#### Cost breakdown b

	Total cost £	£/m² gifa	%
Substructure	1,832,500	130.89	6.52
Piled foundations; 600 diameter rotary ground beams: 4,250m <sup>2</sup> @ £310 Ground slab; 250 thick; excavation and			
Lift pits: 6 nr @ £15,000			
Frame and upper floors	2,995,500	213.96	10.65
Structural steelwork; UB and UC section	ons: 820t @ £1,70	00	
Structural steelwork; hollow sections: \$	50t @ £2,500		
Fire protection to steelwork: 16,150m	²@£20		
Allowance for column encasement: 2,1	00m @ £85		
Upper floors, thermodeck hollowcore p	lanks: 9,750m² @	£100	
Deef			
ROOT	2,031,500	145.11	7.22
	nd insitu concrete:	3,450m² @ f	
Insitu concrete roof slab; metal deck ar	nd insitu concrete: g screed, insulatio	3,450m² @ f	
Insitu concrete roof slab; metal deck ar Flat roof, single-ply membrane includin	nd insitu concrete: g screed, insulatio	3,450m² @ f	
Insitu concrete roof slab; metal deck ar Flat roof, single-ply membrane includin upstands, flashings, linings to gutters, 30% of area: 3,450m <sup>2</sup> @ £115	nd insitu concrete: g screed, insulatio paving slabs to	3,450m² @ f n, trims,	
Insitu concrete roof slab; metal deck ar Flat roof, single-ply membrane includin upstands, flashings, linings to gutters, 30% of area: 3,450m <sup>2</sup> @ £115 Extra for green roof construction; strer	nd insitu concrete: g screed, insulatio paving slabs to ngthening to roof s	3,450m² @ f n, trims, lab;	
Insitu concrete roof slab; metal deck ar Flat roof, single-ply membrane includin upstands, flashings, linings to gutters, 30% of area: 3,450m <sup>2</sup> @ £115 Extra for green roof construction; strer sedum blanket; filter fleece and drainag	nd insitu concrete: g screed, insulatio paving slabs to ngthening to roof s ge layer: 1,500m <sup>2</sup>	3,450m² @ f n, trims, lab;	
Insitu concrete roof slab; metal deck ar Flat roof, single-ply membrane includin upstands, flashings, linings to gutters, 30% of area: 3,450m <sup>2</sup> @ £115 Extra for green roof construction; strer sedum blanket; filter fleece and drainag Atrium roof; hollow section framing, alu	nd insitu concrete: g screed, insulatio paving slabs to ngthening to roof s ge layer: 1,500m <sup>2</sup> uminium-framed	3,450m² @ f n, trims, lab;	
Insitu concrete roof slab; metal deck ar Flat roof, single-ply membrane includin upstands, flashings, linings to gutters, 30% of area: 3,450m <sup>2</sup> @ £115 Extra for green roof construction; strer sedum blanket; filter fleece and drainag Atrium roof; hollow section framing, alu	nd insitu concrete: g screed, insulatio paving slabs to ngthening to roof s ge layer: 1,500m <sup>2</sup> uminium-framed	3,450m² @ f n, trims, lab;	
Insitu concrete roof slab; metal deck ar Flat roof, single-ply membrane includin upstands, flashings, linings to gutters, 30% of area: 3,450m <sup>2</sup> @ £115 Extra for green roof construction; strer sedum blanket; filter fleece and drainag Atrium roof; hollow section framing, alu double-glazed units: 1,200m <sup>2</sup> @ £800	nd insitu concrete: g screed, insulatio paving slabs to ngthening to roof s ge layer: 1,500m <sup>2</sup> uminium-framed : 400m @ £80	3,450m² @ f n, trims, lab;	
Insitu concrete roof slab; metal deck ar Flat roof, single-ply membrane includin upstands, flashings, linings to gutters, 30% of area: 3,450m <sup>2</sup> @ £115 Extra for green roof construction; strer sedum blanket; filter fleece and drainag Atrium roof; hollow section framing, alu double-glazed units: 1,200m <sup>2</sup> @ £800 Extra for upstands and fascia cladding	nd insitu concrete: g screed, insulatio paving slabs to ngthening to roof s ge layer: 1,500m <sup>2</sup> uminium-framed : 400m @ £80	3,450m² @ f n, trims, lab;	
Insitu concrete roof slab; metal deck ar Flat roof, single-ply membrane includin upstands, flashings, linings to gutters, 30% of area: 3,450m <sup>2</sup> @ £115 Extra for green roof construction; strer sedum blanket; filter fleece and drainag Atrium roof; hollow section framing, alu double-glazed units: 1,200m <sup>2</sup> @ £800 Extra for upstands and fascia cladding Extra for soffits to roof overhangs: 240 Mansafe system: Item @ £34,000	nd insitu concrete: g screed, insulatio paving slabs to ngthening to roof s ge layer: 1,500m <sup>2</sup> uminium-framed : 400m @ £80 0m <sup>2</sup> @ £55	3,450m² @ f n, trims, lab; @ £135	
upstands, flashings, linings to gutters, 30% of area: 3,450m <sup>2</sup> @ £115 Extra for green roof construction; strer sedum blanket; filter fleece and drainag Atrium roof; hollow section framing, alu double-glazed units: 1,200m <sup>2</sup> @ £800 Extra for upstands and fascia cladding Extra for soffits to roof overhangs: 240	nd insitu concrete: g screed, insulatio paving slabs to ngthening to roof s ge layer: 1,500m <sup>2</sup> uminium-framed : 400m @ £80 0m <sup>2</sup> @ £55 onic: 4,250m <sup>2</sup> @ f	3,450m <sup>2</sup> @ f n, trims, lab; @ £135	

