



# Chippenham Strategic Site Viability Assessment

Prepared for  
Wiltshire Council

April 2016

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# 1 Summary

- 1.1.1 This report outlines the results of our April 2016 assessment of the viability and deliverability of potential strategic sites in Chippenham on behalf of Wiltshire Council. This viability assessment provides an update/extension to our viability assessment of the strategic sites in a report dated October 2015 for Wiltshire Council. Whilst the work undertaken as part of this study is an update and extension of our October 2015 report, this report can be read as a stand-alone report.
- 1.1.2 This report has been prepared for the Council following the suspension of an examination in public into the soundness of the draft Chippenham Sites Allocation Plan (CSAP). We understand that the inspector raised concerns regarding the sites ability to achieve policy compliant affordable housing of 40% when the S106 agreement negotiated for North Chippenham provided 20% affordable housing.
- 1.1.3 We have been instructed to reassesses 4 sites in addition to assessing 2 new sites taking in accordance with the following objectives:
- To review the assumptions contained in the viability assessment; to update them and make them specific to Chippenham using local evidence where available;
  - Provide robust evidence to demonstrate whether the proposals are deliverable and viable in accordance with advice set out in the National Planning Policy Framework (NPPF);
  - Provide a robust evidence base on which to negotiate and agree levels of affordable housing provision compliant with Core Policy 43 of the Wiltshire Core Strategy.
- 1.1.4 In terms of methodology, we have adopted industry standard residual valuation approaches to test the impact of the Council's policies on site viability. However, due to the extent and range of financial variables involved in residual valuations, they can only ever serve as a guide. Individual site characteristics (which are unique and vary from site to site) mean that conclusions must always be tempered by a level of flexibility in application of policy requirements on a site by site basis. It is therefore essential that affordable housing requirements and provision reflect site and scheme specific viability.
- 1.1.5 As this report constitutes a study of 7 large strategic housing sites (with minimal scheme design/proposals available at this early stage) our assessment makes overall judgements with regards to the viability of each site and does not account for more detailed site specific attributes that may impact upon development viability.
- 1.1.6 This is recognised within Section 2 of the Local Housing Delivery Group<sup>1</sup> guidance, which identifies the purpose and role of viability assessments within plan-making. The Guidance notes that:

*“The role of the test is not to give a precise answer as to the viability of every development likely to take place during the plan period. No assessment could realistically provide this level of detail. Some site specific tests are still likely to be required at the development management stage. Rather, it is to provide high*

<sup>1</sup> 'Viability Testing Local Plans: Advice for planning practitioners' August 2012. This group was led by the Homes and Communities Agency and comprises representatives from the National Home Builders Federation, the Royal Town Planning Institute, Local Authorities and valuers (including BNP Paribas Real Estate)

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*level assurance that the policies within the plan are set in a way that is compatible with the likely economic viability of development needed to deliver the plan.”*

- 1.1.7 This is therefore a high level assessment of the general viability of proposals in plan making. It necessarily includes a number of broad assumptions. When planning applications are submitted there can be detailed assessments for each individual strategic site. This is the point at which scope for affordable housing could be considered more definitively as at this stage assessments can look more accurately at known site costs and development values.
- 1.1.8 This reports meets the requirements of the National Planning Policy Framework ('NPPF'), the National Planning Practice Guidance ('NPPG') and the Local Housing Delivery Group guidance 'Viability Testing Emerging Local Plans: Advice for planning practitioners' (June 2012).
- 1.1.9 This report is structured as follows:
- Section 2 identifies the strategic sites that have been tested;
  - Section 3 details the methodology and inputs to our appraisals;
  - Section 4 outlines the appraisal inputs and assumptions
  - Section 5 outlines the appraisal results
  - Section 6 summarises the sensitivity analysis undertaken in respect of the strategic sites;
  - Section 7 sets out our conclusions.

## 2 The Strategic Sites

- 2.1.1 The Council's adopted Core Strategy identifies Chippenham as one of the county's three principal settlements where the majority of new housing and employment will be focused. The Core Strategy proposes that at least 2,625 new dwellings and 26.5 hectares of land for employment development needs are to be allocated on strategic sites through the preparation of the Chippenham Sites Allocations Plan.
- 2.1.2 The Council has instructed BNP Paribas Real Estate to consider the viability of the strategic sites identified in Table 2.1.2. We have been instructed to provide 2 assessments of site E5 to reflect differing costs for strategic transport links.

**Table 2.1.2.: Strategic sites**

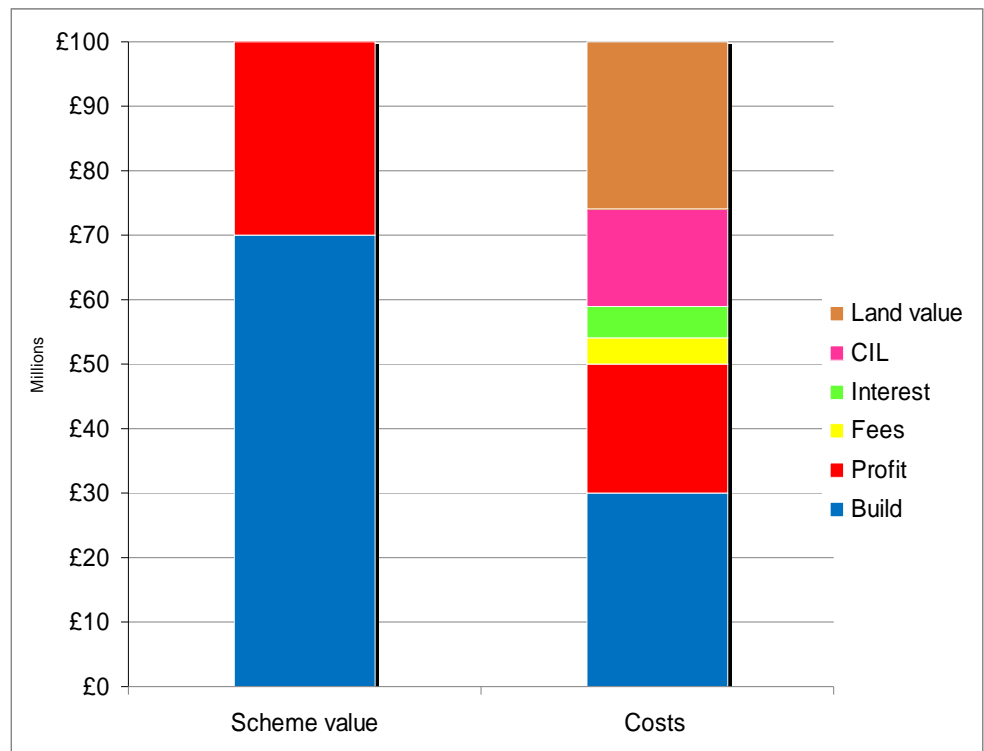
Location / Site Ref.	Location	Development
B1	Rawlings Green	650 residential units 5 hectares of employment land
C1	East Chippenham	850 residential units 20 hectares of employment land
C4	East Chippenham	1,350 residential units 16 hectares of employment land
D7	South Pewsham	1,050 residential units 10.5 hectares of employment land
E2	South-west Chippenham	1,000 residential units 18.1 hectares of employment land
E5	South-west Chippenham	1,400 residential units 18.1 hectares of employment land

### 3 Methodology

3.1.1 Our methodology follows standard development appraisal conventions, using assumptions that reflect local market and planning policy circumstances. The study is therefore specific to sites in Chippenham and reflects the Council’s planning policy requirements.

