Wheatley Neighbourhood Plan: site based development appraisals

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Site-based development appraisals have been conducted on four sites identified in the draft Wheatley Neighbourhood Plan. The report explains the key variable inputs and assumptions applied in carrying such appraisals. It also provides an appreciation of the national and local policy and market context in which these sites are situated. The findings from the appraisals indicate that the four sites are viable.

Professor Stephen Walker

1. Preamble

This report presents the findings from a study involving the appraisal of development viability for the emerging Wheatley Neighbourhood Plan [WNP], which focuses on the impact of delivering the viable development [housing and industrial uses] taking into account the local Council's affordable housing policy requirements and other mitigation costs arising from housing development secured through planning obligations [also called S106 legal agreements].

WNP commissioned Professor Stephen Walker to carry out site-based development viability appraisals on **four sites** that have been identified in the draft Neighbourhood Plan[1]. Three of the four sites are currently designated as green belt and the WNP is seeking to have these sites re-designated for housing and industrial uses as well as providing green public open space. Specifically, the four sites are:

- **WHE 15**: this open land, in agricultural use. Its western boundary is bordered by housing known as Lloyd George housing.
- **WHE 16**: The bungalows site, which is situated on London Road, on the eastern side of the village, where industrial and other commercial uses have been allowed to grow and flourish.
- **WHE17**: This is contiguous with WHE 15, also open land in agricultural use, though its eastern boundary borders the industrial units accommodating aggregates and building materials' businesses.
- **WHE 22**: is a site located at the core of Littleworth which accommodates a number of industrial and motor repair vehicles' businesses.

A number of photographs of these sites [located in the appendix] provide interesting images of their current situation but also challenges that will have to be met in the process of development.

The planning policy context and the clear objectives for releasing the above sites from the green belt are clearly explained as follows:

> *"The Local Plan 2011–2034 Final Publication 2nd establishes the need for the release of Green Belt land in Wheatley and on its adoption will allow the WNP to support the coordinated development of WHE15, WHE16, WHE17 and WHE22 mindful of the provisions set out in policy GBBA1. Such a Village Enhancement Plan will* ***provide housing in a shorter timescale than that envisaged for the OBU site and at the same time improve connectivity through the village, rationalise light industry and provide opportunities for employment*** *at the expense of only a small loss of Green Belt."*
> [See paragraph 11.1, p.48, WNP, 2019]. [Emboldened is my emphasis.]

Site-based development viability appraisals involve taking into account site-specific factors which influence their development potential and explicitly take account of the local market context; site conditions; and the Planning Authority's extant planning and housing policy requirements and other mitigation costs [see MHCLG, 2018a & 2018b; SODC, 2011; 2016; & 2019].

The rest of the Report is organized as follows:

2. Development viability appraisal methodology

[1] See in particular Wheatley Neighbourhood Plan *Site Assessment*, Appendix 2, undated

2. Development viability appraisal methodology

The appraisal methodology uses current market values and building and other development costs relating to site-specific housing development schemes. However, as all "our" knowledge is the past and decision-making is required now for development to commence in the future, it is necessary to ensure that the variable inputs [and any assumptions] reflect markets and policy positions now [i.e. in present value terms].

In essence, conducting a development appraisal is relatively simple and straightforward; the basic framework for development appraisal involves conducting a residual [land] valuation estimate [RLVE]. This can be expressed in the form of a generic formula:

GDV - (BC + P) = RLVE

Where:
GDV = Gross Development Value
BC = Building Costs, including abnormal costs, planning obligations, fees, interest, stamp duty land tax
P = Developer's Capital Profits
RLVE = Residual Land Value Estimate [i.e. the unencumbered land bid budget]

For our purposes, this basic equation can be presented and re-arranged, as follows:

[1] **GDV - (BC + P) = RLVE**
Here the Land Value is a residual. This is the maximum amount that can be offered to buy the land by the developer assuming a minimum target rate of profit.

[2] **GDV - (BC + RLVE) = P**
Here the Land Value is known; and hence becomes a price. The Profit is a residual in this equation.

[3] **GDV = (BC + P + RLVE)**
Here the GDV is made up of the three main "cost" elements which explicitly include the developer's profit.

From these different equations we can identify critical values for:

- Those who are seeking to **sell or buy land**; Equation 1.
- The amount of **profit** that might be achieved by the developer having **already purchased the land**; Equation 2; and
- Revealing the three **basic "costs"** that comprise the GDV: Equation 3.

For this site-based set of development appraisals **Equation 1** is the crucial reference point.

To appraise viability, the resultant RLVE [i.e. future use land value budget] must be compared with known land values [existing or current use values] that reflect current market conditions, site conditions and, crucially, the planning and housing policy environment in which

development is to occur. Viability is compromised when the RLVE [the developer's land bid budget] falls below the value of land that incentivises the landowner to agree to sell. However, current guidance makes clear that if these attributes are ignored, contesting viability cannot be supported if the land price agreed between the two parties is not in line with a site's worth/value [MHCLG, 2018a], i.e. the developer has overpaid for the land or the landowner has set a too optimistic land value threshold.

The development appraisals were carried out using a cash flow based methodology which Professor Stephen Walker has specifically prepared in Microsoft Excel©. This spreadsheet environment provides the flexibility to input a wide range of policy variables and parameters across a number of development scenarios.

3. Assumptions used to inform the development viability appraisals

The assumptions are informed by a review of economic theory and policy guidance on the practice of conducting development appraisal, especially relating to contesting viability, namely Ratcliffe et al [2009]; The NPPF [MHCLG, 2018a]; NPPG [MHCLG, 2018b]; The Planning Inspectorate [PI, 2013]; The Harman Report [2012]. In short it is contended that the approach adopted in this Report is up-to-date and rigorous.

The principal assumptions and inputs used to inform the four site-based development appraisals are summarised in the following commentary and tabulated information.

House Prices: The Aspinall Verdi [AV] Residential Market Review, SODC Viability Study [July 2017] sets out the data sets generated from research of South Oxfordshire's local housing markets. Importantly, this study reveals the key variable inputs in respect of new build house prices and typical dwelling sizes [see Table 1, below]. These have informed the relevant variable inputs in respect of proposed housing development on the sites that are the subject of site-based viability appraisals [i.e. WHE15 and 17; WHE22 and WHE16]. To ensure that the site-based development appraisals are carried out in today's values [i.e. now] the base new build house price inputs have been up-rated to take account of any rise in the ONS new house price index since that AV study was published [i.e. July 2017]. For SODC this index has increased over the 18 months to December 2018 by 3.694%. The average new build house price across SODC was £411,347. As with other housing market areas, new houses prices have increased at a slightly faster rate than existing properties since the 2nd Quarter of 2016.

A recently completed study by the National Audit Office [NAO, 2019], and another report by Morgan Stanley [MS, 2017], indicates that this phenomenon is a direct product of the government's Help to Buy scheme that is designed to help households to be first-time owner-occupiers. Perversely, this has generated the "inflation" rush as well as delivering super-normal profits to the house-builders participating in these schemes [see FAME, 2019].

