

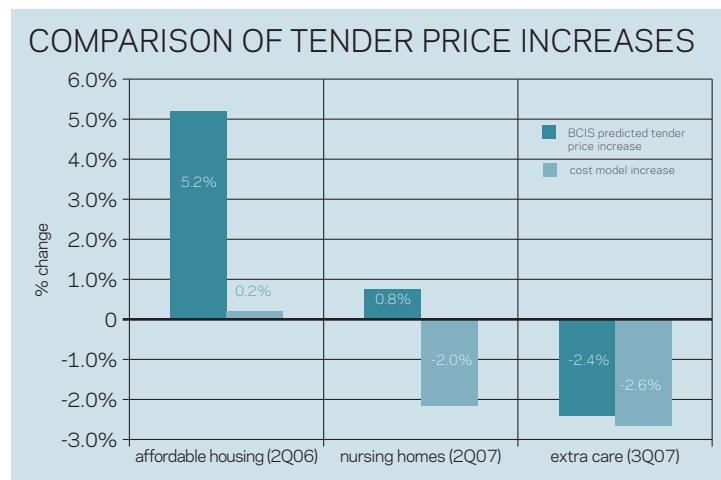
## MINI COST MODEL UPDATE SMALL PROJECTS

The worsening economic climate and sustainability requirements have affected costs for small projects such as affordable housing, nursing homes and extra-care homes. **Max Wilkes** looks at the figures

### 01 / COST INCREASES

Over the past year, the UK economic outlook has deteriorated sharply. As such, the chances of the government meeting its housing targets look slim. The delivery of public housing depends largely on private developers providing affordable homes through section 106 agreements, and private housing starts are predicted to fall 27% in 2008. Furthermore, the government will be tighter with its funds, which will also impede progress.

Figure 1 (right) compares the change in cost between the Davis Langdon cost models and the anticipated tender price increases forecast by the Building Cost Information Service (BCIS). In all cases, costs are lower than those



anticipated.

Over the past two years the affordable housing sector has delivered housing to higher

design and specification levels with only a limited increase in costs. In contrast, the nursing homes and extra-care homes

models, published just prior to the slowdown, now show falls in prices of about 2%.

To remain competitive contractors have been forced to drive cost reductions through their supply chain, accommodate material price increases where these cannot be avoided and reduce preliminaries and overheads. Preliminaries percentages peaked in mid-2007 and have been falling since then with a typical drop of 1.5–2.5% last year.

While design and build remains the favoured procurement route, clients are increasingly re-examining the traditional route, which offers more competitive tendering, better cost control and certainty.

### 02 / MATERIAL CHANGES

All three models reviewed in this update are mainly of traditional build, with either a masonry cavity wall or timber frame with facing bricks and concrete tiles. They do not contain a large amount of steelwork or metal components.

The downturn in housing has led to the costs of many components being squeezed, as stocks have built up and contractors have sought to obtain best prices. The main areas of reduction so far are groundworks, brick and blockwork, concrete tiles

and timber framing. Demand for structural insulated panels has also been greatly affected, with price reductions of 15%, as this a product mainly used in housing. The price of rebar has fallen dramatically from peaks reached

in summer 2008.

Meanwhile, mechanical and electrical services prices have remained flat. The one major component that has increased in price has been reinforced insitu concrete.

### 03 / NEW DESIGN STANDARDS

The Housing Corporation's new standards and quality strategy were issued in April 2008 and will be used in its next bidding round. The strategy included the following:

- All new-build homes must meet the Code for Sustainable Homes. The requirements will become gradually more stringent, rising from

level three in 2008 to level four in 2010 to level six by 2013 for the public sector

- By 2011, all publicly-funded homes must meet Lifetime Homes standards

- Building for Life criteria, which aim to improve the design and environment of housing schemes, must be adhered to

- BREEAM assessments will continue to be used for nursing homes and extra-care homes

- The housing quality indicator for the internal environment remains the same

- For extensions and refurbishments, the EcoHomes format is being retained.



