

**Hertsmere Borough Council  
Development Economics Study**

**Final Report**

**May 2010**

**Dr Andrew Golland, BSC (Hons), PhD, MRICS**

**Three Dragons**



# 1 INTRODUCTION

## Review of project aims

- 1.1 Hertsmere Borough Council, in conjunction with St Albans District Council and Welwyn Hatfield Borough Council, appointed Three Dragons in 2009 to undertake a Development Economics Study (DES). The study brief explained that the DES will be used by the Councils to inform the development of Core Strategy housing policies and other Local Development Documents under preparation.
- 1.2 The DES was specifically required to examine the opportunities to deliver affordable housing in each of the local authority areas. It was also required to take account of other existing policy objectives (or possible future objectives) such as the achievement of sustainable building standards, Lifetime Homes and contributions that may be sought towards physical, social or green infrastructure through planning obligations (or the potential Community Infrastructure Levy).
- 1.3 This DES examines the viability of delivering affordable housing by considering a range of possible different policy options for thresholds and percentages for requiring the provision of affordable housing.
- 1.4 Where relevant, account was also to be taken of relevant outputs from other studies, such as the Hertfordshire Infrastructure and Investment Strategy, Strategic Housing Land Availability Assessments or Strategic Housing Market Assessments.
- 1.5 This report explains the research undertaken to address the brief and the main findings of that research. This project will support work on the Councils' Local Development Framework (LDF).

## Policy context - national

- 1.6 This study focuses on the percentage of affordable housing sought on mixed tenure sites and the size of site from above which affordable housing is sought (the site size threshold). National planning policy, set out in Planning Policy Statement (PPS) 3 makes clear that local authorities, in setting policies for site size thresholds and the percentage of affordable housing sought, must consider development economics and should not promote policies which would make development unviable.

PPS3: Housing (November 2006) states that:

*"In Local Development Documents, Local Planning Authorities should:*

*Set out the range of circumstances in which affordable housing will be required. The national indicative minimum site size threshold is 15 dwellings. However, Local Planning Authorities can set lower minimum thresholds, where viable and practicable, including in rural areas. This could include setting different proportions of affordable housing to be sought for a series of site-size thresholds over the plan area. Local Planning Authorities will need to undertake an informed assessment of the economic viability of any thresholds and proportions of affordable housing proposed, including their likely impact*

*upon overall levels of housing delivery and creating mixed communities”.*  
(Para 29)

- 1.7 The companion guide to PPS3<sup>1</sup> provides a further indication of the approach which Government believes local planning authorities should take in planning for affordable housing. Paragraph 10 of the document states:

*“Effective use of planning obligations to deliver affordable housing requires good negotiation skills, **ambitious but realistic affordable housing targets and thresholds** given site viability, funding ‘cascade’ agreements in case grant is not provided, and use of an agreement that secures standards.”* (our emphasis)

#### **Policy context – East of England**

- 1.8 Policy H2 of the East of England Plan (2008) deals with affordable housing. It requires local authorities to set appropriate, separate targets for social rented and intermediate housing. Targets should be based on the objectives of the RSS, local assessments of need and the Regional Housing Strategy. It also provides a regional monitoring target of 35% affordable housing from development granted permission after publication of the EEP. The policy justification indicates that as housing need varies across the region targets of more than 35% may be justified in some areas.

#### **Policy context – Hertsmere BC**

- 1.9 The Hertsmere BC Local Plan, adopted in May 2003, states that (Saved Policy H16) affordable housing will be sought:

‘Within Borehamwood, Bushey, Potters Bar and Radlett, on housing developments of 25 or more new dwellings, or residential sites of one hectare or more, irrespective of the number of dwellings’

- 1.10 It further states that:

‘In Shenley, South Mimms and that part of Elstree located within the Green Belt, planning permission may be granted for small scale affordable housing schemes on sites within or adjoining existing settlements that would not encroach into open countryside as an exception to normal Green Belt policies. Such schemes should meet the identified needs of people local to the village or settlement, be affordable for both initial and subsequent occupants, and be managed by a Registered Social Landlord or alternative landlord approved by the Council.’

- 1.11 In 2007 (London Commuter Belt Affordable Housing Directory Section 106 Matrix) Hertsmere were operating a policy of 25% affordable housing in urban areas on sites of 25 units or more (1 Hectare); and in the rural areas, 15 units (0.5 hectares). Following PPS3, the policy threshold fell to 15 units (0.5 hectare) across the Borough.

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<sup>1</sup> CLG, *Delivering Affordable Housing*, November 2006

- 1.12 The Affordable Housing SPD (2008) suggests a 75%:25% split between Social Rent and Intermediate affordable housing.
- 1.13 The Core Strategy was submitted in March 2009. It proposed an affordable housing target of 35% on site of 15 or more units, in line with the RSS. The Public examination was adjourned however in June in order to allow the Council to meet the PPS3 requirements of completing a SHLAA and the DES. The Core Strategy was withdrawn in January 2010 by the Council to allow for minor changes to be made. It continues to be used for interim development control purposes.

### **Delivery**

- 1.14 Table 1.1 sets out the delivery of Section 106 contributions since 2005. This includes affordable housing contributions and other forms of Section 106. Other Section 106 contributions amount to around on average £2,000 per unit in recent years.

**Table 1.1 Delivery of Section 106 contribution since 2005**

Year	Hertsmere DC Housing Completions (Gross)	Total Affordable (Gross)	Affordable %	Section 106 per unit Average negotiated
2004 / 2005	187	18	10	£2,640
2005 / 2006	407	97	25	£2,710
2006 / 2007	289	85	29	£1,975
2007 / 2008	320	90	28	£1,762
2008 / 2009	328	42	13	£1,000

Source: Hertsmere BC Monitoring Data

### **Research undertaken**

- 1.15 There were four main strands to the research undertaken to complete this study:
- Discussions with a project group of officers from the Council and that informed the structure of the research approach;
  - Analysis of information held by the authority, including that which described the profile of land supply;

- Use of the Three Dragons Toolkit, adapted for Hertsmere BC, to analyse scheme viability (and described in detail in subsequent chapters of this report);
- A workshop held with developers, land owners, their agents and representatives from a selection of Registered Social Landlords active in the Borough.

### **Structure of the report**

1.16 The remainder of the report uses the following structure:

- Chapter 2 explains the methodology we have followed in, first, identifying sub markets and, second, undertaking the analysis of development economics. We explain that this is based on residual value principles;
- Chapter 3 provides analysis of residual values generated across a range of different development scenarios (including alternative percentages and mixes of affordable housing) for a notional 1 hectare site;
- Chapter 4 considers options for site size thresholds. It reviews national policy and the potential future land supply and the relative importance of small sites. The chapter considers practical issues about on-site provision of affordable housing on small sites and the circumstances in which collection of a financial contribution might be appropriate (and the principles by which such contributions should be assessed);
- Chapter 5 identifies a number of case study sites (generally small sites which are currently in use), that represent examples of site types found in the authority. For each site type, there is an analysis of the residual value of the sites and compares this with their existing use value;
- Chapter 6 summarises the evidence collected through the research and provides a set of policy options.

## **2 METHODOLOGY**

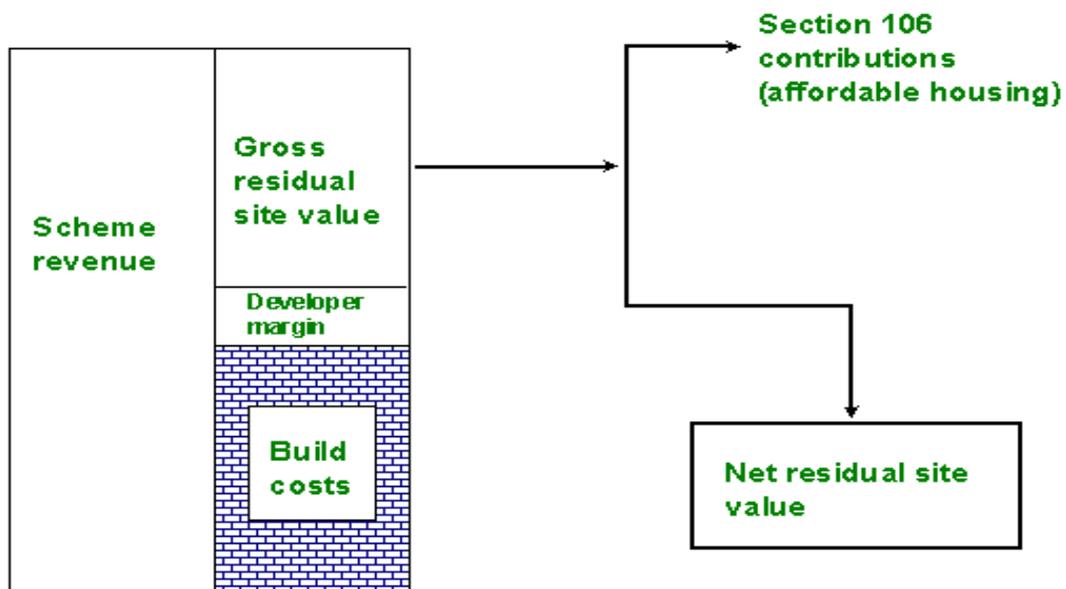
### **Introduction**

- 2.1 In this chapter we explain the principles underlying the methodology we have followed. The chapter explains the concept of a residual value approach and the relationship between residual values and existing/alternative use values.

### **Viability – starting points**

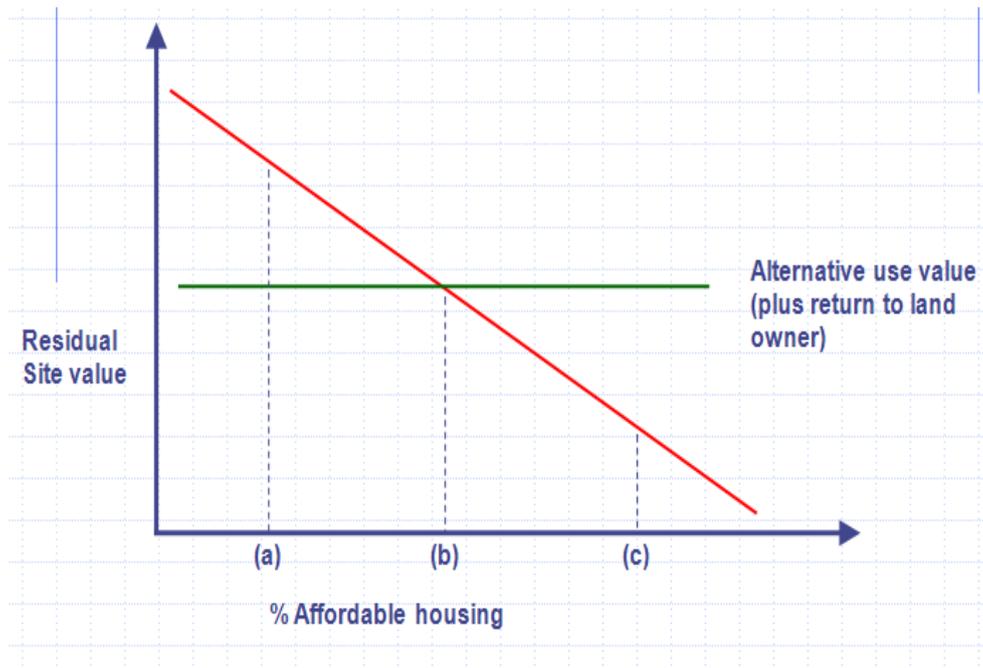
- 2.2 We use a residual development appraisal model to assess development viability. This mimics the approach of virtually all developers when purchasing land. This model assumes that the residual value of the site will be the difference between what the scheme generates and what it costs to develop. The model can take into account the impact on scheme residual value of affordable housing and other s106 contributions.
- 2.3 Figure 2.1 below shows diagrammatically the underlying principles of the approach. Scheme costs are deducted from scheme revenue to arrive at a gross residual value. Scheme costs assume a profit margin to the developer and the 'build costs' as shown in the diagram include such items as professional fees, finance costs, marketing fees and any overheads borne by the development company.
- 2.4 The gross residual value is the starting point for negotiations about the level and scope of s106 contribution. The contribution will normally be greatest in the form of affordable housing but other s106 items will also reduce the gross residual value of the site. Once the s106 contributions have been deducted, this leaves a net residual value.

**Figure 2.1 Theory of the Section 106 Process**



- 2.5 The net residual value effectively represents what the site is “worth” (the return to the landowner).
- 2.6 Calculating what is likely to be the value of a site given a specific planning permission, is only one factor in deciding what is viable.
- 2.7 Simply having a positive residual value will not guarantee that development happens. The existing use value of the site, or indeed a realistic alternative use value for a site (e.g. commercial) will also play a role in the mind of the land owner in deciding whether to bring land forward for development.
- 2.8 Figure 2.2 shows how this operates in theory. Residual value (depicted by the red line) falls as the proportion of affordable housing increases. At some point (here with affordable housing at a percentage represented by ‘b’), the alternative use value (or existing use value whichever is higher) will be equal to the residual value with ‘b’ % affordable housing. With ‘c’ percentage affordable housing, the residual value is less than the alternative use value and the scheme is not viable. At ‘a’ percentage affordable housing, the residual value is well in excess of the alternative use value and the scheme is therefore likely to be viable and the site to come forward.
- 2.9 A critical issue for any viability assessment is identifying a reasonable percentage above the existing use value for the residual value to be attractive to a landowner to bring forward their site. In the diagram below, at point ‘b’ (where the residual value equals the alternative use value), the return to the landowner is unlikely to be sufficient to encourage them to bring forward their site for housing.

**Figure 2.2 Affordable housing and alternative use value**



2.10 The analysis we have undertaken uses a Three Dragons viability model. The model is explained in more detail in Appendix 2, which includes a description of the key assumptions used.

### 3 HIGH LEVEL TESTING

#### Introduction

- 3.1 This chapter of the report considers viability for mixed tenure residential development for a number of different proportions and types of affordable housing. The analysis is based on a notional 1 hectare site and has been undertaken for a series of sub markets that have been identified. The residual value shown will be the same whether the site is greenfield or on previously used land. The chapter explains this and explores the relationship between the residual value for the scenarios tested and existing/alternative use values.

#### Market value areas

- 3.2 Variation in house prices will have a significant impact on development economics and the impact of affordable housing on scheme viability.
- 3.3 We undertook a broad analysis of house prices in Hertsmere using HM Land Registry data to identify the sub markets. These sub markets are based on post code sectors. The house prices which relate to the sub markets provide the basis for a set of indicative new build values as at October 2009. Table 3.1 below sets out the sub markets and house prices adopted in the study.

