strategy / design / evaluation

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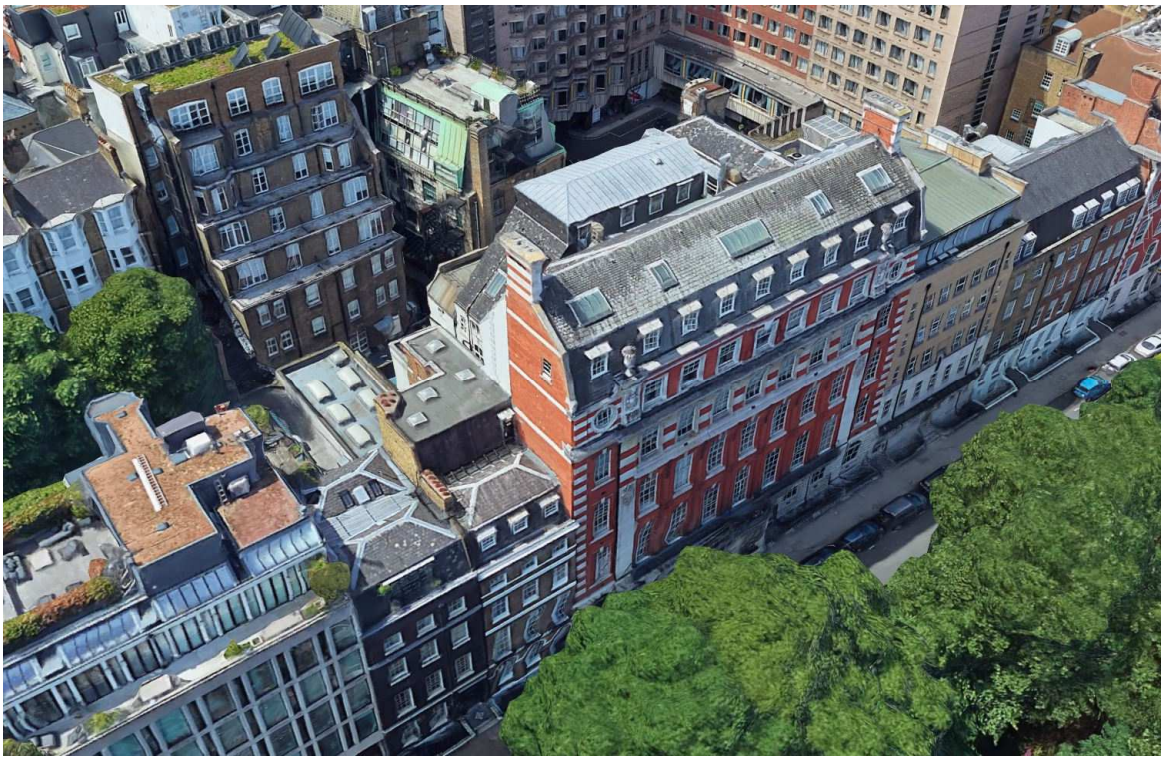
Medical Architecture

8-11 QUEEN SQUARE SUBSTATION (UKPN)

8-11, Queen Square, Holborn, WC1N 3AR

NHS
University College London Hospitals
NHS Foundation Trust



Design and Access Statement

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SECTION 0: PLANNING APPLICATION

This planning application seeks permission for construction of new a single storey substation to UKPN specification and cycle storage solution. The proposal is located to the rear of 8-11 Queen Square, London, WC1N 3AR within a courtyard.

SECTION 1: BACKGROUND

Client

The client is University College London Hospitals NHS Foundation Trust (UCLH).

Requirement for the Project

Due to a lack of available Low Voltage (LV) power in the area, and the need of UCLH for a high amount of LV which the current network cannot cope with, UKPN have agreed to install a new transformer in the rear yard of 8-11 Queen Square. The HV transformer shall serve the LV requirements of UCLH. The additional electrical capacity required is in support of medical diagnosis equipment.

As part of the electrical works for this site, a new UKPN substation is required. The substations is located at basement level, allowing UKPN 24/7 access to the site for maintenance of the plant room

Previous Planning Applications on this site
2009/4966/P - Installation of 3 condenser units and associated acoustic enclosure on existing roof at rear upper ground floor level (adjacent to existing plant room) of the University building

