

Three Rivers District Council Development Economics Study

Three Dragons



February 2009

1 INTRODUCTION

Review of project aims

- 1.1 Dacorum, Watford and Three Rivers councils appointed Three Dragons to undertake a Development Economics Study (DES). The study was to provide the councils with appropriate information on which they can make informed decisions relating to the provision of affordable housing and the use and allocation of land within their respective Development Plan Documents (DPDs), to provide robust evidence to support the Local Development Frameworks (LDFs) at examination and to help formulate appropriate spatial planning policies.
- 1.2 This report relates to the specific circumstances of Three Rivers District Council. The report analyses the impact of affordable housing and other planning obligations on scheme viability.

Need for Affordable Housing

- 1.3 A Strategic Housing Market Assessment has been undertaken for a consortium of authorities in the London Commuter Belt Housing Sub-region, which includes Three Rivers. The Assessment identified a high level of need for affordable housing in Three Rivers and indicated that delivery of over 80% of the residual housing allocation 2007 to 2021 would be required to meet that need. In our development economics study we have therefore assumed that the Council will want to maximise the amount of affordable housing achieved, consistent with financial viability considerations.

Policy context - national

- 1.4 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 PPS3 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.

- 1.5 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)

- 1.6 The companion guide to PPS3¹ 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 Region

- 1.7 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 – Three Rivers

- 1.8 Three Rivers currently has a Local Plan adopted in 2001. This has a target for delivery of affordable housing of 30%, to be applied to sites of 25 dwellings or 1 hectare or greater. In April 2007, the council adopted as policy a revised threshold of 15 dwellings.
- 1.9 The Council is currently consulting on a new policy in its Core Strategy Preferred Options Document. The policy states that a target of 45% of all new housing developments will be affordable with specific allocated sites having a higher or lower percentage depending on circumstances.

Research undertaken

- 1.10 There were four main strands to the research undertaken to complete this study:
- Discussions with a steering group of officers from the three commissioning authorities which 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 to analyse scheme viability (and described in detail in subsequent chapters of this report);

¹ CLG, Delivering Affordable Housing, November 2006

- A workshop held with developers, land owners, their agents and representatives from a selection of Registered Social Landlords active in the District. A full note of the workshops is shown in Appendix 1.

Structure of the report

1.11 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, and which represent examples of site types found in the authority. For each site type, there is an analysis of the residual value of the sites which compared with their existing use value.
- Chapter 6 summarises the evidence collected through the research and provides a set of policy recommendations.

2 METHODOLOGY

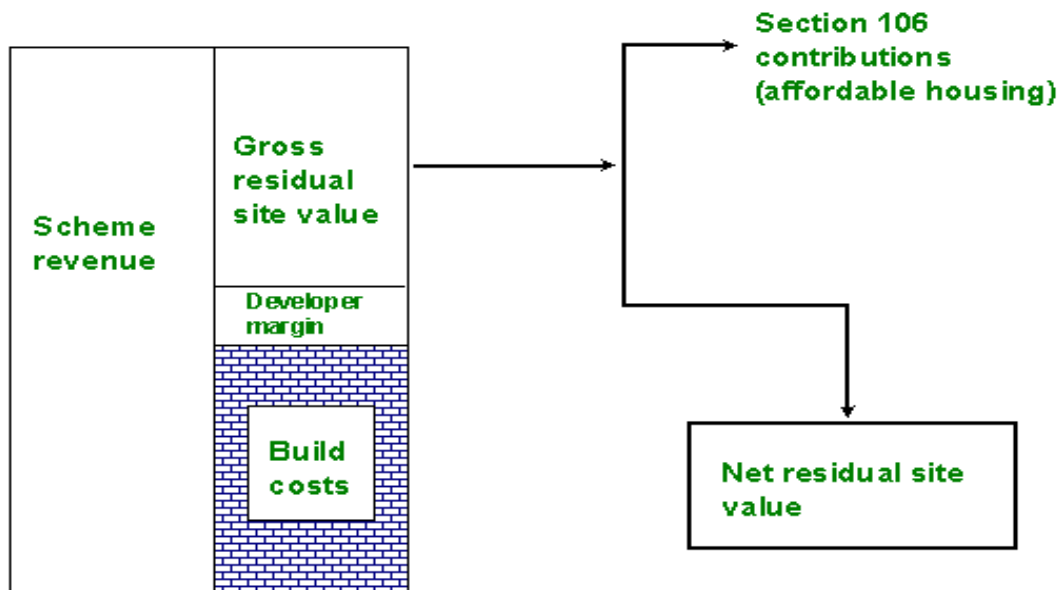
Introduction

- 2.1 In this chapter we explain the methodology we have followed in, first, identifying sub markets (which are based on areas with strong similarities in terms of house prices) and, second, undertaking the analysis of development economics. The chapter explains the concept of a residual value approach and the relationship between residual values and existing/alternative use values.

Viability – starting points

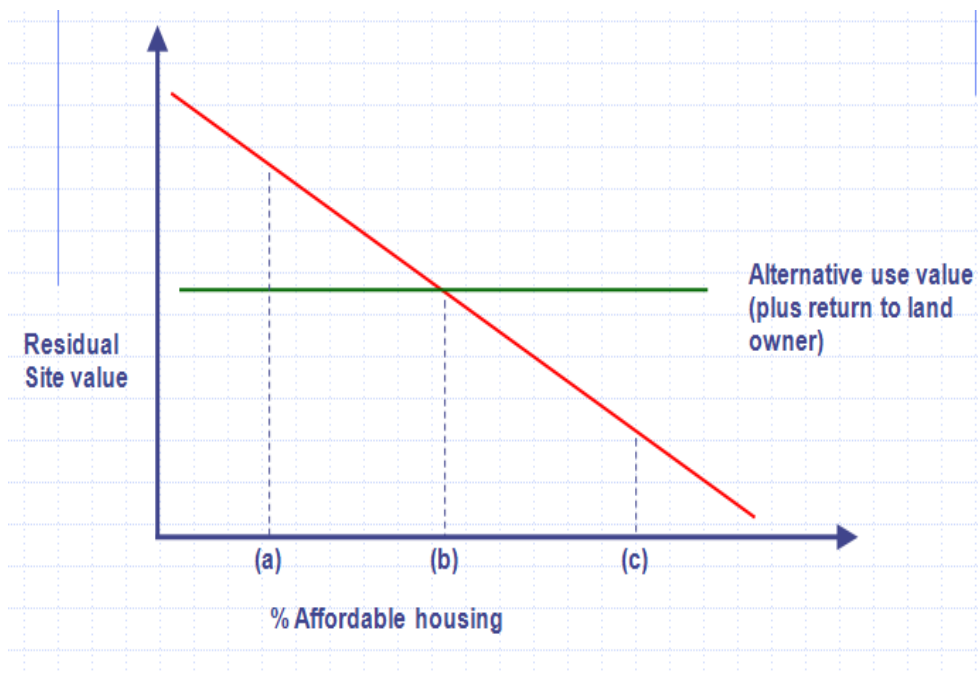
- 2.2 We use a residual development appraisal model to assess development viability. This mimics the approach of virtually all developers when purchasing land. This model assumes that the value of the site will be the difference between what the scheme generates and what it costs to develop. The model 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 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.
- 2.6 Clearly a site is highly unlikely to proceed where the costs of a proposed scheme exceed the revenue. But simply having a positive residual value will not guarantee that development will happen. 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 bringing the site forward and thus is a factor in deciding whether a site is likely to be brought forward for housing.
- 2.7 Figure 2.2 shows how this operates in theory. Residual value falls as the proportion of affordable housing increases. At some point (here 'b'), alternative use value (or existing use value whichever is higher) will be equal to scheme value. If there is a reasonable return to the land owner at point 'b' (i.e 'b' reflects best possible current use value (alternative or existing) and there is a sufficient return, then the scheme will come forward. At point 'c', affordable housing will make the site unviable. At 'a' the scheme should be viable with affordable housing. The diagram does not assume grant. Grant should be used to 'lever out' sites from their existing or best alternative uses.

