BNP PARIBAS REAL ESTATE

Real Estate for a changing world

London Borough of Newham: Local Plan and Community Infrastructure Levy Viability Assessment

Prepared for

London Borough of Newham

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1 Summary

1.1 This report tests the ability of a range of developments identified in London Borough of Newham's Draft Local Plan to be viably developed over the plan period. The study takes account of the cumulative impact of the Council's planning requirements, in line with the requirements of the National Planning Policy Framework ('NPPF') and the Local Housing Delivery Group guidance '*Viability Testing Local Plans: Advice for planning practitioners*'. As part of the exercise, we have tested the ability of developments to absorb higher amounts of Community Infrastructure Levy ('CIL') than the rates contained in the Council's adopted Charging Schedule ('CS').

Methodology

1.2 The study methodology compares the residual land values of a range of development typologies reflecting the types of developments expected to come forward in the borough over the plan period. The appraisals compare the residual land values generated by those developments (with varying levels of affordable housing and CIL contributions) to a benchmark land value to reflect the existing value of land prior to redevelopment. If a development incorporating the Council's policy requirements generates a higher residual land value than the benchmark land value, then it can be judged that the site is viable and deliverable. Following the adoption of policies, developers will need to reflect policy requirements in their bids for sites, in line with requirements set out in the RICS Guidance on '*Financial Viability in Planning*'[1].

1.3 The study utilises the residual land value method of calculating the value of each development. This method is used by developers when determining how much to bid for land and involves calculating the value of the completed scheme and deducting development costs (construction, fees, finance, sustainability requirements and CIL) and developer's profit. The residual amount is the sum left after these costs have been deducted from the value of the development, and guides a developer in determining an appropriate offer price for the site.

1.4 The housing and commercial property markets are inherently cyclical and the Council is testing the viability of potential development sites at a time when the market has experienced a period of sustained growth. Forecasts for future house price growth point to continuing growth in mainstream London housing markets, although there is a degree of uncertainty associated with the outcome of the referendum on the UK's membership of the European Union. We have allowed for this medium term growth over the plan period by running a sensitivity analysis which applies growth to sales values and inflation on costs to provide an indication of the extent of improvement to viability that might result.

1.5 This analysis is indicative only, but is intended to assist the Council in understanding the viability of potential development sites on a high level basis, both in today's terms but also in the future. Some sites may require more detailed viability analysis when they come forward through the development management process due to specific site circumstances that cannot be reflected in an area wide assessment[2].

[1] This guidance notes that when considering site-specific viability "*Site Value should equate to the market value subject to the following assumption: that the value has regard to development plan policies and all other material planning considerations and disregards that which is contrary to the development plan*". Providing therefore that Site Value does not fall below a site's existing use value, there should be no reason why policy requirements cannot be achieved.

[2] The Local Housing Delivery Group Guidance 'Viability Testing Local Plans: Advice for Planning Practitioners' notes that "*the role of the test is not to provide a precise answer as to the viability of every development likely to take place during the plan period. No assessment could realistically provide this level of detail. Some site-specific tests are still likely to be required at the development management stage*".

Key findings

1.6 The key findings of the study are as follows:

- We have tested the impact of the Council's existing affordable housing target of 35% - 50% (as well as 0%, 10%, 20% and 25% affordable housing) and other requirements (family housing, local employment and training levy, zero carbon, energy monitoring apparatus and BREEAM, together with Mayoral CIL and - where relevant - Crossrail Section 106) as a base position. The results generated by this base position indicate that the Council's flexible approach to affordable housing delivery (i.e. subject to individual site circumstances and scheme viability) will ensure that most developments can come forward over the economic cycle.

- The provision of some private housing as rented units will have a significant impact on the residual land values that schemes generate and as a result, it will limit their ability to meet the Council's full affordable housing target. Although private rented sector housing has the advantage of early delivery, as well as diversification of tenures which benefits developers, these benefits clearly come at the expense of the level of affordable housing delivery that can be generated.

- In considering the outputs of the appraisals, it is important to recognise that some developments will be unviable regardless of the Council's requirements. In these cases, the value of the existing building will be higher than a redevelopment opportunity over the medium term. However, this situation should not be taken as an indication of the viability (or otherwise) of the Council's policies and requirements.

- The results of our appraisals indicate that the Council's target of 35% affordable housing should be deliverable on most sites that are expected to come forward over the life of the Development Plan. The largest development, Beckton Riverside, is currently generating residual land values that are lower than the Site's existing use value, although this position is likely to change if development proposals are already coming forward in the area which is driving regeneration.

- The results indicate that almost all schemes can readily accommodate the Council's emerging requirement (reflected in the Housing White Paper) for a minimum of 10% affordable housing to be provided as intermediate housing. In the cases where residual land values are lower than existing uses values, the requirement has a modest impact that is unlikely - in itself - to prevent development coming forward.

- It is critical that developers do not over-pay for sites such that the value generated by developments is paid to the landowner, rather than being used to provide affordable housing. The Council should work closely with developers to ensure that landowners' expectations of land value are appropriately framed by the local policy context. There may be instances when viability issues emerge on individual developments, even when the land has been purchased at an appropriate price (e.g. due to extensive decontamination requirements). In these cases, some flexibility may be required subject to submission of a robust site-specific viability assessment.

- Our appraisals do not consider the potential impact that grant funding might have on scheme viability. This is a realistic assumption for the short term, given the constraints on public spending and the significant drop in funding during the current spending round. Levels of grant funding may change in the future and an increase in subsidy would clearly improve viability. The Council should therefore monitor the situation closely over the medium term, clearly if grant becomes available, then scheme viability will improve.

- The Council's adopted CIL rates have been in place since 1 January 2014 and there has been no demonstrable adverse impact on the supply of housing land or upon the viability of developments coming forward across the Borough. Since the evidence base for the adopted CIL was prepared, there have been significant changes to sales values and build costs. Our testing of alternative CIL rates indicates that relatively significant changes could be accommodated without adversely impacting on viability to a sufficient degree to impact on land supply. Increases in residential rates from £80 to £160 per square metre and from £40 to £100 per square metre would result in a modest increase in the percentage that CIL equates to (from 1.38% to 2.43% of development costs). This remains within the levels set by other boroughs in London. Consequently, there may be some scope for the Council to consider upwards adjustments to their CIL rates. We have also tested the impact of charging a modest CIL rate of between £20 and £40 per square metre on uses that were not previously chargeable (office, industrial and storage). These uses have all seen a significant improvement in land values since the evidence base supporting the existing Charging Schedule was prepared. Application of CIL rates at these levels would not change the residual land values sufficiently to render developments of these types unviable.

- The Council needs to strike a balance between achieving its aim of meeting needs for affordable housing with raising funds for infrastructure, and ensuring that developments generate acceptable returns to willing landowners and willing developers. This study demonstrates that the Council's flexible approach to applying its affordable housing requirements ensures that these objectives are balanced appropriately.

2 Introduction

2.1 The Council has commissioned this study to contribute towards an evidence base to inform its Local Plan Review (LPR). The aim of the study is to assess at high level the viability of development typologies representing the types of sites that are expected to come forward to test the cumulative impact of planning policies in the emerging Local Plan, alongside alternative CIL rates to those in the adopted CS.

2.2 In terms of methodology, we adopted standard residual valuation approaches to test the viability of development typologies, including the impact on viability of the Council's proposed (and existing) planning policies alongside adopted and alternative levels of CIL. 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 conclusions must always be tempered by a level of flexibility in application of policy requirements on a site by site basis.

Economic and housing market context

2.3 The housing and commercial property markets are inherently cyclical. The downwards adjustment in house prices in 2008/9 was followed by a prolonged period of real house price growth. By 2010 improved consumer confidence fed through into more positive interest from potential house purchasers. However, this brief resurgence abated with figures falling and then fluctuating in 2011 and 2012. The improvement in the housing market towards the end of 2012 continued through into 2013 at which point the growth in sales values improved significantly through to the last quarter of 2014, where the pace of the improvement was seen to moderate and continued to do so in 2015. The UK economy sustained momentum following the result of the UK's referendum on its membership of the European Union (EU), and as a result the UK housing market surprised many in 2016. The average house price rose 4.5%, which was 0.2% lower than our forecast and ahead of the level recorded in 2015. While first time buyer numbers continued to recover in 2016, overall transaction levels slowed as some home movers and investors withdrew from the market.

2.4 The referendum held on 23 June 2016 on the UK's membership of the EU resulted in a small majority in favour of exit. The immediate aftermath of the result of the vote was a fall in the Pound Sterling to a 31 year low and stocks overselling due to the earnings of the FTSE being largely in US Dollars. As the Pound dropped significantly this supported the stock market, which has since recouped all of the losses seen and is near the all-time highs. We are now in a period of uncertainty in relation to many factors that impact the property investment and letting markets. In March 2017, the Sterling Exchange Rate Index fell a further 1.5% from the end of February and was 10.5% lower compared with the end of March 2016. However in other areas there are tentative signs of improvement and resilience in the market. For example, the International Monetary Fund revised its forecast for UK growth in 2016 on 4 October 2016 from 1.7% to 1.8%, thereby partly reversing the cut it made to the forecast shortly after the referendum (1.9% to 1.7%). However it further trimmed its 2017 forecast from 1.3% to 1.1%, which stood at 2.2% prior to the Referendum.

2.5 The UK's first official growth figures since the referendum result vote exceeded initial estimates. Growth for Q3 according to the ONS figures was 0.5%, higher than analyst's predictions of 0.3%. The ONS highlighted that "*the pattern of growth continues to be broadly unaffected following the EU referendum*". Initial expectations were that the better than expected GDP figures would deter the Bank of England Monetary Policy Committee from going ahead with any further or planned interest rate cuts. The Economy slowed slightly from the Q2 figure of 0.7% and the pattern was a slightly unbalanced one with services being the only sector continuing to grow, achieving a rate of 0.8%. The Chancellor, Phillip Hammond, noted at the time that "*the fundamentals of the UK economy are strong and today's data show that the economy is resilient*". Production increased by 1.6% in the 3 months to February 2017 and manufacturing increased by 2.2% over the same period. Notwithstanding this the ONS indicate that "*manufacturing is dependent upon both domestic and overseas demand for UK produced goods. Changes in output will reflect both domestic demand and how UK trade is faring post-referendum*"; especially as Article 50 has now been triggered and the negotiation process to leave the EU is underway. Data from the construction sector indicated that the quarterly movement shows a growth of 1.5% in output, which the ONS state "*may act as an indicator* *of how confident enterprises are in investing in buildings and the infrastructure as longer term assets*".

2.6 It was further expected that manufacturing would be bolstered by the fall in the value of the pound; however this failed to materialise. We note however that ONS Head of GDP Darren Morgan stated that "*the economy grew slightly more in the last three months of 2016 than previously thought, mainly due to a stronger performance from manufacturing*".

2.7 Overall the figures from Q4 2016 and Q1 2017 are better than expected; however experts have warned that forecasts for the remainder of 2017 are lower, as Britain begins the formal process of negotiating its exit from the EU through Article 50. Any potential economic impacts of disengagement from the EU are likely to be deferred until the UK's future relationship with other EU countries is established. Nevertheless, the Bank of England's February 2017 Inflation report sees an increase in the Bank's prediction for economic growth for 2017 to 2%, but a reduction in the 2018 forecast from 2% to 1.6% and a slight increase again in 2019 to 1.7%. The revisions indicate that the Bank now considers the impact of any potential exit from the EU will be experienced later than expected.

2.8 The first estimate for 2017 Q1 GDP suggests UK economic growth more than halved to 0.3% quarter on quarter from 0.7% in Q4 (Source: Macrobond). This data should reinforce the Bank's desire to wait and see how the economy develops once the actual EU exit negotiations begin after the General Election, rather than to react to higher inflation and falling unemployment and reverse the previous rate cut. The General Election has added another layer of political uncertainty, however given the short time-frame this is considered unlikely to have much of an impact on investment flows.

2.9 Recent survey data by Macrobond suggests that the economy has started Q2 in a good position. The April round of PMIs saw improvements in the services, manufacturing and construction sectors and imply the possibility that growth in Q2 may be slightly stronger than in Q1.

2.10 BNP Paribas Real Estate's UK Housing Market Prospects Q3 2017 report indicates that "*our Q2 forecast for a period of muted activity and price change remain unchanged*". In this report we note that "*we expect the average UK house price to rise by around 3.5%, effectively remaining close to flat in real terms given the current pace of inflation. We expect the average UK home to have increased in value by 13.7% or just over £28,000 over the next four years. This translates to an average UK house price increase of 3.4% per annum, although given the political and economic uncertainties ahead, the journey is unlikely to feel quite so benign with the average masking inevitable volatility*".

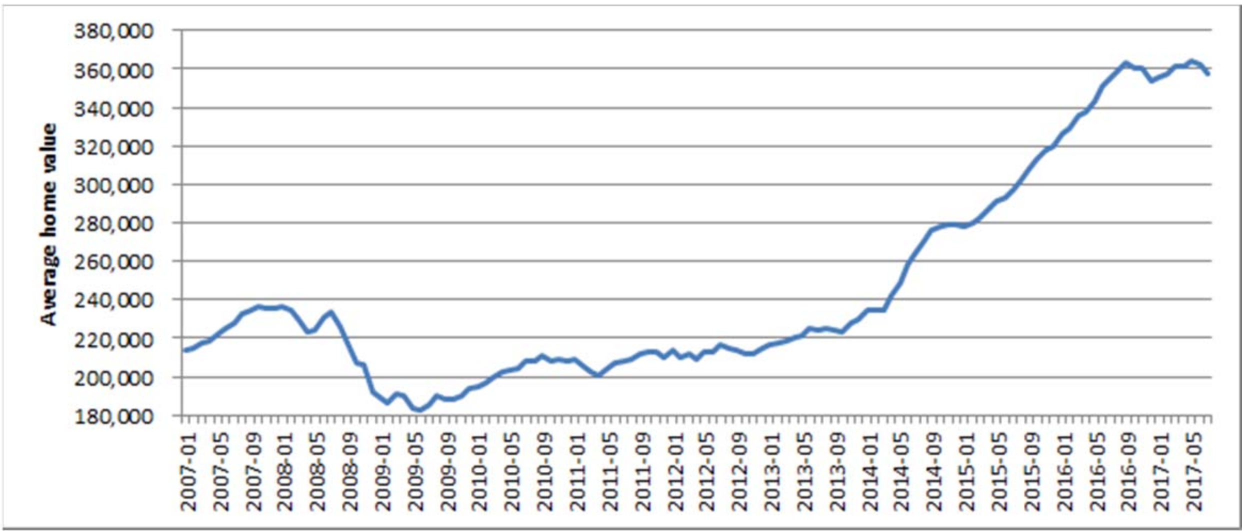
2.11 The May Halifax House Price Index Report identifies that overall prices in the three months to April were marginally lower than in the preceding three months; the first quarterly decline since November 2012. The annual rate of growth remained at 3.8% in April, the lowest rate since May 2013. Martin Ellis, the Halifax housing economist comments that, "*Housing demand appears to have been curbed in recent months due to the deterioration in housing affordability caused by a sustained period of rapid house price growth during 2014-16. Signs of a decline in the pace of job creation, and the beginnings of a squeeze on households' finances as a result of increasing inflation may also be constraining the demand for homes*".

2.12 This view is shared by Robert Gardiner, Nationwide's Chief Economist, who comments in their April House Price Index report, that "*in some respects, the softening in house price growth is surprising because the unemployment rate is near to a 40-year low, confidence is still relatively high and mortgage rates have fallen to new all-time lows in recent months*". However he balances this by highlighting that, "*while monthly figures can be volatile, the recent softening in price growth may be a further indication that households are starting to react to the emerging squeeze on real incomes or to affordability pressures in key parts of the country*".

2.13 Notwithstanding the above both the Halifax and Nationwide consider that a combination of the continuing low mortgage rates, together with an on-going acute shortage of properties on the market should support house prices. Nationwide conclude that as a result they remain of the opinion that "*a small increase in house prices of around 2% is likely over the course of 2017 as a whole*". However, the outcome of the General Election on 8 June which saw the Conservative Party lose its majority may result in additional uncertainty in the short term, both in terms of the content of a legislative programme but also the negotiations on the UK's exit from the EU. These factors may impact on buyer activity.

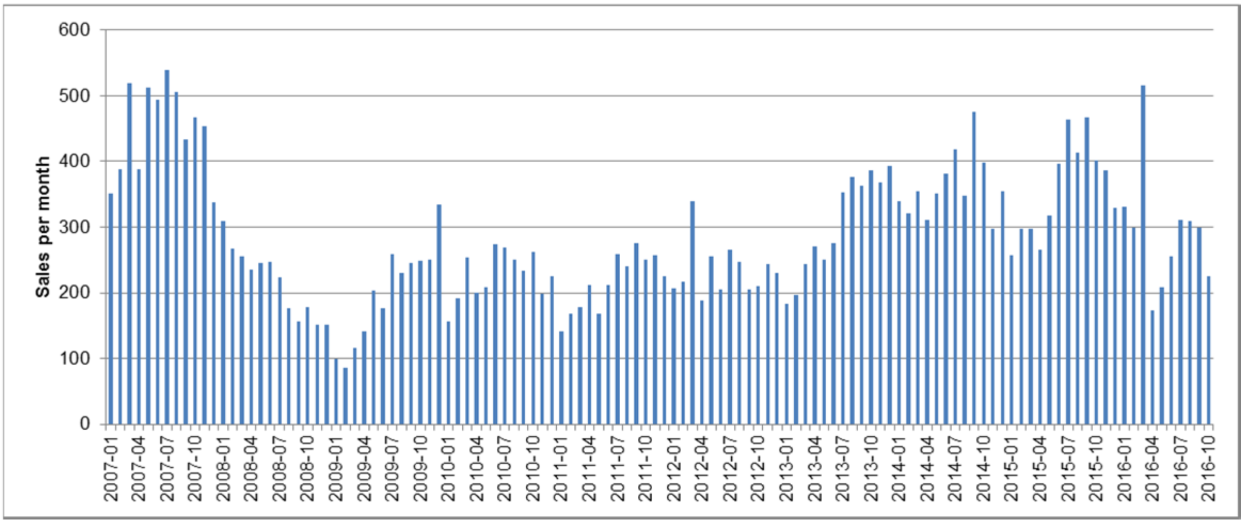
2.14 House prices in the London Borough of Newham have followed recent national trends, with values falling in 2008 to 2009 and recovering over the intervening years, as shown in Figure 2.14.1. Sales volumes fell below historic levels between 2009 and 2012, but have since recovered (see Figure 2.14.2). By July 2017, sales values had increased by 96% in comparison to the lowest point in the cycle in June 2009, or 51% higher than the previous peak in January 2008.

Figure 2.14.1: Average house prices in Newham



Source: Land Registry

Figure 2.14.1: Sales volumes in Newham (sales per month)



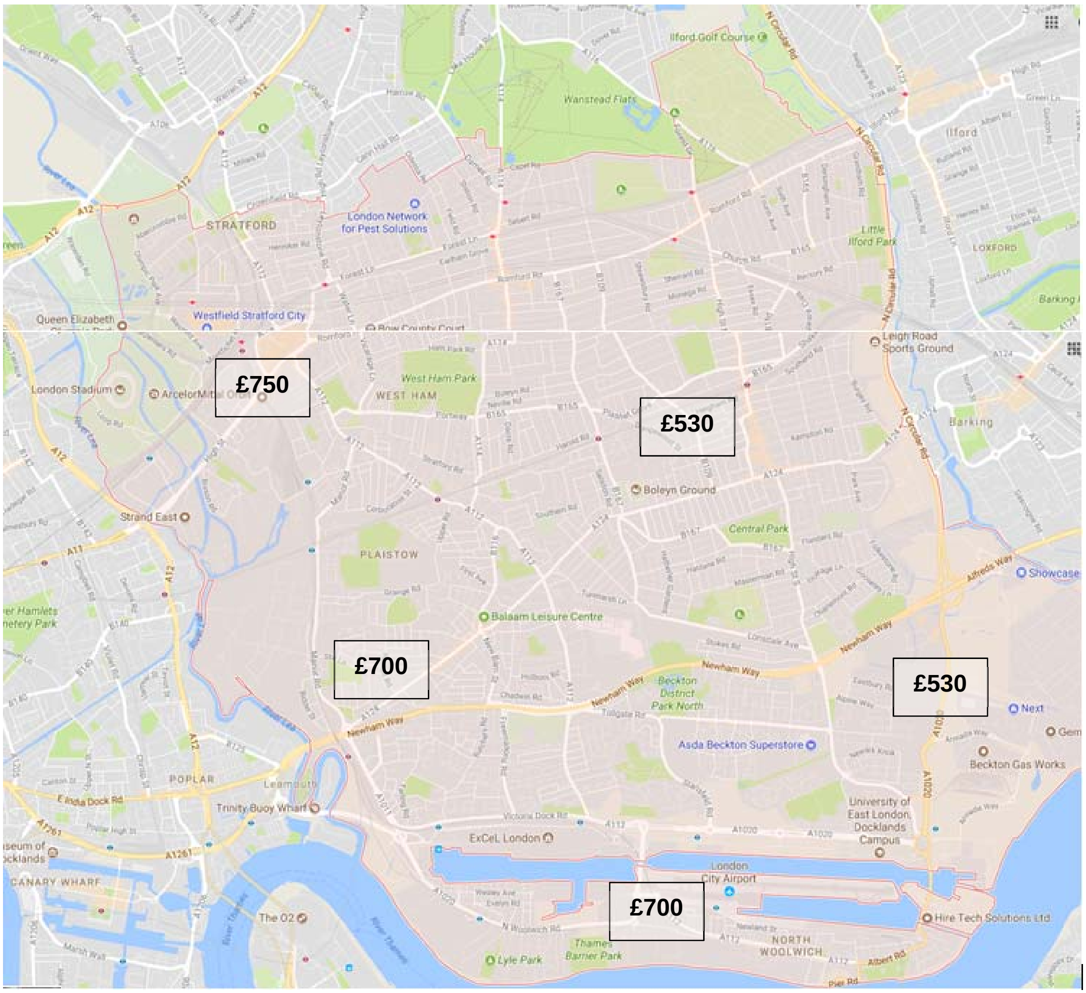
Source: Land Registry

2.15 The future trajectory of house prices is currently uncertain, although Savills *Property Focus 2017 Issue 1* prediction is that is that values are expected to increase over the next five years. Medium term predictions are that properties in mainstream London markets will grow over the period between 2017 and 2021[3]. Savills predict that values in mainstream London markets (i.e. non-prime) will remain unchanged in 2017 but will increase by 3% in 2018, 4.5% in 2019, 2% in 2020 and 1% in 2021. This equates to cumulative growth of 11% between 2017 and 2021 inclusive.