**Table 3.1 Viability sub markets in the Hertsmere BC area**

HERTSMERE	POSTCODE SECTORS INCLUDED	Detached		Semis			Town/Terrace			Flats			
		5 Bed	4 Bed	3 Bed	4 Bed	3 Bed	2 Bed	4 Bed	3 Bed	2 Bed	3 Bed	2 Bed	1 Bed
RADLETT	WD7 7; WD7 8	£755,000	£690,000	£580,000	£510,000	£435,000	£370,000	£190,000	£115,000	£335,000	£310,000	£290,000	£215,000
RURAL HERTSMERE	EN5 4; WD25 8	£685,000	£635,000	£510,000	£195,000	£385,000	£335,000	£150,000	£375,000	£310,000	£335,000	£285,000	£225,000
SRENTLY	WD7 9	£575,000	£520,000	£415,000	£120,000	£330,000	£275,000	£370,000	£310,000	£280,000	£285,000	£215,000	£190,000
HERTSMERE S-W (WATFORD EAST & RISHBY)	WD23 1; WD23 2; WD23 3; WD23 4	£565,000	£515,000	£415,000	£105,000	£325,000	£275,000	£365,000	£305,000	£250,000	£275,000	£215,000	£185,000
POTTERS BAR	EN6 1; EN6 2; EN6 3; EN6 5	£555,000	£505,000	£435,000	£395,000	£320,000	£265,000	£360,000	£300,000	£245,000	£270,000	£210,000	£180,000
BOREHAMWOOD	WD6 1; WD6 2; WD6 3; WD6 4; WD6 5	£520,000	£470,000	£405,000	£370,000	£295,000	£250,000	£335,000	£280,000	£230,000	£250,000	£225,000	£170,000

Source: Market value areas as agreed between Three Dragons and Hertsmere BC

#### Testing assumptions (notional one hectare site)

- 3.4 For the viability testing, we defined a number of development mix scenarios, using a range of assumptions agreed with the Council. The scenarios were based on an analysis of typical development mixes and were discussed at the stakeholder workshop.
- 3.5 The development mixes were as shows in Table 3.2 below:

**Table 3.2 Development densities and mixes tested in the study**

	Density (Dwellings per Hectare)					
	20	30	40	50	80	
<b>1 Bed Flat</b>					15	40
<b>2 Bed Flat</b>			5	10	30	60
<b>2 Bed Terrace</b>	10	10	15	20	35	
<b>3 Bed Terrace</b>	15	15	20	25	20	
<b>3 Bed Semi</b>	20	25	25	25		
<b>3 Bed Detached</b>	20	25	20	15		
<b>4 Bed Detached</b>	20	15	15	5		
<b>5 Bed Detached</b>	15	10				
<b>Percentage</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

- 3.6 We calculated residual scheme values for each of these (base mix) scenarios in line with a further set of tenure assumptions. These were 20%; 25%; 30%; 35%, 40% and 50% affordable housing. These were tested at 75% Social Rent and 25% New Build HomeBuy in each case. For the New Build HomeBuy, the share purchase was assumed to be 30%. All the assumptions were agreed with the authority. Unless stated, testing was carried out assuming nil grant.
- 3.7 Further testing took account of a situation where Social Rented housing and Intermediate Affordable housing is split 50%:50% within a scheme. Also a test to reflect the draft findings of the emerging SHMA which places a greater emphasis on intermediate affordable housing provision.

#### **Other Section 106 contributions**

- 3.8 The testing assumptions on other Section 106 contributions were discussed between the three authorities in the light of the draft findings of the Hertfordshire Infrastructure Study (HIS). The Study suggests a very high top end requirement of £23,000 per unit, which is very far beyond what the local authorities have found necessary to charge in order to deliver schemes in the recent past; Hertsmere for example have been charging around £2,000 per scheme (see Table 1.1).
- 3.9 For the purposes of modelling, we have adopted a mid point of £10,000 per unit. This reflects in part feedback from the workshop on individual schemes, but was also a figure the Steering Group felt was likely to cover costs in most instances.

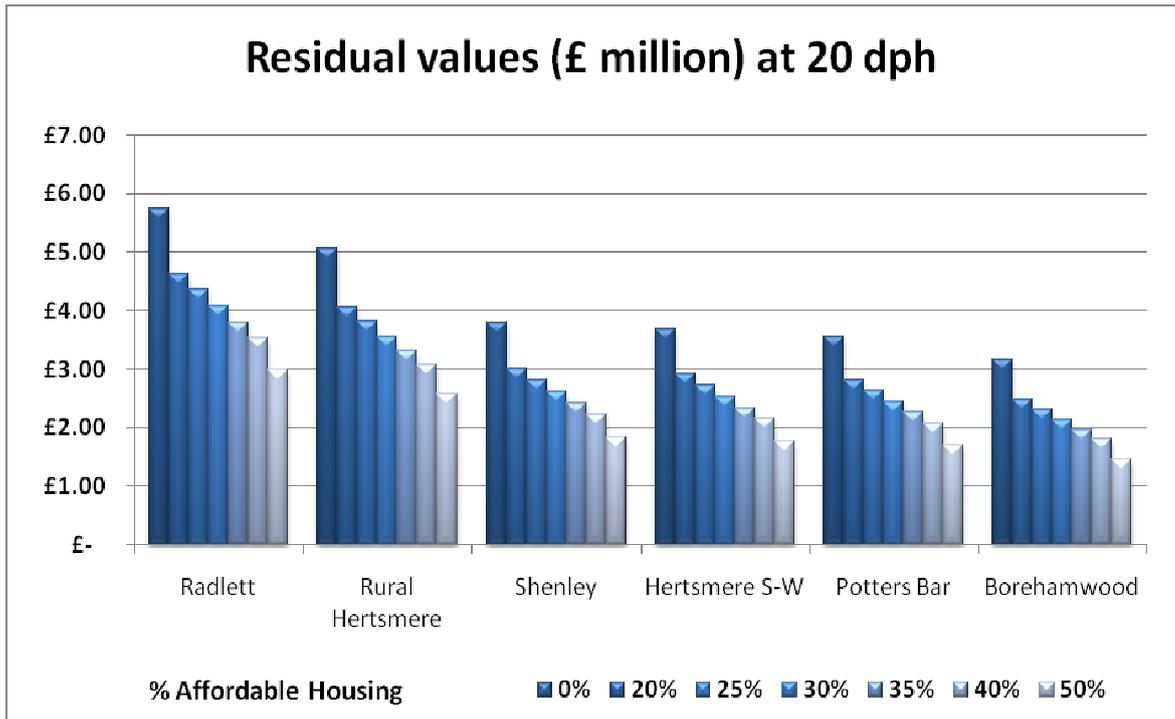
**Results: residual values for a notional one hectare site**

3.10 This section looks at a range of development mixes and densities. It shows the impacts of increasing the percentage of affordable housing on residual site values. The full set of results is shown in Appendix 3.

**Low density housing (20 dph)**

3.11 Figure 3.1 shows low density housing (20 dph) and the residual values for each of the market value areas.

**Figure 3.1 Housing at 20 dph – Residual value in £s million**

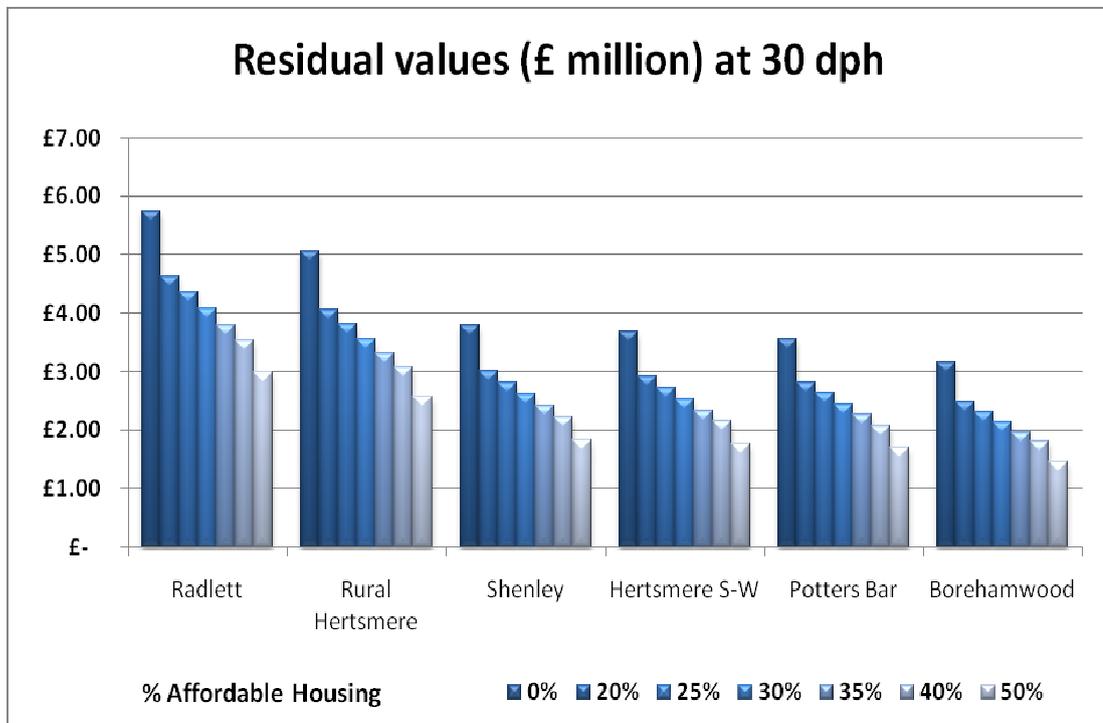


- Figure 3.1 shows a range of positive residual values, depending on the sub market and amount of affordable housing. Residual values at 35% affordable housing range from £3.8 million per hectare in Radlett to £1.9 million per hectare in Borehamwood.
- The chart shows that the rural areas are generally stronger in terms of residual values than the urban centres.
- The range in values has potentially important implications for policy making. With the scenarios tested, a higher value is generated in Radlett at 40% affordable housing than in Borehamwood at 100% market housing.

**Lower density housing (30 dph)**

3.12 Figure 3.2 shows lower density housing (30 dph) and the residual values for each of the market value areas.

**Figure 3.2 Lower density housing (30 dph) – Residual value in £s million**

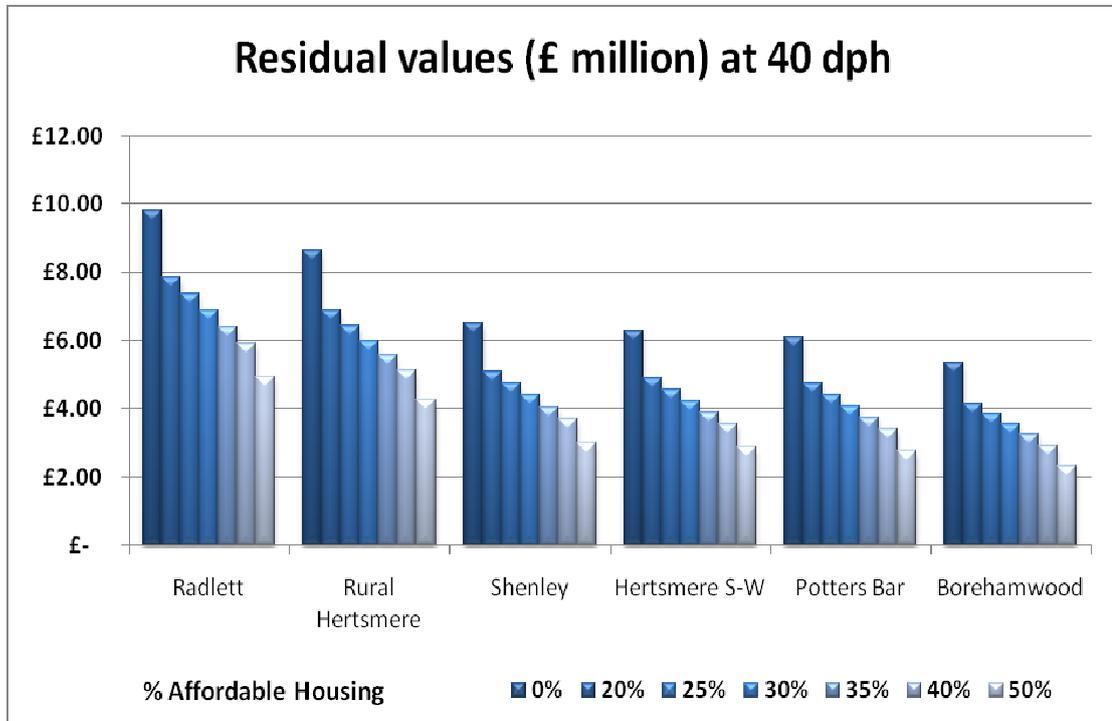


- Figure 3.2, like Figure 3.1, shows a range of positive residual values. Residual values at 35% affordable housing range from £5.0 million per hectare in Radlett the Rural Heart to £2.6 million per hectare in Borehamwood.
- Residual values are higher in all scenarios at 30 dph than 20 dph. We would normally expect this to be the case, although there will be instances where very high value, low density housing produces the highest levels of residual values.
- As previously (Figure 3.1) we see rural areas generating amongst the highest residual values.

**Medium density housing (40 dph)**

3.13 Figure 3.3 shows medium density housing (40 dph) and the residual values for each of the market value areas.

**Figure 3.3 Medium density housing (40 dph) – Residual value in £s million**

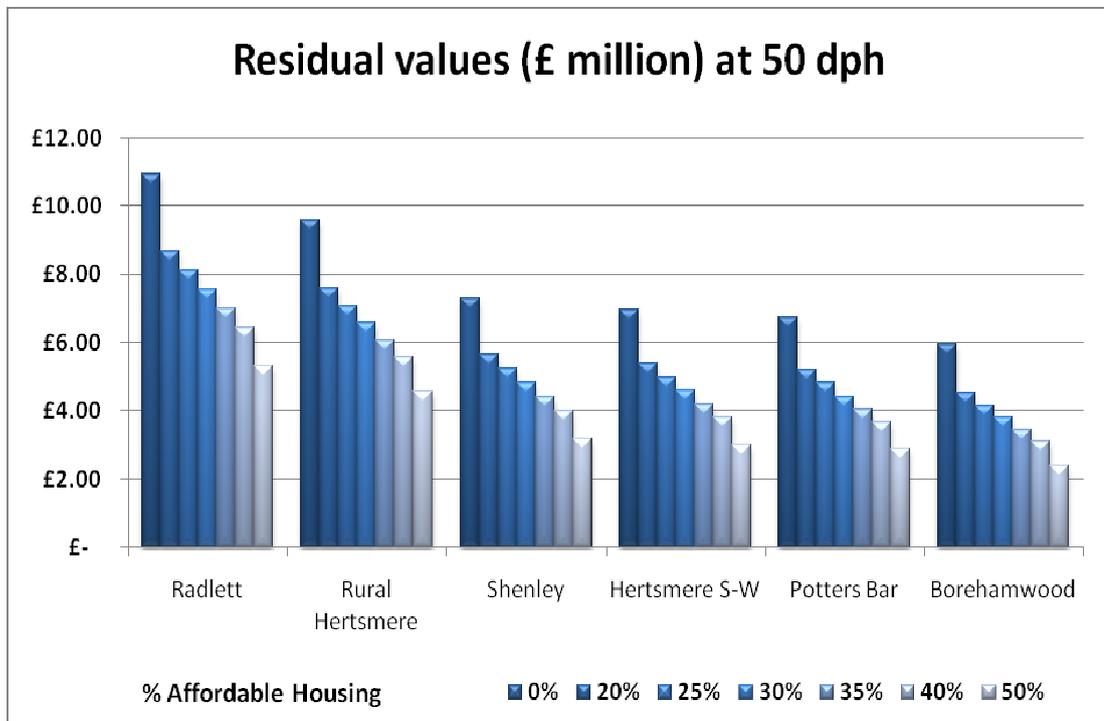


- As for the 20 and 30 dph scenarios, a range of positive land values is shown.
- An increase in density from 20 dph and 30 dph to 40 dph will, we envisage, increase residual values. The development mix (Table 3.2) still balances density gains with smaller units such that residual value rises. Very significant residual values are now seen in Radlett and Rural Hertsmere (between £4 million and £9 million per hectare) across all affordable housing scenarios.
- At the lower end of the market within Hertsmere – Potters Bar and Borehamwood – residual values at 50% affordable housing range from £2.0 million to £2.5 million.

