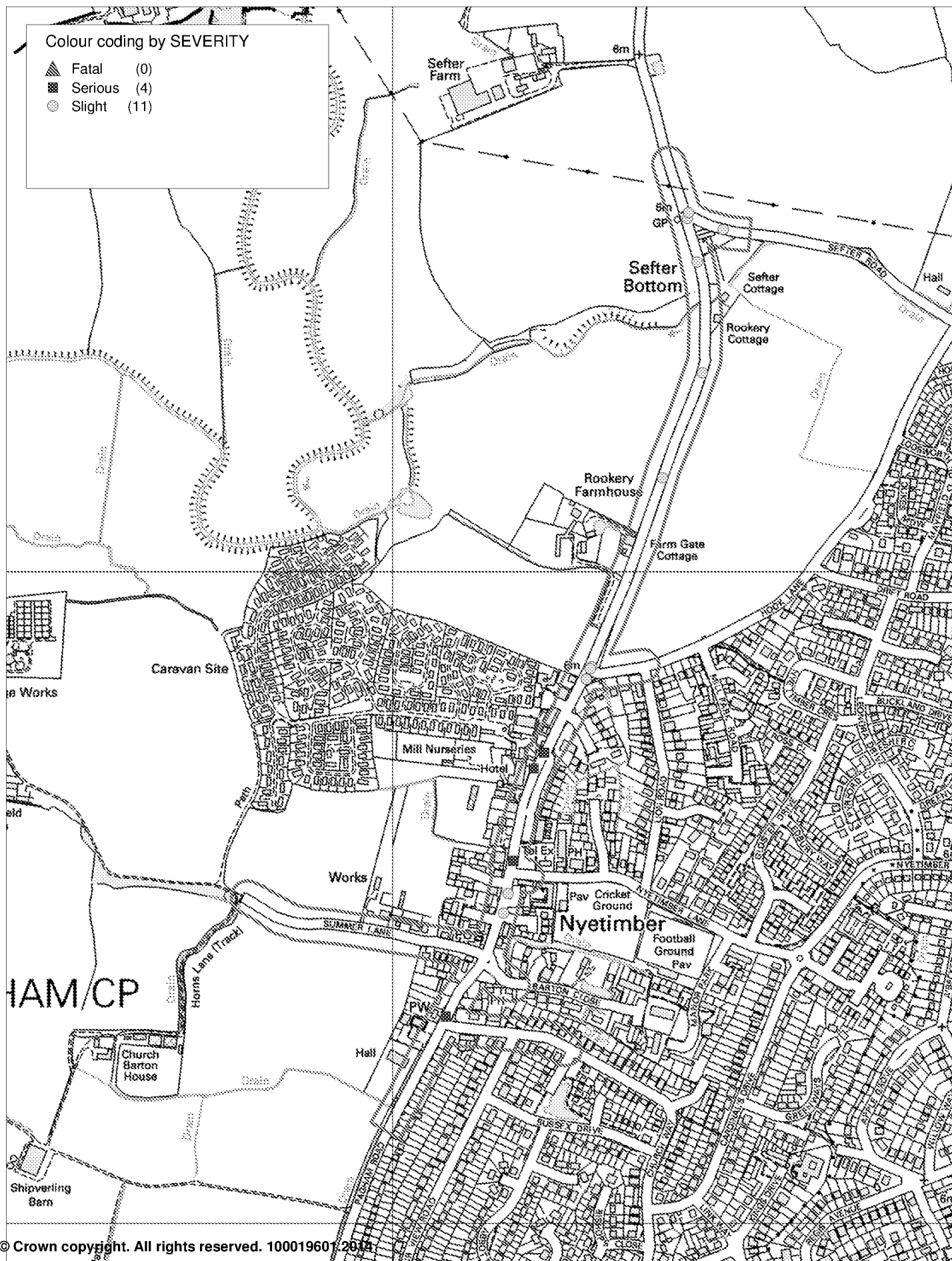
This data may not be fully validated and while every effort is made to ensure its accuracy any statistics provided may not match those published elsewhere.

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



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Sussex Safer Roads
PARTNERSHIP

Collision data
Pagham Road - Pagham - Vectos
01/05/2009 - 30/04/2014

SCALE	1 : 6710
DATE	23/05/2014
DRAWING No.	
DRAWN BY	

Details of Personal Injury Accidents for Period - 01/05/2009 to 30/04/2014 (60) months

Selection:

Notes:

Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles						Casualties		
			Veh No	Type	Age	Manv	Dir	Class	Sex	Age	Sev
Road No.	Date										
2nd Road No.	Time										
Grid Ref.	D/L										
	R.S.C										
	Weather										
	Speed										
	Account of Accident										
Causation Factor:											

0903191 Wednesday C0 PAGHAM ROAD m of C0 HOOK
06/05/2009 LANE

R1: C 0850 hrs Veh 2 Car 40 Go/head N to S
R2: C Veh 1 Car 35 Turning right S to E Dri F 35 Slight
E 489,305 Dry
N 98,854 Fine without high winds
60 mph

Causation Factor:

1st: Poor turn or manoeuvre
2nd: Failed to look properly
3rd: Failed to judge other persons path or speed

Participant:

Vehicle 001
Vehicle 001
Vehicle 001

Confidence:

Very Likely
Very Likely

INJURY RTC BETWEEN VEHICLE V2 AND V1 WHERE IT IS BELIEVED THAT THE DRIVER HAS SUFFERED A BROKEN WRIST IN V1. V2 TRAVELLING FROM CHICHESTER SAW V1 APPROACHING FROM PAGHAM. V1 HAS THEN TURNED ACROSS V2 ENTERING HOOK LANE V2 HAS IMPACTED THE REAR NEAR SIDE WING OF V1 WITH THEIR FRONT NEARSIDE WING. THIS SPUN V1 AROUND IN A CIRCLE.

1002611 Wednesday U PAGHAM ROAD of U SEFTER
21/04/2010 ROAD

R1: U 1440 hrs Veh 2 Bus/coach 53 Go/head S to N
R2: U Veh 1 Car 36 Turning right E to N RSP M 1 Slight
E 489,452 Dry Veh 1 Car 36 Turning right E to N FSP F 26 Slight
N 99,542 Fine without high winds
40 mph

Causation Factor:

1st: Failed to look properly

Participant:

Vehicle 001

Confidence:

Very Likely

V2 TRAVELLING NORTH ALONG PAGHAM ROAD (PS VEHICLE) DRIVER OF V1 THEN PULLED OUT IN ITS PATH WHILST TURNING RIGHT ONTO ROAD COLLIDING WITH THE FRONT O/S OF V1 CAUSING DAMAGE TO BOTH VEHICLES.

1003562 Sunday C0 PAGHAM ROAD of U MILL PARK
23/05/2010 CARAVAN PARK

R1: C 0926 hrs Veh 2 M/C > 500 cc 43 Go/head S to N Dri M 43 Serious
R2: U Veh 1 Car 41 Turning right N to W
E 489,232 Dry
N 98,722 Fine without high winds
30 mph

Causation Factor:

1st: Failed to look properly
2nd: Careless/Reckless/In a hurry
3rd: Exceeding speed limit

Participant:

Vehicle 001
Vehicle 001
Vehicle 002

Confidence:

Very Likely
Possible

V1 TRAVELLING SOUTH BOUND,TURNING RIGHT INTO CARAVAN PARK FAILED TO SEE V2 WHICH WAS A MOTORCYCLE TRAVELLING NORTH BOUND. V1 PULLED RIGHT ACROSS THE PATH OF V2 COLLIDING WITH THE NEARSIDE OF V1.

Details of Personal Injury Accidents for Period - 01/05/2009 to 30/04/2014 (60) months

Selection:

Notes:

Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles							Casualties		
			Veh No	Type	Age	Manv	Dir	Class		Sex	Age	Sev
Road No.	Date											
2nd Road No.	Time											
Grid Ref.	D/L											
	R.S.C											
	Weather											
	Speed											
	Account of Accident											
Causation Factor:												

1003519 Tuesday B2166 PAGHAM ROAD of C0 HOOK
01/06/2010 LANE
R1: B 2166 1221 hrs
R2: C 6
E 489,303 Wet/Damp
N 98,851 Raining without high winds
30 mph

Veh 2	Car	29	O/take s/veh o/side	N	to SW	Dri	F	29	Slight
Veh 3	Car	75	Wait to turn right	SW	to E	Dri	F	75	Slight
Veh 1	Car	72	Turning right	E	to N				

Causation Factor:

1st: Disobeyed Give Way or Stop sign or markings
2nd: Stationary or parked vehicle
3rd: Stationary or parked vehicle

Participant:

Vehicle 001
Vehicle 001
Vehicle 002

Confidence:

Very Likely
Very Likely

VEH 1 IN HOOK LANE REACHES JUNCTION WITH PAGHAM ROAD INTENDING TO TURN RIGHT, VIEW IS OBSTRUCTED BY LARGE HGV PARKED AT ROAD WORKS ON JUNCTION, VEH 1 PULLS INTO PAGHAM ROAD TO GET VIEW AROUND HGV INTO PATH OF VEH/2 TRAVELLING SOUTH ON PAGHAM ROAD OVERTA KING HGV, FRONT O/S VEH/1 IMPACTS WITH FRONT N/S VEH/2 CAUSING VEH/2 ONTO NORTH BOUND CARRIGEWAY AND INTO PATH OF VEH/3 STATIONARY IN N/B LANE WAITING TO TURN RIGHT INTO HOOK LANE.

1005922 Wednesday C0 PAGHAM ROAD 150m North of C0
08/09/2010 HOOK LANE NR. ROOKERY FARM
R1: C 0602 hrs
Darkness: no street lighting
E 489,414 Wet/Damp
N 99,144 Raining without high winds
60 mph

Veh 2	Car	51	Go/head	NE	to SW	Dri	M	51	Slight
Veh 3	Car	34	Go/head	NE	to SW				
Veh 1	Car	43	Go/head	SW	to NE	Dri	M	43	Slight

Causation Factor:

1st: Slippery road (due to weather)
2nd: Travelling too fast for conditions

Participant:

Vehicle 001
Vehicle 001

Confidence:

Very Likely
Possible

ON A WATER SOAKED COUNTRY ROAD VEH'S 2 AND 3 WERE TRAVELLING SW. VEH 1 WAS TRAVELLING NE WHEN LOST CONTROL AND BEGAN SKIDDING SIDEWAYS (OFF SIDE) TOWARDS OTHER VEH AND ENTERED ON COMING LANE. VEH 2 TRIED TO GET AS FAR OVER TO THE LEFT AS POSSIBLE HOWEVER THE OS REAR OF VEH 1 CRASHED INTO FRONT OS OF VEH2. VEH 3 MANAGED TO AVOID THE COLLISION BY STEERING RIGHT INTO A FIELD, HITTING TREES/BUSHES.

1007125 Saturday B2166 PAGHAM ROAD 40m North of U
09/10/2010 NYETIMBER LANE JASMINE HOUSE
R1: B 2166 1600 hrs
E 489,170 Dry
N 98,476 Fine without high winds
30 mph

Veh 2	Pedal cycle	15	Stopping	N	to S	Dri	M	15	Slight
Veh 1	Car	30	Wait to turn right	N	to NW				

Causation Factor:

1st: Junction overshoot

Participant:

Vehicle 001

Confidence:

Possible

WHILST CROSSING INTO THE UNNAMED ROAD ON A BIKE APPROACHING A SMALL OFF ROAD LEADING TO REAR OF SHOP PREMISES, CAR CAME OUT AND HIT MALE ON HIS BIKE CAUSING A CUT TO MALES ELBOW AND SLIGHT DAMAGE TO BIKE, SCRATCHES TO HANDLEBAR. OFFENDING VEHICLE DESCRIB

Details of Personal Injury Accidents for Period - 01/05/2009 to 30/04/2014 (60) months

Selection:

Notes:

Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles							Casualties		
			Veh No	Type	Age	Many	Dir	Class		Sex	Age	Sev
Road No.	Date											
2nd Road No.	Time											
Grid Ref.	D/L											
	R.S.C											
	Weather											
	Speed											
	Account of Accident											
Causation Factor:												

ED AS A BLUE AUDI NO VRM

1008326 Wednesday B2166 PAGHAM ROAD 280m South of
08/12/2010 U SEFTER ROAD Veh 1 Car 23 Go/ahead RH bend N to SW Dri M 23 Slight
R1: B 2166 1757 hrs
Darkness: no street lighting
E 489,475 Frost/Ice
N 99,305 Fine without high winds
60 mph

Causation Factor:

Participant:

Confidence:

1st: Loss of control

Vehicle 001

Very Likely

2nd: Slippery road (due to weather)

Vehicle 001

Very Likely

VEHICLE 1 WAS TRAVELLING SOUTH ALONG THE PAGHAM ROAD. VEHICLE LOST CONTROL ON THE SLIGHT BEND AND COLLIDED WITH THE HEDGE / DITCH.

1100793 Thursday C44 PAGHAM ROAD of C0 SEFTER
03/02/2011 ROAD Veh 2 Car 25 Go/head S to N Dri F 25 Slight
R1: C 44 1015 hrs Veh 1 Car 38 Turning right SE to N
R2: C 6
E 489,454 Dry
N 99,551 Fine without high winds
60 mph

Causation Factor:

Participant:

Confidence:

1st: Failed to look properly

Vehicle 001

Very Likely

VEHICLE ONE PULLED OUT OF SEFTER ROAD IN FRONT OF VEHICLE TWO TRAVELLING NORTHBOUND ON PAGHAM ROAD.

1103628 Sunday U PAGHAM ROAD 154m South of U
12/06/2011 SEFTER ROAD O/S ROOKERY Veh 1 Car 21 Go/ahead LH bend SW to N FSP M 20 Slight
R1: U 1252 hrs Veh 1 Car 21 Go/ahead LH bend SW to N Dri M 21 Slight
E 489,467 Wet/Damp
N 99,475 Raining without high winds
60 mph

Causation Factor:

Participant:

Confidence:

1st: Inexperienced or learner driver/rider

Vehicle 001

Very Likely

2nd: Loss of control

Vehicle 001

Very Likely

VEHICLE 1 TRAVELLING NORTHBOUND ON WET ROAD APPROACHING SLIGHT NEARSIDE BEND SUFFERS LOSS OF CONTROL. DRIVER OVERCORRECTS TO THE OFFSIDE AND LOSES CONTROL TRAVELLING ACROSS CARRIAGEWAY COLLIDES WITH BANKING AND FENCE PANELS ON THE EASTERN SIDE OF THE ROAD.

Details of Personal Injury Accidents for Period - 01/05/2009 to 30/04/2014 (60) months

Selection:

Notes:

Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles						Casualties			
			Veh No	Type	Age	Many	Dir	Class	Sex	Age	Sev	
Road No.	Date											
2nd Road No.	Time											
Grid Ref.	D/L											
	R.S.C											
	Weather											
	Speed											
	Account of Accident											
Causation Factor:												

1104529 Friday U PAGHAM ROAD 32m North of U
22/07/2011 MILLFARM DRIVE INGLENOOK
R1: U 1507 hrs HOTEL Veh 1 Car 77 Go/head N to S Dri M 77 Serious

E 489,216 Wet/Damp
N 98,698 Fine without high winds
30 mph

Causation Factor:

1st: Poor turn or manoeuvre

2nd: Illness or disability, mental or physical

Participant:

Vehicle 001

Vehicle 001

Confidence:

Very Likely

Very Likely

V1 TRAVELLING SOUTH HAS FOR UNKNOWN REASONS CROSSED THE CARRIAGEWAY ONTO THE PATH, HIT A FLINT WALL AND COME TO REST IN THE HOTEL GARDEN.