2.16 In common with other Boroughs in London, there are variations in sales values between different parts of Newham, as shown in Figure 2.16.1. Highest sales values are achieved around the key transport hubs of Stratford and Canning Town. Stratford already has extensive transport links, being served by Central Line and Jubilee Line Underground services; London Overground services; Docklands Light Railway services, National Rail services to Liverpool Street and to the east; and High Speed 1 services to St Pancras International and through Kent to Dover. Canning Town has access to Jubilee Line services and Docklands Light Railway services. Crossrail services commence in December 2018 and will serve Stratford, Maryland, Forest Gate, Manor Park and Custom House.

2.17 In the centre, east and north-east of the Borough, values are slightly lower than in the west and Royal Docks, due to lower public transport accessibility and lower frequency of services.

Figure 2.16.1: Sales values in Newham (approx. £s per square foot)



Sources: Map – Google; Values – comparable evidence

3 Savills Property Focus Quarter 4 (November 2016)

Private rented sector market context

2.18 The proportion of households privately renting is forecast to increase from under 10% in 1991 to circa 25% by 2021, largely as a result of affordability issues for households who would have preferred to owner occupy[4]. Over the same period, the proportion of households owner occupying is forecast to fall from 69% to under 60%. These trends are set to continue in the context of a significant disparity between average household incomes and the amounts required to purchase a residential property in the capital.

2.19 Perceived softening of the housing for sale market has prompted developers to seek bulk sales to PRS operators, with significant flows of investment capital into the sector. Investment yields have remained stable in the zones 2 to 4 London market at 3.5% to 4%. PRS housing as an asset class is still emerging and valuation portfolios and development opportunities is difficult in the context of lack of data. As the market matures, more information will become available, facilitating more sophisticated approaches to valuing and appraising PRS developments.

2.20 The PRS market is still immature and as a consequence there is little data available on management costs and returns that would assist potential entrants into the market. However, viability assessments of schemes brought forward to date confirm that profit margins are lower than build for sale on the basis that a developer will sell all the PRS units in a single transaction to an investor/operator. The income stream is therefore akin to a commercial investment where a 15% profit on GDV is typically sought.

2.21 A reduced profit margin helps to compensate (to some degree) for the discount to market value that investors will seek. PRS units typically transact at discounts of circa 20% of market value on the basis of build to sell.

2.22 On larger developments, PRS can help to diversify the scheme so that the Developer is less reliant on build to sell units. Building a range of tenures will enable developers to continue to develop schemes through the economic cycle, with varying proportions of units being provided for sale and rent, depending on levels of demand from individual purchasers. However, demand for build for rent product will also be affected by the health of the economy generally, with starting and future rent levels more acutely linked to changes in incomes of potential tenants.

National Policy Context

The National Planning Policy Framework

2.23 In March 2012, the old suite of planning policy statements and planning policy guidance was replaced by a single document – the National Planning Policy Framework ('NPPF'). The NPPF has subsequently been supplemented by the National Planning Practice Guidance ('NPPG').

2.24 The NPPF provides more in-depth guidance on viability of development than Planning Policy Statement 3, which limited its attention to requiring local planning authorities to test the viability of their affordable housing targets. The NPPF requires that local planning authorities have regard to the impact on viability of the *cumulative effect* of all their planning requirements on viability. Paragraph 173 of the NPPF requires that local planning authorities give careful attention "*to viability and costs in plan-making and decision-taking*". The NPPF requires that "*the sites and the scale of development identified in the plan should not be subject to such a scale of obligations and policy burdens that their ability to be developed viably is threatened*". After taking account of policy requirements, land values should be sufficient to "*provide competitive returns to a willing landowner and willing developer*".

2.25 The meaning of a "*competitive return*" has been the subject of considerable debate over the past year. For the purposes of testing the viability of a Local Plan, the Local Housing Delivery Group[5] has concluded that the current use value of a site (or a credible alternative use value) plus an appropriate

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4 Knight Frank PRS Update August 2017

5 Viability Testing Local Plans: Advice for planning practitioners, June 2012

uplift, represents a competitive return to a landowner. Some members of the RICS consider that a competitive return is determined by market value[6], although there is no consensus around this view.

CIL

2.26 The Council adopted its CIL CS on 30 September 2013 and it came into effect on 1 January 2014. Table 2.26.1 below summarises the prevailing rates of CIL. For residential developments, the borough is divided into two zones; Charging Zone 1 (E15 – excluding London Legacy Development Corporation area, E16 and E3 (part) postcodes) and Charging Zone 2 (E6, E7, E12, E13 and IG11 part). All other CIL rates are set at the same level across the whole borough.

Table 2.26.1: CIL rates per net additional square metre in the PDCS

Type of Development	Charging zone 1 (E15 excluding LLDC area, E16 and part of E3)	Charging zone 2 (E6, E7, E12, E13, IG11 and part of IG11)
Residential (C3, C4)	£80	£40
Retail (A1 – 5)	£30	£30
Hotels (C1)	£120	£120
Student accommodation (Sui Generis)	£130	£130
All other uses	£0	£0

2.27 The Borough is located within Mayoral CIL Zone 3, which attracts a rate of £20 per square metre. The consultation on the proposed amendments to the Mayoral CIL indicate that a rate of £25 per square metre will be levied in Newham.

Crossrail Section 106

2.28 Newham has five existing stations that will be served by the new Crossrail service from 2018 (Stratford, Maryland, Forest Gate, Custom House and Manor Park). The Borough will not benefit from any new stations as a result of the introduction of the service (these five stations are currently served by TLF rail services, which will be subsumed into Crossrail).

2.29 Developments within one kilometre of the four stations will therefore be subject to the 'Rest of London' Crossrail Section 106 top-up charge. Developments are required to pay the higher of the Mayoral CIL or the Crossrail Section 106 charges which are £31 per square metre for offices and £16 per square metre for retail. The retail rate is lower than the prevailing rate of Mayoral CIL in the Borough (£20 per square metre), so there is no Crossrail Section 106 top up. However, the office charge of £31 per square metre exceeds the Mayoral CIL rate of £20 per square metre, so a top up of £11 is payable.

Local Policy context

2.30 There are numerous policy requirements that are now embedded in base build costs for schemes in London addressing London Plan requirements, which are mirrored in borough Local Plans (i.e. secure by design, lifetime homes, landscaping, amenity space, internal space standards, car parking, waste storage, tree preservation and protection etc). Therefore it is unnecessary to establish the cost of all these pre-existing policy requirements. Appendix 1 summarises the Council's analysis of the anticipated impact of new or amended policies.

2.31 It is therefore considered prudent to assume that developments can absorb the pre-existing requirements in the adopted policies. Therefore, notwithstanding the family and affordable housing target (see paragraphs 2.32 and 2.33), only the elements of the policy framework which are proposed to change as part of LPR, and which have cost implications for developments will need to

[6] RICS Guidance Note: Financial Viability in Planning, August 2012

be tested. The affordable housing and family housing requirements are both tested, despite being adopted policies, as they have a significant bearing on the viability of developments, even though they have been in place for a considerable period.

2.32 In addition to financing infrastructure through Section 106 (subject to pooling restrictions), the Council's existing policy (H2 Affordable Housing) expects residential developments to provide a mix of affordable housing tenures to help meet identified housing needs. This includes, on sites with a capacity of 10 or more units, seeking 35% - 50% of units as affordable housing, with a tenure split of 60% rented and 40% intermediate (except in Canning Town where a 50%/50% tenure split will be sought). Whilst LPR did not propose a change to the borough's affordable housing target, early options for LPR proposed to introduce an affordable housing 'floor' (either applied across the borough or within targeted areas) whereby development proposals would be expected to achieve 25% of units as affordable housing as a minimum. In relation to intermediate housing, the Council are seeking to introduce policy stipulating that sites deliver at least 10% of affordable intermediate units (as home ownership products).

2.33 Policy H1 requires that 39% of units are provided as (3 bed) family housing. The Council is proposing to amend this requirement to apply only to sites with capacity for 10 or more units, therefore pre-existing requirements applied to all major development will be unchanged.

2.34 Policy J3 proposes a target that 35% of all jobs during the construction phase of a development should be filled by local people via the application of an Employment and Training levy. The same requirement will apply for 50% of jobs available on a site after construction has been completed.

2.35 Policy SC2 requires that developments should achieve Zero Carbon standard in accordance with the costs set out in the London Plan (Minor Alterations).

2.36 Policy SC1 requires that major schemes should provide renewable energy monitoring apparatus.

2.37 Policy SC1 requires that non-residential development over 500 square metres should achieve BREEAM 'very good' standards and major developments should achieve 'excellent' standard.

Development context

2.38 Newham is an inner-London borough located in east London. The borough is bordered by the River Thames to the South, which provided access to historic docks, which have been (and continue to be) a significant source of development land. The borough has numerous transport routes, with a particular concentration at Stratford. The borough also accommodates City Airport, which provides both domestic and international flights.

2.39 The borough's main town centres are located at Stratford, East Ham, Canning Town, Forest Gate, Green Street and East Beckton. There are nine conservation areas, some 40 Sites of Importance for Nature Conservation and 186 public open spaces (together making up circa 479 hectares).

2.40 The existing housing stock is comprised of late Victorian and Edwardian period terraced houses and post-war walk-up blocks and towers, 1980 and 1990s estate built homes and more recent infill apartment blocks.

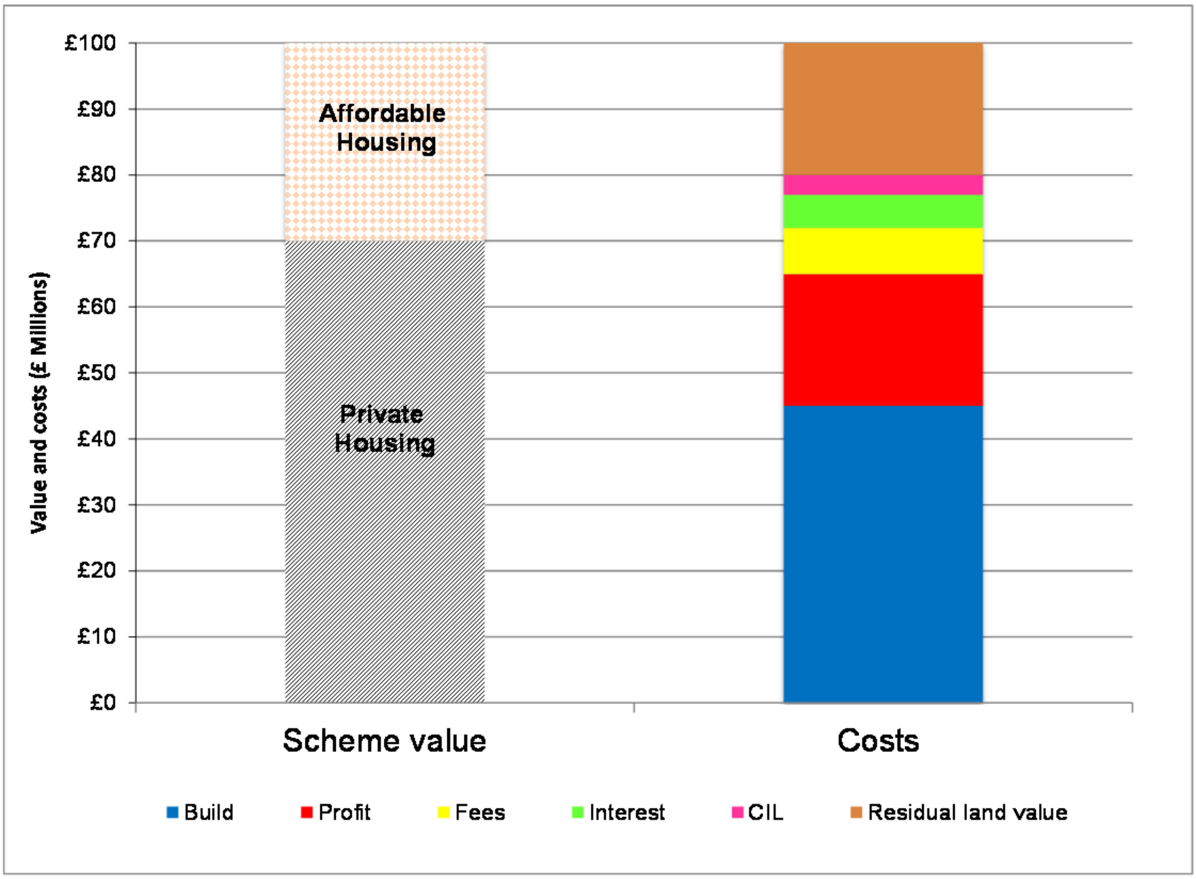
2.41 In addition, the borough has seen extensive development of residential and employment schemes in the arc which stretches from Stratford through to the Royal Docks to Beckton. Land in these areas has become available due to changes in employment patterns which have resulted in former industrial sites becoming available for redevelopment. Significant upgrades to the public transport network in the borough, as well as investment in other infrastructure, have opened up these sites for redevelopment. Stratford is now firmly established as a new retail/office/residential quarter, kick-started by public investment in preparation for the 2012 Olympics. The Royal Docks is also now seeing transformation into a business and leisure destination.

3 Methodology and appraisal inputs

3.1 Our methodology follows standard development appraisal conventions, using locally-based sites and assumptions that reflect local market and planning policy circumstances. The study is therefore specific to Newham and reflects the Council's existing and emerging planning policy requirements.

Approach to testing development viability

3.2 Appraisal models can be summarised via the following diagram. The total scheme value is calculated, as represented by the left hand bar. This includes the sales receipts from the private housing (the hatched portion) and the payment from a Registered Provider ('RP') (the chequered portion) for the completed affordable housing units. For a commercial scheme, scheme value equates to the capital value of the rental income after allowing for rent free periods and purchaser's costs. The model then deducts the build costs, fees, interest, CIL and developer's profit. A 'residual' amount is left after all these costs are deducted – this is the land value that the Developer would pay to the landowner. The residual land value is represented by the brown portion of the right hand bar in the diagram.



3.3 The Residual Land Value is normally a key variable in determining whether a scheme will proceed. If a proposal generates sufficient positive land value (in excess of existing use value, discussed later), it will be implemented. If not, the proposal will not go ahead, unless there are alternative funding sources to bridge the 'gap'.

3.4 Issues with establishing key appraisal variables are summarised as follows:

- Development costs are subject to national and local monitoring and can be reasonably accurately assessed in 'normal' circumstances. In Boroughs like Newham, many sites will be previously developed. These sites can sometimes encounter 'exceptional' costs such as decontamination. Such costs can be very difficult to anticipate before detailed site surveys are undertaken;

- Assumptions about development phasing, phasing of Section 106 contributions and infrastructure required to facilitate each phase of the development will affect residual values. Where the delivery of the 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; and
- 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 up to around 15% of completed development value at the peak of the market in 2007, banks currently require schemes to show a higher profit to reflect the current risk. Typically developers and banks are targeting around 17-20% profit on value of the private housing element.

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[7]' or another appropriate benchmark to make development worthwhile. The margin above existing use value 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 other sites.

3.6 Clearly, however, landowners have expectations of the value of their land which often exceed the value of the current use. Ultimately, if landowners' reasonable expectations are not met, they will not voluntarily 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. However, the communities in which development takes place also have reasonable expectations that development will mitigate its impact, in terms of provision of community infrastructure, which will reduce land values. 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 increases in value.

Viability benchmark

3.7 The NPPF is not prescriptive on the type of methodology local planning authorities should use when assessing viability. The National Planning Practice Guidance indicates that the NPPF requirement for a 'competitive return' to the landowner will need to allow for an incentive for the land owner to sell and options may include "*the current use value of the land or its value for a realistic alternative use that complies with planning policy*" (paragraph 024; reference ID 10-024-20140306).

3.8 The Local Housing Delivery Group published guidance[8] in June 2012 which provides guidance on testing viability of Local Plan policies. The guidance notes that "*consideration of an appropriate Threshold Land Value [or viability benchmark] needs to take account of the fact that future plan policy requirements will have an impact on land values and landowner expectations. Therefore, using a market value approach as the starting point carries the risk of building-in assumptions of current policy costs rather than helping to inform the potential for future policy*".

3.9 In light of the weaknesses in the market value approach, the Local Housing Delivery Group guidance recommends that benchmark land value "*is based on a premium over current use values*" with the "*precise figure that should be used as an appropriate premium above current use value [being] determined locally*". The guidance considers that this approach "*is in line with reference in the NPPF*

[7] For the purposes of this report, existing use value is defined as the value of the site in its existing use, assuming that it remains in that use. We are not referring to the RICS Valuation Standards definition of 'Existing Use Value'.

[8] Viability Testing Local Plans: Advice for planning practitioners, Local Housing Delivery Group, Chaired by Sir John Harman, June 2012

to take account of a "competitive return" to a willing land owner".

3.10 The examination on the Mayor of London's CIL charging schedule considered the issue of an appropriate land value benchmark. The Mayor had adopted existing use value, while certain objectors suggested that 'Market Value' was a more appropriate benchmark. The Examiner concluded that:

"The market value approach…. while offering certainty on the price paid for a development site, suffers from being based on prices agreed in an historic policy context." (paragraph 8) and that "*I don't believe that the EUV approach can be accurately described as fundamentally flawed or that this examination should be adjourned to allow work based on the market approach to be done*" (paragraph 9).

3.11 In his concluding remark, the Examiner points out that

"the price paid for development land may be reduced [so that CIL may be accommodated]. *As with profit levels there may be cries that this is unrealistic, but* ***a reduction in development land value is an inherent part of the CIL concept****. It may be argued that such a reduction may be all very well in the medium to long term but it is impossible in the short term because of the price already paid/agreed for development land. The difficulty with that argument is that if accepted the prospect of raising funds for infrastructure would be forever receding into the future. In any event in some instances it may be possible for contracts and options to be re-negotiated in the light of the changed circumstances arising from the imposition of CIL charges.* (paragraph 32 – emphasis added).

3.12 It is important to stress, therefore, that there is no single threshold land value at which land will come forward for development. The decision to bring land forward will depend on the type of owner and, in particular, whether the owner occupies the site or holds it as an asset; the strength of demand for the site's current use in comparison to others; how offers received compare to the owner's perception of the value of the site, which in turn is influenced by prices achieved by other sites. Given the lack of a single threshold land value, it is difficult for policy makers to determine the minimum land value that sites should achieve. This will ultimately be a matter of judgement for each planning authority.

3.13 Respondents to consultations on planning policy documents in other authorities in London have made various references to the RICS Guidance on 'Viability in Planning' and have suggested that councils should run their analysis on market values. This would be an extremely misleading measure against which to test viability, as market values should reflect *existing policies already in place*, and would consequently tell us nothing as to how future (as yet un-adopted) policies might impact on viability. It has been widely accepted elsewhere that market values are inappropriate for testing planning policy requirements.

3.14 Relying upon historic transactions is a fundamentally flawed approach, as offers for these sites will have been framed in the context of current planning policy requirements, so an exercise using these transactions as a benchmark would tell the Council nothing about the potential for sites to absorb as yet unadopted policies. Various Local Plan inspectors and CIL examiners have accepted the key point that Local Plan policies and CIL will ultimately result in a reduction in land values, so benchmarks must consider a reasonable minimum threshold which landowners will accept. For local authority areas such as Newham, where the vast majority of sites are previously developed, the 'bottom line' in terms of land value will be the value of the site in its existing use. This fundamental point is recognised by the RICS at paragraph 3.4.4. of their Guidance Note on 'Financial Viability in Planning":

"For a development to be financially viable, any uplift from current use value to residual land value that arises when planning permission is granted should be able to meet the cost of planning obligations while ensuring an appropriate Site Value for the landowner and a market risk adjusted return to the developer in delivering that project (the NPPF refers to this as 'competitive returns' respectively). The return to the landowner will be in the form of a land value in excess of current use value".

