

DEVELOPMENT AT SITE 6 BOGNOR REGIS.

A CASE FOR THE REMOVAL OF THE PLANNING CONDITION

FOR THE OIVING CROSSROADS.

DIALOGUE SUMMARY

July 2014

Impact Design Consultants

1.0 A dialogue has taken place between Pineleigh Consultants Ltd who trade as Impact Design Consultants acting for the Site 6 Developers and the Highways Agency (HA) and their agents Parsons Brinkerhoff (PB). It covers the period March – July 2014.

2.0 The key elements of the dialogue are set out on the pages appended to the summary and are as follows :-

Appendix (i) - Minutes of a meeting with the HA dated 20th March 2014.

Appendix (ii) - A report dated April 2014 entitled – A Case for the Removal of the Planning Condition for Oving Crossroads.

Appendix (iii) - Technical Note 02 dated 8th May 2014 by PB in response to the April report.

Appendix (iv) - Response from the HA dated 5th June 2014 endorsing the views expressed by PB in Technical Note 02.

Appendix (v) - An Addendum dated June 2014 to – A Case for the Removal of the Planning Condition for Oving Crossroads.

Appendix (vi) - Technical Note 03 dated 2nd July 2014 by PB in response to the Addendum.

Appendix (vii) - Response from the HA dated 7th July 2014 to Arun DC Planning Department confirming that the HA will no longer insist upon the application of the Condition relating to Oving Crossroads.

3.0 Whilst the reports have been entitled draft as submitted there have been no subsequent changes made.

4.0 This summary together with its appendices provides the evidence to support the application for the removal of the Planning Condition.

G.J.Ford.

B.Sc, C.Eng, MICE, MCIHT.

APPENDIX (i)

Minutes of a meeting with the HA, dated 20th March 2014

MINUTES

Date: 20th March 2014

Venue: Highways Agency, Dorking

Meeting title: Site 6 Oving 20 March 2014 meeting

Present: Paul Harwood Highways Agency (HA)
Elizabeth Cleaver Highways Agency
David Holdaway Parsons Brinckerhoff
Gerald Ford Pineleigh Consultants

Item	Action and date required
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1. INTRODUCTIONS

Following a meeting between the developers of Site 6 and the HA in January 2014 Gerald Ford from Pineleigh Consulting advised that the developers are keen to prepare supporting documentation that can be submitted alongside a Section 73 application to vary/remove the Site 6 conditions which require works on the Oving crossroads.

At the meeting on 20th March the HA invited the developers to make the case why the level of improvement works required at Oving crossroads to mitigate the impact of Site 6 development could be reduced in scale or possibly no longer required. The HA acknowledge that there is no direct consistency between the mitigation proposed at Oving crossroads from the Site 6 and Shopwyke Lakes developments, mainly because both applications were submitted some 7 years apart. Furthermore, the mitigation package for Site 6 was proposed late in the day at the 2006 Planning Inquiry.

Gerald Ford ran through the status of all A27 improvements linked to Site 6 conditions which are as follows:

- Fontwell roundabout (improvements complete)
- Crockerhill (improvements due to begin in approximately two weeks from this meeting date)
- Bognor Road Roundabout (improvements scheduled to start in approximately three weeks from this meeting date)

Gerald also suggested that the Shopwyke Lakes development is likely to start in Spring 2014.

Gerald put forward the proposition that the full improvement works associated with Shopwyke Lakes at the Oving crossroads theoretically mitigates the impact associated with Site 6 as the Site 6 traffic is included in the Shopwyke Lakes Transport Assessment background growth.

The HA responded that, while this may be the case, it is not a given that the

Oving Road improvements associated with the Shopwyke Lakes will actually be delivered so the HA still need to be satisfied that a Section 73 application provides evidence that a reduced level of mitigation at Oving Road will not be at the detriment of the Strategic Road Network.

Gerald will make the case as to why the Oving Road junction is not necessarily likely to be the choice of route for people from the Site 6 development travelling into Chichester or eastward.

Gerald advised that the original Site 6 application did not take into account a reduction in trip generation as a result of travel planning measures and alternative modes of travel in and around the site. The HA agreed that, if this was correct, the Site 6 Bognor Road mitigation may be catering for a higher level of trips than will exist in reality and that forecast growth predicted in 2006 may have been somewhat overestimated. The HA invited Gerald to provide evidence of this.

Gerald also made reference to there being a tendency towards the elderly population to occupy new developments in coastal areas and that the level of trip generation from these types of developments is therefore likely to be lower in the peak periods.

It was agreed that Gerald would prepare an evidence base, taking on board the above discussion points in an attempt to outline why the Oving Road contribution could be reduced in scale or perhaps no longer required. Gerald will liaise closely with PB and the HA in advance of his submission of this evidence alongside a Section 73 application.

APPENDIX (ii)

A Case for the Removal of the Planning Condition

For Oving Crossroads

DEVELOPMENT AT SITE 6 BOGNOR REGIS.

**A CASE FOR THE REMOVAL OF THE PLANNING CONDITION
FOR THE OIVING CROSSROADS.**

April 2014

DRAFT

Impact Design Consultants

- 1.0 This assessment seeks to provide reasons why the Site 6 Condition as it relates to Oving Crossroads is no longer necessary and can safely be removed.
- 2.0 A number of different factors can be considered each of which is contributory towards the case for removal.
- 3.0 The first of these is how the conditions relating to the A27 Trunk Road came into being almost 10 years ago. Hallam Land the then owners of Site 6 took their planning application to an appeal. The Highways Agency (HA) realising that the Transport Assessment (TA) for Site 6 did not extend to the A27 Trunk Road objected and appeared at the inquiry. Assessments of traffic impact at the A27 junctions were undertaken in a very short period of time and mitigation measures were agreed whilst the inquiry was in progress and presented to the Inspector. They were not debated at the inquiry and no opportunity was provided for their appropriateness to be examined. Hallam Land anxious not to prejudice the outcome of their appeal in anyway acceded to the mitigation proposals.
- 4.0 In hindsight the works proposed for the Oving Crossroads can be considered significant, particularly for a junction which was far from being the main recipient of traffic flows from Site 6. The HA has since acknowledged that an element of overmitigation may have been agreed for this junction.
- 5.0 It is of value to understand how Oving Crossroads may be used by traffic emanating from Site 6. Bognor Regis is served primarily by the A259 and the A29. Residents of Site 6 either at Felpham or Bersted have a number of travel options open to them. Those who travel into Bognor Regis itself can walk, cycle, drive or use public transport. Those who travel east towards Littlehampton or beyond can use the A259 east. Those who travel towards Arundel can use the A29 and the A27 junction at Fontwell.

Those seeking to travel west towards Chichester, Portsmouth and beyond will use the A259 west which joins the A27 at the Bognor Road roundabout.

