

**Assessment of the viability of SHLAA and
Strategic Sites**

For Manchester City Council

by Levvel Ltd

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MANCHESTER
CITY COUNCIL



1.0 Executive Summary

- 1.1 Manchester City Council has engaged Levvel to provide an assessment of the economic viability of 15 Strategic Sites and nearly 500 smaller sites across the City. The aim of the study is to assess the potential viability of schemes up to 2027. This will assist the Council in its assessment as to whether and when sites can contribute towards land supply.
- 1.2 This Report summarises the residual land value methodology employed to carry out this assessment, the study limitations and the assumptions used in the study. This methodology is consistent with the Affordable Housing Assessment of Viability study (AHAV).
- 1.3 The results section falls into two parts; the first part assesses the viable timescale to deliver the 15 strategic sites. The second part analyses the deliverability of the remaining smaller sites.

Part 1

- 1.4 The first part of this report details the particular characteristics of each of 15 Strategic sites including location, scheme size and development mix, scheme revenue and costs, before drawing conclusions as to the viability of those sites. The results of the viability assessment of the 15 Strategic sites indicate the following potential viable supply of housing:

North Manchester	Before 2018	2018 to 2027
Collyhurst Estate, Harpurhey	600 units	700 units
Moston, Harpuhey	600 units	
Lower Irk Valley	700 units	343 units
Booth Hall Hospital	300 units	
Rochdale Road	500 units	300 units
Blackley Village	<u>188 units</u>	_____
Total	2888 units	1343 units



East Manchester	Before 2018	2018 to 2027
Miles Platting		1443 units
Lower Medlock Valley	500 units	300 units
Jacksons Brickworks		500 units
Dreyfus Village	687 units	408 units
West Gorton	1100 units	
Chancellor Place	1852 units	
Holt Town	<u>1459 units</u>	<u>2889 units</u>
Total	5598 units	5540 units
Central Manchester	Before 2018	2018 to 2027
Coverdale	400 units	
Brunswick Estate	<u>350 units</u>	_____
Total	750 units	
Overall Total	9,236 units	6,883 units

1.5 Hence in conclusion, an indicative assessment of overall unencumbered sites viability suggests that 9,236 units could be delivered before 2018 and 6,883 units could be delivered after 2018 and before 2027. The imposition of affordable housing and/or planning gain or other unidentified burdens could affect viability depending on the availability of affordable housing grant and hence could affect the actual supply of housing delivered in these time scales.



Part 2

- 1.6 The second part of this Report analyses SHLAA capacity sites across the City by grouping sites into value bands and scheme types. In the Affordable Housing Assessment of Viability study, a residual land valuation appraisal model was used to compare baseline values and costs today against, Upside, Middle Historic, Middle Downside and Downside assumptions about future property values during the Local Development Framework period. These assumptions take account of changes to inflation, construction, rent and land values over the same period. For each viability test presented in this paper we analysed viability at the Middle Historic Scenario. That is to say, if the housing market cycle performs to the same profile as the previous cycle, our results will hold true.
- 1.7 The assessment is based on the viability of delivering housing across a range of typical sites within the following seven value areas:
- Harpurhey and Blackley
 - Baguley and Northenden, Cheetham and Crumpsall, Moston, Wytenshawe and Airport
 - Ardwick, East Manchester, Gorton, Hulme
 - Levenshulme and Longsight, Rushholme and Moss Side
 - Withington & Burnage, Fallowfield & Whalley Range
 - Chorlton – cum – Hardy and Didsbury
 - City Centre
- 1.8 Analysis of the Strategic Housing Land Availability Assessment allowed a number of typical development types to be determined and assessed in terms of their viability in each value area of the City. Based on site size, typical densities and unit numbers the following development types/ site typologies were selected.



Unit Types	Density	Previous land use	Notional site size	Unit numbers
A Small site, townhouses or flats	50-100 dph	Residential/Brownfield	0.1 ha	5-10
B Flatted Development	100 dph	Residential/Brownfield	0.15 ha	15
C Flatted Development	200 dph	Residential/Brownfield/Conversion	1 ha	200
D Terraced Housing/Town Houses/Semi detached	40 dph	Residential/Brownfield	1.5 ha	60
E Semi/detached housing	30 dph	Residential/Brownfield	4 ha	120
F Mixed Developments (flatted/housing)	40-50 dph	Brownfield	6 ha	240-300

Figure 1 – Site Typologies in Manchester

- 1.9 Not all of the site typologies A-F will come forward in every value area. From the SHLAA call for sites data it is possible to show where the typologies are likely to be developed. The table below shows this;

Value Area	Development Typology
1	ABDEF
2	ABCDEF
3	ABCDEF
4	ABDEF
5	ABDEF
6	ABCDEF
7	ABC

Figure 2 - Development Types by Value Area

- 1.10 A residual land appraisal was carried out for each scheme type in each relevant value area. The long list of SHLAA sites were then assessed and each site within



was broadly allocated into the scheme types (A-F) above. This then allowed us to assess a viability timeline, showing when each scheme type in each value area was likely to become viable.

- 1.11 From this data it was possible to calculate the likely number of units that may be delivered up to 2027. An Excel Workbook has been provided to the Council which details all sites in each value area.
- 1.12 The following table (next page) summarises the potential yield from the SHLAA long list of capacity sites for each value area and scheme type from 2010 to 2027. The total number of units from these sources amounts to 14,717. This does not include sites which have not been categorised because of insufficient available information at Value Areas 1-4.
- 1.13 It is important to note that the potential yield will increase if the units proposed to be built in an unviable period are brought back or forward to marginally viable/ viable periods. Viability testing indicates that in all cases, when house prices rise to a sufficient level (post 2018), development is viable. The assessment was undertaken using start on site dates provided by the Council. Before 2018, some schemes proved unviable and if start on site dates were delayed, these sites become viable.
- 1.14 If the potential yield from the Strategic sites (16,119 units) is added, this results in a total potential yield of 30,836 units.



Figure 3 – Potential yield by value area and site category from 2010 to 2027

Value Area/ Site Category	Potential Yield - 2010 TO 2027
AREA 1	189
AREA 2	2,383
AREA 3	5,214
AREA 4	963
AREA 5	469
AREA 6	1,181
AREA 7 ¹	4,318
Sub-Total (Value Areas 1-7)	14,717²
Plus Strategic Site Capacity	16,119
Potential Yield from Strategic Sites and SHLAA Capacity Sites	= 30,836

¹ Whilst viability testing was carried out against industrial land value benchmark, Area 7 was also measured against an office land value benchmark (VOA Figures July 2009).

² The potential yield may be higher as units currently timetabled as likely to come forward during unviable periods could be phased to come forward during marginally viable and viable periods instead.



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SECTION 1: STRATEGIC SITES

2.0 Methodology

- 2.1 Consistent with the Affordable Housing Assessment of Viability study (AHAV) carried out by Level on behalf of Manchester City Council, this paper uses a residual land value methodology when assessing the viability of different schemes to support housing development.

Level Development Control Viability Model

- 2.2 The companion guide to PPS3, “Delivering Affordable Housing” supports the use of a viability tool such as that advocated by the Greater London Authority (GLA), or that used by the Homes and Communities Agency for the assessment of whether affordable housing schemes should be supported by Social Housing Grant. This tool is a residual land value assessment model which suggests that a site will only come forward with an affordable housing contribution where the resulting overall site value exceeds the existing or alternative use of that site. Residual land value assessment is a recognised practice within the development industry for evaluating costs and incomes associated with the development. In essence, such appraisals consider the income from a development in terms of sales or rental returns and compare this with the costs associated with developing that scheme. The amount left over, or residual, is what is left for land acquisition, i.e. the residual land value.
- 2.3 This residual value is then compared to a number of baselines to gauge the likelihood that the sum left over is sufficient to pay for the land on which it is to be developed.
- 2.4 The range of sites assessed is currently employed in a variety of uses. However, the majority of sites are located on industrial land, other than Area 7 City Centre, where office use is considered.



