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ACTON STREET

16 ACTON STREET, LONDON, N1 7RF

DESIGN & ACCESS STATEMENT

INSTALLATION OF ROOF PLANT

JULY 2015

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1.0 INTRODUCTION

This design and access statement is submitted in support of the application for full planning permission. This application has been submitted on behalf of the owners of the site, Mr Thomas Heatherwick.

The application site comprises a single commercial property, with its principal elevation onto Acton Street.

The proposals within this statement and accompanying drawings arise from the analysis of the relevant development plan policies, the site and its surrounding area, character and appearance of the Bloomsbury Conservation Area.

SITE ADDRESS

16 ACTON STREET,
LONDON,
WC1X 9NG

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2.0 EXISTING BUILDING AND CONTEXT



FIG 1: View from Acton Street

No 16 Acton Street is located within the Bloomsbury Conservation Area, Sub Area 14. Acton Street can be characterised by its historical brick built buildings that conform rigidly to the building line, albeit varying in height from 2 to 7 storeys as you travel from east to west. The properties are consistently brick faced with limited levels of articulation, narrow frontages and are residential in character. This principal is only broken in a couple of locations; firstly at the very western end of Acton Street where it meets Grey's Inn Road, here the 2/3 storey rhythm is broken by 2 post second world war commercial properties that extend to 7 storeys and secondly at No 16 Acton Street where the property retreats from the established building line by sitting behind a loading bay/yard.

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The property comprises of a 2 storey, flat roofed commercial building with limited frontage on to Acton Street. Set back from the main road by a small delivery yard the property abuts the metropolitan railway cutting to the west and a residential property to the east. The property in its current arrangement dates from the late 1980's, although parts of the structure show evidence of being of an earlier period.

Comprising of 423msq the accommodation is spread over 2 floors in an open plan arrangement with a central "atrium space" topped with a roof light. The building is in need of considerable remedial works including the complete replacement of all existing roof top mechanical plant.

3.0 PROPOSED DESIGN

The property currently relies on an ad hoc approach to ventilation and cooling, this comprises of a series of mechanical extract fans located around the perimeter of the existing roof light to induce airflow, with the required make up air simply leaking through the external envelope. Internal temperatures are maintained via a traditional wet radiator system powered by a gas boiler with a limited amount of cooling being provided by a stand alone external condenser unit. This is deemed to be a very poor solution both in terms of the internal air quality, noise infiltration, internal room temperatures control (the building suffers from over heating for a substantial period of the year) and energy efficiency.

The proposed alterations set out to address the very poor level of ventilation to the building along with providing heating and cooling to all of the office accommodation, along with specific cooling criteria to server rooms and the like. The solution comprise of a stand alone air handling unit located on the roof, this acoustically engineered solution will bring fresh air into the property via a series of insulated ducts positioned on the roof, the air handling unit will heat and cool the air as required via its integral condenser unit. Return air is extracted via vents located at the top of the atrium, this exhaust air is circulated back to the air-handling unit, where a thermal wheel is able to extract the energy from this exhaust air and use it to heat or cool incoming fresh air. Because of this approach we are looking at an incredibly efficient system with a coefficient of performance approaching 11 (for every 1kw of energy put in you potentially get 11kw of heating/cooling out). In addition to the main air-handling unit we are also proposing to install 2 stand alone small external condenser units that will provide dedicated cooling for the server rooms.

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The location of external plant in central London has to be carefully managed to ensure that the new plant is not adding to the back ground noise level and that it does not adversely impact on the surrounding conservation area, this is enshrined within Camden's planning policies.

In terms of minimising the visual impact of the proposed plant we have located it as far away from the Acton Street elevation as possible behind the existing roof light, this will ensure that there will only be very limited views of the plant from street level. In addition to its positioning and orientation (the air handling unit will be positioned so that its narrowest face is presented to the street) the external plant will have a dark grey finish to its external casing duly ensure that it draws as little attention to its existence as possible.

