



Exeter City Council

EXETER AFFORDABLE HOUSING STRATEGIC VIABILITY STUDY

Final Report

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Prepared by Strategic Housing Services

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PART A SUMMARY

Key Points

- (1) This report is the result of a study intended to help policy-makers answer questions such as:
 - (i) how much affordable housing can the Council ask developers to provide on new housing sites through planning policy?
 - (ii) can we lower the threshold above which affordable housing must be provided?
 - (iii) how do grant and different types of tenure fit into the picture?
- (2) The study is being completed at a time when the housing market is experiencing a major downturn, the final extent of which cannot be predicted with any confidence. This has implications for viability. . For example, the modelling exercise suggested that the price of land sold for immediate development might fall by at least 50% purely as a result of house price reductions.
- (3) At first glance, this is a difficult time to be introducing more demanding Affordable Housing Requirements. But steps can be taken to lessen the impact. The duration of any downturn is also relevant, with some experts predicting that the market will recover in as little as six years: not many homes built under any revised planning policy would have been sold before that time.
- (4) The modelling exercise shows it is possible to set levels of Affordable Housing Requirement higher than the current 25%. Specifically, the headline target of 35% affordable housing proposed for the Local Development Framework Core Strategy can be shown to be viable under a range of different circumstances. This has now been demonstrated in practice on sites in Exeter where over 35% affordable housing is been delivered now – when market conditions are adverse – partly as result of increased grant. As the housing market recovers the need for higher levels of grant could be expected to decline.
- (5) However, there can be a tension between securing a higher level of Affordable Housing Requirement (in accordance with Regional Spatial Strategy targets), the levels of grant that might be available, and the preferred tenure mix indicated by housing need analyses. At particular points in time and on particular sites, either the 35% target might not be attainable or the compromises needed to achieve it might not be desirable. For example, it might be better to secure as much social rented housing as possible rather than sacrificing this - in order to attain 35% affordable housing - in favour of low cost home ownership.
- (6) Thus, whilst it is reasonable for planning policy within the Core Strategy of the LDF to take a longer-term view of the housing market and viability, if such policy entails more demanding Affordable Housing Requirements it will be important to ensure sufficient flexibility in practice to accommodate challenges – possibly short-term - such as those posed at present. This may involve more wide-ranging negotiation on housing sites, a more central role for viability assessments in the normal course of events and a clear statement of the Council's expectations in the light of prevailing conditions. This might be separate from Core Strategy policy eg the Council could define a Common Starting Point for negotiations subject to more frequent review.
- (7) One way or another, it will be important to ensure that the private sector can establish as early as possible and as easily as possible what the Affordable Housing Obligations will be on any particular site so that the land market does not freeze up. .

- (8) The study found that it is possible to lower the threshold for affordable housing to 3 or less whilst maintaining viability except where site-specific issues came into play.
- (9) The study did not find it likely that a more demanding Affordable Housing Requirement would mean large amounts of land that might have come forward for housing would instead be developed for, or remain in, some other use. However, this could be the outcome in respect of individual sites, particularly smaller ones with active business uses: the viability of such sites for housing development is particularly vulnerable to any down-turn in the housing market. The Council would need to decide in principle whether it would sooner encourage such sites to come forward for housing with little or no affordable housing or whether it would prefer such sites to continue in commercial use rather than relax affordable housing requirements.

Purpose

- 1 The main purpose of this report is to examine financial aspects of new housing development, providing the evidence that will help the Council and the Housing Corporation establish effective policies around:
 - the amount of affordable housing it is reasonable to expect developers to provide on housing sites
 - the amount of private subsidy it would be reasonable to expect from developers/landowners on such sites
 - the thresholds over which contributions towards affordable housing might be sought from developers
 - appropriate uses and levels of public subsidy to secure affordable housing.
- 2 By “effective policies” we mean policies that **would allow developers to make sufficient profits to continue their development activities, on the basis of land values that satisfy landowners enough for them to continue to put forward their land for development.** Attempting to specify the policies themselves is not within the remit of this study.
- 3 A secondary purpose of the report is to make key issues around viability clearer to all the stakeholders in the policy-making process.
- 4 This Final Report describes the findings of the study and includes an update of significant developments that have a bearing on the issues covered by the report and that have occurred since the formal study was completed in June 2008 so that the eventual policy decisions can be made on as informed a basis as possible.
- 5 Detailed outputs from the study such as graphs produced from the modelling exercise are now incorporated into a separate document entitled *Exeter Strategic Viability Study – Charts and Tables*.

Affordable Housing and subsidy

What is Affordable Housing

- 6 Affordable Housing is defined in the government’s *Planning Policy Statement 3 - Housing* [“PPS3”]) and means housing for those whose needs are not met through the normal operation of the market¹.

Policies for producing Affordable Housing

- 7 Planning Policy Statement 3 requires the Council to propose policies within the emerging Local Development Framework [“LDF”] for Exeter that will guarantee the provision of affordable housing in order to create sustainable communities. Such policies (referred to in this study as the “Affordable Housing Requirement”) should include

¹ See *Glossary* for a fuller definition.

- the site thresholds (in numbers of units and/or site area) over which developers will be required to provide affordable housing; and
 - the target percentage of affordable housing to be delivered on sites over those thresholds.
- 8 A further government policy driver is that the Council's *Housing Strategy* is required to make proposals for "balancing" housing markets – i.e. ensuring that there is sufficient supply of different types and tenures of housing to meet demand. This involves ensuring a sufficient supply of affordable housing.

Affordable Housing needs subsidy

- 9 The provision of affordable housing requires subsidy. Much of this comes from the public purse in the form of Grant (or Public Subsidy), but even more has over recent years been provided by the private sector through planning obligations. The most common mechanism is that developers sell homes to housing associations at a discount. It is possible for some affordable housing to be produced entirely through this private sector contribution (the "nil-grant" scenario).
- 10 Typically, the developer compensates for the reduced sales income from affordable housing by negotiating a reduced land price with the landowner.² So in economic terms it is often more realistic to regard this element of subsidy for affordable housing as coming from the original landowner. In this study the term "Private Subsidy" is used to describe this element of discount from the full market value that might have been achieved had no Planning Obligation been present. . Regardless of where the Private Subsidy is thought to come from, once the land has been bought it is the developer who will be responsible for the actual delivery of the affordable housing on the site, in accordance with whatever planning obligation is imposed under planning policy (the "Affordable Housing Obligation").
- 11 At first glance, any increase in the Affordable Housing Requirement (eg from 25% to 35%) would seem to indicate the need for more Private Subsidy and hence lower land values. However, some or indeed all of the additional subsidy requirement could come from Public Subsidy. For example, if a developer sold an extra 10% of the homes on a site for affordable housing but received the full market value for them, then the need for Private Subsidy would not have increased at all. Instead the Housing Associations would have needed much more Public Subsidy to be able to afford to pay full market value for the homes. Purchasing more affordable homes by pumping in more Public Subsidy is described as achieving Additionality³.
- 12 The bottom line, then, is that the viability of the Affordable Housing Requirement that is established by planning policy depends on the **combination** of Private Subsidy and Public Subsidy that could be brought into play.

The limits to Private Subsidy

- 13 Landowners would only accept a lower price if it was nevertheless higher than the value to be obtained by continuing the existing use of the land or selling it for an alternative, non-residential use (e.g. for offices or retail). This provides an objective lower limit

² It is accepted that sometimes developer and landowner are the same, ie if the land is already in the developer's landbank. In this case the developer absorbs the reduction themselves.

³ Additionality can take other forms too such as higher standards, a different tenure mix, greater affordability.

below which any residential land value would not be viable and is referred to here as the “Competing Use Value”.

- 14 In addition, there is a point (which of course varies from site to site and landowner to landowner) beyond which the landowner might decline to sell their land because they expected it to be worth more. In practical terms, this would make the development **undeliverable**, even though in strict economic terms of profit and loss for the landowner it might well be **viable** in the terms set out in the preceding paragraph. **In this study, the term “viability” is taken to include the question of deliverability i.e. it is assumed that prices need to be attractive enough for landowners to want to sell land.**

The requirement for a formal assessment

- 15 Relevant planning policy documents emphasise the need for affordable housing targets to be established through a formal assessment of viability such as this one. For example, *Planning Policy Statement 3* says “*Local Planning Authorities will need to undertake an informed assessment of the economic viability of any thresholds and proportions of affordable housing proposed*”.
- 16 In setting targets, *Planning Policy Statement 3* encourages local authorities to draw on “*informed assessments of the likely levels of finance available for affordable housing*”. Similarly, the Council’s Housing Strategy must meet fit-for-purpose criteria amongst which are the need to “*include a realistic view of future resources*” and “*pro-actively consider options available for delivering priorities*”. These criteria encompass an analysis of the amount of subsidy available from different sources for affordable housing and how it should best be used.
- 17 However, the amount of finance available for affordable housing as Public Subsidy is set in 3-year Comprehensive Spending Review cycles and in the context of economic and political circumstances that are too volatile to be accommodated within the timescales applicable to the drawing up and revision of Local Development Framework Core Strategies. This indicates that the detailed application of relevant policies needs to be set out in the more responsive framework of Supplementary Planning Documents.

Value for money

- 18 In allocating Grant (i.e. public subsidy), it is important to achieve value-for-money for the taxpayer by ensuring that it does not replace subsidy that might reasonably have come from the private sector through planning obligations. Consequently the Housing Corporation now expects to see suitable evidence of the need for Grant before it will make an allocation. Grant should provide additional homes or better quality ones.
- 19 **As the availability of Grant is clearly integral to any consideration of viability, the Housing Corporation (as the main source of Grant) is an essential partner in the consideration of the appropriate level of Affordable Housing Requirement to be set by planning policy.**
- 20 A fuller discussion of relevant policy issues around the utilisation of Grant can be found in the forthcoming companion study *Resources for New Affordable Housing*.

The scope of the study

- 21 This study is intended to provide sound data to underpin housing and planning policies. It does not, on the other hand, set out to make detailed policy proposals, because:
- it is essentially a matter for political judgement how far the Council is prepared to go in accepting the risk of a reduced supply of land coming forward for housing development because planning policies reduce land values;
 - such judgements would also have to consider the short-term impact against the long-term impact – for example land supply might reduce for a temporary period as a result of planning policy and then increase again once the market adjusted to the new conditions;
 - it is a matter of choice whether Grant is used to complement Private Subsidy to provide more or better affordable housing on sites where there is an Affordable Housing Requirement, or whether it is used to provide additional affordable housing in other ways (e.g. buying existing properties as part of an Empty Homes Initiative);
 - regardless of whether the level of Private Subsidy is justifiable, the more the Council expects, the more protracted and difficult negotiations are likely to be;
 - the fact that a certain level of Private Subsidy **can** be provided does not automatically mean that it **should** be provided: this is a matter for planning policy⁴;
 - there are other policy issues that could have an impact, such as the levels of Community Infrastructure Levy the Council might seek to introduce.

Limitations

- 22 Despite the care taken in the preparation of this study, it is fair to assume that some data used in the modelling will not be 100% accurate with regard to the individual schemes modelled. This is considered inevitable in a study of this kind; and errors may occur in either direction. However the question is not whether all the assumptions made are “right” or “wrong”, **but whether they are so far wrong, across so many sites, that they would undermine the conclusions that might be drawn.**

⁴ “... simple extraction of the greatest possible value is not the aim of the policy. Government policy limits what councils can achieve and councils should not see maximizing developer contributions to local infrastructure and services as the ultimate objective. Instead, it is the Commission’s expectation that:

- developer contributions should be appropriate and justifiable in the local planning and development context, and
- the process of obtaining them should be efficient.”

(Value for Money Self-Assessment Guide: Improving Performance on Section 106 Agreements, Audit Commission 2006)

Method Statement

Preparation and Methodology

23 The study was organised by the Council's Strategic Housing Services unit. As there is no government guidance specifying an approved approach to such an exercise, it began with a review of a number of similar studies carried out elsewhere in order to identify common approaches, possible methodologies and potential issues.

24 This phase established that other strategic studies were based on well-established methodologies for appraising individual sites (as used by developers and others) to arrive at **Residual Land Values**.

25 Reduced to its simplest elements Residual Land Value is calculated as follows:

$$\begin{aligned} & \text{Total Sales Value of Completed Development} \\ & \text{less Total Costs of Development (excluding cost of land)} \\ & \text{less Developer Profit} \\ & \text{equals Residual Land value} \end{aligned}$$

26 In line with other studies, this one followed the approach whereby:

- **the developer is assumed to make an acceptable level of profit in all cases;** and so
- **if the developer is required to provide subsidised affordable housing they will do so by reducing what they pay for land:** the more the subsidy needed to deliver the affordable housing, the lower the land price (this is all on the assumption that there is no compensating injection of Grant).

27 **Strategic** viability assessments model how differing levels of Affordable Housing required under planning policy might affect land values **generally** across an area, with a view to establishing whether the impacts would be acceptable or not. Clearly, in order to be "strategic" and to be used to inform policy, such an assessment has to look at a sufficient range and number of sites to be sure that the results would be broadly applicable to most of the sites coming forward for housing development.

28 The Residual Land Values were modelled using the Economic Assessment Tool (v. 1.1) produced by Bespoke Property Group/GVA Grimley for the Housing Corporation. This is a sophisticated spreadsheet similar to those used by developers and housing associations. It has been made available by the Housing Corporation on its website specifically for the purposes of modelling site viability. GVA Grimley has undertaken to defend the robustness of the model if required.⁵ GVA Grimley also provided comments and insight into key variables used in the model.

29 A sensitivity exercise was carried out to demonstrate how adjustments to different variables affect land prices. This is described in *Annex C*.

⁵ The Economic Assessment Tool allows detailed cost and sales information to be input and includes features that take into account cash flow over the course of the development. Although the EAT is not ideally suited to quickly modelling different affordable housing scenarios, it was possible to adapt it to make this easier. The Economic Appraisal Tool has the advantage of transparency in that anyone can download the spreadsheet model and replicate the modelling exercise.

Sources of Information

30 The Council drew on expertise from several quarters in addition to GVA Grimley to make the modelling exercise as robust as possible.

- **Norman Rourke Pryme** (“NRP”) is an Exeter-based firm of quantity surveyors with extensive experience of working on commercial and residential sites including mixed-use, mixed-tenure developments. NRP provided cost data essential to the site modelling and helped select a good cross-section of sites.
- **Savills** is an international firm of chartered surveyors with extensive residential and commercial agency business arms. Savills provided estimates of open market sales values for the housing on the site and commented on values of the land if not redeveloped for housing (“Competing Use Values”).
- The Council sought advice and commentary from the local **Valuation Office Agency** (i.e. the District Valuer’s Office) in respect of current and historic land values and the land values produced by the modelling exercise. Valuation Office Agency data, published and unpublished, was also used for plotting long-term trends in land prices.
- An early draft of the study was given to Tim Larner of **Barratt Homes** who provided helpful feedback and information.
- The Council was also fortunate in being able to talk at length with a “small developer” running a successful family-owned business who prefers not to be named but who validated the efficiency assumptions made on the analysis of small sites.
- The Council was able to refer to cost information provided by developers in the course of planning or other negotiations where viability was an issue.
- Finally, the Council was able to draw on information about social rent levels and typical management and maintenance costs, kindly provided on request by local housing associations.

31 Strategic Housing Services carried out two further pieces of work. *Intermediate Housing in Exeter* examines issues around shared ownership and other forms of intermediate housing. It was important to consider these issues when selecting scenarios to be modelled in the viability study. *Resources for New Affordable Housing* looks at the availability and preferred use of resources for the provision of affordable housing, including Grant. Final reports from both studies will be available shortly after this *Main Report*.

Other Strands of Research

The wider context

32 In addition to the detailed site-by-site modelling exercise, the study collected information about long-term trends in land and house prices, placing these trends in the context of other long-term economic indicators (see **Chart A** in particular). In a similar vein, understanding the general position and modus operandi of the housebuilding industry was important. Among the sources of information referred to:

- the **Callcutt Review of Housebuilding Delivery** provided useful background information and validated various assumptions made in the study;
- the **Barker Review of Housing Supply** provided similar contextual information;
- the financial and other reports from volume housebuilders provided useful background information
- *Building* magazine was used as a source of information about current trends in the construction industry in general, including cost information;
- house price information published by the Nationwide was used as an indicator of longer term trends in house prices;
- Market reports published by Savills, Halifax, Royal Bank of Scotland and the like provided insight into the emerging views of “the experts”.⁶

33 As house prices are so significant to the outputs of the modelling, the market downturn indicated the need to review previous house price cycles (see **Charts C1** and **C2**).

Comparative data about planning policy and land supply

34 Finally, the study made limited attempts to collect evidence from other local authority areas where the Affordable Housing Requirement had changed, in order to gauge possible impacts on land supply. The levels of Affordable Housing Requirement across different local authorities of a broadly comparable nature were surveyed to see what had been achieved elsewhere. In those areas where there had been an increase to the kinds of level being mooted in Exeter (30 to 40%) further investigation attempted to establish whether there had been any noticeable impact on residential land supply.

⁶ None of whom, it should be said, have a good track record in predicting the scale of either price increases or falls over recent years.

The Modelling Exercise

Selecting suitable sites

- 35 Whilst strategic viability studies frequently model hypothetical sites or existing sites where the exact scale and nature of the development is still unknown, the Exeter study selected six sites that had been recently developed and one small site of three dwellings with detailed planning consent. This was to ensure that the scenarios modelled were as realistic as possible, reflecting current market and planning contexts and a range of Exeter site constraints. The detailed analysis of these sites made the study more time-consuming and resource-intensive than it would otherwise have been but is considered to make the outputs more robust and useful and the modelling more transparent.
- 36 The sites were chosen following discussions with Norman Rourke Pryme. Norman Rourke Pryme's knowledge of some of the sites was relevant but the over-riding consideration was that they should be representative of a sufficiently wide range of possible housing sites in the city, **so that the results would be applicable to the majority of sites and homes coming forward for development.** (See *Global Policy Individual Sites* (in Part B) and *Selecting Sites* (in Part C).

Collecting relevant information

- 37 The modelling involved several phases. The first involved collecting relevant data and researching possible values for some of the key variables in the model. All data was adjusted as far as possible to reflect values in April 2007.
- 38 Given that most variables had a range of possible values that could be attached to them, the second phase involved calibrating the model by selecting input values for the spreadsheets that produced outputs (i.e. land values) that were comparable with prices achieved in the real market. This in turn involved running test scenarios and consulting with the Valuation Office Agency (District Valuer's Office) on the land values produced by the model.
- 39 The fact that land would be bid for in a competitive market justified the use of relatively optimistic assumptions (ones that would be challenging to developers). As we comment below: "*after all, when land comes forward for sale, a particular land price would only need to be deliverable by one developer to make the land price achievable and thus realistic*".
- 40 The output of this calibration phase was a series of Baseline figures indicating the assumed values of sites in April 2007 (the baseline date for the study).

Modelling different affordable housing scenarios

- 41 The subsequent phases modelled the relationship between different Affordable Housing Requirements (e.g. different percentages, different mixes of tenure such as social rented and shared ownership) and Residual Land Values, plotting them against the Baseline data to establish the impact on land prices. Some of the scenarios involved different assumptions about the amount of Grant to be made available.
- 42 It was important to contain the exercise within practical limits by selecting preferred and generally realistic scenarios. The number of scenarios that can be modelled can rise exponentially as variables are altered. For example, for a single site, modelling four levels of grant alongside four different tenure mixes would involve 16 (4 x 4) scenarios. For four different percentages of affordable housing on the site this would become 64 (4

x 4 x 4) scenarios; for all 7 sites this would mean 448 scenarios; and so on. Although the number of scenarios modelled was kept as low as reasonably practical, it would be easy to model further scenarios as required e.g. to refine the analysis following policy decisions about the preferred level of affordable housing, normal Grant levels etc.

Modelling different economic scenarios

- 43 As the study was being completed in early 2008 it became apparent that the decline in sales following the credit crunch and the attendant loss of confidence had gathered momentum and become self-sustaining. Allied with wider economic trends, the indications are that a major correction in the housing market is underway even though real⁷ house prices in Exeter have yet to fall dramatically. The historical data described earlier showed that in market corrections house prices tended to fall steeply over relatively short periods of time, with varying lengths of time before recovery to previous levels.
- 44 The study has retained the original results plotted on the basis of April 2007 sales values. On some estimates (eg Savills, August 2008), house prices could recover to these levels within six years. But the market correction necessitated two further cycles of analysis to model the impact of declining house prices.. The first was based on a 10% reduction in real house prices – which can be regarded as optimistic– and the second on a 25% reduction, which is considered more realistic in the light of history. Further modelling can be carried out relatively easily using the tools developed during this exercise.
- 45 Regarding the outcome for land prices, reductions of 50% and 25% were chosen as arbitrary but nevertheless useful points of reference for considering the outputs from the modelling.

Cost Issues

- 46 Whilst the baseline study drawing on April 2007 data made no allowance for changes in either production costs or sales values, it is possible to anticipate some changes in real costs (i.e. after taking inflation into account). If future movements in real sales values are modelled (as above) it is also appropriate to factor in real cost increases. Key sources of cost increase might be Community Infrastructure Levy (likely to affect smaller, windfall sites more than larger sites) and more demanding Building Regulations and other aspects of the “regulatory burden”.
- 47 Predicting movements in real costs is fraught with difficulties comparable with those associated with sales prices. Labour and materials costs in the construction industry have risen disproportionately over the last few years (compared with the Retail Price Index), but a recession in the construction industry (particularly if associated with a wide downturn) could reasonably be expected to result in actual reductions as also occurred during the last housing market recession. A more general world economic slowdown (thus affecting energy and commodity prices) would be expected to produce even greater cost reductions.

⁷ “**Real**” house prices and costs are those that have been adjusted for inflation. Thus if money house **prices** have declined 4% in Exeter and inflation is at 4%, **real** house prices have declined by about 8%. If money **costs** have gone up 4% and inflation is at 4%, then the increase in **real** costs is 0% (i.e. just keeping pace with inflation – no real increase); and with inflation at 4%, if money costs had stayed the same then real costs would have gone down about 4%. It is important to understand this difference as newspapers frequently don’t make it clear whether or not they are using inflation-adjusted figures, leading to apparent inconsistencies in figures and trends being reported.