### 50 dph scheme

3.14 Figure 3.4 shows residual values for a (50 dph) scheme and the residual values for each of the market value areas outlined earlier.

**Figure 3.4 Medium density housing (50 dph) – Residual value in £s million**

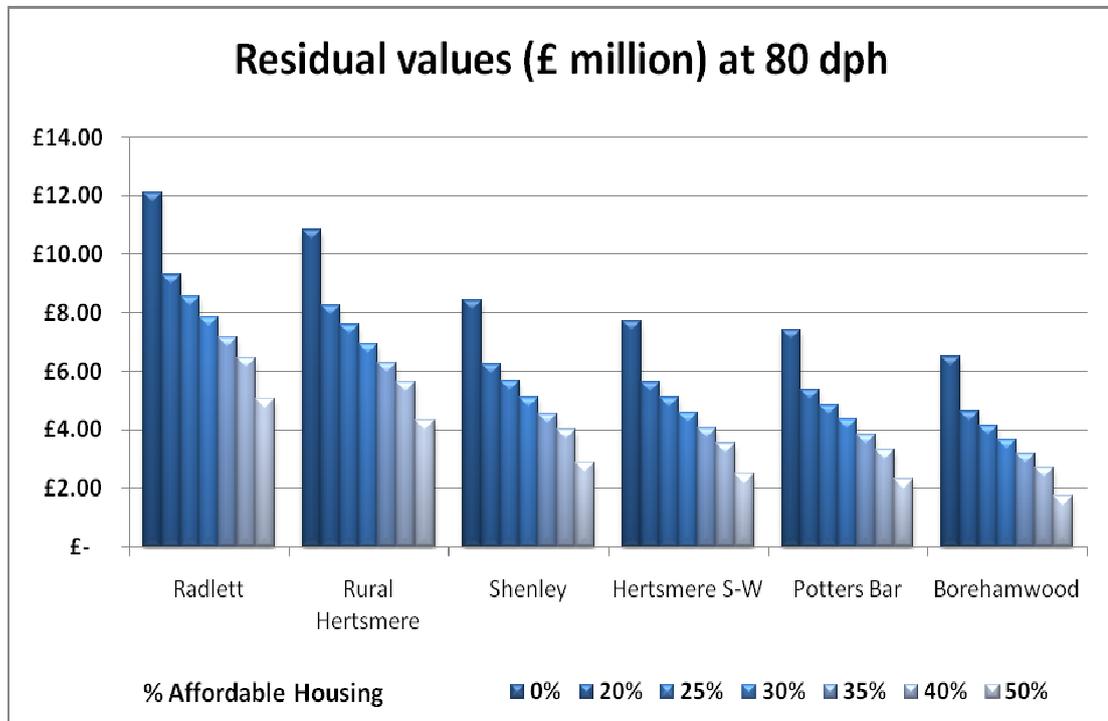


- An increase in density to 50 dph is likely to see residual values increase again (over and above the 40 dph scenario).
- Very substantial residual values are achieved; at 50% affordable housing, residual values range from £5.3 million in Radlett to £2.4 million per hectare in Borehamwood.
- The 50 dph scenario, on the basis of our analysis, will normally produce the highest residual values and therefore provide the strongest negotiating position for Section 106 contributions. It will be seen that in the following (higher density scenarios) increasing density does not necessarily lead to increased residual values.

### 80 dph scheme

3.15 Figure 3.5 shows residual values for a (80 dph) scheme and the residual values for each of the sub markets

**Figure 3.5 Higher density housing (80 dph) – Residual value in £s million**

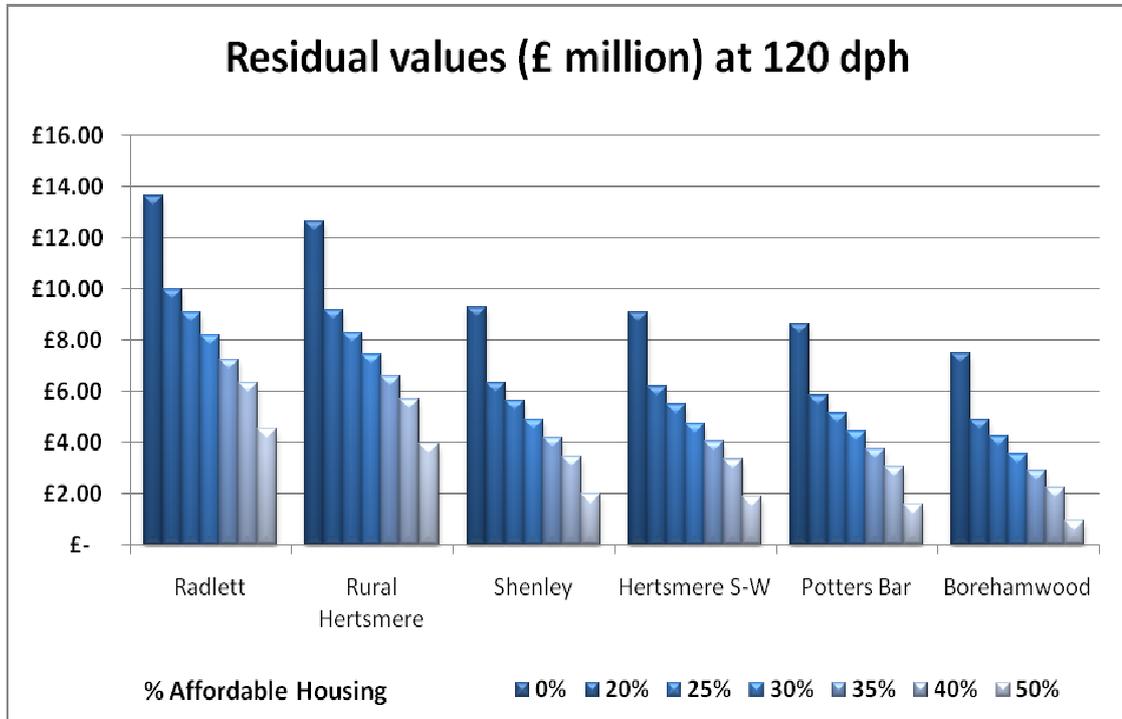


- The 80 dph scenario produces higher residuals than at 50 dph in around 60% of instances (see Appendix 3). These are mainly at lower percentages of affordable housing and in the higher value sub markets.
- For example, up to 20% affordable housing, the 80 dph scenario produces a higher residual value in all sub markets than any lower densities (20 dph through to 50 dph). However, at 50% affordable housing, all residuals are lower than at 50 dph.
- At 35% affordable housing residual values are lower in the lowest three sub markets at 80 dph, than at 50 dph.
- The chart shows that by increasing density, residual value is not necessarily increased. What happens at higher density is that a higher proportion of smaller units are introduced. In lower value areas, where the gap between selling prices and build costs is narrow, the increase in density does not necessarily translate to higher residual values.

### 120 dph scheme

3.16 Figure 3.6 shows residual values for a (120 dph) scheme and the residual values for each of the sub markets

**Figure 3.6 High density housing (120 dph) – Residual value in £s million**



- The 120 dph scenario includes 100% flats – 40% one bed and 60% two bed. The consequence of this type of mix in a location such as Hertsmere is to ‘stretch’ the range of residual values. In other words, residuals rise to the highest point (all densities compared) in the higher value locations at lower proportions of affordable housing. However, residual values are now at their lowest (all densities compared) at higher percentages of affordable housing in the lowest value sub markets.

### Impacts of potential grant funding

- 3.17 The availability of public subsidy (in the form of grant) can have a significant impact on scheme viability. Grant given to the affordable housing providers enables them to pay more for affordable housing units, thus increasing overall scheme revenue and therefore the residual value of a mixed tenure scheme. There are two main sources of grant which may be available: from the Homes and Communities Agency and/or the local authority (for example using money collected from development in the form of a commuted sum, through a s106 agreement).
- 3.18 We have assumed grant of £50,000 per Social Rented unit and £15,000 per New Build HomeBuy unit. This level of grant is based on feedback from the workshop as being a reasonable figure to use for viability testing purposes.
- 3.19 For our testing, we have tested the impact of grant on residual values for a 1 Ha site at 40 dph for all locations. At this medium density this provides a

reasonable indication of the impacts for many schemes. The results are shown in Table 3.2.

**Table 3.3 Comparison of impact of grant versus on residual values (at 40 dph) versus no grant scenario: Residual Value (£s million per hectare); 75% Social Rent: 25% Shared Ownership**

40 Dph £million	Radlett		Rural Hertsmere		Hertsmere South West		Potters Bar		Borehamwood	
	No grant	Grant	No grant	Grant	No grant	Grant	No grant	Grant	No grant	Grant
0% AH	£9.82	N/A	£7.28	N/A	£5.31	N/A	£5.15	N/A	£4.55	N/A
20% AH	£7.87	£8.20	£5.84	£6.17	£4.20	£4.53	£4.06	£4.39	£3.56	£3.89
25% AH	£7.39	£7.80	£5.49	£5.90	£3.93	£4.34	£3.79	£4.20	£3.32	£3.73
30% AH	£6.90	£7.40	£5.13	£5.63	£3.65	£4.15	£3.52	£4.02	£3.07	£3.57
35% AH	£6.41	£6.99	£4.77	£5.35	£3.37	£3.95	£3.25	£3.83	£2.83	£3.41
40% AH	£5.93	£6.59	£4.41	£5.07	£3.09	£3.75	£2.98	£3.64	£2.58	£3.24
50% AH	£4.95	£5.78	£3.70	£4.28	£2.54	£3.37	£2.44	£3.27	£2.09	£2.92

AH = percentage affordable housing

3.20 Table 3.3 shows that the availability of grant will enhance site viability.

3.21 As a general rule, the introduction of grant has a greater proportionate impact in the weaker sub markets. For example, in Borehamwood, there is a 26% increase in residual at 40% affordable housing (from £2.58m per hectare to £3.24m). The equivalent uplift in the Radlett sub market is 11%.

3.22 The impact of grant at higher densities, for example 50 dph and 80 dph will be more pronounced in being able to increase the viability of developments in weaker sub markets.

3.23 However, we would strongly question the requirement for grant in many instances, particularly in the higher value sub markets. There is a danger that grant simply bolsters land owner value, or land owner expectation, which would seem counter-intuitive to the objective of the Section 106 process.

#### **Impacts of increasing the proportion of Intermediate housing within the affordable element**

3.24 In the previous section we considered the impact of grant on scheme viability. Where grant is not available to support schemes (or is not sufficient on its own), scheme viability can be (further) enhanced by increasing the percentage of intermediate affordable housing. We have tested all scenarios thus far assuming the relevant affordable element is split 75% Social Rent and 25% Shared Ownership. Here we test a 50%:50% split in the affordable element.

**Table 3.4 Residual site values (£ million per hectare) for a 40 dph scheme comparing 50% Social Rent and 50% Shared Ownership without grant versus grant option (75% Social Rent and 25% Shared Ownership)**

40 Dph	Radlett		Rural Hertsmere		Hertsmere South West		Potters Bar		Borehamwood	
	50:50	Grant	50:50	Grant	50:50	Grant	50:50	Grant	50:50	Grant
0% AH	£9.82	N/A	£7.28	N/A	£5.31	N/A	£5.15	N/A	£4.55	N/A
20% AH	£8.26	£8.20	£7.22	£6.17	£5.18	£4.53	£5.00	£4.39	£4.37	£3.89
25% AH	£7.87	£7.80	£6.87	£5.90	£4.90	£4.34	£4.73	£4.20	£4.12	£3.73
30% AH	£6.90	£7.40	£6.61	£5.63	£4.62	£4.15	£4.46	£4.02	£3.88	£3.57
35% AH	£6.41	£6.99	£6.16	£5.35	£4.34	£3.95	£4.19	£3.83	£3.63	£3.41
40% AH	£6.69	£6.59	£5.81	£5.07	£4.06	£3.75	£3.92	£3.64	£3.38	£3.24
50% AH	£5.91	£5.78	£5.10	£4.28	£3.51	£3.37	£3.37	£3.27	£2.88	£2.92

AH = percentage affordable housing

- 3.25 Table 3.4 shows that tenure switch (from 75%:25% to 50%:50%) will be a very effective way by which residual value can be increased. The table shows that in almost all circumstances (tests in Table 3.4) a 50%:50% solution will give a higher residual than a grant funded approach. This will be the case in all scenarios with the single exception of a development at 50% affordable housing in Borehamwood.
- 3.26 The figures demonstrate that Shared Ownership, being based on an open market selling price (the equity equity element) generates robust payments for developers in principle.
- 3.27 Shared Ownership is significantly more valuable to a developer in higher value areas than in lower value areas. The analysis suggests that, in a location such as Hertsmere, small shifts in tenure can result in large improvements in viability.
- 3.28 As previously, the analysis questions the need for grant to support development other than in the weakest market areas and where existing use values are high.

### **Market sensitivity**

- 3.29 Given the volatility of the current housing market, we have looked a situation where house prices are 10% higher and 10% lower than the levels assumed in our main testing based at October 2009.
- 3.30 Table 3.5 shows residual values for a 40 dph scheme with house prices increased and decreased by 10%. This is not a reflection of any particular forecast of how the market will perform, but aims to show the sensitivity of residual values to changes in house prices.

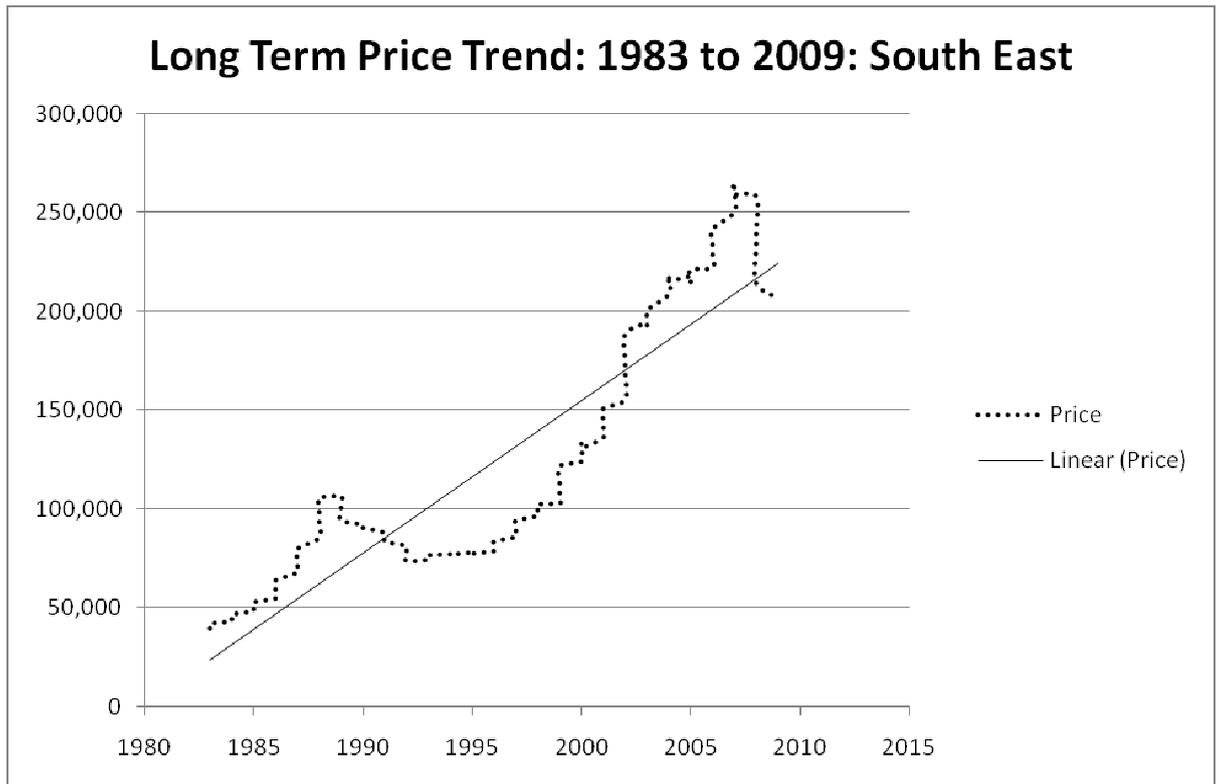
**Table 3.5 Residual values (£ million per hectare) for a 40 dph scheme with prices 10% higher and lower than the baseline. No grant; 75% Social Rent: 25% Shared Ownership**