1102751 Monday C0 PAGHAM ROAD of U
02/05/2011 CHURCHWAY Veh 2 Car 45 Turning right E to N Dri M 45 Slight
R1: C 1309 hrs Veh 1 Car 18 Go/head N to S FSP F 20 Serious
R2: U

E 489,081 Dry
N 98,317 Fine without high winds
30 mph

Causation Factor:

1st: Sudden braking

2nd: Loss of control

Participant:

Vehicle 001

Vehicle 001

Confidence:

Very Likely

Very Likely

V2 TURNING RIGHT INTO PAGHAM ROAD V1 TRAVELLING SOUTH AT EXCESS SPEED THEN SKIDDED TO IMPACT WITH V2 ONTO THE NORTHBOUND CARRIAGEWAY RESULTING IN EXTENSIVE DAMAGE TO BOTH VEHICLES AND SLIGHT INJURY TO DRIVER OF V2 AND FSP OF V1

1206960 Wednesday C0 PAGHAM ROAD BOGNOR REGIS
26/12/2012 At Junction 20m South of C0
R1: C 1038 hrs NYETIMBER LANE outside NEAR Veh 1 Car 26 Go/head N to S Ped M 50 Slight
R2: C

E 489,177 Dry
N 98,506 Fine without high winds
30 mph

Causation Factor:

1st: Careless/Reckless/In a hurry

Participant:

Vehicle 001

Confidence:

Very Likely

WHILST ACTING AS A ROAD MARSHAL IN A ROAD CLOSURE FOR THE PAGHAM PRAM RACE OFFENDING VEHICLE WAS STOPPED AT AUTHORISED ROAD CLOSURE SIGN. THE DRIVER WAS TOLD THAT HE COULD NOT GO ANY FURTHER DUE TO THE ROAD BEING CLOSED FOR THE RACE. AS BOTH PARTIES ALKED THE DRIVER OF THE VEHICLE MOVED FORWARD IN VEHICLE AND DROVE ONTO AGGRIEVES FOOT CAUSING SLIGHT REDDENING AND SORENESS. AFTER ABOUT 30 SECONDS DRIVER OF VEHICLE THEN MOVED BACK OF THE AGGRIEVES FOOT AND CONTINUES THROUGH ROAD CLOSURE AND INTOBA RTONS CLOSE, PAGHAM.

Details of Personal Injury Accidents for Period - 01/05/2009 to 30/04/2014 (60) months

Selection:

Notes:

Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles							Casualties				
			Veh No	Type	Age	Manv	Dir	Class		Sex	Age	Sev		
Road No.	Date													
2nd Road No.	Time													
Grid Ref.	D/L													
	R.S.C													
	Weather													
	Speed													
	Account of Accident													
Causation Factor:														

1303031 Friday U PAGHAM ROAD BOGNOR REGIS.
14/06/2013 At Junction of U NYETIMBER LANE
R1: U 1745 hrs outside THE BEAR INN PUBLIC
R2: U
E 489,185 Dry
N 98,556 Fine without high winds
30 mph

Causation Factor:

Participant:

Confidence:

1st: Impaired by alcohol

Casualty 001

Very Likely

V1 HEADING NORTH ON PAGHAM ROAD. MALE PEDESTRIAN ON WEST SIDE OF ROAD, UNDER THE INFLUENCE OF ALCOHOL, HAVING JUST EXITED PUBLIC HOUSE. PEDESTRIAN EITHER WALKED/FELL INTO PATH OF V1, IMPACTING WITH REAR NEARSIDE AND THEN FALLING TO THE GROUND, OBTAINING SERIOUS HEAD INJURY.

1205957 Saturday U PAGHAM ROAD BOGNOR REGIS
10/11/2012 AT JUNCTION OF U HOOK LANE
R1: U 2000 hrs Veh 1 Car 18 Go/head S to N
R2: U Darkness: street lights present Veh 2 Car 27 Wait to turn right S to E Dri M 27 Slight
E 489,297 Wet/Damp Veh 2 Car 27 Wait to turn right S to E FSP M 22 Slight
N 98,835 Fine without high winds
30 mph

Causation Factor:

Participant:

Confidence:

1st: Inexperienced or learner driver/rider

Vehicle 1

Possible

2nd: Sudden braking

Vehicle 1

Very Likely

3rd: Slippery road (due to weather)

Vehicle 1

VEHICLE 2 WAS STATIONARY AND INDICATING TO TURN RIGHT FROM PAGHAM ROAD INTO HOOK LANE. VEHICLE 1 DRIVING SOUTH TO NORTH ALONG PAGHAM ROAD COLLIDED WITH REAR OF VEHICLE 2.

1306505 Sunday U SEFTER ROAD BOGNOR 50M EAST
01/12/2013 OF C44 PAGHAM RD
R1: U 0244 hrs Veh 1 Car 19 Go/ahead RH bend E to NW Dri M 19 Slight
Darkness: no street lighting Veh 1 Car 19 Go/ahead RH bend E to NW RSP M 19 Slight
E 489,507 Dry Veh 2 Car 41 Go/head E to W
N 99,525 Fine without high winds
30 mph

Causation Factor:

Participant:

Confidence:

1st: Aggressive driving

Vehicle 1

Very Likely

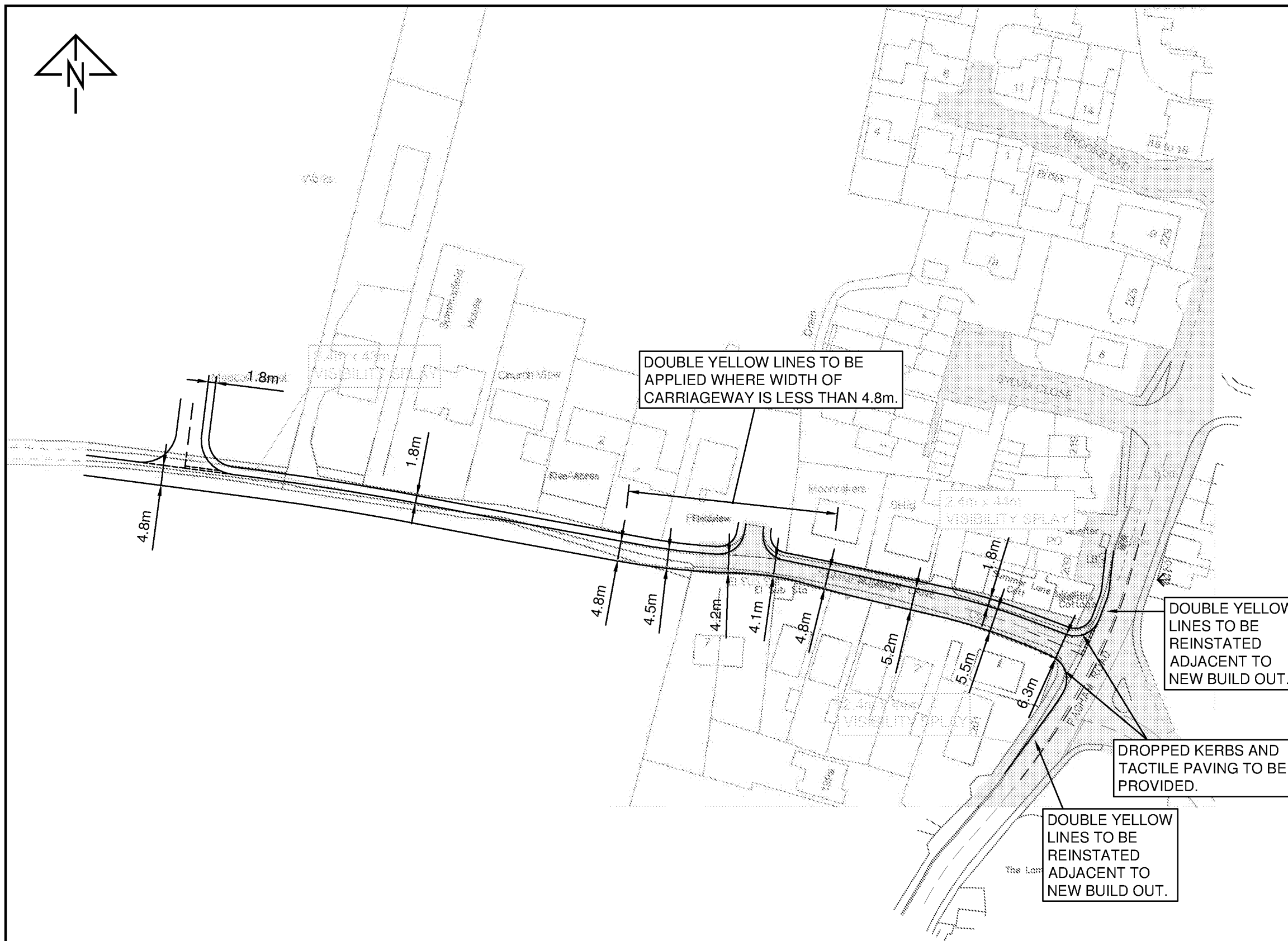
V1 FAILED TO STOP FOR MARKED POLICE VEHICLE, THEN FAILED TO NEGOTIATE LEFT HAND BEND LEFT ROAD TO THE NEARSIDE.

APPENDIX B

Masterplan

APPENDIX C

Proposed Access Junction



- Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.
 2. White lining is indicative only.

REV.	DETAILS	DRAWN	CHECKED	DATE
------	---------	-------	---------	------

CLIENT:

Hanbury Properties Ltd

PROJECT:

Summer Lane, Pagham

DRAWING TITLE:

Site Access + Highway Boundary

SCALES: 1:1000 at A3

DRAWN: TF	CHECKED: ID	DATE: 13.04.2015
-----------	-------------	------------------



Network Building, 97 Tottenham Court Road, London W1T 4TP
t: 020 7580 7373 e: enquiries@vectos.co.uk

DRAWING NUMBER: 120843/A/12

REVISION:

APPENDIX D

Stage 1 Road Safety Audit

CLIENT:- HANBURY PROPERTIES Ltd

HIGHWAY ACCESS WORKS

SUMMER LANE, PAGHAM

WEST SUSSEX

**ROAD SAFETY AUDIT
STAGE 1 REPORT**

June 2014

M B Projects Ltd.

Job No. 114.076

Issue: FINAL

CONTENTS	Page No.
1 INTRODUCTION	2
2 ITEMS RESULTING FROM THIS STAGE 1 AUDIT	3
3 AUDIT TEAM STATEMENT	6
APPENDIX A	7
APPENDIX B	8

1. INTRODUCTION

- 1.1 This report results from a Stage 1 Road Safety Audit carried out on the preliminary design of the highway access works associated with residential development to the north of Summer Lane in Pagham, West Sussex, at the request of the Design Organisation, Vectos Transport Planning, Network Building, 97 Tottenham Court Road, London.
- 1.2 This proposal comprises introducing:
- A T-junction on Summer Lane to access the site of about 100 units.
 - Build-out on Pagham Road to improve visibility from side road.
 - Widening of Summer Lane to allow two way traffic flow including provision of footway where space permits.
- 1.3 The Audit Team membership was as follows:
- | | |
|-----------------|---|
| Martin Brownsey | BSc DipEM MCIHT
Director, M.B.Projects Ltd |
| Ted Smith | Traffic Safety Consultant |
- 1.4 The audit took place at the Oxted Office of M.B.Projects Ltd during May/June 2014. The audit comprised an examination of the drawings and documents provided by the Design Organisation, and listed in Appendix A to this report.
- 1.5 The site was visited by the Audit Team together during the morning of 30 May 2014 when weather conditions were dry and fine. Traffic conditions on Summer Lane were very light and several walkers and no cyclists were observed using the footpath at the west end of Summer Lane.
- 1.6 The terms of reference of this audit are as described in the Department for Transport document HD19/03 Road Safety Audit. The Audit Team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria.
- 1.7 Each problem identified has been given a location reference and these are shown on the A3 location plan in Appendix B.
- 1.8 No details of any Departures from Standard have been provided by the Design Organisation.

2. ITEMS RESULTING FROM THIS STAGE 1 AUDIT

A1 GENERAL

A1.1 Comment Location: General

Summary: Risk of exacerbating an existing accident problem

Injury accident data has been supplied for audit covering the 5 year period 1.05.2009 to 30.04.14. The data shows 4 recorded injury accidents on Pagham Road within 100m of the Summer Lane junction:

- one involved a vehicle conflicting with a child cyclist emerging from a side access, resulted in slight injury to the cyclist.
- one involved a vehicle right turning out on to Pagham Road being struck by a southbound vehicle – one slight and one serious injury.
- One involved a drunk pedestrian stumbling into the path of a van, resulting in serious injury to the pedestrian.
- One involved a vehicle running over the foot of an event marshal

There would not appear to be any particular contributory factors that could be exacerbated by the proposed scheme.

A1.2 Problem Location A (see location plan in Appendix B).

Summary: No clearance to boundary walls

The proposed road widening along Summer Lane shows a footway along the northside and the south kerblines in places being setback to the highway boundary. Part of this boundary consists of boundary walls and fencing to the adjacent houses such that the current clearance to them from passing vehicles will be removed.

There is also one driveway where due to bushes visibility to the right from the drive will be made much worse due to the shift in kerblines such that a car could exit the drive and conflict with a westbound vehicle.

Recommendation It would be usual to have a minimum of 450mm clearance to hard objects in order to reduce the risk of vehicle impact. Cross sections should be produced at each change of cross-section in order to check the safety and constructability of that proposed.

A1.3 Problem Location B (see location plan in Appendix B).

Summary: Risk of fall into ditch

There is an existing ditch that runs alongside the western part of Summer Lane. It is not clear from the road widening what future ditch provision is planned. A steep bank at the rear of the proposed footway could be hazardous for pedestrians.

Recommendation Designer to add any new ditching works to the drawing and determine any measures required to protect pedestrians, as necessary.

A2 LOCAL ALIGNMENT

A2.1 Problem Location C (see location plan in Appendix B).

Summary: Risk of head-on conflict

On-street parking was observed outside the cottages on the east side of Pagham Road, to the north of the Summer Lane/Pagham Road junction. A southbound vehicle overtaking these parked cars will now have to swerve back to their own side quicker due to the proposed realignment of the centre line which will place a northbound vehicle much closer to the southbound vehicle such that head-on conflict could result.

Recommendation A length of parking restrictions may be required around the northeast radius of the junction up to the first house on the east side of the road in order ease separation of opposing flows.

A3 JUNCTIONS

A3.1 No problems identified in this category at this stage 1 audit.

A4 NON MOTOR VEHICLE PROVISION

A4.1 Problem Location D (see location plan in Appendix B).

Summary: Assisting pedestrians on desire line

There is currently no pedestrian dropped crossing point from Summer Lane across to the east side of Pagham Road. Residents of the proposed site may wish to access the southbound bus stop for example and will need a safe crossing point.

Recommendation The Designer should investigate if there is a suitable location for a crossing point across Pagham Road, on the new build-out for

example.

A4.2 Problem Location E (see location plan in Appendix B).
Summary: Risk of vehicle/pedestrian conflict

For a pedestrian standing on the south side of the crossing point at the east end of Summer Lane, their view to the left of an approaching eastbound vehicle is made worse by the realignment of Summer Lane back to the highway boundary, in this case the fencing to the adjacent property. This could cause a pedestrian to step out into the path of the vehicle.

Recommendation The Designer should review the alignment of the south kerbline in order to provide some intervisibility.

A5 SIGNS AND LIGHTING

A5.1 No signage or street lighting is proposed at this stage 1.

3. AUDIT TEAM STATEMENT

I certify that this audit has been carried out in accordance with HD19/03.