#### 3.2 Approach to testing development viability

3.2.1 Appraisal models can be summarised via the following diagram. The total scheme value is calculated, as represented by the left hand bar<sup>2</sup>. This includes the sales receipts from the private housing and the payment from a Registered Provider (‘RP’) for the completed affordable housing units. The model then deducts the build costs, fees, interest, CIL (at varying levels) and developer’s profit. A ‘residual’ amount is left after all these costs are deducted – this is the land value that the Developer would pay to the landowner. The residual land value is represented by the brown portion of the right hand bar in the diagram.



<sup>2</sup> In this particular example, we are assuming a residential scheme, with the private housing value represented by the blue portion of the bar and the affordable housing value represented by the red portion of the bar.

- 3.2.2 The Residual Land Value is normally a key variable in determining whether a scheme will proceed. If a proposal generates sufficient positive land value (in excess of current use value), it will be implemented. If not, the proposal will not go ahead, unless there are alternative funding sources to bridge the 'gap'.
- 3.2.3 Ultimately, the landowner will make a decision on implementing a project on the basis of return and the potential for market change, and whether alternative developments might yield a higher value. The landowner's 'bottom line' will be achieving a residual land value that sufficiently exceeds 'existing use value' or another appropriate benchmark to make development worthwhile. The margin above current use value may be considerably different on individual sites due to particular reasons why the premium to the landowner should be higher or lower than other sites
- 3.2.4 Clearly, however, landowners have expectations of the value of their land which will often exceed the value of the sites current use. Ultimately, if landowners' expectations are not met, they will not voluntarily sell their land and (unless a Local Authority is prepared to use its compulsory purchase powers) some may simply hold on to their sites, in the hope that policy may change at some future point with reduced requirements. It is within the scope of those expectations that developers have to formulate their offers for sites. The task of formulating an offer for a site is complicated further still during buoyant land markets, where developers have to compete with other developers to secure a site, often speculating on increases in development value or with the expectation of value engineering costs.

### 3.3 Viability Benchmark

- 3.3.1 The NPPF does not prescribe any particular methodology for assessing the viability of developments in their areas for testing local plan policies. The Local Housing Delivery Group published guidance in June 2012 which provides guidance on testing viability of Local Plan policies. The guidance notes that "consideration of an appropriate Threshold Land Value [or viability benchmark] needs to take account of the fact that future plan policy requirements will have an impact on land values and landowner expectations. Therefore, using a market value approach as the starting point carries the risk of building-in assumptions of current policy costs rather than helping to inform the potential for future policy". The RICS Guidance Note 'Viability in Planning' (August 2012) which advocates market value as a benchmark for testing viability, is therefore not applicable to a test of planning policy.
- 3.3.2 In light of the weaknesses in the market value approach, the Local Housing Delivery Group guidance recommends that benchmark land value "is based on a premium over current use values" with the "precise figure that should be used as an appropriate premium above current use value [being] determined locally". The guidance considers that this approach "is in line with reference in the NPPF to take account of a "competitive return" to a willing land owner".
- 3.3.3 The examination on the Mayor of London's CIL charging schedule considered the issue of an appropriate land value benchmark. The Mayor had adopted current use value, while certain objectors suggested that 'Market Value' was a more appropriate benchmark. The Examiner concluded that:

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

3.3.4 In his concluding remark, the Examiner points out that:

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

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



## 4 Development Appraisals

### 4.1 Proposed Strategic Developments

- 4.1.1 Our assumptions adopted for the development appraisals are set out in the following section.
- 4.1.2 We tabulate below the development assumptions provided to us by the Council in respect of each sites' development density; quantity of residential units; employment land; and gross site areas.

**Table 4.1.2: Strategic Site Development Assumptions**

Site	Density – units per Ha	Units	Employment Space (Ha)	Green Space	Residential Gross Developable Area (ha)	Gross Site Area (HA)
Rawlings Green (B1)	30	650	5	17	29	51
East Chippenham (C1)	30 – 43	850	20	35	36	91
East Chippenham (C4)	30 – 43	1,350	16	39.4	52.6	104.2
South Pewsham (D7)	43	1,050	10.5	15.5	37.4	63.4
South-west Chippenham (E2)	43	1,000	18.1	103	52.9	174
South-west Chippenham (E5)	43	1,400	18.1	75.4	64.4	157.9

### 4.2 Unit Mix

- 4.2.1 The unit mix we have applied to the strategic sites represents the Council's preferred unit mix which meets policy requirement CP45. We understand that the Council does not have preferred unit sizes and as a result we have utilised the unit areas adopted in the CIL viability assessment undertaken by BNP Paribas Real Estate on behalf of the Council. The adopted unit mix for each site is summarised in Table 4.2.1.

**Table 4.2.1: Unit mix adopted for each strategic site**

Unit Type	1 Bed Flat	2 Bed Flat	2 Bed House	3 Bed House	4 Bed House	5 Bed House
Unit Size	47m <sup>2</sup>	65 m <sup>2</sup>	75 m <sup>2</sup>	95 m <sup>2</sup>	115 m <sup>2</sup>	135 m <sup>2</sup>
Unit Mix	11.8%	40.2%		46%	2%	

- 4.2.2 Whilst for the purpose of this assessment we have adopted this unit mix, in reality the unit mixes achieved on large development sites in Wiltshire generally do not deliver 1 and 2 bed flats. For example, we understand that a 247 unit scheme at the 'Former Cattle Market' in Chippenham has a unit mix in which 35% of the units are 3 and 4 bed houses. However, this is a factor that can be taken into further consideration as and when planning applications are submitted.

### 4.3 Residential Sales Values

- 4.3.1 In arriving at sales values for the market housing units, we have had regard to sale prices/current asking prices of second-hand stock and limited new build stock in Chippenham in addition to new build schemes in nearby towns such as Calne (c. 6 miles from Chippenham town centre) and Sutton Benger (c. 4 miles from Chippenham town centre). In Table 4.3.1, we summarise the following asking prices we are aware of from these developments in 2015.

**Table 4.3.1: New Build Sales Values**

Scheme	Developer	Town	Unit Type	Price
Cherhill View	Redrow	Calne	3 / 4 bed houses	£249,995 - £359,995
The Park	Redrow	Sutton Benger	3 Bed 4 Bed 4 Bed	£326,995 £409,995 £539,995
The Rushes	Barratt	Calne	4 Bed	c. £270,000 to £285,000

- 4.3.2 We are of the opinion that Chippenham would attract higher values than the developments in Calne and Sutton Benger as Chippenham is an historic market town benefitting from direct railway links to Bristol and London and is situated within close proximity to the M4.
- 4.3.3 We have had regard to current asking prices from a new build scheme in Chippenham at Rowden Manor Drive which is currently being constructed by Redrow Homes comprising 64 x 1 and 2 bed apartments and 2, 3 and 4 bed houses. We tabulate below the units currently available together with their asking prices.

