



# **Affordable Housing Economic Viability Assessment**

Prepared for  
London Borough of Newham

July 2010 (Final report)

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### Contact details:

Anthony Lee, Director – Affordable Housing  
BNP Paribas Real Estate  
90 Chancery Lane  
London WC2A 1EU

Tel: 020 7338 4061  
Fax: 020 7404 2028  
Email: [anthony.lee@bnpparibas.com](mailto:anthony.lee@bnpparibas.com)

# 1 Executive Summary

- 1.1 This report forms part of London Borough of Newham's ('the Council') evidence base for its Local Development Framework. It tests the ability of a range of sites throughout the Borough to provide varying levels of affordable housing, with and without grant and with various tenure mixes, on a range of sites in various existing uses.

## Methodology

- 1.2 The study methodology adopts two broad approaches to testing viability. Firstly, it compares the residual value of a range of generic development scenarios to a range of typical existing use values, plus a margin to incentivise the landowner to release the site for development. Secondly, the report assesses the viability of twenty sample schemes which have been consented by the Council during the past few years. For both approaches, the test of viability works in the same way; if a residential scheme has a higher value than the existing use value (plus appropriate landowner's margin), the scheme can be judged to be viable with a given level of affordable housing and other planning obligations.
- 1.3 The study utilises the residual land value method of calculating the value of each generic or real development situation. This method is used by developers when determining how much to bid for land and involves calculating the value of the completed units within the scheme and deducting development costs (construction, fees, finance and planning obligations) and developer's profit. The residual amount is the sum left after these costs have been deducted from the value of the development, and equates to the amount that a developer would normally pay for the site.
- 1.4 The housing market is inherently cyclical and the Council is testing its affordable housing policy at a time when values have fallen below their peak. We have therefore tested the viability of the policy against both today's values and at values that reflect future movements during the plan period.

## Key findings

- 1.5 The key findings of the study are as follows:
- The appraisals indicate that between 35% to 50% affordable housing is financially viable with grant in some circumstances at current market values. When sales values are very low, the provision of high percentages of affordable housing can improve viability, as affordable housing attracts a lower rate of profit (which is a cost in a residual valuation).
  - If grant funding is unavailable, the extent to which affordable housing can be provided at the levels above will be more limited.
  - The level of sales values and existing use value of sites are key factors in determining whether an individual site is capable of providing 35% to 50% affordable housing. The Borough has a large number of sites that are in low value use, which assists in providing relatively high levels of affordable housing. This is because the 'benchmark value' which the residual value of a scheme must exceed is lower than would be the case on sites in higher value uses. This would, however, be subject to addressing above average levels of contamination which sometimes occur.
  - There is no evidence that would support the adoption of an affordable housing policy that would require a *minimum* level of provision. Any policy

adopted by the Council should be treated as a target, which is subject to viability testing on individual sites.

- Our appraisals of small sites under the 10 unit threshold for on-site affordable housing indicate that financial in-lieu contributions should be viable in many cases. However, it may not be possible to arrive at a common formula that can be applied to all sites and there may therefore be a need to assess the level of financial contribution on a site by site basis.

## Summary of conclusions

- 1.6 The study indicates that between 35% and 50% affordable housing (in combination with other planning obligations as noted above) is generally achievable on the types of sites coming forward for development over the plan period. Sites with lower EUVs (in particular, sites in local authority ownership) appear to be most able to provide 35% to 50% affordable housing, with grant funding support. Affordable housing delivery is adversely affected by non-availability of grant in many cases. Our sensitivity testing of this main finding indicates that changes to main appraisal variables in isolation do not have a significant impact that would result in a different conclusion, as follows:
- We have appraised the hypothetical schemes using three profit levels (15%, 20% and 25%), with 15% reflecting average profit levels up to 2007 and 20% reflecting average profit levels in the current market). The results of the appraisals indicate that an increase in target profit levels should not significantly change the levels of affordable housing that can be viably delivered (assuming other variables remain unchanged). Conversely, a reduction in profit will result in a modest improvement in viability and the ability of sites to deliver affordable housing.
  - Our viability appraisals of twenty real sites indicate that 35% to 50% affordable housing is generally viable assuming grant is available. In some cases, increases in sales values would be required to achieve affordable housing at the higher end of this range. A change in tenure from 70% social rent and 30% intermediate to 60% social rent and 40% intermediate results in only a very modest improvement in viability.
  - We have modelled the hypothetical schemes using a range of planning obligations, from the current levels being secured, to a range of increased requirements that may be sought in the future. The impact of increased Section 106 obligations on the quantum of affordable housing that can be delivered is relatively limited. The imposition of either increased Section 106 requirements is unlikely to be major determinants in scheme viability (assuming other variables remain unchanged).
  - An alternative viability benchmark that is 38% higher than the assumed existing use values has a modest impact on scheme viability and the maximum viable levels of affordable housing that can be secured. Increasing values of other land uses (perhaps in response to a wider property market recovery) should not give rise to any change in the general conclusions drawn from the data (assuming other variables remain unchanged).
  - A 10% increase in build costs has a limited impact on overall scheme viability (assuming other variables remain unchanged) and could be accommodated in the context of increasing values over the medium term, without affecting affordable housing delivery. However, costs arising from the requirement for Code for Sustainable Home level 6 will have a more significant impact on viability, although it is widely expected that costs will fall as technology adapts.

## 2 Introduction

- 2.1 This study has been commissioned to provide an up to date evidence base on affordable housing targets in the London Borough of Newham, as required by PPS 3 and PPS12. The aims of the study are summarised as follows:
- a to review the financial viability of possible affordable housing options for the Borough;
  - b to test the impact upon the economics of residential development of a range of affordable housing policy options;
  - c to test affordable housing percentages of 25%, 35% and 50% affordable housing, with and without grant;
  - d to consider the ability of sites below the current threshold for affordable housing provision to make an in-lieu contribution;
  - e to test the impact of current S106 requirements and potential future increases resulting from a requirement for payment of the Community Infrastructure Levy on the ability of schemes to provide affordable housing;
  - f to test a the impact of future requirements relating to different levels of the Code for Sustainable Homes on scheme viability;
  - g to consider the impact of changes in future house prices upon the deliverability of affordable housing in the Borough;
- 2.2 In terms of methodology, we adopted standard residual valuation approaches to make appropriate comparisons and evaluations. However, due to the extent and range of financial variables involved in residual valuations, they can only ever serve as a guide. Individual site characteristics (which are unique), mean that blanket requirements and conclusions must always be tempered by a level of flexibility in application of policy requirements on a site by site basis. In Newham, individual site viability testing to establish affordable housing requirements is well established.

### Background and experience

- 2.3 BNP Paribas Real Estate has extensive experience of advising local planning authorities on the viability of their proposed affordable housing policies. We have also advised local planning authorities, developers and landowners on scheme-specific viability issues, with particular focus on affordable housing and other Section 106 obligations. We have recently carried out similar benchmarking exercises for a number of local authorities, including the London Boroughs of Barking & Dagenham, Barnet, Brent, Islington, Lewisham, Hackney, Hammersmith & Fulham, Southwark, Tower Hamlets and Wandsworth; Tunbridge Wells Borough Council; Bristol City Council, Sheffield City Council; Fareham Borough Council; South Oxfordshire District Council and Vale of White Horse District Council.

### Context

#### 2.4 The Policy Context

Paragraph 29 of Planning Policy Statement 3 (“PPS3”) states that: *“In Local Development Documents, Local Planning Authorities should...set an overall (ie 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.”*

- 2.5 The application of paragraph 29 of PPS3 was tested during the *Blyth Valley* case (Case Number C1/2008/1319) which concluded that local planning authorities cannot rely on housing needs surveys alone in setting their affordable housing targets. Blyth Valley Council had submitted its Core Strategy for examination prior to the publication of PPS3 and its affordable housing policy was based on evidence from its Housing Needs survey. At the time, there was no explicit requirement for councils to test the impact of their affordable housing policies on development economics (although some local authorities had undertaken such work prior to the publication of PPS3). Persimmon Homes and others challenged the soundness of the Core Strategy as the evidence base did not include a viability study that would satisfy the requirements of paragraph 29 of PPS3. This challenge was upheld
- 2.6 Key elements of affordable housing viability testing were challenged in the High Court by Barratt Developments in regards to Wakefield MDC’s Core Strategy. Barratt argued that the house price growth that the Council’s target relied upon could not be guaranteed. Therefore, Barratt argued that the Council should set its target based on *current* market conditions, disregarding any potential future improvements in viability. This would have resulted in a target of 5%, despite proven need for a much greater proportion of affordable housing.
- 2.7 Central to the Barratt challenge was the concept that many advisors to local authorities have adopted; namely that the viability of affordable housing targets should be tested in the context of both *current and improved* market conditions. Local authorities then adopt the highest possible affordable housing target (based on improved market conditions), recognising that the target may not be achieved on individual sites until sales values increase. Barratt argued that affordable housing percentages should be ‘stepped’ in some way; Mr Justice Pritchard’s judgement was that this was “*doomed to failure because of the difficulties of accurate prediction and definition*”. At the time this report was drafted, Barratt had submitted an appeal, the outcome of which is as yet unknown.

### **Thresholds**

- 2.8 While Government has applied site size thresholds to affordable housing for some time, no threshold applies to other Planning Obligations. Circular 05/05 makes clear that small schemes can be required to contribute planning obligations.
- 2.9 PPS3 states that the national indicative minimum site size for requiring affordable housing is 15 units. However, the case for reducing site size thresholds for affordable housing is addressed in PPS3, which enables local planning authorities to justify a case for reduction. Given that the Council’s current policy position is to deliver affordable housing on qualifying sites (10 or more units, in line with London Plan policy), lower thresholds are not considered by this study. However, we have explored the potential for sites below the 10 unit threshold to make a contribution in-lieu of on-site affordable housing.

## **Economic and housing market context**

- 2.10 Following a ten-year trend of growth in the housing market, house prices across England reached a peak in the second half of 2007 and the market entered a period of 'correction'. This correction of values gathered momentum during 2008, with the main commentators all reporting falls in values. The Halifax house price index showed an annual fall across England of 16.2% by the end of 2008. Similarly, the Nationwide showed an annual fall in prices of 15.9%. Prices of new build properties fell much further, with falls in some parts of England of up to 40% from peak 2007 values, as developers cut prices to complete sales to maintain cashflow.
- 2.11 A key cause of the downturn was the sub prime lending 'credit crunch' in the US in the final quarter of 2007. UK and European banks were also exposed to sub prime lending, resulting in significant restrictions in lending criteria and has seen the government underwriting 'toxic' assets of the high street banks, leaving many buyers finding it too difficult or expensive to obtain the necessary financing to complete a transaction. However, the market had shown signs of weakening prior to the 'credit crunch' following the impact of five interest rate rises over the previous two years. These factors, combined with a collapse in general market confidence, severely reduced the number of sales taking place in the market.
- 2.12 In October 2008 the government announced a £1 billion housing package in an attempt to revive the beleaguered market. The headline measures of the package included raising the stamp duty threshold to £175,000 and initiating a HomeBuy shared equity scheme for low income first time buyers. However, the measures were met with a lukewarm response from within the property sector. Whilst government action was welcomed, there was a general feeling that the measures proposed would do little to revive the market whilst mortgage liquidity remained constrained.
- 2.13 The acquisition by the government of preference shares in some of the major banks helped to restore some confidence. The second half of 2009 also saw the Halifax, Nationwide and Land Registry reporting increases in house prices. While this is not regarded as a signal that the correction has necessarily run its course, it provides some early signals that the market may be bottoming out. There are concerns that the current stabilisation in prices is driven by limited supply, and that prices may fall if home owners who have delayed sales pending a recovery place their properties on the market. There is also a concern that unemployment may increase further, possibly resulting in repossessions. However, analysts predict that the market will recover to 2007 sales well within the first half of the plan period.
- 2.14 This is a difficult context within which the Council must test its affordable housing policies. To reflect this difficulty, we have run our appraisals with a sensitivity analysis on future house prices, to demonstrate the impact of improved market conditions on the delivery of affordable housing.

## **Local Policy context**

- 2.15 The Council published its initial 'Preferred Options' for its Core Strategy in 2006. Following consultation, an 'Issues and Options for Core Strategy' document was published in 2008 and consulted on between 15 February and 28 March 2008.

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- 2.16 The Council is currently finalising its Strategic Housing Market Assessment, which highlights the affordability problems in many parts of the Borough, with very acute difficulties for people on low incomes. Consequently, there is an acute shortage of good quality affordable housing. The Council's approach 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.
- 2.17 The Council expects residential developments to provide a mix of affordable housing tenures, sizes and types to help meet identified housing needs and contribute to the creation of mixed, balanced and inclusive communities. The precise number, tenure, size and type of affordable units will be negotiated to reflect identified needs, site suitability and economic viability. In circumstances where site specific or market factors affect scheme viability, developers will be expected to provide viability assessments to demonstrate an alternative affordable housing provision.

### **Development context**

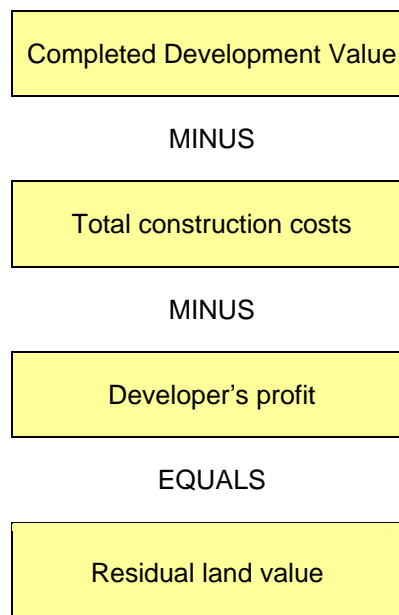
- 2.18 Sites in the Borough are developed with a range of styles and densities, reflecting the types of land available and public transport accessibility (which varies significantly). Sites in the Borough range from major regeneration sites in former B2 or B8 use; to small in-fill sites in residential areas, including former public houses and community buildings. Over the past decade, developments in the Borough have increased in density, with the densest schemes located adjacent to transport hubs. The Borough has seen major investment in transport infrastructure, with the Jubilee Line extension bringing rapid transit to areas of the Borough previously not on the Underground network. DLR extensions have already improved accessibility in many other parts of the Borough and the five Crossrail stations planned for Newham will bring further enhancements. Major investment in the Stratford area, including High Speed One, have made this area an attractive location for high density housing.

## 3 Methodology

- 3.1 Our methodology follows standard development appraisal conventions, using assumptions that reflect local housing market and planning policy circumstances. The study is therefore specific to the London Borough of Newham and reflects the policy requirements that the Council currently considers may be introduced over the plan period. We have attempted to ensure that the study reflects longer term housing market trends, rather than focusing on the current low point in the cycle. As far as is possible, we have taken account of all these variables in carrying out this study.