3.15 The Guidance goes on to state that "*it would be inappropriate to assume an uplift based on set* *percentages … given the diversity of individual development sites*".

3.16 Commentators also make reference to 'market testing' of benchmark land values. This is another variant of the benchmarking advocated by respondents outlined at paragraph 3.13. These respondents advocate using benchmarks that are based on the prices that sites have been bought and sold for. There are significant weaknesses in this approach which none of the respondents who advocate this have addressed. In brief, prices paid for sites are a highly unreliable indicator of their actual value, due to the following reasons:

- Transactions are often based on bids that 'take a view' on squeezing planning policy requirements below target levels. This results in prices paid being too high to allow for policy targets to be met. If these transactions are used to 'market test' CIL rates, the outcome would be unreliable and potentially highly misleading.

- Historic transactions of housing sites are often based on the receipt of grant funding, which is no longer available.

- There would be a need to determine whether the developer who built out the comparator sites actually achieved a profit at the equivalent level to the profit adopted in the viability testing. If the developer achieved a sub-optimal level of profit, then any benchmarking using these transactions would produce unreliable and misleading results.

- Developers often build assumptions of growth in sales values into their appraisals, which provides a higher gross development value than would actually be achieved today. Given that our appraisals are based on current values, using prices paid would result in an inconsistent comparison (i.e. current values against the developer's assumed future values). Using these transactions would produce unreliable and misleading results.

3.17 These issues are evident from a recent BNP Paribas Real Estate review of evidence submitted in viability assessments where the differences between the value ascribed to developments by applicants and the amounts the sites were purchased for by the same parties. The prices paid exceeded the value of the consented schemes by between 52% and 1,300%.

3.18 For the reasons set out above, the approach of using current use values is a more reliable indicator of viability than using market values or prices paid for sites, as advocated by certain respondents. Our assessment follows this approach, as set out in Section 4.

4 Appraisal assumptions

4.1 We have appraised 24 development typologies on site allocations in the borough to represent the types of sites that the Council expects to come forward over the plan period. The development typologies are identified in Table 4.1.1 overleaf. Floor areas for commercial uses are gross internal areas and are indicative estimates only without the benefit of detailed design. The appraisals include an average floor area of 90 square metres GIA per unit, which is sufficient to accommodate the Council's policy H1 requirement that 39% of 3 bed family units be provided on developments of 10 or more residential units.

Residential sales values

4.2 Residential values in the area reflect national trends in recent years but do of course vary between different sub-markets, as noted in Section 2. We have considered comparable evidence of transacted properties in the area and also properties on the market to establish appropriate values for each scheme for testing purposes. This exercise indicates that the developments in the sample will attract average sales values ranging from circa £5,705 per square metre (£530 per square foot) to £8,073 per square metre (£750 per square foot), as shown in Figure 2.16.1.

4.3 As noted earlier in the report, Savills predict that sales values will increase over the medium term (i.e. the next five years). Whilst this predicted growth cannot be guaranteed, we have run a series of sensitivity analyses assuming growth in sales values accompanied by cost inflation as summarised in Table 4.3.1. While these growth scenarios are based on a number of forecasts, they cannot be guaranteed and the results which these scenarios produce must be viewed as indicative only. We have also increased the benchmark land values in the growth scenarios by 20%, reflecting some improvement in the value of secondary assets.

Table 4.3.1: Growth scenario

Year	1 2017	2 2018	3 2019	4 2020	5 2021	6 2022 and each year thereafter
Values	1%	3%	4%	4%	4.5%	4%
Costs	2.0%	2.0%	2.5%	2.5%	2.5%	2.5%

Affordable housing tenure and values

4.4 Policy H2 of the adopted Local Plan seeks 35% to 50% affordable housing on individual sites with a capacity of 10 or more units. Although this affordable housing target will not be amended as part of the LPR, the Council is seeking to introduce a policy requiring a minimum 25% affordable housing 'floor' as a starting point for all applications, either across the borough or within targeted areas. The tenure mix of the affordable housing will remain as 60% rent and 40% intermediate in all areas, except Canning Town, where the mix is to be 50% rent and 50% intermediate.

4.5 In relation to intermediate housing, whilst the current tenure split is to be retained within policy, LPR proposes the introduction of a requirement that sites deliver at least 10% intermediate units (as home ownership products). It is considered that, on the proviso that at least 35% of units proposed within a scheme are affordable, this will have no additional viability implications as this level would be delivered as part of the existing tenure split. However, in cases where no other affordable housing can be viably provided, we have tested the impact of the requirement for 10% affordable housing to be provided as 100% intermediate.

4.6 Our appraisals assume that the rented housing is let at rents that do not exceed Local Housing Allowance ('LHA') rates, so that they are affordable to households subject to the Universal Credit, as shown in Table 4.7.1. The approach adopted is therefore consistent with the rent caps announced in the Autumn Statement in November 2015. It should be noted that the Local Housing Allowances are considerably lower than market rents. Prior to the Autumn Statement, rents for affordable rented units could have (in theory) been set as high as 80% of market rents (inclusive of service charges), but this is no longer an option.

4.7 We have tested the impact of the provision of a proportion of private units as rented by discounting the market value for these units by 20%, which reflects the discount we have seen on live developments when units are provided as Private Rented Sector stock. As noted in Section 2, this discount is offset to a degree by a reduction in profit margin of circa 5%, so the net reduction in value is 15%. The proportions of units to be provided as Private Rented Sector stock are shown in Table 4.1.1.

Table 4.1.1: Development typologies tested in the study (gross internal areas)

Site	Site area (ha)	Existing use	Resi-dential units	% of resi units to be three beds	% of units to be PRS	Retail sqm	Retail super-market sqm	B1 sqm	B2 sqm	C1 Hotel	B8 sqm	D1/D2 sqm and use	Highways works
S27 Queen's Market (incl extension) E13	1.90	Retail/ community	500	39%	33.30%	2,500	2,000	-	-	-	-	2,500 Healthcare	£210,000
S18 Limmo E16 (incl extension over Canning Town station)	7.66	Industrial (cleared) and rail and bus station	1,200	39%	33.30%	1,000	-	-	-	-	-	-	£200,000
S08 Thames Wharf E16	11.30	Industrial	1,150	39%	33.30%	7,000	-	-	-	-	-	4,600 School	£400,000
S11 Parcelforce (incl extension) E13	18.50	Storage/ distribution & utilities	4,000	39%	33.30%	4,400	1,000	689	-	-	-	12,004 Community/ leisure	£450,000
LMUA7 Dulcia Mills E13	0.80	Industrial	63	39%	0.00%	250	-	5,000	-	-	-	250 Community	£100,000
S12 Canning Town Riverside	3.77	Industrial	600	39%	0.00%	-	-	5,000	-	-	5,000	-	£150,000
S06 Coolfin North E16	8.00	Housing, School and Nursery	1,000	39%	15.00%	-	-	-	-	-	-	5,000 Education	£150,000
S03 East Ham Western Gateway E13	0.90	Retail, leisure (trampoline centre) and community (latter cleared)	140	39%	0.00%	-	-	250	-	-	-	1,200 Community	£100,000
S09 Silvertown Landing E16	5.60	Industrial	329	39%	33.30%	-	-	10,000	5,000	-	10,000	-	£100,000

Site	Site area (ha)	Existing use	Resi-dential units	% of resi units to be three beds	% of units to be PRS	Retail sqm	Retail super-market sqm	B1 sqm	B2 sqm	C1 Hotel	B8 sqm	D1/D2 sqm and use	Highways works
S20 Lyle Park West E16	7.80	Industrial/ vacant industrial	775	39%	33.30%	950	300	10,000	-	-	-	-	£450,000
S23 Connaught Riverside E16	11.5	Industrial	1,650	39%	33.30%	700	300	15,000	-	6.500	-	5,650 Education	£100,000
S04 North Woolwich Gateway E16	6.60	Vacant Industrial	350	39%	15.00%	700	300	6,000	13,500		13,500	1,000 Healthcare	£300,000
S01 Beckton Riverside E6	72.9	Warehouses open storage retail warehouses & vacant	5,000	39%	33.30%	40,000	5,000	-	15,000		15,000	13,000 Education, 1,300 Health, 7,000 leisure	£2,551,864 (Median) £3,663,071 (Upper)[9]
S02 Alpine Way E6	5.39	Retail warehouses	750	39%	33.30%	-	-	10,000	-		-	-	£360,580 (Median) / £549,461 (Upper)
CF06 Bow County Court E15	0.21	Community	28	39%	0.00%	-	-	-	-		-	3,200 Healthcare	£35,000
LMUA14 Beeby Road E16	0.87	Industrial and community	58	39%	0.00%	250	-	5,000	-		-	250	£35,000
HSG33 Leytonstone Road	0.1	Housing and commercial (town centre uses)	30	39%	0.00%	-	-	150	-		-	150 community	-
HSG32 Abbey House	0.2	Housing	75	39%	0.00%	150	-	-	-		-	-	-

9 Upper level adopted for appraisals

Site	Site area (ha)	Existing use	Resi-dential units	% of resi units to be three beds	% of units to be PRS	Retail sqm	Retail super-market sqm	B1 sqm	B2 sqm	C1 Hotel	B8 sqm	D1/D2 sqm and use	Highways works
LMUA16 Atherton Mews	0.8	Housing and commercial/ retail (with vacancy)	50	39%	0.00%			600					
HSG22 Balaam Street Garage E13	0.23	Industrial	33	39%	0.00%	-	-	-	-		-	-	£35,000
LMUA15 Esk Road E13	0.5	Industrial	38	39%	0.00%	100	-	3000	-		-	250	£50,000
[10]LMUA7 Dulcia Mills (alternative)	0.8	Industrial	13	39%	0.00%	75	-	999	-	-	-	75	£100,000
[10]LMUA14 Beeby Road (alternative)	0.87	Industrial	10	39%	0.00%	75	-	815	-	-	-	75	£35,000
[10]LMUA15 Esk Rd E13 (alt)	0.50	Industrial	10	39%	0.00%	75	-	750	-	-	-	125	£50,000

[10] Given the nature of redevelopment proposals on LMUA sites, these schemes have been amended to test the outcome of smaller developments in the event that only part of the sites come forward.

Table 4.6.1: LHAs (Outer East London BRMA)

Unit type	Local Housing Allowance per week	Rent assumed in appraisal (net of £20 per week service charge)
1 bed	£181.80	£161.80
2 beds	£229.58	£209.58
3 beds	£286.98	£266.98
4+ beds	£341.56	£321.56

4.8 In the July 2015 Budget, the Chancellor announced that RPs will be required to reduce rents by 1% per annum for the next four years. This will reduce the capital values that RPs will pay developers for completed affordable housing units. At this stage, it is unclear whether this requirement will roll forward beyond the four year period 2015/16 to 2018/19. We have therefore adopted a cautious assumption and assumed that the restriction will remain in place in perpetuity (i.e. every new development will face reduced rents for the first four years, even if they are started after the initial four year period).

4.9 Based on the rents above, our modelling indicates that RPs would pay an average of £2,356 per square metre (£220 per square foot) to acquire completed Affordable Rented units.

4.10 The CLG/HCA 'Shared Ownership and *Affordable Homes Programme 2016-2021: Prospectus'* document clearly states that Registered Providers will not receive grant funding for any affordable housing provided through planning obligations on developer-led developments. Consequently, all our appraisals assume nil grant. Clearly if grant funding does become available over the plan period, it should facilitate an increase in the provision of affordable housing when developments come forward.

4.11 For shared ownership units, we have assumed that Registered Providers will sell 30% initial equity stakes and charge 2.5% on the retained equity. The rent on retained equity is capitalised using a yield of 6%.

Rents and yields for commercial development

4.12 Our assumptions on rents and yields for the retail, office and industrial floorspace are summarised in Table 4.12.1. These assumptions are informed by lettings of similar floorspace in the area over the past year. Our appraisals assume a 12 month rent-free period for both retail and office floorspace.

Table 4.12.1: Commercial rents (£s per square metre) and yields

Commercial floorspace	Rent per square foot	Investment yield	Rent free period (months)
Retail	250	6.00%	12
Office	300	6.50%	12
Industrial and warehousing	150	6.00%	12

Build costs

4.13 We have sourced build costs from the RICS Building Cost Information Service (BCIS), which is based on tenders for actual schemes. Base costs (adjusted for local circumstances by reference to BICS multiplier) are as follows:

- Flats (3 – 5 storeys): £1,502 per square metre;
- Flats (6+ storeys): £1,934 per square metre;
- Retail: £1,372 per square metre;

- Offices: £1,844 per square metre;
- Industrial: £1,094 per square metre;
- Warehouse/storage: £949 per square metre;
- D1/D2 Education, health: £2,248 per square metre.

4.14 In addition, the base costs above are increased by 15% to account for external works (including car parking spaces) and 6% for the costs of meeting the energy requirements now embedded into Part L of the Building Regulations.

Zero carbon and BREEAM

4.15 The '*Greater London Authority Housing Standards Review: Viability Assessment*' estimates that the cost of achieving zero carbon standards is 1.4% of base build costs. We have applied this uplift in costs to the base build costs outlined above.

4.16 For commercial developments, we have increased base build costs by 2% to allow for the extra-over costs of achieving BREEAM 'excellent' standard[11]. This is assumed to also address the 'excellent;' standard in relation to water efficiency (Wat 01), for which no clear data is available.

Accessibility standards

4.17 Our appraisals assume that all units are constructed to meet wheelchair accessibility standards (Category 2) apply to all dwellings at an average cost of £521 per house and £924 per unit for flats. In addition, we have assumed that Category 3 standard applies to 10% of dwellings at a cost of £22,694 per flat and £7,908 per flat[12]. These costs address both parts A and B of the requirements (i.e. that the communal areas are designed and fitted out to allow wheelchair access and also that the dwellings themselves are designed and fitted out to facilitate occupation by wheelchair users).

Employment and training contribution

4.18 Policy J2 proposes a target of 35% construction phase jobs and 50% of post construction phase jobs to be sourced from local people via the application of an employment and training levy. The Council's interpretation of available data is that 16 direct construction jobs are created for each £1 million of construction costs. For post-construction jobs, we have relied upon the employment densities in Table 4.18.1. The Council has indicated that it will seek to levy £3,163 per applicable job.

Table 4.18.1: Employment densities[13]

Floorspace type	Floorspace in square metres per FTE
B1 offices	13
B2 industrial	36
B8 warehousing	70
A1 retail	20

Professional fees

4.19 In addition to base build costs, schemes will incur professional fees, covering design and valuation, highways consultants and so on. Our appraisals incorporate a 10% allowance, which is at the

[11] Based on '*Delivering Sustainable Buildings: savings and payback*', BREEAM and Sweett Group Research 2014, which identified an increase of between 0.87% to 1.71% of build costs

[12] Based on DCLH '*Housing Standards Review: Cost Impacts*' September 2014

[13] Based on 'Employment density matrix' in '*Employment Density Guide: 3rd edition (November 2015)*' Homes and Communities Agency

middle to higher end of the range for most schemes.

Development finance

4.20 Our appraisals assume that development finance can be secured at a rate of 6%, inclusive of arrangement and exit fees, reflective of current funding conditions.

Marketing costs

4.21 Our appraisals incorporate an allowance of 3% for marketing costs, which includes show homes and agents' fees, plus 0.5% for sales legal fees.

Mayoral CIL and Crossrail Section 106

4.22 Mayoral CIL is payable on most developments that receive planning consent from 1 April 2012 onwards. Newham falls within Zone 3, where a CIL of £20 per square metre will be levied. The Mayoral CIL takes precedence over Borough requirements, including affordable housing. Our appraisals take into account Mayoral CIL and, where necessary, Crossrail Section 106.

4.23 The Mayor has recently issued a consultation on amendments to the CIL which will (if adopted) increase the rate in Newham to £25 per square metre. We have applied this increased rate in our appraisals[14].

4.24 The Borough is located within the "*rest of London contribution area*" where Crossrail Section 106 contributions of £31 per square will be sought for office development and £16 per square metre for retail development within a 1 kilometre radius of a Crossrail station. However, where a Crossrail Section 106 contribution is less than the CIL payable, only the CIL is payable. If the CIL is lower than the Crossrail Section 106, then the amount payable is the Crossrail Section 106 (i.e. the CIL plus a 'top up' amount)[15]. Mayoral CIL exceeds the Crossrail S106 for retail, but is lower for offices. The top up will therefore apply to retail development but not offices.

Newham CIL

4.25 As noted previously, the Council adopted its CIL CS on 30 September 2013 and it came into effect on 1 January 2014. Table 4.25.1 below summarises the prevailing rates of CIL. For residential developments, the borough is divided into two zones; Charging Zone 1 (E15 – excluding London Legacy Development Corporation area, E16 and E3 (part) postcodes) and Charging Zone 2 (E6, E7, E12, E13 and IG11 part). All other CIL rates are set at the same level across the whole borough.

Table 4.25.1: CIL rates in the adopted CS

Type of Development	Charging zone 1 (E15 excluding LLDC area, E16 and part of E3)	Charging zone 2 (E6, E7, E12, E13, IG11 and part of IG11)
Residential (C3, C4)	£80	£40
Retail (A1 – 5)	£30	£30
Hotels (C1)	£120	£120
Student accommodation (Sui Generis)	£130	£130
All other uses	£0	£0

4.26 The amended CIL Regulations specify that if any part of an existing building is in lawful use for 6 months within the 36 months prior to the time at which planning permission first permits development, all of the existing floorspace will be deducted when determining the amount of

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14 The current Mayoral CIL Charging Schedule rate of £20 after indexation has is currently £25.83 per square metre.

15 See '*Use of Planning Obligations in the funding of Crossrail, and the Mayoral Community Infrastructure Levy: Supplementary Planning Guidance – April 2013*'

chargeable floorspace. This may be the case for many development sites in Newham. However, for the purposes of our appraisals, we have assumed that there is no deduction for existing floorspace.

Section 106 costs

4.27 To account for residual Section 106 requirements, we have included an allowance of £10 per square metre for non-residential development and £1,500 per unit for residential development. The actual amounts will of course be subject to site-specific negotiations. For the avoidance of doubt, the employment and training contributions are accounted for separately in the appraisals, as already noted in paragraph 4.18.

Renewable energy monitoring on major developments

4.28 Policy SC1 may require the installation of renewable energy monitoring apparatus and software in major developments. The capital cost of such equipment would be built into the costs for delivering renewable energy solutions on site, as monitoring of energy throughput is required by operators in the event that their on-site plant generates surplus energy that is sold to National Grid. The remaining cost of a proportionate cost of monitoring software is accounted for within the £1,500 allowance for residual Section 106.

Development and sales periods

4.29 Development and sales periods vary between type of scheme. However, our sales periods are based on an assumption of a sales rate of 6 units per month, with an element of off-plan sales reflected in the timing of receipts. This is reflective of current market conditions, whereas in improved markets, a sales rate of up to 8 units per month might be expected. We also note that many schemes in London have sold entirely off-plan, in some cases well in advance of completion of construction.

Developer's profit

4.30 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 and other equity providers to fund a scheme. In 2007, profit levels were at around 13-15% of GDV. 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).

4.31 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 rarely carry sufficient cash to fund it themselves. Consequently, future movements in profit levels will largely be determined by the attitudes of the banks towards development proposals.

4.32 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, and against the backdrop of the current sovereign debt crisis in the Eurozone, the banks were for a time reluctant to allow profit levels to decrease. However, perceived risk in the in the UK housing market is receding, albeit there is a degree of caution in prime central London markets as a consequence of the outcome of the referendum on the UK's membership of the EU. We have therefore adopted a profit margin of 18% of private GDV for testing purposes, although individual schemes may require lower or higher profits, depending on site specific circumstances.

4.33 Our assumed return on the affordable housing GDV is 6%. 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 RP prior to commencement. Any risk associated with take up of intermediate housing is borne by the acquiring RP, not by the developer. A reduced profit level on the affordable housing reflects the GLA 'Development Control Toolkit' guidance (February 2014) and Homes and Communities Agency's guidelines in its Development Appraisal Tool (August 2013).

Exceptional costs

4.34 Exceptional costs can be an issue for development viability on previously developed land. 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, in the absence of details site investigations, it is not possible to provide a reliable estimate of what exceptional costs might be. Our analysis therefore excludes exceptional costs, as to apply a blanket allowance would generate misleading results. An 'average' level of costs for abnormal ground conditions and some other 'abnormal' costs is already reflected in BCIS data, as such costs are frequently encountered on sites that form the basis of the BCIS data sample.

Benchmark land values

4.35 Benchmark land values, based on the existing use value or alternative use value of sites are key considerations in the assessment of development economics for testing planning policies and tariffs. 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 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. Existing use value or alternative use value are effectively the 'bottom line' in a financial sense and therefore a key factor in this study.

4.36 We have adopted benchmark land values that are based on the rateable value of the property/ies on site, which reflect the Valuation Office Agency's assessment of the market rent. We have then capitalised the rateable value by applying a 6.5% yield, reflective of market evidence for secondary properties. Where no rateable value exists for a property, we have arrived at an average for each use based on the other properties in the sample (on a per hectare basis). For industrial floorspace, the sample of capital values equates to £2.55 per hectare and £4.59 million for retail floorspace. For open space and community buildings, we have applied an estimated £0.5 million and £0.75 million per hectare respectively. In all cases, we have applied an additional premium ranging from 15% to 20% to the benchmark land value. This may be too high in some cases when considering site-specific circumstances when sites come forward through the development management process. In these cases, the application of a 20% premium provides some additional headroom for policies to be absorbed. The individual benchmark land values are incorporated in Appendix 1.

