

## **Royal Borough of Greenwich**

# **Affordable Housing Viability Assessment**

**A Report by**  
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**And**  
**BNP Paribas Real Estate**

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# Royal Borough of Greenwich

## Affordable Housing Viability Assessment

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## Executive Summary

The Royal Borough of Greenwich (RBG) is producing its Local Development Framework, setting out a spatial vision and strategy for the Borough. As part of the preparation, Christopher Marsh & Co Ltd (Sustainable Property Consultants) and BNP Paribas Real Estate were commissioned in 2010/11 to undertake an Affordable Housing Viability Assessment, to test the viability of the Borough-wide affordable housing targets, affordable housing thresholds and tenure splits, and the capacity of employment sites to deliver higher levels of affordable housing if redeveloped, using a standard Residual Valuation approach.

In carrying out this Study, we have also considered the impact on viability of social grant availability (or not), the new Affordable Housing funding regime announced in February 2011, planning obligations, Code for Sustainable Homes requirements, density, profit margins and bank lending criteria together with Existing Use values across the Borough. We have considered the current property market downturn and its effects but also assessed viability in more 'normal' economic circumstances.

In providing a robust evidential base, this study is based on over 116,000 Residual Valuations using the traditional approach to Affordable Housing and a further 53,000 valuations using the new funding regime. The model embraces all the key variables in numerous combinations, but which nevertheless are presented in a user friendly way and hyperlinked in electronic format for easy comparison. We have also drawn on RBG's and our own practical experience of reviewing actual financial appraisals of development proposals in Greenwich.

On the basis of the financial outputs, we recommend that the Borough adopt a site based requirement of at least 35% affordable housing. However, as demonstrated, there are some circumstances when a higher provision of affordable housing (up to 50%) and other planning obligations could be delivered, not least as the housing market recovers. Furthermore, where sites with low existing use values are the subject of redevelopment proposals, such as employment sites, up to 60% affordable housing may be deliverable.

Other variations in affordable housing policy, such as different tenure splits are relatively minor, when compared to other more significant financial variables and should therefore be determined on a needs basis,

Nevertheless, it should be stressed that affordable housing policies must be applied sensitively, taking full account of individual site circumstances, including financial viability, and especially where exceptional costs arise, such as in remediating contaminated sites.

As in other Boroughs, we have paid particular attention to the possibility of a differential approach to affordable housing and planning obligations based on variations in sales values achieved. While there is certainly some evidence of such variations across the Borough, we do not believe that a differential approach in terms of the amount of affordable housing, is practical in this case and would pose considerable difficulties in any application and inevitable review and as such, would be open to challenge. However, variations in the type of affordable housing required, should be subject to local conditions within the Borough.

We have also modelled and drawn RBG's attention to the impacts of a range of existing use values on viability.

Overall, we believe the product of the Council's review must be a strongly worded affordable housing and Planning Obligations policy base which whilst influencing the nature of the local land market helps to deliver sustainable communities. Policies must acknowledge that exceptional circumstances may arise and some sites have high existing and alternative use values. However, the policy should also make clear the Council's intention to seek a detailed and robust financial

statement from individual applicants, should they wish to argue that planning policies cannot be met. These should be tested by appropriately qualified chartered surveyors. Even then, there should be no presumption that such circumstances will be accepted, if other benefits do not outweigh the failure of a site to contribute towards affordable housing provision or meet other policy requirements.

### **December 2012 commentary on the study**

Since the study was completed in July 2011, Land Registry data indicates that house prices in the Borough have increased by 3.8%. Over the same period, the RICS Building Cost Information Service 'Tender Price Index' has remained broadly flat.

Developments in regards to the Affordable Rent tenure, including the approach of the Mayor of London, point towards slightly higher capital values for this tenure than assumed in our appraisals. This has the effect of improving viability.

The outputs of the viability study can therefore be regarded as robust and reflective of current market conditions as at December 2012.

## 1.0 Introduction

- 1.1 The Royal Borough of Greenwich (RBG) is producing its Local Development Framework (LDF), setting out a spatial vision and strategy for the Borough. As part of the preparation, Christopher Marsh & Co Ltd (Sustainable Property Consultants) together with BNP Paribas Real Estate were commissioned in 2010/11, to undertake an Affordable Housing Viability Assessment (AHVA). The aims of the study were, in the light of the requirements of PPS3 and in particular the Blythe Valley Core Strategy case, to undertake viability tests regarding affordable housing: in particular;
- a) To test the viability of a Borough-wide affordable housing target between 35% and 60% and thus the viability of site-specific affordable housing targets;
  - b) The viability of the thresholds for the provision of affordable housing; and,
  - c) The viability of the proposed split of affordable housing tenure albeit that the Borough are likely to retain the 70-30% social rent/intermediate ratio.

In carrying out this study, we have also considered the impact on viability of;

- a) A with and without Social Housing Grant approach using the traditional approach;
- b) A range of Planning Obligation/CIL requirements;
- c) Code for Sustainable Homes requirements;
- d) The pressure for increases in profit margins upon the economics of residential development; and,
- e) The effect on outputs of a typical range of Existing Use Values in the Borough with particular attention paid to industrial sites.

Since the original commission, the Government's reforms to affordable housing delivery and in particular funding were trailed in the Comprehensive Spending Review in October 2010, with further details provided in the joint CLG / HCA paper '2011-15', Affordable Housing Programme: Framework' document, released on February 14<sup>th</sup> 2011.

As a result, we have carried out a sample of additional financial models to assess the effects of the funding changes on development viability.

- 1.2 In terms of methodology, we have adopted standard residual valuation approaches to make appropriate comparisons and evaluations.(See Section 2). Residual Valuations are the standard approach to initial development appraisals adopted by the development industry. In doing so, this Study could have focussed on analysing either individual 'real' sites and/or adopted a hypothetical site approach. While there are some instances where authorities have pursued the 'real' site method, the vast majority of such studies are based on hypothetical examples. The reason is that real sites will always be unique, will require specific Existing Use Valuations, which may be difficult to obtain from owners, and will always be restricted as a robust basis for general planning policies application. Hypothetical sites allow a much wider range of financial variables to be incorporated and thus a more robust evidential base capable of more general application, as accepted by the Inspectorate at Core Strategy reviews, most recently in London at LB Islington (Jan. 2011) which our practices delivered. While we have adopted the same approach in Greenwich (after discussion with officers), we also benefit from our experience of appraising site specific appraisals for the Council, numbering over twenty since 2002.

## 1.3 Background and experience

- 1.3.1 Having been involved in advising local planning authorities regarding affordable housing and other Section 106 obligations on numerous major schemes, we are familiar with the requirements of such commissions and have carried out similar benchmarking exercises for the London Thames Gateway

Development Corporation and many other local authorities. Several such studies have been part of LDF Core Strategies and subject to Review by the Inspectorate, the most recent as noted for LB Islington, where the Inspector fully supported the Borough and the approach adopted in our studies. That experience has been incorporated in this study for Greenwich Council.

## **I.4 The Policy Context**

- I.4.1 It is of course widely acknowledged in other study documents (including the South East London Housing Market Assessment and the GLA Strategic Housing Market Assessment), planning policy statements and by local market sources that, in terms of local house prices, the Borough is “an above average” area of London, at least in part, and as a result, there is a serious problem regarding the shortage of good quality affordable housing.
- I.4.2 The Council’s approach therefore has been to seek to ensure that the supply of affordable housing meets as much of the need as possible by negotiating the maximum possible provision on suitable sites.
- I.4.3 In principle, there are two main ways in which this can be achieved:
- a. Lower the site/development size thresholds above which affordable and/or Planning Obligations are sought; and /or,
  - b. Raise the overall affordable housing (and potentially Planning Obligation) requirements.
- I.4.4 Pursuing such approaches can inevitably raise a dilemma, in that they may reduce the value of residential schemes which may make other uses more attractive to landowners. Higher targets and additional planning obligation requirements then potentially reduce the supply of residential land, resulting in lower housing supply and, consequently, lower affordable housing delivery.
- I.4.5 One product of these issues is the requirement in Para 29 of Planning Policy Statement 3 (“PPS3”) which states that:
- “In Local Development Documents, Local Planning Authorities should...set an overall (i.e. plan-wide) target for the amount of affordable housing to be provided. The target should reflect the new definition of affordable housing in this PPS. It should also reflect an assessment of the likely economic viability of land for housing within the area, taking account of risks to delivery and drawing on informed assessments of the likely levels of finance available for affordable housing, including public subsidy and the level of developer contribution that can reasonably be secured.”*
- I.4.6 The main sections of this report therefore review the potential for policy amendments with specific reference to financial viability, and in Section 5, consider the effects of the Government’s new Affordable Housing funding regime.

## 2.0 Methodology

- 2.1 This Study tests, through the application of a thorough methodology, the circumstances in which the Council can expect the residential property market to deliver required levels of affordable housing. While our methodology is consistent and uses standard development appraisal conventions, it should be emphasised that local market and planning policy circumstances are always different. Consequently, not only are such viability exercises specific to each authority, they are also related to the time when they are undertaken and should of course be regularly reviewed to reflect revised policies, new market conditions, changes in the affordable housing regime and Circular 05/05 on Planning Obligations, which requires that obligations are to be fairly and reasonably related in scale and kind to the proposed development and reasonable in all other respects.

While we were not required to try and anticipate the potential of Community Infrastructure Levy (CIL), we have, however, sought to ensure that the policy recommendations are reflective of longer term housing market trends, rather than focusing on the current low point in the cycle, as Core Strategy inspectors have emphasised in their reviews, and similarly by the Secretary of State in recent appeals. As will become clear, we have taken account as far as is practicable, of all these variables in carrying out this study.

The initial full range of financial variables considered in this study are detailed in Section 3 and the product of 116,480 residual valuations – the original evidence base - is analysed in Section 4. The dataset forms the content of Volume 2 and is best viewed electronically, via the hyperlinks, which allow quick comparison of different development scenarios.

The numerical exercise is repeated with a sample of a further 53,760 residual valuations, explained in Section 5 and detailed in Volume 3, which consider the effects of the Government's new Affordable Housing regime, (explained further in Section 7), and compares the results of the traditional and new funding models, and in particular their comparative effect on development viability in Greenwich.

- 2.2 At the outset however, we would stress that, in addition to the overall requirements of the work, this Study also addresses several additional particular issues;
1. On sites capable of achieving 10 or more units, the study considers the effects of 35%, 40%, 50% and 60% Affordable Housing, different social rent – intermediate tenure splits, with and without grant scenarios and the impact of other Section 106 contributions (including adequate provision for wheelchair standard housing);
  2. On sites capable of achieving between 5 and 9 units, whether some form of standardised charge might be levied and at what level this might be set;
  3. On sites currently in industrial use, whether a higher proportion of affordable housing could be sought and the appropriate level.

In order for the Study to be sufficiently robust to support housing policies within the Core Strategy and other documents comprising the LDF, the evidence base is extensive, but also supplemented by our experience of site specific development appraisal reviews on behalf of LB Greenwich over many years. While we recognize the confidential nature of some of those cases in this work, they nevertheless provide a further tier of practical evidence on which this work is founded.

## 2.2 The Approach to Financial Viability

2.2.1 Development Appraisal models are in essence simple and can be summarised via the following equation:

Completed Development Value
MINUS
Total construction costs
MINUS
Developer's profit
EQUALS
Residual land value

2.2.2 Residual Land Value – the sum that the developer will normally pay to the landowner to secure a site for development – will normally be the critical variable. If a proposal generates sufficient positive land value, it may be implemented. If not, the proposal will not go ahead, unless there are alternative funding sources to bridge the ‘gap’ (and these will normally be particular to regeneration areas via public bodies such as the LDA (for the moment), or the Homes and Communities Agency).

2.2.3 The problems with Development Appraisals stem from the requirement to identify the key variables – sales values, costs, etc – with some degree of accuracy in advance of implementation. Even on the basis of the standard convention, namely that current values and costs are adopted (not values and costs on completion), this can be very difficult. Problems with key appraisal variables can be summarised as follows:

- a. Values attached to Completed Development Value are largely dependent on comparable evidence which requires sufficient new development in the locality of a similar size and type, to provide a realistic value base. This is a particularly relevant issue at the current point in the market.
- b. Development costs are subject to extensive national and local monitoring and can be reasonably accurately assessed in ‘normal’ circumstances. In Boroughs like Greenwich, most sites have been previously developed (i.e. Brownfield) and ‘exceptional’ costs such as decontamination will arise on occasions. Such costs can be very difficult to anticipate before detailed site surveys.
- c. Development value and costs will also be significantly affected by assumptions about the nature and type of affordable housing provision, other Planning Obligations and on major projects of which there are several in RBG, assumptions about development phasing and infrastructure triggers. In essence, where the cost of affordable units and/or obligations are deferred, the less the real cost to the applicant (and the greater the scope for increased affordable housing and other planning obligations).
- d. While Developer's Profit has to be assumed in any appraisal, its level is closely correlated with risk. The greater the risk, the greater the profit level, in part as a contingency against the unexpected. While profit levels were typically around 13% - 15% of completed development value at the peak of the market in 2007, banks currently require schemes to show a profit normally in excess of 20%.

2.2.4 Ultimately, the landowner holds the key and will make a decision regarding implementing the project or not on the basis of return and the potential for market change and thus alternative developments.



The landowner's 'bottom line' will be achieving a residual land value that sufficiently exceeds 'existing use value' to make development worthwhile.

2.2.5 What in essence, therefore, is a simple equation - the development appraisal calculation – can in reality be fraught with problems. The following two diagrams summarise the outcomes.

Completed Development Value
MINUS
Total construction costs
MINUS
Planning obligations
MINUS
Developer's profit
EQUALS
Residual land value (Must exceed EUV)

2.2.6 The basic appraisal calculation shown above is reasonably clear cut, subject to the problems noted earlier. However, the delivery of Planning Obligations, and in particular the provision of affordable housing, complicates the calculation by reducing Completed Development Value. The extent to which Completed Development Value is reduced depends on the percentage, tenure and funding of the affordable housing, and the level of obligations. On the assumption that other development costs remain unchanged, a reduced Completed Development Value resulting from the requirement to provide affordable housing and obligations, results in a lower Residual Land Value and that is the essence of much of the debate.