The same AV report also reveals the typical transfer values of affordable housing [social rent and affordable units for sale] that have been achieved in SODC. The site-based appraisals of the sites in Wheatley have adopted these transfer value inputs in generating equivalent values for the affordable units being delivered based on SODC extant policy requirement of 40% of the total number of dwellings above ten units [see Table 2, below].

Table 1: Market Value Inputs: Prices and Sizes		
Wheatley Appraisals	**£/m2**	**Comments/Sources**
Market Value[MV] Units	£4,600-£4,700	
Affordable for Sale	80% of MV	

Affordable/Social for Rent	44% of MV	Informed by AV Residential Market Review, SODC Viability Study [July 2017] see p.48 and p.71]; updated by ONS.
Unit Sizes [m2]	**All Tenures**	
Type 1	55	Informed by AV Residential Market Review, SODC Viability Study [July 2017] [see p.75]
Type 2	70	
Type 3	90	
Type 4	120	

Table 2: SODC: Breakdown of Housing Units for a hypothetical 100 Unit Scheme		
Market Units	60%	60
SODC Policy Compliant Affordable Housing Proportion	40%	40
Affordable Units for Sale of AH Provision	25%	10
Affordable/Social Units for Rent of AH Provision	75%	30

Commercial/Industrial Plot Ratios: These are informed by the evidence presented in the URS Final Report on ***South Oxfordshire Employment Land Review*** [dated September 2015], see Table 3 below.

Table 3: Plot Ratios Options			
Land Uses [plot ratios]	**2008 ELR study**	**VOA study**	**URS 2015**
Industrial	1:0.4	1:0.2	1:0.3
Warehousing	1:0.5	1:0.2	1:0.3
Source: URS Final Report *South Oxfordshire Employment Land Review,* September 2015, especially p.71, p.81 and pp.101-103.			

The plot ratio is an important factor in transforming the site area allocated to the industrial uses and a site's net developable area. It is the latter than dictates the value side of the appraisal while the cost side, has to cover the cost of the whole site. On a cautionary basis a plot ratio of **1:0.02** has been applied so as to reflect the specific local business needs, especially from those currently operating on the Littleworth site [i.e. WHE 22].

Table 4: Industrial Rents and Yields				
	£/m2/pa	**£/ft2/pa**	**Yield [%]**	
Industrial	£6.5	£70	5.4	Source: Carter Jonas, ***Commercial Edge: Oxfordshire***, Spring 2019, p.6 and information from business operators on the Littleworth site [WHE 22]

Evidence from the businesses operating on the Littleworth site [WHE22], confirm that these inputs are reasonable and are corroborated by the Carter Jonas evidence [see Table 4].

The data sets for the industrial uses are more fragmented than those for the housing market. This means that the inputs used in the development appraisals need to be treated with caution; in this situation it is wise to treat the data inputs as variables so that we can understand how different inputs affect the appraisal of land worth.

Table 5: Build Prices and related fees and other costs		
BCIS adjusted to SODC [May 2019]	**£/m2**	**Comments**
Housing Units	£1,344	Median prices

Industrial/factory/warehousing	£619	Median prices
Apartments	£1,527	Median prices
External Costs [Industrial]	5%	
External Costs [Housing]	10%	15% for the WHE16
Professional Fees	8%	
Preliminaries	8%	
Contingency Sum	3%	5% for WHE 22
Contractor's Profit extracted	5%	
Abnormal Development Costs	Lump Sums	WHE 22 & WHE16

Build Prices accessed from Building Cost Information Service [BCIS] include preliminaries and a line of costs for the contractor's profit. The appraisals extract these sums to generate a base-line build costs; however, an explicit line of cost is identified separately for preliminaries. Table 5 also contains the other cost inputs that are typically aligned with the base-line build costs, but there are variations that have been applied for some sites [e.g. WHE 16 and WHE 22] because of the nature of the developments or site conditions.

Table 6: Community Infrastructure Levy and S106 Policy Costs		
CIL on Market Homes only [£/m2]	£173.45	SODC up-rated for 2019 from the initial rate of £150/m2 for Residential Zone 1. See SODC, CIL Indexation Guidance Note [undated]. Under current SODC guidance 25% of this sum will be transferred to the Parish Council [given existence of NP].
S106 Costs [for open space] [£/m2]	£20 [WHE15] & £15 [WHE17]	This is to provide the open/recreational space off-site as part of the overall scheme [WHE15], This provides around £215,000 contribution from both sites [WHE15 and WHE17] to establish the space and provide a **commuted sum** to ensure future management and maintenance. The open space to be provided free: equivalent to 20% of the gross site area [c.1.3224 hectares].

Building out sites will also triggered **specific costs** [see Table 6]in relation to Community Infrastructure Levy [CIL] and additional costs that are necessarily required to mitigate development impacts, which are normally secured through planning obligations [i.e. S106].

Table 7: Other fees and charges	
Rate of Interest plus fees [%]	6 plus 0.85
Discount Rate [%]	6
Professional fees [%] (architects...)	8
Legal fees [%] (site acquisition)	1.5
Legal fees [%] (sales of units)	0.5
Selling Agents' fees [%] (housing)	1
Selling Agents' fees [%] (business)	0
Marketing/Advertising [£/unit]	£1,500
NHBC Fees [£/unit]	£1,200
Planning Fees [£]	prescribed
Stamp Duty Land Tax [£]	prescribed

Table 7 sets **out the kind of fees and charges** that are typically incurred in carrying out development. The rate of interest is set inclusive of banking valuation and monitoring fees,

while the discount rate is used to convert future values to the present so that the residual land value is expressed in real terms rather than in prices on completion of development. There is no such thing as a unique or single discount factor [rate], however in the absence of any information from prospective developers on their "time value of money, it is recommended that applying the market rate of interest is appropriate [see Havard, 2008].

Importantly some of the sites are likely to incur other costs and these are displayed in the following set of tables: Tables 8, 9, 10 and 11.

Table 8: Site WHE 22 - Abnormal Development & Policy Costs		
Land Contamination Costs		£150,000
Demolition Costs & extraction of underground tanks		£100,000
Extra costs for foundations: instability, sloping site, back filling		£210,000
Additional Car Parking fronting the site		£50,000
Improvements to neighbouring "green"		£20,000
Total		**£530,000**
£/unit		**£18,929**
Policy Costs	**Total**	**£/m2**
S106 Costs	£93,000	£50
CIL payment	£193,570	£173.45

Table 9: Site WHE16 – Abnormal Development & Policy Costs		
New access from London Road to rear of site, including resurfacing of all roads serving 148-158 London Road		£50,000
Improvement of open space to the front of site		£25,000
Drainage		£25,000
Total		**£100,000**
£/unit		**£10,000**
Policy Costs	**Total**	**£/m2**
S106 Costs	**£0**	£0
CIL payment	**£111,008**	£173.45

Table 10: Site WHE15/17 – Housing Only [25%] Abnormal Development & Policy Costs		
Abnormal Development Costs [Estimate]		
Total		**£0**
£/unit		**£0**
Policy Costs	**Total**	**£/m2**
S106 Costs [Open Space]	**£104,000**	£20
CIL payment	**£541,614**	£173.45

Table 11; Site WHE15/17 – Industrial Units only [55%] Abnormal Development & Policy Costs		
Abnormal Development Costs [Estimate]		
Total		**£0**
£/unit		**£0**
Policy Costs	**Total**	**£/m2**
S106 Costs [Open Space]	**£109,00**0	£15
CIL payment	£0	£0

Crucially, the appraisals have included provision for establishing **green public open space** where 20% of the gross site area [comprising WHE 15 & 17], which will involve the use of a planning obligation to deliver the site at zero price, plus a commuted sum to ensure its long term management and maintenance, which will need to be passed to a recognised responsible body, for example the local Parish Council, [see Tables 10 and 11].