5 Appraisal outputs

5.1 The full inputs to and outputs from our appraisals of the various developments are set out in Section 6 and Appendix 2. We have appraised 24 development typologies, reflecting different densities and types of development across the Borough.

5.2 Each appraisal incorporates (where relevant) the upper and lower levels of the Council's adopted 35% to 50% affordable housing requirement, along with lower requirements of 25%, 20%, 10% and 0%. The Council requires schemes to provide a tenure split of 60% rented and 40% intermediate, with the exception of developments in the Canning Town and Custom House regeneration area, where a 50% rented and 50% intermediate tenure split is required. These lower thresholds test both the proposed affordable housing 'floor', as well as a slightly reduced alternative, and the implications of requiring 10% intermediate units (where no other affordable housing can be achieved). Finally, a 0% affordable housing requirement is included to demonstrate where viability cannot be achieved even without any impact from affordable housing policy.

5.3 For each site, where relevant, the results of the following analyses are provided with regards to the Council's affordable housing policies:

- 0% affordable housing;
- 10% affordable housing (100% intermediate);
- 20% affordable housing;
- 25% affordable housing;
- 35% affordable housing; and
- 50% affordable housing.

5.4 Viability has been tested at five levels of affordable housing (and at 100% private housing), although it should be noted that if a scheme is shown to be viable, a greater level of affordable housing may be provided within the 'interval' that has been tested. For example, if a scheme is shown to be viable with 25% affordable housing, but not with 35% affordable housing the actual level of affordable housing that could be provided will fall between 26% and 34%.

5.5 We have also tested the developments with CIL reflecting the adopted CS rates. We have also undertaken a sensitivity analysis which increases the CIL rates as summarised in Table 5.4.1.

Table 5.4.1: Alternative CIL rates

CIL rates	Zone	Adopted charge	Alternate Charge 1	Alternate Charge 2	Alternate Charge 3
Residential	1 - E15, E16, E3	80	120	140	160
Residential	2 - E6, E7, E12, E13, IG11	40	60	80	100
Retail	Whole Borough	30	40	50	60
Hotels	Whole Borough	120	140	160	180
Student	Whole Borough	130	150	170	190
Mayoral CIL	Whole Borough	25	25	25	25

5.6 For each development, the tables in the next section show the Benchmark Land Value in millions and compares this to the residual land values with 0%, 10%, 20% 25%, 35% and 50% affordable housing. The testing with 10% affordable housing is assumed to be 100% intermediate, in line with the minimum requirement set out in the Housing White Paper. The remaining residual land values with 20% 25%, 35% and 50% affordable housing are all assumed to be provided as 60% affordable rent and 40% shared ownership.

5.7 Where a residual land value exceeds the Benchmark Land Value, the development is viable and shown in green shading. Where the reverse is the case, the cell is shaded red.

5.8 Developments which are tested with a proportion of PRS units (as shown in Table 4.1.1) are tested both with and without this requirement to show the impact of the provision of PRS housing on viability.

5.9 Finally, all the scenarios are tested with the growth and inflation rates summarised in Table 4.3.1.

6 Assessment of the results

6.1 This section sets out the results of our appraisals with the residual land values calculated for scenarios with sales values and capital values reflective of market conditions across the Borough. These RLVs are then compared to the benchmark land values as set out in Section 4.

6.2 Development value is finite and – in densely developed Boroughs such as Newham - is rarely enhanced through the adoption of new policy requirements. This is because existing use values are sometimes relatively high prior to development. In contrast, areas which have previously undeveloped land clearly have greater scope to secure an uplift in land value through the planning process.

6.3 In assessing the results, it is important to clearly distinguish between two scenarios; namely, schemes that are unviable *regardless of the Council's policy requirements, including the level of CIL* (including a nil rate) and schemes that are viable *prior* to the imposition of policy requirements. If a scheme is unviable before policy requirements and CIL are levied, it is unlikely to come forward and policy requirements and CIL would not be a factor that comes into play in the developer's/landowner's decision making. The unviable schemes will only become viable following an increase in values and sites would remain in their existing use.

Affordable housing

6.4 The first set of appraisals considers the impact of the Council's requirements for affordable housing, which seek the provision of 35% affordable housing, with a tenure mix of 60% rented and 40% intermediate housing[16]. The results are summarised in figures 6.4.1 to 6.4.4 which show the residual land values for each development typology with 0%, 10% (100% intermediate), 20%, 25%, 35% and 50% affordable housing.

6.5 The first set of two sets of appraisals are all in present costs and present values, i.e. the outcome if the schemes were to come forward today. To an extent, other schemes with significant elements of commercial floorspace or schemes built out over very long periods may also an unreliable indicator of the viability of the Council's affordable housing target due to the viability of commercial uses, rather than residential. .

6.6 The present value results in Table 6.4.1 indicate that some sites are capable of delivering up to 50% affordable housing, while others can only come forward with lower percentages. There is no particular correlation between the affordable housing percentages that can be delivered and the location of the sites within the Borough. This suggests that a zoned approach to affordable housing would be inappropriate.

6.7 By comparing Table 6.4.1 and 6.4.2, it is possible to discern the significant impact of the provision of varying proportions of the units as private rented sector stock. For example, the Parcelforce Site (S11) is only viable with 20% affordable when 33% of the units are provided as private rented. However, when the private units are developed for sale, the scheme can provide 35% affordable housing.

6.8 Table 6.4.1 shows the results incorporating (where applicable) an element of private rented sector housing, which as noted earlier has a lower value in comparison to private housing for sale. The inclusion of private rented sector housing therefore impacts negatively on the residual land values and, as a consequence, the ability of schemes to meet the Council's policy target

6.9 The adoption of a minimum affordable housing 'floor' at 25% of units would be difficult to justify in light of the results as they show that not all developments can deliver this level of affordable housing. However, the requirement for a minimum of 10% intermediate housing (i.e. with no other affordable housing sought) would be viable on all sites except 13 and 14 (these two sites are unviable even at 100% private housing).

[16] With the exception of sites within Canning Town and Custom House regeneration area where the Council requires a 50/50% tenure split.

Table 6.4.1: Adopted CIL rates, proportion of PRS housing, present day values and costs

				Adopted CIL charge					Incl PRS	
					Residual land values (£m)					
Site No	Site name	No of units	% of PRS	BLV (£ m)	0% AH	10% AH	20% AH	25% AH	35% AH	50% AH
1	S27 Queen's Market (incl Extension) E13	500	33.30%	£12.45	£18.38	£16.39	£9.49	£7.27	£2.83	-£3.89
2	S18 Limmo E16	1,200	33.30%	£2.70	£121.10	£104.08	£87.05	£78.50	£61.42	£35.64
3	S08 Thames Wharf E16	1,150	33.30%	£40.52	£113.86	£101.64	£79.34	£70.68	£53.22	£26.80
4	S11 Parcelforce (incl Exetnsion) E13	1,500	33.30%	£73.61	£111.78	£99.98	£56.43	£42.40	£14.14	-£29.41
5	LMUA7 Dulcia Mills E13	63	0.00%	£0.26	£13.87	£13.02	£11.51	£10.92	£9.73	£7.96
6	Canning Town Riverside E16	224	0.00%	£15.26	£32.50	£27.70	£22.89	£20.49	£15.69	£8.49
7	Coolfin North E16	1,000	15.00%	£8.50	£110.39	£95.74	£81.10	£73.78	£59.10	£37.06
8	East Ham Western Gateway E13	140	0.00%	£6.38	£7.27	£6.62	£4.55	£3.87	£2.52	£0.48
9	Silvertown Landing E16	329	33.30%	£22.66	£42.55	£38.56	£31.31	£28.50	£22.88	£14.45
10	Lyle Park West E16	775	33.30%	£5.62	£92.19	£82.84	£66.13	£59.59	£46.50	£26.88
11	Connaught Riverside E16	1,650	33.30%	£101.67	£186.46	£169.13	£138.85	£126.94	£103.13	£67.42
12	North Woolwich Gateway E16	350	15.00%	£14.05	£44.45	£40.48	£33.14	£30.31	£24.66	£16.17
13	Beckton Riverside E6	2,000	33.30%	£285.00	£96.12	£83.01	£32.34	£16.04	-£17.22	-£67.47
14	Alpine Way E6	750	33.30%	£41.92	£39.33	£35.98	£25.21	£21.66	£14.55	£3.88
15	Bow County Court E15	28	0.00%	£0.22	£2.46	£2.01	£1.27	£0.97	£0.37	-£0.53
16	LMUA Beeby Road E16	58	0.00%	£3.52	£9.91	£9.14	£7.77	£7.23	£6.16	£4.56
17	Leytonstone Road	30	0.00%	£0.71	£1.94	£1.80	£1.34	£1.19	£0.89	£0.44
18	Abbey House	75	0.00%	£1.42	£11.45	£10.45	£8.68	£7.99	£6.60	£4.53
19	LMUA Atherton Mews	50	0.00%	£5.67	£10.65	£9.95	£8.72	£8.24	£7.27	£5.83
20	Balaam Street Garages E13	33	0.00%	£0.93	£3.81	£3.65	£3.15	£2.98	£2.65	£2.16
21	LMUA Esk Road E13	38	0.00%	£2.02	£6.42	£5.90	£4.99	£4.64	£3.92	£2.85
22	LMUA Dulcia Mills (ALTERNATE)	39	0.00%	£0.26	£2.90	£2.71	£2.39	£2.27	£2.01	£1.62
23	LMUA Beeby Road E16 (ALTERNATE)	40	0.00%	£3.52	£2.24	£2.05	£1.86	£1.76	£1.57	£1.28
24	LMUA Esk Road E13 (ALTERNATE)	41	0.00%	£0.26	£1.72	£1.53	£1.33	£1.23	£1.03	£0.73

Table 6.4.2: Adopted CIL rates, no PRS housing, present day values and costs

				Adopted CIL charge					No PRS	
					Residual land values (£m)					
Site No	Site name	No of units	% of PRS	BLV (£ m)	0% AH	10% AH	20% AH	25% AH	35% AH	50% AH
1	S27 Queen's Market (incl Extension) E13	500	0.00%	£12.45	£25.06	£23.07	£16.17	£13.95	£9.51	£2.84
2	S18 Limmo E16	1,200	0.00%	£2.70	£139.56	£122.55	£105.53	£97.02	£80.00	£54.40
3	S08 Thames Wharf E16	1,150	0.00%	£40.52	£131.66	£119.46	£97.28	£88.68	£71.38	£45.22
4	S11 Parcelforce (incl Exetnsion) E13	1,500	0.00%	£73.61	£152.11	£140.34	£98.98	£85.41	£57.61	£15.41
5	LMUA7 Dulcia Mills E13	63	0.00%	£0.26	£13.87	£13.02	£11.51	£10.92	£9.73	£7.96
6	Canning Town Riverside E16	224	0.00%	£15.26	£32.50	£27.70	£22.89	£20.49	£15.69	£8.49
7	Coolfin North E16	1,000	0.00%	£8.50	£117.45	£102.81	£88.17	£80.85	£66.21	£44.18
8	East Ham Western Gateway E13	140	0.00%	£6.38	£7.27	£6.62	£4.55	£3.87	£2.52	£0.48
9	Silvertown Landing E16	329	0.00%	£22.66	£48.37	£44.38	£37.13	£34.31	£28.69	£20.26
10	Lyle Park West E16	775	0.00%	£5.62	£105.48	£96.12	£79.43	£72.92	£59.89	£40.29
11	Connaught Riverside E16	1,650	0.00%	£101.67	£210.34	£193.01	£162.72	£150.82	£127.01	£91.27
12	North Woolwich Gateway E16	350	0.00%	£14.05	£47.13	£43.14	£35.81	£32.98	£27.33	£18.84
13	Beckton Riverside E6	2,000	0.00%	£285.00	£143.22	£130.22	£82.37	£66.65	£34.67	-£14.72
14	Alpine Way E6	750	0.00%	£41.92	£49.58	£46.24	£35.47	£31.94	£24.88	£14.26
15	Bow County Court E15	28	0.00%	£0.22	£2.46	£2.01	£1.27	£0.97	£0.37	-£0.53
16	LMUA Beeby Road E16	58	0.00%	£3.52	£9.91	£9.14	£7.77	£7.23	£6.16	£4.56
17	Leytonstone Road	30	0.00%	£0.71	£1.94	£1.80	£1.34	£1.19	£0.89	£0.44
18	Abbey House	75	0.00%	£1.42	£11.45	£10.45	£8.68	£7.99	£6.60	£4.53
19	LMUA Atherton Mews	50	0.00%	£5.67	£10.65	£9.95	£8.72	£8.24	£7.27	£5.83
20	Balaam Street Garages E13	33	0.00%	£0.93	£3.81	£3.65	£3.15	£2.98	£2.65	£2.16
21	LMUA Esk Road E13	38	0.00%	£2.02	£6.42	£5.90	£4.99	£4.64	£3.92	£2.85
22	LMUA Dulcia Mills (ALTERNATE)	39	0.00%	£0.26	£2.90	£2.71	£2.39	£2.27	£2.01	£1.62
23	LMUA Beeby Road E16 (ALTERNATE)	40	0.00%	£3.52	£2.24	£2.05	£1.86	£1.76	£1.57	£1.28
24	LMUA Esk Road E13 (ALTERNATE)	41	0.00%	£0.26	£1.72	£1.53	£1.33	£1.23	£1.03	£0.73

Table 6.4.3: Adopted CIL rates, proportion of PRS housing, grown values and inflated costs

				Adopted CIL charge					Incl PRS	
					Residual land values (£m)					
Site No	Site name	No of units	% of PRS	BLV (£ m)	0% AH	10% AH	20% AH	25% AH	35% AH	50% AH
1	S27 Queen's Market (incl Extension) E13	500	33.30%	£12.45	£26.45	£22.11	£12.86	£9.46	£2.67	-£7.62
2	S18 Limmo E16	1,200	33.30%	£2.70	£156.06	£132.56	£109.05	£97.29	£73.66	£37.94
3	S08 Thames Wharf E16	1,150	33.30%	£40.52	£145.34	£126.89	£98.40	£86.58	£62.81	£26.70
4	S11 Parcelforce (incl Exetnsion) E13	1,500	33.30%	£73.61	£264.09	£220.66	£148.03	£117.98	£55.13	-£42.97
5	LMUA7 Dulcia Mills E13	63	0.00%	£0.26	£15.39	£14.12	£12.19	£11.39	£9.79	£7.40
6	Canning Town Riverside E16	224	0.00%	£15.26	£43.90	£36.24	£28.57	£24.74	£17.08	£5.58
7	Coolfin North E16	1,000	15.00%	£8.50	£140.68	£120.52	£100.35	£90.27	£70.07	£39.67
8	East Ham Western Gateway E13	140	0.00%	£6.38	£10.08	£8.74	£5.99	£4.97	£2.92	-£0.15
9	Silvertown Landing E16	329	33.30%	£22.66	£49.12	£43.08	£33.78	£29.95	£22.28	£10.78
10	Lyle Park West E16	775	33.30%	£5.62	£115.08	£101.05	£79.68	£70.79	£52.99	£26.28
11	Connaught Riverside E16	1,650	33.30%	£101.67	£228.43	£202.69	£163.97	£147.85	£115.59	£67.07
12	North Woolwich Gateway E16	350	15.00%	£14.05	£50.70	£44.64	£35.22	£31.34	£23.60	£11.96
13	Beckton Riverside E6	2,000	33.30%	£285.00	£246.41	£198.66	£115.60	£80.75	£8.62	-£103.37
14	Alpine Way E6	750	33.30%	£41.92	£52.61	£45.66	£31.28	£25.92	£15.16	-£1.00
15	Bow County Court E15	28	0.00%	£0.22	£2.75	£2.10	£1.16	£0.76	-£0.04	-£1.25
16	LMUA Beeby Road E16	58	0.00%	£3.52	£10.86	£9.71	£7.95	£7.23	£5.77	£3.59
17	Leytonstone Road	30	0.00%	£0.71	£2.60	£2.30	£1.69	£1.47	£1.01	£0.34
18	Abbey House	75	0.00%	£1.42	£14.42	£12.93	£10.66	£9.72	£7.85	£5.03
19	LMUA Atherton Mews	50	0.00%	£5.67	£12.88	£11.83	£10.27	£9.61	£8.31	£6.35
20	Balaam Street Garages E13	33	0.00%	£0.93	£4.81	£4.48	£3.82	£3.57	£3.07	£2.32
21	LMUA Esk Road E13	38	0.00%	£2.02	£7.10	£6.33	£5.17	£4.69	£3.72	£2.28
22	LMUA Dulcia Mills (ALTERNATE)	39	0.00%	£0.26	£3.22	£2.95	£2.55	£2.38	£2.04	£1.52
23	LMUA Beeby Road E16 (ALTERNATE)	40	0.00%	£3.52	£2.47	£2.22	£1.96	£1.83	£1.57	£1.17
24	LMUA Esk Road E13 (ALTERNATE)	41	0.00%	£0.26	£1.90	£1.64	£1.37	£1.24	£0.97	£0.57

Table 6.4.4: Adopted CIL rates, no PRS housing, grown values and inflated costs

				Adopted CIL charge					No PRS	
					Residual land values (£m)					
Site No	Site name	No of units	% of PRS	BLV (£ m)	0% AH	10% AH	20% AH	25% AH	35% AH	50% AH
1	S27 Queen's Market (incl Extension) E13	500	0.00%	£12.45	£34.30	£29.96	£20.71	£17.31	£10.52	£0.33
2	S18 Limmo E16	1,200	0.00%	£2.70	£177.62	£154.18	£130.75	£119.00	£95.48	£60.09
3	S08 Thames Wharf E16	1,150	0.00%	£40.52	£166.14	£147.71	£119.39	£107.65	£84.10	£48.36
4	S11 Parcelforce (incl Exetnsion) E13	1,500	0.00%	£73.61	£317.35	£274.31	£203.35	£174.37	£115.12	£20.38
5	LMUA7 Dulcia Mills E13	63	0.00%	£0.26	£15.39	£14.12	£12.19	£11.39	£9.79	£7.40
6	Canning Town Riverside E16	224	0.00%	£15.26	£43.90	£36.24	£28.57	£24.74	£17.08	£5.58
7	Coolfin North E16	1,000	0.00%	£8.50	£148.98	£128.82	£108.66	£98.58	£78.42	£48.06
8	East Ham Western Gateway E13	140	0.00%	£6.38	£10.08	£8.74	£5.99	£4.97	£2.92	-£0.15
9	Silvertown Landing E16	329	0.00%	£22.66	£55.96	£49.92	£40.62	£36.79	£29.12	£17.62
10	Lyle Park West E16	775	0.00%	£5.62	£130.71	£116.67	£95.30	£86.45	£68.75	£42.05
11	Connaught Riverside E16	1,650	0.00%	£101.67	£256.51	£230.77	£192.08	£175.97	£143.76	£95.41
12	North Woolwich Gateway E16	350	0.00%	£14.05	£53.84	£47.78	£38.36	£34.48	£26.74	£15.13
13	Beckton Riverside E6	2,000	0.00%	£285.00	£306.83	£259.81	£179.94	£147.28	£79.30	-£30.02
14	Alpine Way E6	750	0.00%	£41.92	£64.67	£57.72	£43.34	£38.00	£27.34	£11.21
15	Bow County Court E15	28	0.00%	£0.22	£2.75	£2.10	£1.16	£0.76	-£0.04	-£1.25
16	LMUA Beeby Road E16	58	0.00%	£3.52	£10.86	£9.71	£7.95	£7.23	£5.77	£3.59
17	Leytonstone Road	30	0.00%	£0.71	£2.60	£2.30	£1.69	£1.47	£1.01	£0.34
18	Abbey House	75	0.00%	£1.42	£14.42	£12.93	£10.66	£9.72	£7.85	£5.03
19	LMUA Atherton Mews	50	0.00%	£5.67	£12.88	£11.83	£10.27	£9.61	£8.31	£6.35
20	Balaam Street Garages E13	33	0.00%	£0.93	£4.81	£4.48	£3.82	£3.57	£3.07	£2.32
21	LMUA Esk Road E13	38	0.00%	£2.02	£7.10	£6.33	£5.17	£4.69	£3.72	£2.28
22	LMUA Dulcia Mills (ALTERNATE)	39	0.00%	£0.26	£3.22	£2.95	£2.55	£2.38	£2.04	£1.52
23	LMUA Beeby Road E16 (ALTERNATE)	40	0.00%	£3.52	£2.47	£2.22	£1.96	£1.83	£1.57	£1.17
24	LMUA Esk Road E13 (ALTERNATE)	41	0.00%	£0.26	£1.90	£1.64	£1.37	£1.24	£0.97	£0.57

Affordable housing – sensitivity analysis with growth over plan period

6.10 Tables 6.4.3 and 6.4.4 re-test the appraisals with the growth rates set out in Table 4.3.1 and benchmark land values increased by 20%. As a result of growth and inflation being applied, there are improvements in the residual land values that result in increased levels of affordable housing being viable in comparison to the present day appraisals. For example, if an element of private rented housing is included, the Parcelforce site can deliver 20% affordable housing at present values and costs, but this increases to 35% as a result of growth.