Completed Development Value
MINUS
Total construction costs
MINUS
Planning obligations
MINUS
'Subsidy' or value forgone to provide affordable housing which depends on tenure and %
MINUS
Developer's profit
EQUALS
Residual land value (Must still exceed existing use value)

2.2.7 The outcome of the development appraisal process is predictable in several respects:

- a. When negotiating with the landowner, the prudent developer will either reflect planning requirements in the offer for the land, or negotiate an option to purchase, which put crudely, will enable any additional costs arising (Planning obligations and affordable housing for example) to be passed on to the landowner. Ultimately, the landowner pays, providing the basic condition for Residual Land Value to exceed existing use value is met; and/or,
- b. The developer will build in sufficient contingency into the development appraisal to offset risks including for example, the availability of grant support for affordable housing. In some authorities, this variable is to a degree removed by a no grant policy regime

(although this may reduce the level of affordable housing delivered). In other cases, this is dealt with through a cascade mechanism in the Section 106 agreement. In Greenwich as elsewhere, because the HCA are making cost efficiency savings on grant rates, the maximum grant levels that the Borough could support are bound to be adversely affected unless alternative funding mechanisms or cost savings can be achieved.

- 2.2.8 Clearly, however, landowners have expectations of the value of their development land which exceed the value of the existing use. The planning system affects the value of residential land through planning obligations which mitigate impacts and/or respond to policy, but ultimately, landowners cannot be forced to accept reduced values. Some will simply hold on to their sites, in the hope that policies may change.

## 2.3 The Development Industry's Approach

- 2.3.1 In some areas, local developers have, not entirely unreasonably, complained about lack of 'certainty', despite the obvious hedges against risk noted above, when trying to carry out development appraisal calculations. This is hardly uncommon and this was one reason why Government explored the notion of a development 'tariff' rather than Planning Obligations which are negotiated on a site by site basis.
- 2.3.2 In some instances, developers have suggested a 'solution' founded on the notion of a hypothetical 'Gross Land Value', from which various deductions for affordable housing and Planning Obligations are made, to then leave a 'Net Land Value' which is adequate to meet landowners expectations. This is convenient and to a degree understandable, in that it would attempt to 'price-fix' and thus be certain, but in essence is unacceptable. Fixing the land value, arguing the proposal cannot be viable and that Planning Obligations and affordable housing must be scaled down, is effectively attempting to carry out the Residual Valuation in reverse.
- 2.3.3 Some developers suggest another step, namely to agree a 'formula' in advance of any particular scheme. The obvious requirements would be that it was equitable (not least to the local planning authority), robust in planning terms (meeting policy), and be workable. Several points are noteworthy;
- 2.3.4 Despite guidance to the contrary in Circular 1/97, Planning Obligations (at least at the mathematical end of the spectrum – e.g. education, health, libraries etc), have become increasingly formulaic. Government recognised this in Circular 05/05 which strongly advocated the use of formulae and so have Greenwich in their Supplementary Guidance.
- 2.3.5 Even where formulae can be determined, a host of practical difficulties will remain; how are formulae to be fixed; how would they vary in different development situations; how would they apply to different land uses and on what basis would they be reviewed. Any certainty provided by formulae could be quickly undermined and for those reasons (amongst many) the so called 'Tariff' was abandoned by Government.
- 2.3.6 Formulaic approaches have also been attempted with regard to affordable housing, most notably by the Greater London Authority (GLA), but again the original 'requirement' for 50% provision in inner boroughs and 35% in outer boroughs had to be downgraded to a borough-wide strategic target. Indeed, more recently, the GLA have made clear that financial considerations, where proven via Independent Assessment, may arise which prevents the full policy expectation being delivered. Therefore, this study includes consideration of the Draft London Plan 2009, Greenwich's UDP and the Three Dragons Study undertaken on behalf of the GLA.
- 2.3.7 The implications of these limitations for an 'area-based' policy in any local authority area where base values do vary significantly are all too obvious. Overall, while formulae can provide useful guidance, that is all they are and ultimately every case must continue to be assessed on its merits, albeit within a strong policy framework. Specifically, if a development project cannot meet its consequential infrastructure costs – and it is important to differentiate between those costs which are literally

development necessities such as access works and those impact mitigation costs, many of which will also be necessities but may be negotiable to a degree - then it is the wrong proposal. If it can meet its Planning Obligations but cannot then meet its affordable housing requirements, then the proponents must demonstrate why not. It may, for example, be a contaminated site where genuine exceptional costs arise.

2.3.8 Three possibilities result;

- a. A robust financial explanation is accepted (or not) by the authority and exceptionally - and in the interest of broader planning and community interests - policy requirements are compromised; or,
- b. Contributions and/or affordable housing are deferred in order to improve cash flow and discount the real costs of provision; or,
- c. Gap funding is necessary to cover the financial shortfall. It is clearly prudent for the authority in developing its policy stance – not least at the area level - to ‘test’ in general and as far as is possible given the unpredictability of some financial variables, how practical the policy position actually is across its area /sub areas where values will obviously vary.

This report provides that general benchmarking to the Council.

## 3.0 The Appraisal Exercise

### 3.1 Key appraisal variables

- 3.1.1 Key Modelling Variables are as follows and are worthy of explanation in principle.
- 3.1.2 **Sales Values by area:** Sales values – residential and commercial – will vary in all local authority areas (and within local authority areas) and of course are in a constant state of flux. Developers will obviously try to complete schemes in a rising market but ultimately, this is a development ‘risk’ which the developer must accept. At times of falls in house prices, local authorities may need to apply their policy requirements flexibly, or developers may cease bringing sites forward.
- 3.1.3 **Density:** is an increasingly important determinant of development value, albeit with commensurate effects on development costs, planning obligations and thus residual land value. It should not automatically be assumed that high density development creates high residual land values.
- 3.1.4 **Gross to net floor space:** Clearly, the greater the density, the higher the gross to net floor space ratio – thus, for example, in high rise flatted schemes, more floor space is taken up by common areas and services and thus less space is available for renting/sale - and this will adversely affect the appraisal calculation.
- 3.1.5 **Base construction costs:** While base construction costs will be affected by density and other variables such as Code for Sustainable Homes requirements, flood risk, ground conditions etc., they are nevertheless well documented and can be reasonably accurately determined in advance by the developer (and thus ourselves). Nevertheless, if build costs are taken at face value, it is not difficult for the developer to inflate costs and potentially ‘hide’ ‘super-profits’. The significance of cost consultants’ estimates and their accuracy is clear.
- 3.1.6 **Exceptional costs:** In Boroughs like Greenwich, clean, serviced green field sites are a rarity and consequently there will be some ‘exceptional costs’ on brownfield sites. With the majority of sites now being redevelopments, exceptional costs have become more common and need to be monitored carefully. However, for the purposes of this exercise, it is impossible to provide a reliable estimate of what exceptional costs would be, as they will differ from site to site. Our analysis therefore excludes exceptional costs, as to apply a blanket allowance would be misleading.
- 3.1.7 **Developer Profit:** Following the standard conventions, developer profits are based on an assumed percentage on gross development value. While developer profit ranged from 13% to 17% of gross development value in 2007, banks now require a scheme to show a profit of at least 20% of value. Higher profit figures reflect levels of risk; the higher the potential risk, the higher the profit margin in order to offset those risks. At the current time, development risk is high and we have run our appraisals with profits that vary between 17% and 20% of value, as agreed with officers. This is reflective of current bank requirements (around 20%), but also accommodates a return to lower profit levels, or an increase should attempts to free up the credit markets fail to yield results.

### 3.2 Existing Use Value / Alternative Use Value

- 3.2.1 Existing Use value / Alternative Use value requires particular attention. Clearly, there is a point where the Residual Land value that results from the development appraisal – what the landowner receives – may be less than the land’s existing use value. Existing use values can vary significantly, from very little – agricultural at say £7,200 per hectare (£3,000 per acre) to existing office sites at up to £50 million per hectare or more. Similarly, subject to planning permission, the potential development site may be capable of being used in different ways – business rather than residential for example or at least a different mix of uses (the latter being a key factor). EUV / AUV is effectively a ‘bottom line’ in the financial sense and a major driver in this modelling.

- 3.2.2 In this exercise, we have sought to provide a guide that compares all the above variables with a range of Existing/ Alternate Use Values. For modelling purposes, we have compared residual land value outcomes to four levels of EUV; that is secondary offices, industrial/storage, community use and public sector land and existing Council owned sites which may be included at a nominal sum in say joint ventures.
- 3.2.3 Ultimately however the product of the benchmarking exercise must be a guide, but no more as to how much affordable housing and other S106 obligations can be delivered before the value generated by residential development falls below EUV/AUV. EUV has of course been a contentious subject because one of the chief criticisms of the original Three Dragons work for the Greater London Authority was that they underestimated EUV in their Toolkit. In this study, we have indicated in our tabular results (which reflect no affordable housing grant and with grant scenarios), a range of EUVs in order to test the viability of different development scenarios. In each EUV case, our calculations assume that the landowner has made a judgement that the current use does not yield an optimum use of the site, for example, it has many fewer stories than neighbouring buildings; or there is a general lack of demand for the space, which results in low rentals, high yields and high vacancies. We would not expect a building which makes optimum use of a site and that is attracting a high rent to come forward for residential development, as residential value is unlikely to exceed existing use value in these circumstances.
- 3.2.4 Yields reflect the confidence of a potential purchaser of a building in the income stream that is the rent that the occupant will pay. They also reflect the quality of the building and its location, as well as general demand for property of that time. Over the past year, yields for commercial property have moved up signalling lower confidence in future demand for commercial space. This has the effect of depressing the capital value of commercial space, resulting in a reduction in EUVs. However, as the economy recovers, we would expect yields to improve, which will result in increased capital values. Consequently, EUVs will increase, increasing the cost of potential residential sites, which will have implications for the delivery of affordable housing and other planning obligations. However, in a recovering economy, we would expect residential sales values to increase also, counteracting the impact of increasing EUVs.

In this study, we have used four levels of EUVs to demonstrate their impact:

- a. Medium/High EUV – such as previously developed secondary offices with an average residual land value of £7,534,800 per hectare
  - b. Low/Medium EUV – such as previously industrial/storage land with an average residual land value of £3,588,000 per hectare
  - c. Low EUV – such as previous community sites or other public sector land with an average residual land value of £2,260,440 per hectare, and
  - d. Nominal EUV such as existing local authority owned sites included at little or no cost in say joint ventures or estate redevelopments at an average residual land value of £1 per hectare.
- 3.2.5 EUVs are clearly as sensitive to location as residential values. The four EUV typologies above provide **an indication only** of likely values of sites across the Borough. Furthermore, in addition to the existing site uses used in our analysis, there will be other existing uses, such as car parking and other relatively low values uses, where the economic context for the delivery of affordable housing may vary from our EUV typologies above. However, it should not be automatically assumed that low value existing use values make the delivery of target levels of affordable housing possible – some low value sites may require decontamination, for example, the cost of which may offset any savings on land purchase costs. We have also had experience of community centre sites (as have RBG) coming forward for mixed use development where the re-provision costs of the community facility have affected the extent to which affordable housing can be provided. This has arisen where policies

require replacement community facilities to be provided unless they can be proven to be surplus to requirements.

3.2.6 Redevelopment proposals that generate residual land values below EUV will fail to be delivered. While any such thresholds are only a guide in 'normal' development circumstances, it does not imply that individual landowners, in particular financial circumstances, will not bring sites forward at a lower return or indeed require a higher return. **It is simply indicative.** If proven existing use value (via a formal Red Book valuation which is essential) justifies a higher or lower EUV than those assumed, then appropriate adjustments may be necessary. As such, Existing Use Values should be regarded as benchmarks rather than definitive fixtures. At a practical level, it is also necessary to stress that in the Borough area, some residential development sites are redevelopments of existing residential uses, thus emphasising the significance of value uplift. The four levels of EUV identified in this study therefore give a broad indication of likely land values across the Borough and should only be seen as examples. It is important to recognise that other site uses and values exist on the ground.

### 3.3 Specific Modelling Variables

3.3.1 This section summarises the particular assumptions used in the benchmarking exercise.

#### 3.3.2 Sales Values

3.3.2.1 LB Greenwich has set a draft Core Strategy target of 32,235 new homes by 2026/27 and there are a number of developments sites where development is underway, permission has been granted or land allocated for large schemes. These broadly divide into sites within/ adjacent to Greenwich town centre, sites to the east on the Greenwich Peninsular and sites in Kidbrooke and in and around Woolwich Town Centre. Map 1 (on page 14) demonstrates the concentration as at March 2011. Residential values in the Borough reflect national trends in recent years but do of course vary across the Borough. Postcodes provide some basic geography.





Table I below shows the range of sales values achieved or estimated in the Borough on a sample of current/recent/planned schemes, (albeit these are reported or estimated values, and may exclude buyer incentives). Where available, the very wide variations in acquisition costs are a key driver, albeit recent cases at appeal have downgraded the importance of acquisition, and there are examples in RBG where applicants have written down such costs.

**Table I: Sales values per square foot / metre – March 2011**

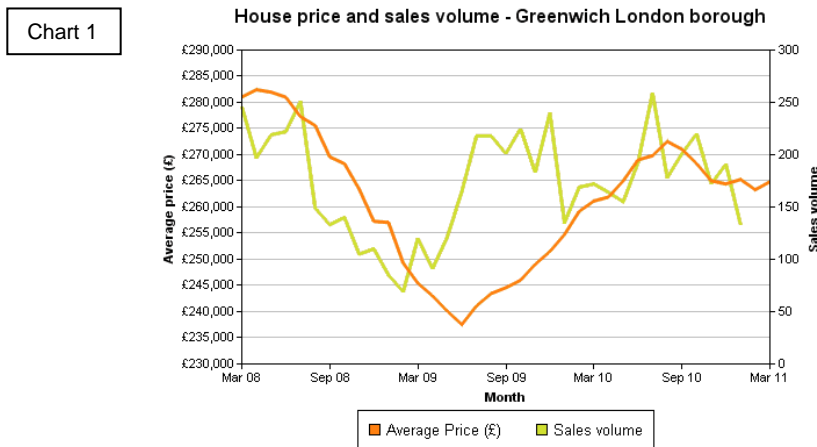
Site	Description	Units	Aff. Hous. No.	Price psf £	Price psm	Acquisition Cost - £	Land value per hectare £
Mast Quay Phase 1, SE18	Former Wharf	181	0	280-439	3010-4725	N/A	-
Greenwich Wharf SE10	Industrial/mixed use	667	244	461-617	4960-6640	22,609,000	13.6m
78 Walmer Terrace SE18	Former old peoples home	119	63	?	?	2,635,000	10.3m
Victoria Way SE7	Former residential	55	12	276-334	2970-3595	3,627,000	
East Mascalls SE7	Former residential	38	16	303-357	3260-3841	?	
Blenheim Court Woolwich Road SE10	Former petrol station	23	0	246-427	2650-4595	1,000,000	6.58m

Site	Description	Units	Aff. Hous. No.	Price psf £	Price psm	Acquisition Cost - £	Land value per hectare £
438 Well Hall Road SE9	Derelict public house	31	11	Average £300	3230	?	
RMA Woolwich Common SE18	Former Royal Military academy	328	126	320-531	3440-5715	16,800,000	3.8m
Creekside Village West. SE8	Former industrial	371	129	400-570	4300-6130	?	
Greenwich Reach East SE10	Former industrial/mixed	980	344	600-900	6450-9685	111,832,742	37.6m
Woolwich DLR SE18	Site above station	53	18	Est. 388	4175	Nominal	
Sense 7 – Touch – SE7	Former residential	55	12	276-340	2970-3658	3.62m	5.77m
International House, SE18	Hostel	123	43			5.15m	17.05m
The Academy SE18	RMA	328	126	254-531	2733-5714	16.8m	3.81m
19 Creek Rd SE8	Clinic	59	21			2.1m	13.9m
Bardsley Lane SE10	Residential	106	54			125,000	173,611
Montebelle Rd SE9		43	15			3.47m	4.45m
Vanburgh Hill SE10	Hospital	645	327			18.0m	2.73m

Source: Molior London 2011

3.3.2.2 While the range of sales values demonstrated in Table I is a key consideration, our model uses a wider range of values than those currently being achieved, to anticipate a return to peak 2007/8 values at some point in the next cycle or the ‘double dip’ which threatens further falls in values and/or a longer term return to house price inflation which historically has been the case. By doing so, the outputs of our modelling provide an indication of the levels of affordable housing that might be possible if sales values increase or decrease, providing other variables do not move adversely.