Architect Levitt Bernstein designed this housing scheme in Barnet, north London, as a demonstration project for the redevelopment of the Grahame Park estate. The 32-unit scheme consists of family homes for rent and one and two-bedroom apartments for sale

## 04 / AFFORDABLE HOUSING

Recently, many private-social joint ownership developments have been shelved. The decline in private housing will also hinder the funding of affordable housing, as present Housing Corporation grants make it difficult to deliver rent-only schemes.

Over recent years, registered social landlords have secured about 50% of social housing using section 106 agreements for private development. To overcome this stagnation, in July the government released an additional £400m of funding originally earmarked for 2011 to be spent this year.

Since the last cost model was published the EcoHomes “very good” standard has been replaced

by level three of the Code for Sustainable Homes. For a 2006 house to meet the 2008 criteria, it would have to:

- Be 25% more energy efficient. This can be achieved by increasing thermal efficiency, for example, using more insulation, reducing air permeability, thermal bridging or installing a high-efficiency condensing boiler
- Be designed so water consumption is about 105 litres per person per day. Measures introduced include aerating taps, dual-flush toilets and smaller volume white goods
- Include surface water management, porous paving and soakaways

■ Have a minimum of amount of materials that achieve a “D” grade in the BRE Green Guide

■ Incorporate low-carbon technologies, provide recycling facilities, enhanced security measures and sound insulation.

For an average semi-detached house, incorporating level three requirements has been estimated to result in a cost increase of 3.6–7%, depending on the nature of the site. However, owing to the economic situation these measures have recently been secured at low additional costs on recent projects.

Many schemes are now being submitted and built to level four requirements. Some of these include insulated back plasterboard,

improved daylighting to reduce use of electric light, solar thermal or photovoltaic panels, more stringent airtightness, mechanical exhaust-only ventilation and ventilation with heat recovery. Level four has been achieved at a cost uplift of about 5%.

The cost model (section A) is based on a new-build scheme of a mix of two and three-bedroom houses in the West Midlands. The buildings are of a timber-frame construction, with a reinforced in situ concrete ground slab, facing brick external wall and concrete tiles on timber roof trusses. Windows and doors are painted softwood. Internal subdivision is by loadbearing timber stud partitions.



This care home in Richmond, Surrey houses eight adults with learning disabilities. It was designed by local firm HTP Architecture, which also acted as project manager

## 05 / NURSING HOMES

The demand for nursing homes and extra-care homes remains steady. While there has been no drastic fall in schemes being planned, responses to tenders have shown a trend towards keener pricing. Despite overall confidence, the sector is remaining cautious about over-expansion. Still, after years of decline in the number of places

available, resulting from the closure of unsuitable facilities, it is anticipated that the number will begin to rise as private developers provide more spaces than the number closing.

Most projects are being constructed above the national minimum standards, providing 100% single ensuite rooms with the size of the bedrooms above

the 12m<sup>2</sup> minimum requirement.

Future-proofing is vital, and can involve providing flexibility so homes can be adapted, for example to allow better IT facilities.

This cost model (section B) is based on a 16-bedroom extension to a home in the West Midlands, including kitchenettes and dayrooms. Some demolition and

alteration was involved. The construction used a facing brick cavity wall on strip footings with precast concrete floors. The roof is constructed of concrete tiles on softwood trusses, windows are uPVC and internal walls are blockwork. Services include gas-fired heating with low surface temperature radiators, lighting and nurse call alarms.

## 06 / EXTRA-CARE HOUSING

The government's policy of reducing institutionalised healthcare has meant that extra-care housing is an expanding sector. Housing associations provide most extra-care facilities but both private and public developers are keen to carry on expanding. In July, the Department of Health announced that it would provide funding for more than 2,000 homes across the country.

Retirement specialists are also keen to branch out into extra care. Early in October 2008, Wren Homes, a retirement home specialist, raised capital via a share issue and loan to expand its offer in the sector. However, the market is facing

a slowdown, as potential customers are unable to sell their existing homes.

There is no universal definition of extra-care housing. Alternative terms include assisted living, very sheltered housing and care villages. Planning issues can be complex, with different authorities classing the schemes differently. Some regard them as residential institutions, others as general housing. If the developer is a private sector provider affordable housing may have to be included, which could affect viability.

