DESIGN AND ACCESS STATEMENT AND HERITAGE STATEMENT

02nd June 2017

40-46 Princess Street, Manchester M1 6DE

Client: Wittington Investments (Properties) Ltd

Rev: A



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1.0 INTRODUCTION

1.1 This Design and Access Statement is written on behalf of Wittington Investments (properties) Ltd, in support of the Planning Permission and Listed Building Consent Applications for the conversion of 40-46 Princess Street; a Grade II listed building located within Whitworth Street and Princess Street Conservation Area.

The Design and Access Statement focuses upon the way in which the proposals have been resolved through an understanding of setting, analytical assessment of the existing internal space, and a sensitive relationship to heritage surroundings.

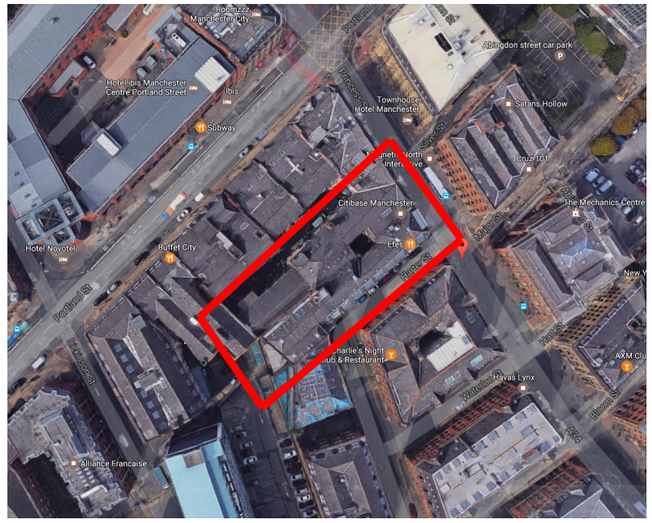
Ahead of any formal applications, permission was granted, to carry out non-invasive investigative and opening up works, facilitating the design process and enabling EngineRoom to develop their scheme design. Due to the continued occupation of the building by the current Tenants, the information obtained from these works has been limited at this stage, and furthermore intrusive investigations will need to be undertaken when vacant possession occurs to provide key information concerning the fabric of the building which will clarify the anomalies which were identified on the original building survey.

This application seeks both Planning Permission and Listed Building consent for the following changes and works to the building:

- Re-opening of historic windows which have been previously blocked off.
- Removal of existing entrance canopy, roller shutter and associated cladding.
- Removal and relocation of main entrance staircase.
- Feature Lightwell – to include new glazing, lightwell staircase and interconnecting access across the lightwell.
- Extension of existing lightwell through to Ground floor level.
- New lift core and overrun - 2 no. scenic glass lifts within existing lightwell.
- New modern WC facilities throughout the Building.
- Reconfiguration of floor plates to provide a variety of larger sized modern office suites. Existing office floor plates comprise of numerous highly cellularised spaces and the design intervention will remove the cellular partitions in favour of expansive open-plan demises.
- Extension to rear of no.40 Princess Street at fourth floor level.
- Modification to existing roof structure - New modern glass 'lid enclosure' to Lightwell.
- Reconfiguring of external Plant.
- Incorporation of new Service risers throughout the building.
- Relocation of Efes restaurant entrance and reinstatement of former window opening.
- Provision of new cycle store and shower facilities to the part Basement area.
- New signage and Lighting to elevations.

It is the intention, that any design proposals will endeavour to retain any surviving historic fabric; refurbishing where necessary, and with all other internal work being generally of redecoration and furnishing nature with no or minimal impact on the historic fabric of the building. This document should be read in conjunction with the following information submitted in support of the application:

Appendix A – Existing Plan, Sections & Elevations:	*As prepared by EngineRoom*
Appendix B – Strip Out, Removal and Dismantling Plans:	*As prepared by EngineRoom*
Appendix C – Proposed Schematic GA Plans:	*As prepared by EngineRoom*
Appendix D – Proposed Sections:	*As prepared by EngineRoom*
Appendix E – Proposed Schematic Elevations:	*As prepared by EngineRoom*
Appendix F – Proposed Services Layouts	*As prepared by CWC Consulting*
Appendix G – Proposed Structural interventions	*As prepared by Curtins*



1.1 APPLICATION TEAM

Client:	Wittington Investments (Properties) Ltd
Architects:	EngineRoom Architects
Structural Engineers:	Curtins
Building Services:	CWC – Crooks Walker Consulting
Acoustics:	Sandy Brown Consultants

1.2 The Client

Wittington Investments Limited is a privately owned British investment company. It is 79.2% owned by the Garfield Weston Foundation, which is one of the UK's largest grant-making trusts, with the remainder owned by members of the Weston family. In their hotels segment, Wittington own The Grand, Brighton and the Richmond Hill Hotel, Richmond.

Donations since 2000 total over £ 12.6million with recent larger examples including:

- 750k to Manchester University in 2016 for Jodrell Bank
- 300k for Museum of Science & Industry in 2016 (total donations 4.6million)
- 150k for Mustard Tree (homeless support) in 2016
- 250k for Contact Theatre in 2016
- 300k to Manchester Museum over past 5 years
- 350k to HOME (Arts Centre on First Street) in past 3 years

The business of Wittington Investments Limited is the management of investments in a wide range of assets. Of these the most significant is its 54.5% shareholding in Associated British Foods plc ('ABF'), which is quoted on The London Stock Exchange. Wittington owns 100% of the share capital in Fortnum & Mason plc and Heal's plc, two long established retailers. Other holdings include a commercial investment and development real estate portfolio where the strategy is to continue to build, selectively, a very high quality portfolio of investment properties and to manage this actively to drive significant long-term gains in pursuit of total returns.

2.0 SITE AND CONTEXT

2.1 LOCATION

Situated within Central Manchester our site is bounded by Princess Street to the North East and Harter Street to the South East. Neighbouring buildings abut the site to the South and West, with a service alley forming the boundary to the North West.

2.2 SITE AND CONTEXT

40-46 Princess Street comprises two Grade II Listed period red brick buildings, also locally known as Langley Buildings and Eastern House. Originally a residential street, it became the site of many textile warehouses and large office buildings during the 19th century. Some of these have since been demolished but most have been converted to other uses.

40-44 Princess Street

The existing building comprises of 6 storeys over a basement area, with a sub-basement located under part of the site. The basement levels are currently used as a club, with a restaurant at ground floor level and commercial use on the five upper floors.

The building extends as far back as 113 Portland Street, but the structure steps in at the rear at third floor level. The South-East elevation forms a continual boundary with 46 Princess Street.

46 Princess Street

The existing building comprises of 6 storeys over a basement area, with a sub-basement located under part of the site. The basement levels are currently used as a club, with a restaurant at ground floor level and commercial use on the five upper floors. The level of the building is set such that ground floor level is around half a metre above street level and is lower on each level than 40-44 Princess Street.

The rear of the building continues after Harter Street bends around to the south for another 10-15m, with the rear elevation facing onto a car park accessed from Dickenson Street.

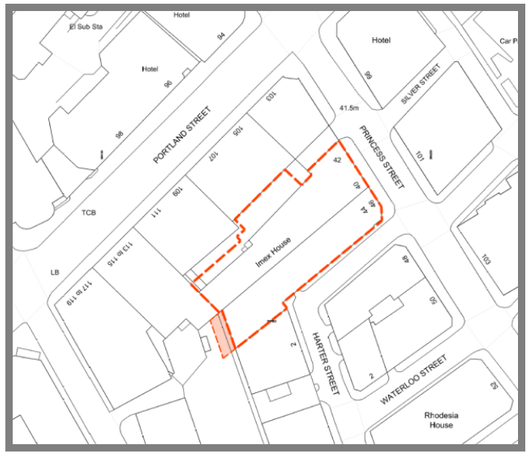
The structure at the rear is set back at second floor level. The North-West elevation forms a continued boundary with 40-44 Princess Street.

2.3 THE SITE AND IT'S IMMEDIATE SETTING

The Site is located in Manchester City Centre, which is the principal northern city. Manchester is situated approximately 55 km (34 miles) east of Liverpool, 64 km (40 miles) southwest of Leeds, 130 km (81 miles) northwest of Birmingham and 309 km (192 miles) northwest of London. Manchester has a population of approximately 2.6 million and over 11 million are within a 50-mile radius. It has the largest travel-to-work area of any conurbation outside of London.

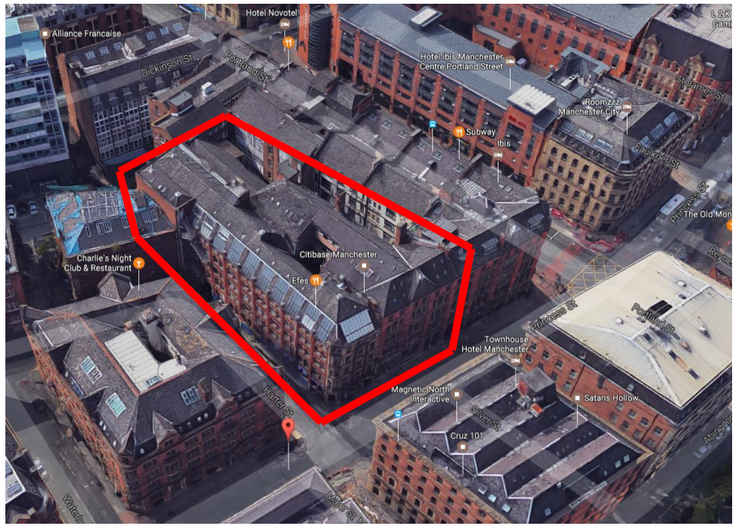
The redevelopment of Manchester over the last fifteen years has created significant momentum. In particular, the Piccadilly Place and Spinningfields schemes have 'up weighted' the City's offer and raised Manchester's profile on the national and international stage.

The city's office market has been further bolstered by the completion of St Peters Square, First Street and also the recent proposals approved for St John's Quarter, an extension of the Spinningfields development.



Of particular relevance to the City's future performance is the growth of its university and academic platform. The merger of The University of Manchester and UMIST kick started a £500m building programme.

With an agenda known as "Knowledge Capital" Manchester has an ambitious strategy to become a Top 10 world university. Moreover, Manchester is already the most popular university of choice for graduates and its likely improving academic offer will have very positive spin-offs for commercial and occupational demand.



2.0 SITE AND CONTEXT (Cont'd)

2.4 HISTORY OF THE DEVELOPMENT OF THE AREA/ HERITAGE STATEMENT

This Heritage Statement is prepared as part of the evidence base of submissions in support of an application the conversion of 40-46 Princess Street, a Grade II listed building and located within Whitworth Street and Princess Street Conservation Area. The site is shown on the OS extract below (map 1).

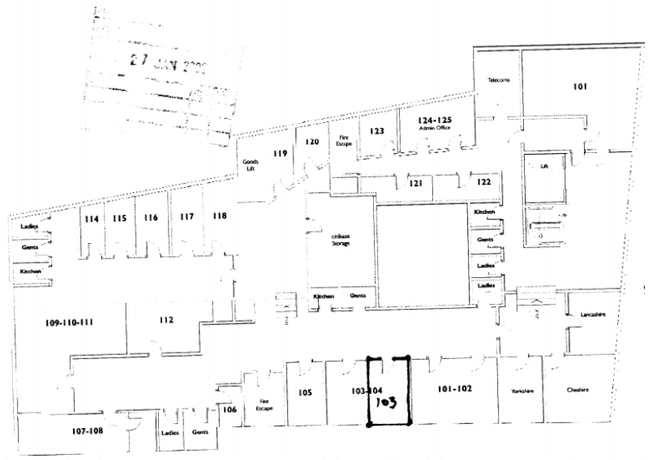


The intention of the proposal is to integrate two buildings more efficiently providing modern and flexible working space for current tenant demands etc. This statement will consider the Heritage implications of the proposed development and explain how the proposed development is acceptable in the heritage context working with the heritage assets on the site rather than conflicting with them.
The existing building currently has a number of different uses. The planning history, due to the number of addresses and various application referring only to part of the building make all the individual uses somewhat unclear. However, these include:

- An A3 restaurant on ground floor level of 44 and 46 Princess Street, wrapping around the corner to Harter Street (approved application 099868/FU/2012/C2). This part of the property was previously used as a casino (dating back as far as the 1970s).
- A night club across the basement of the whole of the site.
- Offices on 1st to 5th floors above 46 Princess Street (application number F15802 refers) as a change of use from warehouses.
- 40 - 44 Princess Street (I-Mex House). Citibase, a serviced office company, currently sublet this part of the property although the planning history of when this was secured is unclear. It is reasonable to assume, in the absence of any information to the contrary, since the original warehouse was converted, this has always been in an office/commercial use. It appears to be primarily in office use and sub-divided into a number of small individual offices.

Further consents have been granted for individual rooms in the property for a more bespoke use such as a taxi telephone radio base.

An example layout of the Citibase floors is shown below, the subdivisions created by stud walls:



This application seeks both planning permission and listed building consent for the following changes to the building:

- Re-opening of historic windows which have been previously blocked off.
- Removal of existing entrance canopy, roller shutter and associated cladding.
- Removal and relocation of main entrance staircase.
- Feature Lightwell – to include new glazing, lightwell staircase and interconnecting access across the lightwell.
- Extension of existing lightwell through to Ground floor level.
- New lift core and overrun - 2 no. scenic glass lifts within existing lightwell.
- New modern WC facilities throughout the Building.
- Reconfiguration of floor plates to provide a variety of larger sized modern office suites. Existing office floor plates comprise of numerous highly cellularised spaces and the design intervention will remove the cellular partitions in favour of expansive open-plan demises.
- Extension of 177m2 to rear of no.40 Princess Street at fourth floor level.
- Modification to existing roof structure - New modern glass 'lid enclosure' to Lightwell.
- Reconfiguring of external Plant.
- Incorporation of new Service risers throughout the building.
- Relocation of Efes restaurant entrance and reinstatement of former window opening.
- Provision of new cycle store and shower facilities to the part Basement area.
- New signage and Lighting to elevations.

The listed building consent for the internal changes is of greatest importance to the proposal however the planning permission is required for the external changes to the building which are the re-opening of windows, the addition of lifts and stairs into the existing lightwell, a new internal lightwell running down the centre of the offices, associated roof re-configuration for the covered lightwell and lift over runs and the reconfigured entrance to the building.

The approach to this Heritage Statement is as following:

- Review of historic literature and archives held by Manchester City Council, Manchester Central Library and on the internet.
- Assessment of proposal in context of development plan, national and legal requirements.
- Online research on listed building description and Conservation Area Appraisal.
- Site visit
- Assessment of legal requirements and national advice for changes to Heritage Assets.

2.0 SITE AND CONTEXT (Cont'd)

2.4 HISTORY OF THE DEVELOPMENT OF THE AREA/ HERITAGE STATEMENT (Cont'd)

2.4.1 EXISTING BUILDINGS

The site was clearly once two separate buildings. This is demonstrated by the change in façade between number 40-42 and numbers 44-46, the change in levels between the two (there is approximately 1m step up on the façade and internally) and the planning history of the property.



The formal list description for the property is detailed below. The list combines 40-46 Princess Street with Portland House, 103 Portland Street which, although attached to the historic number 42, and (as shown above) externally relates to numbers 40 and 42, does not form part of the application site and is very clearly separated from it internally.

Includes: Nos.40 TO 46 Eastern House PRINCESS STREET. Shipping warehouse, now offices, club, etc. c.1870-80. Probably iron-framed, with cladding of red brick in Flemish bond, sandstone dressings, slate roof. Trapeziform plan on corner site, with loading at rear. Eclectic style. Five storeys with basement and attic, 3 bays, symmetrical, with stone-banded pilasters and bracketed cornice to ground floor, some stone bands to upper floors, moulded terracotta panels between 2nd and 3rd floors, plain frieze interrupted in the centre, steeply-pitched roof with hipped gable in the centre finished with a finial. Ground floor has square-headed doorway with moulded surround and plain frieze with attached lettering "PORTLAND HOUSE", flanked by pairs of segmental headed windows over basement openings; 1st, 2nd and 3rd floors have 3-light windows with stone mullions, those at 1st and 2nd floors of the centre in a segmental oriel with a carved panel between floors, segmental-headed lights to the upper floor, dentilled cornice and brick parapet, those at 1st floor of the outer bays with pilaster mullions and segmental pediments to the centre light, and those at 3rd floor segmental-headed with keystones; pairs of 1-light windows to 4th floor; flat-roofed dormers over the outer bays; gable chimneys. Left return (40 to 46 Princess Street), 7 bays in matching style, symmetrical, with hipped gables to the 2nd and 6th bays and square-headed loading bay entrance in the centre. Rear and interior not inspected. Forms group with No.101 (q.v.) on opposite corner of Princess Street; and with Nos 105 and 107, 109 and 111, and 113 to 119 to the right (q.v.), together comprising a complete block of former shipping warehouses.

Some noteworthy conclusions can be made from this list description. Firstly, as demonstrated by their built form, whilst the buildings were originally in warehouse use, the upper floors were established as offices at the time of the listing (6th June 1994). Therefore, English Heritage (as was) must have been content that the historic importance of the building resulted from the built form and visual context as well as the building's contribution to history in this part of Manchester, rather than its specific historic use.

The second conclusion is that, despite visiting the site prior to the listing, it was not considered that an internal visit was required. The list description therefore focuses on the external detailing rather than any internal detailing, again emphasising the point that the listing results from the external visual interest of the building rather than anything internal. These conclusions are consistent with the historic use as a warehouse which is likely to have comprised large open spaces for storage rather than and specific detailing. From list descriptions of other listed buildings in the area, this approach by English Heritage is consistent to the majority of listed buildings in this specific area.

These conclusions are re-emphasised by literature about the history of the area, demonstrated in the extracts pasted below which emphasise the external details of the property such as the treatment of the window openings, fenestration details and gothic detailing. It is likely (passing reference in the literature rather than categorical evidence) that the building was designed by local architects Clegg and Knowles who are responsible for the majority of the warehouses in the surrounding area.

Upon whom are we to put the blame for the sudden fall from grace? Upon the 'rogues', of course; London men like Truefitt (see p. 62), who built Brooks Bank in Chancery Lane, Manchester (now Royal Exchange Assurance) in a startling combination of Italian and Gothic; local men like Salomons and Darbyshire, whose work passed from parody to travesty; and firms like Pennington & Bridgen and Clegg & Knowles, whose designs for warehouses had departed far from the dignity of Walters' palazzo style, as can be seen, for instance, in the five-storey block at the junction of Portland Street and Princess Street (1870), where eccentricity is concentrated on displaying the maximum versatility in the treatment of the window openings.

Source: Manchester: An architectural history – John J. Parkinson-Baliey

The approach to the application building differed from earlier approaches to the warehouses in the area, with the insinuation from the extract below being the later warehousing such as the application site being inferior and less ornate than the earlier examples. This is reflected in the list description for the property.

ship. Clegg & Knowles's warehouse of 1863 at 109 Princess Street [30] is a delightful little building of eight bays and four storeys over a semi-basement, and there is another of theirs at 101 Princess Street. In contrast, their earlier warehouse, the Pickles Building, for Hugh Balfour & Co. of 1858–63, on the corner of Princess Street and Portland Street (now the Princess Hotel, [31]) is another Italianate building but the details are in a debased Gothic, particularly evident in the quatrefoils and the stiff-leaf foliage of the window colonettes.

Source: The stones of Manchester by Cecil Stewart

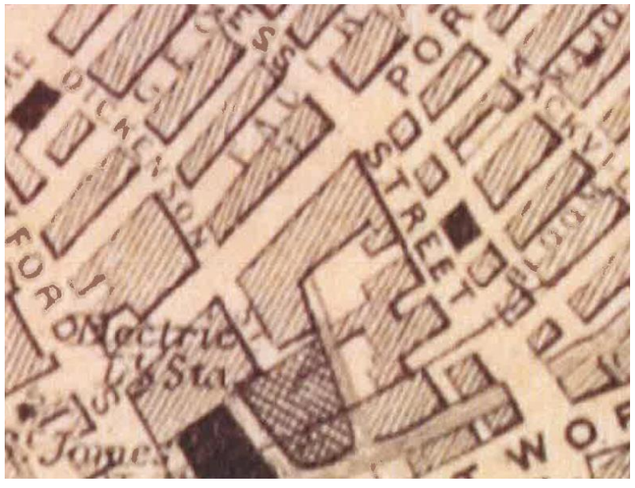
2.0 SITE AND CONTEXT (Cont'd)

2.4 HISTORY OF THE DEVELOPMENT OF THE AREA/ HERITAGE STATEMENT (Cont'd)

In terms of the historic development of the area, whilst the list description suggests that the existing building was built between 1870-1880, map 1 below shows that in 1884, there was no development on the site.

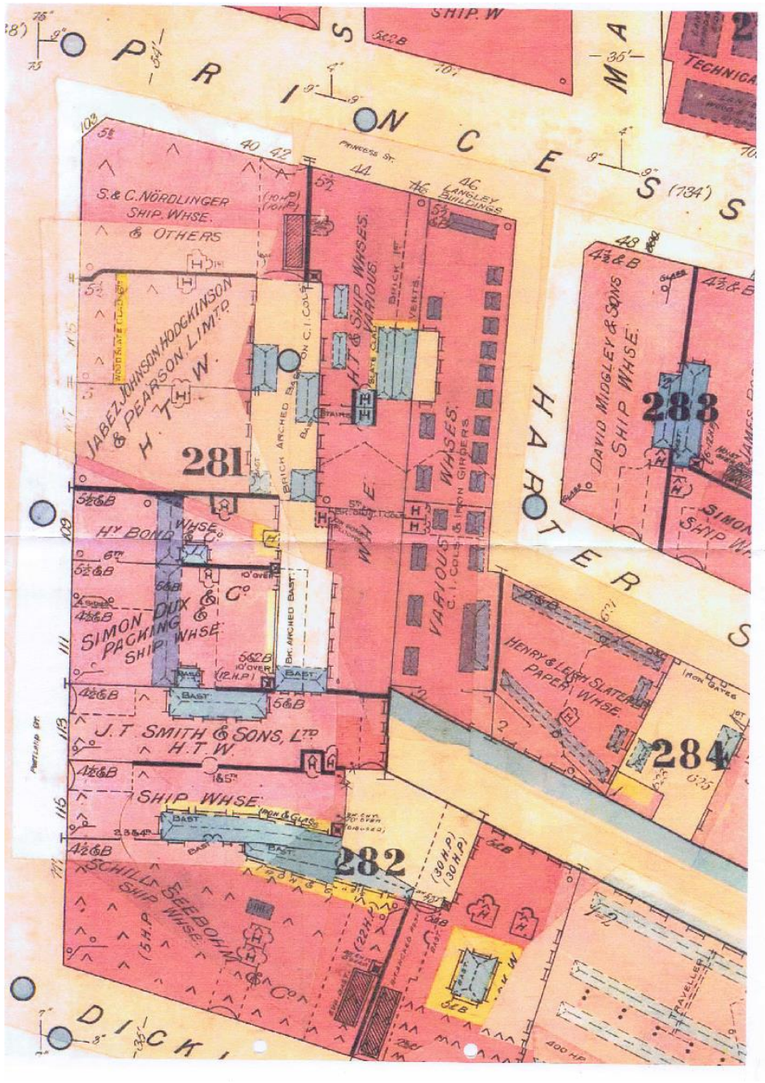


By the turn of the 20th century, this part of Manchester was fully developed and established as the main business core of the city. This is shown on map 2 below from 1908:



Whilst there is considerable historic photographic evidence of the area, we have been unable to locate any historic photograph specifically showing the application building

Goad Map dated 1888.



2.0 SITE AND CONTEXT (Cont'd)

2.4 HISTORY OF THE DEVELOPMENT OF THE AREA/ HERITAGE STATEMENT (Cont'd)

2.4.2 IMPACT ON LISTED BUILDINGS

Legal position

Listed buildings benefit from the highest level of protection under the provisions of the Town and Country Planning (Listed Buildings and Conservation Areas) Act 1990. Within the definition of listed buildings, the majority are grade II (approximately 92%) with only the top-rated buildings grade I or II*. Paragraph 1(3) of the Act explains that "In considering whether to include a building in a list compiled or approved under this section, the Secretary of State may take into account not only the building itself but also—

(a)any respect in which its exterior contributes to the architectural or historic interest of any group of buildings of which it forms part; and

(b)the desirability of preserving, on the ground of its architectural or historic interest, any feature of the building consisting of a man-made object or structure fixed to the building or forming part of the land and comprised within the curtilage of the building."

This is why section 2.2 of this Heritage Statement seeks, through the history of the building and the list description, to provide the reasoning for the listing. Without doubt the historic context is part of the reasoning for the listing along with the external appearance identified in section 2.2.

Section 16(2) of the Act then sets out the basic legal test for the decision maker requiring that "in considering whether to grant listed building consent for any works the local planning authority or the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses."

In terms of the approach to determining planning applications for works to listed buildings, paragraph 128 of the National Planning Policy Framework (NPPF) explains that:

In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum, the relevant historic environment record should have been consulted and the heritage assets assessed...

The advice for the decision maker continues in paragraph 132-134 of the NPPF where the relevant advice states:

"When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. (Para. 132) "

Paragraph 134 continues that:

Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.

In terms of the local plan policies, CC9 of the City of Manchester Core Strategy is non-prescriptive, presumably referring directly back to the legal position and the national guidance in the NPPF. It simply says (where relevant) that "Development in Manchester City Centre should preserve or enhance the heritage assets that have been identified, including listed buildings, conservation areas and scheduled ancient monuments. "

Consideration of Impact on Listed Buildings

As the property consists of two historic listed buildings (now joined together), the building is considered as a designated Heritage Asset as defined by the NPPF. The NPPF defines a Heritage Asset as *"a building.... identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage assets include designated Heritage Assets (definition provided elsewhere in NPPF) and assets identified by the Local Planning Authority (including local listing)*". A site within a conservation area also satisfies the criteria of being a heritage asset. Except for the improvements to the entrance all other changes are internal and therefore there will be no impact on surroundings.

Whilst the NPPF advice suggests that, if harm is identified, there is a judgement call to be made on the balance between public benefits and harm, this is not entirely consistent with the legal position1. In terms of the setting of a listed building, the tests for this are set out in paragraphs 16(2) and 66(1) of The Planning (Listed Buildings and Conservation Areas) Act 1990 ("The Act") which requires that *"In considering whether to grant listed building consent for any works the local planning authority or the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses."* The setting of listed buildings in this case must refer to surrounding properties which are also listed such as 103 Portland Street, 48 Princess Street and number 99-103 (odd) Princess Street.

In reality, the proposed development will have no impact on the setting of the nearby listed buildings as it is mostly internal changes proposed. Neither of the flanking buildings, to which the proposal best relates, is listed and the nearest listed buildings are opposite the site and not viewed in context of the proposed development which is separated from it by a busy road, considerable distance and an interruption in the eye line. The application property was never directly related to any of the nearby listed buildings (in terms of hierarchy or curtilage) and therefore the impact on the setting can solely be a consideration of visual impact.

The list description of the application site does not offer any suggestion that the setting is influenced by the buildings on the opposite side of the road or vice versa. On this basis, we can conclude the proposed development will have no impact on the setting of nearby listed buildings and therefore the proposal satisfies the legal obligation of Section 16(2) or 66(1) of The Act. On this basis and context of the Mordue and Barnwell court cases 2 (Barnwell specifically considers the impact on the setting of a listed building), we can conclude that the setting of surrounding listed buildings is not harmed by the proposed development.

In terms of the requirements to preserve the listed building on the application site, despite little identified historic interest internally, this remains as much of a consideration as the external changes. The changes will primarily be internal which is not the key focus of the listed, as explained elsewhere in this statement, and there will be minimal disruption to existing with changes primarily being the replacement of modern fittings etc. Equally, the prevailing use of the building is a material consideration in the context of the listed building.

[1] *Clarified in Mordue v. Secretary of State for Communities and Local Government [2015] EWHC 539 (Admin)*
[2] *East Northamptonshire v. Secretary of State for Communities and Local Government* [2015] 1 W.L.R. 137

2.0 SITE AND CONTEXT (Cont'd)

2.4 HISTORY OF THE DEVELOPMENT OF THE AREA/ HERITAGE STATEMENT (Cont'd)

Policy EN3 of the adopted City of Manchester Core Strategy (2012) is a positively worded policy. It states that *"Throughout the City, the Council will encourage development that complements and takes advantage of the distinct historic and heritage features of its districts and neighbourhoods, including those of the City Centre. New developments must be designed so as to support the Council in preserving or, where possible, enhancing the historic environment, the character, setting and accessibility of areas and buildings of acknowledged importance, including scheduled ancient monuments, listed buildings, registered parks and gardens, conservation areas and archaeological remains."* It continues *that* ***"Proposals which enable the re-use of heritage assets will be encouraged where they are considered consistent with the significance of the heritage asset."*** (our emphasis). This directly responds to the wording of paragraph 131 of the NPPF which explains that in determining planning applications, local planning authorities should take account of:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation

- the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality;

The proposed does not fundamentally alter a long-established use at the property. The fundamental difference in the use (in layman terms rather than in terms of the Use Classes Order 1987) is the replacement of the existing service offices with a more open plan design solution of 16 larger, open plan office suites. This is neither a material change of use (MCOU) nor a material change from the existing operation. Office uses are established in the area and the majority of the similar Clegg and Knowles warehouses have been converted to similar uses. The use continues to be consistent with the strategic aims of EN3 identified above.

The return of the building to an open plan nature is a positive in Heritage terms as it allows the building to be read more as it was intended. It also returns it to having a more flexible use of the available space, characteristic of its original use.

In terms of the internal changes, the link between the two historic parts of the building is currently facilitated by a number of relatively modern internal staircases. The individual offices are defined by the stud walls. Both of these modern and unsympathetic additions will be removed, representing a benefit to the historic fabric of the building. The implications of these removals will also be of benefit returning the building to a more open plan format, consistent with its original use as a warehouse.

The addition of the new lifts, stairs and lightwell will represent a material change to this specific part of the listed building but in the absence of any identified internal infrastructure of historic importance, the judgement on the change can only be one of sympathy and the attention to the detail of the change. The new lightwell has been designed for it to be brought back into use as it was originally intended. In this context, there will be no harm to the historic character of the listed building.

In terms of the external changes proposed, these can be viewed as positives as they will result in the removal of the modern canopy over the entrance and some of the unsightly external paraphernalia which can be seen on the photograph below. In terms of re-opening the shut off windows, any proposal which returns the listed building closer to its original state should be supported in Heritage Terms. Given that it facilitates the change of use and a more comprehensive and co-ordinated use to the site, this is an added bonus.



The only significant addition to the building will be the rear extension of the fourth floor, an area of approximately 17m by 10m. This area of the building is not visible from a public vantage point and will therefore have no impact on the appearance of the listed building.

In the context of the character of the building, the extension will not extend beyond the existing built form on the lower levels and will not, in terms of hierarchy, detrimentally impact the flow of the building. The existing roof in this location (essentially a low pitch roof) is a functional rather than aesthetic roof which does not contribute to the historic significance of the building and therefore, bringing the roof up a level will not compromise the important historic character of the building.

Returning to the legal requirements, an understanding of the significance of the heritage asset as a listed building has been demonstrated and an assessment has been made of where the particular importance of this particular listed building lies.

The proposed results in some existing consistencies such as the prevailing use and some heritage benefits listed below:

- Return to open plan/flexible use accommodation
- Removal of external canopy and external signage
- Re-opening of closed off windows

Further economic and long terms benefits such as the provision of high quality office space and facilities with lifts (in compliance with modern needs) add to the case in favour of the proposal.

2.0 SITE AND CONTEXT (Cont'd)

2.4 HISTORY OF THE DEVELOPMENT OF THE AREA/ HERITAGE STATEMENT (Cont'd)

2.4.3 CONSERVATION AREAS

Conservation areas are designated under the provisions of Section 69 of the Planning (Listed Buildings and Conservation Areas) Act 1990. A conservation area is defined as *"an area of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance".*

Section 71 of the same Act requires local planning authorities to formulate and publish proposals for the preservation and enhancement of these conservation areas. Section 72 also specifies that, in making a decision on an application for development within a conservation area, special attention must be paid to the desirability of preserving or enhancing the character or appearance of that area.

In response to these statutory requirements, the Council has prepared a conservation area appraisal statement that records the special architectural and historic interest of the conservation area and identifies opportunities for enhancement. It is in conformity with English Heritage guidance as set out in "Guidance on conservation area appraisals" (August 2005) and *"Guidance on the management of conservation areas"* (August 2005). The findings of this statement are published in Section 3 below and the proposal is considered in context of these findings.

The application site is located within the Whitworth Street/Princess Street Conservation Area. The Conservation Area Appraisal confirms that the Whitworth Street/Princess Street conservation area is uniquely Mancunian in character, its physical form being established by the wealth of fine Victorian and Edwardian buildings erected between 1850 and 1920. They reflect the historical importance of the textile industry in the city. The application site is one such building.

History of the Conservation Area

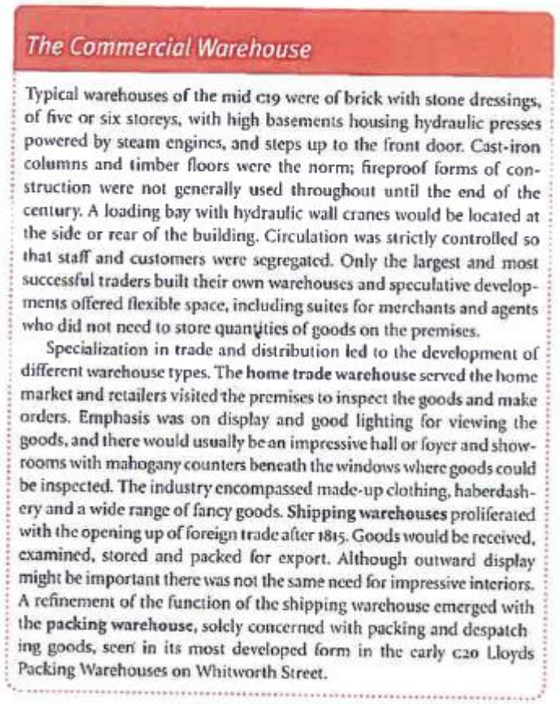
Cotton is most easily worked in a place with high humidity. Manchester was ideally placed in this respect, and it was directly related to the growth of the city. The earliest cotton mills were in Ancoats, and the need for warehouses to store their products led to specially designed buildings being built nearer the centre of the city.

By the middle of the nineteenth century, Manchester had become the largest textile centre in the world. As a result, the need for warehousing grew and it is these buildings, larger than before and built with considerable architectural characteristics that form the Whitworth Street/Princess Street conservation area.

The distinctive architecture which arose was both functional and expressive of the wealth of the owners. The front of the warehouses facing the main street was often used for offices whilst the rear of the building was used for storage space and for the inspection of the cotton goods in natural light.

This led to six- or seven-storey buildings with opulent and deeply modelled front facades in brick and/or terracotta, whilst the rear was almost entirely glazed either in a vertical plane or a stepped configuration.

The building style reached its zenith in the early years of the twentieth century, and culminated in the grand Edwardian commercial architecture of Whitworth Street. This character is identified further in the extract below:



The Commercial Warehouse

Typical warehouses of the mid c19 were of brick with stone dressings, of five or six storeys, with high basements housing hydraulic presses powered by steam engines, and steps up to the front door. Cast-iron columns and timber floors were the norm; fireproof forms of construction were not generally used throughout until the end of the century. A loading bay with hydraulic wall cranes would be located at the side or rear of the building. Circulation was strictly controlled so that staff and customers were segregated. Only the largest and most successful traders built their own warehouses and speculative developments offered flexible space, including suites for merchants and agents who did not need to store quantities of goods on the premises.

Specialization in trade and distribution led to the development of different warehouse types. The **home trade warehouse** served the home market and retailers visited the premises to inspect the goods and make orders. Emphasis was on display and good lighting for viewing the goods, and there would usually be an impressive hall or foyer and showrooms with mahogany counters beneath the windows where goods could be inspected. The industry encompassed made-up clothing, haberdashery and a wide range of fancy goods. **Shipping warehouses** proliferated with the opening up of foreign trade after 1815. Goods would be received, examined, stored and packed for export. Although outward display might be important there was not the same need for impressive interiors. A refinement of the function of the shipping warehouse emerged with the **packing warehouse**, solely concerned with packing and despatching goods, seen in its most developed form in the early c20 Lloyds Packing Warehouses on Whitworth Street.

Source: Pevsner Architectural Guides, Manchester by Clare Hartwell

The architecture of textile marketing remains largely intact in the area around Princess Street and Whitworth Street, though its association with the industry has decreased since the cotton slumps of the 1920s. Once a major commercial thoroughfare, the canal is now used only by leisure traffic, although its presence is an important ingredient in the regeneration efforts in this part of the city.

The conservation area contains many of Manchester's most important buildings, and not only those related to the textile industry. The Conservation Area appraisal does not specifically discuss the application site but it does put it into context with the surrounding buildings by stating that it is part of the row of textile warehouses along Princess Street.

We provide this brief history of the area to put some context onto the conclusion already reached in section 3 that the importance of the listed building is more an external and historic designation than one influenced by internal detail – the historic and external historic architectural interest. This identification contributes to the designation of the conservation area which is a landscape/townscape designation (there is an argument that one level of historic designation would suffice in this case rather than listing all of the buildings in a conservation area). Again, to emphasise the point, this means that retention of a viable use in the building and sympathetic external changes are of utmost importance.

2.0 SITE AND CONTEXT (Cont'd)

2.4 HISTORY OF THE DEVELOPMENT OF THE AREA/ HERITAGE STATEMENT (Cont'd)

Townscape

The Conservation Area Appraisal states that *"The great height of the warehouses along Princess Street, and especially on Whitworth Street, give the area its most obvious physical character of a canyon-like atmosphere.* ***The Princess Street warehouses are relatively early in date, and for the most part are relatively plain and simplified developments of the Italian palazzo style****".*

As explained in paragraph 2.5 above, the application site moved away from the palazzo style but was certainly of a later and more simplified generation compared even to its immediate neighbours.

The application site fulfils all the identified general design criteria identified in the Conservation Area Appraisal. It explains the following:

- Generally, slate is used to roof the buildings, though many are too high, or their roofs are too gently pitched, for this to be seen from ground level.

- Windows, like those in most Manchester buildings of this period, are predominantly of the vertical sliding-sash type. They occur singularly, but are more often seen in pairs, threes, or occasionally in groups of four.

- Entrance doors are very frequently located on the corners of buildings, and this is often associated with the further emphasis of a corner by means of elaborate detail, or by means of an extended roofline embellished with a tower or cupola.

- Property boundaries are marked by the building itself. One of the interesting characteristics of city centre construction of this period is that buildings covered the entire site, right up to the back of the pavement. Access for servicing and delivery vehicles was by means of a loading bay within the building itself on the ground floor. These often passed right through the building from one street to another. They were protected by large, decorative iron gates extending up to the top of the opening.

The Council's Conservation Area Appraisal discusses the potential for change (quoted points highlighted for relevance) and states that Whitworth Street/Princess Street is situated on the southern edge of the city centre and is consequently some distance from the commercial heart. There is some commercial activity however, **and further development in this direction will be encouraged where appropriate**.

Many properties have been totally or partially vacant since the 1930s, when the city **changed its character from warehousing to commerce and administration**. Although the area had seen little investment, efforts are now being made to find uses for vacant property, since active use mitigates against deterioration of the fabric.

The general policy in the conservation area is to **retain existing structures where feasible**, but where it can be shown that this is impossible, proposals for new buildings and extensions to existing ones must achieve a high standard of design which relates to the architectural and urban design character of the area.

In terms if improvements, the Conservation Area statement is adamant that that there is further potential for change in the area. It states that:

- There is potential for further commercial development in the area, as well as for the **conversion of warehouses to residential or other uses.**

There remains a large supply of existing vacant floor space within several significant buildings in the conservation area, and it is important in terms of the character of the area that **this space is put to beneficial use.**

The continued use of the buildings is therefore a material consideration in context of the *desire to preserve or enhance* set out in paragraph 69 of the Act. Without a beneficial use, the property threatens to fail these statutory tests.

The *character* and *appearance*, the second thread of paragraph 69 is clearly concerned with visual impact and for the assessment of this, the conclusions offered in context of the listed building consideration remain valid. The external appearance of the building will be enhanced by the proposed changes and the small extension to the rear of the fourth floor will have no visual impact due to its enclosed location.

The proposal will therefore result in no harm to character and appearance of the heritage asset and, again, there is therefore no requirement to assess the level of harm.

The building will retain its group value and continue to contribute to the distinctiveness of this part of the City.

2.0 SITE AND CONTEXT (Cont'd)

2.5 HISTORIC PHOTOS

Historic photos dated 1973.



Corner of Princess Street and Harter Street



View towards Harter Street Elevation

2.0 SITE AND CONTEXT (Cont'd)

2.6 SUMMARY AND CONCLUSIONS

As the application site is both a listed building and located in a conservation area, as well as being surrounded by other listed buildings, the Heritage Statement is required to consider the impact of the proposals on all of these features. The considerations are therefore:

i) Does the proposal preserve the historic listed building?

ii) Does the proposal respect the setting of surrounded listed building?

iii) Does the proposal preserve or enhance the character and appearance of the conservation area?

And, if the answer to any of these questions is negative, the final question is:

iv) Assuming all the changes are essential, does the provision of a use in perpetuity and therefore the retention of the listed building outweighs any harm to the listed building from the proposal.

Having assessed the historic context and the changes proposed, we are satisfied that the proposals will result in no harm to the Heritage Assets and that the proposal is compliant with all legal and policy tests as well as the development plan requirements and will enhance the existing both aesthetically and practically.

Further details of the proposals can be found within Section 5 (Scheme Design)

3.0 PLANNING POLICY CONTEXT

3.1 INTRODUCTION AND PLANNING HISTORY

3.1.1 This statement is prepared and submitted in support of both planning and listed building consent applications for the 40-46 Princess Street, Manchester M1 6DE and focuses entirely on the planning issues relevant to the proposal. The internal changes to the building, which require listed building consent rather than planning consent, are assessed in the Design and Access and Heritage Statements.

3.1.2 The planning related matters refer to the external changes to the building and the use of the building. In terms of the external changes, these are limited to the following:

- Re-opening of historic windows which have been previously blocked off.
- Removal of existing entrance canopy, roller shutter and associated cladding.
- Extension to rear of no.40 Princess Street at fourth floor level.
- Modification to existing roof structure - New modern glass 'lid enclosure' to Lightwell.
- Reconfiguring of external Plant.
- Closure of Efe restaurant entrance and reinstatement of former window opening.
- New entrance to Basement cycle store via Courtyard Area

3.1.3 Of these changes, the main considerations in planning terms are the extension to the fourth floor, the modification of the roof structure and the reconfiguring of external plant. Whilst the others changes require planning consent, their acceptability depends on the impact on the listed building and they are therefore assessed in the Heritage Statement.

The planning statement also assesses the proposed use of the building. No change of use is proposed on the upper floors (floors 1 to 4) of the building which was established as an office use under application F15802 for *change of use of 1st, 2nd, 3rd 4th and 5th floors of vacant warehouse to form offices* and approved 18th May 1981. Due to the change in levels across the building, these are shown as levels 1 to 8 on the proposed plans for clarity. These are currently in B1(a) office use and will remain so. The change from smaller office suites to a more open-plan nature is not a material change of use and therefore no planning permission is required. New office floor space is proposed in the extension to the building on the current roof (5th floor, levels 9 and 10 on the proposed plans).

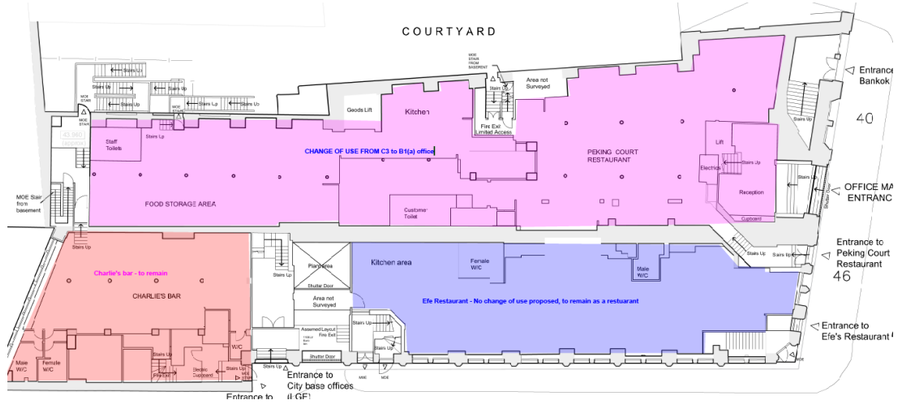
3.1.4 In terms of the upper floors, the remaining planning history of relevance is as follows:

- 032291 - Refurbishment of office entrance – Withdrawn 1988
- 033031 - Illuminated name/number on front elevation of offices – Withdrawn 1989
- 033080 - Refurbishment of entrance to existing office – Approved 1989
- 035830 - Change of use from offices to private hire taxi office – Approved 1990
- 088885/FU/2009/C2 - Change of use of room 103 to radio base only (Use Class Sui Generis) – Approved May 2009

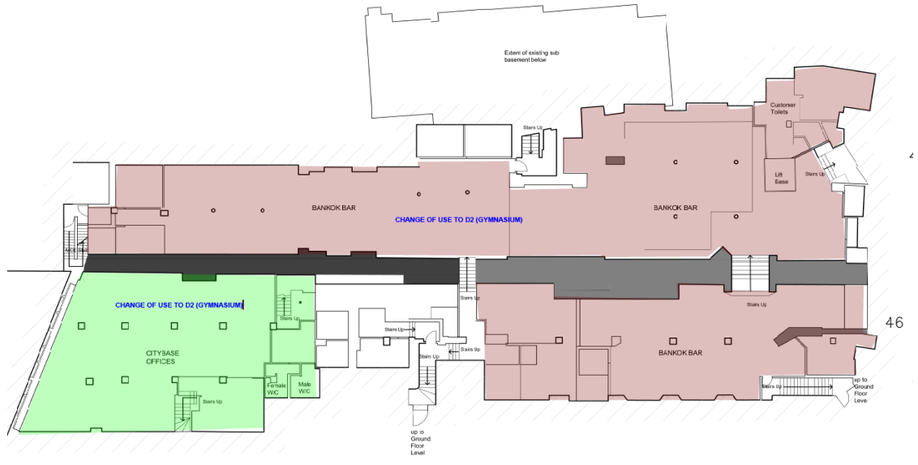
3.1.5 In terms of the lower floors, the levels change between number 40 and number 46 Princess Street so across the width of the building there are 4 different half levels. In terms of the current use of this part of the site, this is shown on the plans below and the current/proposed uses are described in bullet points:

- **Level 0** – Currently used as Peking Court Chinese Restaurant. This was a social club at the time of the change of use of the upper floors to offices (see above) and it subsequently changed, without the need for planning permission to the prevailing restaurant use. Change of use proposed to B1(a) office.

- **Level -1** – Current Efe restaurant (A3) at the front facing Princess Street. Change of use proposed to office. To the rear is Charlie's Bar (A4 use) and this will remain.



- **Levels -2 and -3** – The majority of these have until recently been occupied by Bangkok Bar which was part bar, part restaurant. The planning use of this was original approved in 1985 (application 025090) for "*change of use and alterations to basemen area adjacent to casino to form restaurant, bar, lounge and related staff areas in connection with casino".* This consent pre-dated the 1987 use class order and therefore, when it accrued a use class it would have accrued the use of the casino (D2). This created a single planning unit in this part of the building. The whole planning unit changed its use from a casino to a restaurant (A3) in 2012 under application 099868/FU/2012/C2. The proposal is to change from the prevailing A3 use to a D2 (leisure) use for use as a gymnasium with associated facilities (toilets, changing, class studio etc) as well as and separate cycle store and changing facilities for the Building occupants' use.



3.0 PLANNING POLICY CONTEXT (Cont'd)

3.1.1 INTRODUCTION AND PLANNING HISTORY

To the rear of the basement level -3 is an existing office, accessed off Harter Street, and run by Citibase who also run the upper floor offices. This will be included into the gym area as well.

Taking all into account, the planning application proposes the following:

Change of use of basement from A3 (restaurant) and B1(a) (office) to D2 (gymnasium). Change of use of part ground floor from A3 (restaurant) to B1(a) (office). Erection of new floor of B1(a) (offices) on roof. Refurbishment of existing offices, new cycle store and external changes.

3.2 PLANNING POLICY

3.2.1 As required by S70 of the Town and Country Planning Act 1990 and S38 of the Planning and Compulsory Purchase Act 2004, planning applications should be determined in accordance with the development plan unless material considerations dictate otherwise. Of relevance, and excluding the waste and minerals local plans as not being relevant to this proposal, the relevant development plan is the adopted Core Strategy 2012 and the saved policies of the Manchester Unitary Development Plan (UPD). The main material consideration of note is the National Planning Policy Framework (NPPF) and its accompanying Planning Policy Guidance. Whilst the Corer Strategy post-dates the NPPF by a few months, it was prepared before the publication of the NPPF and therefore it is appropriate for the decision maker to consider the policies in the context of consistency with the NPPF if they are to be given full weight in decision making.

3.2.2 The site is located within the defined city/regional centre of Manchester. The proposal will introduce additional office and D2 (leisure) floor space to the site. Both of these fall under the category of "main town centre uses" as defined by the NPPF and therefore, in principle their introduction onto the site is consistent with the aims of the city centre. Whilst the existing A3 uses are also "main town centre uses" the NPPF places no requirement on the decision maker to priorities one town centre use over another town centre use. This is reflected in the Core Strategy which makes no reference to retaining any particular use in this location. Policy C10 refers to the night time economy and on the face of it refers to the provision of new facilities rather than the retention of existing facilities. It states that "New development and redevelopment that supports the evening economy, contributes to the vitality of district centres and supports a balanced and socially inclusive evening/night-time economy will be permitted".

3.2.3 The aims of the NPPF are reflected in Policy SO2 of the Core Strategy which states that "…the Regional Centre will continue to be the main focus for **business**, retail, higher education, **leisure**, cultural and tourism development, to further develop its role as the main employment location and primary economic driver of the City region".

Both proposed uses are therefore supported in principle by this strategic policy. Policy SP1 continues this trend in making sure that development makes "a positive contribution to neighbourhoods of choice including:- creating well designed places that enhance or create character. making a positive contribution to the **health**, safety and wellbeing of residents considering the needs of all members of the community regardless of age, gender, disability, sexuality, religion, culture, ethnicity or income. **Protect and enhance the built** and natural environment. Minimise emissions, ensure efficient use of natural resources and reuse previously developed land wherever possible. **Improve access to jobs**, services, education and open space by being located to reduce the need to travel and provide good access to sustainable transport provision." (our emphasis

3.2.4 Policy EC 2 moves away from promoting new development to retaining existing employment space. This is relevant to the proposal as a small element (circa 100m2) of office space is to be lost in the basement and subsumed into the proposed gym. The policy only allows exceptions to this requirement for 4 reasons, the first three of which are not relevant to this proposal. The final point is of relevance and states that a proposal will be acceptable if "on balance, proposals are able to offer greater benefits in terms of the Core Strategy's vision and spatial objectives than the existing use." There is no similar policy referring to A3 uses and therefore the cumulative increase in office floor space over the whole building is the test rather than the loss of the small office unit in the basement. Overall, the proposal will introduce 766m2 more office space to the site which is consistent with the overall aims of the Core Strategy and EC2.

3.0 PLANNING POLICY CONTEXT (Cont'd)

3.3 DESIGN

3.3.1 The proposal includes some external changes to the building, the most significant of which is the addition of further accommodation on the fourth floor.

3.3.2 Policy EN 1 of the Core Strategy sets out the Design Principles at a site-specific level and explains that all development in Manchester will be expected to follow the seven principles of urban design, as identified in national planning guidance and that opportunities for good design to enhance the overall image of the City should be fully realised. It continues that "developers will be expected to consider the City's heritage and continue the rich pattern of activity in the core area". In terms of the design, this is covered in both the Design and Access Statement and the Heritage Statement and requires little repeating. Visually, the changes will be limited to the small changes to the façade of the building as the rooftop extension will match (brickwork, windows scale etc.) the existing building, will be no higher than the tallest part of the application site and will visually merge in with the rest of the building and the surrounding area.

3.3.2 Given the historic use of the property as a warehouses, the front and side façade of the building is already the most changed part of it due to the need to advertise the many uses and to provide separate access points. Whilst the proposal does not seek to restore the façade to how it was (there is no planning nor legal obligation to do this) the external changes will be sympathetic to the building. Assuming the Heritage impacts on the listed building and in the conservation area are acceptable then the design requirements are also satisfied.

3.4 Development Management Policies

3.4.1 The Core Strategy also contains some more site-specific development management policies but most of these are specific to new buildings or substantial alterations to existing buildings, neither of which are relevant to this proposal. Policy DM 1 is the overarching policy and beyond the design and appearance requirements which we have already assessed introduces tests of effects on amenity, including privacy, light, noise, vibration, air quality, odours, litter, vermin, birds, road safety and traffic generation.

3.4.2 In terms of neighbouring amenity, the only significant addition to the building is the extra floor area on the top floor. There are, however, no windows of neighbouring properties near this extension as the extended part is over the lower part of the building (the overall site) and therefore the extension is buffered from any neighbours by the existing development on the application site. Whilst an additional floor of windows will be introduced, neighbouring premises are already overlooked by the application site and other neighbours (this is a densely developed city centre location) and therefore any additional overlooking will be immaterial. The same applies for any loss of light from the additional floor.

3.4.3 There will be no material impact on any other the other considerations.

3.5 NPPF

3.5.1 Returning to the up-to-date requirements of the National Planning Policy Framework, there are three dimensions to sustainable development: economic, social and environmental. These dimensions give rise to the need for the planning system to perform a number of roles:

- **An economic role** – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure – the delivery of an increase in office floor space specifically aids the daytime economy in an appropriate (city centre) location.

- **A social role** – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being – the provision of a gymnasium on site is a health and therefore social benefit of the scheme.

- **An environmental role** – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy – As demonstrated in the Design and Access and Heritage Statements, the proposal respects the built and historic environment whilst providing a use for the building consistent with modern needs.

3.5.2 All of the more specific requirements of the NPPF reflect this greater aim of delivering sustainable development, elaborating on these three identified arms of sustainable development. Specifically, paragraph 18 of the NPPF states that the Government is committed to securing economic growth in order to create jobs and prosperity, building on the country's inherent strengths, and to meeting the twin challenges of global competition and of a low carbon future. This is consistent with the development plan requirements assessed above,

3.6 CONCLUSION

3.6.1 This Planning Statement considers the in-principle justification for the proposed uses. The majority of the site will remain in office use and there will be a small increase in office use overall.

As the office use is already established on the site, the additional office space is effectively an extension to the existing use and therefore there is no requirement to consider whether the site is in a sequentially preferable location. Regardless, an office use is classified as a "town centre use" as defined in the NPPF and both the NPPF and the development plan are supportive of such a use in this location as the most sequentially preferable.

The proposed D2 (gymnasium) use is also a defined "town centre use" and therefore is appropriately located as the most sequentially preferable location for such a use. Generally speaking, the proposed D2 use will replace an existing A3 (restaurant) use but, whilst the restaurant is reasonably located here, there is no planning policy requirement to retain the existing use or to assess whether the proposed use is preferable to the existing use. As a result, the proposed uses are appropriate in principle.

4.0 CONSULTATION

4.1 PLANNING PRE-ADVICE MEETING 1

A Pre-Application meeting was held with Planning Officers on **19th December 2016.**
A thorough and useful response was received from Planning Officers in response to the first pre-application meeting on the 1st February 2017 with lists of supporting information required for both the planning and listed building consent.

We attempted to address the key points from this feedback in order to adjust and improve the scheme within this submission, with particular focus on the following interventions:

- Re-opening of historic windows which have been previously blocked off.
- Removal of existing entrance canopy, roller shutter and associated cladding.
- Reconfiguration of main entrance staircase.
- Feature Lightwell – to include new glazing, lightwell staircase and interconnecting access across the lightwell.
- Extension of existing lightwell through to Ground floor level.
- New lift core and overrun – 2 lifts, (1 no. scenic glass lift within existing lightwell).
- New modern WC facilities throughout the Building.
- Reconfiguration of floor plates to provide a variety of larger sized modern office suites.
- Extension to rear of no.40 Princess Street at fourth floor level.
- Modification to existing roof structure - New modern glass 'lid enclosure' to Lightwell.
- Reconfiguring of external Plant.
- Incorporation of new Service risers throughout the building.
- Closure of Efes restaurant entrance and reinstatement of former window opening.
- Provision of new cycle store to the part Basement area

<u>Of particular note, was the following feedback</u>

"generally concur with the scope of discussions at the meeting but just wanted to point out that if there are any negative impacts of the proposed works we would want to understand within the scope of the D&A / Heritage Assessment what alternatives have been considered and understand the justification for the chosen approach.

In relation to the external works before the designs are finalised and before submission we would like to see a 3D study of the existing and proposed to enable a better understanding of the overall impact at roof level and in relation to the lightwell."

BICYCLE PARKING
Comment from Officers:
Bicycle parking must be provided in accordance with NPPG Guidance note 13 (PPG13) and LPT2, and the standards set out in the draft.

Bicycle parking is to be provided within the building in a secure and covered well-lit enclosure to meet the relevant Local Plan standards.

Cyclists facilities such as showering and changing facilities will be provided as a matter of course - it is acknowledged that modern tenants require and expect an enhanced provision for staff as standard.

We comply with the requirements of 1 cycle / 400m2 = 17, however the scheme provides for 42 cycles.

Bicycle parking is to be provided within the building in a secure, covered and well-lit to meet the relevant Local Plan standards.

Cyclists facilities such as showering and changing facilities will be provided as a matter of course - it is acknowledged that modern tenants require and expect an enhanced provision for staff as standard.

5.0 SCHEME DESIGN

5.1 DESIGN CONCEPT

The Proposed design scheme involves an analytical appraisal of all existing information; including both the current and original existing floor plans and Elevations.

The Proposed works, as listed in the Introduction, have been carefully considered to maximise the usability of the floor plates and to create a more fluid means of circulation throughout the building. The scheme aims at keeping impact to the historic fabric to a minimum and is something which has been kept at the forefront throughout the development of the design and which is highlighted in more detail under both items 1.3.2-Scope of Works and 2.0-Heritage Statement. All other internal work is generally of redecoration and furnishing nature, with no or minimal impact on the historic fabric.

The property's office accommodation, which consists of two historic listed buildings (now joined together) is accessed from a dedicated entrance fronting onto Princess Street. A second, smaller entrance is also provided fronting onto Harter Street. The office accommodation is provided across the five upper floors with the leisure/ancillary accommodation provided on ground and basement floors. Part of the ground and basement floor has been sold on a long leasehold basis.
The office accommodation is leased to Citibase – an independent operator in the serviced office sector – and is therefore currently sub-divided into a number of different sized suites and meeting room facilities. The floors are accessed via both passenger lift and staircase access with male and female toilet facilities throughout.

The existing lightwell appears to be part of the original design of the building, and therefore the changes must be viewed in context of the existing (see Historic Goad Plan dated 1888) The proposed upgrading of the lightwell has been designed for it to be brought back into use as it was originally intended. In this context, there will be no harm to the historic character of the listed building.

The leisure accommodation is provided by way of 2 ground floor restaurant units with frontage onto Princess Street and 1 bar / nightclub which is accessed from Harter Street. Each is fitted out to a quality, independent trading style with features including air conditioning, original features, wooden flooring and exposed columns.

