08 / ABOUT THE COST MODEL

This cost model range is based on a refurbished teaching and learning building, in a London city centre location. Building types are considered to be standalone structures as part of a campus location, four storeys in height, containing teaching, office space and associated welfare/ancillary facilities.

The cost model is based on a refurbishment of a small facility, approximately 1,500m², undertaken in a single phase, unoccupied. The building is priced at Q3 19 pricing levels and with an inner London location. The procurement route is a single-stage design and build approach. The cost model also assumes a SKA for Higher Education Rating Gold (Ska HE).

We have demonstrated a range of costs to cover the variances you would expect between a "light, medium and heavy refurbishment" option, when considering budgets. Such is the variable nature of building refurbishments, it is expected that any one refurbishment will vary considerably from the next.

■ Full refurbishment

Strip the building back to its primary frame, retain structural floors, provide a new envelope, resurface roof and fully fit out internally including mechanical and electrical (M&E), IT and communication installations.

■ Medium refurbishment

Retain the existing structural fabric and envelope of the building and introduce extensive new internal

finishes and furniture, fixtures and equipment (FF&E) with part renewal of M&E, IT and communication installations.

■ Minimal refurbishment

Retain the building in its present form, with limited elements only of new finishes internally including part FF&E.As a basis for calculating refurbishment allowances we have allowed for a medium type refurbishment, for purposes of the cost model.

Our guidance would be to allow a factor of +30% for a full refurbishment and -45% for minimal refurbishment, to be read also in conjunction with other assumptions and exclusions.



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09 / COST MODEL

	Cost/m² GIFA	% total cost		Cost/m² GIFA	% total cost
FACILITATING WORKS		4.40	External walls Making good/light alteration to external envelope only	12	0.59
Internal demolitions of the existing building only (50% strip out of services, demolition of non-structural internal walls)	23	1.10	Windows and external doors Double glazed window replacement to 20% of elevational area	39	1.87
SUBSTRUCTURE No works to substructure	0	0.00	Internal walls and partitions Combination of glazed screens to teaching areas, blockwork and acoustic partitions,	110	5.22
SUPERSTRUCTURE			acoustic wall construction and fire-rated areas Internal doors	42	2.02
Frame Work to existing frame only – adaption/fire rating	76	3.64	Solid-core fire-rated doors in hardwood frames; doors in hardwood frames; stainless steel ironmongery; lock suiting and DDA fire compliant		
Upper floors Work to existing floors only, where partitions, finishes removed – making good, forming	16	0.77	Superstructure total	387	18.43
and trimming openings			INTERNAL FINISHES		
Roof Replacement of roof coverings and insulation only (no structural work)	63	2.98	Wall finishes Includes for acoustic panelling to internal finishes to seminar rooms and two lecture theatres and some fire-rated rated enclosures. Plasterwork to blockwork	42	2.01
Stairs Works to existing stairs only	28	1.33	walls, paint on plastered walls, wall tiling to toilets, splashbacks to sinks, full height to wet areas		*

» 	Cost/m ² GIFA	% total cost		Cost/m² GIFA	% total
Floor finishes	94	4.47	Protective installations	35	1.66
Combination of full screed/raised access floor replacement, carpet tiles, sheet vinyl and coved skirtings, feature tiling, epoxy paint to concrete floor, painted	0.	1.17	Lightning protection retained and made good where required	55	1.00
MDF skirtings, barrier matting to entrance area			Communication installations Upgrade of fire alarm and smoke	120	5.72
Ceiling finishes	80	3.82	1.5		
Includes for general acoustic panelling to internal finishes to seminar rooms, two lecture theatres and some fire-rated rated enclosures			system; induction loop alarm interface; security system; intruder alarm; CCTV; public address; induction loop; disabled WC alarm system and data		
Internal finishes total	216	10.3	network provisionally mainly through wireless, including containment;		
FITTINGS FURNITURE AND EQUIPMENT	165	7.87	40% services retained		
Excludes loose FF&E and bespoke joinery; includes lecture theatre seating, joinery, lockers, perch benching etc			Specialist installations BMS and security systems installed - 60% replacement, new set points and reprogramming existing main controller unit	28	1.34
SERVICES			Lift and conveyor installations	30	1.43
Sanitary installations WCs and fittings; extra for disabled fittings; urinals and fittings; wash hand basins and fittings;	10	0.47	Refurbishment of lifts and making good Builders' work in connection	14	0.65
shower in cubicle; tray fittings; classroom sinks; cleaners' sinks; drinking fountains; reusable			Services subtotal	636	30.3
fittings where possible			EXTERNAL WORKS		
Disposal installations Adaptions to waste, soil and vent pipework;	7	0.32	Prefabricated buildings and building units excluded	0	0.00
rainwater installations, syphonic drainage; 20% retained (rainwater installations)			Works to existing buildings excluded External works excluded	0	0.00
Mechanical installations Services had to comply with landlord's and client's	179	8.55	External works total	0	0.00
requirements (eg flushing requirements)			SUBTOTAL	1,500	71.43
Services equipment excluded	0	0.00	Preliminaries	225	10.73
Hot and cold water installations Mains water services treatment, hot water storage			Overhead and profit Contingencies Design reserve	86 181	4.07 8.62
and distribution, cold water storage and			(included within preliminaries)	91	0.00
distribution, 40% services retained	2	0.08	Equipment (client direct costs) excluded Professional fees (client held costs) excluded	0 0	0.00 0.00
Space heating, air treatment and ventilation Space heating via LTHW radiators with all supporting plant and distribution; part natural, part mechanical	61	2.92	SUBTOTAL	2,100	100
ventilation; cooling; extract to toilet and kitchen areas; air-handling units and limited local cooling; localised			VAT excluded	0	0.00
extract to plant rooms; 40% services retained			Total construction costs Q3 pricing level	2,100	100
Gas installations excluded	0	0.00			
Electrical installations Extension of mains and sub-mains distribution, small power generally, electrical supplies to mechanical plant/equipment; lighting, emergency lighting, and external lighting; assumes all lighting replaced	150	7.16	Acknowledgments The authors would like to acknowledge the contribution of Aec development of this article and cost model, including Steven Ja	~	