University College of London – Compliance Project

UPN237 - Great Ormond Street Institute of Child Health

Planning Details

Description of Works

The proposed works comprises of mechanical and electrical works that are required to meet Home Office compliance that is directly related to the control of the temperature and humidity and maintaining the required ventilation rates.

Mechanical & Electrical

There are 6 existing AHUs that are dedicated to the facility which require either refurbishment or replacement (detailed below) due to increased ventilation rates required to meet home office compliance and the condition of the equipment that is also nearing end of life.
The replacement AHU 03 and components within the remaining AHU's will be constructed in accordance with Ecodesign (ErP) directive.
Installation of 2 new split AC condensers to serve the Laboratory rooms.
All redundant plant emanating from these works will be removed.

- AHU 54 Extract - Refurbishment of component parts within existing casing
- AHU 55 Supply - Refurbishment of component parts within existing casing
- AHU 57 Extract - Refurbishment of component parts within existing casing
- AHU 58 Supply - Refurbishment of component parts within existing casing
- AHU 03 Supply - Complete replacement of unit
- Condenser unit 1 - Replacement unit to supply Laboratory room
- Condenser unit 2 - New unit to supply Laboratory room

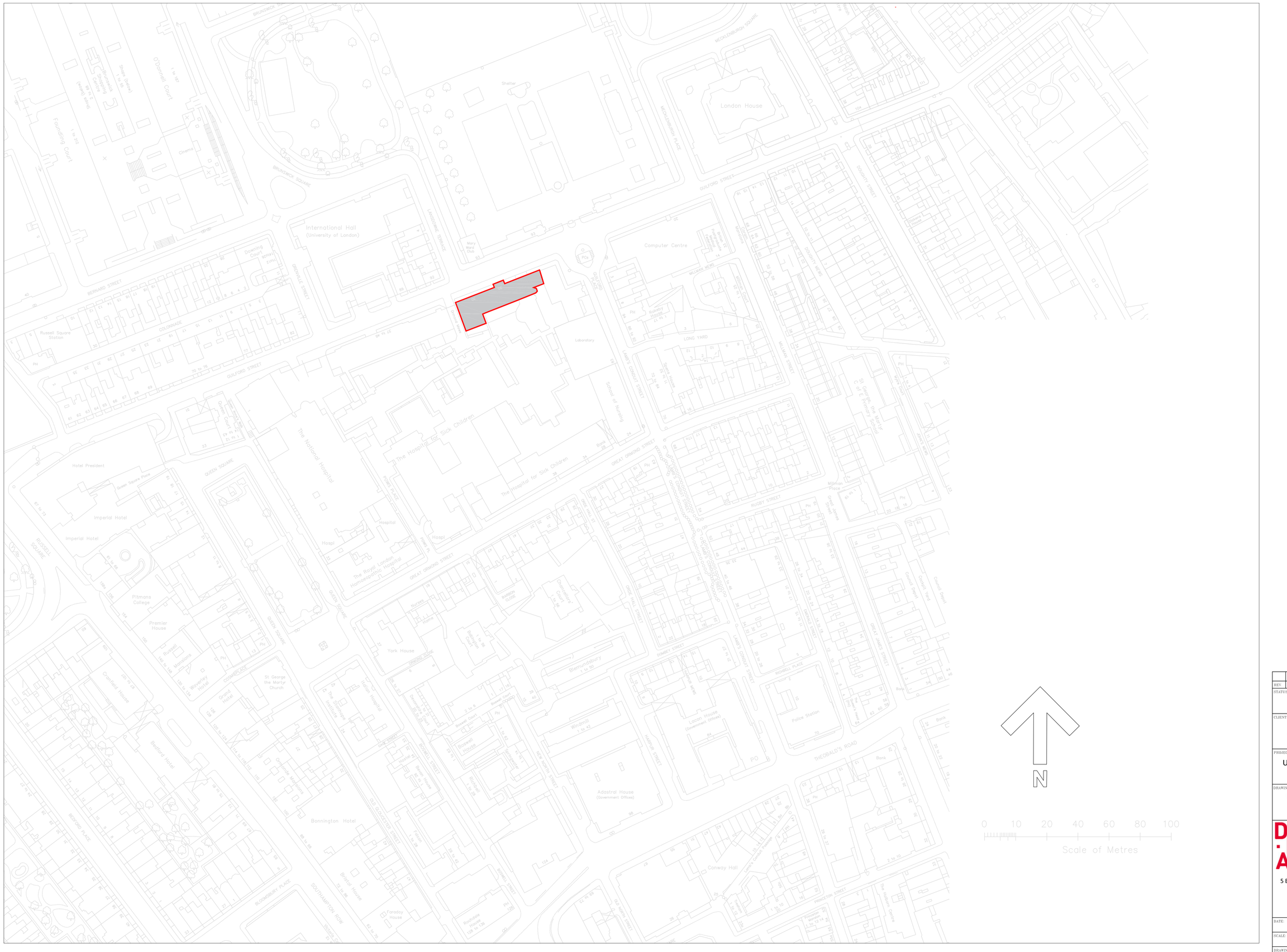
Due to the clean areas in the facilities the supply diffuser has HEPA filters that have 6nr CAVs, as these are life expired and difficult to re-commissioned to the new ventilation rates, these are being replaced.

