

Appendix I: Assumptions Summary



East Cambridgeshire District Council - Viability Assessment - Appendix I - Residential Assumptions

Scenario type Appraised	Site type	Density (dph)	Land Area (Ha)	Approximate Person Count	Open Space Requirement (ha) based on Developer Contributions SPD (March 2013)	Overall Dwelling Mix (BF = Bed Flat; BH = Bed House)	Percentage Affordable Housing & Tenure Mix	Percentage Affordable Housing & Tenure Mix	Percentage Affordable Housing & Tenure Mix	Percentage Affordable Housing & Tenure Mix	Build Period (Months)			
							0% Affordable Housing*	20% Affordable Housing*	30% Affordable Housing*	40% Affordable Housing*				
							Private Mix	Private Mix	Affordable Mix: Tenure Split: 70% Rent, 30% Intermediate (shared ownership)	Private Mix		Affordable Mix: Tenure Split: 70% Rent, 30% Intermediate (shared ownership)	Private Mix	Affordable Mix: Tenure Split: 70% Rent, 30% Intermediate (shared ownership)
11 Houses	PDL (Existing Dwelling)	30	0.4	53	0.1	5 x 2BH, 3 x 3BH, 3 x 4BH	tbc	3 x 2BH, 3 x 3BH, 3 x 4BH	1 x 2BH AR; 1 x 2BH SO	3 x 2BH, 2 x 3BH, 3 x 4BH	1 x 2BH, 1 x 3BH AR; 1 x 2BH SO	2 x 2BH, 2 x 3BH, 3 x 4BH	2 x 2BH, 1 x 3BH AR; 1 x 2BH SO	9
15 Houses	PDL / Greenfield	30	0.6	71	0.2	7 x 2BH, 5 x 3BH, 3 x 4BH	tbc	5 x 2BH, 4 x 3BH, 3 x 4BH	1 x 2BH, 1 x 3BH AR; 1 x 2BH SO	4 x 2BH, 3 x 3BH, 3 x 4BH	2 x 2BH, 2 x 3BH AR; 1 x 2BH SO	4 x 2BH, 3 x 3BH, 2 x 4BH	2 x 2BH, 2 x 3BH, 1 x 4BH AR; 1 x 2BH SO	12
25 Mixed	PDL / Greenfield	40	0.7	116	0.3	1 x 1BF, 2 x 2BF, 8 x 2BH, 8 x 3BH, 6 x 4BH	tbc	1 x 1BF, 1 x 2BF, 6 x 2BH, 7 x 3BH, 5 x 4BH	1 x 2BF, 3 x 2BH, 1 x 3BH, 1 x 4BH AR; 1 x 2BH SO	5 x 2BH, 7 x 3BH, 5 x 4BH	1 x 4BH AR; 1 x 1BF, 1 x 2BF, 1 x 2BH SO	5 x 2BH, 6 x 3BH, 4 x 4BH	2 x 4BH AR; 1 x 1BF, 1 x 2BF, 1 x 2BH SO	12
30 Flats (Sheltered)	PDL	100	0.4	68	0.2	22 x 1BF, 8 x 2BF	tbc	18 x 1BF, 6 x 2BF	3 x 1BF; 1 x 2BF AR; 1 x 1BF, 1 x 2BF SO	15 x 1BF, 6 x 2BF	5 x 1BF; 1 x 2BF AR; 2 x 1BF, 1 x 2BF SO	13 x 1BF, 5 x 2BF	6 x 1BF, 2 x 2BF AR; 3 x 1BF, 1 x 2BF SO	18
50 Houses	PDL / Greenfield	30	2.5	239	0.6	23 x 2BH, 13 x 3BH, 12 x 4BH	tbc	17 x 2BH, 13 x 3BH, 10 x 4BH	3 x 2BH, 2 x 3BH, 2 x 4BH AR; 3 x 2BH SO	14 x 2BH, 12 x 3BH, 9 x 4BH	5 x 2BH, 3 x 3BH, 3 x 4BH AR; 4 x 2BH SO	11 x 2BH, 11 x 3BH, 8 x 4BH	6 x 2BH, 6 x 3BH, 4 x 4BH AR; 6 x 2BH SO	18
100 Mixed	Greenfield	40	3.7	460	1.2	5 x 1BF, 10 x 2BF, 30 x 2BH, 30 x 3BH, 25 x 4BH	tbc	3 x 1BF, 7 x 2BF, 23 x 2BH, 26 x 3BH, 21 x 4BH	1 x 1BF, 1 x 2BF, 4 x 2BH, 4 x 3BH, 4 x 4BH AR; 1 x 1BF, 2 x 2BF, 3 x 2BH SO	2 x 1BF, 5 x 2BF, 19 x 2BH, 24 x 3BH, 20 x 4BH	1 x 1BF, 2 x 2BF, 7 x 2BH, 6 x 3BH, 5 x 4BH AR; 2 x 1BF, 3 x 2BF, 4 x 2BH SO	2 x 1BF, 3 x 2BF, 15 x 2BH, 22 x 3BH, 18 x 4BH	1 x 1BF, 3 x 2BF, 9 x 2BH, 8 x 3BH, 7 x 4BH AR; 2 x 1BF, 4 x 2BF, 6 x 2BH SO	24
100 Mixed (20% Starter Homes & Use Access to Buildings)	Greenfield / PDL	40	3.7	460	1.2	5 x 1BF, 10 x 2BF, 30 x 2BH, 30 x 3BH, 25 x 4BH	tbc	1 x 1BF, 4 x 2BF, 20 x 2BH, 30 x 3BH, 25 x 4BH	4 x 1BF, 6 x 2BF, 10 x 2BH SH	2 x 2BF, 17 x 2BH, 28 x 3BH, 23 x 4BH	4 x 1BF, 6 x 2BF, 10 x 2BH SH; 1 x 2BF; 2 x 2BH, 2 x 3BH, 2 x 4BH AR; 1 x 1BF, 1 x 2BF, 1 x 2BH SO	13 x 2BH, 26 x 3BH, 21 x 4BH	4 x 1BF, 6 x 2BF, 10 x 2BH SH; 2 x 2BF; 4 x 2BH, 4 x 3BH, 4 x 4BH AR; 1 x 1BF, 2 x 2BF, 3 x 2BH SO	24