- 48 The eventual assumptions were that a 10% downturn in house-prices would be accompanied by a 3% increase in real costs, whilst a 25% downturn would not involve any cost increases because a housing market recession on that scale would suggest reductions in real material and labour costs that would balance out any increases in other areas.

Developments since the research was completed

- 49 This section reviews developments to the end of June 2009, bearing in mind that the text of the *Discussion Draft* was finalised in mid-summer of 2008.

- 50 After the research element of the study was completed:

- The study was published as a discussion draft in October 2008 and circulated to interested parties including developers, housing associations and statutory agencies such as the HCA.
- A Developer Forum was held in November 2008 to present the results to those to whom the study had been circulated and to seek feedback
- A final opportunity to give feedback was offered, in June 2009, to those previously circulated (two submissions were received)
- Some of the results have been discussed with the Housing Corporation (now superseded by the Homes and Communities Agency)

- 51 Meanwhile, there were significant developments in the real world that are also relevant to the report.

- The housing market has continued to decline and most commentators think it has yet to reach the bottom. Real house prices are thought to have reduced by around 20% in Exeter since the peak of the market. The number of transactions has been low.
- Prices for bulk residential land are considered by Knight Frank to have fallen by about 45% in Exeter from their peak⁸. This figure is broadly in line with the modelling carried out in this viability study. We are not aware of any significant transactions that this figure is derived from, although there have been unaccepted offers made on bulk residential sites such as those owned by Taylor Wimpey.
- Major sites were initially put on hold data as the market froze up during 2008. The Council's Enabling Team worked with developers, housing associations and the Homes and Communities Agency to find ways to get sites moving again. In some cases this involved renegotiating Section 106 agreements, normally with time limits to ensure any relaxations had limited lifespans.
- Negotiations involved careful scrutiny of figures supplied by developers in some cases and on the basis of the evidence supplied the Enabling Team was prepared to sanction bids to the Homes and Communities Agency for average grant of around £45,000 per social rented home on Section 106 sites for social rented.
- This approach was consistent with the Homes and Communities Agency's changing approach. It has significantly increased the level of grant per home and the government has increased the absolute amount of funding available, some of which is attached to programmes specifically aimed at supporting housebuilders eg Homebuy Direct, the Market Rescue Package.

⁸ *Property Week* 29th May 2009: "Seaside Effects"

- The net effect of these various changes has been to allow building work to commence on all the major stalled sites in Exeter, including the County Ground, the Royal Naval Stores, Crossmead and the Chancel Lane Coldstore site.
- Of particular significance for this study has been the higher levels of affordable housing being delivered. This is because developers are keen to offer additional units to housing associations to boost sales levels in a difficult market. On Crossmead the developer is providing 37.5% of 80 homes as affordable. On Chancel Lane the figure is about 35%. The first tranche of 33 homes at the Royal Naval Stores Depot has nearly 60% affordable housing (though this is not expected to be repeated in subsequent phases). On the County Ground site the first tranche of 16 affordable homes includes 10 that are additional to the 25% required under the planning obligation, which will push the percentage of affordable homes on the site to over 30%. All the additional units just identified are already under contract. Meanwhile, developers are expected to deliver yet more additional low cost home ownership properties on the back of Homebuy Direct bids that have already been approved.
- The increased levels of funding that have helped support these delivery streams are only likely to be available short-term: the longer-term picture looks bleak given government debt levels and the need to reduce public expenditure.

52 None of the changes in market conditions warrant revisiting the modelling carried out as part of the study. Current market conditions still fall within the scope of the “worst-case” scenario of house prices reducing by 25% in real terms. All the developments that have taken place over the last year support conclusions reached in the Discussion Draft of this study and consequently it is not considered worthwhile to make any significant amendments to the text beyond the addition of this current section. Generally, wording has only been changed to strengthen the conclusions previously in the light of further evidence to support those conclusions, or to add corroborative evidence where it was previously lacking.



Results and Conclusions of the Study

NB Key tables and charts are available separately and may best be viewed alongside this text.

Land prices in historical context

- (1) **Chart A** plots some key economic indices⁹ for the period 1988 to 2008. . It can be seen that residential land prices rose disproportionately over recent years compared with the other indices, so that landowners might be considered to have received a “windfall”.
- (2) The most recent major correction in the housing market (1989-91) involved land prices reducing to less than 50% of previously-achieved values in real, not money, terms.
- (3) **Chart B** plots 10 years’ worth of land prices, adjusted for inflation. In this case the indices are set to 100 at 2007 values, making it easier to view reductions in land values as “running the clock backwards” to an earlier period in time. This historical perspective is important because if a particular level of land price was acceptable in the recent past, then common sense would suggest that it could be acceptable again.
- (4) From *Chart B* it is possible to see that for **bulk residential land** (i.e. sites larger than 2 hectares) reductions of **50%** in land values would return them to the levels of about 7 years earlier. Reductions of **25%** (i.e. to 75% of April 2007 values) would return these land values to the position in early 2004
- (5) For **small residential sites** (fewer than 5 houses), reductions of **50%** in land values would return them to the levels of about 5 years earlier whilst a 25% reduction (i.e. 75% of April 2007 values) would return them to the position in early 2005 (just over 3 years ago).
- (6) It can be useful to refer to **Chart A** to see where this leaves the land price indices in comparison with wages, house prices and retail price index. In all the above scenarios the trend line would remain above that for the Retail Price Index.
- (7) Chart A illustrates how house price movements normally produce disproportionate changes in land prices.

House Prices in Historical Context

- (8) The modelling exercise, the sensitivity exercise (**Annex C**) and common sense all confirm that house prices are the biggest single factor bearing on residential land prices and therefore on the capacity of sites to absorb planning obligations for affordable housing. House prices are also the most volatile factor in the equation
- (9) Over the last 40 years or so house prices have shown boom-bust cycles lasting between about 8 and 15 years and involving real price falls from peak to trough (taking inflation into account) of between 17% and 40%. The most recent cycles are shown in **Chart C2**. Most commentators now think that house prices will reduce by between 20% and 40%.

⁹ NB For the purposes of comparison, the indices have all been adjusted to start at 100 in April 1988.

- (10) **Chart C2** also shows a “trend line” for house prices. A 25% reduction as modelled in this study would return prices to the longer-term trend¹⁰. Note that Exeter might experience lower price falls than other areas of the country because of the underlying high level of housing demand.
- (11) A 25% house price fall could be expected to make market housing more affordable and accessible to a wider range of households, assuming current mortgage restrictions are eased. This implies that the results of the *Exeter and Torbay Strategic Housing Market Assessment* should be revisited and that the shortfall in provision of subsidised affordable housing – particularly intermediate housing – might be reduced. However, the Strategic Housing Market Assessment indicated that around 42% of all new housing needed to be social rented and a market correction would be unlikely to have much impact on that. Thus the underlying justification for seeking more affordable housing than the current 25% on larger sites will remain. Moreover, the downturn in house-building will exacerbate the under-supply of homes of all tenures creating a backlog in demand greater than that envisaged by the Housing Market Assessment.
- (12) Based on previous cycles, by the time any revised planning policy feeds into the delivery of affordable housing, house prices should be at or near the bottom of the cycle. That would be a good time for people aspiring to home ownership (including those seeking affordable housing options such as shared ownership) to buy.
- (13) The challenge for planning policy is that, as **Charts C1/C2** illustrate, the duration and depth of any trough is unpredictable. **It would be helpful if affordable housing policy were framed so as to allow for regular reviews based on changing market conditions** (whilst continuing to give certainty to developers at the time of negotiating land purchases).
- (14) It is also important to distinguish viability problems associated with falling house prices and the huge reduction in effective demand caused by the difficulties in obtaining mortgages. These latter problems pose serious problems for housebuilders’ cashflow but will not be solved by reducing Affordable Housing Requirements.

The impact of Affordable Housing Requirements on land supply

- (15) One interesting outcome of this study (see **Annex E**) is that it was not possible to find any research or authoritative source confirming a cause-effect relationship between changes in Affordable Housing Requirements and the supply of land coming forward for housing even though this could be considered the crux of the matter under review.
- (16) Accordingly, the Council conducted its own survey of local authorities and their Affordable Housing Requirements under planning policy, the results of which are shown in **Table J**. A significant number of authorities have levels of requirement above 25%, following relatively recent increases: none reported any impact on land supply. (However, these results should be treated with caution because they reflect a very different housing market from the current one.)

¹⁰ However, against this it should be noted firstly that market corrections normally overshoot the trend and secondly that as house prices reduce the trend line will also move lower.

¹¹ “Intermediate rents” are a maximum of 80% of market rents for comparable properties.

Competing Use Values

- (17) A key consideration is whether increased an Affordable Housing Requirement might make it more attractive to develop sites for a non-housing use. This did not seem to be an issue for **larger** sites where most dwellings might be developed, for two reasons:
- (i) Large-scale commercial use of the land (eg industrial, retail or office use) would not be acceptable options for most potential housing sites because such uses would not be consistent with development plan policies and allocations.
 - (ii) Even where commercial uses might be acceptable in planning terms, the land values obtainable in **most** cases would be significantly less than the values indicated by this study for housing use. For example industrial land prices were around £800,000 per hectare in January 2008, as against over £3,000,000 for all the different residential land values: this would allow a fall of around 75% in residential land prices before the industrial use would become more attractive. Agricultural values at around £10-£15,000 per hectare would be negligible by comparison.
- (18) However, there are exceptions to this general rule. Firstly, where some smaller sites in the study had **existing commercial uses**, even low levels of Affordable Housing Obligation could make the sites unviable for housing development unless there were compensating injections of Grant. That is because the comparison is not with a competing **development land value** but with the **value of a going commercial concern**, including its buildings and fixtures. The relevance of this varied from site to site. For example, the Landscore Road site was particularly sensitive as compared to the Shaul's Bakery site: the very high density of the latter allowing comparable levels of affordable housing to those achievable on the larger greenfield sites.
- (19) Elsewhere, Savills noted that a major supermarket chain might "trump" the price achievable for housing land in a specific location such as the Kings Heath site. And recent sales for hotel use such as the Jury's hotel site in Western Way, the Saab Garage in Bonhay Road and Dean Clarke House indicate that hotel use can also trump residential values even in the context of existing Affordable Housing Requirements. It can be inferred from this that **particular** commercial uses on **particular** sites might generate higher land values than housing. But there is nothing to suggest that commercial land values generally might overtake residential land values as a result of changing Affordable Housing Requirements; particularly as the commercial property market is experiencing a downturn comparable to that in the housing market.
- (20) The other use that consistently seems to displace affordable housing is off-campus student housing. This is currently exempted from Affordable Housing Requirement altogether, even in the form of commuted sums. As a result, several sites with permission for mainstream housing were subsequently switched to student housing. A further viability exercise would be necessary to establish whether or not this exemption is needed to maintain the desired flow of student housing.
- (21) In summary, **the relationship between commercial and residential land prices generally is likely to remain favourable to residential land** even if Affordable Housing Requirements increase. **The over-riding factor will remain whether a site is allocated for housing use or not.** As the significance of Competing Use Values will depend on the particular characteristics of each site, it does not seem practical or appropriate to take them into account when formulating general planning policy, other than accepting that they

could constitute “exceptional circumstances” in negotiations around planning obligations.

The Affordable Housing Threshold

- (22) The fact that land values for small sites are around 30% higher than for bulk residential land (**Chart A**) suggests that small sites are not inherently less viable than larger sites.
- (23) The evidence obtained in the modelling exercise confirms that there is no reason why small sites should be exempted, on grounds of principle, from providing affordable housing through planning obligations. The evidence generated by this study would support the proposed reduction of the Affordable Housing Threshold to 3. From the viability point of view there is no obvious reason why the threshold could not be reduced lower still and a precedent exists for this in South Hams where the Planning Inspector has accepted a threshold of 2. For practical reasons this would necessitate off-site contributions.
- (24) As the over-riding factor mentioned in Planning Policy Statement 3 for setting thresholds is viability, exempting smaller sites from the Affordable Housing Requirement could be construed as inequitable to owners of larger sites if viability is not in fact an issue.
- (25) The only caveat to the foregoing is the need to adjust the Affordable Housing Obligation in some cases to allow for factors such as high development costs and/or Competing Use Values. Special circumstances are more likely to apply to smaller, windfall sites than to area-wide developments on mainly green-field sites, as described earlier.
- (26) The Council would need to ensure that any lowering of the threshold is implemented sensitively so as not to deter development altogether. In practical terms this would mean
 - (i) clearly conveying the message that Private Subsidy will be negotiable if circumstances warrant it; and
 - (ii) keeping the legal framework (i.e. S106 agreements) as simple as possible.
- (27) It should be noted that relevant Competing Use Values would include an existing residential use. For example the conversion of a single dwelling into 2 or 3 flats would be very unlikely to generate sufficient additional value to sustain an Affordable Housing Obligation. This might usefully be reflected in policy.

The impact of different Affordable Housing Requirements on land values

- (28) The study modelled 3 separate economic scenarios: “steady state” (i.e. based on April 2007 figures), a 10% fall in house prices and a 25% fall in house prices. Predictably, the modelling demonstrated that in all cases increasing the Affordable Housing Requirement, as contemplated by the Council’s emerging Local Development Framework and Regional Spatial Strategy, could be expected to reduce land values. (See **Charts D1 to F6**).
- (29) Inevitably, the impact **relative to previous values** is much greater on those sites currently below the threshold of 15 dwellings, where affordable housing is not required under current policy. However, the **absolute** value per hectare or per plot on the smaller sites did not necessarily reduce to levels below those attainable on the larger sites. So these results could be considered to show an element of equitability being restored to the land market. .

Modelling the “steady-state” scenario

- (30) With the zero price-fall, **steady-state** scenario (**Charts D1 to D6**), two further “goal-seeking” exercises were undertaken, refining the tenure mix and grant inputs so as to arrive at land value reductions in the region of 50% and 25% respectively. These showed that if land price reductions of around 25% were considered viable, then for most sites it would have been possible to implement an Affordable Housing Requirement of 35%, or even 40%, with a judicious input of Grant. These results are presented in **Tables H1 and H2**. **These results would be applicable if sales values and costs recovered to April 2007 levels** and are relevant to longer-term policy considerations.
- (31) In this context, considering that Savills have predicted falls in land prices of up to 50% and the Royal Bank of Scotland falls of up to 70% as a result of current market conditions, it is fair to ask why comparable levels of land price should not be considered acceptable or reasonable as a result of securing greater benefits to the community through Planning Obligations in a more buoyant housing market.

Modelling a 10% fall in real house prices

- (32) The **10% house-price fall** scenario (**Charts E1 to E6**) already departs markedly from the steady-state scenario. The changed economic factors induce a fall in land values of 25% to 30% in most sites without even changing affordable housing requirements. For most sites:
- (i) **if the land market would accommodate a 25% fall in land values:** the Affordable Housing Requirement could stay around current levels without adjusting tenure mix or adding Grant;
 - (ii) **if the land market would accommodate a 50% fall in land values:** the Affordable Housing Requirement could be increased to 35% by adjusting the tenure mix down to 60:40 social rented : intermediate housing;
 - (iii) with grant inputs ranging from £10,000 for a social rented one-bed home up to £25,000 for a 3-bed home, the tenure mix could be held at 70:30 for 35% affordable housing with land prices ranging up to 60% and more of current values.

Modelling a 25% fall in real house prices

- (33) The **25% house-price fall** scenario (**Charts F1 to F6**) naturally presents more severe challenges. Here, the economic factors induce a fall in land values of 50% to 65% for all sites but Landscore Road (where the site value reduces virtually to zero). For most sites:
- (i) **attempting to restrict the land value fall to 25%** could only be achieved by pumping very significant amounts of Public Subsidy into the sites to prop land values above their natural level (this option was not modelled but Grant is the only variable in the Residual Land Value calculations could be altered to achieve this result);
 - (ii) **assuming the land market could accommodate a 50%+ fall in land values:** the Affordable Housing Requirement could be increased to 35% by adjusting the tenure mix to say 60:20:20 social rented: shared ownership: intermediate rented and allocating grant ranging from £15,000 for a 1-bed unit to £40,000 for a 3-bed unit.

The relevance of Grant

- (34) It is clear from the modelling exercise that injections of Grant can offset the impact of an increased Affordable Housing Requirement. And whereas it is not straightforward to change planning policy, Grant can be used flexibly as gap funding, reflecting particular market conditions or, in some cases, the circumstances of an individual site.
- (35) The modelling exercise demonstrates that for the duration of the trough developing in the housing market (assuming a 25% fall in house prices), “nil-grant on S106 sites” is not achievable in practice if the higher levels of Affordable Housing Requirement suggested by the Regional Spatial Strategy and the desirable tenure mix indicated by local housing needs analyses are to be delivered.
- (36) Furthermore, for the land market to operate effectively, it is desirable that the probable level of Grant available should be known and can be factored into the equation at the point when developers are bidding for sites, rather than being established during negotiations with funders after sites have already been bought.
- (37) Thus there is a requirement for close working between the Housing Corporation and the Council to achieve sufficient certainty around the availability of Grant for the housing market to operate smoothly, with an acceptable degree of risk to developers.

The lessons of recent experience

- (38) Some of the issues that this study was meant to address have been illuminated through recent history. The question of whether it is viable for 35% affordable housing to be delivered has been answered in practice by developers delivering over 35% affordable housing on sites currently being developed. This demonstrates that there is no intrinsic barrier to higher levels of affordable housing –it simply comes down to the availability of sufficient subsidy, whether it is private subsidy generated through high house prices or public subsidy in the form of grant.
- (39) The dynamic nature of the housing market and rapid changes in public funding streams have also been much in evidence. Realistically, if planning policy on affordable housing within the Core Strategy is to reflect this volatility, it needs to have an aspirational aspect to it, whilst the implementation and fine detail of policy in response to current conditions would be better specified in Supplementary Planning Documents that can be amended sufficiently rapidly to accommodate changing circumstances.

The relevance of tenure

- (40) Increasing the proportion of tenures such as shared ownership that require less subsidy than social rented housing can help mitigate viability issues. This option was used in modelling the 25% house-price fall scenario to keep land prices within touching distance of the target of a 50% level of land prices.
- (41) However, in making these adjustments to achieve viability, the tenure mix departed from the desirable mix of social rented and intermediate housing indicated by housing needs analyses.
- (42) Thus the Council will need to consider, in a difficult housing market, whether its priority is to

maintain a higher percentage of affordable housing overall, regardless of tenure, or whether it will compromise on the headline target to secure the preferred ratio and quantum of higher-subsidy social rented housing. Social rented homes meet the needs of those with the most severe housing problems and help the Council meet important government targets such as reducing the use of temporary accommodation.

(43) A possible compromise here is to emphasise intermediate rent¹¹ as a tenure because:

- (i) it is capable of meeting a much wider range of needs than shared ownership
- (ii) options are being developed of “rent-to-mortgage” that could allow households to stair-case from renting to shared ownership at a later date.

Learning from the process

- (1) Identifying and collecting suitable information for input into the study was resource-intensive. Adapting the modelling tools to make the exercise more flexible also absorbed a considerable amount of time. Some of these resources could be shared with other local authorities: it would save time and cost to work in partnership with them where possible.
- (2) Specific issues with data arose in the following areas:
 - (i) Information about the land market proved to be of vital importance in the study but the quantity of readily accessible information was limited despite invaluable assistance from the Valuation Office Agency.
 - (ii) Although the baseline cost data provided by Norman Rourke Pryme was considered particularly robust, being based on very detailed assessment of the sites, the significance of the type of developer for these figures and for appropriate profit levels was more problematic than expected, as the differences between types of developer and site became apparent.
 - (iii) Information about housing association rents, yields and management and maintenance costs was not as readily obtainable or as consistent as was hoped.
- (3) Undertaking the exercise in-house has been a drain on resources but:
 - (i) leaves the Council in a much better position to conduct viability work in future either as a strategic study or on individual sites; and it has, for example, allowed it to model the downturn in the market at minimal additional cost
 - (ii) will have been many thousands of pounds cheaper than employing consultants to carry out the work whilst arguably being more wide-ranging than similar other studies.

Recommendations

Building partnerships and capacity

- (1) A plan for maintaining the capacity to conduct viability studies whether on individual sites or on a strategic basis should be developed. This should seek to maximise the efficiencies available through agreeing a common methodology and sharing resources (see next section).
- (2) A local Delivery Partnership involving developers, RSLs and the Housing Corporation should be established to promote better working relationships between the agencies that collectively deliver housing.
- (3) The option of building the partnership at housing market area level should be given consideration to reduce “meeting overload” on partners who work across several authorities: **but it will be important for the partnership not to lose focus**, given that planning policies, rural issues and the individuals involved in delivery will vary from authority to authority. The practical benefits of a local focus might be more important than the supposed efficiency gains arising from an expanded geographical remit.
- (4) The local Delivery Partnership should develop collective responsibility for overseeing on-going viability work.
- (5) At the same time, the technical aspect of the viability work should be integrated with the work of the Housing Market Assessment Partnership (thus the local Delivery Partnership would primarily have a monitoring role).

Information and tools

- (6) Through the Housing Market Assessment Partnership the tools and techniques used in the study should be reviewed with the aim of identifying a common approach across as many local authorities as possible. The tools developed in this study might be improved or adapted or used as a basis against which to compare alternatives or to specify something new.
- (7) To provide better information about the land market, it is proposed that:
 - (i) in partnership with the Valuation Office Agency, data on residential land transactions should be collected more systematically and placed in a shared information repository;
 - (ii) the focus in the land transaction database should be on plot values rather than the price per hectare and should include appropriate information on dwelling mix.
- (8) (The costs of maintaining such a database are considered minimal as the information is limited in extent and volume. The process would be to enhance data already collected by the Valuation Office Agency with information readily available to the Council.)
- (9) To address data issues associated with the type of developer and corresponding cost and profit factors, it is proposed that further work is carried out with the assistance of the Valuation Office Agency and with developers themselves. This should review the typology of developers used in this study and refine the evidence base for use in future studies.