Figure 2.2 Affordable housing and alternative use value



- 2.8 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 the sub markets which have been identified for this study. 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.

Sub markets

- 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 development across the housing market, using HM Land Registry data to identify sub markets in the District. The sub markets are defined by reference to house prices and provide the basis for a set of indicative new build values as at January 2009. The purpose of this analysis is to help establish a broad starting point for target setting in the light of the general relationships between development revenues and development costs.
- 3.4 Table 3.1 below sets out the sub markets defined for Three Rivers DC.

Table 3.1 Sub Markets in Three Rivers DC area

MARKET AREA	PCS	Settlements/locations
Prime Three Rivers	WD3 4	Rickmansworth north & Loudwater
	WD3 5	Chorleywood
	WD3 1	Rickmansworth town centre
	HA6 2	Northwood & Moor Park
	HA6 3	Eastbury
Rickmansworth & hinterland (higher value)	WD3 6	Rural north west & Sarratt
	WD3 7	Rickmansworth north
The Langleys and Croxley Green	WD3 3	Croxley Green
	WD4 8	Kings Langley
	WD5 0	Abbots Langley
Rickmansworth south and Maple Cross	WD3 8	Mill End
	WD3 9	Maple Cross
Oxhey and Watford fringe	WD25 0	Rural north east (Watford fringe)
	WD19 5	Delta Gain; Harrow Way; St Georges Drive
	WD19 6	Oxhey Drive; Prestwick Road
	WD19 7	Hayling Road; Gosforth Lane
	WD19 4	Oxhey Hall

Source: Sub markets as agreed between Three Dragons and Three Rivers DC

- 3.5 The sub markets are defined by postcode sectors. This allows for an understanding of prices as reflected in specific settlements. We tested all scenarios for the five sub markets in the District. These are: Prime Three Rivers; Rickmansworth and Hinterland (higher values); The Langleys and Croxley Green; Rickmansworth South and Maple Cross; Oxhey and Watford Fringe.

Testing assumptions (notional one hectare site)

- 3.6 For the viability testing, we defined a number of development mix scenarios, using a range of assumptions agreed with the client local authorities. The scenarios were based on an analysis of typical development mixes and were endorsed at the stakeholder workshop.
- 3.7 The development mixes were as follows:
- 20 dph: 100% 5 bed detached houses;
 - 30 dph: including 15% 3 bed town houses; 18% 3 bed semis; 35% 4 bed town houses; 32% 4 bed detached.
 - 35 dph: including 20% 3 bed town houses; 13% 3 bed semis; 40% 4 bed town houses; 27% 4 bed detached.
 - 60 dph: including 15% 1 bed flats; 35% 2 bed flats; 20% 2 bed town houses; 30% 3 bed town houses.
- 3.8 We calculated residual site values for each of these (base mix) scenarios in line with a further set of tenure assumptions. These were 20%; 30%; 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 40%. All the assumptions were agreed with the authority. Subsequently, we understand that the Council has a preference to achieve a tenure split of 70% Social Rent and 30% Intermediate affordable housing. From our experience, the reduction of five percentage points in the Social Rented housing component is likely to deliver a slight increase in residual values we are reporting. But these will be very marginal and not sufficient to prejudice our overall findings.

Other s106 contributions

- 3.9 For the majority of the modelling we have undertaken (and unless shown otherwise) we have assumed that other planning obligations have a total cost of £5,000 per unit.

Results: residual values for a notional one hectare site

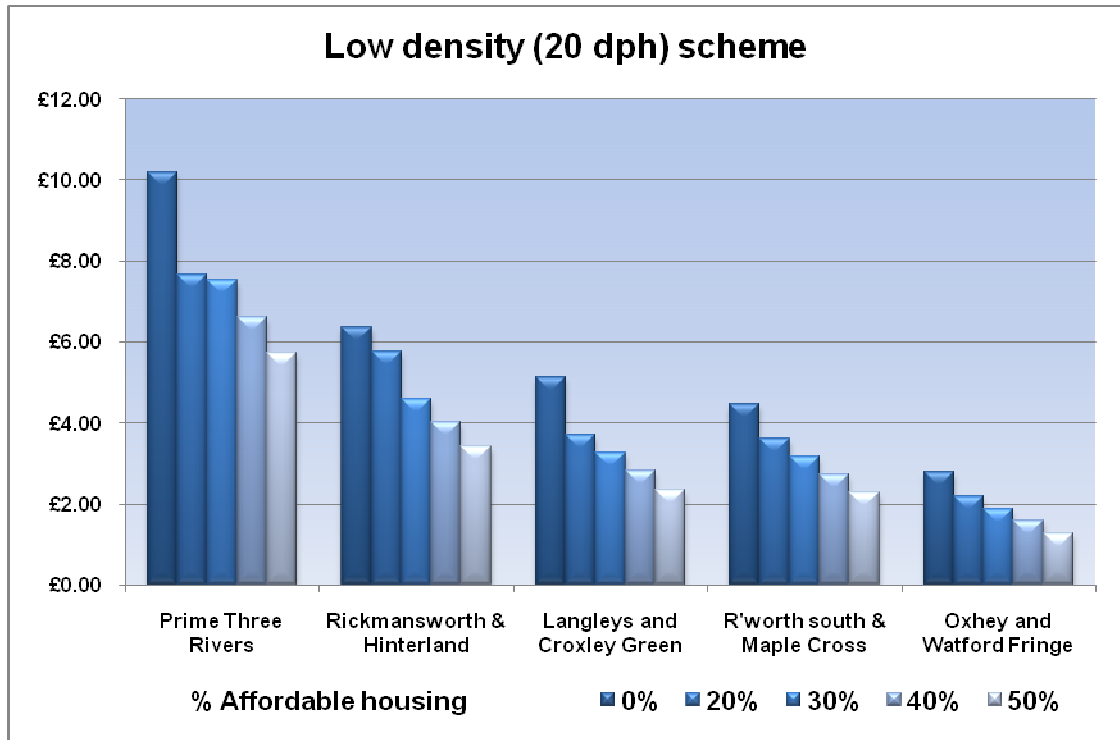
- 3.10 This section looks at a range of development mixes and densities. It shows the impacts of increasing the percentage of affordable housing on residual site values. In presenting the results, it should be noted that figures for intermediate amounts of affordable housing (e.g. 35% or 45%) can be

interpolated from adjoining values e.g. for 30% and 40% in the case of 35% affordable housing. The results are shown in Appendix 3.

Low density housing (20 dph)

3.11 Figure 3.1 shows lower density housing (20dph) and the residual values for each of the sub markets outlined in Section 3.