	Radlett	Rural Hertsmere	Hertsmere South West	Potters Bar	Borehamwood	
Price increase +10%	0%AH	£11.24	£9.94	£7.36	£7.13	£6.34
	20%AH	£9.06	£7.97	£5.81	£5.63	£4.96
	30%AH	£7.97	£6.98	£5.04	£4.87	£4.27
	40%AH	£6.88	£6.00	£4.27	£4.12	£3.59
	50%AH	£5.79	£5.02	£3.50	£3.37	£2.90
Baseline	0%AH	£9.82	£8.64	£6.29	£6.09	£5.37
	20%AH	£7.87	£6.88	£4.92	£4.75	£4.15
	30%AH	£6.90	£6.00	£4.24	£4.09	£3.54
	40%AH	£5.93	£5.13	£3.55	£3.42	£2.93
	50%AH	£4.95	£4.25	£2.87	£2.75	£2.32
Price decrease-10%	0%AH	£8.42	£7.35	£5.24	£5.06	£4.41
	20%AH	£6.70	£5.81	£4.05	£3.89	£3.35
	30%AH	£5.84	£5.04	£3.45	£3.31	£2.82
	40%AH	£4.98	£4.27	£2.85	£2.73	£2.29
	50%AH	£4.12	£3.49	£2.25	£2.14	£1.76

AH = percentage of affordable housing

- 3.31 Table 3.5 sets out the impact on residual values, were prices to increase or fall from the current levels. The impact of price changes will tend to be felt more significantly in the lower value areas.
- 3.32 For example at 30% affordable housing a 10% increase in house prices will bring about a 15% increase in residual values in the Radlett sub market, versus a 21% increase in Borehamwood for the equivalent scenario.
- 3.33 Price falls will have similar effects. It should be noted (Table 3.5) that even with price falls of 10%, residual values across Hertsmere remain strong. At 40% affordable housing, residual values in Radlett are almost £5 million per hectare with residual values of over £2.25 million being achieved in Borehamwood, taking a 10% price fall into account.
- 3.34 Arguably a more robust measure of viability is to look at the relationship between short and long term trends. Figure 3.7 shows short term volatility in house prices against the long term straight line trend. It puts into context the findings of this study in that our analysis has been based on figures marginally below the long term trend.
- 3.35 The chart shows trends for the South East region (no trends are available from the Halifax for East of England).

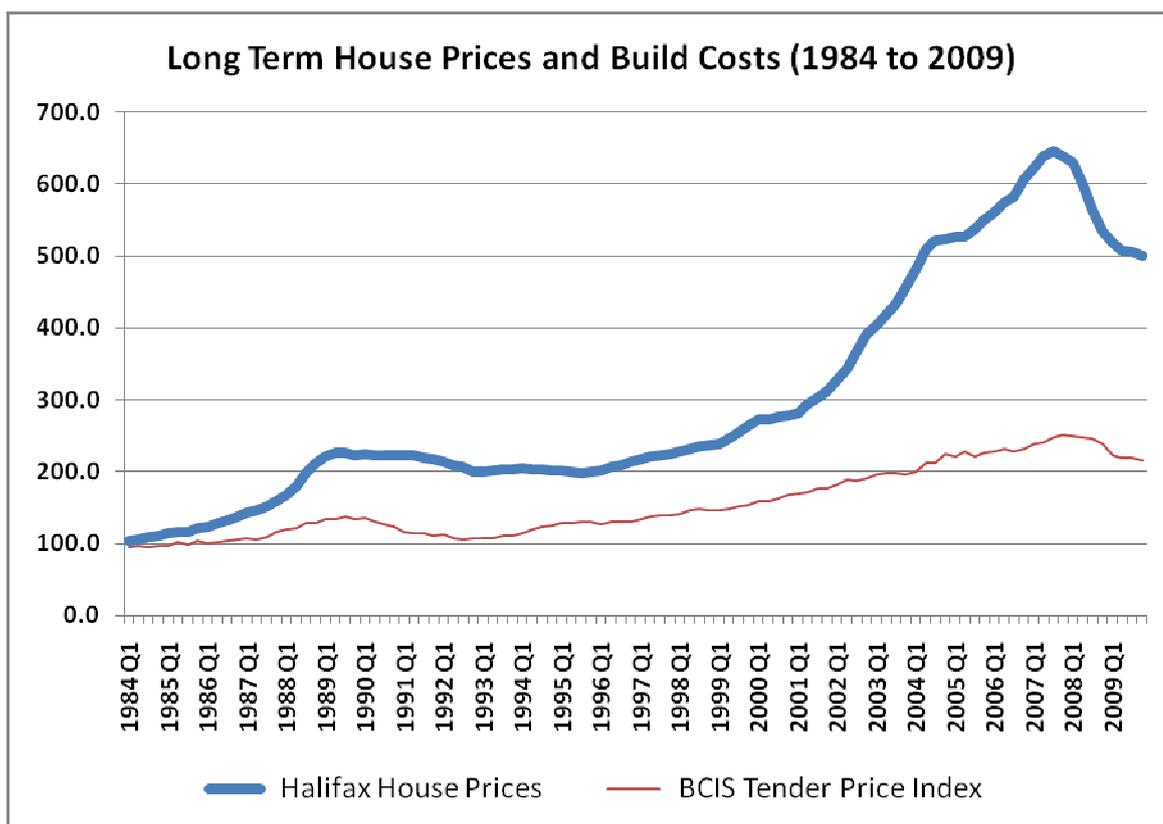
**Figure 3.7 Long term house price trends**



**Source: Halifax House Price Index**

**Figure 3.8 Long term house price and build cost trends**

Figure 3.8 sets out the longer term relationship between house prices and build costs (UK trends). It suggests a steadily widening long term gap between revenues and costs, which if emulated over the long term period of the Plan, should allow the local authority to find it it less challenging to deliver Section 106.



### Impacts of a higher Code for Sustainable Homes

- 3.36 The Code for Sustainable Homes may have a negative impact on the viability of schemes. It should be stressed that it is uncertain whether higher levels of code will impact negatively since viability, as we define it, depends on the relationship between scheme revenue and scheme cost, not simply costs alone. Thus housing development could become more viable in the future despite the impacts of the Code.
- 3.37 The recently published (March 2010) DCLG report 'Code for Sustainable Homes: A Cost Review' suggests that additional costs of around £5,000 per dwelling will be likely to achieve Code 4, relative to Code 3. Our analysis in this report assumes Code Level 3. On a 40 dph scheme this would mean, all other things equal, that residual values would fall by £200,000 per hectare.
- 3.38 At say 35% affordable housing and at 40 dph, residual values would be reduced by between 3% and 6% according to sub markets. We do not think that this is a significant reduction likely to hold back land supply.
- 3.39 At Code Level 5, additional costs of around £23,000 per dwelling are likely to be incurred (versus Code Level 3). This is a significant increase which would mean additional costs of £920,000 per hectare. This would reduce residual value by between 14% and 28% which is clearly a more substantial sum.

### **Impacts of a different planning gain package or CIL.**

- 3.40 The baseline testing has been carried out at a CIL contribution of £10,000 per unit. According to recent planning permission data (see Table 1.1), the current cost per unit is around £2,000. There is thus some considerable 'cushion' between the level we have tested at levels of historic provision. The 'cushion' would amount to some £320,000 in a 40 dwelling per hectare scheme basis and would be greater as density rises.
- 3.41 We are aware that the Herts Infrastructure Study has estimated costs of up to £23,000 per unit. This would add £13,000 per unit to the level of contribution tested.
- 3.42 This would mean an additional cost per hectare (40 dph scheme) of some £520,000. This would hit the weakest markets hardest as its effects would be regressive. However, we do not think that this level of additional cost should unduly effect the delivery of affordable housing. It would for example, reduce residual values from £6.41 million per hectare to £5.9 million per hectare in a location such as Radlett at 35% affordable housing; in a middle market location such as Hertsmere South West, residual values would be reduced from around £3.9 million per hectare to £3.4 million per hectare. In Borehamwood, residual values would be reduced from £3.24 million per hectare to £2.72 million per hectare at 35% affordable housing. This would reduce residual values in Borehamwood by around 15%.
- 3.43 Overall in a high value area like Hertsmere we do not feel that additional costs in the form of a planning gain package of £23,000 per unit should significantly reduce supply.
- 3.44 It should be stressed that these figures are based on scenario testing only. The actual viability of sites will depend on the relationship between selling prices of housing in the future and the timing of the potential imposition of higher (or indeed lower) Section 106/CIL type costs. The local authority will be able to monitor this relationship by use of its Three Dragons Viability Toolkit.

### **Lifetime Homes**

- 3.45 Lifetime Homes may be included within new developments. We think the additional costs of these will be around £500 per unit and will not prove a constraint to viability.
- 3.46 Thus residual values could be expected to hold up well under these circumstances.

### **Test at the SHMA (Strategic Housing Market Assessment) percentages**

- 3.47 The SHMA suggests an overall split of 11% Market housing, 13% Social Rented and 76% Shared Ownership. We have carried out additional tests, with the results shown in Table 3.6 below:

**Table 3.6 Residual values (£ million per hectare) based on the SHMA scenario**

Sub Market	40 dph	Baseline at 35% AH – 40 dph	80 dph	Baseline at 35% AH – 80 dph
<b>Radlett</b>	£5.25	£6.41	£5.12	£7.17
<b>Rural Hertsmere</b>	£4.49	£5.57	£4.30	£6.27
<b>Shenley</b>	£3.10	£4.05	£2.73	£4.56
<b>Hertsmere SW</b>	£2.96	£3.89	£2.26	£4.04
<b>Potters Bar</b>	£2.83	£3.75	£2.07	£3.83
<b>Borehamwood</b>	£2.36	£3.24	£1.48	£3.19

- 3.48 Table 3.6 shows that at the SHMA splits, based on housing needs, residual values hold up well, particularly at the 40 dph scenario. Clearly values are hit, but at 40 dph in Borehamwood for example, residual values still achieve in excess of £2.3 million per hectare.
- 3.49 We would anticipate that this (SHMA) scenario could be deliverable at lower densities in the higher value sub markets, although actual development on the ground would depend on housing associations being confident in taking on large volumes of intermediate affordable (here Shared Ownership) housing. However, because of the uncertainties in the SHMA modelling of future demand, it is considered most relevant as an overview of key housing issues rather than target setting in development plan policy. In practice, local survey evidence suggests that the greatest demand is for housing at affordable rents provided through housing associations.

### **Benchmarking results**

- 3.50 There is no specific guidance on the assessment of viability which is published by national government. In Section 2, we set out that we think viability should be judged against return to developer and return to land owner.
- 3.51 One approach is to take “current” land values for different development uses as a kind of ‘going rate’ and consider residual values achieved for the various scenarios tested against these. Table 3.7 shows residential land values for selected locations within the South East.

**Table 3.7 Residential land values regionally**

<b>EAST OF ENGLAND</b>			
<b>REGION</b>	<b>Small Sites (sites for less than five houses)</b>	<b>Bulk Land (sites in excess of two hectares)</b>	<b>Sites for flats or maisonettes</b>
	<b>£s per hectare</b>	<b>£s per hectare</b>	<b>£s per hectare</b>
Cambridge	2,855,000	3,615,000	4,055,000
South Cambridge	2,110,000	2,110,000	2,110,000
Peterborough	1,650,000	1,400,000	1,900,000
Ipswich	1,950,000	1,800,000	1,500,000
Norwich	2,400,000	2,535,000	2,600,000
Luton*	1,580,000	1,580,000	2,160,000
Stevenage	2,000,000	1,800,000	1,700,000
St Albans	4,300,000	4,200,000	5,200,000
Chelmsford	3,700,000	3,700,000	4,200,000
Colchester	2,470,000	2,350,000	2,200,000

**Source: Valuation Office; Property Market Report, July 2009**

- 3.52 The table indicates (bulk) residential land values ranged from £1.6 million to £4.2 million (St Albans). Median range would seem to be between £2 and £3 million for the region.
- 3.53 Another benchmark which can be referred to is that of industrial land. Table 3.8 shows values ranging across the Eastern region.

**Table 3.8 Eastern industrial land values**

<b>EASTERN</b>			
	<b>From £s per ha</b>	<b>To £s per ha</b>	<b>Typical £s per ha</b>
Cambridge	550,000	1,200,000	750,000
Peterborough	500,000	600,000	550,000
Ipswich	350,000	575,000	475,000
Norwich	320,000	460,000	360,000
Stevenage	600,000	1,900,000	1,100,000
Luton	600,000	725,000	675,000
Hemel Hempstead	1,300,000	2,300,000	2,000,000
Basildon	900,000	2,100,000	1,850,000
Colchester	400,000	775,000	625,000

**Source: Valuation Office; Property Market Report, July 2009**

- 3.54 The 'benchmark' of industrial land value can be important where land, currently in use as industrial land, is being brought forward for residential

development or where sites may be developed either for residential or employment use.

### **Commentary on results**

- 3.55 This chapter has provided an assessment of the residual value for a notional 1 hectare site for a series of scenarios across six market value areas identified in the Borough.
- 3.56 The market value areas perform very differently and, for the same set of assumptions about density/development mix and proportion of affordable housing, different residual values have been found.
- 3.57 The scheme at 50 dph generally produced the highest residual values (for the same percentage of affordable housing).
- 3.58 The baseline testing was on the assumption of nil grants. The introduction of grant enhances residual values, having a greater proportionate impact in the lower value market value areas. But increasing the proportion of shared ownership (to 50% of the affordable housing) can also increase residual values above that of the baseline, nil grant position. This has more impact in mid and higher value areas.

## **4 LAND SUPPLY, SMALL SITES AND USE OF COMMUTED SUMS**

### **Introduction**

- 4.1 This chapter reviews the policy context and options for identifying the size of sites above which affordable housing contributions would be sought, in the national policy context. The current threshold operating in Hertsmere BC is 15 dwellings (0.5 hectare) as per the national guidance. The chapter provides an assessment of the profile of land supply and the likely relative importance of small sites. Reference is also made to the SHLAA. It then considers practical issues about on-site provision of affordable housing on small sites and the circumstances in which collection of a financial contribution might be appropriate (and the principles by which such contributions should be assessed).

### **Purpose of the Analysis**

- 4.2 PPS3 Housing sets out national policy on thresholds and affordable housing and states:

*"The national indicative minimum site size threshold is 15 dwellings. However, Local Planning Authorities can set lower minimum thresholds, where viable and practicable, including in rural areas. This could include setting different proportions of affordable housing to be sought for a series of site-size thresholds over the plan area." (Para 29)*

- 4.3 By reducing site size thresholds and 'capturing' more sites from which affordable housing can be sought, an authority can potentially increase the amount of affordable housing delivered through the planning system.
- 4.4 In this section we examine the impact that varying site size thresholds would have on affordable housing supply. In order to do this we need to examine the likely future site supply profile.
- 4.5 Hertsmere BC currently has a threshold of 15 dwellings for its affordable housing policy.