This work should be undertaken in concert with other local authorities as the same considerations will apply in all areas.

- (10) To address inconsistencies in data relating to housing associations, it will be useful to initiate a small project to arrive at a standard set of parameters. This should be based on reasonable assumptions about the long term economic position of housing associations and the regulatory framework within which they operate. Again this should be broadly applicable across a number of local authorities (or could be made applicable through the operation of locality adjustment factors). The involvement of the Housing Corporation in reviewing the data would be useful. This project should be driven through the Housing Market Area Working Group.
- (11) As RSLs are required to supply viability assessments along with their bids for social housing grant, the possibility of using the standard parameters identified above deserves consideration. This would ease the burden on RSLs in preparing such assessment and the burden on the Housing Corporation and the Council in determining the reliability of the assessments presented.
- (12) The suitability of the current set of representative sites needs to be reviewed; for example, is it representative enough? Are there too many sites or too few? Etc.

PART B KEY ISSUES

Affordable housing on private market sites

Introduction

- 53 This section outlines some of the key issues involved in the provision of affordable housing on private housing developments.

What is Affordable Housing?

- 54 There are two types of affordable housing. **Social Rented housing** includes council housing and rented housing offered by housing associations. The rents in social housing are closely controlled and fall in a narrow range for a particular size and type of property in any given area.
- 55 **Intermediate housing** can be either “low-cost home ownership” properties or intermediate rented housing. The commonest form of low cost home ownership is where the occupier part-owns the home (also known as “shared ownership”, “Homebuy”, “shared equity”). The varieties of intermediate housing and low-cost market housing, which is not affordable housing, are discussed in more detail in the accompanying study.

Subsidy – meeting the cost of Affordable Housing

- 56 There is a gap between what the occupiers of affordable housing can afford to pay and what their housing would normally cost. For example, the net rent (after management costs etc.) on a social rented home with an open market value of £160,000 might only service a loan of £40,000. If this £160,000 home were to be bought for affordable housing, subsidy of £120,000 would be needed from some source.
- 57 **The less the occupier pays, the more the subsidy needed.** Conversely, the more the occupier pays the less the subsidy needed. Thus if the same £160,000 property were sold in a shared ownership scheme and the owner bought a 50% share for £80,000, the subsidy required would be little more than £80,000, even if no rent was payable on the balance of the equity. So the different tenures come with different subsidy requirements attached to them: clarity about the assumed tenure mix is needed to carry out a viability study.

Subsidy provided through planning obligations

- 58 Subsidy can come from the public purse in the form of Grant (Public Subsidy) or through a so-called “Developer Contribution” required under planning policy. These two elements of subsidy may be combined on a single site to increase the total amount of affordable housing delivered. It is legitimate for planning policy to require this increased level on the basis that sufficient Grant is expected to be available to complement the Developer Contribution. For clarity, the term **Affordable Housing Obligation** is used in this study to refer to the total amount of affordable housing that a developer is required, under planning policy, to deliver on any particular site.

- 59 In most cases, the Developer Contribution to the Affordable Housing Obligation on a site is delivered by the developer selling homes to a housing association at less than market value¹². For example, if the £160,000 house were to be provided as a social rented home solely through Developer Contribution, the developer would have to sell it to the housing association for a Transfer Price of no more than £40,000, thereby sacrificing £120,000 of the open market value. For practical purposes, then, the Developer Contribution can reasonably be given a value as subsidy just like Grant, derived from the discount from the market value.¹³
- 60 However, in this study, as indicated earlier, the more general term “Private Subsidy” is preferred to the term “Developer Contribution” because the discount is often passed on to the landowner when land is purchased rather than coming from the pockets of the developer.

¹² There are other mechanisms but these will generally require broadly comparable amounts of subsidy if the affordable housing itself is of a comparable nature.

¹³ The position is more complicated than this because delivering the affordable housing production may involve different costs and timings from those associated with the market housing on a site. The position would become more complicated again where the planning authority requires a different mix of house types from what the developer would otherwise have produced. Nevertheless, assessing the level of discount against market values provides a reasonable approximation of Developer Contribution.

Land values and the land market

Developer Profit and Land Values

- 61 Developers will not proceed with a scheme when the expected profit falls below certain levels. The normal levels of profit sought vary from developer to developer, from site to site and according to prevailing market conditions. This is discussed in more detail in the *Annex B*. But for the purposes of carrying out the viability study, it is necessary to make assumptions that fixed levels of profit will be forthcoming.
- 62 However, if the developer profit is fixed, the **main impact of the Private Subsidy is in reducing land values**: the greater the Private Subsidy sought under planning policy, the lower the land value.

Actual Land Prices and Residual Land Values

- 63 The limitations of calculated Residual Land Values become clear when considering their relationship to actual land prices. Residual Land Values exist only “on paper” as a result of arithmetic calculations. Actual land prices are what land sells for in the market.
- 64 To illustrate the relevance of this, imagine a piece of land put on the open market subject to sealed bids. Each of the bidders will carry out their own Residual Land Value calculation and will bid accordingly. Experience shows that the bid prices (and by implication the calculated Residual Land Values) will vary - often dramatically. Only one of these bids will be accepted and become the actual price of the land. The variations in bid amounts reflect the fact that the individual bidders will have made different assumptions about build costs, property sales values, number's of units the site might accommodate and so on. Some developers will be prepared to take greater risks or accept a smaller profit.
- 65 At the request of the Council, Savills provided an illustrative example of the process:

“We were instructed to market and dispose of a site in East Devon in the summer of 2007. It was openly marketed and fully advertised. We did not quote a guide price, although we had an expectation of bids between £1.3M - £1.4M. The method of sale was informal tender.

The site comprised a former industrial building and extended to approximately 0.49 hectares (1.2 acres). It had outline planning permission for the demolition of the existing buildings and the erection of 14 dwellings. Attached to the permission was a Section 106 Agreement with contributions of approximately £50,000 for public open space.

Following a six week marketing campaign we had a deadline for receipt of bids. We received 13 bids from a range of developers, from the residential and retirement sectors, with bids ranging from approximately £900,000 to in excess of £1.9M. There were clusters of bids between £1.2M - £1.4M and also between £1.5M-£1.6M with a number of higher bids.

Four of the bids were subject to planning, whereas the majority were only subject to site investigations, funding or valuations. The winning bid was unconditional. This example illustrates the range of bids that can be received on a site.”

- 66 The winning bid in this case was also the highest one. Anecdotal evidence suggests that the above scenario can be considered normal in a buoyant market.

Reflecting the real market in the modelling exercise

- 67 As the viability exercise is focused on actual land values – i.e. real impacts on the residential land market - it was important to try and take this competitive element into account. To do otherwise would diminish the robustness of the study and undermine its results, as they would not then reflect the likely land values that could be achieved. And, after all, when land comes forward for sale, a particular land price would only need to be deliverable by one developer to make the land price achievable and thus realistic.
- 68 At the same time, it was important that the study did not make such optimistic assumptions that the land values output by the model were over-inflated, even though this can happen in the market as (it is widely perceived) with the Exeter RFC County Ground site in St. Thomas. By modelling sites that had recently been developed, the most likely cause of inflated land values was removed – namely over-optimistic assumptions about how much development could be fitted onto a site.
- 69 Taking all this into account, it was considered reasonable in the modelling exercise to make assumptions that would be quite demanding for the developer but to check the appropriateness of calculated land values against the real-world market. This involved the other main approach to valuing land, namely the comparison method which “*assigns a value to a site by comparing it with the prices obtained in the market for the sale and purchase of sites with similar characteristics. The weight given to each element of comparable evidence is determined by the valuer based on his judgement and knowledge of the market.*” (Calcutt p143). Using this approach, the spreadsheet model was calibrated against realistic land prices with help from the staff at the local District Valuer’s Office.
- 70 This calibration exercise based on actual land sales reflects common practice in the development industry where calculated values are compared with achieved values. Calcutt notes that “*Comparison is also used as a confirmatory check on land which has been valued using the residual method. To housebuilders **its value is as a check to verify that the various values and costs used in the residual valuation method are realistic***”.(Calcutt p143).[emphasis added].

Land Price vs. Land Value – existing land holdings

- 71 Land only has a price when it is sold but a great deal of the land with residential potential around Exeter is understood to be held already by developers, either under options or outright ownership. This raises the question of how **land-holding developers** will behave if the book value of their land holdings is eroded, whether by changes in Affordable Housing Requirements or through a market turndown. (Whilst, the following discussion may at first glance seem rather technical, further reflection will reveal that it describes rational people acting in common sense ways.)
- 72 One option is that they might wait for conditions to improve – e.g. through recovery of house prices - before bringing sites forward. This would adversely affect the supply of land for housing. In this model, it is the “net present value” of the land that comes into play. If land is only worth £1Million if developed today but would be worth £2Million in 5 years time, the real value today is not £1M but the discounted value of £2M in 5 years time – which is considerably more than £1M.

- 73 One consequence of this is that, if the market downturn is thought to be brief, this will discourage developers from doing more than the very bare minimum of development in the short term.
- 74 (Another variant on this scenario would involve cash-rich private equity firms or sovereign wealth funds buying up house-builders with a view to cashing in the value of the land assets at some point in the future. Such organisations could take a different view of existing operations and, not being dependent on cash-flow to maintain them, could operate as asset-strippers focusing exclusively on future land values.)
- 75 In reality, **developer decisions about land they already hold are most likely to be taken in the light of their overall trading position** rather than on calculations based on the price previously paid for a site or on its future value. Such decisions would take into account the availability of alternative sites in the region, the need to maintain the flow of business that most speculative house-builders depend on, the need for cashflow to service debts and maintain the company's workforce and infrastructure and so on.
- 76 As cash flow seems to be the main problem faced by developers at the moment (see next chapter), they are most likely to bring into play sites from their land banks rather than holding them back and having to invest yet more cash in buying new land. In this case, the most attractive sites to develop will be **those with highest likelihood of successful sales** (given the difficulty of selling in the current market); whilst the second most important factor will be the **differential between build costs and sales prices**. What will not feature in most cases will be the **price originally paid for the land**. This has been corroborated by developers, where Enabling Officers have held discussions concerning sites bought at the top of the market. In one such case the developer is only interested in building affordable housing because it provides guaranteed sales and allows a very small margin over build costs: the original land price was explicitly left out of the equation in the course of the discussion (except in the context of the high holding costs of the land, which would indicate the desirability of developing the site sooner rather than later).
- 77 Following the same logic, cash-strapped developers might even sell land in a "fire-sale". For example Taylor Wimpey, Britain's biggest housebuilder, which is known to have cash-flow issues, has recently (September 2008) put 13 sites totalling 500 acres on the market in their Eastern region.
- 78 One final factor that could play a part in a developer's decision about what to do with a site in its land bank is if the "book value" of a site were particularly important in some context. For example, a site might be held as security against loans. Developing a site at below its book value might draw the attention of lenders to the fact that the asset base had depreciated in value, which could have adversely affect the lender's view of the company and its willingness or otherwise to extend credit. The smaller the developer, the more likely such a scenario would be. For larger housebuilders the security given to lenders is likely to be over a much wider range of assets so they would be less exposed on individual sites. (It should also be noted that for a firm with audited accounts, the book value should not, in principle, be inflated, and some housebuilders are currently having to grapple with how far to write down land values without undermining confidence in the business).

- 79 The conclusion is that **it would be difficult to make any general predictions about what might happen with land already held by developers** and it is not considered practical to factor this into any decisions on policy. In other words, **policy should be based on the assumption of land being sold in the open market.**
- 80 Broadly speaking, it is recognised that there is an underlying high level of demand for housing in Exeter, derived from its importance as a regional hub and focus for economic growth. This makes it a relatively less risky location for developers to concentrate their activities in times of uncertainty and again, developers in conversation have expressed the view that “if you can’t develop in Exeter, where can you develop?”. Against a generally gloomy background, this can be expected to operate in Exeter’s favour compared with many other areas in encouraging developers to bring sites forward.
- 81 This view has subsequently been corroborated by the fact that developers have made efforts to bring sites forward in Exeter.

The importance of planning permission

- 82 The process of obtaining planning permission can be time-consuming and risky. Additional expense arises through the cost of employing planning consultants and (on occasion) mounting appeals. If the land has been bought without planning permission there are interest costs to take into account because of the length of time involved in gaining permission. Developers can reduce the risk and expense by purchasing options or making conditional offers, but that is only possible where landowners are willing to agree.
- 83 In principle, land with planning permission is worth more than land without planning permission. But in practice the opposite might be true. In a bull market, developers may be prepared to gamble on the amount of housing they can get on a site, pushing up the land price. This is illustrated by the County Ground site, where Bellway’s assumptions about what the site could carry were not borne out in practice. If the land had been sold with the planning permission it eventually received, it would have fetched less than it did.
- 84 For consistency, the modelling exercise has assumed that all land is sold with full planning permission and is ready to develop and that development starts within four months of purchase. This is in accordance with the Valuation Office Agency’s assumptions in its published information about land prices. It would rarely be the case for larger sites and could mean that interest costs are more than shown in the modelling exercise.

Land price and land supply

Competing Use Values

- 85 Establishing the impact of changing residential land values on the supply of such land is not straightforward, but it is clear that land will not come forward for housing if the price drops below its current value (**Existing Use Value**) or its value if planning permission were obtained for non-housing purposes (the **Alternative Use Value**)¹⁴. This would be an important aspect to take into account where land already had a commercial use (retail, industrial, office), if the land were capable of receiving planning permissions for such an alternative use, or if it already had a less intensive residential use (e.g. a house with a large garden that might be redeveloped to provide higher density housing).
- 86 As the Competing Use Value provides an objective lower constraint on the achievable price for any particular site, Savills was asked to estimate those values for the sites included in the modelling exercise. These are described in **Annex D**.
- 87 Note that the importance of Competing Use Value is likely to depend on the **absolute** amount of money involved rather than being in proportion to the value of the site. So on a small site, an increase in value of 25% through a housing scheme might not be considered worth the trouble to arrange, whereas 25% on a larger site could well be attractive (for example in the context of uncertainties about the long-term income to be derived from existing commercial uses in areas where demand for such uses is low).

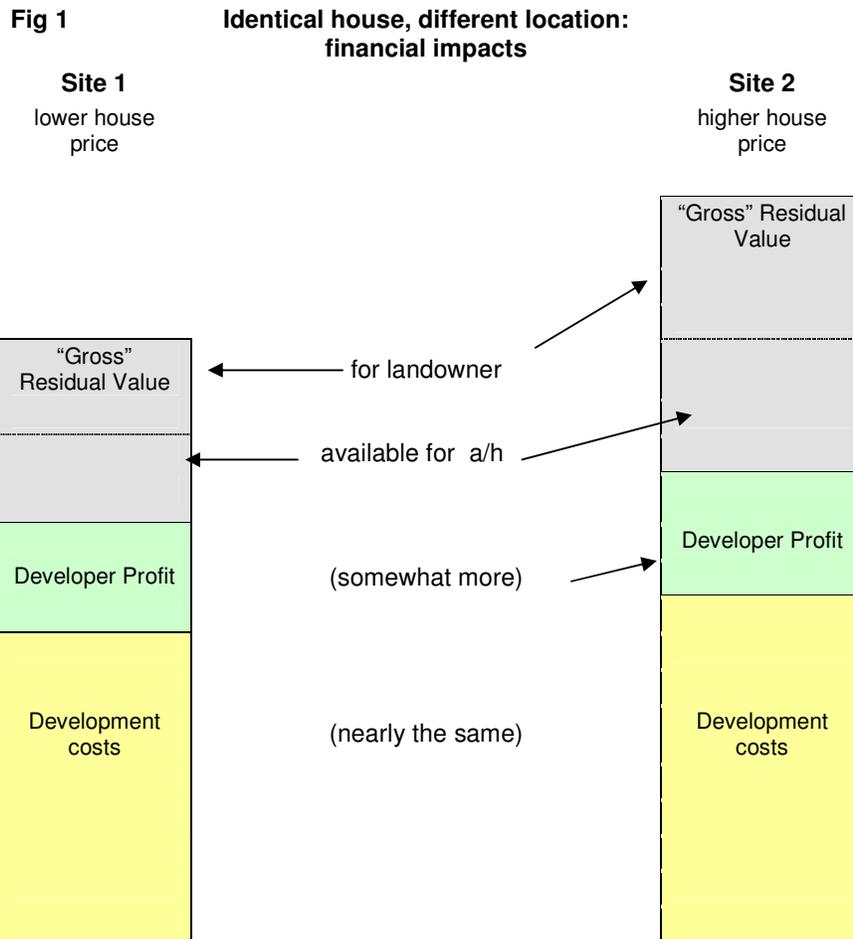
Landowner needs and expectations

- 88 Above the levels set by the Competing Use Values, the position will depend on landowners' needs and expectations and no hard and fast rules can be established about these. The position of a developer who bought land many years ago with hope value and who wants keep their business running at a certain level is different from that of a successful farmer whose business is farming and is under no pressure to sell, or a college or health organisation needing to raise cash. Expectations about trends in house prices and the direction in which planning policy is moving could all affect the decision to sell (i.e. the landowner might consider whether things will get better or worse in future). As described earlier, a volume house-builder would consider its options in the context of its overall business including the availability of opportunities elsewhere.
- 89 In reality, then, it is not so much a question of **whether** land will come forward or not for a particular level of land value, but **how much** land will come forward. Unfortunately, it is not possible to give any evidence-based prediction about how great the negative impact would be on supply of land if land values were to be reduced as a result of changes in planning policy. *Annex E* shows how this difficulty in making evidence-based predictions is common to comparable studies carried out elsewhere.
- 90 In considering the results of this study, arbitrary levels of 75% and 50% of April 2007 assumed values were used as a focus of discussion, but neither of these is being proposed as a basis for setting policy. In principle, it is reasonable to suppose that, if the land market can accommodate changes in value brought about through economic circumstances, it could accommodate changes of a similar magnitude brought about through changes in planning policy.

¹⁴ In this study the term "Competing Use Value" is used, for the sake of convenience, as a portmanteau term to cover both Alternative and Existing Use Value. It can be interpreted as the land value associated with any use that is alternative to developing or redeveloping a site for new housing.

Global policy – individual sites

- 91 A major issue in trying to arrive at global policies in the light of a strategic viability study is that the economics of different sites can vary so much. This is illustrated by the modelling exercise where plot values for similar types of housing could be double on one site what they were on another.
- 92 The key variables are build costs and sales values. More expensive housing (higher sales prices) do not necessarily involve correspondingly higher build costs. A house with all-in costs and profit of £120,000 might fetch £200,000 in one location whilst in another location the corresponding figures for an identical house might be £130,000¹⁵ and £250,000. The Residual Land Value would be £80,000 in one case and £120,000 in another. This would have a big impact on the potential for Private Subsidy. (This is what enables areas with high house prices, such as South Hams or London, to seek Affordable Housing Requirements of 50% or more). Fig. 1 shows this schematically.



- 93 Conversely, some sites may involve much higher build costs than others without producing more valuable housing. This could be the case where ground conditions were difficult or if the site was heavily contaminated.

¹⁵ As developer profit and some costs are related to either land value or sales values, the higher-priced house would require some additional costs, over and above build costs, to be deducted before calculating residual land value.

- 94 The practical impact of this is that an Affordable Housing Requirement policy that might work in relation to one site might not work on another site. This was reflected in the modelling exercise and demonstrates the necessity to examine a good cross-section of sites. The appropriateness of the sites selected for this study is discussed in more detail in *Part C*.

House prices and the market correction

The influence of house prices on land prices

95 The three biggest variables in the modelling exercise are sales values, build costs and developer profit. Of these, sales value is easily the largest (for example, the total sales value of a site could be double the build costs). Thus significant changes in house prices can be expected to have a profound effect on viability issues.

Current trends in house prices

96 In the original modelling exercise in mid-2007 no assumptions were made about future changes in house prices. At that time, while the credit crunch was assumed to be likely to exert some influence, the extent of any market correction was unclear. For example both the following publications contained sections on the credit crunch:

- the Council of Mortgage Lenders Lending and Market Report (August 2007) anticipated house price rises of 1% in 2008;
- Callcutt (Autumn 2007) anticipated house prices falling by 3% per annum over the two years 2008-09.

97 The downward movement in house prices is now recognised to be far more severe:

- the Council of Mortgage Lenders is now predicting price falls of 7% in 2008 less than a year after its prediction of a 1% rise¹⁶;
- the Halifax Bank of Scotland, in its move to bolster its capital, treated reductions of 5% per annum over the two years 2008-2009 as its **baseline**, but justified its need for capital against a scenario involving a 10% per annum reduction in prices¹⁷;
- the Nationwide has recently published figures showing a monthly fall of 2.5% in average house prices, a year-on-year fall of 4.4% being “*the longest consecutive period of monthly falls since 1992...*” and “*the biggest annual fall in house prices since 1992*”¹⁸. The report also quoted that “*RICS estate agents reported the most widespread regional falls in house prices in the history of their series*”.

The “Credit Crunch”

98 The immediate cause of the reductions in sales values is collapse in effective demand. This in turn is an outcome of the so-called “credit crunch” which has affected the cost and availability of mortgage finance. The combined effect is to reduce the volume of sales dramatically¹⁹ and, looking to short-term future supply, **to stall most new housing development altogether, through the perceived lack of sales potential of the**

¹⁶ see <http://www.cml.org.uk/cml/media/press/1666>

¹⁷ see <http://www.hbosplc.com/home/analyst-investor-presentation.pdf>

¹⁸ see http://www.nationwide.co.uk/hpi/historical/may_2008.pdf. The Nationwide use a sophisticated methodology in their house-price index that makes allowance for seasonal factors and includes a weighted basket of property types. It is claimed to be a more sensitive tool than for example. simple averages derived from Land Registry figures.