The proposed design scheme is intended to achieve efficiencies in spatial arrangement of office accommodation to maximise the usability of the existing floor plates by removing the existing highly cellularised internal fit out, poor circulation, and under-provided poorly refurbished WC facilities, whilst revealing and enhancing as much of the existing fabric and structure as possible, which has been hidden over time within layers of partitioning. The proposals use modern technology to reduce the burden on the space, with the opportunity of removing outmoded paraphernalia and inclusion of much lighter technologies both for communication and services which will assist in freeing the building from visual clutter. As previously stated, the design intervention will remove the highly cellular partitions in favour of expansive open-plan demises

The existing offices are in very poor condition and in great need of modernisation to current work standards. The proposed scheme will also help to connect the workplace by allowing freer circulation, both actual and virtual. An improved circulation through the building is key in presenting a cohesive work environment – the buildings' floor plates are currently staggered on alternative floor levels as they were built independently of each other. By returning the buildings to their original intended design, and with each building having access to a lift, this will greatly improve circulation and spatial efficiency. Wherever possible, interconnecting party wall stairs are being closed to bring the two buildings floorplates back into the originally intended historic sizes.

The existing lightwell, is currently in poor condition, not visible and a sadly forgotten area, hidden away with many of the existing windows being blocked off with adjacent space being used either for WC provision or Kitchen facilities, as all existing services are currently configured into the lightwell area. New WC provisions are located adjacent to the lightwell core throughout the building, to maintain easy access to these service risers. The existing single lift in reception is grossly insufficient to properly serve the building and more, larger capacity lifts are required.

As part of the proposals for improvement on the Ground Floor, the existing lift and staircase are to be removed and new ones are to be located within the existing lightwell in the form of new modern lifts, one a scenic glass lift, (with increased passenger capacity), along with a new main access metal stair creating interest and a feature rising up through the building to improve accessibility and make optimum use of the space.

The aim of the design is to create a more open and inviting entrance, by removing the existing roller shutter and signage to the front entrance, and front entrance generally, reconfiguring the main entrance stairs to provide a much more open and impressive entrance to the building. The diverse and scattered signage to Efe's, Bangkok Bar and Peking Court will be removed and new lighting and signage is being proposed to be more in keeping and sympathetic with the building. The provision of a collapsible platform lift will ensure compliance with DDA and accessibility requirements to the main building.

It is intended for the Sub-Basement area to be used as Storage space, with the Basement to be converted to a D2/A3 Leisure/Gym Use to facilitate the user occupiers and wider area, with a Cycle park and ancillary showering and WC facilities.

On the ground floor, the current Efe's restaurant (on no 46 Princess Street), will be converted to A3/B1 for the wider public and the user occupiers of the Building. The current access steps to the restaurant will be blocked off, and the former window reinstated, with access to be via the current Bangkok Bar Fire escape door on the corner of the site.

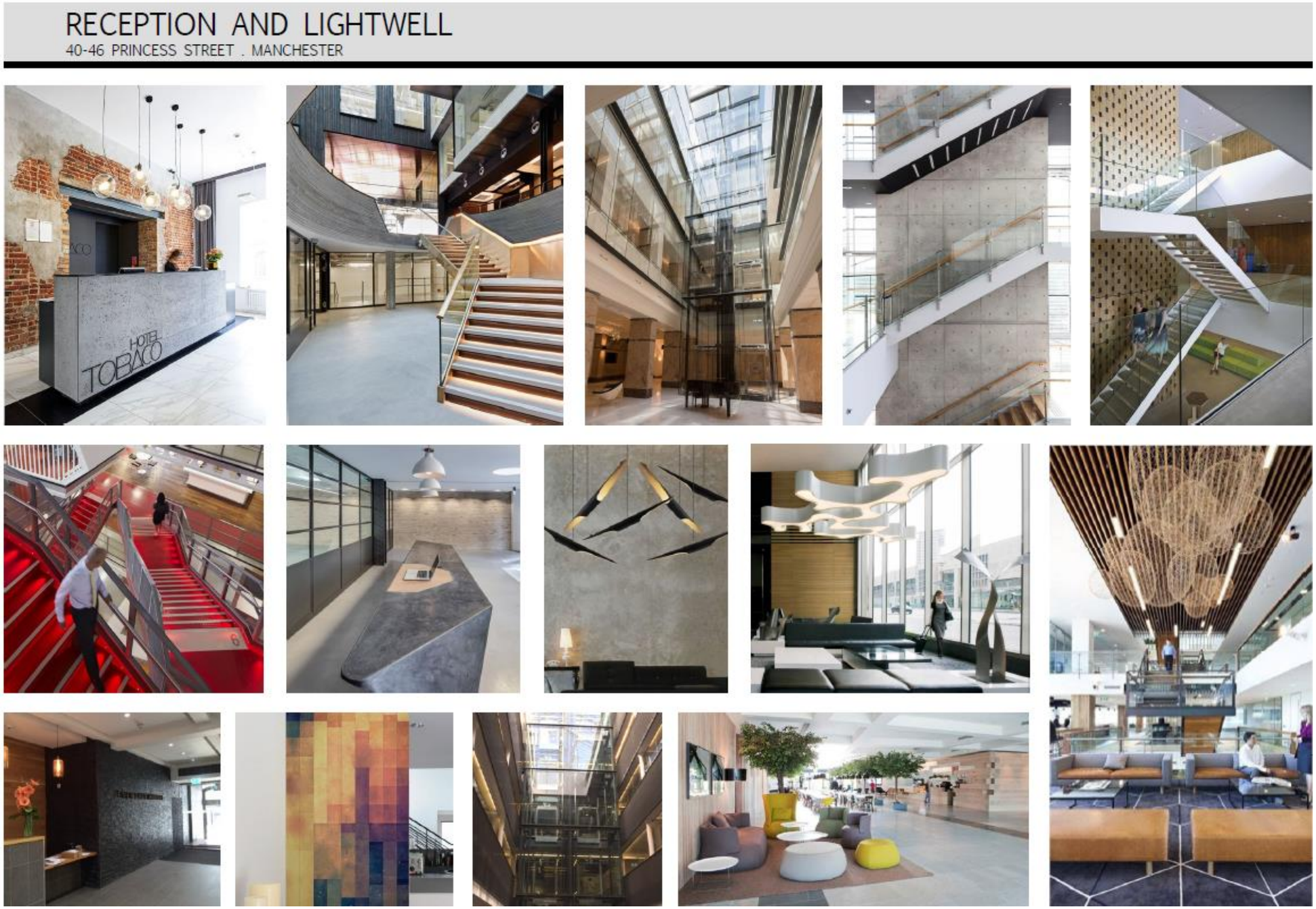
At third floor level, to the rear of the building on no 40 Princess Street, it is proposed to remove the existing roof structure and extend another storey to create additional space at fourth floor level. This area of the building is not visible from a public vantage point and will therefore have no impact on the appearance of the listed building. In the context of the character of the building, the extension will not extend beyond the existing built form on the lower levels and will not, in terms of hierarchy, detrimentally impact the flow of the building.

The Roof level will require some reconfiguration of the existing roof structure to provide the central WC accommodation as well as provision of a glass roof structure to the light well to provide protection from the elements to the levels below.

5.0 SCHEME DESIGN (Cont'd)

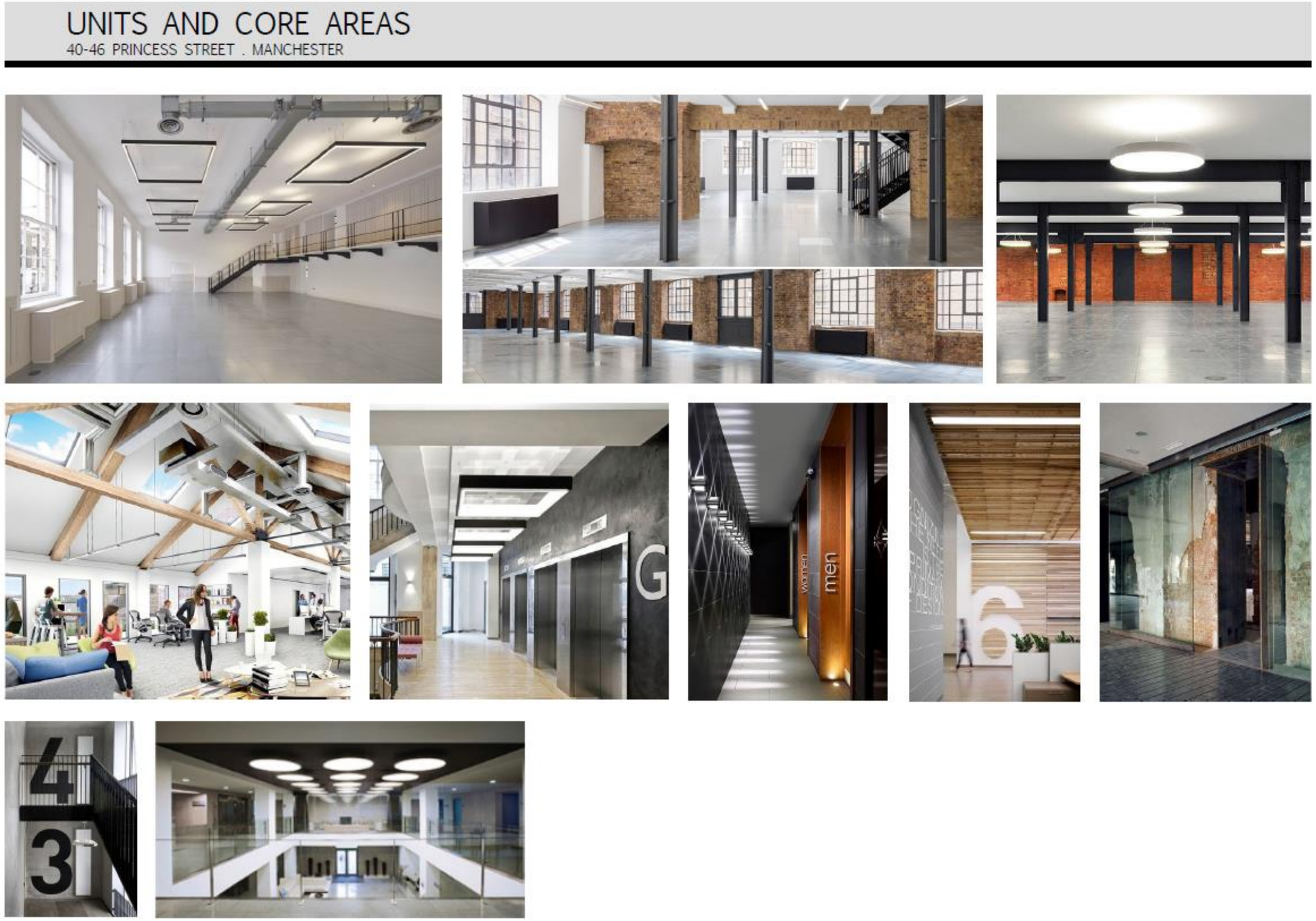
5.2 INDICATIVE MOODBOARDS

The following are a series of mood boards to reflect the initial concept ideas for the refurbishment of the Building and are to be read in conjunction with the proposed concept layouts.



5.0 SCHEME DESIGN (Cont'd)

5.2 INDICATIVE MOODBOARDS



5.0 SCHEME DESIGN (Cont'd)

5.2 INDICATIVE MOODBOARDS

GROUND FLOOR CAFÉ
40-46 PRINCESS STREET . MANCHESTER











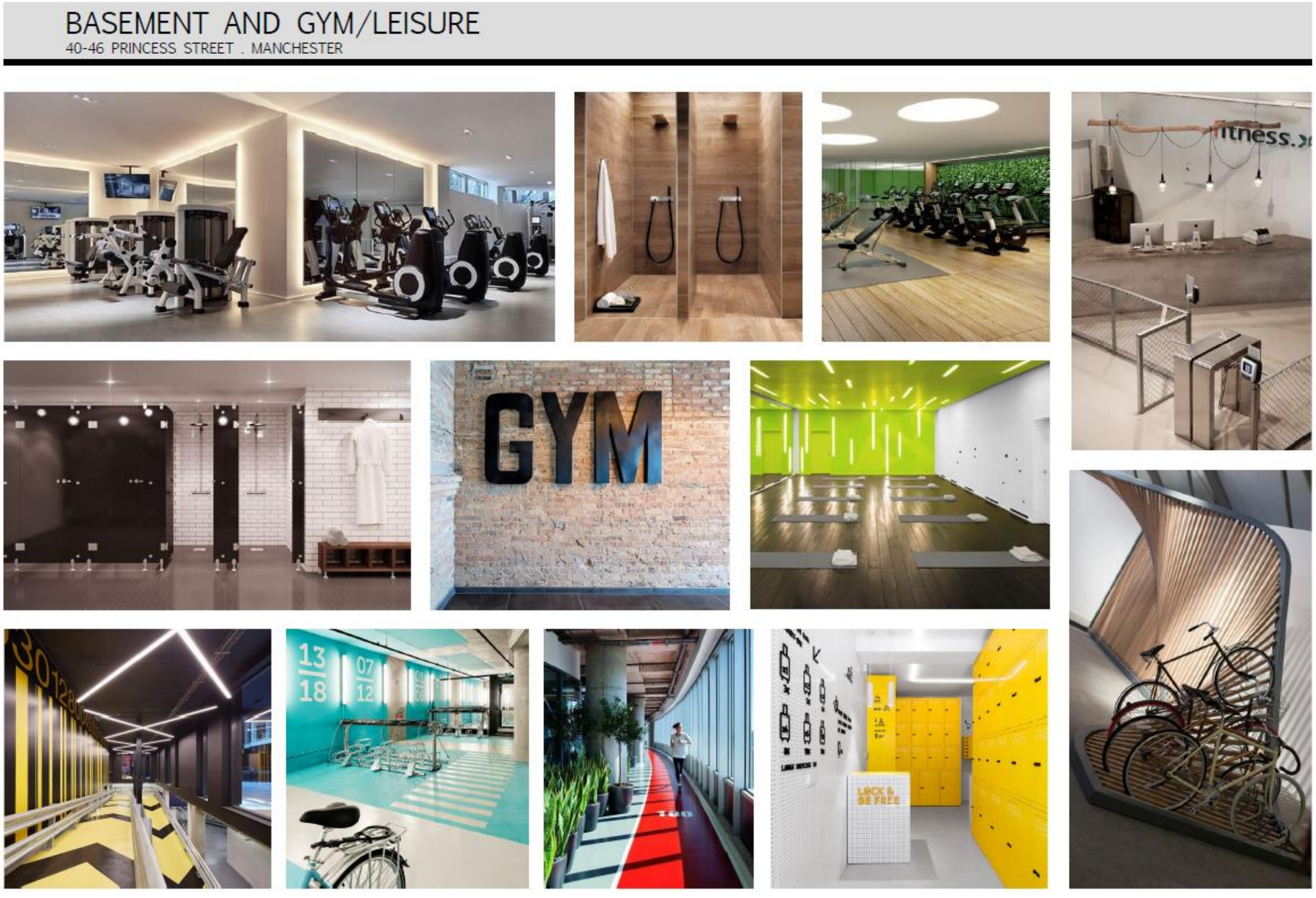







5.0 SCHEME DESIGN (Cont'd)

5.2 INDICATIVE MOODBOARDS



5.0 SCHEME DESIGN (Cont'd)

5.3 MAIN ENTRANCE STREET VIEW-BEFORE AND AFTER



EXISTING STREET VIEW-NO. 40-46 PRINCESS STREET



PROPOSED STREET VIEW-NO. 40-46 PRINCESS STREET

5.0 SCHEME DESIGN (Cont'd)

5.4 SCOPE OF WORKS - STRIP OUT, REMOVAL AND DISMANTLING

Scope of works *(To be read in conjunction with Strip Out Removal and Dismantling Drawings submitted in support of the application.)*

A Sub-basement

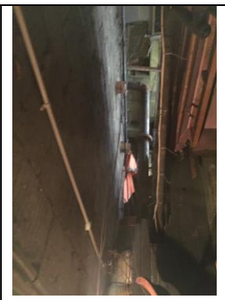
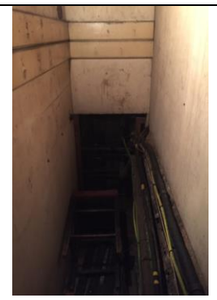
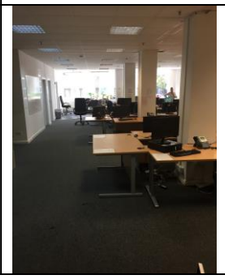
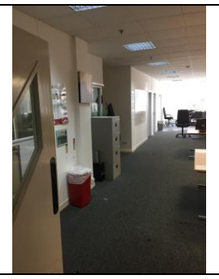
The works to the Sub-Basement level will consist of strip-out of existing services, WC's and installation of new services to ensure water-tightness.

SUB-BASEMENT LEVEL		
EXISTING AREA	**SCOPE OF WORKS**	**EXISTING PHOTO**
Vaults	Strip-out of existing services, WC's and installation of new services to ensure water-tightness	 

B Basement

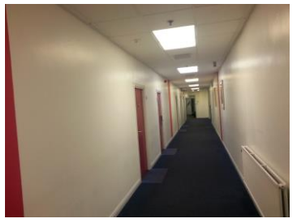
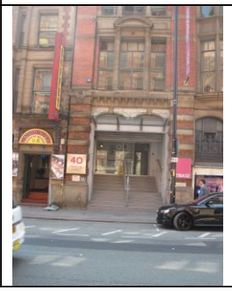
The works to the Basement level will consist of strip-out of existing services, partitions, WC's and installation of new services from Sub-station.
All existing suspended ceilings to be removed to facilitate new fit-out. All basement windows to be reinstated.

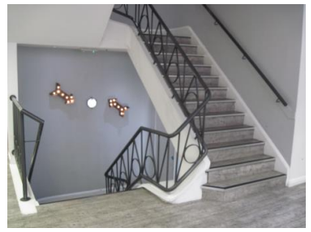
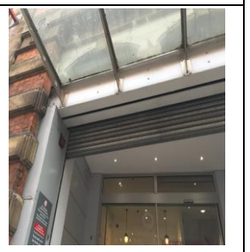
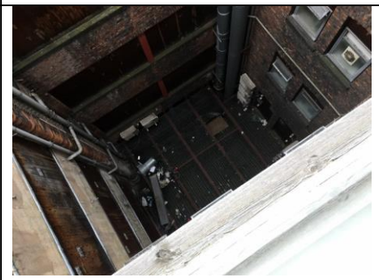
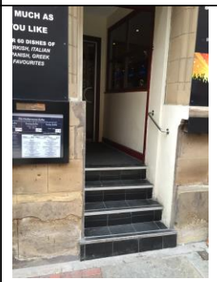
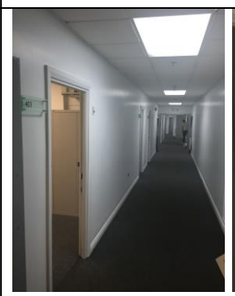
BASEMENT LEVEL		
EXISTING AREA	**SCOPE OF WORKS**	**EXISTING PHOTO**
Bangkok Bar	Removal of toilets to no 40 side, Strip-out of existing services throughout and removal of all suspended ceilings, floor coverings	 

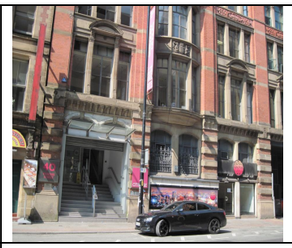
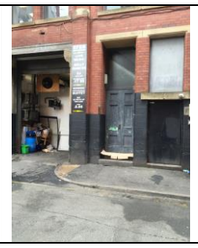
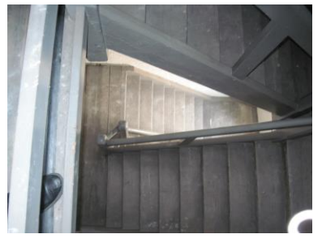
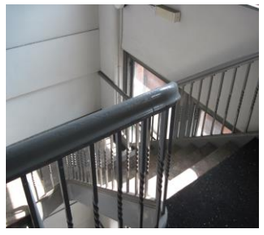
Bangkok Bar area facing no 40 Princess Street	Existing high level windows to front elevation to be reinstated.	 
Citibase area	Removal of existing WC's, partitions and reconfiguring of internal stairs. Suspended ceilings to be removed and Fire escape stairs and route to be upgraded.	 

C Ground Floor

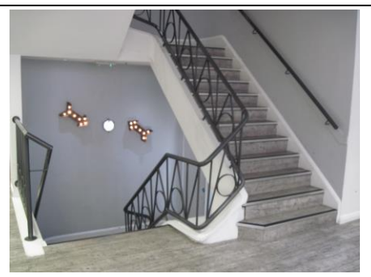
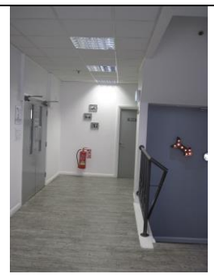
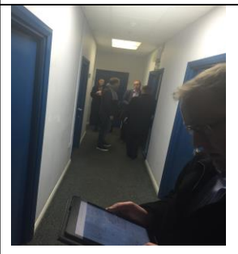
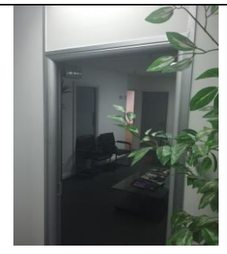
The works to the Ground Floor level will consist of reconfiguring of the front entrance stairs, light well extension to Ground floor, strip out of wc's, opening up of light well and boarded up windows. Existing concealed cast-iron columns and beams will be exposed where possible.

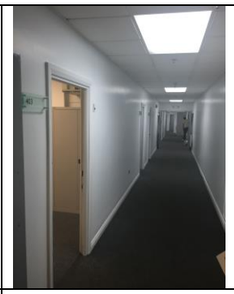
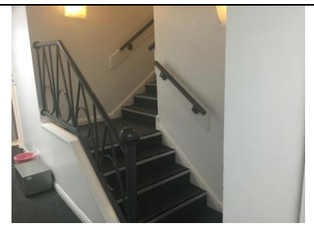
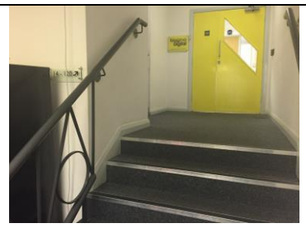
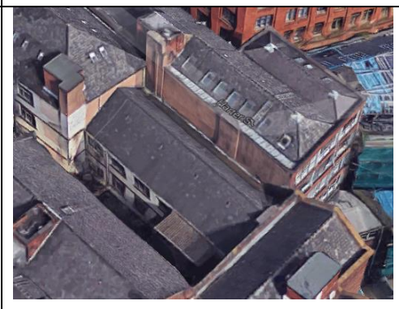
GROUND FLOOR		
EXISTING AREA	**SCOPE OF WORKS**	**EXISTING PHOTO**
Ground Floor	Removal of existing WC's as indicated to Peking Court – No 40 Princess Street Removal of existing WC's to Efe's Restaurant – No 46 Princess Street Removal of all internal partitions and suspended ceilings and services/floor coverings	 
Ground Floor level – No 46	Removal of short flight access stairs to Peking Court and reconfigure stairs to form new entrance to create new Cafe`	 

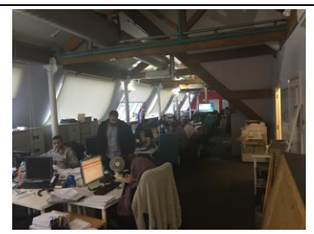
Ground Floor level – no 40 reception	Removal of existing reception internal stairs, lift and electrical riser room	 
Entrance to no 40	Removal of existing entrance canopy and associated structure and roller shutter/signage. Existing decorative arches to be restored and provide new entrance gates – decorative metalwork	  
Ground Floor – Peking Court	Extension of lightwell through to ground floor level and all associated Structural works	
Ground Floor	Removal of stairs from no. 46 Princess Street to Efes's restaurant to be blocked up and windows to be reinstated along with all associated detailing	 
Ground Floor	Removal of existing WC facilities in preparation for reconfiguration of floor plate and new use New modern WC facilities to be implemented throughout the Building with new M&E service risers to accommodate. Removal of internal partition walls Please refer to Appendix B- Reconfiguration of the floor plate to provide a variety of larger sized modern office suites.	 

Ground Floor	Re-opening historic windows which have been blocked off.	  
Ground Floor	Refurbishment to existing FE Stairs to be retained. (Stairs 5 and 2 indicated on the photos)	  
Ground Floor	New M&E Services to be incorporated throughout the building - See M&E Schematic plans in Appendix F	**NA**

D 1st to 5th Floors

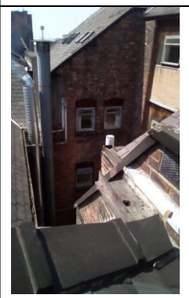
FIRST/SECOND & THIRD FLOOR		
EXISTING AREA	**SCOPE OF WORKS**	**EXISTING PHOTO**
1st/2nd/3rd floors	Removal and floor infill of existing Lift shaft and adjacent staircase throughout the building	 
1st/2nd/3rd floors	Removal of internal partition walls throughout floor plates	  

1st/2nd/3rd floors	Removal of existing WC and Kitchen facilities throughout the floor plates.	 
1st/2nd/3rd floors	Existing concealed cast-iron columns and beams will be exposed where possible.	
1st/2nd/3rd floors	Opening up of blocked up internal lightwell windows to create full height glazing to all floor levels.	
1st/2nd/3rd floors	Removal of central internal connecting stairs to each building and infill of party wall to all floor levels.	 
FOURTH FLOOR		
EXISTING AREA	**SCOPE OF WORKS (AS FLOORS 1-3 ABOVE)**	**EXISTING PHOTO**
Roof Area	Existing roof to level 3 to be extended to form part of 4th Floor Unit 1	

FIFTH FLOOR		
EXISTING AREA	**SCOPE OF WORKS**	**EXISTING PHOTO**
5th Floor adjacent to lift overrun room – No 40	Removal and floor infill of current lift motor room (See photo, lift overrun show on LHS of picture)	 
5th Floor – office area to rear - No 40	Removal of existing partitions – roof timbers to remain exposed	 

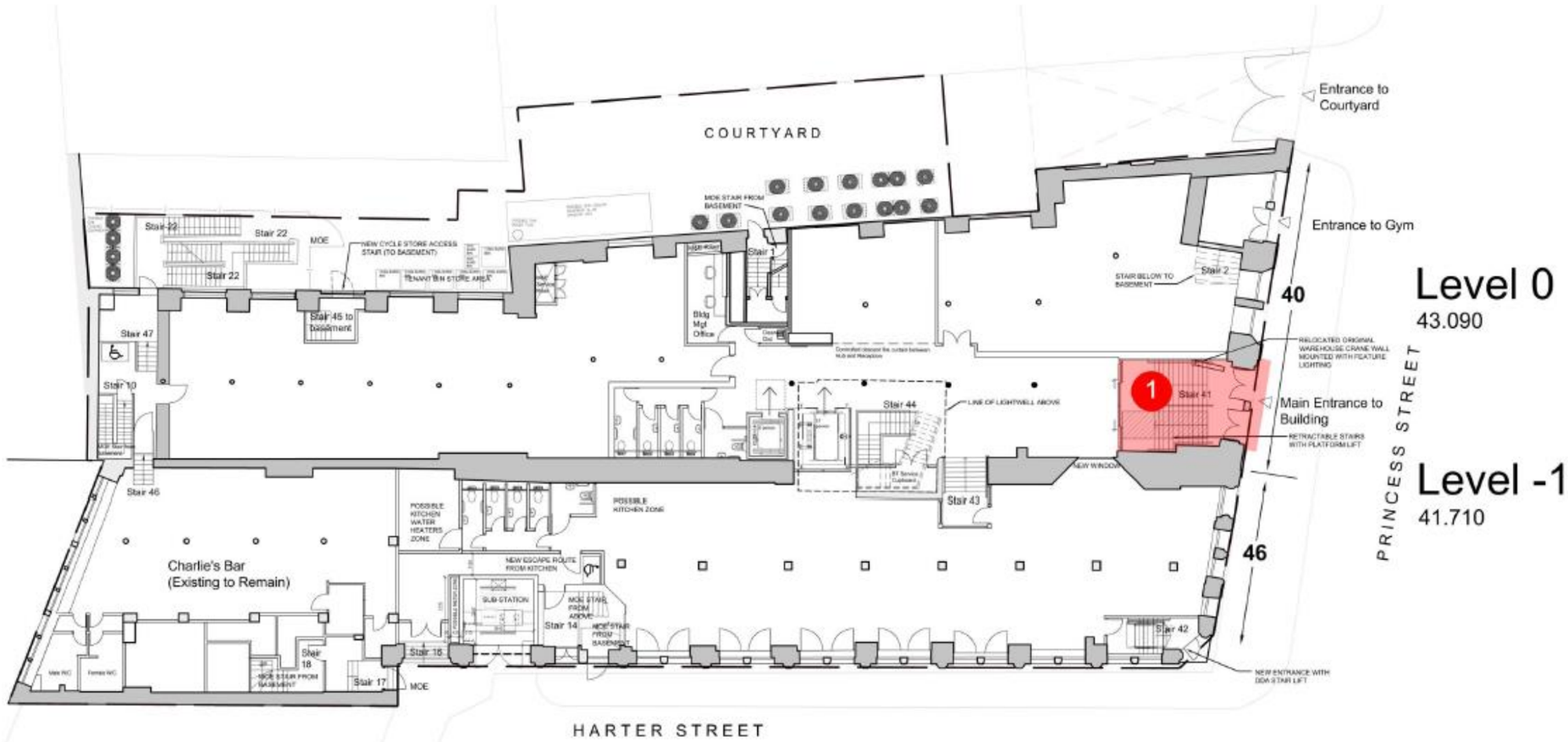
E Roof Structure

The works to the existing roof structure will comprise of modifications to allow for the incorporation of the new lifts to the lightwell and the reconfiguring of the new WC core around the Party Wall location, strip out of plasterboard partitions and incorporation of new lifts and stairs to internal lightwell.

ROOF LEVEL		
EXISTING AREA	**SCOPE OF WORKS**	**EXISTING PHOTO**
Existing Lightwell	Removal of Light well wall and roof structure to facilitate lift installation and new roof covering to lightwell and stairs to lightwell	 
Existing Roof Photos	  	

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS



PROPOSED GROUND FLOOR PLAN
Referencing Intervention No. 1 – Main Entrance

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

1.0 MAIN ENTRANCE

1.1 INTERVENTION

PROVENANCE – CIRCA 1870 – 1880:
A modern/ late 20th Century intervention, the existing stair provides the main point of entry to the building but unfortunately suffers from many deficiencies, both practical and aesthetic.

HERTIAGE SIGNIFICANCE OF EXISTING MAIN ENTRANCE:
Low.

PROPOSAL:
The aim of the design intervention is to remove the existing stair and associated accoutrements and replace them with a more open, inviting, accessible entrance.

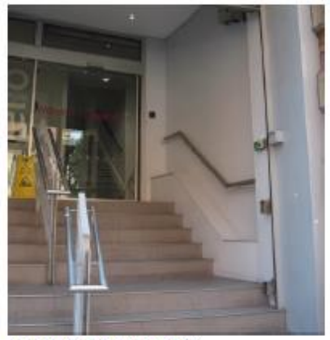
NEGATIVE ASPECTS OF EXISTING / POSITIVE ASPECTS OF PROPOSAL:

EXISTING	PROPOSED
The existing entrance stair is inaccessible to those who require DDA compliant access.	The new stair will include a platform lift concealed below a retractable portion of steps, which is visually non-intrusive.
There is currently no protection from inclement weather at street level, other than minimal shelter afforded by the existing canopy, which is unsightly and impractical.	The position of the new stair, set back from the building line, will provide a recessed entrance space, providing shelter from inclement weather, of particular benefit to wheelchair users or other building visitors with restricted mobility.
The existing roller shutter and canopy present an unsightly first impression of the building. It is also in poor condition, and not in keeping with the character of the building.	New decorative metal gates and central stone pier will replace the roller shutter and will be consistent with the style of the building period, and will match the adjacent window metalwork. The gates will provide security after hours. The canopy, no longer needed as part of the new stair arrangement, will be removed.
There is no memorable sense of arrival associated with the existing building entrance, which lacks elements containing architectural interest.	A prominent feature of the entrance area will be the relocated original warehouse crane, finished to retain the patina developed from years of use in these former industrial warehouses and highlighted with feature lighting.
The modifications previously undertaken to the existing main building entry are not in keeping with the original language of the building.	The new entry arrangement will include feature lighting that will be visually striking as well as effective and will provide consistency with adjacent fenestration modules.
The existing signage is unsightly and clutters the front façade.	The restored façade will have minimal signage, allowing the historic fabric of the building to be prominent.

1.2 EXISTING



EXISTING MAIN ENTRANCE

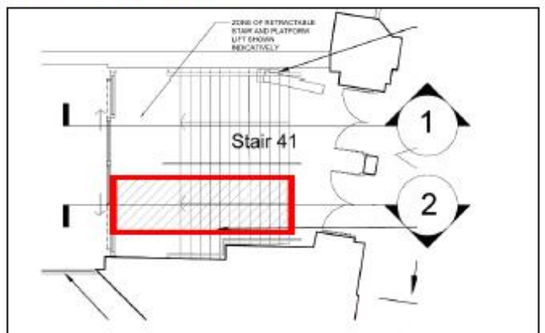


EXISTING ENTRANCE STAIRS



EXISTING MAIN ENTRANCE CANOPY AND STAIRS

1.3 PROPOSED



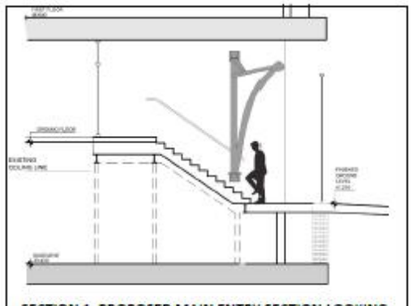
MAIN ENTRANCE PLAN SHOWING NEW STAIR, GATES, PLATFORM LIFT



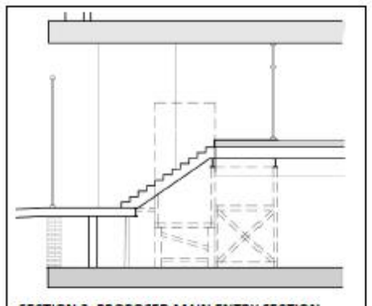
TYPICAL RETRACTABLE STAIR AND PLATFORM LIFT SIMILAR TO PROPOSED INTERVENTION



ORIGINAL WAREHOUSE CRANE TO BE RELOCATED TO FRONT ENTRY



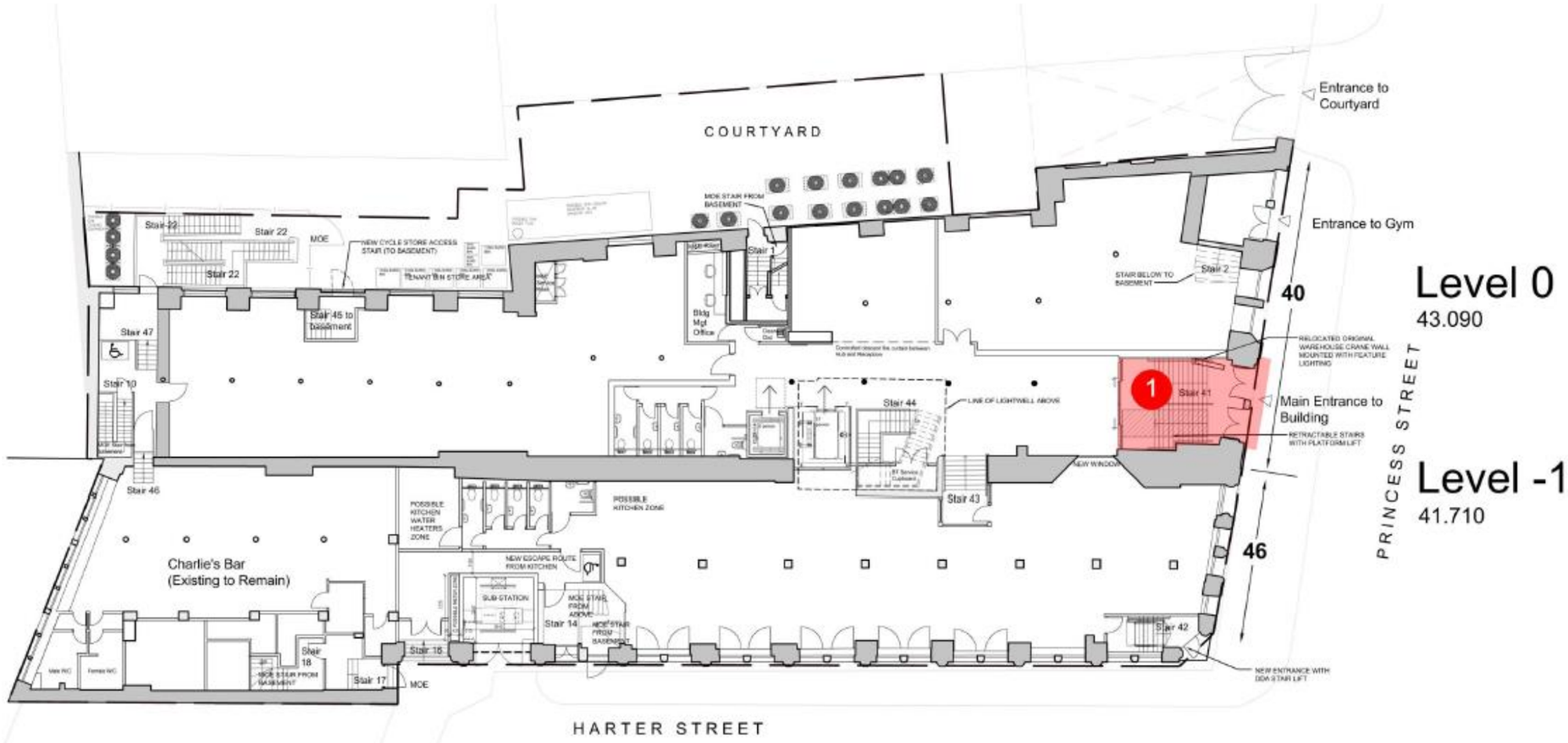
SECTION 1. PROPOSED MAIN ENTRY SECTION LOOKING NORTH FOR RETRACTABLE STAIR AND PLATFORM LIFT SHOWING RELOCATED ORIGINAL WAREHOUSE CRANE



SECTION 2. PROPOSED MAIN ENTRY SECTION LOOKING NORTH SHOWING SUPPORTING STRUCTURE

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

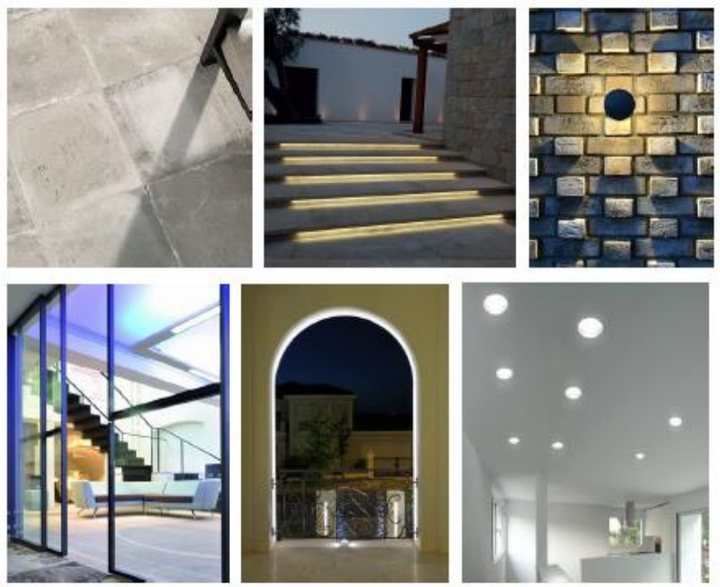


PROPOSED GROUND FLOOR PLAN
Referencing Intervention No. 1 – Main Entrance

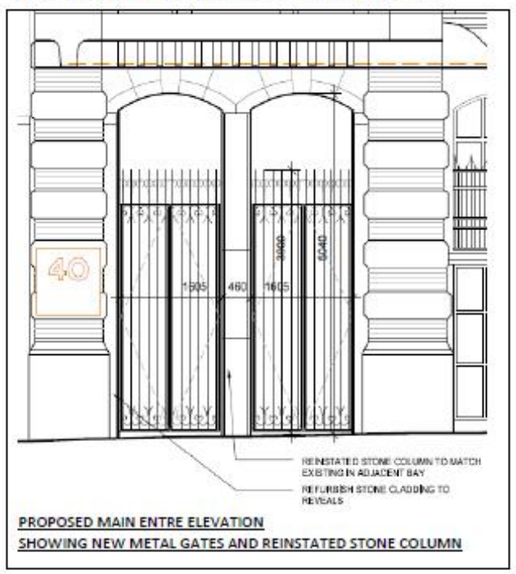
5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

PROPOSED MOODBOARD – MAIN ENTRANCE



1.3 PROPOSED CONTINUED



PROPOSED MAIN ENTRE ELEVATION
SHOWING NEW METAL GATES AND REINSTATED STONE COLUMN



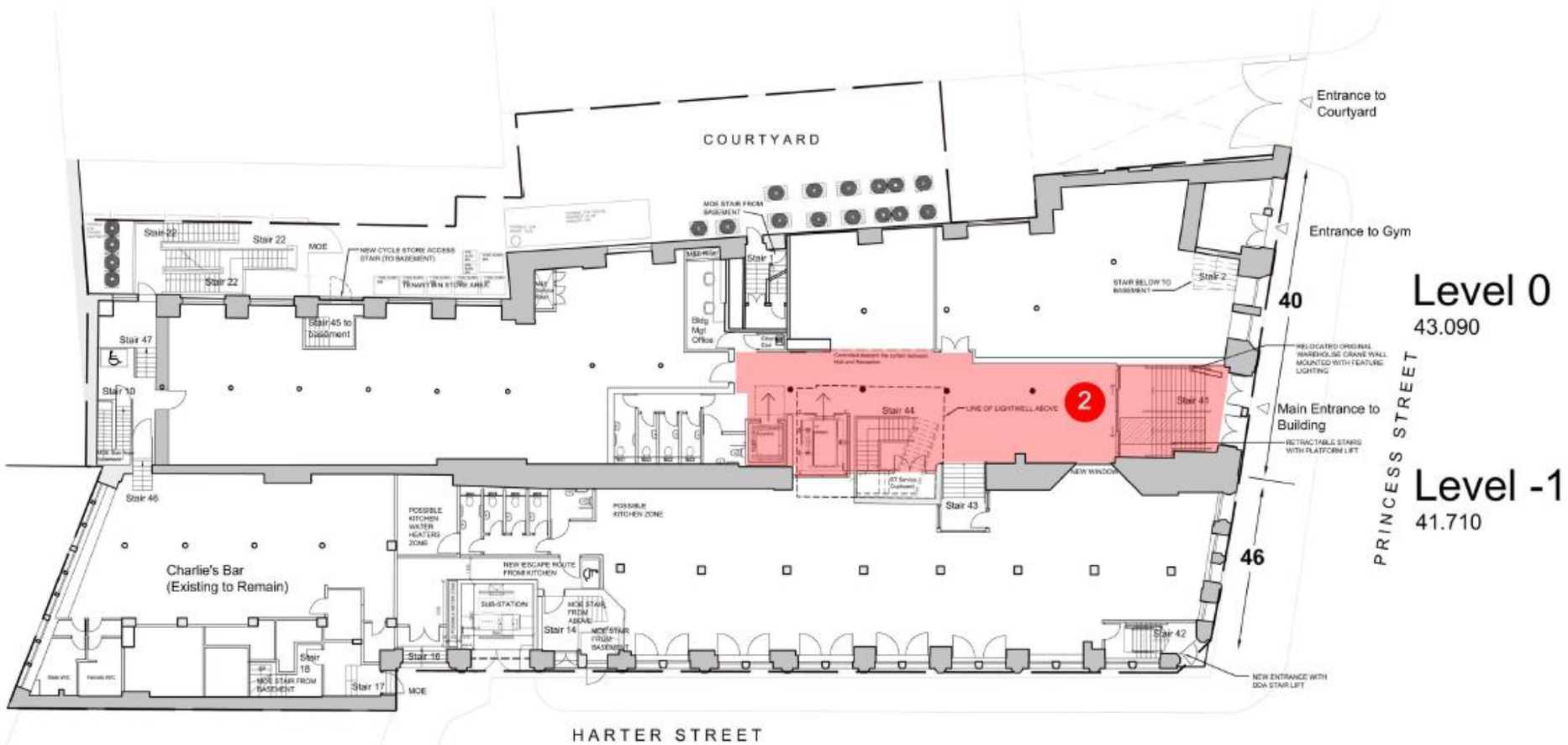
PROPOSED MAIN ENTRY ELEVATION
SHOWING NEW ENTRY STAIR AND SLIDING DOORS BEYOND



PROPOSED MAIN ENTRANCE RENDER

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS



PROPOSED GROUND FLOOR PLAN
Referencing Intervention No. 2 – Main Reception

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

2.0 MAIN RECEPTION

2.1 INTERVENTION

PROVENANCE:
The existing reception area consists of a front desk, main stair and lift with a small number of visitor seats.

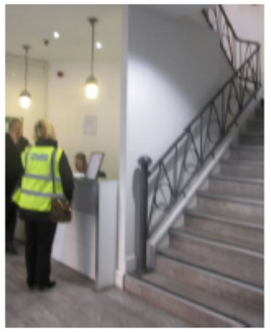
HERTIAGE SIGNIFICANCE OF EXISTING MAIN ENTRANCE:
Low.

PROPOSAL:
The aim of the design intervention is to create a secure, visually impressive and accessible entrance hall and reception area, linking Princess Street to the new internal core in the existing lightwell.

NEGATIVE ASPECTS OF EXISTING / POSITIVE ASPECTS OF PROPOSAL:

EXISTING	PROPOSED
The existing reception area is a compact dead-end space cut off from the rest of the building.	The new reception area will provide views through and access to the previously concealed lightwell, as well as direct access to the Café at No. 46 Princess Street via an internal stair.
Existing main stair and lift which are not fit-for-purpose will be removed.	The existing stair is not thought to be original and will be infilled (as will the lift shaft) with minimal impact to the integrity of the building. The resultant open space will allow for improved circulation through a more spacious reception area to the new stair and lifts beyond.
No DDA Compliant access to existing building.	The existing fabric of the original opening will not be enlarged or altered. The new entrance will be designed to allow DDA Compliant access.

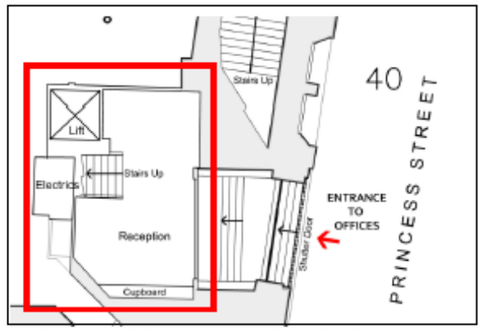
2.2 EXISTING



EXISTING RECEPTION LOBBY

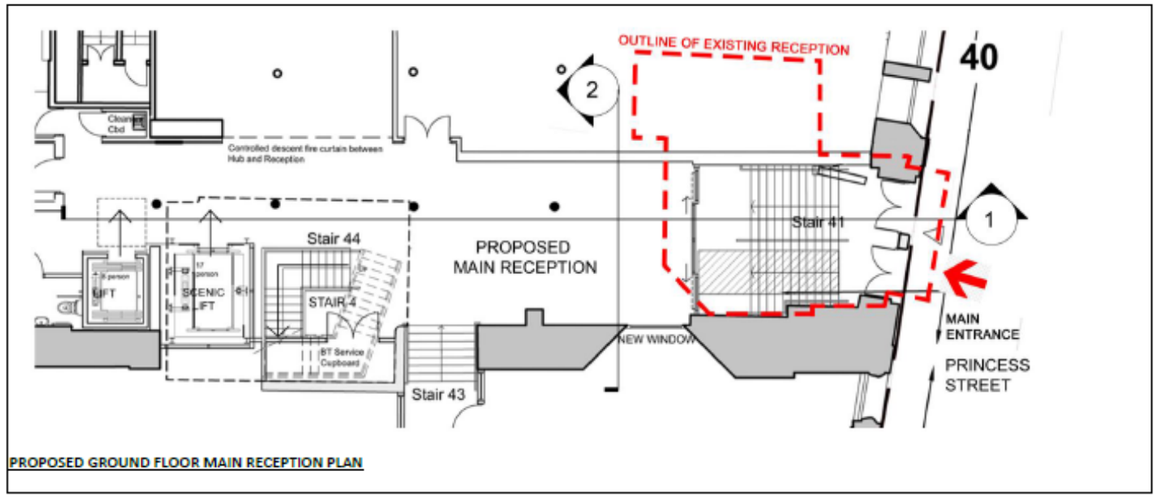


EXISTING STAIR AND LIFT FROM RECEPTION



EXISTING GROUND FLOOR PLAN – EXISTING RECEPTION

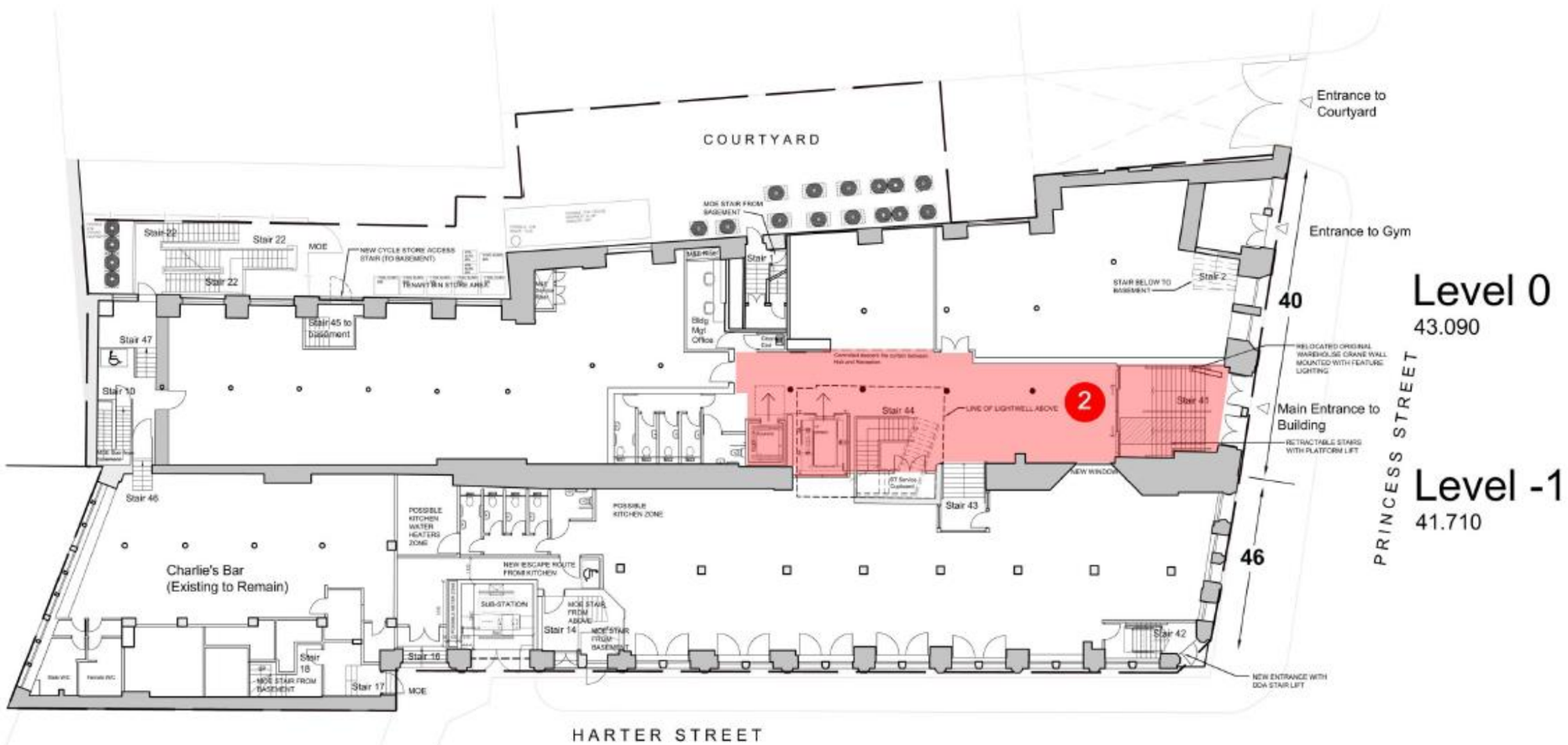
2.3 PROPOSED



PROPOSED GROUND FLOOR MAIN RECEPTION PLAN

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

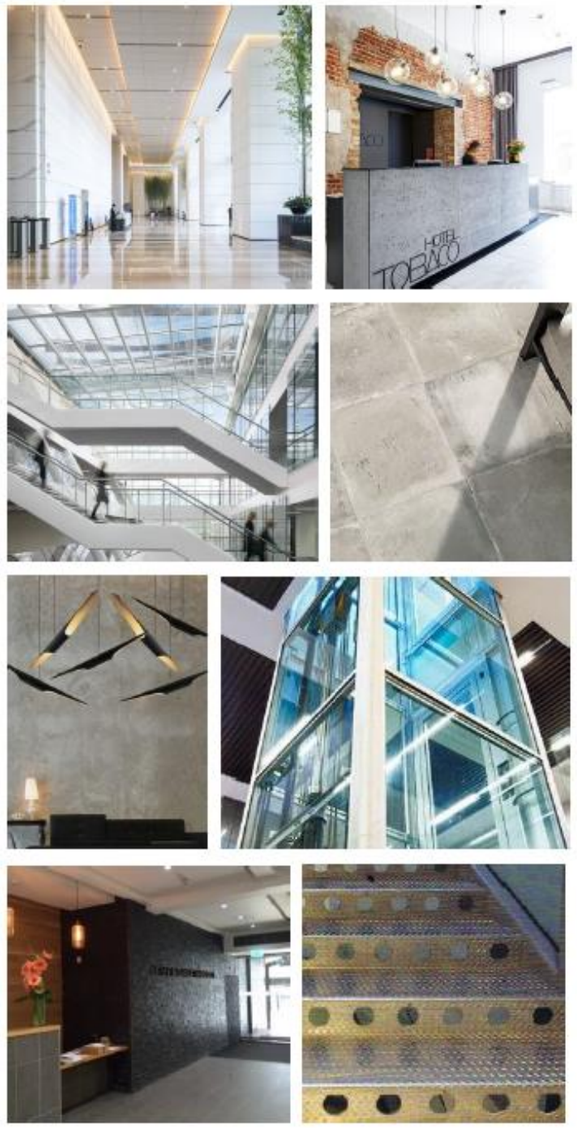


PROPOSED GROUND FLOOR PLAN
Referencing Intervention No. 2 – Main Reception

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

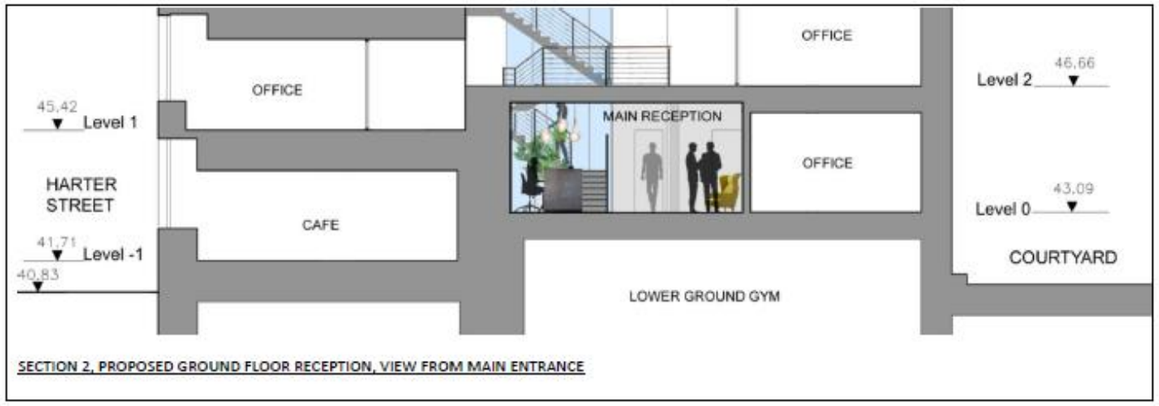
PROPOSED MOODBOARD – MAIN RECEPTION



2.3 PROPOSED CONTINUED



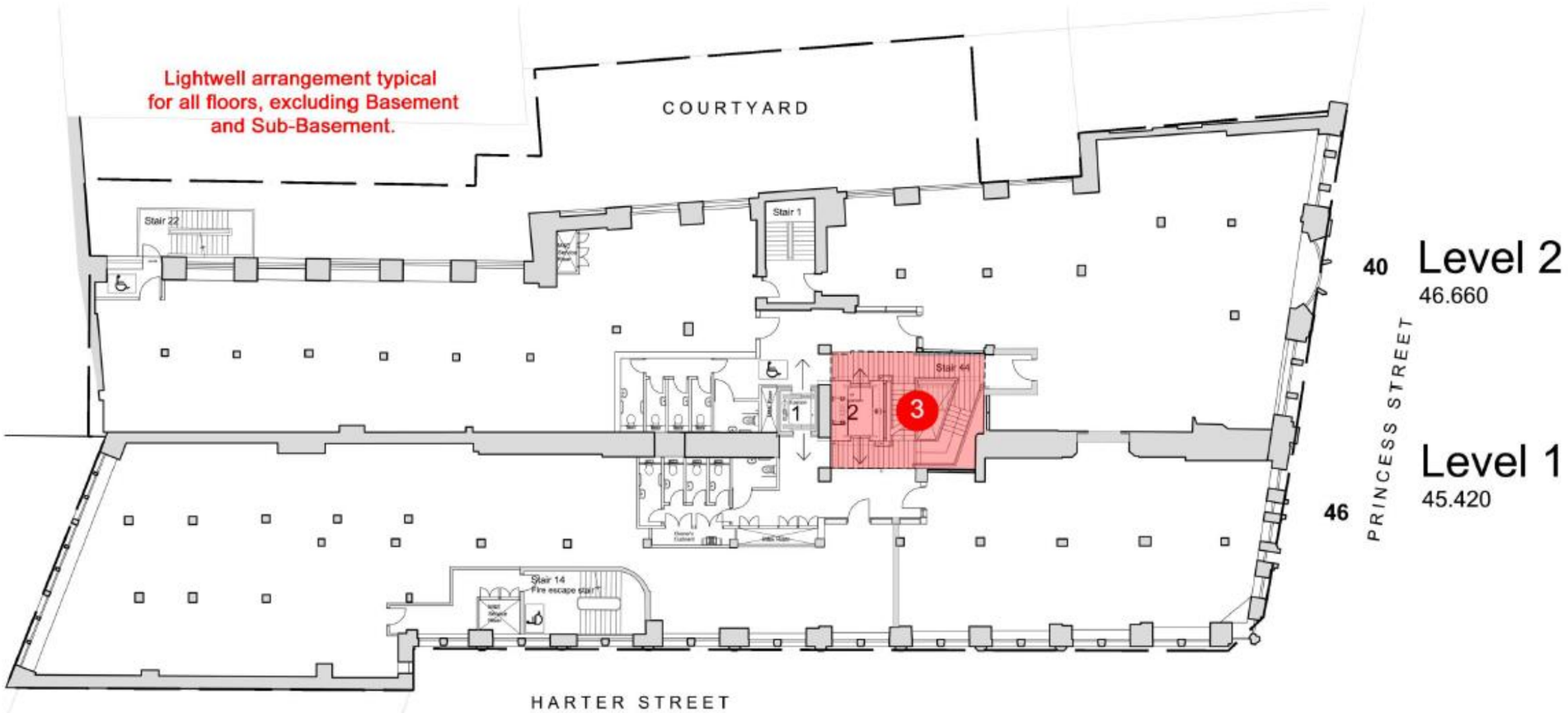
SECTION 1, PROPOSED GROUND FLOOR RECEPTION



SECTION 2, PROPOSED GROUND FLOOR RECEPTION, VIEW FROM MAIN ENTRANCE

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS



PROPOSED FIRST FLOOR PLAN
Referencing Intervention No. 3 – Lightwell

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

3.0 LIGHTWELL

3.1 INTERVENTION

PROVENANCE:
The existing light well is mostly imperceptible from the building interiors and has fallen into extreme disrepair. It is exceptionally underutilized as a source of natural light.