Changes to CIL rates

6.11 All the analyses so far incorporate the CIL rates in the adopted CS, as set out in Section 4. We have tested the impact of increasing the CIL rates from the adopted levels to three alternative increased sets of CIL rate, as set out in Section 5. Tables 6.11.1 to 6.11.3 summarise the results of our appraisals incorporating the increased CIL rates, assuming current values and costs and including an element of private rented housing. Tables 6.11.4 to 6.11.6 then repeat this analysis, but with all the private housing assumed to be built for sale.

6.12 The results of this analysis indicate that increases from the adopted CIL rates would not have a significant impact on the residual land values generated. This is illustrated in figures 6.12.1 to 6.12.3, which set the various residual land values from the four CIL scenarios alongside each other for each development. The charts show very modest movements in residual land values in almost all cases, indicating that increases to the Council's currently adopted CIL rates would not prevent development coming forward.

6.13 At any of the alternative CIL rates the burden on development would remain at an acceptably low level. In most cases, the adopted CIL equates to circa 1.38% of development costs. This would increase to 1.90%, 2.17% and 2.43% of development costs for alternative rates 1, 2 and 3 respectively. This remains at a level that is broadly consistent with the equivalent figures in other London boroughs.

6.14 We have also tested the application of CIL on commercial uses (offices, industrial and storage) which currently do not attract any CIL liability. We have tested schemes with office and industrial floorspace (6, 9, 10, 11 and 12) with nil, £20, £30 and £40 per square metre borough CIL, in addition to Mayoral CIL. The residual land values arising from each scenario are shown in Figure 6.14.1.

Figure 6.14.1: Impact of CIL of £20, £30 and £40 per square metre on schemes with commercial floorspace

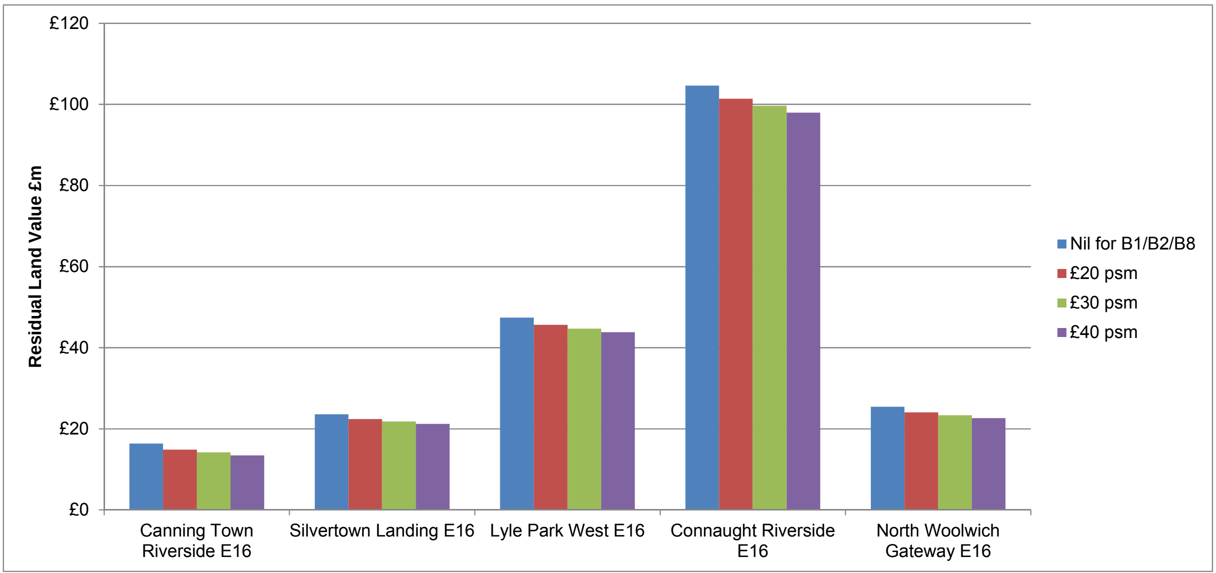


Table 6.11.1: Alternative CIL rates 1 (including element of PRS housing, present day values and costs)

				Alternative CIL charge 1					Incl PRS	
					Residual land values (£m)					
Site No	Site name	No of units	% of PRS	BLV (£ m)	0% AH	10% AH	20% AH	25% AH	35% AH	50% AH
1	S27 Queen's Market (incl Extension) E13	500	33.30%	£12.45	£17.53	£15.62	£8.80	£6.62	£2.26	-£4.34
2	S18 Limmo E16	1,200	33.30%	£2.70	£117.51	£100.85	£84.13	£75.77	£59.04	£33.76
3	S08 Thames Wharf E16	1,150	33.30%	£40.52	£110.31	£98.44	£76.45	£67.93	£50.80	£24.92
4	S11 Parcelforce (incl Exetnsion) E13	1,500	33.30%	£73.61	£105.88	£94.64	£51.47	£37.74	£9.99	-£32.67
5	LMUA7 Dulcia Mills E13	63	0.00%	£0.26	£13.67	£12.82	£11.32	£10.74	£9.57	£7.81
6	Canning Town Riverside E16	224	0.00%	£15.26	£30.36	£25.75	£21.14	£18.84	£14.23	£7.32
7	Coolfin North E16	1,000	15.00%	£8.50	£107.39	£93.05	£78.70	£71.51	£57.12	£35.53
8	East Ham Western Gateway E13	140	0.00%	£6.38	£7.04	£6.41	£4.37	£3.70	£2.36	£0.36
9	Silvertown Landing E16	329	33.30%	£22.66	£40.99	£37.11	£29.96	£27.21	£21.69	£13.42
10	Lyle Park West E16	775	33.30%	£5.62	£89.56	£80.45	£63.96	£57.54	£44.70	£25.44
11	Connaught Riverside E16	1,650	33.30%	£101.67	£181.61	£164.77	£134.89	£123.21	£99.85	£64.81
12	North Woolwich Gateway E16	350	15.00%	£14.05	£42.70	£38.83	£31.61	£28.84	£23.29	£14.97
13	Beckton Riverside E6	2,000	33.30%	£285.00	£87.88	£75.46	£25.25	£9.24	-£23.32	-£72.37
14	Alpine Way E6	750	33.30%	£41.92	£37.95	£34.72	£24.05	£20.55	£13.56	£3.08
15	Bow County Court E15	28	0.00%	£0.22	£2.37	£1.93	£1.20	£0.90	£0.31	-£0.58
16	LMUA Beeby Road E16	58	0.00%	£3.52	£9.62	£8.87	£7.51	£6.99	£5.94	£4.36
17	Leytonstone Road	30	0.00%	£0.71	£1.89	£1.75	£1.30	£1.15	£0.86	£0.41
18	Abbey House	75	0.00%	£1.42	£11.20	£10.23	£8.48	£7.80	£6.44	£4.40
19	LMUA Atherton Mews	50	0.00%	£5.67	£10.48	£9.79	£8.58	£8.10	£7.16	£5.73
20	Balaam Street Garages E13	33	0.00%	£0.93	£3.75	£3.60	£3.10	£2.94	£2.62	£2.13
21	LMUA Esk Road E13	38	0.00%	£2.02	£6.30	£5.79	£4.88	£4.53	£3.82	£2.76
22	LMUA Dulcia Mills (ALTERNATE)	39	100.00%	£0.26	£2.86	£2.68	£2.36	£2.23	£1.98	£1.59
23	LMUA Beeby Road E16 (ALTERNATE)	40	200.00%	£3.52	£2.20	£2.01	£1.82	£1.72	£1.53	£1.24
24	LMUA Esk Road E13 (ALTERNATE)	41	300.00%	£0.26	£1.69	£1.50	£1.30	£1.20	£1.00	£0.71

Table 6.11.2: Alternative CIL rates 2 (including element of PRS housing, present day values and costs)

				Alternative CIL charge 2					Incl PRS	
					Residual land values (£m)					
Site No	Site name	No of units	% of PRS	BLV (£ m)	0% AH	10% AH	20% AH	25% AH	35% AH	50% AH
1	S27 Queen's Market (incl Extension) E13	500	33.30%	£12.45	£16.68	£14.85	£8.11	£5.97	£1.69	-£4.80
2	S18 Limmo E16	1,200	33.30%	£2.70	£115.71	£99.21	£82.67	£74.40	£57.83	£32.82
3	S08 Thames Wharf E16	1,150	33.30%	£40.52	£108.51	£96.81	£74.98	£66.53	£49.55	£23.95
4	S11 Parcelforce (incl Exetnsion) E13	1,500	33.30%	£73.61	£99.93	£89.24	£46.51	£33.09	£5.84	-£35.92
5	LMUA7 Dulcia Mills E13	63	0.00%	£0.26	£13.51	£12.68	£11.19	£10.61	£9.45	£7.70
6	Canning Town Riverside E16	224	0.00%	£15.26	£29.29	£24.78	£20.27	£18.01	£13.50	£6.73
7	Coolfin North E16	1,000	15.00%	£8.50	£105.90	£91.70	£77.49	£70.37	£56.14	£34.76
8	East Ham Western Gateway E13	140	0.00%	£6.38	£6.81	£6.20	£4.18	£3.53	£2.21	£0.25
9	Silvertown Landing E16	329	33.30%	£22.66	£40.21	£36.38	£29.29	£26.56	£21.10	£12.91
10	Lyle Park West E16	775	33.30%	£5.62	£88.24	£79.25	£62.86	£56.50	£43.79	£24.71
11	Connaught Riverside E16	1,650	33.30%	£101.67	£179.12	£162.51	£132.85	£121.28	£98.15	£63.44
12	North Woolwich Gateway E16	350	15.00%	£14.05	£41.82	£38.01	£30.84	£28.09	£22.60	£14.37
13	Beckton Riverside E6	2,000	33.30%	£285.00	£79.76	£68.05	£18.41	£2.70	-£29.16	-£77.02
14	Alpine Way E6	750	33.30%	£41.92	£36.66	£33.55	£22.98	£19.55	£12.68	£2.38
15	Bow County Court E15	28	0.00%	£0.22	£2.33	£1.89	£1.16	£0.87	£0.28	-£0.60
16	LMUA Beeby Road E16	58	0.00%	£3.52	£9.47	£8.73	£7.39	£6.87	£5.82	£4.26
17	Leytonstone Road	30	0.00%	£0.71	£1.84	£1.70	£1.26	£1.11	£0.82	£0.39
18	Abbey House	75	0.00%	£1.42	£11.08	£10.12	£8.38	£7.71	£6.36	£4.34
19	LMUA Atherton Mews	50	0.00%	£5.67	£10.39	£9.71	£8.51	£8.04	£7.10	£5.69
20	Balaam Street Garages E13	33	0.00%	£0.93	£3.70	£3.55	£3.06	£2.90	£2.58	£2.10
21	LMUA Esk Road E13	38	0.00%	£2.02	£6.20	£5.70	£4.80	£4.45	£3.75	£2.70
22	LMUA Dulcia Mills (ALTERNATE)	39	100.00%	£0.26	£2.83	£2.65	£2.33	£2.20	£1.95	£1.57
23	LMUA Beeby Road E16 (ALTERNATE)	40	200.00%	£3.52	£2.17	£1.98	£1.80	£1.70	£1.51	£1.22
24	LMUA Esk Road E13 (ALTERNATE)	41	300.00%	£0.26	£1.67	£1.47	£1.28	£1.18	£0.99	£0.69

Table 6.11.3: Alternative CIL rates 3 (including element of PRS housing, present day values and costs)

				Alternative CIL charge 3					Incl PRS	
					Residual land values (£m)					
Site No	Site name	No of units	% of PRS	BLV (£ m)	0% AH	10% AH	20% AH	25% AH	35% AH	50% AH
1	S27 Queen's Market (incl Extension) E13	500	33.30%	£12.45	£15.82	£14.08	£7.42	£5.32	£1.12	-£5.25
2	S18 Limmo E16	1,200	33.30%	£2.70	£113.90	£97.57	£81.20	£73.02	£56.62	£31.88
3	S08 Thames Wharf E16	1,150	33.30%	£40.52	£106.70	£95.16	£73.49	£65.12	£48.31	£22.98
4	S11 Parcelforce (incl Exetnsion) E13	1,500	33.30%	£73.61	£93.91	£83.78	£41.55	£28.39	£1.69	-£39.17
5	LMUA7 Dulcia Mills E13	63	0.00%	£0.26	£13.36	£12.53	£11.06	£10.48	£9.33	£7.60
6	Canning Town Riverside E16	224	0.00%	£15.26	£28.22	£23.81	£19.39	£17.18	£12.77	£6.15
7	Coolfin North E16	1,000	15.00%	£8.50	£104.40	£90.35	£76.27	£69.23	£55.15	£33.99
8	East Ham Western Gateway E13	140	0.00%	£6.38	£6.58	£5.99	£4.00	£3.35	£2.06	£0.13
9	Silvertown Landing E16	329	33.30%	£22.66	£39.44	£35.66	£28.62	£25.91	£20.51	£12.39
10	Lyle Park West E16	775	33.30%	£5.62	£86.91	£78.05	£61.77	£55.47	£42.88	£23.99
11	Connaught Riverside E16	1,650	33.30%	£101.67	£176.63	£160.25	£130.81	£119.36	£96.44	£62.06
12	North Woolwich Gateway E16	350	15.00%	£14.05	£40.94	£37.18	£30.07	£27.35	£21.92	£13.77
13	Beckton Riverside E6	2,000	33.30%	£285.00	£71.61	£60.65	£11.50	-£3.89	-£35.00	-£81.66
14	Alpine Way E6	750	33.30%	£41.92	£35.37	£32.38	£21.92	£18.54	£11.80	£1.68
15	Bow County Court E15	28	0.00%	£0.22	£2.28	£1.85	£1.12	£0.83	£0.26	-£0.62
16	LMUA Beeby Road E16	58	0.00%	£3.52	£9.32	£8.59	£7.26	£6.74	£5.71	£4.16
17	Leytonstone Road	30	0.00%	£0.71	£1.79	£1.66	£1.22	£1.07	£0.79	£0.36
18	Abbey House	75	0.00%	£1.42	£10.95	£10.01	£8.28	£7.62	£6.28	£4.28
19	LMUA Atherton Mews	50	0.00%	£5.67	£10.30	£9.63	£8.44	£7.97	£7.04	£5.64
20	Balaam Street Garages E13	33	0.00%	£0.93	£3.65	£3.50	£3.02	£2.86	£2.55	£2.07
21	LMUA Esk Road E13	38	0.00%	£2.02	£6.11	£5.61	£4.72	£4.37	£3.68	£2.64
22	LMUA Dulcia Mills (ALTERNATE)	39	100.00%	£0.26	£2.80	£2.62	£2.30	£2.18	£1.93	£1.55
23	LMUA Beeby Road E16 (ALTERNATE)	40	200.00%	£3.52	£2.15	£1.96	£1.77	£1.68	£1.49	£1.21
24	LMUA Esk Road E13 (ALTERNATE)	41	300.00%	£0.26	£1.64	£1.45	£1.26	£1.16	£0.97	£0.68

Table 6.11.4: Alternative CIL rates 1 (including element of PRS housing, growth on values and inflation on costs)

				Alternative CIL charge 1					**Incl PRS**	
					Residual land values (£m)					
Site No	Site name	No of units	% of PRS	BLV (£ m)	0% AH	10% AH	20% AH	25% AH	35% AH	50% AH
1	S27 Queen's Market (incl Extension) E13	500	33.30%	£12.45	£25.59	£21.34	£12.17	£8.81	£2.10	-£8.08
2	S18 Limmo E16	1,200	33.30%	£2.70	£152.49	£129.33	£106.17	£94.56	£71.28	£36.06
3	S08 Thames Wharf E16	1,150	33.30%	£40.52	£141.84	£123.69	£95.51	£83.86	£60.42	£24.82
4	S11 Parcelforce (incl Exetnsion) E13	1,500	33.30%	£73.61	£258.86	£215.88	£143.51	£113.58	£51.09	-£46.22
5	LMUA7 Dulcia Mills E13	63	0.00%	£0.26	£15.18	£13.92	£12.01	£11.21	£9.62	£7.24
6	Canning Town Riverside E16	224	0.00%	£15.26	£41.76	£34.29	£26.82	£23.09	£15.62	£4.41
7	Coolfin North E16	1,000	15.00%	£8.50	£137.68	£117.82	£97.96	£88.03	£68.10	£38.13
8	East Ham Western Gateway E13	140	0.00%	£6.38	£9.85	£8.53	£5.80	£4.79	£2.77	-£0.27
9	Silvertown Landing E16	329	33.30%	£22.66	£47.56	£41.63	£32.44	£28.66	£21.10	£9.75
10	Lyle Park West E16	775	33.30%	£5.62	£112.45	£98.66	£77.52	£68.74	£51.18	£24.84
11	Connaught Riverside E16	1,650	33.30%	£101.67	£223.61	£198.33	£160.01	£144.11	£112.27	£64.36
12	North Woolwich Gateway E16	350	15.00%	£14.05	£48.95	£42.99	£33.68	£29.87	£22.23	£10.75
13	Beckton Riverside E6	2,000	33.30%	£285.00	£239.26	£191.98	£108.99	£74.23	£2.61	-£108.28
14	Alpine Way E6	750	33.30%	£41.92	£51.23	£44.39	£30.13	£24.82	£14.17	-£1.81
15	Bow County Court E15	28	0.00%	£0.22	£2.66	£2.02	£1.09	£0.69	-£0.10	-£1.29
16	LMUA Beeby Road E16	58	0.00%	£3.52	£10.57	£9.43	£7.70	£6.98	£5.55	£3.40
18	Leytonstone Road	30	0.00%	£0.71	£2.55	£2.25	£1.65	£1.43	£0.98	£0.31
19	Abbey House	75	0.00%	£1.42	£14.18	£12.71	£10.47	£9.54	£7.69	£4.90
20	LMUA Atherton Mews	50	0.00%	£5.67	£12.70	£11.68	£10.12	£9.48	£8.19	£6.26
21	Balaam Street Garages E13	33	0.00%	£0.93	£4.76	£4.44	£3.77	£3.53	£3.04	£2.30
22	LMUA Esk Road E13	38	0.00%	£2.02	£6.97	£6.21	£5.06	£4.58	£3.62	£2.18
22	LMUA Dulcia Mills (ALTERNATE)	39	0.00%	£0.26	£3.18	£2.91	£2.51	£2.34	£2.00	£1.48
22	LMUA Beeby Road E16 (ALTERNATE)	40	0.00%	£3.52	£2.43	£2.17	£1.92	£1.79	£1.53	£1.14
22	LMUA Esk Road E13 (ALTERNATE)	41	0.00%	£0.26	£1.87	£1.61	£1.34	£1.21	£0.95	£0.55

Table 6.11.5: Alternative CIL rates 2 (including element of PRS housing, growth on values and inflation on costs)

				Alternative CIL charge 2					Incl PRS	
					Residual land values (£m)					
Site No	Site name	No of units	% of PRS	BLV (£ m)	0% AH	10% AH	20% AH	25% AH	35% AH	50% AH
1	S27 Queen's Market (incl Extension) E13	500	33.30%	£12.45	£24.74	£20.57	£11.48	£8.16	£1.53	-£8.53
2	S18 Limmo E16	1,200	33.30%	£2.70	£150.69	£127.71	£104.73	£93.19	£70.09	£35.12
3	S08 Thames Wharf E16	1,150	33.30%	£40.52	£140.04	£122.06	£94.04	£82.48	£59.18	£23.85
4	S11 Parcelforce (incl Exetnsion) E13	1,500	33.30%	£73.61	£253.63	£211.08	£138.95	£109.14	£47.06	-£49.47
5	LMUA7 Dulcia Mills E13	63	0.00%	£0.26	£15.03	£13.78	£11.87	£11.08	£9.51	£7.14
6	Canning Town Riverside E16	224	0.00%	£15.26	£40.69	£33.32	£25.95	£22.26	£14.89	£3.83
7	Coolfin North E16	1,000	15.00%	£8.50	£136.19	£116.47	£96.76	£86.90	£67.11	£37.36
8	East Ham Western Gateway E13	140	0.00%	£6.38	£9.62	£8.32	£5.62	£4.62	£2.62	-£0.39
9	Silvertown Landing E16	329	33.30%	£22.66	£46.78	£40.90	£31.77	£28.01	£20.50	£9.24
10	Lyle Park West E16	775	33.30%	£5.62	£111.13	£97.46	£76.43	£67.71	£50.27	£24.11
11	Connaught Riverside E16	1,650	33.30%	£101.67	£221.12	£196.07	£157.97	£142.18	£110.55	£62.94
12	North Woolwich Gateway E16	350	15.00%	£14.05	£48.07	£42.17	£32.91	£29.12	£21.55	£10.14
13	Beckton Riverside E6	2,000	33.30%	£285.00	£232.27	£185.45	£102.53	£67.96	-£3.19	-£112.92
14	Alpine Way E6	750	33.30%	£41.92	£49.94	£43.22	£29.07	£23.81	£13.29	-£2.52
15	Bow County Court E15	28	0.00%	£0.22	£2.62	£1.98	£1.05	£0.66	-£0.13	-£1.32
16	LMUA Beeby Road E16	58	0.00%	£3.52	£10.42	£9.30	£7.57	£6.86	£5.43	£3.30
18	Leytonstone Road	30	0.00%	£0.71	£2.50	£2.21	£1.61	£1.39	£0.95	£0.28
19	Abbey House	75	0.00%	£1.42	£14.05	£12.60	£10.37	£9.45	£7.61	£4.84
20	LMUA Atherton Mews	50	0.00%	£5.67	£12.61	£11.60	£10.05	£9.41	£8.13	£6.21
21	Balaam Street Garages E13	33	0.00%	£0.93	£4.70	£4.39	£3.73	£3.49	£3.00	£2.27
22	LMUA Esk Road E13	38	0.00%	£2.02	£6.88	£6.13	£4.98	£4.50	£3.55	£2.12
22	LMUA Dulcia Mills (ALTERNATE)	39	0.00%	£0.26	£3.15	£2.89	£2.48	£2.31	£1.98	£1.46
22	LMUA Beeby Road E16 (ALTERNATE)	40	0.00%	£3.52	£2.40	£2.15	£1.89	£1.77	£1.51	£1.12
22	LMUA Esk Road E13 (ALTERNATE)	41	0.00%	£0.26	£1.84	£1.59	£1.32	£1.19	£0.93	£0.53