### Approach to Financial Viability Development

- 3.2 Appraisal models can be summarised via the following equation:

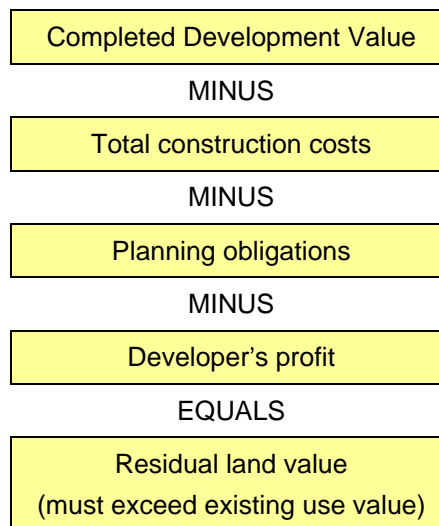


- 3.3 Residual Land Value – the sum that the developer will pay to the landowner to secure a site for development – will normally be the key variable. If a proposal generates sufficient positive land value, it will be implemented. If not, the proposal will not go ahead, unless there are alternative funding sources to bridge the ‘gap’ (and these will normally be particular to regeneration areas via public bodies such as the London Development Agency or Homes and Community Agency).
- 3.4 The problems with Development Appraisals all stem from the requirement to identify the key variables – sales values, costs etc – with some degree of accuracy in advance of implementation of a scheme. Even on the basis of the standard convention 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:

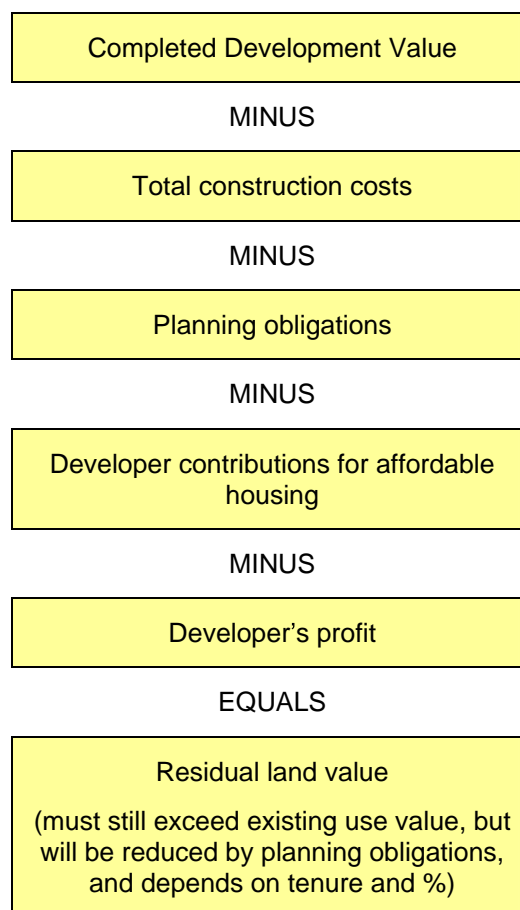
- Development costs are subject to extensive national and local monitoring and can be reasonably accurately assessed in ‘normal’ circumstances. In boroughs like Newham, the vast majority of sites will be previously developed. These sites frequently encounter ‘exceptional’ costs such as decontamination and flood risk mitigation. Such costs can be very difficult to anticipate before detailed site surveys are undertaken. Clearly these surveys should be carried out prior to acquisition, wherever possible, in view of the high risks of exceptional costs being incurred on brownfield sites.
- Development value and costs will also be significantly affected by assumptions about the nature and type of affordable housing provision and other Planning Obligations. In addition, on major projects, assumptions about development phasing; and infrastructure required to facilitate each phase of the development will affect residual values. Where the delivery of the affordable units and/or other obligations are deferred, the less the real cost to the applicant (and the greater the scope for increased affordable housing and other planning obligations). This is because the interest cost is reduced if the costs are incurred later in the development cashflow.
- While Developer’s Profit has to be assumed in any appraisal, its level is closely correlated with risk. The greater the risk, the higher the profit level required by lenders. While profit levels were typically around 15% of completed development value at the peak of the market in 2007, banks now require schemes to show a higher profit to reflect the current risk profit. We do not know when and if profit levels may begin to fall back.

3.5 Ultimately, the landowner will make a decision on implementing a project on the basis of return and the potential for market change, and whether alternative developments might yield a higher value. The landowner’s ‘bottom line’ will be achieving a residual land value that sufficiently exceeds ‘existing use value’ or other appropriate benchmark to make development worthwhile. For modelling purposes, we have assumed a 15% margin above EUV. Margins above EUV may be considerably different on individual sites, where there might be particular reasons why the premium to the landowner should be lower or higher than our assumption.

3.6 The following two diagrams summarise the outcomes of the residual valuation calculation.



- 3.7 The standard appraisal calculation shown above is reasonably clear, subject to the issues noted earlier in this section. 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. On the assumption that other development costs remain unchanged, a reduced Completed Development Value resulting from the requirement to provide affordable housing results in a lower Residual Land Value.
- 3.8 With the exception of affordable housing – which is determined according to a Borough wide target – other planning obligations must be directly related to the scheme itself. The level of obligations can therefore vary between sites, depending on the needs created by the development and, for example, availability of places in pre-existing services, such as schools.



- 3.9 Developers will seek to mitigate the impact of 'unknown' development issues through the following strategies:
- When negotiating with the landowner, the developer will either attempt to reflect planning requirements in the offer for the land, or seek to negotiate an option to purchase, or complete a deal 'subject to planning' which will enable any additional costs arising (Planning obligations and affordable housing for example) to be passed on to the landowner. Ultimately, the landowner pays through reduced land value, providing the basic condition for Residual Land Value to exceed existing use value (plus landowners' margin) or other appropriate benchmark is met; and/or,

- The developer will seek to build in sufficient tolerance into the development appraisal to offset risks including, for example, design development where costs might be incurred to satisfy planning requirements or design coding etc. It would also be normal to have a contingency allowance which would generally equate to 2% to 5% of build costs.
  - The extent to which developers can successfully mitigate against all risks outlined above depends largely on the degree to which developers have to compete to purchase sites. In a competitive land market, the developer who is prepared to 'take a view' on the risks is likely to offer the winning bid.
- 3.10 Clearly, however, landowners have expectations of the value of their land which often exceed the value of the existing use. Planning obligations required by local policy will be a cost to the scheme and impact on the residual land value. Ultimately, landowners cannot be forced to sell their land and (unless a Local Authority is prepared to use its compulsory purchase powers) some may simply hold on to their sites, in the hope that policy may change at some future point with reduced requirements. It is within the scope of those expectations that developers have to formulate their offers for sites. The task of formulating an offer for a site is complicated further still during buoyant land markets, where developers have to compete with other developers to secure a site, often speculating on continued rises in value.

### Viability benchmark

- 3.11 PPS3 provides no specific guidance on how local authorities should test the viability of their affordable housing policies. However, there is a range of guidance generated by both the Homes and Communities and appeal decisions that assist in how planning authorities should approach viability.
- 3.12 The Homes and Communities Agency recently published a good practice guidance manual 'Investment and Planning Obligations: Responding to the Downturn'. This defines viability as follows: *"a viable development will support a residual land value at level sufficiently above the site's existing use value (EUV) or alternative use value (AUV) to support a land acquisition price acceptable to the landowner"*.
- 3.13 A number of planning appeal decisions provide guidance on the extent to which the residual land value should exceed existing use value to be considered viable:

**Barnet & Chase Farm: APP/Q5300/A/07/2043798/NWF**

*"the appropriate test is that the value generated by the scheme should exceed the value of the site in its current use. The logic is that, if the converse were the case, then sites would not come forward for development"*

**Bath Road, Bristol: APP/P0119/A/08/2069226**

*"The difference between the RLV and the existing site value provides a basis for ascertaining the viability of contributing towards affordable housing."*

**Beckenham: APP/G5180/A/08/2084559**

*"without an affordable housing contribution, the scheme will only yield less than 12% above the existing use value, 8% below the generally accepted margin necessary to induce such development to proceed."*

**Oxford Street, Woodstock: APP/D3125/A/09/2104658**

*"The main parties' valuations of the current existing value of the land are not dissimilar but the Appellant has sought to add a 10% premium. Though the site*

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*is owned by the Appellants it must be assumed, for valuation purposes, that the land is being acquired now. It is unreasonable to assume that an existing owner and user of the land would not require a premium over the actual value of the land to offset inconvenience and assist with relocation. The Appellants addition of the 10% premium is not unreasonable in these circumstances.”*

- 3.14 It is clear from the decisions above and HCA guidance that the most appropriate test of viability for planning policy purposes is to consider the residual value of schemes compared to the existing use value plus a premium of between 10% and 20%. As discussed later in this report, our study adopts a premium above EUV of 15% as a viability benchmark, with an additional sensitivity of a higher benchmark.

## 4 The Appraisal Exercise

### Key appraisal variables

- 4.1 The key variables in any development appraisal are as follows:
- 4.2 **Sales values:** Sales values for residential and the investment value of commercial rents will vary between local authority areas (and within local authority areas) and are constantly changing. Developers will try to complete schemes in a rising or stable market, but movements in sales values are a development 'risk'. During times of falling house prices, local authorities may need to apply their policy requirements flexibly, or developers may cease bringing sites forward.
- 4.3 **Density:** Density is an important determinant of development value. Higher density development results in a higher quantum of units than a lower density development on the same site, resulting in an increase in gross development value. However, high density development often results in higher development costs, as a result of the need to develop taller buildings, which are more expensive to build than lower rise buildings and the need to often provide basements for car parking and plant. Planning obligations on higher density schemes will also be higher than on lower density schemes. It should therefore not automatically be assumed that higher density development results in higher residual land values; while the gross development value of such schemes may be higher, this can be partially (or wholly) offset by increased build costs and higher planning obligations.
- 4.4 **Gross to net floor space:** The gross to net ratio measures the ratio of saleable space (ie the area inside residential units) compared to the total area of the building (ie including the communal spaces, such as entrance lobbies and stair and lift cores. The higher the density, the higher the gross to net floor space ratio; in taller flatted schemes, more floor space is taken up by common areas and stair and lift cores, and thus less space is available for renting or sale - and this will adversely affect the residual land value.
- 4.5 **Base construction costs:** While base construction costs will be affected by density and other variables such as flood risk, ground conditions etc., they are well documented and can be reasonably accurately determined in advance by the developer.
- 4.6 **Exceptional costs:** In common with the majority of other London boroughs, clean, serviced greenfield sites are almost unheard of. With the vast majority of schemes coming forward on previously developed land, exceptional costs have become more common and need to be monitored carefully. Exceptional costs relate to works that are 'atypical', such as remediation of sites in former industrial use and that are over and above standard build costs. However, for the purposes of this exercise, it is not possible to provide a reliable estimate of what exceptional costs would be, as they will differ significantly from site to site. Our analysis therefore excludes exceptional costs, as to apply a blanket allowance would generate misleading results. An 'average' level of costs for decontamination, flood risk mitigation and other 'abnormal' costs is already reflected in BCIS data, as such costs are frequently encountered on sites in London.

- 4.7 **Developer's Profit:** Following the standard convention, developer profits are based on an assumed percentage of gross development value. While developer profit ranged from 15% to 17% of gross development value in 2007, banks currently require a scheme to show higher profits. Higher profit figures reflect levels of perceived and actual 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 therefore run our appraisals with a profit level of 20%. However, it is possible that over the life of the Plan, the banks' requirements in terms of profit levels may change. If conditions improve, it is possible (but by no means guaranteed) that banks will relax their lending criteria and reduce the amount of profit they require schemes to achieve. We have therefore adopted three levels of profit in our appraisals; 20% (reflecting current market conditions where development risk is considered to be higher); 25% (reflecting a worsening of market conditions with a perception of higher risk); and 15% (representing improved market conditions in which development risk is perceived to be lower).

### Existing Use Value

- 4.8 Existing Use Value ("EUV") Alternative Use Value ("AUV") and acquisition costs are key considerations in the assessment of development economics. Clearly, there is a point where the Residual Land Value (what the landowner receives from a developer) that results from a scheme may be less than the land's existing use value. Existing use values in London can vary significantly, depending on the demand for the type of building relative to other areas. Similarly, subject to planning permission, the potential development site may be capable of being used in different ways – as a hotel 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 a financial sense and a therefore a key factor in this study.
- 4.9 In this study, we have adopted EUVs that most closely reflect the current use on the range of sites that typically come forward for development in Newham, as advised by the Council. The majority of sites coming forward in Newham are either former industrial land; gas holder sites; existing council owned sites; ex-industrial wharfs; former public houses and clubs; and small in-fill sites in residential areas. We have arrived at a broad judgement on the likely value of these uses. In each 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 storeys than neighbouring buildings; or there is a general lack of demand for the type of space, resulting in low rentals, high yields and high vacancies (or in some cases no occupation over a lengthy period). 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.
- 4.10 Landowners will often consider a range of uses for their sites, not just residential, so AUVs will feature in their decision making process. By using a range of non-residential values in our assessment, we are able to determine how the value of residential development (with varying levels of affordable housing) compares to the alternative development types.

- 4.11 In considering the value of commercial property, it is necessary to understand the concept of 'yields'. Yields form the basis of the calculation of a building's capital value, based on the net rental income that it generates. Yields are used to calculate the capital value of any building type which is rented, including both commercial and residential uses. Yields are used to calculate the number of times that the annual rental income will be multiplied to arrive at a capital value. Yields reflect the confidence of a potential purchaser of a building in the income stream (i.e. 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 type. The lower the covenant strength of the occupier (or potential occupiers if the building is currently vacant), and the poorer the location of the building, the greater the risk that the tenant may not pay the rent. If this risk is perceived as being high, the yield will be high, resulting in a lower number of years rent purchased (i.e. a lower capital value).
- 4.12 Over the past two years, yields for commercial property have 'moved out' (i.e. increased), signalling lower confidence in the ability of existing tenants to pay their rent and in future demand for commercial space. This has the effect of depressing the capital value of commercial space. However, as the economy recovers, we would expect yields to improve (i.e. decrease), which will result in increased capital values. Consequently, EUVs will increase, increasing the base value of sites that might come forward as potential residential sites, which may have implications for the delivery of affordable housing and other planning obligations.
- 4.13 Redevelopment proposals that generate residual land values below EUV plus an appropriate margin to the landowner are unlikely 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 justifies a higher EUV than those assumed, then appropriate adjustments may be necessary. Similarly, the margin above EUV that individual landowners may require will inevitably vary. As such, Existing Use Values should be regarded as benchmarks rather than definitive fixed variables on a site by site basis.
- 4.14 The EUVs of the individual sites identified in this study therefore give a broad indication of likely land values across the Borough, but it is important to recognise that other site uses and values may exist on the ground.
- 4.15 In the very short term, some 'distressed sales' of land may result in very low land values, as existing owners seek to realise cash to cover their credit commitments. In some cases, administrators may instruct site sales. These sites might therefore be purchased by developers at low cost, making the delivery of affordable housing a more viable prospect (even at today's depressed unit sales values).

### **Specific Modelling Variables**

- 4.16 This section summarises the particular assumptions used in the benchmarking exercise for sites in Newham.

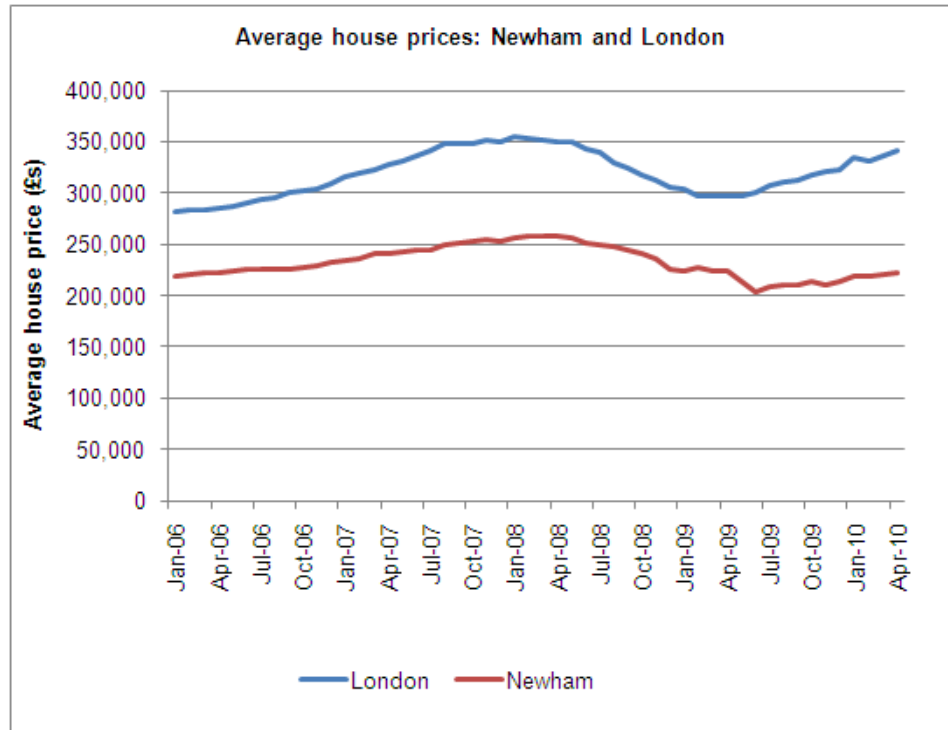
## Sales Values

- 4.17 Residential values in the Borough reflect national trends in recent years but do of course vary significantly within the Borough. Our research on transacted property values and discussions on values with local agents at a base date of March 2010 indicates that sales values range from £2,150 per sq m to £6,460 per sq m, as shown in table 4.17.1. We have also run our appraisals factoring in an element of sales value inflation (20% on current values), reflecting future potential growth over the early part of the plan period.