Location of Equipment

The location of the existing equipment is located on the level 5 roof of the building and can be seen on the below layout drawing, with the new locations of the additional humidifiers shown in red.

The following key colours will be used to identify the plant on the drawings below:

- Green – Plant to be replaced
- Yellow – Plant to be refurbished
- Red – New plant to be installed



REV	DESCRIPTION	DATE

STATUS:
Planning Approval

CLIENT:
University College London

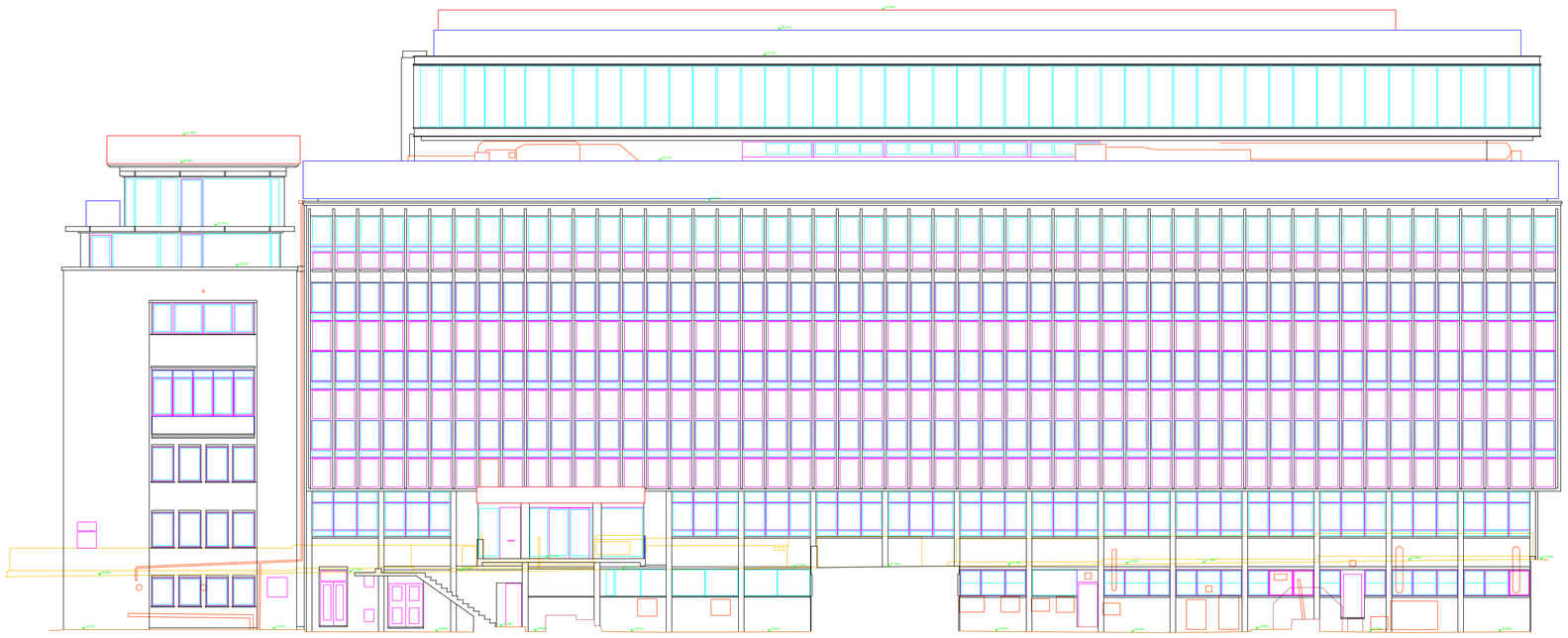
PROJECT:
UCL BSU Compliance Project

DRAWING TITLE:
UPN237 Site Location Plan

D·M·A
MAKING BUILDINGS
WORK BETTER.