¹⁹ “*The Bank of England reported an 11% monthly drop in house purchase approvals in March to reach a seasonally adjusted 64,000 – the lowest since records began in 1993*”. (Nationwide report quoted above).

finished homes. A greater or lesser Affordable Housing Requirement under planning policy would not affect this dynamic: it is less a viability issue than a risk issue, as unsold stock is exceptionally damaging to profit margins, representing costs incurred for no immediate return – the scenario that can drive the smaller developers into bankruptcy.

Bursting Bubbles?

- 99 The volume housebuilders have already seen the writing on the wall, with Taylor Wimpey, Britain's biggest housebuilder, closing 13 regional offices and laying off one third of its workforce. Persimmons recently announced that it would not commence development on new sites and of more concern locally halted work on the Royal Naval Stores Depot site in Exeter (where work had already commenced) on the basis of virtually nil interest generated by the initial marketing exercise - though it is making further active attempts to market the first phase of the site.
- 100 A small, cash-rich developer known to the Council was maintaining his workflow through a conversion project where the new flats would all be rented out rather than sold.
- 101 Whatever the purely economic dimension of the current situation, it is reasonable to conclude that confidence in the market has been so badly shaken that psychological factors will now acquire their own momentum. Buyers are likely to refrain from buying because they believe their investment may lose value; lenders will be wary of lending at loan-to-value ratios that may leave people in negative equity; developers will be left with unsold stock and some will be driven into insolvency, and these factors will interact to drive prices down in accordance with typical cyclical market processes. The general shape of these cyclical movements is well-illustrated in **Charts C1/C2**. It is clear that the housing bubble has burst even if the extent and duration of any downturn will take longer to emerge.
- 102 Arguments in favour of a relatively minor correction, e.g. on the basis that interest rates are historically low are not convincing.²⁰ Commentators are increasingly focusing on relaxed lending criteria as the key factor that has under-pinned recent house-price inflation e.g. high loan-to-value ratios (as high as 125% from Northern Rock); mortgages based on high income multiples (4 and 5 times salary); and low introductory rates. These are the lending practices that will be less available in the post-credit-crunch era.
- 103 The most recent example of a less catastrophic market correction would be the cycle that peaked in Quarter 4 of 1979. On going into reverse, the cycle bottomed out in Quarter 2 of 1982 and most of the value had been recovered by Quarter 4 of 1984 i.e. five years after the previous peak. In that case house prices fell 17% in real terms. The preceding and succeeding cycles both showed severer falls and the most recent recession (1989 onwards) required over 12 years before real values recovered.

The future

- 104 Historical evidence suggests that the current lack of confidence is likely to send real house-prices falling for a minimum of three years from the peak of the market.
- 105 However this viability study is concerned with the longer term picture, given that changes in planning policy will be irrelevant to the sale of houses built before 2010 in nearly all cases. It would be foolish for the Council to make firm predictions in the context of current uncertainty particularly as position with the wider economy is unclear.

²⁰ See *UK House Prices: A Critical Assessment* Jan 2004, Andrew Farlow (Credit Suisse First Boston).

However, it is of note that Savills, in their latest market report (*The Residential Property Focus - September 2008*, see <http://www.savills.co.uk/research/Report.aspx?category=Residential>) feel able to predict the actual timetable of recovery of the housing market back to its 2007 peak on a regional basis. For London and the South-East the prediction is 2012; for the South West 2013 – a mere four years hence. Savills claim that the situation today is different from that in previous downturns because of higher underlying demand.

- 106 The best that could be done within this study to accommodate these uncertainties was to consider further scenarios beyond the original 2007 baseline scenario of “static” costs and house prices, namely
- a **10% reduction** in real house prices; and
 - a **25% reduction** in real house prices.
- 107 Of these, the 10% reduction scenario could be considered atypically small for a cyclical housing market correction. A 25% reduction scenario seems to be more likely and would reflect analyses by organisations such as the International Monetary Fund suggesting that the UK housing market has been over-valued by 30% or more²¹.
- 108 To illustrate the interaction between house prices and inflation, a 10% per annum fall in house prices over 2 years against mainstream inflation running at 4%p.a. would leave real house prices at almost exactly 75% of previous values i.e. a 25% reduction.

	House Price Index	Reduction by 10%	Retail Price Index	Increase by 4%	Ratio of HPI to RPI
Baseline	100	-10	100	+4	100.00%
end year 1	90	-9	104	+4.16	86.39%
end year 2	81		108.16		74.89%

The impact on affordability

- 109 The lack of liquidity is making mortgages hard to come by. Lending criteria – in particular the amount of deposit - have become much more demanding, so that the “credit crunch” has now been followed by a “credit squeeze”. Nor have interest rates fallen in line with the base-rate. This has created particular problems for first-time-buyers.
- 110 However, most commentators regard this situation as relatively short-term (in the context of planning policy) and restrictions can be expected to ease as the market settles down and liquidity returns. Whilst the days of easy credit are unlikely to be repeated it is reasonable to expect the return of a more “normal” if more conservative lending market, with 2010 being widely touted as the date for this to re-emerge (the Savills report quotes 2011 as the year that real house prices will start to increase again).
- 111 In the not-too-distant future then – when the policies affected by the viability study are most likely to come into play for the first time – it is probable that buyers will be able to return to the market against a background of significantly lower prices. Housing should be more affordable again.

²¹ Modelling a 25% fall implies that prices would – at least briefly - fall more than 25% given that corrections tend to overshoot the longer-term trends.

- 112 In principle, the shortfall of affordable housing should reduce whereas the shortfall of market housing should increase: people previously falling into the “intermediate housing”²² band could now fall into the “market housing” band. (The need for social rented housing is not likely to reduce much although there may be greater movement out of social rented into intermediate housing, freeing up more social rented accommodation.) This may also suggest the desirability of a different mix of intermediate housing products.
- 113 **This suggests the advisability of running revised scenarios within the Strategic Housing Market Assessment** particularly in respect of the need for and types of intermediate housing.
- 114 Despite these short- and medium-term changes, the underlying upward movement in real house prices (i.e. for the entire post-war period) suggests that strategic planning should continue to anticipate a greater need for affordable housing. Thus the Local Development Framework can be expected to allow for this in making assumptions about longer-term needs.

²² housing i.e. housing where the costs fall between social rented and market housing

Trends in costs

- 115 A number of cost factors are being mooted that could be expected to exert further downward pressure on land prices.

The Community Infrastructure Levy

- 116 In the first place, the government is currently proposing to introduce a **Community Infrastructure Levy**. This would be levied at a locally-set rate to fund infrastructure and relevant community facility costs. This would replace some of the developer contributions currently levied through planning (Section 106) agreements, thus nominally reducing those costs.
- 117 **The overall effect is likely to be that such costs will be spread more evenly over development sites** instead of them tending to be concentrated on sites most closely connected to whatever infrastructure is required. In some cases, such as those strategic sites where infrastructure costs would currently be high, the impact could be cost neutral or reduce costs. However, on windfall sites, where the presence of existing infrastructure might mean contributions under the current system would be low, the levy could be an additional cost burden.
- 118 Given the importance of the housing market in the general economy, there must be some doubt in the current climate as to how vigorously the government will now pursue this agenda given that it may deter development and particularly if there is no cross-party support. There is no substantial progress towards implementing such a levy in Exeter or agreeing the rate at which it might be charged and it has not been factored into the model.

The Code for Sustainable Homes

- 119 Another source of cost increases is the move towards more sustainable housing. Current proposals in the draft Regional Spatial Strategy (RSS) (following the Inspector's report and recommendations) delegate relevant decisions down to Local Development Plan level. No policies have yet been established for Exeter. But higher standards will be introduced progressively over the next few years to fulfil the government's target of building carbon-neutral homes by 2016 and the current National Affordable Housing Programme sets Level 3 of the Code for Sustainable Homes as a requirement for affordable housing.
- 120 The possible increased costs for implementing the new Code have been estimated in a recent report²³. The estimates vary significantly from site to site and dwelling-type to dwelling-type (e.g. depending whether site-wide combined heat and power generation is possible, whether small-scale wind-turbines could be used etc). The report suggests that Level 3 can be achieved for no more than a couple of thousand pounds per home in some instances, whereas the scenarios modelled for Level 4 show cost increases of between 4.8% and 16.6% for a detached house. For the most widely applicable site/solution combination the report concluded that achieving Level 4 of the Code for Sustainable Homes would cost between 12% and 20% extra.
- 121 The report did also note that the cost of the technology required to achieve Level 4 elsewhere could be expected to drop significantly with greater take-up (e.g. by up to

²³ *A cost review of the Code for Sustainable Homes: Report for English Partnerships and the Housing Corporation; February 2007*

60% for some wind-turbine applications). Similarly, there is the possibility of construction costs generally reducing through technological advance e.g. in the area of off-site manufacture. Unfortunately technological progress in the British house-building industry has so far been slow²⁴.

The possible impact of recession

- 122 A serious recession in the building industry or in the economy more widely could be expected to have an impact on costs. With workers already being laid off in the house-building industry and a significant decline in the commercial property market, labour costs could certainly decline as the balance between supply and demand in the labour market changed. *Building* magazine already notes significant reductions in salaries being offered in the recruitment of back-office staff ²⁵(May 2008).
- 123 Prices for materials have risen and on current inflationary trends can be expected to rise further; however, a deeper recession could reverse the long term trend of rising input prices (Langdon Davis cost indices show prices having risen nearly 50% since 2001, against consumer price rises of about 15%).
- 124 Thus, in modelling the 10% house-price reduction scenario, increases in real costs of 3% were used, but in the 25% reduction scenario – taken to indicate a deeper recession – no real cost increases were factored in.

²⁴ *Building Magazine (website)* 21st May,2008.: “Egan slams housebuilders for ‘not trying’”

²⁵ *Building Magazine* 25.04.2008 (p24): “We are seeing people being offered 10, 15 and even 20 percent less than they were getting in their previous roles”.

Making Policy Respond to Site and Market Variations

- 125 An issue for policy is whether, in principle, the Affordable Housing Requirement can be set at such a demanding level that viability negotiations are required on the majority of sites; or conversely whether the policy should, in principle, be capable of being implemented on the majority of sites without further negotiation.
- 126 The first position, which can be called the “aspirational approach”, has the potential to deliver the most affordable housing and would be better able to secure an appropriate quantum of affordable housing in an the context of rising house prices; but using current approaches would require more resource-intensive negotiations and has the potential to lead to longer lead-times and more appeals. There is evidence from London (where the headline target under Ken Livingstone was 50% but the quantum of affordable housing negotiated on individual sites was generally a good deal less) that the aspirational approach can be implemented in practice, although it would be a departure from the way that the Council has previously worked with developers.
- 127 The most defensible and efficient approach would be one that established a baseline Affordable Housing Requirement that would applicable in the vast majority of cases (ie other than where there were exceptional circumstances) but would be supplemented with an “overage” requirement that took into account longer term changes in both house prices and development costs. This would be an innovative approach but one with the potential to be fair to all parties and avoid the expense and delay associated with wrangling about viability on a site-by-site basis. The resource required to establish a fair and implementable methodology would be repaid many-fold through efficiencies in the delivery process.
- 128 This proposal deserves further exploration but it may be that any such mechanism would be to too complex to be acceptable or that it would be difficult to create sufficient certainty for developers at the time of acquiring sites.
- 129 Another policy variant is to bring locational factors into account, for example seeking higher percentages of affordable housing in areas with high property values such as Topsham or St. Leonards. This approach might be defensible in rural authorities where high-priced areas can be geographically extensive; but in Exeter such areas are for the most little more than “pockets” of high value homes that are relatively close to much cheaper housing: such policies could be hard to justify in planning terms.

Grant and land value

- 130 The impact of Grant within the Residual Land Value calculation is to increase Residual Land Values. This increase is virtually pound-for-pound, as can be demonstrated easily simply by adjusting the amounts of Grant input into the model.²⁶ This is illustrated in *Annex C* (see scenarios [D] and [E]). **This assumes the same amount of affordable housing i.e. that the grant is not purchasing additional affordable housing.**
- 131 Thus it is critical in principle for developers or their partners to know the amount of Grant their schemes are likely to attract when bidding for land. This is reflected in the practical operation of the market which typically follows the sequence below:



- 132 This tortuous process allows plenty of scope for guesswork, error, confusion and misunderstanding. The council is aware of one recently-sold site where the developer bought land on the back of an "offer" from a housing association that the housing association was unable to honour, because it was predicated on levels of Grant that were never going to be forthcoming. The housing association subsequently withdrew its "offer" (which was not contractually binding) but only after the developer was already contractually committed to the land purchase at an inflated price.
- 133 Current Housing Corporation policy is normally presented as "nil Grant on Section 106 sites" unless additionality can be demonstrated. This works particularly well with lower Affordable Housing Requirements e.g. 25%, where Grant will not in most cases be needed to secure delivery of what is required under policy: in dealing with developers the message is simply that no grant will be forthcoming unless they prove the need for it.

²⁶ If a housing association receives Grant, they can pay more for the affordable housing than would be the case without Grant – thus increasing the Total Development Value. If the developer gets Grant direct (which some are now able to do) arguably it is a separate income stream from the Total Development Value, but the effect is the same.

- 134 But *Planning Policy Statement 3* encourages local authorities to make assumptions about the availability of Grant when setting policy. Given the amount of Social Housing Grant allocated to the South West within the National Affordable Housing Programme, and the recommendations of the draft Regional Spatial Strategy that a minimum of 35% affordable housing should be achieved, it would be reasonable for the Council to seek an increased Affordable Housing Requirement from developers predicated on the availability of Grant. This might still require a demonstration of additionality to the Housing Corporation, but the demonstration is not best based on site-by-site negotiation but on the results of a Strategic Viability Study such as this one. Using the Residual Land Value approach, the Housing Corporation would only be able to demonstrate additionality at the individual site level by deciding what it considered the appropriate land value for each site to be. This does not seem a practical approach.
- 135 Thus it is important that the Housing Corporation accept the analysis provided in this study and work with the Council to make broad determinations about appropriate levels of grant to deliver affordable housing consistent with local planning policy. This would also conform with the documented approach of the Housing Corporation, which emphasises the role of local authorities in securing an appropriate balance between Private and Public Subsidy²⁷.
- 136 However, this is not just a matter of the Corporation agreeing any old position that the Council happens to put forward but requires a dialogue about such issues as:
- the role of tenure mix in improving viability
 - the extent to which affordable housing should be provided through planning obligations as opposed to in other ways (eg by investing grant in purchasing additional properties on a negotiated basis).
 - the appropriateness of whatever assumptions the Council has chosen to make about viability (i.e. whether unduly generous or too demanding).
- 137 If it is possible to arrive at a suitable understanding with the Housing Corporation, the Council will be able to act as a proxy for the Housing Corporation in those vital early stages when land comes onto the market and a number of developers are preparing bids for it, indicating to developers and housing associations the levels of public subsidy that might reasonably be available. **This will be vital to reduce the risk to developers in a situation where (as in the current housing market) they are likely to be very risk-averse** and will allow the land market to operate as smoothly as can reasonably be hoped.
- 138 Section 106 agreements will still need to incorporate cascade mechanisms, and the Council may need to develop a new approach to satisfy the Housing Corporation's insistence that the availability of Grant cannot be assumed, given the competitive nature of the Grant bidding process.²⁸

²⁷ e.g. NAHP *Frequently Asked Questions* October 2007: "Because of the sensitivity of assumptions in a residual value modelling exercise it is necessary for the assumptions to be tested and agreed to be reasonable by all parties to the S106 negotiation. We [the Housing Corporation] would expect confirmation from the Local Planning Authorities that the assumptions are agreed to be valid...."(p 20).

²⁸ e.g. NAHP *Frequently Asked Questions* October 2007: ""Where the [S106] Agreement specifies amounts of grant that might be available against particular affordable housing outputs, the Corporation would expect to have been involved at an early stage of their negotiations".(p 21)

PART C THE MODELLING EXERCISE

Preparation phase

The Economic Assessment Tool

- 139 The Economic Assessment Tool is available for download from the Housing Corporation web-site along with the user manual that explains how it works. The current version available on the website is 1.3²⁹, but version 1.1 was the version available when most of this exercise was undertaken and to maintain consistency was used throughout.
- 140 The spreadsheet was enhanced by the City Council to facilitate the modelling exercise. The enhancements were purely to speed up the input of data and thereby to allow different scenarios to be modelled more easily: they did not affect any of the financial calculations incorporated into the model³⁰.
- 141 As stated above raw data input to the model reflected “today’s values”. No allowance was made to individual variables for future inflation of either development costs or sales values. The processes for arriving at the values described and the justifications for them where appropriate are described in summary below, with more detail contained in **Annex A**.
- 142 Nevertheless, refinements to the spreadsheet allowed economic factors as market corrections to be altered outside of the individual spreadsheets and to cascade through them so different scenarios could be modelled relatively easily. Summary sheets collected the outputs from individual spreadsheets and plotted the results onto graphs.

Selecting the Sites

- 143 The selection of sites modelled is vital to the integrity of this study. If the sites selected were not representative of the broad range of sites likely to come forward for development then the conclusions drawn from the modelling exercise would not have general enough application.
- 144 Sites come in many shapes and sizes. One response to this challenge is to model many different sites. However, this can present problems with the amount of data required. Such an exercise would be likely to depend on the use of a greater number of common assumptions across sites: in other words quality might be sacrificed for quantity. In this study it was considered that quality of data was paramount as this would give more certainty about the results. Thus the approach taken was carefully to select a small number of sites from which it was considered reasonable **to extrapolate results and conclusions that could fairly be applied to the majority of sites coming forward for development** and thus to inform policy-making.

²⁹ Version 1.3 is somewhat more flexible in data entry but the underlying calculations are the same.

³⁰ This was verified by comparing outputs where data was entered manually into the original version of the spreadsheet with outputs where data input was in part automated using the modified spreadsheet.

- 145 It was also important that it would be possible to draw conclusions that would be applicable to the majority of **homes** that might be built – thus to larger sites.
- 146 This did imply the selection of a good range of site sizes and home types: but the critical issue in ensuring a reasonable spread is not so much the physical characteristics of sites but the viability dimension itself, which ultimately depends on the **sales values of the completed homes**, the **development costs** and in particular the **margin between these two**. (This margin is reflected in the Residual Value of the site as a percentage of the Gross Development Value). And to ensure broad applicability, the economics of the majority of sites should not be too favourable.
- 147 **It is asserted that the selection of sites does in fact meet the criteria outlined above.** Should critics wish to challenge this assumption, for example on the basis that many sites would present viability issues not adequately represented here, such a challenge would need to show that there are a **significant number** of sites where the sales values of homes would be less than those modelled here, or the development costs higher, or the margin between the two would be different.
- 148 As an additional safeguard, however, it is recommended that a desktop review be carried out of the characteristics of the sites identified in the Strategic Housing Land Availability study (following its completion) to ensure that they are adequately reflected in the sites selected here.
- 149 Such a review would be conducted from the perspective that if the economics of development of a significant number of sites identified in the SHLA looked as though they would be more favourable than those selected here then the modelling exercise would be likely to have under-estimated the potential of sites to deliver affordable housing; and if the opposite were the case, then potential of sites to deliver affordable housing would have been over-estimated.
- 150 Regarding **strategic greenfield sites** on which the majority of Exeter's homes will need to be built, the King's Heath, Wyvern Barracks and Kinnerton Way sites can all be considered to provide useful evidence. Volume house-builders normally gear up to produce 50 – 100 homes per annum on any particular site. This avoids flooding the market and allows a steady rate of production without major fluctuations. Thus, in principle any site of 80+ standard house-type dwellings is broadly similar in its economics to a strategic greenfield site **unless** the latter involves major infrastructure costs. As part of a major strategic development, the King's Heath site did include such infrastructure costs: but these were not greatly different per dwelling from those applicable to Kinnerton Way and Wyvern Barracks.
- 151 Despite the prima facie evidence that the results of this study could be applicable to strategic sites, it is nevertheless recommended that individual viability assessments are carried out as part of the Master Plan for such sites.

The Sites Selected

- 152 The profiles of the sites selected are briefly outlined below. The scoring is on the basis of 5 being high and 1 being low. In the case of location, the score is meant to indicate how desirable the location is and is assumed to be reflected in the value of the property as compared with similar properties elsewhere. In this scoring approach, 3 would be considered the median. The "relative land value" is calculated by deducting the Build Cost score from the Location Score and this provides an approximation of the capacity of the site to absorb more demanding planning obligations (see paras 83-86 above).

153 It will be noted that the following table does not include sites with extreme scores for either build cost or location. That is because the number of homes that might be built on such sites is relatively low in Exeter. Premium locations such as those to be found in parts of St. Leonards or Topsham or Duryard have very limited potential. And Exeter does not have extensive areas of derelict, highly contaminated or otherwise highly problematic land such as that which might be found in some other local authorities. Thus the resource involved in modelling such sites was not warranted in a study aimed at informing general policy considerations.

154 The sites chosen were

Site Name	Unit mix	Location	Abnormals	Build Cost	Relative Land Value	Units	Density Ha	Other
Clifton Rd (Newtown Court)	2-storey flats	3	3	3	0	6	90	Urban infill
Kinnerton Way – Plymco	More houses than flats	2	3	3	-1	73	69	Suburban
Landscape Rd Tancock Gge	2- / 3-bed Houses	3	5	4	-1	11	67	Urban Infill
Verney St. - “Shauls Court”	1 and 2-bed flats	2	2	2	0	32	386	Constrained
Wyvern Barracks – Phase 1	Mainly houses	4	2	2	+2	85	43	Suburban
Kings Heath (Sidmouth Rd)	Houses, some 2-3 storey flatss	3	3	2	+1	108	32	Suburban
Topsham High St. Garage	2- and 3-bed houses	4	4	3	+1	3	100	Urban Infill

155 In the foregoing table:

- “Abnormals” include site remediation, ground conditions and costs associated with infrastructure or community facilities (i.e. other planning obligations).
- Sites with very high or very low *Location* or *Build Cost* scores (1 or 5) were not modelled. The housing market in Exeter is such that few sites fall at the extremes.