The cost model (section C) for the extra-care building located in the West Midlands features 16 self-contained flats of 10 single-bedroom

homes and six two-bedroom homes located as a three-storey separate wing to a care home.

The scheme is developed to housing association standards, and also features a cafe/restaurant with kitchen, residents' lounge, and staff rooms. It is constructed using a traditional facing brick cavity wall on strip footings with reinforced insitu concrete floors. The roof is constructed of concrete tiles on softwood trusses. Windows are softwood and internal division is based on metal stud partitions. Services include gas-fired heating systems with low surface temperature radiators, lighting and nurse call alarms.

## 07 / GRANTS AND TAX INCENTIVES

There are grants and incentives for development. Two such schemes worth considering are:

- The Low Carbon Buildings Programme. This supports projects that aim to reduce carbon emissions

- Land remediation relief tax incentives, which allow companies to claim a 150% tax relief on the costs of remediating a contaminated site. This is available to companies who are within the charge of

corporation tax, so if private housing is envisaged it may be possible to benefit. Not all remediation costs qualify, however – only those incurred as a direct consequence of contaminated materials being

present on the site.

There are several complex entitlement and eligibility conditions involved, however, and specialist advice should be sought if remediation costs are envisaged.



## 08 / COST BREAKDOWN

The cost models are priced at West Midlands rates and exclude enabling and external works and external services. The costs of non-fixed furniture and fittings, VAT and professional fees are omitted. Unit rates should be adjusted for programme, procurement route, location and site conditions. The following adjustments for locations should be made from the table to the right.

Greater London	1.17
Outer London	1.14
South-east	1.10
South-west	1.07
East Midlands	1.01
West Midlands	1.00
East Anglia	1.01
Yorkshire and Humberside	1.02
North-west	0.99
North	1.05
Scotland	1.09
Wales	1.03
Northern Ireland	0.82