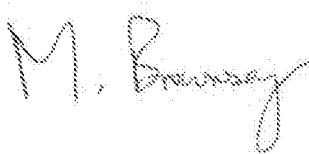
AUDIT TEAM LEADER:

Name: MARTIN G BROWNSEY BSc DipEM MCIHT

Position: Director

Organisation: MB Projects Ltd

Address: Farthings, Grants Lane, Oxted, Surrey, RH8 0RH



Signed:

Date: 7th July 2014

AUDIT TEAM MEMBER:

Name: TED SMITH

Position: Traffic Safety Consultant

Address: 1a The Parade, East Wittering, Chichester, West Sussex, PO20 8BN

MB Projects Ltd

Highways Consultancy

Email: info@mbprojects.co.uk

www.roadsafetyaudit.org.uk

Tel: 01883 712680

APPENDIX A

LIST OF DRAWINGS AND DOCUMENTS EXAMINED IN THIS AUDIT

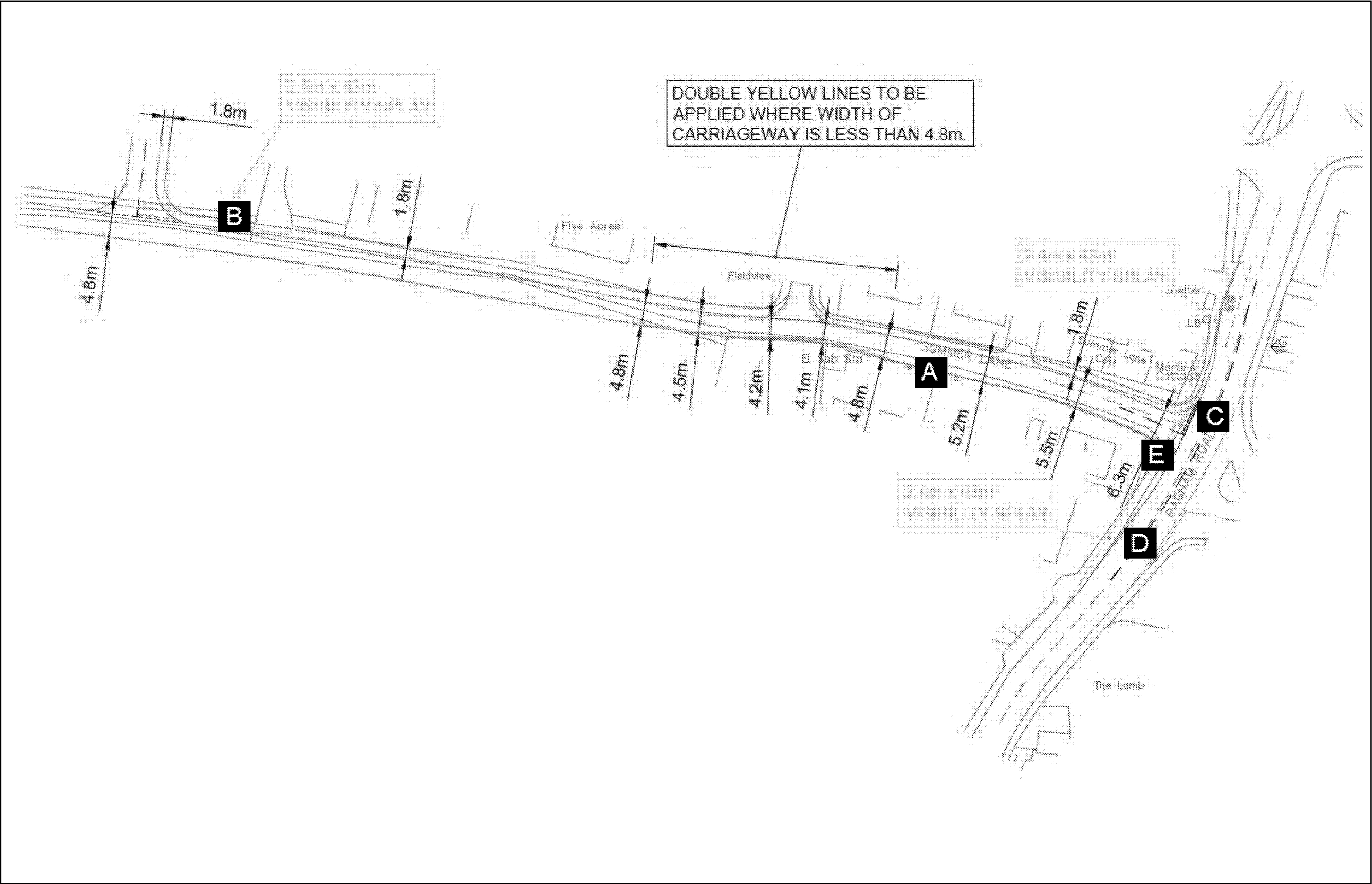
Drawing No.	Scale	Description
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Vectos Consultants

120843/A/03 B	1:1000	Site Access Option 1
120843/SK/02 A	1:500	Proposed Build Out

Documents:

TRICS AM and PM peak Traffic Flows	Vectos	March 2014
Injury Accident Data	Sussex Safer Roads	
Pagham Rd Vehicle Count	K&M Traffic Surveys	June 2014



APPENDIX E

Designer's Response

Designers Response

Stage 1 Road Safety Audit, Summer Lane, Pagham

June 2014

Introduction

1. This designer's response has been prepared in order to address any comments raised within a Stage 1 Road Safety Audit (RSA) prepared by M B Projects Ltd relating to a proposed development site accessed via Summer Lane in Pagham. The RSA has been prepared following a site visit by M B Projects Ltd on Friday 30th May 2014.
2. The proposals include amendments to the existing alignment of Summer Lane as well as improvements to the junction of Summer Lane and Pagham Road to improve visibility for drivers.

Response to Items Raised

3. The RSA sets out a number of issues that are addressed within the following paragraphs, firstly setting out the comments within the safety audit and then a response where necessary.

Location A – No Clearance to Boundary Walls

4. The RSA states that:

"The proposed road widening along Summer Lane shows a footway along the northside and the south kerbline in places being setback to the highway boundary. Part of this boundary consists of boundary walls and fencing to the adjacent houses such that the current clearance to them from passing vehicles will be removed.

There is also one driveway where due to bushes visibility to the right from the drive will be made much worse due to the shift in kerbline such that a car could exit the drive and conflict with a westbound vehicle."

5. The RSA recommends providing a 450mm clearance to hard objects in order to reduce the risk of vehicle impact. Summer Lane is however constrained in width, and it is not possible to provide this level of clearance alongside sufficient carriageway width and a footway for pedestrians.
6. At its narrowest, it is proposed to reduce the carriageway width to 4.1 metres which allows two cars to pass each other in accordance with guidance contained in Manual for Streets. In addition a footway of 1.8 metres in width is proposed on the northern side of Summer Lane, an improvement over the existing provision that is less than 1 metre in width in places.
7. It is commonplace in rural areas for vehicles to need to exit a private drive onto a road where

there is no footway and visibility is restricted. Furthermore, the presence of private driveways and the general nature of Summer Lane aids in reducing vehicle speeds.

Location B – Risk of Fall into Ditch

8. The RSA stated that:

“There is an existing ditch that runs alongside the western part of Summer Lane. It is not clear from the road widening what future ditch provision is planned. A steep bank at the rear of the proposed footway could be hazardous for pedestrians.”

9. The RSA recommends determining any measures required to protect pedestrians, as necessary. This is agreed, with the ditch to be relocated to ensure that it does not conflict with the footway provision. Details relating to the protection of pedestrians using the footway will be determined as part of detailed design.

Location C – Risk of Head-on Conflict

10. The RSA stated that:

“On-street parking was observed outside the cottages on the east side of Pagham Road, to the north of the Summer Lane/Pagham Road junction. A southbound vehicle overtaking these parked cars will now have to swerve back to their own side quicker due to the proposed realignment of the centre line which will place a northbound vehicle much closer to the southbound vehicle such that head-on conflict could result.”

11. The RSA recommends providing a length of parking restriction around the northeast radius of the junction up to the first house on the east side of the road in order ease separation of opposing flows.
12. Double yellow lines operate on both sides of Summer Lane for a length of 14 metres from the junction with Pagham Road at present, which it is proposed to reinstate as part of the proposals. These restrictions extend past the first house on the east side of the road. These amendments are illustrated on Drawing **120843-A-03 Revision D**.
13. Furthermore, the realignment of the carriageway will increase the width of the road at its junction with Pagham Road from the current maximum of 5.5 metres to 6.3 metres, providing additional width for vehicles to realign should they be passing a parked vehicle.

Location D – Assisting Pedestrians on Desire Line

14. The RSA stated that:

“There is currently no pedestrian dropped crossing point from Summer Lane across to the east side of Pagham Road. Residents of the proposed site may wish to access the southbound bus stop for example and will need a safe crossing point.”

15. The RSA recommends investigating if there is a suitable location for a crossing point across Pagham Road.
16. The location of the southbound bus stop in-between the minor arm of Barton Close and a second access road leading into Barton Close means that there is limited scope to provide a dropped kerb in the immediate vicinity of the junction or on the new kerb build-out. The

location of the northbound bus stop to the immediate north of Summer Lane further restricts the potential to provide an informal crossing point at this location.

17. The provision of a crossing point further away from the junction would unlikely be used by pedestrians as it would involve a detour from the desire line to the southbound bus stop. Should West Sussex County Council deem it as necessary then the provision of a crossing further south of the Summer Lane junction could be considered.

Location E – Risk of Vehicle/Pedestrian Conflict

18. The RSA stated that:

“For a pedestrian standing on the south side of the crossing point at the east end of Summer Lane, their view to the left of an approaching eastbound vehicle is made worse by the realignment of Summer Lane back to the highway boundary, in this case the fencing to the adjacent property. This could cause a pedestrian to step out into the path of the vehicle.”

19. The RSA recommends reviewing the alignment of the southern kerbline in order to provide some inter-visibility.
20. With the realignment of Summer Lane the width of the carriageway will be increased, whilst the presence of double yellow lines and centre road markings will ensure that eastbound vehicles are not straying onto the southern side of the road. In addition pedestrians approaching from the south will benefit from dropped kerbs and tactile paving.
21. Whilst visibility along Summer Lane for pedestrians on the southern side of the junction will reduce by moving the footway to the northern side of the road, a pedestrian inter-visibility splay of 2 metres by 2 metres can still be achieved. This is illustrated on revised drawing **120843-A-03 Revision D**.

Summary and Conclusions

22. This note provides a response where necessary to comments raised within a stage 1 RSA prepared by M B Projects Ltd in relation to a proposed development site accessed via Summer Lane in Pagham.
23. The note addresses each item in turn providing a potential mitigation where necessary. In summary this would involve:
 - The inclusion of double yellow lines on both sides of Summer Lane for a length of 14 metres from the junction with Pagham Road;
 - Dropped kerbs and tactile paving at the junction of Summer Lane with Pagham Road; and
 - The provision of a pedestrian inter-visibility splay of 2 metres by 2 metres for pedestrians crossing Summer Lane from the south.
24. As such, this response note is shown to address the issues raised within the stage 1 RSA by providing appropriate mitigation measures where necessary.

APPENDIX F

Speed Survey Results

Site No: 17550001

Grid Reference: SZ89116,98378

Pagham Road, Bognor Regis (LC 29)

Speed Report-Limit 30 Mph

Tue 03-Jun-14

Channel: Northbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <6Mph	Bin 2 6-<11	Bin 3 11-<16	Bin 4 16-<21	Bin 5 21-<26	Bin 6 26-<31	Bin 7 31-<36	Bin 8 36-<41	Bin 9 41-<46	Bin 10 46-<51	Bin 11 51-<56	Bin 12 =>56
00:00		4 -	34.8	9.5	0	0	0	0	0	2	1	0	0	1	0	0
01:00		0 -	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00		1 -	38.5	-	0	0	0	0	0	0	0	1	0	0	0	0
03:00		2 -	26	3.5	0	0	0	0	1	1	0	0	0	0	0	0
04:00	10	36	31	7.6	0	0	0	0	2	5	1	1	0	1	0	0
05:00	45	35.1	29.9	6.2	0	0	1	1	7	19	12	3	1	1	0	0
06:00	93	35.3	29.6	6.4	0	1	4	0	13	40	24	8	3	0	0	0
07:00	232	34	28.4	5.7	0	2	3	12	46	104	49	14	2	0	0	0
08:00	262	33.7	28.8	4.6	0	0	2	7	52	120	75	6	0	0	0	0
09:00	215	31.6	27.3	5.2	0	0	3	18	54	104	29	5	1	1	0	0
10:00	239	30.6	26.4	4.4	0	0	1	12	105	93	23	5	0	0	0	0
11:00	201	30.4	26.6	4	0	0	0	9	81	91	19	1	0	0	0	0
12:00	203	30.4	26.4	4.4	0	0	1	10	89	82	16	5	0	0	0	0
13:00	194	30.9	27.2	4.6	0	0	1	10	63	92	23	4	1	0	0	0
14:00	195	32.4	27.9	4.4	0	0	1	4	58	93	34	5	0	0	0	0
15:00	172	33.5	28.1	5.3	0	2	1	6	45	74	35	9	0	0	0	0
16:00	170	33.3	28	5.2	0	1	2	7	43	75	35	6	1	0	0	0
17:00	164	32.7	27.6	5.3	0	0	3	7	51	69	26	7	0	1	0	0
18:00	145	33.8	28.7	4.9	0	0	0	7	28	70	32	7	1	0	0	0
19:00	142	33.3	27.8	5.8	0	1	3	8	36	61	24	7	2	0	0	0
20:00	69	32.2	27.7	4.6	0	0	1	3	17	34	13	1	0	0	0	0
21:00	54	33.5	27.9	6	0	1	2	1	11	25	11	3	0	0	0	0
22:00	35	33	28.1	5	0	0	1	0	10	15	8	1	0	0	0	0
23:00	18	40.5	33.5	9	0	0	1	0	2	3	6	3	2	0	1	0
12H,7-19	2392	32.5	27.6	4.9	0	5	18	109	715	1067	396	74	6	2	0	0
16H,6-22	2750	32.7	27.7	5	0	8	28	121	792	1227	468	93	11	2	0	0
18H,6-24	2803	32.8	27.7	5.1	0	8	30	121	804	1245	482	97	13	2	1	0
24H,0-24	2865	32.9	27.8	5.1	0	8	31	122	814	1272	496	102	14	5	1	0
Am	08:00 -	-	-	-		07:00	06:00	09:00	10:00	08:00	08:00	07:00	06:00	09:00 -	-	
Peak	262 -	-	-	-		2	4	18	105	120	75	14	3	1 -	-	
Pm	12:00	23:00	23:00	23:00 -		15:00	19:00	13:00	12:00	14:00	16:00	15:00	23:00	17:00	23:00 -	
Peak	203	40.5	33.5	9 -		2	3	10	89	93	35	9	2	1	1 -	

K & M TRAFFIC SURVEYS

Created at 12:36:35 on 11 Jun 2014

Site No: 17550001

Grid Reference: SZ89116,98378

Pagham Road, Bognor Regis (LC 29)

Speed Report-Limit 30 Mph

Wed 04-Jun-14

Channel: Northbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <6Mph	Bin 2 6-<11	Bin 3 11-<16	Bin 4 16-<21	Bin 5 21-<26	Bin 6 26-<31	Bin 7 31-<36	Bin 8 36-<41	Bin 9 41-<46	Bin 10 46-<51	Bin 11 51-<56	Bin 12 =>56
00:00		6 -	32.7		6	0	0	0	0	1	1	2	2	0	0	0
01:00		4 -	28.5		4.2	0	0	0	0	1	2	1	0	0	0	0
02:00		4 -	29.8		2.8	0	0	0	0	0	3	1	0	0	0	0
03:00		0 -	-	-		0	0	0	0	0	0	0	0	0	0	0
04:00	12	42.8	31.4		9.2	0	0	0	1	2	5	1	0	2	1	0
05:00	40	36.4	30.9		5.5	0	0	0	0	8	13	12	6	1	0	0
06:00	89	35.2	29.7		6.4	0	0	3	0	19	34	23	6	2	2	0
07:00	238	34.3	28.7		5.6	0	0	5	10	46	107	51	16	3	0	0
08:00	241	33.8	28.5		5.1	0	2	1	9	53	107	58	11	0	0	0
09:00	204	32.4	27.9		4.2	0	0	0	6	57	99	40	2	0	0	0
10:00	214	30.6	26.7		4.4	0	1	2	6	81	100	22	1	1	0	0
11:00	220	30.7	27		4.4	0	1	0	11	70	112	22	4	0	0	0
12:00	213	30.9	27.3		4.5	0	1	3	5	64	108	31	0	1	0	0
13:00	166	32.6	27.5		4.9	0	1	3	3	51	72	34	2	0	0	0
14:00	200	32.9	27.3		5.4	0	2	0	12	69	75	30	12	0	0	0
15:00	138	32.3	28.2		4.1	0	0	0	2	35	73	26	1	1	0	0
16:00	184	33.2	28.2		4.6	0	0	0	4	54	82	36	8	0	0	0
17:00	155	33.7	28.9		4.6	0	1	0	5	26	76	43	4	0	0	0
18:00	173	34.1	28.3		5.6	0	0	1	14	42	64	41	10	0	1	0
19:00	125	31.7	27.1		4.9	0	0	3	6	37	57	20	2	0	0	0
20:00	67	35.3	29.8		5.1	0	0	0	0	17	24	18	8	0	0	0
21:00	46	34.3	28.3		5.6	0	0	0	3	14	15	10	4	0	0	0
22:00	25	34.9	30.5		5.2	0	0	0	0	5	8	10	1	1	0	0
23:00	15	36.4	31.5		4.8	0	0	0	0	1	7	4	3	0	0	0

12H,7-19	2346	32.8	27.8	4.9	0	9	15	87	648	1075	434	71	6	1	0	0
16H,6-22	2673	33	27.9	5	0	9	21	96	735	1205	505	91	8	3	0	0
18H,6-24	2713	33.1	28	5	0	9	21	96	741	1220	519	95	9	3	0	0
24H,0-24	2779	33.2	28	5	0	9	21	97	753	1244	536	103	12	4	0	0