Figure 3.1 Low density housing (20 dph) – Residual value in £ million

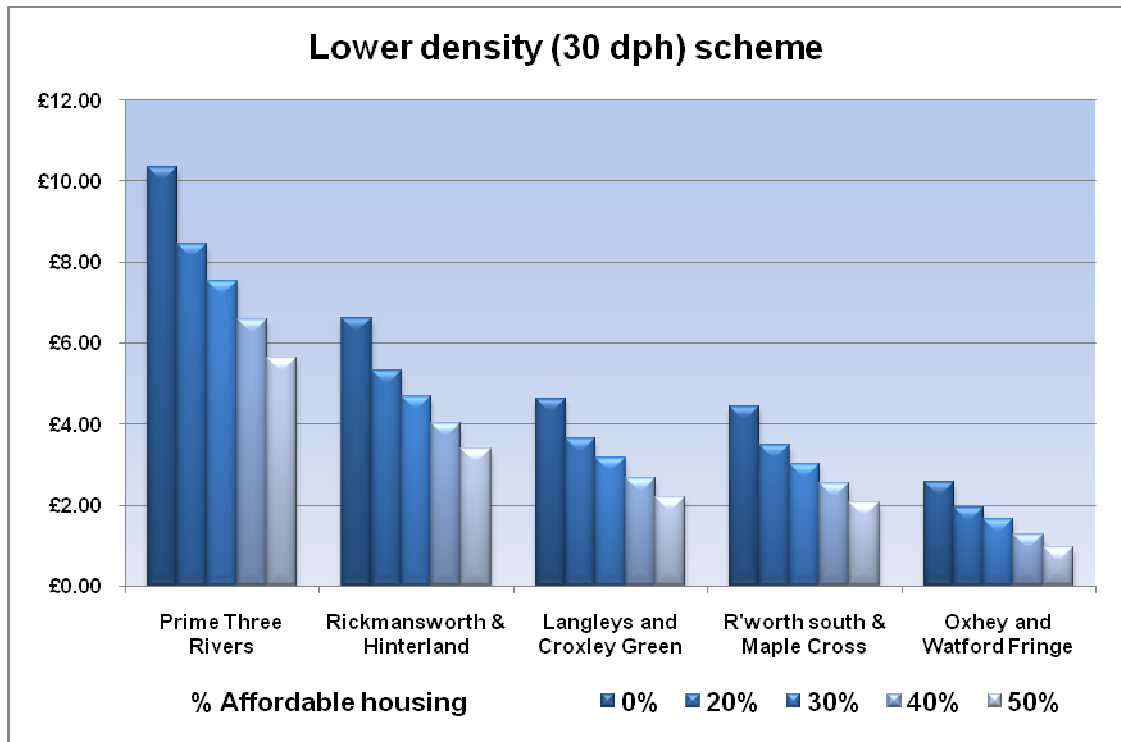


- Figure 3.1 shows how residual values differ by sub market: reflecting the different house prices found in them. The chart shows very significantly higher values in the Prime Three Rivers sub market than, for example, in the Oxhey and Rickmansworth South sub markets.
- Very high value locations e.g. Prime Three Rivers generate substantial residual values.

Lower density housing (30 dph)

3.12 Figure 3.2 shows lower density housing (30 dph) and the residual values for each of the sub markets.

Figure 3.2 Lower density housing (30 dph) - Residual value in £ million

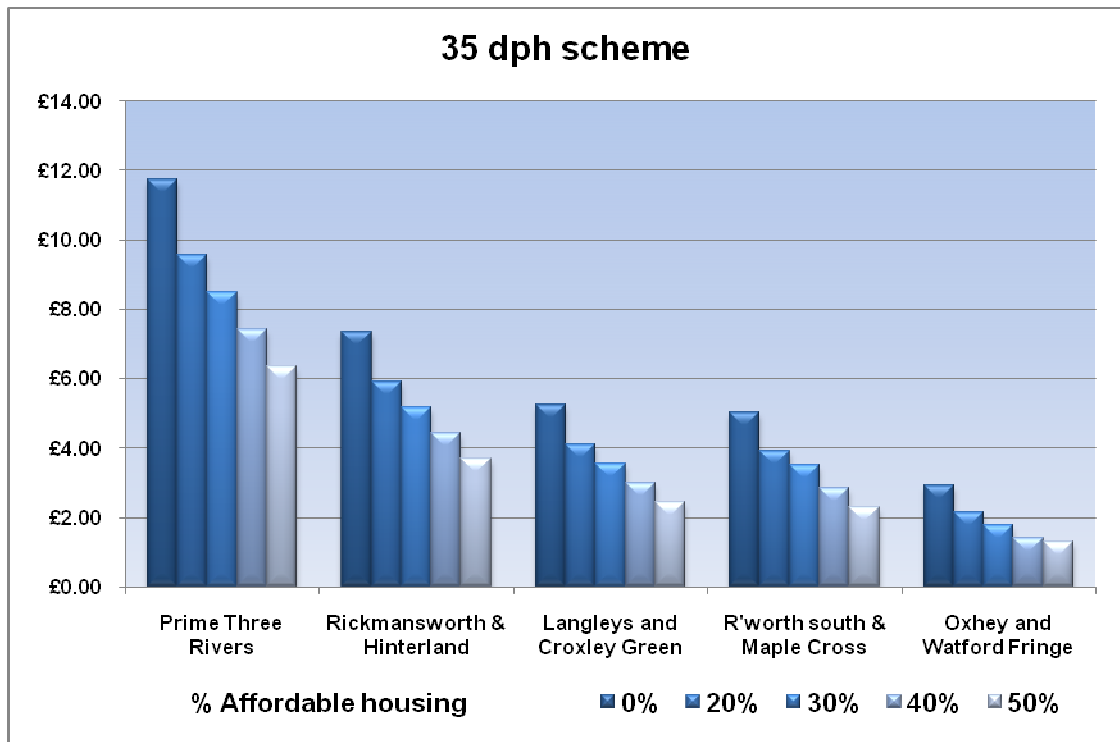


- The impact of increased density has largely been to increase residual values.
- Much the same conclusions apply to Figure 3.2 as for Figure 3.1. Large differences exist in residuals between sub markets, so that, for example, at 40% affordable housing, in Oxhey and Watford Fringe, the residual value is at some £1.3m per hectare, compared with around £6.6m in Prime Three Rivers and about £4m in Rickmansworth and Hinterland.

35 dph scheme

3.13 Figure 3.3 shows residual values for a (35 dph) scheme and the residual values for each of the sub markets outlined earlier.

Figure 3.3 35 dph scheme - Residual value in £ million

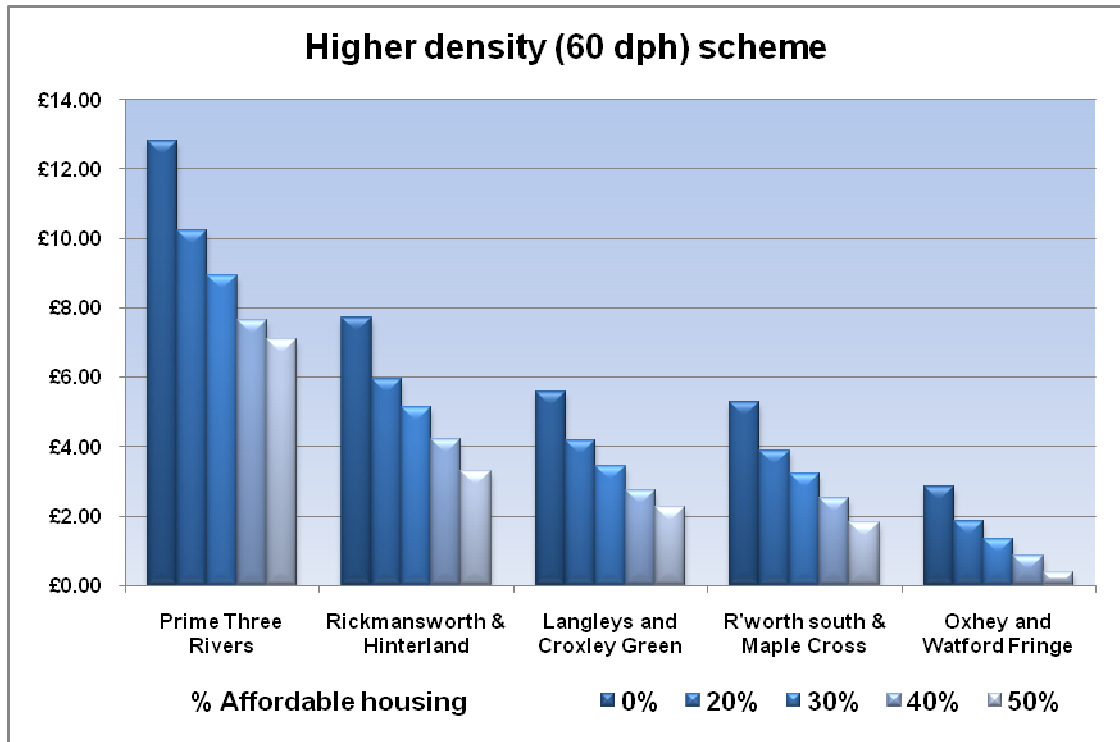


- The impact of an increase to 35 dph is to increase residuals incrementally above the 20 dph and 30 dph values. The 35 dph scenario is significant since it marks the optimal position (of the scenarios we have tested) in terms of residual land value for the weakest housing market areas. However, in Oxhey and Watford Fringe, at 40% and 50% affordable housing, values remain above £1 million per hectare (AT £1.41 and £1.30 respectively).
- The above indicates that, in negotiating sites in the weaker market areas, family type housing is likely to be best from a viability viewpoint.