Feature stairs to atrium; projecting steel stairflights with semi-circular half landings; glass balustrades with stainless steel handrails (rate per flight): 8 nr @16,000
Precast concrete internal staircases with half landings; painted steel handrails and balustrades; including allowance for wall, floor and ceiling finishes (rate per flight): 20 nr @ £13,000
Glazed feature balustrade with stainless steel handrail to part atrium edge: 100m @ £700
Miscellaneous access stairs and cat ladders: Item @ $\pm 10,500$

#### External walls, windows and doors 3,814,600 272.47 13.56

Rendered blockwork and architectural blockwork; insulation, lightweight steel framing: 2770m<sup>2</sup> @ £270

	Total cost £	£/m² gifa	%
Cladding; metal-faced composite cladding rails: 2490m2 @ £410	panels; cladding		
Curtain-walling; stick system with double- and metal-faced spandrel panels: 1,090m			
Powder-coated aluminium double-glazed ri window boards: 2,270m <sup>2</sup> @ £350	bbon windows;		
Extra over curtain wall and ribbon window automatic actuators included in controls: 8		s;	
Solar shading; fixed aluminium louvres: 60	0 m @ £200		
Allowance for soffit cladding, insulated me	•		
Allowance for column cladding, curved me			
Glazed main entrance doors; revolving doc 2 nr @ £35,000	r with pass doors		
Fire escape doors; steel-faced double door	s in powder-coat	ed	
frames; ironmongery: 16 nr @ £2,000			
Loading bay doors: Item @ £7,000			
Aluminium louvres to plant rooms etc: 400	m²@£400		
Internal walls and partitions	1,245,300	88.95	4.43
Single-glazed screens to atrium: 380m <sup>2</sup> @	£350		
Blockwork; average rate for thickness rang	ging from		
100 to 190mm: 5,530m <sup>2</sup> @ £45			
Extra for twin-leaf acoustic wall construct	ion: 3,050m² @ £	14	
Drywall partition; 1 hour FR; heavy duty be	parding: 7,630m <sup>2</sup>	@£70	
Glazed screen partitions: 610m <sup>2</sup> @ £340			
Allowance for folding partitions: Item @ £	40,000		
Toilet cubicles: 56 nr @ £700			
Internal doors	651,800	46.56	2.32