## A / AFFORDABLE HOUSING COST BREAKDOWN

	Total cost (£)	£/m <sup>2</sup> GIFA	%		Total cost (£)	£/m <sup>2</sup> GIFA	%
<b>Substructures</b>	<b>78,500</b>	<b>95.73</b>	<b>10.00</b>	<b>Floor finishes</b>	<b>29,900</b>	<b>36.46</b>	<b>3.81</b>
Excavation and disposal: 144m <sup>3</sup> @ 27				Screed: 432m <sup>2</sup> @ 15			
Strip foundation with cavity masonry wall: 244m @ 170				Carpet: 520m <sup>2</sup> @ 22			
150mm thick ground floor slab with thickenings, including insulation: 414m <sup>2</sup> @ 80				Vinyl tiling including skirting: 150m <sup>2</sup> @ 35			
<b>Frame</b>	<b>82,000</b>	<b>100.00</b>	<b>10.45</b>	Softwood skirtings with painted decorations: 670m @ 10			
Structural timber frame: 820m <sup>2</sup> @ 100				<b>Ceiling finishes</b>	<b>21,300</b>	<b>25.98</b>	<b>2.71</b>
<b>Upper floors</b>	<b>18,100</b>	<b>22.07</b>	<b>2.31</b>	Plasterboard ceiling, plaster skim and emulsion paint finish: 656m <sup>2</sup> @ 25			
Timber cassette upper floor, including any lintols required: 402m <sup>2</sup> @ 45				Moisture resistance plasterboard ceiling, plaster skim and emulsion paint finish: 164m <sup>2</sup> @ 30			
<b>Roof</b>	<b>45,500</b>	<b>55.49</b>	<b>5.80</b>	<b>Fittings and fixings</b>	<b>18,000</b>	<b>21.95</b>	<b>2.29</b>
Timber roof trusses: 432m <sup>2</sup> @ 35				General fittings: kitchen units, worktops, sink: 10 item @ 1,800			
90 thick board insulation to roof at rafter level: 402m <sup>2</sup> @ 18				<b>Sanitary fittings</b>	<b>14,000</b>	<b>17.07</b>	<b>1.78</b>
Concrete roof tiles: 432m <sup>2</sup> @ 35				Allowance for sanitary fittings, fully fitted bathroom, wash hand basin, pressed steel bath with shower, including all fittings and fixtures 10nr @ 1,400			
Allowance for canopy, approximately 3m <sup>2</sup> : 10 items @ 310				<b>Disposal installations</b>	<b>6,600</b>	<b>8.05</b>	<b>0.84</b>
uPVC rainwater down pipes: 108m @ 13				Waste, soil and vent installation; uPVC pipework and fittings: 820m <sup>2</sup> @ 8			
uPVC gutters: 220m @ 16				<b>Water installations</b>	<b>41,400</b>	<b>50.49</b>	<b>5.27</b>
<b>Stairs</b>	<b>8,200</b>	<b>10.00</b>	<b>1.05</b>	Cold water system: 60nr @ 320			
Wooden straight stairs: 10nr @ 820				Hot water system: 60nr @ 370			
<b>External walls</b>	<b>82,800</b>	<b>100.98</b>	<b>10.55</b>	<b>Space heating</b>	<b>32,800</b>	<b>40.00</b>	<b>4.18</b>
Facing brick outer skin to structural timber frame with cavity and 140 thick insulation: 950m <sup>2</sup> @ 65				All costs associated with the supply & installation of the condensing boiler, temperature control and pipework: 820m <sup>2</sup> @ 40			
Party wall, 240 thick timber stud frame with Isowool quilt & plasterboard plank: 300m <sup>2</sup> @ 70				<b>Ventilation installations</b>	<b>4,100</b>	<b>5.00</b>	<b>0.52%</b>
<b>Windows and external doors</b>	<b>62,600</b>	<b>76.34</b>	<b>7.97</b>	Extract ventilation to kitchen and bathroom areas: 820m <sup>2</sup> @ 5			
Softwood double-glazed windows to meet secured by design requirements: 88m <sup>2</sup> @ 375				<b>Electrical installations</b>	<b>24,600</b>	<b>30.00</b>	<b>3.13</b>
Softwood window boards: 10 items @ 160				Mains and sub-mains connection, smallpower connection, cooker points, lighting distribution: 820m <sup>2</sup> @ 30			
Single aluminium doors: 20nr @ 1,400				<b>Gas installation</b>	<b>4,500</b>	<b>5.49</b>	<b>0.57</b>
<b>Internal walls</b>	<b>29,800</b>	<b>36.34</b>	<b>3.80</b>	Gas installations, all costs associated with the supply and installation of gas: 10 item @ 450			
Loadbearing timber stud partition faced with plasterboard, skim finish: 250m <sup>2</sup> @ 65				<b>Protective installations</b>	<b>800</b>	<b>0.98</b>	<b>0.10</b>
Non-loadbearing timber stud partition, faced with plasterboard, skim finish: 270m <sup>2</sup> @ 50				Lightning protection, earthing and bonding: 820m <sup>2</sup> @ 1			
<b>Internal doors</b>	<b>44,400</b>	<b>54.15</b>	<b>5.66</b>	<b>Communications installation</b>	<b>4,900</b>	<b>5.98</b>	<b>0.63</b>
Internal doors, wood veneer, stainless steel ironmongery: 70nr @ 525				Smoke detectors; telephone points and TV aerial: 820m <sup>2</sup> @ 6			
Wrot softwood storage cupboard door, stainless steel ironmongery: 20nr @ 380				<b>Builder's work in connection</b>	<b>8,000</b>	<b>9.76</b>	<b>1.02</b>
<b>Wall finishes</b>	<b>13,500</b>	<b>16.46</b>	<b>1.72</b>	Forming holes, chases, etc.: 10 item @ 800			
Plaster skim and paint finish: 2200m <sup>2</sup> @ 5				<b>Preliminaries and contingencies</b>	<b>108,700</b>	<b>132.56</b>	<b>13.85</b>
Ceramic wall tiles: 50m <sup>2</sup> @ 50				Preliminaries @ 13%			
				Contingency sum @ 3%			
				<b>Total construction cost</b>	<b>785,000</b>	<b>957.33</b>	<b>100.0</b>

