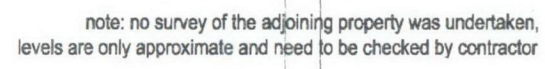


159,161,163 & 165 CAMDEN HIGH STREET, Ref. 2006/0776/P

Attachment for Condition 9




Possible  
Locations of  
Boxes

**REVISIONS**

Rev: A (19.12.07) - Windows, panels, roof and handrails have been amended

Rev: B (12.06.08) - Roof profile amended.  
Drawing for LUL submission

Rev: C (15.07.08) - Co-ordination with GA drawings  
hatching key added, window numbers added

19-23 WHITE LION STREET LONDON N1 9PD		
TEL: 020 7843 1500	FAX: 020 7843 1501	
		
L I M I T E D		
job 159-165 CAMDEN HIGH STREET		
client S PATEL		
title REAR ELEVATION		
date	scale	drawn
11/07	1:100 @A3	SS
job no	drawing no	revision
048604	L 21	C



Triple Sparrow House

**Features:**

- 19 and 25mm thickness Canadian cedar for excellent insulation and strength.
- Aluminium fixing nail will not damage tree and is safe when eventually felled.
- Hinged inspection door with rust-proof catch

*Dimensions: 310H x 370W x 185D mm.*



Dorothee Raichle-Ekong, Dipl. Ing. RIBA  
Project Architect  
for and on behalf of Neale and Norden Ltd.

Neale and Norden Ltd.  
Architects  
19-23 White Lion Street  
London N1 9PD  
Tel. 020 7843 1500  
Fax. 020 7843 1501  
Email [dorothee@nealeandnorden.co.uk](mailto:dorothee@nealeandnorden.co.uk)

22 September 2008

**Project: Camden High Street.**  
**Ref. 2243**

Dear Dorothee

As discussed with Alun Tarr this morning, please find enclosed a list of Sedum species suitable for inclusion into the Sarnavert NBS specification that I supplied last week. I have also provided a list of wildflower species that could be installed as seed; however, I must emphasise that germination and development of the wildflower species is likely to be variable on the standard Sarnavert substrate depth of 70mm. Increasing the substrate depth will increase the diversity of species developing. In the event that the overall substrate depth cannot be increased uniformly due to structural limitations, it would be worth considering increasing the depth locally by mounding in areas where the underlying structure is stronger and can support the additional weight. Introducing variability in substrate depth can increase the diversity of species establishing quite considerably.

Please contact me again should you require any more information.

Yours sincerely

Karen Tarr  
Estimating and technical  
**[Karen.tarr@greenroof.co.uk](mailto:Karen.tarr@greenroof.co.uk)**

**Blackdown Horticultural Consultants Limited**  
Street Ash Nursery, Combe St. Nicholas, Chard, Somerset TA20 3HZ, UK  
**Tel. 01460 234582 Fax. 0845 0760267 Email: [enquiries@greenroof.co.uk](mailto:enquiries@greenroof.co.uk)**  
Company Registration No. 3808516 VAT Registration No. 737237522

**[www.greenroof.co.uk](http://www.greenroof.co.uk)**

**Sedum album** (White stonecrop)

Native species.

Appearance changes with the seasons: wet periods-green and lush, dry periods-can be red, bronze or brown. Leaf size can also change depending on season and location.

Blunt, scattered leaves. Small pink-white flowers.

**Sedum reflexum** or **Sedum rupestre** (Crooked stone crop).

Probably introduced to Britain in middle ages.

Sturdy, upright plant with tall, bright yellow flowers. When in bud the tips are reflexed or turned over. The species is variable but the form/shape is distinct.

**Sedum hispanicum glaucum** or **var. minus** (glaucous stone crop).

Compact tufts of leaves can be pale blue-green, grey or pink-purple.

Short, flat-topped flowers, pink and white.

**Sedum lydium**

Small, carpet-forming tufted species with narrow, bright green leaves that turn copper red in full sun. Pink-white flowers.

**Sedum sexangulare**

Easily recognised by its six spirals of parallel-sided, oblong leaves, which are clearly visible when looking down on it. Leaves green turning copper coloured and more compact in full sun.

**Sedum acre** 'Aureum' larger, variegated form of **Sedum acre** (Biting stone crop). Leaves have a silvery tint through winter but look golden/buttery yellow during spring and summer. Bright yellow flowers.

**Sedum album F. murale**

A brown bronze or purple form of **Sedum album** with pink flowers.

**Sedum album** 'Coral Carpet'

A red, low growing cultivar with white flowers.

**Sedum album minima**

A small leaved form of **Sedum album** which grows at our Somerset production base.