5 BEAUFORT HOUSE, BEAUFORT COURT,
SIR THOMAS LONGLEY WAY,
MEDWAY CITY ESTATE,
ROCHESTER, KENT ME2 4FB

DATE: NOV 2024
DRAWN BY: CS
SCALE: 1:1250@A1
APP BY: IMcG
DRAWING No: DMA-237-PP-001
Rev: 00



15.000m AOD

Elevation 1

Project Datum

All levels are related to the Ordnance Survey national grid by means of GPS.

Measured Building Survey Legend

ACL	Arch Center Level / Height above floor
ASL	Arch Spring Level / Height above floor
C-H	Window Cill to Window Head Dimension
CLG	Ceiling Level / Height above floor
DH	Door Head Height above floor
DHL	Door Head Level
F-C	Floor to Window Cill Dimension
FL	Floor Level
RU	Ramp Up
SCLG	Suspended / False Ceiling Level / Height above floor
SL	Slab Level
SU	Step(s) Up
TH	Threshold Height above floor
THL	Threshold Level
TWL	Top of Wall Level
US	Underside Level / Height above floor
USB	Underside of Beam level / Height to underside above floor
USJ	Underside of Joist level / Height to underside above floor
WACL	Window Arch Center Level
WASL	Window Arch Spring Level
WCL	Window Cill Level
WHL	Window Head Level

Sloping Roof
Sloped Ceiling (Points up)
Arched / Vaulted Ceiling

Building Line / Wall Line
Detail
Steps
Overhead Detail
Partitions
Glazing

All building measurements are taken to existing finishes or faces which are constant and represent an average face or wall line. All levels and dimensions are quoted in metres.
All window head and window cill levels are internal measurements.
Ceiling height measurements are taken to a point which best represents the general room height.

Drawing Revisions

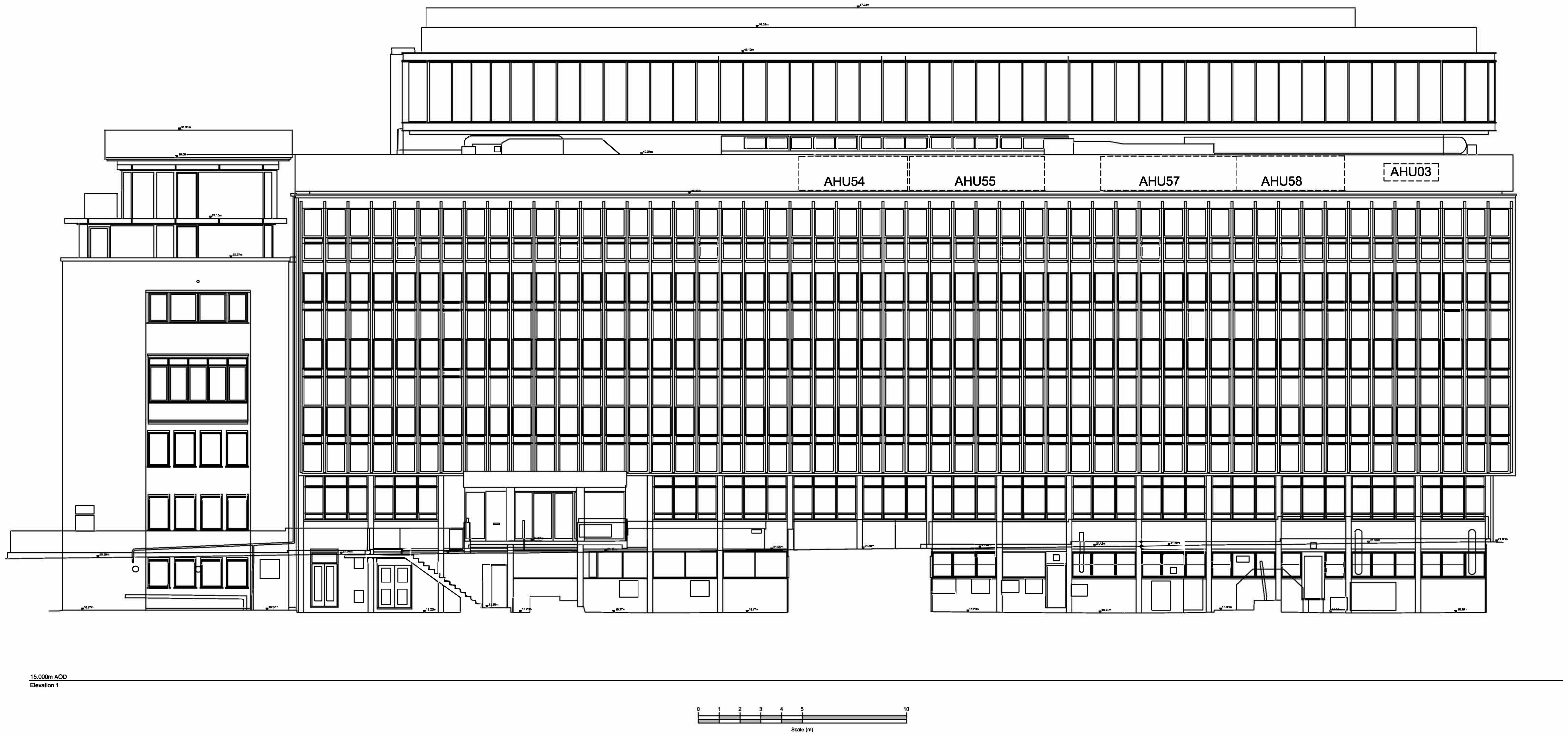
Rev No.	Date	Details
B		
A		
Original	See below	Original survey carried out