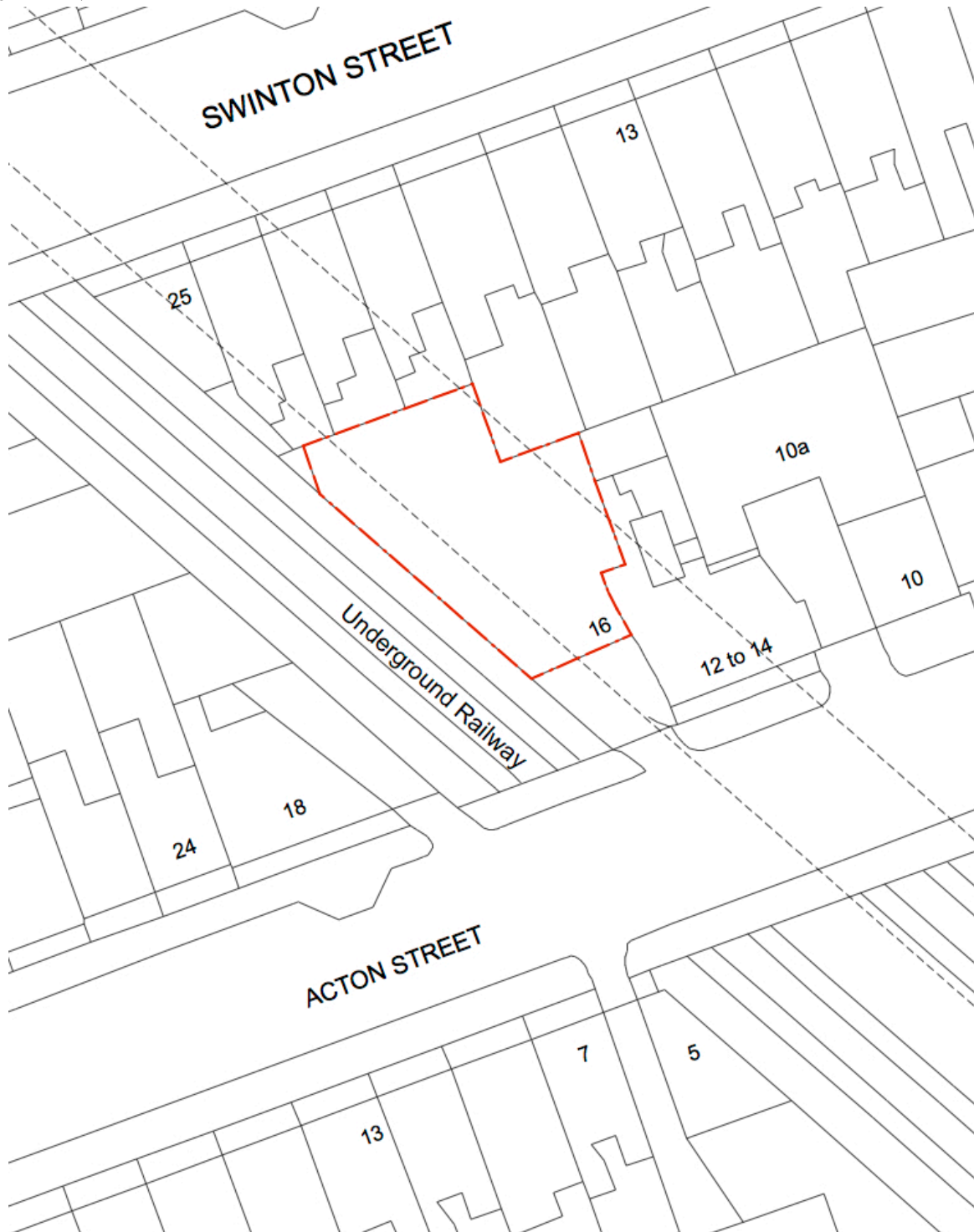
With regards to noise a full and detailed environmental noise assessment has been undertaken and can be found in appendix iii of this document. This indicates that the proposed plant installation is fully compliant with the planning authorities requirements.