- 2.5 The principle which we have used is that residual land values must first exceed industrial use values in order to be brought forward for development. The Valuation Office Agency publishes data for industrial land use values. For Manchester, the most recent release³ indicates that industrial land is being traded for up to £690,000 per hectare in the City. We have therefore used this figure as the appropriate baseline⁴. We have assumed that if a site meets this value it is, in principle, viable.
- 2.6 However, this may not be enough in all cases as the landowner may require a further financial incentive to bring forward his land. We have therefore developed a methodology that assesses how much landowners have been willing to accept for their land in the past, and expressed it in terms of the ratio between Gross Development Value and Residual Land Value (GDV:RLV). That is to say how much of the revenue from a scheme can be used to pay for the land.
- 2.7 Residential land rates have risen considerably in the last 5 years to approximately 65% of GDV on small sites and 31-37% for flats and bulk land. Landowners have benefited from these rates as developers competed for scarce development land and were willing to pay the higher rates, often based on future expectations of property values.
- 2.8 However in considering the period 2001-2005, rates range from 10-20% of GDV for the same site types. The effect can be seen that in a rising and somewhat overheated market, landowner expectations rise and the price that developers are willing to pay also increases. However, in a falling and "normal" market landowner expectations fall to more "reasonable" levels.
- 2.9 We have also considered the Developer's internal rate of return. Where this is too low, it is unlikely that a scheme will be attractive to a developer or lender of finance. This test is appropriate against a traditional developer led model, whereas it may not be directly relevant to some schemes such as Council owned land and

³ Valuation Office Agency Qtr

⁴ VOA B1 Use also considered City Centre Area 7.



through PFI projects. As such, we have not relied on this measure to determine viability, but have described it as a comparator.

- 2.10 Levvel has developed a dynamic model to determine the residual land value that comprises of a toolkit to assess viability on a particular site. This is known as the Levvel Development Viability Model (DVM).
- 2.11 Robust assumptions relating to revenues and costs are required to be inputted into this model. The Affordable Housing Assessment of Viability study was carried out in Summer 2009 and as such, the assumptions used therein have been applied to this study.
- 2.12 We have also assumed certain costs relating to land remediation and contamination. The Council provided details of the level of risk of contamination on each site. From this, we have consulted an English Partnerships publication, "Best Practice Note 27 (revised February 2008): Contamination and Dereliction Remediation Costs". The note provides a cost matrix against which to compare schemes dependent on the existing contamination and proposed end use of the site. The relevant figure for each scheme is described in the results section. However, it should be noted that we have chosen the lower end of proposed ranges in a number of cases to ensure we are not over-estimating the level viability on these schemes.
- 2.13 As viability is reliant on the interaction between changing costs and revenues of housing over time, it follows that this relationship must be accounted for by testing viability against an assumption as to changing costs and revenues over time.
- 2.14 Levvel has therefore addressed this issue by applying inflation rates for cost inputs throughout the study period. For values, it is difficult to predict where the housing market may be in even 1 year's time, so long range predictions based on popular commentary are of little use. However, we have assessed value changes based on the historic performance of the housing market as described above. This gives us a view of where values may be in the future if the past housing market cycle was typical.
- 2.15 Levvel's methodology enables the effect of a range of delivery timescales to be assessed where necessary. Where the schemes assessed below have been deemed "unviable", a range of development start dates has been assessed to determine at



what point these sites may become “viable” due to housing market recovery. This provides the necessary confidence that SHLAA strategic sites will come forward over the current housing market cycle.

- 2.16 The aim is to provide a view as to whether a site can reasonably be expected to come forward over the life of the Core Strategy.

3.0 Caveats and Limitations of the Study

- 3.1 Whilst we have been provided with approximate scheme development types and phasing from the Council we have had to make a number of assumptions relating to development mix, cashflow timetable and unit values. Where refurbishment and other uses are to be developed, we have been given a gross developable area and have made assumptions as to the proportion of that site on which the new build housing element will be developed. This has implications for the alternative use value of the scheme since this is expressed on a per hectare basis.
- 3.2 Results are sensitive to changes in these assumptions. However, we have attempted to provide a balanced view of what might be expected to be delivered on each site.
- 3.3 Our assumptions are based on a view of future housing market performance which projects past house price indices into a predicted scenario. Any deviations from this assumed scenario will have implications for site viability. We recommend that should the housing market perform to a level significantly below our assumptions, further work should be carried out to assess its impact on deliverability.
- 3.4 Furthermore, no allowance has been made for the costs of any Compulsory Purchase Orders needed to assemble land for development. We have assumed that the baseline land value against which to base our assessment is the industrial land use value. However, where CPO is needed, we have not been able to factor this cost into our assessment.
- 3.5 Where stock refurbishment is to take place, we have limited our assessment to the viability of the new build development. We have then attempted to set out whether this can cross subsidise the refurbishment.



- 3.6 No account was taken of land ownership when assessing each site and in some cases sites may come forward sooner than assumed, for example, sites which are owned by Registered Social Landlords.
- 3.7 Finally, our assessment has only taken into account the revenue from housing. Where other uses can derive a land value over and above that necessary to bring forward the land, this could be used to cross subsidise market housing.

4.0 Scheme Results

- 4.1 There are 15 strategic schemes which have been assessed. These range in size from a few hundred to a few thousand units. We have set them out below by area; North, Central and East Manchester sites.

North Manchester Schemes

Collyhurst estate, Harpurhey

- 4.2 The information provided by the Council indicates that the 52.5 hectare Collyhurst Estate in Harpurhey (one of the lowest value areas in the City) is the subject of a proposed PFI scheme which will entail redeveloping and improving a failed post-war social housing estate and developing 1300 new build homes of predominantly 3 and 4 bedrooms. We have assumed that these will be developed to approximately 50 dwellings per hectare and as such will account for just short of half of the total scheme area. This equates to approximately 26 hectares and as such, the industrial land use value of the site against which we will assess viability is given as £18,000,000.
- 4.3 Indications are that 600 units will be developed to 2018 with the balance being developed before 2027. Development is assumed to begin in 2011.
- 4.4 Perhaps more importantly however, given this is predominantly Council owned land and involves a PFI scheme to improve the existing housing stock, the Developer's return must be satisfactory to progress.
- 4.5 Our appraisals indicate that if the scheme is developed in 2011, assuming our house price scenarios reflect the market, values will be too low to sustain a positive land value. Hence this site is unviable early in the Core Strategy period. However,



if development and sales occur later in the period, starting in 2014, values are likely to be sufficient to derive a significant positive land value

4.6 The following table shows the residual land value appraisal of the site if development begins in 2014.

Total revenue	215,737,092
<u>Less:</u>	
Total Costs relating to Sales	6,981,570
Build Costs	106,815,527
Building	5,340,776
Contingency	12,864,704
Enabling Works, Site Survey and Infrastructure/Contamination Remediation	9,952,805
Total Fees	0
Section 106 Contributions	36,675,306
Profit	2,364,756
Finance Charges	33,879,404
Development Period Interest	184,874,245
Subtotal - residual at end of cashflow inc acquisition costs	30,862,245
Interest charge on land	9,155,135
Gross Residual Land Value	21,707,109



Total acquisition costs	1,180,292
Residual Housing Land Value net of acquisition fees	20,526,817
Existing Industrial use value	17,940,000
Developer's Internal Rate of Return	12.53%

- 4.7 As is shown above, the proposed scheme appears to produce a residual land value which is sufficient to meet that of the alternative use value for industrial land. This suggests that should the site be purchased for its alternative use value, there will be sufficient value in the scheme to enable this development to come forward.
- 4.8 Furthermore, given that significant portions of the site are likely to be in Council ownership, a mechanism to ensure that the maximum receipt is received for the land would be to take the land receipt at a later date. The appraisal above assumes that the land value is paid on acquisition at the beginning of each phase of development. This assumes that the developer must borrow the money to finance the land purchase. This would require significant interest to be paid of the order of approximately £8m. Were the Council to contribute the land to the PFI and take a receipt downstream when the developer has received sufficient revenue from the new build housing, then the interest charges on the land finance would reduce significantly and the £8m would go toward the land value (or toward any other use such as s106, refurbishment of the social housing stock etc).
- 4.9 Perhaps more pertinently, the developer's internal rate of return is not too far from an acceptable rate. If we take 15% as an attractive return, the 12.53% is appropriate. The mechanism described above, taking a receipt downstream, could make more money available for the developer (instead of paying interest) and this would make the proposition more attractive still.
- 4.10 On balance, the Collyhurst new build development, if developed in the time frame and at the scheme mix assumed in our appraisal is at the margins of viability. The existing use value can be met, albeit not exceeded. However, if development is delayed to beyond 2014, viability improves driving additional value that can be



utilised to provide cross subsidy between the newbuild and the refurbishment, affordable housing and planning gain. Should further subsidy be available to devote toward the scheme, this will improve the position further.

