

POLICY SITE 6

FELPHAM, BOGNOR REGIS

Housing Application Re-plan Phase 5a

TRANSPORT STATEMENT IN SUPPORT OF RE-PLAN

**[ADDENDUM TO TRANSPORT ASSESSMENT
PREPARED BY BOREHAM CONSULTING FOR
HALLAM LAND MANAGEMENT]**

BARRATT DAVID WILSON LIMITED

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1 Introduction & Background

1.1 General

- 1.1.1 In December 2011 Barratt David Wilson (BDW) carried out a re-plan of the consented development on their site at Felpham. The total number of dwellings on site was 770, where an additional 70 units were consented to in January 2011.
- 1.1.2 Whilst the total number of dwellings remained at 770, the December 2011 re-plan involved a change in the development mix within Phases 2 (partial), 4 and 5. A report (**WL/11.0705/4180**) was produced by MJA Consulting in December 2011 to examine the traffic effects of the re-plan.
- 1.1.3 BDW have again reviewed the mix of housing within Phase 5A, for which this report relates to, and are proposing a re-plan resulting in an increase of seven dwellings over the entire site.
- 1.1.4 In order to examine the impact in transportation terms of the change in housing numbers it is necessary to consider the Transportation Assessment (TA) that supported the outline application.
- 1.1.5 Prepared by Boreham Consulting (BCL) on behalf of Hallam Land Ltd the TA (see Appendix 2) considered in a comprehensive manner the impact of 1,350 houses on Site 6, with 700 at Felpham and 650 at Bersted.
- 1.1.6 The TA was informed by a PARAMICS Model which was set up by BCL for the major highway network through Bognor Regis. Traffic Counts and roadside interviews across the network were undertaken to calibrate the model which provided a valuable insight into predicted flows and impact. The model formed the subject of protracted dialogue with West Sussex County Council (WSCC) who accepted it as an appropriate tool to examine traffic impacts.
- 1.1.7 The model distributed flows across the highway network and there are no reasons to suggest that the distribution will be any different for the additional seven dwellings now proposed.



- 1.1.8 This report seeks to identify the traffic impact due to a further re-plan, giving rise to a change in the development mix compared to that considered in December 2011.

2 Development Proposals

2.1 Background

2.1.1 At the time of the outline application, which was later the subject of an inquiry, the housing proposals were of necessity vague as Hallam Land were proposing to offer the site to the house building market.

2.1.2 Since BDW acquired the Felpham site they have examined the most appropriate house types for the current housing market. In January 2011 it was opted for a mix of 605 houses (2-5 bedrooms) and 165 flats (1 & 2 bedrooms). During December 2011, the re-plan considered 635 houses (2-5 bedrooms) and 135 flats (1 & 2 bedrooms). The latest re-plan proposes 655 houses (2-5 bedrooms) and 122 flats (1 & 2 bedrooms). A summary is shown in **Table 2.1** below.

Table 2.1: Comparison of development mix at Site 6

	Houses (4 & 5 beds)	Houses (2 & 3 beds)	Flats (1 & 2 beds)	Total
January 2011	218	387	165	770
December 2011	195	440	135	770
June 2013	214	441	122	777

2.1.3 Whilst the table above shows the total housing numbers for the site, it should be noted that only Phase 5A is considered for re-plan currently.

2.1.4 Introduction of the additional houses will have minimal impact upon the housing areas, the means of access and the on-site infrastructure. Access remains via the two internal roundabouts that lie on the eastern section of the BNRR.

3 Traffic Generation and Distribution

3.1 Traffic Generation

3.1.1 The BCL TA looked at trip generations from the TRICS Database before opting to use those relating to an adjacent residential development at Summerhill Drive (see Appendix (ii) of the BCL TA).

3.1.2 Traffic counts recorded movements to and from the development for 24-hours a day over a 7 day period.

3.1.3 Using average flows over the five weekdays for the peak periods the trip rates recorded are shown in **Table 3.1**.

Table 3.1: Recorded residential weekday trips rates (AM & PM peaks)

Period	IN	OUT	TOTAL
0800-0900	0.17	0.41	0.58
1700-1800	0.37	0.28	0.65

WSCC agreed to the use of the **Table 3.1** trip rates for all residential housing at Site 6.