**Sedum album** 'Athoum'.

A form of album with particularly globose (plump) leaves which are flat on the upper surface and turn orange then rich deep red in summer. Flowers are small and pink.

**Sedum acre** (Biting stone crop or wall pepper because of its acrid taste).

Native. Leaves wide at the base. Short, bright yellow flowers. Not to be confused with **Sedum sexangulare** which has thinner parallel-sided leaves arranged in spirals.

**Sedum spurium**

Comes in many forms. Large flat, broad leaves, creeping and evergreen.

'Green Mantle' has large constantly green leaves. Flowers white fading to pale pink.

Cocchinium has leaves that tinge red and redder flowers.

'Fulda Glut' is redder with darker pink flowers.

'Tricolor' has green leaves edges with white and flushing wine red in sun, gives a three-coloured effect.

**Sedum spathulifolium var purpureum**

Ground hugging rosettes of spirally arranged leaves forming a dense carpet. Deep purple leaves under powdery coating. Bright golden yellow flowers.

**Sedum spathulifolium** 'Capa Blanca'

Forms dense white carpets of ground hugging rosettes. Bright golden yellow flowers.

**Sedum ellacombianum**

Wide, fresh-looking, vibrant green leaves, dense carpet forming plant. The leaves never blush red in full sun or drought conditions.

Yellow flowers.

**Sedum kamtschaticum var. floriferum**

Medium to dark green broad leaves, very branched. Flowers yellow.

**Sedum kamtschaticum var. floriferum** 'Weihenstephaner Gold'

Leaves dark green which may turn bronze at the edges. Flowers dark yellow.

**Sedum sarmentosum**

An oriental species escaped to many other parts of the world. Bright pale green to bronze green, lance-shaped cascading leaves. Yellow flowers.

**Sedum oreganum**

Carpet forming species with shiny, glassy-green spoon-shaped leaves tingeing cherry red in full sun. Bright yellow flowers.

**Additional wild flower species** (42 species of which 30 are native) applied at a rate of 1-2g per sqm

Achillea millefolium  
Acinos arvensis  
Adonis aestivalis  
Aster amellus  
Buphthalmum salicifolium  
Campanula rotundifolia  
Chrysanthemum leucant  
Delphinium consolida  
Dianthus carthusianorum  
Dianthus deltoides  
Echium vulgare  
Fragaria vesca  
Galium verum  
Geranium sanguineum  
Helianthemum nummular  
Hieracium pilosella  
Hypericum perforatum  
Linaria vulgaris  
Melica ciliata  
Muscari comosum  
Nigella arvensis  
Origanum vulgare  
Papaver rhoeas  
Plantago lanceolata  
Plantago media  
Potentilla argentea  
Prunella vulgaris  
Ranunculus bulbosus  
Rhinanthus glacialis  
Salvia pratensis  
Sanguisorba minor  
Sedum acre  
Sedum album  
Sedum hispanicum  
Sedum montanum  
Silene nutans  
Silene vulgaris  
Teucrium chamaedrys  
Thymus serpyllum  
Tragopogon orientalis  
Veronica spicata  
Vulpia myuros

## Q37 Green Roofs

### 130 EXTENSIVE (SEDUM) GREEN ROOF

- **Roof type:**
  - substrate:
  - slope: <20 degrees
- **Thermal insulation:** as section J42
- **Waterproofing:** Sarnafil as section J42
- **Protection layer:** BHC 350UPF Upstand protection fleece, 350g/m<sup>2</sup> (supplied and installed by Sarnafil horticultural partner Blackdown Horticultural Consultants Ltd).
- **Drainage layer:** 20mm Sarnafil AquaDrain layer recycled polypropylene drainage and protection layer with an integral geotextile filter layer top surface and U shaped drainage cut-outs to bottom surface (supplied and installed by Sarnafil horticultural partner Blackdown Horticultural Consultants Ltd).
- **Moisture layer:** 500g per sqm natural and synthetic fibre moisture retention fleece. Loose laid. Direction of lay at 90° to Aqua Drain layer with 100mm overlaps (BHC 5850MM) (supplied and installed by Sarnafil horticultural partner Blackdown Horticultural Consultants Ltd).
- **Filter layer:** BHC150FF, 150g/m<sup>2</sup> (Blackdown Horticultural Consultants Ltd).
- **Growing medium:** BHC SUB.EXT. Site-formulated, lightweight growing substrate. 70mm settled depth (supplied and installed by Sarnafil horticultural partner Blackdown Horticultural Consultants Ltd).
- **Vegetation layer:** Option 2 Sedum plug and hydroplant plant layer installed manually as young plants (plugs) at a density of 16-20 per sqm with prepared and primed cuttings distributed onto growing medium surface at a density of 50-100g per sqm (supplied and installed by Sarnafil horticultural partner Blackdown Horticultural Consultants Ltd).
- **Mulch layer:** A liquid suspension of organic matter, paper, nutrients and stabiliser supplied and installed by Sarnafil horticultural partner Blackdown Horticultural Consultants Ltd).
- **Vegetation break:** 300mm wide, 20-40mm rounded pebble margin.