Higher density (60 dph) scheme

3.14 Figure 3.4 shows a higher density scheme – at 60 dph, and the residual values for each of the sub markets.

Figure 3.4 Higher density (60 dph) scheme - Residual value in £ million



- At 60 dph a higher proportion of apartments is included (40% of the whole scheme). This has the effect of widening the spread of residual values with high values areas gaining and low values areas losing out (versus previous scenarios).

Impacts of potential grant funding

- 3.15 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).
- 3.16 To illustrate the impact of grant on residual values we have used two examples of development mix scenarios. These examples, selected to show a lower and higher density option, show clearly how important grant can be for making schemes which, without grant, are not viable or are very marginal, into potentially viable mixed tenure options.
- 3.17 We have assumed grant of £50,000 per Social Rented unit and £15,000 per New Build HomeBuy unit.
- 3.18 We have tested the impact of grant on residual values for a 1 ha site at 35 dph (which we identified as likely to generate optimal residual values in weaker market areas of the density scenarios we tested). The results are shown in Table 3.2.

**Table 3.2 Comparison of grant versus no grant residuals:
Residual Value (£s million per hectare)**

	Prime Three Rivers		Rickmansworth & Hinterland		Langley & Croxley Green		R'worth South & Maple Cross		Oxhey and Watford Fringe	
	No Grant	Grant	No Grant	Grant	No Grant	Grant	No Grant	Grant	No Grant	Grant
35 dph										
0% AH	£11.73	N/A	£7.35	N/A	£5.24	N/A	£5.01	N/A	£2.91	N/A
20% AH	£9.58	9.87	£5.90	£6.19	£4.11	£4.40	£3.93	£4.22	£2.16	£2.45
30% AH	£8.50	£8.93	£5.17	£5.60	£3.56	£3.99	£3.52	£3.95	£1.78	£2.21
40% AH	£7.42	£8.00	£4.43	£5.01	£3.00	£3.58	£2.84	£3.42	£1.40	£1.98
50% AH	£6.34	£7.06	£3.71	£4.43	£2.43	£3.15	£2.30	£3.02	£1.31	£2.03

- 3.19 Table 3.2 shows that the availability of grant will enhance site viability. This will be particularly important in the weaker sub market of Oxhey and Watford Fringe at higher percentages of affordable housing.
- 3.20 The density scenario tested here generates relatively high residual values without grant in the stronger sub markets. The introduction of grant has most impact in the lower value areas e.g. with 40% affordable housing, the residual value at 35 dph in Oxhey and Watford Fringe increases from £1.40 to £1.98 million per hectare or 41% but the increase in the highest value area (of £7.42 to £8.00 million per hectare) represents an 8% increase.
- 3.21 The analysis suggests that grant will be more effectively used on schemes in weaker sub markets.

Impact of an increased s106 requirement (£15,000 per unit)

- 3.22 Table 3.3 shows residual values for a notional one hectare site at varying affordable housing percentages for a 35 dph scheme assuming a s106 contribution package of £15,000 per unit. We have tested this level of planning obligations to assess the possible economic impact of such an approach. This should not be taken to indicate that the Council might wish to adopt this level of planning obligations package.

Table 3.3 Site values at Section 106 of £15,000 per unit Residual value (£s million per hectare) 35dph scheme

	0%	20%	30%	40%	50%
Prime Three Rivers	£11.38	£9.23	£8.15	£7.07	£5.99
Rickmansworth & Hinterland	£7.00	£5.55	£4.82	£4.08	£3.36
Langleys and Croxley Green	£4.89	£3.76	£3.21	£2.65	£2.08
R'worth south & Maple Cross	£4.66	£3.93	£3.17	£2.49	£1.95
Oxhey and Watford Fringe	£2.56	£1.81	£1.43	£1.05	£0.96

- 3.23 The introduction of a larger planning obligations package reduces residual values across all sub markets. We have illustrated this with the example of the 35 dph development but the pattern will be the same for all the development density scenarios. The impact of the planning obligations package is proportionately greater in the lower value areas.

Benchmarking results

- 3.24 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.
- 3.25 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. Tables 3.4 and 3.5 show land values regionally and for selected locations within the Eastern region.

Table 3.4 Residential land values regionally

REGION	Small Sites	Bulk Land	Sites for flats or maisonettes
	£s per ha	£s per ha	£s per ha
North East	2,280,000	2,060,000	2,300,000
North West	2,710,000	2,500,000	2,560,000
Merseyside	1,250,000	1,270,000	1,590,000
Yorkshire and the Humber	2,390,000	2,050,000	2,310,000
East Midlands	1,990,000	1,860,000	1,770,000
West Midlands	2,360,000	2,120,000	2,180,000
Eastern	3,460,000	3,425,000	3,560,000
South East	3,560,000	3,300,000	3,380,000
South West	2,900,000	2,400,000	2,800,000
Wales	2,230,000	2,030,000	2,220,000
England & Wales (excluding London)	2,740,000	2,480,000	2,650,000
Inner London	11,050,000	8,500,000	9,900,000
Outer London	6,880,000	5,980,000	6,400,000
Scotland	1,990,000	2,130,000	3,950,000
Northern Ireland	2,825,000	2,130,000	2,790,000

Source: Valuation Office; Property Market Report, July 2008

- 3.26 The tables suggest (Eastern regional figure) a land value around £3.5 million per hectare was being achieved in the first part of 2008. Table 3.5, which looks at selected locations within the region, suggests a range of values between £2 million and £7 million per hectare for the same time. However, we note that as house prices have fallen since last summer, the values shown by the Valuation Office for July 2008 are likely to be higher than current values. At the time of writing, there is no more up to date information publicly available.

Table 3.5 East of England residential land values

EAST OF ENGLAND			
REGION	Small Sites (sites for less than five houses)	Bulk Land (sites in excess of two hectares)	Sites for flats or maisonettes
	£s per hectare	£s per hectare	£s per hectare
Cambridge	5,500,000	6,600,000	7,750,000
South Cambridge	3,000,000	2,800,000	2,800,000
Peterborough	1,980,000	1,850,000	2,100,000
Ipswich	2,930,000	2,650,000	2,200,000
Norwich	3,400,000	3,200,000	2,800,000
Luton*	2,200,000	2,000,000	2,400,000
Stevenage	2,500,000	2,300,000	2,200,000
St Albans	5,600,000	5,400,000	7,000,000
Chelmsford	4,450,000	4,000,000	4,900,000
Colchester	3,830,000	3,300,000	3,200,000

Source: Valuation Office; Property Market Report, July 2008

- 3.27 Another benchmark which can be referred to is industrial land. Table 3.6 shows values for the Eastern region which range between £600,000 in Ipswich to £2.5 million per hectare in Hemel Hempstead in the first part of 2008.

Table 3.6 East of England industrial land values

EASTERN			
	From £s per ha	To £s per ha	Typical £s per ha
Cambridge	650,000	1,400,000	900,000
Peterborough	600,000	750,000	650,000
Ipswich	460,000	745,000	600,000
Norwich	425,000	615,000	525,000
Stevenage	700,000	2,300,000	1,500,000
Luton	700,000	850,000	800,000
Hemel Hempstead	1,750,000	2,750,000	2,500,000
Basildon	1,360,000	2,470,000	2,100,000
Colchester	425,000	800,000	650,000

Source: Valuation Office; Property Market Report, July 2008

- 3.28 The only sub market in Three Rivers which does not consistently achieve £2.5 million a hectare at a 40% affordable housing target is Oxhey, the sub market with the lowest prices.

