## WHITELEAF

 Consulting
# Response to Stroud District Council Local Plan Viability Assessment - 2022 Refresh 

## On behalf of: Taylor Wimpey

$21{ }^{\text {ST }}$ October 2022

Whiteleaf Consulting Limited

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# Submission in relation to 2022 Refresh of the Local Plan Viability Assessment 

## 1. Background

Whiteleaf Consulting Limited (WCL) has been instructed by Taylor Wimpey to provide a response to the Stroud District Council "Local Plan Viability Assessment - 2022 Refresh", dated August 2022, carried out by HDH Planning \& Development. We thank Stroud District Council (SDC) on behalf of Taylor Wimpey for the opportunity to comment on the assessment refresh.

Taylor Wimpey has just the one land interest in the Stroud District, being the site identified within the Local Plan Viability Assessment (LPVA) as "G2 Whaddon" ("Whaddon") and as such the comments provided are only on matters that have a direct impact on or may influence that interest.

## 2. Compliance

This response and associated viability modelling, conforms with the Royal Institution of Chartered Surveyors (RICS) Professional Standards and Guidance on Financial Viability in Planning: Conduct and Reporting (1st edition) issued in May 2019 and with the RICS Assessing Viability in Planning under the National Planning Policy Framework 2019 for England (1st edition) published in March 2021.

## 3. Introduction

Given the short period available for submission of this response, there is not enough time to carry out any substantive new investigations or research. Consequently, we have accepted many of the assumptions in the HDH report, but we are able to provide our views on most assumptions and the likely impact on viability of those that would change the main conclusions.

We note that since the previous assessment, HDH have made the assumption of 3,000 units, an increase of 500 units. We note that the land area has increased commensurately from 120.19 gross ha to 130.69 ha and the overall density remains constant at 32 dwellings per net developable hectare. WCL's VA is based on 3,000 units in order to compare like with like.

In order to respond to the council we have commented broadly in the order adopted by Section 12 (Findings and Recommendations) of the HDH report, along with associated viability modelling in respect of G2 Whaddon in Appendix 12.

## 4.Key assumptions and comments thereon

### 4.1 Private Residential Value

HDH's report alludes to the strong recent increase in values experienced across the market since their previous VA. HDH note that their market price assumptions previously represented September 2020 values and Whaddon was priced at $£ 3,000 / \mathrm{m} 2$. An increase to $£ 3,450 / \mathrm{m} 2$ is $15 \%$, which reflects the Land Registry average house price increase from September 2020 to May 2022, according to HDH. HDH notes that newbuild prices have increased by over $32 \%$ over the same period.

We note HDH have carried out a desktop data-based approach based on regional geographies and Land Registry data.

It is also fair to say that house price increases since COVID-19 and recent interest rate movements have widened the range of confidence associated with projected values. Our testing of financial modelling adopts HDH's average private revenue of $£ 3,450 / \mathrm{m} 2$ as, from our initial search of data this appears to be justifiable.

### 4.2 Affordable revenues

Again, the values of $£ 1,900 / \mathrm{m} 2$ for Affordable Rent ( $55 \%$ of OMV) and Shared Ownership at $70 \%$ OMV would ideally be checked by an expert or local market evidence, were time available. WCL note that the values have been derived from conversations with Housing Associations and other market participants resulting in a range of outcomes which we consider to be a satisfactory rule of thumb. We note however, that Shared Ownership values will depend on the cost of the share not owned (the rented element). We also note the possible consequences on revenues of current political/economic uncertainties should not be ignored, but would be hard to quantify at this stage.

### 4.3 Sales Agent \& Legal Fees

HDH reflect $3.5 \%$ sales agent and legal fees across both market sale (private) and affordable housing. We would normally expect a lower fee for the sale of units to an affordable provider on the basis is it a single transaction closer to a commercial sale whereby the agent receives $0.5 \%$ to $1.0 \%$ for the sale.

WCL Recommendation: 3.5\% for private, $1.5 \%$ for affordable

### 4.4 Benchmark Land Value (BLV)

At $£ 375 \mathrm{k}$ per gross ha ( $£ 152 \mathrm{k}$ per gross acre), HDH appear to have adopted a reasonable BLV for Whaddon which, in our recent experience, is marginally on the high side of where most assessments or other low (EU) value land, it is in our experience, more typically treated as a multiplier only (e.g., $10 x, 15 x$ ) rather than EUV (in this case $£ 25 \mathrm{k}$ pgha) plus the multiplier result. Consequently, we would suggest the BLV should more typically be around the $£ 350 \mathrm{k}$ pgha.

### 4.5 Build costs

WCL are pleased that HDH have agreed with our recommendations to adopt Median BCIS costs, although we more often end up having to agree to the midpoint between Median and Lower Quartile in planning application VAs. HDH's report notes the concern about the use of lower quartile costs on Strategic Sites, as strategic sites are sometimes built out by multiple developers, therefore economies of scale are not always achieved. We do note the BCIS median build cost reported by HDH as at June 2022 has reduced slightly to September 2022, thereby reducing the total development cost. We represent the September 2022 figure of $£ 1,420 / \mathrm{m} 2$.

We also ask HDH to provide an explanation as to why the BCIS Median build cost as at July 2022 reflects $£ 1,492 / \mathrm{m} 2$ in their Base Appraisal (Appendix 12 - HDH report) as opposed to $£ 1,429 / \mathrm{m} 2$ as referenced in their report and as verified by BCIS.

In addition to the above, we also draw attention to the BCIS geographical index for Gloucestershire which reflects 104. WCL have used this factor reflecting the same assumption as HDH, however, it is significant to note that the site adjoins a suburb of Gloucester. Gloucestershire's figure is higher due to the weighting of the Cotswolds, Stroud and Cheltenham which inflate the average for the county. The BCIS index for the urban area of Gloucester is 98 , resulting in a BCIS Median of $£ 1,340 / \mathrm{m} 2$ (see Appendix 4 ) and equates to a $£ 22.2 \mathrm{~m}$ reduction in BCIS hard build costs.

WCL Recommendation: Update to September 2022 BCIS Median. Note locational factor.

### 4.6 Externals

A key issue for us is that HDH's allowance for externals on base BCIS now appears high at $15 \%$. From our recent VA experience we would now suggest somewhere in the range $10 \%-12 \%$ would be more appropriate, as this is the range within which most of our recent VAs have been agreed, with most recently falling around the $10 \%$ mark. HDH offer no evidence to support their figure of $15 \%$, simply determining a range from $5 \%$ for flatted schemes to $15 \%$ for larger greenfield schemes.

WCL Recommendation: Adopt 10\%

### 4.7 Future Homes, Building Regulations \& Zero Carbon

HDH note (12.66) that SDC is proceeding with Carbon Reduction as per Policy ES1 and that the cost of moving on from the current situation to Zero Carbon adds about 9\% to the cost of construction. They denote a range of $7-11 \%$ according to the Centre for Sustainable Energy - Cost of Carbon Reduction in New Buildings (8.77). We note this is a large item and could require some policy flexibility if we head into a potential recessionary economic environment. BCIS Median costs as at September 2022 reflect a policy compliant cost of $£ 12.4 \mathrm{k}$ per unit.

We also note that HDH $(7.3,7.4)$ discuss the effect of the Future Homes Standard referencing the 2019 Consultation to Part L (Conservation of Fuel \& Power) and Part F (Ventilation) of Building Regulations for new homes. They index MHCLG’s consultation estimate of $£ 3,134 /$ dwelling in this report by and reflect this as a $3.2 \%$ of BCIS Estate Housing. Given Future Homes is seen as a stepping stone to on the pathway to Zero Carbon homes, we assume the related Building Regulation costs for Future Homes are included within the 9\% Zero Carbon cost. However, this is not explicating detailed by HDH.