## INSTALLATION

### PROTECTION LAYER

- Extent: At waterproofed upstands .  
Fitting: Loose laid with minimum 150mm overlaps.  
Upstands: Dressed up any waterproofed upstands to the finished level of the growing substrate.

### DRAINAGE LAYER

- Extent: Continuous over entire roof.
- Fitting: Loose laid, close-buttet. Installed in the direction of the fall.
- Upstands: Cut to fit closely against abutments, roof penetrations and where butt joints are required. Rainwater outlets must not be covered.

### FILTER LAYER

- Extent: Continuous over entire roof area.
- Fitting: Loose laid with minimum 150mm overlaps.
- Upstands: Where slope exceeds 0 degrees, filter layer dressed up any pebble vegetation break at the bottom of the slope to the finished level of the growing substrate.

### MOISTURE LAYER

- Extent: Continuous over area to be planted.  
Fitting: Loose laid with minimum 150mm overlaps.

### GROWING MEDIUM

- Extent: Continuous over area to be planted.
- Layers:
  - depth 50mm settled depth. Applied at 60 litres/m<sup>2</sup> (Nature Mat® option).
  - depth 70mm settled depth. Applied at 80 litres/m<sup>2</sup> (Plug and hydroplant, and hydroplant and seed options).

### VEGETATION LAYER

- Extent: Continuous over area to be planted.  
Layers:
  - Nature Mat® option. To be installed within 36 hours of delivery. Loose laid, close buttet. Irrigated to saturation.
  - Plug and hydroplant. To be installed within 48 hours of delivery. Plug plants hand planted into the growing medium, and cuttings spread by hand on to the surface of the substrate. Irrigated to saturation.
  - Hydroplant and seed. To be installed within 48 hours of delivery. Cuttings and seeds spread by hand on to the surface of the substrate. Irrigated to saturation.

### MULCH LAYER

- Extent: continuous over planted area.
- Layers:
  - depth 10-20mm. Pumped and applied as a slurry in a uniform layer.

### VEGETATION BREAK

- Extent: At roof perimeter and any waterproofed upstands.
- Layers:
  - depth 80mm
  - width minimum 300mm (actual extent to be determined by reference to site requirements).