Unit 5 Hoath Business Centre
Hoath Lane
Gillingham
Kent ME8 0BF

+44 (0)1634 751 002
www.OmegaGeo.co.uk
survey@OmegaGeo.co.uk

Client	DMA Maintenance Ltd
Project	UCL GOSICH, 30 Guilford Street, London, WC1N 1EH
Original Survey Date	November 2024
Job Ref	2415145
Presentation Scale	1:100 @ A0
Drawing Number	1 of 1

PROPOSED ELEVATION INDICATING THE LOCATION OF THE AIR HANDLING UNIT
AHUO3 IS TO BE REPLACED ALL OTHER AHU' s ARE TO BE REFURBISHED



Project Datum

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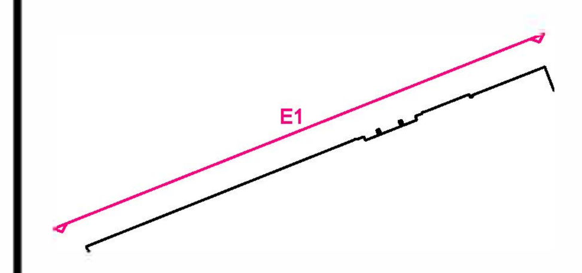

Drawing Revisions

Rev No.	Date	Details
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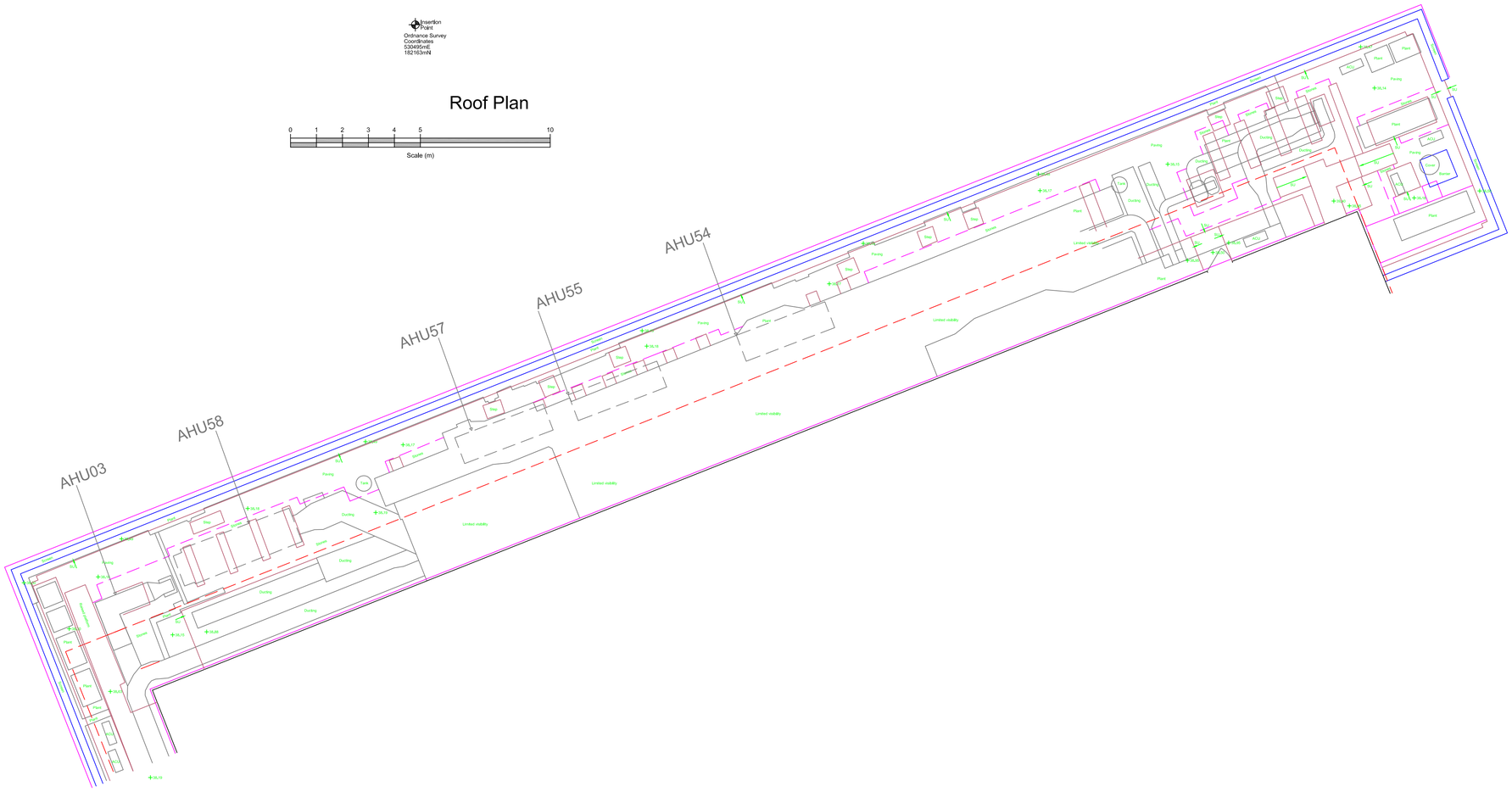

Insertion Point
Ordnance Survey
Coordinates
530495mE
182163mN

Roof Plan

0 1 2 3 4 5 10
Scale (m)

Project Datum

All levels and coordinates are related to the Ordnance Survey national grid by means of GPS. One survey control point has been fixed using GPS and then the survey orientated to additional GPS points. No scale factor has been applied therefore only the fixed GPS point is a true Ordnance Survey position.

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ASL	Arch Spring Level / Height above floor
C-H	Window Cill to Window Head Dimension
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Original	See below	Original survey carried out

