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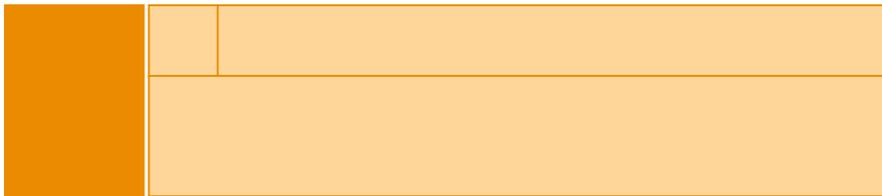


CIL VIABILITY APPRAISAL

CONSTRUCTION COST STUDY

For

CRAWLEY BOROUGH COUNCIL



CIL Viability Appraisal

Order of Cost Study

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Executive Summary

1. The Project

This Cost Study provides an estimate of construction costs over a range of development categories, to support a whole plan and CIL Viability Appraisal

2. Allowances

The Estimate includes on-cost allowances for the following:

- Consultants
- B. Regulations and Planning fees
- NHBC Insurance where applicable

3. Basis of Estimate

The basis of the Estimate is in Section 2 of this report.

4. Detailed Construction Cost Study

The detailed Cost Study is given in Section 3 of this report.

5. Risk Allowance

A Risk Allowance of 5% of construction cost is recommended

Project Description

NCS have been appointed by Crawley Borough Council for the production of the Council's Community Infrastructure Levy Charging Schedule, through to adoption.

Gleeds are acting as part of the NCS team, to provide indicative construction costs, over the range of development categories, to inform the Appraisal.

The range of development categories are as agreed with NCS

Basis of Cost Study

Base Date

Rates for Construction Costs in the Estimate have been priced at a Base Date of 2nd quarter, 2015. Allowances must be made for inflation beyond this date dependant on the mid-point date of construction.

Procurement

The costs included in this Estimate assume that procurement is to be achieved on a single stage competitive tender basis, from a selected list of Contractors.

Scope of Development Types

The scope of development types within the various categories varies between categories.

This is reflected within the range of construction values stated for a particular category.

For the purposes of undertaking the Viability Appraisal, mean rates for construction have been given for each development category; the range of values have also been stated.

Basis of Costs

The following benchmarking data was used in the preparation of the estimate:

1. Analysis of construction costs over a range of projects within the Gleeds Research and Development Data Base.
2. Where insufficient data is available within any particular category cross-reference is also made to BCIS construction cost information.
3. The rates adopted in the study are based on research of local construction projects to the region, the costs associated with these and Gleeds own national database of construction costs by construction type. The report recognises that different types of construction company incur different levels of costs due to differences in buying power, economies of scale etc. The rates assume that substantial new residential development will be undertaken primarily by regional and national house builders and the adopted rates reflect this. The adopted rates therefore tend to fall below median BCIS construction rates which cover building cost information from all types of construction company to individual builders. This is considered to be a more realistic approach than the adoption of median general rates, to reflect the mainstream new build residential development particularly since smaller schemes undertaken by smaller scale construction companies will enjoy exemption from zero carbon and affordable housing requirements.
4. Reference is also made to the Communities and Local Government Cost Analysis for Code for Sustainable Homes, in respect of dwelling costs. For all future reports from October 2015 onwards the figures presented will be based upon the upcoming National Housing Standards that are estimated to come into force at this time. Early indications and analysis suggest that there will be little cost variance beyond an equivalent CoSH Code 4 as a result although we will continue to monitor the situation.

All construction costs have been adjusted for Location Factor (Crawley 1.11)

Note: the cost allowances are based on the current building regulations, as at April 2015.

Costs for the option of achieving Breeam Excellent on other categories have also been separately identified.

Assumptions/Clarifications

The following assumptions/clarifications have been made during the preparation of this Estimate:

- The costs included in this Estimate assume that competitive tenders will be obtained on a single stage competitive basis.
- There are no allowances in the Estimates for Works beyond the site boundary.
- All categories of development are assumed to be new build.
- It is assumed development takes place on green or brown field prepared sites, i.e. no allowance for demolition etc.
- All categories of development include an allowance for External Works inc drainage, internal access roads, utilities connections (but excluding new sub-stations), ancillary open space etc
- Site abnormal and facilitating works have been excluded and are shown separately.

Zero Carbon

We have reviewed the current implications of this policy whereby all new homes built from 2016 onwards are required to be constructed 'zero carbon'. Following research of documentation commissioned by Zero Carbon Hub, a public / private partnership that supports both the Government and the Industry reporting directly to the 2016 Taskforce, we have been able to review their summary report: "Cost Analysis: Meeting the Zero Carbon Standard" which was produced in February 2014.

Seen as the only defining report on all matters of cost associated with the policy so far the analysis shows a continuing reduction in the cost of meeting the Zero Carbon Standard for homes, with particular reductions seen in the cost estimates for the solar PV, air tightness and thermal bridging components.

At this stage the following cost allowances/ranges are considered to be reasonable for achieving the proposed zero carbon standard over and above current Code 4 housing standards:-

Detached Homes: £57 – 64/m²
 Semi-detached / mid-terraced properties: £49 – 62/m²
 Apartments (low-rise): £39 – 43/m²

For the purpose of assessment we would recommend a rate of £60/m² is applied to houses and £40/m² to apartments.