HERTIAGE SIGNIFICANCE OF EXISTING LIGHTWELL:
High.

PROPOSAL:
The aim of the design intervention is to refurbish and/or reinstate the existing external building fabric, while expanding areas of glazing, to maximize natural light into the building. Additionally, incorporating the footprint of the light well as part of internal area will provide a central vertical circulation core that delivers far more than just a utilitarian form of access. The refurbished light well will in fact become the heart of the building, rather than a neglected void space where water leaks into the building.

NEGATIVE ASPECTS OF EXISTING / POSITIVE ASPECTS OF PROPOSAL:

EXISTING	PROPOSED
With excessively steep risers, the existing main stair (which is sited within No. 40 Princess Street only) does not adequately serve the building population, and various additional interconnecting stairs are required throughout the floors to link different areas.	The new main stair will rise in a triangular pattern through the light well, supported by steel framing, and will featuring timber treads and landings with perforated metal risers to maintain a sense of transparency. This will become a feature in the lightwell.
Existing perimeter external walls and windows to the light well are in very poor condition and cannot be considered to be robust external building fabric.	A new water- and air-tight glazed roof to the light well will result in a clean, dry internal space. A mechanically ventilated system will allow natural air to flow within the lightwell. The existing metal roof currently positioned above the ground floor restaurant will be removed, opening the light well to the ground floor.
Many windows have been boarded over resulting in limited light and ventilation to internal spaces. Very little of the original lightwell apertures have remained.	Original openings for punched windows at each floor will be enlarged to provide maximum natural light to internal spaces.
A number of external mechanical risers/pipes currently clutter the light well, and the associated building penetrations provide various weak points where water ingresses.	All redundant mechanical services will be removed from the light well as completely new systems and plant will be provided at alternate locations.
Since the existing lightwell is mostly invisible to the majority of building occupiers, it does not link the 2 separate buildings in any manner. Tenants must navigate through a maze-like arrangement of corridors and stairs to access either building.	Opening up the lightwell places it as the heart of the 2 buildings, enhancing interconnectivity and accessibility and providing a clear view of both buildings which will internally become unified.

3.2 EXISTING



AERIAL VIEW OF EXISTING LIGHT WELL


PHOTO OF EXISTING LIGHT WELL


PHOTOS OF EXISTING LIGHTWELL AND BOARDED UP WINDOWS

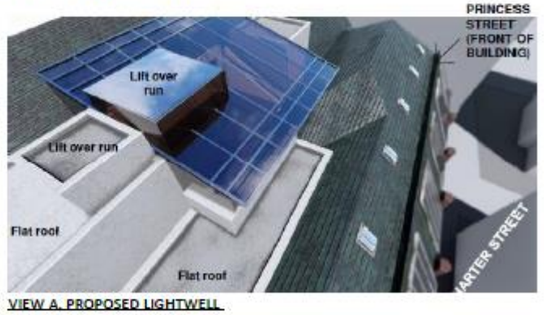


VIEW A. EXISTING LIGHTWELL

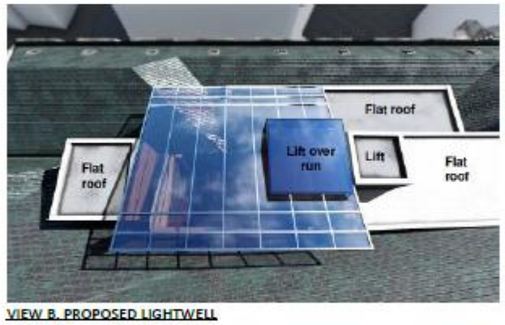


VIEW B. EXISTING LIGHTWELL

3.3 PROPOSED



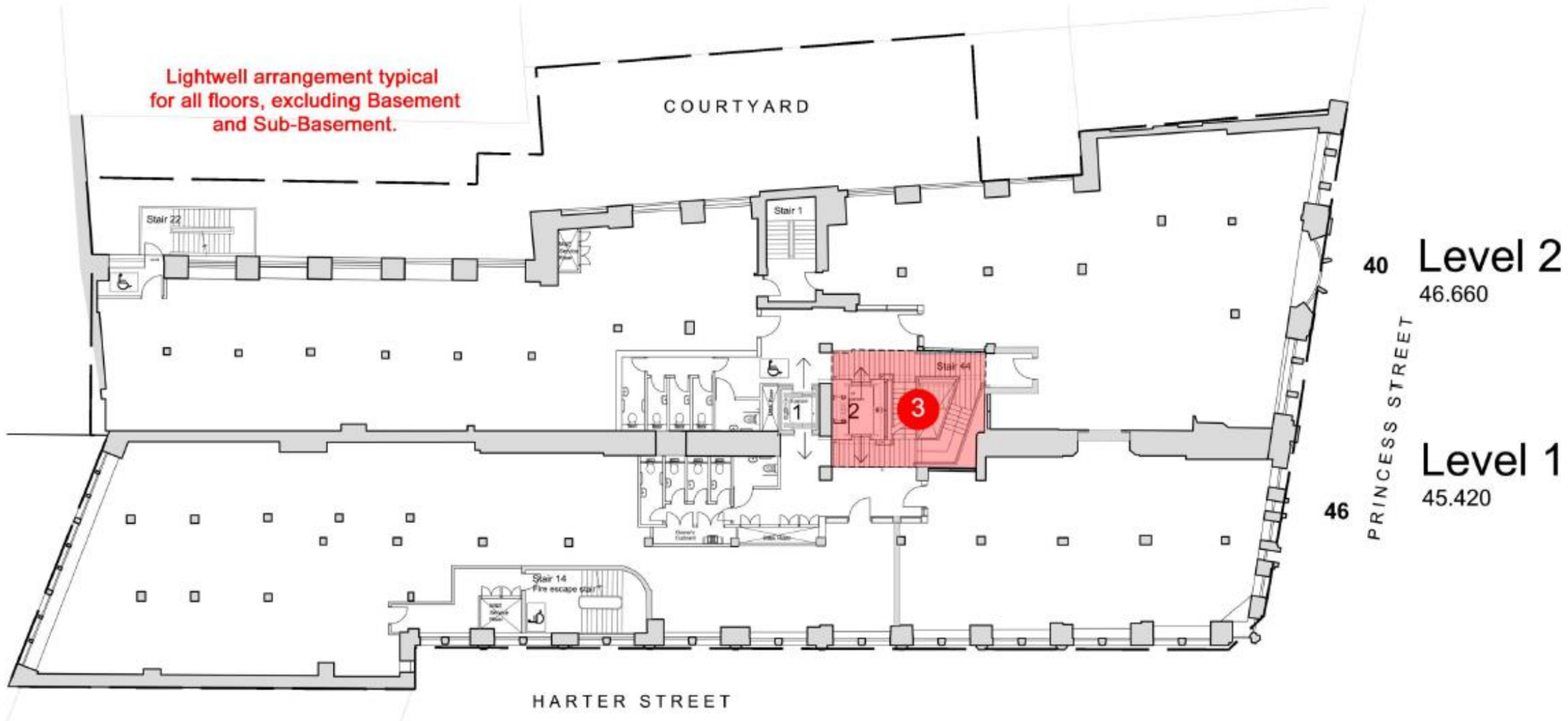
VIEW A. PROPOSED LIGHTWELL



VIEW B. PROPOSED LIGHTWELL

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

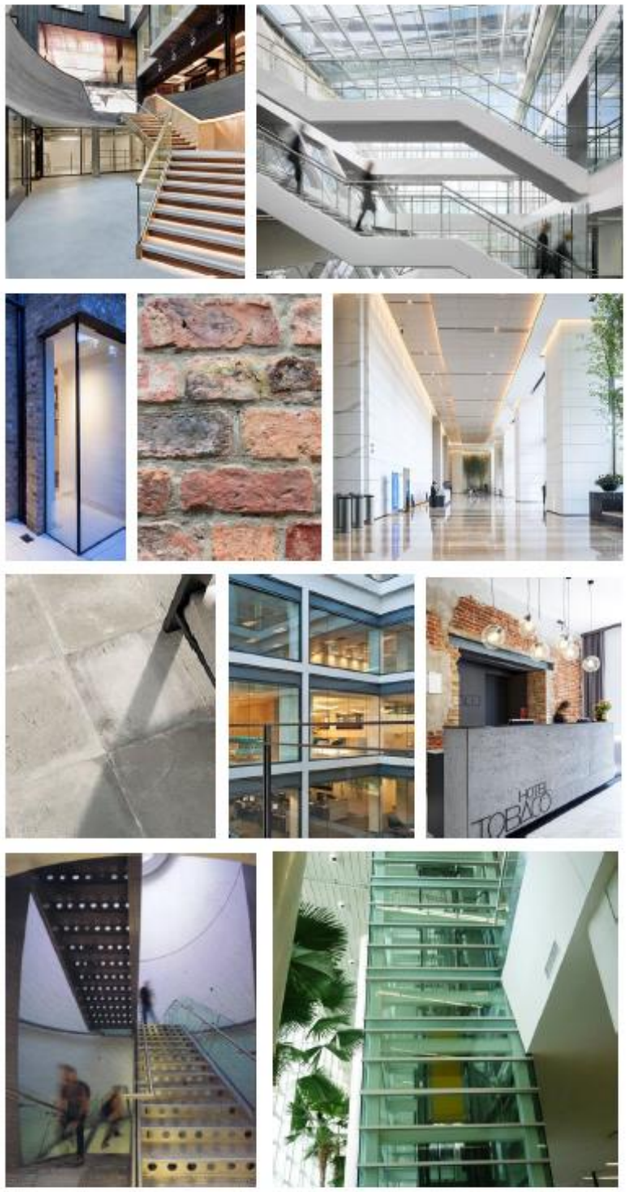


PROPOSED FIRST FLOOR PLAN
Referencing Intervention No. 3 – Lightwell

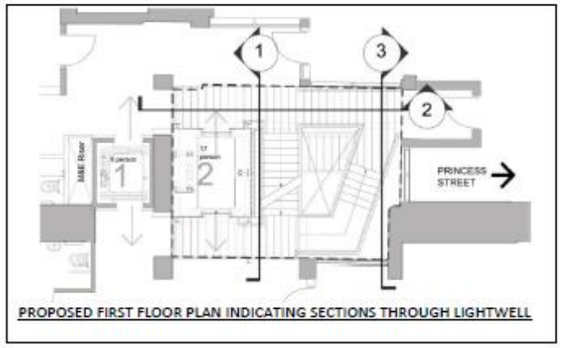
5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

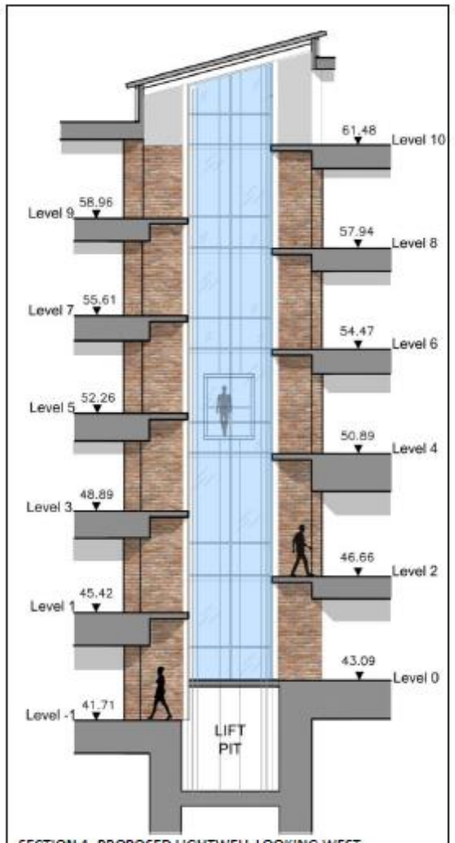
PROPOSED MOODBOARD - LIGHTWELL



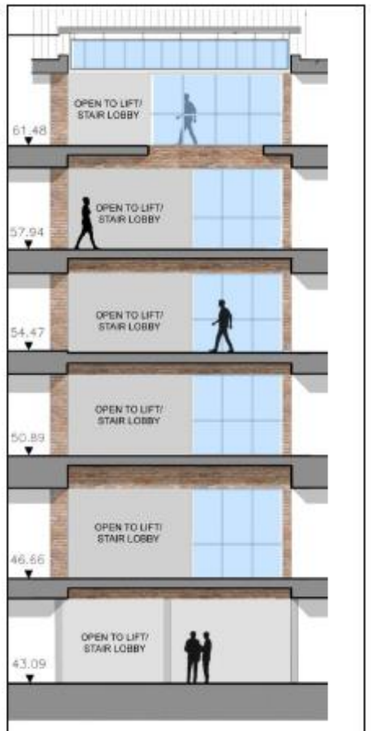
3.3 PROPOSED CONTINUED



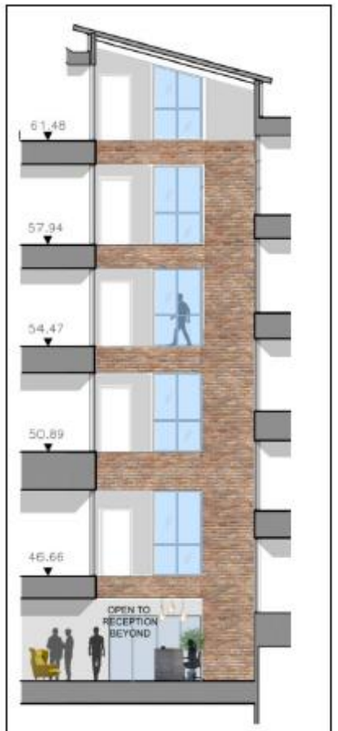
PROPOSED FIRST FLOOR PLAN INDICATING SECTIONS THROUGH LIGHTWELL



SECTION 1. PROPOSED LIGHTWELL LOOKING WEST



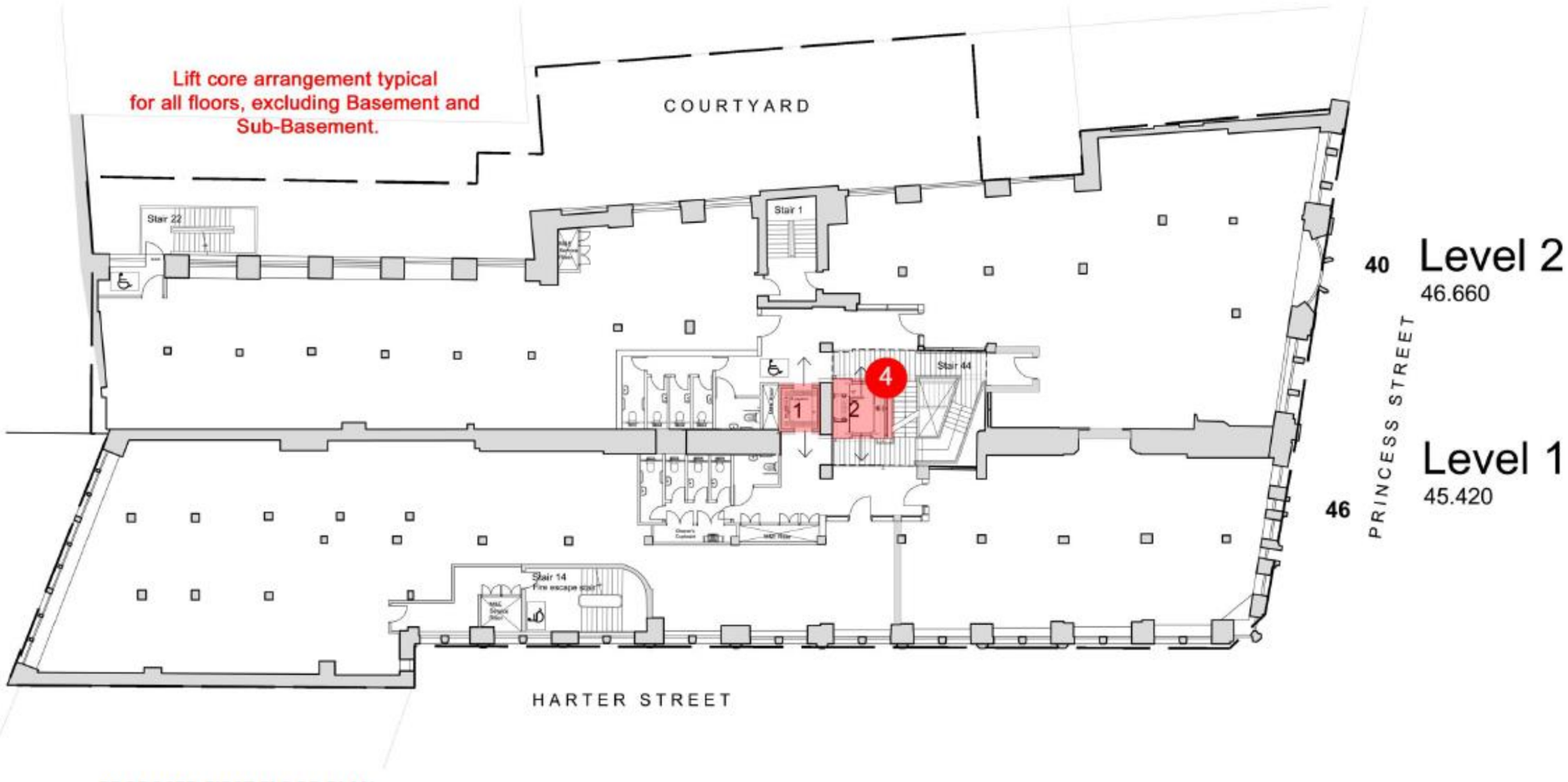
SECTION 2. PROPOSED LIGHTWELL LOOKING NORTH



SECTION 3. PROPOSED LIGHTWELL LOOKING EAST

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS



PROPOSED FIRST FLOOR PLAN
Referencing Intervention No. 4 – New Lift Core

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

4.0 NEW LIFT CORE
(TO BE LOCATED WITHIN AND ADJACENT TO LIGHT WELL)

4.1 INTERVENTION

PROVENANCE:
CIRCA 1870 – 1880 with later alterations C. Late 20th Century.

HERTIAGE SIGNIFICANCE OF EXISTING LIGHTWELL:
High.

PROPOSAL:
The aim of the design intervention is to replace the existing 8-person lift which serves only a portion of the building (located in the reception area), is undersized and past its useful life.
A new scenic glass 17-person through-lift will be provided within the light well, and a new 8 - person standard through-lift will be located immediately adjacent to the light well.
Both lifts will allow access to all levels.

NEGATIVE ASPECTS OF EXISTING / POSITIVE ASPECTS OF PROPOSAL:

EXISTING	PROPOSED
Tucked away in one corner of No. 40 Princess Street, the existing lift provides a cramped experience which only marginally serves the needs of the building occupants.	The new scenic glass lift within the light well will allow for full height views through glass curtain walling as the lift traverses the levels of the buildings.
Waiting times for the existing single lift are excessive and not in line with current industry standards, particularly the BCO (British Council for Offices).	Duplex arrangement of the new 2no. lifts will comply with modern requirements for a building this size.
Car capacity for the existing single lift is too small and not in line with current industry standards, particularly the BCO (British Council for Offices).	Duplex arrangement of the new 2no. lifts will comply with modern requirements for a building this size.
The existing lift is sub-standard and subject to breakdowns, leaving disabled tenants without access to upper floors.	Both new lifts will be fit-for-purpose and DDA Compliant, continuing to provide access should one lift be taken out of service.
Some interventions will be required to enlarge the existing window openings.	The existing aperture of the lightwell will not be enlarged, however existing window openings will be increased to allow more natural light to internal floor plates.

4.2 EXISTING

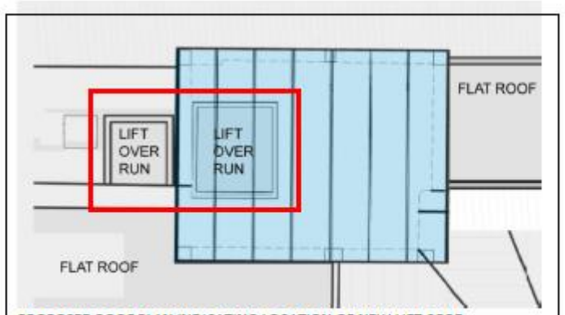


AERIAL VIEW OF EXISTING LIGHT WELL

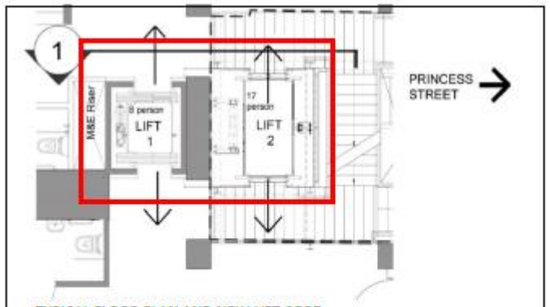


PHOTOS OF EXISTING LIGHTWELL AT ROOF LEVEL

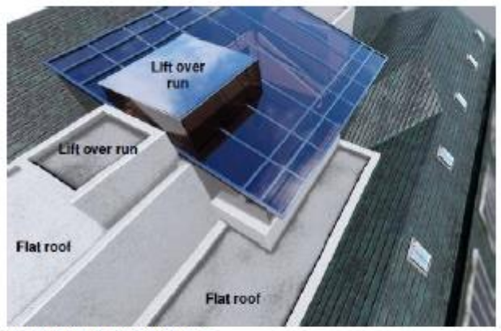
4.3 PROPOSED



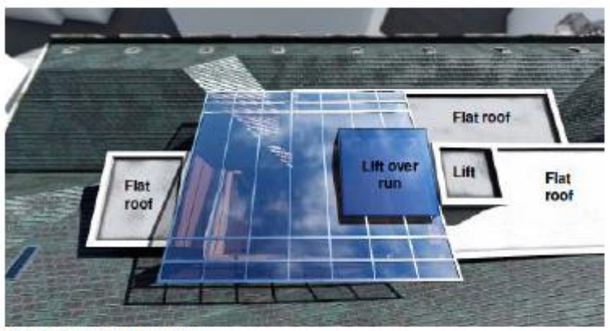
PROPOSED ROOF PLAN INDICATING LOCATION OF NEW LIFT CORE



TYPICAL FLOOR PLAN AND NEW LIFT CORE



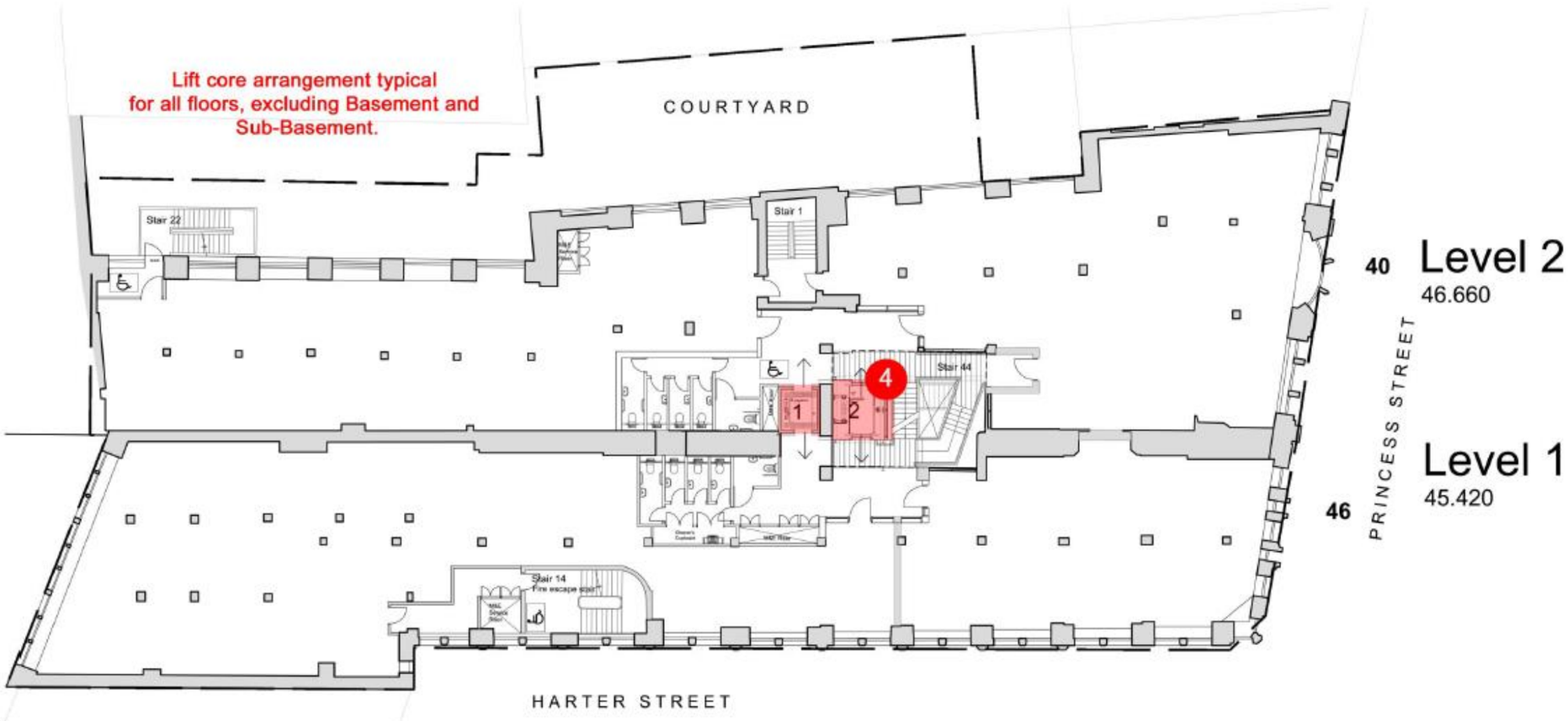
VIEW A. PROPOSED LIFT CORE



VIEW B. PEOPOSED LIFT CORE

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

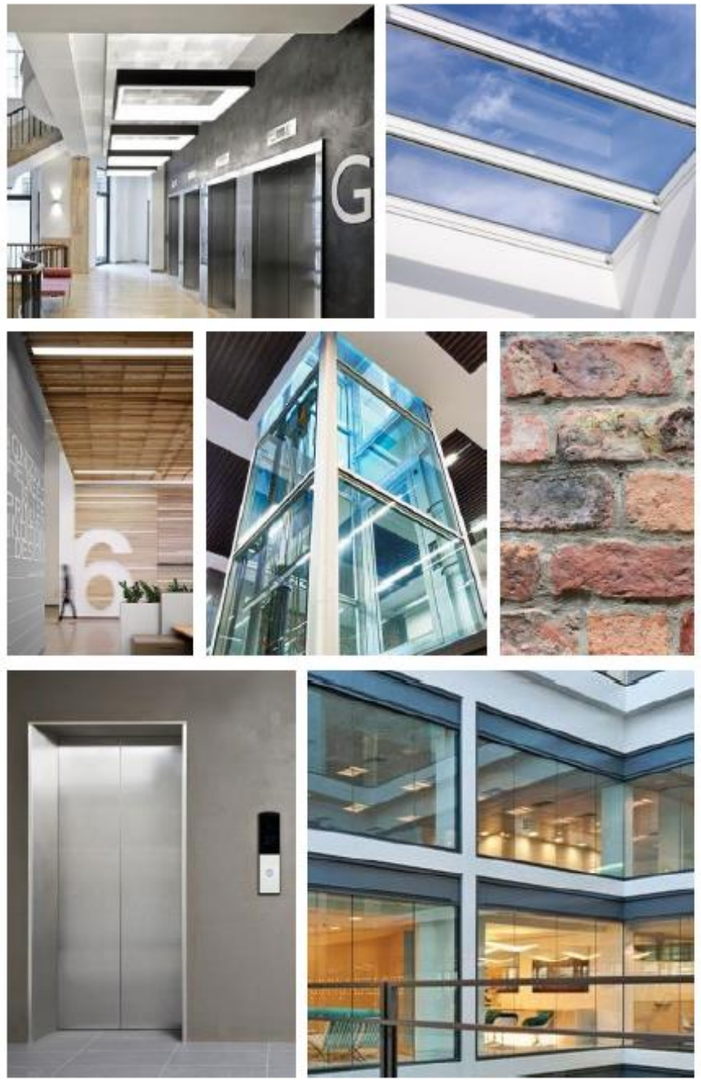


PROPOSED FIRST FLOOR PLAN
Referencing Intervention No. 4 – New Lift Core

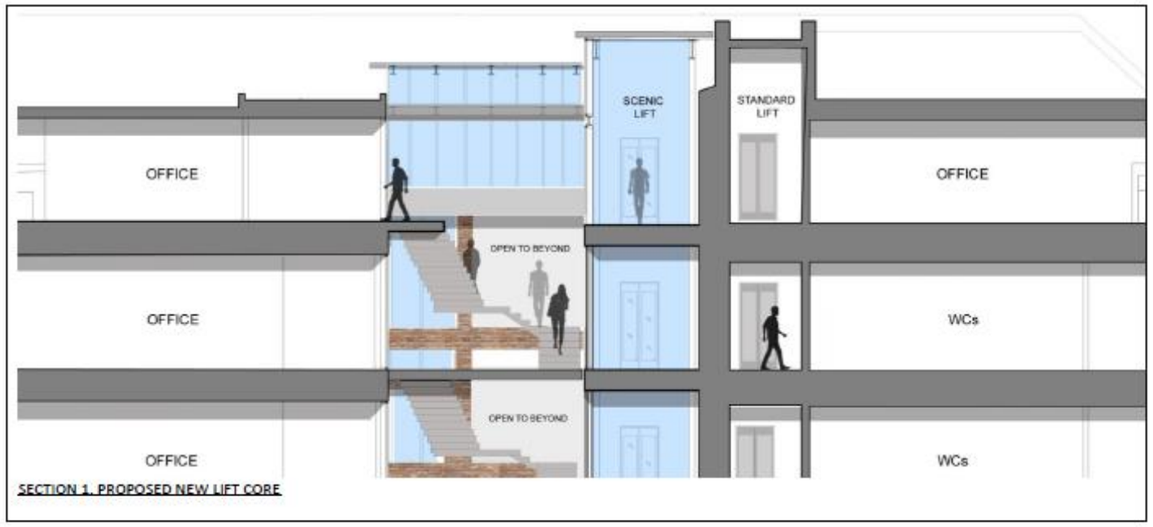
5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

PROPOSED MOODBOARD – NEW LIFT CORE



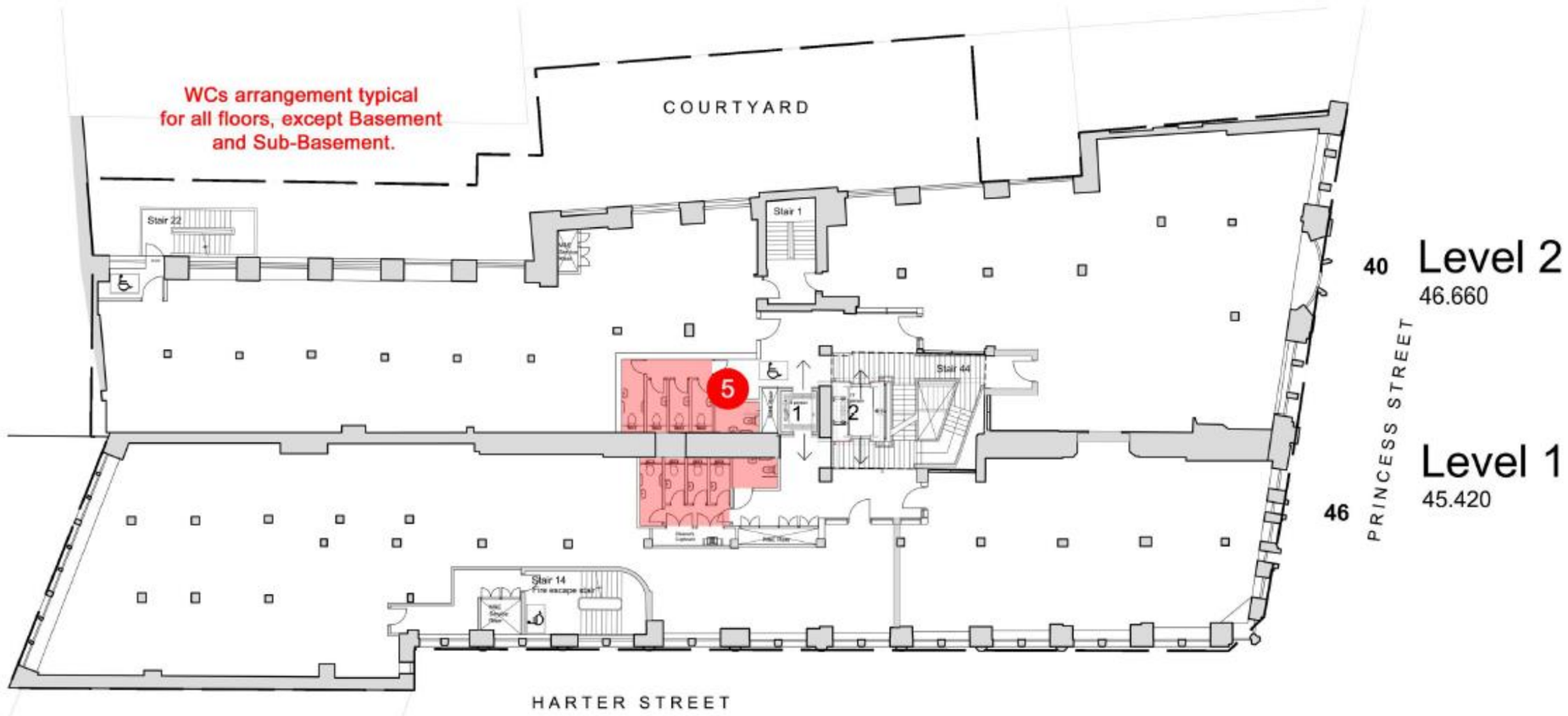
4.3 PROPOSED CONTINUED



SECTION 1. PROPOSED NEW LIFT CORE

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS



PROPOSED FIRST FLOOR PLAN
Referencing Intervention No. 5 – WC Facilities

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

5.0 WC FACILITIES

5.1 INTERVENTION

PROVENANCE:
Modern (Late 20th Century.)

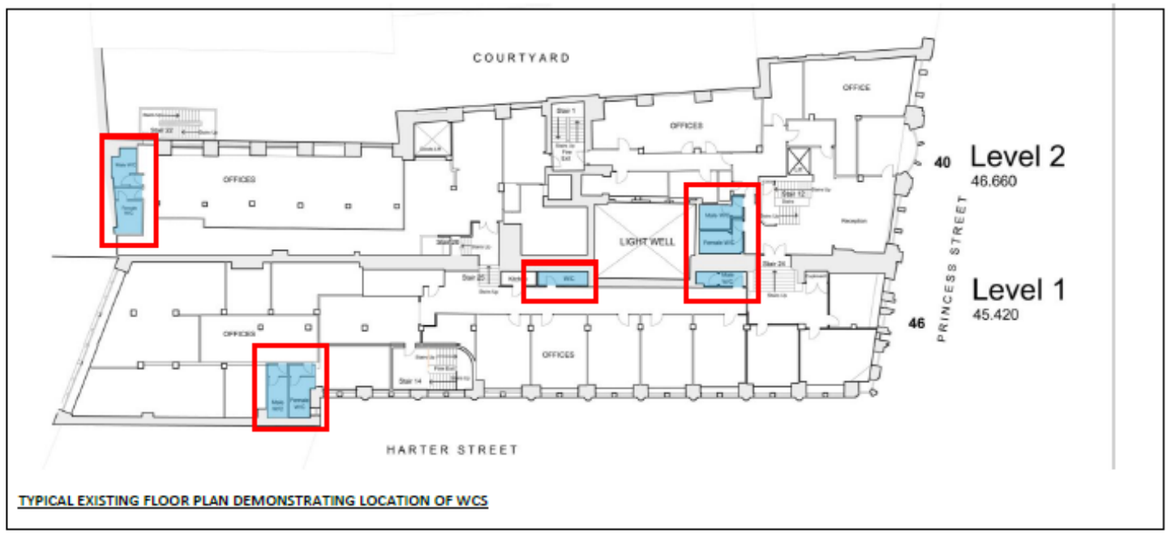
HERTIAGE SIGNIFICANCE OF EXISTING WC FACILITIES:
Low.

PROPOSAL:
Currently the WCs serving the various areas of the building are distributed in a somewhat hotchpotch manner, several of them even blocking windows at the light well. This arrangement is highly inefficient, and does not accommodate current DDA requirements. The aim of the design intervention is to provide each floor level with modern, comfortable WC facilities that are conveniently located within the central core.

NEGATIVE ASPECTS OF EXISTING / POSITIVE ASPECTS OF PROPOSAL:

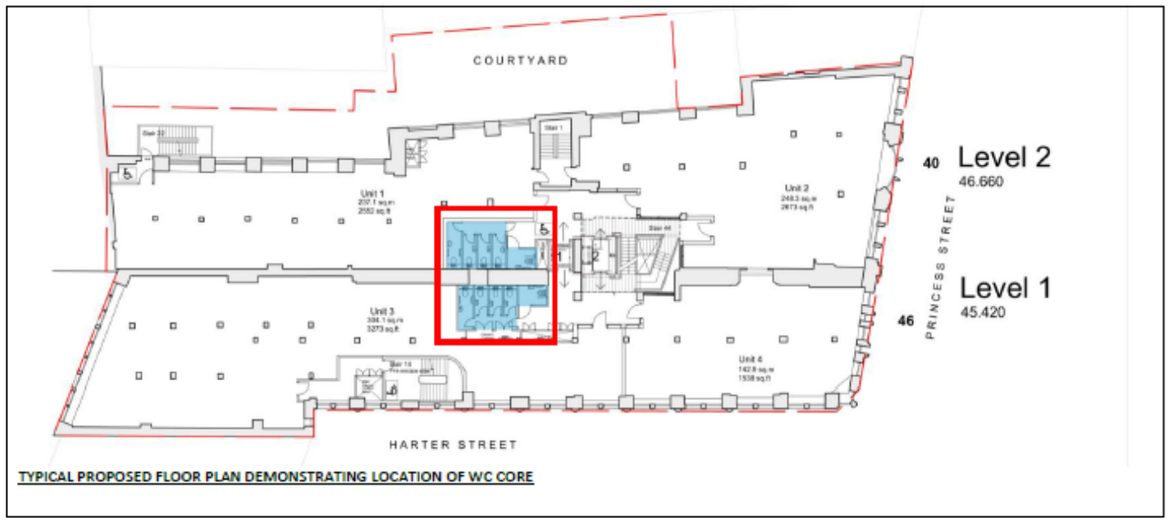
EXISTING	PROPOSED
Existing WCs are small and cramped with outdated sanitary ware.	Modern, high spec 'Superloo' facilities for both male and female use, and separate accessible WCs will be provided at each floor.
Mechanical and Electrical services currently perforate building floors and walls in numerous locations, creating potential breaches in fire compartmentation and also increasing the burden of maintenance of distribution networks.	The proposal calls for a new centralised and compact services layout, resulting in WCs and services being stacked above one another around the lightwell.
The existing WCs are located at disparate parts of the building.	The proposed WCs will allow for better connections to existing service routes and will be less intrusive to the existing fabric of the building.

5.2 EXISTING



TYPICAL EXISTING FLOOR PLAN DEMONSTRATING LOCATION OF WCS

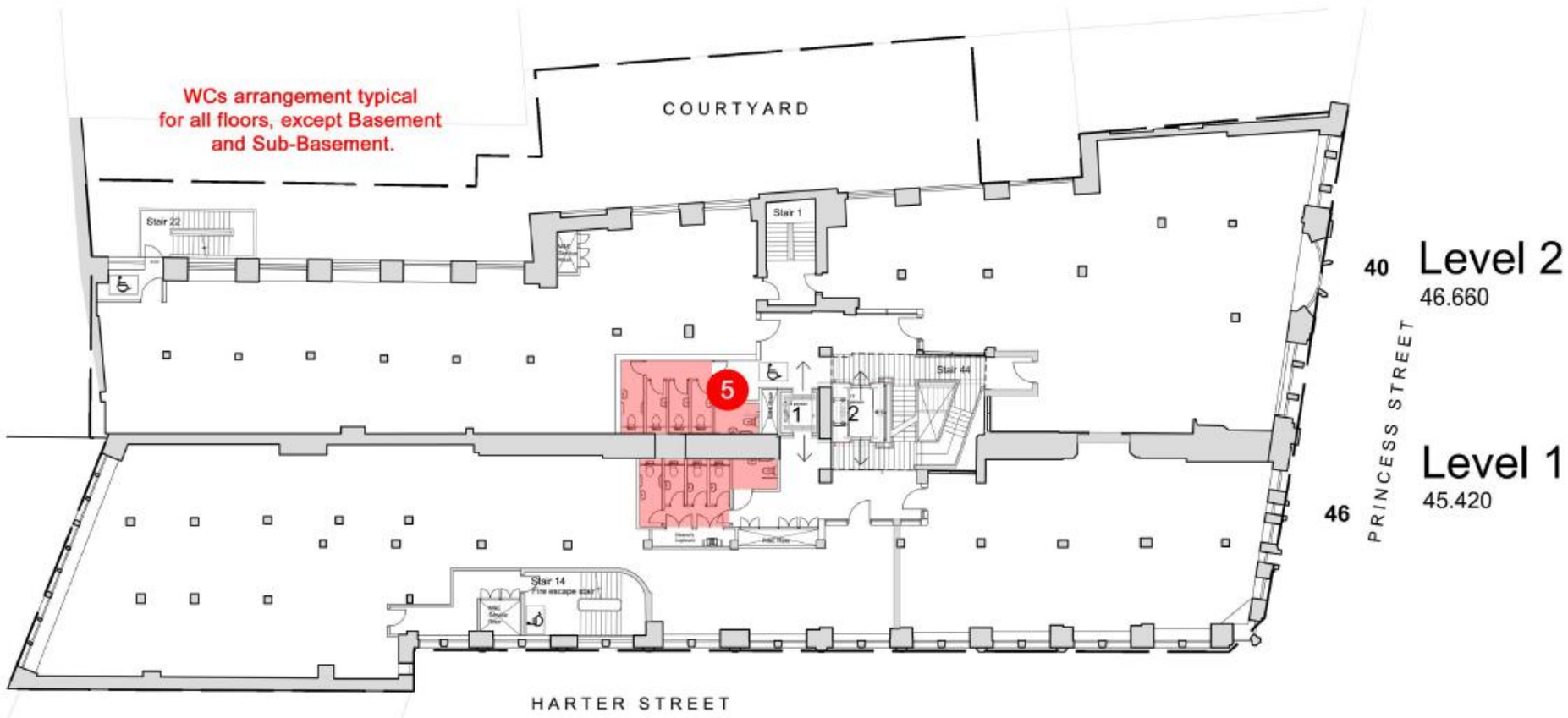
5.3 PROPOSED



TYPICAL PROPOSED FLOOR PLAN DEMONSTRATING LOCATION OF WC CORE

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

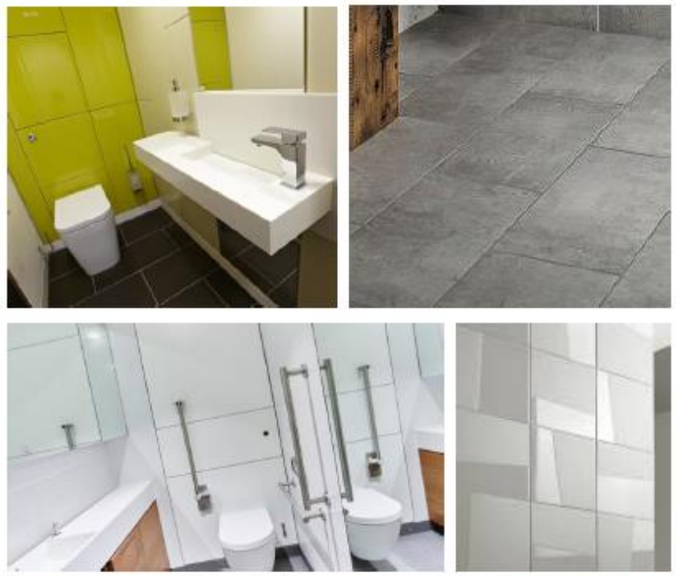


PROPOSED FIRST FLOOR PLAN
Referencing Intervention No. 5 – WC Facilities

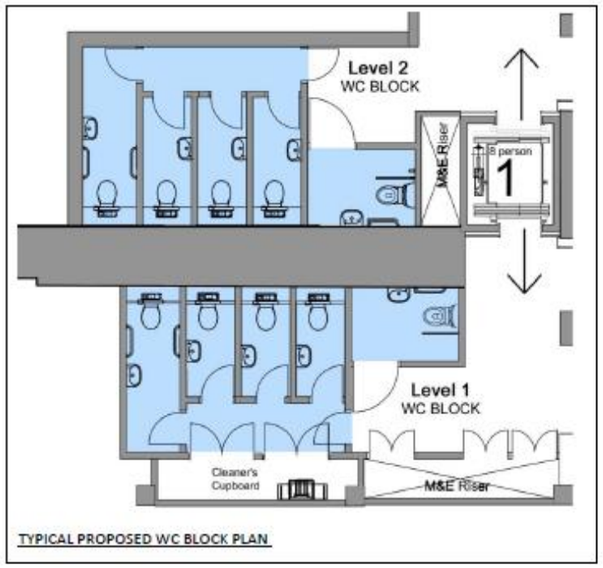
5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

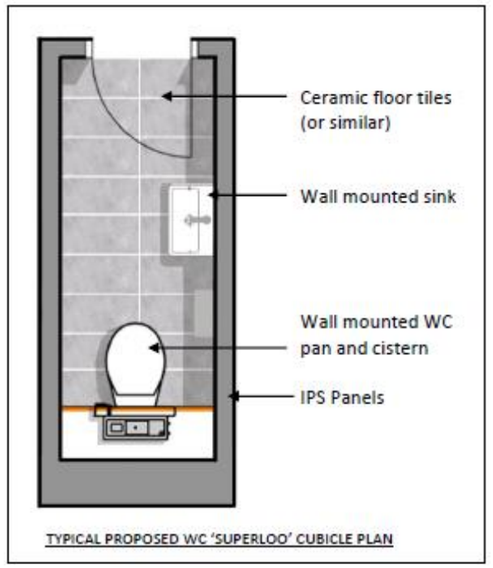
PROPOSED MOODBOARD – WC FACILITIES



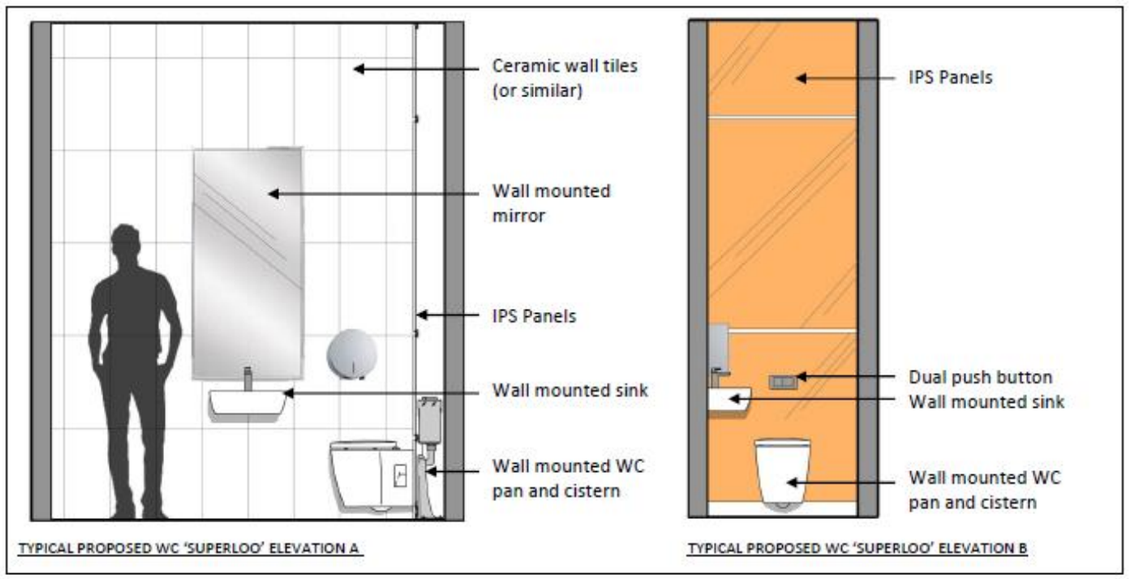
5.3 PROPOSED CONTINUED



TYPICAL PROPOSED WC BLOCK PLAN



TYPICAL PROPOSED WC 'SUPERLOO' CUBICLE PLAN

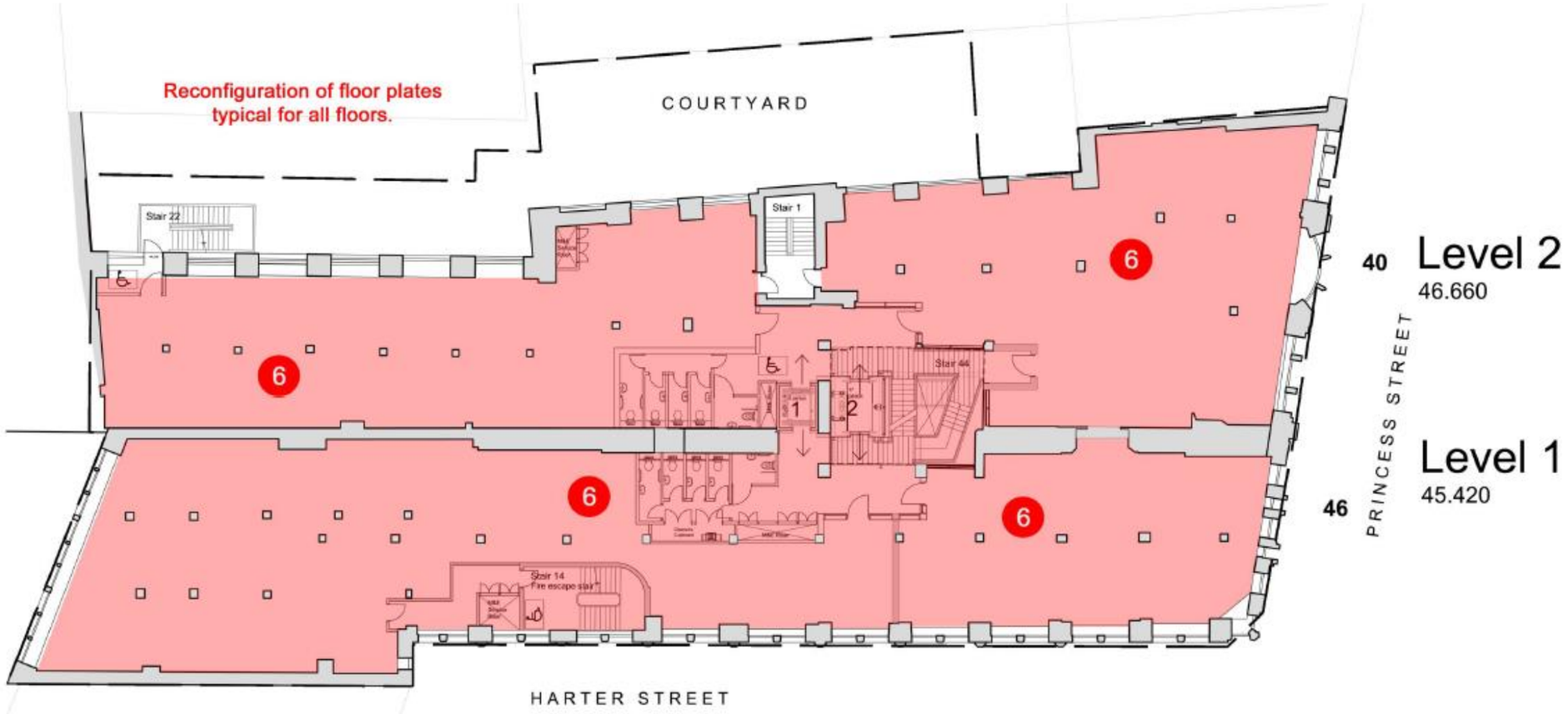


TYPICAL PROPOSED WC 'SUPERLOO' ELEVATION A

TYPICAL PROPOSED WC 'SUPERLOO' ELEVATION B

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS



PROPOSED FIRST FLOOR PLAN
Referencing Intervention No. 6 – Reconfiguration of Floor Plates

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

6.0 RECONFIGURATION OF FLOOR PLATES

6.1 INTERVENTION

PROVENANCE:
Modern (Late 20th Century.)

HERTIAGE SIGNIFICANCE OF EXISTING FLOOR PLATES:
Low.

PROPOSAL:
Existing office floor plates comprise of numerous highly cellularised spaces; the design intervention will remove the cellular partitions in favour of expansive open plan demises.

Although the removal of existing partitions does affect some original building fabric (2 no. redundant lift shafts adjacent to the light well are planned for removal), these lift shafts (original lift details unknown,) currently obstruct the proposed lift lobby and would preclude efficient circulation, therefore the benefits of their removal will outweigh the loss of their removal.

NEGATIVE ASPECTS OF EXISTING / POSITIVE ASPECTS OF PROPOSAL

EXISTING	PROPOSED
The current arrangements are spatially inefficient, with a significant amount of wasted floor area.	New open plan layouts allow for most effective use of space, giving tenants freedom to place partitions only where they are required.
The cellular office suffers from duplication of mechanical and electrical servicing which is costly and environmentally unsustainable.	Modern energy-efficient systems will be provided, in compliance with current regulations.
Existing small cellular offices are inherently inflexible as spaces are finite and cannot expand to meet changing work environment and requirements.	Maximum adaptability is a clear benefit of open plan floor plates.
Existing mechanical services distribution is scattered across the floor plate resulting in duplication and inefficiency.	Proposed mechanical risers will be located for the most part centrally at the new core, consolidating services distribution and maximising the benefits of modern systems and equipment.
The cellular offices are made up of modern partition wall and ceiling systems, concealing the existing structure and original features.	By opening up the floor plates and removing these modern additions, the original fabric can be exposed to reflect the historic heritage of the building.