**Table 4.17.1: Sales values (£s per square metre)**

Area	Current values		Future inflated values	
	Minimum	Maximum	Minimum	Maximum
Beckton	£2,150	£3,770	£2,580	£4,520
Canning Town	£2,690	£6,460	£3,230	£7,750
Custom House	£2,150	£4,310	£2,580	£5,170
East Ham	£2,150	£3,770	£2,580	£4,520
Forest Gate	£2,450	£3,770	£2,900	£4,520
Little Ilford	£2,150	£3,770	£2,580	£4,520
Manor Park	£2,150	£3,770	£2,580	£4,520
Plaistow	£2,690	£4,310	£3,230	£5,120
Silvertown	£3,230	£6,460	£3,880	£7,750
Stratford	£3,770	£6,460	£4,520	£7,750
Upton Park	£2,690	£4,840	£3,230	£5,810
West Ham	£2,690	£4,480	£3,230	£5,810
<b>Min / max range</b>	<b>£2,150</b>	<b>£6,460</b>	<b>£2,580</b>	<b>£7,750</b>
<b>Average min / max</b>	<b>£2,580</b>	<b>£4,710</b>	<b>£3,090</b>	<b>£5,650</b>

- 4.18 Sales values fell between late 2007 and the middle of 2009 but there is widespread expectation that they will recover over the medium term (indeed, there are now early signs that the decline in prices may be coming to an end, with increases in values during the second half of 2009). Sales values achieved at the peak of the housing market cycle in late 2007/early 2008 were clearly higher and we would expect values to return to those levels over the next six to eight years. Our results are shown using both March 2010 values and values that reflect those at the peak of the market in late 2007, to provide an indication of levels of affordable housing that might be viable both in the current market and following a recovery.
- 4.19 Land Registry data on property transactions shows that average values in London are higher than in Newham than in the rest of London. Since May 2009, values in both London and Newham have recovered, but the rate of recovery in London as a whole is faster. This indicates that properties in Newham will have become more affordable relative to other areas in London, making it well placed to capitalise on any stronger recovery in future years.



Source: Land Registry

### Unit mix

- 4.20 Unit mix will vary with density, with a greater proportion of houses than flats in lower density schemes, and smaller flats in higher density schemes. Table 4.20.1 shows the density assumed in our appraisal models, broadly based on the London Strategic Housing Market Assessment (April 2009).

**Table 4.20.1: Unit mixes - all tenures**

Density (units per hectare)	1 bed flat	2 bed flat	3 bed flat	4 bed flat	2 bed house	3 bed house	4 bed house
50	-	-	-	-	40.0%	35.0%	25.0%
100	20.0%	30.0%	15.0%	-	15.0%	15.0%	5.0%
200	30.0%	35.0%	20.0%	15.0%	-	-	-
300	30.0%	35.0%	25.0%	10.0%	-	-	-
400	35.0%	40.0%	20.0%	5.0%	-	-	-
500	35.0%	40.0%	20.0%	5.0%	-	-	-
600	37.5%	40.0%	17.5%	5.0%	-	-	-
1500	40.0%	45.0%	10.0%	5.0%	-	-	-

- 4.21 We have also carried out a separate exercise to test the likely impact of a varying requirement for family housing (30%, 40% and 50%) on scheme viability. For the purposes of this exercise, family housing is considered to be units with three or more bedrooms. The mix for each appraisal is shown in table 4.21.1.

**Table 4.21.1: Unit mix**

Unit type	Appraisal with 30% family housing	Appraisal with 40% family housing	Appraisal with 50% family housing
One bed	30	27	21
Two bed	40	29	23
Three bed	20	23	27
Four bed	10	15	18
Total	100	94	89

- 4.22 These appraisals consider a scheme which starts with 30% family housing, with 100 units and a total net internal floor area of 76,410 sq ft. Further appraisals were run to test the impact on the residual land value of 40% and 50% affordable housing. The number of units in the appraisals with 40% and 50% family housing is adjusted so that the total floor area does not exceed the original amount (i.e. 76,410).
- 4.23 The results of this exercise are discussed in Section 7.

### Density

- 4.24 We have run appraisals using the range of densities that are typically encountered across the borough, as advised by the Council. Densities are assumed to range from 50 units per hectare – a modest suburban density – to 1,500 units per hectare – a high central urban density. The density bands are shown in table 4.24.1 below. The table also shows the percentage of schemes consented since 2006 that fall into each density band. 87% of all units were in schemes with a density of 499 units or less.

**Table 4.24.1: Density of hypothetical developments**

Density Band	Density (units per hectare)	Percentage of consented schemes since 2006 falling into density band
1	50	4.4%
2	100	
3	200	11%
4	300	31.6%
5	400	40%
6	500	4.9%
7	600	
8	1500	8.1%

## Gross to Net Floor space

- 4.25 The higher the density in a development, the greater the amount of communal space which has to be provided, but generates no value. This is because flatted schemes require common areas and stair cores, whereas houses provide 100% 'saleable space'. In our model, as a greater quantum of flats is incorporated into the hypothetical development, the build costs increase, to reflect the cost of building the communal space in the blocks of flats.
- 4.26 In our model, we have adopted a gross to net ratio for flats of 85% for flats in schemes of densities of up to 150 units per hectare; and 80% for flats in schemes of densities of over 200 units per hectare. This reflects the typical ratio in schemes that BNP Paribas Real Estate has valued or appraised on behalf of developers, banks and local authorities. The gross to net ratio is reflected in the build cost when measured on the total saleable area (i.e. the area that excludes common areas). For example, if a building is comprised of 10 flats each with a net internal area (i.e. the floorspace inside the flat itself) of 100 square metres, the total net area of the building is 1,000 square metres. However, when the entrance lobbies, corridors and stair cores are taken into account, the total floor area (what is known as the gross internal area) is 1,200 square metres. The net area is 83% of the gross area. If the build cost is £1,500 per square metre of gross internal floorspace, this equates to £1,800 per square metre per net square metre. This is an important distinction when considering whether a build cost is reasonable – the unit of measurement (i.e. gross or net) needs to be consistent.

## Base Construction Costs

- 4.27 The modelling exercise plots a range of base construction costs reflecting scheme density ranging from £1,076 per square metre to £3,330 per square metre (net). These costs are drawn from the RICS Building Cost Information Service (BCIS) and subject to adjustment to take account of external works (which are excluded from the BCIS figures). We would not expect to see any significant difference in build costs between affordable and market housing, in the average scheme. Higher internal specification in market housing is typically offset by regulatory requirements in affordable units. With regards to design and finishing, requirements for developments to be (externally) tenure blind often result in similar costs for both tenures.
- 4.28 We also draw attention to a consensus among forecasters on the future trend of build costs, which fell during 2009 and are expected to remain broadly flat during 2010. Savills, for example, have predicted a cumulative fall of 11% from 2008 onwards, while the RICS BCIS predicts that costs will remain flat during 2010 and increase from 2011 onwards. Lower costs (or no increase in costs) will help to improve viability over the next year to 18 months by offsetting some of the impact of potential falls in values over 2010 (despite the recent positive house price data from Nationwide, Halifax and the Land Registry many commentators still see downside risks to the economy which will place continued downwards pressure on house prices). However, in the medium term, build costs will increase in response to rising demand for materials and labour.

- 4.29 It is important to note that build costs could increase further should 'exceptional costs' arise. Such costs include decontaminating and remediating sites. As a result, costs need to be treated with caution and where normal levels are exceeded, the capacity of the site concerned to meet the Council's planning obligations will be affected. However, with almost all developments in the Borough coming forward on previously developed sites, the build costs we have sourced from BCIS includes an 'average' cost for decontamination and site clearance.

### Code for Sustainable Homes

- 4.30 Meeting the requirements of the Code for Sustainable Homes will result in increased costs above those required to meet Part L of the 2006 Building Regulations. We have relied on the Communities and Local Government/Cyril Sweet study ('Costs Analysis of the Code for Sustainable Homes – Final Report' July 2008) and the CLG March 2010 review to estimate these additional costs. The uplift in costs above base construction costs used in the Cyril Sweet report is shown in table 4.30.1. The costs in the March 2010 show slightly lower extra-over costs for meeting CSH levels 3 and 4, but slightly higher costs to meet levels 5 and 6.

**Table 4.30.1: uplift in base construction costs to meet CSH levels 3 to 6**

Code Level	Uplift in base construction costs
3	5%
4	11%
5	20%
6	35%

### Developer's profit

- 4.31 As noted in Section 4.7, Developer's profit is closely correlated with the perceived risk of residential development. The greater the risk, the greater the required profit level, which helps to mitigate against the risk, but also to ensure that the potential rewards are sufficiently attractive for a bank to fund a scheme. In 2007, profit levels were at around 15-17% of Gross Development Value. 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 housebuilders will set targets for minimum profit).
- 4.32 The views of the banks which fund development are more important; if the banks decline an application by a developer to borrow to fund a development, it is very unlikely to proceed, as developers do not necessarily carry sufficient cash to fund it themselves. Consequently, future movements in profit levels will largely be determined by the attitudes of the banks towards residential development.
- 4.33 The near collapse of the global banking system in the final quarter of 2008 is resulting in a much tighter regulatory system, 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.

- 4.34 The minimum generally acceptable profit level is currently around 20% of GDV. Our appraisals therefore show the viability of varying levels of affordable housing at 15%, 20% and 25% profit on the private housing (and 6% of GDV on the affordable housing in all three cases). A lower return on the affordable housing is appropriate as there is very limited sales risk on these units for the developer; there is often a pre-sale of the units to an RSL prior to commencement. Any risk associated with take up of intermediate housing is borne by the acquiring RSL, not by the developer. A reduced profit level on the affordable housing reflects the Homes and Communities Agency's guidelines in its Economic Appraisal Tool.

### Planning Obligations

- 4.35 Levels of Planning Obligations will vary according to needs arising from individual developments. The extent of any planning obligations will depend upon a number of factors, including child yield; availability of school places in the locality; trip generation and highways impacts and other related factors.
- 4.36 For the purposes of this study, we have modelled Planning Obligations at the following indicative levels. The base level of contributions reflects the average levels secured by the Borough in a sample of typical schemes and the higher levels reflect possible increases in requirements in the future.
- £6,000 per unit;
  - £8,000 per unit; and
  - £10,000 per unit.
- 4.37 The range of obligations tested in the study is wide and should accommodate a majority of development scenarios. The level of obligations applied to individual sites may, however, be higher or lower than the levels indicated by these ranges to reflect individual site requirements and mitigation.

### Affordable housing values

- 4.38 At lower densities (where build costs are lower), social rented and intermediate housing can sometimes make a positive contribution to land value, subject to levels of grant available. However, at higher densities, the affordable housing does not typically cover its costs and a subsidy from private housing is required.
- 4.39 We have calculated the value of social rented housing by capitalising the net target rents, set in accordance with government formulae. This results in a value of £786 per square metre, assuming no grant is available.
- 4.40 As intermediate housing is linked to market values, the values will be determined in part by varying market values. The values adopted for this tenure are based on the assumption that 25% of the equity is sold to the occupier and the RSL charges a rent of 2.75% on the retained equity. The values in the model are capped to ensure that, when market values increase, the actual price paid by the RSL still allows end purchasers on modest incomes to afford the combined mortgage and rent payment. This a cautious approach as price paid will in reality move with the market changes and also RSL ability to fund acquisitions and their business plan assumptions.

- 4.41 PPS 3 Para 29 requires councils to take account in its viability an “informed assessment of the likely level of finance available for affordable housing including public subsidy”. We have therefore run our appraisals both with and without Public subsidy. Where grant is assumed to be available, we have adopted a current maximum average of £30,000 grant per person for social rented units and £15,000 grant per person for intermediate units.
- 4.42 The level of Public Sector Grant available for delivery through the planning system has been relatively high over the past five years. Forthcoming downwards pressure on public expenditure is likely to result in a reduction in the availability of grant funding for affordable housing procured through planning obligations.

### Existing use values

- 4.43 We have researched values of sites with a range of uses, which the Council has advised are brought forward for residential development in the Borough. These existing use types are shown in table 4.43.1 below, along with our estimates of indicative values in 2010.

**Table 4.43.1: Existing use values**

Property Type	Estimate of EUV (£ millions per hectare)
Industry/warehousing/wharves	9.00
Existing LA owned residential	0.65
Other local authority owned land	1.44
Former public houses and social clubs	3.60

- 4.44 The scope of our analysis was limited to secondary properties only, on the assumption that these are the most likely candidates for redevelopment. In the current market, there is very little transactional evidence and, where necessary, we have derived values from discussions with agents with experience in the area. In all cases, our values specifically exclude any hope value.
- 4.45 Our analysis incorporates a 15% return above EUV as a premium to the landowner to incentivise him/her to bring the site forward for development.

### Other Influential Factors

- 4.46 Variability of landowner attitudes: Land markets need time to adapt to changing policy circumstances and landowners may have the choice to hold sites back and hope that policies change. Up until the recent housing market recession, a more common circumstance in areas of sharp price inflation has been fierce competition between developers. This resulted in some developers buying sites without consent on the expectation that rising capital values would offset risk. When the market turns, these developers find that they are unable to implement their schemes and cannot afford their infrastructure and affordable housing obligations.

- 
- 4.47 Site specific circumstances may arise where the authority is obliged to weigh up perhaps conflicting policy requirements. On sites with an extensive requirement for decontamination (ie above average levels), not all the Council's planning requirements may be affordable. For example, an employment protection policy may require commercial space to be provided in a predominantly residential scheme. The commercial space is likely to have a negative or low value, which requires a cross subsidy from the private housing. This is likely to reduce the amount of subsidy available to provide affordable housing and other planning obligations.
- 4.48 On larger schemes, perhaps phased over some years, developers will seek to agree terms on S106 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. The corollary to this is that, if the Authority expects to receive a share of the 'upside', it should also be prepared to accept a potential reduction in benefits should the market move the other way. Review mechanisms are now used frequently by authorities for larger schemes with multiple phases, particularly in the current housing market recession. There are various models in place, but the most typical is for the Developer to submit a fresh development appraisal with each reserved matters application. If values improve in a particular phase, to the extent that the profit increases above the agreed level, an increased proportion of affordable housing would be provided in that phase. The level of affordable housing in each phase and across the scheme could not exceed the relevant Authority's target percentage without the Developer's agreement.

## 5 Appraisal outputs

- 5.1 Before examining the illustrated outcomes, it is important to highlight the variables which may change the outputs – positively and negatively. They are summarised in Table 5.1.

**Table 5.1: Positive and negative impacts on appraisal outcomes**

Positive impacts	Negative impacts
Net land value contribution from affordable housing (generally lower density schemes with low build costs only)	Net loss on affordable housing requiring cross subsidy from private housing
Increase in intermediate tenures may deliver a better receipt than social rented housing	Public subsidy not available to meet viability gaps where they occur
Low and/or deferred Planning Obligations	High and/or up-front Planning Obligations
Historic land cost (minimal)	High Existing/Alternative Use Value
Availability of gap funding	Unexpected contamination or remediation costs

- 5.2 With these factors in mind, the tables in the following section summarise the key outputs of our development appraisals.

### Presentation of data

- 5.3 The tables 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 top row). For each density, we show the build costs per square metre. The appraisal outputs are compared with four different Existing Use Values, as described in Section 4.40.
- 5.4 Each cell in the first table of each set of data shows the residual land value of a hypothetical scheme (of a given density and at the relevant sales value). This residual value is then compared to each of the four different existing use values. Residual values are very sensitive to small changes in appraisal variables. Consequently, our test of viability allows for a 15% margin below EUV (where schemes are shown as marginally unviable). We also allow a 15% margin above EUV to reflect landowners' premium. In these sections of the tables, **green** symbols show where the residual land value of each hypothetical scheme exceeds EUV by a margin of at least 15%. **Yellow** symbols show where the residual value is between 15% below EUV and up to 14% above EUV. In these situations, the scheme is considered marginally viable (i.e. with some adjustments and modest reductions in cost and increases in values, it could become viable). **Red** symbols show where the residual value of each scheme is more than 15% lower than EUV and is clearly unviable.
- 5.5 On the far right hand side of each table, we provide an indication of where the range of sales values falls in the current market and at the peak of the last housing market cycle in 2007. These value bands have been drawn more widely than the values currently being achieved in those areas, reflecting values from the peak of the market in 2007, to provide an indication of viability when the market recovers.

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- 5.6 The full set of data tables are attached as Appendix 1, which also show the residual land values from which the symbols are derived. The data tables show the following variables:
- Affordable housing: 25%, 35% and 50% affordable housing;
  - A social rent to intermediate housing split of 70% social rent and 30% intermediate and an alternative split of 60%:40%;
  - Base Section 106 contributions of £6,000 per unit, with higher rates of £8,000 and £10,000 per unit;
  - Code for Sustainable Homes level 3 for private housing and level 4 for the affordable housing as a base position; further iterations of level 4; level 5; and level 6 on all housing;
  - Each of the above with profit levels of 15%, 20% and 25% on GDV; and
  - Sensitivities of an increase in EUV of 20% and build costs of 10%.
- 5.7 For each affordable housing percentage, there are 66 separate tables. Each table is comprised of 112 residual valuations, which are then analysed against four EUVs, providing a total of 560 individual assessments per page. The dataset for each affordable housing percentage therefore comprises some 29,000 separate calculations; and the entire dataset comprises 87,000 individual calculations.
- 5.8 An annotated version of the data output is provided on the following page.
- 5.9 We provide some examples of the results in the following sections to illustrate the layout of the tables. The full set of results can be found at Appendix 1. Examples 1 to 6 on the following pages illustrate a range of scenarios.

