

16 Avenue Road

Strategic Summary of Mechanical and Electrical Building Services

- 1.0 The use of renewable technologies has been considered and the most appropriate options for this scheme is CHP, the roof spaces are generally green roofs and therefore prohibit the use of either solar thermal or solar PV panels. The maximum available roof area for PV cells is 19m²

The CHP would be incorporated in the basement plant area and would act as lead boiler.

Typical CHP selection for a property of this size would be in the order of 5 – 6kWe, please see the attached product literature.

- 2.0 The heating will be by means of a centralised high efficiency low NOX gas fired condensing boiler plant rated at SEDBUK A .
- 3.0 All heating pipework will be thermally insulated to meet Building Regulations Part L requirements.
- 4.0 Automatic heating controls will provide both programmed timed operation and thermal control to manage the heat input to individual habitable rooms.
- 5.0 Energy metering will be provided to enable occupants to be aware of instantaneous and cumulative energy usage.
- 6.0 Domestic hot water will be generated by primary heating from the central boiler plant piped to local indirect hot water cylinders. Cylinders will be factory fitted with high efficiency thermal insulation.
- 7.0 Domestic hot water controls will provide both timed operation and thermal control to achieve maximum efficiency and operational cost saving.
- 8.0 All heating pumps will be variable speed inverter driven to achieve maximum efficiency and to reduce power absorption under low load conditions.
- 9.0 Domestic water will be pumped from lower ground floor level to the accommodation. Load controls will be provided and pumps will be inverter driven to ensure minimum electrical power consumption.
- 10.0 The property will be provided with direct individually metered mains water connections.

- 11.0 Mechanical ventilation will be provided by high efficiency MVHR unit in accordance with Part F of the building regulations.
- 12.0 Mechanical ventilation to the pool area will be achieved with a high efficiency heat recovery plant, waste heat will be utilised for pool water heating.
- 13.0 Comfort cooling will be provided by a packaged air source heat pump system, VRF system, each internal unit will be provided with individual control for maximum efficiency.
- 14.0 100% of all fixed Lighting will be by high efficiency luminaires with 45 lumens /Watt light source either by LED or fluorescent lamps.
- 15.0 On completion of the works the occupants will be provided with comprehensive as installed manuals and drawings to fully detail the installed services. The manuals will detail steps to be taken to ensure how the user can ensure minimum energy usage.

This document prepared by:
W Warren Carnell Warren Associates Ltd
Consulting Engineers
Sept 2016