Am	08:00 -	-	-	-		08:00	07:00	11:00	10:00	11:00	08:00	07:00	07:00	06:00 -	-	
Peak	241 -	-	-	-	-	2	5	11	81	112	58	16	3	2 -	-	
Pm	12:00	23:00	23:00	18:00 -		14:00	19:00	18:00	14:00	12:00	17:00	14:00	22:00	18:00 -	-	
Peak	213	36.4	31.5	5.6 -		2	3	14	69	108	43	12	1	1 -	-	

K & M TRAFFIC SURVEYS

Created at 12:36:35 on 11 Jun 2014

Site No: 17550001

Grid Reference: SZ89116,98378

Pagham Road, Bognor Regis (LC 29)

Speed Report-Limit 30 Mph

Thu 05-Jun-14

Channel: Northbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <6Mph	Bin 2 6-<11	Bin 3 11-<16	Bin 4 16-<21	Bin 5 21-<26	Bin 6 26-<31	Bin 7 31-<36	Bin 8 36-<41	Bin 9 41-<46	Bin 10 46-<51	Bin 11 51-<56	Bin 12 =>56
00:00		13	33.6	29.7	3.9	0	0	0	0	2	6	5	0	0	0	0
01:00		5	-	31.5	7.7	0	0	0	1	0	0	3	1	0	0	0
02:00		0	-	-	-	0	0	0	0	0	0	0	0	0	0	0
03:00		0	-	-	-	0	0	0	0	0	0	0	0	0	0	0
04:00		10	41	35	7.9	0	0	0	0	1	3	1	3	1	1	0
05:00		49	34.8	29.5	6.4	0	1	1	1	7	19	16	2	2	0	0
06:00		96	36	30.4	6.6	0	1	3	0	14	34	29	13	1	0	1
07:00		228	34.9	29.6	5.5	0	1	2	6	39	93	67	16	4	0	0
08:00		243	34.3	29.5	4.5	0	0	1	4	39	112	76	11	0	0	0
09:00		246	32.4	27.8	4.8	0	2	2	9	58	125	46	3	1	0	0
10:00		268	31.8	27.8	4.7	0	2	3	8	61	146	43	4	1	0	0
11:00		159	32.9	27.9	4.8	0	0	2	7	41	72	33	4	0	0	0
12:00		197	31.9	27.4	4.9	0	1	2	6	65	88	28	7	0	0	0
13:00		219	30.8	26.3	6.3	0	7	11	14	45	113	22	6	1	0	0
14:00		166	30.9	27.7	3.9	0	0	0	3	48	92	20	3	0	0	0
15:00		178	32.5	28.2	4.5	0	0	2	4	40	95	32	4	1	0	0
16:00		232	31.9	27.4	4.9	0	0	4	15	58	113	37	5	0	0	0
17:00		177	33.6	28.3	5.4	0	0	4	7	38	82	37	7	1	1	0
18:00		174	32.3	27.7	5.1	0	2	5	1	42	90	29	5	0	0	0
19:00		156	30.9	27.4	4.6	0	1	0	5	47	81	17	4	1	0	0
20:00		86	34.4	29	5.3	0	0	1	2	20	36	20	6	1	0	0
21:00		69	34.7	29.7	7.6	0	1	1	2	14	23	23	3	0	0	2
22:00		45	30.8	27.5	4.6	0	0	1	1	12	24	6	1	0	0	0
23:00		17	33.4	28.2	6.4	0	0	0	2	4	6	4	0	1	0	0

12H,7-19	2487	32.9	28	5.1	0	15	38	84	574	1221	470	75	9	1	0	0
16H,6-22	2894	33.2	28.1	5.2	0	18	43	93	669	1395	559	101	12	1	1	2
18H,6-24	2956	33.1	28.1	5.2	0	18	44	96	685	1425	569	102	13	1	1	2
24H,0-24	3033	33.3	28.1	5.2	0	19	45	98	695	1453	594	108	16	2	1	2

Am	10:00 -	-	-	-	-	10:00	10:00	09:00	10:00	10:00	08:00	07:00	07:00	04:00	06:00 -	
Peak	268 -	-	-	-	-	2	3	9	61	146	76	16	4	1	1 -	

Pm	16:00	21:00	21:00	21:00 -	-	13:00	13:00	16:00	12:00	16:00	17:00	17:00	23:00	17:00 -		21:00
Peak	232	34.7	29.7	7.6 -	-	7	11	15	65	113	37	7	1	1 -		2

K & M TRAFFIC SURVEYS

Created at 12:36:35 on 11 Jun 2014

Site No: 17550001

Grid Reference: SZ89116,98378

Pagham Road, Bognor Regis (LC 29)

Speed Report-Limit 30 Mph

Fri 06-Jun-14

Channel: Northbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <6Mph	Bin 2 6-<11	Bin 3 11-<16	Bin 4 16-<21	Bin 5 21-<26	Bin 6 26-<31	Bin 7 31-<36	Bin 8 36-<41	Bin 9 41-<46	Bin 10 46-<51	Bin 11 51-<56	Bin 12 =>56
00:00		6 -	30.2		3	0	0	0	0	0	4	2	0	0	0	0
01:00		6 -	30.2		7	0	0	0	0	2	2	0	2	0	0	0
02:00		2 -	28.5		1.8	0	0	0	0	0	2	0	0	0	0	0
03:00		0 -	-	-		0	0	0	0	0	0	0	0	0	0	0
04:00	12	40.3	32.3		6.6	0	0	0	0	1	6	2	1	2	0	0
05:00	43	39	32.2		6.9	0	0	1	1	7	7	11	15	1	0	0
06:00	102	37.8	31.3		6.4	0	0	2	0	14	38	28	12	7	1	0
07:00	209	35	29.8		5.4	0	0	2	6	34	85	62	17	2	1	0
08:00	277	33.3	28.5		4.7	0	1	1	9	54	144	57	10	1	0	0
09:00	281	30.9	27.4		4.3	0	0	1	10	89	140	35	5	1	0	0
10:00	280	30.8	26.7		4.7	0	3	2	11	100	126	35	3	0	0	0
11:00	211	31.5	27.6		4.6	0	1	2	6	55	112	29	6	0	0	0
12:00	206	32.1	27.7		4.7	0	1	2	6	54	104	35	3	1	0	0
13:00	187	31.5	27.3		4.8	1	0	1	8	56	90	27	3	1	0	0
14:00	197	33	28		5.3	0	3	2	10	34	101	42	5	0	0	0
15:00	202	31.4	27		5	0	2	5	5	64	93	31	2	0	0	0
16:00	191	32.8	27.6		5.5	0	5	0	5	55	85	33	8	0	0	0
17:00	225	31.9	27.7		4.5	0	1	0	11	55	117	37	4	0	0	0
18:00	166	32.5	28		4.8	0	1	1	4	41	85	28	5	1	0	0
19:00	151	32.2	27.7		4.9	0	1	1	3	47	71	21	7	0	0	0
20:00	100	34.8	29.8		4.9	0	0	0	3	12	52	23	9	1	0	0
21:00	78	32.8	27.6		5.5	0	0	3	0	27	31	13	3	1	0	0
22:00	41	31.4	27.5		5.8	0	1	0	2	10	21	5	1	1	0	0
23:00	17	34	28.2		5.9	0	0	0	2	4	5	5	1	0	0	0

12H,7-19	2632	32.5	27.8	4.9	1	18	19	91	691	1282	451	71	7	1	0	0
16H,6-22	3063	32.8	27.9	5	1	19	25	97	791	1474	536	102	16	2	0	0
18H,6-24	3121	32.8	27.9	5	1	20	25	101	805	1500	546	104	17	2	0	0
24H,0-24	3190	33	28	5.1	1	20	26	102	815	1521	561	122	20	2	0	0

Am	09:00 -	-	-	-		10:00	11:00	10:00	10:00	08:00	07:00	07:00	06:00	07:00 -	-	
Peak	281 -	-	-	-	-	3	2	11	100	144	62	17	7	1 -	-	

Pm	17:00	20:00	20:00	23:00	13:00	16:00	15:00	17:00	15:00	17:00	14:00	20:00	22:00 -	-	-	
Peak	225	34.8	29.8	5.9	1	5	5	11	64	117	42	9	1 -	-	-	

K & M TRAFFIC SURVEYS

Created at 12:36:35 on 11 Jun 2014

Site No: 17550001

Grid Reference: SZ89116,98378

Pagham Road, Bognor Regis (LC 29)

Speed Report-Limit 30 Mph

Sat 07-Jun-14

Channel: Northbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <6Mph	Bin 2 6-<11	Bin 3 11-<16	Bin 4 16-<21	Bin 5 21-<26	Bin 6 26-<31	Bin 7 31-<36	Bin 8 36-<41	Bin 9 41-<46	Bin 10 46-<51	Bin 11 51-<56	Bin 12 =>56
00:00		20	38.5	30.3	7.3	0	0	0	1	5	7	2	3	2	0	0
01:00		12	39.5	35.6	6.7	0	0	0	0	0	4	2	4	1	1	0
02:00		8 -		31	8.6	0	0	0	2	0	1	2	3	0	0	0
03:00		5 -		29.5	6.6	0	0	0	0	2	1	1	1	0	0	0
04:00		2 -		41	10.6	0	0	0	0	0	0	1	0	0	1	0
05:00		31	33.4	28.7	4.9	0	0	1	0	6	15	8	1	0	0	0
06:00		43	36.1	29.8	7.1	0	0	2	1	8	15	10	4	3	0	0
07:00		101	34.1	29.2	5.1	0	0	0	2	19	55	15	7	3	0	0
08:00		127	34.1	29.4	4.6	0	1	0	2	19	61	39	5	0	0	0
09:00		194	30.6	26.9	4.3	0	0	1	8	69	94	18	4	0	0	0
10:00		273	30.4	26.2	4.3	0	0	3	14	117	111	25	3	0	0	0
11:00		323	30.2	26.5	3.8	0	0	1	12	128	157	25	0	0	0	0
12:00		249	30.9	27.2	4.7	0	2	2	9	73	129	27	6	1	0	0
13:00		220	32.4	27.4	5.1	0	0	2	14	68	93	33	9	1	0	0
14:00		184	32.7	26.7	6.2	0	6	3	10	59	68	30	7	1	0	0
15:00		183	32.3	27.8	5.4	0	2	4	3	43	95	32	2	0	1	1
16:00		160	31.5	27.1	4.9	0	1	1	7	57	67	23	3	1	0	0
17:00		197	33.5	28.3	4.9	0	1	2	5	47	88	48	6	0	0	0
18:00		181	32.3	27.3	5.3	0	2	5	3	55	80	31	5	0	0	0
19:00		149	32.6	27.9	5.2	0	1	3	1	42	71	26	3	1	1	0
20:00		124	32.2	27.5	4.8	0	0	1	6	38	55	21	2	1	0	0
21:00		82	30.6	26.4	5.4	0	0	3	6	28	35	7	2	1	0	0
22:00		60	33.5	27.8	5.6	0	0	0	5	18	22	11	3	1	0	0
23:00		43	34.4	28.7	6.1	0	1	0	1	11	15	12	2	1	0	0
12H,7-19	2392	31.8	27.3	4.9	0	15	24	89	754	1098	346	57	7	1	1	0
16H,6-22	2790	31.9	27.4	5	0	16	33	103	870	1274	410	68	13	2	1	0
18H,6-24	2893	32	27.4	5	0	17	33	109	899	1311	433	73	15	2	1	0
24H,0-24	2971	32.2	27.5	5.1	0	17	34	112	912	1339	449	85	18	4	1	0
Am	11:00 -		04:00	04:00 -		08:00	10:00	10:00	11:00	11:00	08:00	07:00	07:00	04:00 -	-	
Peak	323 -		41	10.6 -		1	3	14	128	157	39	7	3	1 -	-	
Pm	12:00	23:00	23:00	14:00 -		14:00	18:00	13:00	12:00	12:00	17:00	13:00	23:00	19:00	15:00 -	
Peak	249	34.4	28.7	6.2 -		6	5	14	73	129	48	9	1	1	1 -	

K & M TRAFFIC SURVEYS

Created at 12:36:35 on 11 Jun 2014

Site No: 17550001

Grid Reference: SZ89116,98378

Pagham Road, Bognor Regis (LC 29)

Speed Report-Limit 30 Mph

Sun 08-Jun-14

Channel: Northbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <6Mph	Bin 2 6-<11	Bin 3 11-<16	Bin 4 16-<21	Bin 5 21-<26	Bin 6 26-<31	Bin 7 31-<36	Bin 8 36-<41	Bin 9 41-<46	Bin 10 46-<51	Bin 11 51-<56	Bin 12 =>56
00:00		20	34.1	28.8	5.9	0	0	1	0	4	9	4	2	0	0	0
01:00		11	35.6	30.8	4.9	0	0	0	0	1	6	2	2	0	0	0
02:00		14	35.4	29.2	7.9	0	1	0	0	3	3	5	2	0	0	0
03:00		3 -		28.5	5	0	0	0	0	1	1	1	0	0	0	0
04:00		5 -		31.5	3.1	0	0	0	0	0	2	3	0	0	0	0
05:00		14	39.7	32.8	9	0	1	0	0	1	3	2	6	1	0	0
06:00		24	39.2	27.7	10.3	0	1	2	4	4	4	3	3	3	0	0
07:00		78	34.9	28.9	5.6	0	0	2	2	15	36	14	9	0	0	0
08:00		120	34.5	29.3	5.4	0	0	4	1	19	54	34	7	1	0	0
09:00		186	32.7	28.3	4.9	0	3	3	2	28	108	39	3	0	0	0
10:00		242	32.8	27.9	4.8	0	1	3	6	63	114	50	4	1	0	0
11:00		301	32.6	28.2	4.7	0	2	2	8	64	163	51	11	0	0	0
12:00		234	30.7	26.7	5.2	0	4	6	10	63	122	25	4	0	0	0
13:00		206	33.1	27.8	5.9	0	5	0	11	48	93	42	3	3	1	0
14:00		198	33.5	28.3	5.6	0	2	4	3	46	98	30	12	3	0	0
15:00		188	33.8	28.8	5.1	0	2	1	3	39	87	48	6	2	0	0
16:00		227	32.7	27.9	5.1	0	3	1	7	56	113	36	11	0	0	0
17:00		238	33	28.2	4.9	0	2	1	2	64	117	39	12	1	0	0
18:00		188	33.8	28.6	5.3	0	1	3	6	39	83	48	6	2	0	0
19:00		148	33.9	28.6	5.2	0	1	2	5	28	69	35	8	0	0	0
20:00		100	34	29.4	5.3	0	0	2	0	16	55	19	4	4	0	0
21:00		64	33.7	28	6	0	1	2	4	11	25	20	1	0	0	0
22:00		33	36.7	29.9	8.1	0	1	2	0	5	9	10	4	2	0	0
23:00		20	34.8	29.3	5.4	0	0	0	0	7	5	6	2	0	0	0

12H,7-19	2406	33.2	28.1	5.2	0	25	30	61	544	1188	456	88	13	1	0	0
16H,6-22	2742	33.3	28.2	5.3	0	28	38	74	603	1341	533	104	20	1	0	0
18H,6-24	2795	33.4	28.2	5.3	0	29	40	74	615	1355	549	110	22	1	0	0
24H,0-24	2862	33.5	28.3	5.4	0	31	41	74	625	1379	566	122	23	1	0	0

Am	11:00 -		05:00	06:00 -		09:00	08:00	11:00	11:00	11:00	11:00	11:00	06:00 -	-	-
Peak	301 -		32.8	10.3 -		3	4	8	64	163	51	11	3 -	-	-
Pm	17:00	22:00	22:00	22:00 -		13:00	12:00	13:00	17:00	12:00	18:00	17:00	20:00	13:00 -	-
Peak	238	36.7	29.9	8.1 -		5	6	11	64	122	48	12	4	1 -	-

K & M TRAFFIC SURVEYS

Created at 12:36:35 on 11 Jun 2014

Site No: 17550001

Grid Reference: SZ89116,98378

Pagham Road, Bognor Regis (LC 29)