Sites and their Policy Context

This section simply provides extracts from the draft Wheatley Neighbourhood Plan [WNP, 2019] covering the four sites that have been subject of development appraisals:

WHE22 Site:

"*There is a light industry park at the east end of the village which has grown somewhat haphazardly since the 1950s. It includes four plant and building materials suppliers together with a garage business and also there is a business park (Wheatley Business Centre).* ***Four car workshops are located at Littleworth on a site that is in disappointing condition at the centre of Littlew****orth*." [See paragraph 4.17, WNP, 2019]

WHE15/17 Sites:

"*The retail activities in Wheatley centre are mainly food shops (the Co-op, Costcutter, a well-established baker and butcher) and catering (pub, restaurant, chip shop and take away). Among other High Street services there is the post office, a solicitor, hairdressers, pharmacy, dog grooming, estate agent, a laundrette and a tattooist. Above the High Street on Church Road services include another pub, an architect's business, garage, dentist, the library, the parish church and a further estate agent. A car tyre supplier operates on Holloway Road and a veterinary practice can be found on Roman Road.* ***On the village perimeter, there is a motel complex, an ASDA store and petrol station, a car sales outlet, a coach depot and two garden centres.*** [See paragraph 4.16, WNP, 2019].

WHE16 Site:

"*Wheatley has experienced substantial expansion since the early 1960's which has resulted in the creation of a site for light industry towards the eastern parish boundary. The idea for this site was to accommodate the relocation of badly sited industry in other parts of the village. Development of this light industrial area has had benefits in terms of employment and also in providing a location for the village sewage works. Planning however has not been well coordinated to the extent that a small development of 6 bungalows (148 – 158 London Road (even numbers)) has become isolated, not only within this area but also disconnected from the main settlement, serviced only by an un-adopted road and located next to the sewage works. The bungalows lie in a site designated as WHE16 (Figure 11.3) and located almost completely within the light industrial area.* ***At the front and rear of the bungalows lie two portions of land within the Green Belt but which would be suitable for release from the Green Belt thereby permitting a small development.*** *It would be desirable to reconcile the effects of historical planning decisions that would now appear to be inappropriate and improve the character of WHE16 together with providing connectivity to the rest of the village*." [See paragraph 11.4, WNP, 2019]

Finally, Table 12 summarises the content of the proposed development on the four sites in Wheatley.

Table 12: Proposed Content of Development

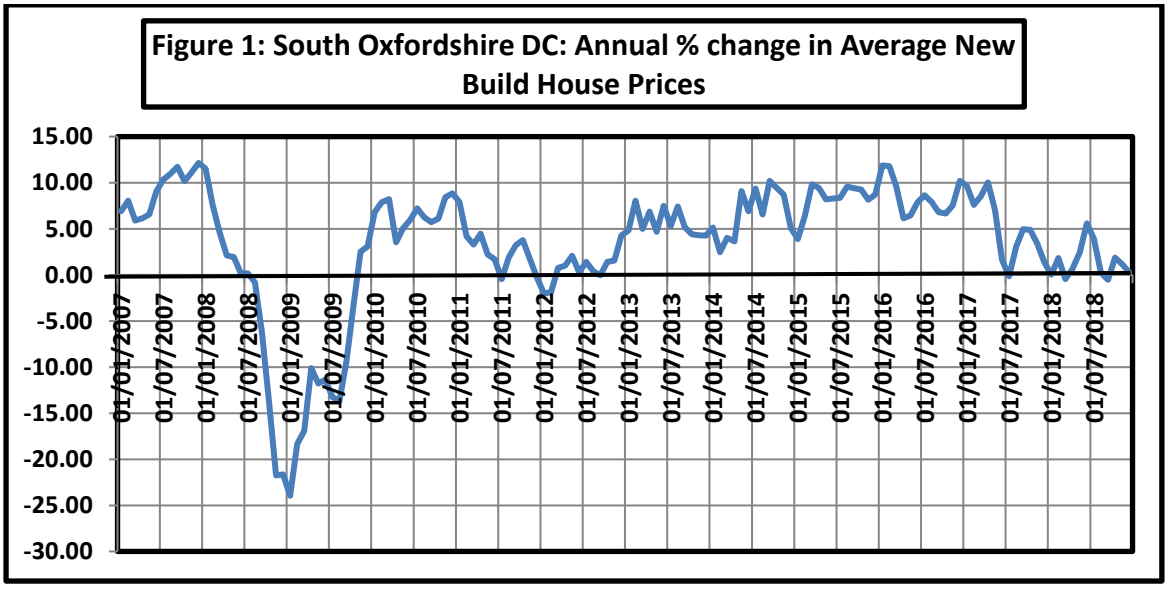
Sites	Gross site size[m2]	Dwellings	Gross Built Floor space [m2]	Open Space [m2]
WHE 15/17 Housing	1.6555	55		13,224
WHE 15/17 Industrial Units	3.6421		7284.2	
WHE 16	3,500	10		1,400
WHE22	8,110	28		811 + green

4. Market and Policy Context

Prior to presenting the site-based development appraisals, the following commentary focuses on the market and policy context in which the sites must take into account, namely:

- Local New House Prices: the trajectory of new build house prices in South Oxfordshire
- What is land worth?
- Land values and policy requirements
- Existing use values