### **Small sites analysis**

- 4.6 We have analysed data on past permissions to consider how important sites of different sizes are likely to be to the future land supply. The table below (Table 4.1) shows the results of this exercise.

**Table 4.1: Gross totals and percentage of dwellings in different sizes of sites – 2006/7 to 2008/9**

<b>Scheme size</b>	<b>Total Dwellings</b>	<b>Percentage</b>
<b>1 to 4</b>	236	18.7
<b>5 to 9</b>	78	6.2
<b>10 to 14</b>	148	11.7
<b>15 to 24</b>	151	12.0
<b>25 to 49</b>	195	15.5
<b>50 to 99</b>	148	11.7
<b>&gt; 100</b>	304	24.1
	<b>1260</b>	<b>100.0</b>

**Source: Hertsmere Borough Council**

- 4.6 The table suggests that 37% of all new dwellings granted permission during the period analysed will be developed on sites of less than 15 dwellings. This is a very significant number particularly in an area where housing need is high and justifies on this basis alone, a reduction in the threshold below the 15 levels.
- 4.7 A significant number of dwellings will nevertheless be developed on larger sites. Table 4.1 shows that 51% of dwellings will be built within schemes that are developed including 25 or more homes.
- 4.8 Development in the more rural locations (i.e. not including Radlett, Potters Bar, Bushey and Borehamwood) are mainly small developments. Table 4.3 shows that in the rural areas, almost 75% of recent permissions are on sites of less than five dwellings.

**Table 4.2: Percentage of dwellings in different sizes of sites (annual average for last 3 years of permissions – 2006/7 to 2008/9; developments outside the four main settlements**

<b>Scheme size</b>	<b>Total Dwellings</b>	<b>Percentage</b>
<b>1 to 4</b>	39	73.5
<b>5 to 9</b>	0	0.0
<b>10 to 14</b>	14	26.5
<b>&gt; 15</b>	0	0.0
	53	100.0

- 4.9 The proliferation of smaller sites in rural areas provides a stronger case for a lower threshold in those areas.

### **SHLAA**

- 4.10 The Council has, as part of its evidence base for its LDF, produced a Strategic Housing Land Availability Assessment. Data derived from this piece of work indicates that there is the potential in the main urban areas for sites of more than 10 dwellings to make a contribution towards affordable housing delivery. It is noted that just because such opportunities have been identified in the SHLAA does not necessarily mean that such sites will eventually be allocated or delivered. However, looking forward beyond existing planning permissions, it does provide a flavour for the types of sites that may come forward.

### **Small sites and management of affordable housing**

- 4.11 We discussed the suitability of small sites for affordable housing at the workshop with the development industry. The workshop considered the situation where there could be as few as one or two units on each site.
- 4.12 The workshop considered that small sites tend to provide a similar or better return than larger sites and that land owners of small sites will eventually have to accept a requirement for affordable housing.
- 4.13 The housing associations present at the workshop did not object in principle to taking on small numbers of affordable homes and numbers of affordable homes as low as one or two can be acceptable. The key issue for RSLs is always location. However, there are circumstances in which on-site provision is not suitable e.g. if the occupier service charges are high. Housing associations can advise on this on a scheme by scheme basis.

### **Use of commuted sums**

- 4.14 As a general principle, we recognise that seeking on-site provision of affordable housing will be the first priority and that provision of affordable housing on an alternative site or by way of a financial payment in lieu (or commuted sum) should only be used in exceptional circumstances. This position is consistent with national guidance in Paragraph 29 of PPS3 which states:

*“In seeking developer contributions, the presumption is that affordable housing will be provided on the application site so that it contributes towards creating a mix of housing. However, where it can be robustly justified, off-site provision or a financial contribution in lieu of on-site provision (of broadly equivalent value) may be accepted as long as the agreed approach contributes to the creation of mixed communities in the local authority area” Para 29.*

- 4.15 Where commuted sums are sought as an alternative to direct on or off-site provision, PPS3 sets out the appropriate principle for assessing financial contributions - that they should be of “broadly equivalent value” (see para 29 set out above). Our approach is that the commuted sum should be equivalent to the ‘developer/landowner contribution’ if the affordable housing was provided on site. One way of calculating this is to take the difference between

the residual value of 100% market housing and the residual value of the scheme with the relevant percentage and mix of affordable housing.

- 4.14 If the 'equivalence' principle is adopted, then the decision of the local authority to take a commuted sum will be based on the acceptability or otherwise of on-site provision as a housing and spatial planning solution.
- 4.15 Any concerns about scheme viability (whatever size of site) should be reflected by providing grant or altering tenure mix, or by a 'reduced' affordable housing contribution whether provided on-site, off-site or as a financial contribution. Other planning obligations may also need to be reduced under some circumstances.
- 4.16 However, if affordable housing is sought from very small sites, in certain circumstances it becomes impractical to achieve on site provision e.g. seeking less than 33% on a scheme of 3 dwellings or less than 50% with a scheme of 2 dwellings. There will also be occasions where on-site provision can only deliver a partial contribution towards the proportion of affordable housing sought e.g. 40% affordable housing in a scheme of 3 dwellings would deliver one affordable unit on site (representing 33% of provision). In the latter case, it is possible to devise a formula, which mixes on-site provision with a commuted sum to 'make up the balance'.

## 5 CASE STUDY VIABILITY ANALYSIS – SMALLER SITES

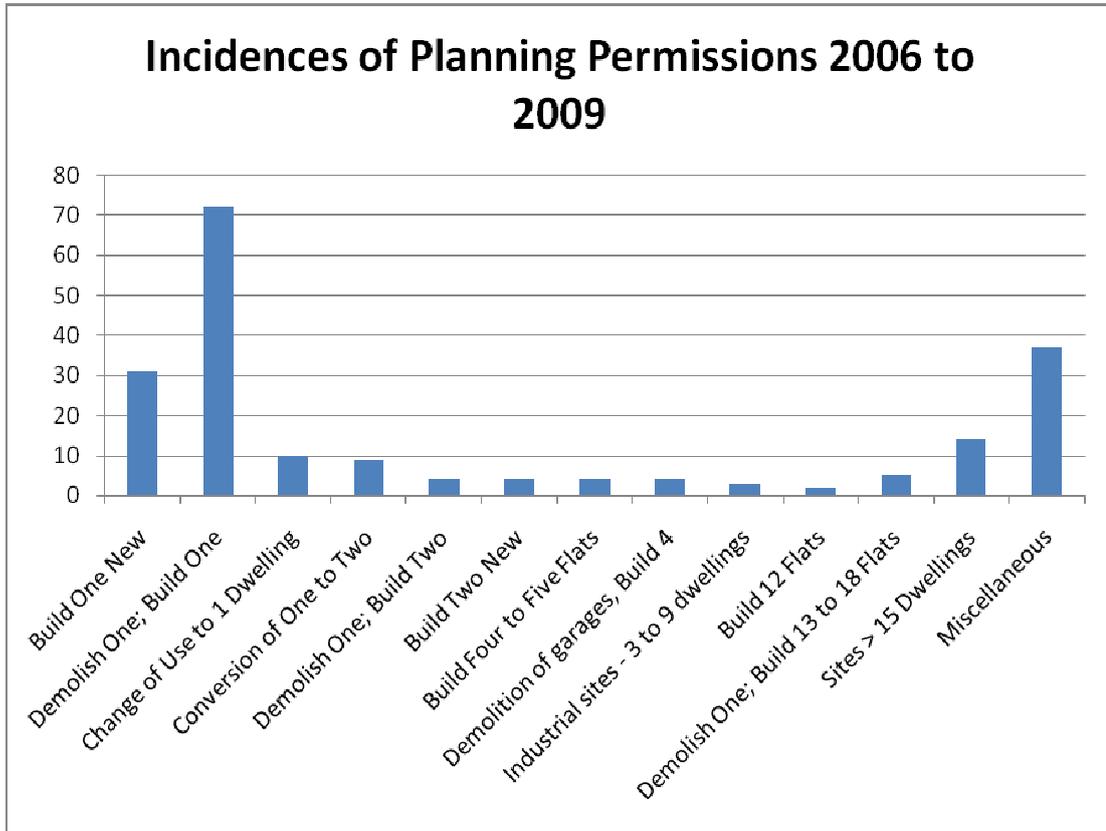
### Introduction

- 5.1 The analysis in Chapter 3 provides a good indication of the likely viability of sites in the Borough. The residual values can be compared with existing use values to establish whether landowners are likely to make a return over and above existing use value, taking into account a developer margin.
- 5.2 The analysis in Chapter 3 will apply for large as well as small sites (on a pro rata basis). We do not have any evidence to suggest that the economics change significantly between large and small sites. This assumption was accepted at the development industry workshop as has been the case elsewhere where we have run similar workshops. It will be noted (Table 3.7) that small sites can achieve higher land values than larger ones, suggesting that the economics of developing smaller sites could actually be more favourable than developing larger ones.
- 5.3 In theory therefore there is no real need to review in detail viability issues for small sites. However, for the sake of further illustration, and recognising that there may be special circumstances which impact on the viability of some types of smaller sites, it was felt helpful to review the development economics of some illustrative case studies of smaller sites.

### Case study sites

- 5.4 In this section we review a number of case study developments, which are examples of small sites for residential development. Figure 5.1 sets out the various sources of supply, which provide residential development in Hertsmere. The chart shows incidences of planning permission for different types of scheme.

**Figure 5.1 Incidences of planning permission 2006 to 2009**



**Source: Hertsmere BC**

- 5.5 The data on recent planning permissions suggests that a very significant number (15% of all incidences of planning permission) of the small sites involve the development of land, which might be termed residential ancillary or infill; i.e. back land, garden land or ancillary land.
- 5.6 However, an even more significant number of instances of planning permission (36% of all instances) involve the demolition of one dwelling and replacement with a new one.
- 5.7 Conversion and changes of use make up almost 10% of all incidences of planning permissions. There are then a varied range of schemes including a larger number of flats (13 to 18 dwellings), which replace one existing dwelling.
- 5.8 There are then a range of schemes, which are not easily categorised. We have termed these 'Miscellaneous'. They make up around 18% of all incidences of planning permission.
- 5.9 On the basis of the data, we have selected four case studies for further investigation. These represent residential development schemes and might be applicable on a range of different sites types. The case studies are shown in Table 5.1.

**Table 5.1 Case study sites**

Case Study	Number of dwellings	Type of new development	Site (Ha)	Size	Resulting density
<b>A</b>	<b>1</b>	1 x 5 bed detached house		0.03	33
<b>B</b>	<b>2</b>	1 x 4 bed detached house; 1 x 5 bed detached house		0.075	27
<b>C</b>	<b>4</b>	2 x 2 bed flats; 2 x 3 bed terraces		0.03	135
<b>D</b>	<b>13</b>	5 x 1 bed flats; 8 x 2 bed flats		0.15	87

5.10 For each case study we have undertaken an analysis of residual values for a selection of sub markets. We test at 20%, 30%, 40% and 50% affordable housing. All the other assumptions used are the same as for the main analysis described in Chapter 3.

**Case study A – Develop one detached house on a 0.03 ha site**

5.11 The first scenario assumes the development of one five bed detached house. The results, with the affordable housing impacts are shown in Table 5.2:

**Table 5.2 Develop one detached house**

	% Affordable Housing				
	0%	20%	30%	40%	50%
<b>Radlett</b>	£439,000	£358,000	£319,000	£277,000	£237,000
	£14.63	£11.93	£10.63	£9.23	£7.90
<b>Rural Hertsmere</b>	£390,000	£317,000	£281,000	£244,000	£208,000
	£13.00	£10.57	£9.37	£8.13	£6.93
<b>Hertsmere South West</b>	£283,000	£228,000	£201,000	£172,000	£145,000
	£9.43	£7.60	£6.70	£5.73	£4.83
<b>Borehamwood</b>	£246,000	£197,000	£172,000	£148,000	£123,000
	£8.20	£6.57	£5.73	£4.93	£4.10

Table shows residual values in a selection of market value areas: the upper figure is the residual value for the scheme and the lower figure is the equivalent residual value per hectare (in £s million)

- 5.12 Table 5.2 shows that the development of one new detached house will generate a substantial residual value even with 50% affordable housing and across all market value areas. For example, a building plot for this type of dwelling in Borehamwood would be expected to generate over £100,000. Where one dwelling of this type is built on, for instance, infill or backland sites, we would expect the uplift in site value to be very substantial. For sites taken from garden land, this will also be the case although a devaluation to the existing dwelling may also occur.
- 5.13 Where a single new house replaces an existing dwelling, as appears to may occur in several instances, we would expect the economics to be difficult. Even in Radlett, such a scheme will only generate around £430,000. In most cases, we do not think this will be sufficient to cover the property acquisition costs, unless these are exceptionally favourable.
- 5.14 This type of scheme (demolition and replacement) may work best for self build projects where a profit margin is keener.

**Case study B – Develop two detached houses (one 4 bed and one five) on a 0.075 ha site.**

- 5.15 The viability of developing two detached houses rather than one will depend on the site size and existing use value. There will be some instances where the relationship between existing use value and residual development value is favourable and some where this may not be the case. Table 5.3 shows residual values for the development of two detached houses.

**Table 5.3 Develop two detached houses**

	% Affordable Housing				
	0%	20%	30%	40%	50%
<b>Radlett</b>	£842,000	£685,000	£607,000	£529,000	£451,000
	£11.23	£9.13	£8.09	£7.05	£6.01
<b>Rural Hertsmere</b>	£747,000	£606,000	£536,000	£465,000	£394,000
	£9.96	£8.08	£7.15	£6.20	£5.25
<b>Hertsmere South West</b>	£542,000	£435,000	£381,000	£328,000	£274,000
	£7.23	£5.80	£5.08	£4.37	£3.65
<b>Borehamwood</b>	£468,000	£373,000	£326,000	£278,000	£230,000
	£6.24	£4.97	£4.35	£3.71	£3.07

- 5.16 Table shows residual values in a selection of market value areas: the upper figure is the residual value for the scheme and the lower figure is the equivalent residual value per hectare (in £s million)
- 5.17 Similar arguments apply to Case Study 1 and 2. For infill, backland and garden plots, we believe that a significant uplift in residual value will occur and that a contribution to affordable housing would not make development unviable.
- 5.18 At the top end of the market, schemes are achieving over £6 million per hectare at 50% affordable housing and at the bottom end, over £3 million per hectare.
- 5.19 There will be instances where the development of two dwellings replaces a single house (demolition). This situation will be significantly more favourable to the provision of affordable housing, although we believe that a target range for these types of sites should be quite modest – 10% to 20%.

**Case study C – Develop four dwellings (Two flats and two terraced houses) on a 0.03 ha site**

5.20 A number of schemes in the Borough involve the development of three to five dwellings (we take here four dwellings as the average). We have modelled here the development of two, two bed flats and two, three bed terraces.