**Table 4.3.3: Current Asking Prices – Rowden Manor Drive**

Plot	Unit Type	Bedrooms	Asking Price
17	Burrell – Detached	4	£369,000
18	Kington – Terrace	3	£252,000
19	Lowden – Terrace	3	£262,000
21	Kington – Terrace	3	£257,000
31	Kington - Terrace	3	£252,000
32	Lowden – Terrace	3	£272,000
33	Lowden – Terrace	3	£273,000
34	Lowden – Terrace	3	£262,000
41	Pewsham – Terrace	3	£262,000
42	Fenway – Terrace	2	£225,000
43	Fenway - Terrace	2	£225,000
44	Pewsham - Terrace	3	£262,000

- 4.3.4 In terms of second-hand housing stock within Chippenham, we have had regard to current asking prices in the more desirable housing estates within Chippenham.

**Table 4.3.4: Current Asking Prices**

Address	Unit Type	Asking Price
Hardenhuish Lane	4 Bed Detached House	£479,950
Erleigh Drive	4 Bed Detached House	£475,000
Fox Close	5 Bed Detached House	£429,950
Lanhill View	4 Bed Detached House	£427,950
Redwing Avenue	4 Bed Detached House	£425,000
Thomas Mead	4 Bed Detached House	£319,950
Curlew Drive	4 Bed Detached House	£317,500
Barley Leaze	3 Bed Detached House	£300,000
Villiers Close	3 Bed Detached House	£300,000
Rudman Park	2 Bed Apartment	£156,500
Louise Rayner Place	2 Bed Apartment	£155,000
Fuller Close	2 Bed Apartment	£149,950
Barley Leaze	1 Bed Apartment	£140,000
Great Mead	1 Bed Apartment	£130,000

- 4.3.5 Within Chippenham the housing market is predominantly characterised by a range of price points for second hand housing stock with flats currently available at prices of up to £160,000 and houses up to an in excess of £479,950.
- 4.3.6 Given the limited new build evidence in Chippenham for schemes of a similar density as the subject strategic sites the potential exists for a new build premium. This potential for a value premium over existing stock will be dependent upon sufficient volume of demand which in turn is dependent on the underlying quality of each development scheme relative to existing housing stock in alternative locations.
- 4.3.7 Due to the size of the sites it would be feasible for serviced plots to be sold off to individual developers and as a result each site could have the benefit of a diverse product base which could see plots developing exclusive areas comprising of high specification units which could correlate to price points at the upper end range currently achievable in Chippenham. For example, the 'Former Cattle Market' has a unit mix of which 35% of the units are 3 and 4 bed houses.
- 4.3.8 We have tabulated the sales values adopted for each of the site appraisals in Table 4.3.8.

**Table 4.3.8: Average sales values**

Unit Type	Average Value per Unit type
1 Bed Flat	£130,000
2 Bed Flat	£165,000
2 Bed House	£225,000
3 Bed House	£310,000

Unit Type	Average Value per Unit type
4 Bed House	£400,000
5 Bed House	£475,000

#### 4.4 Residential Sales Rates/Construction Programme

- 4.4.1 The Council have provided us with information for each site which details the anticipated trajectories in terms of construction rates per annum. We tabulate these trajectories in Table 4.4.1.

**Table 4.4.1: Housing Trajectories**

Site	Year and construction rates per annum										
	1	2	3	4	5	6	7	8	9	10	11
<b>Rawlings Green (B1)</b>	45	80	80	80	85	85	85	80	30	-	-
<b>East Chippenham (C1)</b>	50	100	100	150	150	150	150	-	-	-	-
<b>East Chippenham (C4)</b>	50	100	100	150	150	150	150	150	150	150	50
<b>South Pewsham (D7)</b>	75	100	100	100	100	150	150	150	125	-	-
<b>South-west Chippenham (E2)</b>	60	150	150	150	150	150	150	40	-	-	-
<b>South-west Chippenham (E5)</b>	60	175	175	175	200	200	200	90	50	50	25

- 4.4.2 We have based the construction and sales programme for each site on these trajectories and we tabulate in Table 4.4.2 the project programme assumed for each site.

**Table 4.4.2: Project Programme**

Site	Pre-Construction (months from planning approval)	Construction	Sales Commence (months after construction commences)	Sales Period (months)
<b>Rawlings Green (B1)</b>	12	108	6	114
<b>East Chippenham (C1)</b>	12	84	6	90
<b>East Chippenham (C4)</b>	12	132	6	138
<b>South Pewsham (D7)</b>	12	108	6	114
<b>South-west Chippenham (E2)</b>	12	96	6	102
<b>South-west Chippenham (E5)</b>	12	132	6	138

- 4.4.3 We have assumed that market housing sales rates would correlate with the anticipated build out rates over the course of the construction programme with a 12 month post construction sales period. In terms of the affordable housing units, we have assumed the developers will seek contracts with RPs for the disposal of the affordable housing prior to commencement of construction. The disposal price for the affordable housing is assumed to be received in tranches across the construction programme.
- 4.4.4 The market housing sales rates we have adopted are consistent with the anticipated site trajectories and project programme set out above. We tabulate the adopted sales rates below.

**Table 4.4.4: Market Housing Sales Rates**

Location	Sales rates per month
Rawlings Green (B1)	c. 3
East Chippenham (C1)	c. 6
East Chippenham (C4)	c. 6
South Pewsham (D7)	c. 6
South-west Chippenham (E2)	c. 6
South-west Chippenham (E5)	c. 6
South-west Chippenham (E5)	c. 6

## 4.5 Commercial Revenue

- 4.5.1 The Core Strategy and Chippenham Sites Allocations Plan sets out proposals for employment development in terms of use class and gross hectares of land per site.
- 4.5.2 We have been advised by Wiltshire Council that demand for employment land will be for B2 uses largely fuelled by the anticipated growth of existing businesses. We tabulate below the employment land allocated to each site provided to us by the Council.

**Table 4.5.2: Hectares of Employment Land per Site**

Site	Employment Space (HA)
Rawlings Green (B1)	5
East Chippenham (C1)	20
East Chippenham (C4)	16
South Pewsham (D7)	10.5
South-west Chippenham (E2)	18.1
South-west Chippenham (E5)	18.1
South-west Chippenham (E5)	18.1

- 4.5.3 For consistency, we have adopted a land value of £200,000 per hectare as per the BNPPRE 'Community Infrastructure Levy Viability Study' report undertaken for the Council dated November 2013.
- 4.5.4 We have tabulated below industry standard cost assumptions that relate to the commercial accommodation to be provided on the above sites.

**Table 4.5.4: Employment Land Cost Assumptions**

Appraisal Assumption	Cost
Purchaser's Costs	5.8% of GDV
Sales Agent Fee	1% of GDV
Sales Legal Fee	0.5% of GDV
Profit	20% of GDV

## 4.6 Affordable Housing

- 4.6.1 The Core Strategy sets out the Council's policies for affordable housing. In respect of core policies 43 and 45, the following general affordable housing policy requirements would apply:

- 40% Affordable Housing requirement on site at nil subsidy;
- Tenure Split of 70% Affordable Rent and 30% Shared Ownership.