Local New House Prices



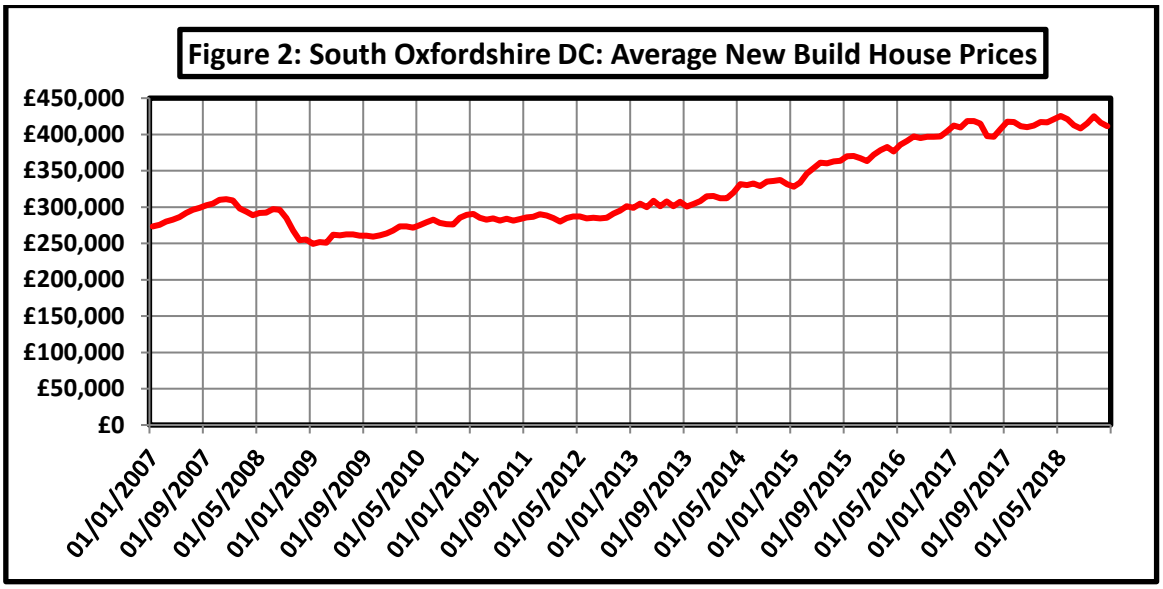
The Office for National Statistics [ONS] has produced a new build house price index. Figure 1 shows the percentage annual change in [average] new build house prices for SODC [ONS, May 2019]. As with many other housing markets, the data clearly identifies the impact of the banking crisis and the rapid decline in house prices [and volume of transactions] between mid-2007 and mid-2010. Another distinctive attribute is the repetitive cyclical changes in new house prices. It is against this background that house builders have to purchase land, build out and sell dwellings and exit their sites, hopefully, with their desired rate of profit.

The path of new build house prices in SODC can be more clearly discerned from Figure 2, which shows that it took six years[2] [i.e. to December 2013] for new build house prices to reach the same levels as last achieved in December 2007 being £310,000 on average. Since then new build house prices have continued to rise to reach a new peak of £425,000 by May 2018, before falling back to just over £411,000 in December 2018 [ONS, May, 2019]. Indeed, in the last 16 months

[2] In housing markets in the northern England, this period of recovery was significantly longer.

[to December 2018], average new build house prices in SODC have risen and fallen back to prices that had been achieved in July 2017.

Nevertheless, this acceleration in the prices of new build housing underpins the buoyancy in the land values being achieved in SODC, since house price is the most powerful of the factors explaining land values [see Ratcliffe et al, 2009, p.422].



What is land worth?

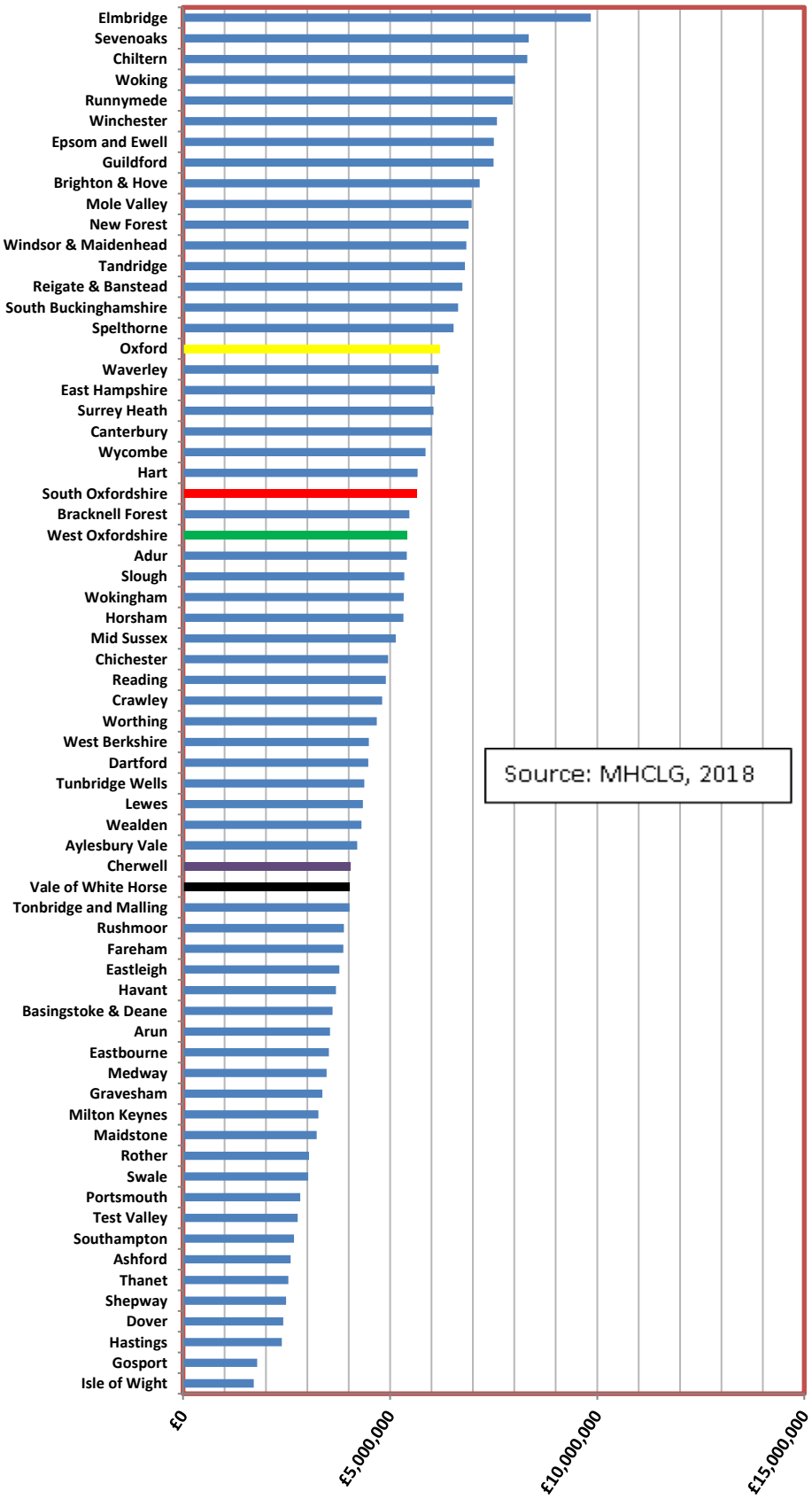
It is always intriguing to know what land is worth. Economic theory informs us that use determines value. As land has to mediate the planning system, the specific policy parameters of each planning authority will therefore have a big and direct impact on the use of land and hence its value. Indeed, the NPPF [MHCLG, 2018a] reinforces this point by stressing that developers and landowners cannot contest viability if they, in setting land price levels, ignore not only the particular market conditions, the site's specific attributes, but the extant planning and housing policy requirements of an up-to-date local plan.

As a starting point we can draw on a relatively new set of data published under the title of "*Land Value Estimates for Policy Appraisal*" by MHCLG, which is a "green book" valuation of land value[3] generated by the Valuation Office Agency [VOA]. In essence, the land value estimates reflect a "policy off" estimate.