- 6.0 Who uses the Oving Crossroads? If central Chichester is the destination the A259 Bognor Road is the most direct route. Bognor Road is a better route into the city than the Oving Road which is in comparison narrower and with a much greater element of on street parking.
- 7.0 The main reasons why drivers from Site 6 would introduce trips through the Oving Crossroads is to travel to the northern part of the city or to the Portfield Roundabout and beyond or for a number to avoid the Bognor Roundabout. Anyone wishing to travel north of Chichester would probably find the A29 and the Crockerhill Junction a more convenient route. Drivers seeking to avoid the peak hour queues that are a feature on the A259 approach to the Bognor Roundabout are able to leave the A259 and follow Drayton Lane and Shopwyke Road to the Oving Crossroads. This involves a diversion along narrower roads and is a longer route but may in the peak periods involve a shorter time to get onto or across the A27.
- 8.0 It can be seen that Oving Crossroads is not a natural choice for anymore than a small percentage of Site 6 traffic. For many alternative and more convenient routes are available. In the evening peak when drivers are returning to Site 6 some of which may be from the northern part of Chichester a number may opt to leave the A27 at Oving Crossroads and use Shopwyke Road and Drayton Lane to again avoid Bognor Roundabout. For the majority of drivers who use the A259 to then travel south to and from Portsmouth and beyond along the A27 the Bognor Roundabout remains their only option.

9.0 With the above in mind the level of agreed mitigation at Oving Crossroads which in construction and cost terms is the equal of the works to the Bognor Roundabout is somewhat difficult to reconcile.

10.0 Mitigation at the Oving Crossroads involved the provision of an additional traffic lane on the southbound approach together with the relocation of signals and new lighting. For residential traffic from Site 6 this does nothing to mitigate impact in the am peak and can only play a role in the pm peak by providing a lane for left turners seeking to avoid the Bognor Roundabout.

11.0 It is clear that if the performance of the Bognor Roundabout were to be improved there would be a reduced need for Site 6 traffic to make use of the Oving Crossroads as part of their journey to work or school etc. The two junctions are interrelated with Bognor Roundabout the key player insofar as Site 6 is involved. The planned improvements at Bognor Roundabout have the ability to attract trips away from the Oving Crossroads. Most drivers would prefer to use the most direct route onto the A27 or into the city which is via the Bognor Roundabout.

12.0 It is considered that if the conditions had been agreed with less haste it is very likely that alternative, less onerous and more appropriate forms of mitigation would have been put forward and agreed.

13.0 At the time the conditions were imposed back in 2004 the HA were not actively considering any alternative role for the Oving Crossroads. In the period 2003 – 2011 however A27 corridor studies on behalf of the HA and WSCC have identified a preferred alternative which is to terminate its role as a crossroads. West of the A27 Oving Road is to revert to a left in left out junction whilst Shopwyke Road east of the A27 will become a public service exit only. By removing the majority of the turning movements the signals will be called onto action intermittently and traffic flows through the junction will be significantly increased and delays

reduced. The same study also recommends the future signalisation at the Bognor Roundabout combined with a reduction from a five arm to a four arm junction.

14.0 The preferred changes to the Oving Crossroads render the works embodied in the Site 6 condition irrelevant. Introduction of an additional A27 left turn lane into Shopwyke Road is no longer required if it is to accommodate exiting vehicles only and these are to be restricted to buses only. Emerging advice relating to improving the A27 corridor has rendered the condition unnecessary.

15.0 It would appear that at the time of the imposition of the Site 6 conditions there were no other major developments being considered within the Chichester District Council/Arun District Council area that would have a material impact upon the A27 around Chichester. We now find ourselves in a situation in which 10 years have elapsed and other developments have emerged.

16.0 The HA has raised the subject of alternative forms of mitigation in relation to the Oving Crossroads. There are a number of highway related aspects associated with Site 6 capable of impacting upon the number of traffic movements using the A27 and its junctions, none of which were considered as mitigation at the public inquiry. The first of these relates to the trip generations used for Site 6 in the Paramics model that predicted impact across the network. An established area of residential housing known as Summerhill Drive in Bognor Regis was used to arrive at typical trip rates for this area for use in the model. Surveys examined the trips associated with 151 dwellings over a 7 day period within an area of residential housing that was built and occupied long before the days of travel plans and dedicated public transport connectivity.

17.0 Site 6 comprises a much larger area of housing with 650 dwellings at Bersted and 700 dwellings at Felpham, both of which benefit from Travel

Plans which are being introduced in both areas. The travel plans include a commitment to reduce car travel, car sharing and a greater use of public transport. With the larger developments residential travel plans are enjoying a measure of success with good progress being made towards target figures for car sharing, car clubs, public transport use, walking and cycling being achieved.

18.0 The Paramics model in producing a robust assessment of impact afforded no recognition of any benefits from travel plans. The TA prepared by Boreham Consulting for Hallam Land acknowledged that a worst case scenario had been considered across the network.

19.0 Site 6 also includes substantial contributions towards public transport together with improved services and links via bus gates into the development areas. These in turn link to the important A259 corridor through Bognor Regis. Regular bus services use the A259 corridor linking Bognor Regis to Chichester, Littlehampton and beyond and currently share this route with all through traffic. As a result the route can be the subject of delay during the peak periods.

20.0 A key factor of the Site 6 mitigation is the construction of the northern relief road (BNRR) which links the A259 east and west of the town. Whilst also providing access to Site 6 it provides a much needed bypass of the town and is predicted to remove a substantial amount of the traffic from the existing A259 corridor.

21.0 Once the BNRR is open to traffic it will become the A259 with the current route afforded a lower status. A significant benefit of the transfer of through traffic is the current A259 which is to be the recipient of a package of Site 6 funded improvements to the route and many of the junctions. A number of bus friendly schemes are to be introduced along the corridor all designed to improve conditions for buses and the

attractiveness of the Bognor Regis to Chichester & Littlehampton services.

22.0 The combination of improved conditions along the A259 together with improvements within Bognor Regis will enhance the corridor as a public transport route and serve to reduce the use of the motorcar. Traffic flows along the A27 around Chichester are known to comprise 80% local commuter traffic and 20% through traffic. Accordingly improvements to the bus services and the routes they follow are key to reducing the impact of new developments. With limited parking available within Chichester and relatively high daily parking costs an improved A259 corridor forms an important element of the hitherto unconsidered Site 6 mitigation.

23.0 It is difficult to quantify the level of reductions that can be associated with Travel Plans and improved bus services and routes. Together they are however capable of assuming significance particularly when considering for Site 6 one of the more remote junctions such as the Oving Crossroads.

24.0 At the time the TA for Site 6 was prepared future impact was considered in 2011 using growth rates which were appropriate at the time. These were factored from a base year of 2000 to assessment years of 2003 and 2011. Table 6.5 of the Boreham TA cited the growth factors of 1.216 (am) from 2000 to 2011 and 1.235 (pm) for the same period. These equated to annual growth rates of 1.96% am and 2.13% pm.

25.0 The Paramics model used these growth rates to predict conditions with and without development across the network for the assessment year of 2011. Although the original model stopped short of the A27 corridor it is understood that the same conditions were applied to the consideration of impact along the A27 corridor.

26.0 Now in 2014 we have the benefit of access to actual growth figures via the Department for Transport website. One count point (36297) is located on the A27 close to the Oving Crossroads, details for which are as follows :-

Year	AADF	Change	%/annum
2000	41035	-	-
2001	42331	+1296	+3.16
2002	43426	+1095	+2.59
2003	39878	-3548	-8.17
2004	41176	+1298	+3.25
2005	41226	+50	+0.12
2006	42163	+937	+2.27
2007	43115	+952	+2.26
2008	42879	-236	-0.55
2009	42476	-403	-0.94
2010	41778	-698	-1.64
2011	40333	-1445	-3.46
2012	40347	+14	+0.03

The above records demonstrate that there has been a reduction of 688 vehicles in AADF flows between 2000 and 2012.