**Table 4.6.1: Affordable Housing Tenure/Unit Mix**

Unit Type	Shared Ownership	Affordable Rent
1 Bed Flats	-	20%
2 Bed Flats	-	10%
2 Bed Houses	50%	15%
3 Bed Houses	50%	35%
4 Bed Houses	-	15%
5 Bed Houses	-	5%

- 4.6.2 Given the above and the SHMA results we have undertaken our viability testing of the strategic sites assuming a range of affordable housing provision from 10% to 40% assuming a tenure split of 70% affordable rented accommodation and 30% shared ownership.
- 4.6.3 We have valued the shared ownership units, assuming that RPs will sell 30% initial equity stakes and charge a rent of 2.75% on the retained equity. A 10% charge for management is deducted from the rental income and the net amount is capitalised using a yield of 6%.
- 4.6.4 In terms of the affordable rented units we have valued the units on the basis of adopting a rent of up to 80% of the market rents tabulated below provided to us by the Council.

**Table 4.6.4: Market Rents Per Month**

Unit Type	Market Rents (Per Calendar Month)
1 Bed Flats	£525
2 Bed Flats	£600

Unit Type	Market Rents (Per Calendar Month)
2 Bed Houses	£650
3 Bed Houses	£750
4 Bed Houses	£900
5 Bed Houses	£1,000

4.6.5 In summary, our valuation of the affordable housing units equates to a blended capital value of £1,324 per sq/m (£123 per sq/ft).

#### 4.7 Build costs and Infrastructure

4.7.1 We have sourced construction costs for the residential units from the RICS Build Cost Information Services ('BCIS'), which is based upon tenders for actual schemes. We have adopted a gross base build cost of £1,017 per sq/m (£94.48 per sq/ft) derived from BCIS 'New Build Estate Housing' construction costs for the County of Wiltshire. Construction costs have increased since our October 2015 which adopted a base cost rate of £986 per sq/m (£91.60 per sq/ft).

4.7.2 In addition to the base construction costs, we have included an allowance of £16,000 per dwelling to reflect external works and road works. This allowance accounts for any additional costs that may be incurred due to the physical nature of the sites plus any works required for landscaping, security enhancement and driveways/parking within the site. We have adopted this cost due to recent evidence and the Woking District Borough CIL examination where the Inspector agreed with evidence submitted that indicated that an allowance of £16,000 per unit was sufficient.

4.7.3 Our October 2015 report made an addition of 3% to base build costs to reflect costs to achieve Code for Sustainable Homes Level 4 (CSHL4) which has now been abolished. Elements of the code have now been incorporated in the building regulations which would now be reflected within BCIS costs.

4.7.4 In our experience it is likely that developers will be able to value engineer build costs to lower levels than assumed in this study on larger sites, such as the subject strategic sites.

4.7.5 We have also incorporated site specific strategic transport links for each site. The strategic transport links relate to necessary distributor roads and bridges and the costs adopted have been provided to us on the basis of the most up to date information available to the Council at the time of this report. The costs adopted are tabulated below in Table 4.7.5.

**Table 4.7.5: Site Specific Transport Links**

Strategic Site	Site Specific Strategic Transport links (£m)
Rawlings Green (B1)	4.73
East Chippenham (C1)	7.63
East Chippenham (C4)	8.86
South Pewsham (D7)	4.39
South-west Chippenham (E2)	0.60
South-west Chippenham SLR (E5)	1.10
South-west Chippenham (E5)	0.60

## 4.8 Professional Fees

- 4.8.1 In addition to the base construction costs, development schemes will incur professional fees, covering consultants such as architects, quantity surveyors, M & E engineers and Highways consultants.
- 4.8.2 Our appraisals incorporate an allowance of 8% for professional fees which covers all professional input and planning fees, energy performance certificates and NHBC warranty costs. We have adopted 8% as strategic sites are greenfield sites and should incur lower professional fees in comparison to brownfield sites. In particular, volume house builders will typically adopt standard house types which will significantly reduce design fees in addition to retaining in-house consultants which can reduce fees.
- 4.8.3 We would anticipate a range of professional fees for brownfield sites to be in the region of 10-12% and on that basis we consider that there would be fewer complexities on a Greenfield site.

## 4.9 Finance Costs

- 4.9.1 Our appraisals incorporate finance costs on land acquisition and all construction costs at 7%.

## 4.10 Land Acquisition Costs

- 4.10.1 We have adopted land acquisition costs comprising the following industry standard inputs:

**Table 4.10.1: Land Acquisition Costs**

Cost	% of Land Cost
Stamp Duty	4%
Sales Agent Fee	1%
Legal Fee	0.8%

## 4.11 CIL and Planning Obligations

- 4.11.1 We have adopted planning obligation as provided by the Council for each site and we set these out in Table 4.11.1.

**Table 4.11.1: Section 106/CIL Contributions**

Site	Education	CIL
Rawlings Green (B1)	£2.40m	£85 per sq/m
East Chippenham (C1)	£3.30m	£85 per sq/m
East Chippenham (C4)	£5.25m	£85 per sq/m
South Pewsham (D7)	£4.09m	£85 per sq/m
South-west Chippenham (E2)	£3.80m	£85 per sq/m
South-west Chippenham (E5)	£5.45m	£85 per sq/m
South-west Chippenham (E5)	£5.45m	£85 per sq/m



- 4.11.2 With regards to the contributions outlined above we have assumed that payments will be made at construction commencement.

## 4.12 Sales and Marketing Costs

- 4.12.1 We have adopted industry standard cost assumptions to reflect the costs of sales and marketing and we tabulate these below.

**Table 4.12:1 Sales and Marketing Costs**

Cost	% of GDV
Sales Agent Fee	1.5%
Marketing Fee (to cover costs of show homes, brochures, marketing campaigns etc)	1.5%
Sales Legal Fees	0.5%

## 4.13 Developers Profit

- 4.13.1 Developer's profit is closely correlated with the perceived risk of residential development. The greater the risk, the greater the required profit level, which helps to mitigate against the risk, but also to ensure that the potential rewards are sufficiently attractive for a bank and other equity providers to fund a scheme. In 2007, profit levels were at around 15 -17% of development value. However, following the impact of the credit crunch and the collapse in interbank lending and the various government bailouts of the banking sector, profit margins have increased. It is important to emphasise that the level of minimum profit is not necessarily determined by developers (although they will have their own view and the boards of the major house builders will set targets for minimum profit).
- 4.13.2 The views of the banks which fund development are more important; if the banks decline an application by a developer to borrow to fund a development, it is very unlikely to proceed, as developers rarely carry sufficient cash to fund it themselves. Consequently, future movements in profit levels will largely be determined by the attitudes of the banks towards development proposals.
- 4.13.3 The near collapse of the global banking system in the final quarter of 2008 has resulted in a much tighter regulatory system, with UK banks having to take a much more cautious approach to all lending. In this context, and against the backdrop of the current sovereign debt crisis in the Eurozone, the banks may not allow profit levels to decrease much lower than their current level of 17 - 20% even for well-established volume house builders with a solid track record and long standing relationships with funding institutions.
- 4.13.4 On that basis, we have adopted a profit on gross development value of 20% for the market housing.
- 4.13.5 Our assumed return on the affordable housing construction cost is 6%. A lower return on the affordable housing is appropriate as there is very limited sales risk on these units for the developer; there is often a pre-sale of the units to an Registered Provider (RP) prior to commencement. Any risk associated with take up of intermediate housing is borne by the acquiring RP, not by the developer. A reduced profit level on the affordable housing reflects the Greater London Authority 'Development Control Toolkit' guidance and HCA's guidelines in its Economic Appraisal Tool.