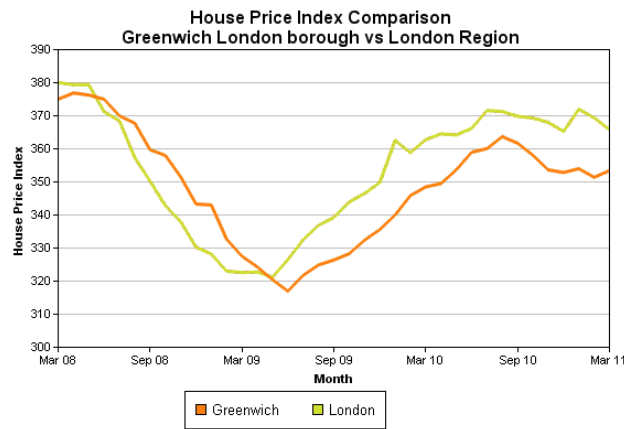
3.3.2.3 In the first instance however, the following Charts summarise trends in the Borough regarding more general transactional values based on **Land Registry data** as at March 2008 to March 2011, the peak being in late 2007/early 2008.





The sharp decline in prices from the spring of 2008 is all too clear, followed by a steady recovery from June 2009, albeit not to the previous high and tailing off in the last quarter of 2010, then steadying in the first quarter of 2011. Greenwich has generally tracked Greater London, but slightly behind the capital overall.

Chart 2



3.3.2.4 While the turndown in values was slightly later in Greenwich than Greater London and the national average, the fall in value up to mid 2009 was significant. There have however been signs of a recovery in values albeit still fluctuating. While this has clearly impacted on outputs regarding affordable housing and planning obligations, base values remain comparatively good and as such, achieving affordable housing requirements and planning obligations is less of an issue than in lower value London boroughs, using the traditional affordable housing model. The following charts detail the trends in 2010/11 in Greenwich.

Chart 3

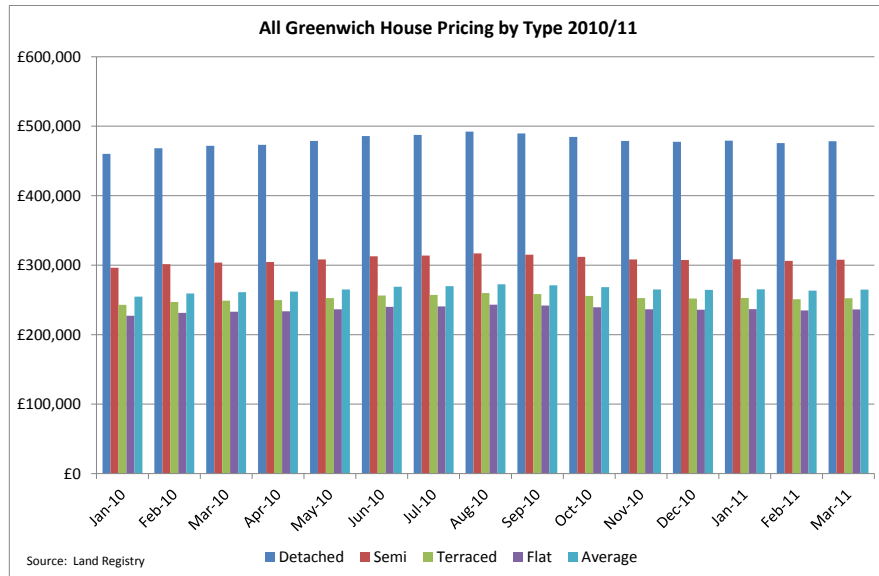
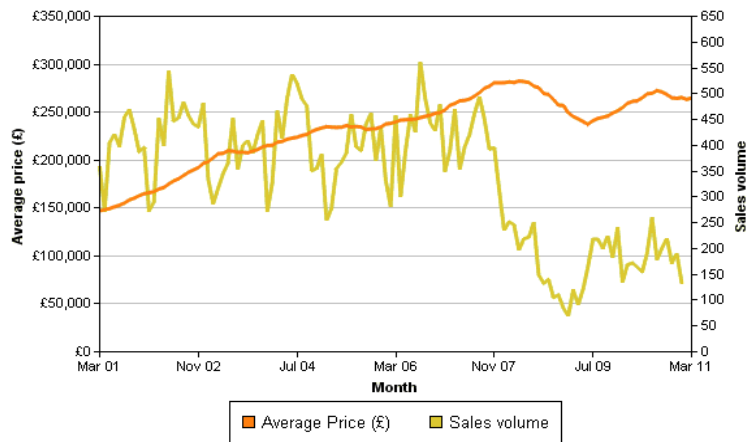


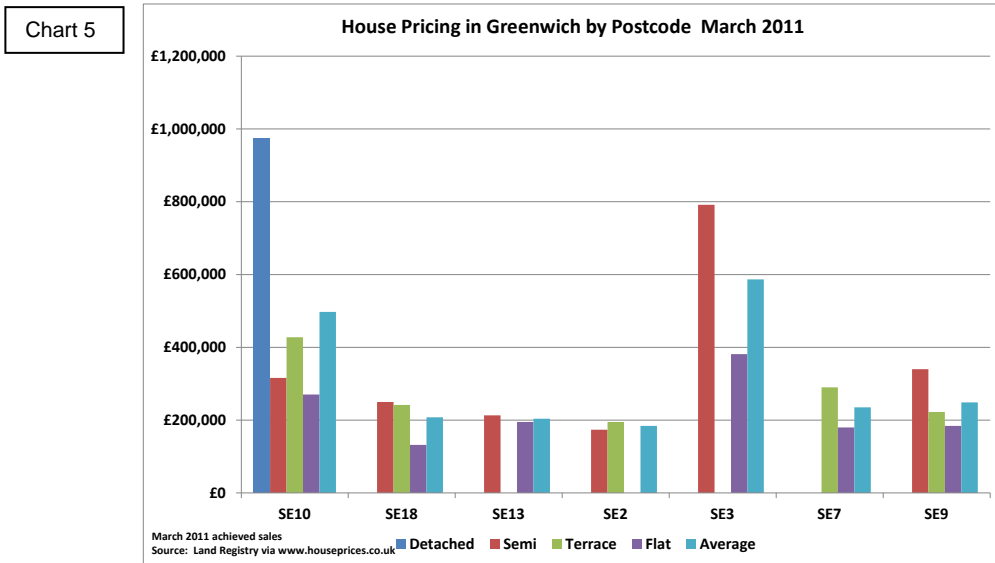
Chart 3 shows general consistency throughout 2010/11 but overall sales volumes remain low when compared to the ten year trend in the Borough, as Chart 4 demonstrates below. This Land Registry data reflects **all** transactions.

Chart 4

House price and sales volume - Greenwich London borough



By postcode, the picture is more mixed, although the patterns shown in Chart 5 are complicated by the sharp variations in sales volume.



### 3.3.3 Density

3.3.3.1 Densities vary across the Borough, with high densities in the town centre fringe sites and close to stations, where values are highest, and lower densities in the suburban areas, where sales values do not justify the cost of higher built forms. As agreed, densities are assumed to range from 40 units per hectare – a modest outer urban density – to 460 units per hectare – a high central urban density.

3.3.3.2 Again, in line with our Terms of Reference, we have adopted the housing mix range specified in the modelling exercise provided by RBG officers as follows.

Density and unit mix									
Private housing mix									
Units per ha		1BF	2BF	3BF	4BF	1BH	2BH	3BH	4BH
40 units per ha	1						40.0%	30.0%	30.0%
100 units per ha	2	20.0%	35.0%	30.0%	15.0%		40.0%	30.0%	30.0%
160 units per ha	3	20.0%	40.0%	30.0%	10.0%				
220 units per ha	4	20.0%	40.0%	30.0%	10.0%				
280 units per ha	5	20.0%	45.0%	30.0%	5.0%				
340 units per ha	6	20.0%	45.0%	30.0%	5.0%				
400 units per ha	7	25.0%	45.0%	25.0%	5.0%				
460 units per ha	8	25.0%	45.0%	25.0%	5.0%				

<b>Social rented mix</b>									
Units per ha		1BF	2BF	3BF	4BF	1BH	2BH	3BH	4BH
40 units per ha	1						30.0%	40.0%	30.0%
100 units per ha	2	10.0%	35.0%	35.0%	20.0%		30.0%	40.0%	30.0%
160 units per ha	3	10.0%	40.0%	35.0%	15.0%				
220 units per ha	4	10.0%	40.0%	35.0%	15.0%				
280 units per ha	5	10.0%	40.0%	40.0%	10.0%				
340 units per ha	6	10.0%	40.0%	40.0%	10.0%				
400 units per ha	7	15.0%	45.0%	30.0%	10.0%				
460 units per ha	8	15.0%	45.0%	30.0%	10.0%				
<b>Intermediate mix</b>									
Units per ha		1BF	2BF	3BF	4BF	1BH	2BH	3BH	4BH
40 units per ha	1						50.0%	40.0%	10.0%
100 units per ha	2	20.0%	40.0%	30.0%	10.0%		50.0%	40.0%	10.0%
160 units per ha	3	20.0%	45.0%	35.0%	0.0%				
220 units per ha	4	20.0%	45.0%	35.0%	0.0%				
280 units per ha	5	25.0%	45.0%	30.0%	0.0%				
340 units per ha	6	25.0%	45.0%	30.0%	0.0%				
400 units per ha	7	30.0%	45.0%	25.0%	0.0%				
460 units per ha	8	30.0%	45.0%	25.0%	0.0%				

### 3.3.4 Gross to Net Floor space

The higher, the density, the greater the loss of net lettable/ saleable space. In this model, we have an adopted a range from 100% gross to net for lower density schemes to 70% gross to net in high density situations where cores and common areas amount to 30%. This is reflected in the build cost when measured on the total saleable area (i.e. the area that excludes common areas).

### 3.3.5 Base Construction Costs

- 3.3.5.1 The modelling exercise plots a range of base construction costs reflecting density considerations ranging from £969 per square metre to £2422 per square metre, incorporating the costs of meeting Lifetime Homes requirements. Our costs take the Royal Institution of Chartered Surveyors (RICS) Building Cost Information Service (BCIS) costs as their base. These costs are averages but could increase further should 'exceptional costs' arise, that is the variety of above average costs which include for example contamination and remediation. As a result, costs need to be treated with caution and where exceeded, will inevitably diminish the capacity of schemes to carry obligations and affordable housing.
- 3.3.5.2 Our base construction costs assume that housing is provided to Code for Sustainable Homes level 4 for the private units and level 4 for the affordable housing (which will be mandatory by 2012) and includes an allowance of £8,064 per unit for the additional costs of achieving this. This is based on the costs of a range of schemes that have achieved Code Level 4. The cost of moving to level 5 or 6 is currently very high and technological solutions are required to bring costs down. Clearly, seeking code level 5 or 6 using current technologies would have a significant impact on scheme economics, and consequently, there would be implications for affordable housing delivery and other Section 106 obligations. (For information, the dataset – Models 49-52 – illustrate the effects of achieving higher

Codes). However, there is no doubt that with emerging build systems, additional costs associated with achieving Code 4 are falling. Nevertheless, we have retained a relatively high figure to take account of for example demolition costs and to some degree, other exceptional costs. Overall however, our cost assumptions are reasonably generous but it should be noted that tender price deflation, a feature for the last 18 months has according to BCIS bottomed out (Oct.2010, No 187) and inflation is gradually reappearing in 2011/12, although BCIS are predicting (January 2011) that tender price inflation will only be 2.8% on average in 2011 and 3.2% in 2012.

3.3.5.3 To illustrate sensitivity to higher build costs, Models 37- 48 in the Dataset for Traditional affordable funding, include an additional 10% on costs as a demonstration.

### 3.3.6 Developer's profit

3.3.6.1 As noted earlier, Developer's profit is closely related to the perceived risk of residential development. The greater the risk, the greater the profit level, which helps to mitigate against risk, but also to ensure that the potential rewards are sufficiently attractive for a bank to fund a scheme. In 2007, profit levels were approximately 17% of Gross Development Value. This was the 'benchmark' profit adopted by the GLA in its revised *Development Control Toolkit Model* (previously 15%). However, following the impact of the "credit crunch" and the collapse in interbank lending and the various government bailouts of the banking sector, profit margins have increased.

It is important to emphasise that the level of minimum profit is not necessarily determined by developers (although they will have their own view and the boards of the major house builders will set targets for minimum profit). The views of the banks which fund development are more important; if the banks do not fund a development, it is very unlikely to happen, as developers do not generally have the means to fund it themselves. Consequently, future movements in profit levels will largely be determined by the attitudes of the banks towards residential development. The near collapse of the global banking system resulted in a much tighter regulatory system which will continue for some time, with UK banks having to take a much more cautious approach to all lending.

In this context, the banks may not allow profit levels to decrease much lower than their current level, if at all. The minimum generally acceptable profit level is now around 20%, while the banks will require some riskier schemes to show a higher profit level, of perhaps up to 25%. Our appraisals have been run with two different profit levels, as follows:

- 17%
- 20%

By running the appraisals with a range of profit margins, we are pre-empting a very wide range of outcomes but we accept there may be circumstances where applicants can prove the need for a higher margin, at least for the moment.

The additional sample financial appraisals using the new Affordable Housing Funding regime use a 20% return.