Note: Land Area - 85% of total land area is developable on site of <50; 67% of total land area is developable on sites of >50 units. Sensitivity testing to be carried out for Starter Homes and self-builds.

*Fully applied policy position. Actual percentage will vary due to numbers rounding.

Dwelling mix principles - for building up assumptions based on the Cambridge Sub Region SHMA 2013

Overall Dwelling Mix 15% Flats, 30% 2-beds, 30% 3-beds, 25% 4-beds

Note: All subject to 'best fit scenario'. Intermediate mix based on overall AH mix but adjusted across 1 and 2-beds only

Unit Sizes (sq. m)*	Affordable	Private
1-bed flat	50	50
2-bed flat	70	70
2-bed house	79	79
3-bed house	93	100
4-bed house	112	130

*Retirement/sheltered 1-beds @ 55 sq. m

*Retirement/sheltered 2-beds @ 75 sq. m

DSP overall values range of around £2,000/m² - £4,000/m²

Note: Provisional V/L's below all subject to further checking and DSP analysis

Test Area 1: CIL Zone C North (outside of Ely, Littleport & Soham) £90

Market Value Level	Lower	Base	Upper
1 Bed Flat	£135,000	£150,000	£165,000
2 Bed Flat	£189,000	£210,000	£231,000
2 Bed House	£213,300	£237,000	£260,700
3 Bed House	£270,000	£300,000	£330,000
4 Bed House	£351,000	£390,000	£429,000
Value Level (£/m²)	£2,700	£3,000	£3,300

Test Area 2: CIL Zone A North (Littleport) £40

Market Value Level	Lower	Base	Upper
1 Bed Flat	£94,500	£105,000	£115,500
2 Bed Flat	£132,300	£147,000	£161,700
2 Bed House	£149,310	£165,900	£182,490
3 Bed House	£189,000	£210,000	£231,000
4 Bed House	£245,700	£273,000	£300,300
Value Level (£/m²)	£1,890	£2,100	£2,310

Test Area 3: CIL Zone A North (Soham) £40

Market Value Level	Lower	Base	Upper
1 Bed Flat	£108,000	£120,000	£132,000
2 Bed Flat	£151,200	£168,000	£184,800
2 Bed House	£170,640	£189,600	£208,560
3 Bed House	£216,000	£240,000	£264,000
4 Bed House	£280,800	£312,000	£343,200
Value Level (£/m²)	£2,160	£2,400	£2,640

Test Area 4: CIL Zone B North (Ely) £70

Market Value Level	Lower	Base	Upper
1 Bed Flat	£135,000	£150,000	£165,000
2 Bed Flat	£189,000	£210,000	£231,000
2 Bed House	£213,300	£237,000	£260,700
3 Bed House	£270,000	£300,000	£330,000
4 Bed House	£351,000	£390,000	£429,000
Value Level (£/m²)	£2,700	£3,000	£3,300