## 5 Analysis

### 5.1 Benchmark Land Value (Site Value)

- 5.1.1 Land values for Greenfield sites currently used as agricultural land typically transact in the region of £20,000 - £22,000 per hectare. However, Landowners are unlikely to release their land for development at such low values. The extent of 'uplift' required is often a matter of debate and has been considered by CLG research on land values. This research indicates a range of £0.247m to £0.371m per hectare<sup>3</sup>.
- 5.1.2 In arriving at benchmark land values for each site we have adopted a value for the gross developable area of each site of £0.350m per hectare toward the upper end of the range and £0.250m toward the bottom on the basis of the values outlined in the CLG research for Greenfield development Land.
- 5.1.3 The price per hectare at which any development land could transact will be dependent upon a range of factors such as the extent of infrastructure costs, affordable housing provision, costs of strategic transport links and the market's perception of future values and costs. As a result, land could potentially transact at a range of land values dependent upon the individual circumstances of each site.
- 5.1.4 It should be highlighted that land values are not fixed and can (and should) be flexible to accommodate planning requirements such as affordable housing. We would draw the readers' attention to the comments on land values in the Examiner's report on the Mayor of London's CIL<sup>4</sup>, which indicates that land owners will need to adjust their expectations to accommodate allowances for infrastructure. Whilst these comments related to a CIL report the same principle should also apply to additional planning obligations such as affordable housing and S106 obligations. Some of the strategic sites subject to assessment involve significant new infrastructure. In these circumstances, landowner and developer expectations will reflect these costs and minimum land price provisions could be toward the lower end of the benchmark value range at around £0.250m.
- 5.1.5 We have been advised by the Council that Areas B, C and E contain significant areas of land allocated for use as green space with most of this land situated in flood plains. In terms of attributing a value to this site we have had regard to agricultural land values referred to above and discounted accordingly to reflect that the land is located in a flood plain. On that basis we have adopted a value of £0.010m per hectare for the Country Park areas.
- 5.1.6 We tabulate below the benchmark land values adopted for the purpose of this assessment.

<sup>3</sup> CLG 'Cumulative impacts of regulations on house builders and landowners Research paper' 2011

<sup>4</sup> Para 32: "the price paid for development land may be reduced.... a reduction in development land value is an inherent part of the CIL concept.... in some instances it may be possible for contracts and options to be re-negotiated in the light of the changed circumstances arising from the imposition of CIL charges."

**Table 5.1.6: Benchmark Land Value per Site at £0.350m per hectare with Country Park Land at £0.010m per hectare**

Strategic Site	Green Space at £0.010 per HA	Gross developable area at £0.350m per hectare	Site Value
Rawlings Green (B1)	17	34	£12,070,000
East Chippenham (C1)	35	56	£19,950,000
East Chippenham (C4)	39.4	68.6	£24,404,000
South Pewsham (D7)	15.5	47.9	£16,920,000
SW Chippenham (E2)	103	71	£25,880,000
SW Chippenham (E5)	75.4	82.5	£29,629,000

**Table 5.1.6.1: Benchmark Land Value per Site at £0.250m per hectare with Inclusion of Country Park Land at £0.010m per hectare**

Strategic Site	Country Park at £0.010 per HA	Gross developable area at £0.350m per hectare	Site Value
Rawlings Green (B1)	17	34	£8,670,000
East Chippenham (C1)	35	56	£14,350,000
East Chippenham (C4)	39.4	68.6	£17,544,000
South Pewsham (D7)	15.5	47.9	£12,130,000
SW Chippenham (E2)	103	71	£18,780,000
SW Chippenham (E5)	75.4	82.5	£21,379,000

- 5.1.7 We have modelled appraisals of the strategic sites proposed for development with affordable housing. We have then compared the residual land values for each development site against a benchmark land value, in order to determine whether the site (subject to current assumptions) could be brought forwards for development.
- 5.1.8 The results of our site appraisals are summarised below in sections 5.2 to 5.10.

## 5.2 Appraisal Results

We set out below the results of our assessments of each of the strategic sites.

### 5.3 Rawlings Green (B1 – 650 Units) Appraisal Results

- 5.3.1 We tabulate below the results of our assessment of Rawlings Green with 40% affordable housing.

**Table 5.3.1: Appraisal results with Benchmark Land Value at £0.350m per hectare and Green Space at £0.010m per hectare**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
40%	c. £14.045m	£12.070m	£1.975m	c. £0.237m	c. £0.275m	c. £0.038m

- 5.3.2 The results above demonstrate that with 40% affordable housing Rawlings Green generates a surplus of £0.038m per hectare when compared to the benchmark land value of £0.237m per hectare. As a result, the scheme can support 40% affordable housing.
- 5.3.3 We have benchmarked our appraisal results against a land value at the lower end of the CLG range and we tabulate the results below.

**Table 5.3.3: Appraisal results with Benchmark Land Value at £0.250m per hectare and Green Space at £0.010m per hectare**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
40%	c. £14.045m	£8.670m	£5.375m	£0.170m	c. £0.275m	c. £0.105m

- 5.3.4 In this scenario the adoption of a benchmark land value which reflects the value of land at the lower end of the CLG research range ensures that the site with 40% affordable housing generates a surplus of £0.105m per hectare.

### 5.4 East Chippenham (C1 – 850 Units) Appraisal Results

- 5.4.1 We set out below the results of our assessment of East Chippenham (C1) with 40% affordable housing.

**Table 5.4.1: Appraisal results with Benchmark Land Value at £0.350m per hectare and Green Space at £0.010m per hectare**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
40%	c. £19.618m	£19.950m	(- £0.332m)	c. £0.219m	c. £0.216m	(£0.003m)
39.41%	c. £19.965m	£19.950m	£0.015m	c. £0.219m	£0.219m	£0.000m

- 5.4.2 The results of our assessment demonstrate that East Chippenham (C1) with 40% affordable housing is marginally unviable when compared to the blended benchmark land value at £0.216m per hectare generating a deficit of c. £0.003m. We have amended our appraisal in order to demonstrate the level of affordable housing is viable and our amendment demonstrates that 39.41% is viable.
- 5.4.3 We have also benchmarked our appraisal results against a land value at the lower end of the CLG range and we tabulate the results below.

**Table 5.4.3: Appraisal results with Benchmark Land Value at £0.250m per hectare and Green Space at £0.010m per hectare**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
40%	c. £19.618m	£14.350m	£5.268m	c. £0.158m	c. £0.216m	£0.058m

- 5.4.4 In this scenario the adoption of a benchmark land value which reflects the value of land at the lower end of the CLG research range ensures that the site with 40% affordable housing generates a surplus of £0.058m per hectare.

## 5.5 East Chippenham (C4 – 1,350 Units) Appraisal Results

- 5.5.1 We tabulate below the results of our assessment of East Chippenham (C4) with 40% affordable housing.

**Table 5.5.1: East Chippenham Appraisal results with Benchmark Land Value at £0.350m per hectare and Green Space at £0.010m per hectare**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
40%	c. £29.500m	£24.404m	£5.100m	c. £0.226m	c. £0.273m	£0.047m

- 5.5.2 The results above demonstrate that East Chippenham (C4) with 40% affordable housing is viable toward the upper end of the CLG research range generating a surplus of £0.047m per hectare.
- 5.5.3 We have also benchmarked our appraisal results against a land value at the lower end of the CLG range and we tabulate the results below.