## B / NURSING HOMES COST BREAKDOWN

<b>Demolitions and alterations</b>	<b>5,300</b>	<b>8.15</b>	<b>0.72</b>	Fittings and fixtures to bedrooms including wardrobes, headboards, etc.: item @ 15,000
Forming openings in existing masonry wall for double doors (2nr), keying in with existing wall and roof and making good finishes: item @ 5,300				Allowance for nurses work station in each cluster: item @ 500
<b>Substructure</b>	<b>46,000</b>	<b>70.77</b>	<b>6.23</b>	Allowance for signage: item @ 500
Site clearance, excavation, disposal: 100m <sup>3</sup> @ 27				Shelving: 2nr @ 300
Strip footings: 90m @ 170				Allowance for mirrors, vanity units, towel rails to bedrooms etc: 16nr @ 200
Precast concrete planks: 325m <sup>2</sup> @ 60				<b>Sanitary fittings</b>
Below slab drainage: 650m <sup>2</sup> @ 13				<b>43,300</b>
<b>Frame and upper floors</b>	<b>19,500</b>	<b>30.00</b>	<b>2.64</b>	<b>66.62</b>
Precast concrete planks: 325m <sup>2</sup> @ 60				<b>5.86</b>
<b>Roof</b>	<b>32,100</b>	<b>49.38</b>	<b>4.34</b>	WCs to ensuite or assisted bathrooms: 18nr @ 450
Softwood timber trusses: 325m <sup>2</sup> @ 35				Wash hand basins to ensuite or assisted bathrooms: 18nr @ 250
90 thick board insulation at roof level: 325m <sup>2</sup> @ 18				Showers, mixer tap, shower rail fittings: 16nr @ 450
Concrete roof tiles: 375m <sup>2</sup> @ 35				Disabled toilet, including WC, wash hand basin, grab rails and other fittings: 2nr @ 1,200
uPVC rainwater gutters and downpipes 80m @ 22				Allowance for grabrails to ensuite bathrooms: 16nr @ 150
<b>Stairs</b>	<b>5,100</b>	<b>7.85</b>	<b>0.69</b>	Assisted bath: 2nr @ 7,200
PCC stairs with mild steel balustrades and oak handrails: 1nr @ 5,100				Sink and slop hopper: 2nr @ 1,400
<b>External walls, windows and doors</b>	<b>64,300</b>	<b>98.92</b>	<b>8.70</b>	Cleaners' sink: 2nr @ 750
Brick/block insulated cavity walls: 300m <sup>2</sup> @ 150				<b>Services installations</b>
uPVC double glazed windows: 64m <sup>2</sup> @ 255				<b>6,000</b>
Single timber external door, painted, ironmongery: 1nr @ 900				<b>9.23</b>
uPVC framed sliding doors from ground floor communal area: 4m <sup>2</sup> @ 525				<b>0.81</b>
<b>Internal walls and partitions</b>	<b>30,200</b>	<b>46.46</b>	<b>4.09</b>	Utility and sluice room equipment: 2nr @ 3,000
Blockwork: 570m <sup>2</sup> @ 50				<b>Disposal installations</b>
Glazed screens, 2m high: 8m <sup>2</sup> @ 210				<b>6,500</b>
<b>Internal doors</b>	<b>29,700</b>	<b>45.69</b>	<b>4.02</b>	<b>10.00</b>
Single softwood veneered doors and frames; stainless steel ironmongery: 24nr @ 525				<b>0.88</b>
Fire doors - single softwood veneered doors and frames; stainless steel ironmongery: 18nr @ 750				Waste, soil and vent installation; uPVC pipework and fittings: 650m <sup>2</sup> @ 10
Fire doors - double softwood veneered doors and frames; vision panels, stainless steel ironmongery: 2nr @ 1,800				<b>Hot and cold water installations</b>