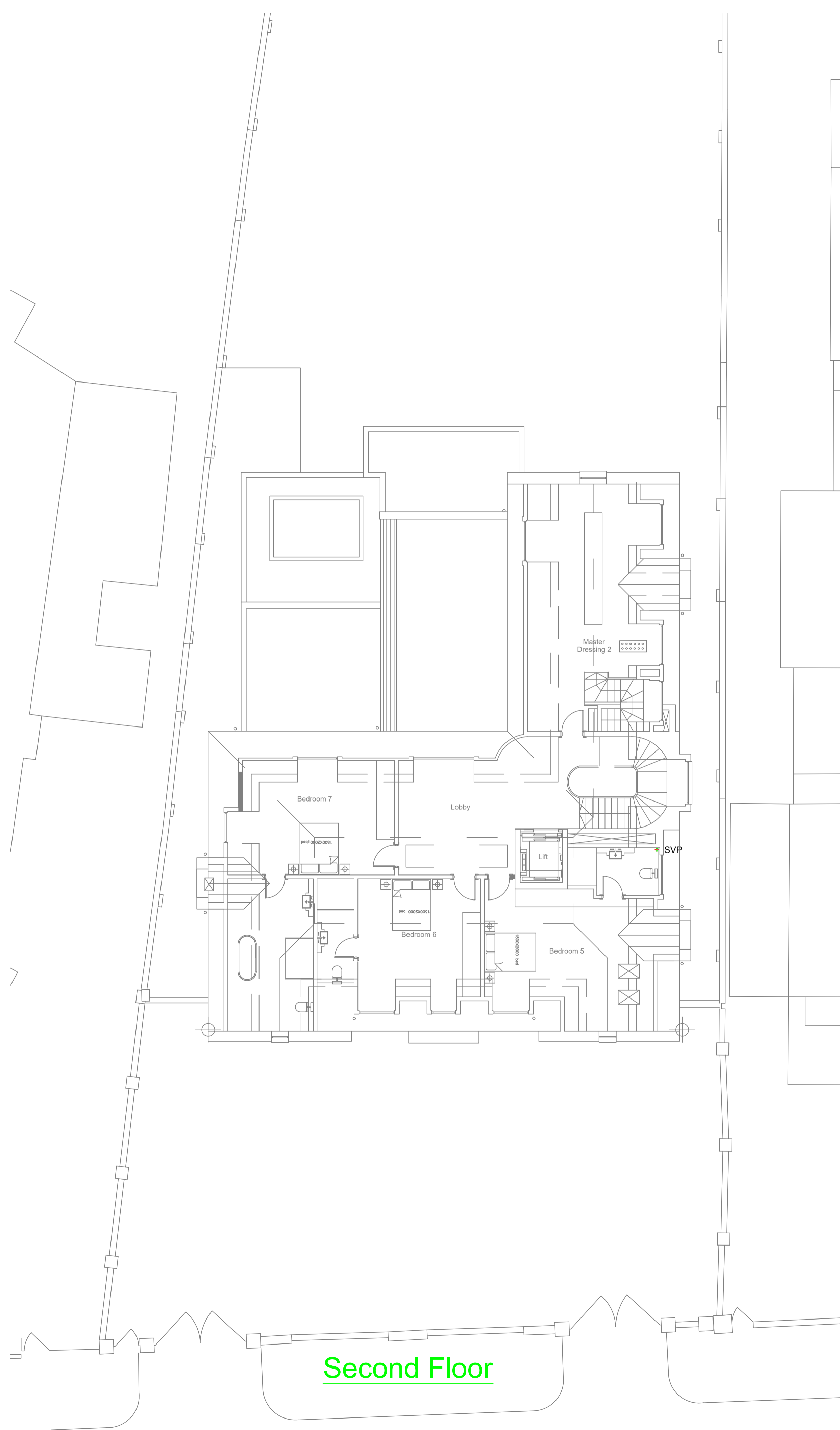


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GENERAL NOTES

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2. Do not scale off this drawing. Always work to noted dimensions.
3. This drawing must not be used for construction or installation purposes unless expressly stated.
4. All dimensions must be verified on site before completing shop drawings or setting out the work.
5. This drawing to be read in conjunction with the relevant Technical Specifications and associated equipment schedules prepared by Carnell Warren Associates Limited.
6. This drawing to be read in conjunction with Architectural and Structural Engineers drawings and associated Carnell Warren Associates Limited drawings.