6.2 EXISTING

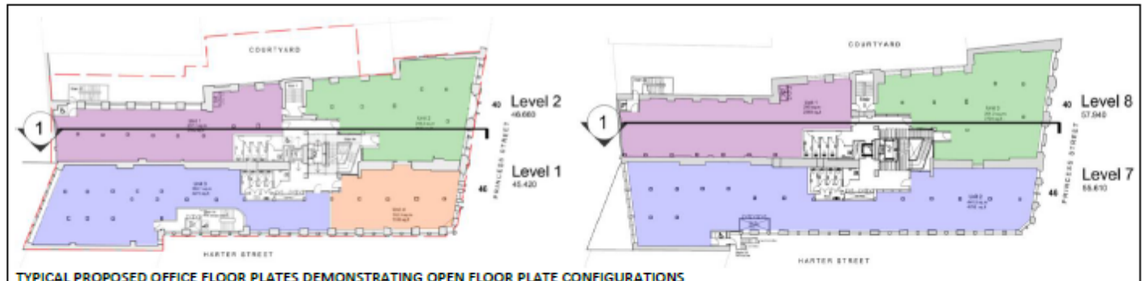


EXISTING TYPICAL CELLULAR OFFICE AND CIRCULATION



TYPICAL EXISTING OFFICE FLOOR PLATES

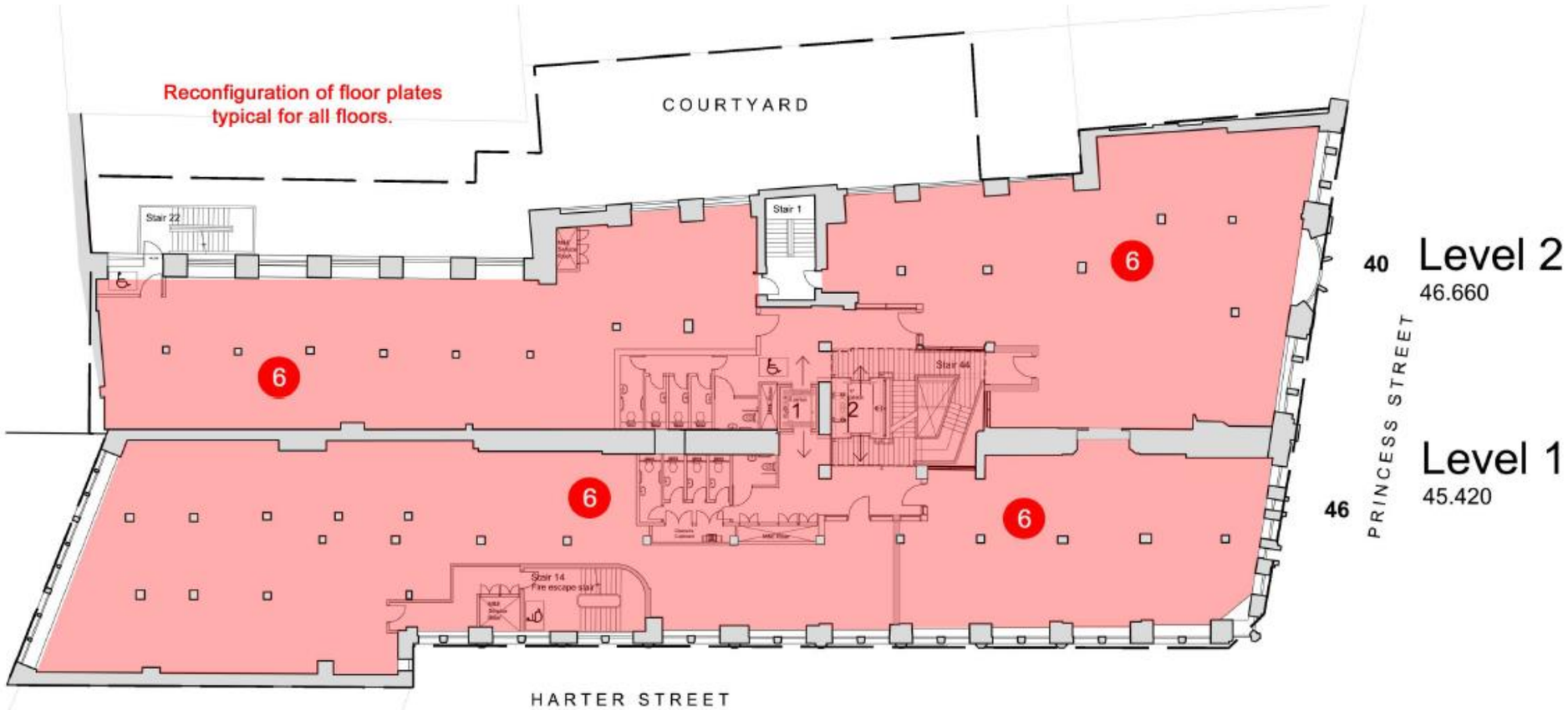
6.3 PROPOSED



TYPICAL PROPOSED OFFICE FLOOR PLATES DEMONSTRATING OPEN FLOOR PLATE CONFIGURATIONS

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

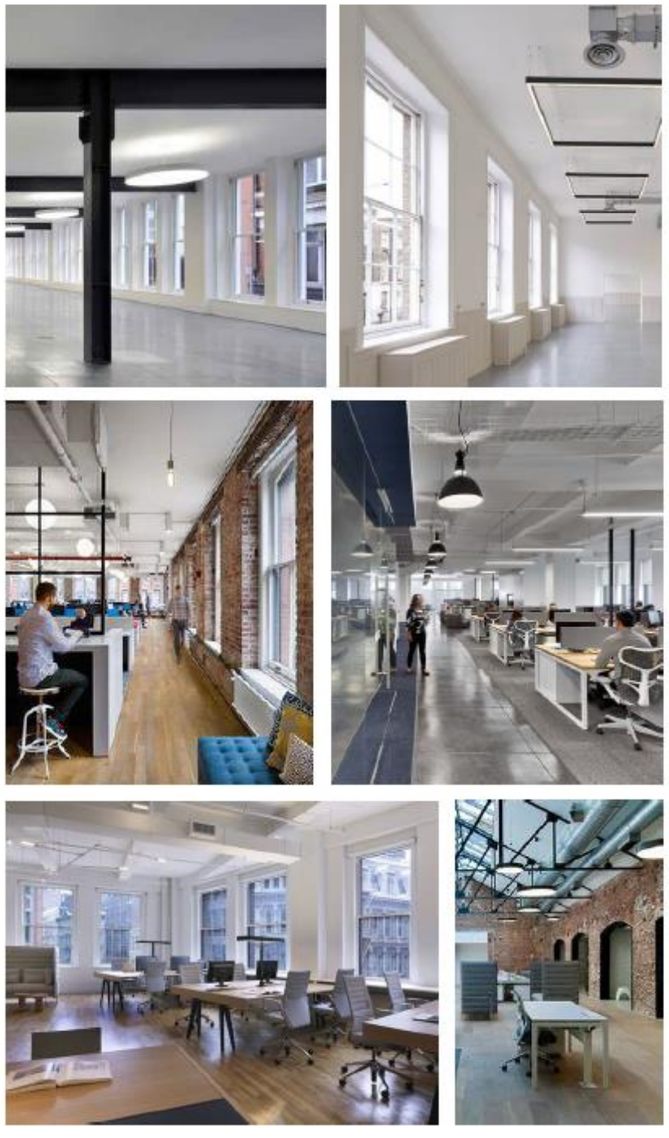


PROPOSED FIRST FLOOR PLAN
Referencing Intervention No. 6 – Reconfiguration of Floor Plates

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

PROPOSED MOODBOARD – FLOOR PLATES



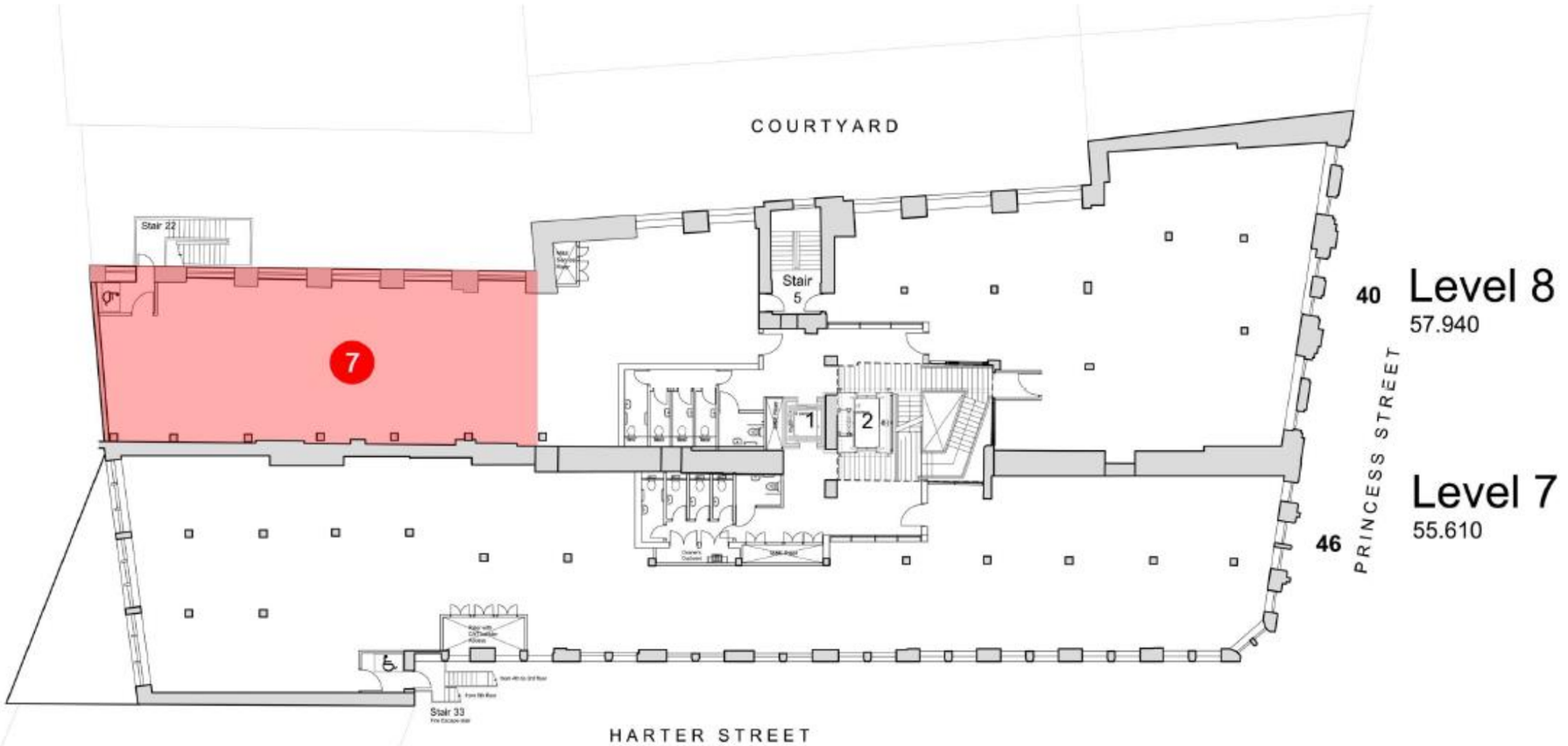
6.3 PROPOSED CONTINUED



SECTION 1. LOOKING SOUTH THROUGH OFFICE FLOORS

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS



PROPOSED FOURTH FLOOR PLAN
Referencing Intervention No. 7 – Extension to Rear of No. 40 Princess Street at Fourth Floor Level

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

7.0 EXTENSION TO REAR OF NO. 40 PRINCESS STREET AT FOURTH FLOOR LEVEL

7.1 INTERVENTION

PROVENANCE:
A late 19th Century roof structure, made of slate and timber frame construction.

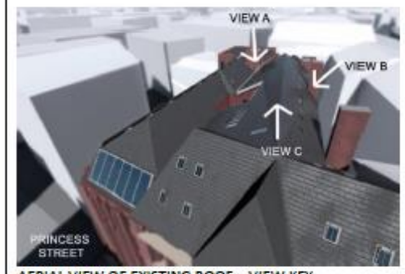
HERTIAGE SIGNIFICANCE OF EXISTING:
High.

PROPOSAL:
The aim of the design intervention is to remove part of the existing pitched slate roof at the 3rd floor (toward the rear of the building) to allow for a new floor addition, and rebuild the pitched slate roof at the floor above. Although the removal of this portion of roof represents a disturbance to original building fabric, the benefits gained by adding floor area and re-building the roof one level higher outweigh the loss as outlined below. Furthermore, as the extension is at the rear of the building, no additional massing will be seen from Princess Street (it will only be seen from inside the courtyard).

NEGATIVE ASPECTS OF EXISTING / POSITIVE ASPECTS OF PROPOSAL:

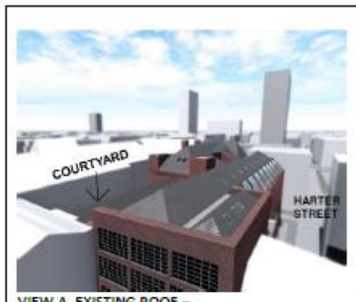
EXISTING	PROPOSED
A smaller 4th floor footprint compared to floors below at No. 40 Princess Street has resulted in an area of pitched roof which is lower than surrounding roof levels.	Additional internal area at the 4th floor will be gained by re-building the pitched roof one level higher than is currently existing. The new pitched roof will be in line with the adjacent roof at No. 40 Princess Street.
Existing pitched roofs at the top floors of No. 40 and No. 46 Princess Street prevent full DDA accessibility and use of floor space due to restricted headroom.	New flat roofs will allow lift access to top floors, and facilitate maximum use of internal space to create modern central cores containing circulation lobbies and WCs.
At fourth floor level, the unusable floor space is quite limited and the circulation around the existing lightwell is convoluted where the existing 3rd floor roofline meets the fourth floor.	A new extension will provide additional floor space and improved circulation to and from the central core, replicating the 3rd floor below.
Demand continues to grow for office space in Manchester.	Additional floorspace is being provided in line with the National Planning Policy Framework (NPPF).

7.2 EXISTING



AERIAL VIEW OF EXISTING ROOF – VIEW KEY

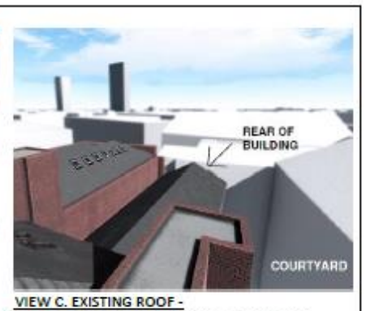

EXISTING ELEVATION FROM COURTYARD



VIEW A. EXISTING ROOF – VIEW FROM THE REAR OF BUILDING



VIEW B. EXISTING ROOF – VIEW FROM THE REAR OF BUILDING

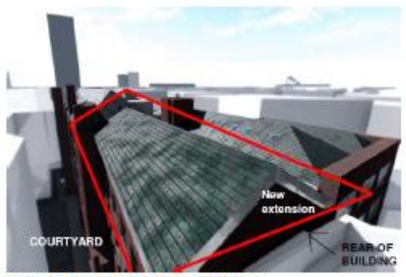


VIEW C. EXISTING ROOF - VIEW FACING TOWARDS REAR OF BUILDING

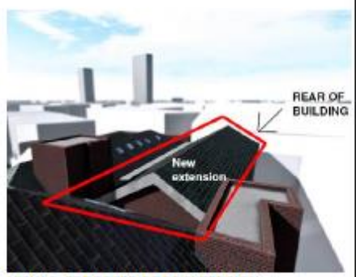
7.3 PROPOSED



VIEW A. PROPOSED ROOF EXTENSION – VIEW FROM THE REAR OF BUILDING



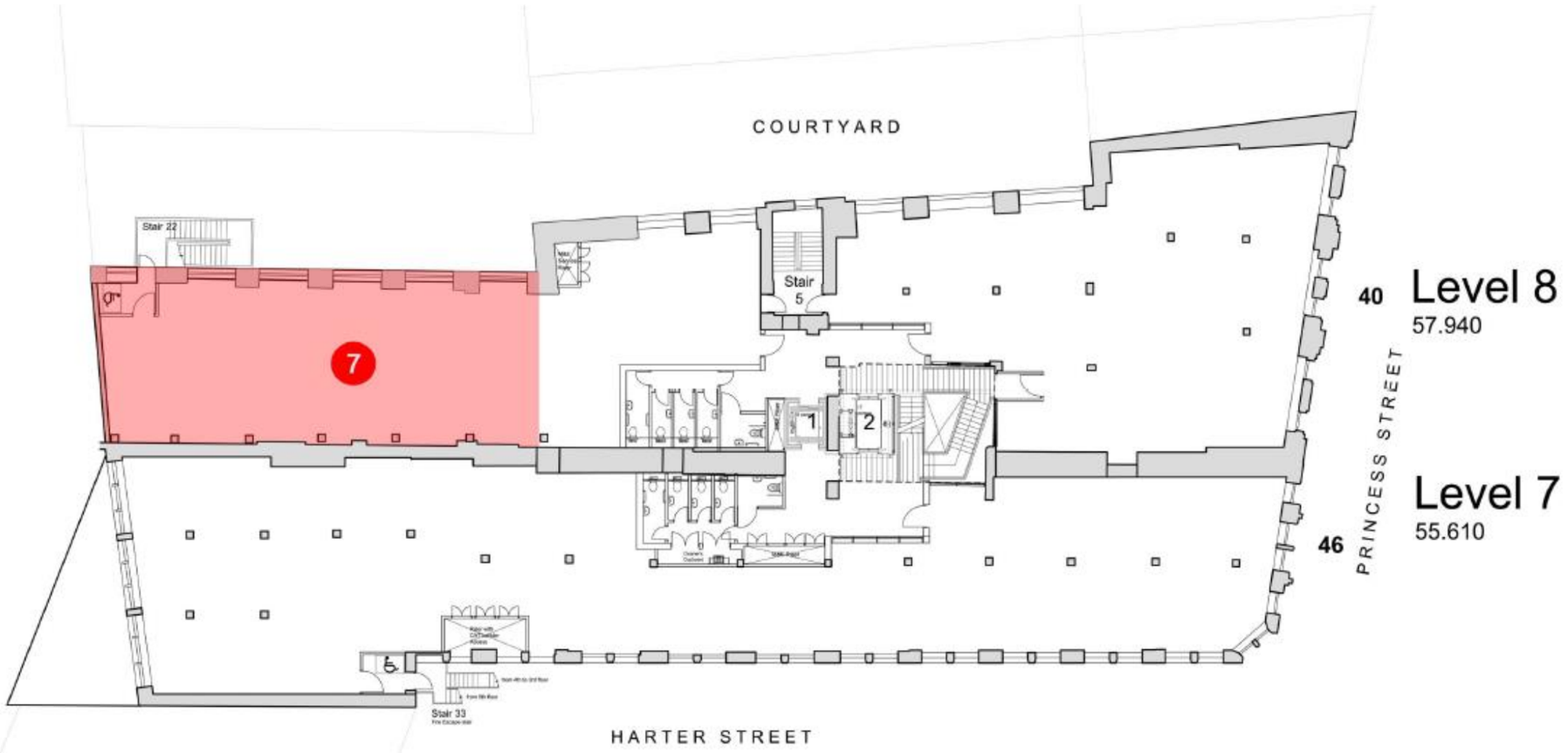
VIEW B. PROPOSED ROOF EXTENSION – VIEW FROM THE REAR OF BUILDING



VIEW C. PROPOSED ROOF EXTENSION - VIEW FACING TOWARDS REAR OF BUILDING

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

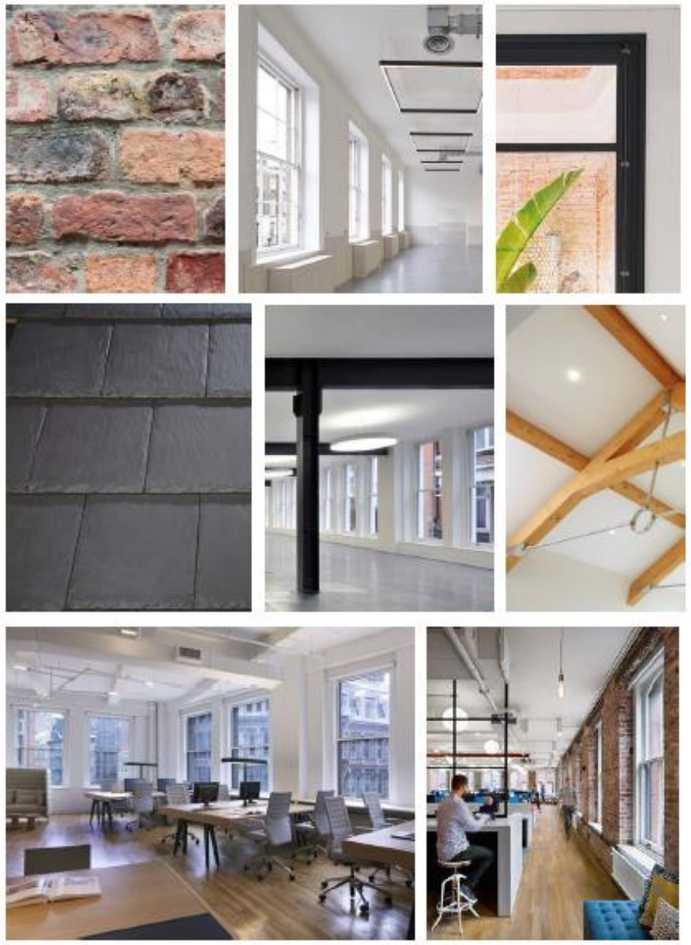


PROPOSED FOURTH FLOOR PLAN
Referencing Intervention No. 7 – Extension to Rear of No. 40 Princess Street at Fourth Floor Level

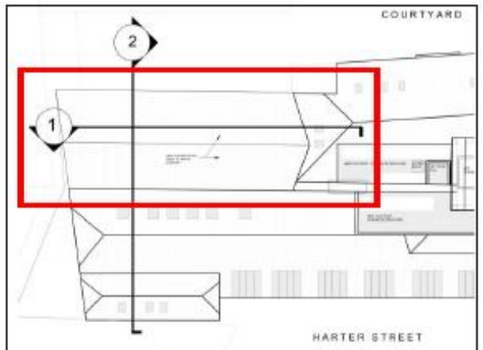
5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

PROPOSED MOODBOARD – FOURTH FLOOR EXTENSION



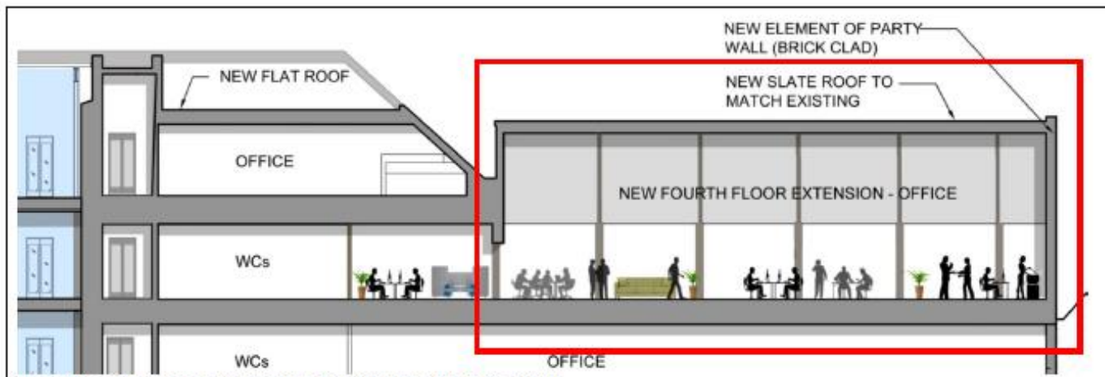
7.3 PROPOSED CONTINUED



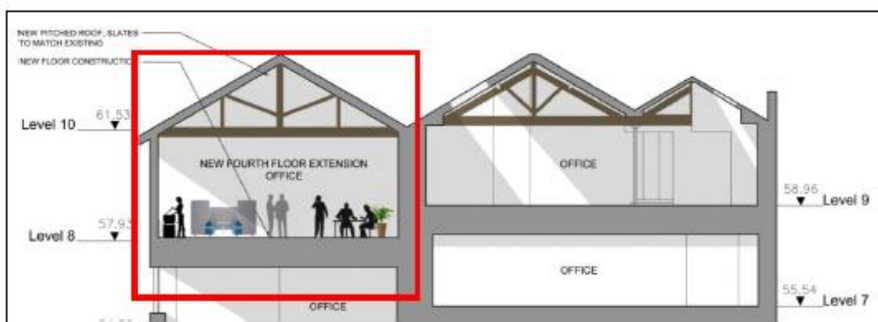
PROPOSED FOURTH FLOOR ROOF PLAN – INDICATING SECTION LINES



PROPOSED ELEVATION FROM COURTYARD - 4TH FLOOR EXTENSION AND PITCHED ROOF ADDED TO MATCH EXISTING



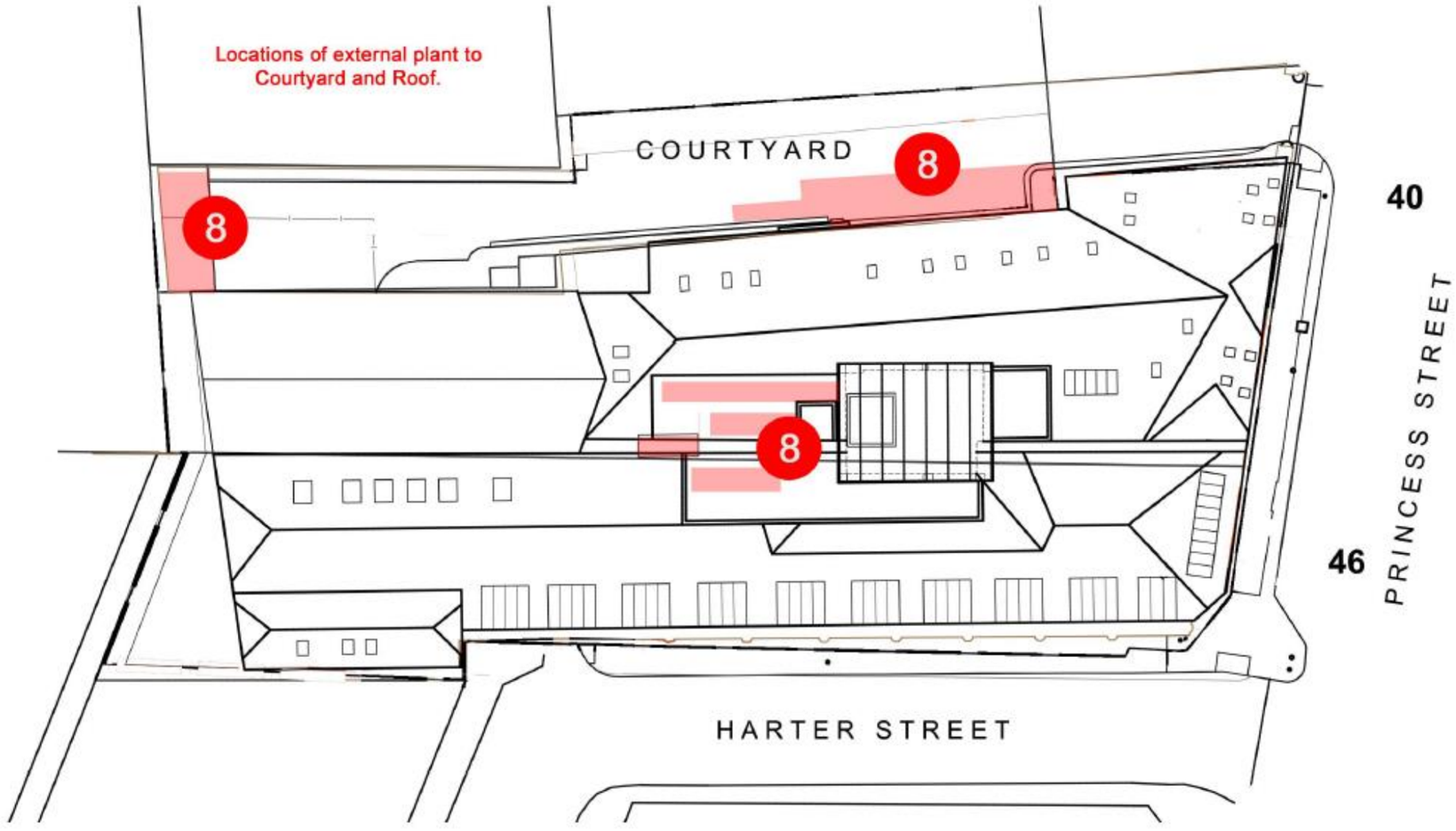
SECTION 1. LOOKING SOUTH THROUGH PROPOSED FOURTH FLOOR EXTENSION



SECTION 2. LOOKING EAST THROUGH PROPOSED FOURTH FLOOR EXTENSION

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS



PROPOSED PLAN
Referencing Intervention No. 8 – Reconfiguration of External Plant

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

8.0 RECONFIGURATION OF EXTERNAL PLANT

8.1 INTERVENTION

PROVENANCE:
Modern (20th and 21st century)

HERTIAGE SIGNIFICANCE OF EXISTING PLANT:
Low.

PROPOSAL:
External plant serving current tenants of 40-46 Princess Street is situated across all facades and levels of the building, resulting in an inefficient and jumbled disarray of equipment, pipes, ducts and wires. The proposed reconfiguration of external plant will rationalize and consolidate locations resulting in a significantly improved building appearance.

NEGATIVE ASPECTS OF EXISTING / POSITIVE ASPECTS OF PROPOSAL

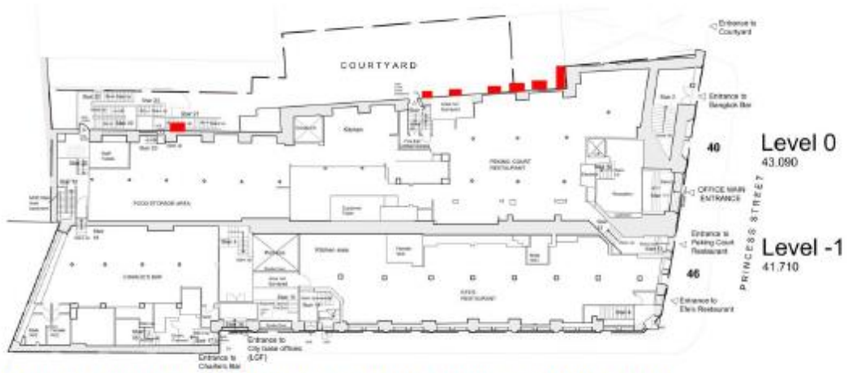
EXISTING	PROPOSED
At the courtyard, many existing windows have been blocked by external equipment, preventing natural light and ventilation.	New mechanical systems and equipment will be removed from the building fabric, and will instead be located at courtyard ground and roof levels, thus freeing up windows for reinstated glazing.
In the light well, various ducts and pipes rise from ground level to roof, cluttering the space and also penetrating the building fabric at multiple locations, making water ingress an ongoing problem.	Removal of all existing mechanical services from the light well will provide unfettered views into the light well not seen for many years, and will also allow for creation of a water-tight internal space.

8.2 EXISTING

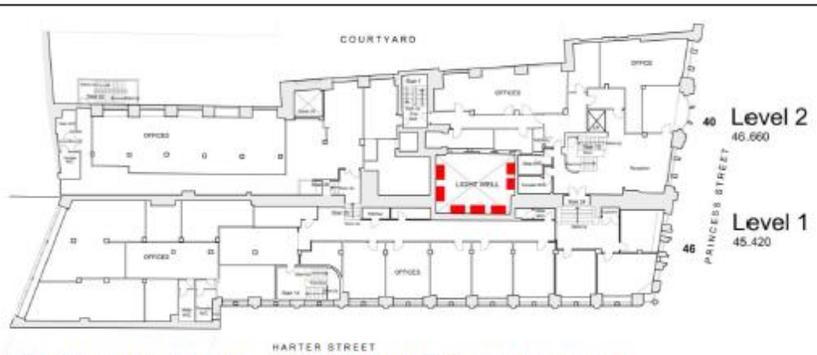


PHOTOS OF PLANT TO EXISTING COURTYARD

PHOTO OF PLANT TO EXISTING LIGHTWELL



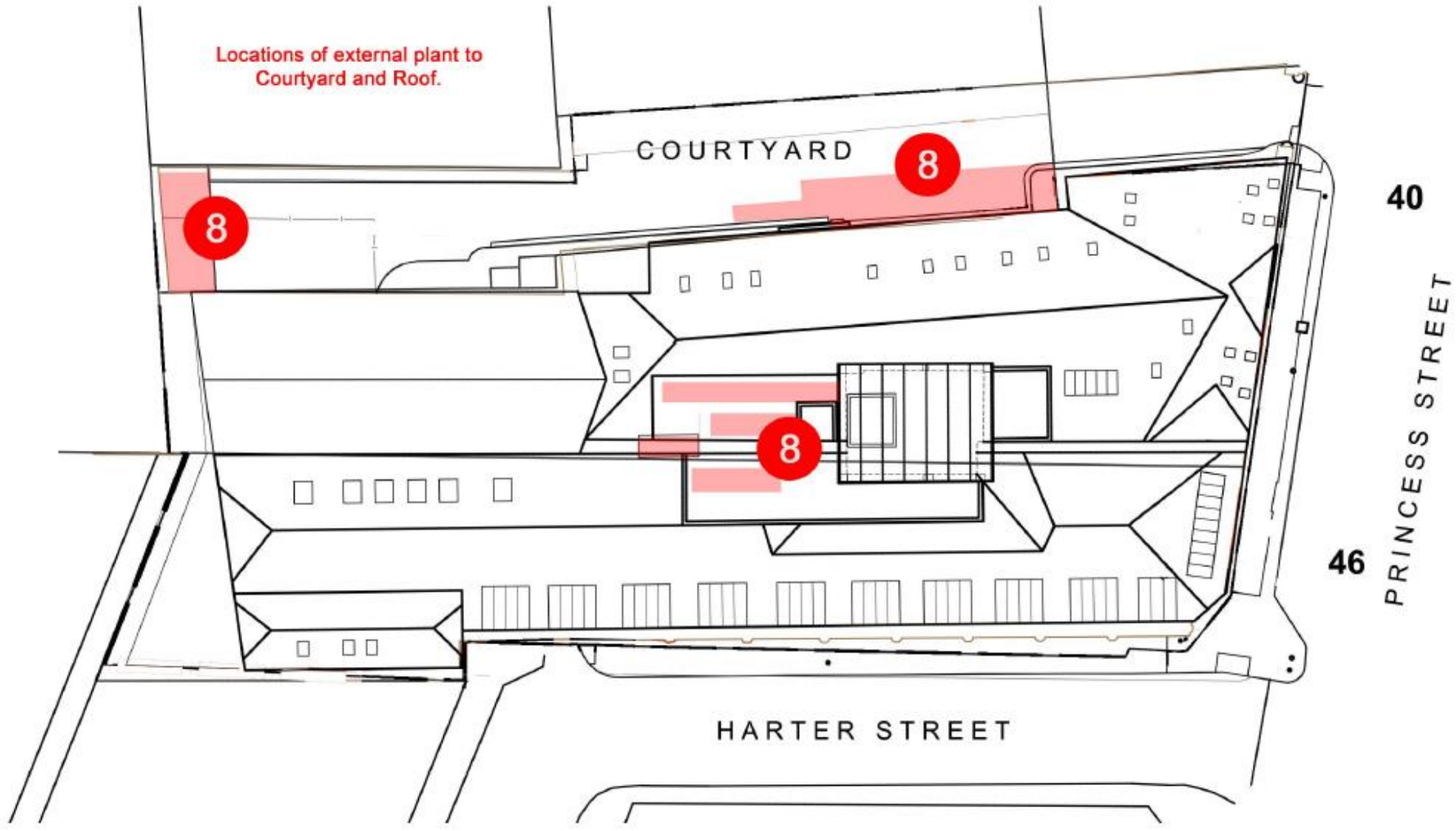
EXISTING GROUND FLOOR PLAN – INDICATING THE EXISTING PLANT (IN RED) WITHIN THE COURTYARD



EXISTING FIRST FLOOR PLAN – INDICATING THE EXISTING PLANT (IN RED) WITHIN THE LIGHTWELL

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS



PROPOSED PLAN
Referencing Intervention No. 8 – Reconfiguration of External Plant

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

PROPOSED EXTERNAL PLANT

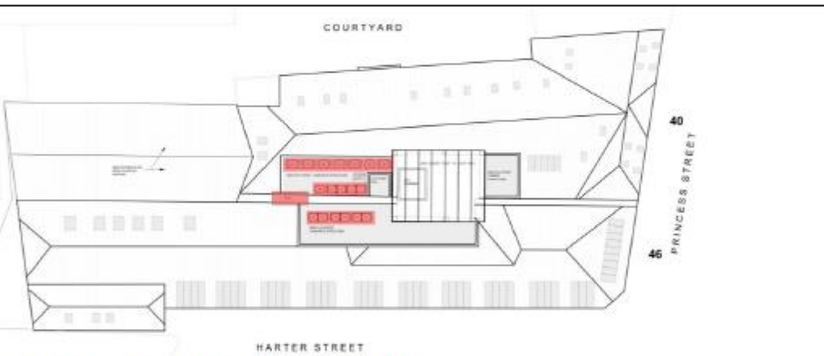


Plant shown above is typical. Refer to Appendix F for full information.

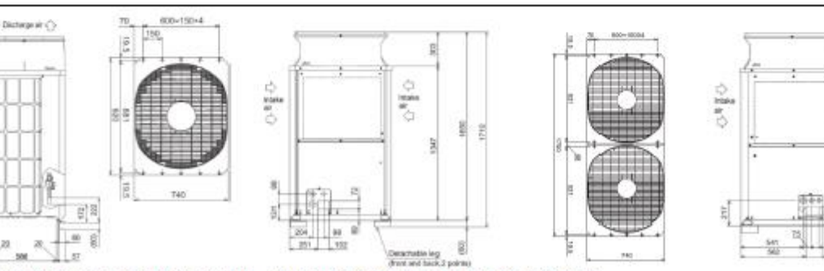
8.3 PROPOSED



PROPOSED GROUND FLOOR PLAN – INDICATING THE PROPOSED PLANT (IN RED) WITHIN COURTYARD



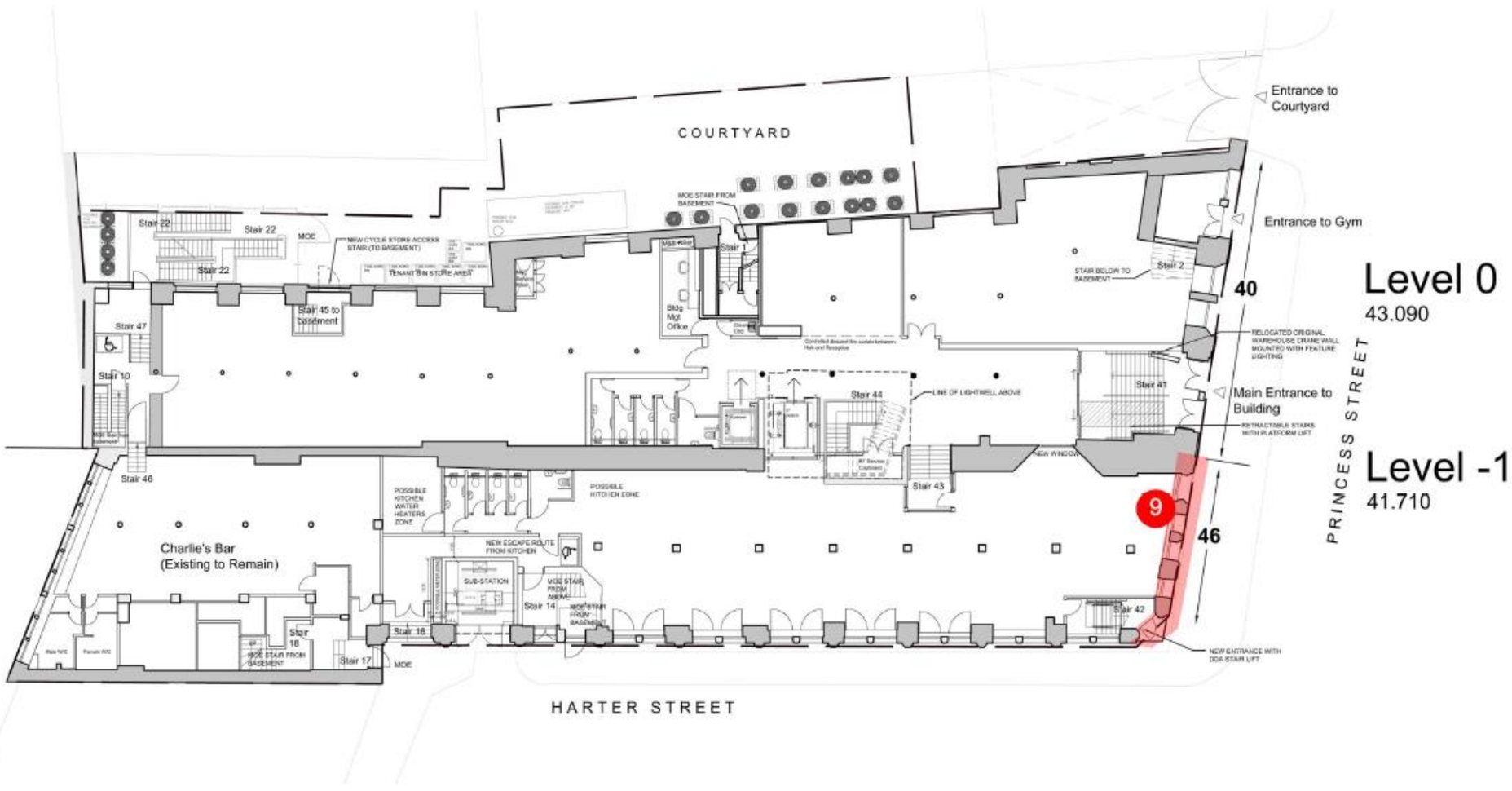
PROPOSED ROOF PLAN – INDICATING THE PROPOSED PLANT (IN RED)



PROPOSED PLANT DETAILS AND ELEVATIONS – REFER TO APPENDIX F FOR MORE INFORMATION

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS



PROPOSED GROUND FLOOR PLAN
Referencing Intervention No. 9 – Closure of Existing Restaurant Entrances (Efes and Peking Court)

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

9.1 CLOSURE OF EXISTING RESTAURANT ENTRANCES (EFES AND PEKING COURT)

9.2 INTERVENTION

PROVENANCE:
A late 20th Century alternation of low significance, the existing entrance to Efes and Peking Court are unfortunately, like the Main entrance, provides an unattractive image with materials and signage, not in keeping with the historic language of the building.

HERTIAGE SIGNIFICANCE OF EXISTING EFES AND PEKING COURT ENTRANCE:
Low

PROPOSAL:
The aim of the design intervention is to remove the existing entrance to Efes and Peking Court Restaurant, steps and signage and replicate the adjacent fenestration and stonework, reflecting the existing heritage of the building facade.

NEGATIVE ASPECTS OF EXISTING / POSITIVE ASPECTS OF PROPOSAL

EXISTING	PROPOSED
The existing entrance stair to Efes is in an awkward position as it starts immediately on the building line and is not DDA compliant.	The new entry stair to the café space will be provided through the original corner entrance (currently used as a Means of Escape door from the basement). A wheelchair lift will be available for patrons requiring an accessible entrance.
The existing Efes entrance has compromised the original fenestration at ground level.	Relocating the cafe entrance to the building corner, and removing the existing signage, will allow for reinstatement of previously existing windows, thus restoring the original architectural fenestration.
The existing windows are partially covered by signage, which compromises natural light entering at ground floor level.	New glazing to existing openings where doors and signage are removed, will improve natural light internally.
The existing Peking Court entrance will become redundant, as access to the future ground floor unit at No. 40 Princess Street will instead be provided from the main reception area.	Converting existing solid doors to new windows will provide additional natural light into the Café, enhancing the internal environment.

9.2 EXISTING



PHOTOS OF EXISTING ENTRANCE TO EFES AND PEKING COURT RESTAURANT



PROPOSED FRONT ELEVATION FROM PRINCESS STREET

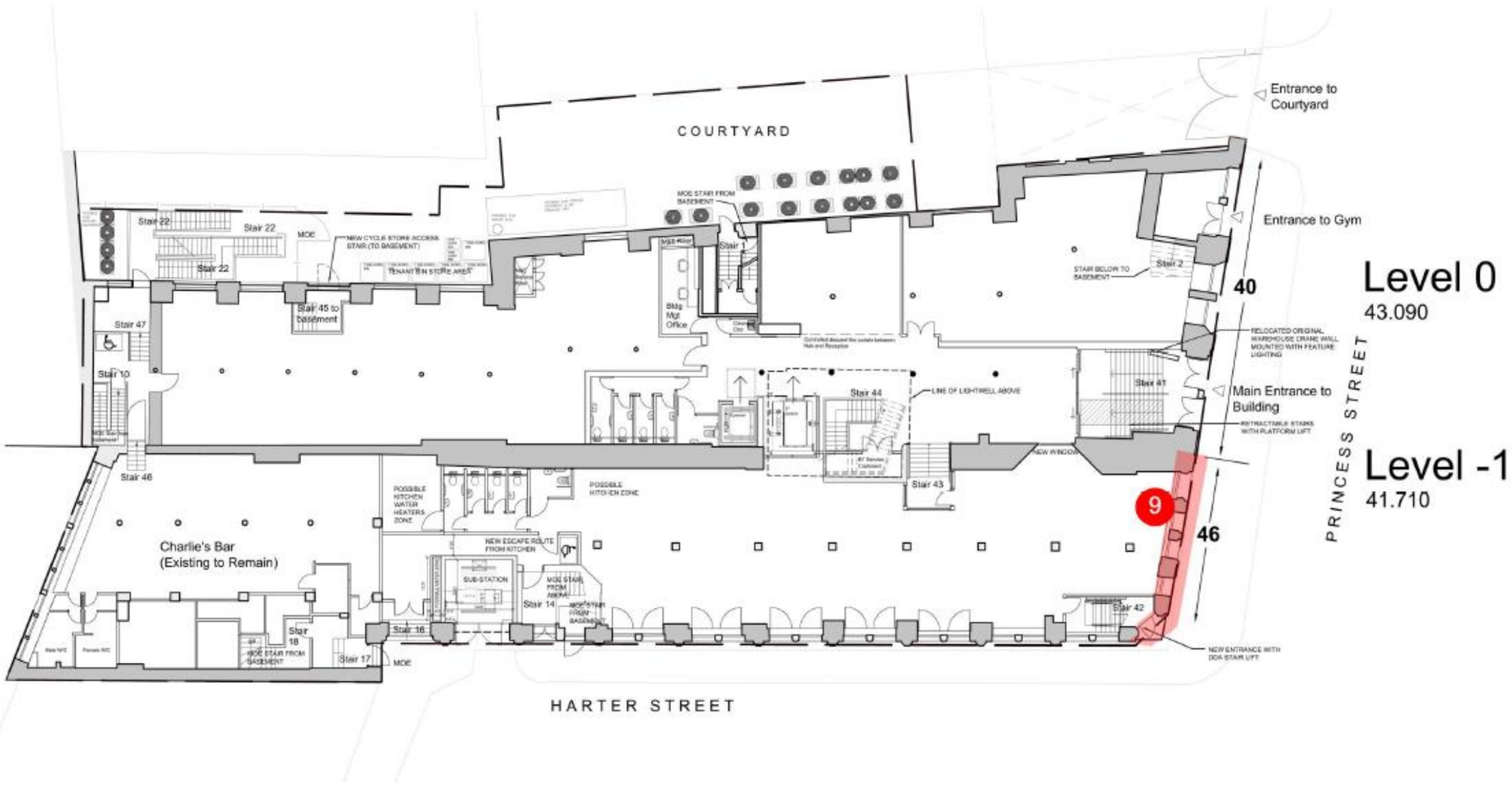
9.3 PROPOSED



PROPOSED FRONT ELEVATION FROM PRINCESS STREET

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

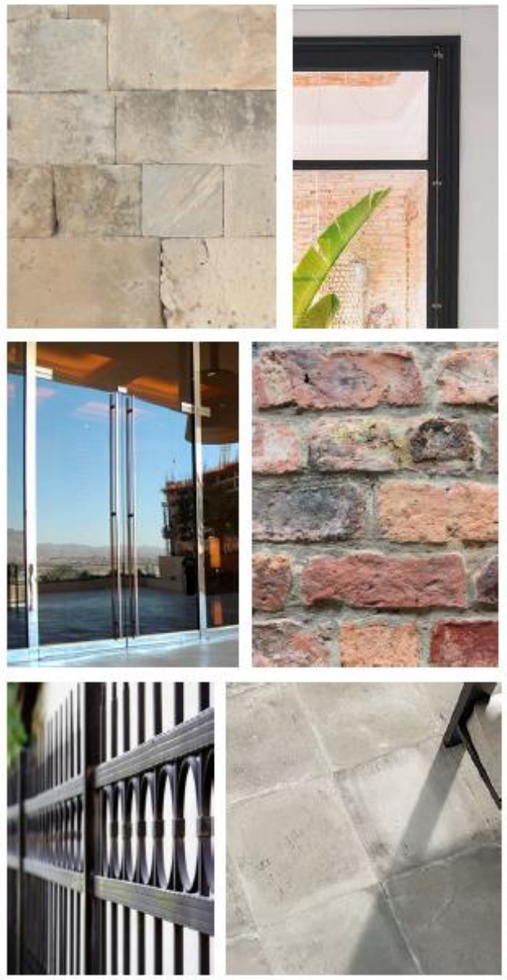


PROPOSED GROUND FLOOR PLAN
Referencing Intervention No. 9 – Closure of Existing Restaurant Entrances (Efes and Peking Court)

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

PROPOSED MOODBOARD – CLOSURE OF EXISTING RESTAURANT ENTRANCES



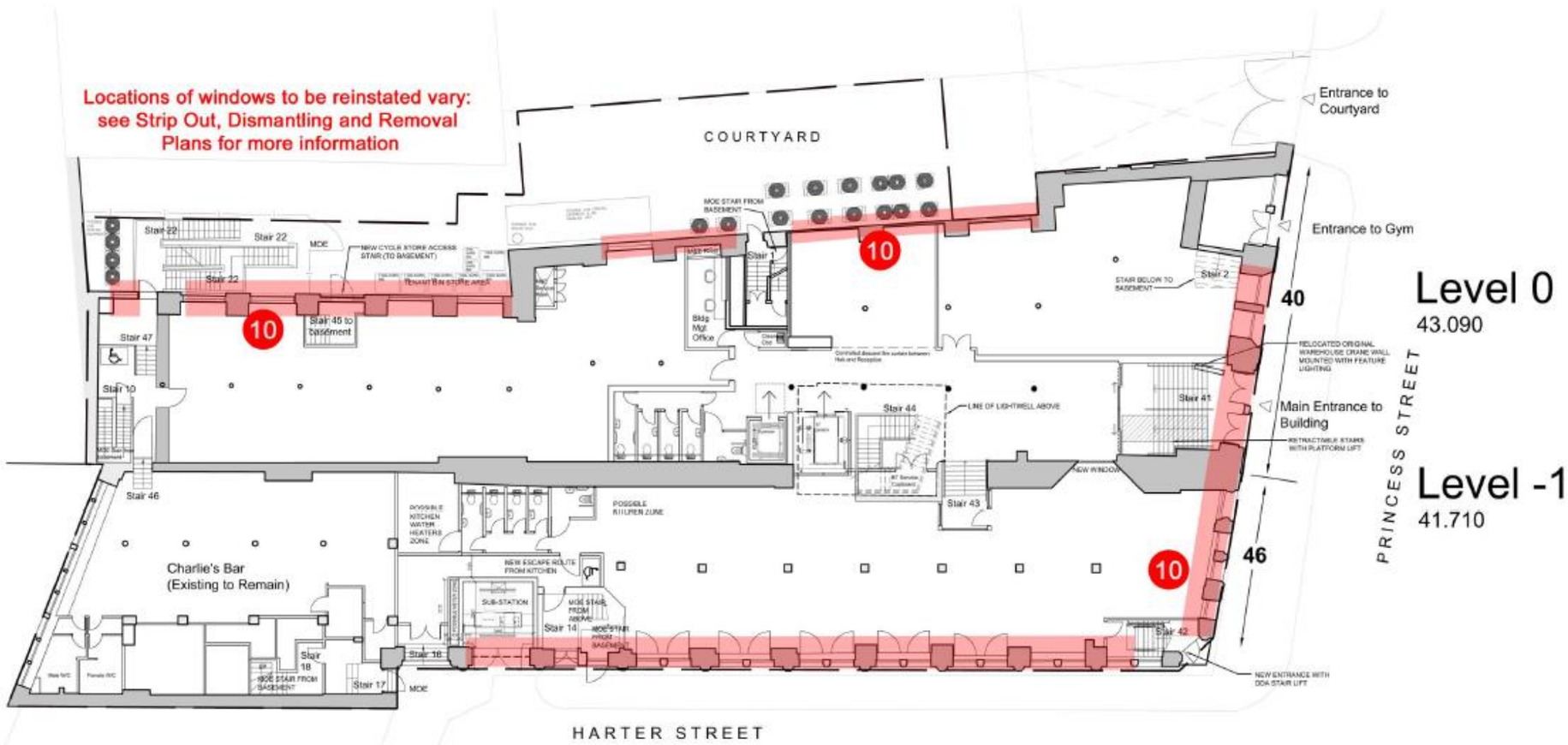
9.3 PROPOSED CONTINUED



PROPOSED ELEVATION RENDER OF FRONT FAÇADE FROM PRINCESS STREET

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS



PROPOSED GROUND FLOOR PLAN
Referencing Intervention No. 10 – Reinstatement of Blocked Up Windows

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

10.0 REINSTATEMENT OF BLOCKED UP WINDOWS

10.1 INTERVENTION

PROVENANCE:
Modern (20th Century.)
Throughout the building, various windows have been blocked up using a mixture of boarding and brickwork, providing an unsightly and inconsistent external appearance to the façade, while reducing admittance of natural light. The aim of the design intervention is to reinstate existing blocked up windows.

HERTIAGE SIGNIFICANCE OF EXISTING BLOCKED UP WINDOWS:
Low.

PROPOSAL:
The aim of the design intervention is to provide the maximum amount of natural light possible, through the reinstatement of existing blocked up windows. Throughout the building, various existing windows have been blocked up using a mixture of boarding and brickwork, providing an unsightly and inconsistent external appearance to the facade.

NEGATIVE ASPECTS OF EXISTING / POSITIVE ASPECTS OF PROPOSAL

EXISTING	PROPOSED
Street level windows facing Harter and Princess Street have been rendered over, preventing natural light reaching the basement.	Reinstated street level windows will recreate historic approaches to illuminated basements, via vertical or horizontal glazed lights.
At the courtyard façade, many windows have been blocked up to support mechanical equipment, ducts etc.	As all existing mechanical services will become redundant, these windows will be reinstated to match existing windows, maximizing natural light into internal spaces.
Within the light well, most of the windows have been boarded over, significantly diminishing an original source of air and light.	Existing windows surrounding the light well will be uncovered, with structural openings enlarged and full height glazing inserted, to amplify the striking presence of a light-flooded space.

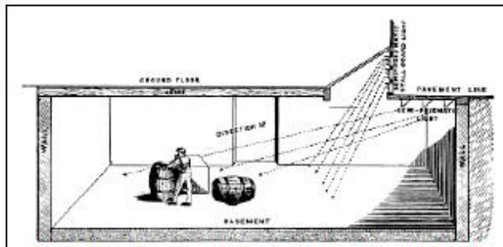
10.2 EXISTING



EXISTING BLOCKED UP WINDOWS ON HARTER STREET, PRINCESS STREET AND FACING COURTYARD



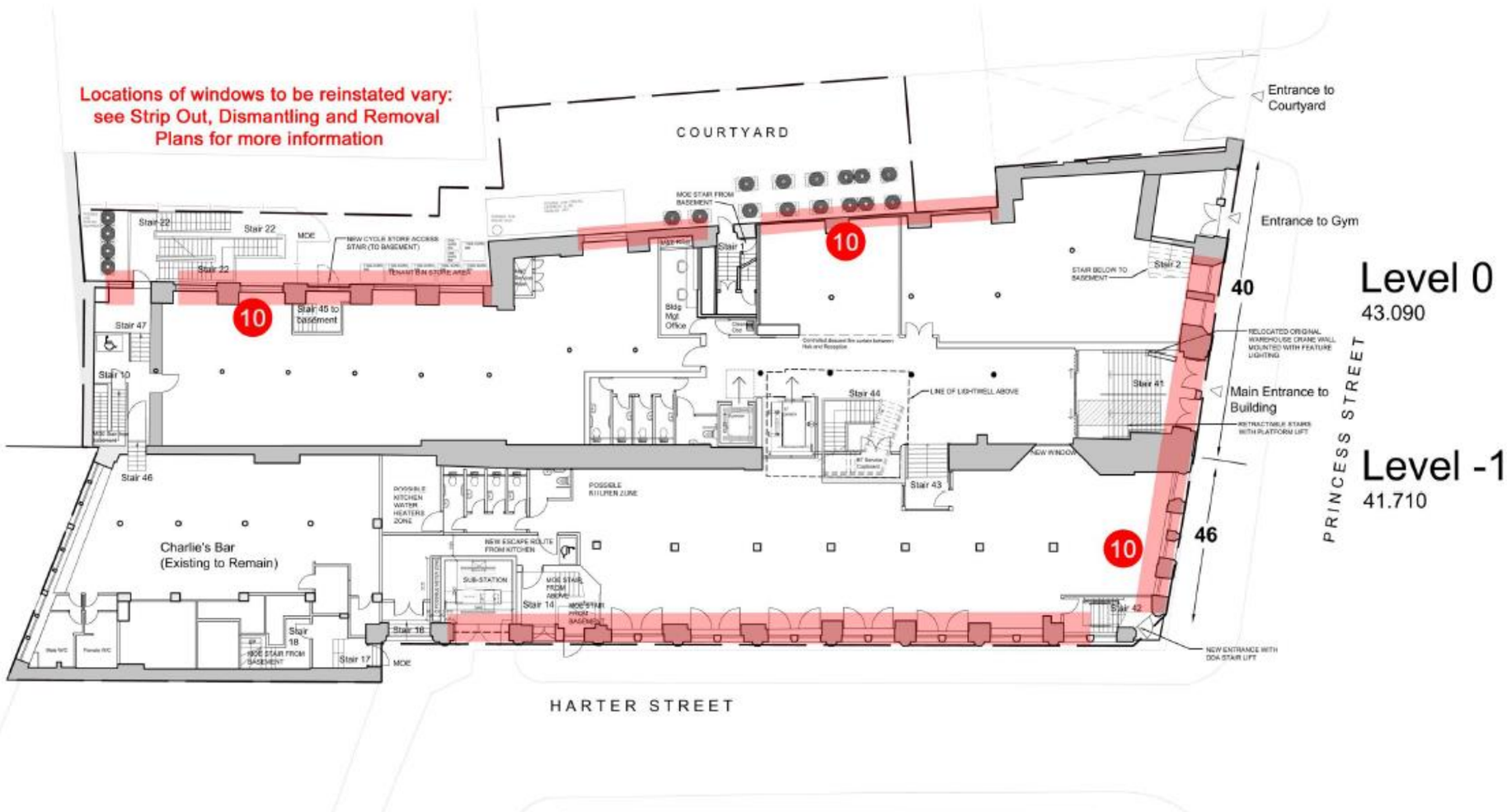
EXISTING BLOCKED UP WINDOWS – ELEVATION FACING COURTYARD
FOR ADDITIONAL BLOCKED UP WINDOWS TO BE REINSTATED, REFER TO STRIP OUT, REMOVAL AND DISMANTLING ELEVATIONS



HISTORIC DIAGRAM OF NATURAL ILLUMINATION TO BASEMENT SPACE

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS



PROPOSED GROUND FLOOR PLAN
Referencing Intervention No. 10 – Reinstatement of Blocked Up Windows

5.0 SCHEME DESIGN (Cont'd)

5.5 INTERVENTIONS

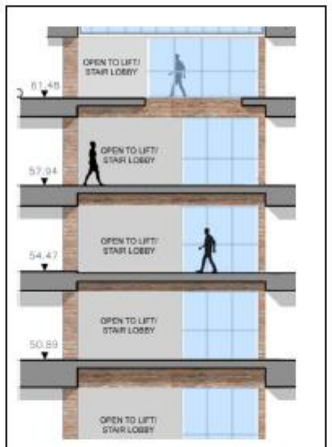
PROPOSED MOODBOARD – REINSTATEMENT OF BLOCKED UP WINDOWS



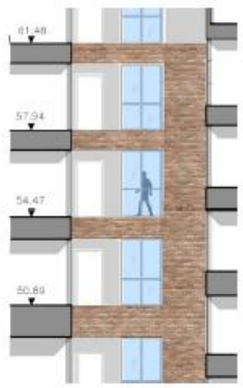
10.3 PROPOSED



PROPOSED ELEVATION FACING COURTYARD



PROPOSED SECTION THROUGH LIGHTWELL LOOKING NORTH SHOWING REINSTATED GLAZING TO BLOCKED UP WINDOWS



PROPOSED SECTION THROUGH LIGHTWELL LOOKING EAST SHOWING REINSTATED GLAZING TO BLOCKED UP WINDOWS



5.0 SCHEME DESIGN (Cont'd)

5.6 SUPPORTING DOCUMENTS

EXISTING PLANS

Existing drawing numbers submitted in support of the application:
100 Existing Location and Site Plan, 101 Existing Sub Basement Floor Plan, 102 Exiting Basement Floor Plan, 103 Existing Ground Floor Plan, 104 Existing First Floor Plan, 105 Existing Second Floor Plan, 106 Existing Third Floor Plan, 107 Existing Fourth Floor Plan, 108 Existing Fifth Floor Plan, 109 Existing Roof Plan
REFER TO APPENDIX A

STRIP OUT, REMOVAL AND DISMANTLING PLANS AND ELEVATIONS

Strip Out, Removal and Dismantling drawing numbers submitted in support of the application:
200 Strip Out, Removal and Dismantling Sub-Basement Plan, 201 Strip Out, Removal and Dismantling Basement Plan, 202 Strip Out, Removal and Dismantling Ground Floor Plan, 203 Strip Out, Removal and Dismantling First Floor Plan, 204 Strip Out, Removal and Dismantling Second Floor Plan, 205 Strip Out, Removal and Dismantling Third Floor Plan, 206 Strip Out, Removal and Dismantling Fourth Floor Plan, 207 Strip Out, Removal and Dismantling Fifth Floor Plan, 208 Strip Out, Removal and Dismantling Roof Plan, 221 Strip Out, Removal and Dismantling Courtyard Elevation, 222 Strip Out, Removal and Dismantling Princess Street Elevation, 223 Strip Out, Removal and Dismantling Harter Street Elevation, 225 Strip Out, Removal and Dismantling Light Well Elevations
REFER TO APPENDIX B

PROPOSED GA PLANS

Proposed GA drawing numbers submitted in support of the application:
301 proposed Sub-Basement Floor Plan, 302 proposed Basement Plan, 303 Proposed Ground Floor Plan, 304 Proposed First Floor Plan, 305 Proposed Second Floor Plan, 306 Proposed Third Floor Plan, 307 Proposed Fourth Floor Plan, 308 Proposed Fifth Floor Plan, 309 Proposed Roof Plan
REFER TO APPENDIX C

EXISTING AND PROPOSED SECTIONS

Existing and Proposed Section drawing numbers submitted in support of the application:
EXISTING SECTIONS:
110 Existing Section A-A, 111 Existing Section B-B. 112 Existing Section C-C, 113 Existing Section D-D, 114 Existing Section E-E, 115 Existing Section F-F, 116 Existing Section G-G
REFER TO APPENDIX A

PROPOSED SECTIONS:
350 Proposed Section A-A, 351a Proposed Section B-B part 1, 351b Proposed Section B-B part 2, 352 Proposed Section C-C, 354 Proposed Sect5ion F-F
REFER TO APPENDIX D

EXISTING AND PROPOSED ELEVATIONS

Existing and Proposed Elevation drawing numbers submitted in support of the application:
EXISTING ELEVATIONS:
121 Existing Elevation Courtyard, 122 Existing Elevation Princess Street, 123 Existing Elevation Harter Street, 124 Existing Elevation Rear of Building, 125 Existing Elevations Light Well
REFER TO APPENDIX A

PROPOSED ELEVATIONS:
321 Proposed Elevation Courtyard, 322 Proposed Elevation Princess Street, 323 Proposed Elevation Harter Street, 324 Proposed Elevation Rear of Building, 352 Proposed Elevations Light Well
REFER TO APPENDIX E

PROPOSED SERVICES LAYOUTS

Proposed Service routes submitted in support of the application
REFER TO APPENDIX F for marked up drawings

PROPOSED STRUCTURAL INTERVENTIONS

Proposed Structural Sketches submitted in support of the application
REFER TO APPENDIX G for marked up drawings

5.0 SCHEME DESIGN (Cont'd)

5.7 PROPOSED SERVICES LAYOUTS

REFER TO APPENDIX F (As prepared by CWC Consulting)

5.7.1 M & E SERVICES DESCRIPTION

The purpose of this document is to provide a high-level overview of the Mechanical and Electrical (M&E) services proposed as part of the refurbishment of 40-46 Princess St.