**Table 5.4 Develop four dwellings**

	% Affordable Housing				
	0%	20%	30%	40%	50%
<b>Radlett</b>	£741,000	£570,000	£483,000	£397,000	£311,000
	£24.70	£19.00	£16.10	£13.23	£10.37
<b>Rural Hertsmere</b>	£667,000	£507,000	£428,000	£348,000	£269,000
	£22.23	£16.90	£14.27	£11.60	£8.97
<b>Hertsmere South West</b>	£487,000	£357,000	£292,000	£226,000	£162,000
	£16.23	£11.90	£9.73	£7.53	£5.40
<b>Borehamwood</b>	£413,000	£295,000	£237,000	£177,000	£118,000
	£13.77	£9.83	£7.90	£5.90	£3.93

5.21 Table shows residual values in a selection of market value areas: the upper figure is the residual value for the scheme and the lower figure is the equivalent residual value per hectare (in £s million)

5.21 Case Study C generates very high residual values, reflecting in large measure increased density. At 50% affordable housing, the residual value is over £10 million per hectare; in Borehamwood, it is almost £4 million per hectare. These are substantial values, which are likely to be well in excess of most existing use values.

### Case study D – Develop 13 dwellings (flats) on a 0.15 Ha site

- 5.22 We noted from our analysis, a number of sites involving the demolition of a single dwelling and the replacement with 13 to 18 flats. We model here 13 dwellings: 5, one bed flats and 8, two bed flats.

**Table 5.5 Develop 13 flats**

	% Affordable Housing				
	0%	20%	30%	40%	50%
<b>Radlett</b>	£1,640,000	£1,202,000	£983,000	£763,000	£545,000
	£10.93	£8.01	£6.55	£5.09	£3.63
<b>Rural Hertsmere</b>	£1,526,000	£1,106,000	£897,000	£687,000	£477,000
	£10.17	£7.37	£5.98	£4.58	£3.18
<b>Hertsmere South West</b>	£1,099,000	£750,000	£575,000	£401,000	£226,000
	£7.33	£5.00	£3.83	£2.67	£1.51
<b>Borehamwood</b>	£907,000	£589,000	£430,000	£271,000	£112,000
	£6.05	£3.93	£2.87	£1.81	£0.75

Table shows residual values in a selection of market value areas: the upper figure is the residual value for the scheme and the lower figure is the equivalent residual value per hectare (in £s million)

- 5.22 The residual values are substantial here, although where a single dwelling is demolished (we assume here a detached house), then a range of 30% affordable housing to 40% affordable housing is probably appropriate, with the higher targets being applicable in higher value areas.

### Providing Gypsy and Traveller Sites

- 5.23 As a result of our review of available source material we have concluded that a typical gypsy and traveller site will be of the order of 10-15 pitches, but site size and layout will vary depending on the requirements of likely residents. If a gypsy and traveller site is located within a residential development it will reduce the net developable area of the site in much the same way as would any other alternative land use required as part of the development. This will have an impact on the residual value for the site as a whole and should be modelled along with other site specific S106 requirements when carrying out site specific appraisal of individual developments.

### Rural Exception schemes

- 5.24 Invariably the Council will want to consider Rural Exception schemes (RESs), raising issues about the viability of delivery. We have not tested here a RES

on the basis that these schemes are normally not viable without grant input. RESs require sub market land plots to be provided, and require an operator (to be able to meet the full costs of building less what the scheme is worth to an RSL). Where this is Social Rent, there will in all cases be a shortfall to build costs. Where the affordable product is intermediate, then the subsidy requirement is likely be less. In all instances where a fair proportion of the scheme is Social Rent, then some significant subsidy is likely to be needed.

### **Commentary on the results**

- 5.23 This section on case studies is primarily illustrative, looking at the economics with particular reference to smaller sites and including consideration of achieved residual values for different sites and how they compare with existing use values.
- 5.24 Sites with a low number of dwellings (smaller sites) are no less viable than sites with a larger number. They can be shown to generate higher land values than larger sites. This means that where existing use value is relatively low, as we think will be the case for example, with back-land, infill or garden land, the Council could pursue a robust approach to obtaining affordable housing and other s106 contributions.
- 5.25 The analysis of planning permissions suggests that a high proportion of sites in the Borough will come from residential land. We believe this means gardens, back or amenity land.
- 5.26 Schemes which involve the redevelopment of one dwelling with either one or two new dwellings will be more difficult to deliver with an affordable housing contribution because of the high existing use value. There will however be some circumstances, particularly in higher value areas where an affordable housing contribution will be viable.

## 6 MAIN FINDINGS AND CONCLUSIONS

### Key findings

#### *Market value areas*

- 6.1 Our analysis of house prices in Hertsmere indicated that the local authority area can be divided into six market value areas: Radlett, Rural Hertsmere, Shenley, Hertsmere South West, Potters Bar and Borehamwood.
- 6.2 There is a significant difference in house prices across the market value areas and these are reflected in the residual values for the different scenarios we tested. We found that residual value is dependent not only on location but also on the density adopted.

#### *Residual values and scenario testing*

- 6.3 Exclusively, residual values were greatest at the development scenario for the 50 dwellings per hectare (dph) scheme. This reflects the fact that smaller units in Hertsmere sell for reasonably high values, thereby covering the impacts of affordable housing at higher percentages.
- 6.4 Using the 40 dph scenario as a likely benchmark for many schemes in the Borough, residual values at 35% affordable housing (the regional target) vary from £5.49 per hectare in Radlett, to £2.83m in Borehamwood. These are substantial and robust residual values.
- 6.5 A pattern can be identified across the market value areas which shows two broader sub markets: Radlett and Rural Hertsmere, and. On the other hand, Shenley, Hertsmere South West, Potters Bar and Borehamwood. This broad division could potentially form the basis of a split affordable housing target.
- 6.6 All the results described above are based on nil grant and assume that the intermediate affordable element of the affordable housing was Newbuild Homebuy.
- 6.7 The introduction of grant significantly improves residual values across the Borough. It matters more proportionately in lower value areas.
- 6.8 The analysis shows that increasing the proportion of intermediate affordable housing from 25% to 50% (of the total affordable element) will improve residual values. In almost all instances, this approach will lead to a higher residual than would be case, were grant to be employed. Generally, increasing the proportion of intermediate affordable housing at the expense of Social Rent, will be a more effective viability solution and we question the need for grant in the higher value areas of the Borough.
- 6.9 It should be emphasised however that these are 'viability solutions' in isolation. Increasing the volume of intermediate housing in high value areas and the volume of Social Rent in low value areas may intensify tenure concentration and therefore work against the objective of mixed communities.
- 6.10 At the higher level of s106 contributions, the impact on residual values is greatest in the weaker sub markets. However, we do not foresee the residual value reductions in the weaker sub markets at the higher level of Section 106 contribution as being significant enough to hold land back.

- 6.11 The high values for intermediate affordable housing will have a very positive effect in going a significant way towards meeting the targets set out in the SHMA. It is unclear however, what the precise effects on market values might be with a very substantial element of affordable housing, and it is also of concern in the current economic and financial conditions whether very high levels of Shared Ownership can be supported in on supply side through mortgage finance.

#### *Site supply and small sites*

- 6.12 The analysis of the supply of sites in Hertsmere indicates that small sites make an important contribution to the Borough's land supply - 37% of all new dwellings granted permission during the period analysed will be developed on sites of less than 15 dwellings.
- 6.13 A significant number of dwellings will nevertheless be developed on larger sites. Table 4.1 shows that 51% of dwellings will be built within schemes that are developed including 25 or more homes.
- 6.14 In the rural areas however, almost 75% of all new dwellings will be developed on sites of less than 5 dwellings, increasing the pressure towards a lower threshold.

#### *Small sites and viability*

- 6.15 If the Borough wished to consider a threshold below the current national indicative minimum of 15 dwellings in the urban areas (and indeed a lower threshold in the rural areas), the information provided in this report about viability of small sites would become important as part of the evidence for a reduced threshold. It is important to highlight that the development industry workshop did not conclude that small sites are systematically more or less viable to develop than larger sites.
- 6.16 Viability is sensitive to the relationship between existing (or, where relevant, alternative) use value. Many smaller schemes will involve the development of residential ancillary land – gardens, back land or infill. We do not believe, based on the likely very significant uplift in value, there is a viability problem here and therefore the Council could, if it chooses, take affordable housing contributions from these types of site.
- 6.17 A significant proportion of sites being brought forward, involve however the redevelopment of existing residential properties – either as a one for one replacement or at a higher density of development. Whilst such schemes can deliver affordable housing in some circumstances it must be acknowledged that residual values, with even relatively low levels of affordable housing, will not be sufficiently above current use values to encourage land owners to bring the land forward. The use of grant, if available, could help in achieving higher levels of affordable housing on such sites.
- 6.18 Again, it is important to highlight that it is not the size of the site per se that causes difficulties with viability, but the nature of the existing or alternative use.

#### *Small sites and management issues*

- 6.19 From a housing management perspective, we did not find any in-principle objections from housing associations to the on-site provision of affordable housing on small sites. There may be particular schemes where on-site provision is not the preferred option, but as a general rule, on-site provision of (very) small numbers of affordable homes is acceptable to housing associations.

#### *Use of payments in lieu*

- 6.20 Where a financial payment in lieu of on-site provision of affordable housing (or commuted sum) is to be sought, it should be of “broadly equivalent value”. This approach is, on the evidence we have considered, a reasonable one to take in policy terms.
- 6.21 If this ‘equivalence’ principle is adopted, then the decision of the local authority to take a commuted sum will be based on the acceptability or otherwise of on-site provision as a housing and spatial planning solution, not in response to viability issues.

#### **Conclusions and policy options**

- 6.22 There is no detailed government guidance setting out how targets should be assessed, based on an assessment of viability. In coming to our conclusions, we have reviewed the residual values generated for the different value areas in Hertsmere and at the alternative levels of affordable housing tested and considered these in the context of a range of factors including current residential land values, existing use values, historic delivery and the need to deliver housing as a whole within the Borough.
- 6.23 Our analysis of residual values has led us to suggest two main options for setting affordable housing proportions for spatial planning policy purposes which would be a reasonable policy conclusion from the viability information presented. In coming to our conclusions, we again note that viability is not the only consideration that the local authority will need to take into account in deciding on its policies and that it will need to consider the priority given to achieving affordable housing delivery to help address the very high level of need for affordable housing in the Borough. The two options are:
- Retain the current policy target of 35% as set out in the East of England Plan. This would provide continuity, although could we think, be too low for some parts of the Borough which has relatively high residual values. However, we think this target is deliverable in most locations across the Borough.
  - Introduce a split target, which seeks a higher level of affordable housing in the high value area(s) in the Borough. A broad indicative split would work between Radlett and Rural Hertsmere on the one hand, and the other four sub market areas on the other. For this option, we think that a 40% target for Radlett and Rural Hertsmere is appropriate with a 35% target elsewhere in the Borough being viable. Again, this option is based on a no grant assumption applying in the majority of site cases.
- 6.24 A single percentage target across the Borough is simple and leaves no room for doubt about the authority’s requirements and, at 35%, would be a

continuation of the (regional) current policy. However, it would not maximise delivery of affordable housing and opportunities to achieve more affordable housing would be lost. Providing the Council is able to define clear and credible boundaries for the area(s) in which the different targets would operate, we believe a split target for affordable housing is appropriate.

### **Viability on individual sites**

- 6.25 Our analysis has indicated that there will be site-specific circumstances where achievement of the affordable housing proportions set out above may not be possible. This should not detract from the robustness of the overall targets but the Council will need to take into account specific site viability concerns when these are justified.
- 6.26 If there is any doubt about viability on a particular site, it will be the responsibility of the developer to make a case that applying the Council's affordable housing requirement for their scheme makes the scheme **not viable**. Where the Council is satisfied this is the case, the Council has a number of options open to it (including changing the mix of the affordable housing and supporting a bid for grant funding from the Homes and Communities Agency and/or using their own funds) before needing to consider whether a lower level of affordable housing is appropriate. In individual scheme negotiations, the Council will also need to consider the balance between seeking affordable housing and its other planning obligation requirements.

### **Thresholds**

- 6.27 There is a pressing need for affordable housing in Hertsmere. Smaller sites (i.e. below the national indicative minimum of 15 dwellings) make an important contribution to the overall site supply.
- 6.28 Against the reduction of the threshold is the additional workload for the authority in negotiating Section 106 contributions.
- 6.29 Given the level of need for affordable housing in the Borough and the lack of any evidence to indicate that viability of smaller sites is a particular problem, we believe there is a strong argument for seeking affordable housing contributions from sites of less than 15 dwellings from across the Borough within urban areas and below 5 within rural areas.
- 6.30 We believe that there is not a strong viability case against a reduced threshold – even down to one (gross dwelling) – across the authority, should the Council decide that is appropriate. There are a significant number of smaller sites where existing use values are likely to be low, although it should be recognised that only limited affordable housing contributions will be possible where schemes involve the demolition of an existing dwelling.
- 6.31 On balance, we would suggest that the Council adopt a threshold of five units and above across the Borough. This reflects the general viability of smaller sites, whilst recognising that some of the smallest schemes involve more challenging re-development situations. It also recognises the profile of site supply in the Borough, which does rely to a significant extent on smaller sites.

### **Commuted sums**

- 6.32 Where **commuted sums** are collected a possible approach to calculating the appropriate sum sought is to base this on the equivalent amount which would be contributed by the developer/landowner were the affordable housing provided on site. This is expressed as follows:

RV 100% M = Residual value with 100% market housing

RV AH = Residual value with X% affordable housing (say 40%)

Equivalent commuted sum = RV 100% MV minus RV AH

- 6.33 Where commuted sums are collected, the Council will need to have in place a strategy to ensure the money is spent effectively and in a timely manner. Options for spending will be a matter for the Council to consider but could include supporting schemes which would otherwise not be viable, increasing the amount of social rented housing in a scheme, increasing the proportion of family units in a scheme, seeking higher quality affordable housing (e.g. a higher level of the Code for Sustainable Homes).
- 6.34 It is important to emphasise that whether a commuted sum is taken in lieu of provision on site, this is not in our view a matter that should reflect viability considerations. Whether a payment is lieu is taken or not will usually be related to sustainability or management considerations, and, where development are very small, because of the practical mathematics.

### **The current housing market**

- 6.35 At the time of preparing this report, the housing market has suffered a downturn as a result of the 'credit crunch'. Our analysis of housing market values is as recent as possible and relates to October 2009.
- 6.36 Our analysis of long term house price trends suggests that the housing market is now marginally below the long term trajectory. This means that our analysis is 'conservative' in nature.
- 6.37 We think it likely however that developers will increasingly run an argument during 2009 and 2010 that the affordable housing and wider s106 policy is holding back sites. We believe that whilst the Council should be flexible in its negotiations on specific sites, we do not think it should shift its position from the policy conclusions of this report since these will be more appropriate to the longer term trend in house prices which has been shown to be upwards. In other words, the policy position should be one which reflects the longer run and not simply the impacts of the credit crunch.
- 6.38 Currently it is difficult to see the direction of travel over the longer run. Historically, prices have risen by around 3% per annum above inflation. These sorts of rises, if emulated over the Plan period, should allow the authority to take a very robust view towards affordable housing policy.

## Appendix 1

### Development Economics Study (DES) Workshop Notes

#### Hertsmere Borough Council, St. Albans District Council and Welwyn Hatfield Borough Council

Location: Hertsmere Civic Offices

Date: 8<sup>th</sup> September 2009 9.30am-12pm

Attendees:

The following people attended the workshop. Very many thanks to all for their contributions.