Table 6.11.6: Alternative CIL rates 3 (including element of PRS housing, growth on values and inflation on costs)

				Alternative CIL charge 3					Incl PRS	
					Residual land values (£m)					
Site No	Site name	No of units	% of PRS	BLV (£ m)	0% AH	10% AH	20% AH	25% AH	35% AH	50% AH
1	S27 Queen's Market (incl Extension) E13	500	33.30%	£12.45	£23.89	£19.80	£10.79	£7.51	£0.96	-£8.99
2	S18 Limmo E16	1,200	33.30%	£2.70	£148.89	£126.08	£103.28	£91.82	£68.90	£34.18
3	S08 Thames Wharf E16	1,150	33.30%	£40.52	£138.24	£120.44	£92.56	£81.09	£57.94	£22.88
4	S11 Parcelforce (incl Exetnsion) E13	1,500	33.30%	£73.61	£248.35	£206.24	£134.35	£104.68	£43.02	-£52.72
5	LMUA7 Dulcia Mills E13	63	0.00%	£0.26	£14.88	£13.63	£11.74	£10.95	£9.39	£7.03
6	Canning Town Riverside E16	224	0.00%	£15.26	£39.62	£32.35	£25.07	£21.43	£14.16	£3.24
7	Coolfin North E16	1,000	15.00%	£8.50	£134.69	£115.13	£95.57	£85.76	£66.12	£36.59
8	East Ham Western Gateway E13	140	0.00%	£6.38	£9.39	£8.12	£5.44	£4.45	£2.47	-£0.50
9	Silvertown Landing E16	329	33.30%	£22.66	£46.00	£40.18	£31.09	£27.37	£19.91	£8.73
10	Lyle Park West E16	775	33.30%	£5.62	£109.81	£96.26	£75.33	£66.68	£49.36	£23.39
11	Connaught Riverside E16	1,650	33.30%	£101.67	£218.63	£193.81	£155.93	£140.23	£108.83	£61.50
12	North Woolwich Gateway E16	350	15.00%	£14.05	£47.18	£41.34	£32.14	£28.38	£20.86	£9.52
13	Beckton Riverside E6	2,000	33.30%	£285.00	£225.18	£178.85	£95.99	£61.63	-£9.03	-£117.56
14	Alpine Way E6	750	33.30%	£41.92	£48.65	£42.05	£28.01	£22.81	£12.41	-£3.24
15	Bow County Court E15	28	0.00%	£0.22	£2.57	£1.94	£1.01	£0.62	-£0.16	-£1.34
16	LMUA Beeby Road E16	58	0.00%	£3.52	£10.27	£9.16	£7.44	£6.73	£5.32	£3.20
18	Leytonstone Road	30	0.00%	£0.71	£2.45	£2.16	£1.57	£1.35	£0.91	£0.26
19	Abbey House	75	0.00%	£1.42	£13.93	£12.49	£10.27	£9.36	£7.52	£4.78
20	LMUA Atherton Mews	50	0.00%	£5.67	£12.53	£11.52	£9.98	£9.34	£8.07	£6.16
21	Balaam Street Garages E13	33	0.00%	£0.93	£4.65	£4.34	£3.69	£3.45	£2.97	£2.24
22	LMUA Esk Road E13	38	0.00%	£2.02	£6.79	£6.04	£4.90	£4.42	£3.48	£2.06
22	LMUA Dulcia Mills (ALTERNATE)	39	0.00%	£0.26	£3.12	£2.86	£2.46	£2.29	£1.95	£1.44
22	LMUA Beeby Road E16 (ALTERNATE)	40	0.00%	£3.52	£2.38	£2.13	£1.87	£1.75	£1.49	£1.10
22	LMUA Esk Road E13 (ALTERNATE)	41	0.00%	£0.26	£1.82	£1.56	£1.30	£1.17	£0.91	£0.52

Figure 6.12.1: Comparison of residual land values with the adopted and three alternative CIL rates (sites 1 to 8)

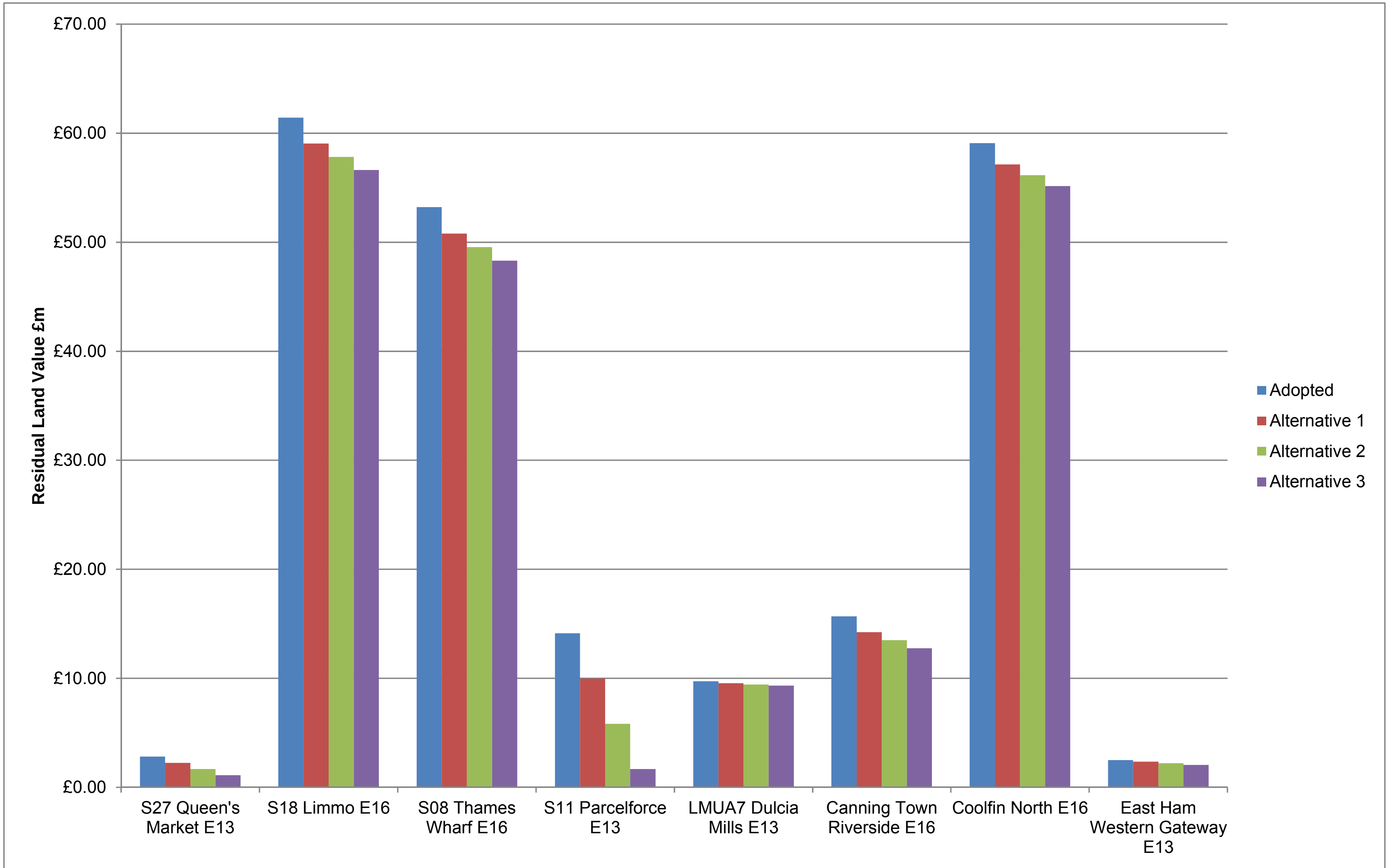


Figure 6.12.2: Comparison of residual land values with the adopted and three alternative CIL rates (sites 9 to 15)

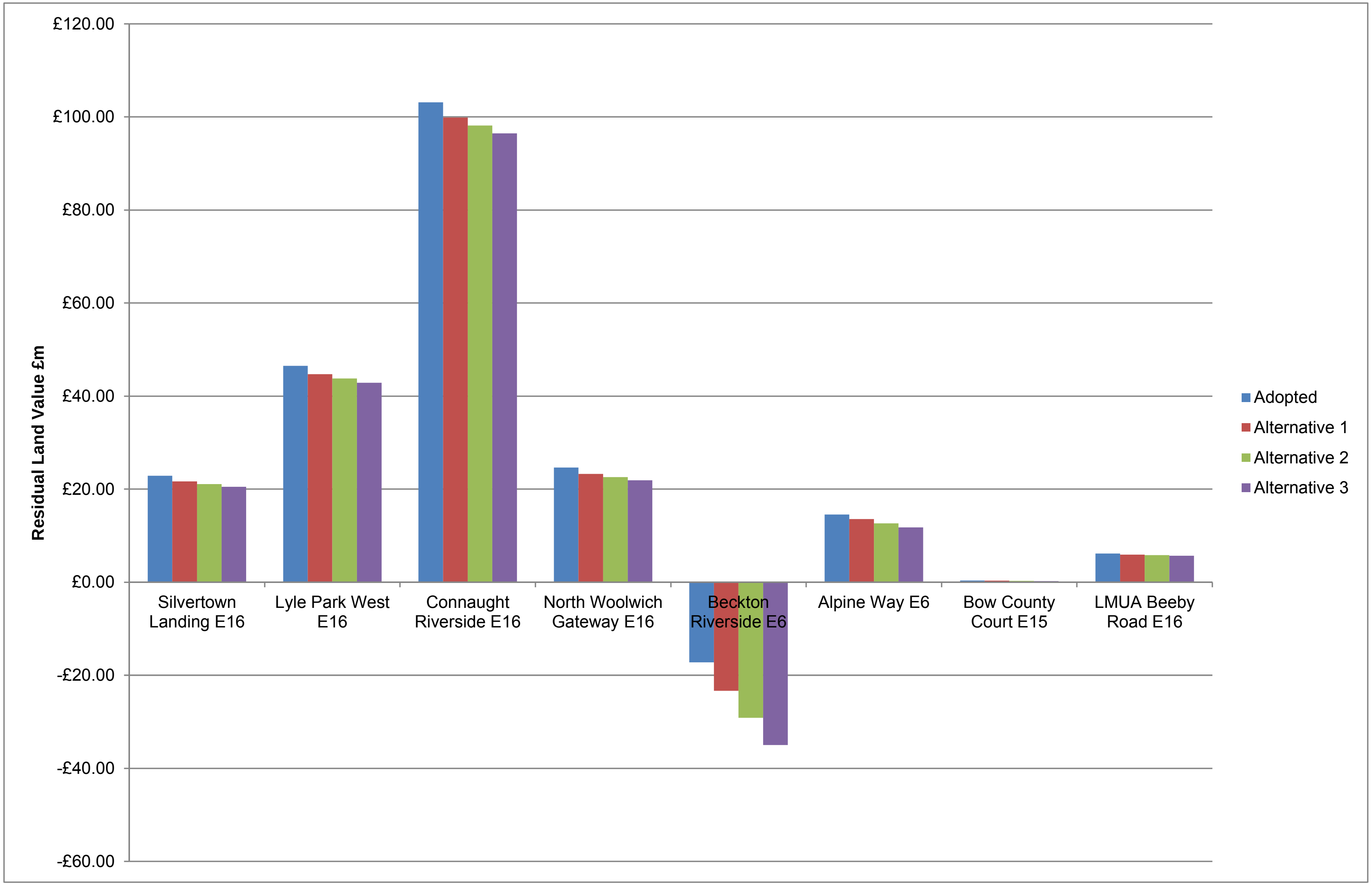
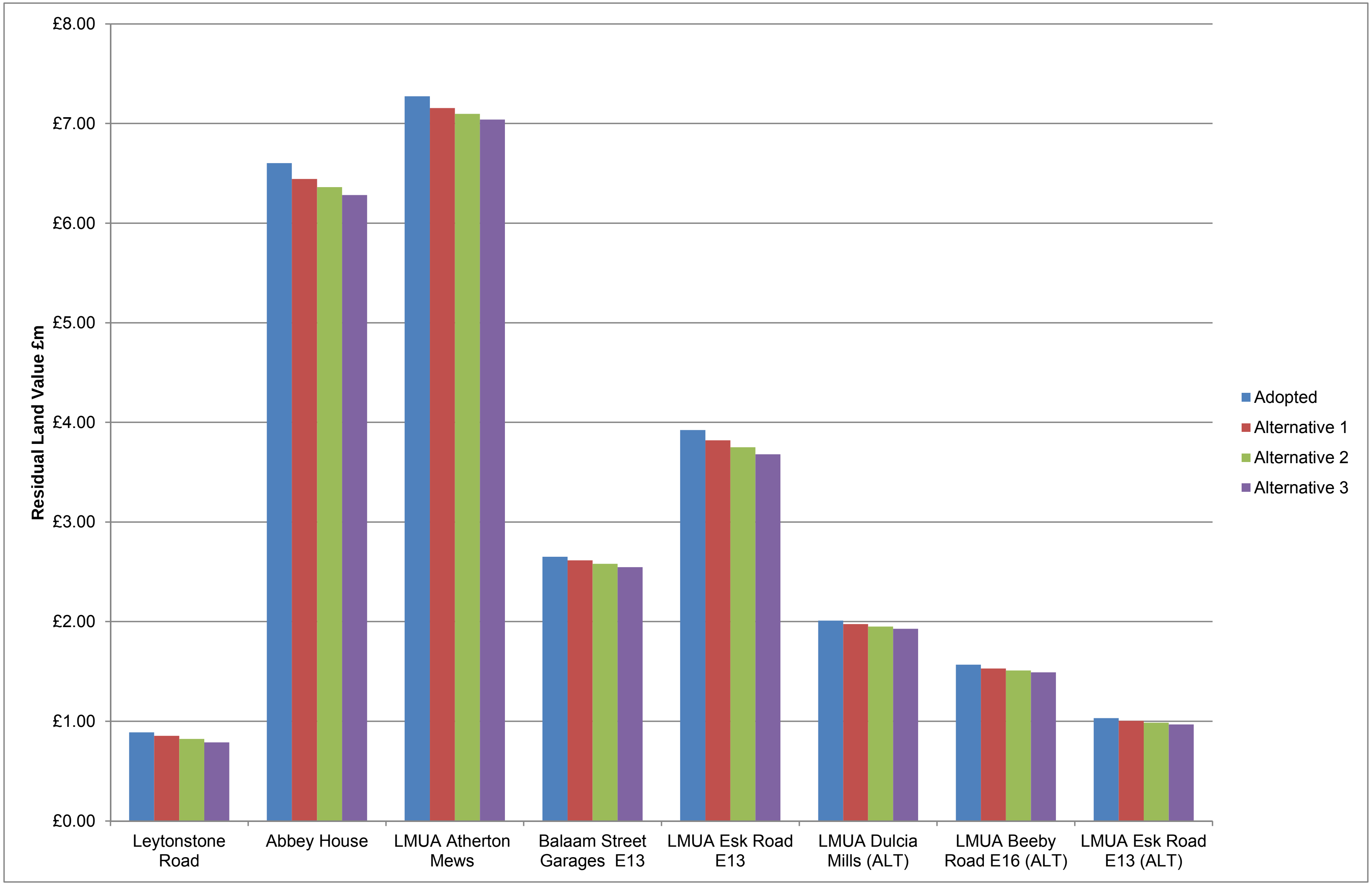


Figure 6.12.3: Comparison of residual land values with the adopted and three alternative CIL rates (sites 16 to 24)



Impact of employment and training levy

6.15 Figure 6.15 summarises the results of our appraisals both incorporating and excluding the employment and training levy. The residuals are based on 35% affordable housing and an element of PRS included (where relevant). In many cases, the impact is limited (typically less than 10%) but on sites with a significant quantum of commercial floorspace, the impact of the levy is significant. The most significant changes are Site 4 (Parcelforce) with a 45% reduction in residual value and Beckton Riverside (894% reduction in residual land value). Clearly where the Council is seeking to balance competing objectives, the employment and training levy is one policy objective that may need to be applied flexibly if other targets are proving difficult to meet. A further set of appraisals have been run which reduce the application of the employment and training levy from 35% to 25% of construction phase jobs and from 50% to 40% of post construction phase jobs. These show a reduced impact on residual land values, with the reduction on Parcelforce reduced from 45% to 32% for example.

Figure 6.15.1: Impact of employment and training levy on residual land values

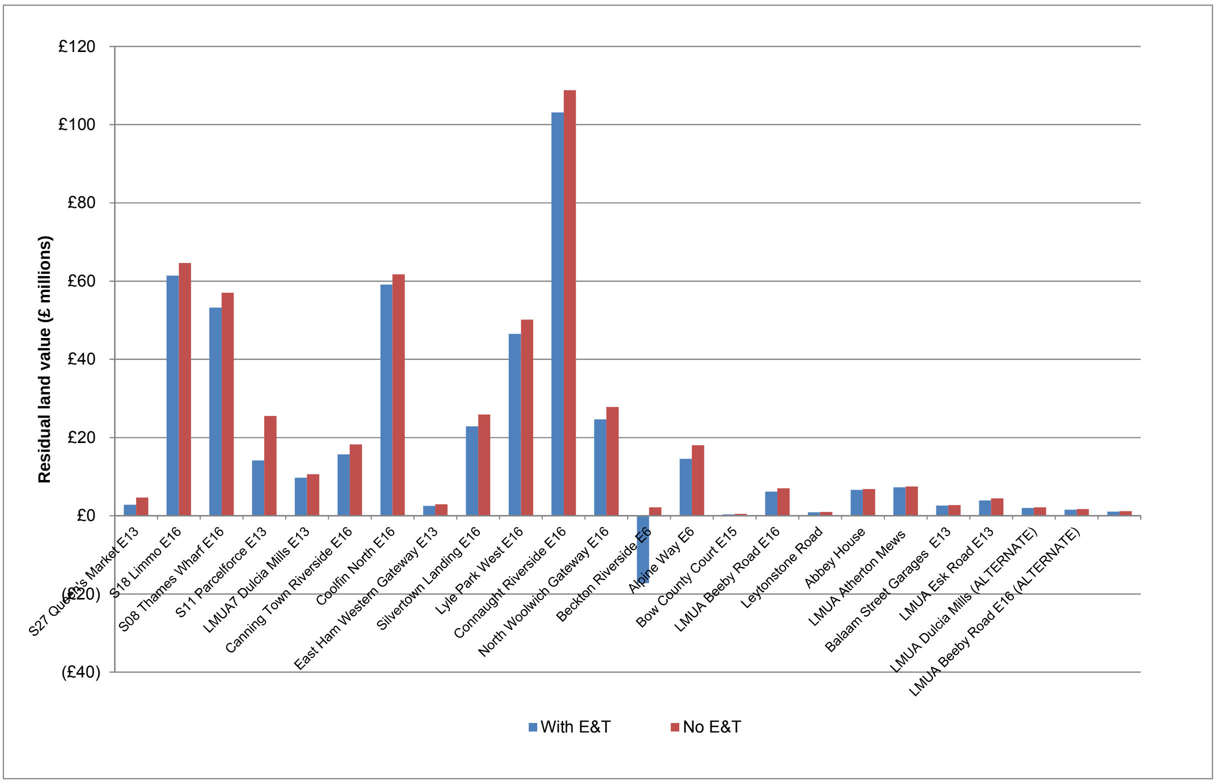


Table 6.15.2: Percentage change in residual land values resulting from application of employment and training levy

	Development	E&T levy applied to 35% of construction jobs and 50% of post development jobs	E&T levy applied to 25% of construction jobs and 40% of post development jobs
1	S27 Queen's Market E13	-39%	-29%
2	S18 Limmo E16	-5%	-4%
3	S08 Thames Wharf E16	-7%	-5%
4	S11 Parcelforce E13	-45%	-32%
5	LMUA7 Dulcia Mills E13	-8%	-6%
6	Canning Town Riverside E16	-14%	-10%

	Development	E&T levy applied to 35% of construction jobs and 50% of post development jobs	E&T levy applied to 25% of construction jobs and 40% of post development jobs
7	Coolfin North E16	-4%	-3%
8	East Ham Western Gateway E13	-15%	-10%
9	Silvertown Landing E16	-12%	-9%
10	Lyle Park West E16	-7%	-5%
11	Connaught Riverside E16	-5%	-4%
12	North Woolwich Gateway E16	-11%	-9%
13	Beckton Riverside E6	-894%	-654%
14	Alpine Way E6	-19%	-14%
15	Bow County Court E15	-17%	-12%
16	LMUA Beeby Road E16	-13%	-10%
17	Leytonstone Road	-11%	-8%
18	Abbey House	-3%	-2%
19	LMUA Atherton Mews	-3%	-2%
20	Balaam Street Garages E13	-3%	-2%
21	LMUA Esk Road E13	-12%	-9%
22	LMUA Dulcia Mills (ALTERNATE)	-8%	-6%
23	LMUA Beeby Road E16 (ALTERNATE)	-8%	-6%
24	LMUA Esk Road E13 (ALTERNATE)	-12%	-9%

Impact of BREAAM requirements

6.16 Finally, we have tested the impact of the Council's requirement for commercial schemes to meet BREAAM 'excellent' standards Figure 6.15 summarises the results of our appraisals both incorporating and excluding the employment and training levy. The residuals are based on 35% affordable housing and an element of units being occupied as PRS.