### 3.3.7 Planning Obligations

3.3.7.1 Further to our Terms of Reference, we have modelled Planning Obligations as provided by the Borough's Planning Officers. Planning obligations are assumed to apply to all units, irrespective of tenure. Levels of Planning Obligations will vary according to needs arising from individual developments. We have therefore run our appraisals with a range of S106 costs, as follows:

- £7,500
- £10,000 and
- £15,000 per residential unit.

- 3.3.7.2 It should be noted that for the purposes of this study, these are average amounts per unit. In practice, different amounts would be required from each size of unit (including number of bedrooms) so that the occupancy levels for different unit sizes are taken into account in a scheme when determining Planning Obligation requirements.

In the sample 'New Affordable Housing Funding Regime' dataset, planning obligations at £7500 per unit have been modelled. (See Section 5).

### **3.3.8 Affordable Housing tenure**

- 3.3.8.1 There is an almost limitless range of possible affordable housing percentage; tenure; mix; and configuration scenarios. In Greenwich, our Terms of Reference were to model affordable housing percentages at 35%, 40%, 50% and 60% affordable housing in order to strengthen the evidential base together with two variations of tenure split albeit accepting that there may be site specific circumstances where these proportions are adjusted. We have run the appraisals therefore with the following tenure mixes, to reflect the range that might be sought; that is, 70%-30% social rent – intermediate and, 60%-40% and have repeated a sample taking account of the new Affordable Housing funding regime.

### **3.3.9 Affordable housing values**

- 3.3.9.1 At lower densities (where build costs are lower), advice from Registered Social Landlords active in the area and Borough Housing officers confirms that both social rented and intermediate housing can make a positive contribution to land value, subject to levels of grant available. However, at higher densities, the affordable housing may not cover its costs and a subsidy from private housing may be required. Our traditional model therefore adopted as an input the values provided that an RSL would be expected to pay for completed units of affordable housing with, and without grant.

Clearly the value of social rented housing without grant is considerably lower than the value if grant is available. Although Greenwich should expect to be consulted and given the option to comment on the amount of grant funding and the manner in which it is directed, it must be acknowledged that this is ultimately outside of the local authority's control. The Borough will therefore need to carefully monitor the levels of grant being made available to support the delivery of affordable housing through planning obligations. However, it is important to emphasise that despite the cuts in HCA funding, affordable housing is evolving and alternative sources of finance are emerging which may make a significant contribution to delivery.

- 3.3.9.2 Section 5 details the effect of the new Affordable Housing regime, and in particular the average impacts on affordable housing capital values, albeit that real values have yet to be confirmed.

### **3.3.10 Other Influential Factors**

- 3.3.10.1 Variability of landowner attitudes. There is no question that land markets do need time to adapt to changing policy circumstances and landowners may have the choice to hold sites back and hope that policies change. Recently, a more common circumstance in areas of sharp price inflation has been developers 'taking a punt' – i.e. buying sites without consent on the expectation that rising capital values would offset risk and then seeking, in a market that turns, to persuade the authority that the scheme cannot afford its consequential infrastructure and affordable housing. However, as noted earlier, while acquisition cost might have been influential previously, it is less so now.

- 3.3.10.2 Having said that, there is no question that site specific circumstances will arise where the authority may make compromises concerning policy requirements.
- 3.3.10.3 On larger schemes, perhaps phased over some years, developers will invariably try and agree fixed terms on S106/CiL requirements and affordable housing at the outset. (Their driving factor will be the certainty, required to secure bank funding). In such circumstances, it is often in the authorities' interest to seek monitoring and review mechanisms in the S106 that will allow a renegotiation at some future date should it become necessary. Indeed, we have been much involved in determining 'flexible' agreements in Greenwich and elsewhere recently and can continue to support the Council if required.

## 4.0 Appraisal Outputs

4.1 Before examining the illustrated outcomes, it is important to stress again and summarise those variables which may change the outputs – positively and negatively - and which must be treated with caution. They are as follows:

**Table 3. Positive and negative impacts on appraisal outcomes**

Positive impacts	Negative impacts
Net land value contribution from affordable housing (lower density schemes only)	Net loss on affordable housing requiring cross subsidy from private housing
Increase in intermediate tenures (higher value than social rent)	Reduced Social Housing Grant / New Affordable Housing Funding regime
Low and/or deferred Planning Obligations / CiL	High and/or up/front Planning Obligations / CiL
Historic land cost (minimal)	High Existing/Alternative Use Value
Availability of gap funding	Contamination/remediation costs

With these caveats in mind, the Tabular presentation in this Section and Section 5 summarises the key outputs.

## 4.2 Presentation of data – Traditional Affordable Housing Funding

4.2.1 The Dataset, illustrated in Table 4 below from the full set contained in Volume 2, are constructed to provide the maximum amount of data in the same place to provide easy comparison. Each table shows a range of sales values (on the left hand side) and a range of densities (along the fourth row). For each density, we show the build costs adjusted to reflect gross to net floor space.

<b>TABLE 4</b>					£3,588,000 per hectare			Industrial / Storage		
RLVs less existing use value					£1,452,632 per acre					
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph		
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm		
Sales value per sq m										
£2,691	- 3,338,938	- 14,060,015	- 13,270,578	- 20,485,574	- 29,741,024	- 40,692,412	- 52,593,097	- 66,745,606		
£3,337	- 2,143,490	- 8,773,862	- 9,712,406	- 15,572,537	- 23,704,262	- 33,362,058	- 44,212,046	- 57,461,771		
£3,983	- 958,250	- 3,510,745	- 6,154,235	- 10,659,499	- 17,667,499	- 26,031,703	- 35,830,994	- 48,177,937		
£4,629	225,337	1,703,025	- 2,626,375	- 5,746,462	- 11,630,737	- 18,701,348	- 27,449,943	- 38,894,102		
£5,274	1,408,924	6,916,796	882,843	- 895,934	- 5,606,651	- 11,370,994	- 19,068,891	- 29,610,267		
£5,920	2,592,512	12,082,693	4,392,060	3,913,682	347,931	- 4,086,908	- 10,687,840	- 20,326,432		
£6,566	3,676,602	16,798,835	7,593,142	8,282,669	5,772,839	2,500,482	- 3,132,265	- 11,888,501		
£7,212	4,701,599	21,250,140	10,611,207	12,402,420	10,844,682	8,705,857	3,926,204	- 4,045,796		
£7,858	5,726,595	25,701,444	13,629,272	16,522,171	15,901,336	14,868,346	10,927,870	3,780,807		
£8,504	6,751,591	30,152,749	16,628,545	20,641,922	20,957,990	21,008,569	17,929,537	11,607,409		
£9,149	7,776,587	34,604,053	19,625,249	24,761,672	26,014,644	27,148,791	24,931,204	19,411,546		
£9,795	8,801,582	39,055,358	22,621,953	28,881,424	31,071,298	33,289,014	31,932,870	27,155,975		
£10,441	9,826,578	43,506,662	25,618,657	33,001,174	36,127,953	39,429,237	38,934,538	34,900,404		
£11,302	11,193,240	49,441,734	29,614,263	38,494,175	42,870,158	47,616,200	48,270,093	45,226,310		

Yellow cells show negative Residual land values and white cells are positive. This is further explained below.



The box (top right on each sheet) summarises other key variables while the box to the right of each Chart compares the sales value range in December 2007 and 2010 as illustrated below.

Aff Hsg	35%	Sales value per sq m	Market value range 2010	Market value range 2007
% SR	60%	£2,691		
% SO	40%	£3,337		
S106 (private)	£7,500 per unit	£3,983		
		£4,629		
S106 (affordable)	£7,500 per unit	£5,274		
		£5,920		
CSH (% uplift on Private)	35%	£6,566		
CSH (% uplift on AH)	35%	£7,212		
Grant	No	£7,858		
Developer's profit	20%	£8,504		
		£9,149		
EUV	0% change from base	£9,795		
		£10,441		
Build costs	0% change from base	£11,302		

The appraisal outputs are compared with four different Existing Use Values, as described in Section 3. Red symbols show where, for any given sales values and density of development, a scheme would yield a residual land value that is lower than the site's EUV. Yellow symbols show where viability is marginal (i.e. up to 15% below EUV). Green symbols show where the residual land value exceeds EUV by at least 15% and can be considered viable.

<b>TABLE 5</b>									
<b>RLVs less existing use value</b>		<b>£3,588,000 per hectare</b>				<b>Industrial / Storage</b>			
		<b>£1,452,632 per acre</b>							
Density - units/ha ->		40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph
Build costs ->		£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm
Sales value per sq m									
£2,691		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
£3,337		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
£3,983		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
£4,629		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
£5,274		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
£5,920		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
£6,566		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
£7,212		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
£7,858		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
£8,504		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
£9,149		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
£9,795		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
£10,441		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
£11,302		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗

4.2.2 The full set of data tables are attached as Volume 2 , with and without grant. The data tables show the following variables:

- Affordable housing 35%, 40%, 50% and 60%;
- Each of the above with a social rent to intermediate affordable housing split of 70%:30% and 60%:40%;
- Each of the above with other planning obligations of £7,500, £10,000, and £15,000 per unit;
- Each of the above with profit levels of 17% and 20%.

For each scenario, we have tested affordable housing with and without grant. In total, the outputs amount to 116,480 residual valuations. We highlight some of the results in the following sections.

### 4.2.3 The Density 'Peak'.

Before examining the detail of the results, it is helpful to recognise the density 'peak'. There is an optimum combination of variables, subject to local conditions, which maximises residual value, subject to all the financial inputs involved, including sales value, costs, profit margin, obligations and affordable housing assumptions. The result usually favours low-medium density and is demonstrated in the following RBG illustration, the red line indicating the 'peak'. Table 6 shows a scenario that includes affordable housing grant while Table 7 is a no grant example and generates more negative residual values (yellow cells) but retains the general shape of the density peak.

Table 6	RLVs less existing use value			£3,588,000 per hectare £1,452,632 per acre			Industrial / Storage		
	Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph
	Build costs -	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm
	Sales value per sq m								
	£2,691	990,490	1,438,826	4,195,315	7,344,554	12,426,756	18,740,235	26,399,946	35,980,915
	£3,337	153,450	3,590,208	808,885	2,634,026	6,603,830	11,669,540	18,317,685	27,034,163
	£3,983	1,297,388	8,574,558	2,577,544	2,011,573	847,316	4,622,526	10,235,424	18,087,411
	£4,629	2,441,328	13,558,909	5,963,974	6,632,970	4,883,139	2,351,741	2,221,862	9,140,659
	£5,274	3,583,816	18,543,260	9,334,400	11,254,367	10,564,686	9,291,912	5,680,913	310,554
	£5,920	4,723,787	23,527,610	12,694,540	15,875,763	16,246,232	16,190,933	13,555,950	8,514,396
	£6,566	5,790,086	28,177,543	15,826,672	20,182,441	21,535,739	22,613,905	20,883,060	16,654,214
	£7,212	6,812,629	32,628,848	18,823,376	24,302,191	26,592,393	28,754,129	27,884,726	24,398,643
	£7,858	7,835,171	37,080,152	21,820,079	28,421,943	31,649,047	34,894,351	34,886,393	32,143,072
	£8,504	8,857,712	41,531,457	24,816,783	32,528,099	36,705,702	41,034,574	41,852,824	39,887,501
	£9,149	9,880,254	45,982,761	27,813,487	36,628,269	41,740,744	47,174,796	48,804,853	47,631,931
	£9,795	10,902,797	50,434,066	30,810,191	40,728,439	46,770,359	53,313,000	55,756,882	55,376,360
	£10,441	11,925,339	54,885,370	33,806,895	44,828,609	51,799,976	59,420,391	62,708,911	63,120,789
	£11,302	13,288,728	60,820,442	37,802,500	50,295,502	58,506,130	67,563,579	71,978,282	73,443,727

Table7	RLVs less existing use value			£3,588,000 per hectare £1,452,632 per acre			Industrial / Storage		
	Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph
	Build costs -	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm
	Sales value per sq m								
	£2,691	2,530,457	8,467,786	9,050,938	14,049,098	20,916,247	29,048,902	38,146,094	49,232,400
	£3,337	1,383,797	3,385,462	5,617,197	9,307,766	15,093,321	21,978,207	30,063,834	40,285,648
	£3,983	239,857	1,648,227	2,216,946	4,574,309	9,270,396	14,907,512	21,981,574	31,338,896
	£4,629	904,081	6,671,561	1,169,484	102,326	3,483,379	7,836,816	13,899,313	22,392,144
	£5,274	2,048,021	11,655,912	4,555,913	4,725,145	2,260,135	849,193	5,844,679	13,445,392
	£5,920	3,191,960	16,640,262	7,942,342	9,346,541	7,976,663	6,125,073	2,111,215	4,568,073
	£6,566	4,261,278	21,290,195	11,096,324	13,653,219	13,266,170	12,572,285	9,438,325	3,630,544
	£7,212	5,286,274	25,741,500	14,093,028	17,772,970	18,322,823	18,712,508	16,439,991	11,457,147
	£7,858	6,311,270	30,192,804	17,089,732	21,892,721	23,379,477	24,852,731	23,441,658	19,225,454
	£8,504	7,336,266	34,644,109	20,086,436	26,012,472	28,436,131	30,992,954	30,443,324	26,969,883
	£9,149	8,361,261	39,095,413	23,083,140	30,132,223	33,492,786	37,133,176	37,444,991	34,714,312
	£9,795	9,385,131	43,546,718	26,079,843	34,251,974	38,549,440	43,273,399	44,446,658	42,458,741
	£10,441	10,407,674	47,998,022	29,076,548	38,371,725	43,606,094	49,413,622	51,415,071	50,203,171
	£11,302	11,771,063	53,933,095	33,072,153	43,846,459	50,342,334	57,600,585	60,684,443	60,529,076

### 4.3. Illustrative Summary Tables

- 4.3.1. By way of illustration of the sensitivity of the financial variables in the modelling exercise, and thus the results, Tables 8A-D below compare the outputs of three different sales values, the four affordable housing percentages, two affordable housing tenure splits, with and without grant and the three planning obligation scenarios, with a single existing use value (**industrial**, which therefore specifically addresses Q.3, para.2.1 above, as requested by RBG), density and profit margin as an example from the total dataset. Note that the results are Residual Values per hectare (that is, the amount the developer could pay the landowner) in excess of the Existing Use Value assumed.