- 4.11 Overall, there appears to be a sufficient margin for error to determine that this scheme can come forward in the proposed time frame providing 600 units before 2018 and 700 units between 2018 and 2027.

Moston, Harpurhey

- 4.12 This is a series of Council owned sites located across Moston and Harpurhey, each site with varying degrees of contamination. One site is classified by the Council as "high" risk, two sites as "moderate/low" risk and three as "low" risk. Hence an overall decontamination cost is assumed of £250,000 per hectare.
- 4.13 The total site area is approximately 10 hectares developing approximately 600 new build homes of 2, 3 and 4 bedrooms houses. We have therefore assumed that these will be developed to approximately 60 dwellings per hectare. The industrial land use value of the site against which we will assess viability is given as £6,900,000.
- 4.14 Indications are that 600 units will commence development in 2011 with the units completed by 2018.
- 4.15 Our appraisals indicate that the scheme is viable and will derive a significant positive land value
- 4.16 The following table shows the residual land value appraisal of the site.

Total revenue	87,101,824
<u>Less:</u>	
Total Costs relating to Sales	4,701,094
Build Costs	39,863,494
Building Contingency	3,986,349



Enabling Works, Site Survey and Infrastructure/Contamination Remediation	2,190,030
Total Fees	4,057,014
Section 106 Contributions	0
Profit	14,807,310
Finance Charges	865,755
Development Period Interest	526,572
Total Costs	70,997,619
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Subtotal - residual at end of cashflow inc acquisition costs	16,104,206
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Interest charge on land	4,518,446
Gross Residual Land Value	11,585,759
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Total acquisition costs	629,959
Residual Housing Land Value net of acquisition fees	10,955,801
Existing industrial use value	6,900,000
Developer's Internal Rate of Return	20.05%

4.17 As is shown above, the proposed scheme appears to produce a residual land value which is sufficient to meet that of the alternative use value for industrial land. This suggests that should the site be purchased, there will be sufficient value in the scheme to enable this development to bring forward 600 units before 2018.



Lower Irk Valley

- 4.18 This is a number of mainly privately owned sites in the Lower Irk Valley, forming an overall master plan project on land owned by the City Council, Network Rail and other private industries. There are likely to be land remediation flood risk alleviation and infrastructure costs associated with this land assembly project. It is currently a mixed use site with some industrial uses still operating that will need relocating.
- 4.19 Each site has varying degrees of contamination, with 2 sites being classified as "very high" and 4 sites as "high". Hence an overall decontamination cost is assumed of £600,000 per hectare.
- 4.20 The total site sites area is approximately 17.4 hectares developing 1,743 new build homes. It is anticipated that the first phase would commence 2012 and provide 700 flats by 2018. The second phase would deliver the remaining 1043 homes of 3 and 4 bedroom houses. We have therefore assumed that these will be developed to approximately 100 dwellings per hectare. The industrial land use value of the site against which we will assess viability is given as £12,000,000.
- 4.21 Our appraisals indicate that the scheme is viable and will derive a significant positive land value. However, the developer's IRR is low at 6%. The scheme still shows a positive land value should it commence a year earlier in 2011.
- 4.22 The following table shows the residual land value appraisal of the site.

Total revenue	351,821,890
<u>Less:</u>	
Total Costs relating to Sales	11,380,240
Build Costs	104,388,239
Building Contingency	15,817,592
Enabling Works, Site Survey and Infrastructure/Contamination Remediation	13,592,447
Total Fees	15,325,236



Section 106 Contributions	
Profit	59,809,721
Finance Charges	3,454,872
Development Period Interest	25,404,015
Total Costs	259,172,361
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Subtotal - residual at end of cashflow inc acquisition costs	92,649,529
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Interest charge on land	11,696,062
Gross Residual Land Value	27,165,788
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Total acquisition costs	1,477,100
Residual Housing Land Value net of acquisition fees	25,688,688
Existing industrial use value	12,000,000
Developer's Internal Rate of Return	6.06%

4.23 As is shown above, the proposed scheme appears to produce a residual land value which is sufficient to meet that of the alternative use value for industrial land. This suggests that there will be sufficient value in the scheme to enable this development to come forward.

4.24 However, the developer's rate of return is low. This could be improved if the payment schedule is appropriately structured. Should further subsidy be available to devote toward the scheme, this will improve the position further.



- 4.25 Overall, there appears to be a sufficient margin for error to determine that this scheme can bring forward 700 units before 2018 with the remaining 1043 between 2018 and 2027.

Booth Hall Hospital

- 4.26 This 9 hectare former hospital site in Charlestown is proposed to provide 300 units comprising 2, 3 and 4 bed houses. It will include the retention of some of the existing buildings.
- 4.27 We have assumed that these will be developed to approximately 60 dwellings per hectare and as such the residential developable area accounts for only 5 hectares. As such, the industrial land use value of the site against which we will assess viability is given as £3,450,000.
- 4.28 Start on site is expected in 2011 with completion by 2014.
- 4.29 Our appraisals indicate that if the scheme is developed from 2011, assuming our house price scenarios reflect the market, values will be high enough to sustain a positive unencumbered land value. Additional funding of nearly £27,000 per unit will be required to provide a 20% affordable housing requirement.
- 4.30 The following table shows the residual land value appraisal of the site if development begins in 2011.

Total revenue	42,951,803
<u>Less:</u>	
Total Costs relating to Sales	2,316,275
Build Costs	20,898,167
Building Contingency	2,089,817
Enabling Works, Site Survey and Infrastructure/Contamination Remediation	1,675,872
Total Fees	2,130,482



Section 106 Contributions	0
Profit	7,301,806
Finance Charges	460,243
Development Period Interest	445,155
Total Costs	37,317,818
Subtotal - residual at end of cashflow inc acquisition costs	5,633,984
Interest charge on land	1,238,158
Gross Residual Land Value	4,395,827
Total acquisition costs	239,017
Residual Housing Land Value net of acquisition fees	4,156,810
Existing industrial use value	3,450,000
Developer's Internal Rate of Return	27.3%

- 4.31 As is shown above, the proposed scheme appears to produce a residual land value which is sufficient to meet that of the alternative use value for industrial land. This suggests that should the site be purchased, there will be sufficient value in the scheme to enable this development to come forward.
- 4.32 Furthermore, the developer's internal rate of return is above that required as an acceptable rate.
- 4.33 Overall, there appears to be a sufficient margin for error to determine that this scheme can deliver 300 units before 2018.



Sites east of Rochdale Road

- 4.34 These sites in Harpurhey situated east of Rochdale Road will entail redeveloping and improving a failed post-war social housing estate and developing 800 net additional new build homes of 3 and 4 bedrooms. We have assumed that these will be developed to approximately 50 dwellings per hectare and as such will account for just over half of the total scheme area. This equates to approximately 16 hectares and as such, the industrial land use value of the site against which we will assess viability is given as £11,040,000.
- 4.35 Indications are that a start on site could be achieved by 2011, with 500 units being completed by 2018 and the remainder by 2027.
- 4.36 Given this is predominantly Council owned land and involves a PFI scheme to improve the existing housing stock, the Developer's return must be satisfactory to progress.
- 4.37 Our appraisals indicate that if the scheme is developed from 2011, assuming our house price scenarios reflect the market, values will be too low to sustain a positive land value. However, if grant funding is provided, the scheme becomes viable achieving a residual that exceeds the existing use value.
- 4.38 The following table shows the residual land value appraisal of the encumbered site with grant if development begins in 2011.