## Guide to appraisal outputs

The appraisal outputs contain a series of tables, showing different scenarios (eg level of affordable housing, tenure mix, profit levels and planning obligations), as shown on the Index page. At the top of each page, we show the residual values from a series of hypothetical schemes, which are then compared to four different existing use values in the tables below. The first table below shows the layout of the residual values:

Each cell shows the residual land value of a hypothetical scheme. For example, the cell we point to here is a 50 unit per ha scheme, with average sales values of £5,543 per sqm and build costs of £1,076 per sqm. The residual value is £9,955,225.

Density of scheme  
(units per hectare)

Build costs per  
square metre

Sales value  
(per sq m)

MODEL	Density - units/ha ->								Sales value per sm							
	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph								
Build costs ->	£1076 per sqm								£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm	
Sales value per sm									£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm
£2,153	1,494,764	- 777,618	- 5,384,542	- 14,123,019	- 27,925,414	- 42,606,050	- 64,723,327	- 195,058,796	£2,153							
£2,637	2,703,401	1,128,456	- 1,833,918	- 8,813,295	- 21,276,394	- 34,294,773	- 54,916,258	- 172,153,305	£2,637							
£3,122	3,912,039	3,030,709	1,677,496	- 3,503,570	- 14,627,373	- 25,983,497	- 45,109,190	- 149,247,816	£3,122							
£3,606	5,120,675	4,918,491	5,179,163	1,754,488	- 7,978,351	- 17,672,220	- 35,302,122	- 126,342,325	£3,606							
£4,090	6,329,313	6,802,200	8,680,829	6,968,148	- 1,358,781	- 9,360,944	- 25,495,054	- 103,436,834	£4,090							
£4,575	7,537,950	8,685,908	12,182,495	12,143,635	5,199,487	- 1,100,691	- 15,687,985	- 80,531,344	£4,575							
£5,059	8,746,588	10,569,617	15,684,161	17,319,121	11,757,754	7,097,144	- 5,893,569	- 57,625,853	£5,059							
£5,543	9,955,225	12,453,325	19,161,277	22,494,607	18,258,842	15,294,978	3,780,425	- 34,720,364	£5,543							
£6,028	11,163,863	14,337,034	22,636,087	27,670,093	24,746,605	23,432,523	13,377,773	- 11,947,850	£6,028							
£6,512	12,291,591	16,092,974	25,875,512	32,493,714	30,785,586	30,981,248	22,266,277	9,035,964	£6,512							
£6,997	13,386,466	17,800,541	29,025,826	37,184,125	36,654,667	38,317,600	30,902,221	29,410,448	£6,997							
£7,481	14,480,939	19,508,110	32,176,139	41,874,536	42,523,747	45,653,951	39,538,164	49,784,931	£7,481							
£7,965	15,575,410	21,215,679	35,326,452	46,564,948	48,392,828	52,990,302	48,174,108	70,096,604	£7,965							
£8,611	17,034,706	23,492,436	39,526,870	52,818,829	56,218,269	62,772,103	59,688,699	96,977,359	£8,611							



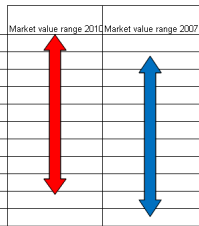
### Example 1: 25% affordable housing with grant; 70% social rent and 30% intermediate; base Section 106 contributions (£6,000 per unit); 15% developer's profit

MODEL	1									Sales value	
Density ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph			
Build costs ->	£1076 per sqm £1453 per sqm £1722 per sqm £1991 per sqm £2314 per sqm £2530 per sqm £2852 per sqm £3229 per sqm								psm		
£2,153	1,828,503	239,586	4,376,137	12,615,605	26,035,309	40,243,417	61,935,458	189,540,856	2,153		
£2,637	3,077,823	1,725,770	713,604	7,129,578	19,169,203	31,860,785	51,810,418	164,906,118	2,637		
£3,122	4,327,145	3,689,261	2,904,137	1,648,412	12,303,096	23,078,154	41,686,378	141,271,362	3,122		
£3,606	5,576,466	5,635,657	5,521,977	3,762,514	5,436,952	14,495,522	31,560,337	117,636,845	3,606		
£4,090	6,825,788	7,262,054	10,139,817	9,125,656	1,361,430	5,912,880	21,435,291	94,001,928	4,090		
£4,575	8,075,109	9,526,451	13,757,357	14,472,924	8,133,679	2,567,050	11,310,257	70,367,172	4,575		
£5,059	9,324,430	11,474,847	17,368,200	19,820,293	14,888,808	11,032,361	1,262,947	46,732,436	5,059		
£5,543	10,573,751	13,421,243	20,858,281	25,187,611	21,689,718	19,495,164	6,709,261	23,087,899	5,543		
£6,028	11,823,072	15,267,640	24,549,361	30,515,029	28,288,628	27,860,051	18,573,713	230,717	6,028		
£6,512	13,072,393	17,218,209	27,963,403	36,598,498	34,651,951	35,814,206	27,938,823	22,335,603	6,512		
£6,997	14,321,714	19,032,501	31,310,611	40,582,060	40,887,850	43,628,078	37,114,512	43,983,492	6,997		
£7,481	15,571,035	20,846,793	34,657,819	45,565,602	47,123,427	51,403,961	46,296,203	68,626,570	7,481		
£7,965	16,820,356	22,661,085	38,005,027	50,548,184	53,359,646	59,138,824	56,465,893	87,047,172	7,965		
£8,449	18,069,677	25,080,139	42,467,971	57,190,268	61,674,177	69,591,988	67,700,146	115,607,975	8,449		

Aff Hsg	25%
% SR	70%
% SO	30%
S106 (private)	£6,000 per unit
S106 (affordable)	£6,000 per unit
CIL	
C5H (% uplift on Private)	5%
C5H (% uplift on Aff)	11%
Grant	Yes
Developer's profit	15%
Gov	0% change from base
Build costs	0% change from base

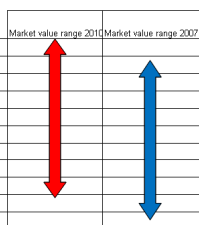
RLVs less existing use value **£9,089,600 per hectare** Industrial / warehousing / wharfs

Density ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value	
Build costs ->	£1076 per sqm £1453 per sqm £1722 per sqm £1991 per sqm £2314 per sqm £2530 per sqm £2852 per sqm £3229 per sqm								Eper sq m	
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£8,449	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖



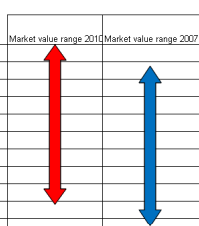
RLVs less existing use value **£845,840 per hectare** Existing LA owned residential

Density ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value	
Build costs ->	£1076 per sqm £1453 per sqm £1722 per sqm £1991 per sqm £2314 per sqm £2530 per sqm £2852 per sqm £3229 per sqm								Eper sq m	
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£8,449	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖



RLVs less existing use value **£1,435,200 per hectare** LA land

Density ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value	
Build costs ->	£1076 per sqm £1453 per sqm £1722 per sqm £1991 per sqm £2314 per sqm £2530 per sqm £2852 per sqm £3229 per sqm								Eper sq m	
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£8,449	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖



RLVs less existing use value **£3,588,000 per hectare** Former pubs and clubs

Density ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value	
Build costs ->	£1076 per sqm £1453 per sqm £1722 per sqm £1991 per sqm £2314 per sqm £2530 per sqm £2852 per sqm £3229 per sqm								Eper sq m	
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
£8,449	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖



### Example 2: As per Example 1, but with 20% developer's profit

MODEL	2									All Hsg	
Density - units/ha ->		50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	% SR	70%
Build costs ->										% SO	30%
Sales value per sq m		£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2862 per sqm	£3229 per sqm	S10E (private)	£6,000 per unit
										S10E (affordable)	£6,000 per unit
										CIL	
										CSH (% uplift on Private)	5%
										CSH (% uplift on AH)	11%
										Grant	Yes
										Developer's profit	20%
										BLV	0% change from base
										Build costs	0% change from base
£2,153	1,523,753	730,603	5,297,918	13,993,561	27,760,340	42,399,707	64,476,002	194,474,658	2,153		
£2,637	2,704,506	1,130,224	1,630,618	8,906,361	21,270,163	34,286,910	54,906,910	172,131,045	2,637		
£3,122	3,885,258	2,969,849	1,896,630	3,623,161	14,779,986	26,174,113	45,335,617	149,797,433	3,122		
£3,606	5,066,011	4,832,165	5,017,972	1,513,562	8,289,638	19,061,316	36,764,725	127,443,820	3,606		
£4,090	6,246,764	6,671,840	8,437,414	6,609,146	1,822,755	9,948,519	26,193,632	105,100,207	4,090		
£4,575	7,427,516	8,511,513	11,856,855	11,863,364	4,578,784	1,876,568	16,622,540	62,756,594	4,575		
£5,059	8,608,269	10,351,186	15,276,299	18,717,581	10,980,234	6,125,266	7,651,448	60,417,981	5,059		
£5,543	9,789,021	12,190,960	18,677,745	21,771,799	17,336,948	14,127,200	2,381,957	38,039,369	5,543		
£6,028	10,969,774	14,030,533	22,071,431	26,826,017	23,670,040	22,086,816	11,777,438	15,808,851	6,028		
£6,512	12,089,645	15,774,300	25,286,578	31,616,335	29,666,546	29,502,448	20,602,901	5,022,630	6,512		
£6,997	13,198,944	17,481,948	28,438,892	36,338,747	35,535,629	35,919,799	29,238,745	25,267,113	6,997		
£7,481	14,281,762	19,189,517	31,589,205	40,997,157	41,404,707	44,265,151	37,874,689	45,771,596	7,481		
£7,965	15,376,234	20,897,895	34,739,519	45,897,569	47,273,788	51,591,501	46,510,632	66,133,841	7,965		
£8,611	16,835,530	23,173,843	38,939,937	51,941,450	56,099,230	61,373,303	58,025,224	93,014,596	8,611		

**RLVs less existing use value** **£9,089,600 per hectare** **Industrial / warehousing / wharfs**  
**£3,680,000 per acre**

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value per sq m	Market value range	Market value range 2007
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2862 per sqm	£3229 per sqm			
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,153	↕	↕
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,637		
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,122		
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,606		
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,090		
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,575		
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,059		
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,543		
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,028		
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,512		
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,997		
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,481		
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,965		
£8,611	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,611		

**RLVs less existing use value** **£645,840 per hectare** **Existing LA owned residential**  
**£261,474 per acre**

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value per sq m	Market value range	Market value range 2007
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2862 per sqm	£3229 per sqm			
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,153	↕	↕
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,637		
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,122		
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,606		
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,090		
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,575		
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,059		
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,543		
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,028		
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,512		
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,997		
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,481		
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,965		
£8,611	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,611		

**RLVs less existing use value** **£1,435,200 per hectare** **LA land**  
**£581,953 per acre**

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value per sq m	Market value range	Market value range 2007
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2862 per sqm	£3229 per sqm			
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,153	↕	↕
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,637		
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,122		
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,606		
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,090		
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,575		
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,059		
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,543		
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,028		
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,512		
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,997		
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,481		
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,965		
£8,611	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,611		

**RLVs less existing use value** **£3,588,000 per hectare** **Former pubs and clubs**  
**£1,452,632 per acre**

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value per sq m	Market value range	Market value range 2007
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2862 per sqm	£3229 per sqm			
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,153	↕	↕
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,637		
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,122		
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,606		
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,090		
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,575		
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,059		
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,543		
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,028		
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,512		
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,997		
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,481		
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,965		
£8,611	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,611		

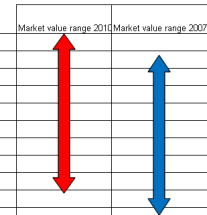
### Example 3: 35% affordable housing with grant; 70% social rent and 30% intermediate; base Section 106 contributions (£6,000 per unit); 15% developer's profit

MODEL	Density - units/ha ->								Sales value per sq m	
	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph		
Build costs ->	£1076 per sqm £1453 per sqm £1722 per sqm £1991 per sqm £2314 per sqm £2530 per sqm £2852 per sqm £3229 per sqm									
Build costs psm	£2,153	2,052,929	102,560	3,784,777	11,766,589	24,931,651	39,906,818	60,374,683	184,765,956	2,153
£2,637	3,180,290	1,877,276	479,474	6,812,679	18,726,973	31,150,969	51,222,086	163,383,514	2,637	
£3,122	4,307,661	3,644,370	2,787,459	1,869,170	12,522,288	23,395,120	42,069,490	142,001,072	3,122	
£3,606	5,435,011	5,401,502	6,054,393	3,027,998	6,317,615	15,639,273	32,916,894	120,616,629	3,606	
£4,090	6,562,372	7,158,836	9,321,326	7,872,386	154,988	7,883,424	23,764,288	99,236,186	4,090	
£4,575	7,689,733	8,916,169	12,888,260	12,700,801	5,965,080	186,118	14,611,701	77,852,744	4,575	
£5,059	8,817,094	10,673,501	15,638,204	17,629,217	12,080,348	7,462,941	5,471,052	56,471,301	5,059	
£5,543	9,944,455	12,430,834	19,079,838	22,367,633	18,134,409	15,114,001	3,567,441	35,088,858	5,543	
£6,028	11,071,816	14,188,186	22,321,473	27,186,049	24,188,470	22,692,869	12,511,529	13,796,356	6,028	
£6,512	12,199,177	15,811,343	25,315,955	31,845,036	29,771,910	28,671,540	20,729,381	5,605,947	6,512	
£6,997	13,326,538	17,983,729	30,316,988	36,844,062	35,179,752	36,422,096	29,681,645	24,361,450	6,997	
£7,481	14,453,899	19,866,115	31,117,782	40,283,179	40,580,201	43,182,653	36,633,911	43,128,954	7,481	
£7,965	15,581,260	20,528,601	34,018,696	44,602,267	45,984,646	49,936,209	44,586,175	61,872,507	7,965	
£8,449	16,708,621	22,625,815	37,888,630	50,351,355	53,180,573	58,945,618	55,189,195	86,626,202	8,449	

Aff Hsg	35%
% SR	70%
% SI	30%
SI06 (private)	£6,000 per unit
SI06 (affordable)	£6,000 per unit
CSH (% uplift on Private)	5%
CSH (% uplift on AH)	11%
Grant	Yes
Developer's profit	15%
EVV	0% change from base
Build costs	0% change from base

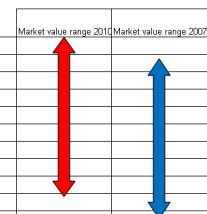
#### RLVs less existing use value **£9,089,600 per hectare** **£3,680,000 per acre** Industrial / warehousing / wharfs

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value per sq m
Build costs ->	£1076 per sqm £1453 per sqm £1722 per sqm £1991 per sqm £2314 per sqm £2530 per sqm £2852 per sqm £3229 per sqm								
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,153
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,637
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,122
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,606
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,090
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,575
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,059
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,543
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,028
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,512
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,997
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,481
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,965
£8,449	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,449



#### RLVs less existing use value **£645,840 per hectare** **£261,474 per acre** Existing LA owned residential

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value per sq m
Build costs ->	£1076 per sqm £1453 per sqm £1722 per sqm £1991 per sqm £2314 per sqm £2530 per sqm £2852 per sqm £3229 per sqm								
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,153
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,637
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,122
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,606
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,090
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,575
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,059
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,543
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,028
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,512
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,997
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,481
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,965
£8,449	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,449



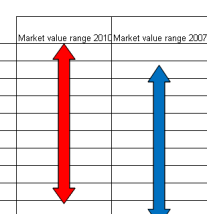
#### RLVs less existing use value **£1,435,200 per hectare** **£581,853 per acre** LA land

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value per sq m
Build costs ->	£1076 per sqm £1453 per sqm £1722 per sqm £1991 per sqm £2314 per sqm £2530 per sqm £2852 per sqm £3229 per sqm								
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,153
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,637
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,122
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,606
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,090
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,575
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,059
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,543
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,028
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,512
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,997
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,481
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,965
£8,449	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,449