We note that HDH separately detail "Accessible \& Adaptable" (Building regulations Part M) and also Biodiversity Net Gain in their base appraisal.

### 4.8 Total Infrastructure Costs \& Abormals (S106 \& CIL)

HDH's "Base Model" (Appendix 12) breaks down these costs by CIL, S106 and Abnormals which totals a figure within rounding tolerance equivalent to their Policy Costs (Scenario A) of $£ 57.0 \mathrm{~m}$. HDH note that CIL is not applicable to Strategic Sites, so the disaggregation of the total to show an amount for CIL in their model is ambiguous. We note that the source for HDH's Infrastructure costs in June 2020 are Arup and these costs total $£ 56.4 \mathrm{~m}$, which we assume are the Policy Costs (Scenario A), albeit we note they do not reconcile exactly. We note that the Infrastructure Delivery Plan (IDP) for August 2022 by Arup shows these cost are reduced to $£ 42 \mathrm{~m}$ (excluding substation costs). We therefore expect this total figure to reduce in line with Arup's updated IDP assessment.

WCL Recommendation: Adopt August 2022 IDP $£ 42 \mathrm{~m}$

### 4.9 Contingencies

HDH have set the contingency rate at $5 \%$ on base build cost (BCIS median) including zero carbon, build cost, and bio diversity costs, which we consider excessive when using BCIS Median level data. We most typically end up agreeing a zero contingency where Median costs are accepted, however, to ensure risk here is kept to a minimum, we have adopted a $2.5 \%$ contingency on Median BCIS base build costs.

We note no contingency appears to be currently applied to infrastructure, abnormals and S106 and reserve further comment based on clarification of these costs.

WCL Recommendation: Adopt 2.5\% on Median BCIS

### 4.10 Professional Fees

Our most recent experience of fees allowances within VAs is that they are typically agreed in the range $6.5 \%-7.5 \%$. We would expect some economies of scale in this respect given a 3,000 unit scheme.

WCL Recommendation: 7.0\% of Build costs including infrastructure, externals.

### 4.11 Finance Costs

Interest costs may need reviewing in light of the current economic situation. We accept that a range of $6 \%$ to $6.5 \%$ is a typical assumption, however, our experience shows a precedent for $6.0 \%$ being agreed in viability assessments.

HDH seem to assume a financeable land cost of $£ 3.9 \mathrm{~m}$ as opposed to the BLV of $£ 52 \mathrm{~m}$ in their appraisal. We request more detail on their calculation methodology and find the supporting statements in their report inadequate in explaining their $£ 23 m$ interest cost. The variance may be due to timing of costs and sales, but as such we reserve the right to review once HDH have had a chance to check and confirm their calculations and no error has been made.

WCL Recommendation: Request review of HDH assumptions. Reflect 6.0\% interest rate.

### 4.12 Developer Margin

The guidance range is $15 \%-20 \%$ and we contend that larger strategic sites, running over long periods and with high potential costs and risks should command a higher profit margin. We note that HDH have used $17.5 \%$ for both market and affordable housing and as a result the combined figure of $17.5 \%$ is acceptable for planning viability purposes.

### 4.13 Sales Rate

HDH have assumed a stabilised sales rate of 200 units per annum. Sales rates effect the overall interest cost. A stabilised rate of 200 units per year in sequence equates to a 15 year sales period. We consider this acceptable.

### 4.14 Land Acquisition Costs \& Stamp Duty

As noted in para 4.11 above (Finance Costs), HDH’s appraisal appears to assume a $£ 3.9 \mathrm{~m}$ land purchase, their RLV as opposed to the BLV. As a result their $1.5 \%$ land acquisition fee is $£ 58 \mathrm{k}$. They also have a zero entry for stamp duty.

WCL concur that a 1.5\% land acquisition fee (agent and legal fees) is reasonable. However, using the BLV this reflects an acquisition fee of $£ 735 \mathrm{k}$ and stamp duty cost of $£ 2.4 \mathrm{~m}$.

WLC Recommendation: We request HDH to review and confirm their calculation.

### 5.0 WCL Base Viability Assessment

In comparison to HDH's base model and as detailed above we recommend the following adjustments.

- BCIS Median updated to September 2022 value $£ 1,420 / m 2$
- Site Externals reduced to 10\%
- Contingency (on base build) reduced to $2.5 \%$
- Total Infrastructure Costs \& Abnormals reflect the latest Infrastructure Delivery Plan (IDP) for August 2022 of $\mathrm{c} £ 42 \mathrm{~m}$
- Professional Fees reduced to 7.0\%
- Affordable Housing Sale Fee reduced to 1.5\%
- Finance rate reduced to 6.0\%

Based on the above, WCL’s Base Case appraisal produces an out-turn value of $£ 77.1 \mathrm{~m}$ and therefore achieves viability against a BLV of $£ 49.0 \mathrm{~m}$, a surplus of $£ 28.0 \mathrm{~m}$. This model is shown in Appendix 1.

We have also carried out sensitivity testing to ensure that the viability 'comfort factor' (based upon the high level information available at this time, and accepting certain HDH assumptions) is reasonable. These tests are as follows and are included below and in Appendix $\mathbf{3}$ (Upside Model) and Appendix 4 (Downside Model) along with further sensitivity analysis in Appendix 5

### 6.0 Sensitivity Analysis

It is important to understand and quantify the movement key variables can have on the viability assessment. Below we focus on the key variables in the VA and illustrate those in which a small movement can have a large impact on the outcome.

### 6.1 Build Cost

We noted above the central assumption of using the Median of BCIS. Below we show the effect on Hard Build cost and also the Total Development Cost (TDC) i.e. including all associated costs such as externals, zero carbon, fees, contingency, infrastructure and finance. It shows the impact of adjusting HDH's BCIS Median from their appraisal value of $£ 1,492 / \mathrm{m} 2$ to what we understand to be the correct July 2022 BCIS value of $£ 1429 / m 2$. Updating from July 2022 to September 2022 values reduces the hard build cost by $£ 20.1 \mathrm{~m}$ and the TDC by $£ 31.6 \mathrm{~m}$ versus HDH’s based model. If we were to use the average of the BCIS median and lower quartile, this further reduces the TDC by $£ 33.6 \mathrm{~m}$.

|  | BCISLQ | Average <br> Median and LQ | BCIS Median | BCIS Median <br> July 22 |  |
| ---: | :---: | :---: | :---: | :---: | :---: |
| Af2 | 117.0 | 124.4 | 131.9 | 132.8 | BCIS Median <br> July 22 (HDH) |
| $/ \mathrm{m} 2$ | 1259.0 | 1339.5 | 1420.0 | 1429.0 | 1492.3 |
| Hard Build Cost $£ \mathrm{~m}$ | 349.3 | 371.6 | 394.0 | 396.5 | 414.0 |
| Variance | -44.7 | -22.3 | 0.0 | 2.5 | 20.1 |
| TDC incl finance (ex land) | 720.0 | 752.6 | 786.2 | 790.0 | 817.8 |
| Variance | -66.2 | -33.6 | 0.0 | 3.8 | 31.6 |

From an overall impact standpoint this table has the importance of showing the effect of a move in underlying costs upon which other items, contingency, professional fees, finance for example are all based upon. It shows the multiplier effect on hard costs to TDC is in the range of c 1.5 x .