Total revenue (inc subsidy)	131,574,059
<u>Less:</u>	
Total Costs relating to Sales	6,448,470
Build Costs	64,144,401
Building Contingency	6,414,440
Enabling Works, Site Survey and Infrastructure/Contamination Remediation	16,000,231
Total Fees	6,021,410



Section 106 Contributions	0
Profit	18,754,995
Finance Charges	1,462,547
Development Period Interest	172,965
Total Costs	119,429,460
Subtotal - residual at end of cashflow inc acquisition costs	12,144,599
Interest charge on land	4,676,068
Gross Residual Land Value	11,303,509
Total acquisition costs	614,612
Residual Housing Land Value net of acquisition fees	19,688,898
Existing industrial use value	11,040,000
Developer's Internal Rate of Return	18.8%

4.39 Overall it appears that the scheme is sufficiently viable to deliver 500 units by 2018 and 300 units by 2027.

Blackley Village

4.40 This is a Council owned site comprising a school and nursery, which will need to be relocated. The proposed development is to provide a low density scheme of 188 mainly 3 and 4 bedroom houses and a retail element. The developable area accounts for 4 hectares as part of a 6.8 hectare site. The industrial land use value of the site against which we will assess viability is £2,760,000.



- 4.41 Indications are that the scheme will begin and be completed in the next 5 years.
- 4.42 He site is classified as “very high” risk because of previous uses including chemical and dye works. Part of the site is on a landfill site filled pre-1974.
- 4.43 Our appraisals indicate that if the scheme is developed in the next five years it will not be viable. However, if a market scheme is developed with sales values enhanced by 20%, reflecting a higher quality design and place making, the scheme delivers a positive land value of over £200,000.
- 4.44 The following table shows the residual land value appraisal of the site if development completes in the next five years.

Total revenue	24,843,552
<u>Less:</u>	
Total Costs relating to Sales	1,345,138
Build Costs	13,062,941
Building	1,306,294
Contingency	2,256,984
Enabling Works, Site Survey and Infrastructure/Contamination Remediation	1,463,692
Total Fees	0
Section 106 Contributions	4,223,404
Profit	299,346
Finance Charges	597,703
Development Period Interest	24,555,507
Total Costs	288,045
Subtotal - residual at end of cashflow inc acquisition costs	288,045



Interest charge on land	64,248
Gross Residual Land Value	223,797
Total acquisition costs	5990
Residual Housing Land Value net of acquisition fees	217,807
Existing industrial use value	2,760,000
Developer's Internal Rate of Return	33.91%

- 4.45 As is shown above, the proposed scheme appears to produce a positive residual land value, but which is below existing use value. However a strong developer IRR would suggest the Council could encourage development of the site, albeit with a low receipt for the site.
- 4.46 The appraisal above assumes that the land value is paid on acquisition at the beginning of each phase of development. This assumes that the developer must borrow the money to finance the land purchase. This would require interest to be paid. Were the Council to contribute the land and take a receipt downstream when the developer has received sufficient revenue from the new build housing, then the interest charges on the land finance would reduce, increasing the receipt for the land, which could go toward the relocation of the school and nursery.
- 4.47 Overall it appears feasible that this site could provide 188 units before 2018. If additional value was required to subsidise the relocation of the school and nursery, a later completion date beyond 2018 would be advantageous.



East Manchester Schemes

Miles Platting

- 4.48 This is a 77 hectare site on land bounded by New Allen Street/Oldham Road to the north west, Sawley Rd/Varley Street to Saxon Street to the North and north east, Bradford Rd/Ashton canal and Old Mill street to south and east, Weybridge RD/Wadeford CI/Butler street and Oakford Ave to the west.
- 4.49 The site is mainly owed by the Council and a PFI has been recently signed to provide a maximum of 1443 units, comprising 875 houses and 568 flats. Demolition of 278 units and 28 areas of commercial properties. Refurbishment of 1757 houses and apartments and erection of new commercial and community facilities and canal side public open space.
- 4.50 We have assumed that these will be developed to approximately 75 dwellings per hectare with the development being developed in two phases. This equates to just over 19 hectares deriving an industrial land use value of the site of £13,275,600. Refurbishment costs were assumed as £500/m2 with contamination costs of £200,000 per hectare.
- 4.51 Our appraisals indicate that if the scheme is developed to complete by 2027 it will be viable, in comparison with the existing use value.
- 4.52 The following table shows the residual land value appraisal of the site if development completes by 2027.

Total revenue	257,881,463
<u>Less:</u>	
Total Costs relating to Sales	14,004,096
Build Costs	121,731,707
Building Contingency	12,173,171
Enabling Works, Site Survey and Infrastructure/Contamination Remediation	6,576,162



Total Fees	11,858,858
Section 106 Contributions	0
Profit	43,839,849
Finance Charges	2,618,475
Development Period Interest	4,588,403
Total Costs	217,390,720
Subtotal - residual at end of cashflow inc acquisition costs	40,490,742
Interest charge on land	11,360,712
Gross Residual Land Value	29,130,031
Total acquisition costs	1,583,902
Residual Housing Land Value net of acquisition fees	27,546,128
Existing industrial use value	13,275,600
Developer's Internal Rate of Return	15.4%

4.53 As is shown above, the proposed scheme appears to produce a residual land value which is sufficient to meet that of the alternative use value for industrial land. Even the encumbered scheme with affordable housing is viable deriving a residual land value of £22,302,081.

4.54 The appraisal above assumes that the land value is paid on acquisition at the beginning of each phase of development. This assumes that the developer must borrow the money to finance the land purchase. This would require significant



interest to be paid of the order of approximately £11m. Were the Council to contribute the land to the PFI and take a receipt downstream when the developer has received sufficient revenue from the new build housing, then the interest charges on the land finance would reduce significantly and the £11m would go toward the land value (or toward any other use such as s106, refurbishment of the social housing stock etc).

- 4.55 The developer's internal rate of return is acceptable at 15.4% which could be improved further by accepting a receipt downstream.
- 4.56 Overall, there appears to be a sufficient margin for error to determine that this scheme can bring forward 1443 units before 2027.

Lower Medlock Valley

- 4.57 This is a 49 hectare site including open space, at New Road and Holly Street Bradford. It is assumed that there are 20 hectares of developable area, equating to an industrial land value of £13,800,000.
- 4.58 Indications are that 800 units will be developed over the next 10 years, providing 80% houses and 20% flats.
- 4.59 The site is classified as "very high" contamination risk and therefore attributes a decontamination cost of £5,000,000.
- 4.60 Our appraisals indicate that even if the scheme is developed in the next five years it is viable, deriving a very positive land value against existing use value.

Total revenue	150,913,243
<u>Less:</u>	
Total Costs relating to Sales	8,115,278
Build Costs	60,837,388
Building Contingency	6,083,739



Enabling Works, Site Survey and Infrastructure/Contamination Remediation	10,414,407
Total Fees	6,107,274
Section 106 Contributions	0
Profit	25,655,251
Finance Charges	1,384,320
Development Period Interest	1,093,388
Total Costs	119,691,045
Subtotal - residual at end of cashflow inc acquisition costs	31,222,198
Interest charge on land	5,933,321
Gross Residual Land Value	25,288,877
Total acquisition costs	1,375,045
Residual Housing Land Value net of acquisition fees	23,913,832
Existing industrial use value	13,800,000
Developer's Internal Rate of Return	14.16%

4.61 As is shown above, the proposed scheme appears to produce a residual land value which is sufficient to meet that of the alternative use value for industrial land. This suggests that there will be sufficient value in the scheme to enable 800 units to be provided before 2018



Holt Town

- 4.62 This is a 32 hectare site bounded by Ashton New Road, New Viaduct Street, Bradford Street and Curruthers Street, Bradford. It has an industrial use currently with some open space and its existing industrial use value is assumed as £22,080,000.
- 4.63 Development proposals to provide 4,348 residential units on a mixed use site with a mix of high density family units, 1 to 4 bed flats and duplexes and 2 to 5 bed town houses. It is possible a lower density scheme will be proposed at a later date, because of market conditions.
- 4.64 The site is classified as “very high” contamination risk and therefore attributes a decontamination cost of £19,200,000.
- 4.65 Our appraisals indicate the following:

Total revenue	1,055,56,246
<u>Less:</u>	
Total Costs relating to Sales	57,227,135
Build Costs	559,784,641
Building Contingency	55,978,464
Enabling Works, Site Survey and Infrastructure/Contamination Remediation	26,141,111
Total Fees	56,228,464
Section 106 Contributions	0
Profit	179,446,262
Finance Charges	12,044,227
Development Period Interest	28,753,885
Total Costs	975,604,189



Subtotal - residual at end of cashflow inc acquisition costs	79,962,057
Interest charge on land	23,100,150
Gross Residual Land Value	56,861,907
Total acquisition costs	3,091,782
Residual Housing Land Value net of acquisition fees	53,770,125
Existing industrial use value	22,080,000
Developer's Internal Rate of Return	11.13%

4.66 As is shown above, the proposed scheme appears to produce a residual land value which is sufficient to meet that of the alternative use value for industrial land and provide scope for reducing the scheme density. The appraisal shows that before 2018, 1459 units could be delivered, with the remaining 2,889 units before 2027.

Jacksons Brickworks

4.67 Jacksons Brickworks comprises a site of 19 hectares overall with a net developable area of just less than 7 hectares. The proposed mix of 500 units will be delivered on this collection of sites in Newton Heath District Centre and Jacksons Brickworks on Driscoe Lane. It is assumed a mix of 40% flats and 60% houses will be provided.

4.68 The industrial land use value of the site against which we will assess viability is given as £4,600,000.

4.69 Some of the sites are contaminated at "high" and "very high" risk and therefore decontamination costs of £3,330,000 are assumed.



4.70 Our appraisals indicate that if the scheme is developed between 2018 and 2027 it will be viable.

4.71 The following table shows the residual land value appraisal of the site.

Total revenue	117,456,002
<u>Less:</u>	
Total Costs relating to Sales	6,391,390
Build Costs	45,962,671
Building	4,596,267
Contingency	
Enabling Works, Site Survey and Infrastructure/Contamination Remediation	5,111,910
Total Fees	4,523,060
Section 106 Contributions	0
Profit	19,967,520
Finance Charges	1,011,408
Development Period Interest	2,089,992
Total Costs	89,654,219
Subtotal - residual at end of cashflow inc acquisition costs	27,801,783
Interest charge on land	7,321,648
Gross Residual Land Value	20,480,135
Total acquisition costs	1,113,577



Residual Housing Land Value net of acquisition fees	19,366,558
Existing industrial use value	4,600,000
Developer's Internal Rate of Return	13.3%

- 4.72 The proposed scheme appears to produce a residual land value which is sufficient to meet that of the alternative use value for industrial land. This there will be sufficient value in the scheme to enable 500 units to come forward before 2027.

Dreyfus Village

- 4.73 This is a former CIBA site in Ashton New Road, Openshaw. It comprises 17.7 hectares in total with a net residential developable area of 12.2 hectares, providing an existing industrial use value of £8,390,400.
- 4.74 Indications are that 1095 units will be built comprising 657 flats and 438 houses, being provided over 4 phases. The first three phases of 687 units are anticipated to complete by 2018, whilst the remaining phase of 408 units will complete post 2018.
- 4.75 The site is classified as "very high" contamination risk therefore £7,200,000 decontamination costs are attributed to the scheme.
- 4.76 Our appraisals indicate that the unencumbered scheme is viable, against existing use value.

Total revenue	168,956,617
<u>Less:</u>	
Total Costs relating to Sales	9,083,474
Build Costs	88,653,953
Building Contingency	8,865,395



Enabling Works, Site Survey and Infrastructure/Contamination Remediation	7,382,076
Total Fees	8,985,560
Section 106 Contributions	0
Profit	28,722,625
Finance Charges	1,946,681
Development Period Interest	3,029,565
Total Costs	156,669,329
Subtotal - residual at end of cashflow inc acquisition costs	12,287,287
Interest charge on land	2,398,669
Gross Residual Land Value	9,888,619
Total acquisition costs	537,679
Residual Housing Land Value net of acquisition fees	9,350,940
Existing industrial use value	8,390,000
Developer's Internal Rate of Return	17.28%

4.77 As is shown above, the proposed scheme appears to produce a residual land value which is sufficient to meet that of the alternative use value for industrial land. Hence this demonstrates that 687 units could be delivered by 2018, whilst the remaining phase of 408 units could be delivered post 2018.



West Gorton

- 4.78 This is a 56 hectare site mainly owned by the Council with an existing use of residential development, school and industrial buildings. It is bounded by Ardwick station to the North West, the east by Pottery Lane and the south by Hyde Road. There are likely to be land remediation, flood risk alleviation and infrastructure costs associated with this land assembly project. The net developable residential area is nearly 29 hectares giving an existing industrial use value of £20,000,000.
- 4.79 The site is assessed as “very high” risk by the Council, accruing decontamination costs amounting £7,500,000, taken from the English Partnership’s “Best Practice Note 27 - Contamination and Dereliction Remediation Costs”, (February 2008).
- 4.80 A total of 1100 houses is assumed, to be provided over two phases of 550 units
- 4.81 The following table shows the residual land value appraisal of the site.

Total revenue	181,145,365
<u>Less:</u>	
Total Costs relating to Sales	9,773,525
Build Costs	77,806,124
Building Contingency	7,780,612
Enabling Works, Site Survey and Infrastructure/Contamination Remediation	7,450,462
Total Fees	7,901,277
Section 106 Contributions	0
Profit	30,794,712
Finance Charges	1,718,196
Development Period Interest	2,069,791
Total Costs	145,294,700



Subtotal - residual at end of cashflow inc acquisition costs	35,850,665
Interest charge on land	5,985,481
Gross Residual Land Value	29,865,184
Total acquisition costs	1,623,875
Residual Housing Land Value net of acquisition fees	28,241,309
Existing industrial use value	20,000,000
Developer's Internal Rate of Return	22.28%

- 4.82 Our appraisals indicate that the scheme is viable, generating sufficient land value over the existing use value and hence delivering all 1100 units before 2018.

Chancellor Place, nr Ardwick

- 4.83 This site is bounded by Fairfield Street, Ashton Old road and the railway viaducts at Ardwick. It is a privately owned site of 16.5 hectares in total with a net residential developable area of 12 hectares. This mixed use site is assumed to deliver 1852 residential units, comprising 301 flats and 1551 houses.
- 4.84 The industrial land use value of the site against which we will assess viability is given as £8,280,000.
- 4.85 He Council has assessed the contamination risk of the site as "very high", therefore decontamination costs of £7,200,000 are assumed.
- 4.86 The following table shows the residual land value appraisal of the site.



Total revenue	304,108,325
<u>Less:</u>	
Total Costs relating to Sales	16,349,132
Build Costs	164,207,100
Building Contingency	16,420,710
Enabling Works, Site Survey and Infrastructure/Contamination Remediation	7,935,656
Total Fees	16,167,709
Section 106 Contributions	0
Profit	51,698,415
Finance Charges	3,540,363
Development Period Interest	2,482,127
Total Costs	278,801,213
Subtotal - residual at end of cashflow inc acquisition costs	25,307,112
Interest charge on land	4,296,068
Gross Residual Land Value	21,011,024
Total acquisition costs	1,142,443
Residual Housing Land Value net of acquisition fees	19,868,581
Existing industrial use value	8,280,000



Developer's Internal Rate of Return **25.56%**

4.87 The proposed scheme appears to produce a residual land value which is sufficient to meet that of the alternative use value for industrial land. Thus there will be sufficient value in the scheme to enable this development to bring forward 1852 units before 2018.

Central Manchester Schemes

Coverdale

4.88 Sites at Coverdale Crescent and New Bank Street, Ardwick are existing social housing estates, which are to be remodelled to provide 400 net additional residential units. It is assumed that the total site area of 17 hectares is developed to provide 400 houses. This generates an alternative industrial use value of £11,730,000.