<b>Table 8A. ILLUSTRATIVE COMPARATIVE RESULTS.</b>			
<b>RESIDUAL VALUES PER HECTARE (In excess of Existing Use Value assumption.)</b>			
<b>Assumptions: Industrial Existing Use Value. £3.6m/hectare</b>			
Density @100 uph			
Profit 20%			
<b>Affordable housing Inputs <u>with</u> GRANT and 70-30 Tenure Split</b>			
	<b>£7500 POBs</b>	<b>£10,000 POBs</b>	<b>£15,000 POBs</b>
<b>£3983psm Sales Value (£370psf)</b>			
35% AH	8,574,558	8,057,866	7,024,480
40% AH	8,330,514	7,813,821	6,780,436
50% AH	7,842,424	7,325,732	6,292,345
60% AH	7,354,335	6,837,642	5,804,256
<b>£4629psm Sales Value (£430psf)</b>			
35% AH	13,558,909	13,042,216	12,008,831
40% AH	13,048,606	12,531,913	11,498,528
50% AH	12,027,999	11,511,306	10,477,921
60% AH	11,007,392	10,490,699	9,457,314
<b>£5274psm Sales Value (£490psf)</b>			
35% AH	18,543,260	18,026,567	16,993,181
40% AH	17,766,698	17,250,005	16,216,620
50% AH	16,213,573	15,696,881	14,663,496
60% AH	14,660,449	14,143,757	13,110,371

- 4.3.2 The Residual values produced (over and above assumed Existing Use Value) are clearly strongly positive at all levels of affordable housing and planning obligations. There are four explanations for this:

- Sales values are sufficiently high (as illustrated);
- Existing use value is modest;
- Affordable housing assumes the availability of grant; and,
- The density used in the example is at or about the 'optimum' in these overall development circumstances. This can be demonstrated as follows. The extract below – Model I with 60% affordable housing, a 70-30 tenure split with grant, £7500 planning obligations per unit, a 17% profit margin AND an industrial existing use value – demonstrates a typical pattern of results with negative residual values (in yellow) above the red line, and positive residual values (white cells) below the red line. The viability 'peak' is again clear at a density of 100uph. While the position of the red line will reflect the different financial variables, there will

invariably be a peak, usually at a medium density. The simple explanation is that higher densities mean higher costs and this must be offset by higher values in order to be viable.

Model 1								
RLVs less existing use value				£3,588,000 per hectare £1,452,632 per acre			Industrial / Storage	
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm
Sales value per sq m								
£2,691	- 588,512	- 480,658	- 2,947,422	- 5,627,835	- 10,148,683	- 16,018,284	- 23,202,218	- 32,156,914
£3,337	265,021	4,236,439	389,021	2,079,362	5,740,816	10,665,873	17,077,666	25,356,831
£3,983	1,117,123	7,992,219	2,167,524	4,443,154	1,383,080	5,316,806	10,953,113	18,556,749
£4,629	1,967,818	11,747,999	4,703,839	4,903,420	2,940,134	36,813	4,847,342	11,756,667
£5,274	2,818,413	15,503,779	7,240,153	8,393,686	7,239,857	5,211,482	1,162,974	4,980,463
£5,920	3,669,008	19,257,355	9,776,467	11,883,952	11,539,580	10,432,574	7,130,474	1,718,979
£6,566	4,395,270	22,428,687	11,921,907	14,829,818	15,167,235	14,837,584	12,158,672	7,348,819
£7,212	5,048,124	25,263,870	13,835,188	17,447,619	18,395,714	18,757,880	16,628,966	12,293,339
£7,858	5,700,977	28,099,053	15,748,468	20,065,419	21,617,099	22,678,176	21,099,261	17,237,859
£8,504	6,353,831	30,934,236	17,661,748	22,683,220	24,828,316	26,598,473	25,542,790	22,182,380
£9,149	7,006,685	33,769,419	19,575,028	25,301,021	28,039,532	30,518,769	29,981,393	27,126,900
£9,795	7,659,539	36,604,602	21,488,309	27,918,822	31,250,748	34,425,191	34,419,996	32,071,420
£10,441	8,312,392	39,439,786	23,401,588	30,536,623	34,461,964	38,324,525	38,858,599	37,015,940
£11,302	9,182,865	43,220,030	25,952,629	34,027,024	38,743,585	43,523,637	44,776,736	43,608,634

Nevertheless, there are clearly some combinations of circumstances, as demonstrated, where redeveloping existing industrial sites can deliver higher levels of affordable housing.

4.3.3 In contrast to Table 8A, Table 8B below repeats the results numerically BUT without grant for affordable housing. The effect is clear. Even with a modest existing use value, higher levels of affordable housing requirement produce negative residual values and are not viable. Indeed, since the landowner would require a value higher than EUV to incentivise a sale, a premium of say, 20% above EUV would, in this example, require a positive residual value above say £700,000, thus increasing the number of unviable options. In contrast however, as Table 8B shows in this example, where sales values approach £5300psm, all affordable options are viable. Clearly, **sales values and grant availability are particularly sensitive financial variables.**

Table 8B. ILLUSTRATIVE COMPARATIVE RESULTS.			
RESIDUAL VALUES PER HECTARE (In excess of Existing Use Value assumption.)			
Assumptions: Industrial Existing Use Value. £3.6m/hectare Density @100 uph Profit 20%			
Affordable housing Inputs with <u>NO GRANT</u> and 70-30 Tenure Split			
	£7500 POBs	£10,000 POBs	£15,000 POBs
<b>£3983psm Sales Value (£370psf)</b>			
35% AH	1,648,227	1,125,009	78,571
40% AH	412,413	-110,860	-1,157,243
50% AH	-2,509,216	-2,582,434	-3,628,872
60% AH	-4,530,845	-5,058,639	-6,118,120
<b>£4629psm Sales Value (£430psf)</b>			
35% AH	6,671,561	6,154,868	5,112,261
40% AH	5,177,351	4,654,412	3,607,974
50% AH	2,169,057	1,645,838	599,400
60% AH	-839,517	-1,362,736	-2,409,174

<b>£5274psm Sales Value (£490psf)</b>			
35% AH	11,655,912	11,139,219	10,105,833
40% AH	9,895,443	9,378,750	8,345,365
50% AH	6,374,505	5,857,812	4,824,427
60% AH	2,851,811	2,328,592	1,282,155

Tables 8C and 8D repeat 8A and 8B but with a 60-40% tenure split. The results are a modest improvement in Gross Development Value but otherwise only a slight effect on outcomes. Other financial variables are clearly much more important than changes in tenure split.

<b>Table 8C. ILLUSTRATIVE COMPARATIVE RESULTS.</b>			
<b>RESIDUAL VALUES PER HECTARE (In excess of Existing Use Value assumption.)</b>			
<b>Assumptions:</b> Industrial Existing Use Value. £3.6m/hectare Density @100 uph Profit 20%			
<b>Affordable housing Inputs with GRANT and 60-40 Tenure Split</b>			
	<b>£7500 POBs</b>	<b>£10,000 POBs</b>	<b>£15,000 POBs</b>
<b>£3983psm Sales Value (£370psf)</b>			
35% AH	8,733,537	8,216,845	7,183,459
40% AH	8,512,204	7,995,512	6,962,125
50% AH	8,069,537	7,552,844	6,519,459
60% AH	7,626,870	7,110,177	6,076,792
<b>£4629psm Sales Value (£430psf)</b>			
35% AH	13,895,570	13,378,877	12,345,492
40% AH	13,433,362	12,916,669	11,883,283
50% AH	12,508,943	11,992,251	10,958,865
60% AH	11,584,525	11,067,833	10,034,447
<b>£5274psm Sales Value (£490psf)</b>			
35% AH	19,057,603	18,540,910	17,507,525
40% AH	18,354,519	17,837,826	16,804,440
50% AH	16,948,349	16,431,657	15,398,271
60% AH	15,542,181	15,025,488	13,992,102

<b>Table 8D. ILLUSTRATIVE COMPARATIVE RESULTS.</b>			
<b>RESIDUAL VALUES PER HECTARE (In excess of Existing Use Value assumption.)</b>			
<b>Assumptions:</b> Industrial Existing Use Value. £3.6m/hectare Density @ 100 uph Profit 20%			
<b>Affordable housing Inputs with NO GRANT and 60-40 Tenure Split</b>			
	<b>£7500 POBs</b>	<b>£10,000 POBs</b>	<b>£15,000 POBs</b>
<b>£3983psm Sales Value (£370psf)</b>			
35% AH	2,381,592	1,858,373	811,935
40% AH	1,250,544	727,325	-319,113
50% AH	-1,011,553	-1,534,771	-2,581,209
60% AH	-3,273,649	-3,796,867	-4,844,199
<b>£4629psm Sales Value (£430psf)</b>			
35% AH	7,572,844	7,056,151	6,022,766
40% AH	6,207,388	5,690,695	4,651,911
50% AH	3,473,979	2,950,760	1,904,322
60% AH	726,389	203,170	-843,268
<b>£5274psm Sales Value (£490psf)</b>			
35% AH	12,734,877	12,218,184	11,184,798
40% AH	11,128,546	10,611,852	9,578,467
50% AH	7,915,883	7,399,190	6,365,805
60% AH	4,703,221	4,186,528	3,153,143

#### 4.4. Illustrative Scenarios - 35% Affordable Housing

4.4.1. In the first set of Tables, we include the Index of all 35% scenarios as shown on page 30 as an instance – note the hyperlinks in column I which enable quick comparisons of different variables. We show, as an illustration, the outputs of the appraisal model (Table 9 on page 31 - Model 14) for developments with 35% affordable housing with Grant (provided as 60% social rent and 40% intermediate), run at 20% profit and with £7,500 other S106 obligations. The significance of existing use value and sales value is immediately clear on viable development scenarios where lower EUV and reasonably high sales value maintains most scenarios as viable. In contrast, high EUV will only be viable as a redevelopment with higher densities and higher values. (Table 9 below - Model 14 - should be contrasted with Model 16 without grant (Volume 2A) which predictably reduces viable options).

LB Greenwich - 35% affordable											
	AH percentage	Tenure		Section 106 (per unit)	CSH		Grant	Profit	EUV	Build costs	Wheelchair (costs +10%)
		Social	Intermediate		Private	Affordable					
Model 1	35%	70%	30%	£7,500	Level 4	Level 4	Yes	17%	Base	Base	10% of all units
Model 2	35%	70%	30%	£7,500	Level 4	Level 4	Yes	20%	Base	Base	10% of all units
Model 3	35%	70%	30%	£7,500	Level 4	Level 4	No	17%	Base	Base	10% of all units
Model 4	35%	70%	30%	£7,500	Level 4	Level 4	No	20%	Base	Base	10% of all units
Model 5	35%	70%	30%	£10,000	Level 4	Level 4	Yes	17%	Base	Base	10% of all units
Model 6	35%	70%	30%	£10,000	Level 4	Level 4	Yes	20%	Base	Base	10% of all units
Model 7	35%	70%	30%	£10,000	Level 4	Level 4	No	17%	Base	Base	10% of all units
Model 8	35%	70%	30%	£10,000	Level 4	Level 4	No	20%	Base	Base	10% of all units
Model 9	35%	70%	30%	£15,000	Level 4	Level 4	Yes	17%	Base	Base	10% of all units
Model 10	35%	70%	30%	£15,000	Level 4	Level 4	Yes	20%	Base	Base	10% of all units
Model 11	35%	70%	30%	£15,000	Level 4	Level 4	No	17%	Base	Base	10% of all units
Model 12	35%	70%	30%	£15,000	Level 4	Level 4	No	20%	Base	Base	10% of all units
Model 13	35%	60%	40%	£7,500	Level 4	Level 4	Yes	17%	Base	Base	10% of all units
Model 14	35%	60%	40%	£7,500	Level 4	Level 4	Yes	20%	Base	Base	10% of all units
Model 15	35%	60%	40%	£7,500	Level 4	Level 4	No	17%	Base	Base	10% of all units
Model 16	35%	60%	40%	£7,500	Level 4	Level 4	No	20%	Base	Base	10% of all units
Model 17	35%	60%	40%	£10,000	Level 4	Level 4	Yes	17%	Base	Base	10% of all units
Model 18	35%	60%	40%	£10,000	Level 4	Level 4	Yes	20%	Base	Base	10% of all units
Model 19	35%	60%	40%	£10,000	Level 4	Level 4	No	17%	Base	Base	10% of all units
Model 20	35%	60%	40%	£10,000	Level 4	Level 4	No	20%	Base	Base	10% of all units
Model 21	35%	60%	40%	£15,000	Level 4	Level 4	Yes	17%	Base	Base	10% of all units
Model 22	35%	60%	40%	£15,000	Level 4	Level 4	Yes	20%	Base	Base	10% of all units
Model 23	35%	60%	40%	£15,000	Level 4	Level 4	No	17%	Base	Base	10% of all units
Model 24	35%	60%	40%	£15,000	Level 4	Level 4	No	20%	Base	Base	10% of all units
Model 25	35%	70%	30%	£7,500	Level 4	Level 4	Yes	20%	+20%	Base	10% of all units
Model 26	35%	70%	30%	£7,500	Level 4	Level 4	No	20%	+20%	Base	10% of all units
Model 27	35%	70%	30%	£10,000	Level 4	Level 4	Yes	20%	+20%	Base	10% of all units
Model 28	35%	70%	30%	£10,000	Level 4	Level 4	No	20%	+20%	Base	10% of all units
Model 29	35%	70%	30%	£15,000	Level 4	Level 4	Yes	20%	+20%	Base	10% of all units
Model 30	35%	70%	30%	£15,000	Level 4	Level 4	No	20%	+20%	Base	10% of all units
Model 31	35%	60%	40%	£7,500	Level 4	Level 4	Yes	20%	+20%	Base	10% of all units
Model 32	35%	60%	40%	£7,500	Level 4	Level 4	No	20%	+20%	Base	10% of all units
Model 33	35%	60%	40%	£10,000	Level 4	Level 4	Yes	20%	+20%	Base	10% of all units
Model 34	35%	60%	40%	£10,000	Level 4	Level 4	No	20%	+20%	Base	10% of all units
Model 35	35%	60%	40%	£15,000	Level 4	Level 4	Yes	20%	+20%	Base	10% of all units
Model 36	35%	60%	40%	£15,000	Level 4	Level 4	No	20%	+20%	Base	10% of all units
Model 37	35%	70%	30%	£7,500	Level 4	Level 4	Yes	20%	Base	10%	10% of all units
Model 38	35%	70%	30%	£7,500	Level 4	Level 4	No	20%	Base	10%	10% of all units
Model 39	35%	70%	30%	£10,000	Level 4	Level 4	Yes	20%	Base	10%	10% of all units
Model 40	35%	70%	30%	£10,000	Level 4	Level 4	No	20%	Base	10%	10% of all units
Model 41	35%	70%	30%	£15,000	Level 4	Level 4	Yes	20%	Base	10%	10% of all units
Model 42	35%	70%	30%	£15,000	Level 4	Level 4	No	20%	Base	10%	10% of all units
Model 43	35%	60%	40%	£7,500	Level 4	Level 4	Yes	20%	Base	10%	10% of all units
Model 44	35%	60%	40%	£7,500	Level 4	Level 4	No	20%	Base	10%	10% of all units
Model 45	35%	60%	40%	£10,000	Level 4	Level 4	Yes	20%	Base	10%	10% of all units
Model 46	35%	60%	40%	£10,000	Level 4	Level 4	No	20%	Base	10%	10% of all units
Model 47	35%	60%	40%	£15,000	Level 4	Level 4	Yes	20%	Base	10%	10% of all units
Model 48	35%	60%	40%	£15,000	Level 4	Level 4	No	20%	Base	10%	10% of all units
Model 49	35%	60%	40%	£7,500	Level 5	Level 5	Yes	20%	Base	Base	10% of all units
Model 50	35%	60%	40%	£7,500	Level 5	Level 5	No	20%	Base	Base	10% of all units
Model 51	35%	60%	40%	£7,500	Level 6	Level 6	Yes	20%	Base	Base	10% of all units
Model 52	35%	60%	40%	£7,500	Level 6	Level 6	No	20%	Base	Base	10% of all units

