

A / PART L 2010 COST BREAKDOWN: MID-TERRACE DWELLING

	£	£/m ² GIFA
Construction cost of base scheme	59,000	776.32

Changes to scheme to comply with Part L 2010 Option one: fabric improvements only

Substructure	80	1.05
Extra for increased floor slab insulation to meet U-value of 0.18W/m ² K, 25mm expanded polystyrene 38m ² @ £2		

Roof	230	3.03
Extra for increased roof insulation to meet U-value of 0.14W/m ² K, 50mm mineral fibre, 30mm PIR board 38m ² @ £6		

External walls, windows and doors	1,750	23.03
Extra for increased wall insulation to meet U-value of 0.18W/m ² K, 50mm PIR board, 49m ² @ £15		
Extra for fully-filled cavity to party wall; 100 compressed mineral fibre 40m ² @ £7		
Extra for high-performance window units, U-value of 1.4W/m ² K, argon fill and low-e coating 11m ² @ £30		
Extra for partial application of enhanced construction details to achieve reduced overall psi value of 0.06, 50m ² @ £8		

Heat source, space heating, air treatment and ventilation	530	6.97
Extra for time and temperature zone control to central heating to three rooms, including power supplies, 3nr @ £150		
Extra for sensor for weather compensation for boiler, item @ £75		

Preliminaries and contingencies	300	3.95
Contractor's overheads, management and site establishment and fees. Allow 10% @ £200		
Contingency sum. Allow 5% @ £100		

Construction cost (building only)	61,890	814.35
Extra over costs (4.9% increase)	2,890	38.03

Option two: fabric improvement and photovoltaics

External walls, windows and doors	750	9.87
Extra for increased wall insulation to meet U-value of 0.22W/m ² K, 15mm PIR board 49m ² @ £5		
Extra for fully-filled cavity to party wall; 100 compressed mineral fibre 40m ² @ £7		
Extra for high performance window units, U-value of 1.4W/m ² K, argon fill 11m ² @ £20		

Electrical installation	4,800	63.16
PV panels and inverter in a complete, self-contained system, 0.8kWp 6m ² @ £800		

Preliminaries and contingencies	900	11.84
Contractor's overheads, management and site establishment and fees. Allow 10% @ £600		
Contingency sum. Allow 5% @ £300		

Construction cost (building only)	65,450	£861.19
Extra over costs (10.93% increase)	6,450	84.87



Newer developments such as HFI's Armour Close may need few, if any, changes

	£	£/m ² GIFA
--	---	-----------------------

Option three: fabric improvements and mechanical ventilation with heat recovery, unfilled cavity

Substructure	80	1.05
Extra for increased floor-slab insulation to meet U-value of 0.18W/m ² K, 25mm expanded polystyrene 38m ² @ £2		

Roof	230	3.03
Extra for increased roof insulation to meet U-value of 0.14W/m ² K, 50mm mineral fibre, 30mm PIR board 38m ² @ £6		

External walls, windows and doors	1,670	21.97
Extra for increased wall insulation to meet U-value of 0.18W/m ² K, 50mm PIR board 49m ² @ £15		
Extra for high-performance window units, U-value of 1.4W/m ² K, argon fill and low-e coating 11m ² @ £30		
Extra for full application of enhanced construction details to achieve reduced overall psi value of 0.04, 50m ² @ £12		

Heat source, space heating, air treatment and ventilation	2,080	27.37
Extra for MVHR installation, complete, item @ £2,000		
Extra for sensor for weather compensation for boiler, item @ £75		

Preliminaries and contingencies	600	7.89
Contractor's overheads, management and site establishment and fees. Allow 10% @ £400		
Contingency sum. Allow 5% @ £200		

Construction cost (building only)	63,660	837.63
Extra over costs (7.9% increase)	4,660	61.31



Triple-glazing is one emissions-saving solution for high-quality apartments such as these 515 mixed-tenure homes in Barking

	£	£/m ² GIFA
--	---	-----------------------

Construction cost of base scheme 120,000 1,578.95

Changes to scheme to comply with Part L 2010
Option one: 40% glazing with standard services

External walls, windows and doors 1,200 15.79

Extra for enhanced insulation to solid external wall to meet U-value of 0.25W/m²K, 26m² @ £5

Extra for enhanced insulation to corridor wall to meet U-value of 0.20W/m²K, 20m² @ £10

Extra for enhanced details to thermal bridges to achieve reduced overall psi value of 0.06, 63m² @ £6

Extra for enhanced performance to punch-hole windows; U-value of 1.4W/m²K, argon fill and low-e coating, 17m² @ £30

Heat source, space heating, air treatment and ventilation 500 6.58

Extra for condensing boiler efficiency of 91%. No premium as typical performance criteria is A-rated

Extra for time and temperature zone control to central heating to three rooms, including power supplies, 3nr @ £150

Extra for sensor for weather compensation for boiler, item @ £75

Preliminaries and contingencies 300 3.95

Contractor's overheads, management and site establishment and fees. Allow 13% @ £200

Contingency sum. Allow 5% @ £100

Construction cost (building only) 122,000 1,605

Extra over costs of Part L compliance 2,000 26.32
(1.67% increase)

Acknowledgements

We would like to thank Ed Brown, Angela Lai and Allan Cox of Davis Langdon, Russell Carr of Austin Builders, Terry Leahy of Broadway Malyan, Robert Squibb of PRP Architects, David Ross of Aecom and Pete Trowbridge of Raven Housing Trust for their contributions to this article.

	£	£/m ² GIFA
--	---	-----------------------

Option two: 65% glazing with MVHR

External walls, windows and doors 1,800 23.68

Extra for enhanced insulation to solid external wall to meet U-value of 0.25W/m²K 15m² @ £5

Extra for enhanced insulation to corridor wall to meet U-value of 0.22W/m²K, 20m² @ £5

Extra for enhanced details to thermal bridges to achieve reduced overall psi value of 0.04, 63m² @ £12

Extra for enhanced performance to punch-hole windows to meet U-value of 1.8W/m²K, no additional cost as met by current specification 28m² @ £30

Heat source, space heating, air treatment and ventilation 2,500 32.89

Extra for MVHR installation, complete, item @ £2,000

Extra for time and temperature zone control to central heating to three rooms, including power supplies, 3nr @ £150

Extra for sensor for weather compensation for boiler, item @ £75

Preliminaries and contingencies 800 10.53

Contractor's overheads, management and site establishment and fees. Allow 13% @ £600

Contingency sum. Allow 5% @ £200

Construction cost - building only 125,100 1,646

Extra over costs 5,100 67.10
(4.25% increase)

Option three: 80% triple glazing

External walls, windows and doors 5,200 68.42

Extra for enhanced insulation to solid external wall to meet U-value of 0.25W/m²K, 9m² @ £5

Extra for enhanced insulation to corridor wall to meet U-value of 0.22W/m²K, 20m² @ £5

Extra for enhanced performance to glazing; triple-glazing in curtain wall; rate includes allowance for opening lights, 34m² @ £150

Heat source, space heating, air treatment and ventilation 500 6.58

Extra for condensing boiler efficiency of 91%.

No premium as typical performance criteria is A-rated

Extra for time and temperature zone control to central heating to three rooms, including power supplies, 3nr @ £150

Extra for sensor for weather compensation for boiler, item @ £75

Preliminaries and contingencies 1,100 14.47

Contractor's overheads, management and site establishment and fees. Allow 13% @ £800

Contingency sum. Allow 5% @ £300

Construction cost (building only) 126,800 1,668

Extra over costs 6,800 89.47
(5.67% increase)