

CONSTRUCTION COST REVIEW

RESIDENTIAL DEVELOPMENT  
SHOTTENDANE ROAD,  
MARGATE, KENT

DIXON SEARLE PARTNERSHIP

DATE: 16.10.2020

2598-ERM-C-00-00-CR-Q-001

ermc

# DOCUMENT AUDIT RECORD

## DOCUMENT DETAILS

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## INTRODUCTION

ERMIC has been commissioned by Dixon Searle Partnership to carry out an independent review of the construction costs used in a 'Financial Viability Assessment', produced by Jones Land LaSalle (JLL) and submitted in connection with a planning application for a proposed residential development at "Land at Shottendane Road", Thanet, Kent.

This report does not consider planning policy or the wider aspects of the Viability Assessment. ERMIC's focus is on the submitted build cost assumptions and therefore the outcomes associated with that aspect of the overall viability.

## THE SCHEME

### Site Location and Description

The site is located within the administrative area of Thanet District Council. It measures 19.53ha and is located approximately 1.6km south of the centre of Margate old town and Margate beach, immediately adjacent to the existing built edge of Margate. The Site, which is not publicly accessible, comprises two undulating arable fields either side of Shottendane Road.

The proposed Development comprises up to 450 dwellings of varying sizes, types and tenures (including a proportion of affordable housing); a new distributor link road; vehicular, pedestrian and cycle access provided in the form of two new roundabouts and a further priority junction; retention and enhancement of the majority of trees and hedgerows; new publicly accessible landscaped open spaces and a sustainable drainage system.

The proposed number of units indicates efficient use of the site and provides a dwelling density of 23 dwellings per hectare (dph) based on the gross site area. Thanet District Council's draft policy for the site allocated 550 dwellings for the combined parcels of land. The lower number of dwellings proposed in this application reflects the existing increase in public open space proposed.

## BUILD COSTS

### Proposed Development

Construction costs included in the viability assessment are split between residential and "Additional Costs". Given the outline nature of the planning application the residential costs are derived from a rate per square metre being applied to the gross internal area of an indicative housing mix. The text implies that the "Additional Costs" were provided by an external consultant, but no details are provided. For reference the breakdown is appended herewith (Appendix 3).

The developer has submitted a gross construction cost of Seventy-Six Million, Six Hundred and Seventy-Five Thousand, Seven Hundred and Fifteen Pounds (£76,675,715).

This is broken down as follows:

<b>Construction Costs</b>	
Residential Construction Costs	£52,724,020
<b>Additional Costs</b>	
Standard site works	£1,800,000
Roads and sewers	£3,850,000
Public open space	£600,000
Plot abnormalities	£2,700,000
Site abnormalities	£4,889,470
Link roads	£5,657,500
Garages	£803,500
	<hr/>
	£73,024,490
<b>Contingency (5%)</b>	£3,651,225
Say	<hr/>
	£76,675,715

The residential construction costs have been calculated using BCIS average price data rates applied to the gross internal floor areas of the various dwelling types. The ‘Additional Costs’ have been split into sub-elements with rates being applied to approximate quantities and lump sums against specific items. These ‘Additional Costs’ account for just over a quarter of the total.

An allowance for ‘Contingency’ has been added as percentages to the net totals.

No separate allowances for ‘Preliminaries’ and/or ‘Overheads & Profit’ have been identified in the viability assessment, including the Appraisal Summary at Appendix 8. These items are deemed to be included in the BCIS rates per m<sup>2</sup> and it is assumed the rates/lump sums used in the ‘Additional Costs’ also include the relevant allowances.

A review of the pricing used in the cost estimates is included below.

## COST REVIEW

### Proposed Development

As stated, the residential construction costs used by JLL are derived from BCIS average price data. The base build rate used in the viability assessment is £1,327/m<sup>2</sup>. This is the ‘Median’ rate for “New build Housing, mixed developments – Generally” rebased to a Kent location. The extract of BCIS data provided does not indicate what date factor has been used but it is assumed to be 2<sup>nd</sup> quarter 2020 to match the date of the assessment. It has not been possible to verify their figure as current data for the same location and date indicates a slightly higher rate of £1,357/m<sup>2</sup>.