Estimating Sales Values

156 The firm of Savills was commissioned to estimate sales values for the completed units. These were calculated on the standard basis of £ per square foot or £ per square metre of the Gross Internal Floor Area of each dwelling. This approach reduces the sales values of different types of property to a common denominator. For example a 40 SqM, £100,000 studio flat and a 100SqM, £250,000 house would each have sales values of £2,500 per SqM.

157 The figures supplied by Savills identified an upper and lower bound of a range of possible values, these being typically about 3% above and below the midpoint of the range. The figures were subject to further analysis by Norman Rourke Pryme to generate averages where this was required by the spreadsheet model (e.g. where there were more unit types than the spreadsheet model allowed). By taking account of the

relative numbers of the different unit types the averaging maintained the accuracy of the model overall. The averaging used the mid-point of the sales value ranges.

Competing Use Values

158 Savills also provided their view of the Competing Use Values of the seven sites. Fuller details are provided in *Annex D* but in summary the position is as follows:

Site Name	Alternative Options	Alternative Value
1. Clifton Rd (Newtown Court)	None	none
2. Kinnerton Way – Plymco/Normans	Allocated housing site – see note below	see note
3. Landscore Road - Tancock Garage	Existing commercial use	£150k-£200k
4. Verney St. - Shauls Court	Existing commercial use	£400k-£600k
5. Wyvern Barracks – Phase 1	Allocated housing site	none
6. Kings Heath (site adjacent to Sidmouth Rd)	Allocated housing site– see note below	see note
7. Topsham High St. Garage	Existing use	£125k-£175k

159 Savills considered the possibility that both the Kings Heath and Kinnerton Way sites might be suitable for retail or other uses. In the case of the Kinnerton Way site the previous use was retail and was known to produce poor returns: the then owner spent a considerable sum to buy themselves out of the lease and secure conversion to residential use; thus any value for retail use could be expected to be minimal. Savills could only envisage, at best, a mixed use parade of shops (i.e. with housing above).

160 Whilst the location of the Kings Heath site would have made it suitable for a wider range of alternative uses (being positioned adjacent to the Sowton Business Park that accommodates a wide range of office, retail and other commercial uses) the fact remains that it was allocated for housing in the Local Plan. As pursuing these other forms of development would have involved a challenge to the Local Plan, it was considered reasonable to ignore these alternative uses in modelling the viability of the site.

Housing Association Data

161 The main local housing associations involved in development work were asked to provide data about their management costs, repairs costs and yields. The information was supplied in confidence and on the basis that it would be anonymised and/or averaged in the study. The associations that contributed information were:

Exeter Housing Society (now Cornerstone)
 Devon and Cornwall Housing Association
 Magna
 Sanctuary Housing Association
 Sarsen Housing Association
 Signpost/Spinnaker
 Sovereign Housing Association
 Tor Homes

- 162 Although the intention was to average all the values supplied, the different methods used by associations for calculating the figures meant that not all were comparable and some were therefore discarded. “Outlying” figures were also discarded where it was considered that it would have been misleading to use them. For example one association provided a zero value for management costs on the basis that for the time being any new properties could be managed within existing resources.
- 163 In addition, a smaller number of associations were asked to provide rental figures for the homes covered by the study. The figures requested were the “target rents”. These rents are calculated according to a set formula which includes reference to the capital value of the property in 1999. In principle these should be the same for any association but in practice they may vary somewhat because the estimates of capital value in 1999 may vary from association to association. Nevertheless, the existence of a common methodology was considered sufficient justification for using a smaller number of locally-based associations to supply this information.

Estimating Construction Costs

- 164 Staff at Norman Rourke Pryme obtained drawings for the sites in question and used their extensive professional expertise and knowledge to estimate build costs. The particular circumstances of each site were given close attention, e.g. the nature of the buildings, site access and infrastructure, demolition etc. For example, on a garage site Norman Rourke Pryme was able to factor in the cost of removing fuel storage tanks based on their knowledge of the site and the cost of similar work on other sites known to them.
- 165 The area of greatest uncertainty was around site contamination and other abnormalities on those sites which Norman Rourke Pryme did not know in detail. However, it should be noted that even if the cost of dealing with abnormalities was underestimated in respect of an individual site that would not invalidate the results of the study for similar sites where abnormalities were not present. Thus such underestimates do not impair the broader applicability of the results of the study.
- 166 For transparency and to establish a baseline, the build costs were estimated initially on the assumption that a general building contractor was constructing the scheme on behalf of a client (i.e. in line with normal contracting arrangements). Such build costs are easier to estimate based on sources of information such as the Building Cost Information Service and tenders that Norman Rourke Pryme had direct knowledge of. However, it was then essential to adjust figures to reflect the specifics of the exercise.
- 167 The first adjustment involved removing the figures for profit and overheads for the contractor from the build costs. There is a profit figure (also covering non-site overheads) in the main EAT spreadsheet model. It is reasonable to assume that all the schemes in this viability exercise would be constructed by a speculative house builder/developer rather than by a developer employing a separate contractor. A separate building contractor would only become involved in special circumstances, for example with high-rise blocks of flats that used building techniques not within the repertoire of the normal speculative house builder. The effect of this was that, as a profit/overhead figure was already being captured separately in the main spreadsheet, it was appropriate to remove the corresponding element from the £ per SqM. build-cost figures. The adjustments made against the baseline figures are shown in the following table:

Site Name	Rate of Profit and Overhead figure in cluded in build cost	Adjustment applied to build cost for Profit and Overhead
1. Clifton Road – Almshouses	12.5%	88.89%
2. Kinnerton Way – Plymco/Normans	6%	94.34%
3. Landscore Road - Tancock Garage	10%	90.91%
4. Verney Street - “Shauls Court”	7.5%	93.02%
5. Wyvern Barracks – Phase 1	6%	94.34%
6. Kings Heath - Land between Sidmouth Road and Quarry Lane	6%	94.34%
7. Topsham High St. Garage	12.5%	88.89%

168 The next stage was to make adjustments to reflect the specific characteristics of the house-building industry, as described in the next section.

The calibration phase

Introduction

169 Figures with the minimal adjustments indicated in the preceding sections were used to establish baseline residual land values in the first phase of calibrating the spreadsheet model. However, it was not altogether surprising to find that these baseline residual land values output by the spreadsheet modelling were considerably lower than the benchmark land value figures established by looking at comparables in the market, an exercise carried out in conjunction with the Valuation Office Agency (see 5.3). The main reason for this is considered to lie in the ability of speculative house builders to arrive at cost savings over and above those available to normal contractors.

Profiles of Speculative House-Building firms

170 The exercise recognises that most homes would be built by three different types of organisation. The majority of homes would be built on larger sites by the volume house builders such as Bellway, Persimmon, Barratts and Taylor Wimpey. These firms are completely focused on their products and it is reasonable to assume that, competing against one another as they do, they are able to achieve significant economies. It would be reasonable to expect that:

- construction-related overheads would be kept to a minimum
- their size would enable them to keep skills in-house rather than relying on more expensive external consultants
- standard house designs would reduce design fees and would be carefully value-engineered to minimise costs
- the scale of operation would allow them to achieve significant savings in the procurement of materials
- they might have access to cheaper borrowing to fund developments.

171 A simple piece of evidence that illustrates the competitive edge of the volume house builders is that virtually all larger sites (40 units and above) are developed by them, despite the fact that there are many medium-sized firms that would also have the capacity to develop such sites. Instead, these smaller, more local developers focus on sites that are smaller and often more problematic. These may involve higher risks, fewer opportunities to use standard house types, proportionately higher prelim and site-externals costs, and other factors which tend to reduce the competitive advantage of the big firms.

172 At the other end of the spectrum, sites of fewer than 10 dwellings (and particularly the very small sites of 6 or fewer dwellings) are more likely to be acquired and built out by small owner-run firms. Such firms will usually have low overheads. Typically only one or two sites at a time will be developed and the owner is likely to be on site during the construction, carrying out a wide range of activities that would be undertaken by specialist individuals on larger sites (site manager, foreman, purchasing, health and safety adviser and so on). Consequently, an element of labour cost is not paid out during the works and the builder personally receives the benefit of it on the eventual sale of the development. Here, "profit" consists both of the value of this labour as well as the return on the capital employed. As one of the key proposals in the current Core

Strategy is to reduce the site threshold to three homes, it is important to recognise the likely profile of the builders who would develop such small sites.

173 In between these extremes operate medium-sized, regional developers/contractors. They would be most suited to those sites where the competitive advantage of the other firms would be less able to come into play, for example on sites too large or too complex for the smallest firms but not large enough to warrant serious attention from the volume house builders³¹. These sites might also be more risky or require more specialist designs to make the sites economic to develop.

174 The different sites were apportioned to these varying profiles of developer as follows:

Site Name	Profile of Builder
1. Clifton Road – Almshouses (Newtown Court)	Small developer
2. Kinnerton Way – Plymco/Normans site	Volume house-builder
3. Landscore Road - George Tancock Garage	Medium-size developer
4. Verney St. - "Shauls Court"	Medium-size developer
5. Wyvern Barracks – Phase 1	Volume house-builder
6. Kings Heath – Land between Sidmouth Road and Quarry Lane	Volume house-builder
7 Topsham High St. Garage	Small developer

Build costs for different types of developer

175 Adjusting build-cost figures to take account of the type of developer is made harder by the fact that relevant data is not readily available in the public domain. The volume house builders do not enter the contracting market and their cost data is commercially sensitive and not normally published in any readily accessible form. The small speculative developers too are unlikely to enter the contracting market for house-building.

Build costs for volume house builders

176 Fortunately, the Council is in a privileged position because developers sometimes supply cost information during the negotiation of planning contributions. (The contents of such appraisals are given to the Council in confidence and details of the sites cannot be released). For example, a recent appraisal by a volume house builder included detail on all the key cost elements such as infrastructure, landscaping, fees etc. The superstructure of the housing was priced as a separate element from substructure but not further broken down by element.

177 The figures in this particular appraisal supported the view that a volume house builder could achieve lower build costs than might be predicted based on data derived from the contracting industry. For example, significant savings were apparent in fees for example, which were just over 4% of construction costs against the contracting industry estimates of 7% or higher. Overall, the volume house builder seemed able to make savings across various cost elements of over 15% against what might have been predicted based on the figures derived from the wider contracting industry.

³¹ Where volume house builders do become involved in smaller sites of say 25-50 dwellings, it will normally be where the site is inherently easy to develop.

178 Despite this, as developers supply such figures in circumstances where they are arguing their case on viability issues, it is reasonable to consider the possibility that they may have exaggerated their cost estimates. Accordingly the Council's in-house experts review them. They generally concluded that the cost estimates supplied have been reasonable.³²

Build costs for small developers

179 In respect of the smaller sites, the Council was fortunate in being able to talk at length to a small-scale developer whose main focus was sites of 1 to 15 dwellings. The developer was known to the Council because he had done business with housing associations (indicating, among other things, that the developer met suitable quality standards). It became clear in the conversation that the developer was justifiably proud of his standards of efficiency, upon which his business depended on for its success. He identified the following key contributing factors:

- he did all his own measuring and buying, ensuring minimal wastage;
- he personally supervised the sites, ensuring the most productive use of labour and avoiding wastage of materials on site;
- he negotiated personally, and very robustly, on his materials purchases; and he had evidence that by so doing he was able to achieve better prices than larger competitors;
- he negotiated favourable rates with any specialists and consultants such as architects;
- although he was not able to secure advantageous rates from his subcontractors he was careful about who he would employ (quality and productivity-wise) and would not have workers standing around idle;
- his business overheads were minimal, involving use of a room in his house as an office and bought-in admin assistance on two afternoons a week;

180 This developer estimated his normal build costs at £850per SqM. (including substructure), a figure proposed independently by a source from Devon and Cornwall Housing Association involved in market renting developments and known to be familiar with this sector of the development industry.

181 The anecdotal information supplied by this developer was corroborated by known facts about the Clifton Road (Newtown Court) site. Land Registry/Valuation Office figures showed that the land had been bought for £315,000 with full planning permission and the entire completed development sold to a local housing association for £795,000. The site was sold when the housing market was buoyant with no pressure on the developer who in this case was said to have made returns estimated at circa £200,000 or 25% of Gross Development Value. These figures compare with a residual land value of the site two years later of only £164,755 (as computed in the initial phase of the calibration exercise for this study) despite a gross sales value of over £860,000.

³² As arguments based on viability considerations have been rare in Exeter it is thought that developers will only pursue them where there is a genuine case to be made. In these circumstances the developer will not wish to undermine their case by supplying suspect figures that might readily be challenged.

182 Although actual development costs are not known for this site, the figures given above speak for themselves: substantial cost savings would have been required to achieve a satisfactory level of profit for the developer in the context of the land price and the sales income.

Establishing baseline figures

183 To generate realistic residual land values in the modelling exercise these cost considerations had to be factored into the model. This could only be done by first estimating what realistic plot values would be at the end of March 2007 for the various sites in the study. To assist in this, an index³³ was constructed from the Valuation Office Agency land-price reports. This could be used in some cases to uplift original values of the sites under consideration in proportion to the change in the index since the date of the sale. (Even if the original site value (expressed in £ per hectare) was different from that in the Valuation Office Agency table, it is reasonable to assume that any change in value over time would be broadly comparable with the change in the index.)

184 Any calculated figures were then subject to review by direct comparison with more recent land sales. Comparison with values of comparable sites was also essential for the two sites where no land sales values were known – Kings Heath and Topsham High Street. The index derived from Valuation Office Agency data helped generate a larger number of comparables by allowing values achieved earlier or later to be adjusted to April 2007.

185 The outcome of these procedures was **realistic land values that the model ought, ideally, to approximate if all the various parameters fed into it adequately reflected the real-world.** These would be the benchmarks against which the model would be calibrated. It must be emphasised, however, that extrapolating from real-world figures in this way is still fraught with potential error: the extent of comparable evidence is relatively small as not many sites come forward in any given year; the particular circumstances of each site vary; and land prices actually achieved may be over-inflated or unusually favourable to the developer. Thus a degree of divergence from the benchmark land values was acceptable.

186 The Valuation Office Agency provided essential advice in this stage of the exercise.

Calibrating the Model

187 The actual calibration of the spreadsheet model was achieved mainly by introducing global elements of cost reduction (an efficiency saving) that could be applied to the final £ per SqM. construction costs built up through Norman Rourke Pryme's detailed estimations. This was considered more transparent and more practical than trying to build assumptions into the many elements of cost used by Norman Rourke Pryme to arrive at the £ per SqM. figures. The Norman Rourke Pryme figures, as supplied, remain a fully defensible basis for carrying out the exercise, being derived from detailed knowledge of the contracting industry and the specifics of each site. Further adjustments to those figures are justifiable but are best thought of as a separate exercise with a different evidence base.

³³ There were three series of data in the Valuation Office Agency data – one for small sites of fewer than 5 dwellings, one for “bulk land” (more than two hectares) and one for flatted developments. The index with the closest fit to the site used in each case.

- 188 The calibration was based on assumptions about the three different types of developer. For the small developer, an efficiency factor of 25% was applied to the build costs, taking into account both the operational efficiency of the small developer and the fact that the builder's own time is not charged. This is compensated for to some extent by increasing the profit level to 20% - this is where the builder recoups the time they have invested in the scheme. These adjustments may seem at first glance unreasonably large. But applying them in the modelling exercise produced a residual land value of £282,488 (April 2007 values) for the Newtown Court site – against an actual land value of £315,000 in 2005³⁴. For small developers, marketing costs were set at 1.5%, architects etc. fees at 3% and contingencies at 3%.
- 189 With sites to be developed by medium-sized developers, the adjustments made as part of the calibration were significantly different. The Norman Rourke Pryme figures were assumed to be broadly applicable as they stood. A 5% efficiency saving was applied to build costs (reflecting the competitive nature of the land-purchasing process and the tolerance on estimates, which is generally considered to be around this level). But the inherently more risky nature of the sites resulted in the profit rate being adjusted upwards to 17%. The marketing costs were adjusted downwards to 2% on the Lanscore Road site of houses only. The contingency was held at 5%.
- 190 On the larger sites, the key adjustments were an additional efficiency saving of 12.5% for the volume house builders. Fees were reduced to 5% and contingencies to 3%.
- 191 A further aspect of the calibration was to make allowances for the assumptions developers might have been expected to make for the provision of affordable housing. For the smaller sites, below the current threshold, no allowance for this was required. For the larger sites the developers were assumed to allow for 25% affordable housing with a tenure mix of 80:20 rented to shared ownership and with £20,000 grant per unit for the rented units only. This is marginally different from policy in April 2007 but is realistic insofar as developers tend to under-estimate the affordable housing requirement.
- 192 A final element in the calibration was to adjust the sales values to make them more optimistic. There was a case for using the upper limit of the range supplied by Savills, instead of the mid-point, as that would be the most optimistic value to use. However, it was decided instead to compromise by using the three-quarter point in the scale. As described earlier, the upper and lower bounds of the ranges supplied were generally around 3% above and below the midpoint (i.e. a spread of 6% in total). The three-quarter point in the range was thus 1.5% above the midpoint and this figure was used to adjust sales values in the modelling of the baseline scenarios.
- 193 It must be re-iterated that in making these adjustments the underlying question was **“what would be the optimistic but reasonable assumptions of the most competitive and efficient player in the land market”** in April 2007. Despite the adjustments made in the calibration exercise, on some sites it was hard to arrive at land price/plot cost figures as high as those that seemed to be achievable in the market.
- 194 This divergence between modelled values and real values indicates the need for an even more thorough review of cost parameters to allow informed negotiation with developers in future. This would involve monitoring the market continuously to build up a more extensive evidence base.
- 195 The final results of the calibration exercise are shown in *Table A*.

³⁴ Figures for this site were double-checked by Norman Rourke Pryme to ensure no errors had crept in to the original build cost estimates.

Sensitivity of the Model to Calibration Errors

196 Table A shows a fair divergence between the calibrated values and the target values (see column P) but one that is considered to be acceptable in the context of the whole exercise, and within a margin where the discrepancy could as easily stem from wrongly estimated target values as from faulty calibration of the model. But it is appropriate to consider briefly the implications if the model is wrongly calibrated:

- **If the model produces land values that are too high:** it may overstate the capacity of sites to deliver more affordable housing.
- **If the model produces land values that are too low:** it may understate the capacity of sites to deliver more affordable housing.

Build costs following the cost adjustment exercise

197 The final £ per SqM. build costs arrived at through the various adjustments described above are given below:

Site Name	NRP build cost incl profit and overhead	Adjusted build cost £ per Sq. M
1. Clifton Road – (Newtown Court)	£1,414	£943
2. Kinnerton Way – Plymco/Normans site	£1,107 - £1,253	£914 - £1,034
3. Landscore Road - George Tancock Garage	£1,346	£1,162
4. Verney St. - "Shauls Court"	£1,169	£1,033
5. Wyvern Barracks – Phase 1	£1,033 - £1,106	£853-£913
6. Kings Heath – Land between Sidmouth Road and Quarry Lane	£1,050 - £1,220	£867-£1,007
7 Topsham High St. Garage	£1,379	£919

198 In the above table:

- the figures exclude all fees; extra-over for meeting higher sustainability standards; demolition contamination and infrastructure costs; and contingencies
- where there is a range of figures, the low figures apply to the largest houses and the high figures apply to flats.

Table A – Estimated plot values at April 2007

Site	Note	A Price	B Site Area (Ha)	C £ per Ha.	D No. Plots	E £ per plot	F Date of land sale	G Density (per Ha.)	H Index* when sold	I Valuation Office Index used**	J Index March 2007	K Indexing factor	L Indexed £ per Ha	M Indexed £ per plot	N Calibration target £ per plot	O Actual calibration result £ per plot	P Actual as % of calibration target
Study sites																	
1: Newtown Court		315,000	0.080	3,937,500	6	52,500	Jan-05	90	285.71	S	357.14	125%	4,921,909	65,625	60,000	47,081	78%
2: Kinnerton Way		1,950,000	1.060	1,839,623	73	26,712	Sep-03	69	190.48	B	297.87	156%	2,876,777	41,772	40,000	33,712	84%
3: Landscore Rd		300,000	0.160	1,875,000	11	27,273	Mar-05	67	285.71	S	357.14	125%	2,343,766	34,091	30,000	34,458	115%
4: Shauls Bakery	A	800,000	0.090	8,888,889	32	25,000	Aug-04	386	285.71	F	357.14	125%	11,111,189	31,250	30,000	32,904	110%
5: Wyvern Barracks		3,360,000	2.060	1,631,068	86	39,070	Mar-03	43	190.48	B	297.87	156%	2,550,642	61,097	60,000	66,719	111%
6: Kings Heath	B				108	0		32		B	297.87				50,000	46,955	94%
7: Topsham High Street	C				3	0		100		S	357.14				90,000	93,698	104%
Other comparables																	
St Loyes		16,250,000	7.700	2,110,390	225	72,222	Aug-07	29	319.15	B	297.87	93%	1,969,675	67,407	-		
Central Station		7,843,125	1.376	5,700,000			Aug-03	0	238.10	F	357.14	150%	8,549,761	0	n/a		
Chancel Lane Cold Store	D	7,750,000	2.200	3,500,000	122	63,525	Sep-07	55	319.15	B	297.87	93%	3,266,630	59,289	1- (5,000 / 63524)	54,622	
Exeter RFC - Bellway	E	9,000,000	1.890	4,800,000	100	90,000	May-06	53	297.87	B	297.87	100%	4,800,000	90,000	100/130	69,231	
Exeter RFC - Pegasus	F	2,400,000	0.420	5,700,000	55	43,636	May-06	131	323.81	F	357.14	110%	6,286,705	48,128	n/a		

Notes:

* The indices were set to 100 at April 1998, when land price data differentiating between bulk land, small sites and flatted schemes became available.

** S = Small sites; B = Bulk land; F= Sites for flats.

A: Site not sold (for tax reasons) but owner reported an offer at this level.