### 6.2 Benchmark Land Value

The table below shows the impact of adjusting the multiplier by a factor or $1 x$. The table shows the range at the highest multiplier of $15 x$ (note this the total multiplier as opposed to the multiplier of the premium) and the assumed BLV of $£ 375,000$ / gross hectare.

| Total Multiplier | Premium <br> Multiplier | BLV/Ha | BLV | BLV <br> Reduction | Interest <br> Charge | Interest <br> Reduction | Cumulative <br> Saving |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 15 | 14 | 375,000 | $49,008,750$ | - | $29,554,838$ | - | - |
| 14 | 13 | 350,000 | $45,741,500$ | $3,267,250$ | $27,155,797$ | $2,399,041$ | $5,666,291$ |
| 13 | 12 | 325,000 | $42,474,250$ | $6,534,500$ | $24,879,850$ | $4,674,989$ | $11,209,489$ |
| 12 | 11 | 300,000 | $39,207,000$ | $9,801,750$ | $22,722,296$ | $6,832,543$ | $16,634,293$ |
| 11 | 10 | 275,000 | $35,939,750$ | $13,069,000$ | $20,678,572$ | $8,876,267$ | $21,945,267$ |

Premiums are based on market evidence and evidence of other VAs. Given current market status of inflationary pressures against a weakening global economy we can expect there to be pressure on the downside here as ultimately land values will fall if, all other things being equal, hard build costs, professional fees, interest rates and risk premium increase.

It is worth noting that the above table shows a 1 x reduction in premium is equivalent to a reduction in cost, including interest, of $\mathrm{c} £ 5.5 \mathrm{~m}$.

### 6.3 Upside Scenario

WCL include an Upside Scenario appraisal in Appendix 3. This reflects the same assumptions as our base model subject to the following adjustments:

- Reduction in build cost to the average of Median and Lower Quartile
- BLV multiplier of $12.5 x$ (in the middle of the range identified above)

This upside shows an out-turn RLV of $£ 116.0 \mathrm{~m}$ and a Surplus of $£ 75.2 \mathrm{~m}$

### 6.4 Downside Scenario

WCL include a Downside Scenario appraisal in Appendix 4. This reflects the same assumptions as our base model subject to the following adjustments:

- Contingency increased to 4.0\%
- Interest rate increased to 7.0\%
- BLV multiplier of $14 x$

This downside scenario shows an out-turn RLV of $£ 47.3 \mathrm{~m}$ and a marginally viable VA with a surplus of £1.5m.

### 6.5 Sensitivity Tables

We also include a number of sensitivity tables in Appendix 5 which show the effect of movements in 'secondary' build costs, i.e. those based on a factor of hard build costs such as contingency, external costs and the cost of policy ES1 Zero Carbon and Future Homes, professional fees and interest rates.

In summary, this range of testing demonstrates that there are reasonable comfort levels in assessing the site as viable at this stage.

### 7.0 Conclusion

Since our submission to the pre-consultation of Stroud Local Authority's VA in July 2020 the UK has witnessed the effects of the COVID-19 pandemic and an increase in both house prices and build costs. Both of these have been reflected in HDH's revised VA assumptions. HDH have also increased the basis on which they calculate build costs for Strategic Sites to BCIS Median (from Lower Quartile). We concur with these market movements and re-adjusted basis of BCIS cost.

Whilst we accept HDH's assumptions surrounding sales values, we have identified a number of key variables we would seek to challenge and also ask HDH to confirm the accuracy of their calculations with regard to build cost, interest rate, stamp duty and acquisition fee.

Together with our assumptions and corrections WCL have shown that the strategic site at Whaddon is viable using latest BCIS median costs. We have however, noted above that at the time of writing there are increased risks surrounding many key variables due to current geopolitical tensions, global inflationary pressures and ensuing interest rate rises. One of these key variables related to risk is ultimately the BLV which is towards the highest end of the premium multiplier. We have shown the potential impact which can only really reduce the BLV from the highest multiplier applied. This provides us with additional comfort with our Viability Assessment.

## Whiteleaf Consulting Limited <br> $21^{\text {st }}$ October 2022

Appendices:

Appendix 1: WCL Base Model

Page 1

| Option WCL : G2 Whaddon |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Key Data Summary |  |  |  |  |  |
|  | Affordable | Private |  | Totals Check | AH \% |
| Dwelling Numbers | 900 | 2100 |  | 3000 | 30.0\% |
| Revenues | £133,257,709 | £ 729,933,750 | £ | 863,191,459 | 15.44\% |
| Floor Area | 703,352 | 2,283,023 |  | 2,986,375 | 23.55\% |
| Gross Site Area (Acres) |  |  |  | 322.93 |  |
|  |  |  |  |  |  |
| Summary of Key Outputs |  |  |  |  |  |
|  |  |  |  |  |  |
| Out-turn Residual Land Value |  |  |  |  | £77,009,734 |
| Benchmark Land Value $\quad \mathbf{£ 4 9 , 0 0 8 , 7 5 0}$ |  |  |  |  |  |
| Surplus / Shortfall |  |  |  |  | £28,000,984 |
| Residual Land Value per Net Acre |  |  |  |  | £332,428 |
| Residual Land Value per Gross Acre |  |  |  |  | £238,468 |
| Minimum Price Land Value per gross acre (inclusive of costs) |  |  |  |  | £151,760 |
| Indicative Result of Viability Assessment |  |  |  |  | VIABLE |
| Summary of Key Assumptions |  |  |  |  |  |
| Private revenue $£$ psf |  |  |  |  | £319.72 |
| Affordable revenue $£$ psf |  |  |  |  | £189.46 |
| Base build costs, including all non-anbormal externals, estate works, service supply, contingency £psf |  |  |  |  | £165.70 |
| Standard professional fees |  |  |  |  | 7\% |
| Sales \& marketing costs including conveyancing |  |  |  |  | 3.50\% |
| Blended margin (profit) as \% of revenue (combination of 20\% Private, 6\% Affordable) |  |  |  |  | 17.50\% |
| Finance rate of interest - applied to land and costs as per IRR tab |  |  |  |  | 6.00\% |



| IRR Cash Flow |  |  |  |  |  |  | Page 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Investment choice\#1 |  |  |  |
| Year |  | Revenue (net of sales costs) | Investment Costs | Land | Interest | Cumulative | Net Cash Flow |
|  | 2023 | - | 19,776,959 | 52,184,319 | 3,499,362 | $(75,460,640)$ | $(75,460,640)$ |
|  | 2024 | 27,854,830 | 39,437,295 | - | 5,377,337 | $(92,420,442)$ | $(16,959,802)$ |
|  | 2025 | 55,709,661 | 39,320,673 | - | 5,241,997 | $(81,273,451)$ | 11,146,991 |
|  | 2026 | 55,709,661 | 39,320,673 | - | 4,554,475 | $(69,438,938)$ | 11,834,513 |
|  | 2027 | 55,709,661 | 39,320,673 | - | 3,824,548 | $(56,874,498)$ | 12,564,440 |
|  | 2028 | 55,709,661 | 39,320,673 | - | 3,049,601 | $(43,535,111)$ | 13,339,387 |
|  | 2029 | 55,709,661 | 39,320,673 | - | 2,226,856 | $(29,372,979)$ | 14,162,131 |
|  | 2030 | 55,709,661 | 39,320,673 | - | 1,353,367 | $(14,337,359)$ | 15,035,621 |
|  | 2031 | 55,709,661 | 39,320,673 | - | 427,296 | 1,624,333 | 15,961,692 |
|  | 2032 | 55,709,661 | 39,320,673 | - | - | 18,013,321 | 16,388,988 |
|  | 2033 | 55,709,661 | 39,320,673 | - | $\cdot$ | 34,402,308 | 16,388,988 |
|  | 2034 | 55,709,661 | 39,320,673 | - | - | 50,791,296 | 16,388,988 |
|  | 2035 | 55,709,661 | 39,320,673 | - | - | 67,180,284 | 16,388,988 |
|  | 2036 | 55,709,661 | 39,320,673 | - | - | 83,569,272 | 16,388,988 |
|  | 2037 | 55,709,661 | 39,320,673 | - | - | 99,958,259 | 16,388,988 |
|  | 2038 | 55,709,661 | 21,558,964 | - | - | 134,108,956 | 34,150,697 |
|  | 2039 | 27,854,830 | 1,898,628 | - | - | 160,065,159 | 25,956,203 |
| Total |  | 835,644,912 | 593,840,596 | 52,184,319 | 29,554,838 | 160,065,159 | 160,065,159 |
|  |  |  |  | Interest Rate |  | Annualised IRR | 12.1\% |
|  |  |  |  |  | 6.00\% |  |  |


| Net Revenue -houses and <br> commercial | Investment Costs | Land cost at Minimum Price | Interest | Cumulative Cash Flow | Net Cash Flow | Month |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |




52,184,319 261,7
263,07

| 261,761 | (52,614,018) | (52,614,018) | 01/01/2023 |
| :---: | :---: | :---: | :---: |
| 263,070 | $(53,045,025)$ | $(431,008)$ | 01/02/2023 |
| 265,225 | $(53,478,188)$ | $(433,163)$ | 01/03/2023 |
| 267,391 | $(53,913,516)$ | $(435,328)$ | 01/04/2023 |
| 269,568 | (54,351,021) | $(437,505)$ | 01/05/2023 |
| 271,755 | $(54,790,714)$ | $(439,693)$ | 01/06/2023 |
| 273,954 | $(58,192,890)$ | $(3,402,176)$ | 01/07/2023 |
| 290,964 | (61,612,077) | $(3,419,187)$ | 01/08/2023 |
| 308,060 | $(65,048,359)$ | $(3,436,283)$ | 01/09/2023 |
| 325,242 | $(68,501,823)$ | $(3,453,464)$ | 01/10/2023 |
| 342,509 | (71,972,555) | $(3,470,731)$ | 01/11/2023 |
| 359,863 | (75,460,640) | $(3,488,085)$ | 01/12/2023 |
| 377,303 | (78,966,165) | $(3,505,526)$ | 01/01/2024 |
| 394,831 | $(82,489,218)$ | $(3,523,053)$ | 01/02/2024 |
| 412,446 | $(86,029,887)$ | $(3,540,668)$ | 01/03/2024 |
| 430,149 | $(89,588,259)$ | $(3,558,372)$ | 01/04/2024 |
| 447,941 | (93,164,422) | $(3,576,164)$ | 01/05/2024 |
| 465,822 | $(96,758,467)$ | $(3,594,044)$ | 01/06/2024 |
| 483,792 | $(96,044,447)$ | 714,019 | 01/07/2024 |
| 480,222 | $(95,326,858)$ | 717,589 | 01/08/2024 |
| 476,634 | $(94,605,681)$ | 721,177 | 01/09/2024 |
| 473,028 | (93,880,898) | 724,783 | 01/10/2024 |
| 469,404 | $(93,152,491)$ | 728,407 | 01/11/2024 |
| 465,762 | $(92,420,442)$ | 732,049 | 01/12/2024 |
| 462,102 | $(91,516,795)$ | 903,647 | 01/01/2025 |
| 457,584 | ( $90,608,630$ ) | 908,165 | 01/02/2025 |
| 453,043 | $(89,695,924)$ | 912,706 | 01/03/2025 |
| 448,480 | $(88,778,655)$ | 917,269 | 01/04/2025 |
| 443,893 | $(87,856,799)$ | 921,856 | 01/05/2025 |
| 439,284 | (86,930,334) | 926,465 | 01/06/2025 |
| 434,652 | (85,999,237) | 931,097 | 01/07/2025 |
| 429,996 | $(85,063,484)$ | 935,753 | 01/08/2025 |
| 425,317 | $(84,123,053)$ | 940,432 | 01/09/2025 |
| 420,615 | $(83,177,919)$ | 945,134 | 01/10/2025 |
| 415,890 | $(82,228,060)$ | 949,859 | 01/11/2025 |
| 411,140 | $(81,273,451)$ | 954,609 | 01/12/2025 |
| 406,367 | (80,314,069) | 959,382 | 01/01/2026 |
| 401,570 | (79,349,891) | 964,179 | 01/02/2026 |
| 396,749 | (78,380,891) | 969,000 | 01/03/2026 |
| 391,904 | $(77,407,046)$ | 973,845 | 01/04/2026 |
| 387,035 | (76,428,333) | 978,714 | 01/05/2026 |
| 382,142 | (75,444,725) | 983,607 | 01/06/2026 |
| 377,224 | $(74,456,200)$ | 988,525 | 01/07/2026 |
| 372,281 | $(73,462,732)$ | 993,468 | 01/08/2026 |
| 367,314 | $(72,464,297)$ | 998,435 | 01/09/2026 |
| 362,321 | (71,460,869) | 1,003,427 | 01/10/2026 |
| 357,304 | $(70,452,425)$ | 1,008,445 | 01/11/2026 |
| 352,262 | $(69,438,938)$ | 1,013,487 | 01/12/2026 |
| 347,195 | $(68,420,384)$ | 1,018,554 | 01/01/2027 |
| 342,102 | $(67,396,736)$ | 1,023,647 | 01/02/2027 |
| 336,984 | $(66,367,971)$ | 1,028,765 | 01/03/2027 |
| 331,840 | $(65,334,062)$ | 1,033,909 | 01/04/2027 |
| 326,670 | $(64,294,983)$ | 1,039,079 | 01/05/2027 |
| 321,475 | $(63,250,709)$ | 1,044,274 | 01/06/2027 |
| 316,254 | $(62,201,214)$ | 1,049,495 | 01/07/2027 |
| 311,006 | $(61,146,471)$ | 1,054,743 | 01/08/2027 |
| 305,732 | $(60,086,454)$ | 1,060,017 | 01/09/2027 |
| 300,432 | $(59,021,138)$ | 1,065,317 | 01/10/2027 |
| 295,106 | $(57,950,494)$ | 1,070,643 | 01/11/2027 |
| 289,752 | $(56,874,498)$ | 1,075,997 | 01/12/2027 |
| 284,372 | $(55,793,121)$ | 1,081,376 | 01/01/2028 |
| 278,966 | $(54,706,338)$ | 1,086,783 | 01/02/2028 |
| 273,532 | (53,614,121) | 1,092,217 | 01/03/2028 |
| 268,071 | $(52,516,442)$ | 1,097,678 | 01/04/2028 |
| 262,582 | $(51,413,276)$ | 1,103,167 | 01/05/2028 |
| 257,066 | $(50,304,593)$ | 1,108,683 | 01/06/2028 |
| 251,523 | $(49,190,367)$ | 1,114,226 | 01/07/2028 |
| 245,952 | (48,070,570) | 1,119,797 | 01/08/2028 |
| 240,353 | $(46,945,174)$ | 1,125,396 | 01/09/2028 |
| 234,726 | $(45,814,151)$ | 1,131,023 | 01/10/2028 |
| 229,071 | $(44,677,472)$ | 1,136,678 | 01/11/2028 |
| 223,387 | $(43,535,111)$ | 1,142,362 | 01/12/2028 |
| 217,676 | $(42,387,037)$ | 1,148,073 | 01/01/2029 |
| 211,935 | $(41,233,224)$ | 1,153,814 | 01/02/2029 |
| 206,166 | $(40,073,641)$ | 1,159,583 | 01/03/2029 |
| 200,368 | $(38,908,260)$ | 1,165,381 | 01/04/2029 |
| 194,541 | $(37,737,052)$ | 1,171,208 | 01/05/2029 |
| 188,685 | $(36,559,989)$ | 1,177,064 | 01/06/2029 |
| 182,800 | $(35,377,040)$ | 1,182,949 | 01/07/2029 |
| 176,885 | $(34,188,176)$ | 1,188,864 | 01/08/2029 |
| 170,941 | $(32,993,368)$ | 1,194,808 | 01/09/2029 |
| 164,967 | $(31,792,585)$ | 1,200,782 | 01/10/2029 |
| 158,963 | $(30,585,799)$ | 1,206,786 | 01/11/2029 |
| 152,929 | $(29,372,979)$ | 1,212,820 | 01/12/2029 |
| 146,865 | $(28,154,095)$ | 1,218,884 | 01/01/2030 |
| 140,770 | (26,929,117) | 1,224,978 | 01/02/2030 |
| 134,646 | $(25,698,013)$ | 1,231,103 | 01/03/2030 |
| 128,490 | $(24,460,755)$ | 1,237,259 | 01/04/2030 |
| 122,304 | $(23,217,309)$ | 1,243,445 | 01/05/2030 |
| 116,087 | $(21,967,647)$ | 1,249,662 | 01/06/2030 |
| 109,838 | $(20,711,736)$ | 1,255,911 | 01/07/2030 |
|  |  |  |  |