Second Floor



Roof

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REV	MODIFICATIONS	DATE

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PROJECT
16 Avenue Road

TITLE
Second Floor & Roof

CLIENT
Wolff Architects

SCALE @ A1
1:100

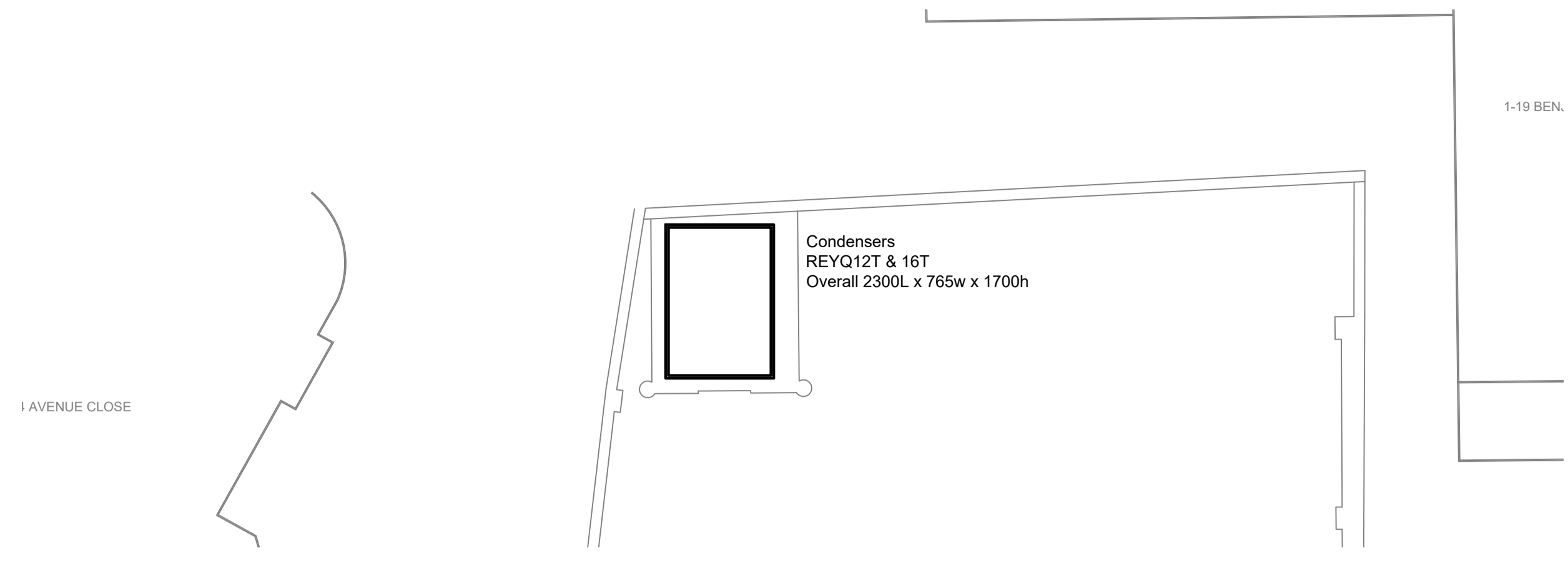
DATE
Sept '16

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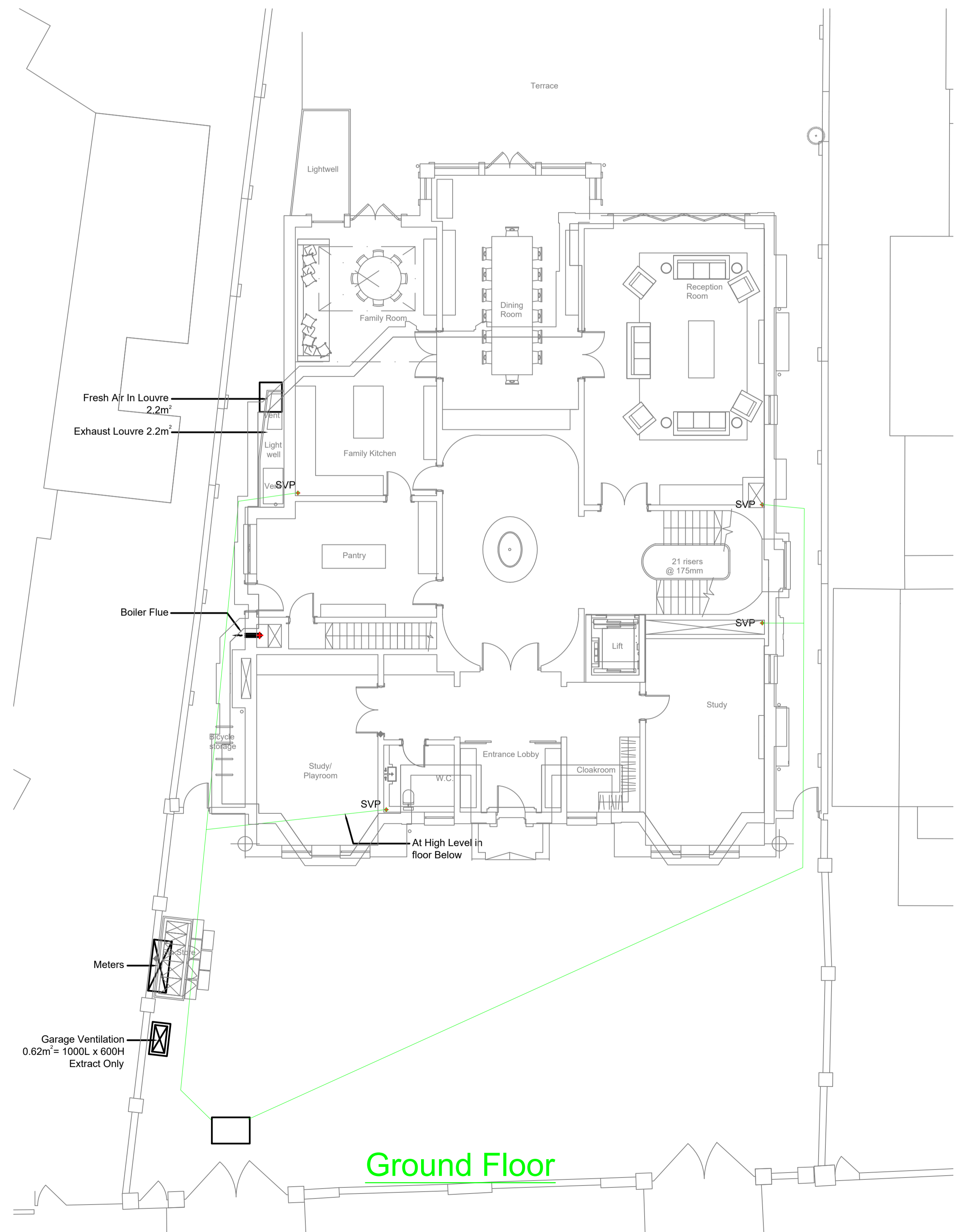
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1105/PL/103