27.0 A comparison of the growth factors used with actual values can be made as follows :-

Period	Used in the Model	Actual values
2000 – 2003	1.058 (am) 1.061 (pm)	-1.028
2000 - 2011	1.216 (am) 1.235 (pm)	- 1.017

It can be seen that the model considered an average increase of 23% over the period to 2011 whereas the actual growth was negative.

28.0 Current baseline flows at this location are very close to those recorded 12 years ago and any analysis adopting 2% growth will have significantly overestimated junction performance. It can with the benefit of hindsight be considered that an over provision of mitigation has been provided.

29.0 A number of other locations along the A27 can be considered as follows :-

Count Point 46298 – East of Fishbourne Roundabout

Year	Count	Difference	% Change	Factor
2003	42057	-		
2011	44816	+2759	+6.56	1.066

Count Point 26300 – East of Stockbridge Roundabout

Year	Count	Difference	% Change	Factor
2003	56353	-		
2011	47326	-9027	-16.02	-1.016

Count point 6296 – West of Bognor Roundabout

Year	Count	Difference	% Change	Factor
2003	39527	-		
2011	43889	+4362	+11.04	1.011

Count Point 99154 - Near Portfield Roundabout

Year	Count	Difference	% Change	Factor
2003	38450	-		
2011	42891	4441	+11.57	1.116

Count point 46299 – Near Crockerhill Junction

Year	Count	Difference	% Change	Factor
2003	43232	-		
2011	43976	+744	+1.70	1.017

Count point 28737 – Near Fontwell Roundabout

Year	Count	Difference	% Change	Factor
2003	42776	-		
2011	43161	385	+0.90	1.009

The results vary along the A27 corridor but they all indicate that the growth rates used in analysis are unrepresentative of what has happened on the network during that period.

30.0 Similarly flows along the A259 corridor reveal the following :-

Count Point 78123 – West of Bognor Regis

Year	Count	Difference	% Change	Factor
2003	23492	-		
2011	21747	-1747	-7.44	-1.074

Count Point 56654 – Within Bognor Regis

Year	Count	Difference	% Change	Factor
2003	14755	-		
2011	14401	-354	-2.40	1.024

Count Point 46867 – Felpham near start of the BNRR

Year	Count	Difference	% Change	Factor
2003	25153	-		
2011	21790	-3363	-13.37	-1.013

It can be seen that flows along the A259 corridor have decreased over the 8 year period. From this it can be concluded that flow conditions are significantly better than those predicted by the TA.

31.0 An assessment of the A29 reveals the following :-

Count Point 26312 – Near Rowan Way

Year	Count	Difference	% Change	Factor
2003	25336	-		
2011	21273	-4063	-16.04	-1.160

Count Point 78124 – Near Lidsey Farm

Year	Count	Difference	% Change	Factor
2003	13075	-		
2011	11912	-1163	-8.89	-1.089

The above illustrates a material reduction in flows along the A29 corridor and also through the A27 Fontwell Roundabout.

32.0 The above reveals a local highway network that in many places is carrying less traffic than it was 8 – 11 years ago. All previous analysis and predicted impacts have considered 2% growth year on year and an increase of 23% for the 2000 – 2011 period. These are now clearly unrepresentative and have in turn led to measures than can be deemed overmitigation at the A27 junctions. Combined with the excessive mitigation called for at Oving Crossroads a compelling case emerges for the condition to be set aside.

33.0 Since the conditions were imposed other developments have emerged, one of which is Shopwyke Lakes which is located close to the Oving Crossroads. Planning consent has been granted for much needed housing, employment and a care home on the site and work is due to commence in spring 2014.

- 34.0 The highway proposals conditioned for Shopwyke Lakes align themselves with the Atkins A27 Corridor Study and for Oving Crossroads the cessation of its role as a crossroads. A new access will be constructed onto the A27 east of Portfield Roundabout and the Shopwyke Road approach to Oving Crossroads will become a bus route only controlled by bollards.
- 35.0 Shopwyke Lakes has been given a phased consent to construct and occupy 300 dwellings on the site and provide mitigation in the form of a toucan crossing at Oving Crossroads. In securing the approval of the HA Shopwyke Lakes will have examined the impact of its development together with committed developments which includes Site 6.
- 36.0 The interim stages of development at Shopwyke Lakes will introduce development and construction traffic flows through the Oving Crossroads that are now deemed acceptable. This represents a change of approach on behalf of the HA since 2004 and may be due in no small part to the knowledge that growth on the network has not materialised.
- 37.0 The HA in discussion sought reassurance relating to any delay in the delivery of the Shopwyke Lakes mitigation works to the Oving Crossroads whilst building works and occupations continue on Site 6. This presupposes that any mitigation for Site 6 is required in a situation where growth has been static. It has however been demonstrated that mitigation for Site 6 at Oving Crossroads can be addressed not by the construction of additional areas of carriageway construction but via a combination of sustainable travel, route transfer and improvements to public transport and the A259 corridor.
- 38.0 It is considered that the planned improvements to the A259 and its junctions together with the opening of the BNRR will facilitate a transfer of trips from Oving Crossroads to the Bognor Roundabout. With low growth across the network the Site 6 mitigation at Bognor Roundabout is

also an over provision which will further enhance its attraction as the favoured route into Chichester and onto the A27.

39.0 Zero growth at the Oving Crossroads means we are no longer considering any deterioration of the conditions foreseen back in 2000 and 2003 but one in which a strong case can be made for nil detriment.

40.0 An earlier attempt to quantify the Site 6 development flows through Oving Crossroads in the peak periods suggested 2 additional trips a minute through the junction. This is before travel plans, route transfer and a no growth scenario can be taken into account. Shopwyke Lakes and its conditions have also demonstrated that the HA are comfortable with a level of development flows in excess of those associated with Site 6 through the junction with mitigation measures related to sustainable and improved travel arrangements. Taken together these factors indicate that the Oving Crossroads can in its current form safely accommodate the Site 6 flows.

41.0 Mitigation measures at Oving Crossroads back in 2003 may have seemed appropriate but the passage of time and the emergence of both the A27 route strategy and other developments have rendered them inappropriate and unnecessary.

42.0 Examination of committed measures that are being put in place by Site 6 reveals positive benefits for the A27 corridor. Further examination of traffic flows have also revealed that junction analysis and growth have considered for Site 6 a worst case scenario in which there has been an element of overmitigation.

43.0 The HA has acknowledged that the Oving Crossroads mitigation may have been arrived at in haste and been excessive for the traffic flows involved. Furthermore through its conditioning of the Shopwyke Lakes development it has recognised that earlier concerns for the performance

of the junction have not materialised. The result is that we currently have two conditions with two separate developers relating to the Oving Crossroads which are diametrically opposed and only one of which is in accord with the HA preferred improvements for the A27 at this location. It is respectfully requested that the condition for Oving Crossroads is no longer fit for purpose and should be removed.

G.J.Ford.

B.Sc, C.Eng, MICE, MCIHT.

APPENDIX (iii)

Technical Note 02 by PB dated 8th May 2014

HIGHWAYS AGENCY

SITE 6 BOGNOR REGIS - CASE FOR REMOVAL OF OIVING PLANNING CONDITION

TECHNICAL NOTE 02

08 MAY 2014

1 INTRODUCTION

- 1.1.1 A planning application was originally submitted to the Highways Agency in 2004 for the development of 1300 residential dwellings on land at both Felpham and Bersted in West Sussex, known as the 'Site 6' development.
- 1.1.2 Pineleigh Consultants have issued a draft report dated April 2014 with respect to Site 6 in Bognor Regis. Following a meeting with the Highways Agency (HA) on 20th March 2014 and in advance of a Section 73 application to vary/remove the Site 6 condition which requires works on the Oving crossroads the report looks to provide an evidence base to outline why the Oving Road contribution is no longer necessary.