BCIS data is produced for individual local authority areas, not just on a wider county basis. Consequently, it is possible to obtain an average price for the Thanet area. The ‘Median’ rate for “New build Housing, mixed developments – Generally” rebased to 2<sup>nd</sup> quarter 2020 and a Thanet location is £1,320/m<sup>2</sup>, slightly lower than that used. However, for the same date and location, the median rate for all “New Build Housing, mixed developments” is £1,328/m<sup>2</sup>, directly comparable to the rate used. Given the level of design development of the housing element of the scheme the JLL rate used is considered reasonable.

The “Additional Costs” can be split between conventional infrastructure/external works that are required on any similar residential development and ‘Abnormal’ costs associated with this particular site. The abnormalities noted are the substantial highways works and extra over costs connected with re-profiling the site and

‘abnormal’ foundations. The costs have been calculated by applying rates per metre/square metre to approximate quantities for each element of work and the insertion of lump sums against the larger highway infrastructure elements. Although we have conducted a brief sense check, the review has been carried out on the assumption the quantities used are correct.

The rate used are generally considered reasonable with a few exceptions regarding the drainage (recalculated based on the area of the residential element) and highway infrastructure. We also consider the lump sum inserted for “Traffic islands...” to be inflated. Our adjustments are highlighted on the cost review attached at Appendix 5.

JLL’s viability assessment includes an allowance of 5% of the net build costs for ‘Contingency’. This is considered reasonable.

Considering the comments above our opinion of the construction cost is:

<b>Construction Costs</b>	
Residential Construction Costs	£52,724,020
<b>Additional Costs</b>	
Standard site works	£1,800,000
Roads and sewers	£3,262,500
Public open space	£600,000
Plot abnormalities	£2,643,750
Site abnormalities	£4,889,470
Link roads	£2,829,500
Garages	£803,500
	<hr/>
	£69,552,740
<b>Contingency (5%)</b>	<hr/>
Say	£3,477,637
	<hr/>
	£73,030,377

Based on the review of the rates and consequent adjustment of the percentage addition we consider the total cost of the works submitted by the developer to be overstated by at least £3,645,000.

## BENCH MARKING ANALYSIS

To assess whether the submitted construction cost for the dwellings is reasonable a calculated rate per square metre is compared with BCIS average price data, rebased for the relevant location factor and date. In this case the construction cost has been calculated using BCIS data so they can be considered in line with similar residential developments.

The rates used to calculate the “Additional Costs” have been compared with approximate estimating rates contained in the BCIS Major Work Schedule of Rates, again rebased for location and date.

## REPORT SUMMARY

The gross construction cost of the development as submitted by the developer is Seventy-Six Million, Six Hundred and Seventy-Five Thousand, Seven Hundred and Fifteen Pounds (£76,675,715).

Given the level of design development the use of average price data to calculate the construction cost of the dwellings is acceptable.

The “Additional Costs” included reflect the work required but the cost is slightly inflated.

Following our review, we consider a realistic gross construction cost to be Seventy-Three Million, Thirty Thousand, Three Hundred and Seventy-Seven Pounds (£73,030,377).

We consider the overall construction costs submitted by the developer to be overstated by approximately £3,600,000.