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 chapter provides an assessment of the profile of the future land supply and the likely relative importance of small sites. 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.

Small sites analysis

- 4.5 We have analysed data on past permissions and from the SHLAA to consider how important sites of different sizes are likely to be to the future land supply. The tables below show the results of this exercise.

Table 4.1: No of dwellings in different sizes of sites (annual average for last 3 years of permissions and most recent SHLAA figures)

3 Years permissions				SHLAA figures			
Average annual 05-08							
No of dwellings in sites of:				No of dwellings in sites of:			
Under 5 dwellings	86	24.0%		Under 5 dwellings	3	0.2%	
5 to 9 dws	22	6.2%		5 to 9 dws	10	0.5%	
10 to 14 dws	24	6.8%		10 to 14 dws	70	3.6%	
15 to 24 dws	61	17.1%		15 to 24 dws	165	8.5%	
25 to 49 dws	45	12.5%		25 to 49 dws	414	21.2%	
50 and over dws	120	33.4%		50 and over dws	1290	66.1%	
	359	100.0%			1952	100.0%	

- 4.6 The picture from the SHLAA and past permissions differs considerably but this is to be expected – the SHLAA will tend to underestimate the likely supply from small sites in the future particularly in relation to windfall sites. Looking at the permissions data, this indicates that around 37% of dwellings with planning permission have been on sites of less than 15 dwellings – which is a powerful argument for going for a threshold below 15 dwellings. However, it is the very small sites - schemes of 1 to 4 dwellings from which a significant amount of new supply appears likely to come.

Small sites and management of affordable housing

- 4.6 We discussed the suitability of small sites for affordable housing at the workshop with the development industry and which included representatives from Registered Social Landlords (RSLs). The workshops considered the situation where there could be as few as one or two units on each site.
- 4.7 The RSLs indicated their willingness in principle to take on small numbers of affordable units in mixed tenure development. There may be some schemes where RSLs might be less willing to manage with small numbers of affordable units but this would need to be reviewed on a scheme by scheme basis, as even single affordable units can be acceptable in certain circumstances

Use of commuted sums

- 4.8 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.

- 4.9 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 set out 29 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.
- 4.10 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.
- 4.11 Where there may be concerns about scheme viability (whatever size of site) the Council has a number of options it can consider to address the issue. These could include providing grant or altering tenure mix, or by a 'reduced' affordable housing contribution whether provided on-site, off-site or as a financial contribution. In individual scheme negotiations, the council will also need to consider the balance between seeking affordable housing and its other planning obligation requirements.
- 4.12 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

Introduction

- 5.1 The analysis in Chapter 3 provides a good indication of the likely viability of sites in the District. The residual values can be compared with existing use values to establish whether land owners 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 workshops as has been the case elsewhere where we have run similar workshops. It will be noted (Table 3.5) that small sites can achieve higher land values than larger ones, suggesting that the economics of developing smaller 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.
- 5.4 In this section we review a number of case study developments which are examples of small sites for residential development. They have been selected from the analysis of historic permissions described in chapter 4. The case studies are set out in Table 5.1 below.

Table 5.1 Case study sites

Number of dwellings	Type of development	Site Size (Ha)	Resulting density
1	1 x 5 bed detached house	0.05	20
2	1 x 4 bed detached house; 1 x 5 bed detached house	0.075	27
4	2 x 4 bed detached house; 2 x 3 bed semis	0.1	40
9	3 x 2 bed terraces; 4 x 3 bed semis; 2 x 4 bed detached houses	0.15	60

- 5.5 For each case study, we have undertaken an analysis of residual values for three of our sub market areas (representing a lower value, mid value and high value sub market) and at levels of affordable housing from 0% to 50%. 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 0.05 ha site

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

Table 5.2 Develop one detached house – Residual values

1 New 5 Bed Detached					
	0%	20%	30%	40%	50%
Prime Three Rivers	£630,000	£522,000	£468,000	£414,000	£359,100
	£12.60 m	£10.4 2m	£9.36 m	£8.28 m	£7.18 m
The Langleys & Croxley Green	£301,500	£244,800	£217,800	£189,900	£161,100
	£6.00 m	£4.99 m	£4.36 m	£3.80 m	£3.22 m
Oxhey and Watford Fringe	£195,300	£161,100	£136,800	£116,100	£96,300
	£3.91 m	£3.11 m	£2.74 m	£2.32 m	£1.84 m

Table shows residual values in a selection of sub markets: the upper figure is the residual value for the scheme and the lower figure is the equivalent residual value per hectare.

- 5.7 Table 5.2 shows that the development of one new detached house will generate a very substantial residual value even with 40% or 50% affordable

housing and across all sub markets. Where one dwelling of this type is built on, for instance, infill or backland sites, we would expect the uplift in site value will 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.

- 5.8 For schemes involving the demolition of an existing residential dwelling, the existing use value needs to be considered. Existing use values (which effectively will be the open market selling prices of a detached house in the three locations) will, we think, likely be from £890,000, to £531,000 to £405,000 (highest to lowest sub markets). On this evidence, demolishing an existing dwelling and building a single new 5 bed detached dwelling, which makes a contribution to affordable housing, looks unlikely to be viable.
- 5.9 However, in the example used above, it can be seen that the residual value generated at 100% market value is below the existing use value. This is not illogical. The data indicates that the circumstances in which a dwelling is brought forward for redevelopment will not be the 'average' situation for Three Rivers (with average market values for existing properties and average residual values for the new scheme). The analysis implies that properties brought forward for redevelopment will be below average values and the new dwellings will be of a higher value than 'average' for new properties. This implies that there will be circumstances in which residential replacements can also contribute to affordable housing but each case will need to be analysed on its own merits.

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

- 5.10 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

2 New Detached - One 4 bed and one five bed	0%	20%	30%	40%	50%
Prime Three Rivers	£1,201,500	£996,300	£884,700	£790,200	£688,500
	£16.02 m	£13.28 m	£11.88 m	£10.54 m	£9.18 m
The Langleys & Croxley Green	£578,700	£472,500	£418,500	£365,400	£312,300
	£7.71 m	£6.30 m	£5.58 m	£4.87 m	£4.17 m
Oxhey and Watford Fringe	£368,100	£295,200	£258,300	£221,400	£185,400
	£4.91 m	£3.93 m	£3.45 m	£2.95 m	£2.48 m

Table shows residual values in a selection of sub markets: the upper figure is the residual value for the scheme and the lower figure is the equivalent residual value per hectare.

- 5.10 We think very much the same 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. However, as previously discussed, schemes involving the demolition of an existing residential dwelling may prove more challenging.
- 5.11 Analysis of recent permissions indicates that there may be instances in the district where an existing dwelling is converted to two dwellings. The viability of these schemes will depend on the cost of conversion and this can vary greatly between schemes – although generally will be lower than the costs of new build. Our advice in these instances is for that the Council should pursue a section 106 contribution but adopt a flexible approach.

Case study C – Develop four dwellings (Two detached and two semis) on a 0.1 ha site

- 5.12 A significant number of schemes in the district involve the development of four dwellings. We have modelled a mid density scheme which is a mix of detached and semi detached dwellings. Increasing development density (as compared with case study A and B) increases the potential for achieving a higher residual value as Table 5.4 below shows.

Table 5.4 Residual values for a development of four dwellings

4 New Detached - Two 3 Bed Semis and two 4 Bed Detached	0%	20%	30%	40%	50%
Prime Three Rivers	£1,855,800	£1,537,999	£1,378,800	£1,217,700	£1,059,300
	£18.56 m	£15.39 m	£13.79 m	£12.18 m	£10.59 m
The Langleys & Croxley Green	£896,400	£729,900	£648,000	£563,400	£480,600
	£8.96 m	£7.30 m	£6.48 m	£5.63 m	£4.81 m
Oxhey and Watford Fringe	£564,300	£450,900	£394,200	£336,600	£280,800
	£5.64 m	£4.51 m	£3.94 m	£3.37 m	£2.81 m

Table shows residual values in a selection of sub markets: the upper figure is the residual value for the scheme and the lower figure is the equivalent residual value per hectare.