Test Area 5: CIL Zone C South £90

Market Value Level	Lower	Base	Upper
1 Bed Flat	£157,500	£175,000	£192,500
2 Bed Flat	£220,500	£245,000	£269,500
2 Bed House	£248,850	£276,500	£304,150
3 Bed House	£315,000	£350,000	£385,000
4 Bed House	£409,500	£455,000	£500,500
Value Level (£/m²)	£3,150	£3,500	£3,850

June 2016 Affordable Housing Revenue Assumptions (Cambridge LHA - covering the majority of the District)

Unit	LHA (Average) Cap
1BF	£126.05
2BF	£140.74
2BH	£140.74
3BH	£168.45
4BH	£218.16

Unit	Market Size	Average AH Transfer Price (LHA Cap)	AH Transfer Price less 10%
1BF	50	£91,807	£83,461
2BF	70	£102,504	£93,185
2BH	79	£102,504	£93,185
3BH	100	£122,688	£111,535
4BH	130	£158,896	£144,451

Shared Ownership Value: Average of 60% of market value

Development / Policy Costs		Notes / variances
RESIDENTIAL BUILDING, MARKETING & S106 COSTS		
Build Costs Mixed Developments - generally (£/sq. m) ¹	£1,125	
Build Costs Estate Housing - generally (£/sq. m) ¹	£1,243	1 - 10 units only. Increased by 14% based on FSB report ² .
Build Costs Estate Housing - generally (£/sq. m) ¹	£1,090	>11 units
Build Costs 'One-Off' Housing - Detached (3 units or Less) (£/sq.m) ¹	£1,599	Sensitivity Test
Build Costs Flats - generally (£/sq. m) ¹	£1,282	
Build Costs Flats - generally (£/sq. m) ¹	£1,217	1 - 10 units only. Reduced by -5% based on FSB report ² .
Build Costs (Sheltered Housing - Generally) (£/sq.m) ¹	£1,337	
Site Prep & Survey Costs (£ / unit)	£4,500	Assumed at £23,000/dwelling equivalent - strategic scale development (500+ dwellings tests) where applicable
Contingencies (% of build cost)	5%	
Professional & Other Fees (% of build cost)	10%	
Sustainable Design / Construction Standards (% of build cost) ³	2%	Latest data suggests allowances in the range of 1% to 1.5% to meet building regulations
Water Usage Efficiency Standards	110 litres per person per day	based on the Housing Standards Review
Building Regs M4 (2) Compliance (£ per unit) ⁴	£1,646 (Flats) £2,447 (Houses)	Sensitivity test
Building Regs M4 (3) Compliance (£ per unit) ⁴	£15,691 (Flats) £26,816 (Houses)	Sensitivity test
ECDC CIL	Zoned	Zone A: £40/m ² , Zone B: £70/m ² , Zone C: £90/m ²
Residual s.106 /non-CIL costs (£ per unit) - small scale PDL / Greenfield sites	£3,000	
Residual s.106 /non-CIL costs (£ per unit) - large scale strategic greenfield sites		s106 scope explored through running appraisals as s106 surplus residual above BLV.
Marketing & Sales Costs (%of GDV)	3%	
Legal Fees on sale (£ per unit)	£750	
DEVELOPER'S RETURN FOR RISK AND PROFIT		
Open Market Housing Profit (% of GDV)	20%	
Affordable Housing Profit (% of GDV)	6%	
FINANCE & ACQUISITION COSTS		
Arrangement Fees - (% of loan)	2.0%	
Agents Fees (% of site value)	1.50%	
Legal Fees (% of site value)	0.75%	
Stamp Duty Land Tax (% of site value)	0% to 5%	HMRC scale
Finance Rate - Build (%)	6.0%	
Finance Rate - Land (%)	6.0%	

Notes:

¹ Build cost taken as Median figure from BCIS for that build type - e.g. flats ; houses storey heights etc. and then rounded. BCIS data: GIA: Mixed Development (generally): £1023/m² GIA; Estate Housing ('one off' housing detached 3 units or less) - £1454/m²; Estate Housing (generally) - £991/m²; Flats (generally) - £1165/m²; Sheltered housing (Generally) - £1215/m².

BCIS build costs rebased to East Cambridgeshire Location Factor including preliminaries and contractor's profit but without externals, contingencies or fees.

Above build costs include external works at 10% (added to BCIS basis).

² BCIS report for the Federation of Small Businesses - Housing development: the economics of small sites - the effect of project size on the cost of housing construction (August 2015)

³ The above costs are based on the DCLG Housing Standards Review Impact Assessment costings assuming equivalent CTS4 L4 energy costs only base. Appraisals assume cost uplift in line with figures above assuming average cost uplift from each unit type (£1,932 per unit average, equating to the 2% assumed above).