# FOR TENDER

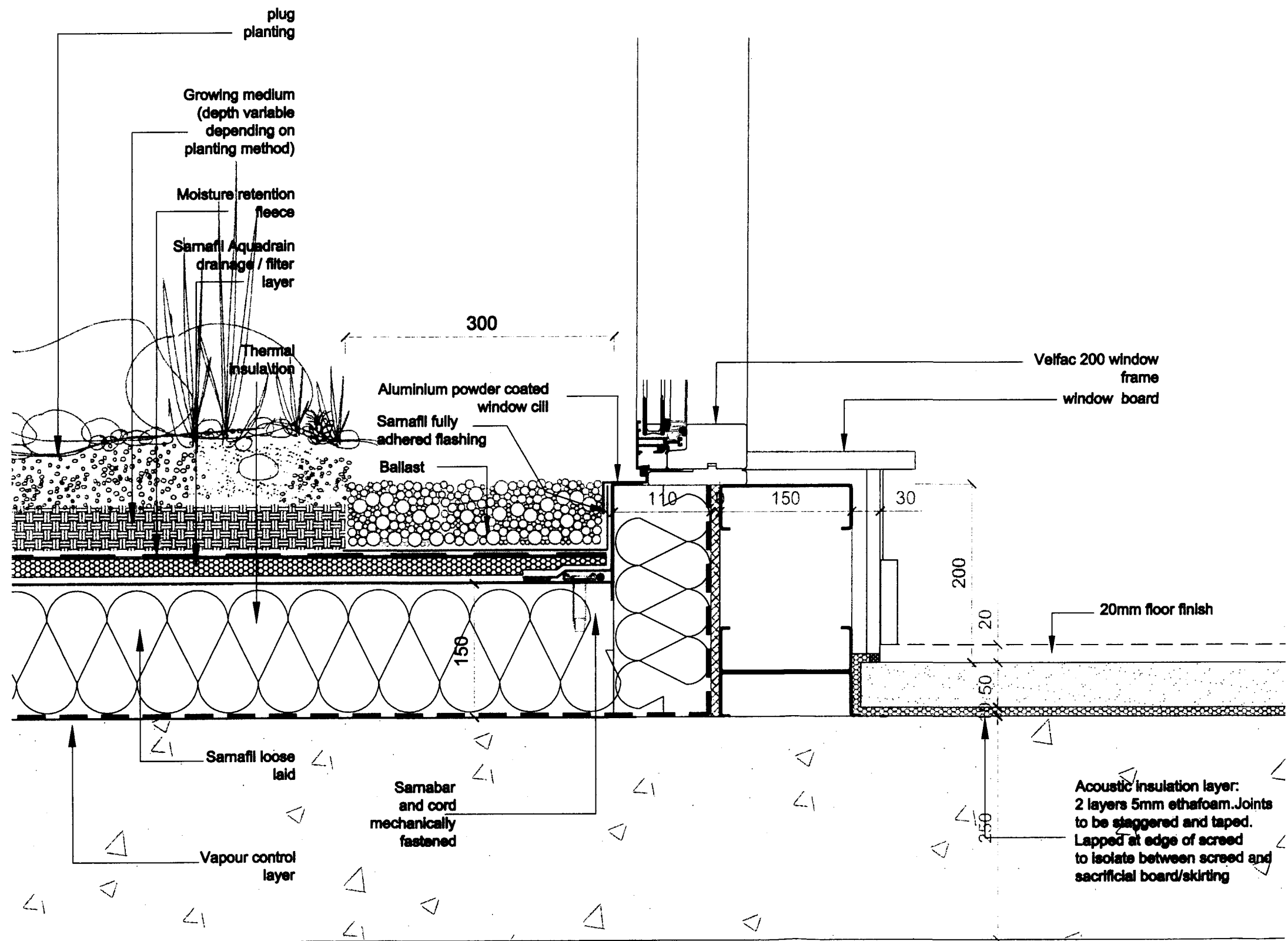
GENERAL NOTE:  
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PLANS & STRUCTURAL, MECHANICAL & ELECTRICAL  
ENGINEERS' DETAILS

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Rev A	10-7-08	Drawing updated
19-23 WHITE LION STREET LONDON N1 9PD TEL: 020 7843 1300 FAX: 020 7843 1501		
[REDACTED]		
LIMITED		
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client	S PATEL	
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job no	drawing no	revision
048604	A184	A