4.89 One of the sites is contaminated at "high" risk and therefore decontamination costs of £3,000,000 are assumed.

4.90 The following table shows the residual land value appraisal of the site.

Total revenue	75,598,047
<u>Less:</u>	
Total Costs relating to Sales	4,059,034
Build Costs	31,751,375
Building Contingency	3,175,137
Enabling Works, Site Survey and Infrastructure/Contamination Remediation	3,753,395
Total Fees	3,133,323
Section 106 Contributions	0



Profit	12,851,668
Finance Charges	702,493
Development Period Interest	896,768
Total Costs	60,323,192
<hr/>	
Subtotal - residual at end of cashflow inc acquisition costs	15,274,855
<hr/>	
Interest charge on land	2,492,549
<hr/>	
Gross Residual Land Value	12,782,305
<hr/>	
Total acquisition costs	695,019
Residual Housing Land Value net of acquisition fees	12,087,286
Existing industrial use value	11,730,000
Developer's Internal Rate of Return	22.78%

4.91 The proposed scheme appears to produce a residual land value which is sufficient to meet that of the alternative use value for industrial land. Thus there will be sufficient value in the scheme to enable this development to bring 400 units before 2018.



Brunswick Estate, Ardwick

- 4.92 The site at Brunswick is an existing social housing estate which is to be remodelled to provide an additional 350 net additional dwellings. An assumed mix of one third houses and two thirds flats has been assessed.
- 4.93 Insufficient information is available but it has been assumed that the net residential area is approximately 4.4 hectares, delivering an alternative use value of £3,000,000.
- 4.94 The site is contaminated and categorised as "high" by the Council, therefore decontamination costs of £1,500,000 are assumed.
- 4.95 Our appraisals have assessed whether the site could be delivered before 2018.
- 4.96 The following table shows the residual land value appraisal of the site.

Total revenue	56,590,228
<u>Less:</u>	
Total Costs relating to Sales	3,044,279
Build Costs	24,962,458
Building Contingency	2,496,246
Enabling Works, Site Survey and Infrastructure/Contamination Remediation	1,876,697
Total Fees	2,469,205
Section 106 Contributions	0
Profit	9,620,338
Finance Charges	543,581
Development Period Interest	902,993
Total Costs	45,915,797



Subtotal - residual at end of cashflow inc acquisition costs	10,674,428
Interest charge on land	1,782,159
Gross Residual Land Value	8,892,269
Total acquisition costs	483,504
Residual Housing Land Value net of acquisition fees	8,408,765
Existing industrial use value	3,000,000
Developer's Internal Rate of Return	21.72%

- 4.97 The proposed scheme appears to produce a residual land value which is sufficient to meet that of the alternative use value for industrial land. Thus there will be sufficient value in the scheme to enable this development to bring forward 350 units before 2018.



SECTION 2 – SHLAA CAPACITY SITES

5.0 Methodology

- 5.1 This aim of this paper is to establish the potential viable supply of housing units to 2027. The methodology for the analysis of SHLAA sites is based on the results of the Affordable Housing Viability Assessment which assessed developments at seven value point areas and seven scheme types across the City.
- 5.2 As part of the brief Levvel was asked to analyse SHLAA data relating to site viability and draw conclusions as to the viability of the identified land supply across the City. This paper sets out the number of units which may be viable in each Value Area and gives total figures for the number of units that could conceivably come forward up to the agreed study period on all SHLAA capacity sites.
- 5.3 The methodology applied to the SHLAA study is consistent with the earlier Affordable Housing Assessment carried out by Levvel. Our assessment is based on the viability of delivering affordable housing across a range of typical sites within the following seven value areas:
1. Harpurhey and Blackley
 2. Baguley and Northenden, Cheetham and Crumpsall, Moston, Wytenshawe and Airport
 3. Ardwick, East Manchester, Gorton, Hulme
 4. Levenshulme and Longsight, Rushholme and Moss Side
 5. Withington & Burnage, Fallowfield & Whalley Range
 6. Chorlton – cum – Hardy and Didsbury
 7. City Centre
- 5.4 Analysis of the Strategic Housing Land Availability Assessment allowed a number of typical development types to be determined and assessed in terms of their viability in each value area of the City. Based on site size, typical densities and unit numbers the following development types/ site typologies were selected:



Unit Types	Density	Previous land use	Notional site size	Unit numbers
A Small site, townhouses or flats	50-100 dph	Residential/Brownfield	0.1 ha	5-10
B Flatted Development	100 dph	Residential/Brownfield	0.15 ha	15
C Flatted Development	200 dph	Residential/Brownfield/Conversion	1 ha	200
D Terraced Housing/Town Houses/Semi detached	40 dph	Residential/Brownfield	1.5 ha	60
E Semi/detached housing	30 dph	Residential/Brownfield	4 ha	120
F Mixed Developments (flatted/housing)	40-50 dph	Brownfield	6 ha	240-300

Site Typologies in Manchester

- 5.5 Each SHLAA capacity site was broadly categorised into the scheme typology above and sorted by value area.
- 5.6 Having categorised each SHLAA capacity site the next step was to illustrate the viability of each site over time. From the data provided by the Council, which detailed assumed delivery from each site by year, we have drawn conclusions as to the likely viability of the site were development started in each year.
- 5.7 As the Affordable Housing Assessment carried out by Levvel had already tracked the viability of each scheme type in the seven value areas over time it was possible to calculate the likely viability of each site. As development has proven to be unviable in some years of the development period, any sites which were indicated to begin in these years were discounted.
- 5.8 The presentation of our results is done in a simple fashion using colour blocks denoting “viable” (green), “marginal” (amber) and “non-viable” (red) positions. These tables were then used to comment on viability from 2010 to 2027. For example;

Address	Site Area (Ha)	Dwellings/Ha	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
The Crescent	0.14	40	6													
Hall, Chapel Street	0.091	50	5												5	
171-5 Slade Lane	0.086	65	6											6		
Birchfields	0.082	65	5													5
Land Adjacent to Arcadia, Yew Tree Avenue	0.228	50	11									11				



- 5.9 The definition of viability was where the residual land value of a scheme type exceeded the industrial land use value of that said scheme (taken to be £690,000 per hectare taken from Valuation Office Agency data, see main affordable housing viability study methodology) by more than 10%. Marginal Viability was taken as being a scheme which derived a residual land value of 90%-110% of the industrial land use value, and a non-viable position was taken as being under 90% of the industrial use value. We have assumed that marginally viable sites count towards the viable total of units in our tables.
- 5.10 We have presented the results based on the likely viability of schemes if no contamination costs are taken into account. For reference we have also considered contamination costs of £400,000 per hectare. It was found that contamination costs did have an impact at Value Areas 1-4 and some marginally viable sites may become unviable. However, at Value Areas 5-7 all development proved viable, regardless of contamination costs, meaning that the number of units delivered would remain the same on contaminated and uncontaminated sites.

6.0 Caveats and Limitations of the Study

- 6.1 This is a study of capacity sites only. It does not include sites with planning permission or that are under construction. A number of the SHLAA sites did not fit into the pre-defined site types. As a result, a more flexible approach was required with broad densities and unit numbers being used to define scheme types. For example, some sites fitted the site size category of Unit Type B, but densities were below 100 dph. In these circumstances the criteria for selection were widened. It is probable that at lower densities, these sites may be less viable.
- 6.2 SHLAA sites of below 5 units have not been considered, nor have a number of sites where there is insufficient data on density, notional site size and unit numbers. However, all uncategorised sites have been included in the delivery data table for value areas 5, 6 and 7. Given that all categorised sites tested proved viable, it is likely that the uncategorised sites would also prove deliverable in these areas. Uncategorised sites have not been included in the data table for value areas 1-4 and as such are separate to the overall delivery figures. However, these are reported on in the conclusion to this paper.
- 6.3 As a number of strategic sites studied in the first part of this document are included in the SHLAA, these have been removed to avoid double counting.