6.17 The results with and without the BREAAM requirement are summarised in Table 6.17.1.

Table 6.17.1: Change in residual land values resulting from BREAAM requirement

Development	% change in residual value	Residual value with BREAAM (£ million)	Residual value no BREAAM (£ million)
S27 Queen's Market E13	-8.31%	£2.83	£3.09
S18 Limmo E16	-0.04%	£61.42	£61.44
S08 Thames Wharf E16	-0.74%	£53.22	£53.62
S11 Parcelforce E13	-4.21%	£14.14	£14.76
LMUA7 Dulcia Mills E13	-2.28%	£9.73	£9.96
Canning Town Riverside E16	-1.93%	£15.69	£16.00
Coolfin North E16	-0.36%	£59.10	£59.31
East Ham Western Gateway E13	-2.70%	£2.52	£2.59
Silvertown Landing E16	-3.12%	£22.88	£23.62

Development	% change in residual value	Residual value with BREAAM (£ million)	Residual value no BREAAM (£ million)
Lyle Park West E16	-0.92%	£46.50	£46.94
Connaught Riverside E16	-0.70%	£103.13	£103.86
North Woolwich Gateway E16	-3.54%	£24.66	£25.56
Beckton Riverside E6	18.95%	-£17.22	-£14.48
Alpine Way E6	-2.68%	£14.55	£14.95
Bow County Court E15	-29.85%	£0.37	£0.53
LMUA Beeby Road E16	-3.55%	£6.16	£6.39
Leytonstone Road	-1.51%	£0.89	£0.90
Abbey House	-0.07%	£6.60	£6.61
LMUA Atherton Mews	-0.34%	£7.27	£7.30
Balaam Street Garages E13	0.00%	£2.65	£2.65
LMUA Esk Road E13	-3.43%	£3.92	£4.06
LMUA Dulcia Mills (ALTERNATE)	-2.30%	£2.01	£2.06
LMUA Beeby Road E16 (ALTERNATE)	-2.47%	£1.57	£1.61
LMUA Esk Road E13 (ALTERNATE)	-3.69%	£1.03	£1.07

6.18 In almost all cases, the impact of the BREAAM requirement is very modest, around 1% to 2% of residual land value, even in the event of redevelopment coming forward on only part of the site (as per the 'alt' scenarios). In a few cases, there is a significant impact, but this is because the residual land value is abnormally low relative to the build costs. For example, the £0.4 million residual land value generated by the Bow County Court scheme equates to only 1.95% of development costs, whereas the residual is typically at least 15% of development costs. As a result, the residual land value is more vulnerable to small changes in inputs. Setting aside the three sites that are disproportionately affected by BREAAM for the reasons outlined (i.e. Queens Market, Beckton Riverside and Bow County Court), the impact in all other sites is very modest. There is no perceptible difference in the impact on smaller schemes in comparison to larger schemes.

7 Conclusions and recommendations

7.1 The NPPF states that the cumulative impact of local planning authority standards and policies "*should not put implementation of the plan at serious risk, and should facilitate development throughout the economic cycle*". This report and its supporting appendices test this proposition in the London Borough of Newham.

7.2 We have tested the impact of the Council's affordable housing target of 35% - 50% (as well as 0%, 10%, 20%, and 25% affordable housing) and other requirements (family housing, local employment and training levy, carbon off-setting, energy monitoring apparatus and BREEAM, together with Mayoral CIL and – where relevant – Crossrail Section 106) as a base position. The results generated by this base position indicate that the Council's flexible approach to affordable housing delivery (i.e. subject to individual site circumstances and scheme viability) will ensure that most developments can come forward over the economic cycle.

7.3 The provision of some private housing as rented units will have a significant impact on the residual land values that schemes generate and as a result, it will limit their ability to meet the Council's full affordable housing target. Although private rented sector housing has the advantage of early delivery, as well as diversification of tenures which benefits developers, these benefits clearly come at the expense of the level of affordable housing delivery that can be generated. There are clearly wider planning benefits arising from the tenure diversification that PRS schemes can bring which will help developers to continue to develop major schemes through economic cycles.

7.4 The requirement for developments to contribute towards local employment and training through a tariff has a modest impact on most developments and can be absorbed alongside other planning requirements. However, in some cases where schemes wholly or mostly comprise employment floorspace, the impact on the residual land value is significant (a reduction of up to 55%). This demonstrates that the requirement has the capacity to limit the extent to which other planning objectives can be secured and the policy may need to be applied flexibly.

7.5 The costs of sustainability requirements (BREEAM 'excellent') on commercial buildings) is negligible at under 2% of build costs. This requirement can be readily absorbed with little adverse impact on the prospects for securing other policy objectives, regardless of the scale of development.

7.6 In considering the outputs of the appraisals, it is important to recognise that some developments will be unviable *regardless* of the Council's requirements. In these cases, the value of the existing building will be higher than a redevelopment opportunity over the medium term. However, this situation should not be taken as an indication of the viability (or otherwise) of the Council's policies and requirements.

7.7 The results of our appraisals indicate that the lower threshold of the Council's adopted target of 35% affordable housing should be deliverable on most sites that are expected to come forward over the life of the Development Plan. The largest development, Beckton Riverside, is currently generating residual land values that are lower than the Site's existing use value, although this position is likely to change if development proposals are already coming forward in the area which is driving regeneration. The appraisals also indicate that 50% affordable housing is deliverable in many cases. Delivering at this level of affordable housing will require clear signals to the market to ensure that this requirement is reflected in prices offered for sites, providing that offers can still exceed existing use values.

7.8 The results indicate that almost all schemes can readily accommodate the Council's emerging requirement (reflected in the Housing White Paper) for a minimum of 10% affordable housing to be provided as intermediate housing, where higher levels of affordable housing cannot be achieved. In the cases where residual land values are lower than existing uses values, the requirement has a modest impact that is unlikely – in itself – to prevent development coming forward.

7.9 There is less evidence in support of the Council's 25% affordable housing 'floor' as this cannot currently be met by all developments tested. Furthermore, even when growth is applied to the appraisals, not all developments are capable of providing 25% affordable housing.

7.10 In order to maximise the prospects of securing all the emerging plan policies, it is critical that developers do not over-pay for sites such that the value generated by developments is paid to the landowner, rather than being used to provide affordable housing and other objectives. The Council should work closely with developers to ensure that landowners' expectations of land value are appropriately framed by the local policy context. There may be instances when viability issues emerge on individual developments, even when the land has been purchased at an appropriate price (e.g. due to extensive decontamination requirements). In these cases, some flexibility may be required subject to submission of a robust site-specific viability assessment.

7.11 Our appraisals do not consider the potential impact that grant funding might have on scheme viability. This is a realistic assumption for the short term, given the constraints on public spending and the significant drop in funding during the current spending round. Levels of grant funding may change in the future and an increase in subsidy would clearly improve viability. The Council should therefore monitor the situation closely over the medium term, clearly if grant becomes available, then scheme viability will improve.

7.12 The Council's adopted CIL rates have been in place since 1 January 2014 and there has been no demonstrable adverse impact on the supply of housing land or upon the viability of developments coming forward across the Borough. Since the evidence base for the adopted CIL was prepared, there have been significant changes to sales values and build costs. Our testing of alternative CIL rates indicates that relatively significant changes could be accommodated without adversely impacting on viability to a sufficient degree to impact on land supply. Increases in residential rates from £80 to £160 per square metre and from £40 to £100 per square metre would result in a modest increase in the percentage that CIL equates to (from 1.38% to 2.43% of development costs). This remains within the levels set by other boroughs in London. Consequently, there may be some scope for the Council to consider upwards adjustments to their CIL rates. In addition, our testing of applying relatively modest levels of CIL to office, industrial and warehousing developments indicates that the impact of a charge of between £20 and £40 per square metre is unlikely to prevent any developments coming forward.

7.13 The Council needs to strike a balance between achieving its aim of meeting needs for affordable housing with raising funds for infrastructure, and ensuring that developments generate acceptable returns to willing landowners and willing developers. This study demonstrates that the Council's flexible approach to applying its affordable housing requirements ensures that these objectives are balanced appropriately.

Appendix 1 - Sites details

1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
LONDON BOROUGH OF NEWHAM							**Years 1 - 5**		**Years 6 - 10**		**Years 11 - 15**					
		Gross	Net site			No of	No of	No of	No of	No of	No of	Resi costs	Resi costs	GIA	GIA
Site ref	SITE NAME	Site area	area	Site coverage	Heights	Houses	Flats	Houses	Flats	Houses	Flats	Houses	Flats	Houses	flats
1	S27 Queen's Market E13	1.90	1.90	100%	4-6 / 14	-	500	-	-	-	-	1,189	1,934	-	45,000
2	S18 Limmo E16	7.66	7.66	100%	Up to 19	-	1,200	-	-	-	-	1,189	1,934	-	108,000
3	S08 Thames Wharf E16	11.30	11.30	100%	6-10 / 15	-	1,150	-	-	-	-	1,189	1,934	-	103,500
4	S11 Parcelforce E13	18.50	18.50	100%		-	1,500	-	1,500	-	1,000	1,189	1,934	-	360,000
5	LMUA7 Dulcia Mills E13	0.80	0.80	100%	2-4	-	63	-	-	-	-	1,189	1,502	-	5,670
6	Canning Town Riverside E16	3.77	3.77	100%	8-12 / 19	-	600	-	-	-	-	1,189	1,934	-	54,000
7	Coolfin North E16	8.00	8.00	100%	6-8 / 12	-	1,000	-	-	-	-	1,189	1,934	-	90,000
8	East Ham Western Gateway E13	0.90	0.90	100%	4-8	-	140	-	-	-	-	1,189	1,934	-	12,600
9	Silvertown Landing E16	5.60	5.60	100%	6-8 / 12	-	329	-	-	-	-	1,189	1,934	-	29,610
10	Lyle Park West E16	7.80	7.80	100%	6-8 / 18	-	775	-	-	-	-	1,189	1,934	-	69,750
11	Connaught Riverside E16	11.50	11.50	100%	6-8 / 12	-	1,650	-	-	-	-	1,189	1,934	-	148,500
12	North Woolwich Gateway E16	6.60	6.60	100%	6-8 / 18	-	350	-	-	-	-	1,189	1,934	-	31,500
13	Beckton Riverside E6	72.90	72.90	100%	5-8 / 12	-	2,000	-	2,000	-	1,000	1,189	1,934	-	450,000
14	Alpine Way E6	5.39	5.39	100%	5-7 / 5	-	750	-	-	-	-	1,189	1,934	-	67,500
15	Bow County Court E15	0.21	0.21	100%	6	-	28	-	-	-	-	1,189	1,934	-	2,520
16	LMUA Beeby Road E16	0.87	0.87	100%	5	-	58	-	-	-	-	1,189	1,934	-	5,220
17	Leytonstone Road	0.10	0.10	100%	10	-	30	-	-	-	-	1,189	1,934	-	2,700
18	Abbey House	0.20	0.20	100%	10	-	75	-	-	-	-	1,189	1,934	-	6,750
19	LMUA Atherton Mews	0.80	0.80	100%	5	-	50	-	-	-	-	1,189	1,502	-	4,500
20	Balaam Street Garages E13	0.23	0.23	100%	3	-	33	-	-	-	-	1,189	1,502	-	2,970
21	LMUA Esk Road E13	0.50	0.50	100%	6	-	38	-	-	-	-	1,189	1,934	-	3,420
22	LMUA Dulcia Mills (ALTERNATE)	0.80	0.80	100%	2-4		13					1,189	1,502	-	1,170
23	LMUA Beeby Road E16 (ALTERNATE)	0.87	0.87	100%	5	-	10	-	-	-	-	1,189	1,502	-	900
24	LMUA Esk Road E13 (ALTERNATE)	0.50	0.50	100%	6	-	10	-	-	-	-	1,189	1,934	-	900

1	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
LONDON I	**Floor areas - proposed (sqm)**											**CIL (rate per sqm) - INCLUDING MAYORAL CIL**									
			Note: B1 office inlcudes B1(b)							Total resi	Total resi FS										
Site ref	Retail A1-A5	Retail S'Mark	B1 office	B2 industria	B8 storage	C1 Hotel	C2 resi inst	D1	D2	units		Retail A1-A	Retail S'Ma	B1 office	B2 industri	B8 storage	C1 Hotel	C2 resi ins	D1	D2	Resi
1	2,500	2,000	-	-	-	-	-	2,500	-	500	45,000	85	85	65	65	65	205	25	25	25	125
2	1,000	-	-	-	-	-	-	-	-	1,200	108,000	85	85	65	65	65	205	25	25	25	185
3	7,000	-	-	-	-	-	-	4,600		1,150	103,500	85	85	65	65	65	205	25	25	25	185
4	4,400	1,000	689	-	-	-	-	12,004	-	4,000	360,000	85	85	65	65	65	205	25	25	25	125
5	250	-	5,000	-	-	-	-	250	-	63	5,670	85	85	65	65	65	205	25	25	25	125
6	-	-	5,000	-	5,000	-	-	-	-	600	54,000	85	85	65	65	65	205	25	25	25	185
7	-	-	-	-	-	-	-	5,000	-	1,000	90,000	85	85	65	65	65	205	25	25	25	185
8	-	-	250	-	-	-	-	1,200	-	140	12,600	85	85	65	65	65	205	25	25	25	125
9	-	-	10,000	5,000	10,000	-	-	-	-	329	29,610	85	85	65	65	65	205	25	25	25	185
10	950	300	10,000	-	-	-	-	-	-	775	69,750	85	85	65	65	65	205	25	25	25	185
11	700	300	15,000	-	-	6,500	-	5,650	-	1,650	148,500	85	85	65	65	65	205	25	25	25	185
12	700	300	6,000	13,500	13,500	-	-	1,000	-	350	31,500	85	85	65	65	65	205	25	25	25	185
13	40,000	5,000	-	15,000	15,000	-	-	21,300	-	5,000	450,000	85	85	65	65	65	205	25	25	25	125
14	-	-	10,000	-	-	-	-	-	-	750	67,500	85	85	65	65	65	205	25	25	25	125
15	-	-	-	-	-	-	-	3,200	-	28	2,520	85	85	65	65	65	205	25	25	25	185
16	-	250	5,000	-	-	-	-	250	-	58	5,220	85	85	65	65	65	205	25	25	25	185
17	-	-	150	-	-	-	-	150	-	30	2,700	85	85	65	65	65	205	25	25	25	125
18	150	-	-	-	-	-	-	-	-	75	6,750	85	85	65	65	65	205	25	25	25	185
19	-	-	600	-	-	-	-	-	-	50	4,500	85	85	65	65	65	205	25	25	25	185
20	-	-	-	-	-	-	-	-	-	33	2,970	85	85	65	65	65	205	25	25	25	125
21	100	-	3,000	-	-	-	-	250	-	38	3,420	85	85	65	65	65	205	25	25	25	125
22	75		999					75		13	1,170	85	85	65	65	65	205	25	25	25	125
23	75		815					75		10	900	85	85	65	65	65	205	25	25	25	185
24	75		750					125		10	900	85	85	65	65	65	205	25	25	25	125

1	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68
LONDON I		**S106 (per sqm for commercial; per unit for resi - INCLCROSSRAIL S106 TOP UP FOR RETAIL**										**Rents**									**Cap val**
	E&T																				
Site ref	cost	Retail A1-A	Retail S'Ma	B1 office	B2 industri	B8 storage	C1 Hotel	C2 resi ins	D1	D2	Resi	Retail A1-A	Retail S'Ma	B1 office	B2 industri	B8 storage	C1 Hotel	C2 resi ins	D1	D2	Resi
1	2,008,928	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	5,750
2	3,803,571	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	7,500
3	4,272,594	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	7,500
4	12,999,994	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	5,750
5	951,661	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	7,500
6	2,823,394	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	5,750
7	3,083,090	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	7,500
8	470,375	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	5,750
9	3,279,896	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	7,500
10	4,068,918	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	7,500
11	7,515,504	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	7,500
12	3,509,126	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	7,500
13	21,640,801	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	5,750
14	3,862,012	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	5,750
15	86,327	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	8,075
16	979,632	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	7,500
17	115,738	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	5,750
18	246,811	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	7,500
19	212,703	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	7,500
20	79,016	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	5,750
21	592,452	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	7,500
22	193,732	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	7,501
23	158,034	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	7,502
24	154,848	26	26	10	10	10	10	10	10	10	1,500	250	250	300	160	160	400	300	250	250	7,503

1	69	70	71	72	73	74	75	76	77	79	80	81	82	83	84	85	86	87
LONDON I	**Yields**									**Build costs**								
Site ref	Retail A1-A	Retail S'Ma	B1 office	B2 industri	B8 storage	C1 Hotel	C2 resi ins	D1	D2	Retail A1-A5	Retail S'Ma	B1 office	B2 industri	B8 storage	C1 Hotel	C2 resi ins	D1	D2
1	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
2	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
3	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
4	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
5	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
6	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
7	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
8	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
9	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
10	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
11	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
12	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
13	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
14	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
15	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
16	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
17	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
18	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
19	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
20	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
21	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
22	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
23	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293
24	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%	1,399	1,399	1,881	1,116	968	0	0	2,293	2,293

1	89	90	91	92	93	94	95	96	97	98	120	121	122	123	124	125	126	127	128	129	130	131
LONDON I	**Net to gross**												**Build start (QUARTERS)**									
Site ref	Retail A1-A5	Retail S'Ma	B1 office	B2 industrial	B8 storage	C1 Hotel	C2 resi inst	D1	D2	Resi	Total new floorspace	Highways/S278	Retail A1-A	Retail S'Ma	B1 office	B2 industri	B8 storage	C1 Hotel	C2 resi inst	D1	D2	Resi
1	85%	85%	85%	85%	85%	85%	85%	85%	85%	82.5%	52,000	210,000	2	2	2	2	2	2	2	2	2	2
2	85%	85%	85%	85%	85%	85%	85%	85%	85%	82.5%	109,000	200,000	2	2	2	2	2	2	2	2	2	2
3	85%	85%	85%	85%	85%	85%	85%	85%	85%	82.5%	115,100	400,000	2	2	2	2	2	2	2	2	2	2
4	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	378,093	450,000	2	2	2	2	2	2	2	2	2	2
5	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	11,170	100,000	2	2	2	2	2	2	2	2	2	2
6	85%	85%	85%	85%	85%	85%	85%	85%	85%	82.5%	64,000	150,000	2	2	2	2	2	2	2	2	2	2
7	85%	85%	85%	85%	85%	85%	85%	85%	85%	82.5%	95,000	150,000	2	2	2	2	2	2	2	2	2	2
8	85%	85%	85%	85%	85%	85%	85%	85%	85%	82.5%	14,050	100,000	2	2	2	2	2	2	2	2	2	2
9	85%	85%	85%	85%	85%	85%	85%	85%	85%	82.5%	54,610	100,000	2	2	2	2	2	2	2	2	2	2
10	85%	85%	85%	85%	85%	85%	85%	85%	85%	82.5%	81,000	450,000	2	2	2	2	2	2	2	2	2	2
11	85%	85%	85%	85%	85%	85%	85%	85%	85%	82.5%	176,650	100,000	2	2	2	2	2	2	2	2	2	2
12	85%	85%	85%	85%	85%	85%	85%	85%	85%	82.5%	66,500	300,000	2	2	2	2	2	2	2	2	2	2
13	85%	85%	85%	85%	85%	85%	85%	85%	85%	82.5%	546,300	3,663,071	2	2	2	2	2	2	2	2	2	2
14	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	77,500	549,461	2	2	2	2	2	2	2	2	2	2
15	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	5,720	35,000	2	2	2	2	2	2	2	2	2	2
16	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	10,720	35,000	2	2	2	2	2	2	2	2	2	2
17	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	3,000	-	2	2	2	2	2	2	2	2	2	2
18	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	6,900	-	2	2	2	2	2	2	2	2	2	2
19	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	5,100	-	2	2	2	2	2	2	2	2	2	2
20	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	2,970	35,000	2	2	2	2	2	2	2	2	2	2
21	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	6,770	50,000	2	2	2	2	2	2	2	2	2	2
22	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	2,319	100,000	2	2	2	2	2	2	2	2	2	2
23	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	1,865	35,000	2	2	2	2	2	2	2	2	2	2
24	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	1,850	50,000	2	2	2	2	2	2	2	2	2	2