- 5.13 As previously noted, where this type of development takes place on back land, infill or garden land or other low value land, we anticipate significant land value uplift, sufficient for the Council to take a robust approach to obtaining a Section 106 obligation including an affordable housing contribution.

- 5.14 Developing four dwellings to replace a single house will be more viable than a smaller development assuming constant existing use values. Assuming these constant existing use values (Para 5.8 above), we think that a 40% affordable housing target in the higher value areas and a 30% target in the lower value areas would not make sites unviable, although the Council will need to recognise that in practice each of these sites will need to be individually negotiated taking into account the size of the site and the extent to which residual development value 'covers' existing use value and justifiable hope value for the site.

Case study D – Development of 9 dwellings on a 0.15 ha site

- 5.15 Some of the development coming through in the District will be larger (small) sites. We take here an example of a 9 dwelling development. Table 5.5 shows the economics of developing a mix of nine new homes in the three locations as previously. Clearly residual values are high (ranging between £12.74m in Prime Three Rivers to £3.11m in Oxhey and Watford Fringe per hectare with 50% affordable. Where this type of development comes forward on back land, infill, garden or other land uses with a relatively low existing use value, the land value uplift from existing use will be substantial and a substantial affordable housing contribution should be achievable.
- 5.16 We believe that a similar approach should be applied in this case study to that in the previous. We think, looking at the planning data, that it will be unusual that this number of homes will be built where one large detached dwelling is knocked down. It is more likely to be the case that two dwellings will be demolished. Under these circumstances, the economic relationship will be marginally better than in Case Study C, but only marginally different.

Table 5.5 Develop nine new dwellings

9 New homes - 2 Terraces, 3 Semis, 4 Detached	0%	20%	30%	40%	50%
Prime Three Rivers	£3,404,700	£2,800,800	£2,501,100	£2,199,600	£1,910,700
	£22.70 m	£18.68 m	£16.68 m	£14.66 m	£12.74 m
The Langleys & Croxley Green	1,644,300	1,321,200	1,160,100	998,100	836,100
	£10.96 m	£8.81 m	£7.73 m	£6.65 m	£5.57 m
Oxhey and Watford Fringe	1,032,300	805,500	693,000	580,500	467,100
	£6.89 m	£5.37 m	£4.62 m	£3.87 m	£3.11 m

Table shows residual values in a selection of sub markets: the upper figure is the residual value for the scheme and the lower figure is the equivalent residual value per hectare.

Commentary on the results

- 5.17 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.
- 5.18 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 (a significant percentage of sites in the Three Rivers District) the Council should pursue a robust approach to obtaining section 106 contributions. Affordable housing contributions of 40-50% (depending on the sub market) could be achievable.
- 5.19 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 and hence we do not feel that there is case for a threshold which for example cuts in at say two or three dwellings. There will, of course, be schemes with one or two dwellings which do not involve the demolition of an existing dwelling.
- 5.20 We think the threshold should be activated for all developments, accepting that it will be necessary for the Council to take a more flexible approach where a scheme involves the demolition of one or more existing dwelling(s).

6 MAIN FINDINGS AND CONCLUSIONS

Key findings

- 6.1 We identified five sub market areas across the District which relate to the spread of market values. The sub markets are defined by postcode sectors and are: Prime Three Rivers; Rickmansworth and Hinterland (higher values); The Langleys and Croxley Green; Rickmansworth South and Maple Cross; Oxhey and Watford Fringe.
- 6.2 We found significant variation in market values between the 5 market areas. These differences in market values were reflected in differences in residual values (for the different scenarios tested). We found that residual value is dependent not only on location but also on the density adopted. Of the density scenarios we tested, schemes of 35 dph were found to maximise residual values in the weaker sub market.
- 6.3 Higher density schemes of flats will, in higher priced areas, generally generate high residuals, but the opposite is the case in lower priced areas.
- 6.4 Residual values remain relatively high in most markets even at 50% affordable housing without grant. However, in the weaker sub markets (notably Oxhey and Watford Fringe and, to a lesser extent, Rickmansworth South and Maple Cross) residual values at this level of affordable housing are falling towards the value of industrial land – as a potential alternative use for the land. This benchmark does not of itself define what is and what is not viable, but gives an indication of the context in which potential Section 106 contributions (including affordable housing) might have to be considered.
- 6.5 The variation in market values leaves the Council with the option of setting different affordable housing targets for different parts of the authority area e.g. 50% in higher value areas and 40% in the lower value area(s).
- 6.6 The introduction of grant significantly improves residual values across the District. It matters most in the lower value areas. In higher value areas, grant is less effective in raising land values as a proportion of residual values without grant.
- 6.7 At the higher level of s106 contributions we tested, the impact on residual values is greatest in the weaker sub markets. However, even with a 50% affordable housing contribution, no grant available and a notional £15,000 planning obligation package per dwelling, in the weakest sub market, a positive residual value is still generated. This finding serves to underline the relative strength in development value achieved across Three Rivers and that a relatively high percentage of affordable housing delivery should be achievable.
- 6.8 Viability is highly sensitive to the relationship between existing (or, where relevant, alternative) use value. A proportion of smaller sites being brought forward, involve 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 and especially in the higher value markets, 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 could help in achieving higher levels of affordable housing on such sites.

- 6.9 But there are other types of small residential sites (down to one and two dwellings) which do not involve the demolition of an existing dwelling(s) and which can be viable with relatively high levels of affordable housing. It will depend on the nature of the site and its location; for back land and garden land sites, there will be substantial uplift in value with affordable housing, even on very small sites.
- 6.10 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.
- 6.11 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.
- 6.12 The analysis of the supply of sites in the District highlighted the importance of small sites. Around 37% of dwellings with planning permission (2005 to 2008) were on sites of less than 15 dwellings. However, it is the very small sites - schemes of 1 to 4 dwellings from which a significant amount (around a quarter) of new supply has been provided. The pattern of supply implied by the SHLAA suggests that small sites will play a lesser role in the future but we anticipate that they will still have an important role to play for some time.
- 6.13 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.
- 6.14 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 recommendations

- 6.15 `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 sub markets in the district at the alternative levels of affordable housing tested and considered how these values compare with historic land values generally in the area.
- 6.16 From this review, we note the relative strength of the market across Three Rivers but that there are also significant variations in residual values between different sub markets. This has led us to suggest three 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 which the local authority will need to take into account in coming to a view on the policies it wishes to adopt 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 district. The three options are:

- A single percentage target across the whole district and which is realistic in the lowest value sub markets (and therefore readily achievable in the higher values areas). Given the range of residual values we found, we consider that a target of 40% or 45% would be a reasonable starting point;;
- A split target which is more ambitious in the higher value areas – the authority could consider a target of, say, 40% in the lower value areas and 50% in the highest value areas;
- A target of 40% or 45% across the district generally but with higher targets set for specific allocated sites if site-specific analysis of viability indicated this was feasible.

- 6.17 Commenting on the second option, if this option is pursued, it will be important that there can be a clear distinction between the areas where the alternative targets apply. From the evidence, it would seem that Prime Three Rivers and Rickmansworth and Hinterland are sufficiently different from the other sub markets to justify a higher (50%) target than for the rest of the district.
- 6.18 On the other hand, a single percentage across the district is simple and leaves no room for doubt about the authority's requirements.
- 6.19 If the third option is followed, the affordable housing policy would need to be carefully drafted so that the 40% or 45% proportion identified as the general target for the district is not interpreted as a maximum which the council cannot move upwards from where justified for individual allocated sites.
- 6.20 We note that the Council's policy approach set out in CP4 is to seek 45% affordable housing. Our analysis suggests that, on the basis of a single target being adopted, this is a not unrealistic starting point.