Table 9

MODEL	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph		AF Hsq	35%
Density - units/ha ->										% SR	60%
										% SO	40%
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm		S106 (private)	£7,500 per unit
Sales value per sq m										S106 (affordable)	£7,500 per unit
£2,691	2,548,380	1,950,133	738,883	3,932,022	9,046,549	15,388,646	23,070,140	32,665,761	2,691	CSH (% uplift on Private)	11%
£3,337	3,731,966	7,159,505	2,770,335	950,266	3,009,787	8,058,292	14,689,089	23,381,926	3,337	CSH (% uplift on AH)	11%
£3,983	4,915,553	12,321,537	6,279,552	5,763,136	2,957,726	7,755,270	6,308,038	14,098,091	3,983	Grant	Yes
£4,629	6,099,141	17,483,570	9,788,770	10,551,746	8,893,639	6,475,294	1,996,143	4,818,507	4,629	Developer's profit	20%
£5,274	7,279,874	22,645,603	13,277,178	15,340,358	14,783,483	13,661,379	10,181,861	4,339,229	5,274	ELV	0% change from base
£5,920	8,458,987	27,807,636	16,758,463	20,128,970	20,673,327	20,813,332	18,348,024	13,496,966	5,920	Build costs	0% change from base
£6,566	9,539,872	32,523,778	19,935,736	24,497,958	26,040,451	27,330,555	25,783,614	21,741,577	6,566		
£7,212	10,562,415	36,975,082	22,932,441	28,617,708	31,097,105	33,470,778	32,785,281	29,486,006	7,212		
£7,858	11,584,956	41,426,387	25,929,145	32,734,463	36,153,759	39,611,001	39,784,057	37,230,435	7,858		
£8,504	12,607,498	45,877,691	28,925,848	36,834,633	41,204,044	45,751,223	46,736,086	44,974,864	8,504		
£9,149	13,630,041	50,328,996	31,922,552	40,934,803	46,233,660	51,891,447	53,688,115	52,719,294	9,149		
£9,795	14,652,583	54,780,300	34,919,256	45,034,973	51,263,275	58,015,221	60,640,144	60,463,723	9,795		
£10,441	15,675,125	59,231,605	37,915,960	49,135,143	56,292,892	64,122,512	67,592,172	69,208,152	10,441		
£11,302	17,038,514	65,163,036	41,911,565	54,602,037	62,999,046	72,265,699	76,861,544	78,513,383	11,302		
RLVs less existing use value					£7,534,800 per hectare		Secondary offices				
					£3,050,526 per acre						
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph			
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm			
Sales value per sq m										Market value range 2010	Market value range 2007
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691		
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337		
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983		
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629		
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274		
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920		
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566		
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212		
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858		
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504		
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149		
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795		
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441		
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302		
RLVs less existing use value					£3,588,000 per hectare		Industrial / Storage				
					£1,452,632 per acre						
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph			
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm			
Sales value per sq m										Market value range 2010	Market value range 2007
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691		
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337		
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983		
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629		
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274		
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920		
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566		
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212		
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858		
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504		
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149		
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795		
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441		
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302		
RLVs less existing use value					£2,260,440 per hectare		Community sites and public sector land				
					£915,158 per acre						
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph			
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm			
Sales value per sq m										Market value range 2010	Market value range 2007
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691		
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337		
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983		
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629		
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274		
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920		
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566		
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212		
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858		
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504		
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149		
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795		
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441		
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302		
RLVs less existing use value					£1 per hectare		LA Land (estate redevelopments)				
					£1 per acre						
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph			
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm			
Sales value per sq m										Market value range 2010	Market value range 2007
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691		
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337		
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983		
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629		
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274		
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920		
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566		
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212		
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858		
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504		
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149		
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795		
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441		
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302		



#### 4.5 40% affordable housing

4.5.1 Table 10 – Model 14, Volume 2B, shows the appraisal outputs assuming the sites are to provide 40% affordable with grant (60% social rent and 40% intermediate), run at 20% profit and with a Section 106 obligation of £7,500. While there is of course a difference in terms of residual values, **the target is still achievable in many cases where EUVs are lower**. It is also important to note that the areas in which high sales values can be achieved are likely also to have higher existing use values. So while the “lower EUV” table below shows a considerable range of green cells, it is important to note that the sales values achievable may be in the lower bandings, where the residuals are less viable.

#### 4.6 50% affordable housing

4.6.1 Table 11 – Model 14, Volume 2C, shows the outputs of the appraisal model with 50% affordable housing (60% social rent and 40% intermediate), run at a 20% profit level, with £7,500 per unit Section 106 obligation. The range of viable sites narrows for this level of affordable housing to be deliverable, but nevertheless will be viable in the right combination of circumstances.

#### 4.7 60% affordable housing

4.7.1 Table 12 – Model 14, Volume 2D, similarly identifies viable options, albeit gradually diminishing.

Table 10

MODEL 14										Aff Hsg			
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph			40%		
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm	Sales value per sqm		60%		
Sales value per sqm											40%		
											£7,500 per unit		
											£7,500 per unit		
£2,691	2,603,397	2,220,019	567,557	3,696,966	8,722,705	15,001,989	22,609,107	32,096,381	2,691		11%		
£3,337	3,730,794	7,179,047	2,779,666	959,352	2,962,330	8,007,237	14,610,078	23,230,351	3,337		11%		
£3,983	4,858,191	12,100,204	6,126,890	5,547,643	2,733,725	1,033,712	6,611,050	14,364,321	3,983		Yes		
£4,629	5,982,807	17,021,361	9,474,114	10,114,902	8,395,729	5,865,912	1,323,216	5,498,291	4,629		20%		
£5,274	7,105,631	21,942,519	12,794,640	14,692,161	14,015,626	12,722,568	8,141,357	3,256,345	5,274		BLM		
£5,920	8,229,454	26,993,676	16,114,637	19,249,420	19,636,524	19,546,730	16,935,325	12,002,197	5,920		Build costs		
£6,566	9,238,016	31,275,243	19,087,190	23,337,109	24,658,028	25,645,484	23,894,316	19,727,517	6,566		0% change from base		
£7,212	10,182,902	35,384,140	21,853,378	27,139,956	29,325,708	31,313,382	30,357,392	26,876,221	7,212		0% change from base		
£7,858	11,126,786	39,493,037	24,619,567	30,932,448	33,993,389	36,981,281	36,816,000	34,024,924	7,858				
£8,504	12,070,672	43,601,933	27,385,754	34,717,221	38,648,702	42,649,179	43,233,257	41,173,628	8,504				
£9,149	13,014,556	47,710,830	30,151,943	38,501,993	43,291,424	48,317,077	49,650,515	48,322,332	9,149				
£9,795	13,958,442	51,819,726	32,918,131	42,296,766	47,934,146	53,966,278	56,067,773	55,471,036	9,795				
£10,441	14,902,326	55,923,693	35,696,320	46,071,539	52,576,869	59,603,869	62,485,030	62,619,740	10,441				
£11,302	16,160,840	61,389,106	39,372,570	51,117,901	58,767,164	67,120,658	71,041,373	72,138,169	11,302				
<b>RLVs less existing use value</b>										<b>£7,534,800 per hectare</b>		<b>Secondary offices</b>	
<b>£3,050,526 per acre</b>													
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph					
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm	Sales value per sqm	Market value range 2010	Market value range 2007		
Sales value per sqm													
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691	↕	↕		
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337				
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983				
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629				
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274				
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920				
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566				
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212				
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858				
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504				
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149				
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795				
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441				
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302				
<b>RLVs less existing use value</b>										<b>£3,588,000 per hectare</b>		<b>Industrial / Storage</b>	
<b>£1,452,632 per acre</b>													
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph					
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm	Sales value per sqm	Market value range 2010	Market value range 2007		
Sales value per sqm													
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691	↕	↕		
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337				
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983				
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629				
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274				
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920				
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566				
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212				
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858				
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504				
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149				
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795				
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441				
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302				
<b>RLVs less existing use value</b>										<b>£2,260,440 per hectare</b>		<b>Community sites and public sector land</b>	
<b>£915,156 per acre</b>													
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph					
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm	Sales value per sqm	Market value range 2010	Market value range 2007		
Sales value per sqm													
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691	↕	↕		
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337				
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983				
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629				
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274				
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920				
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566				
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212				
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858				
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504				
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149				
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795				
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441				
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302				
<b>RLVs less existing use value</b>										<b>£1 per hectare</b>		<b>LA Land (estate redevelopments)</b>	
<b>£1 per acre</b>													
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph					
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm	Sales value per sqm	Market value range 2010	Market value range 2007		
Sales value per sqm													
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691	↕	↕		
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337				
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983				
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629				
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274				
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920				
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566				
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212				
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858				
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504				
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149				
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795				
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441				
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302				

Table 11

Table 11										MODEL					
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph			Aff Hsg	50%			
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm		Sales value per sqm	% SR	60%			
Sales value per sqm											% SO	40%			
£2,691	2,713,431	2,759,790	224,905	3,226,853	8,075,014	14,228,675	21,687,040	30,957,621	2,691	S106 (affordable)	S106 (private)	£7,500 per unit			
£3,337	3,726,413	7,218,131	2,798,330	977,524	2,867,385	7,905,125	14,452,057	22,927,200	3,337	CL					
£3,983	4,736,656	11,657,537	5,821,565	5,116,657	2,285,721	1,590,772	7,217,075	14,896,780	3,983	CSH (% uplift on Private)		11%			
£4,629	5,746,900	16,096,843	8,832,150	9,241,212	7,399,998	4,647,148	23,639	6,866,359	4,629	CSH (% uplift on AH)		11%			
£5,274	6,757,144	20,536,349	11,829,566	13,365,766	12,479,913	10,844,947	7,060,467	1,090,576	5,274	Grant		Yes			
£5,920	7,765,368	24,975,756	14,826,983	17,490,320	17,559,917	17,013,524	14,109,929	9,012,659	5,920	Developer's profit		20%			
£6,566	8,635,034	28,778,175	17,390,096	21,015,412	21,893,181	22,275,344	20,115,718	15,699,397	6,566	ELV		0% change from base			
£7,212	9,421,605	32,202,256	19,695,293	24,174,443	25,782,914	26,998,592	25,501,616	21,656,660	7,212	Build costs		0% change from base			
£7,858	10,208,176	35,623,200	22,000,409	27,328,420	29,669,081	31,721,840	30,879,887	27,613,903	7,858						
£8,504	10,994,747	39,039,083	24,305,566	30,482,396	33,538,016	36,445,089	36,227,601	33,571,156	8,504						
£9,149	11,781,318	42,454,967	26,610,723	33,636,374	37,406,951	41,168,337	41,875,316	39,528,469	9,149						
£9,795	12,567,889	45,870,850	28,915,880	36,780,351	41,275,896	45,865,592	46,923,031	45,485,683	9,795						
£10,441	13,354,459	49,286,733	31,221,037	39,944,327	45,144,822	50,566,585	52,270,745	51,442,916	10,441						
£11,302	14,403,220	53,841,245	34,294,580	44,149,630	50,303,402	56,830,575	59,401,030	59,385,920	11,302						
<b>RLVs less existing use value</b>										<b>£7,534,800 per hectare</b>			<b>Secondary offices</b>		
										<b>£3,050,526 per acre</b>					
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph							
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm		Sales value per sqm	Market value range 2010	Market value range 2007			
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691					
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337						
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983						
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629						
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274						
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920						
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566						
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212						
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858						
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504						
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149						
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795						
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441						
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302						
<b>RLVs less existing use value</b>										<b>£3,588,000 per hectare</b>			<b>Industrial / Storage</b>		
										<b>£1,452,632 per acre</b>					
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph							
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm		Sales value per sqm	Market value range 2010	Market value range 2007			
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691					
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337						
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983						
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629						
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274						
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920						
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566						
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212						
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858						
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504						
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149						
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795						
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441						
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302						
<b>RLVs less existing use value</b>										<b>£2,260,440 per hectare</b>			<b>Community sites and public sector land</b>		
										<b>£915,158 per acre</b>					
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph							
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm		Sales value per sqm	Market value range 2010	Market value range 2007			
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691					
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337						
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983						
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629						
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274						
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920						
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566						
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212						
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858						
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504						
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149						
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795						
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441						
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302						
<b>RLVs less existing use value</b>										<b>£1 per hectare</b>			<b>LA Land (estate redevelopments)</b>		
										<b>£1 per acre</b>					
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph							
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm		Sales value per sqm	Market value range 2010	Market value range 2007			
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691					
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337						
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983						
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629						
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274						
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920						
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566						
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212						
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858						
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504						
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149						
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795						
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441						
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302						