- 6.4 The measure of viability is limited as it is reliant on residual values exceeding industrial use values. However, the IRR (Internal Rate of Return), uplifts in land value and the proportion of RLV (Residual Land Value) to GDV (Gross Development Value) may also need to be taken into account to ensure viability.
- 6.5 Assumptions needed to be made in relation to the definition of marginal viability. For the purposes of this study, marginal schemes are those which achieve residual land values within 10% of the industrial use value of £690,000 per hectare. This is an arbitrary figure and is designed to indicate where sites reach a land value in the region of the industrial use value.⁵
- 6.6 In Chapter 7 the charts show the viability of uncontaminated sites and the tables show the potential unit yield on uncontaminated land. Certain areas have a number of sites which are contaminated to some degree. This may result in some marginally viable schemes (in amber) becoming unviable (red).
- 6.7 Our methodology has assumed that developments planned in unviable periods will not come forward. The potential yield may be much higher as the phasing of these schemes could be altered to ensure that they come forward during marginally viable and viable periods.

7.0 Scheme Results

Value Area 1 – Harpurhey and Blackley

- 7.1 Value Area 1 proved to be the least viable of the seven locations tested. Generally, development was unviable throughout the early and middle years of the tested period. However, delivery could be maintained across each scheme type studied by commencing development later in the study period when sites become deliverable, meaning that viability testing has classified them marginally viable to viable.

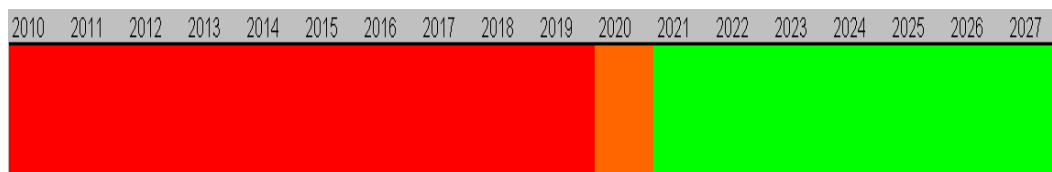
⁵ Area 7 City centre sites were also compared against a benchmark of VOA July 2009 B1 Use land values.



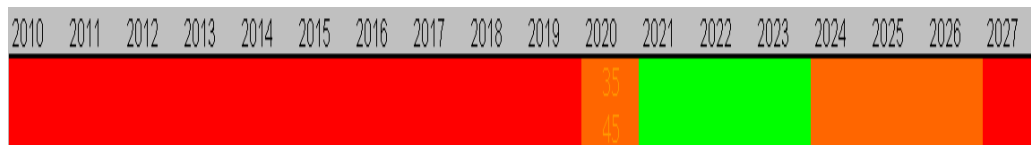
7.2 Scheme Type A - When comparing residential land values to industrial values, development is unviable throughout the period 2010 to 2022 on uncontaminated land. Sites may be deliverable from 2022 resulting in a yield of 18 units.



7.3 values in Value Area 1, development is unviable from 2010 to 2020 on uncontaminated land. Development may become deliverable from 2020 to 2027 when sites have the capacity to deliver 14 units.



7.4 Scheme Type D – This scheme type may also be deliverable on uncontaminated land from 2020 resulting in a potential yield of 80 units.



7.5 Scheme Type E – From 2010 to 2018 development is unviable on uncontaminated land. Looking at the SHLAA data, this Scheme Type has the capacity to provide 77 units from 2018 to 2027.





- 7.6 Contaminated land will push residual values down to such an extent as to make all development unviable from 2010 to 2027 on scheme types A and B. However, development proved marginally viable to viable from 2020 to 2027 on Scheme Type B and post 2021 on Scheme Type D sites.
- 7.7 There are in total 14 uncategorised sites in this value area. According to the SHLAA they have combined the potential to deliver 42 units.
- 7.8 The following table summarises the potential yield of units in Value Area 1 on uncontaminated land:

Value Area 1	Total 2010-2027
Scheme Type A	18
Scheme Type B	14
Scheme Type D	80
Scheme Type E	77
Total Delivery	189

Figure 3: Value Area 1 – Potential unit yield on uncontaminated land – 2010 to 2027

Value Area 2 - Baguley and Northenden, Cheetham and Crumpsall, Moston, Wytenshawe and Airport

- 7.9 All scheme types tested at Value Area 2, with the exception of Scheme Type A, proved marginally viable to viable on uncontaminated land from 2016 onwards.
- 7.10 Scheme Type A – Viability testing of capacity SHLAA sites has indicated that on uncontaminated land this scheme type is marginally viable from 2010 to 2012 and from 2018 to 2019. The phasing of the SHLAA indicates that no units are scheduled to come forward during these marginally viable periods. All development





is unviable from 2012 to 2018. However, from 2018 to 2027 schemes become deliverable, and according to the SHLAA there is a potential yield of 194 units during this period.

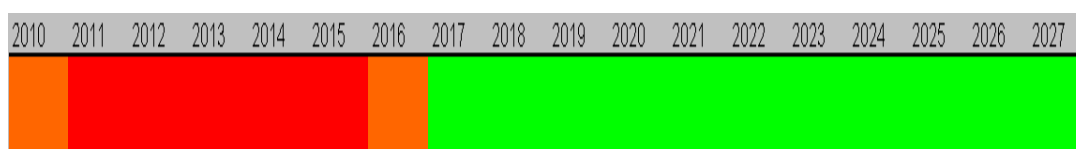
- 7.11 Scheme Type B – Uncontaminated schemes are viable to marginally viable for the period 2010 to 2012. However, SHLAA data indicates that no sites are due to start during this time. From 2012 to 2015 development is unviable. Sites become deliverable again from 2015 to 2027 resulting in a potential yield of 637 units.



- 7.12 Scheme Type C – Development is viable on uncontaminated sites from 2010 to 2027 and based on SHLAA data there is a potential yield of 154 units.



- 7.13 Scheme Type D – Development is unviable on uncontaminated land from 2011 to 2016. Although sites are marginally viable from 2010 to 2011 and 2016 to 2017, SHLAA data indicates that no units will be delivered, regardless of viability. From 2017 onwards, sites become viable with a potential yield of 40 units.





7.14 Scheme Type E – Uncontaminated sites tested at this scheme type were viable to marginally viable for the periods 2010-2027 resulting in a yield of 964 units.



7.15 Scheme Type F – Again all uncontaminated sites tested proved deliverable up to 2027 and according to SHLAA data, this may result in a yield of 394 units.



7.16 Viability testing of each scheme with contamination costs indicates that Scheme Types B, E and F will not become deliverable (marginally viable to viable) until 2017. Scheme types A, C and D will not be deliverable until 2020, 2013 and 2018 respectively.

7.17 There were 22 sites which could not be categorised at Value Area 2. In total these sites have the potential to deliver 70 units.

7.18 The following table summarises the potential yield of units in Value Area 2 on uncontaminated land:

Value Area 2	2010-2027
Scheme Type A	194
Scheme Type B	637
Scheme Type C	154
Scheme Type D	40

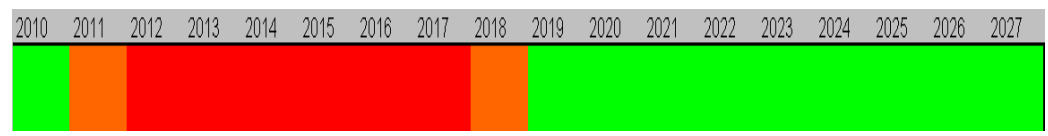


Scheme Type E	964
Scheme Type F	394
Total	=2,383

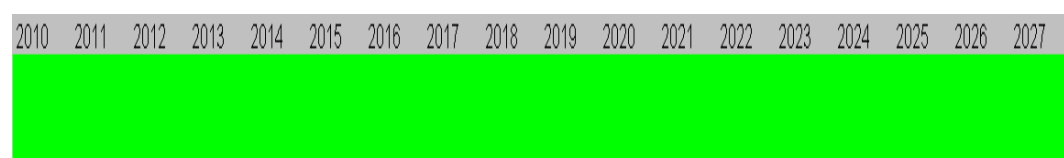
Value Area 2 – Potential unit yield on uncontaminated land – 2010 to 2027.