Figure 3 presents the most recently released data of residential land values for all the local authorities in the South East Region [MHCLG, May 2018c], showing significant differences between the highest [i.e. Elmbridge] at £9.85m/hectare and the lowest [i.e. Isle of Wight] at £1.7m/hectare]. South Oxfordshire is recorded at £5.645m/hectare which is above the median value for the South East region at £4.81m/hectare [at April 2017 prices]. [The Oxfordshire councils are picked out in colours other than blue.]

[3] It is vital to consult Annex A of the MHCLG 2018 report, as it sets out in very clear terms the assumptions applied in generating the land value estimates.

Figure 3: Land Value Estimates: South East Region [£/hectare]



Vitally, these land value estimates [Table 13] explicitly **exclude** any of the usual policy requirements that have to be met if a planning permission is granted for development. It is possible to illustrate the impact of delivering policy requirements [i.e. affordable housing, on and off-site planning requirements [via S106 agreements]] as well as accounting for any site specific attributes or constraints [e.g. contamination, abnormal development costs].

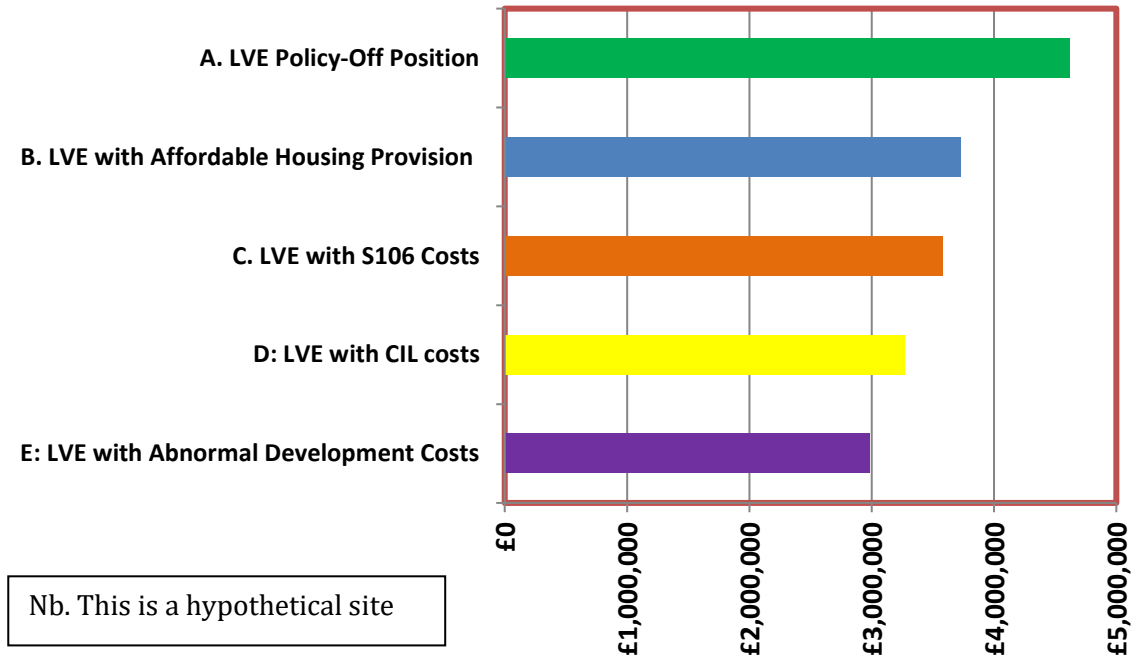
Table 13: Land Value Estimates for Oxfordshire Councils [Policy Off Position]

£/hectare	2014	2015	2017	% change over the 4 years
South Oxfordshire	**£3,686,000**	**£4,205,000**	**£5,640,000**	**34.65**
Oxford City	£4,327,000	£5,020,000	£6,205,000	**30.27**
West Oxfordshire	£3,002,000	£3,360,000	£5,420,000	**44.61**
Vale of White Horse	£2,656,000	£3,100,000	£4,030,000	**34.09**
Cherwell	£2,585,000	£3,260,000	£4,045,000	**36.09**

Source: Land Value Estimates for Policy Appraisal (2014), February 2015, CLG; Land Value Estimates for Policy Appraisal (2015), December 2015, CLG; & Land Value Estimates for Policy Appraisal [2017), May 2018, MH&CLG.

Replicating the VOA appraisal methodology for SODC in today's market conditions [i.e. at 2019 prices], the Land Value Estimate has fallen to £4.62m per hectare, which is 18.16% lower than the April 2017 figure. This reflects the stalling in new build house price rises and continuing growth in build costs in building out sites over this recent period.

Figure 4: South Oxfordshire DC: Cumulative Impact of Policy & Other Site Costs on Land Value Estimate [LVE] [£/ha] in 2019



Nb. This is a hypothetical site

For a hypothetical site, Figure 2 shows the extent to which the cumulative impact of policy and site costs reduces the "policy off" LVE. Thus, by generating "policy on" LVEs for individual sites, this will reveal the worth of these sites taking into account the local policy requirements, market context and site conditions [e.g. in South Oxfordshire].

One thing that should be expected from conducting development appraisals is that differences in site issues, notwithstanding meeting a planning authority's policy requirements, will be reflected in differences between the sites' LVEs. The reasons and core purpose for conducting development appraisals is to ensure that such sites are not rendered unviable.

Land values and policy requirements

The main policy requirement for developer contributions [in financial terms] has been to provide affordable housing. The effect of these policy requirements has filtered through in land value negotiations, which over the last 5 or so years have coincided with a house price increases and subsequent recovery in real terms of new build house prices [especially since the beginning of 2013], though the last 18 months housing prices increases have generally stalled.

It is difficult to predict land values for non-serviced sites that don't have the benefit of planning consent, as they will all have different servicing issues with varying costs. A contaminated site with abnormal development costs may cost the owner/promoter of the site more to fully service, but once the contamination has been removed by the landowner, the site will be sold for the same amount as one with no contamination. In this case the costs of remediation, etc. is amortised the a lower land value/price position for the current landowner; if the site is sold on without undertaking remediation, then the additional costs incurred by the new landowner [e.g. the developer] should result in a lower price being struck.

Indeed, it is typical for developers to agree to pay something close to the existing use value for a site [e.g. agriculture or employment which will ultimately depend on a site's credible current use], and there will be an agreement in place with the landowner to share any profits after costs (including an appropriate developers return) have been deducted. Thus there is scope, once the planning policy requirements and site investigations have been undertaken to assess the worth of the land more specifically to the site. This will necessarily factor in the actual planning policy requirements for such items as infrastructure, affordable housing, flood mitigation, energy efficiency and other resilient measures, and come to a more realistic view [i.e. typically lower value] on the actual price to be paid for the land.

As such, the price at which land is exchanged and transacted is a function of two opposing [and not necessarily equal or well-informed] forces:

- Landowners will generally seek to secure an aspirational land value based on the planning consent that can be achieved for the land; and
- The price offered for land [by prospective developers] will need to reflect extant policy requirements, known site constraints and conditions, and market sentiment.

This means that land values should be set to provide sufficient incentives to encourage delivery of sites but at the same time look towards meeting all known policy requirements of an adopted Local Plan.