3.1.4 Examination of the latest version of TRICS (2013(a) v6.11.2) again reveals limited contributions to the database from sites in West Sussex. Selecting a number of sites however of similar size produces the following typical trip rates, as shown in **Tables 3.2** and **3.3**.

Table 3.2: TRICS weekday trips rates (AM & PM peaks) - Houses privately owned (4 and 5 bedrooms)

Period	IN	OUT	TOTAL
0800-0900	0.167	0.433	0.600
1700-1800	0.425	0.258	0.683

Table 3.3: TRICS weekday trips rates (AM & PM peaks) - Houses privately owned (2 and 3 bedrooms)

Period	IN	OUT	TOTAL
0800-0900	0.136	0.390	0.526
1700-1800	0.367	0.217	0.584

The above results are sufficiently similar to those used by the BCL TA to suggest that there has been no material change in residential trip rates over the period 2004-2013.

- 3.1.5 In applying the trip generations for the Felpham Part of Site 6, BCL elected to use the above trip rates in **Table 3.1**, which for 700 houses would generate the following trips in **Table 3.4**.

Table 3.4: BCL development trips (AM & PM peaks) associated with 700 dwellings

Period	IN	OUT	TOTAL
0800-0900	119	287	406
1700-1800	259	196	455

- 3.1.6 Reference to the flow diagrams in the BCL TA for the 2011 scenario for the two internal BNRR roundabouts indicates the following inputs to the PARAMICS Model, as shown in **Table 3.5**.

Table 3.5: Development trips (AM & PM peaks) used in PARAMICS Model

Period	Junction 10		Junction 11		Total
	IN	OUT	IN	OUT	
0800-0900	61	153	64	152	430
1700-1800	133	101	126	101	461

The trips are not identical to those above as they are in PCU and may also include a small element of A1 accommodation that is included in the consent.

Notwithstanding this it can be seen that the model has considered the impact of a minimum of 700 houses in a robust manner.

- 3.1.7 The development that has evolved now comprises a mix of houses and flats. Since 2009 the housing mix has been revised to suit the prevailing market conditions. The

development at the time of the BCL TA, to the present time can be compared and seen in **Table 3.6**.

Table 3.6: Summary of housing provision for Felpham Part of Site 6

Type	2004 Scenario	2009 Scenario	2011 Scenario	2013 Scenario
Houses (4/5 bedrooms)	700	218	195	214
Houses (2/3 bedrooms)		387	440	441
Flats	-	165	135	122
Total	700	770	770	777

3.1.8 Examination of the latest TRICS database indicates typical trip rates for Flats-privately owned as follows in **Table 3.7**.

Table 3.7: TRICS weekday trips rates (AM & PM peaks) - Flats privately owned (1 and 2 bedrooms)

Period	IN	OUT	TOTAL
0800-0900	0.053	0.238	0.291
1700-1800	0.234	0.080	0.314

3.1.9 The December 2011 addendum applied the BCL trip rates (see Table 3.1) to the 635 houses and the Table 3.7 trip rates for the 135 flats to produce the trips in Table 3.8.

Table 3.8: Development trips for 770 dwellings – weekday AM & PM peaks

Period	Houses (635)		Flats (135)		Total
	IN	OUT	IN	OUT	
0800-0900	102	268	6	26	402
1700-1800	247	151	24	12	434

3.10 In order to demonstrate the traffic impacts of the re-plan the trip rates in **Tables 3.2, 3.3 & 3.7** have been applied to the 2013 development mix shown in **Table 3.6**. The resultant re-plan development trips are shown in **Table 3.9** below.

Table 3.9: Development trips 777 dwellings (Phase 5A re-plan) – weekday AM & PM peaks

Period	Houses (635)		Flats (135)		Total
	IN	OUT	IN	OUT	
0800-0900	96	265	6	29	396
1700-1800	253	151	29	10	443

It can be seen that the predicted trip generations associated with the Phase 5A re-plan (see **Table 3.9**) are of the same order of magnitude as in **Table 3.8**.

Furthermore, both are at a very similar level to those considered in the BCL TA (see **Table 3.4**) and accordingly there is no necessity for the PARAMICS Model to be revisited.