**Table 5.5.3: East Chippenham Appraisal results with Benchmark Land Value at £0.250m per hectare and Green Space at £0.010m per hectare**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
40%	c. £29.500m	£17.544m	£11.960m	c. £0.162m	c. £0.273m	£0.111m

- 5.5.4 In this scenario the adoption of a benchmark land value which reflects the value of land at the lower end of the CLG research range ensures that the site with 40% affordable housing generates a surplus of £0.111m per hectare.

## 5.6 South Pewsham (D7) Appraisal Results

- 5.6.1 We set out below the results of our assessment of South Pewsham (D7) with 40% affordable housing.

**Table 5.6.1: Appraisal results with Benchmark Land Value at £0.350m per hectare and Green Space at £0.010m per hectare**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
40%	c. £26.590m	£16.920m	£9.963m	£0.267m	£0.419m	£0.152m

- 5.6.2 The results above demonstrate that South Pewsham (D7) with 40% affordable housing is viable toward the upper end of the CLG research range generating a surplus of £0.152m per hectare.

- 5.6.3 We have also benchmarked our appraisal results against a land value at the lower end of the CLG range and we tabulate the results below.

**Table 5.6.3: Appraisal results with Benchmark Land Value at £0.250m per hectare and Green Space at £0.010m per hectare**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
40%	c. £26.590m	£12.130m	£14.753m	£0.191m	£0.419m	£0.228m

- 5.6.4 In this scenario the adoption of a benchmark land value which reflects the value of land at the lower end of the CLG research range ensures that the site with 40% affordable housing generates a surplus of £0.228m per hectare.

## 5.7 South West Chippenham (E2) Appraisal Results

- 5.7.1 We set out below the results of our assessment of South West Chippenham (E2) with 40% affordable housing.

**Table 5.7.1: Appraisal results with Benchmark Land Value at £0.350m per hectare and Green Space at £0.010m per hectare**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
40%	c. £29.393m	£25.880m	£3.891m	£0.149m	£0.169m	£0.020m

5.7.2 The results above demonstrate that South West Chippenham (E2) with 40% affordable housing is viable toward the upper end of the CLG research range generating a surplus of £0.020m per hectare.

5.7.3 We have also benchmarked our appraisal results against a land value at the lower end of the CLG range and we tabulate the results below.

**Table 5.7.3: Appraisal results with Benchmark Land Value at £0.250m per hectare and Green Space at £0.010m per hectare**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
40%	c. £29.393m	£18.780m	£10.613m	£0.108m	£0.134m	£0.026m

5.7.4 In this scenario the adoption of a benchmark land value which reflects the value of land at the lower end of the CLG research range ensures that the site with 40% affordable housing generates a surplus of £0.026 m per hectare.

## 5.8 South West Chippenham (E5) Appraisal Results

5.8.1 We set out below the results of our assessment of South West Chippenham (E5) with 40% affordable housing.

**Table 5.8.1: Appraisal results with Benchmark Land Value at £0.350m per hectare and Green Space at £0.010m per hectare**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
40%	c. £37.676m	£29.629m	£8.047m	£0.188m	£0.239m	£0.051m

5.8.2 The results above demonstrate that South West Chippenham (E5) with 40% affordable housing is viable toward the upper end of the CLG research range generating a surplus of £0.051m per hectare.

5.8.3 We have also benchmarked our appraisal results against a land value at the lower end of the CLG range and we tabulate the results below.

**Table 5.8.3: Appraisal results with Benchmark Land Value at £0.250m per hectare and Green Space at £0.010m per hectare**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
40%	c. £37.676m	£21.379m	£16.297m	£0.135m	£0.239m	£0.104m

- 5.8.4 In this scenario the adoption of a benchmark land value which reflects the value of land at the lower end of the CLG research range ensures that the site with 40% affordable housing generates a surplus of £0.104m per hectare.

### 5.9 South West Chippenham (E5) Appraisal Results with amended strategic transport link payment

- 5.9.1 We set out below the results of our assessment of South West Chippenham (E5) with 40% affordable housing.

**Table 5.9.1: Appraisal results with Benchmark Land Value at £0.350m per hectare and Green Space at £0.010m per hectare**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
40%	c. £38.396m	£29.629m	£8.767m	£0.188m	£0.243m	£0.055m

- 5.9.2 The results above demonstrate that South West Chippenham (E5) with 40% affordable housing is viable toward the upper end of the CLG research range generating a surplus of £0.055m per hectare.

- 5.9.3 We have also benchmarked our appraisal results against a land value at the lower end of the CLG range and we tabulate the results below.

**Table 5.9.3: Appraisal results with Benchmark Land Value at £0.250m per hectare and Green Space at £0.010m per hectare**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
40%	c. £38.396m	£21.379m	£17.017m	£0.135m	£0.243m	£0.108m

- 5.9.4 In this scenario the adoption of a benchmark land value which reflects the value of land at the lower end of the CLG research range ensures that the site with 40% affordable housing generates a surplus of £0.108m per hectare.



## 6 Sensitivity Analysis

### 6.1 Sensitivity Scenarios

- 6.1.1 We have utilised the results of the scenarios set out above as the basis for testing sensitivities for each site and scenario. This sensitivity analysis has been provided for illustrative purposes to assist the Council with understanding how the viability of the sites might be affected by movement in sales values and construction costs. However, it should be noted that the future trajectory of the housing market is inherently uncertain and predictions in respect of value growth/cost inflation cannot be relied upon.
- 6.1.2 For the purpose of this analysis we have modelled the following scenarios to the base appraisal results tabulated in section 5.
- 5% Reduction in Market Housing Sales Values
  - 10% Increase in Market Housing Sales Values with a 5% increase in construction costs

### 6.2 Rawlings Green (B1) Sensitivity Analysis

**Table 6.2.1: Appraisal results with Benchmark Land Value at £0.350m per hectare and a 5% reduction in market housing values**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£11.350m	£12.070m	(£0.720m)	£0.237m	£0.223m	(£0.014m)
39%	£12.121m	£12.070m	£0.051m	£0.237m	£0.238m	£0.001m

- 6.2.1 This sensitivity demonstrates that 40% affordable housing is unviable at Rawlings Green if sales values decrease by 5% when benchmarked against a land value toward the upper end of the CLG research range. As a result, we have re-modelled the scheme to ascertain a viable level of affordable housing and a reduction in sales values results in c. 39% affordable housing being viable.

**Table 6.2.2: Appraisal results with a Benchmark Land Value of £0.250m and a 5% reduction in market housing values**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ (Deficit) £m	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare £m
40%	£11.482m	£8.670m	£2.812m	£0.170m	c. £0.225m	£0.055m

- 6.2.2 A reduction in sales values of 5% at Rawlings Green with a benchmark land value at the lower end of the CLG range does not have a material impact on the affordable housing and 40% is still viable.