This technical note provides a fair and constructive review of the documentation provided by Pineleigh Consultants, and advise the HA whether the arguments provide a robust case for the removal of the condition.

2 EXISTING CONDITION AT OIVING

- 2.1.1 The original planning conditions included occupation targets that linked both the Felpham and Bersted sites that make up the overall 'Site 6' development. For the Felpham development the condition associated with the Oving Road junction read:

"No more than 49 of the dwellings shall be occupied unless and until the works to the A27/B2144 Oving Road Junction substantially to the same effect as the works shown on drawing 200057/1049 Revision E."

- 2.1.2 For the Bersted development the condition associated with the Oving Road junction read:

"No more than 142 of the dwellings shall be occupied unless and until the works to the A27/B2144 Oving Road Junction substantially to the same effect as the works shown on drawing 200057/1049 Revision E."

3 CASE FOR REMOVAL OF CONDITION

- 3.1.1 The above report argues that there are a combination of factors, which combined, help to justify a removal of the condition for works at Oving crossroads. This technical note therefore attempts to extract the key arguments and provide a response as to the validity of the respective arguments. This is presented with a summary of the key 'influencing factors' presented in the above report followed by PB's response.
- 3.1.2 **Influencing factor:** *The proposed mitigation would do nothing to mitigate the impact in the AM peak and can only play a role in the PM peak by providing a lane for left turners seeking to avoid the Bognor Roundabout. (Section 10.0)*
- 3.1.3 **PB response:** A report prepared by PB in September 2010 on behalf of the Highways Agency focused on the impact that the additional lane widening in the Boreham mitigation at the Oving Road signals may have on the operation of the junction, modelled in Linsig.

- 3.1.4 The report found that in the AM peak the Boreham mitigation would lower the degree of saturation on the A27 north approach by 7.9% in the AM peak. It was also found to generate a large reduction in the level of delay on the A27 north approach and the Shopwhyke Road approach. A delay saving of 14.5 seconds per PCU was also predicted to be made on the A27 north approach.
- 3.1.5 In the PM peak the report found that the Boreham layout would lower the degree of saturation by 14.3% on the A27 north approach and by 15% on the Shopwhyke Road approach. A delay saving of 182.7 seconds per PCU was predicted to be made on the A27 north approach.
- 3.1.6 The additional traffic lane on the A27 north approach was therefore predicted to bring benefits to both the A27 north approach and the Shopwhyke Lane approach, albeit more so in the PM peak. Ultimately, if the larger committed scheme associated with either Shopwhyke Lakes or through the HA's programme of major scheme improvements were to come into play the Boreham improvement would be abortive. These improvements are however not guaranteed to take place.
- 3.1.7 **Influencing factor:** *If the conditions had been agreed with less haste it is very likely that alternative, less onerous and more appropriate forms of mitigation would have been put forward and agreed. (Section 12.0)*
- 3.1.8 **PB response:** Ultimately the developers had failed to test the traffic and safety implications of the development upon various A27 junctions in the supporting Transport Assessment (TA) in advance of the public inquiry. As previously stated in communication with Impact Design Consultants, the developer was not coerced into agreeing the various improvements. An agreement was reached and as a result the HA confirmed to the Inspector that subject to agreement of those mitigation works, the HA would have had no further objection to the development proposals.
- 3.1.9 **Influencing factor:** *The preferred changes to the Oving Crossroads render the works embodied in the Site 6 condition irrelevant. (Section 14.0)*
- 3.1.10 **PB response:** As outlined above, if the larger committed scheme associated with either Shopwhyke Lakes or through the HA's programme of major scheme improvements were to come into play the Boreham improvement would not be required. As advised in PB TN 02 dated 21st May 2013, recognising that the Oving crossroads mitigation associated with Shopwhyke Lakes was likely to render the Boreham proposal abortive, the alternative option was for the Chichester District Council to accept a financial contribution based on a direct comparison of the trips associated with the Site 6 and Shopwhyke Lakes developments. Recognising also that these larger scale improvements are not guaranteed to take place, continuation of the Boreham improvement proposals would also help safeguard the impact of Site 6 development traffic upon the Oving crossroads.
- 3.1.11 If Site 6 development goes ahead without mitigation and the major scheme or Shopwhyke improvements are not forthcoming this would leave the HA needing to mitigate the impacts of a private development. To get round this potentially detrimental scenario, a condition would be required to prevent further development at Site 6 until the required improvements at Oving Road were implemented, unless it could be demonstrated that the original traffic associated with the development is unlikely to use the Oving Road junction.

- 3.1.12 **Influencing factor:** *The original Paramics model in producing a robust assessment of the impact afforded no recognition of any benefits from Travel Plans. Site 6 also includes substantial contributions towards public transport together with improved services and links via bus gates into the development areas (Sections 18.0 & 19.0).*
- 3.1.13 **PB response:** An element of caution should be exercised when considering the potential benefits associated with a travel plan upon overall trip generation. As stated in section 23.0 of the above report, it is difficult to quantify the level of reductions that can be associated with travel plans and improved bus services. Nonetheless, the implementation of travel plans and provision of opportunities to travel by means alternative to the car from the outset of a new development provide a good opportunity to reduce the reliance on the car. As no account had been taken for travel planning measures within the original TA, this could act as an additional benefit by providing a small reduction in the level of trip generation from the development.
- 3.1.14 It should be borne in mind however that travel planning measures have more impact upon short distance car trips where other options including walking and cycling are available. Longer distance trips by car are more difficult to substitute due to the lack of transport options. To argue this case further in support of a Section 73 application to remove the Oving condition we would advise that the above report addresses this point further by outlining exactly what public transport improvements Site 6 is expected to provide that will reduce the number of trips heading towards the A27.
- 3.1.15 **Influencing factor:** *At the time the original TA for Site 6 was prepared, there was predicted to be 2% growth year on year with an increase in traffic of 23% from 2000 - 2011. A review of actual traffic growth figures from the DfT demonstrate a local highway network that in many places is carrying less traffic than it was 8 - 11 years ago. These are now clearly unrepresentative and have in turn led to measures that can be deemed over-mitigation at the A27 junctions (Sections 24.0 & 32.0).*
- 3.1.16 **PB response:** The level of background traffic travelling through the Oving junction along the A27 approaches did indeed reduce over the 11 year period indicated by the DfT data. A secondary check undertaken by PB using the HA TRADS database (ATC sites 5248 & 5249) demonstrate that between 2008 and 2013, annual average daily traffic has reduced by 4.7% immediately to the east of this junction.
- 3.1.17 While it is suggested in section 25.0 of the above report that the increased traffic flow conditions were applied to the consideration of the impact along the A27 corridor, it has been clear for at least the last 7 years that the A27 junctions at Bognor Road roundabout and Oving crossroads are operating at capacity during the peak periods. As such these particular junctions are sensitive to increases in traffic, with an increase of 11% in background traffic experienced just west of the Bognor Road junction between 2003 and 2011 as per the DfT data.
- 3.1.18 Overall there is certainly a case for taking into consideration the reduced level of traffic growth at Oving crossroads and Bognor Road roundabout in recent years but we would argue that by no means was excess mitigation proposed at either Oving Crossroads or Bognor Road roundabout given the sensitivity of these junctions to increases in traffic flows. This is exactly why large scale improvements are required at junctions along Chichester bypass in the long term.
- 3.1.19 **Influencing factor:** *The interim stages of development at Shopwyke Lakes will introduce development and construction traffic flows through the Oving Crossroads that are now deemed acceptable. This represents a change of approach on behalf of the HA since 2004*

and may be due in no small part to the knowledge that growth on the network has not materialised.