Speed Report-Limit 30 Mph

Mon 09-Jun-14

Channel: Northbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <6Mph	Bin 2 6-<11	Bin 3 11-<16	Bin 4 16-<21	Bin 5 21-<26	Bin 6 26-<31	Bin 7 31-<36	Bin 8 36-<41	Bin 9 41-<46	Bin 10 46-<51	Bin 11 51-<56	Bin 12 =>56
00:00		7 -	32.1	5.7	0	0	0	0	1	2	2	2	0	0	0	0
01:00		6 -	31	5.4	0	0	0	0	1	2	2	1	0	0	0	0
02:00		6 -	25.2	5.4	0	0	0	2	0	4	0	0	0	0	0	0
03:00		5 -	29.5	4.4	0	0	0	0	1	2	2	0	0	0	0	0
04:00	11	40.6	32.1	6.5	0	0	0	0	1	5	3	0	2	0	0	0
05:00	50	35.6	28.6	7.9	0	2	3	0	11	13	14	6	1	0	0	0
06:00	93	34.6	28.8	6.6	0	2	3	2	14	43	20	6	3	0	0	0
07:00	235	34.3	29.3	4.9	0	0	3	2	42	113	59	13	3	0	0	0
08:00	269	32.1	28.1	4.3	0	0	2	5	64	148	41	9	0	0	0	0
09:00	220	30.7	27	4.3	0	0	2	9	74	108	23	4	0	0	0	0
10:00	248	30.2	26.2	4.1	0	0	1	15	102	110	18	2	0	0	0	0
11:00	226	31.4	26.9	5.3	0	1	7	11	71	99	30	6	1	0	0	0
12:00	175	31.3	27.2	4.7	0	2	1	3	58	83	25	3	0	0	0	0
13:00	178	31.7	28.1	4.4	0	0	1	5	39	102	26	4	0	1	0	0
14:00	200	31.7	27.7	4.5	0	2	1	1	57	104	31	4	0	0	0	0
15:00	196	30.3	25.8	5.2	0	4	3	11	80	80	15	2	1	0	0	0
16:00	187	32	28.2	4.7	0	1	1	4	41	106	27	5	2	0	0	0
17:00	189	31.2	27.4	4.4	0	1	1	4	58	95	27	3	0	0	0	0
18:00	148	33	28.1	4.7	0	1	0	6	36	69	33	3	0	0	0	0
19:00	105	30.9	26.8	5.2	0	1	4	4	29	51	15	1	0	0	0	0
20:00	78	30.8	27.5	4.5	0	0	0	3	25	39	7	4	0	0	0	0
21:00	46	32.3	28.2	4.5	0	0	0	0	15	22	6	3	0	0	0	0
22:00	31	35	28.2	7.4	0	1	2	1	4	13	6	4	0	0	0	0
23:00	17	37.2	31.4	6.5	0	0	1	0	1	5	6	4	0	0	0	0

12H,7-19	2471	31.7	27.5	4.7	0	12	23	76	722	1217	355	58	7	1	0	0
16H,6-22	2793	31.8	27.5	4.8	0	15	30	85	805	1372	403	72	10	1	0	0
18H,6-24	2841	32	27.6	4.9	0	16	33	86	810	1390	415	80	10	1	0	0
24H,0-24	2926	32.2	27.6	4.9	0	18	36	88	825	1418	438	89	13	1	0	0

Am	08:00 -		04:00	05:00 -		06:00	11:00	10:00	10:00	08:00	07:00	07:00	07:00 -	-	-	
Peak	269 -		32.1	7.9 -		2	7	15	102	148	59	13	3 -	-	-	
Pm	14:00	23:00	23:00	22:00 -		15:00	19:00	15:00	15:00	16:00	18:00	16:00	16:00	13:00 -	-	
Peak	200	37.2	31.4	7.4 -		4	4	11	80	106	33	5	2	1 -	-	

K & M TRAFFIC SURVEYS

Created at 12:36:35 on 11 Jun 2014

Site No: 17550001

Grid Reference: SZ89116,98378

Pagham Road, Bognor Regis (LC 29)

Speed Report-Limit 30 Mph

Tue 03-Jun-14

Channel: Southbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <6Mph	Bin 2 6-<11	Bin 3 11-<16	Bin 4 16-<21	Bin 5 21-<26	Bin 6 26-<31	Bin 7 31-<36	Bin 8 36-<41	Bin 9 41-<46	Bin 10 46-<51	Bin 11 51-<56	Bin 12 =>56
00:00		7 -	31.4	5.8	0	0	0	0	0	0	5	1	0	1	0	0
01:00		4 -	28.5	4.2	0	0	0	0	1	2	1	1	0	0	0	0
02:00		1 -	28.5 -		0	0	0	0	0	1	0	0	0	0	0	0
03:00		1 -	33.5 -		0	0	0	0	0	0	1	1	0	0	0	0
04:00		4 -	41	12.6	0	0	0	0	0	1	0	2	0	0	0	1
05:00	12	45.3	32.7	12.3	0	1	1	0	0	2	4	1	1	2	0	0
06:00	32	33.7	27.7	6.6	0	0	3	1	5	15	5	3	0	0	0	0
07:00	93	34.5	29	5.6	0	0	1	2	23	40	18	6	3	0	0	0
08:00	150	33	28.3	5.1	0	2	3	0	30	81	27	7	0	0	0	0
09:00	165	30.9	27.5	4.4	0	2	0	4	42	94	21	2	0	0	0	0
10:00	158	32.1	27.6	4.4	0	0	0	9	41	77	30	1	0	0	0	0
11:00	198	30.8	26.9	5	0	1	2	16	54	99	19	7	0	0	0	0
12:00	210	30.9	27	4.9	0	2	3	7	69	100	24	4	1	0	0	0
13:00	196	31.6	28.3	4.2	0	1	1	3	35	123	27	6	0	0	0	0
14:00	236	30.7	26.8	4.7	0	1	5	14	64	123	28	1	0	0	0	0
15:00	290	32.1	28	4.4	0	3	0	4	70	158	51	3	1	0	0	0
16:00	294	31.6	27.6	4.7	0	2	5	10	65	162	45	5	0	0	0	0
17:00	333	33	28.6	4.7	0	2	4	9	46	194	70	7	0	1	0	0
18:00	236	33.7	29	4.7	0	1	3	5	30	131	56	9	1	0	0	0
19:00	179	33.4	29.1	4.4	0	1	2	1	21	105	45	3	1	0	0	0
20:00	130	33.7	28.7	5	0	0	2	5	21	67	28	6	1	0	0	0
21:00	79	34.7	29.7	5.8	0	1	0	2	11	38	20	4	2	1	0	0
22:00	62	33.7	29.6	4.8	0	0	0	1	8	35	15	0	3	0	0	0
23:00	24	37.9	30.4	7.8	0	0	2	0	4	6	6	5	1	0	0	0

12H,7-19	2559	32.2	27.9	4.7	0	17	27	83	569	1382	416	58	6	1	0	0
16H,6-22	2979	32.5	28	4.8	0	19	34	92	627	1607	514	74	10	2	0	0
18H,6-24	3065	32.6	28.1	4.8	0	19	36	93	639	1648	535	79	14	2	0	0
24H,0-24	3094	32.7	28.1	4.9	0	20	37	93	640	1659	542	82	16	4	0	1

Am	11:00 -		04:00 -	-		09:00	08:00	11:00	11:00	11:00	10:00	11:00	07:00	05:00 -		04:00
Peak	198 -		41 -	-		2	3	16	54	99	30	7	3	2 -		1

Pm	17:00	23:00	23:00	23:00 -		15:00	16:00	14:00	15:00	17:00	17:00	18:00	22:00	21:00 -	-	
Peak	333	37.9	30.4	7.8 -		3	5	14	70	194	70	9	3	1 -	-	

K & M TRAFFIC SURVEYS

Created at 12:36:35 on 11 Jun 2014

Site No: 17550001

Grid Reference: SZ89116,98378

Pagham Road, Bognor Regis (LC 29)

Speed Report-Limit 30 Mph

Wed 04-Jun-14

Channel: Southbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <6Mph	Bin 2 6-<11	Bin 3 11-<16	Bin 4 16-<21	Bin 5 21-<26	Bin 6 26-<31	Bin 7 31-<36	Bin 8 36-<41	Bin 9 41-<46	Bin 10 46-<51	Bin 11 51-<56	Bin 12 =>56
00:00		15	36.6	31.8	5.7	0	0	0	0	2	5	5	2	1	0	0
01:00		4 -		29.8	7.6	0	0	0	0	2	0	1	1	0	0	0
02:00		2 -		31	3.5	0	0	0	0	0	1	1	0	0	0	0
03:00		2 -		33.5	1.8	0	0	0	0	0	0	2	0	0	0	0
04:00		2 -		36	3.5	0	0	0	0	0	0	1	1	0	0	0
05:00		6 -		33.5	3.4	0	0	0	0	0	1	4	1	0	0	0
06:00		28	35.6	30.8	6.3	0	0	1	0	3	11	9	2	2	0	0
07:00		82	34.1	28.2	6.4	2	0	2	2	16	35	20	5	0	0	0
08:00		147	34.4	29.7	4.6	0	0	2	1	19	69	49	7	0	0	0
09:00		173	31.5	28	4.3	0	0	2	2	42	98	25	3	1	0	0
10:00		155	31.3	27.3	4.6	0	1	2	7	39	81	24	1	0	0	0
11:00		167	30.8	27.2	4.5	0	0	1	5	59	80	17	4	1	0	0
12:00		195	31.1	27	5	0	1	3	9	63	89	23	7	0	0	0
13:00		230	31.8	27.5	4.5	0	2	0	7	65	115	39	2	0	0	0
14:00		224	31	27.2	4.7	0	2	1	8	72	107	28	6	0	0	0
15:00		280	32	28.2	3.9	0	0	1	5	60	162	49	3	0	0	0
16:00		263	32.5	28.1	4.6	0	0	4	6	60	139	46	8	0	0	0
17:00		328	34.1	29.2	5	0	0	7	9	40	169	87	12	4	0	0
18:00		243	33.7	28.4	5.1	0	1	4	15	36	114	68	5	0	0	0
19:00		189	33.8	29.2	4.5	0	1	1	2	26	101	52	5	1	0	0
20:00		103	33.4	29.3	3.7	0	0	0	1	13	59	29	1	0	0	0
21:00		98	33.9	28.7	5.4	0	1	2	0	21	46	22	5	1	0	0
22:00		57	35.7	30.8	5.5	0	0	0	2	6	23	18	6	2	0	0
23:00		11	39.6	34.9	5.2	0	0	0	0	0	3	3	4	1	0	0

12H,7-19	2487	32.8	28	4.8	2	7	29	76	571	1258	475	63	6	0	0	0
16H,6-22	2905	33	28.2	4.8	2	9	33	79	634	1475	587	76	10	0	0	0
18H,6-24	2973	33.1	28.3	4.8	2	9	33	81	640	1501	608	86	13	0	0	0
24H,0-24	3004	33.2	28.3	4.8	2	9	33	81	644	1508	622	91	14	0	0	0

Am	09:00 -		04:00	01:00	07:00	10:00	10:00	10:00	11:00	09:00	08:00	08:00	06:00 -	-	-	
Peak	173 -		36	7.6	2	1	2	7	59	98	49	7	2 -	-	-	
Pm	17:00	23:00	23:00	22:00 -		14:00	17:00	18:00	14:00	17:00	17:00	17:00	17:00 -	-	-	
Peak	328	39.6	34.9	5.5 -		2	7	15	72	169	87	12	4 -	-	-	

K & M TRAFFIC SURVEYS

Created at 12:36:35 on 11 Jun 2014

Site No: 17550001

Grid Reference: SZ89116,98378

Pagham Road, Bognor Regis (LC 29)

Speed Report-Limit 30 Mph

Thu 05-Jun-14

Channel: Southbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <6Mph	Bin 2 6-<11	Bin 3 11-<16	Bin 4 16-<21	Bin 5 21-<26	Bin 6 26-<31	Bin 7 31-<36	Bin 8 36-<41	Bin 9 41-<46	Bin 10 46-<51	Bin 11 51-<56	Bin 12 =>56
00:00		14	34.9	30.3	5.6	0	0	0	1	2	3	7	1	0	0	0
01:00		7 -		28.5	6.5	0	0	0	1	1	3	1	1	0	0	0
02:00		2 -		28.5	1.8	0	0	0	0	0	2	0	0	0	0	0
03:00		0 -	-			0	0	0	0	0	0	0	0	0	0	0
04:00		4 -		27.3	10.4	0	0	0	2	0	0	1	1	0	0	0
05:00		12	34.5	28.9	8.5	0	0	1	1	2	3	3	1	1	0	0
06:00		38	35.3	26.7	9.6	0	1	6	5	4	8	9	3	1	1	0
07:00		83	34	28.4	5.8	0	0	0	6	22	32	17	4	1	1	0
08:00		147	33.7	29.6	4.4	0	0	2	0	13	91	34	6	0	1	0
09:00		171	33.2	28.6	4.6	0	0	0	9	27	94	34	6	1	0	0
10:00		164	33.1	28.6	4.6	0	1	0	4	31	88	35	4	1	0	0
11:00		263	32.2	28.1	4.2	0	1	1	1	66	142	49	2	1	0	0
12:00		212	32.5	27.7	5.4	0	3	2	11	48	105	36	5	2	0	0
13:00		218	30.6	27	4.4	0	1	1	11	65	116	19	5	0	0	0
14:00		207	31.4	27.3	4.9	0	2	0	11	60	100	29	4	1	0	0
15:00		294	31.4	27.3	4.8	0	4	1	11	82	148	42	6	0	0	0
16:00		321	31.1	27.5	4.2	0	1	1	9	92	168	47	2	1	0	0
17:00		359	33.3	28.3	5	1	2	6	12	61	181	89	7	0	0	0
18:00		273	32.8	28.3	4.6	0	1	3	8	50	150	53	8	0	0	0
19:00		213	34.1	29.2	4.8	0	0	2	4	37	105	52	11	2	0	0
20:00		149	33.7	28.8	5.4	0	0	3	3	28	72	38	3	0	1	1
21:00		80	33	27.6	6	0	1	3	4	16	37	16	2	1	0	0
22:00		61	34.1	29.2	4.6	0	0	0	1	12	29	15	4	0	0	0
23:00		35	35.5	30.2	5.7	0	0	0	0	7	16	7	4	0	1	0

12H,7-19	2712	32.5	28	4.7	1	16	17	93	617	1415	484	59	8	2	0	0
16H,6-22	3192	32.8	28.1	4.9	1	18	31	109	702	1637	599	78	12	4	1	0
18H,6-24	3288	32.9	28.1	4.9	1	18	31	110	721	1682	621	86	12	5	1	0
24H,0-24	3327	32.9	28.1	4.9	1	18	32	115	726	1693	633	90	13	5	1	0

Am	11:00 -	-	-	-		11:00	06:00	09:00	11:00	11:00	11:00	09:00	11:00	08:00 -	-	
Peak	263 -	-	-	-	-	1	6	9	66	142	49	6	1	1 -	-	

Pm	17:00	23:00	23:00	21:00	17:00	15:00	17:00	17:00	16:00	17:00	17:00	19:00	19:00	23:00	20:00 -	
Peak	359	35.5	30.2	6	1	4	6	12	92	181	89	11	2	1	1 -	

K & M TRAFFIC SURVEYS

Created at 12:36:35 on 11 Jun 2014

Site No: 17550001

Grid Reference: SZ89116,98378

Pagham Road, Bognor Regis (LC 29)

Speed Report-Limit 30 Mph

Fri 06-Jun-14

Channel: Southbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <6Mph	Bin 2 6-<11	Bin 3 11-<16	Bin 4 16-<21	Bin 5 21-<26	Bin 6 26-<31	Bin 7 31-<36	Bin 8 36-<41	Bin 9 41-<46	Bin 10 46-<51	Bin 11 51-<56	Bin 12 =>56
00:00		11	30.6	27.6	4.6	0	0	0	1	2	6	2	0	0	0	0
01:00		7 -		32.8	4.7	0	0	0	0	0	3	2	2	0	0	0
02:00		2 -		33.5	7.1	0	0	0	0	0	1	0	1	0	0	0
03:00		2 -		33.5	1.8	0	0	0	0	0	0	2	0	0	0	0
04:00		3 -		35.2	5.9	0	0	0	0	0	1	0	2	0	0	0
05:00		5 -		28.5	8.7	0	0	1	0	0	1	3	0	0	0	0
06:00		39	36.5	29.4	8.1	0	1	3	1	5	10	12	6	1	0	0
07:00		87	34.7	29.7	5.7	0	0	1	4	10	42	22	4	4	0	0
08:00		193	33.3	28.8	4.5	0	1	4	2	25	107	53	1	0	0	0
09:00		193	32.2	27.7	4.9	0	1	6	2	46	100	36	1	1	0	0
10:00		212	31.6	27.3	5.3	0	2	6	7	55	106	30	4	2	0	0
11:00		205	33	28.4	4.9	0	1	1	10	34	113	36	9	1	0	0
12:00		225	32.8	28.4	4.3	0	0	1	6	44	124	44	6	0	0	0
13:00		275	30.7	26.8	4.7	0	1	4	16	82	138	30	3	1	0	0
14:00		268	33	28	5.1	1	2	0	8	71	124	54	6	1	1	0
15:00		368	30.8	27.4	4.3	0	0	6	7	103	204	40	7	1	0	0
16:00		365	33	28.6	4.5	0	0	6	9	55	208	79	6	2	0	0
17:00		348	32.9	28.4	4.8	0	3	3	12	51	200	71	7	0	1	0
18:00		294	33.6	29.1	4.7	0	0	3	7	37	169	65	9	3	1	0
19:00		208	33.1	28.5	4.9	0	0	4	3	42	109	43	5	1	1	0
20:00		163	34.3	29.1	5	0	1	0	5	27	80	38	12	0	0	0
21:00		122	34.3	29.2	5.5	0	0	2	5	19	54	35	3	4	0	0
22:00		80	33.4	28.9	4.5	0	0	0	2	15	42	18	2	1	0	0
23:00		36	33.6	28.6	4.9	0	0	1	0	8	16	10	1	0	0	0