Table 12

Table											
MODEL											
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph			
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm			
Sales value per sq m									Sales value per sq m		
£2,691	2,818,001	3,299,559	117,747	- 2,756,741	- 7,427,323	- 13,455,360	- 20,764,972	- 29,818,861	2,691		
£3,337	3,715,187	7,257,214	2,816,993	995,697	- 2,772,450	- 7,803,014	- 14,294,036	- 22,624,050	3,337		
£3,983	4,609,811	11,214,870	5,514,817	4,685,672	1,837,717	- 2,150,668	- 7,823,100	- 15,429,240	3,983		
£4,629	5,502,722	15,172,525	8,189,654	8,367,522	6,404,087	3,428,395	- 1,369,493	- 8,234,428	4,629		
£5,274	6,395,633	19,130,181	10,864,492	12,049,371	10,944,199	8,967,325	4,979,539	- 1,075,192	5,274		
£5,920	7,287,416	23,072,629	13,539,329	15,731,220	15,484,312	14,480,318	11,284,533	6,023,123	5,920		
£6,566	8,014,445	26,253,534	15,693,002	18,678,028	19,128,333	18,905,202	16,337,121	11,671,277	6,566		
£7,212	8,643,702	28,985,242	17,537,127	21,201,209	22,237,035	22,683,801	20,645,839	16,437,079	7,212		
£7,858	9,272,959	31,718,948	19,381,252	23,724,390	25,332,183	26,462,399	24,943,773	21,202,882	7,858		
£8,504	9,902,215	34,451,655	21,225,378	26,247,572	28,427,332	30,240,998	29,221,946	25,968,685	8,504		
£9,149	10,531,472	37,184,361	23,069,504	28,770,754	31,622,479	34,012,512	33,500,117	30,734,488	9,149		
£9,795	11,160,729	39,917,068	24,913,629	31,293,935	34,617,627	37,770,906	37,778,289	35,500,290	9,795		
£10,441	11,789,985	42,649,774	26,757,755	33,817,117	37,712,776	41,929,300	42,056,460	40,265,093	10,441		
£11,302	12,628,994	46,293,383	29,216,589	37,181,359	41,839,640	46,540,493	47,760,689	46,620,496	11,302		
<b>RLVs less existing use value</b>											
				<b>£7,534,800 per hectare</b>				<b>Secondary offices</b>			
				<b>£3,050,526 per acre</b>							
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph			
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm			
Sales value per sq m									Sales value per sq m	Market value range 2010	Market value range 2007
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691		
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337		
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983		
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629		
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274		
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920		
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566		
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212		
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858		
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504		
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149		
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795		
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441		
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302		
<b>RLVs less existing use value</b>											
				<b>£3,588,000 per hectare</b>				<b>Industrial / Storage</b>			
				<b>£1,452,632 per acre</b>							
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph			
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm			
Sales value per sq m									Sales value per sq m	Market value range 2010	Market value range 2007
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691		
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337		
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983		
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629		
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274		
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920		
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566		
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212		
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858		
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504		
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149		
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795		
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441		
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302		
<b>RLVs less existing use value</b>											
				<b>£2,260,440 per hectare</b>				<b>Community sites and public sector land</b>			
				<b>£915,158 per acre</b>							
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph			
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm			
Sales value per sq m									Sales value per sq m	Market value range 2010	Market value range 2007
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691		
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337		
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983		
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629		
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274		
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920		
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566		
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212		
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858		
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504		
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149		
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795		
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441		
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302		
<b>RLVs less existing use value</b>											
				<b>£1 per hectare</b>				<b>LA Land (estate redevelopments)</b>			
				<b>£0 per acre</b>							
Density - units/ha ->	40 uph	100 uph	160 uph	220 uph	280 uph	340 uph	400 uph	460 uph			
Build costs ->	£969 per sqm	£1453 per sqm	£1615 per sqm	£1776 per sqm	£1938 per sqm	£2099 per sqm	£2260 per sqm	£2422 per sqm			
Sales value per sq m									Sales value per sq m	Market value range 2010	Market value range 2007
£2,691	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,691		
£3,337	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,337		
£3,983	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,983		
£4,629	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,629		
£5,274	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,274		
£5,920	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,920		
£6,566	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,566		
£7,212	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,212		
£7,858	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,858		
£8,504	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,504		
£9,149	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,149		
£9,795	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£9,795		
£10,441	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£10,441		
£11,302	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£11,302		

## 4.8 Presentation of data – New Affordable Housing Funding

- 4.8.1 The Dataset, illustrated in Volume 3 and below from the full set, (and explained further in Section 7-Addendum) - is constructed to provide the maximum amount of data in the same place to provide easy comparison with Volume 2.
- 4.8.2 However, some initial explanation is necessary. The data in Volume 3 makes a simple comparison in terms of Residual Land Values – and thus, basic Development Viability, between the Traditional Affordable Housing funding model and the new Affordable Housing model.
- 4.8.3 The key drivers here are RBG’s assessments of typical rents, target rents and the assumed rents to be used in the reviewed appraisals subject to cap. For appraisal purposes, these are as follows:

TABLE 13 - LB Greenwich - AHVS update						
West – Charlton and Greenwich (SE7 and SE10)						
Property size	Existing Weekly “Target Rent” pw	Weekly Market Rent	New ‘Affordable’ Weekly Rent (80% of market)	Mid point	Blended rate @ 80% MV Capital Value	Blended rate @ 60% MV Capital Value
1-bed	£84 - £86	£188-£236	£150 - £189	170		
2-bed	£103 - £109	£230-£303	£184- £242	213		
3-bed	£122 - £149	£274-£374	£219 - £299	259		
4-bed	£164 - £165	£374 - £504	£299 - £403	351	<b>260</b>	<b>184</b>
East – Woolwich and Thamesmead (SE18 and SE28)						
1-bed	£95 - £95	£156 - £180	£125 - £144	135		
2-bed	£104 - £108	£196 - £230	£157 - £184	171		
3-bed	£116 - £121	£243 - £265	£194 - £212	203		
4-bed	£141 - £147	£278 - £369	£222 - £295	259	<b>191</b>	<b>132</b>
South – Eltham and Blackheath/Kidbrooke (SE9 and SE3)						
1-bed	£82 - £95	£150 - £232	£120 - £185	153		
2-bed	£104- £107	£196 - £298	£157 - £238	198		
3-bed	£113 - £120	£274- £336	£219 - £269	244		
4-bed	£143 - £164	£374 - £504	£299 - £403	351	<b>245</b>	<b>173</b>

The affordable rents are calculated by taking the mid point in the range provided by the Council, the capital value then established by capitalising the net rent for an assumed mix of 1 x one bed, 1 x two bed, 1 x three bed and 1 x 4 bed, and then applied on an 80% and 60% rate of capital value, as shown above. This is clearly averaging and capable of adjustment. Nevertheless, the product provides interesting comparisons with the ‘traditional’ affordable model.

Table 14 provides the comparison.

<b>Table 14. ILLUSTRATIVE COMPARATIVE RESULTS. Traditional Affordable Housing Funding v New Funding Model</b>						
<b>RESIDUAL VALUES PER HECTARE</b> (In excess of Existing Use Value assumption.)						
<b>Assumptions:</b> Industrial Existing Use Value. £3.6m/hectare Density @100 uph Profit 20% Planning Obligations - £7500 per unit Affordable Housing with 70-30% Tenure split in Traditional Funding Model						
	Traditional Funding Model		New Funding Model - Capitalised Value Assumption			
	With Grant	Without Grant	@ 80% of Market Private Rent		@ 60% of Market Private Rent	
With Grant			Without Grant	With Grant	Without Grant	
			Average £283psf	Average £245psf	Average £211psf	Average £173psf
<b>£3983psm Sales Value (£370psf)</b>						
35% AH	8,574,558	1,648,227	9,554,245	8,081,598	6,763,967	5,291,320
40% AH	8,330,514	412,413	9,450,155	7,676,130	6,261,265	4,578,240
50% AH	7,842,424	-2,509,216	9,241,975	7,138,194	5,255,864	3,152,082
60% AH	7,354,335	-4,530,845	9,033,796	6,509,259	4,250,462	1,725,924
<b>£4629psm Sales Value (£430psf)</b>						
35% AH	13,558,909	6,671,561	14,538,595	13,065,949	11,748,317	10,275,671
40% AH	13,048,606	5,177,351	14,168,247	12,485,222	10,979,357	9,296,333
50% AH	12,027,999	2,169,057	13,427,550	11,323,769	9,441,439	7,337,658
60% AH	11,007,392	-839,517	12,686,853	10,162,316	7,903,520	5,378,983
<b>£5274psm Sales Value (£490psf)</b>						
35% AH	18,543,260	11,655,912	19,522,945	18,050,299	16,732,668	15,260,021
40% AH	17,766,698	9,895,443	18,886,339	17,203,313	15,697,449	14,014,425
50% AH	16,213,573	6,374,505	17,613,125	15,509,344	13,627,013	11,523,233
60% AH	14,660,449	2,851,811	16,336,722	13,815,374	11,556,577	9,032,040

Nb. Red figures indicate scenarios where Residual Value fails to exceed Existing Use Value.

Perhaps most obviously, albeit compared to a relatively modest Industrial existing use value, the rental basis (even though this is the mid point in the range provided) generates significant residual land values in excess of EUV. In other words, the increased rent when capitalised compensates for the loss of, or much reduced level of grant. This does of course ignore 'affordability'; indeed, for many households, the levels of grant assumed would require significant housing benefit, which Government has already announced it intends to cap.

## 5.0 Other Results

5.1 This section needs to be read in conjunction with the Tabular / Graphical presentations in Volume 2 and 3 (together with the illustrative examples shown in the preceding section). In the main tables, the residual land values are calculated for different sales values and densities of development, and then compared with existing use value.

### 5.2 Residential sites

5.2.1 The Tables demonstrate that in "normal" market conditions, the delivery of 35% affordable housing in combination with other planning obligations of between £7,500 and £15,000 per unit, using the traditional affordable housing funding model, is likely to be deliverable in many development circumstances in the Borough especially when residential sales values are at or above £3983m2 (£370psf). The new affordable housing model shows similar results. Clearly, site specific circumstances may over-ride this conclusion but in a recovering market during the plan period, such values are likely to be commonplace. Similarly, a 40% requirement using the traditional affordable model and the new model will also **be achievable in many cases where EUVs are lower.**

5.2.2 The 50% tables show a number of combinations of values and density of development where 50% might also be deliverable in some circumstances in both models. It is important to emphasise, however, that these results are highly sensitive to changing profit levels especially in the 50% and 60% affordable housing dataset. At the highest profit level modelled of 20%, the range of densities and value bands over which schemes are viable begin to narrow, especially when planning obligations are increased to £15,000 per unit.

It should also be noted that the existing use value of high value sites can be greater than residential land values with the full affordable housing policy applied. This is to be expected, but will be less of an issue in comparison to Boroughs within or bordering Central London where office sites, for example, with very high EUVs will rarely be redeveloped for residential use.

5.2.3 There are further important caveats to the results:

- a. Residual land values need to exceed Existing Use Value to be considered viable. In the Tables in Section 4 and Volume 2, the green symbols show where residual land values exceed EUVs. Yellow symbols show where residual land values are close to EUV, but marginally less (i.e. up to 15% lower than EUV). Red symbols show where residual land values are more than 15% lower than EUV and can be regarded as unviable. There may be site specific circumstances, not least the landowner's financial circumstances, where these thresholds may be higher or lower. While a higher existing use value requires a commensurate higher residential sales value, in many circumstances, this will still be viable although lower density schemes are more vulnerable to existing use value requirements.
- b. That exceptional development costs are no more than modest sums in comparison to total build costs. Extensive decontamination (compared to modest remediation works), although not common in Greenwich, could require significant expenditure, which would have a considerable impact on the residual land value. As an illustration Models 37-48 in Volume 2 show the effect of a 10% increase in costs.
- c. The results indicate that the impact of the affordable housing tenure mix upon the results is relatively modest compared to other variables. (See Tables 8A/D for an illustration).

As noted earlier, while there has clearly been a value gap between social rent and intermediate affordable units, varying the tenure split from 70-30% to 60-40% is less significant than other financial variables.

### 5.3 Impact of Code for Sustainable Homes requirements

5.3.1 Our appraisals incorporate an additional build cost (£8,064 per unit), albeit falling, covering the additional costs of moving from Code for Sustainable Homes level 3 to level 4 for all housing units, as now sought by LB Greenwich. We have not at this stage sought to model a Code 5/6 requirement. While advice to Government continues to suggest very high build cost increases for additional Code achievement, we are sceptical, mainly because Code 5 improvements have already been demonstrated to be practical at comparative costs.

### 5.4 Impact of varying levels of Section 106 payments

5.4.1 Our appraisals show the impact of Planning Obligations at various levels, ranging from £7,500 per unit to £15,000 per unit in Volume 2. While S106 contributions have an impact on scheme viability, the impact is more modest than that of affordable housing. Again, see Tables 8A/D and the main tables. As they demonstrate, the effects increase but it is not until the S106 contribution increases to £15,000 that there is a noticeable impact on viability and even then, it is relatively marginal. This is unlikely to change when the Council issues a Draft Charging Schedule for Community Infrastructure Levy (CIL), since that, by requirement, will have to be pitched at a level that embraces the vast majority of development schemes, and thus is not likely to exceed the Council's current S106 track record.

Variations in EUV, sales values and, to a slightly lesser extent, affordable housing targets are far more significant than Planning Obligations / CIL, as is the new affordable housing regime. Nevertheless, in specific cases, sensitivity analysis would be required to avoid impacting on affordable housing delivery.

### 5.5 Lowering Thresholds / Commuted Payments

5.5.1 We have considered lowering thresholds/ commuted payments, in this study and in particular, the repercussions for residual land value on smaller schemes. In principle, there is no issue. Circular 05/05 recognises the notion that there is no reason why obligations should not be applied consistently to smaller schemes. Indeed, while there will always be higher costs associated with smaller schemes, in 'normal market circumstances', there will also be some level of premium attached to small sites.

5.5.2 While we have demonstrated at least in principle (in section 4 and Volume 2) that applying a standard approach to smaller schemes from a purely financial perspective (and thus potentially reducing the threshold for policy application) is practicable (and it is), there will clearly be circumstances where policy application needs to be re-considered, such as where individual sites are contaminated and require remediation. While the broader principles of financial appraisal apply to smaller sites, we accept that they may be situations where small sites have to be considered on a site-by-site basis. Nevertheless, broader questions also then arise.

5.5.3 In particular, then, the issue is not so much the capacity of a small scheme to generate on-site affordable units or a commuted sum, but what will that commuted sum then deliver? Normally, (that is in other authorities), this is much more problematic,

Starting say, from a 'base' cost position that a good standard Code 4, 1-3bed unit could be built for between say, £90,000 and £160,000 excluding fees and borrowing, then clearly the 'surplus' value (that is, excess residual land value after all costs over and above existing use value), divided by the cost of providing an affordable unit, will EQUAL the number of affordable units to be delivered. This is optimal **but only if the land is free or heavily discounted through a S106 agreement.**



Thus, where the LPA own the site OR the RSL own the site but are underfunded in terms of delivery, then the commuted sum will deliver as described.

5.5.4 However, if the commuted sum, pooled or otherwise, requires a site acquisition in order for affordable housing to be delivered, then two possibilities arise:

- a. the acquired site is allocated for housing and therefore the policy requirements on affordable housing apply anyway and thus, the site value reflects that expectation and thus using the commuted sum is applied over and above the policy requirements (as above),or,
- b. the site is not allocated for residential; it has an existing use value (plus hope value) and it requires a consent for change of use to housing.

Either way, the commuted payment will clearly normally deliver a significantly lower amount of affordable housing and that is before any reductions in affordable housing grant.