3.1.20 **PB response:** With respect to the type of mitigation and the trigger point for the delivery of mitigation at Oving crossroads, this was not an exact science as the improvements associated with Shopwhyke Lakes are part of a much wider package of mitigation measures. A number of improvements take place which affect the Oving crossroads early on in the Shopwhyke Lakes development. These are summarised as:

- A27/Oving Road signalised crossing upgraded to a toucan facility at **26 dwellings**
- New footway/cycleway overbridge over A27 (West of development site) and pedestrian/cycle path linking to A27 footbridge, site access and Oving toucan crossing at **125 dwellings**
- A27/Oving Road signalised junction - interim development improvements (consist of a temporary left in / left out operation restricting right turns and cross carriageway movements) at **300 dwellings**

4 CONCLUSION

4.1.1 Taking into account the above influencing factors we would agree that there is a case for the potential removal of the condition associated with mitigation at Oving crossroads. From our point of view the key influencing factor relates to the fact that traffic associated with Site 6 is unlikely to use the Oving crossroads to the extent assumed in the original TA. However, much of the evidence is anecdotal at this stage.

4.1.2 We would advise Pineleigh Consultants that the above report should include a short technical assessment to provide an indication of the revised distribution of development trips across the network. For this we would advise the assessment should include the following:

Scenario 1 - Conditions presented in existing Boreham TA

- Total predicted traffic generation from Site 6
- Development traffic proportions and associated total development traffic assumed to load onto the A259 east, A259 north, A29 and into Bognor Regis as per original Boreham TA.
- Development traffic proportions and associated total development traffic assumed to use Oving Crossroads and Bognor Road roundabout as per original Boreham TA.

Scenario 2 - Revised assessment (should Shopwhyke Lakes improvements not proceed)

- Total predicted traffic generation from Site 6
- Revised development traffic proportions and associated total development traffic now assumed to load onto the A259 east, A259 north, A29 and into Bognor Regis.
- Revised development traffic proportions and associated total development traffic now assumed to use Oving Crossroads and Bognor Road roundabout.
- Inclusion of any assumed reduction in development trips due to travel planning measures

Scenario 3 - Revised assessment (should Shopwhyke Lakes improvements proceed as planned)

- Total predicted traffic generation from Site 6.
- Revised development traffic proportions and associated total development traffic now assumed to load onto the A259 east, A259 north, A29 and into Bognor Regis.
- Revised development traffic proportions and associated total development traffic now assumed to use Oving Crossroads and Bognor Road roundabout.
- Inclusion of any assumed reduction in development trips due to travel planning measures

4.1.3 In terms of development traffic distribution we would advise using Census journey to work data from nomisweb to help inform roughly where people are predicted to be heading and then apply assumptions as to the routes traffic is likely to take. As outlined in the above report, it is most likely to be only the traffic heading into Chichester that will use the Oving crossroads. We would recommend that the revised trip generation, distribution and travel plan impacts are agreed prior to submission of the Section 73 application.

4.1.4 Provision of the above information to give a rough indication of the likely use of the Oving Crossroads and Bognor Road junctions in combination with the arguments with respect to travel planning measures, committed Site 6 mitigation to date and improvements to public transport along the A259 corridor is likely to provide the most appropriate evidence base alongside the submission of a Section 73 application to vary/remove the Site 6 conditions.

APPENDIX (iv)

Response from the HA dated 5th June 2014

[REDACTED]

Subject: RE: Site 6 draft meeting minutes and Oving Crossroads report

Gerald

First can I apologise for my delay in responding to you on this.

I have attached a Technical Note from Parsons Brinckerhoff (PB) in response to your report. The Highways Agency concurs with the views expressed by PB in the Note.

Could I clarify that in considering the case for removing or modifying the condition in respect of Oving Crossroads we are prepared to take into account the combined impacts at Oving Crossroads and Bognor Road roundabout. So, for example, if you are able to demonstrate that the works shortly to be commenced at Bognor Road roundabout deliver better than 'nil detriment' there, then we will offset the residual benefit against any residual detriment at Oving Crossroads.

If your clients elect to proceed as recommended by PB then I would endorse the suggestion of continuous engagement between PB and yourself as you develop your client's case. Please let me know how your clients wish to proceed in order that I can instruct PB accordingly.

Paul Harwood, Regional Lead Economic Development
Highways Agency | Federated House | London Road | Dorking | RH4 1SZ

[REDACTED]

GTN: 3904 8471

Safe roads, reliable journeys, informed travellers
Highways Agency, an executive agency of the Department for Transport.

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APPENDIX (v)

Addendum to "A Case for the Removal of the Planning Condition
for Oving Crossroads"

DEVELOPMENT AT SITE 6 BOGNOR REGIS.

**A CASE FOR THE REMOVAL OF THE PLANNING CONDITION
FOR THE OIVING CROSSROADS.**

ADDENDUM

June 2014

DRAFT

Impact Design Consultants

- 1.0 This addendum responds to some of the comments and advice from PB relating to the first draft dated April 2014 and focuses upon the trip generations and their distribution in the light of recent census data.
- 2.0 The NOMIS website provides details of the Travel to Work details for the Arun DC area as provided by the 2011 census. Work locations in excess of 10 km could include the crossing of the A27 Trunk Road. Details were as follows:-
- Number of people in the census

= 87,720
- Number of people working from home

= 8,436 (7.4%)
- Number of people not in employment

= 38,628 (44%)

This gives a total of 40,656 people who travel to work.
The distances travelled are listed as:-

Less than 2 km	= 11,494
2 – 5 km	= 8,199
5 – 10 km	= 6,666
Total for 0 – 10 km	= 26,359
10 – 20 km	= 4,639
20 – 30 km	= 1,491
30 – 40 km	= 699
40 – 60 km	= 418
More than 60 km	= 559
Total for 10 – 60 km	= 7,806

There are a total of 6,491 who have no fixed workplace. Adding these to the 10 – 60 km category gives a revised and robust total of 14,297.

The census is indicating the following split of journeys to work

0 – 10 km	= 26,359	(65%)
10 – 60 km	= 14,297	(35%)

This suggests that 65% are unlikely to travel as far as the A27 on their journey to and from work.

- 3.0 Comparisons can be made using NOMIS for Arun DC which includes Bognor Regis and Chichester DC its nearest place of employment as follows :-

	Arun DC	Chichester DC	All of UK
Population	87,720	88,978	38,806,496
% not in employment	44.0	31.2	35.4
Average distance travelled to work	9.2	16.3	14.5

It can be seen that Arun has a higher than average number who are not in employment which reflects its coastal location and attractiveness for those who are

retired. The average distance to work also suggests residents travel shorter distances to work in the Arun DC area.