12H,7-19	3033	32.7	28.1	4.8	1	11	41	90	613	1635	560	63	16	3	0	0
16H,6-22	3565	32.9	28.3	4.9	1	13	50	104	706	1888	688	89	22	4	0	0
18H,6-24	3681	33	28.3	4.9	1	13	51	106	729	1946	716	92	23	4	0	0
24H,0-24	3711	33	28.3	4.9	1	13	52	107	731	1958	725	97	23	4	0	0

Am	10:00 -		04:00	05:00 -		10:00	10:00	11:00	10:00	11:00	08:00	11:00	07:00 -	-	-	
Peak	212 -		35.2	8.7 -		2	6	10	55	113	53	9	4 -	-	-	
Pm	15:00	21:00	21:00	21:00	14:00	17:00	16:00	13:00	15:00	16:00	16:00	20:00	21:00	19:00 -	-	
Peak	368	34.3	29.2	5.5	1	3	6	16	103	208	79	12	4	1 -	-	

K & M TRAFFIC SURVEYS

Created at 12:36:35 on 11 Jun 2014

Site No: 17550001

Grid Reference: SZ89116,98378

Pagham Road, Bognor Regis (LC 29)

Speed Report-Limit 30 Mph

Sat 07-Jun-14

Channel: Southbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <6Mph	Bin 2 6-<11	Bin 3 11-<16	Bin 4 16-<21	Bin 5 21-<26	Bin 6 26-<31	Bin 7 31-<36	Bin 8 36-<41	Bin 9 41-<46	Bin 10 46-<51	Bin 11 51-<56	Bin 12 =>56
00:00		38	37.3	31.3	6.1	0	0	1	0	5	12	12	7	1	0	0
01:00		14	37	32.8	5.3	0	0	0	0	1	4	6	2	1	0	0
02:00		6 -		31	3.1	0	0	0	0	0	3	3	0	0	0	0
03:00		6 -		34.3	4	0	0	0	0	0	1	3	2	0	0	0
04:00		2 -		31	3.5	0	0	0	0	0	1	1	0	0	0	0
05:00		10	36	32.5	4.2	0	0	0	0	0	4	4	2	0	0	0
06:00		17	37.6	31.7	6.5	0	0	0	0	2	8	3	3	0	1	0
07:00		50	33.7	28.8	5.1	0	0	1	4	3	26	15	1	0	0	0
08:00		119	33.8	29.2	4.9	0	1	1	2	15	65	30	3	2	0	0
09:00		155	31.7	27.7	4.6	0	0	1	5	46	76	22	4	1	0	0
10:00		199	31.3	27.7	4.2	0	0	0	7	54	106	28	3	1	0	0
11:00		264	31	27	4.5	0	1	2	9	91	122	36	3	0	0	0
12:00		291	30.8	27.3	4.3	0	1	2	8	85	156	35	4	0	0	0
13:00		243	31.6	27.9	4.2	0	0	2	5	59	135	39	2	1	0	0
14:00		262	31.9	27.3	5	0	2	4	11	75	123	41	5	1	0	0
15:00		272	31	27.1	5	0	4	1	14	77	135	36	4	0	1	0
16:00		296	31.2	27.5	4.7	0	2	1	12	84	151	36	9	1	0	0
17:00		287	32.1	27.8	4.9	0	1	3	15	60	155	43	9	1	0	0
18:00		208	33.6	28.5	5.2	0	0	2	10	44	97	44	9	1	1	0
19:00		167	33.1	27.7	5.5	0	2	4	7	39	75	34	6	0	0	0
20:00		137	33.2	27.5	5.6	0	0	4	10	35	55	27	6	0	0	0
21:00		112	31.2	27.1	4.7	0	0	3	2	39	50	16	2	0	0	0
22:00		67	33.1	28.4	4.6	0	0	0	3	14	34	13	3	0	0	0
23:00		47	32.8	27.3	6.6	0	2	1	3	7	24	7	3	0	0	0

12H,7-19	2646	31.9	27.6	4.7	0	12	20	102	693	1347	405	56	9	2	0	0
16H,6-22	3079	32.1	27.6	4.8	0	14	31	121	808	1535	485	73	9	3	0	0
18H,6-24	3193	32.2	27.7	4.9	0	16	32	127	829	1593	505	79	9	3	0	0
24H,0-24	3269	32.4	27.8	4.9	0	16	33	127	835	1618	534	92	11	3	0	0

Am	11:00 -		03:00	06:00 -		11:00	11:00	11:00	11:00	11:00	11:00	00:00	08:00	06:00 -	-	
Peak	264 -		34.3	6.5 -		1	2	9	91	122	36	7	2	1 -	-	
Pm	16:00	18:00	18:00	23:00 -		15:00	20:00	17:00	12:00	12:00	18:00	18:00	18:00	18:00 -	-	
Peak	296	33.6	28.5	6.6 -		4	4	15	85	156	44	9	1	1 -	-	

K & M TRAFFIC SURVEYS

Created at 12:36:35 on 11 Jun 2014

Site No: 17550001

Grid Reference: SZ89116,98378

Pagham Road, Bognor Regis (LC 29)

Speed Report-Limit 30 Mph

Sun 08-Jun-14

Channel: Southbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <6Mph	Bin 2 6-<11	Bin 3 11-<16	Bin 4 16-<21	Bin 5 21-<26	Bin 6 26-<31	Bin 7 31-<36	Bin 8 36-<41	Bin 9 41-<46	Bin 10 46-<51	Bin 11 51-<56	Bin 12 =>56
00:00		29	36.2	31.3	5.8	0	0	0	0	4	12	8	4	0	1	0
01:00		8 -		31.6	4.7	0	0	0	0	1	2	4	1	0	0	0
02:00		10	37.7	32	6	0	0	0	0	2	2	3	3	0	0	0
03:00		7 -		32.1	5.7	0	0	0	0	1	2	2	2	0	0	0
04:00		1 -		33.5 -		0	0	0	0	0	0	1	0	0	0	0
05:00		6 -		32.7	8.6	0	0	0	1	0	1	2	1	1	0	0
06:00		18	40.7	34.9	5	0	0	0	0	0	3	10	2	3	0	0
07:00		68	37	29.7	7.2	0	0	4	3	12	17	19	12	1	0	0
08:00		85	34.9	29.5	6.2	1	0	3	2	10	31	32	6	0	0	0
09:00		165	33.9	28.3	6.1	0	3	7	4	22	82	38	8	1	0	0
10:00		194	33.7	28.3	5.5	0	2	5	7	32	94	46	8	0	0	0
11:00		212	32.9	27.9	5.3	0	1	9	7	36	109	47	2	1	0	0
12:00		257	32	27.5	5.2	0	2	3	7	78	120	39	5	1	2	0
13:00		232	33.6	28.2	5.6	0	2	4	10	51	105	48	10	1	1	0
14:00		222	32.6	28.2	4.5	0	0	4	4	46	122	39	7	0	0	0
15:00		254	31.3	27.2	5.1	0	6	5	5	57	140	40	1	0	0	0
16:00		221	32	27.6	4.9	0	2	3	4	64	108	33	6	1	0	0
17:00		196	33.5	28.3	5.8	0	3	7	3	29	103	43	5	3	0	0
18:00		162	34.9	29.7	6	0	1	2	5	22	72	45	11	3	0	1
19:00		135	34.9	29.3	6.1	0	3	2	2	19	62	34	12	0	1	0
20:00		115	34.4	29.8	4.6	0	0	0	5	9	59	36	5	1	0	0
21:00		68	35.3	30.4	5.2	0	0	1	0	8	32	19	6	2	0	0
22:00		31	33.4	28.5	5.3	0	0	1	2	3	16	8	1	0	0	0
23:00		33	35	29	6.7	0	0	2	2	5	9	12	3	0	0	0

12H,7-19	2268	33.4	28.2	5.5	1	22	56	61	459	1103	469	81	12	3	0	1
16H,6-22	2604	33.7	28.4	5.5	1	25	59	68	495	1259	568	106	18	4	0	1
18H,6-24	2668	33.7	28.4	5.5	1	25	62	72	503	1284	588	110	18	4	0	1
24H,0-24	2729	33.8	28.5	5.6	1	25	62	73	511	1303	608	121	19	5	0	1

Am	11:00 -		06:00 -		08:00	09:00	11:00	11:00	11:00	11:00	11:00	07:00	06:00	00:00 -	-	
Peak	212 -		34.9 -		1	3	9	7	36	109	47	12	3	1 -	-	
Pm	12:00	21:00	21:00	23:00 -		15:00	17:00	13:00	12:00	15:00	13:00	19:00	18:00	12:00 -		18:00
Peak	257	35.3	30.4	6.7 -		6	7	10	78	140	48	12	3	2 -		1

K & M TRAFFIC SURVEYS

Created at 12:36:35 on 11 Jun 2014

Site No: 17550001

Grid Reference: SZ89116,98378

Pagham Road, Bognor Regis (LC 29)

Speed Report-Limit 30 Mph

Mon 09-Jun-14

Channel: Southbound

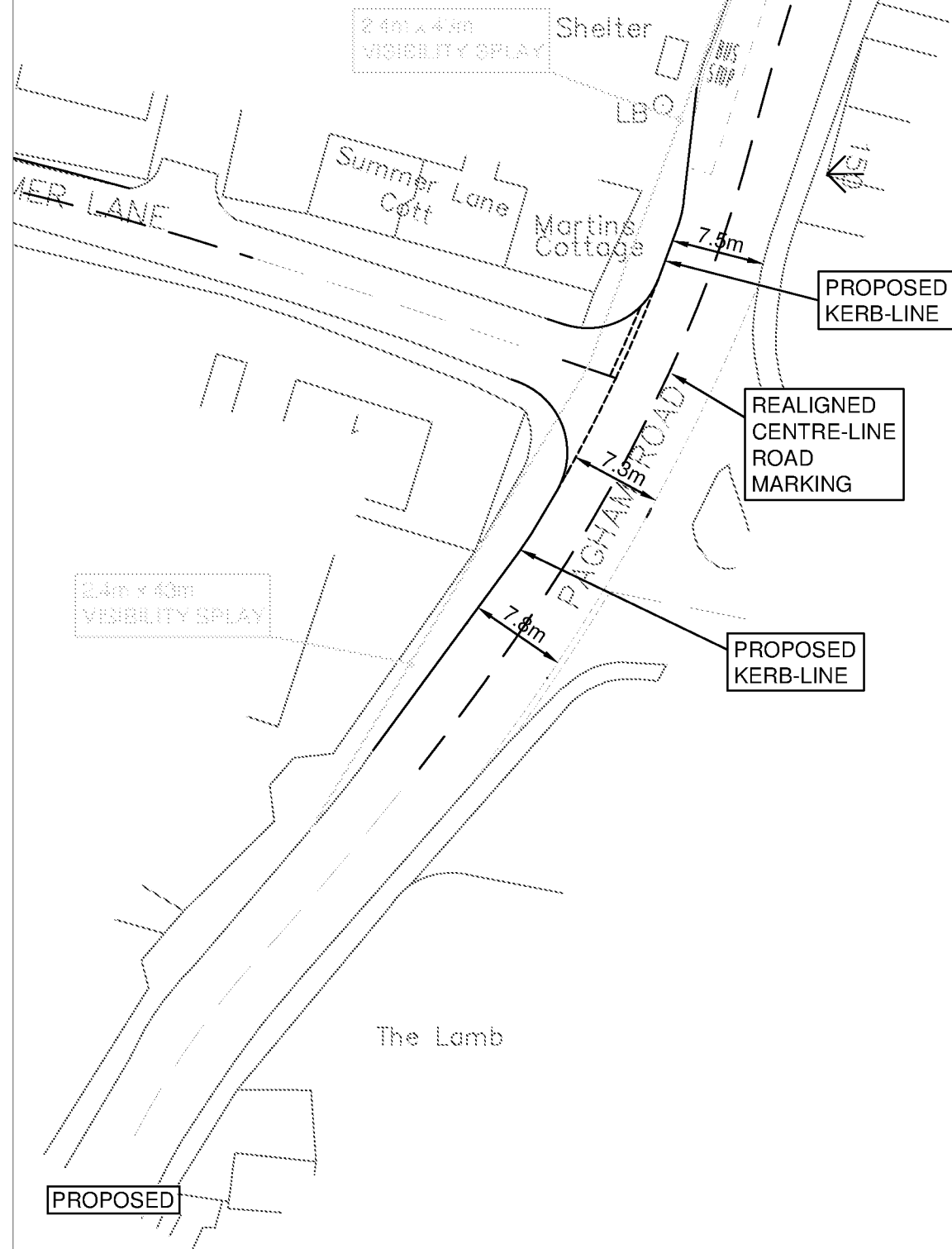
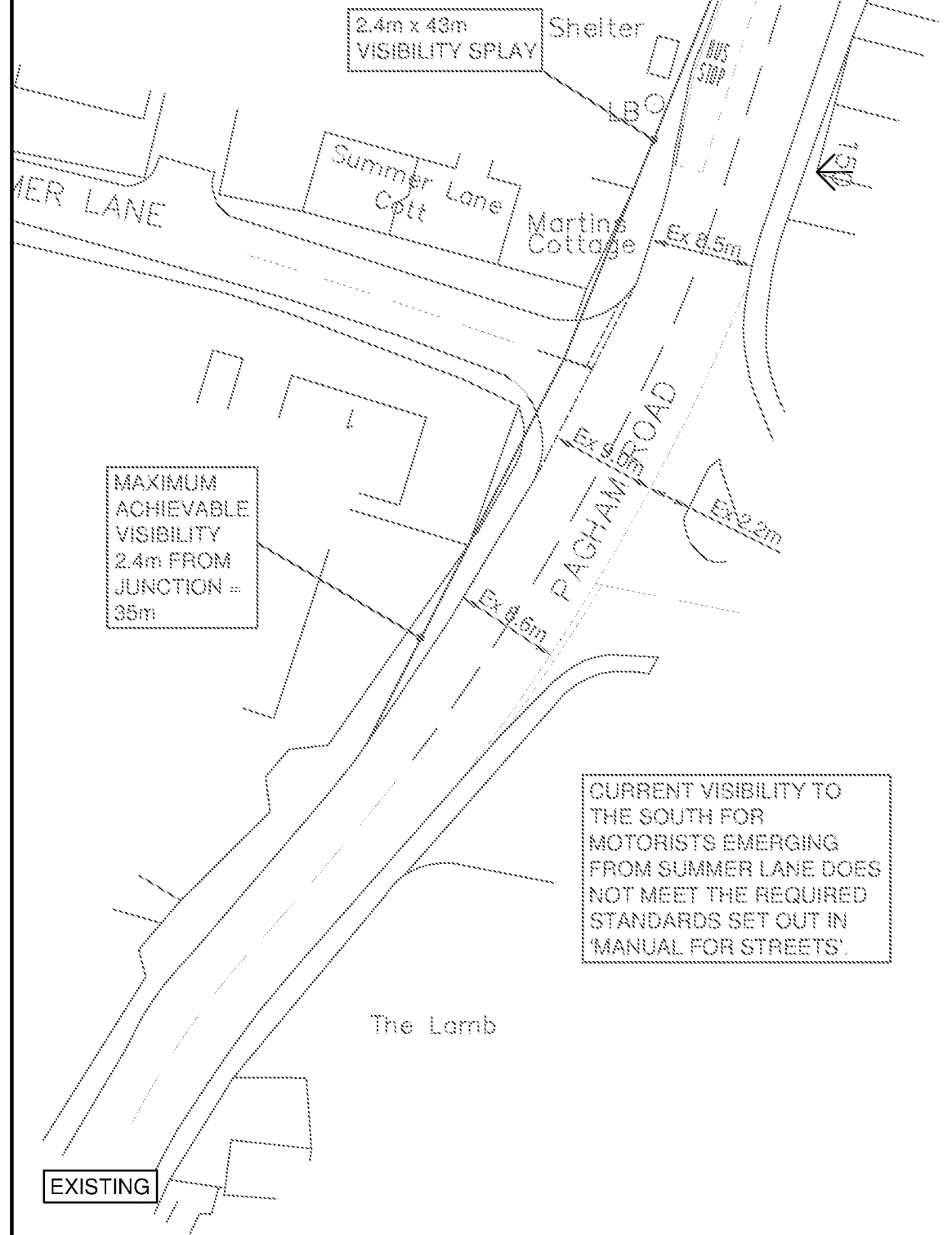
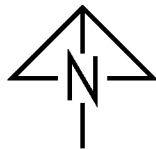
Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <6Mph	Bin 2 6-<11	Bin 3 11-<16	Bin 4 16-<21	Bin 5 21-<26	Bin 6 26-<31	Bin 7 31-<36	Bin 8 36-<41	Bin 9 41-<46	Bin 10 46-<51	Bin 11 51-<56	Bin 12 =>56
00:00		15	36.4	32.5	4.1	0	0	0	0	0	6	6	3	0	0	0
01:00		7 -		30.6	5	0	0	0	0	1	3	2	1	0	0	0
02:00		3 -		30.2	3.1	0	0	0	0	0	2	1	0	0	0	0
03:00		3 -		31.8	3.1	0	0	0	0	0	1	2	0	0	0	0
04:00		1 -		28.5 -		0	0	0	0	0	1	0	0	0	0	0
05:00		14	34	29.2	6.3	0	0	0	1	3	5	4	0	1	0	0
06:00		36	35.5	28.8	7.6	0	0	3	1	8	10	9	3	2	0	0
07:00		69	35.3	30.5	4.9	0	0	0	2	5	34	20	7	1	0	0
08:00		156	33.6	28.9	4.9	0	1	5	0	18	86	43	2	1	0	0
09:00		178	32.3	27.9	4.4	0	0	2	4	46	90	34	2	0	0	0
10:00		166	30.6	27	4.2	0	0	1	12	42	93	17	1	0	0	0
11:00		200	30.6	26.2	4.9	0	0	9	9	74	84	22	2	0	0	0
12:00		215	31.8	27.7	4.7	0	2	1	8	50	116	33	5	0	0	0
13:00		227	31.8	28.1	4.2	0	0	0	6	52	129	36	2	1	1	0
14:00		217	31.4	27	5	0	4	0	12	62	103	33	3	0	0	0
15:00		282	31.3	27.1	5	0	2	5	9	92	129	38	6	1	0	0
16:00		339	30.8	27.1	4.3	0	1	3	14	100	175	45	1	0	0	0
17:00		361	31.7	27.4	4.9	0	1	9	14	92	183	52	10	0	0	0
18:00		227	33.8	28.6	5.1	0	0	6	4	47	104	56	10	0	0	0
19:00		128	33.7	28.7	5	0	0	2	4	24	63	28	6	1	0	0
20:00		110	34.4	29.9	5.9	0	1	0	1	14	62	22	7	0	2	0
21:00		66	34.8	29.2	5.7	0	0	0	0	20	28	10	6	1	1	0
22:00		44	35.1	30.1	5.9	0	0	1	1	5	20	12	3	2	0	0
23:00		22	41.3	31.7	8.4	0	0	1	0	4	6	6	1	3	1	0
12H,7-19	2637	32	27.6	4.8	0	11	41	94	680	1326	429	51	4	1	0	0
16H,6-22	2977	32.4	27.8	4.9	0	12	46	100	746	1489	498	73	8	4	0	1
18H,6-24	3043	32.5	27.8	5	0	12	48	101	755	1515	516	77	13	5	0	1
24H,0-24	3086	32.6	27.9	5	0	12	48	102	759	1533	531	81	14	5	0	1
Am	11:00 -		00:00 -	-		08:00	11:00	10:00	11:00	10:00	08:00	07:00	06:00 -	-	-	
Peak	200 -		32.5 -	-		1	9	12	74	93	43	7	2 -	-	-	
Pm	17:00	23:00	23:00	23:00 -		14:00	17:00	17:00	16:00	17:00	18:00	18:00	23:00	20:00 -		20:00
Peak	361	41.3	31.7	8.4 -		4	9	14	100	183	56	10	3	2 -		1