The findings emphasise the assumed lowest capital cost options for meeting the proposed zero carbon standard, which involves the use of solar PV as a significant carbon reduction technology.

Decentralised Energy – Crawley

Costs associated with Crawley Policy ENV7 District Energy Networks have been considered within this report. For potential connection to a decentralised energy network a cost of £500 per dwelling is considered appropriate to allow for the cost impact

Water Efficiency – Crawley

Costs associated with Crawley Policy ENV9 have been considered within the report. It is considered that the costs associated with meeting the water efficiency requirements are covered by the Code 4 equivalent cost rates for residential development and BREEAM Excellent for non-residential development.

Accessible and Adaptable Dwelling Standards

Costs associated with Crawley Policy CH5 in respect of meeting Category 2 Accessible and Adaptable Dwelling Standards have been considered within the report. It is considered that the costs associated with meeting these requirements are covered by the Code 4 equivalent cost rates for residential development.

Exclusions

The Order of Cost Study excludes any allowances for the following:

- Value Added Tax
- Finance Charges
- Unknown abnormal ground conditions including:
 - Ground stabilisation/retention
 - Dewatering
 - Obstructions
 - Contamination
 - Bombs, explosives and the like
 - Methane production
- Removal of asbestos
- Surveys and subsequent works required as a result including:
 - Asbestos; traffic impact assessment; existing buildings
 - Topographical; drainage/CCTV; archaeological
 - Subtronic
- Furniture, fittings and equipment
- Aftercare and maintenance
- Listed Building Consents
- Service diversions/upgrades generally
- Highways works outside the boundary of the site

Detailed Construction Cost Study

Development Type, to achieve Bream Excellent	Construction Cost £/m ²		
	Min	Max	Mean
Standard Residential, code 3 (Mass House builder, mid-range, 2-5 bed house)	890	1,224	1,007
Residential, 2-5 bed, code 4 Equivalent	941	1,276	1,059
Residential, 2-5 bed, code 4 Equivalent plus Zero Carbon	1,001	1,336	1,119
Low Rise Apartments	1,059	1,409	1,158
Low Rise Apartments Code 4 Equivalent	1,099	1,480	1,215
Low Rise Apartments Code 4 Equivalent plus Zero Carbon	1,139	1,520	1,255
Multi Storey Apartments	1,524	2,291	1,785
Multi Storey Apartments Code 4 Equivalent	1,595	2,403	1,859
Multi Storey Apartments Code 4 Equivalent plus Zero Carbon	1,635	2,443	1,899
Student Accommodation, ensuite	1,220	1,835	1,540
Care Homes	1,268	1,725	1,575
General Retail, shell finish	897	1,096	980
Food Retail supermarket, shell finish	835	1,030	885
Hotels, 2000m ² mid-range, 3* inc. F&Ftgs	1,825	2,415	2,030
Offices, Cat A fit-out	1,115	1,731	1,574*
Industrial, general shell finish	567	935	890
Institutional / Community D7 (museums, library, public halls, conference)	1,673	2,975	2,240
Leisure D5 (cinema, bowling alleys, shell)	1,120	1,400	1,125**
Agricultural shells	210	895	522
SUI Generis			
Vehicle Repairs	925	1,080	1,010
Vehicle Showrooms	1,240	1,435	1,380
Builders Yard	380	842	555

Note:

- * Offices, Cat A are based on speculative office development, of cost efficient design
 - ** Leisure D5 development is based on shell buildings (bowling alleys, cinemas and the like) and exclude tenant fit-out
- All non-residential categories re-costed as 'Breeam Excellent'

On-costs

Professional fees		
- Consultants (excluding legals)	7.25%	
- Surveys etc	<u>0.75%</u>	8%
Planning / Building Regs		
Statutory Fees		0.6%
NHBC / Premier warranty (applies only to Residential and Other Residential)		0.5%
Contingency / Risk Allowance		5%

Abnormal Site Development Costs, Crawley Borough Council

**Budget Cost
£/Hectare**

Abnormal Costs, by their very nature, vary greatly between different sites.

Budget figures are given, for typical categories relevant to Crawley.

The Budgets are expressed as costs per hectare of development site.

Archaeology

10,000

Typically, Archaeology is addressed by a recording / monitoring brief by a specialist, to satisfy planning conditions.

Intrusive archaeological investigations are exceptional and not allowed for in the budget cost.

Site Specific Access Works

20,000

New road junction and S278 works; allowance for cycle path linking locally with existing

Major off-site highway works not allowed for.

Site Specific Biodiversity Mitigation / Ecology

Allow for LVIA and Ecology surveys and mitigation and enhancement allowance.

20,000

Flood Defence Works

Allowance for raising floor levels above flood level, on relevant sites

25,000

Budget £2,000 per unit x 35 units, apply to 1 in 3 sites.

Utilities, Gas, Electric

Allowance for infrastructure upgrade

80,000

Noise Insulation

Acoustic outlets to ventilation, MVHR and no window vents

100,000

Land Contamination

Heavily contaminated land is not considered, as remediation costs will be reflected in the land sales values

25,000

Allow for remediation/removal from site of isolated areas of spoil with elevated levels of contamination

Ground Stability

Allow for raft foundations to dwellings on 25% of sites

Budget £2,000 x 35 units x 25%

20,000