- 4.0 The Bognor Regis Urban Transport Plan in its summary states that nearly 50% of those in employment work outside the plan area. It also suggests that of those travelling to work 87% do so by car. Using the above figures for employment of 40,656 we could have on this basis have 20328 travelling to work outside the area of which 17,685 would do so by car. This figure would equate to 43% of the total travelling to the A27 and beyond. The two sources would suggest that we have 35 – 43 % of work journeys being made outside of the area.
- 5.0 In considering Site 6 how many of the new residents will be in employment and will travel outside Bognor Regis and onto or across the A27? There are a number of emerging employment opportunities within Bognor Regis which will help to constrain out commuting. With a new development of 1300 dwellings we may however have a higher proportion than the above figures of 35 – 42 % which relate to the extant population.
- 6.0 Many peak period trips are local and involve school journeys. It is clear that census records indicate a significant proportion of trips will stay within Bognor Regis itself. If we were however to consider 65% commuting out of Bognor Regis this would transpose the census returns which show 35% out commuting more than 10 km and 65% are internal trips and paint a very robust picture insofar as the A27 is concerned.
- 7.0 Where do people living on Site 6 travel to work. The prime locations are :-

Location	Distance (km)
Bognor Regis	3
Chichester	12
Littlehampton	12
Arundel	18
Worthing	27
Havant	30
Portsmouth	38
Petersfield	38
Fareham	45
Brighton	48

- 8.0 The census indicates that most journeys are constrained within the 30 – 40 km range suggesting that Portsmouth and Petersfield would be the practical limits for many. The routes taken for the above journeys will be as follows :-

Location	Route
Bognor Regis	Local Roads
Chichester	A259 W
Littlehampton	A259 E
Arundel	A29

Worthing	A259 E
Havant	A259 W or B2166
Portsmouth	A259 W or B2166
Petersfield	A259 W & A286
Fareham	A259 W or B2166
Brighton	A29 or A259 E

The B2166 Lower Bognor Road has been added to the list of routes as it understood to be an alternative route used by a number to access the A27 in a westerly direction. It can be joined from the A259 within Bognor Regis via Chalcraft Lane and avoids the Bognor Roundabout joining the A27 at the Wyke Roundabout.

9.0 A revisiting of the trip distribution from Site 6 in light of the above census information would suggest a more appropriate split would be as follows :-

Route	% of Flows
A259 E	22
A29	16
A259 W	22
B2166	5
Internal Roads in Bognor Regis	35
Total	100

An earlier assessment which considered Bersted and Felpham separately used the following :-

Route	Bersted	Felpham
A259 E	15	35
A29	10	10
A259 W	60	40
B2166	0	0
Internal Roads	15	15
Total	100	100

The former assessment showed a high % of trips out of the area and on or across the A27 with just 15% retained within Bognor Regis. These values are out of line with the 2011 census data and indicate a far greater impact upon the A27 than is likely to occur.

10.0 In considering the split of traffic flows between the Bognor Roundabout and the Oving Crossroads it is considered in retrospect that relatively few trips from Site 6 will seek to use the Oving route once the Bognor Roundabout has been improved. The main reason drivers divert along what are in places country lanes to use the Oving Crossroads is to avoid delays at Bognor Roundabout in the busy periods. In the same way that a number use the B2166 to join the A27 at the Wyke Roundabout. Oving Road west of the A27 within the city of Chichester quickly joins the Bognor Road and

apart from a time saving there is little obvious benefit in diverting to Oving Crossroads. A revised split that recognises this and the improvements Site 6 will bring to Bognor Roundabout is :-

Route	% of Flows
A259 Bognor Roundabout	20
Oving Crossroads	2
Total	22

An earlier assessment used the following:-

Route	% of Bersted Flows	% of Felpham Flows
A259 Bognor Roundabout	40	27
Oving Crossroads	20	13
Total	60	40

11.0 The Site 6 two way trips in the peak periods using local trip rates unfactored for any Travel Plans etc were :-

Location	Am : 0800 - 0900	Pm : 1700 – 1800
Bersted	377	423
Felpham	406	455
Total	783	878

These were previously applied to the network as follows:-

Route	% of Flows	Am Peak	Pm Peak
A259 E	35 (Felpham) 15 (Bersted)	199	222
A29	10	79	88
A259 W	40 (Felpham) 60 (Bersted)	388	436
B2166	0	0	0
Local Roads	15	118	131
Total	100	784	877
Bognor Rd	27 (Felpham) 40 (Bersted)	261	292
Oving X Roads	13 (Felpham) 20 (Bersted)	127	144
Total	40 (Felpham) 60 (Bersted)	388	436

If the flows are applied to the network using the latest splits we have:-

Route	% of Flows	Am Peak	Pm Peak
A259 E	22	172	193
A29	16	126	140
A259 W	22	172	193
B2166	5	39	44
Local Roads	35	274	308
Total	100	783	878
Bognor Rdbt	20	157	176
Oving X Roads	2	15	17
Total	22	172	193

The above distribution is robust insofar as the A27 is concerned with 35% of trips allocated to the local roads within Bognor Regis in comparison with the census assessment of 65%. The above distributes 65% across 4 radial routes that serve Bognor Regis with the A259 and B2166 catering for westbound flows which comprise 27 % of the total. Flows at the Oving Crossroads are modest and on the above basis equate to 15 – 17 trips in the peak periods which is 1 trip every 4 minutes and cannot be considered a material impact.

- 12.0 If the Shopwyke Lakes development does not go ahead the improvements at Bognor Roundabout will effectively remove any impact of Site 6 at the Oving Crossroads. There are no clear advantages resulting from a diversion to use the Oving Crossroads as long as Bognor Roundabout is functioning effectively. Planned future improvements to Bognor Roundabout which include further lane widening and signal control will cement its role as the favoured junction for all Chichester bound Site 6 traffic. If Shopwyke Lakes development does not go ahead a similar proposal will certainly emerge which will have to align itself in highway terms to the HA and WSCC proposals for the Oving Crossroads.
- 13.0 If Shopwyke Lakes goes ahead it has a consent which will allow it to build and occupy 300 houses on the site before a north – south link is introduced and Oving Crossroads ceases its role as a crossroads junction. Using the Site 6 trip rates Shopwyke Lakes will be able to generate 174 trips am and 195 trips pm onto Oving Road. With the sites location close to the A27 and its close proximity to Chichester the majority of the trips will use Oving Road and the Oving Crossroads. Assuming 95% do so we are considering 165 trips am and 185 trips pm through the junction. This compares with the above Site 6 assessment of 15 – 17 trips in the same periods. Clearly Oving Crossroads can accommodate flows approaching 200 trips in the peak periods without mitigation other than that of a NMU variety together with a Travel Plan and improved bus route.
- 14.0 It can be seen from the above that there are no clear reasons why the HA should feel concern for the Oving Crossroads. The impact of Site 6 in retrospect has historically been overemphasised and the Planning Condition reflects a scenario that will not occur.