SECTION 2: DESCRIPTION OF SITE

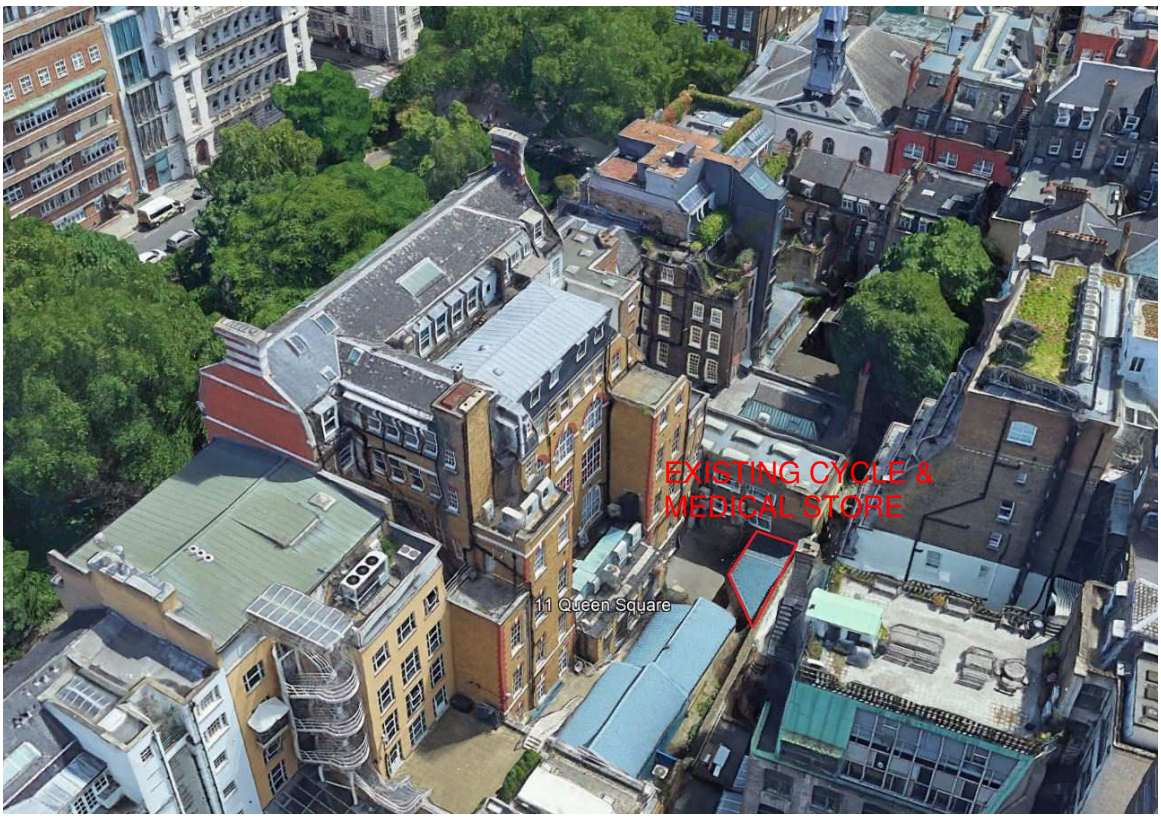

Figure 1. Aerial view of the main site with existing buildings outlined.

Existing Site
The site is a courtyard to the rear of 8-11 Queen Square, accessed externally via a sloped arched walkway from Queens Square, in the South corner of the courtyard, which is currently occupied by a single storey building used as a medical store, as well as a sheltered bicycle store.

Reference:
- *5846-MAA-81-RF-DR-A-300-S3-P01 – Location*

Figure 2. External view of the current medical storage and cycle store, chosen for the location of the substation.

SECTION 3: PROPOSED WORKS

Overview
It is proposed to demolish the currently existing single storey medical and bike store and construct a similarly sized Substation to UKPN specification, including a sheltered bicycle storage rack.

Amount
The Gross Internal Area (GIA) of the proposal totals 18.5m^2 and the Gross External Area equates to 24m^2. The overall size of the substation will be 6.5m wide, 4m deep and 2.85m high and consist of brickwork construction with a flat roof.

Use
The construction shall serve as UKPN substation, with access limited to train personnel and UKPN staff. The bicycle store is installed to host staff bicycles, and will be used by staff.

Landscaping
There is no landscape works proposed.

Layout
The layout of the substation is in line with standard UKPN specifications and requirements.

References:
- *Secondary Substation Civil Design – EDS 07-3103*

Access
UKPN requirements state that 24 hour access needs to be provided to the UKPN Substation. In this regard, it has been arranged that access would be provided to UKPN from street level in Queen Square. Access would be made via the existing archway opening and ramp leading into the courtyard to the rear of 8-11 Queen Square, through the existing security gate and removal floor bollard. Similarly UCLH staff will have access to the bicycle store.

All plant room areas would have restricted access protocols, only to be accessed by trained staff.

Existing fire escape routes through the courtyard are to be maintained at all times, inclusive of the construction duration.

Scale
The existing buildings surrounding the site are high density developments of four storeys or more. By comparison, the proposed scheme impacts the existing elevations mainly at basement level.

The interventions to the elevations are superficial. No extensions or volumetric alterations are proposed within the scheme. Therefore, the scale of the intervention is reduced to minimum.

References:
- *5846-MAA-81-SC-DR-A-311-S3-P01-Existing Section*
- *5846-MAA-81-SC-DR-A-309-S3-P01-Proposed Section*

Appearance
The appearance of the substation is determined by UKPN specification and construction standards. The wall will consist of a brickwork build-up using English bond. The roof build-up will consist of a concrete slab with membrane and asphalt roof covering.

References:

- *Secondary Substation Civil Design – EDS 07-3103*

SECTION 4: ANNEX LIST

Document	File Name / Document Number
Drawing package (see drawing list within for individual drawings)	5846-MAA-ZZ-ZZ-DR-A-299-S3-P01
Secondary Substation Civil Design	EDS 07-3102