Name	Organisation
Natalie Allen	Hertsmere Borough Council
Sarah Barker	Welwyn Hatfield Borough Council
Bill Beyzade	Taylor Wimpey
Martin Collins	Home Group
Philip Cringle	Affinity Sutton
John Edwards	Metropolitan Home Ownership
Michael Fearn	Shire Consulting
Colin Foster	Countryside Properties (Special Projects) Ltd
Andrea Gilmore	Hertfordshire County Council
Samantha Hardy	The Guinness Trust
Carol Hyland	Welwyn Hatfield Borough Council
Dominic Jones	Beverley Homes
Mike Lake	DLA Town Planning
Lynn McIver	Taylor Wimpey
Ruth McKeown	Hallam Land Management Limited
Russell Monck	Hertfordshire County Council

Jeremy Morton	Welwyn Hatfield Borough Council
Tina Nyamaah	Hertsmere Borough Council
John Oldham	Countryside Properties (Special Projects) Ltd
Andy Royall	Hightown Praetorian & Churches Housing Association
Simon Scarisbrick	Brasier Freeth
William Shearer	Bidwells
Rowland Sillito	DLA Town Planning
Mark Silverman	Hertsmere Borough Council
Philip Wallbridge	Roger Tym and Partners
Finlay Wood	North Herts Homes
Manpreet Kanda	St Albans City and District Council

## **1 Introduction**

The workshop was led by Dr Andrew Golland of Three Dragons. Copies of the power point presentation were handed out during the workshop with an enlarged A4 sheet of development costs (slide 21).

Andrew Golland (AG) introduced the context for the study. AG explained that the testing framework would reflect local sub-areas, take account of site supply (including types of sites), look at thresholds and viability issues, a financial formula for commuting off-site (should any of the LAs decide to develop policy on this basis). He asked if there were any industry issues that participants wished to raise. Consistency in policy approach was cited as an issue between authorities.

## **2 Principles of viability (slides 3-6).**

A question was raised around the amount that the toolkit allows for developer profit. AG explained; 15% was the default for private; 6% for affordable. Point was raised that developers may need higher than 15%, perhaps as much as 20%/25% especially in the current climate. Why use 3 Dragons method? AG explained that this work would need to inform policies that would endure for up to 20 years, including beyond the credit crunch. Markets fluctuate but it is the long term view that the DES takes. (On a site by site basis LAs and developers could negotiate) 15% has generally been the historic industry norm. AG asked if there was a minimum expectation of landowners, in agricultural use. No response.

Acknowledged that developers may have overpaid for the land but that the reality is; this is the nature of the competitive market. So, does the model work if the developer has already purchased the land?

AG asked what was a reasonable uplift on land value due to planning ? No other figure suggested.

### **3 General approach to the study**

3.1 Stage 1 “High Level” Testing (slide 8): AG explained the framework and asked for any comments. Question raised: were we aware of any shire local authority with a statutory policy of 50% (other than London). Oxford City Council was cited as a known example.

3.2 Stage 2 “Generic Sites” Testing” (slide 9): Framework explained. A range of affordable housing targets for on-site delivery will be tested. S106 / CIL; explained that the Hertfordshire Infrastructure and Investment Study will suggest a figure that could become the strategic CIL for Hertfordshire. Indications are that figures will be fairly high and may have an impact on viability.

The dual stage approach was agreed as a robust way of carrying out the study.

### **4 Housing markets (slides 11-15)**

The DES will look at sub-markets within each local authority area. These were shown on screen. AG asked if there were any issues with taking the sub-area approach as this could affect future policy development. One participant remarked that a blanket policy would be easier. Another participant raised the issue of very small sites in affluent areas such as Harpenden, a requirement for affordable housing at 50% wouldn't be delivered.

AG asked if the house prices appeared to be relevant. The point was made that Land Registry data is not based on floorspace and is generalised by property type whereas developers will sometimes assess value based on floorspace and will also take account of property by property variations e.g. orientation, garages etc.

AG responded that for the purposes of policy development an average was an appropriate benchmark (site by site negotiations could still take place where exceptions arise).

Asked how an adjustment had been made for property decreases, AG said he was currently working on a 10% reduction from the baseline position. However, agreed that the data would be updated (Land Registry). Feedback from one delegate that a 1 bed would give a better (generally) return than a 2 bed flat for example.

Please can delegates provide examples of new build selling prices, thanks.

### **5 Proposed Development Mixes (slide 16)**

No participant considered that densities in excess of 120 dph should be tested. AG asked if the mix by density scenarios was appropriate to the study area. One suggestion on the 40 dph option was to include 5% 1 bed flats. Another observation was that 2 bed houses were rarely constructed. Another point was that some developers are currently not building flats. Should a “flats only” scenario and a “house only” scenario be tested [note: the 20 dph is house only and the 120 dph is flats only].

## **6 Thresholds and small site issues (slide 20)**

PPS3 cites 15 as a threshold but there appears to be little logic for this. Are small sites less viable than large sites? In answer, one participant said that the greater the number of properties spreads the overall development costs and allows for greater potential return hence possibly that large sites can be more viable. AG however said that Valuation Office data routinely shows small sites appear to be more viable than large ones (this could be partly because they are not providing affordable housing).

There was a view that all development has an impact on infrastructure and all developments, however small should require an affordable housing contribution.

Question asked to RSLs: is there a lower threshold where management becomes an issue. Consensus was it wasn't the size of the site but the location that was important.

Question: would the RSLs rather have a contribution to spend on a larger site. Consensus was that achieving 4/5 units on a small site was better than receiving a contribution with nowhere to spend it and would the sum be enough to deliver affordable housing elsewhere.

AG flagged up that in some areas where small sites make up a large part of delivery, if viable, it might be appropriate to set low thresholds. RSLs were asked if they would be happy to take on small numbers of homes on small sites and / or in rural locations. RSLs responded that provided location was good, the size of development wasn't an issue.

## **7 Development Costs (slide 21)**

### **7.1 Development costs generally**

An A4 sheet showing the detail of the Development Costs part of the testing framework was circulated.

BCIS costs are used as the default.

Question: What do you get for £900. AG explained this includes all structural costs including sub and super structure and elements such as internal estate roads i.e. within the “red line” but not major costs such as a new balancing pond or service roads outside the “red line”. Such exception costs are not the “average” for the purposes of policy development. Costs are average for Hertfordshire, e.g. standard foundations.

7% default for interest rates is based on a percentage of build costs. Question asked by participant: how does the front loading of developments costs get taken into account. Large developments often incur large up-front costs and capital lock up is paramount to viability.

AG agreed and said that where detailed information is available in phasing for sites, this will be modelled. However, this is often difficult to carry out with a DES type study and the analysis is more appropriately carried out at the time of a planning application submission.

Question raised: Would the model be copied to delegates. AG responded, not the model but that copies of the screen shots have been made available and will be circulated.

## **7.2 Code for Sustainable Homes**

Agreed that RSLs are building to Code Level 3 whereas private sector not there yet. BCIS costs are based on data returns which are mostly RSL data. Therefore the BCIS costs will include those schemes where RSLs have achieved Code Level 3.

## **8 Other (than affordable housing) S106 costs**

AG asked what working assumptions participants be comfortable with. Answers: schemes vary, one example given of around £8,500 - £9,000 per unit on a 9 -10 unit scheme.

The Milton Keynes approach was cited where around £20,000 (land tax) is charged and up to each LA to decide how to spend.

## **9 Grant Levels**

The DES will test without grant scenarios and with grant scenarios. Was the £50,000 grant level for Social Rent and the £15,000 for Shared Ownership about right?

Answer - if you can get grant? - this is a more relevant question.

Depends upon type of units, e.g. family homes more likely to get grant than flats. It was suggested that the regional average is £45,000 (social rented) and £15,000 (shared ownership).

## **10 Affordable housing tenures**

Were RSLs still delivering shared ownership or should other products be tested? Answer; still delivering shared ownership. A grant bidding round closes this Friday but outcome will not be known until October. Difficult to know from HCA how much grant can be expected as assessed on a scheme by scheme basis.

Level of shared ownership: 30% equity share levels deliverable in area. Some schemes needing to start at 20% equity share. 25% considered to be an average.

## **11 Off Site Provision (slide 22)**

AG to advise on a formula for commuted sums but not to advise LAs whether or not to consider such circumstances in policy.

## **12 Protocol (slide 23)**

An individual report will be prepared for each LA area.

## **13 Questions – Timetable**

Hertsmere draft report to be delivered end of October, St. Albans a week later. Welwyn Hatfield later in 2009.

### **Contact Details for feedback on the Development Economics Study:**

Andrew Golland

Address: Three Dragons, The Hollies, 17 Baggrave End, Barsby, Leicestershire, LE7 4RB

Email: [drajg@btopenworld.com](mailto:drajg@btopenworld.com)

We would welcome any observations and suggestions on any part of the testing framework and methodology. Please send any comments on the meeting notes below, or on any other relevant matter, to: Andrew Golland at [drajg@btopenworld.com](mailto:drajg@btopenworld.com) by Wednesday 23 September.

Apologies: For the technical difficulties experienced at the start of the event. Thank you for your patience.

### **Appendix 2 Three Dragons model: Method statement**

The Toolkit provides the user with an assessment of the economics of residential development. It allows the user to test the economic implications of different types and amounts of planning obligation and, in particular, the amount and mix of affordable housing. It uses a residual development appraisal approach which is the industry accepted approach in valuation practice.

The Toolkit compares the potential revenue from a site with the potential costs of development before a payment for land is made. In estimating the potential revenue, the income from selling dwellings in the market and the income from producing specific forms of affordable housing are considered. The estimates involve (1) assumptions about how the development process and the subsidy system operate and (2) assumptions about the values for specific inputs such as house prices and building costs. These assumptions are made explicit in the guidance notes. If the user has reason to believe that reality in specific cases differs from the assumptions used, the user may either take account of this in interpreting the results or may use different assumptions.

The main output of the Toolkit is the residual value. In practice, as shown in the diagram below, there is a 'gross' residual value and a 'net' residual value. The gross residual value is that value that a scheme generates before Section 106 is required. Once Section 106 contributions have been taken into account, the scheme then has a net residual value, which is effectively the land owner's interest.

## Key data assumptions

### Market areas and prices:

HERTSMERE	POSTCODE SECTORS TYCLITDFD	Detached		Semi		Town/Terrace			Flats				
		5 Bed	4 Bed	3 Bed	4 Bed	3 Bed	2 Bed	4 Bed	3 Bed	2 Bed	3 Bed	2 Bed	1 Bed
RADLETT	WD7 7; WD7 8	£755,000	£690,000	£580,000	£510,000	£435,000	£370,000	£490,000	£415,000	£335,000	£340,000	£290,000	£245,000
ROUAT, HERTSMERE	TY5 4; WD25 8	£685,000	£635,000	£510,000	£495,000	£385,000	£335,000	£450,000	£375,000	£310,000	£335,000	£285,000	£225,000
SHENLEY	WD7 9	£575,000	£520,000	£445,000	£420,000	£320,000	£275,000	£370,000	£310,000	£280,000	£285,000	£245,000	£190,000
HERTSMERE S-W (WATFORD EAST & RISHEY)	WD23 1; WD23 2; WD23 3; WD23 4	£565,000	£515,000	£445,000	£405,000	£325,000	£275,000	£365,000	£305,000	£250,000	£275,000	£245,000	£185,000
POTTERS BAR	EN6 1; EN6 2; EN6 3; EN6 5	£555,000	£505,000	£435,000	£395,000	£320,000	£265,000	£360,000	£300,000	£245,000	£270,000	£240,000	£180,000
BORHAMWOOD	WD6 1; WD6 2; WD6 3; WD6 4; WD6 6	£520,000	£470,000	£405,000	£370,000	£285,000	£250,000	£335,000	£280,000	£230,000	£250,000	£225,000	£170,000

The development mixes were as follows:

	Density (Dwellings per Hectare)					
	20	30	40	50	80	120
<b>1 Bed Flat</b>					15	40
<b>2 Bed Flat</b>			5	10	30	60
<b>2 Bed Terrace</b>	10	10	15	20	35	
<b>3 Bed Terrace</b>	15	15	20	25	20	
<b>3 Bed Semi</b>	20	25	25	25		
<b>3 Bed Detached</b>	20	25	20	15		
<b>4 Bed Detached</b>	20	15	15	5		
<b>5 Bed Detached</b>	15	10				
<b>Percentage</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

### Affordable housing targets:

- 20%;
- 25%;
- 30%;

35%,  
40%,  
50%,

Affordable housing split: 75% to 25% Social Rent to Shared Ownership

**Appendix 3 Results – Residual values – no grant scenarios (£s million per hectare)**

	0%	20%	25%	30%	35%	40%	50%
<b>20 DPH</b>							
Radlett	£ 5.74	£ 4.64	£ 4.36	£ 4.09	£ 3.81	£ 3.54	£ 2.98
Rural Hertsmere	£ 5.06	£ 4.07	£ 3.82	£ 3.57	£ 3.32	£ 3.07	£ 2.58
Shenley	£ 3.79	£ 3.01	£ 2.81	£ 2.62	£ 2.42	£ 2.22	£ 1.83
Hertsmere S-W	£ 3.68	£ 2.92	£ 2.73	£ 2.54	£ 2.34	£ 2.15	£ 1.77
Potters Bar	£ 3.57	£ 2.82	£ 2.64	£ 2.45	£ 2.26	£ 2.08	£ 1.70
Borehamwood	£ 3.16	£ 2.48	£ 2.31	£ 2.14	£ 1.97	£ 1.80	£ 1.46
<b>30 DPH</b>							
Radlett	£ 8.28	£ 6.68	£ 6.28	£ 5.88	£ 5.49	£ 5.09	£ 4.29
Rural Hertsmere	£ 7.28	£ 5.84	£ 5.49	£ 5.13	£ 4.77	£ 4.41	£ 3.70
Shenley	£ 5.46	£ 4.33	£ 4.04	£ 3.76	£ 3.48	£ 3.20	£ 2.63
Hertsmere S-W	£ 5.31	£ 4.20	£ 3.93	£ 3.65	£ 3.37	£ 3.09	£ 2.54
Potters Bar	£ 5.15	£ 4.06	£ 3.79	£ 3.52	£ 3.25	£ 2.98	£ 2.44
Borehamwood	£ 4.55	£ 3.56	£ 3.32	£ 3.07	£ 2.83	£ 2.58	£ 2.09
<b>40 DPH</b>							
Radlett	£ 9.82	£ 7.87	£ 7.39	£ 6.90	£ 6.41	£ 5.93	£ 4.95
Rural Hertsmere	£ 8.64	£ 6.88	£ 6.44	£ 6.00	£ 5.57	£ 5.13	£ 4.25
Shenley	£ 6.50	£ 5.10	£ 4.75	£ 4.40	£ 4.05	£ 3.70	£ 3.00
Hertsmere S-W	£ 6.29	£ 4.92	£ 4.58	£ 4.24	£ 3.89	£ 3.55	£ 2.87
Potters Bar	£ 6.09	£ 4.75	£ 4.42	£ 4.09	£ 3.75	£ 3.42	£ 2.75
Borehamwood	£ 5.37	£ 4.15	£ 3.84	£ 3.54	£ 3.24	£ 2.93	£ 2.32
<b>50 DPH</b>							
Radlett	£ 10.92	£ 8.69	£ 8.13	£ 7.57	£ 7.01	£ 6.45	£ 5.33
Rural Hertsmere	£ 9.60	£ 7.58	£ 7.08	£ 6.57	£ 6.07	£ 5.56	£ 4.55
Shenley	£ 7.30	£ 5.66	£ 5.25	£ 4.84	£ 4.43	£ 4.02	£ 3.20
Hertsmere S-W	£ 6.97	£ 5.39	£ 4.99	£ 4.59	£ 4.20	£ 3.80	£ 3.01
Potters Bar	£ 6.75	£ 5.20	£ 4.81	£ 4.43	£ 4.04	£ 3.65	£ 2.88
Borehamwood	£ 5.94	£ 4.52	£ 4.17	£ 3.82	£ 3.46	£ 3.11	£ 2.40
<b>80 DPH</b>							
Radlett	£ 12.11	£ 9.28	£ 8.58	£ 7.87	£ 7.17	£ 6.46	£ 5.05
Rural Hertsmere	£ 10.85	£ 8.24	£ 7.58	£ 6.93	£ 6.27	£ 5.62	£ 4.31
Shenley	£ 8.45	£ 6.23	£ 5.67	£ 5.11	£ 4.56	£ 4.00	£ 2.89
Hertsmere S-W	£ 7.72	£ 5.62	£ 5.09	£ 4.57	£ 4.04	£ 3.52	£ 2.47
Potters Bar	£ 7.43	£ 5.37	£ 4.86	£ 4.35	£ 3.83	£ 3.32	£ 2.29
Borehamwood	£ 6.53	£ 4.62	£ 4.15	£ 3.67	£ 3.19	£ 2.72	£ 1.76
<b>120 DPH</b>							
Radlett	£ 13.61	£ 9.98	£ 9.07	£ 8.16	£ 7.26	£ 6.35	£ 4.53
Rural Hertsmere	£ 12.63	£ 9.16	£ 8.30	£ 7.43	£ 6.56	£ 5.70	£ 3.96
Shenley	£ 9.27	£ 6.35	£ 5.62	£ 4.89	£ 4.17	£ 3.44	£ 1.98
Hertsmere S-W	£ 9.09	£ 6.20	£ 5.48	£ 4.76	£ 4.04	£ 3.32	£ 1.87
Potters Bar	£ 8.65	£ 5.83	£ 5.13	£ 4.43	£ 3.72	£ 3.02	£ 1.61
Borehamwood	£ 7.50	£ 4.87	£ 4.22	£ 3.56	£ 2.90	£ 2.25	£ 0.93