- 15.0 Assessment of the impact of a residential Travel Plan is difficult to predict as they are all different and results take a long period to emerge. We know that they are effective and a central plank of most plans is the commitment to public transport and to increase the number of people who share lifts to work. With car usage for most areas showing figures of typically 65 - 68% of the total a target to reduce this by 5% is common. It should be possible to effect such a reduction to the trip rates used for Site 6. Bognor Regis and Site 6 will benefit from a much improved A259 corridor as described in the Boreham TA and the S106 Agreement together with the BNRR which makes it all possible. Public transport will become an effective alternative to the car for a number of residents with a corresponding beneficial impact upon the A 27 and its junctions. A 5% reduction in traffic flows over a period of time would not be out of order.
- 16.0 Mitigation at Bognor Roundabout comprises a combination of a lane addition and lane widening to the southbound and northbound A27 approaches. Together with the addition of spiral markings the throughput of the junction will be much improved. Analysis of the junction at the time of the Site 6 inquiry will have considered higher development flows than those now being considered. In addition future growth allowed for 2% year on year increases whereas there has been significantly less with no increases at all in many locations.
- 17.0 If the designers had known at the time that traffic growth would have been much reduced or even static the extent of mitigation offered would have been reduced. This was not the case however and their objective if it had been to achieve "nil detriment" will now deliver significantly more mitigation. We are entitled with the benefit of hindsight to consider that the A27 has been the beneficiary of low and static growth and in the case of Bognor Roundabout a degree of over mitigation is being provided which can be offset against any perceived detriment at Oving Crossroads.
- 18.0 Census data would suggest that the impact of Site 6 is more constrained than previously thought and it is considered that there is a compelling case for the Oving Crossroads Condition to be safely set aside.

G. J. Ford
15th June 2014

APPENDIX (vi)

Technical Note 03 by PB dated 2nd July 2014

HIGHWAYS AGENCY

**SITE 6 BOGNOR REGIS - CASE FOR REMOVAL OF OIVING CROSSROADS PLANNING
CONDITION**

(REVIEW OF ADDENDUM TO DEVELOPMENT AT SITE 6 BOGNOR REGIS)

TECHNICAL NOTE 03

2ND JULY 2014

1 INTRODUCTION

- 1.1.1 A planning application was originally submitted to the Highways Agency in 2004 for the development of 1300 residential dwellings on land at both Felpham and Bersted in West Sussex, known as the 'Site 6' development.
- 1.1.2 In April 2014 Pineleigh Consultants issued a draft report with respect to Site 6 in Bognor Regis. Following a meeting with the Highways Agency (HA) on 20th March 2014 and in advance of a Section 73 application to vary/remove the Site 6 condition which requires works on the Oving crossroads, the report looked to provide an evidence base to outline why the Oving Road contribution is no longer necessary.
- 1.1.3 On 8th May 2014 Parsons Brinckerhoff (PB) prepared a technical note response to the key influencing factors identified by Pineleigh Consultants which attempted to support the case for removal of the Site 6 condition for Oving crossroads. Ultimately we advised that a Census journey to work assessment should be carried out to help inform a revised traffic distribution along with the application of assumptions as to the routes traffic is likely to take, also taking into account possible reductions for travel planning measures.
- 1.1.4 We advised that this would help to demonstrate approximately how many people are actually likely to use the Oving crossroads when travelling to and from Site 6 rather than relying on anecdotal evidence.

2 ADDENDUM TO DEVELOPMENT AT SITE 6 BOGNOR REGIS

- 2.1.1 Pineleigh Consultants have since submitted a document titled 'Addendum to development at Site 6 Bognor Regis' to address the comments in PB TN 02. Are comments are as follows:
- 2.1.2 The statement at section 2 of the TA addendum that 65% of journeys to work (assumed to be person trips) made from Arun to a distance within 10km is considered accurate. As a sense check PB extracted the 2011 census data travel to work patterns from the wards of South Bersted and Felpham (super output areas 014 and 015), the results of which give the same percentage split.
- 2.1.3 However the argument that 65% are unlikely to use the A27 to travel to work is somewhat generous. The distances between Felpham and the A27 at Chichester and the A27 at Fontwell are between 8km - 9km which means the data for which the assessment is based upon is somewhat under representative as all journeys under 10km are ignored. However, given that the assessment also assumes that 100% of people who have no fixed workplace travel between 10km - 60km to work, the overall assumption that 35% of journeys to work are travelled over 10km could be argued to be quite robust.
- 2.1.4 The above TA addendum makes reference to the Bognor Regis Urban Transport Plan which indicates a higher employment distribution towards the A27 with up to 43% of all travel to work journeys made outside of Bognor Regis. Given that this report dates back to 2000, and the data it relies upon probably even earlier, we would be inclined to rely more upon the 2011 census data.

- 2.1.5 The TA addendum then provides a comparison with the traffic distribution associated with the original Site 6 TA provided by Boreham Consulting with a revised distribution in light of the census data and Bognor Regis Urban Transport Plan.
- 2.1.6 For ease of reference we have combined the traffic distribution percentages and resulting traffic assignment figures presented in the various tables from Pineleigh Consultant's TA addendum and recreated them at Appendix 1 of this PB technical note. First of all it highlights the total trip generation from Site 6 (split between Felpham and Bersted). Scenario 1 of this appendix then highlights the development traffic distribution percentages across the local roads and the A27 junctions with Bognor Road and Oving crossroads as per the original Boreham Consulting TA. The final traffic figures assigned to these junctions is then presented.
- 2.1.7 The original Boreham Consulting TA assigned approximately 60% of all Site 6 development traffic via the A27 in the peak periods (467 in the am peak and 524 in the pm peak), with approximately 16% of all Site 6 development traffic assigned via the Oving crossroads junction (128 in the am peak and 144 in the pm peak).
- 2.1.8 Within the revised assessment, Pineleigh Consulting's TA addendum now attempts to redistribute the development traffic from Site 6 which it says is based on the census assessment (which should therefore show 35% of development traffic heading towards the A27), but it actually uses the higher figure of 43% as per the Bognor Regis Urban Transport Plan. The first table at section 9 of the TA addendum then provides a revised split of development traffic assigned to the various local roads although it is not clear what this is based on. It also provides commentary on the benefits that the Site 6 improvements will have upon Oving crossroads by essentially drawing traffic away from the Oving crossroads.
- 2.1.9 The commentary also describes how some traffic travelling west along the A27 is likely to use the B2166 to join the A27 at the Whyke roundabout. Section 11 of the TA addendum then presents a table of the revised percentage splits for traffic predicted to use the Oving, Bognor Road and Whyke junctions with the A27. As with the table at section 9 of the TA addendum, it is not clear what the percentage splits are based upon but it is likely to be based on the direction people would reasonably be expected to take given the choice of routes and knowledge of local traffic congestion.
- 2.1.10 The 2011 Census does not appear to provide the details of workplace destinations for those living in Arun. These are expected to be available on nomisweb during late summer 2014. Therefore as a sense check on the assumed distribution percentages presented in Pineleigh Consultant's TA addendum we have used the 2001 Census data (UK travel flows by car driver) to extract all workplace destinations based on people who live in Arun. The data is presented at scenario 3 of the Appendix 1 to this technical note and shows an identical distribution for traffic heading towards the Bognor Road and Oving crossroads junctions compared to Pineleigh Consultants revised distribution assessment. The 2001 census data also shows that there would be 5% less traffic using the A29 which connects with the Crockerhill and Fontwell junctions and 4% less traffic using the A27 Whyke Road roundabout junction when compared to Pineleigh Consultants revised distribution assessment.
- 2.1.11 It should be stressed that in our assessment, we assumed that for traffic travelling to destinations west along the A27, 75% of this traffic would use the Bognor Road junction and 15% would use Whyke Roundabout. Furthermore, we assumed that for traffic travelling to destinations towards or North of Chichester, 90% of this traffic would use the Bognor Road junction and 10% would use Whyke Roundabout. Ultimately, the 2001 Census check indicates that 34% of all journeys to work made by car are likely to route via the A27 which is 10% lower than that assumed in Pineleigh Consultants TA addendum. As a secondary check, running the same scenario just for the wards of Bersted and Felpham west indicates that 38% of all journeys to work made by car from these two wards are likely to route via the A27. We would therefore advise that the revised distribution assumptions provided by Pineleigh Consulting represent a robust worst case.