REV.
P1

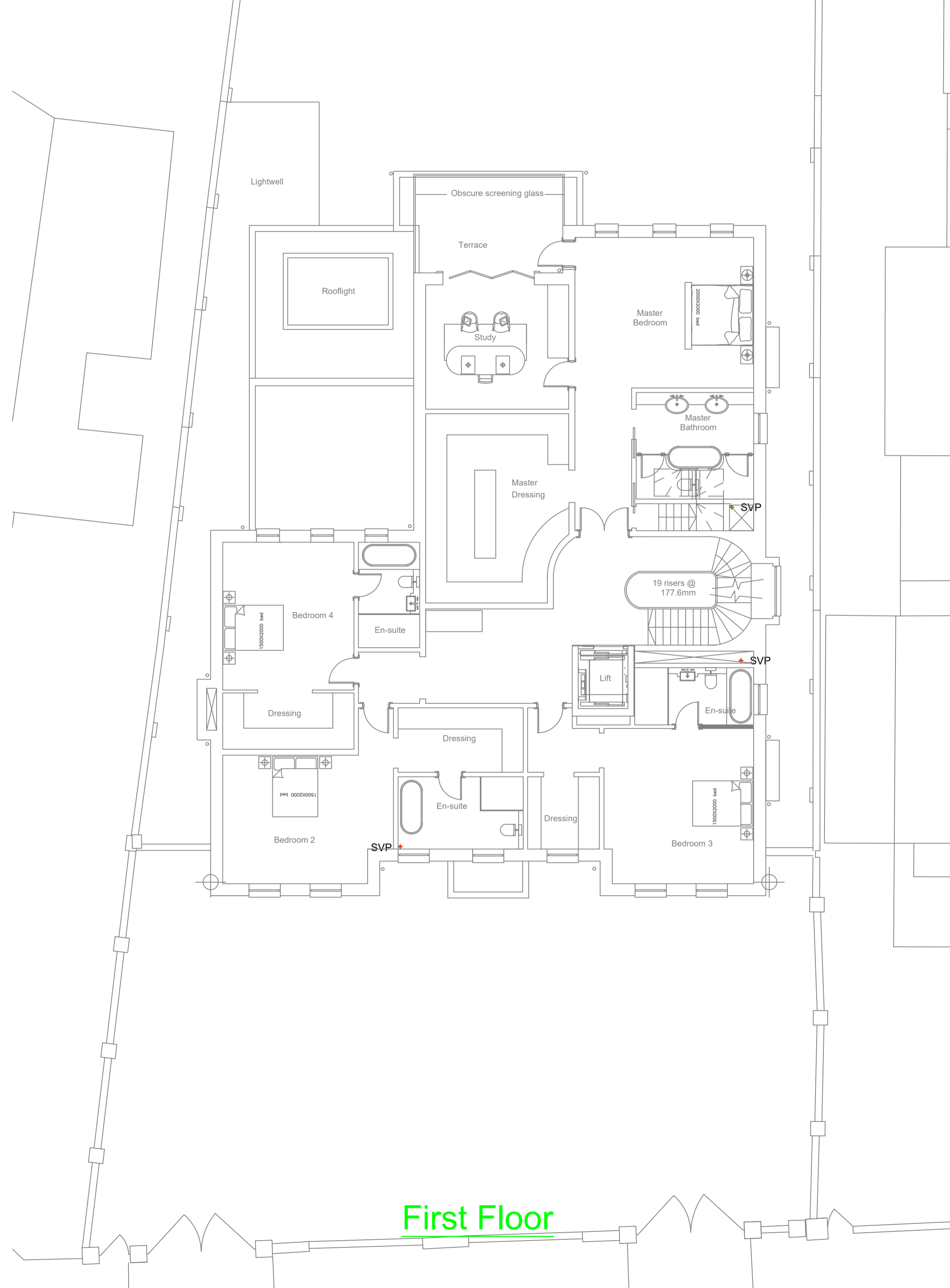
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Ground Floor Garden