- 3.11 Paragraph 6.30 of the BCL TA would suggest that the PARAMICS Model Scenarios considered 750 houses in 2011, which is a similar level to the proposed re-plan numbers.
- 3.12 A Residential Travel Plan (RTP) has been prepared, which seeks to encourage the reduction of trip generations from the site via the use of public transport, walking and cycling together with an enhanced level of car sharing. Practical and achievable targets are proposed within the RTP, which BDW will pursue via the Travel Plan Coordinator.

4 Traffic Impact

4.1 Summary

- 4.1.1 The Paramics Model considered impact across the network and identified mitigation measures that became and remain conditions of the subsequent planning consent.
- 4.02 The December 2011 addendum demonstrated that the trips generated by the 770 dwellings were marginally less than those considered by the former re-plan proposals for 770 houses in January 2011. As such, it was considered that no requirement for any impact assessments upon the junctions were required. The current re-plan for an additional seven dwellings is also considered to have negligible traffic impacts, particularly when compared with the original BCL conclusions.
- 4.03 The assignment of trips is expected to remain as before and in traffic terms the status quo is maintained. The previous chapter demonstrates that the trip generation for the Phase 5A re-plan is similar to that shown in the December 2011 addendum. Consequently, it remains that further impact assessments are not required.
- 4.04 Mitigation measures are clearly set out in Appendix (ii) and remain all as defined in the TA and the Planning Conditions.
- 4.05 In the period that has elapsed since 2004 there have been no significant changes in transport trends that would suggest that the findings of the PARAMICS Model and the mitigation measures are anything other than robust. Evidence would suggest in recent years that the economic situation, employment levels and fuel costs have combined to reduce the number of journeys that are being made. This has yet to emerge from TRICS in the shape of reduced trip rates but there are compelling reasons to indicate that the BCL TA is a robust assessment of the traffic picture associated with Site 6.

5 Sustainable Travel

5.1 Public Transport

5.1.1 The manner in which public transport will serve the development remains as before with a bus only link into the site via Westmorland Drive and Downview Road. Services will be introduced once a sustainable number of dwellings have been occupied.

5.1.2 Regular bus services will ensure that trips generated by the site are modest and in line with if not less than those used in the TA.

5.2 Walking and Cycling

5.2.1 The site has a number of links for both cyclists and pedestrians to the existing network thereby providing alternatives for many to the use of the car for local journeys.

6 Summary & Conclusion

6.1 Summary

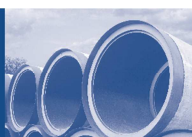
- 6.1.1 BDW is seeking consent for a total of 777 dwellings, comprising a mix of houses and flats. The re-plan of Phase 5A involves a reduction of the largest houses to be provided in order to meet current market trends and to ensure the homes meet the needs of potential residents.
- 6.1.2 Consent was granted on the site previous for a re-plan of Phases 2 (partial), 4 and 5, where a total of 770 dwellings. The effect of the current re-plan in terms of traffic generation terms has an almost identical impact.
- 6.1.3 Although a period of time has elapsed since the outline consent was granted there have been no transport trends or network changes that would indicate that the impact or required mitigation are no longer correct or appropriate. However, there is evidence to suggest in recent years that the economic situation, employment levels and fuel costs have combined to reduce the number of journeys that are being made.
- 6.1.4 Mitigation measures remain as before accompanied by a Residential Travel Plan for the site designed to promote sustainable means of travel.
- 6.1.5 Following the re-plan, a very similar traffic generation is forecast and thus confirms that the infrastructure under construction can and will continue to accommodate the predicted flows. In addition offsite mitigation measures will be equally effective for the proposed development re-plan.
- 6.1.6 This Statement is to be read in conjunction with the BCL TA which sets out in some detail the extensive modelling work that has underpinned the development of Site 6.

6.2 Conclusion

- 6.2.1 It is concluded that the proposed re-plan of Phase 5A will have minimal traffic impacts on the local highway network. The reduced background traffic, new infrastructure will continue to accommodate the predicted flows. In addition off-site mitigation measures will be equally effective for the proposed development re-plan.

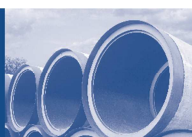
APPENDIX A

SITE LAYOUT



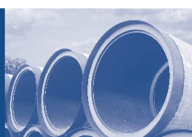
APPENDIX B

Transport Assessment by
Boreham Consulting (March 2004)
(on disc)



APPENDIX C

TRICS outputs



APPENDIX D

MJA Transportation Statement in Support of Re-plan (September 2010)



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