<b>Wall finishes</b>	<b>30,400</b>	<b>46.77</b>	<b>4.11</b>	<b>44,200</b>
Plasterboard, skim and emulsion paint to wall surfaces generally: 1,000m <sup>2</sup> @ 20				<b>68.00</b>
Ceramic tiles: 140m <sup>2</sup> @ 50				<b>5.98</b>
Bump rail to corridors: 70m @ 5				Cold water system, per point: 64nr @ 320
Door edge guards 100m @ 30				Hot water system, per point: 64nr @ 370
<b>Floor finishes</b>	<b>31,500</b>	<b>48.46</b>	<b>4.26</b>	<b>Space heating air treatment and ventilation</b>
75 thick screeds to ground floor and stairwells: 630m <sup>2</sup> @ 15				<b>52,000</b>
Carpet and underlay to bedrooms: 225m <sup>2</sup> @ 30				<b>80.00</b>
Heavy duty carpet tiles to corridors and other areas: 225m <sup>2</sup> @ 25				<b>7.04</b>
Vinyl sheet flooring and skirting: 130m <sup>2</sup> @ 40				Gas fired heating system with boiler, low surface temperature radiators: 650m <sup>2</sup> @ 70
Softwood skirtings and decoration: 380m @ 10				Mechanical ventilation: 650m <sup>2</sup> @ 10
Floor finishes to internal stairs: item @ 700				<b>Electrical installation</b>
<b>Ceiling finishes</b>	<b>16,900</b>	<b>26.00</b>	<b>2.29</b>	<b>57,400</b>
Plasterboard ceiling, skim and emulsion paint: 520m <sup>2</sup> @ 25				<b>88.31</b>
Moisture resistant plasterboard ceiling, skim and emulsion to wet areas: 130m <sup>2</sup> @ 30				<b>7.77</b>
<b>Furniture and fittings</b>	<b>26,800</b>	<b>41.23</b>	<b>3.63</b>	Sub-mains installation: 650m <sup>2</sup> @ 15
Kitchenette equipment including wall and base units, worktops, sink, dishwasher and fridge: 2nr @ 3,500				Small power installation: 650m <sup>2</sup> @ 35
				Lighting and general luminaires; emergency lighting: 650m <sup>2</sup> @ 35
				External lighting generally: item @ 2,100
				<b>Gas installations</b>
				<b>500</b>
				<b>0.77</b>
				Feed from existing gas supply: item @ 500
				<b>Protective installations</b>
				<b>1,500</b>
				<b>2.31</b>
				Lightning protection, earthing and bonding: item @ 1,500
				<b>Communication installations</b>
				<b>42,300</b>
				<b>65.08</b>
				Fire alarm installation; smoke detectors: 650m <sup>2</sup> @ 20
				Nurse call, data IT, assistive technology system, disabled WC alarm system: 650m <sup>2</sup> @ 30
				Telephone, TV and data cabling: 650m <sup>2</sup> @ 15
				<b>Specialist installations</b>
				<b>6,500</b>
				<b>10.00</b>
				<b>0.88</b>
				BMS Controls: 650m <sup>2</sup> @ 10
				<b>Builder's work in connection</b>
				<b>7,600</b>
				<b>11.69</b>
				<b>1.03</b>
				Forming holes and chases, etc.: allowance @ 3, item @ 7,600
				<b>Preliminaries</b>
				<b>133,400</b>
				<b>205.23</b>
				<b>18.05</b>
				Management costs, site establishment and site supervision. Contractor's preliminaries, overheads and profit @ 17.5: item @ 106,500
				Testing and commissioning of building services installations: item @ 8,500
				Allowance for design reserve @ 3: item @ 18,400
				<b>Total construction cost</b>
				<b>739,000</b>
				<b>1,136.92</b>
				<b>100</b>