Years revenue

S106
S106
Infrastructure
Infrastructure
$66,634,305$
$3,753,301$
3,753,301
$532,851,265$

Page 4

## Land Budget

Whaddon, Gloucester

Date

Site Name
Whaddon, Gloucester

Gross Area

| 322.93 | Acres |
| ---: | :--- |
| 130.69 | Ha |


| Net Residential Area | 231.66 | Acres |
| :--- | ---: | ---: |
|  |  | 93.75 |
|  |  | Ha |
|  |  |  |


| Land value |  |  |
| :--- | ---: | :--- |
| Land value | 10,117 | Acre |
|  | 25,000 | $/ \mathrm{Ha}$ |


| Total multiplier | 15.0 |  |
| :--- | ---: | :--- |
| Land value <br> Land value | 151,760 | $/$ Acre |
|  |  |  |


|  | Premium | 350,000 |
| :---: | ---: | ---: |
| Premium multiplier | 14 |  |
|  |  |  |
| Gross Area | 130.69 | Ha |

Benchmark Land Value | $49,008,750$ |  |
| :--- | :--- |

| Fees (legal and agent) | 735,131 | $1.50 \%$ |
| :---: | ---: | ---: |
|  | SDLT | $2,440,438$ |

Appendix 2: Comparison Schedule: HDH and WCL Base Models

|  | Item | HDH VA Input | HDH VA Value $£$ (HCH Modelled) | HDH VA Value f (WCL Re-modelled) | Variance in recreating model | wCL Comment | WCL Recommedation | WCL VA Input | WCL VA Value (f) | Independent Effect on VA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Private Residual Values | £3,450/m2 | £729,933,750 | £729,933,750 | £0 |  | Accepted | £3,450 | £729,933,750 | £0 |
| 2 | Affordable Revenues | $\begin{aligned} & \text { AH } £ 1,900 / \mathrm{m} 2 \\ & \text { SO } £ 2,415 / \mathrm{m} 2 \end{aligned}$ | £133,262,330 | £133,257,709 | ( $£ 4,621$ ) |  | Accepted | £1,900 | 133,257,709 | £0 |
| 3 | Sales Fee Agent + Legal | 3.50\% | £30,211,862 | £30,211,701 | (£161) |  | Reduce for Affordable Housing | 3.5\% for Private 1.5\% for Affordable Housing | 27,546,547 | (£2,665,154) |
| 4 | Benchmark Land Value (net of costs) | £375,000 pgha | £49,008,750 | £49,008,750 | £0 |  | Range Accepted <br> Note multiplier at maximum of acceptable range | £ 375,000 pgha | 49,008,750 | £0 |
| 5 | Construction Costs | 138.6 | 413,920,110.5 | 414,037,408 | £117,297 | Difference due to rounding of unit areas. | $\begin{gathered} \text { Accepted } \\ \text { (Updated to Sept 2022) } \end{gathered}$ | 131.9 | 393,969,912 | $(£ 20,067,496)$ |
| 6 | Externals | 15\% | 69,034,346 | 69,053,896 | £19,551 |  | Accept $15 \%$ where BCIS Lower Quartlle used. <br> $10 \%$ is appropriate when Median build cost is used. | 10.0\% | 43,848,574 | ( $£ 25,205,322)$ |
| 7 | Future Homes / Zero Carbon | 9\% | 37,252,893 | 37,263,367 | £10,474 |  | Accepted <br> (Based off Sept 22 BCIS) | 9\% | 35,457,292 | (£1,806,075) |
| 8 | Total Infrastructure Costs \& Abnormals (S106 \& CIL) | £19.0k/unit | 56,958,831 | 56,958,831 | £0 |  | Assumed CIL at zero for strategic site. <br> IDP Addendum August 2022 Total £42m. | Equates to $£ 14 \mathrm{k} / \mathrm{unit}$ | 42,000,000 | (£14,958,831) |
| 9 | Contingencies | 5.0\% | 26,486,111 | 26,493,678 | £7,567 |  | Reduce | 2.5\% | 12,069,320 | (£14,424,358) |
| 10 | Professional Fees | 8.0\% | 49,483,573 | 49,496,286 | £12,713 |  | Reduce Marginally | 7.0\% | 38,009,148 | (£11,487,138) |
| 11 | Finance Costs | 6.50\% | 23,226,552 | 52,261,445 | £29,034,893 | Request clarification from HDH | Accepted - subject to note regarding current exceptional market conditions and potential calculation error in HDH's report | 6.00\% | 29,554,838 | (£22,706,606) |
| 12 | Developer Margin | 17.50\% | 151,059,314 | 151,058,505 | (£809) |  | Accepted | 17.50\% | 151,058,505 | £0 |
| 13 | Sales Rate | 200 | n/a | 200 | n/a |  | Accepted | 200 | n/a | £0 |
| 14 | Land Acquisition Costs | 1.50\% | 58,410 | 735,131 | £676,721 | Request clarification from HDH | tBC | 1.50\% | 735,131 | £о |
| 15 | Stamp Duty | тBC | 0 | 2,435,438 | £2,435,438 | Request clarification from HDH | tBC | Blended | 2,435,438 | £0 |
|  |  |  | £1,769,896,832 | £1,802,206,094 | £32,309,062 |  |  |  | £1,688,884,914 | (£113,320,980) |

## Appendix 3: Upside Model

- Reduction in build cost to the average of Median and Lower Quartile
- BLV multiplier of $12.5 x$ (in the middle of the range identified above)

Page 1

| Option WCL : G2 Whaddon |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Key Data Summary |  |  |  |  |  |
|  | Affordable | Private |  | Totals Check | AH \% |
| Dwelling Numbers | 900 | 2100 |  | 3000 | 30.0\% |
| Revenues | £133,257,709 | £ 729,933,750 | £ | 863,191,459 | 15.44\% |
| Floor Area | 703,352 | 2,283,023 |  | 2,986,375 | 23.55\% |
| Gross Site Area (Acres) |  |  |  | 322.93 |  |
|  |  |  |  |  |  |
| Summary of Key Outputs |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Benchmark Land Value $\mathbf{£ 4 0 , 8 4 0 , 6 2 5}$ |  |  |  |  |  |
| Surplus / Shortfall |  |  |  |  | £75,194,762 |
| Residual Land Value per Net Acre |  |  |  |  | £500,891 |
| Residual Land Value per Gross Acre |  |  |  |  | £359,315 |
| Minimum Price Land Value per gross acre (inclusive of costs) |  |  |  |  | £126,467 |
| Indicative Result of Viability Assessment |  |  |  |  | VIABLE |
| Summary of Key Assumptions |  |  |  |  |  |
| Private revenue $£$ psf |  |  |  |  | £319.72 |
| Affordable revenue $£$ psf |  |  |  |  | £189.46 |
| Base build costs, including all non-anbormal externals, estate works, service supply, contingency £psf |  |  |  |  | £156.50 |
| Standard professional fees |  |  |  |  | 7\% |
| Sales \& marketing costs including conveyancing |  |  |  |  | 3.50\% |
| Blended margin (profit) as \% of revenue (combination of 20\% Private, 6\% Affordable) |  |  |  |  | 17.50\% |
| Finance rate of interest - applied to land and costs as per IRR tab |  |  |  |  | 6.00\% |




| Net Revenue -houses and <br> commercial | Investment Costs | Land cost at Minimum Price | Interest | Cumulative Cash Flow | Net Cash Flow | Month |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |





Years revenue
$66,634,305$
$3,753,301$
$36,753,301$
$503,455,007$

Page 4

## Land Budget

Whaddon, Gloucester

Date

Site Name
Whaddon, Gloucester

Gross Area

| 322.93 | Acres |
| ---: | :--- |
| 130.69 | Ha |


| Net Residential Area | 231.66 | Acres |
| :--- | ---: | ---: |
|  |  | 93.75 |
|  |  | Ha |
|  |  |  |


| Land value |  |  |
| :--- | ---: | :--- |
| Land value | 10,117 | Acre |
|  | 25,000 | $/ \mathrm{Ha}$ |


| Total multiplier |  |  |
| :--- | ---: | :--- |
|  | 12.5  <br>   <br> Land value  <br> Land value  | 126,467 |


|  | Premium | 287,500 |
| :---: | ---: | ---: |
| Premium multiplier | 12 |  |
|  |  |  |
| Gross Area | 130.69 | Ha |

Benchmark Land Value | $40,840,625$ |  |
| ---: | :--- |

| Fees (legal and agent) | 612,609 | $1.50 \%$ |
| :---: | ---: | ---: |
| SDLT | $2,032,031$ |  |
| BLV incl costs | $\mathbf{4 3 , 4 8 5 , 2 6 6}$ |  |
|  |  |  |

Appendix 4: Downside Model

- Contingency increased to $4.0 \%$
- Interest rate increased to $7.0 \%$
- BLV multiplier of $14 x$

Page 1

| Option WCL : G2 Whaddon |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Key Data Summary |  |  |  |  |  |
|  | Affordable | Private |  | Totals Check | AH \% |
| Dwelling Numbers | 900 | 2100 |  | 3000 | 30.0\% |
| Revenues | £133,257,709 | £ 729,933,750 | £ | 863,191,459 | 15.44\% |
| Floor Area | 703,352 | 2,283,023 |  | 2,986,375 | 23.55\% |
| Gross Site Area (Acres) |  |  |  | 322.93 |  |
|  |  |  |  |  |  |
| Summary of Key Outputs |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Benchmark Land Value |  |  |  |  | £45,741,500 |
| Surplus / Shortfall |  |  |  |  | £1,542,207 |
| Residual Land Value per Net Acre |  |  |  |  | £204,110 |
| Residual Land Value per Gross Acre |  |  |  |  | £146,419 |
| Minimum Price Land Value per gross acre (inclusive of costs) |  |  |  |  | £141,643 |
| Indicative Result of Viability Assessment |  |  |  |  | VIABLE |
| Summary of Key Assumptions |  |  |  |  |  |
| Private revenue $£$ psf |  |  |  |  | £319.72 |
| Affordable revenue $£$ psf |  |  |  |  | £189.46 |
| Base build costs, including all non-anbormal externals, estate works, service supply, contingency £psf |  |  |  |  | £168.12 |
| Standard professional fees |  |  |  |  | 7\% |
| Sales \& marketing costs including conveyancing |  |  |  |  | 3.50\% |
| Blended margin (profit) as \% of revenue (combination of 20\% Private, 6\% Affordable) |  |  |  |  | 17.50\% |
| Finance rate of interest - applied to land and costs as per IRR tab |  |  |  |  | 7.00\% |




| Net Revenue -houses and <br> commercial | Investment Costs | Land cost at Minimum Price | Interest | Cumulative Cash Flow | Net Cash Flow | Month |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |




Years revenue

S106
S106
Infrastructur
Infrastructure
base builb

541,646,887

Page 4

## Land Budget

Whaddon, Gloucester

Date

Site Name
Whaddon, Gloucester

Gross Area

| 322.93 | Acres |
| ---: | :--- |
| 130.69 | Ha |


| Net Residential Area | 231.66 | Acres |
| :--- | ---: | ---: |
|  |  | 93.75 |
|  |  | Ha |
|  |  |  |


| Land value |  |  |
| :--- | ---: | :--- |
| Land value | 10,117 | Acre |
|  | 25,000 | $/ \mathrm{Ha}$ |


| Total multiplier |  |  |
| :--- | ---: | :--- |
|  |  |  |
| Land value <br> Land value | 14.0 |  |
|  | 141,643 | $/$ Acre |
|  |  |  |


|  | Premium | 325,000 |  |
| :---: | ---: | ---: | :---: |
|  | 13 |  |  |
|  |  |  |  |
| Gremium multiplier Area | 130.69 | Ha |  |

Benchmark Land Value | $45,741,500$ |  |
| ---: | ---: |

| Fees (legal and agent) | 686,123 | $1.50 \%$ |
| :---: | ---: | ---: |
| SDLT | $2,277,075$ |  |

# Appendix 5: Sensitivity Tables - WCL Base Case 

## Sensitivity of Dependent Costs

## Contingency

| \% of Hard Build | $0.00 \%$ | $1.00 \%$ |  |  | $2.50 \%$ |  | $3.50 \%$ | $5.00 \%$ |
| ---: | ---: | ---: | ---: | ---: | ---: | :---: | :---: | :---: |
| Contingency $£$ | $£ 0$ | $£ 4,827,728$ | $£ 12,069,320$ | $£ 16,897,048$ | $£ 24,138,640$ |  |  |  |
| Variance $-£ 12,069,320$ | $-£ 7,241,592$ | $£ 0$ | $£ 4,827,728$ | $£ 12,069,320$ |  |  |  |  |

A typical contingency range of $0 \%-5 \%$ is equivalent to $£ 24 \mathrm{~m}$ in itself.

## Externals

| \% of Build Costs | 5.00\% | 7.50\% | 10.00\% | 12.50\% | 15.00\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Externals £ | 4,287 | ,430 | £43,848,574 | £54,810,717 | £65,772,861 |
| Variance | ,287 | 2,143 | £0 | £10,962,143 | £21,924,287 |

A typical range of $5 \%-15 \%$ for external costs equates to a range of $£ 44 \mathrm{~m}$.

## Zero Carbon

| \% of Hard Build | $5.00 \%$ | $6.00 \%$ | $7.00 \%$ | $8.00 \%$ |  | $9.00 \%$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Zero Carbon | $£ 19,698,496$ | $£ 23,638,195$ | $£ 27,577,894$ | $£ 31,517,593$ | $£ 35,457,292$ |  |
| £/unit | $£ 6,566$ | $£ 7,879$ | $£ 9,193$ | $£ 10,506$ | $£ 11,819$ |  |
| Variance | $-£ 15,758,796$ | $-£ 11,819,097$ | $-£ 7,879,398$ | $-£ 3,939,699$ | $£ 0$ |  |

Reducing zero carbon and future homes costs from $£ 11.8 \mathrm{k}$ per unit to $£ 6.5 \mathrm{k}$ per unit reduces this cost line by $£ 15.7 \mathrm{~m}$. These are significant costs where the average unit price is $£ 288 \mathrm{k}$ (including affordable homes).