## APPENDIX 1 - SCHEDULE OF ACCOMMODATION

### Schedule of Accommodation

Land North and South of Shottendane Road, Margate

Date: June 2020

Code	Beds	Type 1	Type 2	Type – Gladman	Garage Type	Storeys	sqm	sqft	No. Units	Total Sqft
A2	2 bed	House	Mews/Terrace	2 bed mews	-	2 st	63	679	88	59,752
apt	2 bed	Flat	Flat	2 bed apt	-	-	64	690	48	33,120
C	3 bed	House	Mews/Terrace	3 bed mews	-	2 st	89	958	108	103,464
E	3 bed	House	Detached	3 bed det	-	2 st	86	930	10	9,300
F	3 bed	House	Semi-detached	3 bed semi/mews	-	2 st	89	958	43	41,194
I	3 bed	House	Semi-detached	3 bed semi/mews	-	2.5 st	102	1,095	76	83,220
M	4 bed	House	Detached	4 bed det	Integral	2 st	112	1,210	13	15,730
AA	4 bed	House	Detached	4 bed det	s. det	2 st	107	1,152	13	14,976
BB	4 bed	House	Detached	4 bed det	s. det	2 st	119	1,285	5	6,425
G	4 bed	House	Detached	4 bed det	Integral	2 st	97	1,045	13	13,585
K	4 bed	House	Detached	4 bed det	s. det	2 st	108	1,159	14	16,226
P	4 bed	House	Detached	4 bed det	s. det	2 st	125	1,350	13	17,550
P1	4 bed	House	Detached	4 bed det	s. det	2 st	125	1,341	4	5,364
R	4 bed	House	Detached	4 bed det	d. attached	2 st	130	1,399	2	2,798
<b>TOTAL / AVG</b>							<b>1,417</b>	<b>298</b>	<b>450</b>	<b>422,704</b>



APPENDIX 2 - SITE LAYOUT



Figure 5.3: Illustrative Masterplan.

## APPENDIX 3 – COST ESTIMATE

“Additional Costs” only

<b>Additional Costs above BCIS</b>						
<b>Margate - June 2020</b>						
<b>Items</b>	<b>SQFT</b>	<b>SQM</b>	<b>£PSM/Unit</b>	<b>Within Initial 25%</b>	<b>Within Initial 50%</b>	<b>On going</b>
<b>Standard site works</b>						
Drives/pavings/turf/planting	4844	450	£2,500			£1,125,000
Plot drainage	4844	450	£1,000			£450,000
Double handling topsoil	4844	450	£500			£225,000
<b>Roads and sewers</b>						
On site	23681	2200	£1,750			£3,850,000
<b>Public open space</b>						
NEAP		1	£75,000		£75,000	
LEAP		1	£50,000		£50,000	
LAP		5	£20,000			£100,000
Planting and seeding to POS areas		75000	£5			£375,000
<b>Plot abnormalities</b>						
Abnormal foundations						
Driven piling	2422	225	£7,500			£1,687,500
Reinforced strip footings	2422	225	£1,500			£337,500
Deep bore soakaways	1615	150	£3,000			£450,000
Conc bed and surround to drainage in fill	24219	2250	£100			£225,000
<b>Site abnormalities</b>						
Earthworks/ cut and fill						
Bulk excavate and cart	1345488	125000	£10	£1,250,000		
Place and compact in layers	1140973	106000	£7	£742,000		
Off site disposal	204514	19000	£35	£665,000		
Retaining walls		1250	£1,500			£1,875,000
Surface water attenuation						
Swales	8999	836	£20	£16,720		
Infiltration trench/ponds	23573	2190	£50	£109,500		
Foul pumping station		1	£200,000	£200,000		
Rising main	2691	250	£125	£31,250		
<b>Link Road</b>						
Traffic islands to Manston Rd and Shottendane Rd		2	£500,000	£1,000,000		
Associated service diversions		1	£250,000	£250,000		
Priority access to Hartsdown Rd		1	£125,000	£125,000		
Link road	7104	660	£3,250		£2,145,000	
Additional depth stone under rds.	80729	7500	£45		£337,500	
Culvert to allow overland flows		1	£50,000		£50,000	
Re-align Shottendane Rd	3767	350	£5,000		£1,750,000	
<b>Garages</b>						
Integral (26)			£6,000			£156,000
Semi-detached/detached (51)						£647,500
<b>Total</b>				<b>£4,389,470</b>	<b>£4,407,500</b>	<b>£11,503,500</b>
<b>Overall Total</b>						<b>£20,300,470</b>
<b>Total per unit</b>						<b>£45,112</b>