## C / EXTRA CARE HOUSING COST BREAKDOWN

<b>Substructure</b>	<b>79,400</b>	<b>57</b>	<b>5.24</b>	Lift pit - excavate and construct lift pit: item @ 5,100
Site clearance, excavation, disposal: 250m <sup>3</sup> @ 27				Below slab drainage: 470m <sup>2</sup> @ 13
Concrete strip footings with masonry walls: 140m @ 170				<b>Frame and upper floors</b>
Reinforced insitu ground floor slab: 470m <sup>2</sup> @ 80				<b>56,400</b>
				<b>40</b>
				<b>3.73</b>
				Precast concrete upper floor units: 940m <sup>2</sup> @ 60



## C / EXTRA CARE HOUSING COST BREAKDOWN (CONTINUED)

<b>Roof</b>	<b>53,800</b>	<b>38</b>	<b>3.55</b>	item @ 10,000
Softwood timber trusses (measured flat on plan): 470m <sup>2</sup> @ 35				Allowance for reception desk and servery counter: item @ 15,000
90 thick board insulation at roof level (measured flat on plan): 470m <sup>2</sup> @ 18				<b>Sanitary fittings</b>
Concrete roof tiles (measured as roof area): 520m <sup>2</sup> @ 35				<b>30,700</b>
Soffit, fascia and verge details: 140m @ 37				<b>22</b>
uPVC rainwater gutters and downpipes : 250m @ 22				<b>2.03</b>
<b>Stairs</b>	<b>20,400</b>	<b>15</b>	<b>1.35</b>	WCs to apartments or assisted bathrooms: 18nr @ 450
Precast concrete stairs with mild steel balustrades and softwood handrails (rate per flight): 4nr @ 5,100				Wash hand basins to apartments or assisted bathrooms: 18nr @ 250
<b>External walls, windows and doors</b>	<b>149,500</b>	<b>107</b>	<b>9.88</b>	Showers to apartments and guest bedroom including mixer tap, shower rail fittings: 18nr @ 450
Brick and block insulated cavity walls: 500m <sup>2</sup> @ 150				Disabled toilet, including WC, wash hand basin, grab rails and other fittings: 4nr @ 1,200
Softwood framed double-glazed windows: 110m <sup>2</sup> @ 375				Allowance for grabrails to apartment bathrooms: 16nr @ 150
Aluminium framed sliding patio doors from ground floor communal areas: 12m <sup>2</sup> @ 500				Assisted bath: 1nr @ 700
Single aluminium external door, ironmongery: 6nr @ 1,400				Sink and slop hopper: 1nr @ 1,400
Glazed entry canopy with automatic opening doors: item @ 15,000				Cleaners sink: 1nr @ 700
Double leaf steel external door, ironmongery; to plant rooms: 2nr @ 1,900				<b>Services installations</b>
<b>Internal walls and partitions</b>	<b>80,300</b>	<b>57</b>	<b>5.30</b>	<b>5,000</b>
Blockwork to corridor party walls: 450m <sup>2</sup> @ 55				<b>4</b>
Blockwork cavity party walls between apartments: 265m <sup>2</sup> @ 55				<b>0.33</b>
metal stud partitions to internal apartment walls: 770m <sup>2</sup> @ 50				Equipment for laundry and sluice usage: 1nr @ 5,000
Glazed screens: 10m <sup>2</sup> @ 250				<b>Disposal installations</b>
<b>Internal doors</b>	<b>100,700</b>	<b>72</b>	<b>6.65</b>	<b>14,000</b>
Fire door - single panelled moulded doors and frames; stainless steel ironmongery; as external door to apartment: 18nr @ 950				<b>10</b>
Fire door - single softwood veneered doors and frames; stainless steel ironmongery; to internal doors within flats and communal areas: 85nr @ 750				<b>0.93</b>
Fire door - single softwood veneered doors and frames; stainless steel ironmongery; to communal and kitchen storage spaces: 10nr @ 700				uPVC pipework and fittings as waste, soil and vent installation: 1,400m <sup>2</sup> @ 10
Double softwood veneered doors and frames; vision panels, magnetic door holder, stainless steel ironmongery, 30-minute fire resistance: 6nr @ 1,800				<b>Hot and cold water installations</b>
Single softwood door and frame to kitchen; vision panel; stainless steel ironmongery; hinged to swing both ways: 2nr @ 1,000				<b>40,900</b>
<b>Wall finishes</b>	<b>58,400</b>	<b>42</b>	<b>3.86</b>	<b>29</b>