So setting a single/common land value threshold or benchmark for site-based development appraisals is misplaced and inappropriate. The actual price paid for land to a landowner comprises a function of many factors, including the landowner's financial circumstances, market

demand and site specific residual valuations which may find a site is cheaper to develop than estimated, or requires less in the way of infrastructure and opening up costs. Therefore, it is unwise in principle and in practice to believe that by setting a single/common definitive threshold or benchmark land value this will bring forward land for development. This is confirmed by reference to the evidence presented on existing use values in the next section.

Existing use values

The purpose of setting out the existing use values [EUV] in Table 14 [below] for land situated in South Oxfordshire planning authority area is to establish value comparators to be used in assessing whether sites that have been subject of development appraisals can deliver policy compliant development schemes without rendering them unviable.

Table 14: Existing Use Values - Comparator Values [£/hectare]			
South Oxfordshire DC	**Column1**	**Column 2**	**Column 3**
Existing Land Uses		**Existing Use Value [EUV]**	**EUV Land Value Plus Premium [£/ha]**
Agricultural Land	**Base input**	**£25,000**	Void
Premium on EUV Agricultural Land for Large Greenfield Sites [>3ha]	**10**	=EUV+(EUV*10)	**£275,000**
Premium on EUV Agricultural Land for Small Greenfield Housing Sites [<3ha]	**15**	=EUV+(EUV*15)	**£400,000**
Industrial/Warehousing Land	**Base input**	**£1,000,000**	**Void**
Premium on EUV Industrial/Warehousing Land for Housing Sites	**20.00%**	=EUV+(EUV*0.2)	**£1,200,000**

The comparator values stem from Valuation Office Agency valuations prepared to generate land value estimates for policy appraisals [MHCLG, 2018c]. The valuation methodologies used are explained Annex A in their published report in May 2018 and it recommended that this is read.

Table 14 presents the EUV for three use classes namely, agricultural land; residential land; and industrial/warehousing land.

These values represent a **"policy off"** position and where abnormal development costs are absent. As such the different uses to which land can be developed reflect a presumption in favour of development and that it can proceed to be built out in the presence of known and effective demand for the space that is created. As such, these are optimistic/aspirational conditions and so long as these are known and fully understood it is not too difficult to understand how these are derived. In practice, of course, most sites present a variety of unique conditions and situations, as well as having to take account of both market positions [i.e. prices and costs] and the range of planning and housing policy requirements that are legitimately set to ensure sustainable and environmentally sound development is delivered while recognising the need to mitigate on-site and off-site impacts.

These base values are only tenable so long as there is in place a measurable stream of rental income from an operational business [i.e. a lease with known rental payments]. If these conditions are not present, then the EUV for the land must be heavily discounted, perhaps to a level at or close to a nominal, exigent value.

The setting of a "premium" over and above the EUV is not unusual but it is not without some controversy and disagreement. The premium represents the value of the **stream of forgone benefits** that accrues if landowners give up their right to collect future rental income as well as reflecting the worth associated with any uplift in the land's worth associated with the rights associated with gaining planning permission to change the land's use. It is not surprising therefore that this premium is a large multiple if agricultural land is allocated in a local plan for housing or for other uses. For example, the premium attached to agricultural land that has gained planning permission for housing is, typically around 15 for smaller sites [up to 3 hectares] and 10 for larger sites [of greater than 3 hectares].

If the land is currently in industrial or office use, the premium attached to land for housing is usually expressed as a percentage-uplift on its EUV, typically at 20%. This value reflects a serviced site with no abnormal development costs. Again, if such a site requires remediation prior to development its worth is reduced, on some occasions this can be substantial. Table 14 shows that the EUV value for industrial/warehousing land in SODC around £1.0m/hectare; with a premium such a site will be worth £1.2m/hectare. However, if these same sites are adversely affected by difficult site conditions [i.e. WHE 22], then their worth will be lower, and in some cases substantially so. Data from site investigations conducted for previously used sites show that abnormal development costs associated with remediation and servicing can vary enormously, however for the site WHE 22, nearly £ 19,000/unit [or £0.53m] has been included to cover these kinds of additional costs. The equivalent sum allowed for similar costs on site WHE 16 amounts to £10,000/unit [or £100,000].

As the two other sites are green field sites, it is assumed that no abnormal developments costs will arise.

5. Site-based development appraisals; results and findings

This section presents the principal results of conducting development appraisals for the four sites. The results for each site will be presented in turn:

a. WHE 16
b. WHE 22
c. WHE15/17 Housing Only
d. WHE 15/17 Industrial Use Only

The WNP sets out that there will need to be coordinated and strategic decision making to ensure that the objectives set out in its plan is deliverable. Apart from WHE 16, this aspect of the plan is critical for the future of the other three sites. For example, WHE 22 will not be able to deliver housing until the present businesses are relocated. The WNP hope that these can be accommodated within Wheatley in new business units to be developed as part of WHE 15 and WJE 17 sites. Thus development will need to proceed first on land currently located on the eastern parts of WHE 15 and WHE 17 sites. Sites WHE 15 and WHE 17 are contiguous sites. The proposed development content for these two sites are interdependent as expressed in the WNP. The appraisals and their results are predicated on cooperation between the two landowners and strategic agreements regarding land swaps to accommodate industrial development and a commitment to, firstly, provide land that will formally form a green, public open space that will

be gifted to a responsible body [e.g. the Parish Council] and that, secondly, the needs arising from the respective developments [of housing and industrial use] is expressed in terms of a commuted sum which is secured [using a S106] to provide long term management and maintenance, paid to the local planning authority but routed through to a responsible body [e.g. the Parish Council]. The appraisal of the housing and the industrial use has taken these costs and contributions fully into account. Table 12 sets out the proposed content of all four sites [see pp.8-9].

The cash flow based development appraisals generate a residual land valuation estimate. For each of the sites, tabulated data is presented for a policy compliant scheme [i.e. with affordable housing if relevant] and taking into account site specific conditions and other planning requirements that are in conformity with SODC 's Local Plan. Where known site conditions are likely to generate abnormal costs [e.g. to remediate contaminated land], notional sums have been included.

For three of the appraisals [except WHE 15/17 Industrial Units], two sets of tabulated information are presented. The **first of the tables** summarises the key financial outputs for a policy compliant scheme. The **second of the tables** presents the results of sensitivity analysis that take into account changes to the most powerful of the variable inputs, which also concords with the internal logic of the appraisal methodology: namely, changes to prices, costs, interest rate and development/build out periods. Crucially this table also declares whether the site is viable under different market conditions, by comparing the generated land value estimate against the comparator land value based on the sites' existing use value plus a premium.

The remaining site, WHE 15/17 with industrial units, the format of the results is different. The tabulated results present two different approaches:

- The first column represents a typical residual land valuation estimate where the landowner is selling the land onto a prospective developer.
- The second column represents a development which is promoted by the current landowner[4] and in this situation the return on the capital employed to create the industrial units is the target. This appraisal is conducted using a cash flow based profit appraisal where the land value/price is nil since it is not to be sold.

All the assumptions and the variable inputs are displayed in the second of the tables for this development of industrial space.