## APPENDIX 4 - BCIS AVERAGE PRICES



### £/m2 study

**Description:** Rate per m2 gross internal floor area for the building Cost including prelims.

**Last updated:** 26-Sep-2020 00:47

> Rebased to 2Q 2020 (332) and Thanet ( 107; sample 15 )

Maximum age of results: Default period

Building function (Maximum age of projects)	£/m <sup>2</sup> gross internal floor area						Sample
	Mean	Lowest	Lower quartiles	Median	Upper quartiles	Highest	
<b>New build</b>							
810. Housing, mixed developments (15)	1,367	697	1,189	1,328	1,494	3,117	1253
<b>810.1 Estate housing</b>							
Generally (15)	1,367	659	1,170	1,320	1,494	4,750	1599
Single storey (15)	1,535	867	1,301	1,474	1,726	4,750	262
2-storey (15)	1,323	659	1,154	1,288	1,444	2,887	1228
3-storey (15)	1,394	849	1,150	1,333	1,566	2,823	104
4-storey or above (15)	2,883	1,392	2,303	2,572	3,869	4,282	5
810.11 Estate housing detached (15)	1,769	1,020	1,338	1,527	1,785	4,750	21
<b>810.12 Estate housing semi detached</b>							
Generally (15)	1,361	802	1,173	1,331	1,495	2,529	378
Single storey (15)	1,506	974	1,287	1,480	1,678	2,529	75
2-storey (15)	1,327	802	1,171	1,306	1,454	2,309	289
3-storey (15)	1,302	972	1,054	1,285	1,388	1,985	14
<b>810.13 Estate housing terraced</b>							
Generally (15)	1,406	849	1,166	1,332	1,547	4,282	313
Single storey (15)	1,585	1,049	1,335	1,493	1,870	2,246	33
2-storey (15)	1,358	861	1,147	1,308	1,497	2,887	230
3-storey (15)	1,401	849	1,136	1,325	1,544	2,823	48
4-storey or above (10)	4,075	3,869	-	-	-	4,282	2
<b>816. Flats (apartments)</b>							
Generally (15)	1,602	798	1,335	1,524	1,801	5,565	908
1-2 storey (15)	1,521	934	1,293	1,455	1,688	2,761	215
3-5 storey (15)	1,577	798	1,329	1,522	1,783	3,396	592
6 storey or above (15)	1,935	1,169	1,579	1,806	2,093	5,565	98

## What is included in the figures from the average prices studies?

23-Jul-2018

What do the costs shown in the BCIS Average prices studies include, and what is excluded?

There are five different average prices studies, and though there are some differences, they generally include and exclude the same things.

	£/m2 study	Functional unit prices	Group element prices	Element cost per m2	Element unit rate study
Preliminaries		Yes			No
Main contractor's overheads and profit		Yes		Depending on how these are shown in the contract documents there may be some main contractor's overheads and profit included	
Risk (client's contingencies)				No	
VAT				No	
Fees				No	
External works and facilitating works				No	
Other development/project costs		No			
Fittings and furnishings		and		Only to the extent that these have been included in the projects included in the sample. Individual projects vary and there will be differences in practice between different employers. Some schemes will be delivered with all fittings and furnishings and others will have little or none and the employer will provide them after the building contract is complete.	
Lifts and features		other		To the extent that these features were included in the projects sampled and will vary by category.	