The M&E services proposed for the refurbishment of 40-46 Princess St will be developed to be energy efficient and be sympathetic to the listed natural of the building.

Heating and comfort cooling to the office areas is proposed to be via Variable Refrigerant Flow (VRF) systems that will be designed to the British Council of Offices (BCO) guidelines and be energy efficient to comply with Building Regulations.

The office areas are to be provided with natural ventilation via opening windows to achieve the guidelines of CIBSE AM10, with a provision for mechanical ventilation in areas where these guidelines cannot be achieved. The ventilation systems proposed will provide adequate supply ventilation to satisfy the buildings proposed occupation density.

Landlord's ventilation to toilets and ancillary areas will be designed to achieve Building Regulations.

Retail Units ventilation is part of the Tenant's fit out and will be by high level louvres or ducts in the ground floor façades (these will be planned carefully to limit their impact on the buildings aesthetics). Dedicated riser space will be identified for each A3 unit taking the kitchen extract systems to roof level. Any boiler flue required as part of the gym fit-out will be external to the building and rise in the courtyard area to roof level (to comply with Building Regulations).

New energy efficient lighting will be proposed with the use of appropriate lighting controls to reduce the electrical energy consumption of the building.

Lighting will be designed in accordance with the Industry Standard (Society of Light & Lighting) Guidance with particular relevance to CIBSE guide LG7 to the office areas. Emergency lighting will be provided throughout the building in line with BS5266-1:2016.
A new electrical sub-station is proposed as part of the refurbishment to rationalise the incoming electrical strategy. The sub-station is proposed to be located at ground floor with external access off Harter Street.

The building will be provided with a new electrical distribution infrastructure throughout, with new electrical isolation points to the retail areas. The new electrical installations will be provided with sub-metering to comply with Building Regulations and CIBSE TM39 to allow monitoring of the buildings electrical load.

A new automatic fire alarm system will be installed throughout the building in line with the requirements of BS5839, Building Regulations and the fire officer.

The M&E services will distribute vertically through the building in central risers; it is the intention for these risers to be located primarily in the central core area (adjacent lifts, toilets, stair core, etc.). Where possible services will use existing vertical distribution routes through the building to limit their impact.

Plant space for Landlord and Tenant ventilation and heat rejection equipment is proposed to be provided at ground floor and roof level. The location of external plant will be sympathetic to the existing building and where possible will be designed to be located in areas that are unobtrusive. Also, where possible plant and equipment serving retail units is proposed to be located internally within each Tenant's demise.

New water storage plant is proposed to be located within the sub-basement level.

5.0 SCHEME DESIGN (Cont'd)

5.7.1 PROPOSED SERVICES LAYOUTS

REFER TO APPENDIX F (As prepared by CWC Consulting)

5.7.2 VENTILATION STATEMENT

This statement has been prepared to provide outline details of the ventilation proposals for 40-46 Princess Street, Manchester.

The design and installation of ventilation systems will be developed in line with the following:

- Current Building Regulations Approved Documents
- CIBSE Guidebooks
- Health and Safety at Work Act
- Manchester City Council planning conditions and requirements
- All relevant British Standards and Codes of Practices.
- All ventilation systems will be specified to meet the acoustic requirements.

Office Areas

The office areas are to be provided with natural ventilation via opening windows to achieve the guidelines of CIBSE AM10, with a provision for mechanical ventilation in areas where these guidelines cannot be achieved.

The ventilation systems proposed will provide adequate supply ventilation to satisfy the buildings proposed occupation density.

Office Sanitary Facilities

Toilet extract ventilation to the offices will be provided by a central twin fan unit to serve all toilets. Air will be discharged at roof level. The sanitary facilities within each Landlord's core area will be provided with extract ventilation at rates which exceed the minimum requirements of Part F whilst remaining energy efficient. All ventilation systems will be specified to meet the acoustic requirements set out in the Acoustic Planning Report by the acoustic consultant.

Café (ground floor A3 retail unit)

The proposed café ventilation is part of the Tenant's fit out and will be by high level louvres in the ground floor façades off Harter Street (these will be planned carefully to limit their impact on the buildings aesthetics). Kitchen extract systems will be vented at roof level at a minimum of 1.0m above the eaves of the building. A dedicated riser with access at all floors will be provided to enable the Tenant to install the kitchen extract duct.

The kitchen extract systems will be designed to meet the various criteria in the Chartered Institute of Building Services Engineers, DW172 and DEFRA design guidance. The design shall allow for space to accommodate the air filtration and treatment plant required to comply with the DEFRA design guidance and DW172.

Gym (Basement unit)

The proposed gym ventilation is part of the Tenant's fit out and will be by high level louvres and duct routes in the basement floor façade off the Courtyard (these will be planned carefully to limit their impact on the buildings aesthetics). Any boiler flue required as part of the gym fit-out will be external to the building and rise in the Courtyard area to roof level (to comply with Building Regulations).

5.0 SCHEME DESIGN (Cont'd)

5.8 PROPOSED STRUCTURAL SKETCHES – *REFER TO APPENDIX G*

The purpose of this document is to briefly describe the existing structure 40-46 Princess Street and discuss the structural interventions that will take place as part of the proposed refurbishment.

The site comprises of two separate Grade II listed buildings, which have subsequently been linked together. No. 40-44 Princess Street, also known as Eastern House, was constructed around 1870-1880 and No. 46 Princess Street known as "Langley building" was constructed in 1895. The ground floor level of 46 Princess Street is set approximately 1.5m below that of no. 40-44, and a level difference occurs on all upper floors.

5.8.1 EXISTING STRUCTURE

The structures of no. 40-44 & 46 are similar, and comprise of 5-6 storeys over a basement area, with a sub-basement under part of no.40-44. The structure appears to generally comprise of cast iron columns with wrought iron or steel beams and timber floors. The basement floor construction is assumed to be ground-bearing concrete slabs. The suspended portion of the basement floor (over the sub-basement) within the building footprint is of filler-joist construction comprising clinker concrete with steel or wrought iron filler joists. The portion of basement beneath the courtyard has a roof structure (i.e. at courtyard level) consisting of masonry jack-arches supported on cast iron beams with cast iron columns. The roof structure comprises a number of timber trusses of differing arrangements, supported on cast iron columns, timber posts or sat directly on the load-bearing masonry walls. Some roof trusses appear to show signs of previous modification.

Previous structural alterations are thought to include:

- Modifications to the front façade, with what appears to be a steel goal post arrangement to form the entrance to the upper commercial area
- A number of openings have been formed in the separating wall between 40-44 and 46 Princess Street as discussed in section 3.3.
- The staircase and lift at the front of the building do not appear to be original and are likely to have been added in as part of the redevelopment of the office space above
- The lightwell is thought to have originally extended to ground floor level. At some point the ground floor walls have been removed and the 1st floor infilled with a steel grillage.

5.8.2 PROPOSED STRUCTURAL WORKS

New lifts and Staircase

It is proposed to install one lift and a full height staircase within the existing lightwell and a further lift within the floor plate area. The new lift shaft and stair in the lightwell would be steel framed and would be supported off the lift pit base. This lift starts at ground floor and as such the lift pit would be formed in the existing basement. The other lift will be formed from blockwork and steels and will serve the basement and as such the pit will either be formed via a new lift pit formed in the ground supported on mini piles. Strengthening of the existing columns and beams may be required – if this is the case we would propose to supplement the existing structure with new PFC or UC sections as it is unlikely that we would be able to weld new plates onto the wrought or cast iron. Strengthening of the existing columns and beams may be required – if this is the case we would propose to supplement the existing structure with new PFC or UC sections as it is unlikely that we would be able to weld new plates onto the wrought or cast iron.

Removal of Existing Lift and Staircase

The main staircase and lift adjacent to Princess St appear to be a late addition to the buildings and were not part of the original fabric. It is therefore thought that it will be straightforward to remove the walls and stair without needing any significant structural alterations. The floor structure and column would be reinstated with new steel and timber to reflect the original construction.

Princess St Entrance

The existing staircase on the boundary will be removed and a new entrance will be formed at street level, with a new stair set further into the building. To achieve this it is likely that section of the ground floor slab will need to be demolished and rebuilt at a lower level. The existing brick-arch floor will be removed up to the existing wrought iron beams, and the floor infilled with concrete on metal decking.

Openings in Masonry Walls

Various openings are proposed through the main masonry party walls between 40-44 & 46. It is likely that small openings can be accommodated without significantly affecting the walls, with precast lintels to support the wall over. Any larger openings in these walls would likely require steel box frames and temporary needling of the masonry walls to avoid cracking during construction.

Risers and Goods Lift

It is proposed to remove an existing goods lift in no. 40-44 and to replace this with a service riser. Various floor openings are proposed in no. 46 to form M&E risers. These works will be quite straightforward and the openings can be trimmed using steel beams and timber floors to match the existing structure. Two further existing (redundant) lift shafts are proposed to be demolished in Number 40-44. These shafts are likely supporting the existing floors and roof and as such, support will need to be reinstated by the introduction of additional beams and/or columns.

Proposed Extension

The proposed extension will be from steel or timber trusses and these will be supported from a combination of the existing walls and steel columns that will be extended up from the existing floor below. The existing roof will be removed in the area of the new extension to facilitate the new structural addition. The cladding will be formed from brick slips in order to keep the load on the existing structure as low as possible.

5.8.3 STRUCTURAL INVESTIGATIONS

To allow the alterations to be designed and costed the existing structure needs to be investigated. We have proposed a series of structural investigations throughout the building, which will involve removing finishes of walls and floors and removing suspended ceilings and floor finishes to reveal the structure.

In due course, we would also specify structural material testing to verify the grade of iron or steel and timber used in the building. Removing finishes of walls and floors and removing suspended ceilings to reveal the structure. In due course, we would also specify structural material testing to verify the grade of iron or steel used in the building.

5.0 SCHEME DESIGN (Cont'd)

Indicative Method Statements

SK01: New lift shafts

1. Existing ground floor structure modified to accommodate opening for lift shaft.
2. Lift base constructed at basement level (lift base position and foundation solution TBC, to avoid impact on existing footing).
3. Lift shaft steelwork installed and tied into existing structure as required.

SK02: New stair within lightwell

1. Adjacent floors provided with temporary propping as necessary (all temporary works designed by others).
2. Masonry to perimeter of lightwell demolished- extent of demolition to be confirmed following detail design and intrusive investigations.
3. New steelwork to perimeter of lightwell to be installed, with new padstones provided as necessary.
4. New staircase steelwork installed, with full-strength splice joints provided where members are too long to be installed in one piece. If staircase is to be connected into new lift shaft steelwork (TBC), temporary propping is to be provided.
5. Temporary propping to adjacent floors removed (other propping in lieu of lift shaft is to remain).
6. After construction of new lift shaft, members connected as necessary.
7. Remaining propping removed.

SK03: New lightwell roof

1. Existing structure to perimeter of lightwell assessed and modified/strengthened as necessary (TBC).
2. Existing roof structures modified as necessary to accommodate new roof steelwork.
3. Holding-down beam constructed if necessary (TBC)
4. New roof steelwork installed following construction of new lift shaft.
5. Glazing system installed

SK04: New flat roof (north)

1. Existing fifth-floor structure modified as required to accommodate any new columns (required modifications TBC).
2. New column(s) installed.
3. Existing roof structure carefully removed as necessary. Remaining structure to be propped as required.
4. Existing walls modified if required for new roof configuration.
5. Steelwork for new roof installed, beams bearing onto masonry to be provided with padstones.
6. New composite roof deck poured.
7. Interface between new and existing roofs made good (to Architect's details).

SK05: New flat roof (south)

1. Existing fifth-floor structure modified as required to accommodate any new columns (required modifications TBC).
2. New column(s) installed.
3. Existing roof structure carefully removed as necessary. Remaining structure to be propped as required.
4. Existing walls modified if required for new roof configuration.
5. Steelwork for new roof installed, beams bearing onto masonry to be provided with padstones.
6. New composite roof deck poured.
7. Interface between new and existing roofs (to Architect's detail) made good.

SK06: New extension

1. Existing roof structure removed. Walls propped as necessary.
2. New columns installed at third-floor level to underside of new fourth floor.
3. New steel beams introduced at fourth-floor level, any beams bearing onto masonry to be provided with padstones.
4. Extension steelwork constructed (columns, trusses, bracing).
5. Temporary propping removed.
6. Cladding rails and roof purlins fixed to primary structure.
7. Roof and wall finishes / cladding installed.
8. Interface with existing roofs and party walls made good (to Architect's details).

SK07: Removal of existing lift shafts

1. Construct new pad footing at sub-basement level to carry new column.
2. Install new column up to roof level (provide splice connections as necessary).
3. Provide temporary restraints to column as required.
4. Provide temporary propping to roof structure.
5. Demolish top level of existing shafts (fifth-floor to roof).
6. Connect existing roof structure into new column (details TBC), providing new steel members as necessary to support roof in permanent condition.
7. Remove top level of temporary propping.
8. Provide temporary propping to fifth-floor.
9. Demolish existing masonry to the level below.
10. Introduce new steel members at floor level and connect into new column. Remove temporary column restraints.
11. Modify existing timber floor joists or provide new joists to span between new steel beams.
12. Remove top level of temporary propping.
13. Repeat steps #8 to #12 for each floor in sequence, working down the building.

SK08: Main entrance reconfiguration

1. Carefully remove existing staircase and adjacent floor structures.
2. Introduce new steel columns at basement level (footing detail TBC).
3. Introduce new steel beams and vertical bracing. Details of connection(s) into existing structure are TBC pending intrusive investigations and materials testing.
4. Install new floors and staircase.

SK09: Typical lintel details

1. (Refer to method statements shown on sketch)

Drainage Strategy

The project will seek to re-use the existing foul and surface water drainage outfall connections into the adopted sewers. A CCTV survey will be undertaken to determine the capacity and condition of the system and repairs/capacity upgrades will be taken where necessary to ensure the outfalls will perform correctly and have sufficient capacity for the re-development. The surface water flows should not be changed by the development as the roof area is unaffected. Foul discharges may be slightly increased due to the change of use of some areas and as such the capacity will need to be checked against these potential increases. The relationship of the drainage network to adjacent properties will also need to be determined.

Water ingress into the sub - basement area appears to have been an ongoing problem and may be related to the drainage network as such, the CCTV survey may inform potential remediation strategies.

5.0 SCHEME DESIGN (Cont'd)

5.6 PROPOSED STRUCTURAL SKETCHES – *REFER TO APPENDIX G*

5.6.4 SUMMARY AND CONCLUSION

The internal renovation of 40-46 Princess Street and associate external works, is designed to improve the amenity space and provide a general upgrade and improvement of the building.

The design proposal will retain surviving historic fabric as identified in the Scope of Works and Heritage Statement, refurbishing where necessary, with all other internal work being generally of redecoration, reinstatement and furnishing nature with no or minimal impact on the historic fabric of the building – the proposal will not adversely affect the external envelope and will be enhanced by provision of a new lighting scheme and sympathetic external signage.
The introduction of lighter modern technologies and modern office furniture will also reduce the impact of electrical services. Any M&E Services will be designed in such a way to be sensibly routed and hidden, using redundant lift risers and staircases wherever possible and will be designed to future -proof for faster Broadband Technology.

The proposed scheme has been designed to create an office layout that enables a modern, agile workspace, achieved by efficient spatial arrangements and light internal works, compatible with the style and nature of the existing.
The fastest growing business sector in the city centre is the TMT (Technology, Media and Telecommunications) sector and the majority of these occupiers seek space with individual character rather than focusing on conventional refurbished space with raised floors, suspended ceilings and standard light fittings.

The Design will:

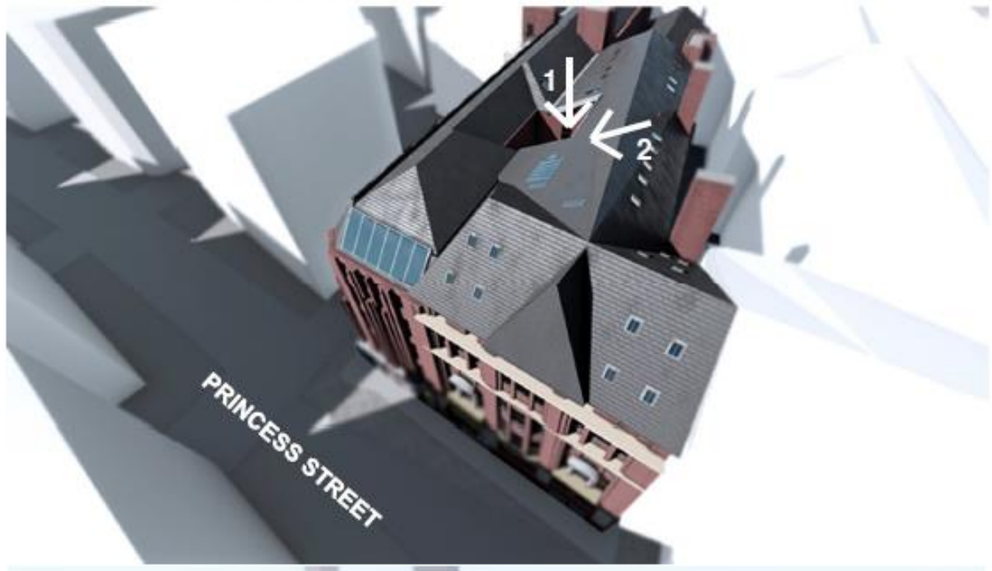
- amend the existing ground and first floors to create an improved entrance and a high impact reception for the offices to work alongside new higher calibre ground floor leisure operator(s) such as coffee shops/restaurants. Overhaul and or replace in their entirety the internal and external common areas including roof, M&E and install additional/new lifts and WC's.
- retain the current office entrance but enhance it through the use of the existing light well leading into a new core for the offices, all of which link in to the newly reconfigured leisure unit.
- relocate the core and WC's to create a far more efficient and flexible floor plan.
- refurbish all of the office accommodation to provide open plan workspace with exposed brickwork and soffits with feature pendant lighting that maximises the floor to ceiling height and architectural features.

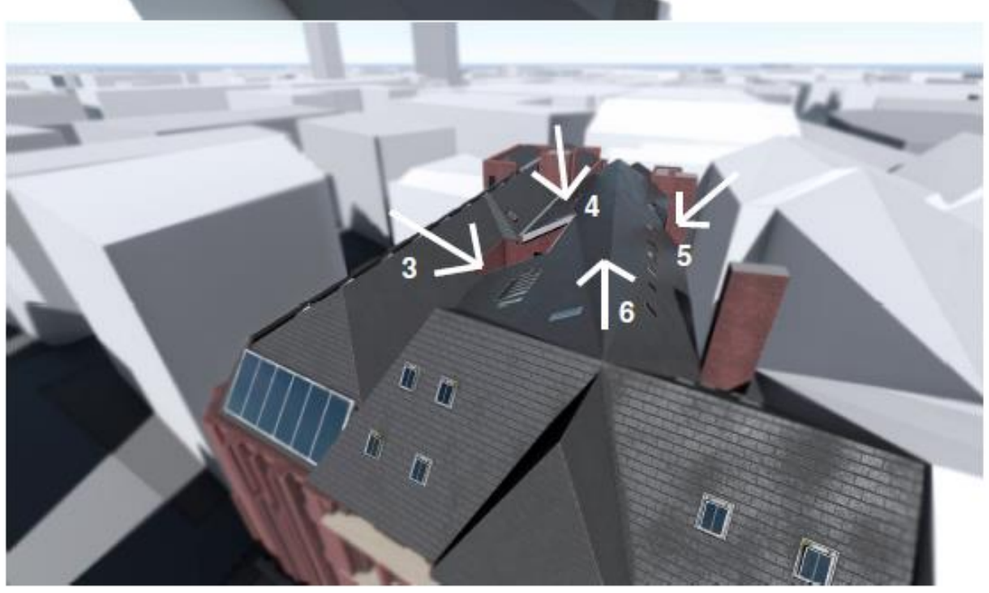
The aim is to bring the building back into better economic use with minimal impact on the structure and fabric of the building, and by giving it a new sustainable and economic life which will enhance and protect the building for future generations

6.0 VISUALISATIONS

6.01 3D INDICATIVE STUDIES OF THE ROOF AND LIGHTWELL

AERIAL VIEWS - EXISTING ROOF KEYS

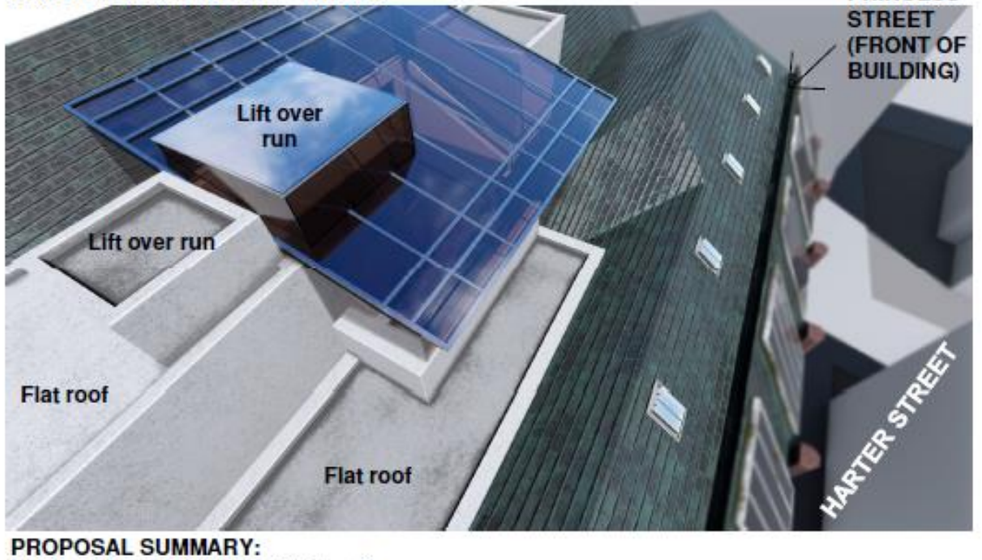




EXISTING LIGHTWELL – VIEW 1



PROPOSED LIGHTWELL – VIEW 1



PROPOSAL SUMMARY:

- Glass lid added at top of Lightwell.
- Glass lid to Scenic roof over run.
- Flat roofs added to provide internal headroom and accommodate external condensers.

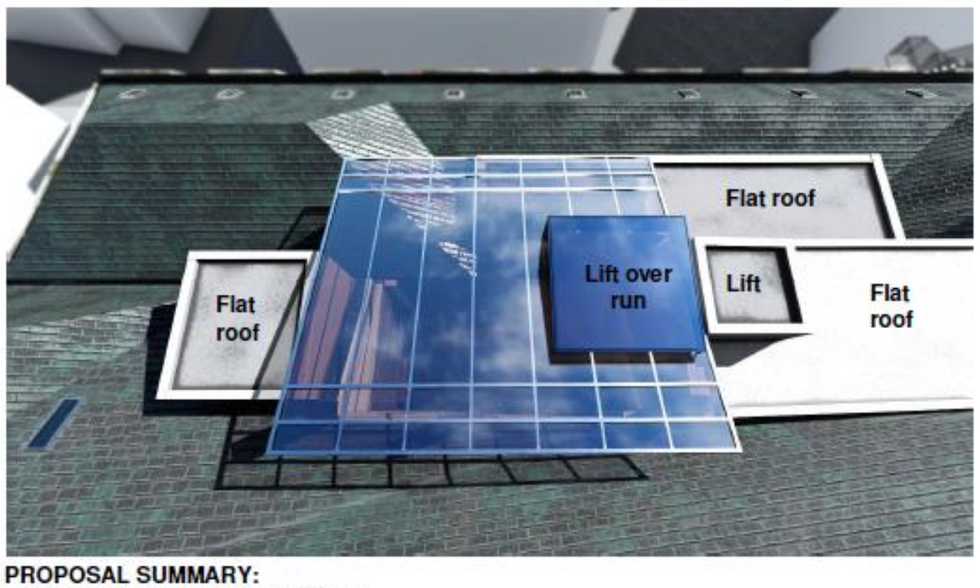
6.0 VISUALISATIONS

6.01 3D INDICATIVE STUDIES OF THE ROOF AND LIGHTWELL

EXISTING LIGHTWELL – VIEW 2



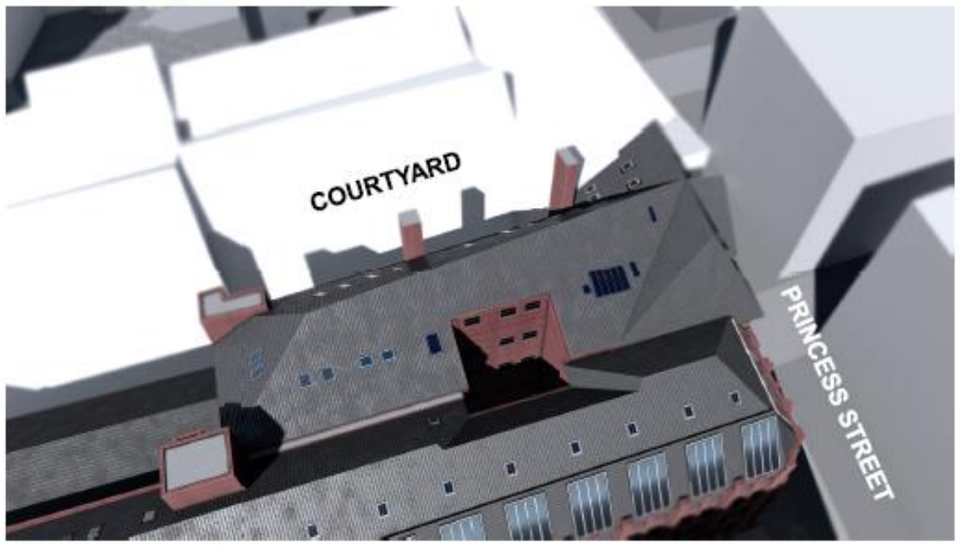
PROPOSED LIGHTWELL – VIEW 2



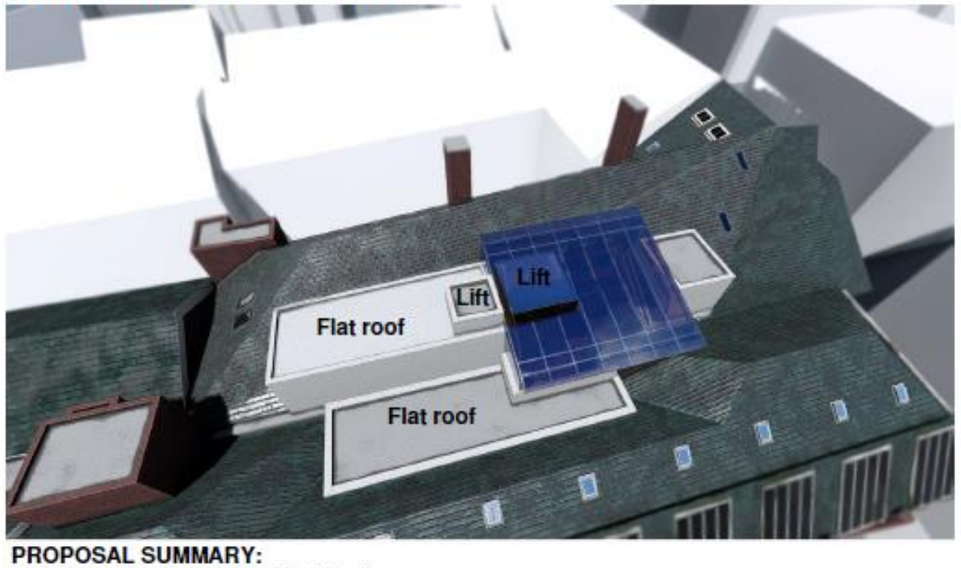
PROPOSAL SUMMARY:

- Glass lid added at top of Lightwell.
- Glass lid to Scenic roof over run.
- Flat roofs added to provide internal headroom and accommodate external condensers.

EXISTING LIGHTWELL – VIEW 3



PROPOSED LIGHTWELL – VIEW 3



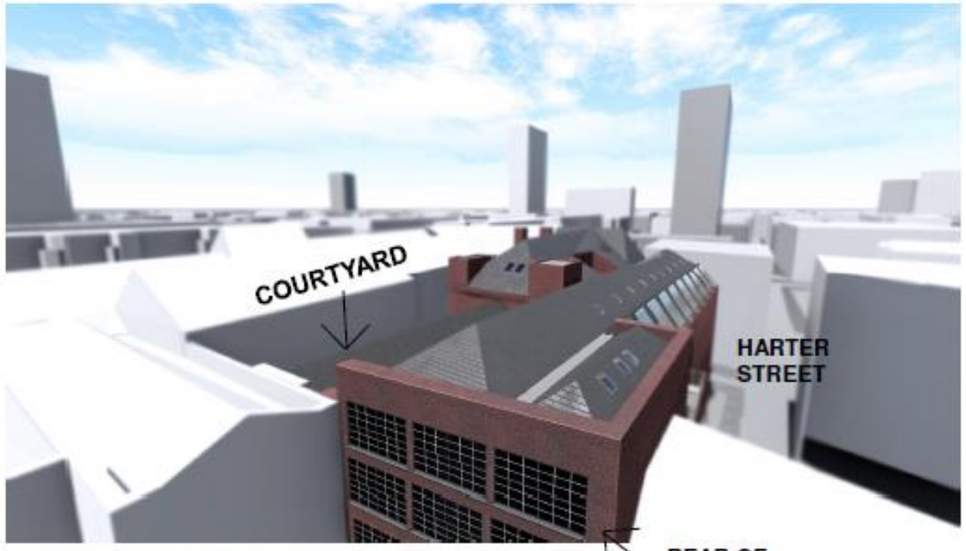
PROPOSAL SUMMARY:

- Glass lid added at top of Lightwell.
- Glass lid to Scenic roof over run.
- Flat roofs added to provide internal headroom and accommodate external condensers.

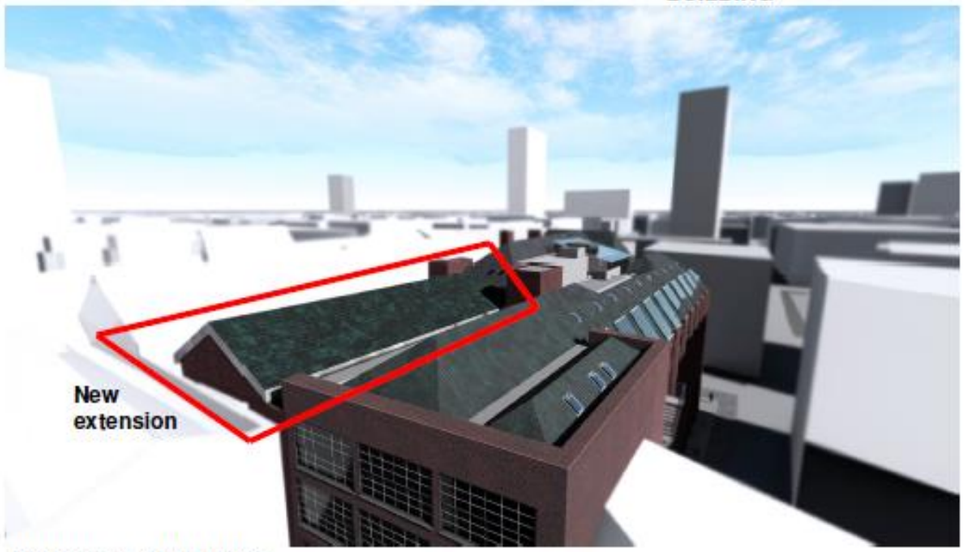
6.0 VISUALISATIONS

6.01 3D INDICATIVE STUDIES OF THE ROOF AND LIGHTWELL

EXISTING REAR – VIEW 4



PROPOSED REAR – VIEW 4



PROPOSAL SUMMARY:

- New 4th floor extension and pitched roof added, to match existing.

EXISTING REAR – VIEW 5



PROPOSED REAR – VIEW 5

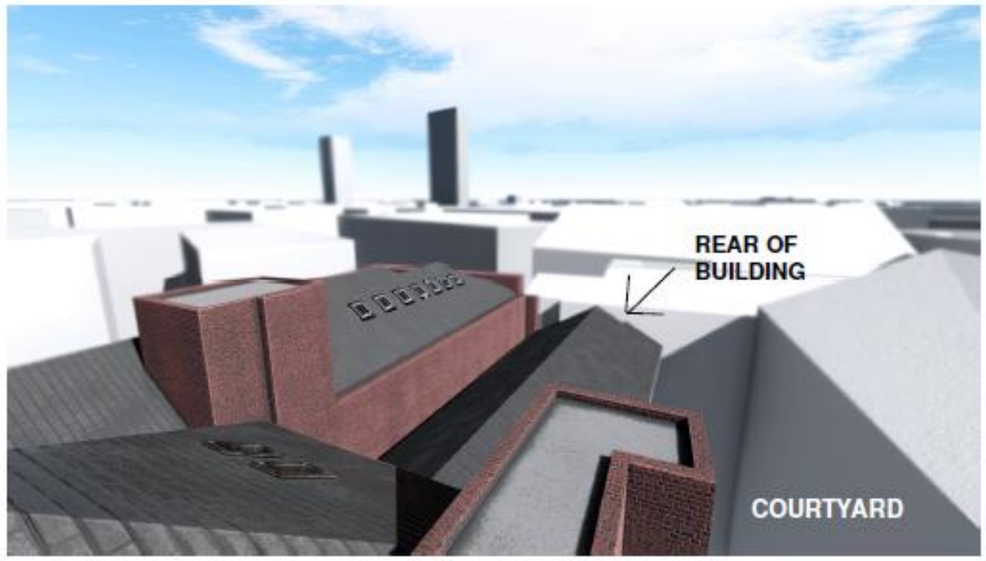
PROPOSAL SUMMARY:

- New 4th floor extension and pitched roof added, to match existing.

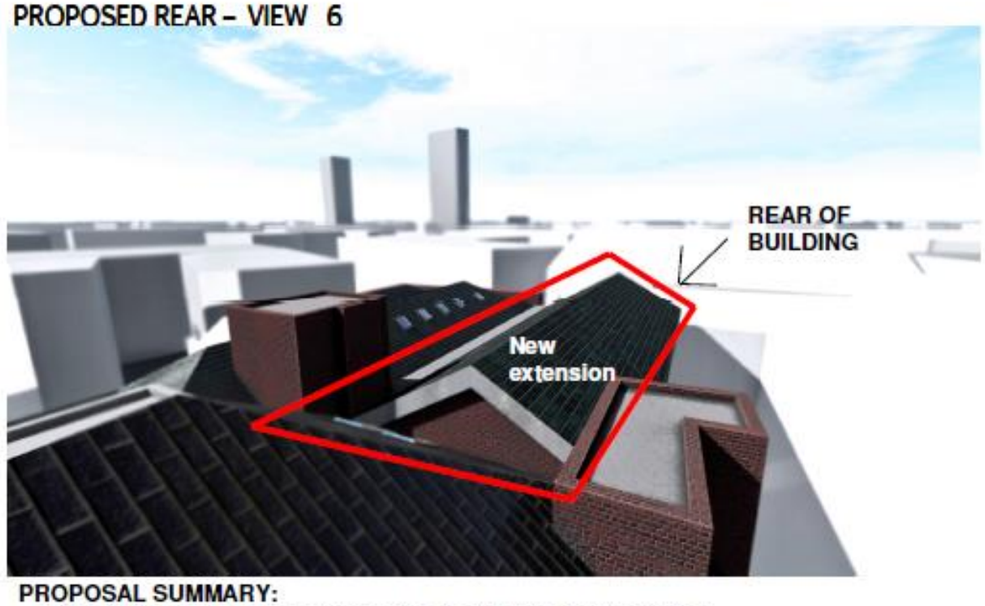
6.0 VISUALISATIONS

6.01 3D INDICATIVE STUDIES OF THE ROOF AND LIGHTWELL

EXISTING REAR – VIEW 6



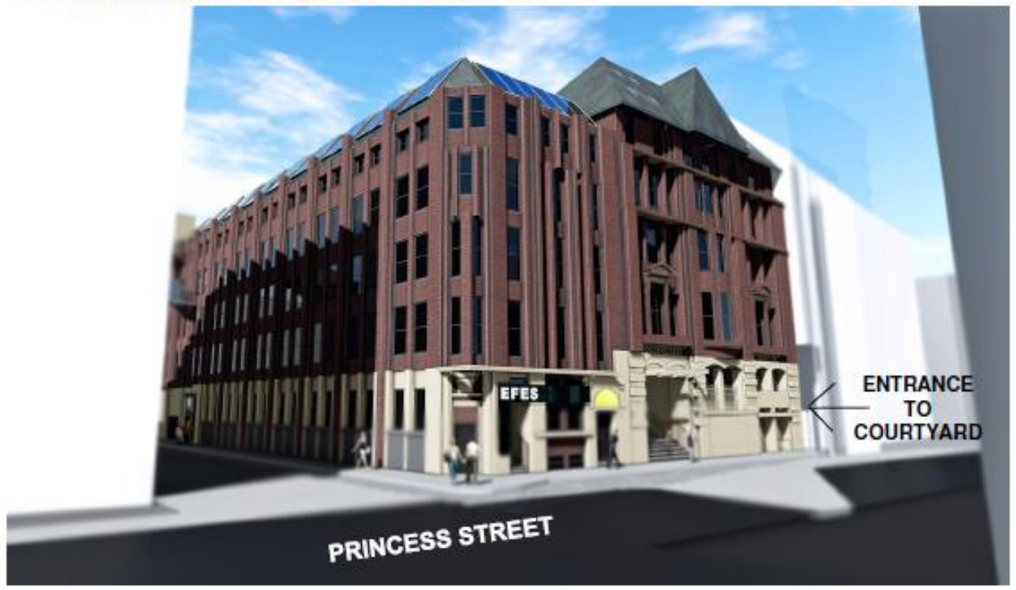
PROPOSED REAR – VIEW 6



PROPOSAL SUMMARY:

- New 4th floor extension and pitched roof added, to match existing.

EXISTING VIEW FROM PRINCESS STREET



PROPOSAL SUMMARY:

- The existing roof profile, as seen from Princess and Harter Street, will not be altered by the proposed modifications to roof at the lightwell and rear extension.

6.0 VISUALISATIONS

6.02 3D INDICATIVE STUDIES – VIEW FROM COURTYARD

EXISTING VIEW FROM COURTYARD



PROPOSED VIEW FROM COURTYARD



PROPOSAL SUMMARY:

- New 4th floor extension and pitched roof added, to match existing.

7.0 ENERGY AND SUSTAINABILITY

7.1 SUSTAINABILITY STRATEGY

The purpose of this document is to provide a feasibility study into potential sustainable energy saving technologies that could be beneficial for the proposed refurbishment at 40-46 Princess St, Manchester.

The building is proposed to consist of basement and ground floor retail space; ground floor reception and open plan offices space over 6 storeys with a nett internal floor area of circa 4,800m2 with the total building area being 5830m2.

The building is proposed to retain the existing structure to all sides with the following works envisaged:

- **Extension to 4th floor offices**
- **Modifications to front entrance**
- **Opening up windows in the external façade**
- **Opening up the lightwell in the centre of the building**
- **New utility sub-station**
- **Scenic Lift installation**

The 40-46 Princess St building is listed and as a result alternations to the external façade will be limited, for example existing single pane windows will be retained as part of the refurbishment.

7.1.1 Sustainable Systems

Solar Thermal (Hot Water)
Solar water heating systems are a well-established and well developed technology, with simple components.
These systems work by collecting solar energy to heat water, most commonly for hot water needs.
Solar thermal heating systems use a heat collector that is usually mounted on a roof in which a fluid is heated by the sun. This fluid is used to heat water that is stored in either a separate hot water cylinder or in a twin-coil hot water cylinder (the second coil is used to provide additional heating from a boiler or other heat source).
Maintenance costs for solar water heating systems are generally quite low and require little maintenance.
Office buildings with no canteen have low hot water demand. As a consequence, it is considered that a central hot water storage system is not appropriate for this project.

Also the roof structure does not appear to be loadbearing and as such additional steelwork may be required to accommodate the increased loading and also to provide man access for maintenance.

Photovoltaic Panels (PV)
Photovoltaic (PV) modules mounted on the roof convert solar energy into electricity.
Electricity generated is exported into the electricity network when not required to serve the occupied building load. The existing roof does not appear to be loadbearing and due to the weight of the PVs additional steelwork may be required to accommodate the increased loading.

The existing roof is not accessible and therefore to install PVs would require the inclusion of safe man access to the roof, further increasing the installation cost. This would also affect the building aesthetics. As a result of the additional structural and maintenance requirements we do not consider this option would have an economically viable payback period.

7.1.2 Ground Source Heat Pumps

Ground Source Heat Pumps (GSHP) utilises the energy which is stored within the earth's crust. The system uses the solar energy which is stored due to the ground's high thermal mass. A heat-pump extracts heat from the ground and pumps it into the building at a higher temperature via the circulation of a heat exchange fluid, i.e.water.
Ground Source Heat Pumps consists of a series of ground loops which are laid within the ground in either boreholes, which are typically 15m – 180m deep, or horizontal.

Horizontal ground loops are generally buried in 1-2m deep trenches; however, these can require a large external area to provide a sufficient heat store for the heat exchange. Due to the low grade (temperature) heat available from such systems the space heating is generally underfloor heating as opposed to wall mounted radiators. This will also have the added advantage of improving the heat pumps Coefficient of Performance (CoP), however, due to the low grade heat 'top-up' heating will be required to any pre-heated domestic hot water. A GSHP would not be suitable for this development as the external space required for the horizontal or vertical ground loops is not available.

7.1.3 Air Source Heat Pumps

Air source heat pumps (ASHP) absorb heat from the outside air. This is generally used to serve fan coil units, however can be used to heat radiators, underfloor heating systems or heat domestic hot water systems. The systems can operate in temperatures as low as -20°c which means that they are suitable for installations within the UK. Hot water and Heating can be provided 365 days a year.
As the proposed system will be supplying cooling to the building, it is therefore not eligible for payback through the Renewable Heat Incentive (RHI).
We do consider this type of system is suitable and a viable option to heat and cool the office areas.

7.1.4 Biomass Heating

A biomass fuel is any plant-derived organic fuel material that renews itself over a short period. Biomass energy systems are based on either the direct or indirect combustion of fuels derived from those plant sources. The most common form of biomass is the direct combustion of treated or untreated wood.

Biomass-fuels can be used to produce energy on a continuous basis (unlike renewables such as wind or solar energy) and it can be an economic alternative to fossil fuels as it is a potential source of both heat

7.0 ENERGY AND SUSTAINABILITY (Cont'd)

7.1 SUSTAINABILITY (Cont'd)

and electricity. However, biomass systems have particular design management and maintenance requirements associated with sourcing, transportation and storage and are therefore more commonly used in commercial developments rather than domestic installations. It can be less convenient to operate than conventional mains supplied fuels such as natural gas and are more management intensive.

A biomass boiler system would not be feasible for this type of building with only a moderate intermittent heating demand and a very low hot water demand. Also there is limited plant space, and city centre location would not be feasible for housing the boiler plant and accommodating fuel storage and deliveries. Therefore due to the site constraints and the impracticalities of delivering and managing fuels on the development this option has not been considered any further. Also due to the combustion materials produced it is likely that the installation of the flue could be required to be higher that the buildings pitched roof.

7.1.5 Wind Turbines

Wind turbines convert the kinetic energy in wind into mechanical energy that is then converted into electricity. Turbines are available in a range of sizes and designs and can either be free-standing, mounted on a building or integrated into a building structure.

For a development of this size a pole mounted turbine could be considered, however, the city centre location of the development will produce variable wind speeds and direction. However, with the added potential for noise generation and Radio / TV interference this option is not been considered any further.

7.1.6 District Heating System

District heating schemes, supply heat from a central source directly to residential and commercial properties through a network of pipes carrying hot water. This means that individual homes and businesses do not need to generate their own heat on site for space heating and domestic hot water requirements.

Heat/Hydraulic Interface Units (HIU) are installed within a property which is connected to a district heating system, this allows the heat to be provided to the property via a heat exchanger built into the unit, they also come with a meter which enables the amount of heat being taken from the district heating metered and charged accordingly. HIU are generally required due to the high pressures within the district heating system which would be far in excess of what the building pipework system could handle.

There is no district heating system close the site, therefore the proposed refurbishment cannot be connected to a district heating system.

7.1.7 Combined Heat and Power

Combined Heat and Power (CHP) is the simultaneous generation of heat and electrical power from the same energy system. CHP makes use of the 'waste' heat resulting from electrical generation; resulting in increase overall thermal efficiency compared to using electrical delivered by the national grid. CHP can also benefit from lower operating costs.

CHP systems require a year round base load to operate effectively; this base load will not be present in the office refurbishment (there is no substantial hot water load). As a result we do not consider CHP will be technically viable for the refurbishment.

7.1.8 Rainwater Harvesting

Rainwater harvesting installations collect rain fall from roof areas and store for re-use to serve non-potable water systems. (e.g. to flush WCs).

The installation of this type of system will reduce the utility water consumption and could reduce water charges. As the building is primarily offices there could be a reasonable amount of water consumption on site. As a result we consider this installation may have a suitable playback period and therefore could be considered for further investigation for this project.

7.1.9 Green Roofs

Green roofs are a deck onto which vegetation is intentionally grown. The benefits of green roofs can be the reduce requirement for cooling during the summer period, attenuating or capturing rainwater runoff and providing a range of habitats for urban wildlife.

Due to damp winter climate in the UK generally green roofs will add little or no thermal performance to the roof to reduce heating loads.

There is not sufficient available flat roof to install a green roof and therefore this option is not viable. Also it would require the roof to be loadbearing, due to the weight of the green roof and the potential capture of rainwater.

As such additional steelwork may be required to accommodate the increased loading.

7.0 ENERGY AND SUSTAINABILITY (Cont'd)

7.1 SUSTAINABILITY (Cont'd)

Feasibility Statement

The use of Air Source Heat Pumps (ASHP's) to provide space heating and comfort cooling is a technically feasible, energy efficient option. The installation of rainwater harvesting could be considered to provide captured water to the Landlord's toilets serving the office space and reduce water consumption from the utility network.

Summary Renewables, Low and Zero Carbon Technologies

A summary of the renewable and LZC technologies considered is provided in the table below:

Energy source	CWC comments	Potential for use
Solar thermal	Minimal hot water demand, therefore solar hot water heating utilising roof mounted solar panels not considered technically or economically viable.	No
Photovoltaic	Structural and maintenance requirements result in this option not being economically viable.	No
Ground source heat pump	No space available, therefore not technically viable.	No
Air source heat pumps	Likely to be technically and economically viable.	Yes
Biomass boilers	Absence of fuel storage and plant space preclude this option.	No
Wind	Very limited area available therefore cannot be physically accommodated. Would not recommend in city centre area.	No
District Heating	No district heating system near site, therefore not viable.	No
CHP	No year round heat load exists, therefore not technically viable	No
Rainwater Harvesting	This option could be technically viable, subject to available plant space.	Possible
Green Roofs	No available flat roof and additional structural load make this option not technically viable.	No

Additional Measures That Could Be Employed

In addition to the above the following improvements could also be employed as part of the design, construction and operation:

- Improved roof fabric performance (improved U-values to the existing and extended roof).
- Unblocked window opening fitted with new windows complying with the requirements of the Building Regulations Part L.
- Improved air tightness of the new extension.
- Inclusion of power factor correction.
- LED lighting and lighting control.
- The inclusion of eco lifts.
- Review energy efficient grants and incentives as part of the design. Ensure all equipment proposed is designed to be efficient and reduce energy usage.
- Construction management – ensure the construction uses sustainable resources, material used to achieve optimum energy efficiency, materials with low embodied impacts, recycled materials, etc.
- Energy monitoring of substantial energy uses.
- Waste management (construction and building operation) – recyclable waste storage, minimisation of waste generated, etc.

These will be reviewed as the project progresses.

7.0 ENERGY AND SUSTAINABILITY (Cont'd)

7.2 ENERGY STRATEGY

The purpose of this document is to provide an overview of the mechanical and electrical services strategy for the proposed refurbishment at 40-46 Princess St, Manchester.

The building is proposed to consist of basement and ground floor retail space; ground floor reception and open plan offices space over 6 storeys with a nett internal floor area of circa 4,800m2 with the total building area being 5830m2.

The building is proposed to retain the existing structure to all sides with the following works envisaged:

- **Extension to 4th floor offices**
- **Modifications to front entrance**
- **Opening up windows in the external façade**
- **Opening up the lightwell in the centre of the building**
- **New utility sub-station**
- **Scenic lift installation**

The 40-46 Princess St building is listed and as a result alternations to the external façade will be limited, for example existing single pane windows will be retained as part of the refurbishment.

7.2.1 Mechanical and Electrical Services Strategy

It will be proposed that all mechanical and electrical systems installed as part of the refurbishment will be energy efficient and were appropriate use energy saving facilities/technologies. It is the intention of the developing design to reduce to a minimum or remove completely heating requirements to the Landlord areas (core areas, toilets, corridors, staircores, etc). However heating may still be required to the following areas:

Main entrance/reception area
Plantrooms (frost protection only)
Lowest level of each staircore

As part of the refurbishment works the incoming electrical supplies are being rationalized and a new transformer will be installed by the utility company. All new utility transformers are classed as 'eco' transformer to reduce the amount of heat rejected.

Heating and Cooling

Heating and comfort cooling to the office areas is proposed to be via Variable Refrigerant Flow (VRF) Air Source Heat Pump (ASHP) systems that will be designed to the British Council of Offices (BCO) guidelines.

The VRF system will be chosen to be energy efficient using the latest controls and technologies including heat recovery. The design of the internal temperatures with the office areas will be to remove peak high temperatures only and will not be designed to provide full cooling down to lower temperatures. The internal temperatures used for the office conditions will be taken from the BCO guidelines.

It is proposed that each individual Tenant (as identified on the Architects plans) will have a separate controllable VRF system that allows individual metering of their space to enable energy usage to be determined. This will also enable systems to be turned off or set back when the tenancy is unoccupied, hereby reducing energy usage.

Refrigerant pipework will distribute heating and cooling to the offices areas via services riser to the ground floor and roof. The refrigerant pipework will serve internal Fan Coil Units (FCU) that will be exposed at high level.

The VRF systems are envisaged to be more energy efficient than the existing gas-fired boilers for heating the building and should reduce the energy used over the heating season. They are also expected to be more energy efficient than the existing DX split refrigerant comfort cooling installed within the building as they will be using the latest technologies and they will not have the potential fight the heating system.

A limited plant area will be provided to allow the tenant to install cooling for comms rooms, etc.

Lighting

The office areas will be provided with a lighting installation in the spirit of LG7.

New energy efficient LED lighting will be proposed with the use of appropriate lighting controls to reduce the electrical energy consumption of the building.

Lighting will be designed in accordance with the Industry Standard (Society of Light & Lighting) Guidance with particular relevance to CIBSE guide LG7 to the office areas. Emergency lighting will be provided throughout the building in line with BS5266-1:2016.

Small Power

The new electrical installations will be provided with sub-metering to comply with Building Regulations and CIBSE TN39 to allow monitoring of the buildings electrical load.

7.2.2 Retail Services Strategy

The proposed retail units will be located at basement and ground floor levels. The incoming Tenant will be responsible for the fit-out of the unit, the Landlord will provide a shell only with provision for incoming utilities.

Mechanical Services

Generally the mechanical services required for the retail units will be located within the unit itself; except for heat rejection equipment and supply ventilation for the basement unit (subject to detailed survey on vacant possession). External plant for the retail units is proposed to be located within the Courtyard area. External louvres required to serve the retail units will also be located in the Courtyard elevation.

7.0 ENERGY AND SUSTAINABILITY (Cont'd)

7.2 ENERGY (Cont'd)

The following services are considered to be required for the retail units:

- Comfort cooling (external condenser/chiller units)
- General supply and external (mainly internal)
- Kitchen extract (route determined with discharge at roof level)
- Toilet extract ventilation (internal units)
- Incoming utilities and communications

Electrical Services

The new main panel board will feed all new retail units with individually metered electrical supplies. Each retail unit will be provided with an fire alarm interface to allow them to install their own system linked to the main building system.

External Plant and Equipment Locations

The building has limited areas to locate external plant, these areas are listed below:

- Courtyard Elevation
- Harter St Elevation
- Ground Level within the Courtyard
- Roof Area

Courtyard Elevation

There are several items of plant located and supported by the Courtyard external façade. There are also several ventilation ducts distributing externally up the building to the roof.

Due to the listed nature of the building we do not consider this option is appropriate to locate plant. Also the units would be too close to the opening windows and could create noise and heat gain issues.

This option has been discounted for the location of plant.
The elevation is proposed to be used for locating any boiler flue required by the basement retail unit.
This elevation is proposed to be used for the majority of the external louvres required to provide intake and discharge air to service the building. The elevation is also provide to intake locations for duct/pipework distributing services into the building.

Harter St Elevation

There is currently no existing plant items located on the Hater St external façade. There are however external louvres and window fans located at low level.
Due to the listed nature of the building we do not consider it is appropriate to locate plant on this elevation. Also the units would be too close to the opening windows and could create noise and heat gain issues.

This option has been discounted for the locating of plant and distributing services.
This elevation is proposed to have louvred double doors to serve the new ground floor substation and high level louvres at 4th floor for intake and/or discharge air.
It is envisaged that the incoming utility gas supplies required to serve the retail units will enter the building at low level off Harter St (this will be confirmed upon application).

Ground Level within Courtyard Area

There are existing external plant items located at ground level within the Courtyard area. There are also external louvres located in several areas within the façade.

It is the intension to locate plant at ground level within the Courtyard area. The plant will mainly consist of condensers supported by the Courtyard ground structure.

Roof Area

There is currently limited external plant located on the roof.

The roof is the preferred location to position external plant, as it is proposed to be less obtrusive and is located the furthest away from surrounding buildings and windows in the building's façade.

However, there is limited space available for the plant deck to be located. Therefore, the remaining plant that does not fit will be located at ground level within the Courtyard as discussed above.

Building Regulations

As the building is listed the performance of the existing external façade and windows will not be improved as part of the refurbishment.

The extension and all new windows will be installed to meet the requirements of Building Regulations (2013) Part L.

It is the intension of the refurbishment that all installed plant and equipment will comply with the requirements of the Non-domestic Building Services Compliance Guide and with the intent of the fixed services elements within Building Regulations (2013) Part L2B for non-residential buildings (where practical due to the limitation of the building and its listed nature).

8.0 ACCESS

8.01 INTRODUCTION

The consideration of inclusive design has been present from the conception of this project, in consideration of the needs of all users. All aspects of the building are designed to ensure an inclusive environment for everybody, regardless of abilities.

Inclusive design within the scheme is in accordance with the relevant local and national planning guidance wherever possible, along with how the different access principles will be implemented into the scheme and managed.

8.02 DESIGN DEVELOPMENT

As the design is developed, processes will be put in place to ensure that the initial intentions for inclusive access are maintained during the course of the project.

Regular review and an Access Audit will take place to ensure inclusive access is provided for:
- Public and employees using the office accommodation
- Staff working in the building management areas

8.03 DESIGN STANDARDS

All appropriate standards of inclusive design have been considered and have been included in the proposal from an early stage and will continue as an essential part of the design. The design has developed with regard to mandatory access standards and it is intended that the scheme has the capacity to meet wider best practice access standards. The intentions are to:

- Maximise access to all parts of the development for residents and visitors regardless of disability;
- Ensure that wherever possible appropriate standards for accessibility can be met at the outset;
- Meet requirements of The Building Regulations Approved Document Part M
- Meet the aims of the Equality Act 2010
- Follow design guidance given in relevant British Standards, and other general good practice
- Meet local authority access policies where relevant.

The principle of the design is based on the following:
- To ensure that there are step-free routes to all parts of the development wherever possible.
- To ensure that access to enter, circulate and exit the building is inclusive for all, and does not present barriers for people with disabilities.
- To ensure that passenger lift access is provided to all main floor areas to the office.
- To adopt as far as possible a repetitive plan form to facilitate navigation and way-finding at upper levels within the office accommodation.

ACCESS TO AND AROUND THE BUILDING

The scheme aims to provide a safe, legible, high quality environment that will be easily used by as wide a range of people as possible without undue effort, special treatment or separation.

Paving surfacing will meet accessible requirements and an appropriate level of external lighting will be provided which is to be addressed in the detail design stages.

The point of entry to the building will be defined and obvious, with step-free, flush thresholds, and an automatically-operated sliding entrance door that allows access for pedestrians and wheelchair users alike. A retractable stair and Platform lift is incorporated within the main entrance stairs, which, upon request, will be activated to allow wheelchair users full access to the building.

8.04 WITHIN THE BUILDING

Arrival to the entrance is via a serviced reception area. The reception will provide facilities that are design for inclusive access in respect of counter height, seating and hearing difficulty.
Horizontal circulation will be step-free throughout the office areas.

Vertical circulation will be via 2 no. passenger lifts in the main core. Lifts will be equipped and designed to comply with standards that enable disabled persons to use them independently.
The staircases will be built to meet the standards prescribed within approved documents Part M & Part K

Doors and corridors will be designed to standards for easy movement by wheelchair users. All circulation corridors are a minimum of 1,2m clear width. All doors will provide the required clear opening width, also with a clear area of 300mm from the leading edge of the doors.

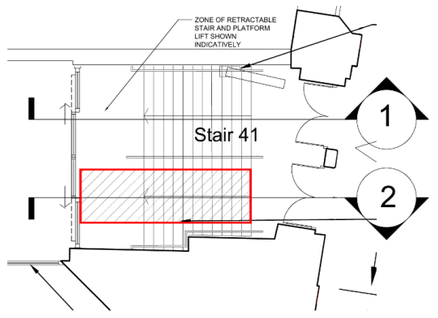
Office facilities include unisex accessible WCs to be provided at all office levels.