#### RLVs less existing use value **£3,589,000 per hectare** **£1,452,632 per acre** Former pubs and clubs

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value per sq m
Build costs ->	£1076 per sqm £1453 per sqm £1722 per sqm £1991 per sqm £2314 per sqm £2530 per sqm £2852 per sqm £3229 per sqm								
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,153
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,637
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,122
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,606
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,090
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,575
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,059
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,543
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,028
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,512
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,997
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,481
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,965
£8,449	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,449



### Example 4: As per Example 3, but with nil grant

MODEL 4										Aff Hsg	
Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph			35%
Build costs ->	£1076 per sqm   £1453 per sqm   £1722 per sqm   £1991 per sqm   £2314 per sqm   £2530 per sqm   £2852 per sqm   £3229 per sqm									% SR	70%
Sales value psm										% SO	30%
										SI06 (private)	£5,000 per unit
										SI06 (affordable)	£5,000 per unit
										CI	
										CSH (% uplift on Private)	5%
										CSH (% uplift on AH)	11%
										Grant	Nil
										Developer's profit	15%
										BLV	0% change from base
										BLV costs	0% change from base

#### RLVs less existing use value **£9,089,600 per hectare** Industrial / warehousing / wharfs **£3,680,000 per acre**

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value psm	Market value range 2010	Market value range 2007	
Build costs ->	£1076 per sqm   £1453 per sqm   £1722 per sqm   £1991 per sqm   £2314 per sqm   £2530 per sqm   £2852 per sqm   £3229 per sqm											
Sales value psm												
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,153	↕	↕	
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,637			
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,122			
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,606			
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,090			
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,575			
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,059			
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,543			
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,028			
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,512			
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,997			
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,481			
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,965			
£8,611	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,611			

#### RLVs less existing use value **£645,840 per hectare** Existing LA owned residential **£261,474 per acre**

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value psm	Market value range 2010	Market value range 2007	
Build costs ->	£1076 per sqm   £1453 per sqm   £1722 per sqm   £1991 per sqm   £2314 per sqm   £2530 per sqm   £2852 per sqm   £3229 per sqm											
Sales value psm												
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,153	↕	↕	
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,637			
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,122			
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,606			
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,090			
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,575			
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,059			
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,543			
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,028			
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,512			
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,997			
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,481			
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,965			
£8,611	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,611			

#### RLVs less existing use value **£1,435,200 per hectare** LA land **£581,053 per acre**

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value psm	Market value range 2010	Market value range 2007	
Build costs ->	£1076 per sqm   £1453 per sqm   £1722 per sqm   £1991 per sqm   £2314 per sqm   £2530 per sqm   £2852 per sqm   £3229 per sqm											
Sales value psm												
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,153	↕	↕	
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,637			
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,122			
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,606			
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,090			
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,575			
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,059			
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,543			
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,028			
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,512			
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,997			
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,481			
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,965			
£8,611	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,611			

#### RLVs less existing use value **£3,588,000 per hectare** Former pubs and clubs **£1,452,632 per acre**

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value psm	Market value range 2010	Market value range 2007	
Build costs ->	£1076 per sqm   £1453 per sqm   £1722 per sqm   £1991 per sqm   £2314 per sqm   £2530 per sqm   £2852 per sqm   £3229 per sqm											
Sales value psm												
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,153	↕	↕	
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£2,637			
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,122			
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£3,606			
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,090			
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£4,575			
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,059			
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£5,543			
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,028			
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,512			
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£6,997			
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,481			
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£7,965			
£8,611	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	£8,611			

### Example 5: 50% affordable housing with grant; 70% social rent and 30% intermediate; base Section 106 contributions (£6,000 per unit); 15% developer's profit

MODEL										Aff Hous	
Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph			50%
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm			
Sales value psm									Sales value psm		
£2,153	2,389,570	615,780	2,897,738	10,493,216	23,276,166	36,901,916	58,033,520	179,103,610	2,153	% SR	70%
£2,637	3,333,990	2,102,795	1,286,281	6,537,932	18,063,626	30,396,245	50,339,589	161,099,608	2,637	% SIO	30%
£3,122	4,276,410	3,576,533	2,612,442	2,182,447	12,951,087	23,870,572	42,545,698	143,095,608	3,122	S106 (private)	£6,000 per unit
£3,606	5,220,605	6,050,270	5,353,156	1,926,975	7,638,549	17,354,889	34,951,727	125,091,605	3,606	S106 (affordable)	£6,000 per unit
£4,090	6,161,034	6,524,008	8,093,890	5,982,629	2,429,563	10,839,226	27,257,797	107,087,603	4,090	CSH (% uplift on Private)	5%
£4,575	7,101,462	7,997,746	10,824,951	10,042,618	2,712,181	4,323,562	19,963,886	89,083,801	4,575	CSH (% uplift on AH)	11%
£5,059	8,041,891	9,471,883	13,543,209	14,062,803	7,853,926	2,111,311	11,389,926	71,079,801	5,059	Grant	Yes
£5,543	8,982,319	10,945,221	16,261,426	18,142,591	12,962,945	8,538,492	4,193,126	53,075,598	5,543	Developer's profit	15%
£6,028	9,922,747	12,418,959	18,979,843	22,192,577	18,038,233	14,942,397	3,396,960	35,071,597	6,028	EUV	0% change from base
£6,512	10,863,175	13,701,043	21,344,752	25,714,766	22,490,349	20,457,541	9,915,218	19,613,057	6,512	Build costs	0% change from base
£6,997	11,803,603	14,910,360	23,976,556	29,057,140	26,697,614	25,664,122	16,033,345	6,066,814	6,997		
£7,481	12,744,031	16,116,993	25,807,727	32,369,515	30,764,880	30,850,705	22,149,472	9,375,311	7,481		
£7,965	13,684,459	17,223,625	28,038,199	35,681,890	34,922,145	36,047,397	28,266,599	23,807,237	7,965		
£8,449	14,624,887	18,330,257	31,014,426	40,062,999	40,465,165	42,976,862	36,422,767	43,049,805	8,449		

RLVs less existing use value										Industrial / warehousing / wharfs	
Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph			
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm			
Sales value psm									Sales value psm	Market value range 2010	Market value range 2007
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£8,449	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕

RLVs less existing use value										Existing LA owned residential	
Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph			
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm			
Sales value psm									Sales value psm	Market value range 2010	Market value range 2007
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£8,449	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕

RLVs less existing use value										LA land	
Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph			
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm			
Sales value psm									Sales value psm	Market value range 2010	Market value range 2007
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£8,449	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕

RLVs less existing use value										Former pubs and clubs	
Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph			
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm			
Sales value psm									Sales value psm	Market value range 2010	Market value range 2007
£2,153	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£2,637	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£3,122	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£3,606	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£4,090	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£4,575	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£5,059	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£5,543	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£6,028	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£6,512	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£6,997	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£7,481	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£7,965	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕
£8,449	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	↕	↕



## 6 Real sites analysis

- 6.1 In addition to the 'notional' sites appraisals outlined in the preceding section (with details provided at Appendix 1), we have appraised twenty schemes that have been granted planning consent over the past three years. The schemes are distributed throughout the Borough's nine community forum areas and twenty wards.
- 6.2 Details of the sites (including location, planning reference, number of units and unit mix, and existing use value) are provided as Appendix 2. Current uses of the sites includes vacant former industrial sites; currently occupied industrial and storage uses; existing residential; public houses; and community uses and social clubs. Table 6.2.1 provides a summary of this information.

**Table 6.2: Summary information on twenty sites**

Planning reference	Street	Area	No of units	Existing use
08/01204	Bradymead	Beckton	4	Two storey resi care home (6 beds)
07/02479	Barking Road	Boleyn	9	Open land, previously cinema car park
06/02074	Barking Road	Canning Town North	48	Club/car wash/valet and 2 x 2 storey houses
07/01080	Tarling Road	Canning Town South	15	Vacant site, previously retail with resi above
08/00319	Freemasons Road	Custom House	14	Single Storey MOT garage
07/00312	High Street North	East Ham Central	4	Storage above commercial and backland
07/01799	Plashet Grove	East Ham North	42	Former Public Houses (vacant)
07/01872	Newham Way	East Ham South	11	Car Repair workshop
07/00661	Buxton Road	Forest Gate North	10	Two storey end terrace house
05/00514	Earlham Grove	Forest Gate South	36	Vacant houses in comm use & garages
05/0682	Romford Road	Green Street East	26	Former Police Station, demolished
08/00625	Upton Lane	Green Street West	13	Vacant former timber yard/hardware store
09/00279	Aldersbrook Lane	Little Ilford	18	40 lock up garages
06/00234	High Street North	Manor Park	12	Former social club and retail
08/00431	London Road	Plaistow North	14	Vacant single storey factory
07/01374	Greengate Street	Plaistow South	13	Petrol Filling Station
04/1948	Pier Road	Royal Docks	97	Former Public Houses (vacant)
09/00361	High Street	Stratford And New Town	173	Vacant site, former Pub/builders yard
07/01106	Barking Road	Wall End	14	Former car showroom/garage
07/02278	West Ham Lane	West Ham	12	Former public house

- 6.3 We do not have full information on the sites as landowners or developers are often reluctant to provide details that may be regarded as commercially sensitive. We have therefore applied our own assumptions (as set out in Section 4) to our appraisals of the twenty sites.
- 6.4 Although each site has a quantum of affordable housing that was effectively agreed by the Council upon grant of consent, we have applied uniform levels of affordable housing across all twenty schemes. Each appraisal has been run on the following bases:

- 25%; 35% and 50% affordable housing with grant;
- 25%; 35% and 50% affordable housing with nil grant; and
- 25%; 35% and 50% affordable housing with a nil value. This scenario has been included to test the possibility of some schemes providing affordable housing for transfer to the Council at nil cost.

6.5 In addition, each of the scenarios above has been repeated with sales value inflation of circa 20%, reflecting the level of values prior to the current housing market correction in late 2007. A summary of the results of our analysis are provided in table 6.5.1 below and the full results are attached as Appendix 3. Green cells show where particular sites are viable in current market conditions. Dark green cells indicate that these schemes turn from unviable to viable, following an increase in market values of 20%, accompanied by a 20% increase in EUVs.

**Table 6.5.1: viable quantum of affordable housing**

Site address	Existing Use Value (incl landowner premium)	Residual Land Values (with grant)			Residual Land Values (no grant)			Residual Land Values (AH nil value)		
		25% Affordable	35% Affordable	50% Affordable	25% Affordable	35% Affordable	50% Affordable	25% Affordable	35% Affordable	50% Affordable
56 Bradymead	£210,000									
7-11 Barking Road	£238,000									
213-217 Barking Road	£750,000									
11-55 Taring Road	£750,000									
117-125 Freemasons Road	£240,000									
180 High Street North E6	£75,000									
190-200 Plashet Grove	£500,000									
1173-1175 Newham Way	£188,000									
95 Buxton Road	£200,000									
140-150 Earlham Grove	£1,830,000									
370 Romford Road, Finden Road	£1,250,000									
199 Upton Lane	£600,000									
Aldersbrook Lane	£400,000									
500-502 High Street North, E12	£530,000									
83-89 London Road	£302,000									
35-51 Greengate Street	£650,000									
2 Pier Road	£500,000									
223-231 High Street, Rick Robert Way	£1,920,000									
444-474 Barking Road, E6	£368,000									
46 West Ham Lane	£250,000									

Unviable  
 Viable at current sales values  
 Viable at enhanced sales values

6.6 The results above indicate that a policy requirement of anywhere between 25% and 50% affordable housing should be viable, providing developers pay reasonable prices for land (linked to EUV, plus a margin). Difficulties in meeting the target in practice typically stem from landowners demanding a land value for their sites that is significantly higher than EUV plus a reasonable margin.

### Capacity for smaller sites to make a contribution in lieu

6.7 The Council's current threshold for on-site affordable housing is 10 units. We have not been advised of any plans to change this threshold in the current plan period. However, the Council is interested in exploring the possibility of securing contributions in lieu of on-site affordable housing on sites that fall below the 10 unit threshold. The capacity for sites to make contributions in lieu of affordable housing needs to be tested via financial viability. Three of the real sites tested above fall below the 10 unit threshold, enabling us to test their ability to pay a commuted sum.

- 6.8 The three sites are 56 Bradymead (4 units); Barking Road, Boleyn (9 units); and High Street North, East Ham Central (4 units). 56 Bradymead was unviable with any level of on-site affordable housing, so it was excluded from our analysis. Our appraisals indicate that both Barking Road and High Street North are capable of accommodating up to 50% affordable on site at current market values, providing grant is available. Barking Road can also provide up to 25% affordable housing if grant is unavailable. High Street North can provide 25% without grant with current market values and up to 50% at improved market values.
- 6.9 It is important to bear in mind that a requirement for a payment in lieu of affordable housing on small sites does not make a site viable, that would otherwise have been unviable with a requirement for on-site affordable. Any contribution in-lieu of affordable housing would need to be set sensitively and applied flexibly to take account of individual site circumstances.
- 6.10 A contribution towards affordable housing provision could be calculated by deducting the sum that an RSL could pay for an affordable housing unit from the equivalent market value for that unit. The amount payable by the RSL would be based on a loan that can be serviced by the net rental income for each unit, but not including public subsidy as this would only be available if the units are actually being provided. This leaves the developer no worse off (and no better off) than had the affordable housing been provided on site.
- 6.11 Table 6.11.1 shows the payments that would be due under this arrangement at Barking Road and High Street North. These assessments assume that an equivalent of 50% affordable housing would have been provided on site.

**Table 6.11.1: Contributions in lieu of affordable housing**

Site	(a) Value of completed scheme (100% private)	(b) Value of completed scheme (50% private; 50% affordable)	Difference between (a) and (b) – ie commuted sum
Barking Road	£1.99 m	£1.11 m private £0.77 m affordable £1.88m total	£0.12 m
High Street North	£0.75m	£0.47 m private £0.26 m affordable £0.73 m total	£0.02 m

- 6.12 Having established the level of commuted sum, we then need to consider whether the payment would render the scheme unviable. This analysis is shown in table 6.12.1.

**Table 6.12.1: Viability of contributions in lieu of affordable housing**

Site	Contribution in lieu (a minus b from table 6.11.1)	Residual value of scheme (100% private)	Residual value LESS contribution in lieu	Existing use value incl landowner premium	Contribution in lieu viable?
Barking Road	£0.12 m	£0.29 m	£0.17 m	£0.24 m	No
High Street North	£0.02 m	£0.12 m	£0.10 m	£0.08m	Yes

- 6.13 While this analysis shows a mixed picture, it is important to note that private sales values at both sites are relatively low, resulting in low residual land values. If the private sales values at Barking Road were rebased from their current assumed level of £2,960 to £3,500 (an 18% increase), the residual value would increase and the contribution in lieu would be viable. This analysis is summarised in table 6.13.1.

**Table 6.13.1: Barking Road – sales values rebased - £2,960 to £3,500 psm**

Site	Contribution in lieu	Residual value of scheme (100% private)	Residual value LESS contribution in lieu	Existing use value incl landowner premium	Contribution in lieu viable?
Barking Road	£0.23 m	£0.49 m	£0.26 m	£0.24 m	Yes

- 6.14 In light of this analysis, there are clearly circumstances where affordable housing financial contributions could be secured from developments below the current threshold of 10 units without adversely affecting development viability. However, the appraisal results will inevitably be affected by other requirements (including Code for Sustainable Homes). We return to small sites later in this report, but it is clear that the results indicate that there is potential for smaller sites to make a financial contribution towards affordable housing provision. These requirements will need to be applied sensitively and be subject to viability. The payment in lieu could, for example, be calculated on the basis of an affordable housing percentage of less than 50% on occasions where viability is weak.

## 7 Assessment of the results

- 7.1 This section needs to be read in conjunction with the tabular / graphical presentation in Appendix 1 (with a few examples shown in the preceding sections). In these tables, the residual land values are calculated for scenarios with different sales values and densities of development, and then compared with existing use values. The tables show the outputs of our appraisals using the variables set out in Section 4.

### Assessment

- 7.2 The tables in Appendix 1 and the real sites results demonstrate that the delivery of up to 50% affordable housing (in combination with other planning obligations as noted above) is generally achievable on the types of sites coming forward for development. Sites with lower EUVs (in particular Council owned sites and former public houses) appear to be most able to provide between 35% and 50% affordable housing, providing grant funding is available. Achieving these levels of affordable housing is more problematic if grant funding is unavailable. This is regardless of whether current or improved market values are assumed.
- 7.3 Table 7.6.1 summarises the full set of results that can be found at Appendix 1. The summary table shows the results across the full range of sales values (£2,153 to £7,481 per square metre, reflecting the lowest value in the current market and the highest value in the 2007 market), on a 300 unit per hectare scheme. The appraisals assume Section 106 contributions of £6,000 per unit and a profit margin of 20% (reflecting current housing market conditions).
- 7.4 The results are split between the four existing use values and show the maximum viable proportion of affordable housing with and without grant, at each sales value.