B: Purchase price not known; target value based on comparable sales, taking into account low density and mix.

C: Site not sold, site value estimated based on Topsham location and unit type of 2 and 3-bed houses.

D: Land price is understood to have been based on an inflated expectation of grant. Plot price adjusted down by £5k.

E: It is thought that Bellway and other developers expected to get 185 units on the site instead of the 155 achieved. The adjustment factor is based on reducing the land price to accommodate 30 fewer units on the general needs part of the site.

F: Retirement units.

Summary of results

Introduction

- 199 The detailed results of the various parts of the modelling exercise are too voluminous to reproduce here. Further information can be made available on request.
- 200 Key results are given in *Part E* of the study, mainly in the form of graphs that chart the impact of differing affordable housing requirements on building-plot values. What follows highlights some of the results in more detail or on a more technical basis than is possible in the main *Summary* to the report. But it does not reproduce points already made in the main Summary.

Planning Obligations

- 201 Costs associated with planning obligations were mostly derived from those actually imposed and are shown in *Table F1* in Part F. Note that smaller sites do not normally attract planning obligations. Thus the figures for Newtown Court, Landscore Road and Topsham High St. are zero.
- 202 **Kinnerton Way** was unusual in that the Council agreed to take community facilities in lieu of affordable housing. This reflected a lack of community facilities and a perceived high intensity of social housing in the area. In the S106 agreement the facilities were attributed a cost of £477,250. However, for the purposes of this study, the Baseline figure for the site was calculated on the basis of a “normal” affordable housing obligation in line with the other sites i.e. 25% affordable housing, 80:20 social rented: shared ownership split, £20,000 grant for the rented units only. A further planning obligation of £200,000 was then added to cover other charges that might have been levied if the community facility had not been built. This was intended to make the profile of the site fit more closely to the norm.

Test runs

- 203 The Test Phase involved collecting all the site data and producing scenarios from the spreadsheet model using supplied parameters without any further adjustments. For example, recommended values were used from the EAT model documentation and build costs were exactly as stated by Norman Rourke Pryme.
- 204 For sites above the current Affordable Housing Threshold two scenarios were modelled – one without affordable housing and the other with affordable housing at more or less the policy levels applicable in April 2007, or what was considered to be the developers’ likely interpretation of them.
- 205 The land prices output in these test runs were far below what the market might have been expected to achieve. A thorough review of the input parameters was carried out in what became the calibration phase.

The Calibration Phase

- 206 The Calibration Phase produced the estimated land values for all the sites at April 2007, the baseline date for the study. The results were collected into a central spreadsheet to allow easy comparison with subsequent phases of the study. Plot and site values are in *Table A* above.
- 207 All the key economic aspects of the sites were apparent from the calibration phase, without running any further modelling.
- 208 **Site value as a percentage of Total Development Value** was the best predictor of the ability of sites to sustain more affordable housing. This is to be expected: if the residual land value is low in proportion to the overall scale of the development, increasing the Affordable Housing Requirements or any other costs will hit particularly hard, as margins are already low. These results are shown below in descending order.

Site Name	Residual Land Value as % of TDV
S7 Topsham High Street Garage Site	35.40%
S1 Newtown Court	31.90%
S5 Wyvern Barracks	30.10%
S4 Shaul's Bakery	30.00%
S6 Kings Heath	26.30%
S2 Kinnerton Way	23.30%
S3 Landscore Road	18.20%

- 209 The first two sites had no Affordable Housing Obligation in the Baseline Scenario, and this can be assumed to be the main reason they lie at the top of the list. Of the two, the Topsham High Street site benefited from relatively straightforward construction, despite the element of decontamination and demolition associated with the garage, and Topsham is a particularly desirable location.
- 210 On the other hand, Landscore Road, whilst not subject to any Affordable Housing Obligation, suffered from relatively higher build costs assumed for a medium-sized developer and this was exacerbated by the high level of contamination. Landscore Road illustrated throughout the modelling exercise that some smaller sites would be marginal to develop for housing and whilst it would be possible to secure affordable housing, this would either need to be at a reduced level or would require more than normal amounts of Grant.
- 211 Of the other sites, Wyvern Barracks, Kings Heath and Kinnerton Way are all volume house builder sites that appear in the table in descending order of desirability of location and hence of sales values.
- 212 Shaul's Bakery is a 4-storey traditional construction which is relatively cheap to deliver and this, with the very high density at around 380 dwellings per hectare, helps off-set the additional costs associated with the type of developer, leaving the site in the middle of the list.
- 213 Overall, the results of the calibration exercise broadly justified the assumptions made about types of developer and their associated costs and other parameters. There are no real surprises in the list. Landscore Road is a useful reminder of how negative factors can combine to make viability a real issue, but at the same time the results for the other six sites were sufficiently close together to demonstrate that general policies can nevertheless be applicable.

- 214 The calibration exercise also highlighted that £ per Hectare prices for land can be misleading and that plot values offer a better measure for comparing sites.

The “Steady State” Scenario

- 215 Because the modelling was carried out before the extent of the market downturn became apparent, the Steady State scenario was originally assumed to be the main and final phase of the study. The approach was slightly different from that adopted in the later modelling of the market downturn.
- 216 The first “pass” was similar to the subsequent phases in that it modelled the Preferred Option of nil grant, 85:15 rented to shared ownership and the changing amounts of Affordable Housing Requirement from 20% to 40%. These results are presented in *Charts D1 to D2*.
- 217 However the next phase, entitled “Actual Options” was more refined than in the subsequent modelling phases. This took the scenarios with the best “fit” from the Preferred Options phase and refined them to arrive at what would have been negotiable and deliverable options. The refinements could involve slightly different tenure mixes or amounts of grant, or, on smaller sites, designating different units as the affordable housing. Because a variety of different variables were adjusted, these exercises do not lend themselves to presentation in graph format as it is not possible to designate meaningful x- and y- axes. Hence these results are presented in tabular form in *Tables H1 and H2*.
- 218 A good way of thinking about the difference between these two approaches is that the first one tried to answer the question “**what would the impact of differing Affordable Housing Requirements be on land values?**” whilst the second one asked the question the other way around i.e.: “**what affordable housing could be provided on each site if land values were to reduce by x% or y%?**”
- 219 In this second, goal-seeking exercise, target levels of **25%** and **50%** reductions in land value were used. However, these target levels were only intended to be approximate and the scenarios chosen were generally selected with a view to implementation as general policy. Where a scenario such as “35% affordable housing, nil grant” produced a value close enough to the target value, no further modelling was done. But on sites such as Lanscore Road where the target value was harder to achieve, more scenarios were explored.
- 220 A further refinement in the Actual Options phase was that, on smaller sites, actual numbers of affordable units were entered rather than the calculated numbers. The percentages of affordable housing were then calculated back. For example, on Topsham High Street Garage site, with only 3 dwellings available, the affordable housing could only be 33.33%, 66.67% or 100% of the dwellings on the site, not 25%, 30% or 35% as modelled in the Preferred Options scenarios. This applied to tenure mix too. For example with Newtown Court for scenarios involving 33.33% affordable housing i.e. two units, the two units could be designated 100% social rented or shared ownership or split 50:50: it would not be possible to achieve 85:15 split.
- 221 A similar approach would be desirable for the subsequent Market Correction scenarios. But it requires a time-consuming trial-and-error approach and the effort is only considered to be warranted after further discussion of the results of the Study and of the preferred level of Affordable Housing Requirement.
- 222 In this phase, no special allowance was made for the sites under the current threshold e.g. by accepting land values even lower than 50% because the land price previously would have been inflated compared with sites over the threshold.

The Market Correction Scenarios

- 223 The Market Correction scenarios involved modelling 10% and 25% falls in real house prices.
- 224 Given the level of uncertainty reflected in this part of the exercise, it did not seem appropriate to carry out detailed and relatively time-consuming refinement of affordable housing options for each individual site as was carried out for the Steady State scenario. Instead, the spreadsheet model was enhanced to allow multiple standard scenarios to be modelled for each site. For each of the two house-price correction points, 3 different sets of modelling were carried out, each using a different set of affordable housing options:
- **preferred option:** nil grant, 85:15 social rented to shared ownership tenure mix
 - **tenure mix change:** nil grant, but varying the tenure mix
 - **tenure mix change plus grant:** tenure mix was varied and Grant factored into the model.
- 225 For each of these broad assumptions, the sites were then modelled with 20% to 40% Affordable Housing Requirements. In addition **the Baseline position was updated to take account of the changed housing market parameters** – i.e. without making any changes at all to the Affordable Housing Requirement assumed in the calibration phase of the exercise. As with the Steady State scenarios, the results were calculated both as percentages of the original Baseline plot values and as absolute plot values in pounds sterling.
- 226 In the second and third sets of options, the tenure mix was modified for higher levels of Affordable Housing Requirement, on the assumption that unless this were done there would be no chance at all of sites achieving viability.
- 227 Just to summarise, the volume of data produced was as follows: 2 no. **market scenarios** times 3 no. sets of **affordable housing options** times 7 no. **sites** times 5 no. **levels of Affordable Housing Requirement** (plus a sixth Updated Baseline position figure). This is a total of 252 individual data points. These are plotted in the graphs in *Part E* of the study – each graph showing 42 of the data points i.e. 6 for each of the 7 sites.³⁵
- 228 The outputs from these phases are shown in the **E** and **F** series of Charts. Looking beyond the charts, one of the most obvious results is that sites with existing commercial uses fell out of viability very quickly as the residential values fell below the Existing Use Values. This was the case even on the Updated Baseline figures (i.e. where there might have been no Affordable Housing Obligation previously). It can therefore be inferred that the market correction is likely to stem for the time being the flow of many sites with **active** commercial uses towards residential development. (This does not necessarily apply where the commercial use is redundant.)
- 229 The practical significance of the results is discussed in the *Summary* section of this report (*Part A*).

³⁵ The relevant parameters and 42 site-specific spreadsheets are held in a single folder for each set of affordable housing options. It is now possible, by copying folders, to model different assumptions in a matter of minutes, including plotting them onto graphs. The time is mainly occupied by Excel automatically saving spreadsheets without manual intervention. Currently only one level of grant for each size of property and tenure type is possible but it would be possible to adapt the basic architecture to model the impact of changing grant levels provided the tenure mix were fixed.

PART D ANNEXES

ANNEX A – EXPLANATION OF INPUT VALUES

Variable Name	Value	Source	Notes and Explanation
GLOBAL INPUTS			(These are shaded in light green with sky-blue text in the Spreadsheets)
<i>Res Mix Sheet</i>			
Residential Parking Spaces	0	n/a	Not required in the study – only relevant if sold separately from dwellings
Value of Parking Space	0	n/a	Not required in the study – see above
<i>Res Values and Costs Sheet</i>			
Yield figures	5.75%	Housing Associations	The yield provided by Sovereign Housing Association was 6%. Conversations with Stuart Morley of GVA Grimley and Trevor Ives of the Housing Corporation suggested that there was a preference within the Housing Corporation to use a slightly lower yield. A lower yield translates into a higher capital value and thus a bigger receipt for the developer.
Management Costs (Social Rented units)	£383-	Housing Associations	Although calculated on a scenario-by-scenario basis, these are derived in part from a Global Input. Most Housing Associations assume standard management costs per household (i.e. irrespective of the amount of rent) but the Economic Assessment Tool requires these to be set as a percentage of the rent. For this exercise, the contributing Housing Associations were asked to supply their management costs per unit in accordance with normal practice. Many provided marginal costs (at under £200) and these were not considered to be representative and thus discarded. The figure selected was the median of those that were thought to be realistic figures for full cost recovery and this was entered as a Global Input then used to calculate the percentage figure on a scenario-by-scenario basis (see further discussion under Site Inputs).
Voids / Bad Debts (Social Rented units)	2%	Housing Associations	Based on an average of information provided by housing associations working in Exeter. It is not considered that the figure would vary significantly between schemes. However, different figures are used for shared equity as opposed to rented schemes. The range of percentages was between x %and y%.
Repairs Fund (social rented units)	£649	Housing Associations	Based on an average of information provided by housing associations working in Exeter. Such figures are more normally given as an absolute amount per unit as described for the Management Cost.

Variable Name	Value	Source	Notes and Explanation
Management Costs (Shared Ownership units)	£102	Housing Associations	Although calculated on a scenario-by-scenario basis, these are derived in part from a Global Input. The position is the same as that described for Management Costs associated with Social Rented accommodation as described above – but the actual Global Input is less as the management costs of shared ownership properties are different.
Voids / Bad Debts (Shared Ownership units)	1.38%	Housing Associations	Based on an average of information provided by housing associations working in Exeter. It is not considered that the figure would vary significantly between schemes. However, different figures are used for shared equity as opposed to rented schemes. The range of percentages was between x % and y%.
Repairs Fund (shared ownership and discounted market sale properties)	0%	Housing Associations	Occupiers are responsible for repairs in these tenures.
Timing Social Housing Grant Paid (1st payment)	4	NRP/Housing Associations	It is assumed that homes are built under normal Housing Corporation partnering arrangements and where the Housing Association employs the contractor. 50% of grant is paid at start-on-site and 50% on practical completion. The figure does not need to be input directly as it is copied from the “Commencement of Construction” figure.
Net-to-gross Ratio (houses only)	100%	NRP	This normally only comes into play with flats with communal areas.
Car Parking building costs	£0	NRP	Any car parking is rolled in with infrastructure costs.
S106 payments (Timing)	12	NRP	For the sake of simplicity, S106 payments (as opposed to contributions in kind) are assumed to be made about half-way through the development process. The reality, from site to site, is that the timing can vary significantly but the overall impact on the Residual Land Value will be relatively small, considering the amount of money involved and the fact that the main impact of timing is on the amount of interest paid on the costs incurred over the development period. On the other hand, the timing for “Other S106 payments” (if any) is determined on a site-specific basis.
<u>Site Abnormals (Timing)</u>			
Infrastructure Costs	4	NRP	Infrastructure costs can occur throughout the scheme e.g. with access roads built at the beginning and landscaping completed at the end. Here it is assumed the costs occur relatively early in all developments, increasing costs somewhat compared with using a later date. Contamination and Demolition costs would normally occur near the beginning of the build period.
Contamination Costs	4	NRP	
Demolition Costs	4	NRP	

Variable Name	Value	Source	Notes and Explanation
Building Cost Multipliers	0	NRP	These multipliers relate to the higher standards normally required in social housing, requirement for 5% wheelchair units in the affordable housing on larger sites. Current building regulation standards etc. are included in the main construction cost estimates. Any higher standards specifically related to the affordable housing are included in the separate construction costs shown. Accordingly, these figures are set to zero.
<u>Site Acquisition Costs</u>			
Agents Fees (% of site value)	1%	NRP/Savills	
Legal Fees (% of site value)	½%	NRP	
Other Acquisition costs (timing)		NRP	Assumed to be month 1 in all cases (i.e. immediately following grant of planning permission).
<u>Finance Costs</u>			
Arrangement Fee (£)	1%	NRP/Savills	
Interest Rate (%)	7%	Grimley	Set at 1.5% above the median base rate of 5.5% for the 15 years from April 1992 to April 2007.
Misc Fees – Surveyors etc (£)	0.2%	NRP/Savills	
<u>RSL Housing Marketing Costs</u>			
Cost of sale to RSL	£2,500	ECC	Sale to an RSL would normally be based on a single transaction for all the properties transferred. A single price has been used. The figure given is an estimate.
<u>Open Market Housing Marketing Costs</u>			
Sales Fees – open market hsg	1.5 – 3.5%	NRP	Lower values are used for small schemes where sales might be through estate agents. Bigger schemes might include show homes and site sales offices. As property prices have soared, the costs of marketing have not grown in proportion, so the percentage figure has dropped over time. The marketing figure used in the <i>Calcutt Review</i> is 3%. Discounted sales prices (frequently adopted to push up sales volumes at certain times of the year) are not taken into account here.
Legal Fees £ per unit	£750	NRP	Averaged over the various different dwelling values at 0.5%.
<u>Building Period</u>			

Variable Name	Value	Source	Notes and Explanation
Construction Start	4	NRP	The same commencement date is used in each case i.e. 4 months from purchase. This allows a reasonable amount of time to mobilise for the construction phase. It does assume that the site comes with full planning permission and a signed S106, which is frequently not the case.
<u>Developer Profit</u>			
Open market Housing			<i>See Annex B.</i>
small developers	20%	Grimley + various sources	
medium developers	17%		
volume housebuilders	15%		
Affordable Housing			<i>See Annex B.</i>
small developers	20%	Various sources + ECC	
medium developers	14%		
volume housebuilders	12%		
<i>SITE INPUTS</i>			
<i>(These are shaded in light turquoise with dark red text in the Spreadsheets)</i>			
<i>Res Values and Costs Sheet</i>			
Rents (Social Rented Units)	As stated	Housing Associations	<p>Rents are assumed to be Housing Corporation Target Rents. These are rents based on the government's Rent Restructuring regime involving a consistent level of rent across all social landlords to be achieved by 2010. They are not, however, set directly by the Housing Corporation but are calculated by Housing Associations using a standard formula on a property by property basis. One input into the calculation is the open market value of the property in 1999. Different associations can arrive at different valuations which means Target Rents may also vary from one association to another.</p> <p>For the purposes of this exercise the locations and average sizes of the different proposed dwelling types (i.e. 1-bed flat, 2-bed flat) in each site were described to Sovereign Housing Association and Exeter Housing Society. The values provided were then averaged. However, Exeter Housing Society did not provide values for all property types. As the differences between the figures that were provided by EHS elsewhere and those given by Sovereign were relatively small, it was considered reasonable to use the Sovereign figures where these were the only ones available.</p>

Variable Name	Value	Source	Notes and Explanation
Management Costs (social rented units)		Housing Associations	The percentage of the rent is calculated by the Spreadsheet for each site, using the formula <i>total annual management charge / total annual rent</i> . The <i>total management charge</i> is calculated from the number of social rented dwellings times the Global Input figure for <i>management cost per unit</i> .
Timing of Affordable Housing sales		NRP/ECC	Transfer of the affordable units to a housing association can happen in various ways. Sometimes the serviced land might be sold to the housing association; or the units might be transferred completed up to damp-course level (“golden brick” arrangement); or the completed units could be sold “off-the-shelf”. The main impact on the development costs is how much interest the developer will have to pay before obtaining a receipt. For the purpose of the Modelling Exercise the position chosen is relatively adverse for the developer (and thus conservative in terms of the Residual Land Value): it is assumed that completed units are transferred; for the smaller schemes, the transfer is assumed to happen at the end of the construction period and for the larger schemes, three quarters through the construction period. (Start month and end month are the same in all cases). On sites larger than those modelled here, a more refined approach would be required. The same methodology is used for all the different types of Affordable Housing
Capital Value of Shared Ownership units and Discounted Market Value units (£ psm)		NRP/Savills	The capital values of any shared ownership and discounted market sale units are based on the capital values of the open market units and on the basis that the units form a representative mix of the open market units. For example, there may be 3 or 4 different sizes of 2-bed units in the overall mix of units including 2-bed houses and 2-bed flats, with differing capital values. These will be averaged to produce the appropriate figure for the affordable housing. See below for the source of the capital values of the open market units.
Rent per unit for Shared Ownership Units	1.5% of retained equity	ECC/Housing Associations	Rents for shared ownership properties are usually calculated as a percentage of the value of the equity retained by the housing association (which is calculated as [ave. area * £per SqM. value* percentage share retained]).The Housing Corporation sets a ceiling of 3%. For example, if someone buys a 50% share of a £200,000 3-bed house, the retained equity is £100,000. At 3%, the rent for this is £3,000 pa or about £59 per week. As rents at this level may mean outgoings are frequently not affordable, the Council is now seeking to enforce a policy that rents on shared ownership properties should be no more than 1% of the retained equity. However, there is some evidence that the Housing Corporation will not support such a low figure so a figure of 1.5% has been used in the modelling exercise.
Management Costs (shared ownership units)		Housing Associations	The percentage of the rent is calculated by the Spreadsheet for each site, using the formula <i>total annual management charge / total annual rent</i> . The <i>total management charge</i> is calculated from the number of social rented dwellings times the Global Input figure for <i>management cost per shared ownership unit</i> .

Variable Name	Value	Source	Notes and Explanation
Open Market Values		Savills	The estimated open market sales values have been provided by Savills.
Timing of Open Market sales	See notes	NRP	Small jobs on completion. Larger sites with houses given based on 24 months build, with first sales occurring at 12 months
Timing of Social Housing Grant (second payment)	On completion	NRP	As stated earlier, the first payment is assumed to be at start-on-site and the final payment on practical completion (i.e. end of the construction period). Thus the timing of the second payment is dependent on the estimated duration of the works for the site in question. The figure is copied from the <i>Construction End</i> figure.
Building Costs Gross – Affordable Housing		NRP	These are derived from the costs for the market housing. It is assumed that higher costs in some areas are balanced by a lower specification in other areas (e.g. omit en-suite bathrooms).
Building Costs Gross – open market housing		NRP	Based on NRP expertise as professional QSs, taking the characteristics of each site and the nature of the buildings into account.
Net to Gross ratios for Building Costs (affordable housing)		NRP	Calculated as the (gross internal floor area less communal area) / gross internal floor area taking into account all the units of a given size and tenure type. In schemes where there is a mix of flats and houses of the same unit-size e.g. two-bed properties.
Net to Gross ratios for Building Costs (open market housing)		NRP	Calculated as the (gross internal floor area less communal area) / gross internal floor area from scale drawings.
Building Cost fees		NRP	Based on professional expertise as quantity surveyors, varying from site to site.
Building Contingencies		NRP	Based on professional expertise as quantity surveyors and reflecting knowledge of sites.
Section 106 payments		ECC	Figures based on the actual figures for the sites in question. As all the sites were recent no allowance was made for inflation. With the green field site, the figures for all 765 dwellings on the overall development were used and then pro-rated to the number of dwellings on the particular part of the
Other S106 payments – Timing		ECC	Based on any real-world additional S106 payments that occurred. Discussed in more detail in the main report. See also <i>Table F1</i> in Part F.
Site abnormalities		NRP	The figures given for each site are based on direct knowledge of the sites concerned.
Stamp Duty		NRP	On the first pass the percentage given is on the basis that the site is sold at the Residual Land Value at 30% affordable housing with a 75%/25% split between social rented and intermediate housing.
Other Acquisition Costs		NRP / ECC	Based on knowledge of the particular site e.g. restructuring of lease in respect of Shaul's site.