8.05 WAYFINDING

Way-finding and orientation signage is important for access to and with the building.
Circulation arrangements will be designed to be simple, legible and consistent.

8.06 EVACUATION AND MEANS OF ESCAPE

All fire alarms will be both visual and auditory in line with Part B.
Emergency escape arrangements from all levels for people unable to use stairs will be achieved using refuges within protected areas of the fire fighting core.



Plan view of retractable stair at main entry

9.0 TRANSPORT AND SERVICING

9.1 TRANSPORT

The site is located in Manchester City Centre, which is the principal northern city. The Building occupies a prominent position in Princess Street; close to its junction with Portland Street. The immediate area is recognised as an important, albeit emerging, business, living and leisure quarter in the hub of Manchester City Centre.

Manchester is situated approximately 55 km (34 miles) east of Liverpool, 64 km (40 miles) southwest of Leeds, 130 km (81 miles) northwest of Birmingham and 309 km (192 miles) northwest of London. Manchester has a population of approximately 2.6 million and over 11 million are within a 50-mile radius. It has the largest travel-to-work area of any conurbation outside of London.

The Greater Manchester conurbation is made up of the two cities of Manchester and Salford and the Metropolitan Boroughs of Bolton, Bury, Oldham, Rochdale, Stockport, Tameside, Trafford and Wigan. These boroughs still retain a strong industrial and manufacturing base although, Manchester city itself has now become largely service sector orientated being the North West regional administrative, retail and financial centre.

Manchester International Airport is the largest UK regional airport and is located 13.7 km (5 miles) south of Manchester City Centre. It operates over 200 direct flights to worldwide destinations with access to most of western Europe within 3 hours and daily direct flights to multiple US cities and Middle East hubs. The airport comprises a direct rail link into the city centre with a journey time of approximately 15 minutes.

Manchester benefits from excellent motorway communications, including the M60 Orbital motorway which links the M62, M6, M56, M61 and M602 motorways.

Greater Manchester has an expanding Metrolink tram system which links Bury, Oldham, Altrincham and Eccles, Ashton-Under-Lyne, Rochdale, East Didsbury, MediaCity:UK and Manchester Airport to the city centre. There are several extensions under construction, including the second city crossing which will improve the capacity, flexibility and reliability of the Metrolink System.

There are two City Centre main line rail stations in Manchester, Piccadilly and Victoria, providing Intercity services throughout the UK. Fastest services to London Euston currently take 1 hour and 58 minutes.

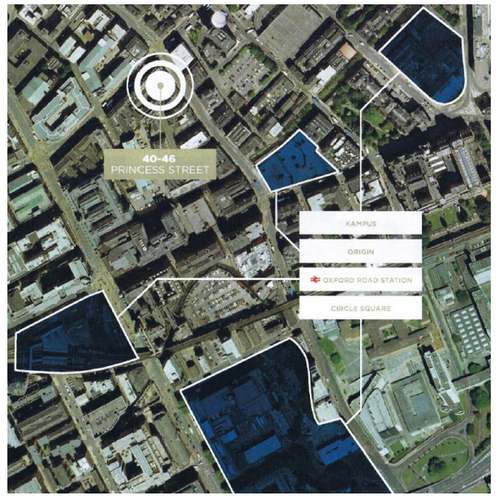
Infrastructure Investment
Manchester is seeing a large amount of infrastructure investment which includes Metrolink's Second City Crossing which is currently under construction. The Northern Hub development is receiving a heavy rail upgrade with circa £650m being invested. Manchester's High Speed Rail 2 (HS2) will improve connections to London estimating an improved travel time of just 68 minutes. It is estimated to create over 30,000 jobs in the North West. The High Speed Rail 3 (HS3) Consultation is also underway, and will improve links to Leeds.

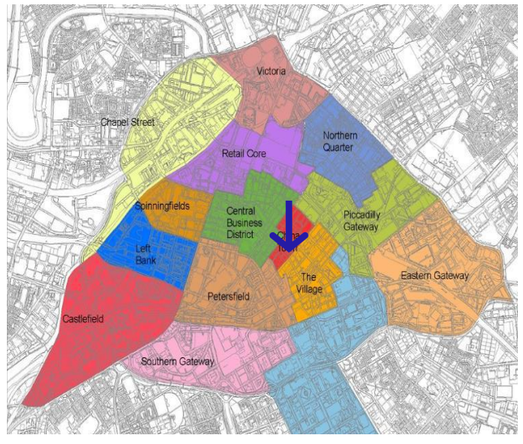
The development of the M56, A6 & Airport Eastern Link with £300m being investment in the creation of the relief road. The A6 to Manchester Airport Relief Road Scheme is planned to provide 10 kilometres of new 2-lane dual carriageway on an east-west route from the A6 near Hazel Grove to Manchester Airport and link to the M56

Greater Manchester
The key economic assets across Greater Manchester are:

- The City is the strongest regional centre in the UK and is the largest and fastest growing employment area in the North West.
- Approximately 1,037,359 people (2001 Census) are employed within Greater Manchester.
- The City is home to the largest university in the UK (Manchester University/UMIST merger).
- The largest and fastest growing financial, professional and legal services centre outside of London.
- Manchester's infrastructure is excellent.
- Manchester Airport is the UK's third largest airport.
- The City is surrounded by an orbital motorway with superb access to the national motorway network and has excellent rail links to the rest of the UK.

Princess Street is a busy arterial route out of the city centre to the south. There is a diverse mix of occupiers in the locality. Ground floor occupiers are generally leisure operators whilst the upper floors are used for offices, hotel, residential and serviced apartments





Manchester City Centre comprises several designated zones that are identified above, with the building approximately highlighted by the blue arrow

The building falls in to an area often referred to as the Portland & Oxford Corridor. Over recent years this has emerged as one of the most popular destinations in the city, coming second only to the Central Business District

9.0 TRANSPORT AND SERVICING (Cont'd)

9.2 SERVICING

SERVICING/REFUSE COLLECTION
Comment from Officers:
In accordance with Manchester City Council requirements the servicing of the site, including refuse and recycling collections, should take place off-street.
A Refuse & Recycling Storage area for wheeled Eurobins is included within the site Courtyard.
A turning area is not provided due to the space restrictions on the site and will operate as currently collected.

Currently there are 9 number 1100lt Euro Bins servicing the Citibase offices, Bangkok bar and Peking Court

Citibase office refuse collections are as follows:
Frequency of collection for Citibase Office areas - 5 days a week
Bin numbers and sizes utilised by Citibase Office areas - 2 x 1100ltr Euro bins
Current storage position/s for the bins - Courtyard Alleyway
Collection vehicle routes/stops - The refuse Vehicle stops at the front of the building and the refuse is collected from the Courtyard Alleyway

It is proposed that the location and method of collection will remain as existing. The position of the bins will remain within the Courtyard Alleyway area as currently located.

Refuse collection for Charlie's Bar:
Charlie's bar relies on refuse sacks being collected twice a day by private collection, off the street accessed via Harter Street. This system will continue on this basis in the new scheme.

Efe's Restaurant:
Efe's Restaurant has their own refuse bins stored within the rear servicing area on Harter Street behind roller shutter doors and is collected as follows: glass recycle bins (4 x 220 lt) are collected once a week on Mondays; Mixed Municipal Waste (1 x 1100lt) Biodegradeable Kitchen & Canteen Waste (2 x 240 lt) , Mixed Packaging (1 x 1100 lt) are collected every Monday, Thursday and Saturday from Harter Street.
In the new scheme the new café will have refuse bins located within the Courtyard/alleyway currently used by Citibase.

Peking Court Restaurant:
Peking Court currently have their refuse bins located within the Courtyard/Alleyway where the refuse is collected 5 days a week, on the same basis as the Citibase office refuse collections.
In the new scheme, it is intended that with the conversion of the Peking Court Restaurant into additional office space, the refuse will now be amalgamated into the total office refuse collection requirements located in the Courtyard Alleyway.

Bangkok Bar:
Bangkok Bar currently have their refuse bins located within the Courtyard/Alleyway where the refuse is collected 5 days a week, on the same basis as the Citibase office refuse collections.

In the new scheme, it is intended that with the conversion of Bangkok Bar into a Leisure/Gym facility, the refuse will now be amalgamated into the total office refuse collection requirements collection requirements located in the Courtyard Alleyway.

In summary, the total provision being proposed for the whole building is as follows:
- 6 number 1100lt Euro Bins **(comprising of** 3 domestic Bins and 3 recycling bins)
- 2 no. 240lt food bins

All bins to be collected daily.

(Refer to Appendix F)

10.0 ACOUSTICS

10.1 KEY ACOUSTIC CONSIDERATIONS

The key acoustic considerations for the scheme are as follows:

- Building envelope: The control of noise ingress via the building facade to acceptable levels within spaces; The control of vertical sound transmission between floors and horizontal flanking sound transmission between adjacent spaces on the same floor.
- Sound insulation: Internal walls, floors, ceilings and doors will need to adequately reduce sound transmission. Impact sound transmission through floors will also need to be considered in specific locations.
- Sound absorbent finishes: The acoustic environment within each space will need to be compatible with the proposed uses, in particular the control of reverberation and noise build-up.
- Building services: Noise and vibration from building services plant and systems will need to be controlled by suitable attenuation and isolation measures both inside and outside the development.

Each of these is discussed in more detail in the following sections.

10.2 DESIGN STANDARDS

The following guidance is based on the following design standards:

British Council for Offices 2014 *Best Practice in the Specification for Offices* (BCO 2014)

BS 8233: 2014 *Guidance on Sound Insulation and Noise Reduction for Buildings* (BS 8233)

Manchester City Council planning requirements.

10.3 EXTERNAL NOISE INGRESS VIA THE FACADE

Internal noise criteria

The proposed internal noise criteria due to façade noise ingress, taking into account BCO 2014 guidance, are as detailed within Table 1.

Table 1 Internal noise criteria

Space	Internal noise criterion (L_{Aeq} dB)
Open plan offices	40
Entrance, Reception, Cafe/Restaurant	45
Stair cores, Circulation	45

Facade sound insulation

The external noise levels will be determined following in the environmental noise survey, but based on the location of the building on Princess Street, a daytime facade noise level of L_{Aeq} 65-70 dB would be expected.

The existing single glazing would be expected to provide a sound insulation performance of R_w+C_{tr} 25-27 dB and therefore may fall short of providing a suitable level of sound reduction. This will be assessed in detail once the environmental noise survey is complete.

Flanking sound insulation

Based on the existing facade construction, which is assumed to be minimum 300 mm masonry, flanking sound transmission via the facade would be expected to be adequately controlled for the majority of the vertical and horizontal adjacencies.

Depending on the level of sound insulation needed to the first floor above the cafe/restaurant, enhancements to the facade may be required in order to maintain the floor sound insulation performance. Typically this would involve plasterboard linings to the facade.

10.4 INTERNAL SOUND INSULATION

Office floors

For floors separating tenancies, BCO recommends a minimum airborne sound insulation performance of $D_{nT,w}$ 48 dB.

Details of the existing floor construction are not available at this stage, but it is understood that existing structural floors are to be retained and that a new raised access floor is to be installed above.

- Based the existing floor construction being 70 mm solid timber (which is typical of this type of building in this area of Manchester) and using a medium raised access floor with a minimum surface density of 36 kg/m^2 and 125 mm cavity, this arrangement would be expected to have an airborne sound insulation performance of between $D_{nT,w}$ 37-42 dB.
  This falls short of the BCO recommended performance and loud speech may cause disturbance between tenancies. Adding mineral fibre insulation to the cavity would improve the airborne sound insulation by 2-3 dB, though the feasibility of this would need to be checked if the cavity is needed for routing services. Ultimately this arrangement, without using a suspended ceiling has a limited airborne sound insulation performance.

- If the existing structural floor is a concrete construction, the raised access floor described above in combination with the structural floor would typically provide a suitable level of sound insulation depending on the thickness and density.
  The sound insulation performance of the floor will need to be assessed as the design progresses once the details of the existing floor construction are available.

In order to control impact noise transfer from footfall and furniture movement, it is recommended that either carpeted floor finishes are used or a resilient layer is incorporated into the floor build-up. This could either be a continuous resilient layer below a non-carpeted floor finish or as resilient pads within the raised access floor pedestals.

First floor above Cafe/Restaurant

Depending on the proposed amplified sound levels in the ground floor cafe/restaurant, enhancements may be required to the first floor construction above.

10.0 ACOUSTICS (Cont'd)

10.4 INTERNAL SOUND INSULATION (Cont'd)

Typically in this situation a sound insulating ceiling would be provided with an overall zone of around 350 mm (2-3 layers of plasterboard supported on resilient hangers and a large cavity containing mineral fibre above). Details of the first floor construction are not currently available and sound insulation tests have not yet been carried out, therefore the guidance provided at this stage is indicative will be need to be reviewed as the design progresses.

Partitions
Recommendations for the partition sound insulation performances are set out in Table 2.

Table 2 Partition sound insulation performance requirements

Location	On-site sound insulation performance, R'_w (dB)	Minimum overall construction zone	
		Drywall	Blockwork[1]
Risers (electrical)	35	95 mm	100 mm
Risers (mechanical)	40	120 mm	100 mm
Stairs/WCs	40	120 mm	100 mm
Inter-tenancy	50	150 mm	215 mm
Plant rooms adjacent to occupied areas	50-55	210 mm[2]	240 mm

[1] ***Based on medium density blockwork ≥ 1450 kg/m³***
[2] ***Staggered or twin stud required.***

Based on the current layouts, the existing partitions that will separate some of the proposed tenancies are indicated as a minimum 500 mm masonry. These partitions would be expected to meet the sound insulation performance requirement of R'_w 50 dB.

Partitions with a sound insulation performance ≥ R'_w 45 dB should be built from the structural floor to the structural floor, and based on providing exposed soffits plasterboard bulkheads may be required to control flanking sound insulation via the partition head. Partitions with lower sound insulation performances could be built from the raised access floor to the structural soffit with a dense mineral fibre cavity void barrier.

Interface details for partitions will need to be developed as the design progresses.

Doors
The acoustic performance of doors depends on three principal factors, namely:

- The weight of the door leaf and any weaknesses due to vision panels, etc
- The tolerances around the door leaf when hung
- The type and extent of seals including meeting jambs for double doors.

Where acoustically rated doorsets are required, they would need to close onto a frame and have perimeter acoustic seals. Drop threshold seals are required on higher performance doorsets whereas lower ratings typically require a diminishing strip under the threshold in order to close off the gap when the door is shut.

Frameless doors are weak acoustically as they typically have large perimeter gaps. Likewise doors with integral pivot hinges and standard sliding doors are often acoustically weaker owing to the difficulty of accommodating perimeter acoustic seals. Offset pivot or side hung doors tend to perform better as perimeter seals are easier to fit and can be continuous.

Acoustically rated door are recommended for doors to tenancies, risers and plant rooms, and specific performances and constructions will be detailed as the design progresses.

10.5 SOUND ABSORBENT FINISHES

Sound absorbing finishes assist in controlling reverberation, reflected sound and reducing noise build-up where necessary. With high reverberation times, different sounds tend to blend into each other which makes speech more difficult to understand.

Open-plan offices
Sound absorbent treatment within open plan office spaces is an important consideration as it helps to control reverberant noise build-up and increase speech privacy over distance. It may also help to reduce noise contributions from building services systems.

It is understood that exposed soffits are proposed, as such at this stage it is recommended that an allowance is made for sound absorbent rafts/baffles suspended below the soffit. Typically this would be sound absorbent rafts suspended 400 mm below the soffit indicated to area equivalent to 60% of the floor area. The exact coverage will depend on the product selected and will need to be assessed as the design progresses.

Entrance/Reception
To help control reverberant noise build-up and reduce the reverberation time in the entrance and reception area, it is recommended that sound absorbent finishes are introduced where possible. The exact location and extent of finishes will be assessed as the design develops.

10.6 BUILDING SERVICES

Internal noise limits
When background noise levels are too high they can be disturbing and affect comfort in a space; when too low, speech privacy between spaces may be reduced. It is therefore important to tailor background noise levels appropriately.

It is also important that background noise has no attention catching characteristics, such as hums, whines, whistles and clicks. Where necessary, the services system will therefore need to be designed to provide a steady, broadband noise that does not attract attention but helps to mask occasional distracting noises from nearby spaces.

Recommended maximum internal noise criteria, in line with the guidance provided in BCO are summarised in Table 3. The noise criterion for open plan offices assumes a typical Cat A installation.

10.0 ACOUSTICS (Cont'd)

10.6 BUILDING SERVICES (Cont'd)

Table 3 Maximum building services internal noise levels

Space	NR level
Open-plan offices	38[1]
Entrance, Reception, Cafe/Restaurant, Gym	40
Stairs, Circulation, WCs, Showers, Stores	45
Service corridors	50
Plant rooms	70[2]

[1] ***This applies for normally operational plant assuming a Cat A fit-out.***

[2] ***Low frequency limit of 80 dB in the 63 Hz and 125 Hz octave bands. Specific octave band noise limits in plant spaces will need to be established as the design progresses.***

External noise limits

External plant noise egress criteria will be specified following the environmental noise survey. Limits will be set based on meeting any Local Authority requirements, which are 5 dB below the representative background sound level at the nearest noise sensitive premises.

The proposed plant items will be assessed in line with the above criteria and guidance on appropriate attenuation measures will be provided.

Services routing

Services should be routed via room-fronts to office tenancies and should avoid being routed through separating floor and partitions to tenancies. Appropriate service penetration details will be needed where services penetrate sound insulation

For more information refer to Acoustic Report as submitted within this application.

11.0 APPENDICES

11.1 **Appendix A –** Existing Plans (Floor and Ceiling Plans), Sections & Elevations

11.2 **Appendix B –** Strip Out, Removal, Dismantling Plans & Elevations

11.3 **Appendix C –** Proposed GA Plans (Floor and Ceiling Plans)

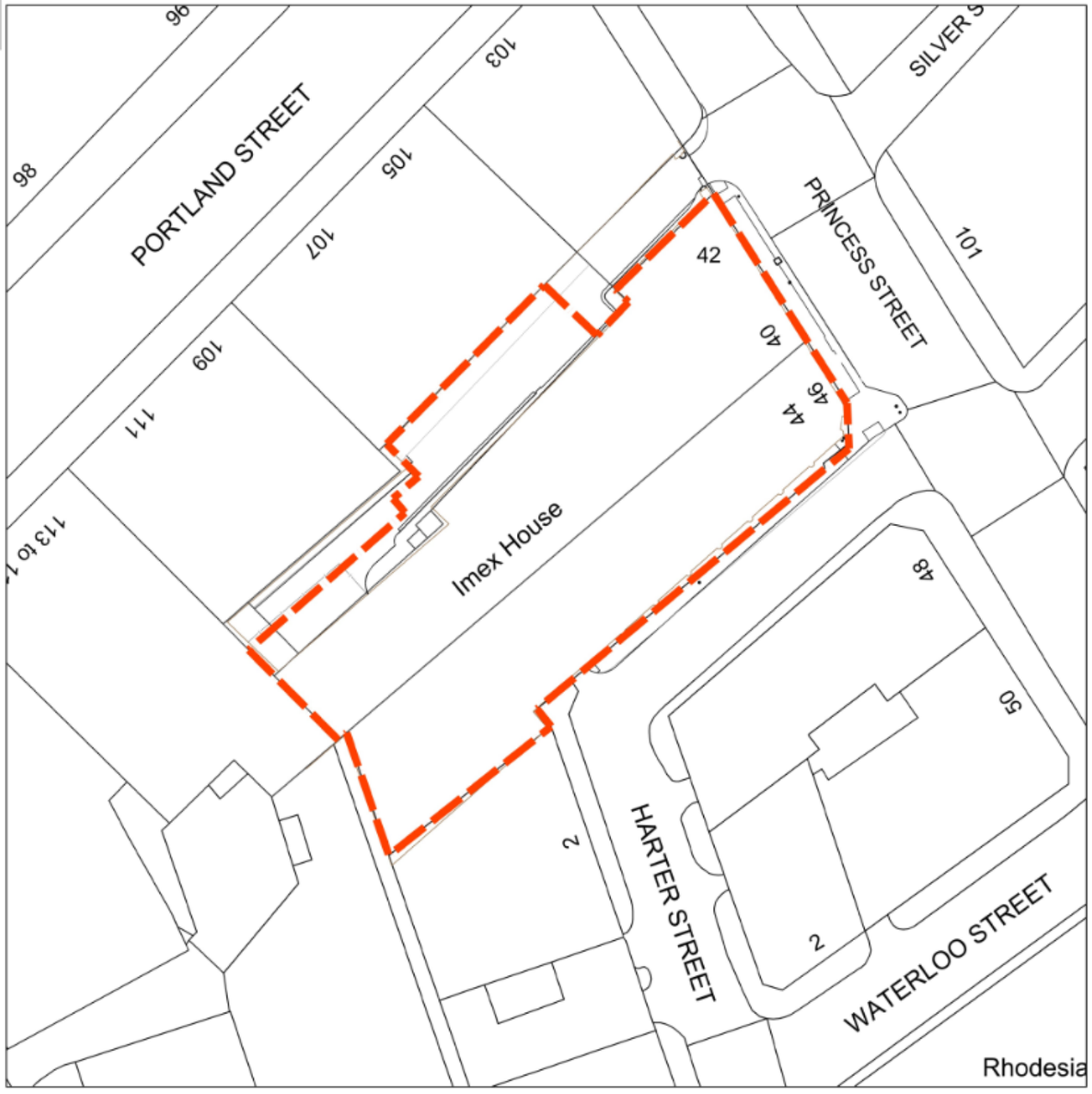
11.4 **Appendix D –** Proposed Sections

11.4 **Appendix E –** Proposed Elevations

11.5 **Appendix F –** Proposed Services layouts

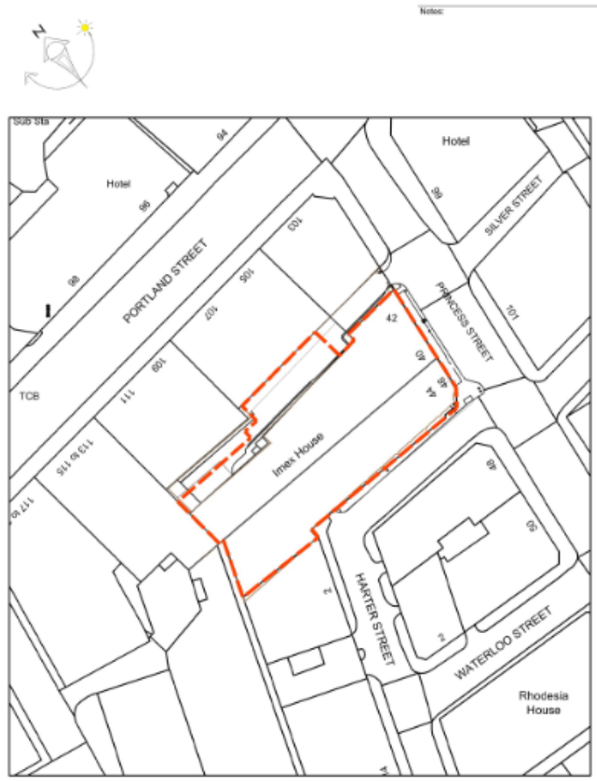
11.6 **Appendix G –** Proposed Structural Interventions

APPENDIX A-EXISTING PLANS, SECTIONS & ELEVATIONS



Existing Site Plan

1:200 @ A1



Existing Location Plan

1:500 @ A1

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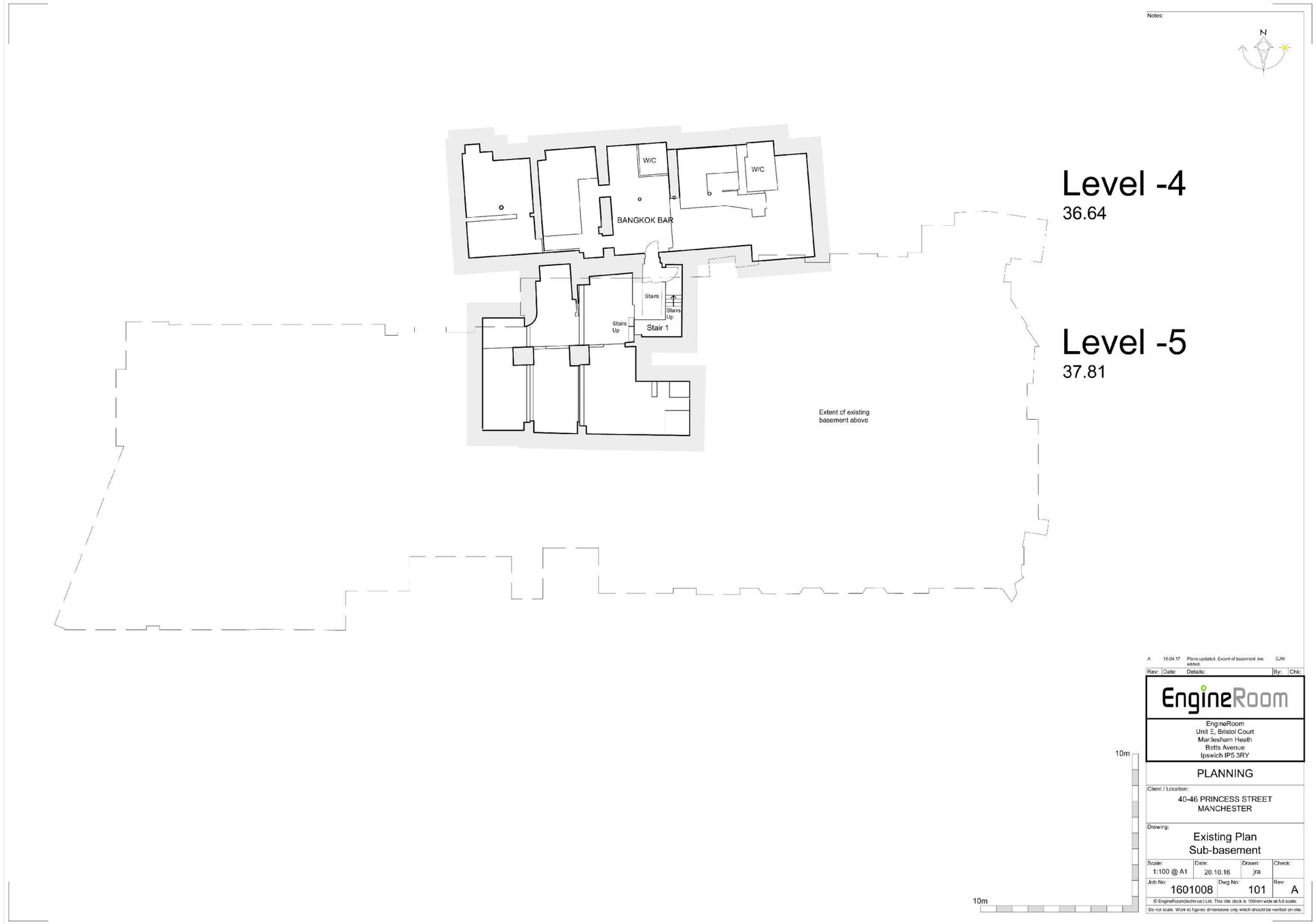
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Scale:	Date:	Drawn:	Check:
As Shown	09.11.16	EJW	

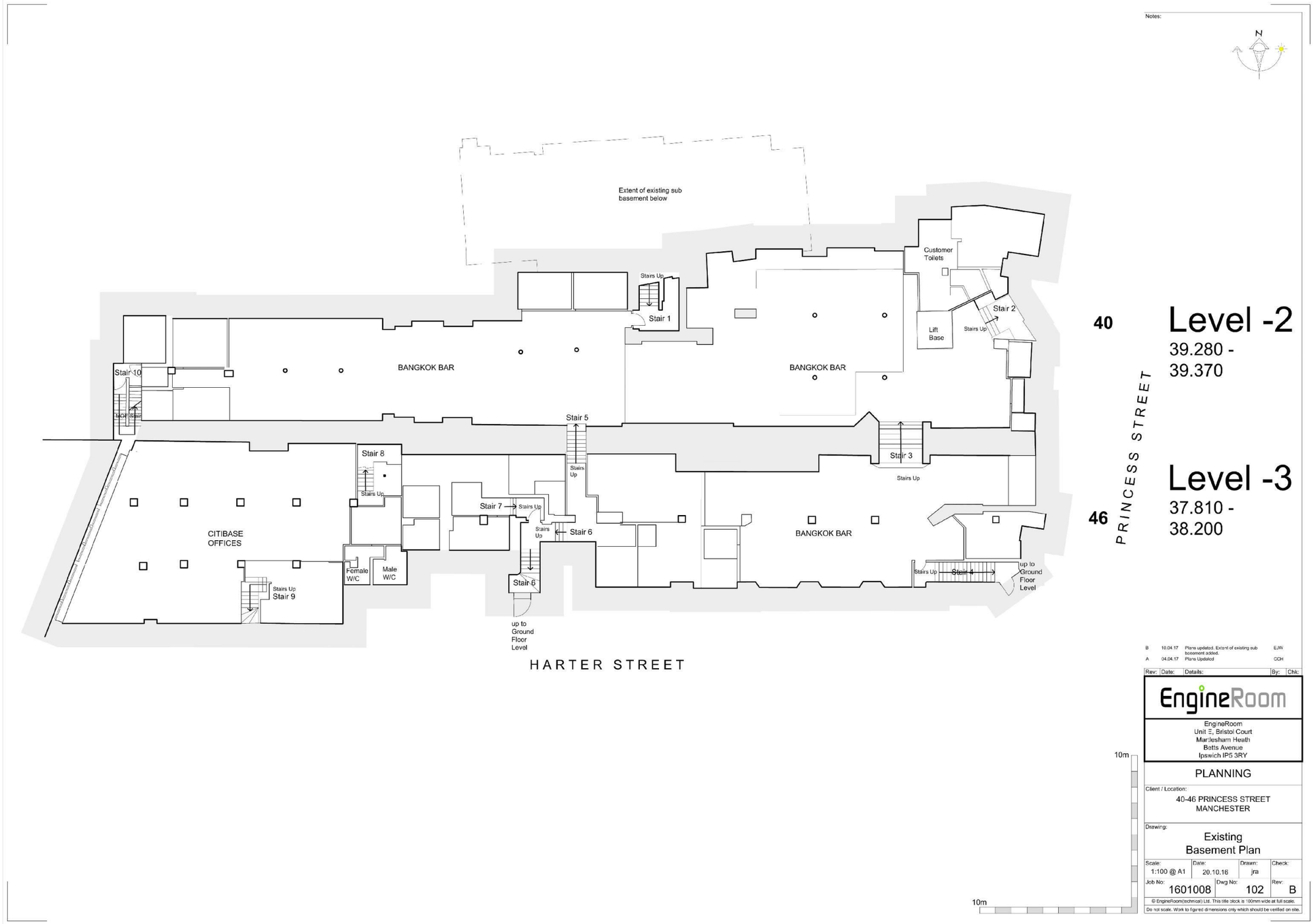
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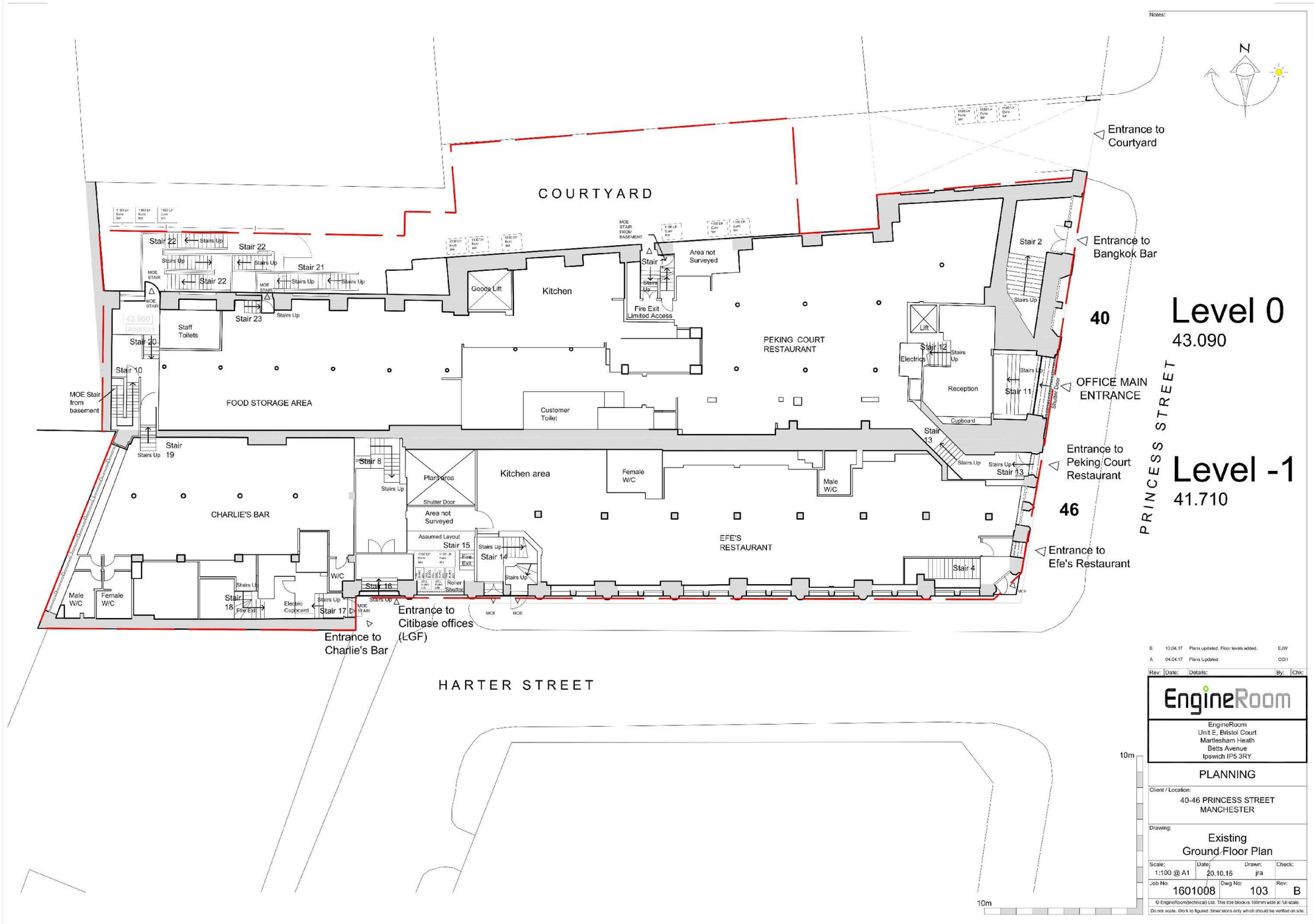
APPENDIX A-EXISTING PLANS, SECTIONS & ELEVATIONS



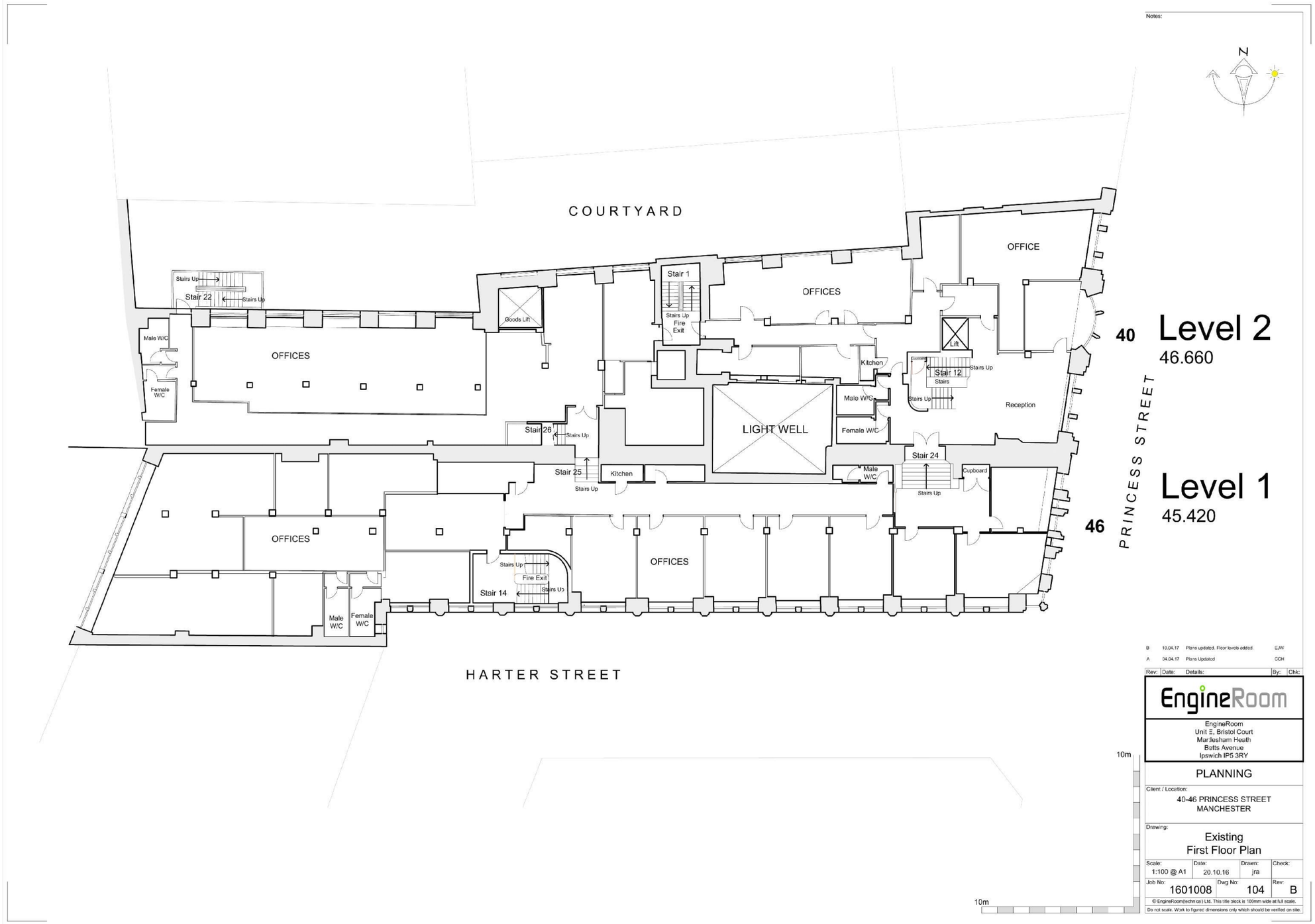
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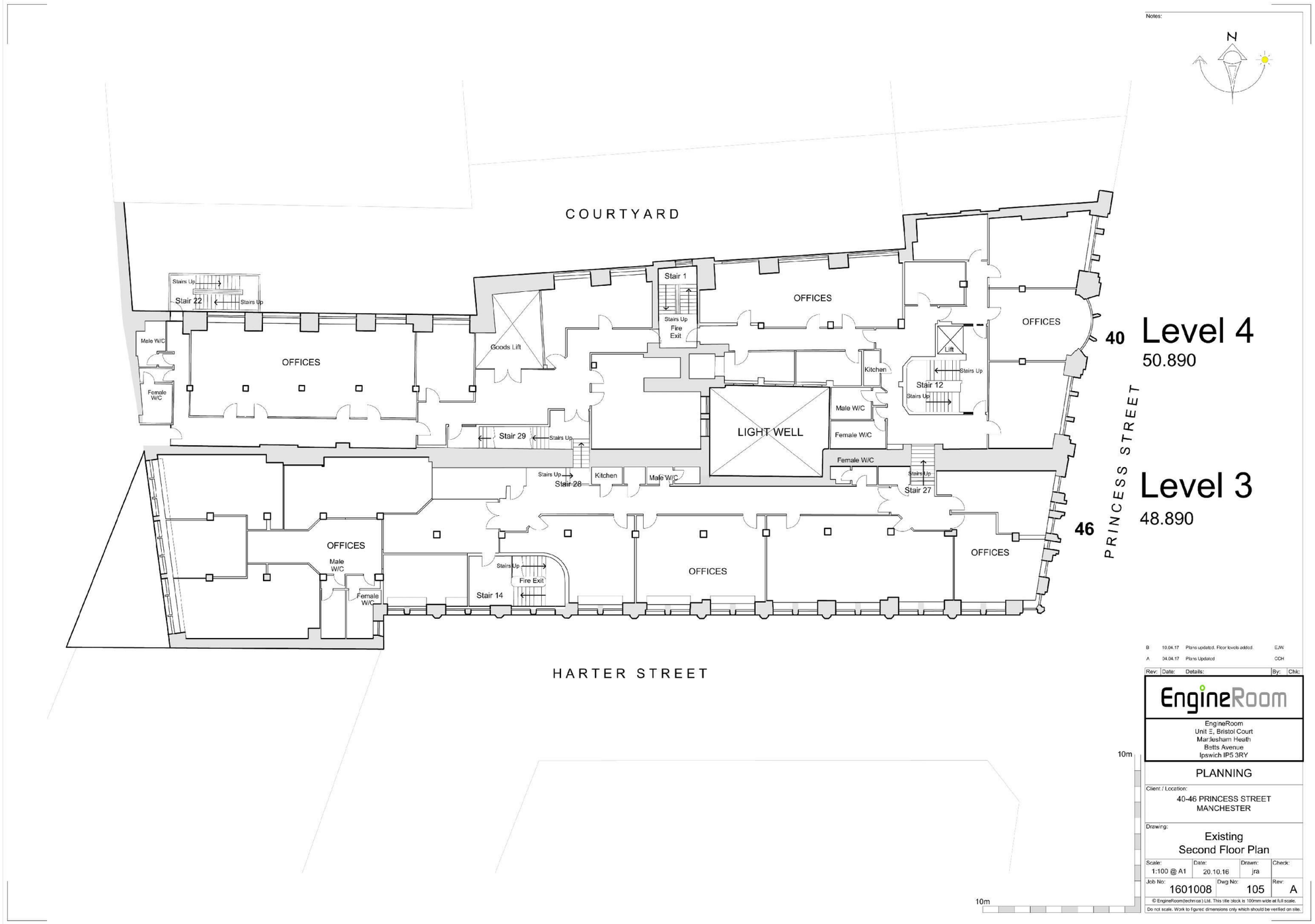
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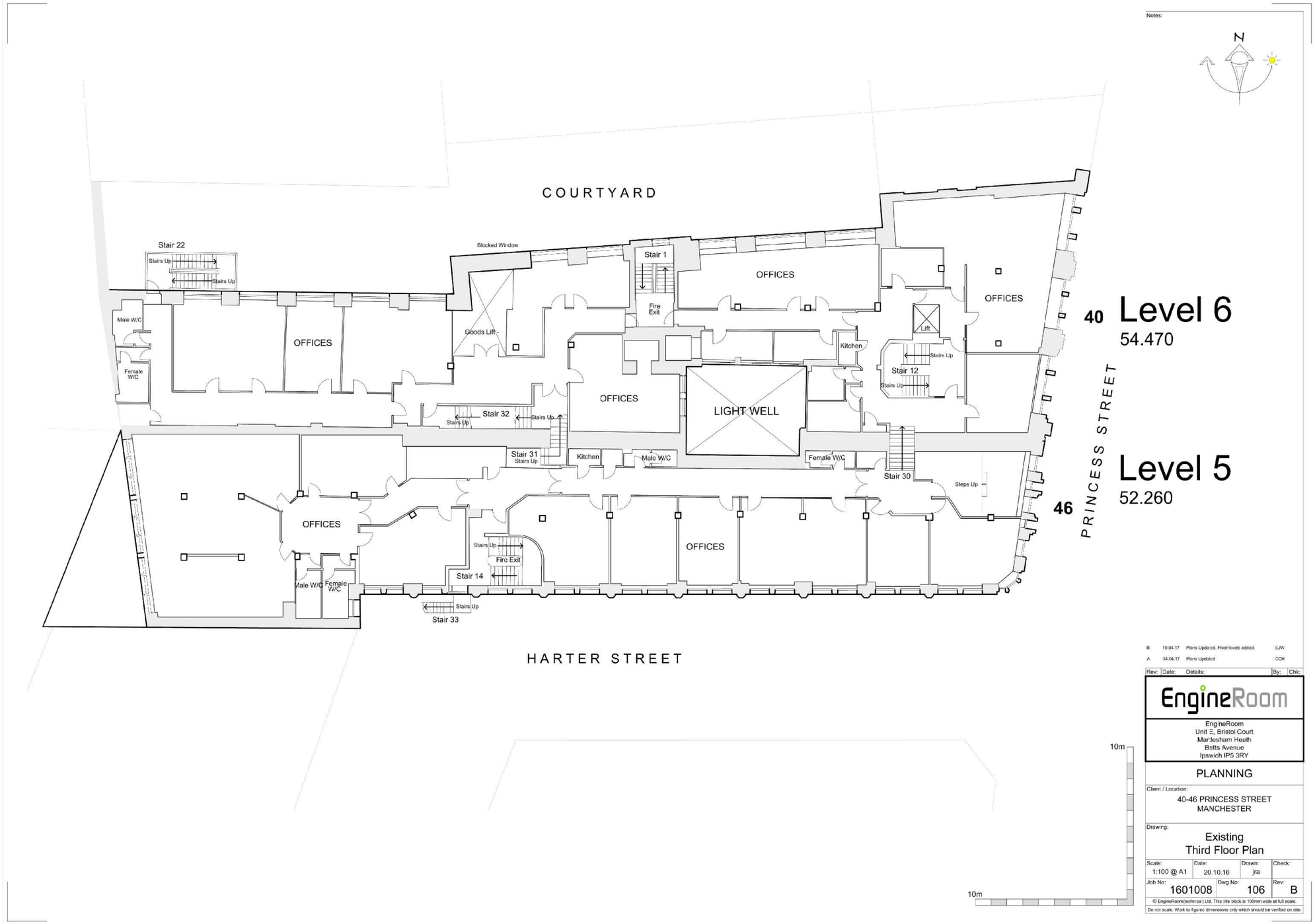
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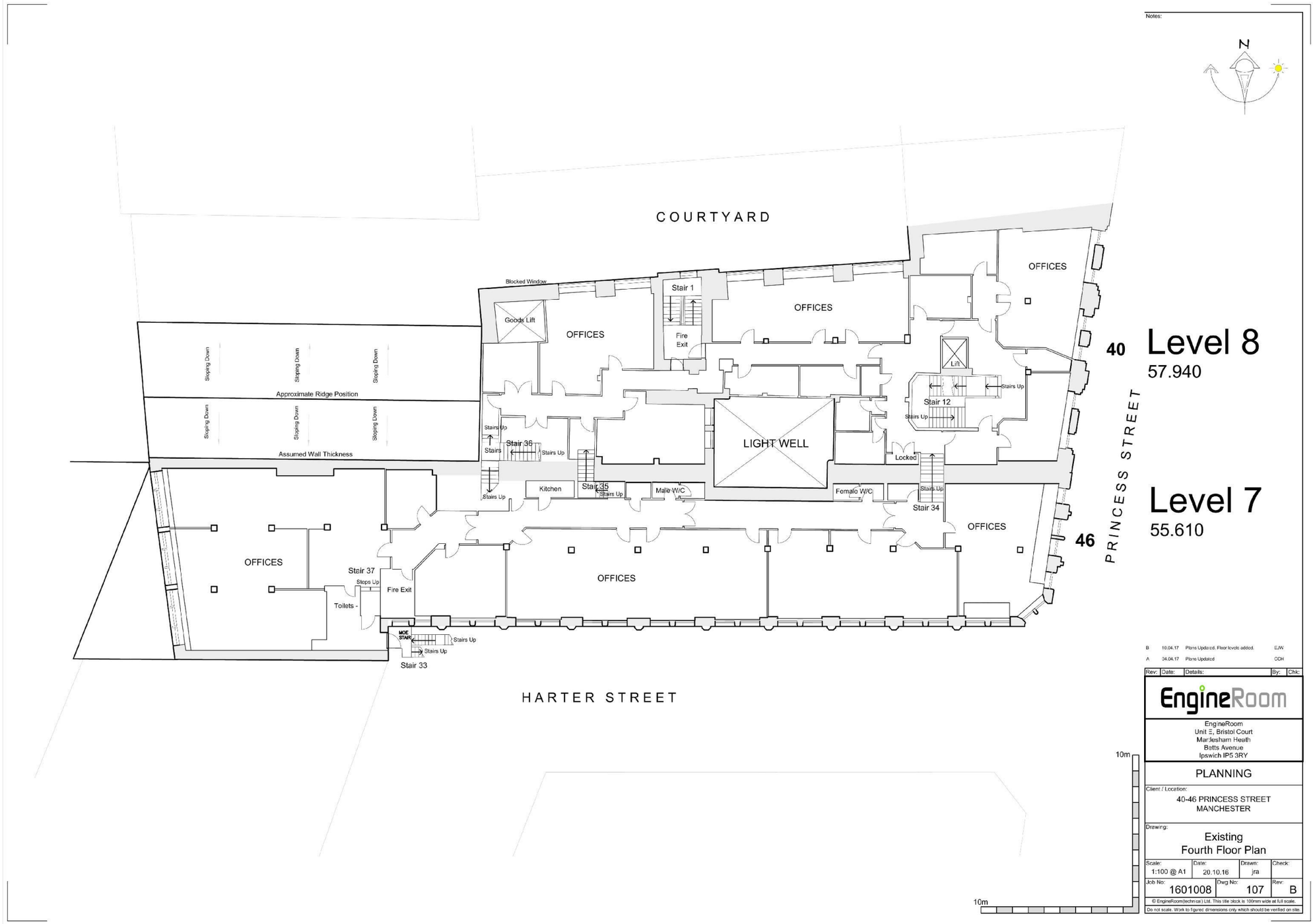
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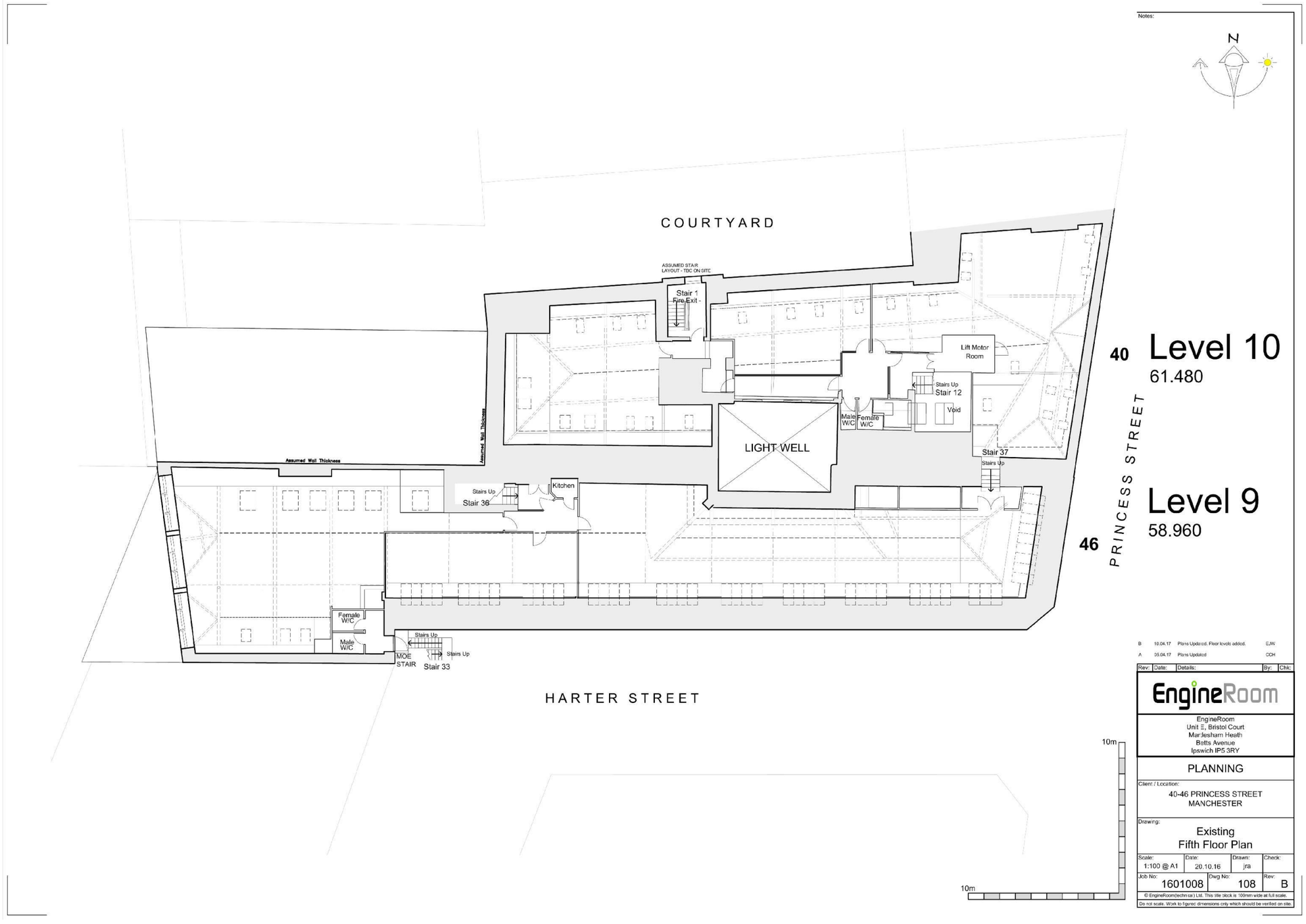
APPENDIX A-EXISTING PLANS, SECTIONS & ELEVATIONS