Ground Floor



First Floor

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PROJECT
16 Avenue

TITLE
Ground & First Floor

CLIENT
Wolff Architects

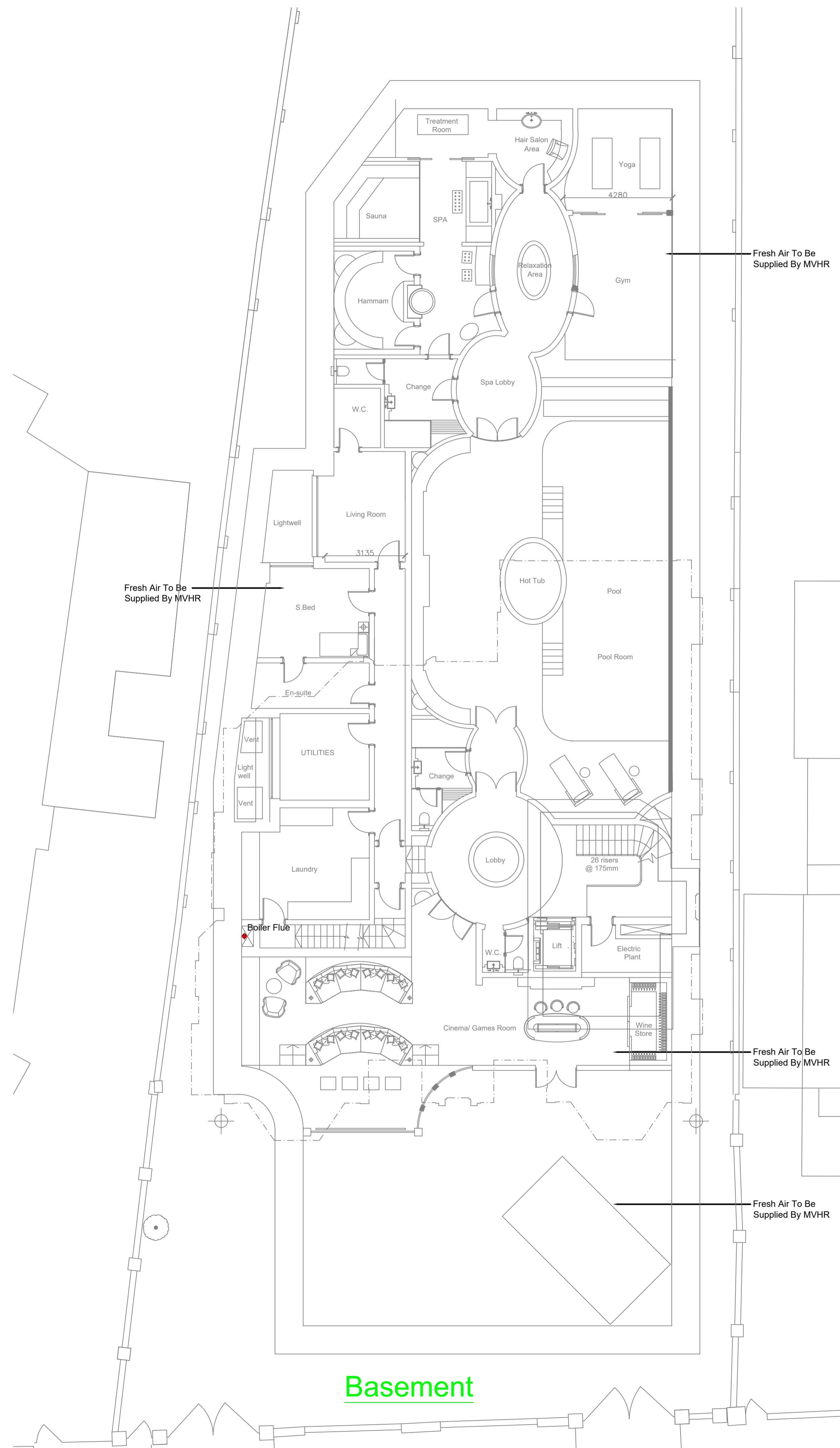
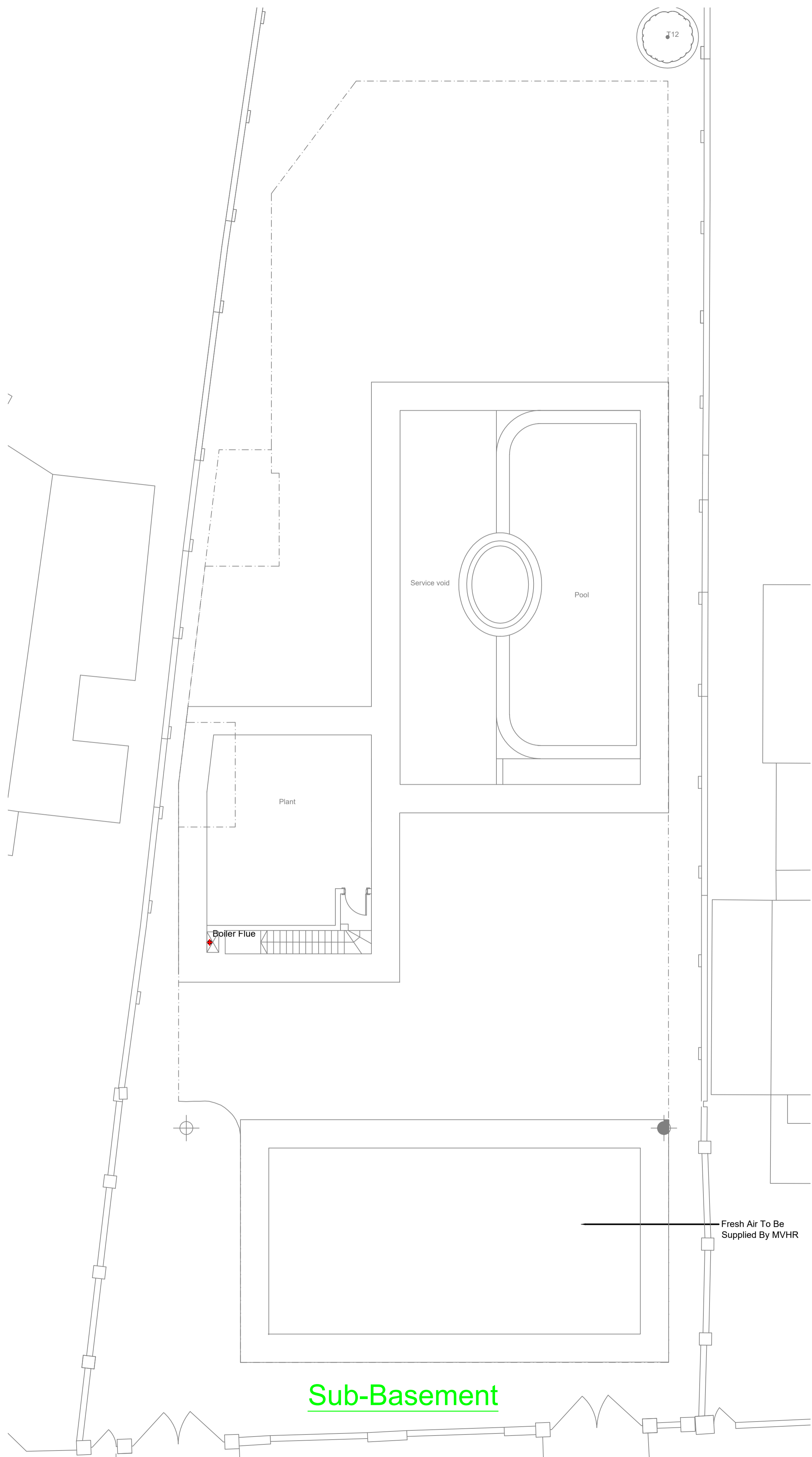
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DRAWING NO.
1105/PL/102

REV.
P1



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PROJECT
16 Avenue Road

TITLE
Sub-basement & Basement

CLIENT
Wolff Architects

SCALE @ A1
1:100

DATE
Sept '16

DRN
DK

DRAWING NO.
1105/PL/101

REV.
P1