Solid core fire-rated doors and hardwood frames;stainless steel ironmongery
(average rate per leaf for single and double doors): 270 nr @ £1,200
Doors and hardwood frames; non fire-rated; stainless steel ironmongery
(average rate per leaf for single and double doors): 270 nr @ $\pm$ 900
Glazed access doors to atrium walkways: 6 nr @ $\pm$ 3,400
Extra for magnetic catches to double fire doors: 46 nr @ £1,400

Wall finishes	599,600	42.83	2.13
Emulsion paint: 19,500m² @ £4			
Plasterboard lining and emulsion paint to w generally: 5,040m <sup>2</sup> @ £40			
Ceramic tiling: 2,700m <sup>2</sup> @ £50			
Allowance for acoustic treatments: Item @			
Allowance for column casings: Item @ £10	0,000		

### b Cost breakdown (continued)

	Total cost £	£/m² gifa	%		Total cost £	£/m² gifa	%
Floor finishes	1,104,500	78.89	3.93	Sanitary installations	140,000	10.00	0.50
70 deep screed: 4,100m² @ £20				WCs and fittings: 50 nr @ £410			
Fully accessible raised floor: 8,700	m² @ £40			Extra for disabled fittings: 8 nr @270			
Edge fixed carpet; hardwood skirtin	gs: 7,500m² @ £35			Urinals and fittings: 20 nr @ £340			
Limestone tiling: 1,200m <sup>2</sup> @ £160				Wash handbasins and fittings: 70 nr @ :	£410		
Ceramic tiling: 500m² @ £70				Shower in cubicle, tray, fittings complet	e: 8 nr @ £1,400		
Vinyl flooring, coved skirtings: 3,00	0m² @ £50			Classroom sinks: 20 nr @ £470			
Epoxy floor paint: 600m <sup>2</sup> @ £15				Laboratory sinks: 15 nr @ £270			
Entrance matting and matwells: Iter	n@£26,000			Cleaners sinks: 4 nr @ £680			
				Drinking fountains: 8 nr @ £680			
Ceiling finishes	516,300	36.88	1.84	Allowance for IPS panels; pre-plumbed:	140 nr @ £350		
Plasterboard ceilings on MF framing	g, emulsion						
paint finish: 2,900m² @ £27				Service equipment	310,000	22.14	1.10
Mineral fibre concealed grid ceiling; plasterboard		Kitchen, servery and bar fit-out; comple	te: Item @ £310,0	000			
margins and bulkheads; generally: 8	3,700m² @ £40						
Extra for acoustic treatments: Item	@£90,000			Disposal installations	168,000	12.00	0.60
<b>E</b> 10 1000	074 700	00.44		Waste, soil and vent pipework: 14,000r	n² @ £7		
Furniture and fittings	971,700	69.41	3.46	Rainwater installation; syphonic drainag	je: 14,000m² @ £5	5	
External and internal identity, direc	tional and statutory			Hot and cold water installations	300,000	21.43	1.07
signage: Item @ £150,000	,			Mains water service, treatment: Item @	£30,000		
Reception furniture: Item @ £80,00	00			Hot water storage and distribution: Item	n@£120,000		
IT work benches to general teaching	g spaces: 750 m @ £5	40		Cold water storage and distribution: Iter	m@£150,000		
Laboratory work benches: 250 m @	£270						
Allowance for fume cupboards and o	other laboratory fitting	s: Item @ £2	6,000				
Allowances for lockers, shelving and	d storage racks: Item @	£78,000					
Allowance for whiteboards, pinboar	ds and other teaching	room					
fittings: Item @ £105,000							
Window blinds: 870m² @ £45							
Vanitory units (cost per basin): 60 n	ır @ £350						