## APPENDIX 5 - ERM COST COMPARISON

<u>JLL COSTS</u>							<u>ERM COSTS</u>						<u>DIFFERENCE</u>
<u>Residential Construction costs</u>													
Items	SQFT	SQM	£PSft/Unit	Within Initial 25%	Within Initial 50%	On going	SQFT	SQM	£PSft/Unit	Within Initial 25%	Within Initial 50%	On going	
Dwellings	427677	39732	£1,327			£52,724,021	427677	39732	£1,327			£52,724,021	£0
<b>Total</b>				£0	£0	£52,724,021				£0	£0	£52,724,021	
<b>Overall Total</b>						£52,724,021						£52,724,021	
<b>Total per unit</b>						£117,164						£117,164	
<u>Additional Costs above BCIS</u>													
<u>Margate - June 2020</u>													
Items	SQFT	SQM	£PSM/Unit	Within Initial 25%	Within Initial 50%	On going	SQFT	Quantity	£PSM/Unit	Within Initial 25%	Within Initial 50%	On going	
<b>Standard site works</b>							<b>Standard site works</b>						
Drives/pavings/turf/planting	4844	450	£2,500			£1,125,000	4844	450	£2,500			£1,125,000	£0
Plot drainage	4844	450	£1,000			£450,000	4844	450	£1,000			£450,000	£0
Double handling topsoil	4844	450	£500			£225,000	4844	450	£500			£225,000	£0
<b>Roads and sewers</b>							<b>Roads and sewers</b>						
On site	23681	2200	£1,750			£3,850,000	Site area	130500	£25			£3,262,500	£-587,500
<b>Public open space</b>							<b>Public open space</b>						
NEAP		1	£75,000		£75,000			1	£75,000		£75,000		£0
LEAP		1	£50,000		£50,000			1	£50,000		£50,000		£0
LAP		5	£20,000			£100,000		5	£20,000			£100,000	£0
Planting and seeding to POS areas		75000	£5			£375,000		75000	£5			£375,000	£0
<b>Plot abnormalities</b>							<b>Plot abnormalities</b>						
Abnormal foundations													£0
Driven piling	2422	225	£7,500			£1,687,500	2422	225	£7,500			£1,687,500	£0
Reinforced strip footings	2422	225	£1,500			£337,500	2422	225	£1,500			£337,500	£0
Deep bore soakaways	1615	150	£3,000			£450,000	1615	150	£3,000			£450,000	£0
Conc bed and surround to drainage in fill	24219	2250	£100			£225,000	24219	2250	£75			£168,750	£-56,250
<b>Site abnormalities</b>							<b>Site abnormalities</b>						
Earthworks/ cut and fill													£0
Bulk excavate and cart	1345488	125000	£10	£1,250,000			1345488	125000	£10	£1,250,000			£0
Place and compact in layers	1140973	106000	£7	£742,000			1140973	106000	£7	£742,000			£0
Off site disposal	204514	19000	£35	£665,000			204514	19000	£35	£665,000			£0
Retaining walls		1250	£1,500			£1,875,000		1250	£1,500			£1,875,000	£0
Surface water attenuation													£0
Swales	8999	836	£20	£16,720			8999	836	£20	£16,720			£0
Infiltration trench/ponds	23573	2190	£50	£109,500			23573	2190	£50	£109,500			£0
Foul pumping station		1	£200,000	£200,000				1	£200,000	£200,000			£0
Rising main	2691	250	£125	£31,250			2691	250	£125	£31,250			£0
<b>Link Road</b>							<b>Link Road</b>						
Traffic islands to Manston Rd and Shottendane Rd		2	£500,000	£1,000,000				2	£375,000	£750,000			£-250,000
Associated service diversions		1	£250,000	£250,000				1	£250,000	£250,000			£0
Priority access to Hartsdown Rd		1	£125,000	£125,000				1	£125,000	£125,000			£0
Link road	7104	660	£3,250		£2,145,000		7104	660	£1,200		£792,000		£-1,353,000
Additional depth stone under rds.	80729	7500	£45		£337,500		80729	7500	£45		£337,500		£0
Culvert to allow overland flows		1	£50,000		£50,000			1	£50,000		£50,000		£0
Re-align Shottendane Rd	3767	350	£5,000		£1,750,000		3767	350	£1,500		£525,000		£-1,225,000
<b>Garages</b>							<b>Garages</b>						
Integral (26)			£6,000			£156,000			£6,000			£156,000	£0
Semi-detached/detached (51)						£647,500			£12,696			£647,500	£0
<b>Total</b>				£4,389,470	£4,407,500	£11,503,500				£4,139,470	£1,829,500	£10,859,750	
<b>Overall Total</b>						£20,300,470						£16,828,720	£-3,471,750
<b>Total per unit</b>						£45,112						£37,397	