Now, the results are presented on the next pages [pp17-21].

[4] I was told that this is the intention of one of the landowners.

Site WHE 16 Appraisal Results

Table: 15a: Site WHE16 - Housing Only		
Summary Outputs	**All Market Scheme [zero affordable housing]**	**% of GDV**
Land Value Estimate [LVE] £/hectare	£2,041,962	VOID
Land Value Estimate [LVE]	£714,687	24.99
Building Costs, External Works & Extra Works	£1,054,769	36.89
All Professional Fees, including Bank Fees & SDLTax	£205,944	7.20
Planning Obligations and Other Contributions	£111,008	3.88
Capital Profit	£571,887	20.00
Interest Charges	£104,118	3.64
Gross Development Value (GDV)	£2,859,433	100.00
Capital Profit as a % on All Scheme Costs	25.00%	
Capital Profit as a % of Gross Development Value	20.00%	
Cash Flow discount rate [pa]	6.00%	

Table 15b: Site WHE16 - Housing Only				
Iteration [Cash Flow Discounted at 6%pa]	**RLVE [£/hectare]**	**% change in RLVE**	**=EUV + (EUV)*15 [£/hectare]**	**Is Scheme Viable?**
Base-line RLVE - All Market	£2,041,962	0.00%	£400,000	TRUE
Base-line RLVE - AH Policy Compliant	VOID	VOID	VOID	VOID
Base-line + Fall in House Price by 10%	£1,505,482	-26.27%	£400,000	TRUE
Base-line + Rise in House Price by 10%	£2,575,693	26.14%	£400,000	TRUE
Base-line+ Fall in Building Costs by 10%	£2,315,287	13.39%	£400,000	TRUE
Base-line + Rise in Building Costs by 10%	£1,766,658	-13.48%	£400,000	TRUE
Base-line + Fall in Interest Rates by 2% points pa.	£2,116,570	3.65%	£400,000	TRUE
Base-line + Rise in Interest Rates by 2% points pa.	£1,970,808	-3.48%	£400,000	TRUE
Base-line + Extend Build period by 6 months	£1,976,286	-3.22%	£400,000	TRUE

Based upon the variable inputs and assumptions set out earlier for site WHE 16, **the results from the appraisal of the proposed development of 10 dwellings show that these are all viable against the iterations that have been conducted.**

Site WHE 22 Appraisal Results

Table 16a: Site WHE 22 Housing		
Summary Outputs [Discounted]	**Policy Compliant Scheme**	**% of GDV**
Land Value Estimate [LVE] £/ha	**£1,828,595**	Void
Land Value Estimate [LVE]	**£1,482,990**	21.87
Building Costs, External Works & Extra Works	**£2,827,169**	41.70
All Professional Fees, including Bank Fees & SDLTax	**£494,954**	7.30
Planning Obligations and Other Contributions	**£286,570**	4.23
Capital Profit	**£1,081,328**	15.95
Interest Charges	**£371,038**	5.47
Gross Development Value (GDV)	**£6,779,724**	100.00
Capital Profits as a % on All Scheme Costs	18.98%	
Capital Profits as a % of Gross Development Value	15.95%	
Cash Flow discount rate [pa]	6.00%	

Table 16b: Site WHE22 Housing				
Iteration [Cash Flow Discounted at 6%pa]	**RLVE [£/hectare]**	**% change in RLVE from AH Policy Compliant Baseline**	**Industrial Land EUV + (EUV*10%) [£/hectare]**	**Is Policy Compliant Scheme Viable?**
RLVE - All Market	**£2,358,320**	**28.97%**	**£1,650,000**	VOID
Base-line RLVE - AH Policy Compliant	**£1,828,595**	**0.00%**	**£1,650,000**	TRUE
Base-line + Fall in House Price by 10%	**£1,299,718**	**-28.92%**	**£1,650,000**	FALSE
Base-line + Rise in House Price by 10%	**£2,339,905**	**27.96%**	**£1,650,000**	TRUE
Base-line+ Fall in Building Costs by 10%	**£2,082,974**	**13.91%**	**£1,650,000**	TRUE
Base-line + Rise in Building Costs by 10%	**£1,565,516**	**-14.39%**	**£1,650,000**	FALSE
Base-line + Fall in Interest Rates by 2% points pa.	**£1,934,433**	**5.79%**	**£1,650,000**	TRUE
Base-line + Rise in Interest Rates by 2% points pa.	**£1,727,898**	**-5.51%**	**£1,650,000**	TRUE
Base-line + Extend Build period by 6 months	**£1,771,010**	**-3.15%**	**£1,650,000**	TRUE

Based upon the variable inputs and assumptions set out earlier for site WHE 22, **the results from the appraisal of the proposed development of 28 dwellings units show that it is viable for all the iterations except two.** The changes in interest rate and build out period have limited impact [as expected].

For this proposed development, though an allowance has been explicitly included to cope with remediation costs, contamination concerns and the slope of the site, if these are found to be higher then viability could be compromised.

Site WHE 15 & 17 – Housing only Appraisal Results

Table17a: Site WHE15&17 - Housing Only		
Summary Output	**Policy Compliant Scheme**	**% of GDV**
Land Value Estimate [LVE] £/hectare	**£3,219,044**	Void
Land Value Estimate [LVE]	**£5,329,127**	28.11
Building Costs, External Works & Extra Works	**£6,575,893**	34.69
All Professional Fees, including Bank Fees & SDLTax	**£1,621,412**	8.55
Planning Obligations and Other Contributions	**£645,164**	3.40
Capital Profit	**£3,088,953**	16.30
Interest Charges	**£1,154,910**	6.09
Gross Development Value (GDV)	**£18,955,785**	**100.00**
Capital Profit as a % on All Scheme Costs	19.47%	
Capital Profit as a % of Gross Development Value	16.30%	
Cash Flow discount rate [pa]	6.00%	

Table 17b: Site WHE15 & 17 - Housing Only				
Iteration [Cash Flow Discounted at 6%pa]	**RLVE [£/hectare]**	**% change in RLVE**	**=EUV + (EUV)*15 [£/hectare]**	**Is Policy Compliant Scheme Viable?**
RLVE - All Market	**£4,256,425**	**32.23%**	£400,000	TRUE
Base-line RLVE - AH Policy Compliant	**£3,219,044**	**0.00%**	£400,000	TRUE
Base-line + Fall in House Price by 10%	**£2,524,012**	**-21.59%**	£400,000	TRUE
Base-line + Rise in House Price by 10%	**£3,910,474**	**21.48%**	£400,000	TRUE
Base-line+ Fall in Building Costs by 10%	**£3,558,381**	**10.54%**	£400,000	TRUE
Base-line + Rise in Building Costs by 10%	**£2,878,449**	**-10.58%**	£400,000	TRUE
Base-line + Fall in Interest Rates by 2% points pa.	**£3,380,775**	**5.02%**	£400,000	TRUE
Base-line + Rise in Interest Rates by 2% points pa.	**£3,067,817**	**-4.70%**	£400,000	TRUE
Base-line + Extend Build period by 6 months	**£3,115,627**	**-3.21%**	£400,000	TRUE