Plasterboard with skim and emulsion paint to blockwork wall surfaces : 1,460m <sup>2</sup> @ 20				<b>2.70</b>
Emulsion to metal stud partitions: 1,540m <sup>2</sup> @ 4				Cold water system, per point: 70nr @ 320
Ceramic tiles: 100m <sup>2</sup> @ 50				Hot water system, per point: 50nr @ 370
Softwood hand rails to corridors: 450m @ 40				<b>Space heating air treatment and ventilation</b>
<b>Floor finishes</b>	<b>71,600</b>	<b>51</b>	<b>4.73</b>	<b>112,000</b>
75 thick screed to floor and stairwells: 1,340m <sup>2</sup> @ 15				<b>80</b>
Carpet and underlay to apartments: 680m <sup>2</sup> @ 30				<b>7.40</b>
Heavy duty carpet tiles to communal areas and corridors: 310m <sup>2</sup> @ 25				Gas fired heating system with low surface temperature radiators and boiler: 1,400m <sup>2</sup> @ 70
Vinyl sheet flooring and coved skirting: 260m <sup>2</sup> @ 40				Mechanical ventilation: 1,400m <sup>2</sup> @ 10
Floor hardener to screed to plant rooms: 50m <sup>2</sup> @ 5				<b>Electrical installation</b>
Softwood skirtings and decoration: 950m @ 10				<b>121,100</b>
Floor finishes to internal stairs: item @ 3,200				<b>87</b>
<b>Ceiling finishes</b>	<b>34,300</b>	<b>25</b>	<b>2.27</b>	<b>8.00</b>
Plasterboard ceiling with skim and emulsion paint: 950m <sup>2</sup> @ 25				Sub-mains installation: 1,400m <sup>2</sup> @ 15
Moisture resistant plasterboard ceiling, skim and emulsion to wet areas: 350m <sup>2</sup> @ 30				Small power installation: 1,400m <sup>2</sup> @ 35
<b>Furniture and fittings</b>	<b>92,000</b>	<b>66</b>	<b>6.08</b>	Lighting and general luminaires; emergency lighting: 1,400 @ 35
Kitchens to apartments, to enable accessibility, fittings only, no white goods: 16nr @ 2,000				External lighting generally: item @ 2,100
Fittings and fixtures to apartments including wardrobes, headboards, etc.: 16nr @ 1,500				<b>Gas installations</b>
Allowance for mirrors, vanity units, towel rails, shelving to bedrooms, etc.: 16nr @ 500				<b>6,800</b>
Allowance for signage: item @ 2,000				<b>5</b>
Allowance for shelving to communal areas: item @ 1,000				<b>0.45</b>
Allowance for fittings and white goods to cafe drinks bar, staff rest room, laundry:				Gas installations, all costs associated with gas supply: 16nr @ 425
				<b>Lift installation</b>
				<b>26,000</b>
				<b>19</b>
				<b>1.72</b>
				Eight-person wheelchair lift to serve three floors: item @ 26,000
				<b>Protective installations</b>
				<b>3,200</b>
				<b>2</b>
				<b>0.21</b>
				Lightning protection, earthing and bonding: item @ 3,200
				<b>Communication installations</b>
				<b>84,000</b>
				<b>60</b>
				<b>5.55</b>
				Fire alarm installation; smoke detectors: 1,400m <sup>2</sup> @ 15
				Call systems - warden call, data IT, assistive technology, disabled WC alarms: 1,400m <sup>2</sup> @ 30
				Telephone, TV and data cabling: 1,400m <sup>2</sup> @ 15
				<b>Specialist installations</b>
				<b>14,000</b>
				<b>10</b>
				<b>0.93</b>
				BMS Controls: 1,400m <sup>2</sup> @ 10
				<b>Builder's work in connection</b>
				<b>14,000</b>
				<b>10</b>
				<b>0.93</b>
				Forming holes and chases etc.: allowance @ 3: item @ 14,000
				<b>Preliminaries</b>
				<b>245,500</b>
				<b>175</b>
				<b>16.22</b>
				Management costs, site establishment and site supervision. Contractor's preliminaries, overheads and profit @ 15.5: item @ 197,000
				Testing and commissioning of building services installations: item @ 8,500
				Allowance for design reserve @ 3, item @ 40,000
				<b>Total construction cost</b>
				<b>Building only</b>
				<b>1,514,000</b>
				<b>1,081</b>
				<b>100</b>

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