Vanitory units (cost per basin): 60 nr @ £350

	Total cost £	£/m² gifa	%
Space heating, air treatment and ventilation	1,890,000	135.00	6.72
Space heating, boilers, flues, pumps, dis plantrooms and risers: Item @ £200,000	tribution in		• =
Distribution pipework and radiators: 14, Extra for underfloor heating to atrium: It	000m² @ £25		
Air handling units; ductwork in plantroom Chillers, pumps and pressurisation units,	ns and risers: 11,	200m² @ £25	
plantrooms and risers: 11,200m <sup>2</sup> @ £30			
Local supply and extract distribution; dis with high level extract: 11,200m <sup>2</sup> @ £40		ation	
Ventilation installation to laboratories; v. and fume cupboard extract: Item @ £70,			
Toilet extract ventilation: Item @ £75,00			
Kitchen supply and extract ventilation: It Allowance for localised cooling to equipn	- ·	@£50,000	

Electrical installation	1,857,000	132.64	6.60
Mains and sub-mains distribution: 14,000	)m² @ £25		
Small power generally: 14,000m <sup>2</sup> @ £25			
Electrical supplies to mechanical plant an	ıd		
equipment generally: Item @ £55,000			
Lighting generally: 14,000m <sup>2</sup> @ £70			
Emergency lighting: 14,000m <sup>2</sup> @ £7			
External lighting generally: Item @ £24,0	00		
Gas installations	30,000	2.14	0.11
Incoming gas supply and distribution: Iten	n@£30,000		
Lift installations	710,000	50.71	2.52
<b>Lift installations</b> 10-person feature lifts with glass doors a complete: 2 nr @ £115,000		50.71	2.52
10-person feature lifts with glass doors a	and back panels;	50.71	2.52
10-person feature lifts with glass doors a complete: 2 nr @ £115,000	and back panels;	2.00	2.52
10-person feature lifts with glass doors a complete: 2 nr @ £115,000 21-person traction lift serving 4 floors: 4	and back panels; nr @ £120,000		
10-person feature lifts with glass doors a complete: 2 nr @ £115,000 21-person traction lift serving 4 floors: 4 Protective installations	and back panels; nr @ £120,000		
10-person feature lifts with glass doors a complete: 2 nr @ £115,000 21-person traction lift serving 4 floors: 4 <b>Protective installations</b> Lightning protection: 14,000m <sup>2</sup> @ £1	and back panels; nr @ £120,000		

disabled refuge comms system; induction loop alarm interface: 14,000m<sup>2</sup> @ £20 Security system, intuder alarm, CCTV, public address: 14,000m2 @ £25 Induction loop: Item @ £28,000 Disabled WC alarm system: Item @ £8,000 Data network, including containment: 14,000m<sup>2</sup> @ £10 350,000 25.00 1.24 Specialist installations BMS controls: 14,000m<sup>2</sup> @ £25 Builder's work in connection 489,000 34.93 1.74

Framing and access platforms in risers: Item @ £160,000 Forming holes and chases etc - allowance @ 5%: Item @ £329,000

	Total cost £	£/m² gifa	%
Preliminaries	4,810,200	343.59	17.11
Management costs, site establishme Contractor's preliminaries, overhead Item @ £3,961,200	1		
Testing and commissioning of buildir O&M manuals: Item @ £30,000	ng services installati	ons;	
Allowance for design reserve @ 3%:	ltem @ £819,000		
Construction cost: building only	28,120,000	2008.56	100.00

(square metre rate based on GIFA)

#### c | Location factors

#### Use these factors to adjust the costs for alternative regions

Inner London	1.08
Outer London	1.02
South West	0.94
East Midlands	0.93
West Midlands	0.95
East Anglia	0.95
Yorkshire and Humber	0.98
North West of England	0.95
North of England	1.00
Scotland	0.99
Wales	0.93

### Acknowledgments

We would like to thank Chris Tremellen and Carl Dainter of Davis Langdon's specialist Further Education Group for their assistance in the preparation of this article.

# Previously ...

13 July	Specialist
	cost update
20 July	The tracker;
	Building
	intelligence
27 July	Market forecast
-	

### Coming up ...

**10 August** Mini cost model**24 August** The tracker**31 August** Procurement

## Data **toolkit**

Building's database of cost data is an essential resource for anyone in the business of procuring buildings. There is an extensive archive of cost models, market forecasts, whole-life costings, specialist costs, procurement and sustainability articles and many more besides.To gain access to all this information, see www.building.co.uk/datatoolkit