K & M TRAFFIC SURVEYS

Created at 12:36:35 on 11 Jun 2014

APPENDIX G

Existing Visibility Splays at Summer Lane / Pagham Road Junction



- Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.
 2. White lining is indicative only.
 3. Existing road widths measured on site.

A Ex Road widths measured on site.		JM	ID	02/09/2013
REV.	DETAILS	DRAWN	CHECKED	DATE

CLIENT:

Hanbury Properties Ltd

PROJECT:

Summer Lane, Pagham

DRAWING TITLE:

Proposed Build-Out

SCALES:

1:500 at A3

DRAWN: TF	CHECKED: ID	DATE: 22.11.12
-----------	-------------	----------------



Network Building, 97 Tottenham Court Road, London W1T 4TP
t: 020 7580 7373 e: enquiries@vectos.co.uk

DRAWING NUMBER:	REVISION:
120843/SK/02	A

APPENDIX H

Travel Plan

Hanbury Properties Ltd

Proposed Residential Development
Summer Lane, Pagham

Residential Travel Plan

May 2015

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1 INTRODUCTION

- 1.1 Hanbury Properties has commissioned Vectos to provide transportation advice to support an outline application for a development accessed via Summer Lane, Pagham.
- 1.2 Vectos has prepared a Transport Statement which sets out the potential impact of development and the transport infrastructure that will be implemented at the site.
- 1.3 Arun District Council (ADC) is the Local Planning Authority; the Local Highway Authority is West Sussex County Council (WSCC).
- 1.4 This Residential Travel Plan (RTP) has been prepared in accordance with Planning Practice Guidance 2014 (*Travel Plans, Transport Assessments and Statements in Decision-Taking*).

Key Parameters

- 1.5 The application site will be a development of 90 residential units (C3 Use Class) with associated car and cycle parking spaces. The development also includes two new vehicular access points leading from Summer Lane.
- 1.6 According to the Transport Statement, the development is expected to generate 45 two-way vehicular trips during the morning peak, 08:00 – 09:00 and 50 two-way vehicular trips during the evening peak, 17:00 – 18:00.

Report Structure

- 1.7 Following this introduction, the report is structured as follows:
 - **Section 2: Policy Context** – A review of key land use and transport planning policies;
 - **Section 3: Site Context** – A transport context description of the existing site;
 - **Section 4: Strategic Aspirations** – Information on the aims of the travel plan;
 - **Section 5: Travel Plan Management** – Identification of the key travel plan stakeholders;
 - **Section 6: Travel Plan Measures** – A description of travel planning measures;
 - **Section 7: Monitoring & Review Strategy** – The monitoring and evaluation strategy of the travel plan;
 - **Section 8: Action Plan** – Tasks are assigned to nominated individuals or organisations.

2 POLICY CONTEXT

- 2.1 This section of the report considers the relevant current and emerging land use and transport planning policies in relation to the development proposals.

National Policy

National Planning Policy Framework, 2012

- 2.2 The National Planning Policy Framework (NPPF) was published by the Department for Communities and Local Government in March 2012 and sets out national policy for delivering sustainable growth and development in England. The NPPF details how it expects policy to be applied and it aims to make the planning system less complex and more accessible.

- 2.3 One of the 12 core land-use principles within the NPPF includes:

[to] actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable.

- 2.4 Section 4 of the NPPF deals with promoting sustainable transport, and paragraphs 29 and 32 state:

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

All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:

- *the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*
- *safe and suitable access to the site can be achieved for all people; and*
- *improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or*

refused on transport grounds where the residual cumulative impacts of development are severe.

2.5 The NPPF also states at paragraph 35 that:

Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to:

- *accommodate the efficient delivery of goods and supplies;*
- *give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;*
- *create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;*
- *incorporate facilities for charging plug-in and other ultra-low emission vehicles; and*
- *consider the needs of people with disabilities by all modes of transport.*

2.6 A travel plan is seen as a 'key tool' to facilitate the above (para. 36).

Planning Practice Guidance, 2014

2.7 Travel plans are described as '*ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development. They are required for all developments which generate significant amounts of movements ...Travel Plans are long-term management strategies for integrating proposals for sustainable travel into the planning process...Where that mitigation relates to matters that can be addressed by management measures, the mitigation may inform the preparation of Travel Plans*' (Travel Plans, Transport Assessment and Statements in Decision Taking, paras. 002 - 004).

2.8 Travel plans should include information on the development proposals, existing local travel patterns and proposals to reduce the need to travel to and from the site via all modes of transport (para. 011).

Local Policies

Arun District Local Plan 2003 (With saved Policies from 2007)

2.9 The primary aim of the Local Plan for Arun is to *'apply the principles of sustainable development to the assessment of proposals for developments'*.

2.10 The Local Plan continues to develop policies that must be adhered to for planning applications such as this, the relevant policies including:

- Parking in New Developments;
- Public Transport; and
- Cycling and Walking.

2.11 Saved Policy GEN12 sets out guidance on parking in new developments. A provision that requires developments to look at the standards set by the District.

The Local Planning Authority may seek a lower provision than required by the standards for developments proposed in town centres and other areas accessible by other means of transport.

2.12 Saved Policy GEN 14 focuses on the public transport plans of the District:

The Council will support the provision of comprehensive public transport services throughout the District, and encourage improvements to be made to services wherever possible. Where appropriate, new development will be required to make provision for public transport facilities.

Where new development can only take place with improvements to public transport services, or such improvements would be likely to influence desirable travel patterns, the Local Planning Authority will seek contributions towards the cost of improvements.

2.13 Saved Policy GEN15 states that:

Where appropriate, new development will be required to provide safe and attractive facilities for cyclists and pedestrians, both within the site and in the form of links to the surrounding area.

West Sussex Transport Plan 2011 - 2026

2.14 WSCC's long term strategy for the Council includes, among other things, to (pp.7, 12, 20):

- Deliver transport improvements to support and facilitate sustainable growth;
- Reduce unnecessary trips by motorised vehicles and encourage use of more sustainable modes of transport;
- Reduce the need to travel at all by encouraging the provision of local services;
- Encourage and enable physically active travel through behaviour change initiatives; and
- Invest in new infrastructure which creates safer conditions for all, and particularly vulnerable road users.

3 SITE CONTEXT

- 3.1 This section provides a description of the site location from a transport perspective.

Site Location

- 3.2 The site is represented by two plots located on undeveloped land north and south of Summer Lane. The northern plot is bound by residential development to the north and east; greenfield to the west and Summer Lane to the south. The southern plot is bound by residential development to the east, greenfield to the west and south and Summer Lane to the north. The northern plot will be developed for housing; the southern plot will be a landscaped naturalised area. **Figure 1** shows the site location plan.
- 3.3 The site is located in a predominantly residential area, although there is a parade of shops located within 20 metres of the junction with Pagham Road, including a small convenience store and post office.
- 3.4 There are two play schools located within a 650 metre walk distance of the site. The nearest infant school, Rose Green Infant school is some 1.5 kilometres to the north of the site.
- 3.5 There are shops located on The Parade, approximately 1.5km to the east of the site. This includes a convenience store, healthcare and food outlets.

Walking & Cycling

- 3.6 The local topography is flat and conducive to walking and cycling activity.
- 3.7 The eastern end of Summer Lane contains narrow footway provision on its southern side. The footway stops further west on Summer Lane and the carriageway narrows to a single lane carriageway.
- 3.8 On Pagham Road in the vicinity of the site, footway provision is consistent and available on the western and eastern sides. Within a five minute walk of the eastern end of the site, there is a public house, betting shop, post office and newsagent.
- 3.9 A two kilometre walking distance covers all of Pagham and into the neighbouring built up area to the east towards Bognor Regis. It covers a variety of local services and facilities

including shops, a primary school and local bus services. This walk catchment is represented in **Figure 2**.

- 3.10 Whilst there are limited dedicated cycling facilities in the vicinity of the site, there is a regional cycle route (88) accessible from Sidlesham which provides onward connectivity to National Cycle Route 2, which is a long distance cycle route which on completion will link Dover, Kent to St Austell, Cornwall. Within five kilometres of the site, destinations such as Rose Green, Aldwick, Bognor Regis and North Mundham can be reached. Bognor Regis Rail Station can be accessed within this distance. A five kilometre catchment distance is represented in **Figure 3**.

Public Transport

Bus

- 3.11 The closest bus stops to the site are located adjacent to the Summer Lane junction with Pagham Road within 250 metres walk distance of the proposed site access. Both northbound and southbound bus stops benefit from bus shelters and timetable information.
- 3.12 There are several routes that service the bus stops, the most frequent of which is route 60. **Table 3.1** below summarises each route and the frequencies of each service.

Table 3.1 Local Bus Services

No.	Route	Operator	Frequency		
			Week	Sat	Sun
60	(Elmer -) Bognor Regis - Chichester - Midhurst	Stagecoach South	15	15	60
660	Chichester - Bognor Regis	Stagecoach South	14:58, 15:46	N/A	N/A
904	Drayton - North Bersted	Stagecoach South	Monday and Friday only 14:29	N/A	02:29
C4	Bognor Regis - Chichester Sainsbury's – Pick Up only	Compass Travel	09:47 not Mondays or Wednesday	N/A	N/A

- 3.13 Route 60 runs a frequent service from the early morning into the evenings and provides connections to Bognor Regis Town Centre and Chichester City Centre.

Rail

- 3.14 Chichester Station is accessed via bus route 60. A range of destinations can be accessed from direct services from Chichester Station including London, Southampton and Portsmouth. Further information is given in **Table 3.2**.

Table 3.2 Rail Services from Chichester Station

Destination	Frequency (per hr)	Journey time (mins)
London Victoria	2	95 - 103
Brighton	3	45 – 55
Southampton Central	2	55
Portsmouth Harbour	2	27
Littlehampton	1	17 - 21

Highway Network

Summer Lane

- 3.15 Summer lane is a cul-de-sac providing access to a number of residential properties. The width of Summer Lane varies along its length, with areas of localised narrowing reducing the carriageway width to a minimum of 4.8 metres just east of the proposed eastern site access. Further west, Summer Lane becomes a farm access track.
- 3.16 Due to the number of private drives and accesses, on-street parking on Summer Lane is limited to a small section along the northern edge, close to Pagham Road.
- 3.17 Summer Lane is adopted public highway up to the western edge of property no 7. Beyond this, the road is private and within the applicant's ownership, but is also a public footpath (route 100) identified on the definitive public right of way plan.

Pagham Road

- 3.18 Pagham Road runs through the centre of the village on a north-south alignment providing access to residential areas within Pagham to the south. To the north, Pagham Road leads towards connections with the A27 and Chichester, with further connections to Bognor Regis via Sefton Road.
- 3.19 The road varies in width, but is generally in excess of 7.3m wide. Adjacent to the junction with Summer Lane the road is above 8.5m wide. Approaching the junction with Summer

Lane from the north, there are parked cars on the road that reduce the effective carriageway widths and reduce vehicle speeds.

4 STRATEGIC ASPIRATIONS

4.1 The aims and targets of the travel plan are presented in this section. These aspirations set the direction of the travel plan and provide a focus for a package of measures.

4.2 The primary objective of the RTP is to set out a long-term strategy to facilitate and encourage modes of travel to the site by means other than the private car, which reflects current central and local government policy.

4.3 The following transport modal hierarchy will be used in order to ensure that as much emphasis as possible is given to the most sustainable modes of transport, where this is possible and practical:

- walking and cycling;
- bus and rail;
- taxi or car share;
- motorcycle; and
- single occupancy car.

Aims

4.4 The aims of the travel plan are to:

- provide residents and other site users with information on sustainable travel options to and from the site; and
- ensure that other car modes (e.g. taxi or car share) are also considered along with single car journeys to and from the site.

4.5 The travel plan will build on encouraging sustainable travel by encouraging increased use of public transport.

Targets

4.6 The Transport Statement makes reference to the expected number of car driver trips that will be generated by the site. However, car driver trips comprise only one type of mode. As such, reference has been made to the Census 2011 Method of Travel to Work data for the Arun 019 Middle Super Output Area level. This data informs the baseline mode split.