Value Area 3 - Ardwick, East Manchester, Gorton, Hulme

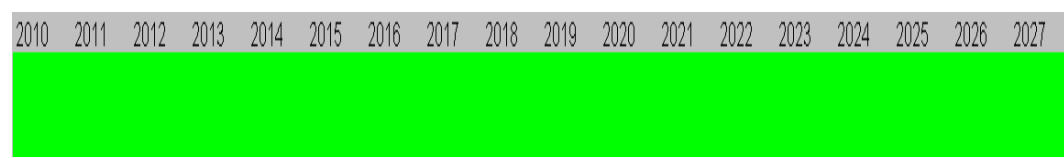
7.19 Scheme Type A – Although development is deliverable from 2010 to 2012 on uncontaminated land, there are no SHLAA sites which will be developed during this period. Development is unviable from 2012 to 2018. However, from 2018 to 2019 development will be marginally viable and from 2019 onwards viability will be achieved resulting in a potential yield of 342 units.



7.20 Scheme Type B – Viability testing has indicated that development is viable throughout the period 2010 to 2027. An analysis of the number of SHLAA sites coming forward suggests a potential yield of 1,247 units on uncontaminated sites.



7.21 Scheme Type C – Again development is viable throughout the study period producing a yield of 630 units.





7.22 Scheme Type D – All development is unviable from 2011 to 2016. Although sites are marginally viable from 2010 to 2011 and 2016 to 2017, SHLAA data indicates that no units will come forward during this time. From 2017 onwards sites become viable and uncontaminated sites will yield 848 units.



7.23 Scheme Type E – Development is viable throughout the study period resulting in a potential yield of 836 units.



7.24 Scheme Type F – The results of testing this scheme type indicated that development is marginally viable on uncontaminated sites from 2010 to 2015 and viable for the remainder of the development period to 2027. On this basis a yield of 1,311 units may be realised.





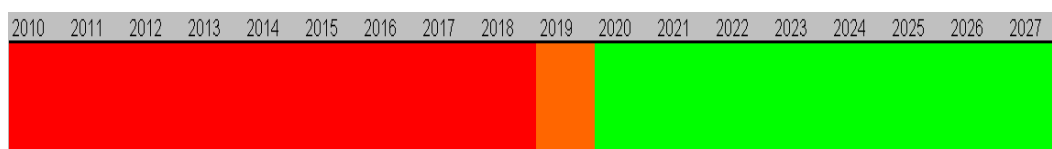
- 7.25 Viability testing on contaminated sites indicated that Scheme Types B, C and E all proved marginally viable to viable from 2010 to 2027. However, Scheme Types A, D and F may not become deliverable until after 2016.
- 7.26 In total, there were 19 uncategorised sites which according to the SHLAA have the potential to deliver 55 units.
- 7.27 The following tables summarises the potential yield of units in Value Area 3 on uncontaminated land:

Value Area 3	2010-2027
Scheme Type A	342
Scheme Type B	1,247
Scheme Type C	630
Scheme Type D	848
Scheme Type E	836
Scheme Type F	1,311
Total	5,214

Value Area 3 – Potential unit yield on uncontaminated land – 2010 to 2027

Value Area 4 - Levenshulme and Longsight, Rushholme and Moss Side

- 7.28 All Scheme Types proved to be either marginally viable or viable from 2010 to 2027 apart from Scheme Type A.
- 7.29 Scheme Type A - Viability testing has indicated that development of this Scheme Type will be extremely difficult from 2010 to 2019. Sites proved marginally viable from 2019 to 2020 during which time the SHLAA indicates that 11 units may come forward. From 2020 onwards, development becomes viable resulting in a potential yield of 75 units.



7.30 Scheme Type B - This Scheme Type may yield 532 units based on viability testing which indicates that sites will be viable from 2010 to 2027.



7.31 Scheme Type D – Development is viable throughout, apart from a brief period (2012-2014) when sites become marginally viable. In total this scheme type may yield 125 units.



7.32 Scheme Type F: Uncontaminated sites are viable throughout the development period. As a result a yield of 220 units may be achievable up to 2027.



7.33 On contaminated land, sites are viable from 2010 to 2027 at Scheme Types B and F. However, sites will not become deliverable at scheme types A, D and E until after 2020, 2016 and 2015 respectively.



7.34 In total, there were 11 uncategorised sites which according to the SHLAA have the potential to deliver 26 units.

7.35 The following tables summarises the potential yield of units in Value Area 4 on uncontaminated land:

Value Area 4	2010-2027
Scheme Type A	86
Scheme Type B	532
Scheme Type D	125
Scheme Type F	220
Total	=963

Value Area 4 –Potential unit yield on uncontaminated land – 2010 to 2027.

Value Area 5 - Withington & Burnage, Fallowfield & Whalley Range

All sites studied in Value Area five proved viable and combined have the potential to yield 469 units. Viability testing also indicates that sites will come forward, regardless of contamination costs. Uncategorised sites have also been taken into account.

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
[Redacted content]																	



Value Area 5	2010-2027
Total	=469

Value Area 5 – Potential unit yield on uncontaminated land – 2010 to 2027.

Value Area 6 - Chorlton – cum – Hardy and Didsbury

- 7.36 Scheme Type: Again viability has been achieved across all of the Scheme Types studied recognising that this is a relatively high value area. Even taking into account contamination costs of £400,000 per hectare, all developments are viable from 2010 to 2027. Uncategorised sites have also been included.

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
[Redacted content]																	

- 7.37 The following table refers to the potential yield that may arise on uncontaminated sites:

Value Area 6	2010-2027
Scheme Type A	66
Scheme Type B	166
Scheme Type C	340
Scheme Type D	201



Scheme Type F	388
Uncategorised Sites	20
Total	= 1,181

Value Area 6 – Potential yield on uncontaminated land – 2010 to 2027.

Value Area 7 - City Centre

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027

7.38 Relatively high city centre open market values ensured that all schemes tested were viable against the industrial land value benchmark and VOA July 2009 B1 Land Use values throughout the period 2010 to 2027. Scheme types and uncategorised sites may produce a total yield of 4,318 units. Contamination costs did not pose a barrier to viability.

7.39 The following table summarises the potential yield of units in Value Area 7:

Value Area 7	2010-2027
Scheme Type A	10
Scheme Type C	935
Uncategorised Sites	3373
Total	=4,318

Value Area 7 – Potential yield on uncontaminated land – 2010 to 2027

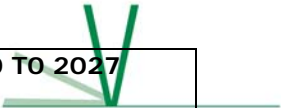


Overall Results

- 7.40 The results of the affordable housing viability study allowed for an in-depth analysis of the SHLAA capacity sites meaning that the number of viable sites could be assessed. Each site was divided into a number of value areas and scheme types. From this data it was possible to calculate the likely number of units that may be delivered up to 2027.
- 7.41 The data does not include sites which have not been categorised because of insufficient information or those sites below 5 units at Value Areas 1-4. The number of units from these sources amounts to 193 units.

	Number of Uncategorised Sites	Total Number of Units
Value Area 1	14	42
Value Area 2	22	70
Value Area 3	19	55
Value Area 4	11	26
Total =	66	193

- 7.42 The results table on the next page illustrates that 14,717 units are likely to come forward based on all SHLAA sites tested as uncontaminated. If the potential yield from the Strategic sites is included (16,119 units), this results in a total potential yield of 30,836 unit.



Value Area/ Site Category	Potential Yield - 2010 TO 2027
AREA 1	189
AREA 2	2,383
AREA 3	5,214
AREA 4	963
AREA 5	469
AREA 6	1,181
AREA 7 ⁶	4,318
Sub-Total (SHLAA Capacity Sites, Value Areas 1-7)	14,717⁷
Plus Strategic Sites (Potential Capacity Identified in Part 1)	16,119
Potential Yield from Strategic Sites and SHLAA Capacity Sites	30,836

⁶ Whilst Viability testing was carried out against industrial land value benchmark, Area 7 was also measured against an office land value benchmark (VOA Figures July 2009).

⁷ The potential yield is likely to be higher as units currently timetabled as likely to come forward during unviable periods could be phased to come forward during marginally viable and viable periods instead.