⁴ Sensitivity tested allowance to meet Building Regs M4 Category 2 (accessible) and Category 3 (adaptable) acknowledged within report as potential variable cost issue (depending on design etc.). EC Harris DCLG Housing Standards Review Cost Impact indicate average extra over cost to be £1,646 (Cat.2) and £15,691 (additional space cost (Cat. 3)) for flats and £2,447 (Cat.2) and £26,816 (additional space cost (Cat.3 adaptable)) for houses.

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ECDC Further Draft Local Plan (FDLP) - Overview Summary - Policy Analysis

Policy No.	Description	Addressed where applicable through specific study approach / assumptions - Y/N - and associated commentary	Cost / specific allowance?
Policy LP1	A presumption in favour of sustainable development	Y - but in respect of the general nature and quality of development expected to come forward and be supportable through the usual planning application and development management process. Therefore reflected in the nature of the build and related costs assumptions used for all appraisals.	Reflected in build costs assumptions and nature of development scenarios
Policy LP2	Level and Distribution of Growth	Y - A variety of scenarios have been modelled, also covering a range of values levels overall representing the variety relevant in different areas of the District. Affordable housing has been tested at alternative trial levels as part of informing the Plan development. (See Appendix I - Development Assumptions).	Reflected in selection of scheme scenarios, assumptions and interpretation of appraisal results - influence on recommendations. Range of specific allowances made for affordable housing.
Policy LP3	The Settlement Hierachy and the Countryside	Y - A variety of residential scenarios has been modelled, also covering a range of values levels overall representing the variety relevant in different areas and across different scheme/site types. (See Appendix I - Residential Development Assumptions)	Reflected in selection of scheme scenarios and interpretation of appraisal results - influence on recommendations.
Policy LP4	Green Belt	Y - Planning / design issue rather than direct cost impact except in exceptional /abnormal circumstances.	No particular additional assumptions that apply across the range of scheme types.
Policy LP5	Community-led development and self-build	Y - A variety of residential and commercial scenarios have been modelled, also covering a range of values levels overall representing the variety relevant in different areas of the District. Affordable housing has been tested at alternative trial levels as part of informing the Plan development. (See Appendix I - Development Assumptions).	Reflected in selection of scheme scenarios, assumptions and interpretation of appraisal results - influence on recommendations. Range of specific allowances made for affordable housing.
Policy LP6	Meeting local housing needs	Y - A variety of residential scenarios have been modelled, also covering a range of values levels overall representing the variety relevant in different areas of the District. Affordable housing has been tested at alternative trial levels as part of informing the Plan development. (See Appendix I - Development Assumptions).	Reflected in selection of scheme scenarios, assumptions and interpretation of appraisal results - influence on recommendations. Range of specific allowances made for affordable housing.
Policy LP7	Gypsies, Travellers and Travelling Showpeople sites	This policy has not been specifically addressed, being outside the scope of those that directly impact development costs in a way that specifically influences the assessment process and assumptions	None speciifc
Policy LP8	Delivering Prosperity and Jobs	Y - A variety of commercial development scenarios of various types have been considered at an appropriate high level for the study purpose, covering a range of values representing the variety relevant in different areas and across different scheme/site types. (See Appendix I - Commercial Assumptions)	Reflected in values and costs assumptions used within high level commercial appraisal scenarios.
Policy LP9	Equine development	N/A - more of a planning and land use implication than for viability consideration.	
Policy LP10	Development affecting the horse racing industry	N/A - more of a planning and land use implication than for viability consideration.	
Policy LP11	Tourist facilities and visitor attractions	N/A - more of a planning and land use implication than for viability consideration.	
Policy LP12	Tourist accomodation (excluding holiday cottages)	N/A - more of a planning and land use implication than for viability consideration.	
Policy LP13	Holiday cottage accomodation	N/A - more of a planning and land use implication than for viability consideration.	
Policy LP14	Location of retail and town centre uses	N/A - more of a planning and land use implication than for viability consideration.	
Policy LP15	Retail uses in town centres	N/A - more of a planning and land use implication than for viability consideration.	