**Table 7.6.1: Maximum viable proportions of affordable housing**

Density of 300 units per hectare; 60% social rent and 40% intermediate; 20% profit; CSH Level 3 on private and 4 on affordable; base Section 106 contributions (£6,000 per unit)

Values per sq m	Industrial/ warehousing / wharfs		LA owned existing residential land		Other LA owned land		Former public houses/ social clubs	
	Grant	No Grant	Grant	No Grant	Grant	No Grant	Grant	No Grant
£2,153	< 25%	< 25%	< 25%	< 25%	< 25%	< 25%	< 25%	< 25%
£2,637	< 25%	< 25%	< 25%	< 25%	< 25%	< 25%	< 25%	< 25%
£3,122	< 25%	< 25%	< 25%	< 25%	< 25%	< 25%	< 25%	< 25%
£3,606	< 25%	< 25%	50%	< 25%	40%	< 25%	< 25%	< 25%
£4,090	< 25%	< 25%	50%	25%	50%	< 25%	50%	< 25%
£4,575	40%	25%	50%	40%	50%	40%	50%	25%
£5,059	50%	40%	50%	50%	50%	50% <sup>m</sup>	50%	40%
£5,543	50%	50% <sup>m</sup>	50%	50%	50%	50%	50%	50%
£6,028	50%	50%	50%	50%	50%	50%	50%	50%
£6,512	50%	50%	50%	50%	50%	50%	50%	50%
£6,997	50%	50%	50%	50%	50%	50%	50%	50%
£7,481	50%	50%	50%	50%	50%	50%	50%	50%

**NV** = Not viable

**m** = marginal (i.e. between 15% above and 15% below EUV)

- 7.5 The summary tables show a variance in the results between the different types of existing use, as is to be expected. The existing use values used in our analysis range from £0.6 million to £9.0 million per hectare, which the schemes must exceed by an appropriate margin to be considered viable. In the current market, table 7.1.1 indicates that the proposed targets of up to 50% could only be achieved on industrial/former industrial sites in areas with the sales values at the mid to higher end of the range (ie £4,575 psm or more). On sites in local authority ownership, 50% could be delivered on sites with lower sales values (£3,606 psm or more) However, as values increase back towards their 2007 levels, more areas at the lower end of the range will move into the zones where the targets are financially viable.
- 7.6 There are three further important caveats to the results:
- 7.7 As noted previously, residual land values need to exceed Existing Use Value (plus appropriate landowner's margin) to be considered viable. There may be site specific circumstances where these EUV benchmarks 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. However, higher density schemes are more vulnerable to existing use value requirements due to their higher build costs and greater contribution towards planning obligation in comparison to low density schemes.
- 7.8 That schemes coming forward do not incur considerable (ie above average) exceptional development costs. Extensive decontamination, for example, would require significant expenditure, which could have a considerable impact on the residual land value. In these particular circumstances, the council's requirements for affordable housing may not be deliverable at the target levels of up to 50%.
- 7.9 The local authority may need to take a corporate decision as to whether their own development sites should prioritise affordable housing delivery or capital receipts. Our assumption in arriving at an estimate of existing use value for these sites is that the local authority will seek to prioritise affordable housing delivery, rather than maximising capital receipts.

### **Impact of varying levels of developer's profit**

- 7.10 The tables at Appendix 1 clearly show the impact of movements in developer's profit on the viable quantum of affordable housing. Assuming there are no changes to other variables, the impact of changes in the profit level has a modest effect upon the outcomes on affordable housing delivery. Two extracts from the results below provide a direct comparison of viability with a 15% and 20% profit (all other variables in the table are identical). Extract 1 below assumes 15% profit, while extract 2 assumes 20% profit. While the range of viable schemes increases when profit is lower, the impact is relatively modest.
- 7.11 While the actual residual values decline when a 20% profit is required (eg at 300 units per ha and a sales value of £5,059 per sqm, the residual value with 15% profit is £14.1m; while at 20% profit, the residual falls to £13.5m), the changes are not sufficiently significant to change the pattern of viable schemes in the tables.

### Extract 1: Schemes with 15% developer's profit

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph		
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm		
Sales value per sq m										Sales value per sq m
£2,153	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£2,153
£2,637	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£2,637
£3,122	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£3,122
£3,606	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£3,606
£4,090	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£4,090
£4,575	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£4,575
£5,059	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£5,059
£5,543	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£5,543
£6,028	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£6,028
£6,512	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£6,512
£6,997	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£6,997
£7,481	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£7,481
£7,965	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£7,965
£8,611	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£8,611

### Extract 2: Schemes with 20% developer's profit

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph		
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm		
Sales value per sq m										Sales value per sq m
£2,153	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£2,153
£2,637	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£2,637
£3,122	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£3,122
£3,606	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£3,606
£4,090	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£4,090
£4,575	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£4,575
£5,059	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£5,059
£5,543	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£5,543
£6,028	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£6,028
£6,512	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£6,512
£6,997	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£6,997
£7,481	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£7,481
£7,965	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£7,965
£8,611	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£8,611

### Impact of the imposition of higher Section 106 requirements

- 7.12 By comparing the two data extracts below, we can determine the impact of the imposition of any possible future requirement for increased Section 106 contributions. Extract 1 shows the current position regards to the Council's typical requirement (i.e. an average of £6,000 per unit). Extract 2 shows the impact on viability of a change in obligations to £8,000 per unit.
- 7.13 As with developer's profit, the impact on the quantum of affordable housing that can be provided is limited. There is a slight deterioration in viability, with marginally viable schemes pushed up into the next sales value band (as highlighted by the blue band overlaying the table). This suggests that the imposition an increased Section 106 requirement is unlikely to be a major determinant in scheme viability.

### Extract 1: Base section 106 contributions of £6,000 per unit

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm	
Sales value £per sq m									Sales value £per sq m
£2,153	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£2,153
£2,637	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£2,637
£3,122	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£3,122
£3,606	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£3,606
£4,090	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£4,090
£4,575	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£4,575
£5,059	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£5,059
£5,543	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£5,543
£6,028	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£6,028
£6,512	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£6,512
£6,997	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£6,997
£7,481	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£7,481
£7,965	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£7,965
£8,611	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£8,611

### Extract 2: Increased contributions of £8,000 per unit

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm	
Sales value £per sq m									Sales value £per sq m
£2,153	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£2,153
£2,637	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£2,637
£3,122	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£3,122
£3,606	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£3,606
£4,090	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£4,090
£4,575	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£4,575
£5,059	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£5,059
£5,543	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£5,543
£6,028	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£6,028
£6,512	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£6,512
£6,997	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£6,997
£7,481	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£7,481
£7,965	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£7,965
£8,611	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	£8,611

### Impact of grant availability

- 7.14 All our appraisals are tested on the basis of two assumptions regarding availability of grant; firstly, grant is available and secondly, the affordable housing is to be delivered with nil grant. The results demonstrate that higher levels of affordable housing could be achieved if grant were made available. The impact of grant funding on the viable proportions of affordable housing can be seen clearly in Table 7.6.1.

### Impact of Code for Sustainable Homes requirements

- 7.15 This viability study has been modelled on a range of Code for Sustainable Homes (“CSH”) levels for both market and affordable housing. The Council currently has no planning policy regarding this and relies on current building regulations. However, the Council is mindful of the government’s stated intention to incorporate CSH Level 6 (or an equivalent measure) into Part L of the Building Regulations by 2016. It is therefore important to consider the potential impact of these requirements on viability.
- 7.16 The increases in cost above the basic cost of meeting current building regulations is estimated in our study at the percentages shown in table 7.20.1. These figures are based on the Cyril Sweet study referred to at section 4.27.

- 7.17 These costs should be regarded as a worst case scenario, as they take no account of cost savings that will arise from improvements in technology. A number of developers are pioneering solutions for reductions in energy use and on-site generation of heat and power. In these early stages, costs are likely to be high, but will fall as solutions are perfected and rolled out on a wider basis.

**Table 7.20.1: cost increases above building regulations to meet CSH**

CSH level	% increase in build costs above building regulations
3	5%
4	11%
5	20%
6	35%

- 7.18 The two data extracts below show the impact on viability of moving from CSH level 3 for private housing and 4 on the affordable, to level 6 on both tenures. This data shows that the move towards a requirement for CSH level 6 will have a significant affect on viability, until costs fall back in response to greater demand and improvements in technology.

**Extract 1: CSH level 3 on private and level 4 on affordable**

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value per sq m
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm	
Sales value per sq m									
£2,153	☹	☹	☹	☹	☹	☹	☹	☹	£2,153
£2,637	☹	☹	☹	☹	☹	☹	☹	☹	£2,637
£3,122	☺	☹	☹	☹	☹	☹	☹	☹	£3,122
£3,606	☺	☺	☹	☹	☹	☹	☹	☹	£3,606
£4,090	☺	☺	☺	☺	☹	☹	☹	☹	£4,090
£4,575	☺	☺	☺	☺	☺	☹	☹	☹	£4,575
£5,059	☺	☺	☺	☺	☺	☺	☹	☹	£5,059
£5,543	☺	☺	☺	☺	☺	☺	☹	☹	£5,543
£6,028	☺	☺	☺	☺	☺	☺	☺	☹	£6,028
£6,512	☺	☺	☺	☺	☺	☺	☺	☹	£6,512
£6,997	☺	☺	☺	☺	☺	☺	☺	☺	£6,997
£7,481	☺	☺	☺	☺	☺	☺	☺	☺	£7,481
£7,965	☺	☺	☺	☺	☺	☺	☺	☺	£7,965
£8,611	☺	☺	☺	☺	☺	☺	☺	☺	£8,611

## Extract 2: CSH level 6 on all tenures

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value per sq m
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm	
Sales value per sq m									Sales value per sq m
£2,153	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£2,153
£2,637	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£2,637
£3,122	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£3,122
£3,606	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£3,606
£4,090	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£4,090
£4,575	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£4,575
£5,059	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£5,059
£5,543	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£5,543
£6,028	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£6,028
£6,512	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£6,512
£6,997	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£6,997
£7,481	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£7,481
£7,965	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£7,965
£8,611	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£8,611

## Contributions in lieu of affordable housing on small sites

- 7.19 The analysis in paragraphs 6.7 to 6.14 indicate that it should be possible (in viability terms) for sites that are below the 10 unit threshold for on-site affordable housing to make a contribution in lieu.
- 7.20 However, the ability of sites to make a financial contribution is dependent upon the level of sales values. This is demonstrated by the impact of a 20% increase in sales values on the ability of the scheme at Barking Road to afford a contribution.
- 7.21 While our general conclusion is that schemes of less than 10 units should, generally, be able to afford a payment in lieu, the Council would need to apply any requirement sensitively. Some form of viability testing is likely to be required to determine whether individual sites coming forward for planning are able to make a payment in lieu, taking full account of individual site circumstances.

## Impact of alternative viability benchmark

- 7.22 We have also considered the impact of using a viability benchmark that is higher than our main assumption of EUV plus a landowner's margin of 15%. Despite the significant volume of guidance from the HCA and appeal decisions, some developers and agents argue that viability benchmarks should relate more to transacted land values than the value of sites in their current use. Their approach is, of course, counterintuitive as market values will reflect past planning requirements, rather than future requirements.
- 7.23 To rely wholly on transacted land values is likely to result in an unreliable assessment of the ability of sites in the Borough to deliver affordable housing.
- 7.24 Other measures that have been suggested, such as splitting the uplift in land value equally between the landowner and the local authority<sup>1</sup> have no basis in planning policy or practice; have not been the basis at any planning appeal; and do not feature in any guidance from the Homes and Communities Agency.

<sup>1</sup> See Barking & Dagenham Core Strategy Review – commentary by Nigel Jones

- 7.25 There are also serious concerns about when such an approach should be adopted; a developer could buy a site and then apply a return on their land cost. This would have the effect of resulting in a windfall (and unearned) profit for the developer and also reducing the capacity of the site to provide affordable housing.
- 7.26 We have, nevertheless, tested the viability of schemes using a benchmark that is 38% higher than the estimated EUVs to explore the potential impact on ability of sites to provide affordable housing. This uplift is the product of a 20% increase to base EUV plus a further 15% uplift on the inflated EUV. The two extracts from the dataset below show the impact on scheme viability of a 38% increase in the four EUVs. All other variables in the two extracts are identical.
- 7.27 The two extracts indicate that the impact of an increased EUV is not significant and should not give rise to any change in the general conclusions drawn from the data.

### Extract 1: Viability with base EUVs

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value per sq m
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm	
Sales value per sq m									
£2,153	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£2,153
£2,637	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£2,637
£3,122	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£3,122
£3,606	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£3,606
£4,090	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£4,090
£4,575	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£4,575
£5,059	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£5,059
£5,543	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£5,543
£6,028	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£6,028
£6,512	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£6,512
£6,997	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£6,997
£7,481	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£7,481
£7,965	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£7,965
£8,611	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£8,611

### Extract 2: Viability with EUVs increased by 38%

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	Sales value per sq m
Build costs ->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm	
Sales value per sq m									
£2,153	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£2,153
£2,637	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£2,637
£3,122	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£3,122
£3,606	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£3,606
£4,090	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£4,090
£4,575	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£4,575
£5,059	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£5,059
£5,543	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£5,543
£6,028	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£6,028
£6,512	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£6,512
£6,997	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£6,997
£7,481	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£7,481
£7,965	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£7,965
£8,611	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	£8,611

## Impact of increase in build costs

- 7.28 We have tested the impact of 10% increase in build costs. Long term growth in sales values has historically more than cancelled out increases in build costs, although this trend does not necessarily apply to new requirements (eg sustainability, which our appraisals account for separately).
- 7.29 Extract 1 below shows a base position with current assumptions on build costs, while extract 2 shows the position resulting from a 10% increase over base build costs. The increased build cost does not have a significant impact on viability and could be accommodated in the context of increasing values over the medium term.

### Extract 1: Base build costs

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	
Build costs->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm	
Sales value £per sq m									Sales value £per sq m
£2,153	☹	☹	☹	☹	☹	☹	☹	☹	£2,153
£2,637	☹	☹	☹	☹	☹	☹	☹	☹	£2,637
£3,122	☹	☹	☹	☹	☹	☹	☹	☹	£3,122
£3,606	☹	☹	☹	☹	☹	☹	☹	☹	£3,606
£4,090	☹	☹	😊	☹	☹	☹	☹	☹	£4,090
£4,575	☹	😊	😊	😊	☹	☹	☹	☹	£4,575
£5,059	😊	😊	😊	😊	😊	☹	☹	☹	£5,059
£5,543	😊	😊	😊	😊	😊	😊	☹	☹	£5,543
£6,028	😊	😊	😊	😊	😊	😊	😊	☹	£6,028
£6,512	😊	😊	😊	😊	😊	😊	😊	☹	£6,512
£6,997	😊	😊	😊	😊	😊	😊	😊	😊	£6,997
£7,481	😊	😊	😊	😊	😊	😊	😊	😊	£7,481
£7,965	😊	😊	😊	😊	😊	😊	😊	😊	£7,965
£8,611	😊	😊	😊	😊	😊	😊	😊	😊	£8,611

### Extract 2: Base build costs plus 10%

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	
Build costs->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm	
Sales value £per sq m									Sales value £per sq m
£2,153	☹	☹	☹	☹	☹	☹	☹	☹	£2,153
£2,637	☹	☹	☹	☹	☹	☹	☹	☹	£2,637
£3,122	☹	☹	☹	☹	☹	☹	☹	☹	£3,122
£3,606	☹	☹	☹	☹	☹	☹	☹	☹	£3,606
£4,090	☹	☹	☹	☹	☹	☹	☹	☹	£4,090
£4,575	☹	☹	😊	☹	☹	☹	☹	☹	£4,575
£5,059	😊	😊	😊	😊	☹	☹	☹	☹	£5,059
£5,543	😊	😊	😊	😊	😊	☹	☹	☹	£5,543
£6,028	😊	😊	😊	😊	😊	😊	☹	☹	£6,028
£6,512	😊	😊	😊	😊	😊	😊	😊	☹	£6,512
£6,997	😊	😊	😊	😊	😊	😊	😊	☹	£6,997
£7,481	😊	😊	😊	😊	😊	😊	😊	😊	£7,481
£7,965	😊	😊	😊	😊	😊	😊	😊	😊	£7,965
£8,611	😊	😊	😊	😊	😊	😊	😊	😊	£8,611

## Impact of changes to affordable housing tenure

7.30 All the appraisal iterations were tested with two alternative affordable housing tenure mixes; 70% social rent and 30% intermediate; and 60% social rent and 40% intermediate. The latter tenure mix reflects the Council's current policy target and also the London-wide target in the Draft Replacement London Plan. The two extracts below that the reduction from 70% to 60% social rented results in a modest improvement in the likely viability of developments.