Viability on individual sites

- 6.21 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.
- 6.22 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

- 6.23 There is a very high need for affordable housing in Three Rivers and it is appropriate for the Council to consider a lower thresholds than the indicative national minimum (15 dwellings) set out in PPS3. The supply of sites which has been coming through in recent years indicates that small sites make a major contribution to site supply and that a low threshold would capture a significant increase in affordable housing. Below 15 dwellings there is no particular threshold which appears more appropriate than another and a threshold of 0 is not unrealistic.
- 6.24 However, it is apparent that the nature of the current land use plays a particular role in the development economics of very small sites. Some sites down to 1 dwelling will be equally as able to deliver affordable housing as much larger sites. But there will be a group of sites where the current use is as a dwelling(s) where this will not be the case and the authority will need to take a flexible view in seeking affordable housing from these sites. However, this particular viability issue should not, in our view, over-ride the general conclusion that a very low site size threshold would be appropriate.
- 6.25 Of course, at below 2 or 3 dwellings (depending on the target percentage adopted) on-site provision is not mathematically practical and an equivalent commuted sum will need to be sought. Given this situation and the need to deal with a large number of sites, one option which the council could consider is adopting a 'two part' threshold. The actual threshold for seeking affordable housing contributions would be set at zero but up to, for example, from schemes of up to 4 dwellings, a commuted sum would be sought, with an on-site contribution above this threshold.

Commuted sums

- 6.26 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 45%)
Equivalent commuted sum = RV 100% MV minus RV AH

- 6.27 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).

The current housing market

- 6.28 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 January 2009.
- 6.29 We think it likely however that developers will increasingly run an argument during 2009 and 2010 that the affordable housing and wider Section 106 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.

Appendix 1

Dacorum BC, Three Rivers DC and Watford BC Development Economics Study (DES) Workshops

10th March 2008 at Dacorum Borough Council, Hemel Hempstead

Attendees

Morning workshop:

Tina Barnard, WCHT
Nathalie Bateman, Dacorum BC
Philip Cringle, Affinity Sutton
Glen Eaton, Metropolitan Housing Trust
Andrea Gilmour, Hertfordshire Property, Herts CC
Jed Griffiths, Griffiths Environmental Planning
James Holmes, Brian Barber Associates
Colin Howard, Hall Farm
Jon Jennings, Pegasus Planning Group

Lin Cousins, Three Dragons
Andrew Golland, Three Dragons

Afternoon workshop

Paul Newton, Dacorum BC
Derek Bromley, Bidwells
Jim Townsend, LSH
Owen Roe, Abbots Langley Parish Council
Jean Conway
Alexandra Stevens, Hertfordshire Property, Herts CC
Simon Mitchell, Levvel
Andy Royall, HPCHA
Camelia Smith, Watford BC
Richard Rossetti, Savills
Nathalie Bateman, Dacorum BC

Andrew Golland, Three Dragons
Lin Cousins, Three Dragons

(Note: In this note, AH is used as shorthand for affordable housing.)

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1 Key issues

There is a need for a robust evidence base to justify affordable housing requirements. Strategic Housing Market Assessments (SHMA) vary in quality and can provide contradictory evidence. It was noted that Watford, Three Rivers and Dacorum councils have commissioned a joint SHMA which is currently underway.

It was suggested that local authority requirements for AH are not consistent – over time or between one scheme and another. There is a need for greater consistency and clarity in the findings.

Lack of land and development opportunities for housing associations – either for 100% AH schemes or mixed tenure developments

There are still sites coming forward where option agreements were taken out 10/15 years ago. The land value has not adjusted to current requirements for AH. Local authorities need to understand this and be flexible in their approach to AH requirements.

From the housing association perspective - the need for AH is very strong across all property types but family sized housing is generally in shortest supply and has been squeezed out of the market. There may be occasions where it would be better for the local authority to accept a lower %age of AH in total if that means getting more family accommodation.

2 The Local Market and affordable housing targets

The area covered by Three Rivers, Watford and Dacorum councils broadly operates as one market place – but with some parts where values are higher than elsewhere. If there are variations in policy between the three authorities, this may have an impact on developer behaviour – so, for instance, if the requirement for AH is higher in one of the authorities than in the other two, sites in the latter may be taken up first.

It was recognised that differential AH targets can reflect different viability circumstances. One view was this seems a logical response to complex market situations. Another is that the targets should be consistent for the three authorities. On green field and brown field site circumstances, the view was these are not necessarily more (or less) viable; it depends on site specific circumstances and the negotiation of Section 106 should ultimately be subject to site specific economics.

There are indications of a shift away from development of apartments to larger family units after a long period when 1 and 2 bed apartments dominated the market. However, in Watford there are still a high number of one bed apartments coming forward. Family housing is in far higher need.

3 Delivery of Affordable Housing

The 3 local authorities seek affordable housing in terms of a %age of units delivered. It may be more appropriate to deal with this in terms of bedspaces etc. From the developer/land owner perspective, it would be useful for the 3 authorities to adopt consistent policies, although these should reflect local market circumstances.

There is no 'going rate' for AH which is being assumed in the market place.

Developers have provided AH requirements on basis free serviced land or completed units. However, the significant majority of sites where there is an AH contribution are now delivered by a developer building both the market and affordable elements 'complete'.

There is a general assumption that Housing Corporation grant in mixed tenure schemes Section 106 is only available if it shows proven "additionally" (e.g. more social rent than shared ownership, more family housing). Even then, there are strict 'rules' about the grant per unit/person which they will fund.

For scenario testing purposes 3 Dragons should assume that there will be no grant available and that housing associations do not make a contribution to scheme revenue from their own reserves. 3 Dragons should also test for the 'with grant' situation and assume £35k for social rent and £15k for Homebuy. This should apply to testing across all 3 authorities although it was noted that Watford BC's policy starts from a position of nil grant. It was noted that grant in the East of England is significantly less than 'just down the road' in London.

There was a general point made that transparency by local authorities in assumptions being made by the councils on availability of grant is needed. Financial cascades may have a role to play – e.g. councils set out what amount/type of AH they expect without grant and what amount/type if grant is made available. This could be incorporated in S106 agreements where uncertainty over grant remains at the stage of granting planning permission.

4 Small Sites and Site Size Thresholds

If site size thresholds were reduced, there is a perception that housing associations would not want provision of affordable housing to be made on-site because they do not want to manage very small 'groups' of new AH. The housing associations at both the morning and afternoon workshops rejected this as a general principle. They explained that, as a general rule, they do not have a problem with taking on very small numbers of AH within mixed tenure development.

There may be other objections to the provision of AH on-site in small schemes but these are not about stock management. What affects acceptability of securing on-site provision is consideration of service charge and dwelling access.

But it has to be remembered that the cost of negotiating a S106 agreement for 5 units is not much less than negotiating for 50! There was also a view expressed that RSLs bring a 'new level of bureaucracy' to the process and smaller developers and land owners may take time to adapt to it.

Mixed views on what the impact on traditional developers of small sites would be if they are required to deliver AH. Some think that developers would not want to continue (and would find the additional risk too great) but others saying that they would adjust to the new situation and carry on. Views also expressed that land owners of small sites would not want to proceed with development if AH introduced but uncertain whether this would be a 'short term shock' or a longer term response.

Land owners have very different situations and will come to different conclusions about impact of AH requirements.

Small sites are not systematically more expensive to develop than large sites – depends on location and style etc.

There is a limited number of circumstances where it is seen to be better to take a commuted sum rather than provide AH on site. May be appropriate where value is high and money collected can be used to provide more units in a lower value location. But the counter argument is that housing associations need units and not cash to invest elsewhere when land supply is going to be a problem.

5 Other Planning Obligations

The list of planning obligations required in addition to AH is growing. Expectations for developers to pay for new provision are being expressed by a growing number of organisations e.g. PCT, education and highways authorities etc

3 Dragons to review County Council requirements from the toolkit on their website and to take into account other contributions being sought by the 3 district councils.

