

The cost model is based on a six-level, flat slab car park constructed in post-tensioned concrete. The scheme, with a gross floor area of 17,370 m² has spaces for 580 cars. It features external D ramps, providing efficient by-pass entry and exit circulation to all levels.

The car park, associated with a retail development, is constructed on piled

foundations. Shear walls have an aluminium cladding and other elevations have a protective barrier with mesh infill.

Costs are based on prices current in fourth quarter 2007 based on a location in outer London. Rates are appropriate for a project let on the basis of a competitively tendered lump sum design and build contract.

Costs exclude the following: demolition and

site clearance, external services, public realm works, link buildings and highway works beyond the perimeter of the building.

Professional fees and VAT are also excluded. Costs can be adjusted using the location factors provided. Consideration should also be given to factors including, site conditions and constraints, project size, programme and procurement route.

Cost breakdown

	Total £	Cost £/m	%
● Substructure	823,600	47.42	10.4%

Excavation to reduced levels, 500 deep, including disposal 1,260m³ @ 35

Piled foundations comprising pile caps on 600 and 900mm CFA piles

2,520m² @ 160

Reinforced concrete ground beams

80 m³ @ 300

225mm thick reinforced concrete ground floor slab including expansion joints 2,970m² @100

General allowance for sundry waterproofing, kickers and so on, item @ 7,500

Below ground drainage, ducts and petrol interceptors 2,520m² @ 15

Allowance for excavation of lift pit item @ 10,000

● Frame and Upper Floors	3,494,000	201.15	44.1%
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Insitu reinforced concrete frame; to 15.5 x 7.5 grid with beams on long dimensions

15,120m² @ 75

225mm thick post tensioned insitu reinforced concrete flat slab flooring

15,120m² @ 125

Allowance for upstands and movement joints item @ 10,000

300 thick reinforced concrete ramps including beams 2,250m² @ 170

Concrete kerbing to ramps 2,160m @ 25

Steel barriers as column protection 410m @ 50

Sundries such as work to lift-room floor item @ 3,000

● Roof	110,800	6.38	1.4%
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Polymer modified asphalt waterproofing to upper layer of parking 2,520 m² @ 40

Allowance for roof drainage gullies to downstairs item @ 10,000

● Stairs	55,000	3.17	0.7%
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Precast concrete reinforced

staircase (ground to 5th floor)

including steel balustrading and handrails

10 nr @ 5,500

● External walls	464,200	26.72	5.9%
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Concrete shear wall to external wall

1,080m² @ 140

Aluminium rainscreen fixed to concrete shear wall

1,080m² @ 200

Facing brickwork with block liner wall to stairs

650m² @ 140

Sundries e.g. work to lift room walls

item @ 6,000

● External doors and windows	27,500	1.58	0.3%
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Glazed single leaf entrance doors including electrically operated door opening for disabled access 2nr @ 1,500

Glazed double leaf entrance doors, including electrically operated door opening for disabled access 5nr @ 2,500

Double glazed polyester powder coated aluminium windows to stairwells and offices

40m² @ 300

● Internal walls	16,900	0.97	0.2%
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100mm thick blockwork walls to offices

80m² @ 30

200 thick blockwork lift shaft walls 250m² @ 50

Allowanced for glazed screens to kiosk and management suite item @ 2,000

● Internal doors	52,600	3.03	0.7%
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Single fire doors to offices including frame and ironmongery, 30 minutes fire resistance

6nr @ 750

Single fire doors to offices including frame and ironmongery, vision panel, 30 minutes fire resistance 4nr @ 900

Single fire doors to lobbies including frame and ironmongery, vision panel, 30 minutes fire resistance 20nr @ 950

Double fire doors to lobbies including frame and ironmongery, vision panels, 30 minutes fire resistance 6nr @ 1,600

Single fire doors to risers including frame and ironmongery, 30 minutes fire resistance 12nr @ 550

Double fire doors to risers including frame and ironmongery, 30 minutes fire resistance 6nr @ 1,400

Single metal doorset to management suite

1nr @ 900

● Wall finishes	12,200	0.70	0.2%
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Paint finish to stairwells 550m² @ 4

Plaster and paint finish to offices and lobby walls

150m² @ 20

Allowance for sundry decoration item @ 5,000

Finishes to exposed columns and beams in car park 500m² @ 4

● Floor finishes	110,900	6.38	1.4%
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Vinyl sheet flooring to offices

100m² @ 40

Floor hardener and sealer to concrete decks

17,370m² @ 5

Parking lines to bays 5,700m @ 2

Painting to pedestrian walkways 1,800m @ 2

Allowance for sundry markings item @ 5,000

● Ceiling finishes	55,100	3.17	0.7%
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Mineral fibre suspended ceiling to management suite 100m² @ 20

Paint to soffits of car parks 12,600m² @ 4

Paint to soffits of stairs, lobbies and landings

540m² @ 5

● Fittings and fixings	447,500	25.76	5.7%
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Perimeter barriers consisting of 200 x 100 RHS with galvanised steel balustrade & mesh infill

1,300m @ 180

610 high steel sprung vehicular barrier to car ramp 2,150m @ 90

Allowance for sundry metal work item @ 5,000

Allowance for statutory signage item @ 15,000

● Sanitary appliance	1,900	0.11	0.0%
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Cleaners Sink, 510 x 380 1nr @ 700

Unisex Disabled toilet suite, including WC, wash hand basin, grab rails and other fittings for the management suite 1nr @ 1,200

● Disposal installation	86,900	5.00	1.1%
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Rainwater installation 17,370m² @ 5

Water Installations	1,000	0.06	0.0%
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Hot and cold water services to offices and WC item @ 1,000

● Space heating and ventilation installations	14,000	0.81	0.2%
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Trace heating item @ 2,000
Staircase ventilation for firefighting purposes
item @ 9,000
Ventilation to plant room
item @ 3,000

● **Electrical installations**

626,500 36.07 7.9%

LV and sub mains distribution
17,370m² @ 10
Lighting and emergency lighting
17,370m² @ 25
Electrical installations to management suite
100m² @ 10
Small power installation
item @ 5,000
Power supply to mechanical plant and lifts
item @ 5,000
Earthing and bonding
item @ 2,500
Lighting protection
item @ 5,000

● **Lift installation 135,000 7.77 1.7%**

13 person 1000kg passenger Lift
1nr @ 60,000
13 person 1000kg passenger / firefighters lift
1nr @75,000

● **Protective installations 12,000 0.69 0.2%**

Dry riser installations 2nr @ 6,000

● **Communication installations**

125,000 7.20 1.6%

Fire alarm installation item @5,000
Emergency communication systems; fire telephones
and disabled refuge alarm item @ 30,000
CCTV system consisting of cameras and control
room installation, to provide vehicle registration
identification and mounted in vandal resistant
mountings item @ 90,000

● **Special installations 110,000 6.33 1.4%**

Pay on foot system designed by specialist
sub-contractor including entrance / exit machines,
pay stations, parking barriers, intercom
item @ 110,000

● **Builders work in connection**

10,000 0.58 0.1%

Allowance for forming holes, chases
item @ 10,000

● **Preliminaries and contingency**

1,127,400 64.91 14.2%

Overheads and profit, site establishment and
supervision @ 13.5% item @ 919,200
Testing and commissioning item @ 15,000
Contingency @ 2.5% item @ 193,200

Total construction cost

£7,920,000 £455.96 100.0%