### Extract 1: 70% social rent and 30% intermediate

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	
Build costs->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm	
Sales value £per sq m									Sales value £per sq m
£2,153	☹	☹	☹	☹	☹	☹	☹	☹	£2,153
£2,637	☹	☹	☹	☹	☹	☹	☹	☹	£2,637
£3,122	☹	☹	☹	☹	☹	☹	☹	☹	£3,122
£3,606	☹	☹	☹	☹	☹	☹	☹	☹	£3,606
£4,090	☹	☹	😊	😊	☹	☹	☹	☹	£4,090
£4,575	☹	😊	😊	😊	☹	☹	☹	☹	£4,575
£5,059	😊	😊	😊	😊	😊	☹	☹	☹	£5,059
£5,543	😊	😊	😊	😊	😊	😊	☹	☹	£5,543
£6,028	😊	😊	😊	😊	😊	😊	😊	☹	£6,028
£6,512	😊	😊	😊	😊	😊	😊	😊	😊	£6,512
£6,997	😊	😊	😊	😊	😊	😊	😊	😊	£6,997
£7,481	😊	😊	😊	😊	😊	😊	😊	😊	£7,481
£7,965	😊	😊	😊	😊	😊	😊	😊	😊	£7,965
£8,611	😊	😊	😊	😊	😊	😊	😊	😊	£8,611

### Extract 2: 60% social rent and 40% intermediate

Density - units/ha ->	50 uph	100 uph	200 uph	300 uph	400 uph	500 uph	600 uph	1500 uph	
Build costs->	£1076 per sqm	£1453 per sqm	£1722 per sqm	£1991 per sqm	£2314 per sqm	£2530 per sqm	£2852 per sqm	£3229 per sqm	
Sales value £per sq m									Sales value £per sq m
£2,153	☹	☹	☹	☹	☹	☹	☹	☹	£2,153
£2,637	☹	☹	☹	☹	☹	☹	☹	☹	£2,637
£3,122	☹	☹	☹	☹	☹	☹	☹	☹	£3,122
£3,606	☹	☹	☹	☹	☹	☹	☹	☹	£3,606
£4,090	☹	☹	😊	😊	☹	☹	☹	☹	£4,090
£4,575	😊	😊	😊	😊	☹	☹	☹	☹	£4,575
£5,059	😊	😊	😊	😊	😊	😊	☹	☹	£5,059
£5,543	😊	😊	😊	😊	😊	😊	☹	☹	£5,543
£6,028	😊	😊	😊	😊	😊	😊	😊	☹	£6,028
£6,512	😊	😊	😊	😊	😊	😊	😊	😊	£6,512
£6,997	😊	😊	😊	😊	😊	😊	😊	😊	£6,997
£7,481	😊	😊	😊	😊	😊	😊	😊	😊	£7,481
£7,965	😊	😊	😊	😊	😊	😊	😊	😊	£7,965
£8,611	😊	😊	😊	😊	😊	😊	😊	😊	£8,611

## Family housing requirements

7.31 Finally, we ran an additional set of appraisals to consider the impact of the Council's family housing requirements. Family housing is defined for the purposes of the appraisals as units providing 3 or more bedrooms.

- 7.32 These appraisals consider a scheme which starts with 30% family housing, with 100 units and a total net internal floor area of 76,410 sq ft. Further appraisals were run to test the impact on the residual land value of 40% and 50% affordable housing. The number of units in the appraisals with 40% and 50% family housing is adjusted so that the total floor area does not exceed the original amount (ie 76,410). Table 7.31.1 shows the unit mixes for each appraisal.

**Table 7.31.1: Unit mix**

Unit type	Appraisal with 30% family housing	Appraisal with 40% family housing	Appraisal with 50% family housing
One bed	30	27	21
Two bed	40	29	23
Three bed	20	23	27
Four bed	10	15	18
Total	100	94	89

- 7.33 The residual land values generated by the appraisals are shown in Table 7.32.2. The introduction of a family housing requirement in excess of 30% (around the level used in our main appraisal exercise) would result in a significant deterioration in viability of development. An increase to 40% family housing would reduce residual values by circa 22%, while an increase to 50% family housing would reduce residual values by circa 40%. Unless other factors were to change (eg a reduction in planning obligations or a reduction in existing use values), an increase in family housing requirements above 30% would harm viability and would be likely to result in a reduction in housing supply.

**Table 7.32.2: residual land values**

Percentage of family housing	Residual Land Value	% reduction against base position of 30% family housing
30%	£1,519,077	n/a
40%	£1,180,643	22%
50%	£916,000	40%

## 8 Conclusions

- 8.1 Newham has a high requirement for additional affordable housing. The Borough's affordable housing policy requirements are clearly based on need proven through the Council's Strategic Housing Market Assessment.
- 8.2 This report examines, in terms of financial viability, the potential for development sites in the Borough to deliver affordable housing at varying percentages and mixes, while also securing other planning obligations at current and possible future levels. By comparing the residual land values generated by our appraisals to a range of existing use values (plus landowner margin), we can determine whether residential development is likely to come forward, with a target of up to 50% affordable housing and other planning requirements. An important caveat to the results is that they have not taken account of any site specific exceptional costs and, where these arise, they may override our conclusions. This underlines the importance of rigorous testing of individual site viability appraisals and the application of a target-based policy, rather than a policy that operates as a quota or a minimum requirement.

### **Key question 1: Do the appraisal results provide support for a 50% affordable housing target, in line with the current London Plan?**

- 8.3 It is important to consider the affordable housing target in its proper context – it is a strategic target for delivery from all sites in the Borough, some of which may deliver more than 50% affordable housing (eg estate regeneration schemes). The number of units coming through RSL led schemes will also be important as not every Section 106 site will be able to deliver the affordable housing target at all times over the plan period. It would appear sensible to us that the Council adopt an affordable housing target between 35% to 50% on S106 sites, which should be applied sensitively, taking full account of individual site circumstances, including financial viability. This is essential, as the results of our appraisals indicate that 50% affordable housing is unlikely to be viable in all market conditions over the plan period; in all areas across the Borough; and consistently between sites in differing existing uses. In cases where the policy is currently not viable, the policy would need to be applied flexibly until values recover or other factors assist in improving viability (e.g. a reduction in interest rates or falling build costs).
- 8.4 Adopting a lower target than 50% could lead to a reduction in potential affordable housing delivery. Table 7.6.1 indicates that adopting a target lower than 50% would only very marginally increase the range of viable scenarios. Conversely, adopting a 30% affordable housing across the whole Borough would result in a significant number of sites that could have provided 50% affordable housing providing only 30%.
- 8.5 Furthermore, the results of our analysis (summarised in Table 7.6.1) indicate that in a range of circumstances across the Borough, 50% affordable housing could be achieved. When sales values are at the very lowest end of the range, higher proportions of affordable housing marginally improve scheme viability. This is because the difference between market values and the affordable housing price payable is small and more than outweighed by a reduction in profit levels (as noted previously, profit on the affordable housing is assumed at 6% and 20% on private housing). This factor can be clearly seen at play in the appraisals of the twenty 'real' sites, where residual land values frequently increase as the proportion of affordable housing in each scheme increases from 25% to 50% of units.

- 8.6 The results thus suggest that the delivery of 50% affordable housing on every single site coming forward for development in the Borough is currently (and is likely to continue to be) an ambitious target that not all sites coming forward will be able to achieve. This is no different from other local authority areas, where some sites are able to meet the respective Council's strategic affordable housing target. Other sites are not, due to site specific circumstances and the cyclical nature of the housing market. However, the variable pattern of viability can be addressed providing the Council's policy is drafted with sufficient flexibility to address situations where the targets are unviable. London Plan policies already provide this flexibility.
- 8.7 It is evident that on sites with high EUVs, in some circumstances sales values would need to increase beyond the 2007 peak for 50% affordable housing to be achievable. The target may also be easier to achieve on a greater number of sites as a result of future increases in sales values, providing build cost inflation does not accelerate beyond long term trend rates.

**Key question 2: Is the impact of movements in appraisal variables sufficiently significant to change the Study's conclusions on the maximum viable proportion of affordable housing? In particular, what is the impact of increasing profit levels, increased planning obligations, increasing build costs and adoption of alternative viability benchmarks?**

- 8.8 Small changes in variables can have a significant impact on the residual land value generated by a scheme. In the case of this study, changes in variables therefore have the potential to change the conclusions that we reach on the viability of particular affordable housing targets.
- 8.9 We have sensitivity tested our results by adopting different levels of profit; planning obligations; build costs; and alternative viability benchmarks. The changes in these variables that we have tested individually do not have a significant impact upon scheme viability and thus our conclusions on viable affordable housing targets.
- 8.10 We cannot predict with full certainty how variables will move over the entire plan period. It is therefore important that any affordable housing target is applied with sensitivity and subject to viability. This approach is fully endorsed by the Council and is compliant with London Plan policies 3A.9 and 3A.10.

**Key question 3: Do the results of the study provide an indication of any potential impact of the requirement for affordable housing upon the supply of land for residential development?**

- 8.11 Policy makers need to carefully consider the balance between their aims of seeking to maximise affordable housing supply and ensuring that the supply of residential land (upon which affordable housing supply depends) does not fall.
- 8.12 The study indicates that, in many cases across the Borough, residential development incorporating an element of affordable housing generates a higher residual value than other uses that landowners may consider. Consequently, it is therefore unlikely that the Council's requirements will reduce residential land supply. However, there will always be individual cases where landowners may seek a higher return for their land and thus decide to wait for an improvement in values or a change in policy.
- 8.13 Furthermore, the Council's flexible approach to the application of the policy target to individual developments should ensure that landowners are encouraged to bring sites forward.

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**Key question 4: For schemes under the 10 unit threshold for on site provision, is it reasonable (in viability terms) to seek a contribution in lieu of on-site affordable housing?**

- 8.14 It is important firstly to emphasise that replacing on-site affordable housing with a financial contribution does not make an unviable site viable. The ability of developments under the 10 threshold to make financial contributions towards affordable housing will be dependent on scheme viability.
- 8.15 Section 6 of this report indicates that the economics of the three smaller (sub 10) unit sites are not significantly different from the other seventeen sites above the threshold. Therefore, it follows that sites under the threshold should be capable of making financial contributions, equivalent to the difference between the value of a market unit and the value that an RSL would pay to acquire an equivalent affordable housing unit.
- 8.16 Our analysis at paragraphs 6.12 – 6.14 indicates that there is unlikely to be a single formula that can be applied to all sites, without rendering some developments as unviable. Financial contributions may need to be calculated on a site by site basis, taking into account the level of sales values and the site's existing use (plus appropriate landowner's margin).

**Key question 5: Is the Council's affordable housing target compliant with the requirements of Paragraph 29 of PPS3 (namely that targets should 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)?**

- 8.17 This study is compliant with the requirements of paragraph 29 of PPS 3 as it assesses the Council's proposed affordable housing targets in the context of the likely economic viability of the land for housing in a cyclical housing market, in which values, costs, risks to delivery, developers' returns and existing use values may vary. The study also considers the likely levels of finance available for affordable housing and the impact of future regulatory changes in terms of sustainability requirements.
- 8.18 The study indicates that a target of up to 50% affordable housing (in combination with other planning obligations as noted above) is achievable in many circumstances on the types of sites coming forward for development over the plan period. Sites with lower EUVs appear to be most able to meet a 50% policy, although grant funding will continue to be an important factor in achieving this level of affordable housing.

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## Appendix 1 Hypothetical appraisal results

See separate electronic file


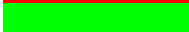

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## Appendix 2 Real site appraisals: site details

Borough Reference	Proposed units	Net Resi Gain	Total Affordable Units	Total Affordable %	Resi Parking Spaces	Resi Site Area	Density for Approvals	Site Name/Number	Primary Street Name	Secondary Street(s)	Post Code	Ward	Permission Status	Permissi on Financial Year	Existing use	1B	2B	3B	4B	Storeys	Commercial space	Area
08/01204	4	4	0	0	2	0.022	182	56	Bradymead		E6 6WN	BECKTON	Started	FY2008	Two storey resi care home (6 beds)	4	0	0	0	2		
07/02479	9	9	0	0	9	0.051	176	Rear Of 7 - 11	Barking Road		E6 1PW	BOLEYN	Submitted	FY2007	Open land, previously cinema car park	0	9	0	0	4	Retail	115sqm
06/02074	48	48	11	23	48	0.170	282	213 - 217	Barking Road		E16 4HH	CANNING TOWN NORTH	Submitted	FY2007	Club/car-wash/valet and 2 x 2 storey houses	24	24	0	0	2		
07/01080	15	5	8	53	16	0.148	101	Land Between 11 - 55	Tarling Road		E16 1HN	CANNING TOWN SOUTH	Completed	FY2008	Vacant site, previously retail with resi above	1	6	1h	7h	2/3/4	Retail	
															Affordable:	0	0	1h	7h			
08/00319	14	14	0	0	4	0.051	275	117 -125	Freemasons Road		E16 3PH	CUSTOM HOUSE	Submitted	FY2008	Single Storey MOT garage	0	14	0	0	5		
07/00312	4	4	0	0	0	0.008	500	180	High Street North		E6 2JN	EAST HAM CENTRAL	Submitted	FY2007	Storage above commercial and backland	4	0	0	0	2		
07/01799	42	42	15	36	23	0.243	173	190 - 200	Plasht Grove		E6 1DA	EAST HAM NORTH	Submitted	FY2007	Former Public Houses (vacant)	18	16	5	3	3/4/5	Pub A4 145 sqm	
															Affordable:	4	6	2	3			
07/01872	11	11	0	0	11	0.067	164	1173 - 1175	Newham Way		E6 4JJ	EAST HAM SOUTH	Completed	FY2007	Car Repair workshop	5	6	0	0	3		
07/00661	10	9	0	0	5	0.044	227	95	Buxton Road		E15 1QX	FOREST GATE NORTH	Started	FY2007	Two storey end terrace house	3stu	6	1	0	3		
05/00514	36	36	13	36	30	0.109	330	140 - 150	Earham Grove		E7 9AB	FOREST GATE SOUTH	Submitted	FY2007	Vacant houses in comm use & garages	15	16	3h / 2f	0	3/4		
															Affordable:	5	6	2	0			
05/0682	26	26	10	38	19	0.126	206	370	Romford Road	Finden Road	E7 8BS	GREEN STREET EAST	Started	FY2008	Former Police Station, demolished	8	12	6h	0			
															Affordable:	4	4	2h	0			
08/00625	13	13	0	0	8	0.056	232	199	Upton Lane		E7 9PR	GREEN STREET WEST	Submitted	FY2008	Vacant former timber yard/hardware store	1	9	3	0	3/4		
09/00279	18	18	18	100	10	0.152	118	Site Of Old Garages At	Aldersbrook Lane		E12 5LG	LITTLE ILFORD	Started	FY2009	40 lock up garages	6	5	0	0	4		
															Affordable:	0	1	6h	0			
06/00234	12	12	0	0	4	0.033	364	500-502	High Street North		E12 6QN	MANOR PARK	Submitted	FY2007	Former social club and retail	7	5	0	0	3		
08/00431	14	14	2	14	9	0.063	222	83 - 89	London Road		E13 0DA	PLAISTOW NORTH	Submitted	FY2008	Vacant single storey factory, partial 2 storey facade	9	4	1	0	3		
															Affordable:	0	1	1	0			
07/01374	13	13	0	0	13	0.080	163	35 - 51	Greengate Street		E13 0BG	PLAISTOW SOUTH	Submitted	FY2007	Petrol Filling Station	2	4	4	3	4		
04/1948	97	97	31	32	40	0.150	647	2	Pier Road		E16	ROYAL DOCKS	Submitted	FY2007	Former Public Houses (vacant)	56	25	16	0	3/16	A3- 111sqm / Gym 295sqm	
09/00361	173	173	83	48	62	0.360	481	223 - 231	High Street	Rick Robert Way	E15 2LS	STRATFORD AND NEW T	Started	FY2009	Vacant site, former Pub/builders yard	70	71	21	12	7/13		
															Affordable:	8sr, 12 kw	6sr, 11kw	11sr, 2kw	6f, 6h			
07/01106	14	14	0	0	8	0.069	203	444 - 474	Barking Road		E6 2LT	WALL END	Submitted	FY2007	Former car showroom/garage		14			3	5009sqft A1	
07/02278	12	12	0	0	0	0.035	343	46	West Ham Lane		E15 4PT	WEST HAM	Submitted	FY2007	Former public house	4	7	1		4/5		