Based upon the variable inputs and assumptions set out earlier for site WHE 15/17 [Housing only], **the results from the appraisal of the proposed development of 55 dwellings show that these are all viable against the iterations that have been conducted.**

Site WHE 15 & 17 – Industrial Units only Appraisal Results

Table 18a: Site WHE15/17 - Industrial Units only		
Appraisal Methodology	**Residual Land Valuation Estimate [RLVE]**	**Residual Profit Appraisal**
DEVELOPMENT OPTIONS	**Sell Land with PP to a developer**	**Build out the site by landowner and retain all units to lease**
EUV [£/ha]	£25,000	£25,000
EUV+ Premium {£/ha]	£275,000	Void
RLVE [£/ha]	£490,239	£0
RLVE [£]	£1,785,500	£0
GDV	£9,442,481	£0
Capital Profit	£1,888,565	£0
Capital Profit as a % of GDV	20.00%	£0
Capital Profit as a % of All Costs	25.00%	£0
Gross Rental Income [pa]	na	£509,894
Total Build Out Costs [£]	na	£5,296,169
Return of Capital Employed	na	9.63%
Is the site Viable?	TRUE	TRUE
Realised Gain	on the land only	Purely through the income stream arising from market rents
		Upward Only Rent Reviews [UORR]
Risk	Very Low	Continued management & maintenance on the retained units
	Developer could revise or put in new planning application	Loan requirements
		Cost Overruns
		Ties up own capital

Based upon the variable inputs and assumptions set out earlier for site WHE 15/17 [Industrial units only] but reported on the next page too, **the results from the appraisals of developing the site for industrial uses, both versions of the appraisals confirm that it is viable in term of either the residual land value [first column above] and in terms of a higher return on capital employed relative to the rate of interest [second column above].** Additionally, comments are proffered on the kind of realisable gains as well as associated risks.

Table 18b: Site WHE15/17 - Industrial Units only			
DEVELOPMENT OPTIONS	**Sell Land with PP to a developer**	**Build out the site by landowner and retain all units to lease**	**Notes/Comments**
Variable Inputs and Assumptions			
Rate of Interest plus fees [%pa]	6.0% plus 0.85%	6.0% plus 0.85%	
Discount rate [%pa]	6.0%	6.0%	
Industrial Rents [£/ft2]	£70	£70	Source: Carter Jonas "***Commercial Edge Oxfordshire***", Spring 2019, p.6
Industrial Rents [£/m2]	£6.50	£6.50	ditto
Yield [%]	5.40%	5.40%	ditto
Building Prices Median [£/m2]	£619	£619	BCIS, May 2019, Advanced factories/warehousing
Professional Fees [%]	8.0%	8.0%	
External Works [%]	5.0%	5.0%	
Contingency [%]	3.0%	3.0%	
Developer's Target Rate of Profit (% on Costs)	25.0%	0.0%	
Planning Fees	prescribed	prescribed	
Marketing [£/lump sum]	£25,000	£25,000	
Agents' fees [%]	10.00%	10.00%	
Legals on site sale/acquisition [%]	0.50%	0.00%	
Legals on Sales [%]	0.50%	0.00%	
Section 106 {£/lump sum]	£109,263	£109,263	For the open space off site
Total Development Period [months]	18	18	
Build-out period [months]	15	15	
Void Period [months]	0	0	
Site Area [ha]	3.6421	3.6421	
Gross Floor space [m2]	7284.2	7284.2	
Plot Ratio [Gross Site area: Gross Floor space]	=1:0.2	=1:0.2	See URS, "***South Oxfordshire Employment Land Review***", Final Report, September 2015, p71, 80-81, and 101-103.
Land Value Estimate	an output	an input [or 0]	
Capital Profits [as a % of GDV]	an input [20%]	na	
Appraisal Methodology	RLV Cash Flow	Profit Appraisal Cash Flow	

6. Concluding Remarks

The appraisals that have been carried out for the four sites identified in the draft WNP are a direct product of the chosen variable inputs and assumptions. A full explanation of these has been provided along with an appreciation of the site's market and policy context.

Each appraisal is a separate assessment of the proposed development that is being proposed in the draft WNP.

The results from these appraisals support their development in that they are viable in terms of being able to deliver policy compliant schemes.

To achieve the objectives declared in the WNP [i.e." *provide housing in a shorter timescale…… and at the same time improve connectivity through the village, rationalise light industry and provide opportunities for employment"*, see paragraph 11.1, p.49, WNP, 2019], the sequence of events to achieve them will need a high degree of cooperation, integrity and strategic decision-making,

This last matter is beyond the realms of viability, but achieving the above goals can deliver mutual benefits if the various parties can cooperate. The release of land from the green belt offers enormous benefits to the landowners and the village, but it is dependent upon establishing a form of strategic partnership so that the key decisions regarding development are managed to the benefit of the group of landowners as well as the village of Wheatley's values and sentiments that are so cogently expressed in its draft Neighbourhood Plan.

END

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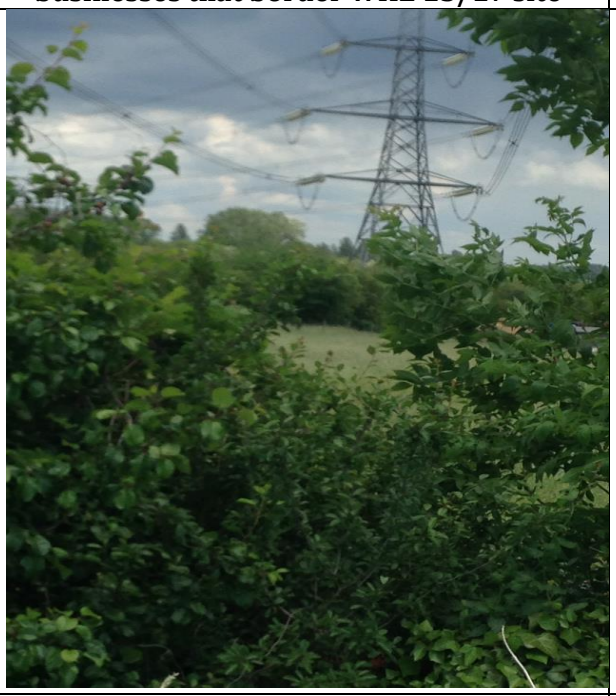
Appendix: Site Photographs

	
Front of site WHE 16	**Front of site WHE 16**
	
Rear of Site WHE 16 currently used as a car park	**Possible access through to rear of WHE 16**

	
Access road leading to and from existing businesses that border WHE 15/17 site	**Adjacent businesses to WHE 15/17**
	
View over Site WHE 15/17	**View over Site WHE 15/17**

	
Public right of way contiguous to site WHE 15/17	**Part of boundary looking north onto site WHE 15/17**
	
Part of the access road that will link to WHE15/17	**Southern edge of WHE 22 [Littleworth]**

	
Front of Site WHE 22 [Littleworth]	**Southern edge of Site WHE 22 [Littleworth]**
	
Front of Site WHE 22 [Littleworth]	**Rear of Site WHE 22 [Littleworth]**

END