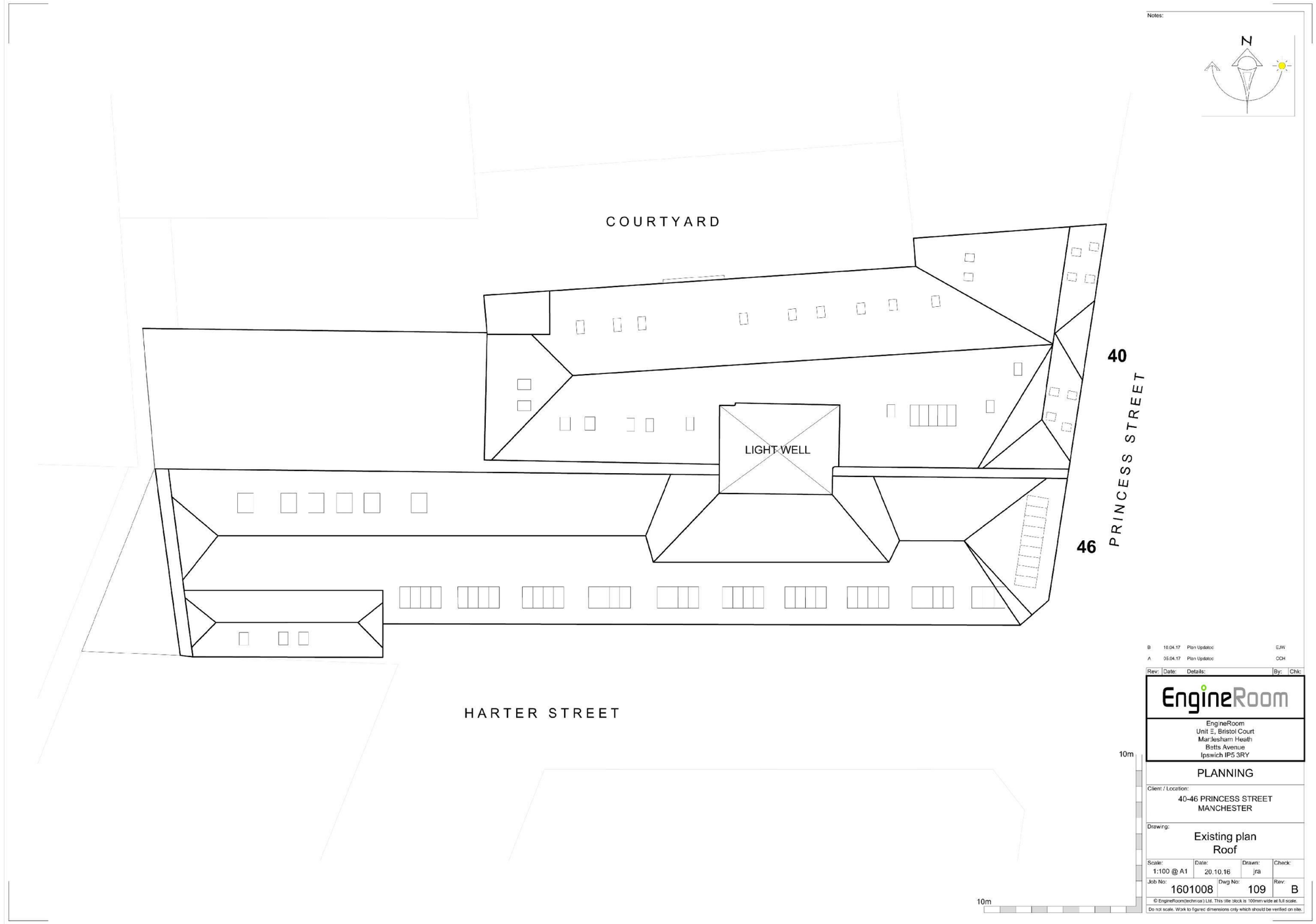
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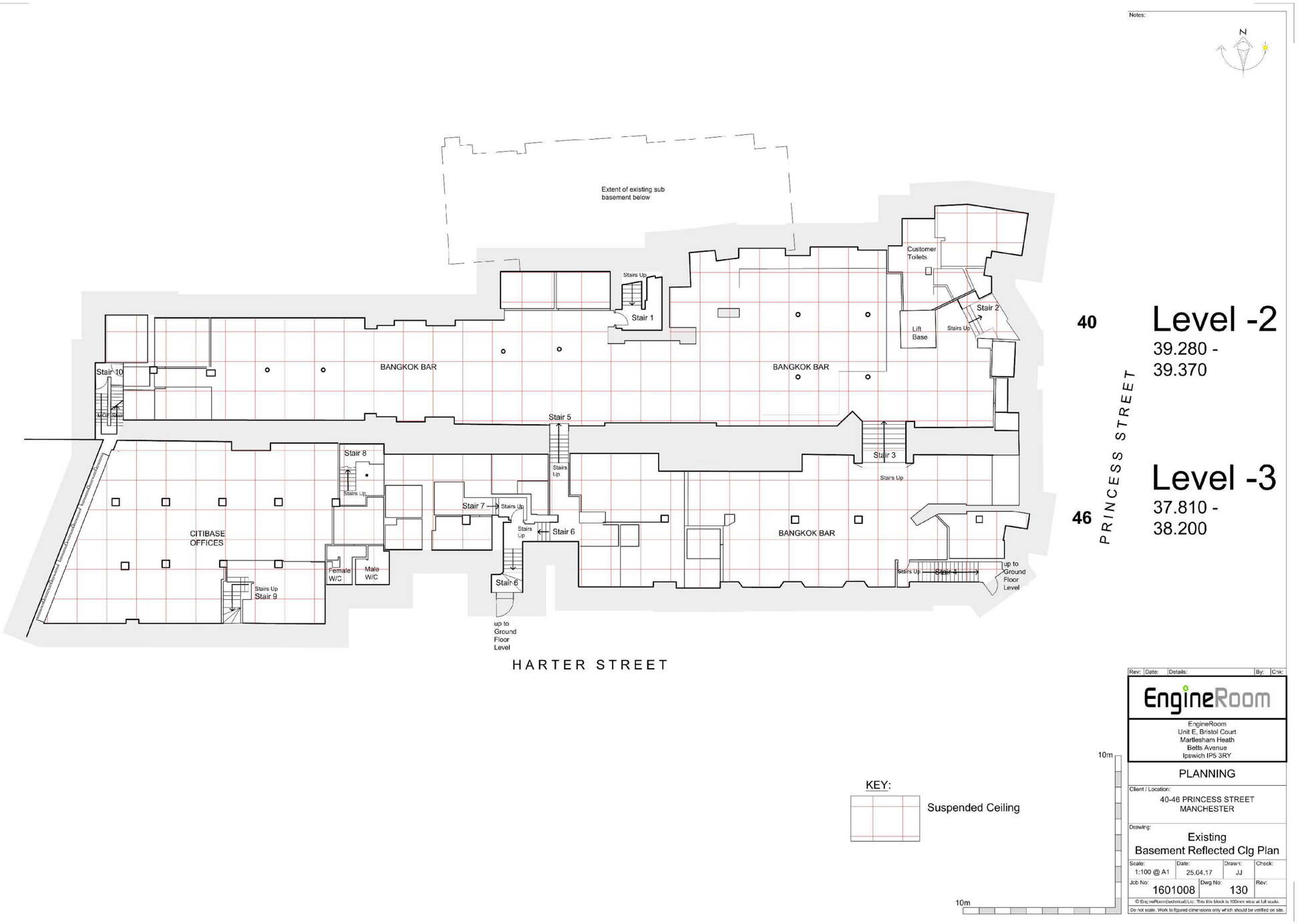
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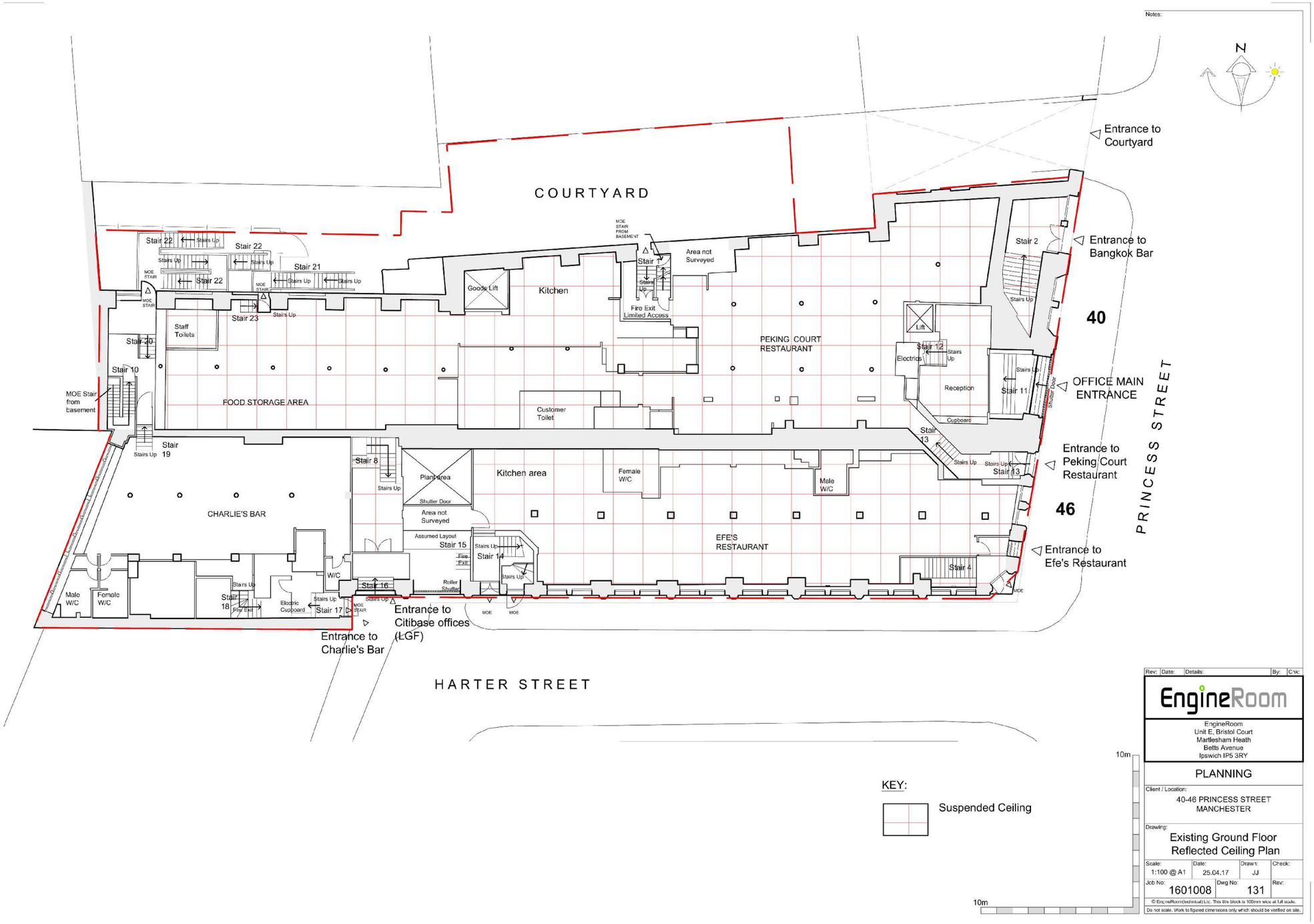
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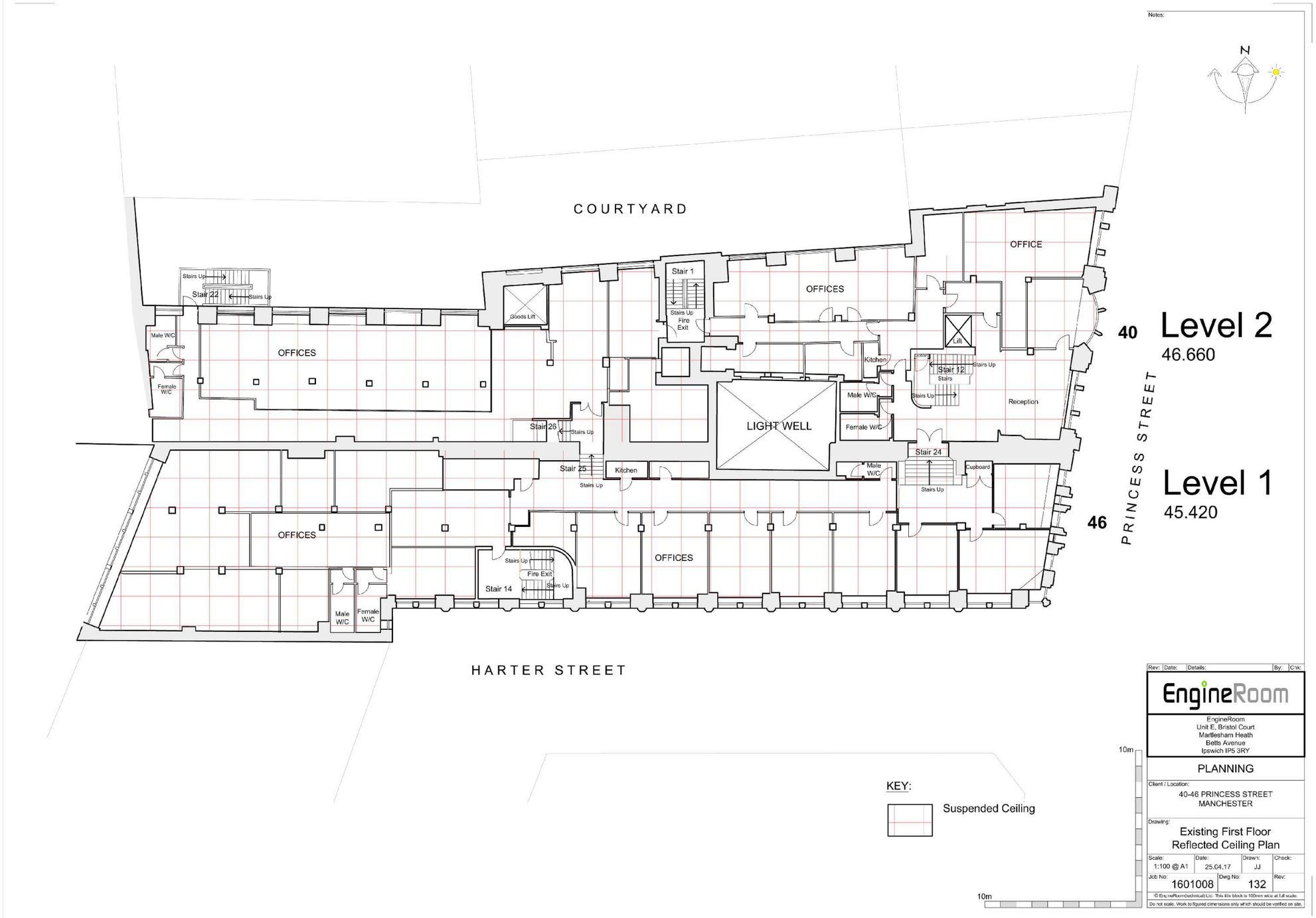
APPENDIX A-EXISTING PLANS, SECTIONS & ELEVATIONS



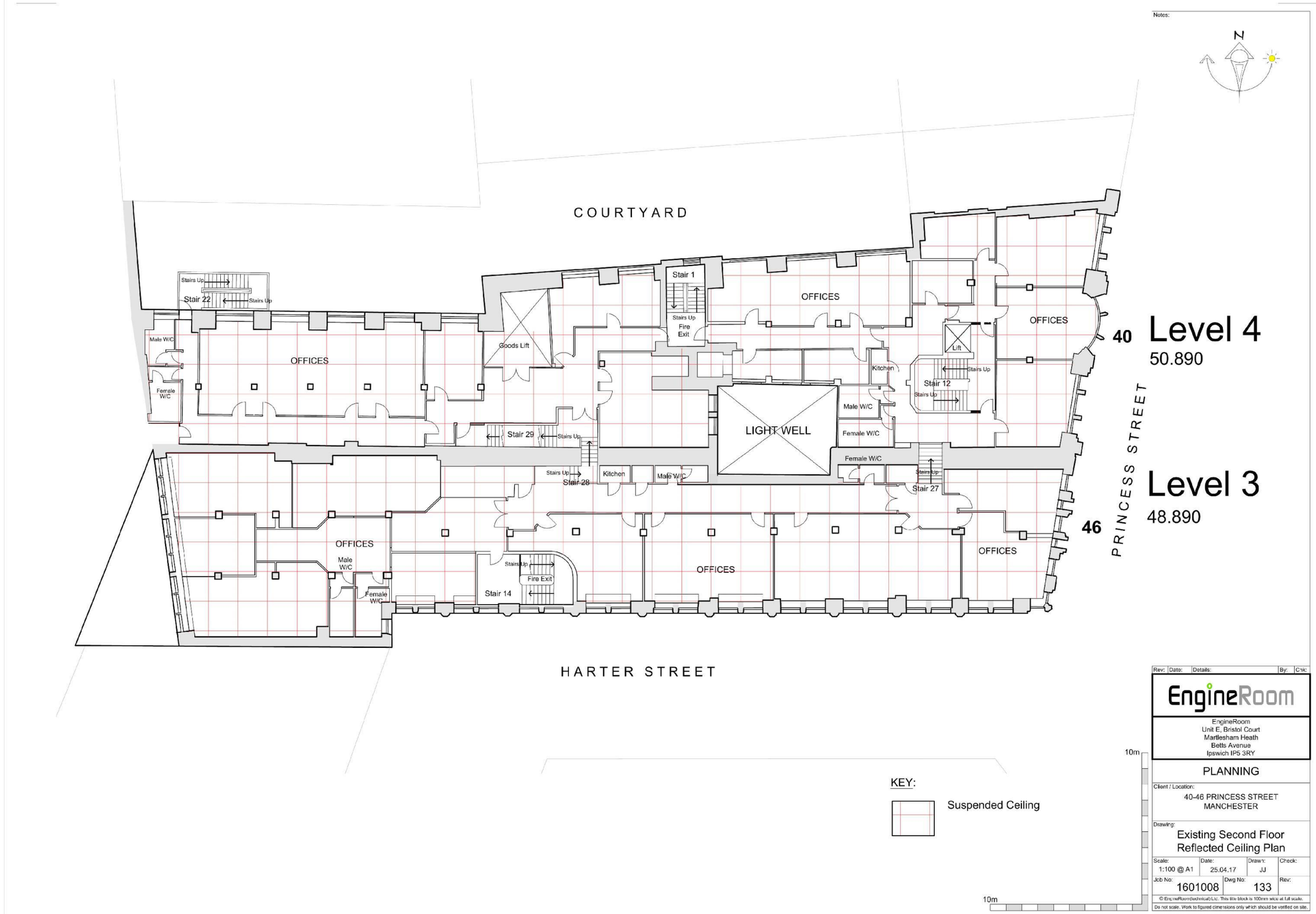
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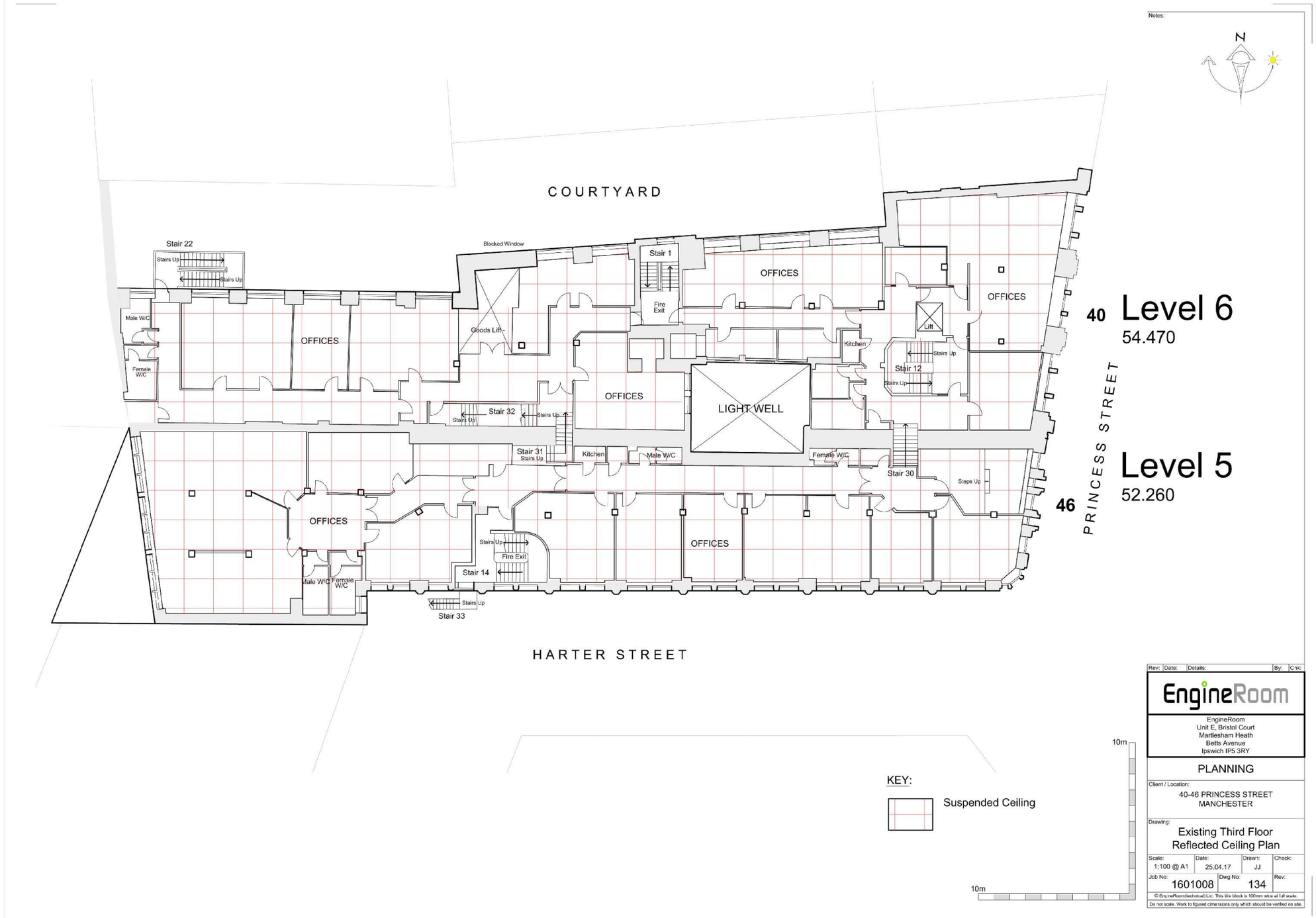
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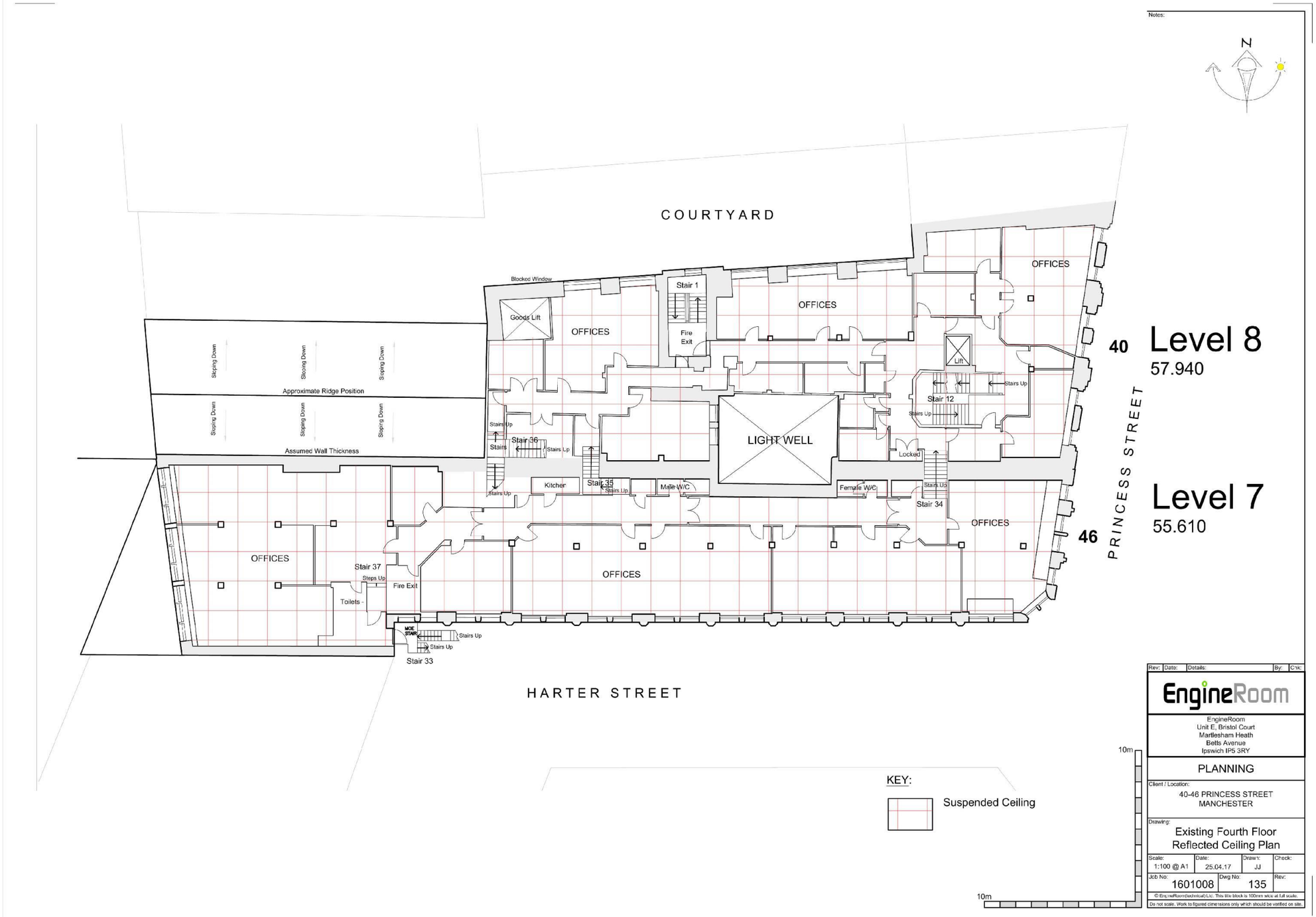
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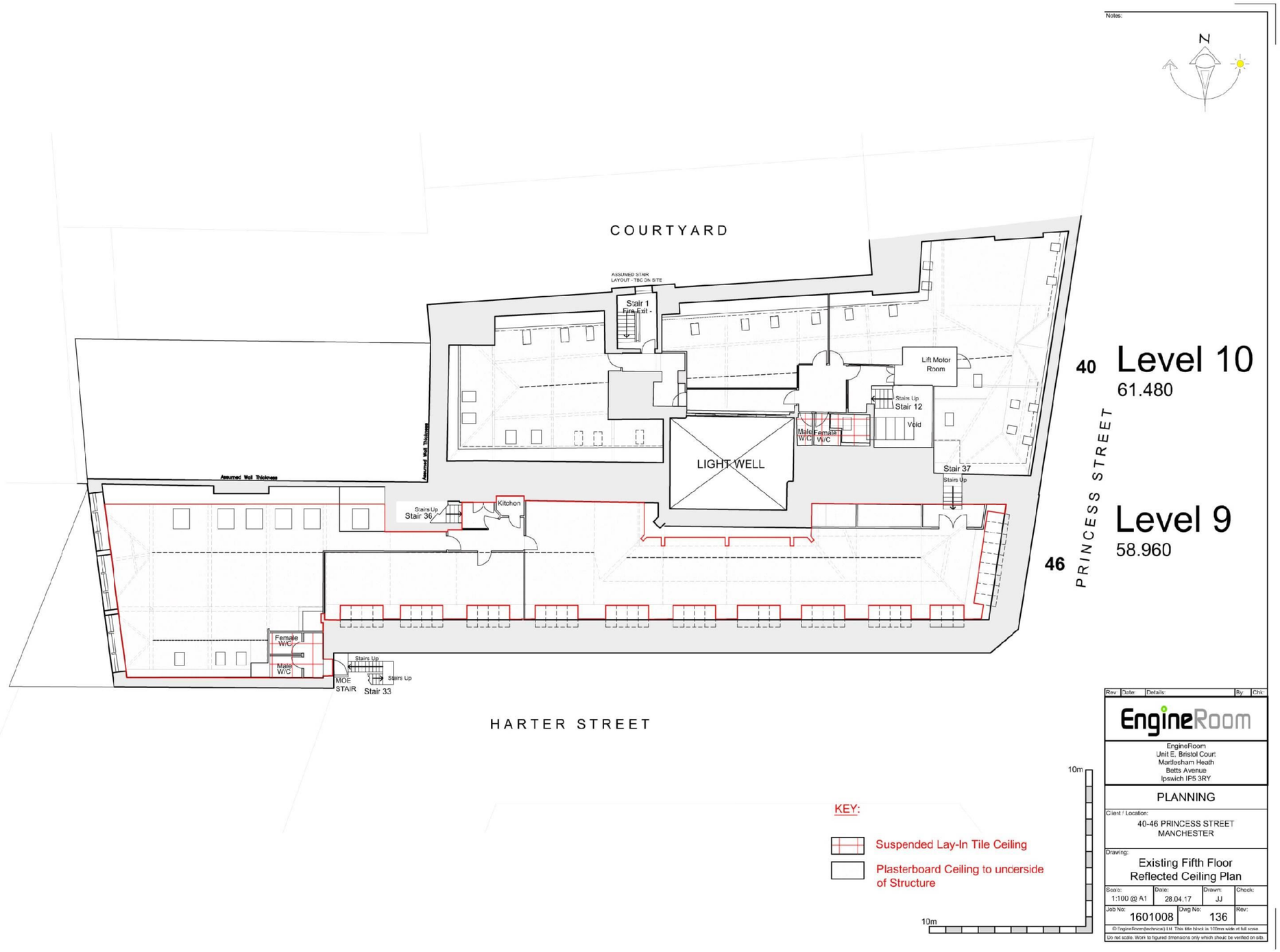
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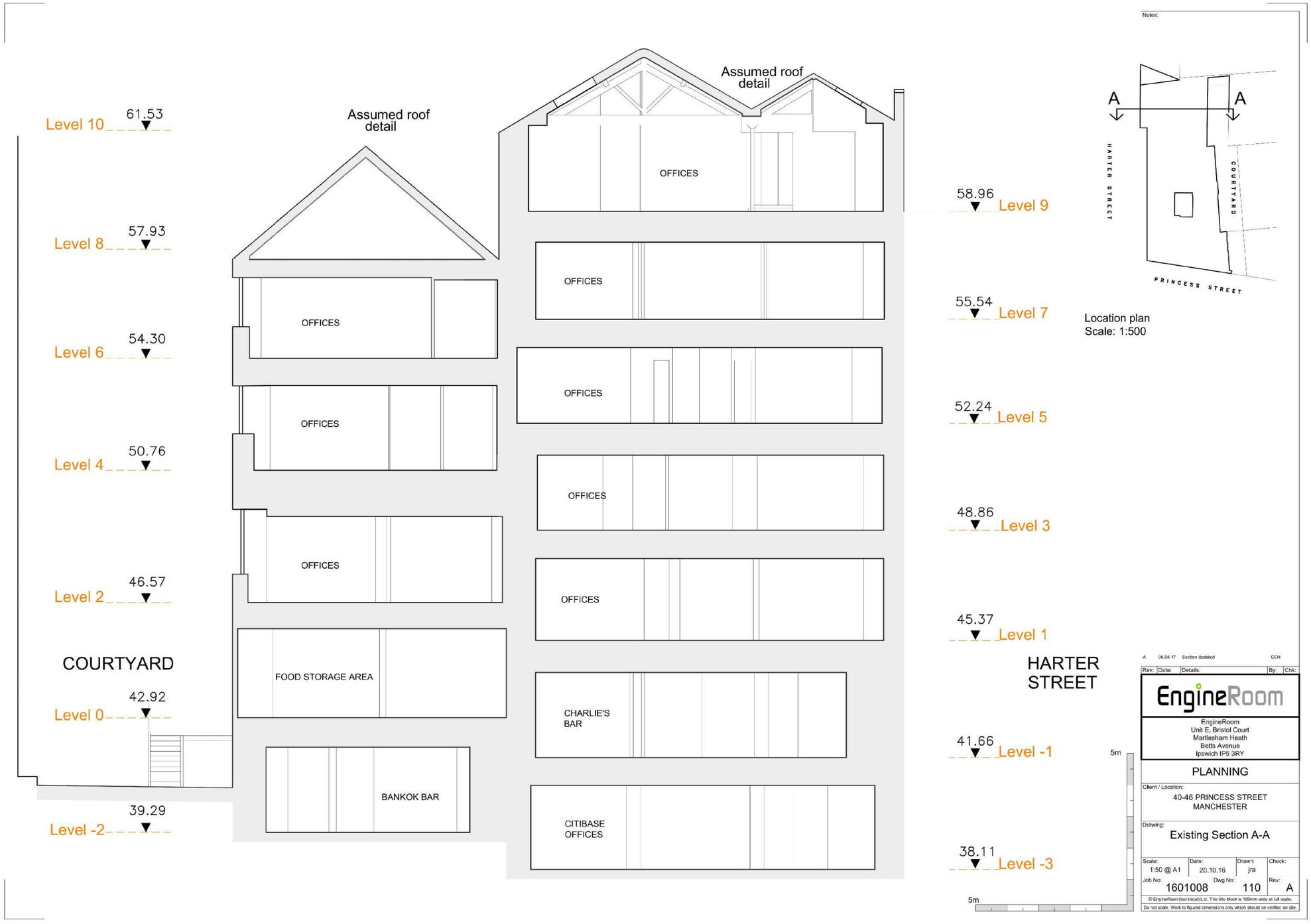
APPENDIX A-EXISTING PLANS, SECTIONS & ELEVATIONS



APPENDIX A-EXISTING PLANS, SECTIONS & ELEVATIONS



APPENDIX A-EXISTING PLANS, SECTIONS & ELEVATIONS



Location plan
Scale: 1:500

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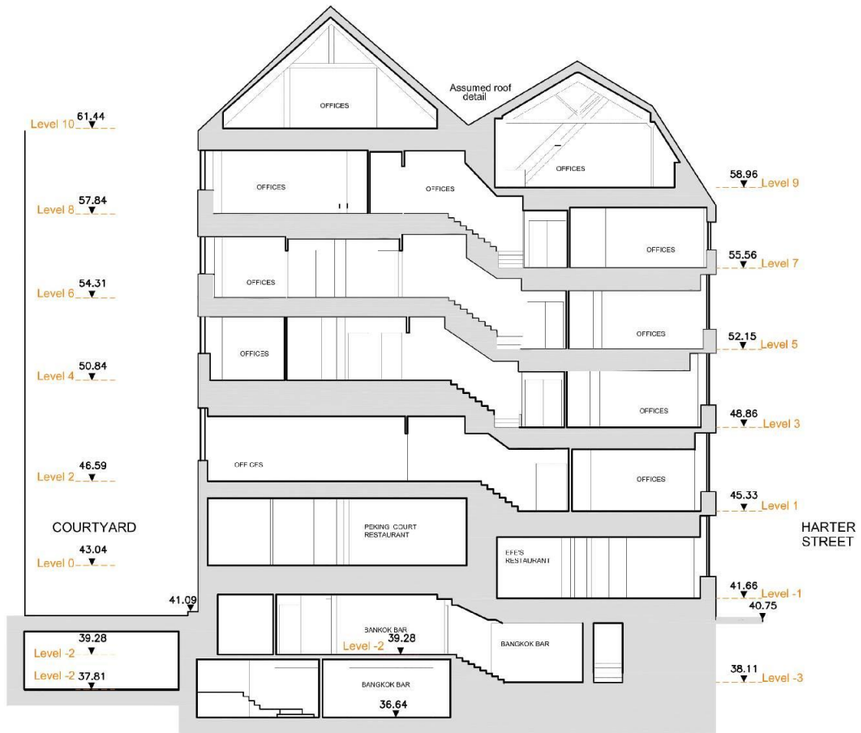
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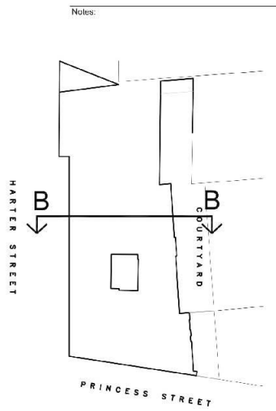
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Drawing:
Existing Section B-B

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1601008	111a	A

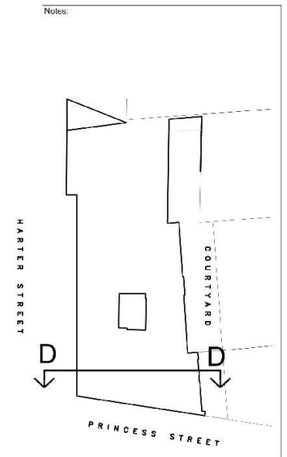
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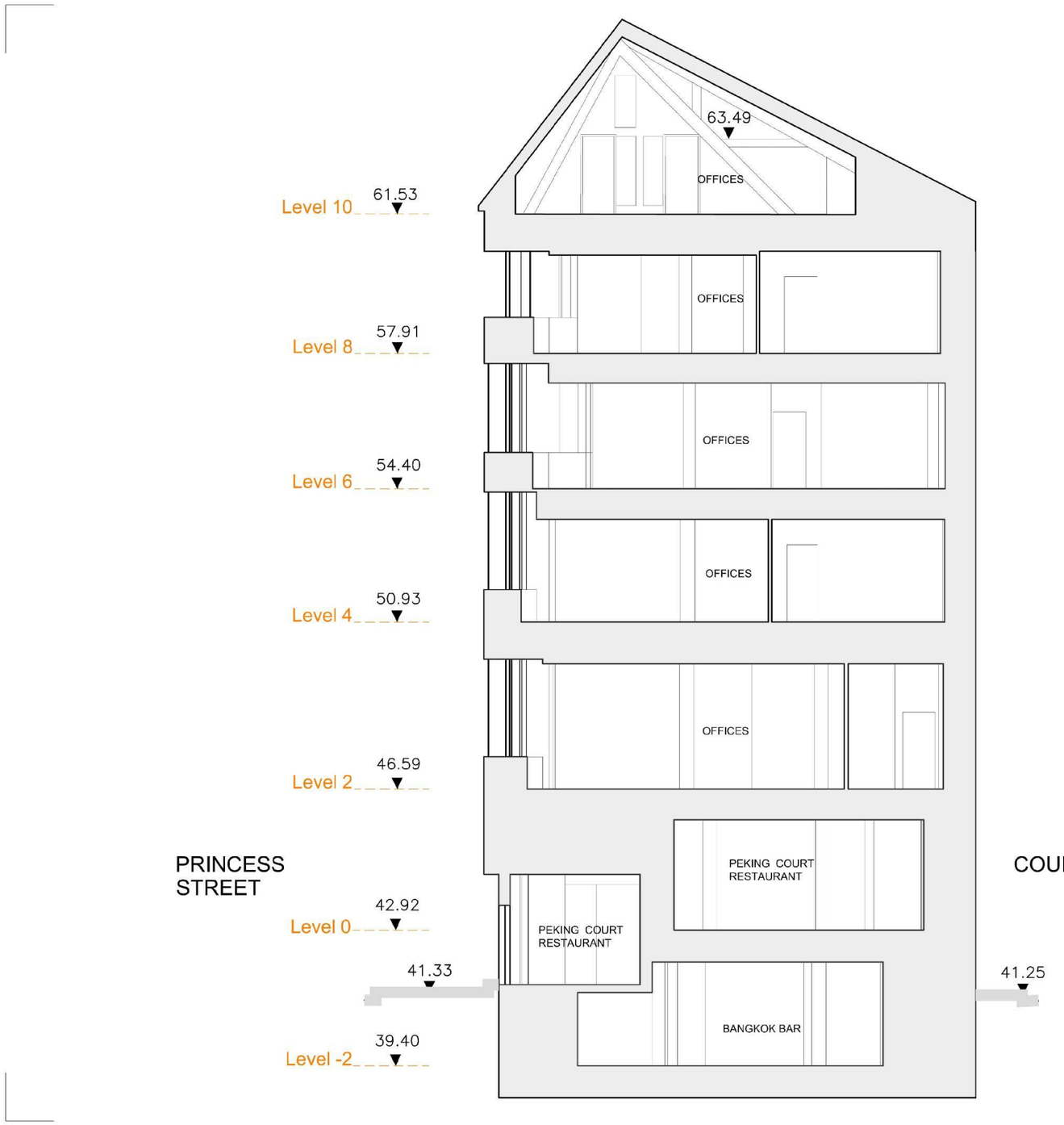
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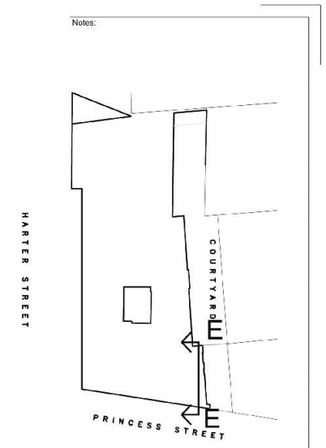
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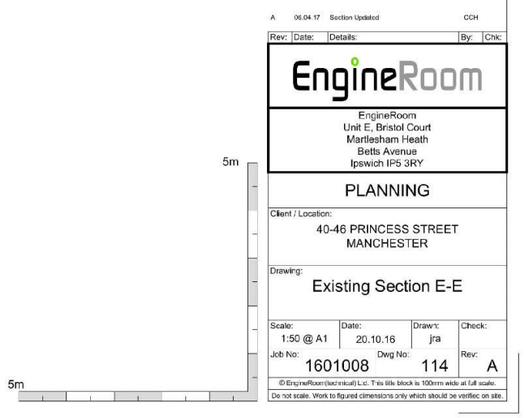
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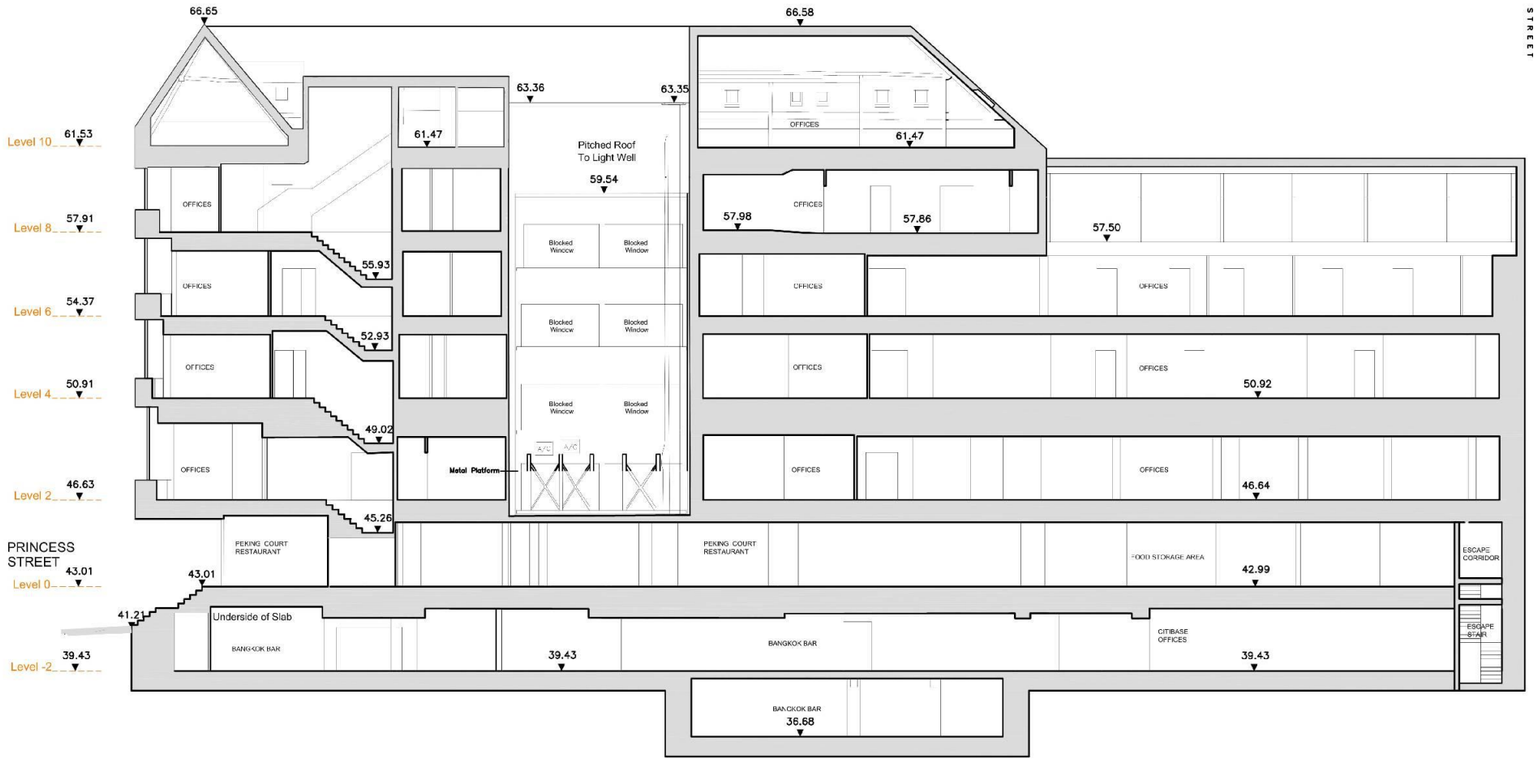


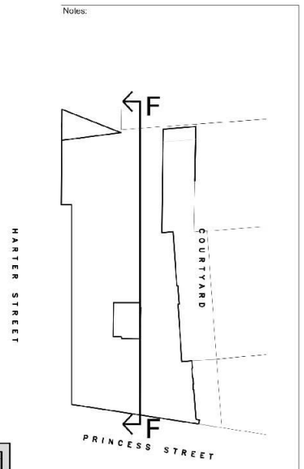


Location plan
Scale: 1:500



APPENDIX A-EXISTING PLANS, SECTIONS & ELEVATIONS





Location plan
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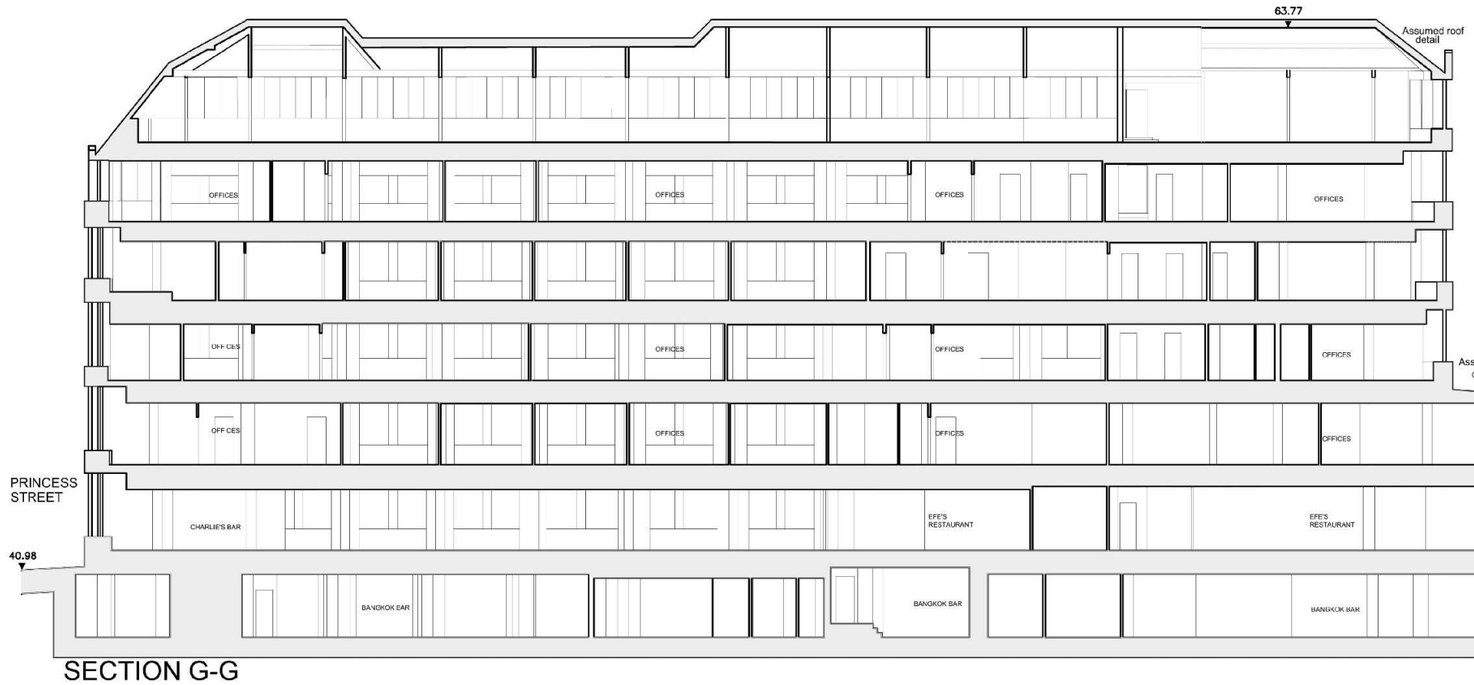
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MANCHESTER

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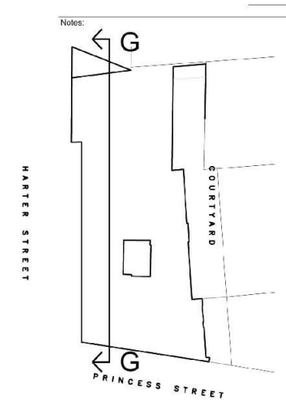
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SECTION G-G



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Drawing:
Existing Section G-G

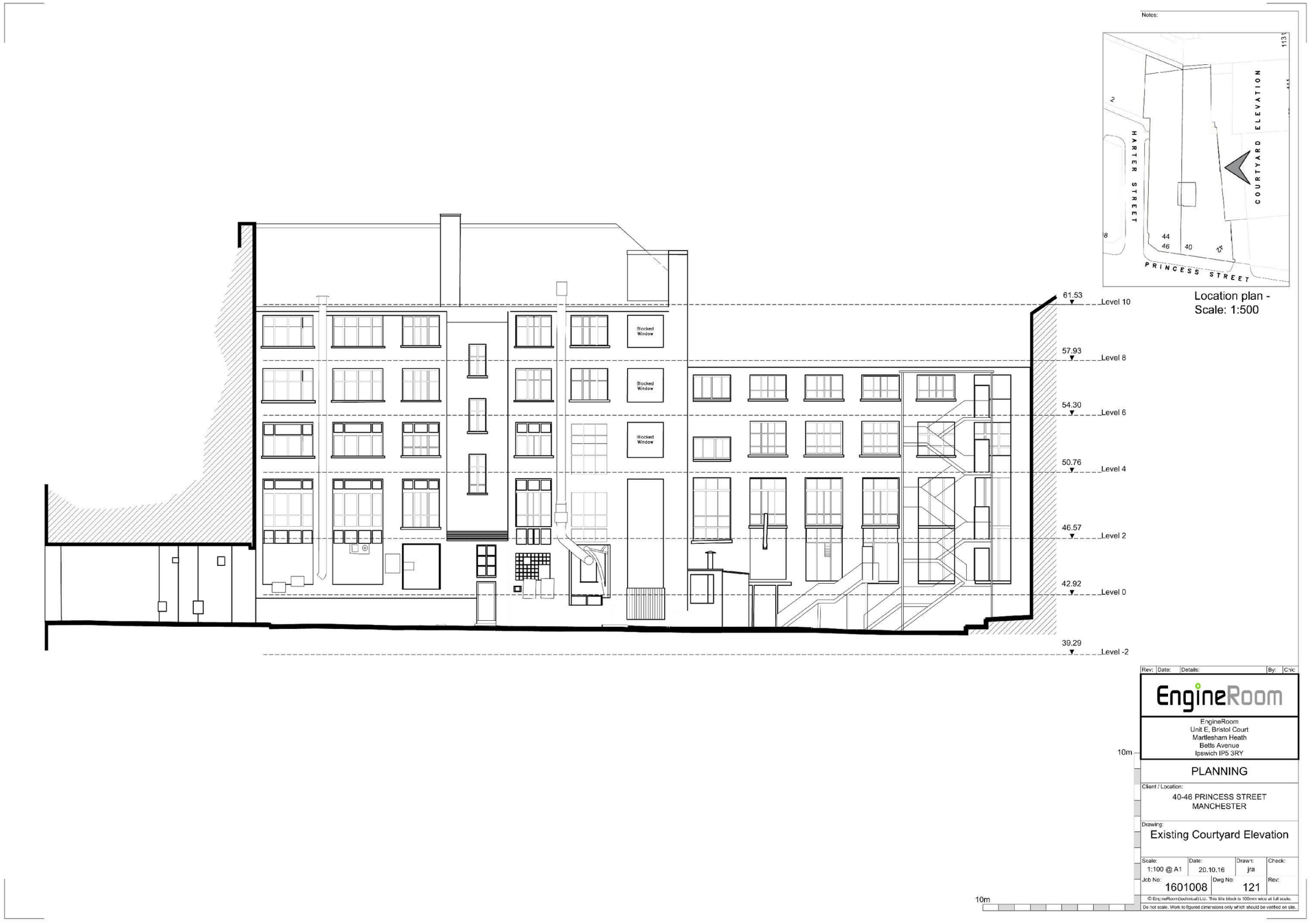
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Drawing:
Existing Courtyard Elevation

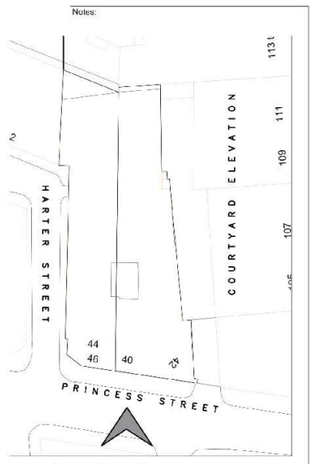
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Location plan -
Scale: 1:500

10m

10m

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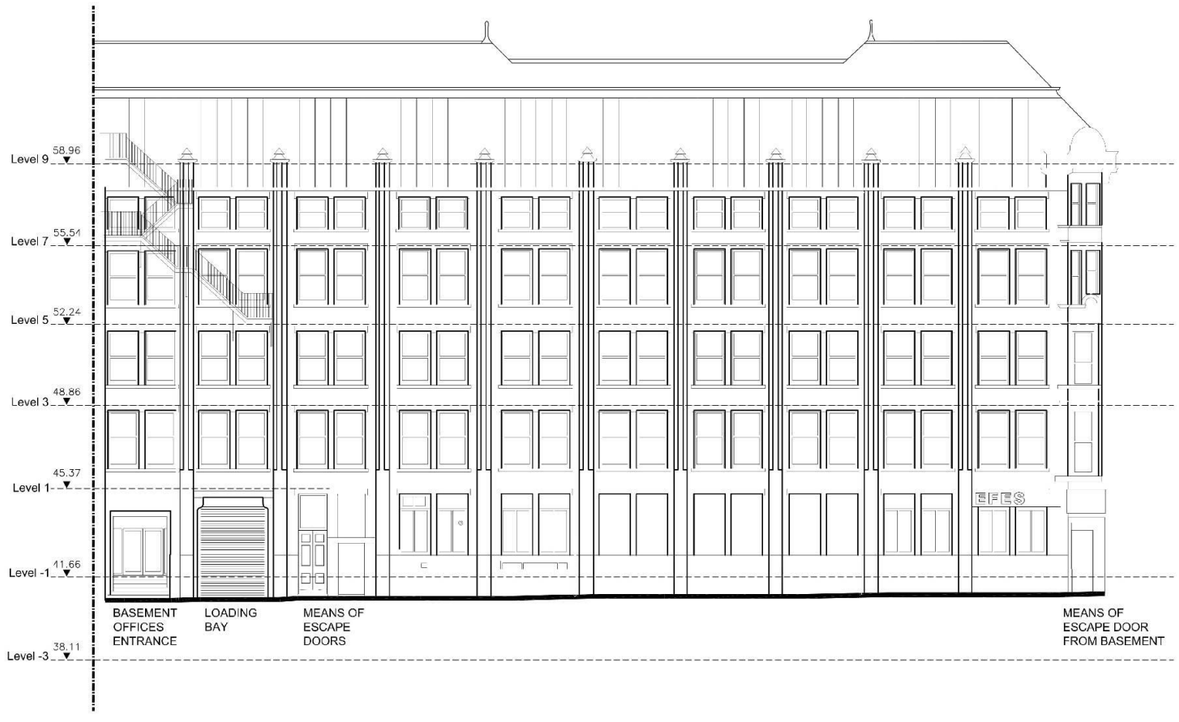
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MANCHESTER

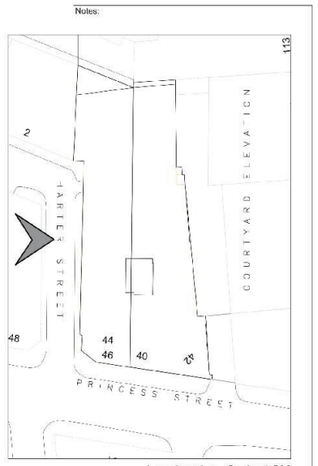
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Existing Elevation
Princess Street

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Job No: 1601008	Dwg No: 122		Rev:

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Location plan - Scale: 1:500

10m

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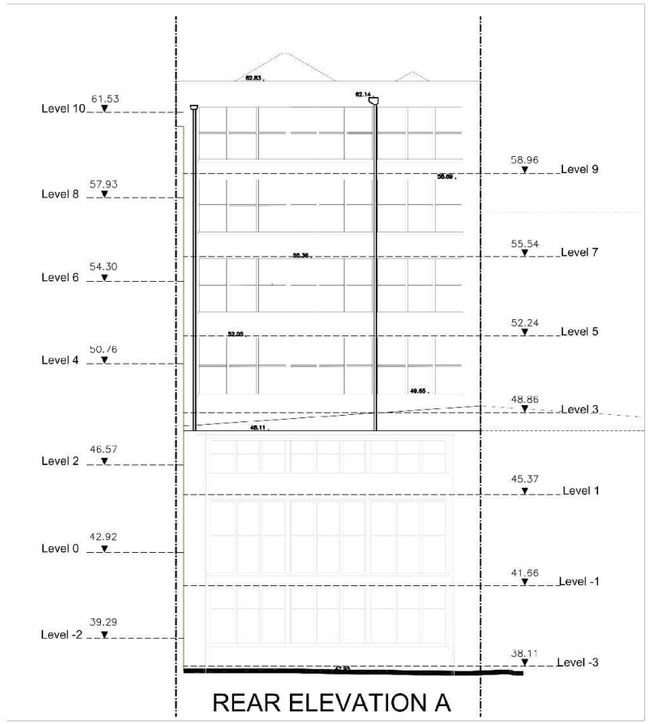
Drawing:
Existing Elevation -
Harter Street

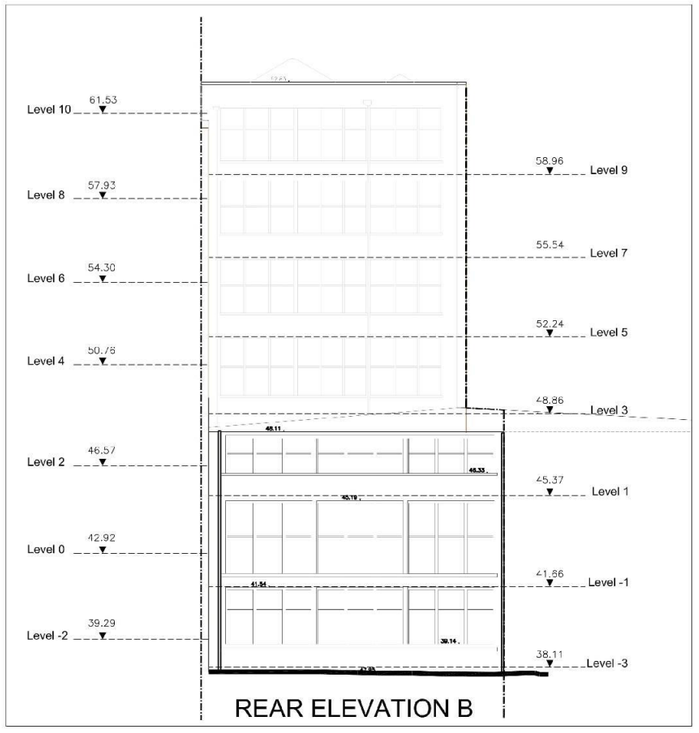
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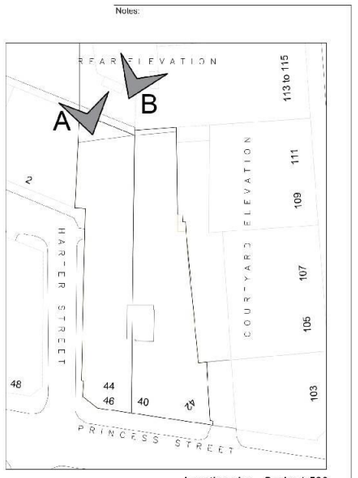
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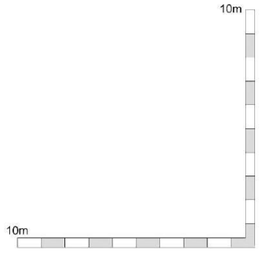
APPENDIX A-EXISTING PLANS, SECTIONS & ELEVATIONS







Location plan - Scale: 1:500



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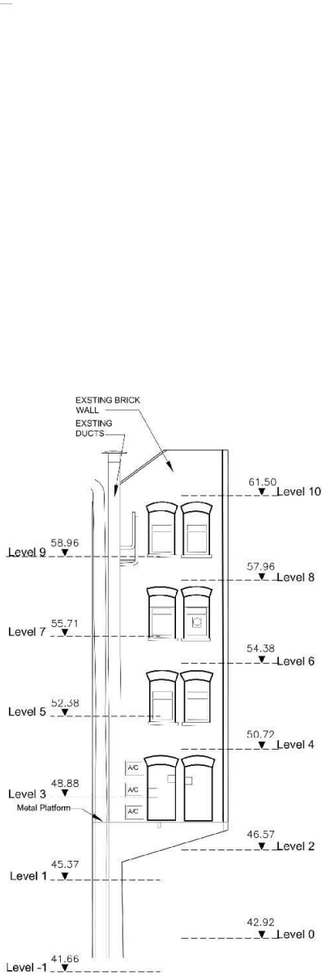
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40-46 PRINCESS STREET
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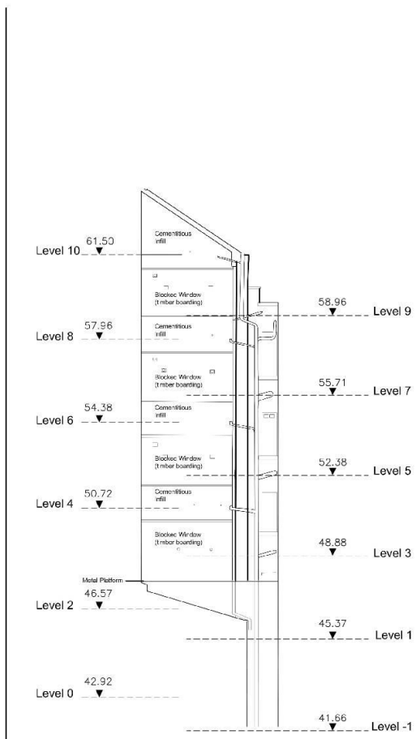
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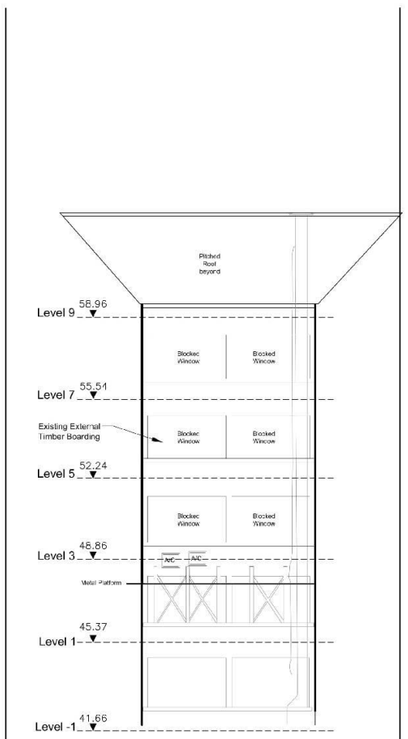
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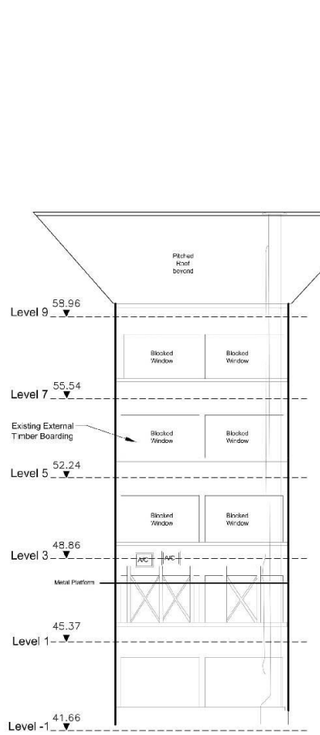
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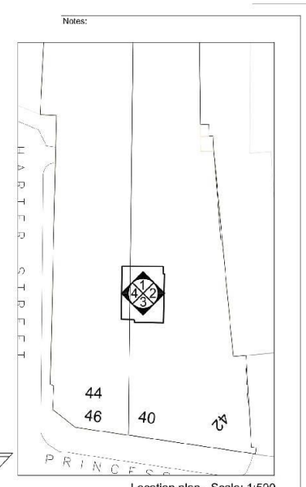
APPENDIX A-EXISTING PLANS, SECTIONS & ELEVATIONS