So, from a policy perspective, the financial numbers in the Tables make some sense when applied to smaller sites, albeit this does of course exclude any exceptional costs on a site specific basis.

However, RBG have the advantage of sites owned by the Council and thus the facility to utilise and control commuted sums for the benefit of those in need, not least at Kidbrooke.

In principle therefore, and in the right financial circumstances, RBG may be able to justify a commuted payment of say £120,000 per unit or a graduated formulaic approach based on size of site, but any policy statement and specific calculation applied as a 'blanket' approach, would have to be heavily caveated to reflect site specific circumstances. This is of course the reason why those local authorities who have adopted 'fixed' commuted payment formulae, have had great difficulty in applying them, or, where they have been accepted, they are by implication too low, the inevitable *lowest common denominator* policy stance. LB Richmond for example had a formula for commuted sums enshrined in policy but have had great difficulty in applying it and have now opted for a site-by-site approach supported by a general policy requirement.

## 5.6 Applying a Differential Policy

5.6.1 We have also considered the case for applying a differential policy, that is varying the policy requirements in different parts of the Borough, especially in the light of the sales value variations illustrated in para.3.3.2 above, most notably for detached dwellings. Many Councils have considered this approach, primarily for the obvious reason that additional contributions towards affordable housing and obligations might arise. Those authorities who have persevered with the approach, such as Ashford Borough Council's contrasting urban and rural affordable policies, have generally relied on a very clear spatial definition of the policy requirements. In urban areas, such boundaries can be much more difficult to identify and where obvious boundaries do exist, there are usually wide value variants within sub-areas, often in close proximity to each other. We are of the view that despite the value variations in RBG, these characteristics do exist within potential sub areas and would thus undermine a differential approach in terms of the amount of affordable housing required. This does not however mean that the type of affordable housing in different parts of the Borough should not be varied; indeed, especially in areas where there is a heavy concentration of single tenure, there is a strong case for a variable approach. Nevertheless, a differential policy will affect residual land values, either side of boundaries and thus require regular review and potentially policy change.

## 6.0 Conclusions

- 6.1 Provision of an adequate supply of both social rented/ affordable rent and intermediate affordable housing is clearly an important issue in the Royal Borough of Greenwich. Affordable housing policy requirements are clearly based on need proven through the South East London Housing Market Assessment, the GLA Strategic Housing Market Assessment and other emerging planning documents. The Borough's requirements for the provision of social and community infrastructure via planning obligations are equally clear, although we have run our appraisals with a range of obligations to reflect changing future requirements.
- 6.2 This report has examined, in terms of financial viability, the potential for development sites in Greenwich to deliver affordable housing at varying percentages and mixes, while maintaining other planning obligations at their current (or increased) levels. By comparing the residual land values generated by our appraisals to 'typical' existing use values in the Borough, we can determine whether sites are likely to come forward for residential development, including a target for affordable housing and other planning requirements, using both the traditional affordable housing funding model and the new funding regime.
- 6.3 Our key conclusions are as follows:
- a. It is important to consider the affordable housing target in its proper context – it is a strategic target for delivery across all sites in the Borough over a 15 year time frame. Clearly, however, the new Affordable Housing funding regime announced in February 2011 will take some time to become established, as will the repercussions for *affordability*. Given this uncertainty, we recommend that the Borough adopt a site based requirement of at least 35% affordable housing, as in the current UDP. As the modelling demonstrates, the effect of variations in affordable housing policy split of social/affordable rent to intermediate tenure is relatively small when compared to other more significant financial variables and should therefore be determined on a needs basis, although it should still be applied sensitively, taking full account of individual site circumstances, including financial viability.
  - b. As noted in Table I (page 14), while there are many examples of developments achieving sales values in excess of £4000psm (approximately £400psf), there are also cases where lower values are the norm. Nevertheless, the delivery of higher levels of affordable housing (up to 50%) and increased planning obligations will be attainable in some cases as the modelling exercise demonstrates, albeit subject to financial viability assessment on a site by site basis.
  - c. At the moment within the residential sales value bands found within the Borough (which produce high residual land values in some areas ), there are circumstances where achieving 50% affordable housing is possible on sites in low value existing uses. But when market conditions become more favourable and sales values start to increase then the circumstances where achieving in excess of 35% and up to 50% affordable housing on individual sites, is likely to increase.
  - d. We have also modelled up to 60% affordable housing in considering proposals on existing employment sites and again, where existing use value is low and there are for example no exceptional costs such as contamination, there are combinations of financial variables, as the Tables illustrate, where delivery of 60% affordable may be viable.
  - e. While sales values did fall up to June 2009 and have improved since, our study draws the value bands for the appraisals wider than current values being achieved. By doing so, we have shown the scope for affordable housing delivery when market conditions return to normal (whatever 'normal' may turn out to be).

- f. The impact of increases in other planning obligations to £15,000 per unit has less of an impact on viability than affordable housing requirements. Consequently, many sites may be able also to provide up to £15,000 per unit in other planning obligations, without compromising viability although in reality this level cannot be expected on every site.
- g. We have not taken account of any exceptional costs and, where these arise, they may override our conclusions. With most sites coming forward in the Borough having been previously developed in one form or another, exceptional costs are not uncommon.
- h. We also draw attention to the future trend of build costs, which stopped falling by the end of 2010. BCIS suggest (Jan.2011) that short term reductions in contractor's profits will be overtaken by rising material costs as suppliers cut back production in 2011. The effect in the medium term, will be rising build costs in response to rising demand for materials and labour and this will adversely affect viability. BCIS predict build cost inflation of 2-3% in 2011 and 3-4% in 2012.
- i. The viability of achieving various levels of affordable housing is sensitive to meeting the Code for Sustainable Homes. However, in our experience, with increasing application and technological improvement, delivering Code 4 CSH is becoming the norm, while the costs associated with Code 5 are reducing.
- j. Despite the evidence of value variations across the Borough, we are not of the view that an area-based policy differentiating the amount of affordable housing provision, (rather than the type of affordable housing) in for example the northern and southern parts of the Borough, is a practical proposition for the following reasons:
  - Units in developments are sold at a range of values, not only reflecting local market variations but also, the type and specification of units proposed. The value range across the Borough is quite wide especially in detached dwellings but nevertheless, we remain of the view that any assumptions about outturn values on a local area base would be very susceptible to challenge and would require constant monitoring and review and thus be disruptive, uncertain and possibly counterproductive.
  - The potential variables on any such assumption about values and costs – identified throughout this report – have the capacity to undermine any standard approach not only at an area level, but also at a Borough wide level. Such possibilities are specifically recognised, for example, in the GLA's SPG on Affordable Housing, where there is a recognition that financial circumstances may well arise which require a review of affordable housing requirements in individual cases. There is nothing in this analysis that suggests that the Council's circumstances are markedly different.

In terms of lowering thresholds for the delivery of affordable housing from the current level of ten units, such sites do generally incur slightly higher costs but there are certainly some smaller sites, which purely in terms of financial viability, could sustain an affordable element. The issue will be more concerned with RSL attitudes to small sites and in particular the ability to cap service charges in mixed tenure schemes

- k. Density is another key variable as demonstrated in this analysis and in the interests of accuracy and applicability, it is important that the Council adopt an approach to residential density based either on habitable rooms per hectare or floor space per hectare, or a combination of one of these measures with units per hectare.
- l. Existing use value and alternate use values are one of the key variables that can impact on the provision of affordable housing. This exercise demonstrates that in higher value parts of the Borough, demands for affordable housing may conflict with EUV/AUV. Indeed, in a market where the gap between residential values and commercial values has

narrowed a little, the possibility of developers changing the proportions of mixed use proposals becomes slightly more of an issue.

- m. While this Viability exercise provides benchmarks, they clearly must be treated with caution and certainly do not imply a fixed position on the part of the Council. Indeed, site specific financial evaluations will continue to be necessary, a point emphasised in Circular 05/05, where the role of the Independent Assessor is recognised specifically.

6.4 With regard to existing use values, it is clear that if for example BI office rents and yields improve in the town centre fringe locations , there may be an increasing conflict (especially in mixed use schemes) to adjust the commercial / residential mix to minimise affordable housing content. In contrast, where low value commercial space is the subject of redevelopment proposals, there is less likelihood of a viability conflict. However, there will always be sites that attract higher existing use values; or that incur exceptional costs to bring forward developments; both factors affecting the outturn level of affordable housing.

6.5 Overall, the product of the Council's review must be a strongly worded affordable housing and Planning Obligations policy base which whilst influencing the nature of the local land market helps to deliver sustainable communities. Policies must acknowledge that exceptional circumstances may arise and some sites have high existing and alternative use values. However, the policy should also make clear the Council's intention to seek a detailed and robust financial statement to demonstrate conclusively why planning policies cannot be met. These should be tested by appropriately qualified chartered surveyors. Even then, there should be no presumption that such circumstances will be accepted, if other benefits do not outweigh the failure of a site to contribute towards affordable housing provision or meet other policy requirements.

## 7.0 ADDENDUM

### **AFFORDABLE HOUSING PROGRAMME: 2011 – 2015 BRIEFING PAPER**

The Government's reforms to affordable housing were trailed in the Comprehensive Spending Review in October 2010, with further details provided in the joint CLG / HCA paper '2011-15', Affordable Housing Programme: Framework' document, released on February 14<sup>th</sup> 2011.

We have included in this section initial views on the Government's proposed reforms, insofar as is possible before their implementation. Inevitably, therefore, some uncertainties will require clarification.

There are three underpinning aims of the Government's proposals; firstly, to make better use of existing stock by introducing more flexible tenancies and ending the presumption of a secure tenancy for life; secondly, to contribute towards reductions in public expenditure by reducing Social Housing Grant; and thirdly, to maintain or increase the supply of affordable housing to ensure that needs are met.

#### **Social Housing Grant**

Availability of Social Housing Grant is to be reduced considerably over the next four years. Between 2008 and 2011, annual funding amounted to £2.8 billion, whereas annual funding over the next four years will be £0.55 billion (an 80% reduction). The distribution of this funding between different parts of the country has not yet been announced.

Developers and landowners in London have become accustomed to grant being available for affordable housing. However, the 'Framework' document makes an explicit statement that grant will not be made available to support affordable housing secured through planning obligations.

#### **Affordable Rent tenure**

Social rented housing (affordable rented housing let at 'Target Rents') will be replaced by a new tenure, 'Affordable Rent'. Affordable Rent is similar to social housing, although the rents charged may be set at up to 80% of market rents. This compares to 30% to 40% of market rents charged for social rented housing. On the assumption that grant is unavailable, these higher rent levels will generate higher capital values compared to social rented units. These higher capital values will help to mitigate the loss of grant (to some extent), helping to maintain supply (in theory).

Affordable Rent will be similar to social rented housing in all other respects, including arrangements for nominations, which will remain unchanged from the current arrangements.

#### **Other tenures**

The other main tenure – shared ownership – will continue unchanged. The government will continue to promote shared ownership as a vehicle to encourage home ownership and to provide tenants with an exit from social rented housing.

### **Implications of the proposals**

#### **1. Local authorities**

Local authorities' reaction to the new Affordable Rent tenure has been cautious. Their main concern is the impact on affordability of the increased rent levels. For tenants, higher rents will reinforce the poverty trap. With rents increasing threefold in some cases, tenants will need to earn salaries of 155% of average earnings in London to pay their rent without support from benefits. That would translate to a salary of over £40,000 as at August 2010; a level of earnings that almost all tenants in social housing are unlikely to achieve.

Central London councils are concerned that rent levels for family units may be unaffordable in the context of the government's intention to cap the total amount of benefits that a household can claim to £26,000. This cap would leave very little money for the family concerned to meet other housing costs (eg utilities, council tax etc) as well as providing other essentials, including food and clothing.

The consequence of these concerns is that some local planning authorities may seek to cap rent levels through Section 106 agreements. This provides an element of uncertainty for developers when bidding for sites, as the value for the affordable housing would be dependent upon the stance adopted on rents by each local authority area.

In the medium to long term, the government itself may seek to row back from its current position, due to the increased costs of Housing Benefit. Sixty per cent of tenants receive Housing Benefit to pay their rents; higher rents will therefore increase the cost of Housing Benefit. It has been estimated that the Affordable Rent tenure will cost more over the long term than the current arrangements (where rents are lower, but there is an upfront subsidy - in the form of grant - provided by government). Clearly, if other strands of government policy that aim to get people back into employment are successful, then the costs of Housing Benefit could fall. However, given that rent levels will increase by two or three times, many households will require benefits to pay at least part of their rent, even if they access employment.

## **2. RSLs**

Increased rents will have mixed implications for RSLs. On the positive side, RSLs own significant portfolios of rented housing. As and when existing tenancies are terminated, an RSL will be able to increase the rent to up to 80% of market rents. This ability clearly has implications for the capital value of their stock. Increased capital values will enhance their ability to raise private finance and will strengthen their ability to purchase sites. RSLs may therefore become more active in the land market. Reductions in grant funding may also encourage RSLs to develop housing for private sale, to generate an element of cross subsidy to provide a greater quantum of affordable housing than would otherwise have been possible.

On the downside, increases in rents could increase the risk profile of RSLs' portfolios. Void risks and bad debts could increase and funders may increase their margins to reflect these risks.

In some cases, RSLs may wish to convert new social rented housing to the new 'Affordable Rent' tenure, but may be prevented from doing so by restrictions contained within Section 106 agreements. Some local authorities have historically limited the rents that can be charged to the existing 'target rent' level. RSLs will need the cooperation of developers to seek a variation to Section 106 agreements. This places the Developer in a good position to seek an enhanced price from the RSL for the affordable units.

## **3. Developers**

The clearest signal to emerge from the Government's Framework document is that developers should no longer assume grant is available for the units they are required to provide through planning obligations.

Should developers assume that RSLs will purchase the affordable housing units in their schemes based on 80% of market rents? Possibly, but there are caveats:

a) The rent must be inclusive of service charges, which would normally be passed on to the tenant. This will impact on the capital value paid by an RSL.

b) Some local authorities are advising developers to assume that the RSL will acquire their affordable housing units assuming target rents on the grounds of affordability. Other authorities may be more relaxed about affordability, but may seek to use the 'extra-over' rent above target rents to secure additional affordable housing supply. If this extra-over rent is already factored into developers' bids for sites, it will merely feed back into land value and provide no benefit to the local authority. This is likely to be a point of contention going forward.

c) There may also be implications arising from the government's plans for more flexible tenancies. RSLs will be able to provide tenancies for as little as two years, resulting in potentially more churn. Consequently, the affordable housing units in a scheme are more likely to house 'difficult' tenants, as those who get into jobs and become more settled will be moved on. This could exacerbate the difficulties sometimes encountered in marketing the private units close to or adjacent to the affordable housing units.