Variable Name	Value	Source	Notes and Explanation
Timing of sale cost		NRP	Costs of sale are assumed to arise at the end of the construction phase. Thus this input is derived from the latter and need not be entered into the model.
Construction End		NRP	Based on professional expertise as quantity surveyors.
<u>Affmix Worksheet</u>			
Site Area (hectares)		NRP	Based on measuring the site from scale drawings.
Numbers of Units		NRP	Based on the scale drawings of the scheme.
Ave Size SQM		NRP	Based on the scale drawings of the scheme.

ANNEX B – DEVELOPER PROFIT LEVELS

General Considerations

- 1 For most developers it is impossible to establish profit levels at the site level using publicly available information. The profits being reported in company accounts will be derived from turnover across a number of sites, some of which may have been held long-term in land banks (possibly having been bought at much lower prices), or may have been acquired on options where the price level was established in a different market. These factors may have a significant impact on profits, giving a misleading impression of the profits to be obtained with a site newly -bought for immediate development in the current market, which is the situation assumed in the modelling exercise.
- 2 In a fast-rising market such as that experienced over the last few years – particularly where some of the rise was not anticipated by most analysts and therefore not necessarily built into bids for land – developer profits can receive a considerable boost. After a while expectations about rising prices become inflated and the land market can become over-heated. Developers bidding against one another may have to reduce their profit levels to acquire land – particularly if they do not have land-banks to fall back on. *Callcutt* refers to this as the “Land Cycle”. When this is followed by falling house prices the effect on profits can be drastic.

Profit Measures

- 3 Profit at the site level is commonly calculated against Gross Development Value, commonly abbreviated to GDV. GDV is the total sales value of the completed development. Profit can also be calculated on the costs of development. (Note that, to be comparable, the profit percentage measured against costs would need to be higher than that against Gross Development Value, as the base value would be lower.)
- 4 At the company level, the key measures are likely to be Gross Margin (or Profit) and Operating Margin (or Profit), the latter taking into account central overheads that are not taken into account in the Gross Margin. Investors will be interested in other measures too - profit after tax, Return on Capital Employed, Return on Average Capital Employed, Return on Equity (see *Callcutt* for further discussion of these). These measures are less appropriate for use at site level but serve as a reminder that ultimately it is the business that is important not the individual site.
- 5 An individual site might be developed at a nominal loss (when taking into account the price paid for the land, holding costs, abortive planning fees etc) if a developer could nevertheless make a profit from the sales receipts over and above the costs of construction. This would clearly not be a basis for a solvent business if repeated as a general pattern, but is a definite possibility in the individual case of a site that cost too much to buy or where a need for cash flow becomes the over-riding consideration.
- 6 To take an analogy, suppose a manufacturer commissioned a new factory with innovative technology; and suppose the costs of development escalated way beyond what had been anticipated but the plant was nevertheless successfully completed and available for operation. If the new plant were able to produce goods at a profit over the running costs, would the manufacturer put the plant in mothballs simply because the development costs had been so high? What would be the point?

Profit Cycles

- 7 Profits in the housebuilding index reflect cycles in the housing market. The *Barker Review of Housing Supply (Interim Report 2003)* showed that average operating margins dropped from over 20% at the peak of the market in the late 1980's to under 15% for a period of 10 years in the 1990s – with the average for 8 years being around 12.5% (see para 23).
- 8 *Callcutt* includes a schematic table (ie it is not based on actual historical data) intended to illustrate the relationship between house prices, margins, land values etc. over a 9-year cycle, but notes that the real fluctuations are typically greater than those shown. Although the figures are not derived from any particular set of 9 years, the levels of profit, margin, overhead etc can be assumed to be broadly realistic for the industry.

Year	1	2	3	4	5	6	7	8	9
Selling Price	100	110	125	130	130	125	120	120	120
Land Cost	-27	-27	-28	-32	-34	-35	-34	-32	-30
Build Cost	-50	-55	-63	-65	-65	-65	-65	-65	-65
Marketing Cost	-3	-3	-4	-4	-4	-4	-4	-4	-4
Overhead	-6	-7	-8	-8	-8	-8	-7	-7	-7
Operating Profit	14	18	22	21	19	13	10	12	14
Operating margin	14.0%	16.4%	17.6%	16.2%	14.6%	10.4%	8.3%	10.0%	11.7%
Combined Operating Profit & Overhead	20	25	30	29	27	21	17	19	21
Gross Margin	20.0%	22.7%	24.0%	22.3%	20.8%	16.8%	14.2%	15.8%	17.5%
Land Buying									
Selling Price	100	110	125	130	130	125	120	120	120
Build Cost	-50	-55	-63	-65	-65	-65	-65	-65	-65
Marketing Cost	-3	-3	-4	-4	-4	-4	-4	-4	-4
Gross Margin Required	-20	-22	-25	-26	-26	-23	-22	-22	-22
Residual Value	27	30	33	35	35	33	29	29	29

- 9 The line in the table most closely corresponding to the “Profit” figure used in the spreadsheet modelling is “Gross Margin”. It can be seen that this varies between 14.2% and 24% over the 9 years of the cycle.

Profit on Market Housing (other studies)

- 10 A profit figure of **15%** of GDV on market housing is quoted in a number of similar studies conducted elsewhere or in documentation to modelling tools. For example this is the figure proposed in the context of the EAT example site and written as a note in the spreadsheet.
- 11 Adams Integra, in their West Sussex viability study stated that: their “*experience of discussions and working with a range of developers leads us to suggest that they would need to seek a fixed profit of at least 15% (gross).*” (p7) They have continued to use this figure in more recent studies e.g. Horsham where the Core Strategy of the LDF has since been accepted by the Planning Inspector: “*This model uses a developer’s profit (gross)*”

fixed at 15% of **gross development value**, which is at the lower end of the acceptable profit range in normal circumstances.” (p 6).

- 12 Knight Frank used the figure “20% of **costs**” in their study of affordable housing policy in Surrey (p.42) and further stated: “Despite there being no standard levels we could expect that a level somewhere between 15% and 25% return on **costs** would cover the majority of circumstances for profit targets on development sites.”
- 13 Savills (Wycombe District Viability study, Feb 2006) use the figure “15% of their **total costs**” (this would be under 15% of Gross Development Value):
- 14 The Three Dragons study for the Greater London Assembly (2001) used the figure “Developer profit 15% of **market value**” (= Gross Development Value). This is similar to the Adams Integra figure. However, they go on to point out “The return to the developer will be a combination of profit and internal overhead and will vary depending on specifics of development – typical values will be around 20% of market value.” However, some of the values used by Three Dragons seem surprisingly cautious including professional fees at 12%. This may reflect the complexities of developing constrained London sites.
- 15 Atisreal Ltd, in a review of the Greater London Assembly Development Toolkit, noted that “The 15% profit level is generally accepted by most developers using the Toolkit.”
- 16 There are some apparent outliers: the Baker Associates report on South Hams indicates a significantly higher level of profit: “All developers have a slightly different approach to levels of profit and overhead, and an overall average of 25% of **turnover** is a good representation of the whole industry, although ‘admitted’ levels of profit and overhead varies from 20% to 30%.” However Nigel Clark of Baker Associates has since clarified that the profit figure includes a number of overhead costs (personal communication).
- 17 More attention deserves to be given to the relationship between profit at the site level and general company overheads (which do not appear to be easily identifiable in any of the modelling tools reviewed in the course of preparing this study).

Profit on affordable housing

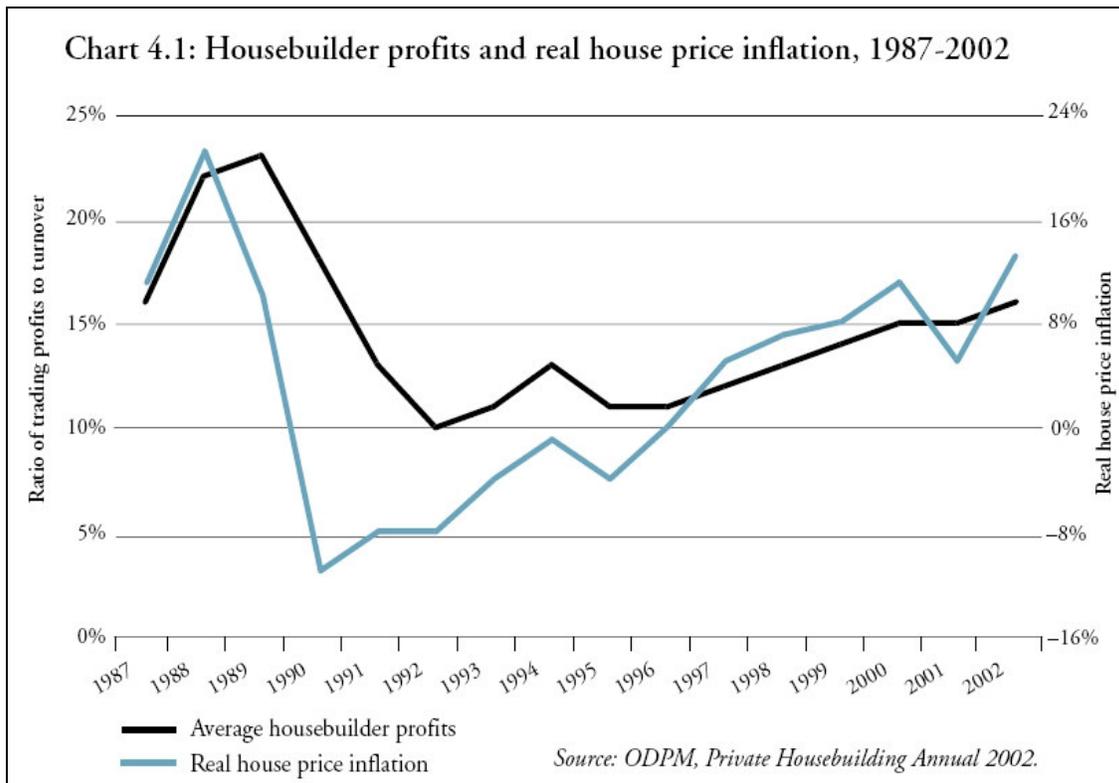
- 18 Views about the rate of profit on affordable housing seem to vary widely. In practice, the “profit” may be non-existent i.e. the affordable housing may actually be built at a loss. The recommended level of profit in the EAT model is 6%. Partly this seems to be to cover internal overheads that are not otherwise accounted for within the scheme appraisal. At the other extreme, Baker Associates in their studies (e.g. the newly published Torbay study) do not differentiate between the profit on the affordable and market housing.
- 19 Using a significantly reduced percentage of profit on the affordable housing reduces the overall profit on turnover (Gross Development Value) for the site as a whole. With higher percentages of affordable housing (e.g. at 40% or 50% or even 60% in the case of some sites in South Hams following the Inspector’s report on the Affordable Housing DPD) this reduction would become significant and to ignore it is counter-intuitive if profit is, in principle, being measured against GDV. A big differential between the rate of profit on the affordable housing and the market housing obscures the overall rate of profit on GDV, which seems to undermine its use as a measure in the first place.
- 20 It is noteworthy that if profits were calculated on costs rather than Gross Development Values it would be harder to justify using a different rate of profit on the affordable

housing: thus the recent University of West of England study on the “North Peninsular”, which is one of the few studies to work off costs rather than GDV, does not make any distinction between market and affordable housing.

- 21 Accordingly, this study has broadly followed the Baker Associates approach but with the profit level on the affordable housing discounted by 3% from the level of profit on the market housing for the larger developer. The 3% discount is intended to reflect that some internal overhead costs may be reduced and there is less risk associated with the affordable housing (which is effectively bought off-plan).
- 22 (Some of the issues discussed above would reduce if a more refined and in some senses more orthodox measure of profit were brought into play, as suggested by the *Calcutt Review* e.g. rate of return on capital employed.)

The Barker Report – Review of Housebuilder Profitability

- 23 The following table is reproduced from the *Barker Report on Housing Supply (Interim Study - 2003)*. Profitability rose further after 2003 as house prices continued to rise, repeating the pattern seen at the time of the last house-price boom.



ANNEX C – ILLUSTRATIVE EXAMPLE AND SENSITIVITY EXERCISE

- 1 This example is intended to demonstrate the spreadsheet model in action, showing how some of the key variables affect the Residual Land Value.
- 2 The site in this case is purely hypothetical. The key items of information fed into the spreadsheet for the baseline position are as follows:

Details of Dwellings

- There are 100 identical 1-bed flats on the site
- Each flat is 40 Square Metres in size gross internal floor area

Cost details

- The build costs are £1,100 per Square Metre
- Site remediation costs are £100,000 because of contamination
- Demolition costs are £35,000 (existing building on the site)
- Marketing and sales fees are 4% of the property value
- Legal fees are £750 per property
- £1,500 per property is required for improvements to local amenity space (planning obligation).

Sales Income

- The sales prices are £100,000 per flat, equating to £2,500 per square metre

Developer Profit

- Developer “profit” is 15% on the market housing and 3%³⁶ on the affordable housing

Key Timings

- The duration of the build is 12 months and the build starts 3 months after planning permission has been granted.
- The last unit is sold 3 months after the build is completed (i.e. month 18).

Affordable Housing Details

- The rents of any affordable housing are £50 per week; various other cost parameters such as bad debts, management charges, repairs costs etc. are in accordance with normal housing association values used in the main study where applicable.
- Yields for the Housing Association are assumed to be 5.75%
- Any shared ownership sales are at 50% of the open market value; rents are the corresponding proportion of target rents

³⁶ This is not consistent with the level used elsewhere in the study.

- 3 Having fed the various parameters in to the model, it produces the Residual Land Values shown. The base scenario has NO affordable housing. This would be the position if the development was sold entirely on the open market. The Executive Summary for this model is attached. It shows a Residual Land Value of £1,734,068.
- 4 Of possible note are: the interest costs (which assume the developer has borrowed money to build the development). Note how, even though build costs at £1100 per square metre are less than 50% of the sales value per SqM., the various other costs associated with the scheme build up to reduce the land value considerably.
- 5 The next two scenarios model the impact if
 - **[A]** the sales prices increase from £100,000 to £110,000 per unit;
 - **[B]** the build costs increase 10% from £1100 per SqM. to £1210 per SqM.
- 6 The impact on the land value is much greater than 10% in either case. In the first case the land value rises by about 40%; in the second it drops by 28%.
- 7 The impact of affordable housing is modelled next. In the first scenario **[C]** the requirement is a modest 20%, which is split 50-50 between social rented and shared ownership. No grant is assumed. This produces a significant reduction in the residual land value.
- 8 The next scenario **[D]** involves 25% affordable housing with an 85%-15% split between social rented and shared ownership. This was the policy at the time the study was carried out. This is shown first without and then with grant – grant being set at £10,000 for rented and £5,000 for shared ownership properties **[E]**. The total amount of grant in scenario **[E]** is £231,250. The difference in site value between scenarios **[D]** and **[E]** is £208,302, so that the injection of grant increases the land value virtually pound-for-pound. The reason it is not pound-for-pound is mainly down to £386,229 of finance costs in scenario **[D]** compared with £409,177 in the grant scenario **[E]**.
- 9 Scenarios **[F]** and **[G]** simply model cases where relatively minor changes of plus or minus 5% in sales values and build costs reinforce one another, compounding the effect. 5% is a relatively small amount – yet the effect on the land value is plus or minus 34%, underlining how sensitive residual land values are to these key variables.

Scenario	Sales Price	Build Costs	Aff Hsg %	Rented: Shared Ownership	Grant (Rented : Shared Ownership)	Site Value	Site Value against base-line	Site Value +/- against base-line	Site value as % of TDV	Site Value per HA
Base-line	100K	1,100 SqM	0%	n/a	0:0	1,734,068	100%	0%	17.3%	6,936,270
A	+10%	0%	0%	n/a	0:0	2,434,749	140%	+40%	22.1%	9,738,998
B	0%	+10%	0%	n/a	0:0	1,240,175	72%	-28%	12.4%	4,960,700
C	0%	0%	20%	50:50	0:0	1,020,397	59%	-41%	11.6%	4,081,588
D	0%	0%	25%	85:15	0:0	597,762	34%	-66%	7.2%	2,391,047
E	0%	0%	25%	85:15	10k::5k	806,064	46%	-54%	9.5%	3,224,257
F	+5%	-5%	0%	n/a	0:0	2,331,355	134%	+34%	22.2%	9,325,419
G	-5%	+5%	0%	n/a	0:0	1,136,780	66%	-34%	12.0%	4,547,122

ANNEX D – COMPETING USE VALUES

The following is the relevant text from the letter from Savills concerning Alternative and Existing use Values:

3 December 2007

Our Ref: ExeterCityCouncil/Gibbens

PRIVATE AND CONFIDENTIAL

Mr D Gibbens
Housing Enabling Manager
Exeter City Council
Civic Centre
Paris Street
Exeter
Devon
EX1 1RQ

Dear Mr Gibbens

EXETER CITY COUNCIL AFFORDABLE HOUSING STRATEGIC VIABILITY STUDY

Thank you for your e-mail dated Tuesday, 31st October 2007 and our subsequent telephone conversation regarding the Affordable Housing Strategic Viability Study.

....

In addition, we have provided you with our opinions on the likely alternative uses of the sites, subject to the Affordable Housing Strategic Viability Study, and an estimate of the likely alternative land prices below. We have specifically excluded alternative uses such as residential care homes and student accommodation.

- **Wyvern Barracks, Topsham Road:** The site is approximately 4 hectares³⁷ (10 acres) and is in the St Leonards area of Exeter. The site was previously part of the Wyvern Barracks and is accessed off Dryden Road. It is in a residential area, albeit Wonford hospital is to the north and the Territorial Army barracks are to the south, and is allocated in the adopted Local Plan as a site for housing.

Our opinion due to the allocation of the site for housing and the surrounding residential area that there is not a viable alternative use for the site. Any alternative use would be contrary to the policies set out in the Local Plan and the presumption would be against such a use.

- **Clifton Road:** The site is approximately 0.1 hectares (0.2 acres) and is in the Newtown area of Exeter. The site is adjacent to St Matthew's Church Hall and is 'wedged' between St Matthew's Church Hall and a terrace of houses. It is accessed off Lower Summerlands. It is in a residential area, albeit the site is near the Clifton Inn and the Triangle Car Park, but is not an allocated site in the adopted Local Plan for housing. It is a 'windfall' site within the development boundary of Exeter. Please note that Maze are about to market St Matthew's Church Hall and I have attached the

³⁷ Savills' estimate of surface area relates to the full Wyvern Barracks site not just Phase I as modelled in this study.

draft sales brochure for your information.

Our opinion due to the characteristics of the site, its physical constraints and the surrounding residential area that there is not a viable alternative use for the site. This site was clearly a brown field site for housing.

- **Kings Heath, Digby:** The site is approximately 3 hectares (7.6 acres) and is in the Digby area of Exeter. It is 'wedged' between Quarry Lane and Sidmouth Road. It is accessed off Sidmouth Road. It is in a mixed use area, albeit forms part of the larger Digby housing estate, with a public house, Police HQ, Sowton Industrial Estate, Park 5 office campus and Trade City nearby.

The site is allocated in the adopted Local Plan as a site for housing. Any alternative use would be contrary to the policies set out in the Local Plan and the presumption would be against such a use. Also the prices are below that of housing with the exception of food retail.

The likely alternative uses for the site are a supermarket or employment use (office, industrial or trade counter uses) given the uses in close proximity to the site and we estimate that these uses will generate land values as follows:-

Industrial	estimate of £300,000 - £350,000/acre
Office	estimate of £400,000 - £450,000/acre
Trade Counter	estimate of £600,000 - £650,000/acre
Food Retail	estimate of £1,000,000 - £1,500,000/acre, however, given the demand by supermarkets not represented in Exeter and the lack of supply of suitable sites this figure could be significantly higher. The land price per acre is almost an anomaly as the supermarkets will pay a price for a site to get in to the local marketplace and have representation within this.

An overriding issue of course will be the proximity of the Tesco supermarket, which is nearby at Digby Retail Park and serves the surrounding area, and also restrictive nature of planning policy for out-of-town retail development.

Please note that these estimates are headline figures on a net developable basis and have been provided for indicative purposes only. They are based on the assumption that detailed planning permission has been granted for the use and are on land prices for recognised estates which are fully serviced. They do not take into consideration servicing costs, infrastructure or site specifics, such as ground conditions, contamination/remediation, over costs or section 106 contributions etc...

- **Landscore Road:** The site is approximately 0.16 hectares (0.4 acres) and is in the St Thomas area of Exeter. It is accessed off Landscore Road/Manor Road. The site is in a residential area, albeit adjoins an area used for second hand car sales, but is not an allocated site in the adopted Local Plan for housing. It is a 'windfall' site within the development boundary of Exeter.
- The likely alternative uses, given the historic use of the site as Tancock's Garage is garage use and we estimate that this use will generate land prices as follows:-

Workshop and Garage estimate of £150,000 - £200,000 for the freehold. We have made the assumption that the Tancock's Garage building is in situ, that it is freehold that was nearing the end of its life cycle, in poor but lettable condition and comprised of a building of approximately 2,758 sq ft (256 sq m). It is almost impossible to provide you with a more accurate estimate, because the building is no

longer in situ. We have not allowed for any hope value for re-development for an alternative use.

- **Kinnerton Way:** The site is approximately 1.4 hectares (3.4 acres) and is in the Exwick area of Exeter. Kinnerton Way is accessed off St Andrew's Road/Exwick Road.

It is in a residential area and is allocated in the adopted Local Plan as a site for housing. Any alternative use would be contrary to the policies set out in the Local Plan and the presumption would be against such a use.