## Sensitivity of Out-turn Residual Land Value

| Interest Rate (LHS) v Sales Rate units per annum (and total no of years) |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: |
|  | 30 | 20 | 17 | 15 | 12 |
| $10.0 \%$ | $-£ 490,177,630$ | $-£ 193,341,669$ | $-£ 44,923,688$ | $£ 37,990,445$ | $£ 47,653,725$ |
| $7.5 \%$ | $-£ 253,299,744$ | $-£ 63,168,293$ | $£ 30,844,901$ | $£ 65,441,695$ | $£ 69,347,408$ |
| $6.5 \%$ | $-£ 180,319,403$ | $-£ 25,230,241$ | $£ 50,016,843$ | $£ 73,437,940$ | $£ 76,153,308$ |
| $6.0 \%$ | $-£ 147,618,534$ | $-£ 8,659,417$ | $£ 57,696,108$ | $£ 77,009,734$ | $£ 79,262,135$ |
| $5.0 \%$ | $-£ 88,896,753$ | $£ 20,322,049$ | $£ 70,301,583$ | $£ 83,457,799$ | $£ 84,981,668$ |
| $4.0 \%$ | $-£ 38,034,709$ | $£ 44,489,542$ | $£ 80,319,066$ | $£ 89,136,139$ | $£ 90,130,012$ |

The above table shows the stability of the out-turn residual value versus both the sales rate and interest rate for the WCL Base VA.

Appendix 5: BCIS Cost

BCIS Average Prices: $£ / \mathrm{m} 2$ study



\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{19}{|l|}{} \\
\hline \& \& Sub-Class \& \multicolumn{5}{|c|}{\({ }^{\text {Tree of Work }}\) Building function} \& Decile 1 \& Decile 2 \& Decile 3 \& Decile 4 \& \({ }_{\substack{\text { Decies } \\ \text { (median) }}}^{\text {a }}\) \& Decile 6 \& Decile 7 \& Decile 8 \& Decile9 \& \& \\
\hline \multirow[t]{18}{*}{New buid} \& \multirow[t]{5}{*}{\({ }_{810.1}\) Estate housing} \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline \& \& Generaly \& 15 \& \begin{tabular}{l}
1435 \\
234 \\
\hline 1
\end{tabular} \& 1477
1688 \& \({ }^{341}\) \& 711 \& 1140
1234
1 \& 1221
1393 \& \begin{tabular}{l}
1288 \\
1456 \\
\hline
\end{tabular} \& 1358
1543
1 \& \({ }_{12120}^{1212}\) \& 1492
1700 \& 1568
188 \& 1674
1901 \& \({ }^{1888}\) \& 5139
5139 \& 1259
1226 \\
\hline \& \& \({ }^{\text {2 }}\)-storey \& \({ }_{15}\) \& -1112 \& 11425 \& \({ }_{274}\) \& \({ }_{711}\) \& (124 \& 1206 \& 1268 \& \(1{ }^{1323}\) \& 11383 \& 1450 \& 1512 \& 1603 \& \({ }_{1770}\) \& \({ }_{3093}\) \& \({ }_{1236}\) \\
\hline \& \& 3 -storey \& 15 \& 84 \& 1539 \& 407 \& 919 \& 1099 \& 1216 \& 1307 \& 1382 \& 1460 \& 1520 \& 1654 \& 1837 \& 2067 \& 3032 \& 1237 \\
\hline \& \& 4 -torey or above \& 15 \& 5 \& 3114 \& \& 1508 \& \& \& \& \& 2785 \& \& \& \& \& 4638 \& 2944 \\
\hline \& \multirow[t]{5}{*}{810.11 Estate housing detached 810.12 Estate housing semi detached} \& \& 15 \& 23 \& 1907 \& 852 \& 1096 \& 1244 \& 1415 \& 1563 \& 1598 \& 1662 \& 1691 \& 1886 \& 2220 \& 2723 \& 5139 \& 1505 \\
\hline \& \& Generaly \& 15 \& 349 \& 1476 \& 294 \& 869 \& 1173 \& \({ }^{1231}\) \& 1290 \& 1367 \& 1448 \& 1503 \& 1579 \& 1659 \& 1825 \& 2707 \& 1262 \\
\hline \& \& Single storey \& 15 \& \({ }^{73}\) \& 1639 \& 339 \& 1075 \& 1222 \& 1390 \& 1464 \& 1540 \& 1611 \& 1670 \& 1770 \& 1844 \& 2074 \& 2707 \& 1418 \\
\hline \& \& 2 -storey \& 15 \& 265 \& 1433 \& 263 \& 869 \& 1174 \& 1227 \& 1281 \& 1324 \& 1399 \& 1471 \& 1528 \& 1606 \& 1734 \& 2552 \& 1260 \\
\hline \& \& 3 -storey \& 15 \& 11 \& 1431 \& 330 \& 1087 \& 1098 \& 1101 \& 1190 \& 1307 \& 1405 \& 1421 \& 1508 \& 1740 \& 1773 \& 2110 \& 1145 \\
\hline \& \multirow[t]{5}{*}{810.13 Estate housing terraced} \& Generaly \& 15 \& 246 \& 1522 \& 452 \& 919 \& 1121 \& \({ }^{1203}\) \& 1284 \& 1354 \& 1422 \& 1495 \& 1601 \& 1789 \& 2008 \& 4638 \& 1234 \\
\hline \& \& Single storey \& 15 \& 20 \& 1741 \& \({ }^{383}\) \& 1115 \& \({ }^{1251}\) \& 1422 \& 1470 \& 1628 \& 1784 \& 1873 \& 1973 \& 2052 \& 2132 \& 2458 \& 1444 \\
\hline \& \& 2 2.torey \& 15 \& 186 \& 1459 \& 327 \& 932 \& 1127 \& 1199 \& 1265 \& 1323 \& 1389 \& 1467 \& 1547 \& 1672 \& 1916 \& 3093 \& 1223 \\
\hline \& \& \({ }^{3}\)-storey \& 15 \& \({ }^{38}\) \& \({ }^{1568}\) \& 498 \& 919 \& 1084 \& 1179 \& 1298 \& 1374 \& 1440 \& 1500 \& 1660 \& 1916 \& 2206 \& \({ }^{3032}\) \& 1241 \\
\hline \& \& 4 -storey or above \& 10 \& 2 \& \({ }_{1391}^{439}\) \& \& 4145 \& \& \& \& \& \& \& \& \& \& \({ }_{4638}^{4683}\) \& \\
\hline \& \multirow[t]{3}{*}{816. Fats (apatments)} \& Generaly \& 15 \& \({ }^{847}\) \& 1738 \& \({ }^{451}\) \& \({ }_{856}^{856}\) \& \({ }_{1294}^{1294}\) \& 1401 \& \& \& \begin{tabular}{l}
1647 \\
1560 \\
\hline 1
\end{tabular} \& 1753
1623 \& 1898
1743
1 \& 2051
1929 \& 2253

2205 \& 5963
3001 \& ${ }^{1443}$ <br>
\hline \& \& -1-2 storey \& 15 \& ${ }_{567}^{182}$ \& 1643 \& ${ }^{359}$ \& 1017 \& ${ }_{1}^{1249}$ \& 1341

1399 \& ${ }_{1422}^{1427}$ \& | 1497 |
| :--- |
| 1450 | \& ${ }_{1}^{1560}$ \& 1638

1736

1 \& | 1743 |
| :--- |
| 187 |
| 1 | \& ${ }_{2029}^{1929}$ \& 2205

2235 \& \begin{tabular}{l}
3001 <br>
3634 <br>
\hline

 \& 

1396 <br>
1400 <br>
\hline
\end{tabular} <br>

\hline \& \&  \& 15
15 \& ${ }_{95}^{567}$ \& ${ }_{2066}$ \& ${ }_{689}$ \& - ${ }_{1268}^{1268}$ \& 1485 \& 1399