3 CONCLUSION OF EVIDENCE IN FAVOUR OF REMOVAL OF OIVING CONDITION

- 3.1.1 The results of Pineleigh Consulting's revised distribution exercise is highlighted in Appendix 1 Scenario 2 of this technical note and shows that of the 43% of development traffic assigned to the A27, this equates to 337 am peak trips and 378 pm peak trips. Furthermore there is predicted to be a large reduction in trip impact upon the Oving and Bognor road junctions equating to 15 am peak trips and 17 pm peak trips at Oving and 157 am peak trips and 176 pm peak trips at the Bognor Road junction. While there is predicted to be a 6% increase in development trips split across the A27 junctions with Crockerhill and Fontwell and the presence of 39 am peak trips and 44 pm peak trips towards the A27 Whyke Road junction, overall there is predicted to be 130 fewer vehicles using the A27 to travel to work in the am peak and 146 fewer people in the pm peak when compared to the original Boreham TA. This represents a 17% reduction in Site 6 development traffic predicted to use the A27 since the Boreham Consulting TA was produced when the original planning application was submitted.
- 3.1.2 The above impact on the A27 is of course based on the higher 43% distribution in line with the Bognor Regis Urban Transport Plan. Taking the lower 35% impact in line with 2011 Census data would result in 133 fewer people travelling towards the A27 for work over both peak periods. We have also verified this against the available 2001 Census journey to work data which portrays a similar trip impact upon the A27.
- 3.1.3 It is worth caveating that since the TA addendum assessment only takes into account travel to work trips there are likely to be a number of trips excluded as a result of other journey purposes. However, it is standard practice to assume that the majority of trips made during the peak periods will be work related. Secondly, the fact the development is located some 8km - 9km from the A27 means that non-work related trips such as education, leisure, shopping etc. would be very much localised and have minimal impact upon the A27 during those peak periods. Therefore since the assessment assumes that the distribution is purely commuter related it will further overestimate the number of Site 6 development related trips using the A27.
- 3.1.4 Taking into account the above influencing factors we would agree that there is a case for the removal of the condition associated with mitigation at Oving crossroads. The critical factor in deciding whether it is appropriate to remove the condition is what level of Site 6 development traffic in reality on reflection of the above information is likely to use the Oving crossroads. We would agree that Site 6 traffic travelling to the east or west along the A27 is unlikely to use Oving crossroads and only a small proportion of Site 6 traffic travelling towards or through Chichester is likely to route via Oving crossroads. With the forthcoming improvements associated with Site 6 at the A27 Bognor Road junction (albeit relatively small scale) this may draw some Oving crossroads related traffic towards the Bognor Road junction.
- 3.1.5 Even if the amount of traffic assumed to use Oving crossroads in Pineleigh Consultant's TA were doubled in quantity, the 2011 trip length assessment and 2001 Travel to work census assessments indicate that far less traffic (between 17% and 26% less development traffic) is assumed to use the A27 overall than was originally predicted at the planning application stage.
- 3.1.6 Other factors in favour of the removal of the Oving condition would be the fact the original TA at planning application stage did not take into account the benefits of travel planning measures and commitments to improving public transport connections along the A259 corridor linking Chichester. It is however important to remember that it is generally more difficult to manage down longer distance car trips as there are fewer mode options in comparison to shorter distance trips.
- 3.1.7 In light of the latest TA addendum submission and the above referenced evidence, we feel a robust case has been made towards the removal of the Site 6 condition associated with improvement works at Oving crossroads. This is because there is an acceptable argument to lower the trips to and from the A27 and this difference would in all likelihood remove the mitigation requirement at the Oving crossroads. In line with section 9 of the Department for Transport (DfT) Circular 02/2013 (The Strategic Road Network and the Delivery of Sustainable Development) it would be difficult to argue, on the basis of the latest assessment that the cumulative residual impacts of development upon Oving crossroads would be severe.

APPENDIX 1 - TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT CHECK

Total Development Trips - Boreham TA

SITE	UNITS	TOTAL AM TRIPS	TOTAL PM TRIPS
Felpham	700	406	455
Bersted	650	377	423
Total	1350	783	878

SCENARIO 1 - Conditions presented in existing Boreham TA

Development Traffic Distribution Percentages - Boreham TA

SITE	A259 West	A259 East	A29	Within Bognor	Oving	Bognor Road Rdbt	Total using A27
Felpham	40%	36%	10%	15%	13%	27%	50%
Bersted	60%	15%	10%	15%	20%	40%	70%

991.5

Development Traffic Assignment - Boreham TA

SITE	A259 West		A259 East		A29		Within Bognor		Oving		Bognor Road Rdbt		Total using A27	
	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Felpham	162	182	142	159	41	46	61	68	53	59	110	123	203	228
Bersted	226	254	57	63	38	42	57	63	75	85	151	169	264	296
Total	388	436	199	223	78	88	117	132	128	144	260	292	467	524

SCENARIO 2 - Pineleigh Consultants revised traffic distribution

991

Development Traffic Distribution Percentages

SITE	A259 West	A259 East	A29	Within Bognor	Wyke Rdbt	Oving	Bognor Road Rdbt	Total using A27
All Site 6	22%	22%	16%	35%	5%	2%	20%	43%

Development Traffic Assignment - Boreham TA

SITE	A259 West		A259 East		A29		Within Bognor		Wyke Rdbt		Oving		Bognor Road Rdbt		Total using A27	
	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
All Site 6	172	193	172	193	125	140	274	307	39	44	16	18	157	176	337	378

SCENARIO 3 - PB Traffic Distribution check for SRN

714

Development Traffic Distribution Percentages - 2001 Census check

SITE	A259 East	A29	Within Arun	Wyke Rdbt	Oving	Bognor Road Rdbt	Total using A27
All Site 6	13%	11%	53%	1%	2%	20%	34%

Development Traffic Assignment - Boreham TA

SITE	A259 East		A29		Within Arun		Wyke Rdbt		Oving		Bognor Road Rdbt		Total using A27	
	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
All Site 6	102	114	83	93	415	465	8	9	16	18	157	176	263	295

557

APPENDIX (vii)

Response from the HA to Arun DC Planning Department

[REDACTED]

Subject: Site 6 - Oving Crossroads

Neil

You are aware that the Highways Agency has been in correspondence with Gerald Ford on behalf of the developer of Site 6 about whether there is a continued need for the condition imposed upon the development regarding mitigation works to Oving Crossroads.

I have attached a further submission from Gerald and a report from our consultants Parsons Brinckerhoff in response to it.

In view of this correspondence the Highways Agency will no longer insist on the application of the condition imposed on the development regarding mitigation works to Oving Crossroads.

Please let me know if you or the developer require any assistance from the Highways Agency in formalising this position.

Paul Harwood, Regional Lead Economic Development
Highways Agency | Federated House | London Road | Dorking | RH4 1SZ

[REDACTED]

GTN: 3904 8471

Safe roads, reliable journeys, informed travellers
Highways Agency, an executive agency of the Department for Transport.

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