The likely alternative uses, given the historic use of the site as a Plymco supermarket is food retail use and we estimate that this use will generate land prices as follows:-

Food Retail estimate of £1,000,000 - £1,500,000/acre, however, given the demand by supermarkets not represented in Exeter and the lack of supply of suitable sites this figure could be significantly higher. The land price per acre is almost an anomaly as the supermarkets will pay a price for a site to get in to the local marketplace and have representation within this.

The reality is that due to the site constraints, namely access off Exwick Road and accessibility to the wider population of Exeter, the site at Kinnerton Way is unlikely to be a suitable site for a supermarket. However, it might be suitable for a small parade of retail units within a mixed use scheme. [Emphasis added as the preceding paragraph is potentially misleading by Exeter City Council]

Please note that these estimates are headline figures on a net developable basis and have been provided for indicative purposes only. They are based on the assumption that detailed planning permission has been granted for the use and are on land prices for recognised estates which are fully serviced. They do not take into consideration servicing costs, infrastructure or site specifics, such as ground conditions, contamination/remediation, over costs or section 106 contributions etc...

- **Verney Street:** The site is approximately 0.08 hectares (0.2 acres) and is in the city centre. It is accessed off Verney Street. The site is off Sidwell Street in an area with a mix of residential, retail and industrial uses.

The site is allocated in the adopted Local Plan as a site for housing. Any alternative use would be contrary to the policies set out in the Local Plan and the presumption would be against such a use.

The likely alternative uses, other for housing (including mixed use or student housing) for the site are employment uses (office, industrial uses) and we estimate that these uses will generate a price as follows:-

Industrial/Office Building estimate of £400,000 - £600,000 for the freehold/long leasehold. We have made the assumption that the Shaul's Bakery building is in situ, that it is freehold/long leasehold, that the property was built in the 1950s, was nearing the end of its life cycle, in poor but lettable condition and comprised of a building of approximately 11,000 sq ft (1,023 sq m). It is almost impossible to provide you with a more accurate estimate, because the building is no longer in situ. We have not allowed for any hope value for re-development for an alternative use.

- **High Street, Topsham:** The site is approximately 0.03 hectares (0.07 acres). It is on the main road into Topsham and is accessed directly off High Street.

- The site is in a residential area, albeit the site is currently a filling station, but is not an allocated site in the adopted Local Plan for housing. It is a 'windfall' site within the development boundary of Exeter.

The likely alternative uses, given the historic use of the site is as a garage and we estimate that this use will generate a price as follows:-

Filling Station & Garage estimate of £125,000 - £175,000, although this does depend on the profitability of the fuel sales and we can not confirm this as we have not had sight of the last three year's trading accounts.

Kind regards.

Yours sincerely

Mark Chugg BSc (Hons) MSc MRICS

ANNEX E – ESTABLISHING ACCEPTABLE LAND PRICES

- 1 No empirical research was found during the preparation of this study demonstrating a cause-effect relationship between lower land prices and a drop in the supply of land. The operation of the land market is such that it would be difficult to establish such a relationship.
- 2 The Planning Inspector at the South Hams Enquiry in Public relating to the Core Strategy noted that since the imposition of the 66% affordable housing target there had been a significant drop in the amount of housing built (and by implication the amount of land coming forward for residential development). He evidently inferred that the policy might be responsible stating: *“There is clear evidence from examination participants and the reduced level of new housing completions in the district since the Council’s introduction of the new current SPG that the thresholds and targets therein are acting as material deterrent to the emergence of suitable new housing sites in the district”*. (Inspector’s Final Report into South Hams Core Strategy, p.22)
- 3 The Inspector in this case required the overall, plan-wide target to be reduced from 66% to 50%. However the Inspector did not appear to have considered possible alternative explanations – the simplest being that there were very few allocated sites left for development in the South Hams over the period the Inspector was looking at. Given that there is normally a considerable delay between a new planning policy and the final delivery of homes based on the policy and that the policy was only recently introduced, it seems possible that other factors may have contributed to the reduction in delivery.
- 4 In any event, another Inspector has subsequently reviewed the Affordable Housing DPD and a SPD for South Hams and agreed targets up to 60% on higher-value sites, subject to viability being established. This would seem broadly to support the South Hams position on the deliverability of high Affordable Housing Requirements.
- 5 The Council also reviewed how viability studies conducted elsewhere had approached this issue of estimating land prices that would be acceptable to landowners. There were marked differences in approach as described further below, but none of the studies were able to provide actual evidence or even an argued case to justify why a particular level of land prices would need to be achieved for land to continue coming forward, other than the obvious need to exceed existing use values or other use values that might easily be achieved.
- 6 There were two broad approaches in these other studies. One related the acceptability of residential land prices to existing / alternative non-residential use values (“the economic approach”). The other related acceptability to expectations based on residential land prices currently being achieved (“the psychological approach”).
- 7 Recently, Baker Associates have produced what might be called a hybrid approach in its 2008 study of Torbay: this plots an uplift factor which is the ratio of the land value with residential permission to the previous value. It takes into account that uplift factors would need to exceed a certain level before becoming attractive to a landowner, thus paying some regard to the expectations of the landowner.
- 8 An economic criterion was applied in all cases i.e. all the studies assumed that land would not come forward for residential development if existing or alternative use values would provide a better return. But beyond this, the significance of landowners’

expectations was either ignored or emphasised depending on the study. The approaches are summarised in the table below:

Study	Approach to Land Value Acceptability
	<i>The Economic Approach (compare with alternative use values)</i>
<p>South Hams Viability of housing proposals in the First Deposit Local Plan Baker Associates 2003/4</p>	<p>The study took as its criterion: <i>“the attainment of a site value sufficiently in excess of the current site value that a landowner, acting reasonably, would accept, thus securing delivery of the proposed development”</i></p> <p>It later stated: <i>“It would be a reasonable conclusion that the difference between current agricultural site value, and the value conferred on a site with planning permission for housing will enable the whole range of community planning gain items to be delivered through the mechanisms of conditions and planning agreements. Most of the allocations are undeveloped fields on the edges of settlements, and alternative land values are based upon the existing use, agricultural. p 8.9”</i></p> <p>In the example on p21, 6 acres of land worth £12,000 as agricultural land are shown to have a value of £1,268,250 with a 66% affordable housing requirement. This assumes 4.9 developable acres (i.e. taking off amenity space) and is assumed to be a sufficient price because of the margin over £12,000.</p> <p>However, the study had earlier stated that residential land in South Hams was worth between £700,000 and £1,200,000 per developable acre so the subject site would have been worth between £3,430,000 and £5,880,000 based on previous policy. So under the proposed policy the land would have reduced in value by between approximately £2 million and £4.5 million, although the study did not comment on this aspect.</p>
<p>Surrey The Economics of Affordable Housing in Surrey Knight Frank, 2003</p>	<p>As normal, the report starts with the standard reference to existing use values: <i>“landowners must be able to achieve a sale of their land at a price in excess of its value in an alternative use to residential development.” [p6]</i></p> <p>That is about as far as the report goes, merely repeating the position later on: <i>“For the houses to be built in the first place, the landowner must be willing to sell at the price offered. Assuming the land is surplus to requirement and the landowner is willing to sell, the decision will be influenced by the value of the land for residential development and its existing use and alternative use values.” [p43]</i></p>
<p>Oxford Housing Viability Study (Executive Summary) Fordham Research 2003</p>	<p>This study focuses most specifically on alternative use values, essentially making this the sole criterion: <i>“Whether the individual option produces a viable outcome will depend on the land value from alternative uses” [p2]</i></p> <p>It points out that the commercial alternative use values would not in any case be available in as many places as they would not be consistent with</p>

Study	Approach to Land Value Acceptability
	<p>planning policy. Unfortunately the detailed study is not available on the internet.</p>
<p>Wycombe Wycombe District Viability Study Savills Commercial Ltd 2006</p>	<p>This report is ambiguous as it starts with one criterion but then seems to shift to the other. The initial statement on P10 is as follows: <i>“The freeholder selling land for residential development should be offered a price in excess of the land’s existing use value in order to make him want to sell assuming “normal” market circumstances and ignoring any special purchaser issues. This has to be the fundamental determinant of viability. [p10]</i> However, the report subsequently applies a “market reality check”. The report notes that existing residential values are between £1.1M and £1.5M and chooses the level of £1.2M per acre as a benchmark. It justifies this level both in the context of residential values and alternative (commercial) use values. This is surprising insofar as it is rare for commercial and residential values to be so close together (although possibly a high Affordable Housing Requirement was already in place within planning policy).</p>
	<p><i>Psychological Approach (existing values)</i></p>
<p>West Sussex Study Relating to the Financial Viability Impacts of Affordable Housing Policy Options in West Sussex Adams Integra 2005 Also a similar study carried out for Horsham DC, June 2004</p>	<p>The study acknowledges the importance of existing use values as a limiting factor: <i>“The modeling looks mainly at straight forward brown field development scenarios. The impacts will tend to be felt more on brown field schemes. This is principally because there is more likely to be an existing or alternative (probably commercial) competing use.”</i> However, it did not attempt to quantify the existing/alternative values: <i>“On a notional basis we are not able to look at that competing value which will need to be bettered for development to take place, but it is a key factor which negotiations will sometimes need to acknowledge. (p3)”</i> Instead, the study looked at the value of residential land without any affordable housing requirement and then attempted to assess the scale of the discount, paying little regard to the actual values achieved. <i>“Therefore not too much weight should be attached to the actual values arrived at - the changes in results as the affordable housing criteria alter are the key outcomes.”</i> The conclusions are couched in similar terms. <i>“In terms of proposed policy options it appears that the higher value areas of the County may well be able to sustain the potential changes in pure financial viability terms at the range of thresholds and higher percentages considered. Although the impact is marked and the approximate residual land values are reduced significantly, they still remain relatively strong in terms of encouraging land supply.” [P27]</i> The psychological dimension of this approach is clearly underlined by a comment in the Horsham report:</p>

Study	Approach to Land Value Acceptability
	<p><i>“By their nature these areas will tend to be formed from farmland or similar with an intrinsically low existing use value. As such, the expectations from the landowner in terms of residual land value should also be lower.” [P 16] [emphasis added]</i></p> <p>It is certainly questionable whether landowner’s expectations are low simply because existing use values are low. In our view, expectations are formed by perceptions of the residential land market.</p>
<p>South Cambridgeshire Affordable Housing Viability Report 3 Dragons / Roger Tym and Partners / Michael Beam Consulting</p>	<p>This report links acceptable land prices to the values reported in the National Valuation Office reports for sites in the area – all of which stood at £2,600,000 in the January 2005.</p> <p>The report then concluded:</p> <p><i>“In evaluating the results of the scenario testing, land values that are equivalent to over £2m per hectare are considered to be producing an acceptable land value in the context of a 50% affordable housing obligation. Exceptions would be where an existing use value is a more appropriate benchmark....” [P20]</i></p> <p>Thus the report indicates a reduction of about 25% as against current land values as being acceptable. This approach is consistent with other 3 Dragons reports.</p>
<p>Hybrid Approach (economic / psychological)</p>	
<p>Torbay Assessment of development viability arising from Planning Contributions and Affordable Housing – A discussion Paper 2008 Baker Associates</p>	<p>This report is an honourable exception to most others in that it devotes considerable attention to the question of what might be considered viable. It is the only study to set out a methodology intended to quantify the “acceptability” of the land values being modeled.</p> <p>The definition of viability is similar to that used in the South Hams study described above ie:</p> <p><i>“The definition of ‘viability’ for the purposes of this assessment is the attainment of a site value sufficiently in excess of the current site value that a landowner, acting reasonably and rationally, would accept, thus securing delivery of the proposed development”</i></p> <p>However, unlike the earlier study, this one develops a methodology whereby the value of land with residential permission is compared with its previous value to generate an uplift factor. The study gives as a hypothetical example a 4-acre greenfield which previously had hope value of £400,000 achieving a value of £3,000,000 with residential consent, giving an uplift factor of 7.5. The report suggests this acceptability of this level of uplift is self-evident.</p> <p>It contrasts this with a brownfield site worth £500,000 in its current use and £750,000 with residential permission, producing an uplift factor of 1.5. The report suggests this would be too low to be worth bothering about. The report concludes that <i>“For most sites, an uplift factor of at least 2.0 will be required to enable viability. For large greenfield sites, this may reduce to about 1.5, given the very high land values and relatively low base values”</i></p> <p>It will be seen that this approach does attempt to factor in the landowner’s “rational thinking” and thus has a psychological element to it; but on the other hand it does not pay any regard to expectation. ~For example, in the</p>

Study	Approach to Land Value Acceptability
	<p>case of the 4-acre greenfield site used as an example, the acceptable value would be £800,000 using an uplift factor 2. This compares with the £3million proposed earlier as the current market value of the site ie under 30% of that value. It is legitimate for a local authority to implement a policy on this basis, but the practical implications of doing so (for example if there is no cross-party support for such a measure) surely then deserve a discussion.</p> <p>And looking at the other example ie a £500,000 brownfield site potentially worth £750,000, where hope value and expectation do not play a part, if we imagine a the owner of a small business going into retirement, the £250,000 uplift could be very attractive.</p> <p>(It is also to be noted that the suggestion of a lower uplift value on a greenfield site does not seem consistent with common sense or the reasons used to justify it. The existence of a low base value would suggest that a higher uplift factor than 2 might be required, not a lower one, to achieve an acceptable value. Using an uplift factor of 1.5, the example greenfield site would now only need to achieve a value of £600,000, oronly 20% of its assumed previous market value, to be acceptable).</p> <p>In summary, in the absence of empirical evidence to allow the appropriateness of any uplift factor to be assessed, the authors can be considered to have made the best of bad job.</p>

- 9 Probably the second of the above approaches is the more common one, given that Adams Integra have carried out a number of studies and 3 Dragons are also a popular choice of consultancy for strategic viability studies. Although the broad approaches are the same, the 3 Dragons approach has the merit of specifying exactly what level of land value is being used, whereas Adam Integra make only general comments about the impact of affordable housing on residual land values.
- 10 Whilst the 3 Dragons approach is thus more transparent it could also be said to be making a significant judgement about the acceptable level of land prices without actually having any evidence to support the level chosen. In their Horsham Study, Adams Integra reinforce the point made in the main text of the Exeter study:
- “There are no clear cut off points at which development will become unviable. Much will depend on a site’s existing / alternative use value and **its owner’s needs and aspirations**”.* [emphasis added].
- 11 It is certainly the case that an approach that pays some regard to expectations based on historic land values is likely to be safer than one that ignores them.

ANNEX F (omitted)

ANNEX G – SITE COMPARABLES

- 1 There is a relative scarcity of information about prices land will fetch in the current market. Each site is different and only a handful of larger sites have been sold over the last few years. Nevertheless, some pointers do exist.

St. Loyes

- 2 An attractive riverside site, albeit with many constraints on development in the form of mature trees and one or two buildings. The site constraints indicated a low density of about 30 per hectare, say 225 dwellings on 7.7Ha. The site sold for over £16M at £2.1M per hectare to a company expecting to build retirement housing, apparently assuming that affordable housing would be provided in accordance with policy. The plot value in this case is £70-£75k. The developer's appraisal is thought to be based on an up-market development with 3-bed homes expected to fetch over £350,000 each.

Kinnerton Way

- 3 One of the sites in the study – this sold for £1.839M per Ha in September 2003 when the land price index stood at 190. After indexing, this would indicate a value of £2.877M per Ha at April 2007 prices. There are some complexities in valuing this site because there was no affordable housing involved but enhanced community facilities.

Landscape Road

- 4 This heavily contaminated site, also in the study, sold for £300,000 in March 2005. The site area was 0.16 Ha giving a value of £1.67M per Ha. The plot value in this case was £27k. After indexing, this would give values of £2,344M per Ha and £34,091 per plot. The completed site was offered to housing associations for around £2.1M and the developers refused to accept offers below this level.

Newtown Court

- 5 This site sold for £315,000 in 2005, representing a plot value of £52,500 and land value of just under £4M per hectare. The finished development was sold in its entirety for £795,000 to a housing association for market renting. After indexing this would give values of £4.9M per Ha and £65,625 per plot.

Shaul's Bakery Site

- 6 This site of 1 and 2-bed flats in 2 no. 3 and 4-storey blocks was not sold. Instead it was developed by its owner, who leased the flats on to the council for 10 years. The owner was known to have had an offer of around £800k for the site at the time the deal was being negotiated, producing plot values of £25,000 and a high price per Ha of £8.889M, reflecting very high densities with no on-site parking requirement and little outside space. At today's value this would become £31,250 per plot with a land value of £11.111M.

The County Ground

- 7 This site has become notorious because the purchaser is perceived to have paid too much for it. It is understood that the successful bidder (and other, unsuccessful bidders) expected to get 185 homes on the site, whereas planning permission was eventually granted for 155 homes. The land values were £4.8M per hectare and £5.7M for the more densely developed Pegasus retirement home part of the site. The figures for the

Bellway part of the site are not regarded as reasonable comparators, although it is known that they have been quoted by landowners in negotiations on other sites.

- 8 However, by adjusting the number of plots upwards from 100 to 130, in line with what are understood to be the expectations of the developer and others who bid for the land, it is possible to arrive at a calculated value per plot of £69,231 that can be used as a comparator.

Central Station (Isca Place)

- 9 This densely built-up development of apartment blocks, some of which are 6 storeys high, sold at £5.7M per Ha in 2003. The building includes some office space and commercial car-parking that would have added significantly to the overall costs. [detail to follow].

The Chancel Lane Cold Store

- 10 This site was sold in 2007, with outline permission that included an indicative design for 122 dwellings. The land value was £3.5M per Ha and the plot value of £63.5k. There was no S106 attached to the site at the time of sale and it is not clear what assumptions have been made about the affordable housing requirement on the site. However, it is understood that this site was acquired on the back of an offer from a housing association which is thought to have been inflated by unrealistic expectations about the level of grant available. The offer was subsequently withdrawn.
- 11 The amount of grant that the housing association was seeking is known to the Council and on this basis it is estimated the site was sold for about £500,000 more than it might otherwise have reached. This would reduce the plot value to about £58.5k.

Wyvern Barracks

- 12 The Wyvern Barracks site, in a favourable location on the edge of St. Leonards, sold for £3.36M per Ha in March 2003 with a plot value of £39,070. The indexed value would be £61,097 per plot.

GLOSSARY

<u>TERM</u>	<u>MEANING</u>
Affordable Housing	<p>As defined in <i>Planning Policy Statement 3</i>: 'Affordable housing includes social rented and intermediate housing, provided to specified eligible households whose needs are not met by the market. Affordable housing should:</p> <ul style="list-style-type: none">• Meet the needs of eligible households including availability at a cost low enough for them to afford, determined with regard to local incomes and local house prices.• Include provision for the home to remain at an affordable price for future eligible households or, if these restrictions are lifted, for the subsidy to be recycled for alternative affordable housing provision'.
Affordable Housing Obligation	The specific requirements around the delivery of Affordable Housing on a particular site as required by a Planning Agreement attached to that site
Affordable Housing Requirement	The quantum, mix etc of Affordable Housing required under planning policy as stated in Local Development Documents such as the Local Plan, Core Strategy, SPD etc.
Affordable Housing Threshold	The minimum number of dwellings required to be present on a development site before an Affordable Housing Obligation would be required on that site under planning policy
Alternative Use Value	The value of land if redeveloped for a use other than housing (see <i>Competing</i> and <i>Existing Use Value</i>)
Baseline	Figures used in the study that reflect the position in April 2007 based on the planning policy and costs and sales values applicable at that time.
Competing Use Value	A term used in this study to indicate the value of land if left in its current use or developed for a use other than housing (see <i>Alternative</i> and <i>Existing Use Value</i>)
Developer Contribution	The reduction in the net amount of money received by the developer compared with what they would have received if there were no Planning Obligations on a site: in this study the term is restricted to the impact of Affordable Housing Obligations only. This term is frequently used as a synonym for Private Subsidy, but this study prefers to use it more precisely.
Existing Use Value	The current value of land in its existing use (see <i>Competing</i> and <i>Alternative Use Value</i>)
Grant	Money given by a public body such as the Housing Corporation or a local authority to support the delivery of Affordable Housing.

Gross Development Value	The total capital value of all the homes on a site: typically the total amount of cash received by a developer for the sale of those homes (the position would be more complicated where the developer retained homes to rent or retained some of the equity).
Housing Corporation	The body currently (October 2008) responsible for regulating Registered Social Landlords and allocating Social Housing Grant to providers (due to be replaced by the Homes and Communities Agency)
Homes and Communities Agency	The body set up by the government combining the funding, regeneration and development activities of the Housing Corporation and English Partnerships and coming into being in December 2008.
Landowner Subsidy	The amount of discount on the value of land compared with the value that it would have had if no Planning Obligations were in place and any development on the land could have been sold at its full market value.
Planning Agreement	A legal agreement between a planning authority (such as Exeter City Council) and a landowner, developer or others with interests in land that sets out Planning Obligations.
Planning Obligations	Obligations imposed on or undertaken by those with an interest in land as part of the granting of planning permission for a development.
Private Subsidy	The reduction in the net amount of money received by the developer and landowner combined compared with what they would have received if there were no Planning Obligations on a site: in this study the term is restricted to the impact of Affordable Housing Obligations only.
Public Subsidy	The value of Grant or land given by a public body such as the Housing Corporation or a local authority to support the delivery of Affordable Housing on a site.
Registered Social Landlord	More commonly known as a Housing Association. An organisation that provides social housing and is regulated by the Housing Corporation (or the successor thereto).
Residual Land Value	The calculated value of land after taking into account the sales value of the development, the costs of producing the development and the profit of the developer.
RSL	Registered Social Landlord (see above).
Section 106 Agreement	A Planning Agreement made under Section 106 of the Town and Country Planning Act 1990.
Social Housing Grant	Grant given by the Housing Corporation in particular (as opposed to by a local authority or other body).
Thresholds	See Affordable Housing Threshold