6 Dwelling Mixes

3 Dragons need to model a number of dwelling mixes to represent 'typical' development scenarios across the 3 local authorities. The mixes are not intended to be anything more than reasonable examples of an average development type at a particular density. The densities and mixes agreed for testing (taking morning and afternoon sessions together) were:

Density	Development mix
20 dph	5 bed detached houses
30 dph and 35 dph	33% 3 bed houses; 66% 4 bed houses
60 dph	50% 1 & 2 bed flats; 50% 2 and 3 bed houses
85 dph	70% 1 and 2 bed flats; 30% 2 and 3 bed houses
120 dph	50% 1 bed flats and 50% 2 bed flats

7 Quality Standards

3 Dragons should assume Code 3 for market and affordable housing.

In comparison with current 'standards' this will mean the following additional costs:

AH £3-6k from 'Ecohomes very good' to Code 3

Market housing £5-10k from 'Ecohomes good' to Code 3

To move from Code 3 to Code 6 (the government target for 2016) was described as 'very difficult' and suggested that would cost £40,000 or more per dwelling.

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:

MARKET AREA	Detached			Semis		Town houses			Flats			Bungalows	
	5 Bed	4 Bed	3 Bed	4 Bed	3 Bed	4 Bed	3 Bed	2 Bed	3 Bed	2 Bed	1 Bed	3 Bed	2 Bed
Prime Three Rivers	£1,090,000	£990,000	£795,000	£710,000	£615,000	£665,000	£605,000	£485,000	£520,000	£435,000	£305,000	£740,000	£630,000
Rickmansworth & hinterland (higher value)	£785,000	£715,000	£570,000	£510,000	£445,000	£489,000	£435,000	£345,000	£375,000	£310,000	£220,000	£535,000	£455,000
The Langleys and Croxley Green	£645,000	£590,000	£470,000	£420,000	£365,000	£395,000	£360,000	£290,000	£310,000	£260,000	£185,000	£440,000	£380,000
Rickmansworth south and Maple Cross	£635,000	£580,000	£460,000	£410,000	£355,000	£385,000	£350,000	£285,000	£305,000	£250,000	£175,000	£430,000	£370,000
Oxhey and Watford fringe	£500,000	£450,000	£360,000	£320,000	£280,000	£295,000	£270,000	£220,000	£230,000	£190,000	£130,000	£335,000	£290,000

The development mixes were as follows:

- 20 dph: 100% 5 bed detached houses;
- 30 dph: including 15% 3 bed town houses; 18% 3 bed semis; 35% 4 bed town houses; 32% 4 bed detached.
- 35 dph: including 20% 3 bed town houses; 13% 3 bed semis; 40% 4 bed town houses; 27% 4 bed detached.
- 60 dph: including 15% 1 bed flats; 35% 2 bed flats; 20% 2 bed town houses; 30% 3 bed town houses.

Affordable housing targets:

20%;
30%;
35%;
40%;
50%.

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

Development costs

Based on RICS BCIS database:

Costs as set out below:

10 - DEVELOPMENT COSTS

ALWAYS DEPRESS THE CLEAR TABLES BUTTON FIRST Clear Tables

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 Values	
Bungalows	£1,049	
Flats (6+ storeys)	£1,545	
Flats (5 & less storeys)	£1,115	£1,300
Houses <= 75m2	£999	£1,050
Houses > 75m2	£901	£950

Other Development Costs

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

	Toolkit Values	User Values	
Professional Fees %	12.00%		of build costs
Internal Overheads	5.00%		of build costs (Market and Discount Market units)
Interest Rate (Market)	7.00%		of build Costs (Market, Discount Market and Low Cost Sale units)
Interest Rate (Affordable Housing)	7.00%		of build costs (SR, HB, IR units)
Marketing Fees	3.00%		of market value (Market and Discount Market units)
Developers Return	15.00%		of market value (Market and Discount Market units)
Contractors Return	6.00%		of development costs (SR, HB, IR and LCS units)
Land financing costs	£	-	Please see the Guidance Notes for use of this value

Exceptional Development Costs

You may enter SCHEME 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 SCHEME value in the right hand cell.

Sustainable Homes Standard		
Market Housing	Affordable Housing	
None	None	
Costs incurred for Sustainable Homes Levels None and None		£ -
<Enter Costs Description>		£ -
<Enter Costs Description>		£ -
<Enter Costs Description>		£ -

Scheme Total	
per dwelling	
per hectare	

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No abnormals assumed

Typical unit sizes adopted (m²):

	Market	Affordable
1 Bed Flat		
2 Bed Flat	60	67
2 Bed Terrace	76	65
3 Bed Terrace	80	86
3 Bed Semi	90	86
3 Bed Detached	120	86
4 Bed Detached	150	101

Other Affordable Housing Factors:

Social rents

	Detached		Semis		Town houses		Flats		Bungalows				
	5 Bed	4 Bed	3 Bed	4 Bed	3 Bed	4 Bed	3 Bed	2 Bed	3 Bed	2 Bed	1 Bed	3 Bed	2 Bed
Dacorum	£107	£105	£94	£102	£93	£101	£92	£80	£91	£80	£68	£92	£80
Three Rivers	£114	£112	£101	£109	£100	£108	£98	£86	£97	£86	£73	£98	£86
Watford	£110	£108	£97	£105	£96	£104	£95	£82	£94	£82	£70	£95	£82

Gross to net factors (Affordable housing revenue)

9 - AFFORDABLE HOUSNG COSTS AND CAPITALISATION FACTORS

ALWAYS DEPRESS THE CLEAR TABLE BUTTON FIRST

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

ClearTable

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%		of net rent

New Build HomeBuy		Toolkit Values		
Costs per annum	Rental Factor	2.75%		of share
Capitalisation		6.00%		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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Appendix 3 Results – Residual values (£ million) – no grant scenarios

20 dph					
	0%	20%	30%	40%	50%
Prime Three Rivers	£10.20	£7.67	£7.52	£6.62	£5.73
Rickmansworth & Hinterland	£6.36	£5.76	£4.60	£4.01	£3.41
Langleys and Croxley Green	£5.12	£3.71	£3.26	£2.81	£2.36
R'worth south & Maple Cross	£4.47	£3.61	£3.17	£2.73	£2.29
Oxhey and Watford Fringe	£2.79	£2.18	£1.87	£1.57	£1.26
30 dph					
	0%	20%	30%	40%	50%
Prime Three Rivers	£10.35	£8.46	£7.52	£6.58	£5.63
Rickmansworth & Hinterland	£6.62	£5.33	£4.68	£4.03	£3.38
Langleys and Croxley Green	£4.63	£3.65	£3.17	£2.67	£2.18
R'worth south & Maple Cross	£4.44	£3.49	£3.02	£2.54	£2.06
Oxhey and Watford Fringe	£2.58	£1.94	£1.66	£1.28	£0.95
35 dph					
	0%	20%	30%	40%	50%
Prime Three Rivers	£11.73	£9.58	£8.50	£7.42	£6.34
Rickmansworth & Hinterland	£7.35	£5.90	£5.17	£4.43	£3.71
Langleys and Croxley Green	£5.24	£4.11	£3.56	£3.00	£2.43
R'worth south & Maple Cross	£5.01	£3.93	£3.52	£2.84	£2.30
Oxhey and Watford Fringe	£2.91	£2.16	£1.78	£1.40	£1.31
60 dph					
	0%	20%	30%	40%	50%
Prime Three Rivers	£12.81	£10.22	£8.94	£7.65	£7.08
Rickmansworth & Hinterland	£7.71	£5.95	£5.12	£4.20	£3.29
Langleys and Croxley Green	£5.59	£4.17	£3.45	£2.74	£2.24
R'worth south & Maple Cross	£5.27	£3.89	£3.20	£2.51	£1.82
Oxhey and Watford Fringe	£2.84	£1.84	£1.34	£0.86	£0.36