Policy No.	Description	Addressed where applicable through specific study approach / assumptions - Y/N - and associated commentary	Cost / specific allowance?
Policy LP16	Infrastructure to support growth	Y - considered through range of s.106/other costs sensitivity testing. In practice a range of sites will trigger mitigation requirements (localised works or contributions) but those will vary sites will vary with the site-specific details.	DSP's view and experience is that say £3,000/dwelling forms an appropriate sum, effectively as a contingency, for such measures. It follows that for all tests at £3,000 per dwelling, the immediate/essential highways mitigation/s.278 works are assumed to be specifically allowed for.
Policy LP17	Creating a sustainable, efficient and resilient transport network	Y - study allows for appropriate development densities, design, build costs and external works costs, CIL and S106 cost assumptions within the development scenarios modelled.	Reflected in the scenarios assumptions on a range of inputs; most directly relevant the build costs assumptions including by means of additions for external and other works - see Appendix I
Policy LP18	Improving cycle provision	Y - study allows for appropriate development densities, design, build costs and external works costs, CIL and S106 cost assumptions within the development scenarios modelled.	Reflected in the scenarios assumptions on a range of inputs; most directly relevant the build costs assumptions including by means of additions for external and other works - see Appendix I
Policy LP19	Maintaining and improving community facilities	N/A - more of a planning and land use implication than for viability consideration.	
Policy LP20	Delivering green infrastructure	Y - considered through range of s.106/other costs sensitivity testing. In practice a range of sites will trigger mitigation requirements (localised works or contributions) but those will vary sites will vary with the site-specific details.	DSP's view and experience is that say £3,000/dwelling forms an appropriate sum, effectively as a contingency, for such measures. It follows that for all tests at £3,000 per dwelling, the immediate/essential highways mitigation/s.278 works are assumed to be specifically allowed for.
Policy LP21	Open space, sport and recreational facilities	Y - As per Policy LP20 above.	
Policy LP22	Achieving Design excellence	Y - but in respect of the general nature and quality of development expected to come forward and be supportable through the usual planning application and development management process. Therefore reflected in the nature of the build and related costs assumptions used for all appraisals.	Reflected in assumptions - assumed development appropriate as would be permitted under the range of development management criteria
Policy LP23	Water Efficiency	Y - Assessment approach assumes 110 lpppd which carries only a nominal additional, non-detectable, cost at this level of viability review. Assumed the policy proposal is carried forward at this (national) Optional technical Housing Standards level.	No particular additional assumptions that apply across the range of scheme types.
Policy LP24	Renewable and low carbon energy development	N/A - more of a planning and land use implication than for viability consideration.	
Policy LP25	Managing water resources and flood risk	Y - Only so far as allowed for within build costs and fees so far as normal works extent is concerned. However could have very site specific impacts and as such would need to be treated as abnormal costs in weighing-up the overall viability position on a particular site. However basic SUDS requirements - assumed within build costs; standard FRA within fees. The assumptions also include contingencies.	No particular additional assumptions that apply across the range of scheme types.
Policy LP26	Pollution and land contamination	Y - Allowed for within build costs and fees so far as normal works extent is concerned. However could have very site specific impacts and as such would need to be treated as abnormal costs in weighing-up the overall viability position on a particular site.	No particular additional assumptions that apply across the range of scheme types.
Policy LP27	Conserving and enhancing heritage assets	Planning / design issue rather than direct cost impact except in exceptional circumstances. Any costs included within fees assumptions.	No particular additional assumptions that apply across the range of scheme types.
Policy LP28	Landscape and built environment Character, including Cathedral views	Planning / design issue rather than direct cost impact except in exceptional circumstances. Any costs included within fees assumptions.	No particular additional assumptions that apply across the range of scheme types.
Policy LP29	Conserving local green spaces	N/A - more of a planning and land use implication than for viability consideration.	
Policy LP30	Conserving and enhancing biodiversity and geodiversity	Y - to the extent that the assessment assumptions consider regular design and layout characteristics. Scope of achievable planning obligations packages may be relevant to particular proposals - especially for larger/strategic scale developments where the surplus available to support a planning obligations package is likely to be considered. More of general development management matter and does not inform particular viability assessment assumptions.	No particular additional assumptions that apply across the range of scheme types.

Policy No.	Description	Addressed where applicable through specific study approach / assumptions - Y/N - and associated commentary	Cost / specific allowance?
Policy LP31	Development in the countryside	Y - A variety of residential scenarios has been modelled, also covering a range of values levels overall representing the variety relevant in different areas and across different scheme/site types. (See Appendix I - Residential Development Assumptions)	Reflected in selection of scheme scenarios and interpretation of appraisal results - influence on recommendations.
Policy LP32	Infill development in locations outside of development envelopes	Y - A variety of residential scenarios has been modelled, also covering a range of values levels overall representing the variety relevant in different areas and across different scheme/site types. (See Appendix I - Residential Development Assumptions)	Reflected in selection of scheme scenarios and interpretation of appraisal results - influence on recommendations.

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