**Table 6.2.3: Appraisal results with a Benchmark Land Value of £0.350m and a 10% increase in market housing sales values and 5% increase in construction costs.**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£16.849m	£12.070m	£4.779m	£0.237m	£0.330m	£0.093m

- 6.2.3 This sensitivity demonstrates that a 10% increase in market housing values and 5% increase in construction costs generates a surplus of £0.093m per hectare when benchmarked against a land value toward the upper end of the CLG research range

**Table 6.2.4: Appraisal results with a Benchmark Land Value of £0.250m and a 10% increase in market housing sales values and 5% increase in construction costs**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£16.849m	£8.670m	£8.179m	£0.170m	£0.330m	£0.160m

- 6.2.4 When benchmarked against the lower end of the CLG range, the 40% affordable housing scheme generates a surplus of £0.160m per hectare.

### 6.3 East Chippenham (C1) Sensitivity Analysis

**Table 6.3.1: Appraisal results with Benchmark Land Value at £0.350m per hectare and a 5% reduction in market housing values**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£15.934m	£19.950m	(£3.706m)	£0.219m	£0.175m	(£0.044m)
32.35%	£19.972m	£19.950m	£0.022m	£0.219m	£0.219m	£0.00m

- 6.3.1 This sensitivity demonstrates that 40% affordable housing is unviable at East Chippenham if sales values decrease by 5% when benchmarked against a land value toward the upper end of the CLG research range. As a result, we have re-modelled the scheme to ascertain a viable level of affordable housing and a reduction in sales values results in c. 32.35% affordable housing being viable.

**Table 6.3.2: Appraisal results with a Benchmark Land Value of £0.250m and a 5% reduction in market housing values**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare
40%	£15.934m	£8.670m	£7.264m	£0.095m	c. £0.175m	£0.080m

- 6.3.2 A reduction in sales values of 5% at East Chippenham with a benchmark land value at the lower end of the CLG range does not have a material impact on the affordable housing and 40% is still viable generating a surplus of £0.080m.

**Table 6.3.3: Appraisal results with a Benchmark Land Value of £0.350m and a 10% increase in market housing sales values and 5% increase in construction costs.**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£23.503m	£19.950m	£3.553m	£0.219m	£0.258m	£0.039m

- 6.3.3 This sensitivity demonstrates that a 10% increase in market housing values and 5% increase in construction costs generates a surplus of £0.039m per hectare when benchmarked against a land value toward the upper end of the CLG research range

**Table 6.3.4: Appraisal results with a Benchmark Land Value of £0.250m and a 10% increase in market housing sales values and 5% increase in construction costs**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£23.503m	£14.350m	£9.153m	£0.158m	£0.258m	£0.100m

- 6.3.4 When benchmarked against the lower end of the CLG range, the 40% affordable housing scheme generates a surplus of £0.100m per hectare.

## 6.4 East Chippenham (C4) Sensitivity Analysis

**Table 6.4.1: Appraisal results with Benchmark Land Value at £0.350m per hectare and a 5% reduction in market housing values**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£24.144m	£24.404m	(£0.260m)	£0.226m	£0.224m	(£0.002m)
c.39.25%	£24.438m	£24.404m	£0.034m	£0.226m	£0.226m	£0.00m

- 6.4.1 This sensitivity demonstrates that 40% affordable housing is unviable at East Chippenham if sales values decrease by 5% when benchmarked against a land value toward the upper end of the CLG research range. As a result, we have re-modelled the scheme to ascertain a viable level of affordable housing and a reduction in sales values results in c. 39.25% affordable housing being viable.

**Table 6.4.2: Appraisal results with a Benchmark Land Value of £0.250m and a 5% reduction in market housing values**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare	Surplus/ (Deficit) per hectare £m
40%	£24.144m	£17.544m	£6.600m	£0.162m	c. £0.224m	£0.062m

- 6.4.2 A reduction in sales values of 5% at East Chippenham with a benchmark land value at the lower end of the CLG range does not have a material impact on the affordable housing and 40% is still viable in addition to generating a surplus of £0.062m.

**Table 6.4.3: Appraisal results with a Benchmark Land Value of £0.350m and a 10% increase in market housing sales values and 5% increase in construction costs.**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£34.999m	£24.404m	£10.595m	£0.226m	£0.324m	£0.098m

- 6.4.3 This sensitivity demonstrates that a 10% increase in market housing values and 5% increase in construction costs generates a surplus of £0.098m per hectare when benchmarked against a land value toward the upper end of the CLG research range

**Table 6.4.4: Appraisal results with a Benchmark Land Value of £0.250m and a 10% increase in market housing sales values and 5% increase in construction costs**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£34.999m	£17.544m	£17.455m	£0.162m	£0.324m	£0.162m

- 6.4.4 When benchmarked against the lower end of the CLG range, the 40% affordable housing scheme generates a surplus of £0.162m per hectare.

## 6.5 South Pewsham (D7) Sensitivity Analysis

**Table 6.5.1: Appraisal results with Benchmark Land Value at £0.350m per hectare and a 5% reduction in market housing values**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£22.174m	£16.920m	£5.254m	£0.267m	£0.350m	£0.083m

- 6.5.1 This sensitivity demonstrates that 40% affordable housing is viable at South Pewsham if sales values decrease by 5% when benchmarked against a land value toward the upper end of the CLG research range.

**Table 6.5.2: Appraisal results with a Benchmark Land Value of £0.250m and a 5% reduction in market housing values**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£22.174m	£12.130m	£10.04m	£0.191m	£0.350m	£0.159m

- 6.5.2 A reduction in sales values of 5% at South Pewsham with a benchmark land value at the lower end of the CLG range generates a surplus of £0.159m per hectare with 40% affordable housing.

**Table 6.5.3: Appraisal results with a Benchmark Land Value of £0.350m and a 10% increase in market housing sales values and 5% increase in construction costs.**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£31.221m	£16.920m	£14.659m	£0.267m	£0.492m	£0.225m

- 6.5.3 This sensitivity demonstrates that a 10% increase in market housing values and 5% increase in construction costs generates a surplus of £0.225m per hectare when benchmarked against a land value toward the upper end of the CLG research range

**Table 6.5.4: Appraisal results with a Benchmark Land Value of £0.250m and a 10% increase in market housing sales values and 5% increase in construction costs**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£31.221m	£12.130m	£19.091m	£0.191m	£0.492m	£0.301m

- 6.5.4 When benchmarked against the lower end of the CLG range, the 40% affordable housing scheme generates a surplus of £0.301m per hectare.

## 6.6 South West Chippenham (E2) Sensitivity Analysis

**Table 6.6.1: Appraisal results with Benchmark Land Value at £0.350m per hectare and a 5% reduction in market housing values**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£25.160m	£25.880m	(£0.720m)	£0.149m	£0.146m	(£0.003m)
39.2%	£25.939m	£25.880m	£0.059m	£0.149m	£0.149m	£0.000m

- 6.6.1 This sensitivity demonstrates that 40% affordable housing is marginally unviable at South West Chippenham if sales values decrease by 5% when benchmarked against a land value toward the upper end of the CLG research range. As a result, we have re-modelled the scheme to ascertain a viable level of affordable housing and a reduction in sales values results in c. 39.2% affordable housing being viable.