Table 4.1 Baseline & Travel Plan Targets

Mode	Baseline	Year 1	Year 3	Year 5
Car Driver	77%	74%	73%	72%
Car Passenger	6%	6%	5%	5%
On Foot	5%	6%	6%	7%
Bicycle	3%	4%	5%	5%
Bus	4%	5%	5%	5%
Motorcycle	1%	1%	1%	1%
Taxi	0%	0%	0%	0%
Train	2%	3%	4%	4%
Total	100%	100%	100%	100%

- 4.7 A more accurate baseline mode split will be established by undertaking a travel survey within six months of first occupation or on 75% occupancy, whichever is sooner.
- 4.8 The travel plan aims to reduce the car driver split by 5%. The travel plan seeks to increase the proportion of people travelling by sustainable modes with targets such as a 2% increase in the pedestrian mode split and a 2% increase in the cycle mode split. It is recognised that some people will travel further using public transport and this is reflected in the mode split targets with bus usage expected to increase by 1% over the life of the travel plan. Train usage is also targeted to increase by 2%.
- 4.9 Although the travel plan aims to increase the sustainable mode share, it is recognised that the residents may need to use the car to benefit from full flexibility of travel to other areas that might have restricted public transport provision. Therefore the travel plan is realistic in not aiming for a more significant car driver modal shift.

5 TRAVEL PLAN MANAGEMENT

Site Management Company

- 5.1 The site management company will be responsible for ensuring that the transport infrastructure at the site (e.g. pedestrian access points, cycle storage, etc) is in good condition for regular use. The managing agent will also be responsible for nominating an individual who will lead the delivery of the travel plan. The managing agent will be responsible for funding the travel plan measures and monitoring activity.

Travel Plan Coordinator

- 5.2 A Travel Plan Coordinator (TPC) will be nominated by the site management company to oversee the development of the travel plan and to ensure its effective implementation.
- 5.3 The TPC's role will commence prior to first occupation of the site to ensure the promotion of the travel plan at the earliest opportunity and to develop travel plan information packs for when the site is occupied.
- 5.4 The main roles and responsibilities of the TPC are to:
- manage, review and lead the delivery of the travel plan;
 - liaise with ADC and WSCC officers as necessary;
 - promote the travel plan and its measures;
 - promote the site's sustainable characteristics through the marketing process;
 - maintain updated information in newsletters, on noticeboards and other used mediums; and
 - monitor the effectiveness of travel plan initiatives.
- 5.5 The time spent by the TPC on the RTP will vary according to the stage of the travel planning process. It is expected that travel planning responsibilities will intensify on first occupation and during monitoring periods. Outside these times, travel planning activities will lessen. The TPC will undertake their travel planning responsibilities alongside their day-to-day work role.
- 5.6 The contact details of the nominated TPC will be forwarded to ADC and/or WSCC at the earliest opportunity.

Residents

- 5.7 All potential residents will be informed of the site's sustainable travel ethos prior to unit purchase. The travel plan will be promoted to residents and in turn, residents will be encouraged to participate in travel planning initiatives as a means of community building and health improvement.

Local Authorities

- 5.8 WSCC, as the highway authority, has a stake in ensuring that its public highway network is functional and effective for transporting people. The local authority, ADC, has a duty of care towards its residents and has an interest in ensuring that its local streets are as minimally affected by new development as possible.

6 TRAVEL PLAN MEASURES

- 6.1 The success of the RTP is based on several measures including high quality transport infrastructure at the site and connection of the site with off-site based measures such as accessibility to local bus services and other facilities.
- 6.2 This section sets out the package of travel planning measures proposed for the residents of the site. The initiatives and measures are a mixture of 'hard' and 'soft' measures, such as safe and secure cycle parking and provision of Welcome Packs.

General Marketing & Promotion

- 6.3 Residents will be made aware of the RTP and the site's sustainable measures through communication and promotional tools.
- 6.4 Prior to purchase, residents will be informed of the availability of parking at the site. Information on the accessibility of the site to local facilities will be promoted on the site's sales website.
- 6.5 A Welcome Pack will be distributed to each household on first occupation. The Welcome Pack will contain information on travel options, links to websites, information on cycle training and other travel planning measures.
- 6.6 The TPC will encourage residents to get involved in national and local sustainable travel campaigns.
- 6.7 The site will have the necessary fibre optic connections to allow occupants to contract broadband providers as necessary. Access to the internet and online resources can reduce the need to travel.

Walk & Cycle Measures

- 6.8 The TPC will communicate will ensure that pedestrian routes at the site are appropriately maintained.
- 6.9 Residents will be made aware of safe pedestrian routes between the site and local facilities such as GP surgeries (Grove House Surgery, PO21 4TL), convenience stores (Nyetimber Store, PO21 3QD or Tesco Express, PO21 3QB), public house (The Lamb Inn, PO21 4NJ), etc.

- 6.10 The health benefits of walking will be promoted. Residents will be made aware of the 10,000 Steps a Day challenge. The economic benefits of walking above other modes of travel will also be outlined.
- 6.11 Cycle parking will be provided on-plot. Residents will therefore have access to secure storage within the curtilage of their respective dwellings.
- 6.12 The TPC will explore opportunities with a local cycle shop whereby residents can benefit from discounts on cycle equipment. Advice from cycle shops within reasonable distance (such as Kampos Cycles, City Cycles or any other suitable retailer) would ensure that cyclists receive specialist information about the different equipment (cycles, lights, helmets and reflective clothing) that they would need to use this mode safely. Information will be provided in the Welcome Pack. The roll out of this measure is dependent on third party agreement from local cycle retailers.
- 6.13 Events such as Bike Week will be promoted to residents.

Public Transport

- 6.14 A map showing the local public transport stops and bus routes near the site will be posted on communal noticeboards at the site. In addition, information on concessionary travel will also be promoted. At the time of writing, WSCC offered various concessionary fares including the '3 in 1 card' and the 'Routes to Work' scheme for eligible people. The national concessionary fares scheme for older people and disabled people is also available.
- 6.15 The TPC will ensure that information posted on-site is valid. The Traveline and National Rail Enquiries websites will be promoted widely to residents.

Car

- 6.16 The development will have car parking spaces provided in accordance with local standards in order to avoid overprovision.
- 6.17 Although it is understood that residents will drive to/from the site, the TPC will also make residents aware of alternatives to driving a car. Therefore, options such as local taxi and private hire firms (e.g. Blues Taxis, PO21 1QD; Regis Taxis, PO21 1BP or Yellow Star Taxis, PO21 1PU) or car share operators (e.g. West Sussex Carshare) will be promoted.

Other

- 6.18 There are local retailers and food take-away operators that offer home deliveries; these will be promoted to residents.
- 6.19 The TPC will encourage residents to find out whether their respective workplaces offer public transport season ticket loans, the flexibility to work from home or participate in tax exemption cycle schemes. These are options that residents might not have considered, but which might support their take-up of sustainable mode travel modes.

7 MONITORING & REPORTING

7.1 Monitoring of the RTP has two key roles:

- to measure the level of success in meeting identified targets using key performance indicators; and
- to provide feedback to allow the RTP to be developed.

Monitoring

7.2 The RTP will require monitoring and review to ensure it remains relevant to occupants.

7.3 The monitoring programme will begin with the baseline travel survey to be undertaken within six months of first occupation or on 75% occupancy. The initial travel survey will include surveys of residents, which will be promoted by the TPC and posted through letter boxes. The TPC will coordinate the surveys to be undertaken at the same period of the year so that results can be easily compared.

7.4 Monitoring will be undertaken as listed below.

- Baseline monitoring will be undertaken within six months of first occupation or on 75% occupancy, whichever is sooner. This will be done by the TPC.
- A survey of the car parking spaces will also be taken as part of the baseline and years 1, 3 and 5 monitoring periods, in order to assess occupancy. Parking occupancy does not directly reveal car usage as it is possible for a household to own a car and use it less often as travel habits become more sustainable.

Evaluation & Reporting

7.5 The TPC will review and assess the progress of the RTP. This will outline the results of monitoring, measures that have been implemented and any suggested changes to targets and measures as a result of the survey data. The results of the monitoring activity will be reported to ADC and/or WSCC as appropriate.

7.6 The TPC will have responsibility for keeping:

- a correspondence file (electronic or hard copy);



- a record of engagement or implementation of measures or activities (contact details, dates, activities lists, cycle training participation, etc); and
- historic RTP records.

8 ACTION PLAN

Introduction

- 8.1 This section draws together proposals for RTP implementation, monitoring and review. The actions that will be undertaken are summarised in the Action Plan shown in **Table 8.1** which indicates how the various elements of the plan will be organised and how actions will be prioritised.

Table 8.1: Action Plan

Mode	Measure	Task	When	By
All	TPC	Appoint a TPC.	Prior to first occupation	Management
All	Resources	Ensure that the TPC has the funding and time allocated to undertake duties.	Ongoing	Management
All	Noticeboard	Post travel related information on to noticeboards in communal areas	On first occupation	TPC
All	Welcome Pack	Prepare and disseminate Welcome Packs to each household containing information on walking and cycling routes, public transport services, concessionary fares, etc.	On first occupation	TPC
All	National and local campaigns	Promote and encourage residents' participation in events such as Bike Week and other national or local events.	Ongoing	TPC
All	Local retailers	Publicise and promote local retailers (e.g. supermarkets) that provide low cost or free home deliveries.	On first occupation	TPC
All	Internet provision	Ensure that the site is ready to support internet access, which will support residents' access to media and online retailers without the need to travel.	Prior to first occupation	Management company
Cycle	Cycle parking	Ensure that cycle parking is provided at the site.	Prior to first occupation	Developer
Cycle	Cycle discounts	Negotiate cycle equipment discounts with a local cycle retailer.	Prior to first occupation	TPC
Cycle	Cycle training	Encourage residents to sign up to subsidised cycle training and cycle maintenance training offered by WSCC.	On first occupation	TPC
Car	Car sharing	Publicise and promote the journey matching service, West Sussex Car Share.	On first occupation	TPC
Car	Taxi / Minicab	Publicise and promote local taxi / minicab firms as enabling necessary car access without the burden of car ownership.	On first occupation	TPC
All	Baseline and subsequent surveys	Undertake baseline and subsequent surveys as set out in the monitoring schedule.	Within six months of first occupation or on 75% occupancy and in years 1, 3 and 5 post occupation	TPC

FIGURES



Key:



Site Location

Hanbury Properties

Summer Lane, Pagham

Site Location: Strategic Context



Network Building, 97 Tottenham Court Road, London W1T 4TP
Tel: 020 7530 7373 Email: london@vectos.co.uk www.vectos.co.uk

DRAWN:

SO'D

CHECKED:

ID

DATE:

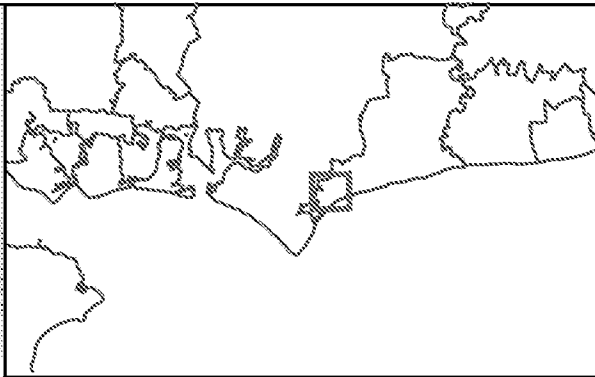
13/05/15

SCALES:

NTS

DRAWING REFERENCE:

Figure 1



Legend

Site

2km Walking Isochrone

TITLE: **2km Walking Catchment**

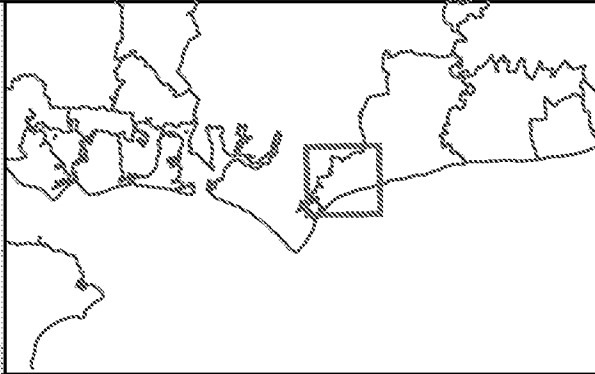
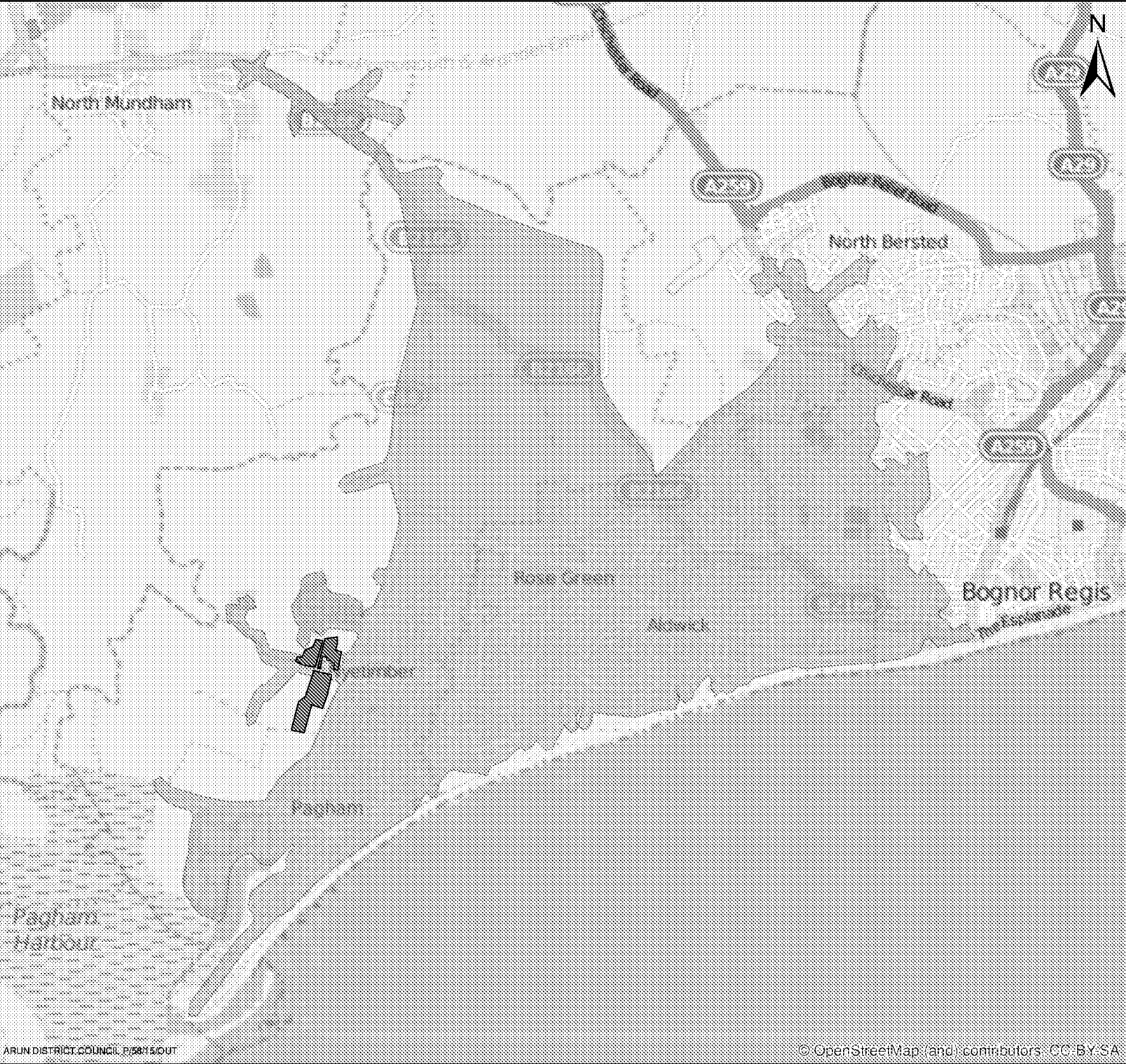
CLIENT: **Hanbury Properties**

LOCATION: **Summer Lane, Pagham**



FIGURE: **Figure 2**

DRAWN BY:	CHECKED BY:	DATE:
H.J	S.G.H	18/05/2015



Legend

Site

5km Cycling Isochrone

TITLE: 5km Cycling Catchment		
CLIENT: Hanbury Properties		
LOCATION: Summer Lane, Pagham		
		
FIGURE: Figure 3		
DRAWN BY: H.J	CHECKED BY: S.G.H	DATE: 18/05/2015