1601 \& ${ }_{1762}$ \& \begin{tabular}{l}
1500 <br>
1842 <br>
\hline 1

 \& 1945 1636 \& 

2078 <br>
\hline 1758
\end{tabular} \& ${ }_{2162}$ \& ${ }_{2278}^{2027}$ \& ${ }_{255}^{2235}$ \& ${ }_{\substack{3034 \\ 5963}}$ \& ${ }_{1688}^{1490}$ <br>

\hline
\end{tabular}

BCIS Average Prices: $£ / \mathrm{m} 2$ study
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\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{18}{|l|}{Type ofWork Buiding tunction} \\
\hline \& \& Sub-clas \& Cutoffyears \& Sample \& mean \& \begin{tabular}{l}
Standard \\
deviation
\end{tabular} \& Decile 0
(lowest) \& Decile 1 \& Decile 2 \& pecile \& Decile 4 \& Decile 5 (median) \& Decile 6 \& Decile 7 \& Decile 8 \& Decile 9 \& \(\pm \begin{gathered}\text { Decile } 10 \\ \text { (hibhest) }\end{gathered}\) \\
\hline \multicolumn{2}{|l|}{\multirow[t]{5}{*}{\({ }^{\text {New build }}\) 810.1 Estate housing \({ }^{\text {a }}\)}} \& Generaly \& 15 \& 1419 \& \({ }^{1393}\) \& 322 \& 670 \& 1074 \& 1152 \& \({ }^{1216}\) \& 1280 \& \({ }^{1340}\) \& 1409 \& 1478 \& 1581 \& 1778 \& 4842 \\
\hline \& \& Single storey \& 15 \& 231 \& 1575 \& 379 \& 945 \& 1163 \& 1313 \& 1375 \& 1465 \& 1522 \& 1603 \& 1699 \& 1791 \& 1987 \& 4842 \\
\hline \& \& 2 -storey \& 15 \& 1101 \& \({ }^{1343}\) \& 260 \& 670 \& 1065 \& 1137 \& 1195 \& 1247 \& 1305 \& 1369 \& 1428 \& 1514 \& 1668 \& 2915 \\
\hline \& \& 3-storey \({ }_{\text {- }}\) \& 15 \& \({ }_{5}^{82}\) \& \({ }^{1457}\) \& 385 \& 866
1421 \& 1035 \& 1145 \& \({ }^{1234}\) \& 1326 \& \({ }_{268}^{1387}\) \& 1434 \& 1564 \& 1745 \& 1953 \& \({ }_{4370}^{2857}\) \\
\hline \& \& \& 15 \& \({ }_{23}\) \& \({ }_{1797}\) \& 803 \& 1033 \& 1172 \& 1333 \& 1473 \& 1506 \& 1566 \& 1594 \& 1777 \& 2092 \& 2566 \& 4842 \\
\hline \multicolumn{2}{|r|}{\multirow[t]{3}{*}{\({ }_{810.012}^{810.11 \text { Estate housing detached }}\) (1)}} \& Generaly \& 15 \& 341 \& 1394 \& 279 \& 819 \& 1105 \& 1159 \& 1216 \& 1289 \& 1367 \& 1421 \& 1497 \& 1566 \& 1734 \& 2551 \\
\hline \& \& Single storey \& 15 \& \({ }^{73}\) \& 1549 \& 320 \& 1013 \& 1151 \& 1310 \& 1389 \& 1473 \& 1519 \& 1595 \& 1677 \& 1738 \& 1954 \& 2551 \\
\hline \& \& 2 2-storey \& 15 \& 257 \& 1352 \& 249 \& 819 \& 1106 \& 1153 \& 1207 \& 1250 \& 1318 \& 1388 \& 1440 \& 1514 \& 1632 \& 2405 \\
\hline \multicolumn{2}{|r|}{\multirow{3}{*}{810.13 Estate housing terraced}} \& \({ }^{3}\)-storey \& 15 \& 11 \& 1348 \& 311 \& 1024 \& 1035 \& 1037 \& 1121 \& 1232 \& 1324 \& 1339 \& 1421 \& 1640 \& 1671 \& 1988 \\
\hline \& \& Generaly \& \({ }_{15}^{15}\) \& \({ }^{245}\) \& \({ }_{1431}^{1433}\) \& \({ }_{361}^{427}\) \& \({ }^{835}\) \& 1053
1179 \& \({ }_{1}^{1338}\) \& \({ }^{1212}\) \& 1279
1524 \& \({ }_{1}^{1340}\) \& 1409
1785 \& 1509

1059 \& 1678
1038
1 \& 1893 \& ${ }_{2315}^{4370}$ <br>
\hline \& \& Singe storey \& 15
15 \& 20
186

10 \& | 1641 |
| :--- |
| 1371 |
| 1 | \& ${ }_{308}^{361}$ \& 1050

835 \& 1179
1060
1 \& 1340
1115
115 \& 1386
1192

1 \& (1234 \& (1681 | 168 |
| :---: |
| 1308 | \& 1765

1383 \& 1859 \&  \& | 2009 |
| :--- |
| 1788 |
| 1 | \& ${ }_{2915}^{2316}$ <br>

\hline \multicolumn{2}{|r|}{\multirow{5}{*}{816. Fbat (apartments)}} \& ${ }_{3}$-storey \& 15 \& ${ }_{37}$ \& 1486 \& 473 \& ${ }_{866}$ \& 1020 \& 1100 \& 1234 \& 1310 \& 1364 \& 1422 \& 1569 \& 1811 \& 2104 \& ${ }_{2857}$ <br>
\hline \& \& 4.storey or above \& 10 \& 2 \& ${ }^{4138}$ \& \& 3906 \& \& \& \& \& \& \& \& \& \& 4370 <br>
\hline \& \& ${ }_{\substack{\text { Generaly } \\ 1-2 \text { starey }}}$ \& 15
15 \& 850

185 \& | 1637 |
| :--- |
| 1554 |
| 1 | \& ${ }_{343}^{426}$ \& ${ }_{\substack{806 \\ 958}}$ \& (1216 $\begin{gathered}1268 \\ 1168\end{gathered}$ \& $\begin{array}{r}1320 \\ 1260 \\ \hline 1\end{array}$ \& 1397

1345
1 \& 1465
1414 \& 1548
1471 \& 1650
1530
1020 \& 1789
1650
1 \& 1933
1840
1 \& ${ }_{20}^{2130}$ \& $\begin{array}{r}5619 \\ \\ 2888 \\ \hline\end{array}$ <br>
\hline \& \& \& ${ }_{15}^{15}$ \& ${ }_{567}$ \& ${ }_{1613} 150$ \& 343
380 \& ${ }_{806}$ \& ${ }_{1221}$ \& 1318 \& 1395
1391 \& ${ }_{1460}^{144}$ \& ${ }_{1538}$ \& 1633 \& ${ }_{1761}^{169}$ \& (1906 \& ${ }_{2100}^{200}$ \& ${ }_{3424}^{2628}$ <br>
\hline \& \& 6 storey or above \& 15 \& ${ }_{95}$ \& 1947 \& 649 \& 1195 \& 1299 \& 1509

150 \& 1660 \& 1735 \& \begin{tabular}{l}
1583 <br>
1883 <br>
\hline

 \& 

1958 <br>
1958 <br>
\hline
\end{tabular} \& 2037 \& ${ }_{2147}$ \& 2100

2002 \& ( $\begin{aligned} & 3244 \\ & 5619\end{aligned}$ <br>
\hline
\end{tabular}

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