1	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151
LONDON I	**Build period (QUARTERS)**										**Investment sale (QUARTERS)**									
Site ref	Retail A1-A	Retail S'Ma	B1 office	B2 industri	B8 storage	C1 Hotel	C2 resi ins	D1	D2	Resi	Retail A1-A	Retail S'Ma	B1 office	B2 industri	B8 storage	C1 Hotel	C2 resi ins	D1	D2	Resi
1	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	11	11	11	11	11	11	11	11	11	11
2	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	20	20	20	20	20	20	20	20	20	20
3	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	20	20	20	20	20	20	20	20	20	20
4	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	38	38	38	38	38	38	38	38	38	38
5	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	8	8	8	8	8	8	8	8	8	8
6	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	10	10	10	10	10	10	10	10	10	10
7	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	10	10	10	10	10	10	10	10	10	10
8	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	8	8	8	8	8	8	8	8	8	8
9	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	10	10	10	10	10	10	10	10	10	10
10	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	8	8	8	8	8	8	8	8	8	8
11	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	10	10	10	10	10	10	10	10	10	10
12	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	12	12	12	12	12	12	12	12	12	12
13	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	40.00	25	25	25	25	25	25	25	25	25	25
14	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	8	8	8	8	8	8	8	8	8	8
15	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	8	8	8	8	8	8	8	8	8	8
16	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	8	8	8	8	8	8	8	8	8	8
17	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	8	8	8	8	8	8	8	8	8	8
18	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	8	8	8	8	8	8	8	8	8	8
19	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	6	6	6	6	6	6	6	6	6	6
20	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	8	8	8	8	8	8	8	8	8	8
21	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	8	8	8	8	8	8	8	8	8	8
22	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	8	8	8	8	8	8	8	8	8	8
23	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	8	8	8	8	8	8	8	8	8	8
24	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	8	8	8	8	8	8	8	8	8	8

1	152	153	154	155	156	157	158	159	160	161	162	163	164
LONDON I	**Resi sales period (qtrs)**	**Sales period start**	**Area**		**On-site AH**	**% AH rented**	Existing floorspace			5.80%	Purchasers costs		
				% of PRS									
Site ref	Resi	Resi		units			Total sqm	Rent	Yield	EUV	EUV uplift	BLV	Existing use
1	1	11	E13	33.30%	50%	60%		622,550	6.50%	9,022,186	15%	12,450,617	Retail/community
2	12	10	E16	33.30%	50%	50%		135,000	6.50%	1,956,462	15%	2,699,917	Industrial
3	12	10	E16	33.30%	50%	60%		2,025,925	6.50%	29,360,328	15%	40,517,253	Industrial
4	31	10	E13	33.30%	50%	60%		-	6.50%	51,985,454	18%	73,611,403	Storage/distribution
5	1	8	E13	0.00%	50%	60%		12,500	6.50%	181,154	20%	260,862	Industrial
6	1	10	E12	0.00%	50%	50%		-	6.50%	10,593,793	20%	15,255,061	Industrial
7	10	10	E16	15.00%	50%	50%		-	6.50%	6,000,000	18%	8,496,000	School and Nursery
8	1	8	E13	0.00%	50%	60%		-	6.50%	4,428,292	20%	6,376,740	Retail
9	1	10	E16	33.30%	50%	60%		-	6.50%	15,736,137	20%	22,660,038	Industrial
10	6	8	E16	33.30%	50%	60%		-	6.50%	3,900,000	20%	5,616,000	Open space
11	17	8	E16	33.30%	50%	60%		4,871,900	6.50%	70,605,074	20%	101,671,306	Industrial
12	5	10	E16	15.00%	50%	60%		702,600	6.50%	10,182,295	15%	14,051,568	Vacant Industrial
13	36	10	E6	33.30%	50%	60%		13,656,740	6.50%	197,917,678	20%	285,001,457	Warehouses, retail warehouses
14	6	8	E6	33.30%	50%	60%		2,043,000	6.50%	29,607,785	18%	41,924,623	Retail warehouses
15	1	8	E15	0.00%	50%	60%		-	6.50%	157,500	15%	217,350	Community
16	1	8	E16	0.00%	50%	60%		-	6.50%	2,444,721	20%	3,520,399	Industrial
17	1	8	E13	0.00%	50%	60%		-	6.50%	492,032	20%	708,527	Housing and commercial
18	1	8	E16	0.00%	50%	60%		-	6.50%	984,065	20%	1,417,053	Housing
19	1	6	E16	0.00%	50%	60%		-	6.50%	3,936,259	20%	5,668,213	Housing and commercial with retail
20	1	8	E13	0.00%	50%	60%			6.50%	646,306	20%	930,680	Industrial
21	1	8	E13	0.00%	50%	60%			6.50%	1,405,012	20%	2,023,218	Industrial
22	1	6	E13	0.00%	50%	60%		12,500	6.50%	181,154	20%	260,862	Industrial
23	1	6	E16	0.00%	50%	60%			6.50%	2,444,721	20%	3,520,399	Industrial
24	1	6	E13	0.00%	50%	60%			6.50%	1,405,012	20%	2,023,218	Industrial

Appendix 2 - Sample appraisal

LOCAL PLAN AND CIL VIABILITY MODEL

This is input source box for reference info that appears on all sheets

Local Authority	LONDON BOROUGH OF NEWHAM
Area(s)	
Author	
Date	20 July 2017
Reference	

Site	1

DO NOT CHANGE SITE USING THIS CELL - USE M3 IN "RESULTS" PAGE

1.9

Values: - NOT USED

Sales values	d

	Residual Land Values	Total units	Total floor area GIA	Private floor area	Ave unit size	CIL as % of dev costs
	£8,812,430	500	45,000	29,250	90	2.1%

Affordable housing percentage	**35%**
of which social rented	**60%**
of which intermediate	40%

Sustainability

Cost allowance - all tenures (% of base costs)	7.4%
Cost uplift on commercial	2%

Grant available	☐ check box

Site area	1.9
Scheme above AH threshold	y

	GIA per unit	Units years 1 -5	Units years 6 - 10	Units years 11 - 15	GIA years 1 - 5	GIA years 6 - 10	GIA years 11 - 15	G to N flats	NIAs years 1 -5	NIAs years 1 -6	NIAs years 1 -7	Totals
Houses	100	-	-	-	-	-	-	100%	-	-	-	-
Flats	90	500	-	-	45,000	-	-	83%	37,125	-	-	37,125
Totals		500	-	-	45,000	-	-		37,125	-	-	37,125

Private NIAs	24,131	-	-	24,131
PRS units	-	-	-	-
Affordable NIAs	12,994	-	-	12,994

Revenue		Years 1 -5	Years 6 - 10	Years 11 - 15	
Value psm	5750	6760.976279	8,226	10,008	
Private GDV		**163,150,809**	**-**	**-**	**163,150,809**

PRS units to be sold at 85% of MV

Base costs	Per sqm	Years 1 -5	Years 6 - 10	Years 11 - 15	
Houses	1,189	1,332	1,701	1,705	
Houses externals	15%	200	255	256	
Flats	1,934	2,167	2,452	2,774	
Flats externals	15%	325	368	416	
Costs + externals		**112,134,374**	**-**	**-**	**112,134,374**

Growth/inflation	Year 1-5	Year 6 - 10	Year 11 - 15
Sales	17.58%	43.06%	74.05%
Build	12.04%	26.76%	43.42%

LOCAL PLAN AND CIL VIABILITY MODEL

Local Authority	LONDON BOROUGH OF NEWHAM
Area(s)	0
Author	0
Date	20 July 2017
Reference	0

BUILD COSTS

TIMINGS *for cash flow* — PLANNING OBLIGATIONS / CIL

	BUILD COSTS				TIMINGS: Build start	Build period	Sales period	Sales period start	S106 payments		CIL Charges (incl Mayoral CIL)				Fees
Typology	Build costs per gross sqm - HOUSES	Build costs per gross sq m - FLATS	External works and other costs	Gross to net adjustment for flats	Quarters	Quarters	Quarters	Quarters from start on site	£s per sqm all tenures	Quarter paid	£s p sq m private sales only	Instal-ment 1 - Qtr paid	Instal-ment 2 - Qtr paid	Instal-ment 3 - Qtr paid	% of build cost
Residential	£1,189	£1,934	£290	82.5%	2	9	1	11	£1,500	3	£125	1	2	3	10%

NB externals included in base costs in 'sites page'

Highways/S278	£210,000	(Total for scheme)
Employment & training	£2,250,797	

Cat 2 accessibility:	Applies to all dwellings	Nos of units:
Houses	£521	-
Flats	£924	500

Cat 3 accessibility	Applies to 5% of affordable dwellings	
Houses	£22,694	-
Flats	£7,906	9

OTHER COSTS

Developer return % GDV	Private	18.00%
	Affordable	6.00%
Zero carbon	All tenures	7.4%
Contingency		5%
Marketing costs % of sales values		3.00%
Legal Fees % of GDV		0.50%
Site acquisition costs % land value		6.80%
Development Finance		6.00%

COMMERCIAL INPUTS

	Site 1								
Value	Retail A1-A5	Retail S'Market	B1 office	B2 industrial	B8 storage	C1 Hotel	C2 resi institutio	D1	D2
Rent per sq m	£250.00	£250.00	£300.00	£160.00	£160.00	£400.00	£300.00	£250.00	£250.00
Yield	6.00%	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%	7.00%	7.00%
Rent free/void period (years)	1.0	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Net floor area (sq m)	2,125	1,700	-	-	-	-	-	2,125	-
Purchaser's costs	5.80%	5.80%	5.80%	5.80%	5.80%	5.80%	5.80%	5.80%	5.80%
Disposal Costs									
Letting Agent's fee (% of rent)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Agent's fees (on capital value)	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Legal fees (% of capital value)	0.75%	0.75%	0.75%	0.75%	0.75%	0.75%	0.75%	0.75%	0.75%
Costs									
Demolition costs	£50 psm	£50 psm	£50 psm	£50 psm	£50 psm	£50 psm	£50 psm	£50 psm	£50 psm
Demolition area (sq m)									
Building costs	£1568 psm	£1568 psm	£2107 psm	£1250 psm	£1085 psm	£ psm	£ psm	£2569 psm	£2569 psm
Net to gross floor area	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%
External works	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
CIL (incl Mayoral)	£85	£85	£65	£65	£65	£205	£25	£25	£25
Crossrail S106	£0	£0	£0	£0	£0	£0	£0	£0	£0
S106 (per net sq m)	£26 psm	£26 psm	£10 psm	£10 psm	£10 psm	£10 psm	£10 psm	£10 psm	£10 psm
Cashflow timing	**Quarters**								
Build start	2	2	2	2	2	2	2	2	2
Build period	9	9	9	9	9	9	9	9	9
Investment sale (quarters from start on site)	11	11	11	11	11	11	11	11	11

Note: demolition of existing floorspace is loaded as a single amount on Retail A1-A5

LOCAL PLAN AND CIL VIABILITY MODEL

Local Authority	LONDON BOROUGH OF NEWHAM
Area(s)	
Proxy number	1
Date	20 July 2017
Reference	1.9

DEVELOPMENT PERIOD CASHFLOW

dev hectarage	
dev acreage	

				Project Totals
			Revenue per Qtr	
Revenue				
		0 £ 163,150,809	£ 163,150,809	£ 163,150,809
Investment value of ground rents		0 £ 3,636,364	£ *3,636,364*	£ 3,636,364
GDV before costs of sale		**Sub Total**		**£ 166,787,172**
Costs of Sale				
	Marketing costs	3.00%		-£ 5,003,615
	Legal fees	0.50%		-£ 833,936
		Sub Total		**-£5,837,551**
Net commercial investment value	Retail A1-A5	£ 7,669,212	£ 7,669,212	£ 7,669,212
	Retail S'Market	£ 6,318,006	£ 6,318,006	£ 6,318,006
	B1 office	£ -	£ -	£ -
	B2 industrial	£ -	£ -	£ -
	B8 storage	£ -	£ -	£ -
	C1 Hotel	£ -	£ -	£ -
	C2 resi institution	£ -	£ -	£ -
	D1	£ 6,504,160	£ 6,504,160	£ 6,504,160
	D2	£ -	£ -	£ -
Total commercial value		**Sub Total**		**£20,491,378**
Speculative NDV				**£ 181,440,999**
Affordable Housing Revenue				
	No fees on sale		*Revenue per Qtr*	£ -
		0 £ 37,959,941	*4,217,771* 9	£ 37,959,941
				£ -
	NDV	**Total**		**£ 219,400,940**
Standard Costs				
			Cost per Qtr	
	Residential	£ 120,432,318	*13,381,369* 9	£ 120,432,318
	GF infrastructure costs	£ 1,125,398,732		
	Retail A1-A5	£ 5,130,918	*508,839* 9	£ 4,579,553
	Retail S'Market	£ 3,663,642	*407,071* 9	£ 3,663,642
	B1 office	£ -	- 9	£ -
	B2 industrial	£ -	- 9	£ -
	B8 storage	£ -	- 9	£ -
	C1 Hotel	£ -	- 9	£ -
	C2 resi institution	£ -	- 9	£ -
	D1	£ 7,148,570	*794,286* 9	£ 7,148,570
	D2	£ -	- 9	£ -
	Contingency			£ 6,791,204
		Sub Total		**£ 142,615,288**
Other Costs				
	Professional fees	10.00%		£ 14,261,529
		Sub Total		**£ 14,261,529**
CIL				
	Total	3,656,250		
Resi CIL		£ 1,218,750		£ 1,218,750
		£ 1,218,750		£ 1,218,750
		£ 1,218,750		£ 1,218,750
				£ -
		Sub Total		**£ 3,656,250**
Resi Section 106 Costs	0	£ 750,000		£ 750,000
Accessibility standards		£ 595,130		£ 595,130
Employment & Training levy		£ 2,008,928		£ 2,008,928
Highways/S278		£ 210,000		£ 210,000
		Sub Total		**£ 3,564,058**
Total Other Costs		**Sub Total**		**£ 7,220,308**
Total Costs				**£ 163,501,995**
				£ -
Developer's profit on GDV	% of GDV	18.00%		£ 32,659,380
	% of GDV affordable	6%		£ 2,277,596
Residual Sum before interest				**£ 20,961,969**
Cumulative residual balance for interest calculation				
Interest		6.00%		-£ 9,823,994
Residual Sum for quarter after interest				**£ 11,137,975**
				£ 9,455,397

	Qtr 1 Year 1 1	Qtr 2 Year 1 2	Qtr 3 Year 1 3	Qtr 4 Year 1 4	Qtr 5 Year 2 1	Qtr 6 Year 2 2	Qtr 7 Year 2 3	Qtr 8 Year 2 4	Qtr 9 Year 3 1	Qtr 10 Year 3 2	Qtr 11 Year 3 3	Qtr 12 Year 3 4	Qtr 13 Year 4 1	Qtr 14 Year 4 2	Qtr 15 Year 4 3	Qtr 16 Year 4 4	Qtr 17 Year 5 1	Qtr 18 Year 5 2	Qtr 19 Year 5 3	Qtr 20 Year 5 4	Qtr 21 Year 6 1	Qtr 22 Year 6 2
Revenue	0	0	0	0	0	0	0	0	0	0	163,150,809	0	0	0	0	0	0	0	0	0	0	0
Investment value of ground rents	0	0	0	0	0	0	0	0	0	0	3,636,364	0	0	0	0	0	0	0	0	0	0	0
GDV before costs of sale	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**166,787,172**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Marketing costs	0	0	0	0	0	0	0	0	0	0	-5,003,615	0	0	0	0	0	0	0	0	0	0	0
Legal fees	0	0	0	0	0	0	0	0	0	0	-833,936	0	0	0	0	0	0	0	0	0	0	0
Sub Total	0	0	0	0	0	0	0	0	0	0	-5,837,551	0	0	0	0	0	0	0	0	0	0	0
Retail A1-A5	0	0	0	0	0	0	0	0	0	0	7,669,212	0	0	0	0	0	0	0	0	0	0	0
Retail S'Market	0	0	0	0	0	0	0	0	0	0	6,318,006	0	0	0	0	0	0	0	0	0	0	0
B1 office	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B2 industrial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B8 storage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C1 Hotel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2 resi institution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1	0	0	0	0	0	0	0	0	0	0	6,504,160	0	0	0	0	0	0	0	0	0	0	0
D2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total commercial value	0	0	0	0	0	0	0	0	0	0	20,491,378	0	0	0	0	0	0	0	0	0	0	0
Speculative NDV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**181,440,999**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Affordable Housing Revenue	0	4,217,771	4,217,771	4,217,771	4,217,771	4,217,771	4,217,771	4,217,771	4,217,771	4,217,771	0	0	0	0	0	0	0	0	0	0	0	0
NDV	**0**	**4,217,771**	**4,217,771**	**4,217,771**	**4,217,771**	**4,217,771**	**4,217,771**	**4,217,771**	**4,217,771**	**4,217,771**	**181,440,999**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Residential	0	13,381,369	13,381,369	13,381,369	13,381,369	13,381,369	13,381,369	13,381,369	13,381,369	13,381,369	0	0	0	0	0	0	0	0	0	0	0	0
Retail A1-A5	0	508,839	508,839	508,839	508,839	508,839	508,839	508,839	508,839	508,839	0	0	0	0	0	0	0	0	0	0	0	0
Retail S'Market	0	407,071	407,071	407,071	407,071	407,071	407,071	407,071	407,071	407,071	0	0	0	0	0	0	0	0	0	0	0	0
B1 office	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B2 industrial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B8 storage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C1 Hotel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2 resi institution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1	0	794,286	794,286	794,286	794,286	794,286	794,286	794,286	794,286	794,286	0	0	0	0	0	0	0	0	0	0	0	0
D2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	0	754,578	754,578	754,578	754,578	754,578	754,578	754,578	754,578	754,578	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total	**0**	**15,846,143**	**15,846,143**	**15,846,143**	**15,846,143**	**15,846,143**	**15,846,143**	**15,846,143**	**15,846,143**	**15,846,143**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Professional fees	0	1,584,614	1,584,614	1,584,614	1,584,614	1,584,614	1,584,614	1,584,614	1,584,614	1,584,614	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total	**0**	**1,584,614**	**1,584,614**	**1,584,614**	**1,584,614**	**1,584,614**	**1,584,614**	**1,584,614**	**1,584,614**	**1,584,614**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Resi CIL	1,218,750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1,218,750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	1,218,750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total	**1,218,750**	**1,218,750**	**1,218,750**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Resi Section 106 Costs	0	0	750,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accessibility standards	0	0	595,130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Employment & Training levy	2,008,928																					
Highways/S278	210,000																					
Sub Total	**2,218,928**	**0**	**1,345,130**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total Other Costs	**3,437,678**	**1,218,750**	**1,968,750**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total Costs	**3,437,678**	**18,649,507**	**19,399,507**	**17,430,757**	**17,430,757**	**17,430,757**	**17,430,757**	**17,430,757**	**17,430,757**	**17,430,757**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Developer's profit on GDV (% of GDV)	0	0	0	0	0	0	0	0	0	0	32,659,380	0	0	0	0	0	0	0	0	0	0	0
% of GDV affordable	0	253,066	253,066	253,066	253,066	253,066	253,066	253,066	253,066	253,066	0	0	0	0	0	0	0	0	0	0	0	0
Residual Sum before interest	**-3,437,678**	**-14,684,802**	**-15,434,802**	**-13,466,052**	**-13,466,052**	**-13,466,052**	**-13,466,052**	**-13,466,052**	**-13,466,052**	**-13,466,052**	**148,781,619**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Cumulative residual balance for interest calculation	-3,437,678	-18,171,127	-33,863,068	-47,808,315	-61,950,900	-76,293,616	-90,839,295	-105,590,810	-120,551,072	-135,723,035	11,137,975	0	0	0	0	0	0	0	0	0	0	0
Interest	-48,646	-257,139	-479,194	-676,533	-876,664	-1,079,627	-1,285,462	-1,494,210	-1,705,911	-1,920,609	0	0	0	0	0	0	0	0	0	0	0	0
Residual Sum for quarter after interest	**-3,486,325**	**-14,941,941**	**-15,913,997**	**-14,142,585**	**-14,342,716**	**-14,545,679**	**-14,751,514**	**-14,960,262**	**-15,171,964**	**-15,386,661**	**148,781,619**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Land Value

per developable hectare	£4,638,121
per gross hectare	£4,638,121

Residual land value			**£ 9,455,397**
Site acquisition costs		6.80%	£ 642,967
MV (Residual Sum available to offer for Development Opportunity)			**£ 8,812,430**

Quarterly Interest	1.50%	4.44%