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Drawing Number	1 of 1

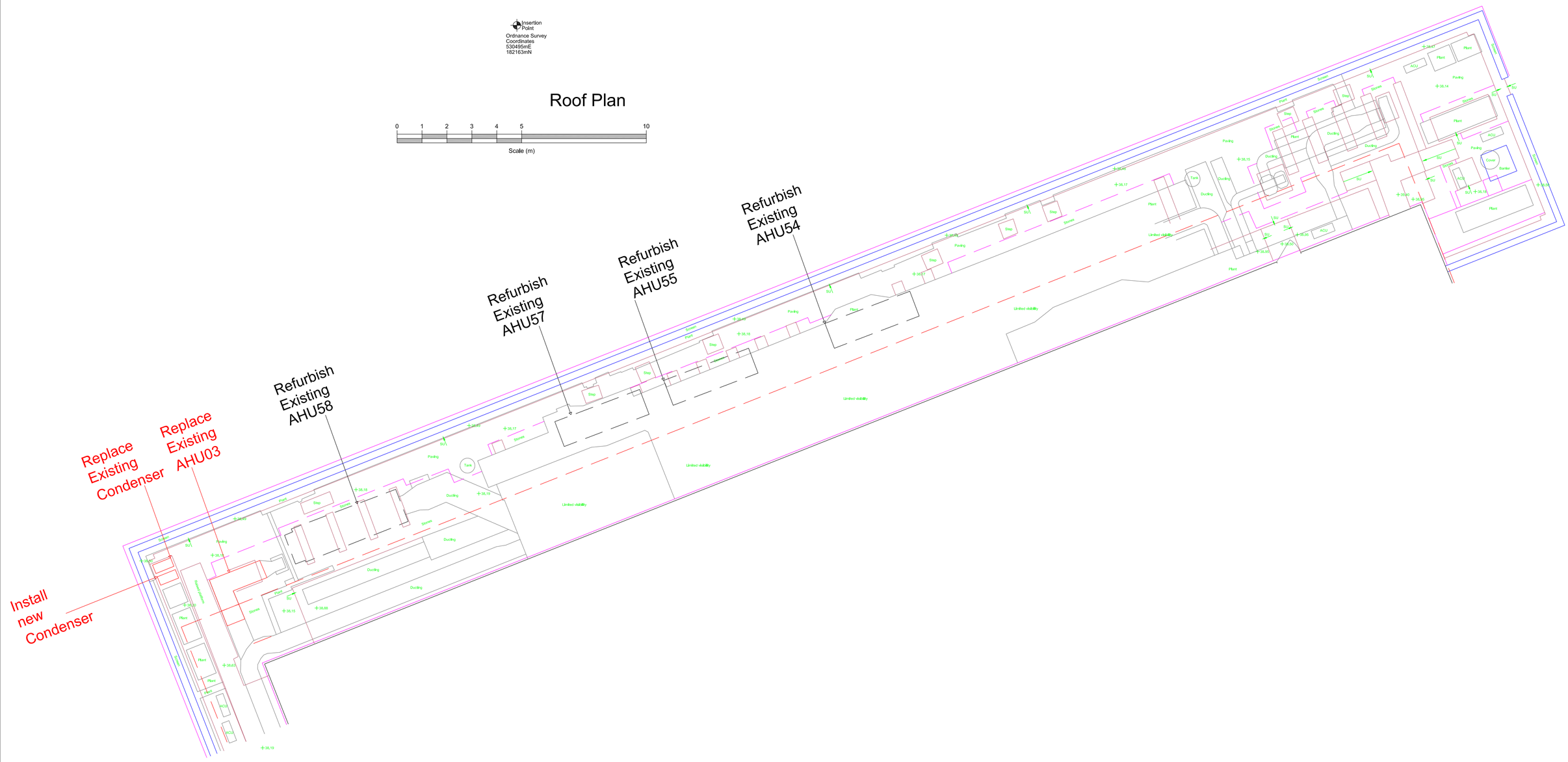
Insertion Point

Ordnance Survey Coordinates
530495mE
182163mN

Roof Plan

0 1 2 3 4 5 10

Scale (m)



REV	DESCRIPTION	DATE
01	UPDATE TO PROPOSED	26.11.24

STATUS: Planning

CLIENT: University College of London

PROJECT: UPN237 GOSICH

DRAWING TITLE: PROPOSED ROOF PLAN

D·M·A
MAKING BUILDINGS WORK TOGETHER.

5 BEAUFORT HOUSE, BEAUFORT COURT,
SIR THOMAS LONGLEY WAY,
MEDWAY CITY ESTATE,
ROCHESTER, KENT ME2 4FB
Telephone: 01634 384060

DATE:	DRAWN BY:
NOV 2024	CS
SCALE: 1:100@A0	APP BY: IMcG

DRAWING No: DMA-M2095-UPN237-RP-001 Rev: 01

Dimensions of equipment

Equipment (Quantity)	Dimensions	Existing (mm)	Proposed (mm)
AHU 54	Length	5310	No change
	Width	1200	No change
	Height	1650	No change
AHU 55	Length	6500	No change
	Width	1200	No change
	Height	1650	No change
AHU 57	Length	6500	No change
	Width	1200	No change
	Height	1650	No change
AHU 58	Length	5310	No change
	Width	1200	No change
	Height	1650	No change
AHU 3	Length	1150 +2500	910 + 2610
L shape	Width	700	872
	Height	850	822
Condenser 1	Length	1100	No change
	Depth	460	No change
	Height	870	No change
Condenser 2	Length		1100
	Depth		460
	Height		870

Scope of Works AHU's 54 & 55 - Supply

The refurbishment works will result in a reduction of noise emitted.