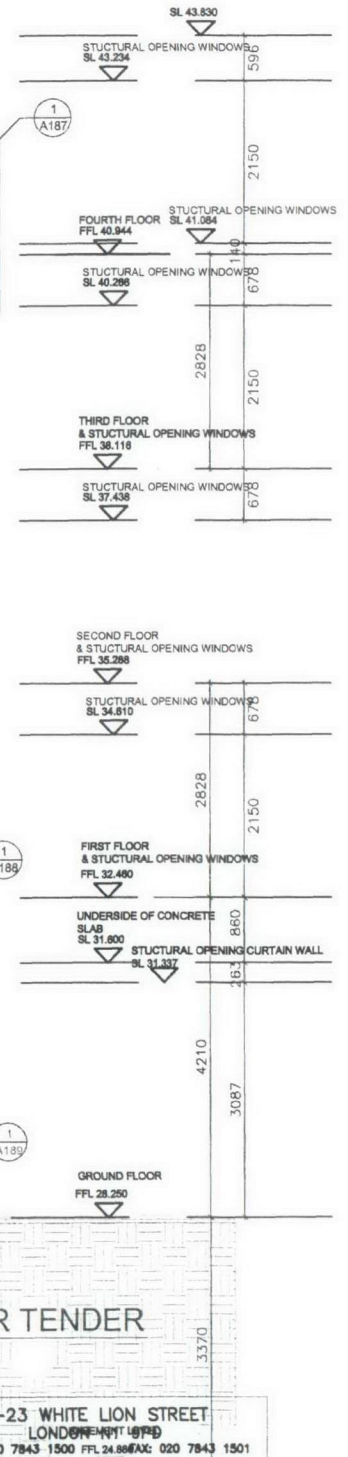
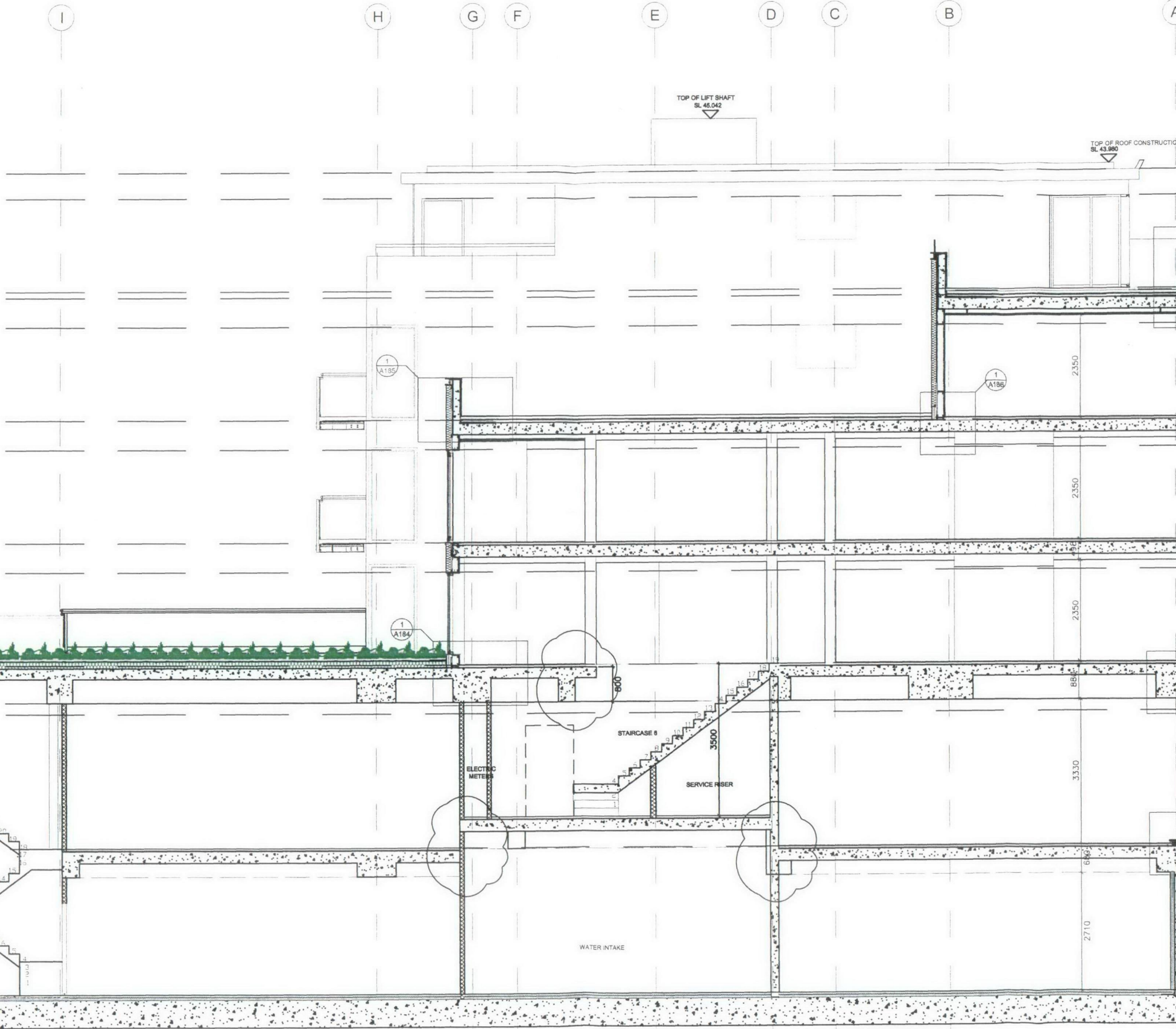
GENERALLY:  
DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT  
FLOOR PLANS & STRUCTURAL, MECHANICAL & ELECTRICAL  
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FOR TENDER

19-23 WHITE LION STREET  
LONDON E9 6HT  
TEL: 020 7843 1500 FFL 24.866 FAX: 020 7843 1501

LIMITED		
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client	S PATEL	
title	SECTION C-C	
date	scale	drawn
11/2007	1:100 @ A3	DT
job no	drawing no	revision
048604	L 32	D

REVISIONS

Rev A - Downstand beam added to underside of first floor slab on grid lines A and H. Ground floor slab Downstand beam height amended as per S.E. preliminary drawing 03B. Ground floor slab thickness changed to 200 as per S.E. drawing 03B. Positioning of staircase 4 has changed.

Rev B (12.05.08) - Roof profile amended. Drawing for LUL submission.

Rev C (14.07.08) - Downstand beams amended to match those on S.E. drawings. External wall to staircase 1 amended. Scale amended to 1:50 @ A. Floor levels and roof profile amended. Section co-ordinated with RA plans.

Rev D (19.09.08) - Staircase amended.