## Appendix 3 Real site appraisals: results

Site address	Existing Use Value (incl landowner premium)	Residual Land Values (with grant)			Residual Land Values (no grant)			Residual Land Values (AH nil value)		
		25% Affordable	35% Affordable	50% Affordable	25% Affordable	35% Affordable	50% Affordable	25% Affordable	35% Affordable	50% Affordable
56 Bradymead	£210,000	Unviable	Unviable	Unviable	Unviable	Unviable	Unviable	Unviable	Unviable	Unviable
7-11 Barking Road	£238,000	Viable at current sales values	Viable at current sales values	Viable at current sales values	Viable at enhanced sales values	Unviable	Unviable	Unviable	Unviable	Unviable
213-217 Barking Road	£750,000	Viable at current sales values	Viable at current sales values	Viable at current sales values	Viable at current sales values	Unviable	Viable at enhanced sales values	Unviable	Unviable	Unviable
11-55 Tarling Road	£750,000	Viable at enhanced sales values	Viable at current sales values	Viable at current sales values	Unviable	Unviable	Unviable	Unviable	Unviable	Unviable
117-125 Freemasons Road	£240,000	Viable at current sales values	Viable at current sales values	Viable at current sales values	Viable at enhanced sales values	Unviable	Unviable	Unviable	Unviable	Unviable
180 High Street North E6	£75,000	Viable at current sales values	Viable at current sales values	Viable at current sales values	Viable at current sales values	Viable at enhanced sales values	Unviable	Unviable	Unviable	Unviable
190-200 Plashet Grove	£500,000	Viable at current sales values	Viable at current sales values	Viable at current sales values	Viable at current sales values	Viable at enhanced sales values	Unviable	Unviable	Unviable	Unviable
1173-1175 Newham Way	£188,000	Viable at enhanced sales values	Viable at enhanced sales values	Viable at enhanced sales values	Viable at enhanced sales values	Unviable	Unviable	Unviable	Unviable	Unviable
95 Buxton Road	£200,000	Viable at current sales values	Viable at current sales values	Viable at current sales values	Viable at current sales values	Viable at enhanced sales values	Unviable	Unviable	Unviable	Unviable
140-150 Earlham Grove	£1,830,000	Viable at enhanced sales values	Viable at current sales values	Viable at current sales values	Unviable	Unviable	Unviable	Unviable	Unviable	Unviable
370 Romford Road, Finden Road	£1,250,000	Viable at current sales values	Viable at current sales values	Viable at current sales values	Viable at enhanced sales values	Unviable	Unviable	Unviable	Unviable	Unviable
199 Upton Lane	£600,000	Viable at current sales values	Viable at current sales values	Viable at current sales values	Unviable	Unviable	Unviable	Unviable	Unviable	Unviable
Aldersbrook Lane	£400,000	Viable at enhanced sales values	Viable at enhanced sales values	Viable at enhanced sales values	Unviable	Unviable	Unviable	Unviable	Unviable	Unviable
500-502 High Street North, E12	£530,000	Viable at current sales values	Viable at current sales values	Viable at current sales values	Unviable	Unviable	Unviable	Unviable	Unviable	Unviable
83-89 London Road	£302,000	Viable at current sales values	Viable at current sales values	Viable at current sales values	Unviable	Unviable	Unviable	Unviable	Unviable	Unviable
35-51 Greengate Street	£650,000	Viable at current sales values	Viable at current sales values	Viable at current sales values	Unviable	Unviable	Unviable	Unviable	Unviable	Unviable
2 Pier Road	£500,000	Viable at enhanced sales values	Viable at enhanced sales values	Viable at enhanced sales values	Viable at enhanced sales values	Unviable	Unviable	Unviable	Unviable	Unviable
223-231 High Street, Rick Robert Way	£1,920,000	Viable at current sales values	Viable at current sales values	Viable at current sales values	Unviable	Viable at enhanced sales values	Unviable	Unviable	Unviable	Unviable
444-474 Barking Road, E6	£368,000	Viable at enhanced sales values	Viable at enhanced sales values	Viable at enhanced sales values	Unviable	Unviable	Unviable	Unviable	Unviable	Unviable
46 West Ham Lane	£250,000	Viable at current sales values	Viable at current sales values	Viable at current sales values	Viable at enhanced sales values	Viable at enhanced sales values	Unviable	Unviable	Unviable	Unviable

 Unviable  
 Viable at current sales values  
 Viable at enhanced sales values

## Residual land values at current market values

Site address	Ward	Estimated Existing Use Value (incl landowner premium)	Residual Land Values (with grant)			Residual Land Values (no grant)			Residual Land Values (AH nil value)		
			25% Affordable	35% Affordable	50% Affordable	25% Affordable	35% Affordable	50% Affordable	25% Affordable	35% Affordable	50% Affordable
56 Bradymead	Beckton	£210,000	£82,270	£95,385	£115,059	£25,465	£15,859	£1,450	-£23,410	-£52,967	-£97,301
7-11 Barking Road	Boleyn	£238,000	£322,156	£336,415	£357,804	£163,772	£114,677	£41,034	-£616	-£116,592	-£291,495
213-217 Barking Road	Canning Town North	£750,000	£1,577,033	£1,642,560	£1,740,850	£829,781	£596,406	£246,345	£54,208	-£502,712	-£1,353,864
11-55 Tarling Road	Canning Town South	£750,000	£739,318	£783,653	£850,156	£370,995	£268,001	£113,510	-£11,287	-£269,985	-£659,701
117-125 Freemasons Road	Custom House	£240,000	£335,433	£359,174	£394,787	£82,697	£5,344	-£111,395	-£196,305	-£387,503	-£674,302
180 High Street North E6	East Ham Central	£75,000	£141,285	£150,155	£163,462	£84,480	£70,629	£49,853	£28,921	-£7,155	-£61,957
190-200 Plashet Grove	East Ham North	£500,000	£1,322,191	£1,419,238	£1,564,810	£577,868	£377,188	£76,166	-£194,663	-£711,445	-£1,487,651
1173-1175 Newham Way	East Ham South	£188,000	£157,190	£143,842	£123,818	£84,992	£42,764	-£21,687	-£97,479	-£214,104	-£389,040
95 Buxton Road	Forest Gate North	£200,000	£342,412	£352,652	£367,955	£213,182	£171,731	£109,553	£71,326	-£26,869	-£176,331
140-150 Earlham Grove	Forest Gate South	£1,830,000	£1,818,845	£1,880,714	£1,950,727	£1,167,005	£970,111	£674,769	£412,489	-£86,212	-£844,062
370 Romford Road, Finden Road	Green Street East	£1,250,000	£1,401,337	£1,450,568	£1,506,764	£898,548	£748,342	£523,033	£316,562	-£66,439	-£648,476
199 Upton Lane	Green Street West	£600,000	£625,322	£642,912	£669,297	£377,918	£296,546	£174,489	£106,341	-£84,103	-£373,456
Aldersbrook Lane	Little Ilford	£400,000	£125,814	£204,935	£323,617	-£218,439	-£277,041	-£364,944	-£516,323	-£694,079	-£960,712
500-502 High Street North, E12	Manor Park	£530,000	£561,443	£581,369	£611,257	£373,805	£318,675	£235,982	£179,056	£46,027	-£155,255
83-89 London Road	Plaistow North	£302,000	£315,916	£347,978	£396,070	£94,920	£38,584	-£46,086	-£122,321	-£267,298	-£484,764
35-51 Greengate Street	Plaistow South	£650,000	£719,763	£740,399	£771,353	£437,611	£345,387	£207,050	£127,891	-£88,628	-£417,743
2 Pier Road	Royal Docks	£500,000	£434,129	£362,995	£256,296	-£1,185,578	-£1,914,182	-£3,077,088	-£3,375,283	-£4,979,768	-£7,386,497
223-231 High Street, Rick Robert Way	Stratford and New Town	£1,920,000	£3,985,913	£3,127,517	£1,839,922	£903,111	-£1,188,406	-£4,415,294	-£3,398,341	-£7,306,643	-£13,169,094
444-474 Barking Road, E6	Wall End	£368,000	£191,709	£229,048	£285,055	-£61,254	-£125,866	-£223,176	-£312,059	-£477,359	-£725,308
46 West Ham Lane	West Ham	£250,000	£418,185	£424,476	£433,910	£212,479	£136,486	£22,497	-£25,630	-£199,044	-£459,817

### Residual land values (sales values increased by 20%)

Site address	Ward	Existing Use Value (incl)	Residual Land Values (with grant)			Residual Land Values (no grant)			Residual Land Values (AH nil value)			Sales values psf	
			25% Affordable	35% Affordable	50% Affordable	25% Affordable	35% Affordable	50% Affordable	25% Affordable	35% Affordable	50% Affordable	Current	Future
56 Bradymead	Beckton	£210,000	£141,285	£150,155	£163,462	£84,480	£70,629	£49,853	£28,921	£7,155	£61,957	200	250
7-11 Barking Road	Boleyn	£238,000	£493,845	£495,317	£497,524	£335,459	£273,578	£180,754	£152,126	£16,910	£188,114	275	325
213-217 Barking Road	Canning Town North	£750,000	£2,387,051	£2,392,247	£2,400,042	£1,639,798	£1,346,094	£905,536	£774,841	£135,153	£851,473	275	325
11-55 Tarling Road	Canning Town South	£750,000	£1,129,329	£1,145,160	£1,168,907	£761,006	£629,508	£432,262	£334,666	£32,632	£425,547	275	325
117-125 Freemasons Road	Custom House	£240,000	£595,727	£600,886	£608,625	£342,991	£247,056	£103,153	£35,328	£185,074	£518,587	300	350
180 High Street North E6	East Ham Central	£75,000	£200,299	£204,925	£211,833	£143,495	£125,399	£98,256	£81,140	£38,102	£26,612	250	300
190-200 Plashet Grove	East Ham North	£500,000	£2,088,770	£2,131,092	£2,194,575	£1,344,448	£1,089,042	£705,932	£482,882	£117,150	£1,029,062	275	325
1173-1175 Newham Way	East Ham South	£188,000	£345,021	£317,682	£276,675	£272,823	£216,604	£132,278	£70,487	£67,071	£275,939	250	300
95 Buxton Road	Forest Gate North	£200,000	£476,670	£477,254	£477,614	£347,440	£296,332	£219,669	£190,126	£76,092	£95,923	300	350
140-150 Earham Grove	Forest Gate South	£1,830,000	£2,653,142	£2,655,342	£2,632,759	£2,001,303	£1,747,229	£1,366,118	£1,145,423	£548,998	£347,983	325	390
370 Romford Road, Finden Road	Green Street East	£1,250,000	£2,044,861	£2,047,911	£2,032,544	£1,542,073	£1,347,763	£1,056,296	£881,902	£423,522	£265,832	325	390
199 Upton Lane	Green Street West	£600,000	£887,294	£885,738	£883,403	£639,891	£539,372	£388,596	£338,718	£117,732	£216,174	300	350
Aldersbrook Lane	Little Ilford	£400,000	£487,904	£540,562	£619,549	£145,950	£61,825	£64,540	£190,236	£411,470	£743,321	200	250
500-502 High Street North, E12	Manor Park	£530,000	£760,129	£765,534	£773,642	£572,491	£502,842	£398,366	£355,297	£198,769	£36,021	275	325
83-89 London Road	Plaistow North	£302,000	£549,924	£564,884	£587,323	£328,929	£255,490	£145,332	£86,341	£84,656	£344,270	250	300
35-51 Greengate Street	Plaistow South	£650,000	£1,018,529	£1,017,330	£1,015,531	£736,377	£622,317	£451,228	£392,907	£141,458	£238,371	300	350
2 Pier Road	Royal Docks	£500,000	£2,685,228	£2,351,026	£1,849,723	£1,070,549	£90,475	£1,389,596	£1,160,599	£3,060,376	£5,910,040	400	475
223-231 High Street, Rick Robert Way	Stratford and New Town	£1,920,000	£9,597,300	£7,990,720	£5,580,848	£6,514,499	£3,674,797	£584,756	£2,260,233	£2,295,912	£9,314,686	500	600
444-474 Barking Road, E6	Wall End	£368,000	£459,569	£477,330	£503,973	£206,605	£123,181	£1,954	£71,075	£268,297	£564,492	250	300
46 West Ham Lane	West Ham	£250,000	£701,350	£686,945	£665,338	£495,644	£398,956	£253,925	£225,547	£20,820	£289,811	325	390

### Residual land values (sales values increased by 20%; EUVs increased by 20%)

Site address	Ward	Existing Use Value (incl)	Residual Land Values (with grant)			Residual Land Values (no grant)			Residual Land Values (AH nil value)			Sales values psf	
			25% Affordable	35% Affordable	50% Affordable	25% Affordable	35% Affordable	50% Affordable	25% Affordable	35% Affordable	50% Affordable	Current	Future
56 Bradymead	Beckton	£210,000	£141,285	£150,155	£163,462	£84,480	£70,629	£49,853	£28,921	£7,155	£61,957	200	250
7-11 Barking Road	Boleyn	£238,000	£493,845	£495,317	£497,524	£335,459	£273,578	£180,754	£152,126	£16,910	£188,114	275	325
213-217 Barking Road	Canning Town North	£750,000	£2,387,051	£2,392,247	£2,400,042	£1,639,798	£1,346,094	£905,536	£774,841	£135,153	£851,473	275	325
11-55 Tarling Road	Canning Town South	£750,000	£1,129,329	£1,145,160	£1,168,907	£761,006	£629,508	£432,262	£334,666	£32,632	£425,547	275	325
117-125 Freemasons Road	Custom House	£240,000	£595,727	£600,886	£608,625	£342,991	£247,056	£103,153	£35,328	£185,074	£518,587	300	350
180 High Street North E6	East Ham Central	£75,000	£200,299	£204,925	£211,833	£143,495	£125,399	£98,256	£81,140	£38,102	£26,612	250	300
190-200 Plashet Grove	East Ham North	£500,000	£2,088,770	£2,131,092	£2,194,575	£1,344,448	£1,089,042	£705,932	£482,882	£117,150	£1,029,062	275	325
1173-1175 Newham Way	East Ham South	£188,000	£345,021	£317,682	£276,675	£272,823	£216,604	£132,278	£70,487	£67,071	£275,939	250	300
95 Buxton Road	Forest Gate North	£200,000	£476,670	£477,254	£477,614	£347,440	£296,332	£219,669	£190,126	£76,092	£95,923	300	350
140-150 Earham Grove	Forest Gate South	£1,830,000	£2,653,142	£2,655,342	£2,632,759	£2,001,303	£1,747,229	£1,366,118	£1,145,423	£548,998	£347,983	325	390
370 Romford Road, Finden Road	Green Street East	£1,250,000	£2,044,861	£2,047,911	£2,032,544	£1,542,073	£1,347,763	£1,056,296	£881,902	£423,522	£265,832	325	390
199 Upton Lane	Green Street West	£600,000	£887,294	£885,738	£883,403	£639,891	£539,372	£388,596	£338,718	£117,732	£216,174	300	350
Aldersbrook Lane	Little Ilford	£400,000	£487,904	£540,562	£619,549	£145,950	£61,825	£64,540	£190,236	£411,470	£743,321	200	250
500-502 High Street North, E12	Manor Park	£530,000	£760,129	£765,534	£773,642	£572,491	£502,842	£398,366	£355,297	£198,769	£36,021	275	325
83-89 London Road	Plaistow North	£302,000	£549,924	£564,884	£587,323	£328,929	£255,490	£145,332	£86,341	£84,656	£344,270	250	300
35-51 Greengate Street	Plaistow South	£650,000	£1,018,529	£1,017,330	£1,015,531	£736,377	£622,317	£451,228	£392,907	£141,458	£238,371	300	350
2 Pier Road	Royal Docks	£500,000	£2,685,228	£2,351,026	£1,849,723	£1,070,549	£90,475	£1,389,596	£1,160,599	£3,060,376	£5,910,040	400	475
223-231 High Street, Rick Robert Way	Stratford and New Town	£1,920,000	£9,597,300	£7,990,720	£5,580,848	£6,514,499	£3,674,797	£584,756	£2,260,233	£2,295,912	£9,314,686	500	600
444-474 Barking Road, E6	Wall End	£368,000	£459,569	£477,330	£503,973	£206,605	£123,181	£1,954	£71,075	£268,297	£564,492	250	300
46 West Ham Lane	West Ham	£250,000	£701,350	£686,945	£665,338	£495,644	£398,956	£253,925	£225,547	£20,820	£289,811	325	390