**Worked example; one hectare site at 40 dph at 35% affordable housing in Potters Bar**

### 1 - SITE IDENTIFICATION

Site Details

Site Address

Site Reference

Application Number

Scheme Description

I have read, and accepted, the terms and conditions set out in the [license agreement](#)

### 2 - SITE LOCATION

Use the drop down lists to call up the relevant local authority and market area.  
Please ensure the market area is within the selected local authority

Local Authority

Market Area

### 3 - BASIC SITE INFORMATION

#### Site Area

Total Size of Site In Hectares  (You must enter a value in here)

#### Density / Number of Dwellings

Enter a number of dwellings  (You must enter a value in here)

Percentage Increase/Decrease in Density:

You may test the effect of a percentage increase/decrease in the site density by using the cell below

%

Resulting Number of Dwellings   Tick if this a rural development

Resulting Density  dph

### 4 - CHARACTERISTICS OF DEVELOPMENT

ALWAYS DEPRESS THE CLEAR TABLE BUTTON FIRST

You then have 2 options for entering information about the scheme

EITHER, enter information for up to 20 dwelling types – each row must be either fully complete or left blank (enter 1 if information not relevant e.g. size of affordable unit but is a market unit)

OR select the Toolkit default mix by depressing the button called Use Default Unit Types

<input type="button" value="Clear Table"/>		<input type="button" value="Use Default Unit Types"/>				<input type="button" value="View Default Mix -&gt;"/>		
Ref.	Description of Dwelling	No of Bed-Rooms	Dwelling Type	No of Units	Size in sq.m Affordable	Size in sq.m Market	Parking (flats only)	No. of Storeys (1-99)
1								
2	2 Bed Flats	2	Flat	2.0	67	60	n/a	2
3	2 Bed Terr	2	House	6.0	76	65	n/a	n/a
4	3 Bed Terr	3	House	8.0	84	80	n/a	n/a
5	3 Bed Semis	3	House	10.0	86	90	n/a	n/a
6	3 Bed Det	3	House	8.0	90	110	n/a	n/a
7	4 Bed Det	4	House	6.0	110	135	n/a	n/a
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Total Number of units				40				

## 5 - MARKET VALUES

This is a custom scheme, default values are not available.

ALWAYS DEPRESS THE CLEAR TABLE BUTTON FIRST

Clear Table

You can enter your own values for each dwelling type or select the Toolkit default market values by depressing the button called Default Market Values

View Default Values ->

You can adjust the market values by using the % increase/decrease arrows

100 %

Reset

Reset button to return to base market value

Ref.	Unit Type	No of Bed-Rooms	Market Value	Adjusted Market Value
1				
2	2 Bed Flats	2	£240,000	£240,000
3	2 Bed Terr	2	£245,000	£245,000
4	3 Bed Terr	3	£300,000	£300,000
5	3 Bed Semis	3	£320,000	£320,000
6	3 Bed Det	3	£435,000	£435,000
7	4 Bed Det	4	£505,000	£505,000
8				
9				
10				
11				
12				
13				
14				

## 6 - TENURE MIX

If you are using a default mix then you can distribute units across the tenures by percentage; enter the percentage of units to assign to each tenure in the top row. The percentages are applied equally across all unit types

If you are not using a default mix then you may either enter units by percentage or by the exact number of units of each type for each tenure; in the table enter the exact number of units of each type for each tenure in the table

Whichever method is selected, ensure that relevant information is entered in the boxes at the bottom of the table.

Input by Percentages  Input by Quantity

Clear Table

Ref.	Description	AFFORDABLE					Required No. of Units
		SALE	Social rent	New Build HomeBuy	Intermediate rent	Discount Market	
1		65%	26%	9%			
2	2 Bed Flats	1.3	0.5	0.2			2.0
3	2 Bed Terr	3.9	1.6	0.5			6.0
4	3 Bed Terr	5.2	2.1	0.7			8.0
5	3 Bed Semis	6.5	2.6	0.9			10.0
6	3 Bed Det	5.2	2.1	0.7			8.0
7	4 Bed Det	3.9	1.6	0.5			6.0
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
Total		26.0	10.5	3.5			40.0

New Build HomeBuy	Percentage Purchased	30%
	Rental limit on unbought share	100%
Percentage purchased by purchaser for Discount Market		
Local Sale	Average Income	
	Income Multiplier	

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## 8 - SOCIAL AND INTERMEDIATE RENT

ALWAYS DEPRESS THE CLEAR TABLES BUTTON FIRST

Clear Tables

This is a custom scheme, default rents are not applicable. Please enter your own values into the white cells

View Default Rents ->

Ref	Description	Social Rent Values (per week)			Intermediate Rent Values (per week)			
		No. of units	Default Rents	User Rents	No. of units	Market Rent	Adjust 75%	User Rents
1			£ -			£ -	£ -	
2	2 Bed Flats	0.53	£ -	£ 87.00		£ -	£ -	
3	2 Bed Terr	1.58	£ -	£ 91.00		£ -	£ -	
4	3 Bed Terr	2.10	£ -	£ 107.00		£ -	£ -	
5	3 Bed Semis	2.63	£ -	£ 118.00		£ -	£ -	
6	3 Bed Det	2.10	£ -	£ 140.00		£ -	£ -	
7	4 Bed Det	1.58	£ -	£ 151.00		£ -	£ -	
8			£ -			£ -	£ -	
9			£ -			£ -	£ -	
10			£ -			£ -	£ -	
11			£ -			£ -	£ -	
12			£ -			£ -	£ -	
13			£ -			£ -	£ -	
14			£ -			£ -	£ -	
15			£ -			£ -	£ -	
16			£ -			£ -	£ -	
17			£ -			£ -	£ -	
18			£ -			£ -	£ -	
19			£ -			£ -	£ -	
20			£ -			£ -	£ -	

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## 9 - AFFORDABLE HOUSNG COSTS AND CAPITALISATION FACTORS

ALWAYS DEPRESS THE CLEAR TABLE BUTTON FIRST

Clear Table

You can enter your own values in the white cells below  
Where cells are left blank, the Toolkit value for that row will be used

Social Rent		ToolKit Values	User Values	
Costs per annum	Management & Maintenance	£ 1,000		per annum
	Voids/bad debts	3.00%		of gross rent
	Repairs reserve	£ 500		per annum
Capitalisation		6.00%	6.75%	of net rent
New Build HomeBuy		ToolKit Values		
Costs per annum	Rental Factor	2.75%		of share
	Capitalisation	6.00%	6.75%	of net rent
Intermediate Rent		ToolKit Values		
Costs per annum	Management costs	6.00%		of gross rent
	Maintenance Costs	£ 500		per dwelling
	Voids/bad debts	5.00%		of gross rent
	Repairs Reserve	1.00%		of gross rent
Capitalisation		6.00%		of net rent

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## 10 - DEVELOPMENT COSTS

ALWAYS DEPRESS THE CLEAR TABLE BUTTON FIRST

Year To: 20

### Build Costs per sq m

You can enter your own values in the white cells below. Where cells are left blank, the Toolkit value for that row will be used.

	Toolkit Value	User Value
Bungalow	£1,040	
Mid (3 bedrooms)	£1,245	
Flat (6 & less beds)	£1,110	£1,300
House (4 beds)	1,368	1,100
House (5 beds)	1,401	2,000

### Other Development Costs

You can enter your own values in the white cells below. First 0% for non-applicable items. Where cells are left blank, the Toolkit value for that row will be used.

	Toolkit Value	User Value
Professional Fees (%)	12.00%	of built costs
Interest Development	5.00%	of built costs (Market and Discount Market units)
Interest Rate (Market)	0.00%	of built costs (Market, Discount Market and Low Cost Sale units)
Interest Rate (Affordable housing)	7.00%	of built costs (L1, L11, L12 units)
Marketing Fees	0.00%	of market value (Market and Discount Market units)
Developer's Return	15.00%	of market value (Market and Discount Market units)
Construction Allowance	8.00%	of development costs (L1, L11, L12 and L13 units)
Land financing costs	£	Please see the Guidance (Notes for use of the value)

### Exceptional Development Costs

You may enter GCLM totals for exceptional costs. The first row is for Sustainable Homes costs. The other three rows are for user defined costs. You can enter the name of the cost in the left hand cells and SCHMP values in the right hand cell.

Sustainable Homes Standard	
Market Housing	Affordable Housing
None	None

Cost incurred for Sustainable Homes (enter name and form)	1	2
<Enter Cost Description>	1	-
<Enter Cost Description>	£	-
<Enter Cost Description>	1	-

Schema Total	
per dwelling	
per hectare	

Print Table

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## 11 - PLANNING OBLIGATIONS

ALWAYS DEPRESS THE CLEAR TABLE BUTTON FIRST

User Total

For each type of contribution you may either enter a total figure (for that row) or you may enter values per unit (for each tenure). If you choose the second option, the Toolkit will calculate the total obligation (cost) for the scheme.

To enter one total value for a row, tick the corresponding box in the "Enter Total?" column and enter a value in the "User Total" column. To enter the values by tenure (use the box unchecked).

	Input by Total		Input by Unit				Calculated Total (Affordable and Sale)
	Enter Total?	User Total	Rate	Affordable			
			Ground rent	New Build Lease only	Intermediate	Discount Market	Total Rate
Education Contribution	<input type="checkbox"/>						
Highway Works	<input type="checkbox"/>						
Contribution to public transport	<input type="checkbox"/>						
Contribution to community facilities	<input type="checkbox"/>						
Provision for open space	<input type="checkbox"/>						
Contribution to public realm	<input type="checkbox"/>						
Contribution to public art	<input type="checkbox"/>						
Environmental improvements	<input type="checkbox"/>						
Town centre improvements	<input type="checkbox"/>						
Waterfront improvements	<input type="checkbox"/>						
Support for employment/development	<input type="checkbox"/>						
Employment related training	<input type="checkbox"/>						
<Enter Planning Obligation Description here>	<input type="checkbox"/>						
<Enter Planning Obligation Description here>	<input type="checkbox"/>						
<Enter Planning Obligation Description here>	<input type="checkbox"/>						
<Enter Planning Obligation Description here>	<input type="checkbox"/>						

Contribution (percentage per unit) 2.0000%

Contribution Item (Commercial)

total for scheme 1,410,000

Total for Scheme per hectare 6400,000

Total for Scheme divided by total number of units 610,000

total for scheme divided by number of sale units 1.15, 000

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### 13 - SCHEME REVENUE FROM AFFORDABLE HOUSING

Please choose the method by which the payment is made by the affordable housing provider to the developer

- Payment by affordable housing provider to developer is calculated by the Toolkit
- Payment by affordable housing provider to developer is fixed and is a known amount

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### 16 - HOUSING CORPORATION GRANT AVAILABILITY

Yes - it is available

No - it is not available

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## 17 - ONCOSTS FOR AFFORDABLE HOUSING

ALWAYS DEPRESS THE CLEAR TABLE BUTTON FIRST Clear page

If applicable, the user can provide information about oncosts. You have one of 3 options: i) use the Toolkit default percentages ii) enter your own % iii) enter your own oncost value (in £s) per unit. If there are no oncosts clear the tick box called 'Apply Oncosts'.

Apply Oncosts

Oncosts are based on a percentage of development costs (not including returns to the developer)

	Affordable Housing Tenures			Total
	Social rent	New Build HomeBuy	Intermediate rent	No. Of Affordable Units
<b>Number of units</b>	10.5	3.5		14
i) Default oncosts rate (%)	6%	6%	6%	
ii) User oncosts (%)				
iii) User oncosts By Unit (£)				
Oncosts per Unit	£ 5,812	£ 5,812	£ -	
Total oncosts for Affordable Housing	£ 61,024	£ 20,341	£ -	
<b>Total Oncosts for Affordable Housing</b>	£ 81,365			

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Application Number		Address	
Site Location	Hertsmere	Site	
Scheme Description	411 dpa - at 35% Affordable H	Details	

TOTAL NUMBER OF UNITS		DENSITY (per hectare)		AFFORDABLE UNITS	
Dwellings	40	Dwellings	40.0		
% Affordable Units					

REVENUE AND COSTS		RESIDUAL VALUE	
Total scheme revenue	£ 10,483,000	Whole scheme	£ 4,169,000
Total scheme costs	£ 6,314,000	Per hectare	£ 4,169,000
Contribution to revenues from:		Per dwelling	£ 104,000
Market housing	£ 9,138,000	Per market dwelling	£ 100,000
Affordable Housing	£ 1,344,000	PUBLIC SUBSIDY (GRANT)	
- Social rent	£ 644,000	Whole Scheme	£ -
- New Build HomeBuy	£ 600,000	Per Social Rental dwelling	£ -
- Intermediate Rent	£ -	Per New Build HomeBuy dwelling	£ -
Discount Market	£ -	Per intermediate Rent dwelling	£ -
Local Sale	£ -	PUBLIC SUBSIDY (GRANT)	
Capital Contribution	£ -	Whole Scheme	£ -
Commercial Elements	£ -	Per Social Rental dwelling	£ -
		Per New Build HomeBuy dwelling	£ -
		Per intermediate Rent dwelling	£ -

Contribution to costs from:		Alternative Site Values		Against residual
Market housing	£ 4,481,000	Existing Use Value	£ -	£ -
Affordable Housing	£ 1,433,000	Acquisition Cost	£ -	£ -
- Social rent	£ 1,025,000	Alternative Use Value 1	£ -	£ -
- New Build HomeBuy	£ 308,000	Alternative Use Value 2	£ -	£ -
- Intermediate Rent	£ -	Alternative Use Value 3	£ -	£ -
Discount Market	£ -			
Local Sale	£ -			
Land Finance	£ -			
Planning Obligations	£ 100,000			
Total Exceptional Costs	£ -			
Commercial Elements	£ -			

View Result

View Result

Cost Contribution

View LCC Page

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