Proposed location of plant area at roof level

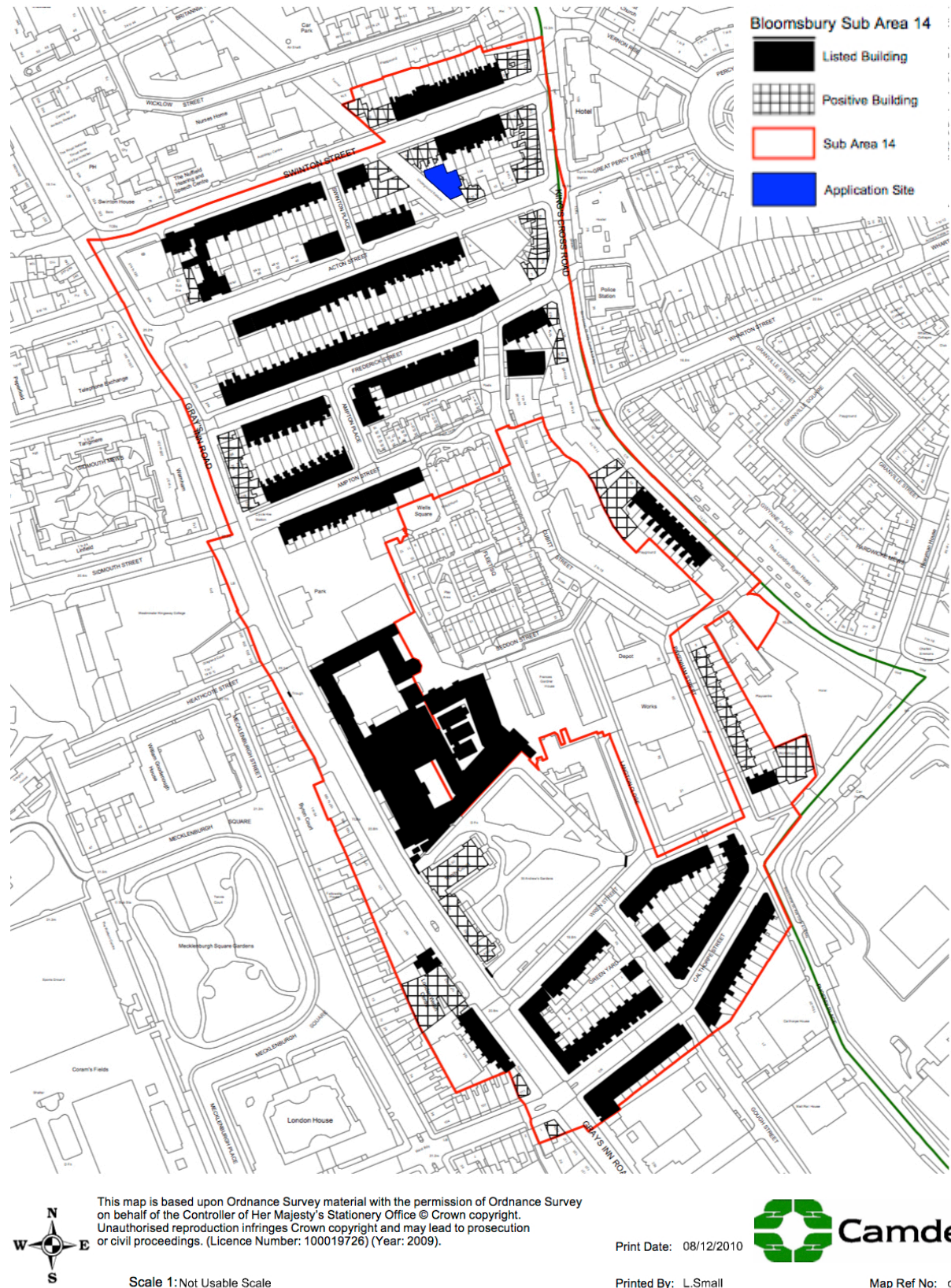
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4.0 APPENDIX



i. LOCATION PLAN

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ii. Conservation Area Plan Bloomsbury Conservation Area: Sub Area 14

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iii. Environmental Noise Assessment – Acoustic Plus