Replacement of LTHW reheat coil
Replacement of CHW cooling coil
Replacement of Supply fan with VSD EC Fans (quieter)
Replacement of Filter sets
Replacement of Motorised inlet damper Controls
Replacement of Run around coil heat recovery system

Scope of Works AHU's 57 & 58 - Extract

The refurbishment works will result in a reduction of noise emitted.

Replacement of Extract fan with VSD EC Fans (quieter)
Replacement of Filter sets
Replacement of Motorised inlet damper Controls
Replacement of Run around coil heat recovery system

Images

AHU 54 Supply Refurbishment

Fig 1. Existing AHU 54 Being Refurbished

AHU 55 Supply

Fig 2. Existing AHU 55 Being Refurbished

AHU 57 Supply

Fig 3. Existing AHU 57 Being Refurbishment

AHU 58 Extract

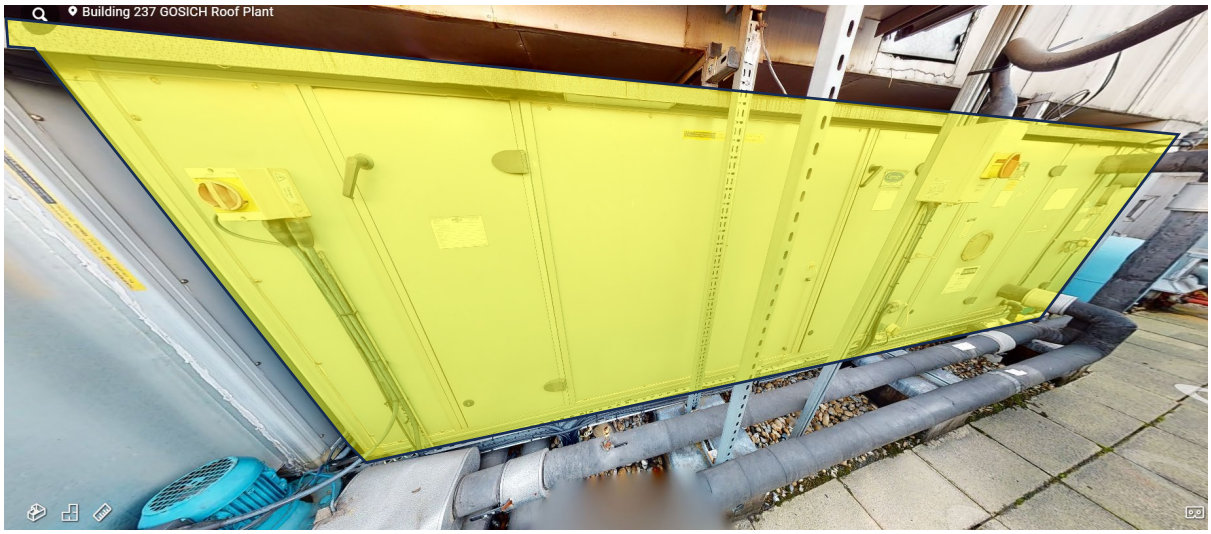


Fig 4. Existing AHU 58 Being Refurbishment

AHU 3

Fig 5. Existing AHU 3 being Replaced

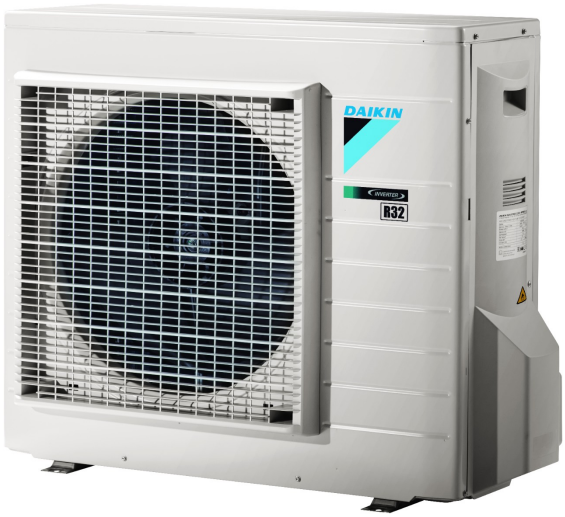


Fig 6. New AC Condenser