**Table 6.6.2: Appraisal results with a Benchmark Land Value of £0.250m and a 5% reduction in market housing values**

% of Affordable Housing	Residual Land Value	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare £M
40%	£25.160m	£18.780m	£6.380m	£0.108m	£0.146m	£0.038m

- 6.6.2 A reduction in sales values of 5% at South West Chippenham with a benchmark land value at the lower end of the CLG range generates a surplus of £0.038m per hectare with 40% affordable housing.

**Table 6.6.3: Appraisal results with a Benchmark Land Value of £0.350m and a 10% increase in market housing sales values and 5% increase in construction costs.**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£33.820m	£25.880m	£7.940m	£0.149m	£0.194m	£0.045m

- 6.6.3 This sensitivity demonstrates that a 10% increase in market housing values and 5% increase in construction costs generates a surplus of £0.045m per hectare when benchmarked against a land value toward the upper end of the CLG research range.

**Table 6.6.4: Appraisal results with a Benchmark Land Value of £0.250m and a 10% increase in market housing sales values and 5% increase in construction costs**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ (Deficit) £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ (Deficit) per hectare £m
40%	£33.820m	£18.780m	£14.950m	£0.108m	£0.194m	£0.086m

- 6.6.4 When benchmarked against the lower end of the CLG range, the 40% affordable housing scheme generates a surplus of £0.086m per hectare.

## 6.7 South West Chippenham SLR (E5) Sensitivity Analysis

**Table 6.7.1: Appraisal results with Benchmark Land Value at £0.350m per hectare and a 5% reduction in market housing values**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ Deficit £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ Deficit per hectare £m
40%	£32.458m	£29.629m	£2.829m	£0.188m	£0.206m	£0.018m

- 6.7.1 This sensitivity demonstrates that 40% affordable housing is viable at South West Chippenham if sales values decrease by 5% when benchmarked against a land value toward the upper end of the CLG research range.

**Table 6.7.2: Appraisal results with a Benchmark Land Value of £0.250m and a 5% reduction in market housing values**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ Deficit £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ Deficit per hectare £m
40%	£32.458m	£21.379m	£11.079m	£0.135m	£0.206m	£0.071m

- 6.7.2 A reduction in sales values of 5% at South West Chippenham with a benchmark land value at the lower end of the CLG range generates a surplus of £0.071m per hectare with 40% affordable housing.

**Table 6.7.3: Appraisal results with a Benchmark Land Value of £0.350m and a 10% increase in market housing sales values and 5% increase in construction costs.**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ Deficit £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ Deficit per hectare £m
40%	£43.606m	£25.880m	£17.726m	£0.188m	£0.276m	£0.088m

- 6.7.3 This sensitivity demonstrates that a 10% increase in market housing values and 5% increase in construction costs generates a surplus of £0.088m per hectare when benchmarked against a land value toward the upper end of the CLG research range.

**Table 6.7.4: Appraisal results with a Benchmark Land Value of £0.250m and a 10% increase in market housing sales values and 5% increase in construction costs**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ Deficit £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ Deficit per hectare £m
40%	£43.606m	£21.379m	£22.227m	£0.136m	£0.276m	£0.140m

When benchmarked against the lower end of the CLG range, the 40% affordable housing scheme generates a surplus of £0.140m per hectare.

## 6.8 South West Chippenham Amended STL Costs (E5) Sensitivity Analysis

**Table 6.8.1: Appraisal results with Benchmark Land Value at £0.350m per hectare and a 5% reduction in market housing values**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ Deficit £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ Deficit per hectare £m
40%	£32.151m	£29.629m	£2.552m	£0.188m	£0.204m	£0.016m

- 6.8.1 This sensitivity demonstrates that 40% affordable housing is viable at South West Chippenham if sales values decrease by 5% when benchmarked against a land value toward the upper end of the CLG research range.

**Table 6.8.2: Appraisal results with a Benchmark Land Value of £0.250m and a 5% reduction in market housing values**

% of Affordable Housing	Residual Land Value	Benchmark Land Value	Surplus/ Deficit	Benchmark Per Hectare	RLV per Hectare	Surplus/ Deficit per hectare
40%	£32.151m	£21.379m	£10.772m	£0.135m	£0.204m	£0.069m

- 6.8.2 A reduction in sales values of 5% at South West Chippenham with a benchmark land value at the lower end of the CLG range generates a surplus of £0.069m per hectare with 40% affordable housing.

**Table 6.8.3: Appraisal results with a Benchmark Land Value of £0.350m and a 10% increase in market housing sales values and 5% increase in construction costs.**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ Deficit £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ Deficit per hectare £m
40%	£43.302m	£25.880m	£17.442m	£0.188m	£0.274m	£0.086m

- 6.8.3 This sensitivity demonstrates that a 10% increase in market housing values and 5% increase in construction costs generates a surplus of £0.086m per hectare when benchmarked against a land value toward the upper end of the CLG research range.

**Table 6.8.4: Appraisal results with a Benchmark Land Value of £0.250m and a 10% increase in market housing sales values and 5% increase in construction costs**

% of Affordable Housing	Residual Land Value £m	Benchmark Land Value £m	Surplus/ Deficit £m	Benchmark Per Hectare £m	RLV per Hectare £m	Surplus/ Deficit per hectare £m
40%	£43.302m	£21.379m	£21.923	£0.136m	£0.274m	£0.138m

- 6.8.4 When benchmarked against the lower end of the CLG range, the 40% affordable housing scheme generates a surplus of £0.138m per hectare.



## 7 Conclusions and Recommendations

- 7.1.1 The NPPF states that the cumulative impact of emerging local planning authority standards and policies “should not put implementation of the plan at serious risk, and should facilitate development throughout the economic cycle”. This report and its supporting appendices test this proposition within the Chippenham area on behalf of Wiltshire Council.
- 7.1.2 We have tested the impact of the Council’s affordable housing policies and other requirements (such as strategic transport links and education contributions etc) and we tabulate the results of our updated assessment below.

**Table 7.1.2: Summary of Viable Affordable Housing Scenarios**

Site	Viable Affordable Housing Scenario adopting Benchmark at Upper CLG range at £0.350m per hectare	Viable Affordable Housing Scenario adopting Benchmark at Lower CLG range at £0.250m per hectare
Rawlings Green (B1)	40%	40%
East Chippenham (C1)	39.41%	40%
East Chippenham (C4)	40%	40%
South Pewsham (D7)	40%	40%
South West Chippenham (E2)	40%	40%
South West Chippenham SLR (E5)	40%	40%
South West Chippenham (E5)	40%	40%

- 7.1.3 In summary, the results generated by our appraisals demonstrate that 6 of the strategic sites can viably provide the required strategic infrastructure costs, CIL and 40% affordable housing. East Chippenham is marginally unviable when benchmarked against a land value at the upper end of the CLG range; however, this site can support 39.41% affordable housing.
- 7.1.4 As noted in earlier sections of this report, the NPPF requires that developments should generate a competitive return for developers and landowners. The competitive return for developers is addressed through the inclusion of a profit margin as a cost in each appraisal. The return to the landowner needs to be addressed through a capital sum for releasing land for development.
- 7.1.5 It should be noted that there is no single threshold return that can be assumed for all landowners and, in practice, the return would be scheme specific and determined by individual site factors.
- 7.1.6 However it is clear from the results set out above that benchmark land values have a significant influence on the level of surplus in addition to the 40% affordable housing that each site can support. Assumptions about owners’ expectations of land value make a large difference in terms of viability.