10m

10m

Rev:	Date:	Details:	By:	Chk:

EngineRoom
EngineRoom
Unit E, Bristol Court
Martlesham Heath
Betts Avenue
Ipswich IP5 3RY

PLANNING

Client / Location:
40-46 PRINCESS STREET
MANCHESTER

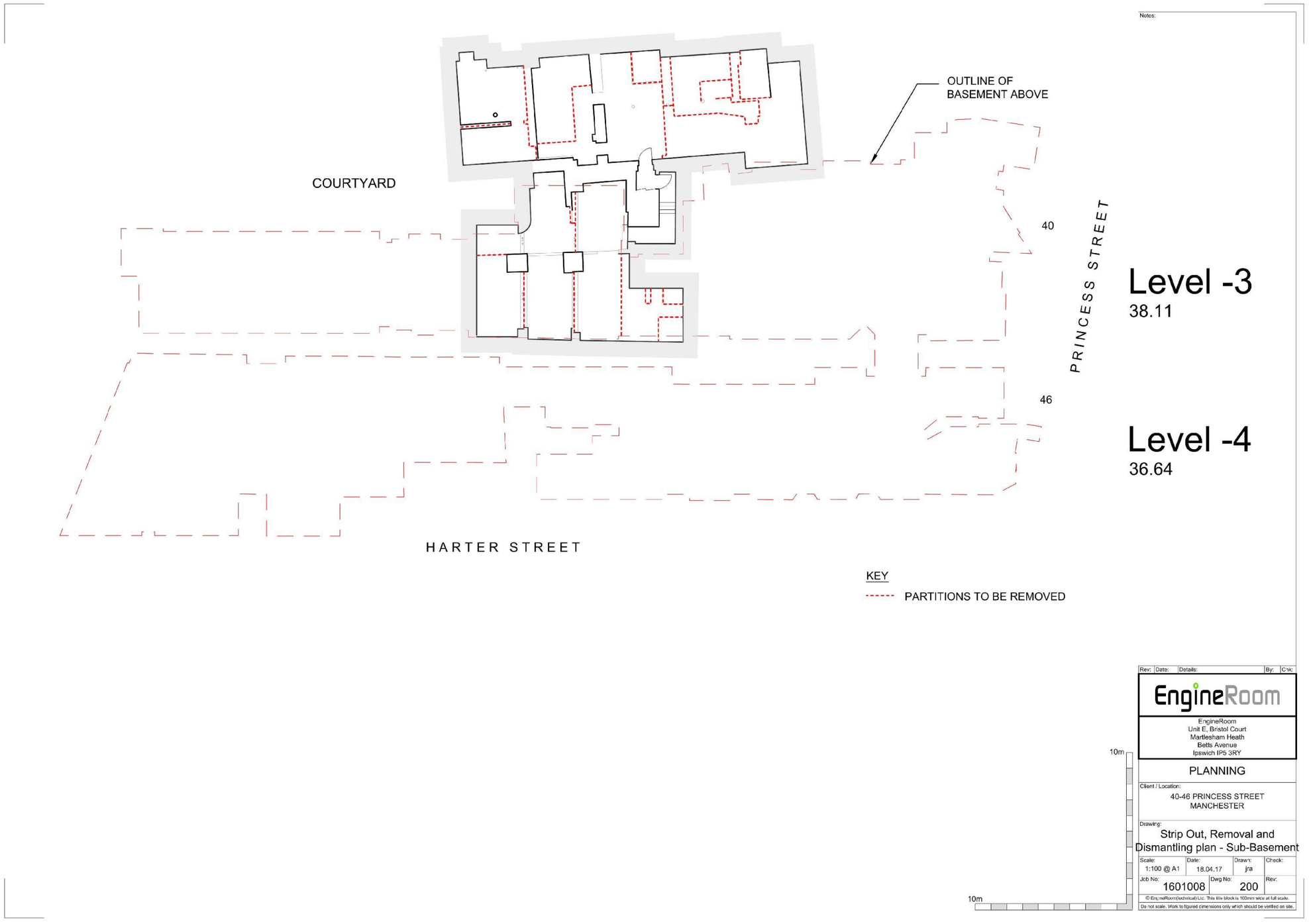
Drawing:
Existing Lightwell Elevations

Scale:	Date:	Drawn:	Check:
1:100 @ A1	20.10.16	jra	

Job No:	Dwg No:	Rev:
1601008	125	

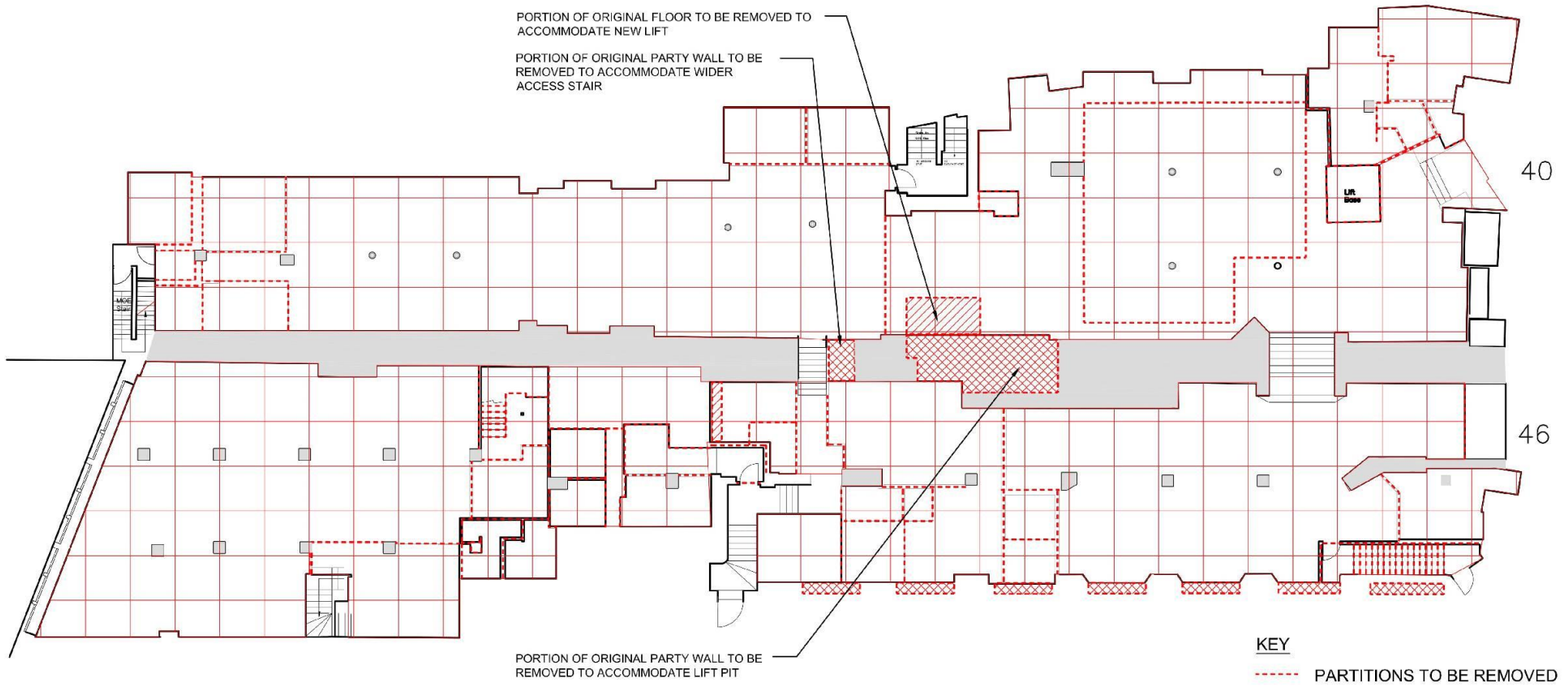
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APPENDIX B- STRIP OUT, REMOVAL AND DISMANTLING **PLANS** & ELEVATIONS



APPENDIX B- STRIP OUT, REMOVAL AND DISMANTLING **PLANS** & ELEVATIONS

Notes:



Level -2
39.280 -
39.370

Level -3
37.810 -
38.200

KEY

- PARTITIONS TO BE REMOVED
- FLOOR TO BE REMOVED
- EXTERNAL WALL / STRUCTURE / WINDOW TO BE REMOVED
- STAIR TO BE REMOVED
- SUSPENDED CEILING TO BE REMOVED

10m

10m

Rev:	Date:	Details:	By:	Chk:
A	29.03.17	Areas of removal amended	JJ	

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Belts Avenue
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PLANNING

Client / Location:
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MANCHESTER

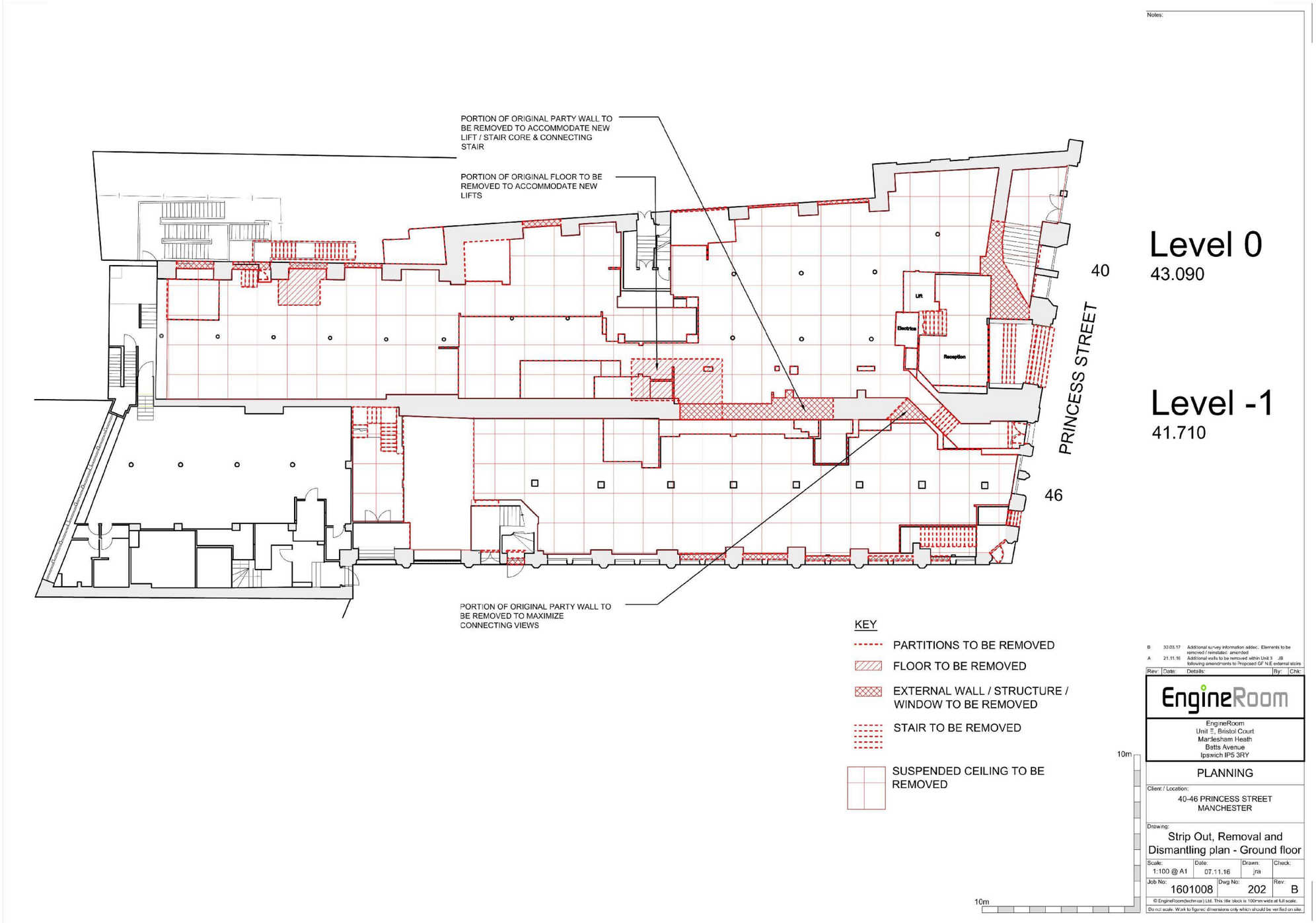
Drawing:
Strip Out, Removal and Dismantling plan - Basement

Scale:	Date:	Drawn:	Check:
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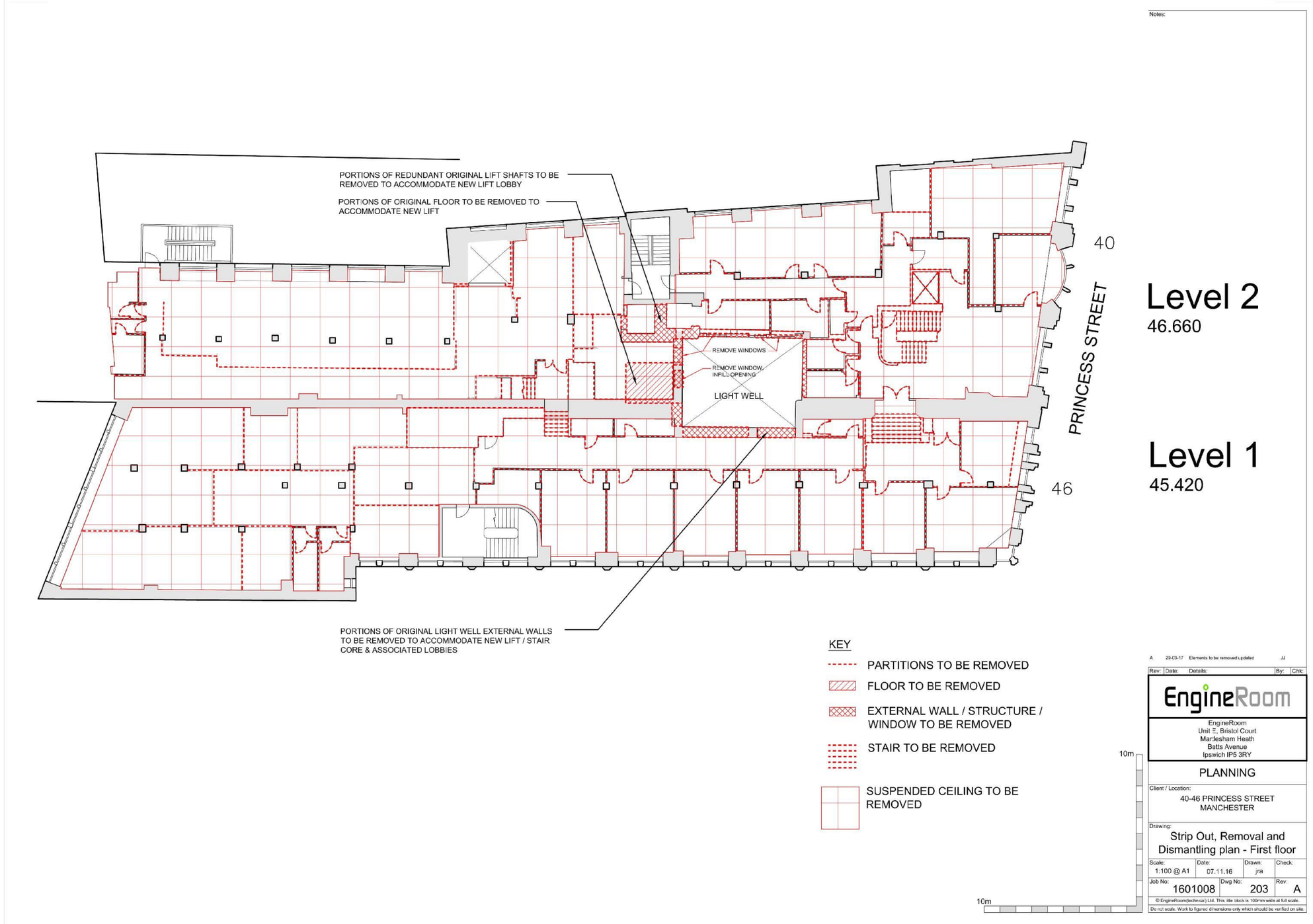
Job No:	Dwg No:	Rev:
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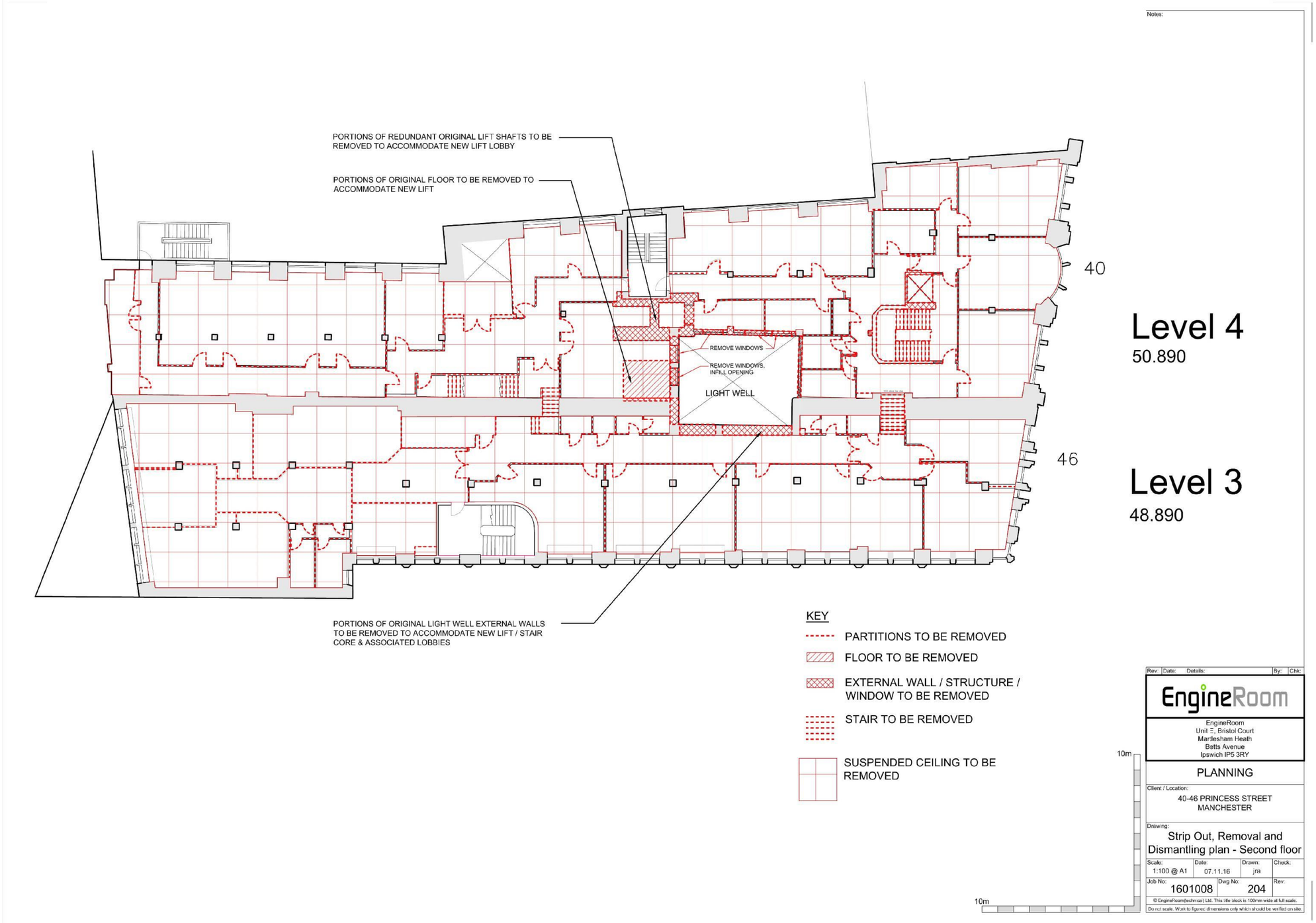
APPENDIX B- STRIP OUT, REMOVAL AND DISMANTLING **PLANS** & ELEVATIONS



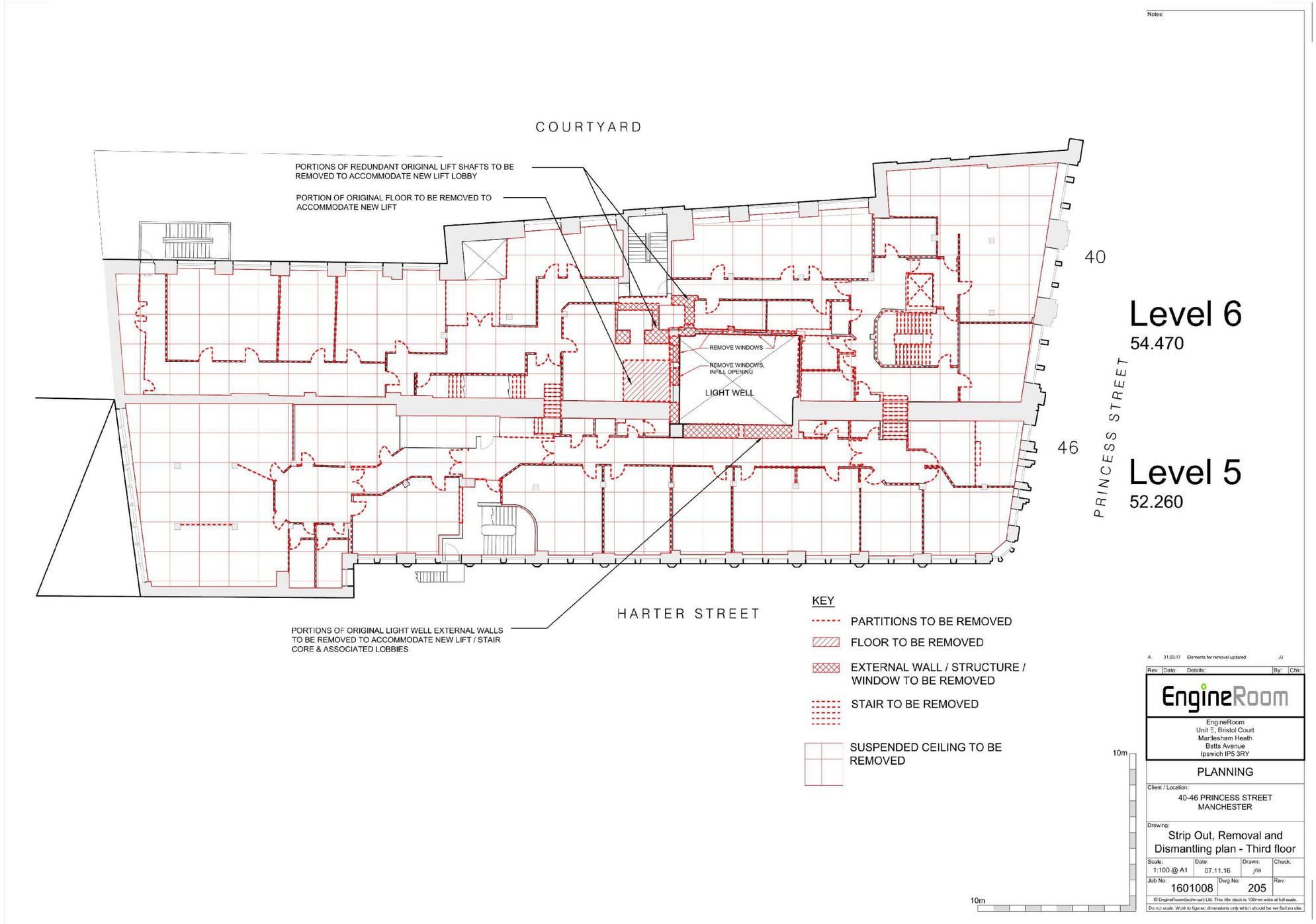
APPENDIX B- STRIP OUT, REMOVAL AND DISMANTLING **PLANS** & ELEVATIONS



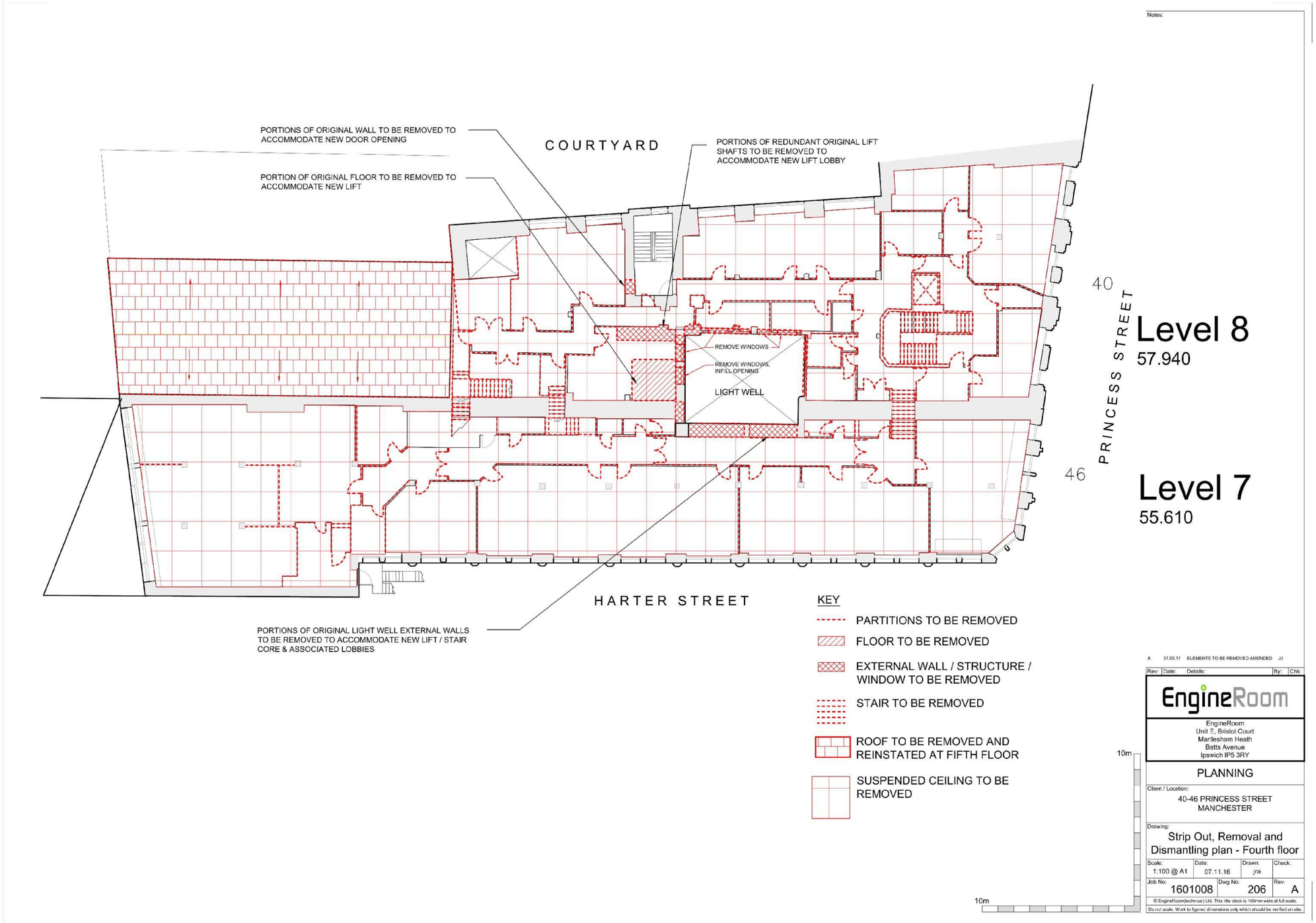
APPENDIX B- STRIP OUT, REMOVAL AND DISMANTLING **PLANS** & ELEVATIONS



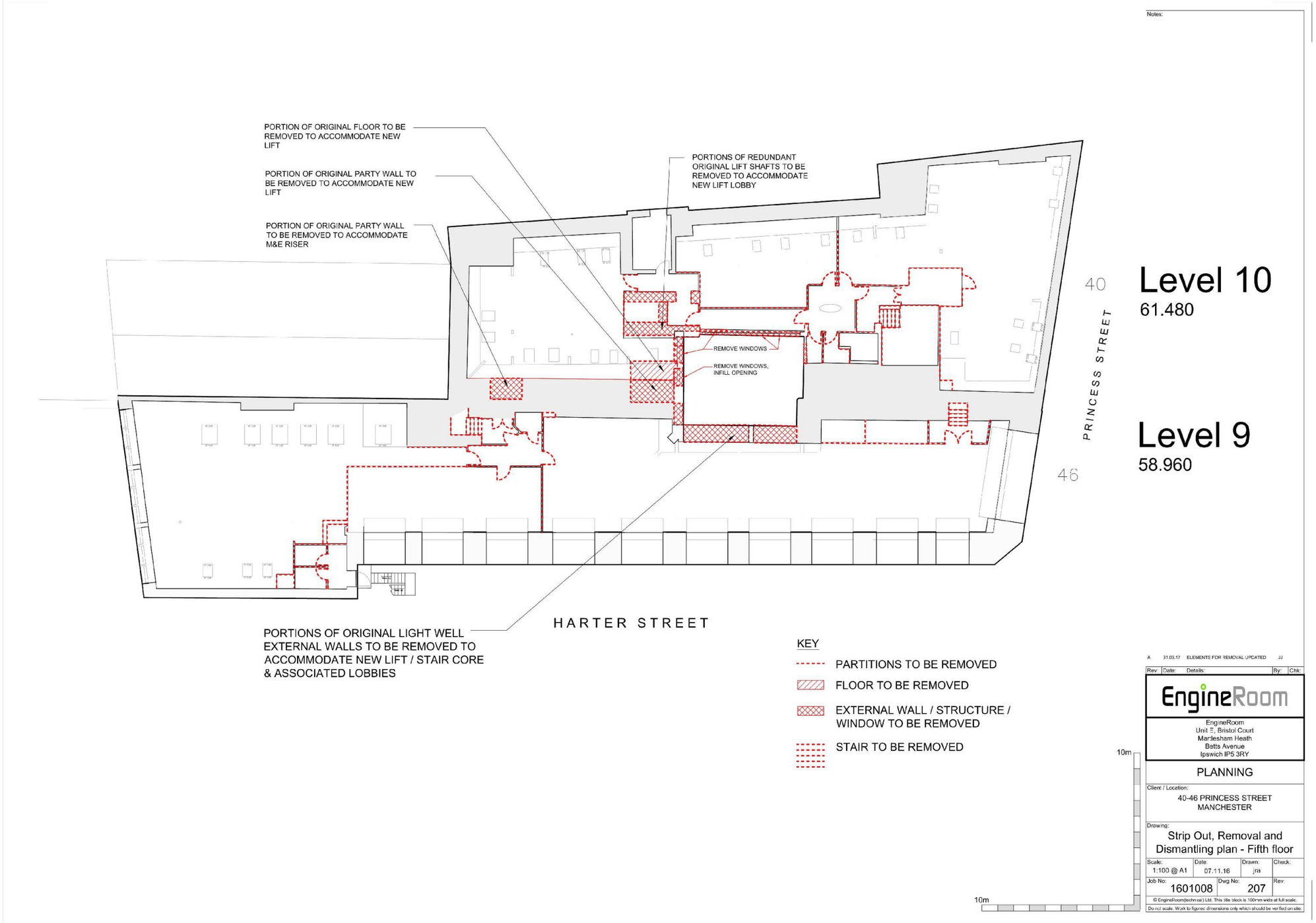
APPENDIX B- STRIP OUT, REMOVAL AND DISMANTLING **PLANS** & ELEVATIONS



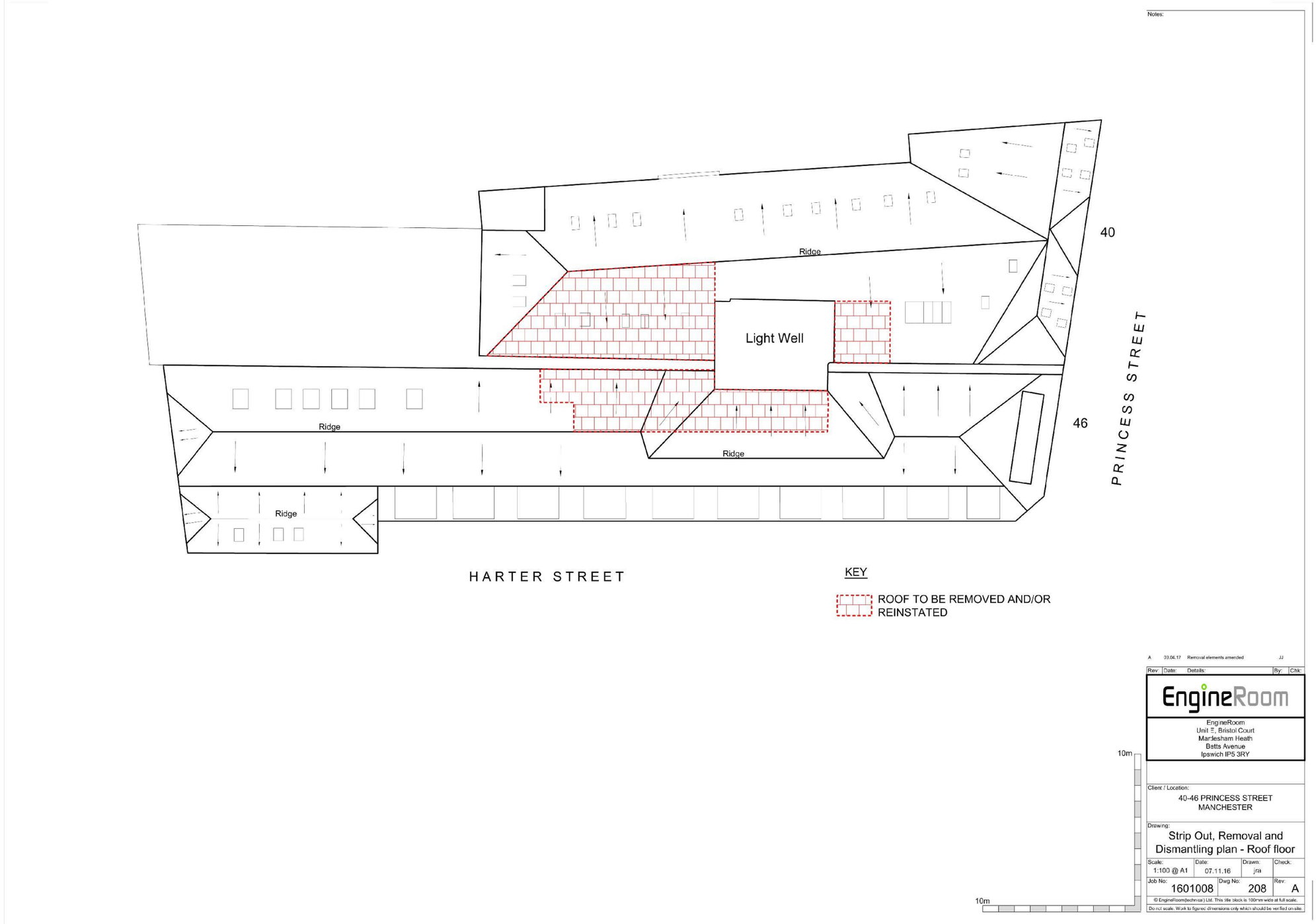
APPENDIX B- STRIP OUT, REMOVAL AND DISMANTLING **PLANS** & ELEVATIONS



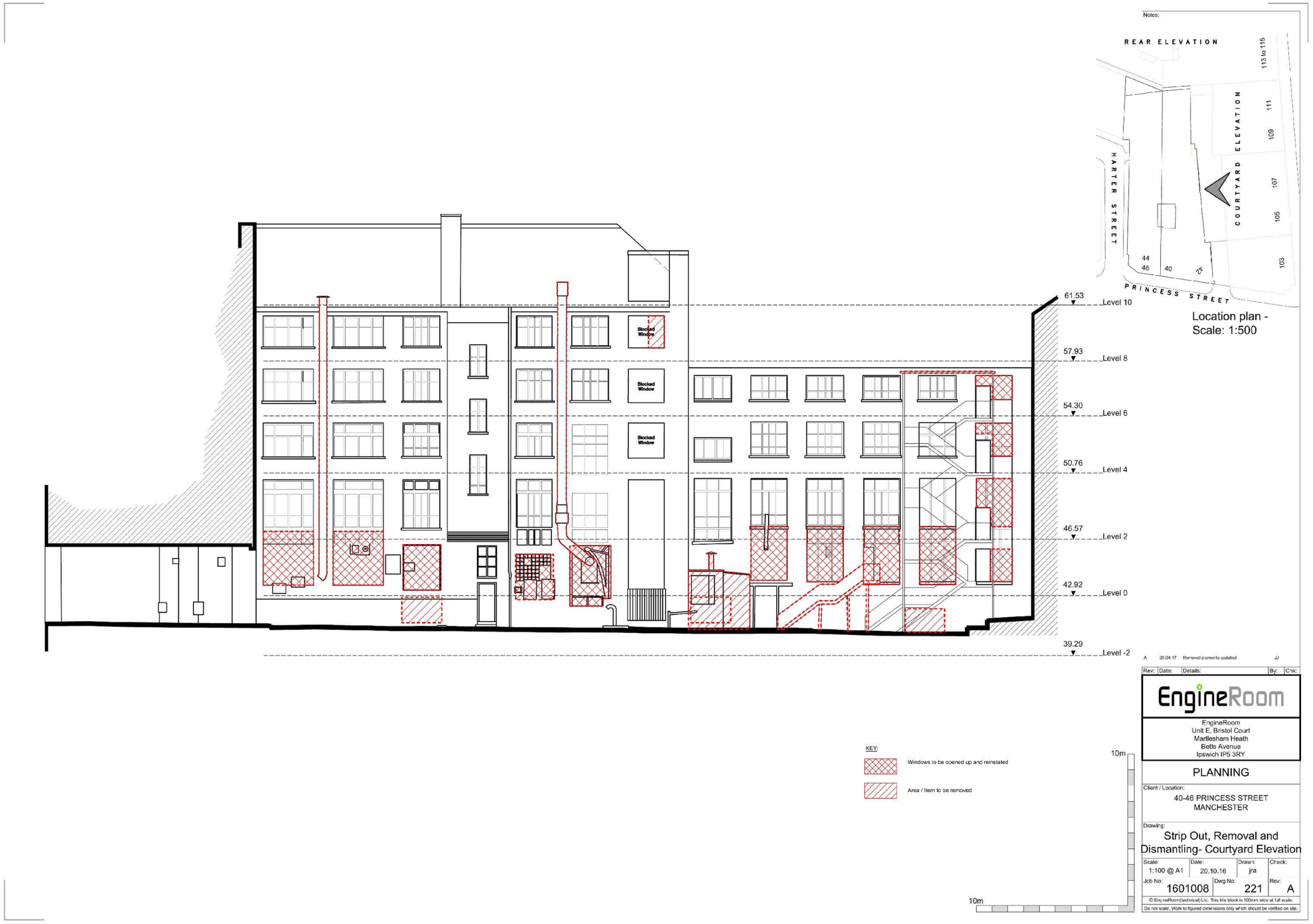
APPENDIX B- STRIP OUT, REMOVAL AND DISMANTLING **PLANS** & ELEVATIONS



APPENDIX B- STRIP OUT, REMOVAL AND DISMANTLING **PLANS** & ELEVATIONS



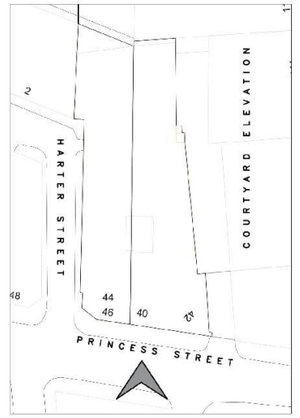
APPENDIX B- STRIP OUT, REMOVAL AND DISMANTLING PLANS & **ELEVATIONS**



APPENDIX B- STRIP OUT, REMOVAL AND DISMANTLING PLANS & **ELEVATIONS**

Notes:





Location plan - Scale: 1:500

KEY:

Windows to be opened up and reinstated

Area to be removed and/or reinstated

Existing stairs removed / reconfigured

Rev:	Data:	Details:	By:	Chk:

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10m

PLANNING

Client / Location:
40-46 PRINCESS STREET
MANCHESTER

Drawing:
Strip Out, Removal and Dismantling
Princess Street Elevation

Scale:	Date:	Drawn:	Check:
1:100@ A1	20.10.16	jra	

Job No:	Dwg No:	Rev:
1601008	222	

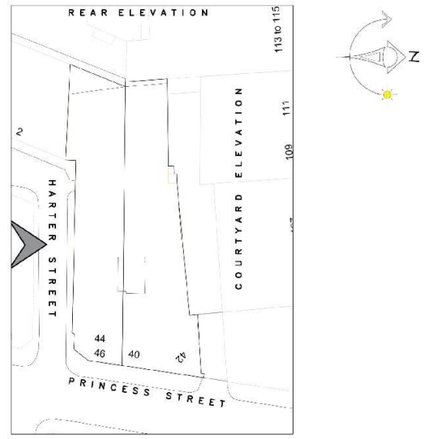
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10m

APPENDIX B- STRIP OUT, REMOVAL AND DISMANTLING PLANS & **ELEVATIONS**



Notes:



Location plan - Scale: 1:500

KEY:

Windows/ Doors to be opened up and reinstated

Element to be removed

10m

10m

Rev:	Date:	Details:	By:	Chk:

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PLANNING

Client / Location:
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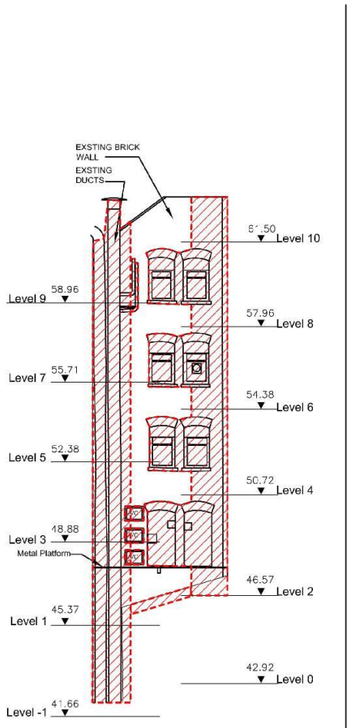
Drawing:
Strip Out, Removal and Dismantling
Harter Street Elevation

Scale:	Date:	Drawn:	Check:
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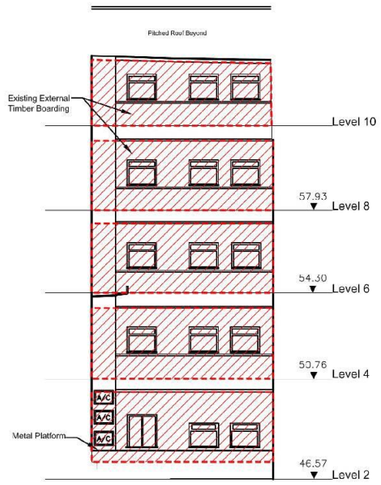
Job No:	Dwg No:	Rev:
1601008	223	

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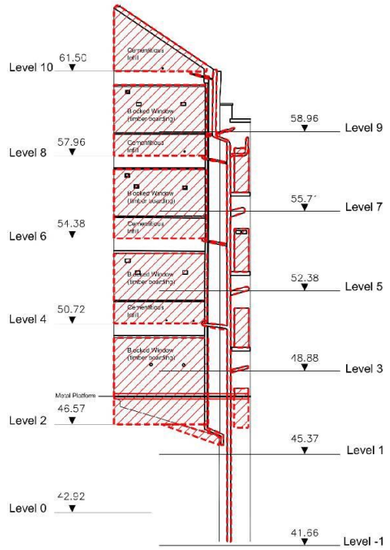
APPENDIX B- STRIP OUT, REMOVAL AND DISMANTLING PLANS & **ELEVATIONS**



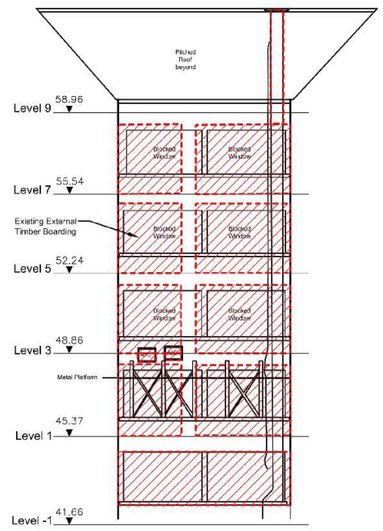
ELEVATION 1



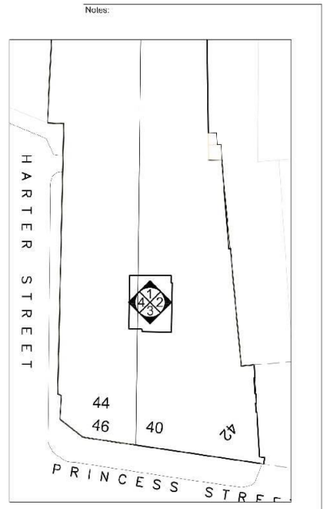
ELEVATION 2



ELEVATION 3



ELEVATION 4



KEY:

Area / Item to be removed

10m

10m

Rev:	Date:	Details:	By:	Chkr:
A	20.04.17	Removal Items Updated	JJ	

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PLANNING

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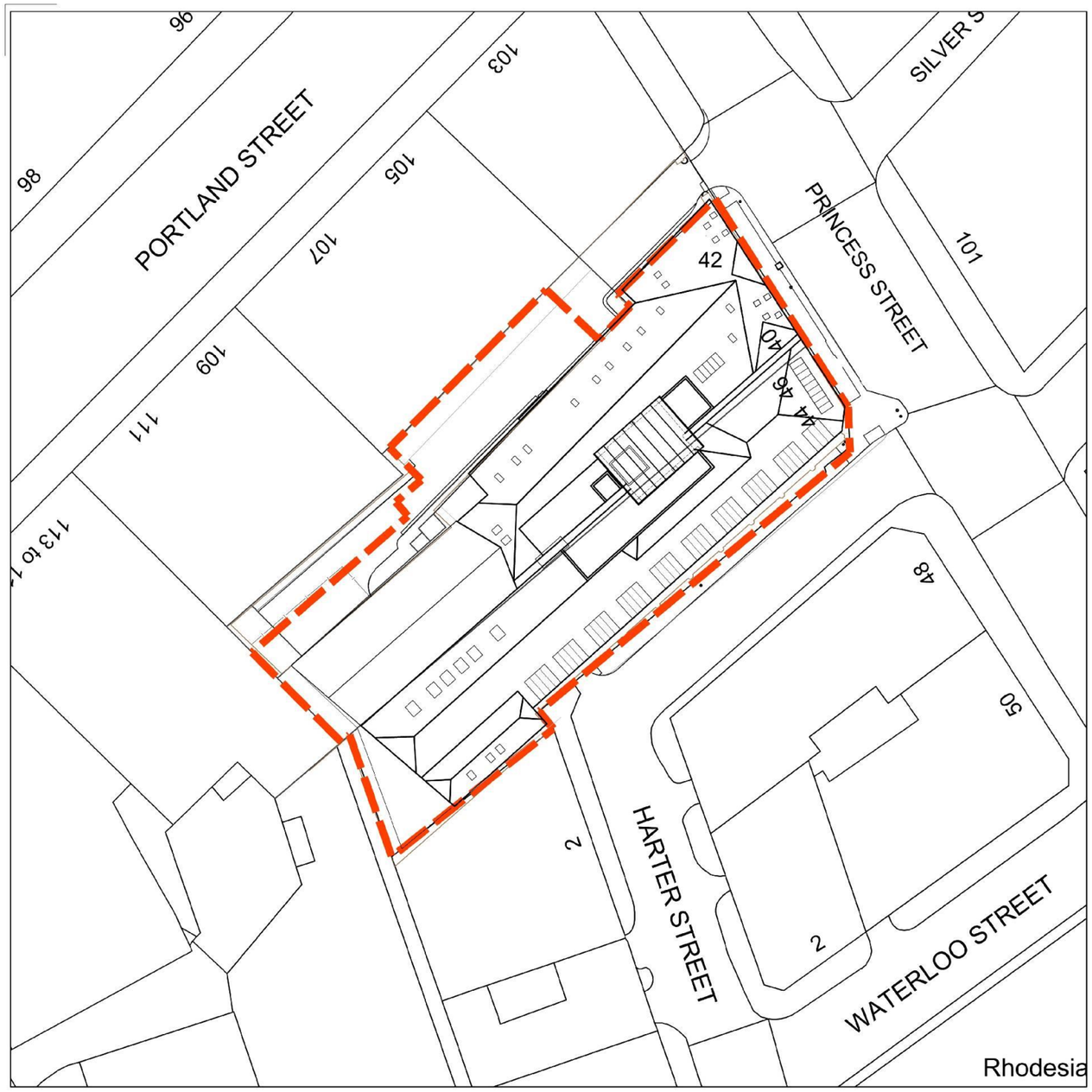
Drawing:
Strip Out, Removal and Dismantling Elevations at Light Well

Scale:	Date:	Drawn:	Check:
1:100 @ A1	20.10.16	jra	

Job No:	Dwg No:	Rev:
1601008	225	A

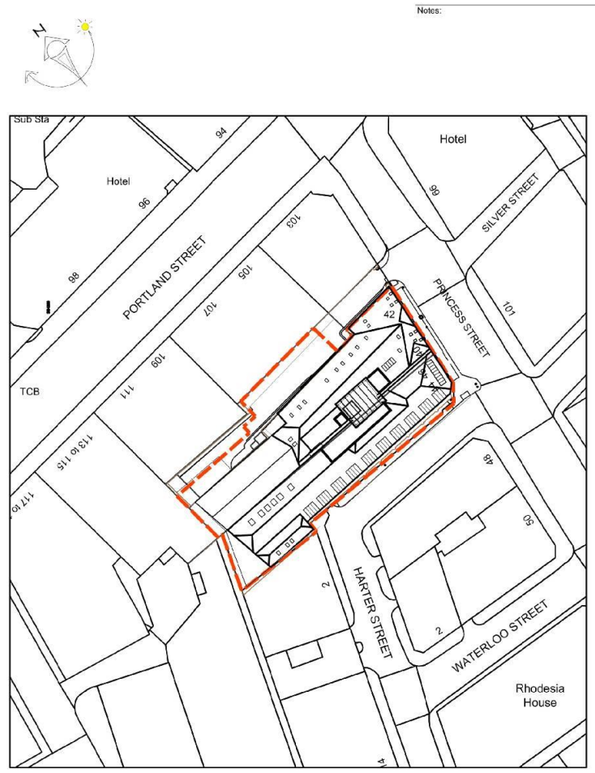
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APPENDIX C- PROPOSED **GA PLAN**



Proposed Site Plan

1:200 @ A1



Proposed Location Plan

1:500 @ A1

Rev:	Date:	Details:	By:	Chk:

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PLANNING

Client / Location:
40-46 PRINCESS STREET
MANCHESTER

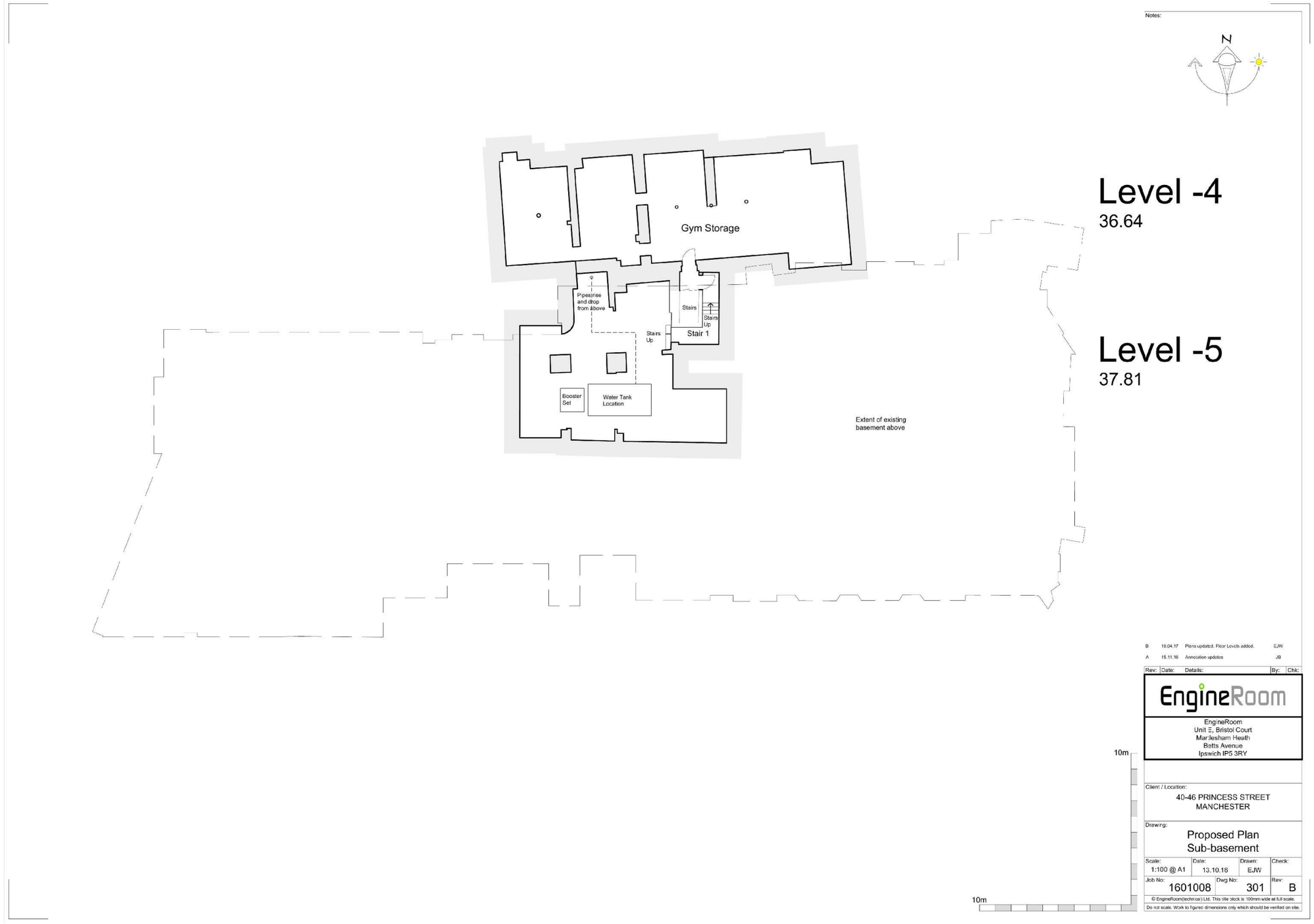
Drawing:
Proposed Location and Site Plan

Scale:	Date:	Drawn:	Check:
As Shown	18.04.17	JJ	

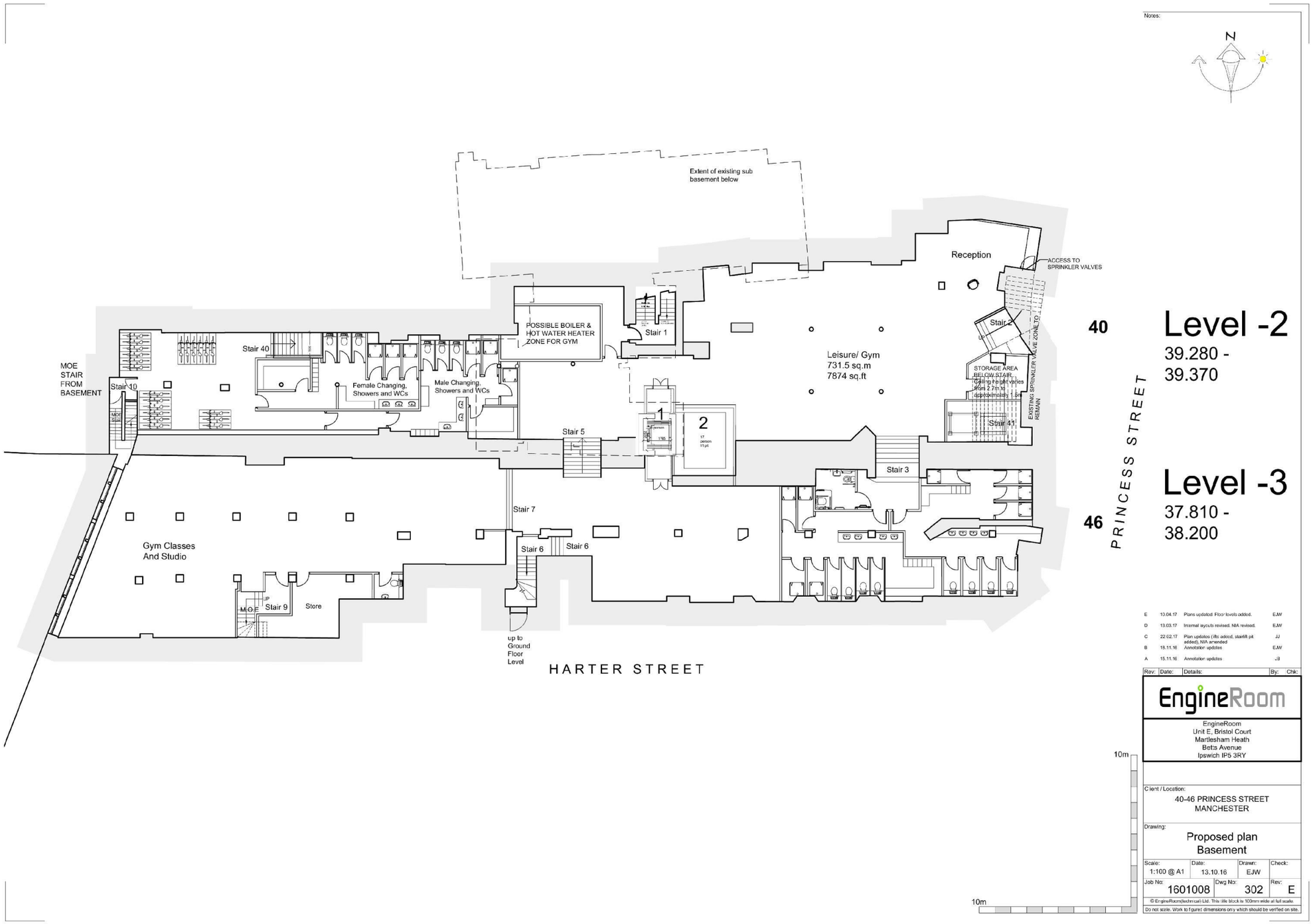
Job No:	Dwg No:	Rev:
1601008	300	

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APPENDIX C- PROPOSED **GA PLANS**



APPENDIX C- PROPOSED **GA PLANS**



Rev:	Date:	Details:	By:	Chk:
E	13.04.17	Plans updated. Floor levels added.	EJW	
D	13.03.17	Internal layouts revised. NIA revised.	EJW	
C	22.02.17	Plan updates (lifts added, stairlift pit added), NIA amended	JJ	
B	18.11.16	Annotation updates	EJW	
A	15.11.16	Annotation updates	JJ	

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Unit E, Bristol Court
Martlesham Heath
Betts Avenue
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Client / Location:
40-46 PRINCESS STREET
MANCHESTER

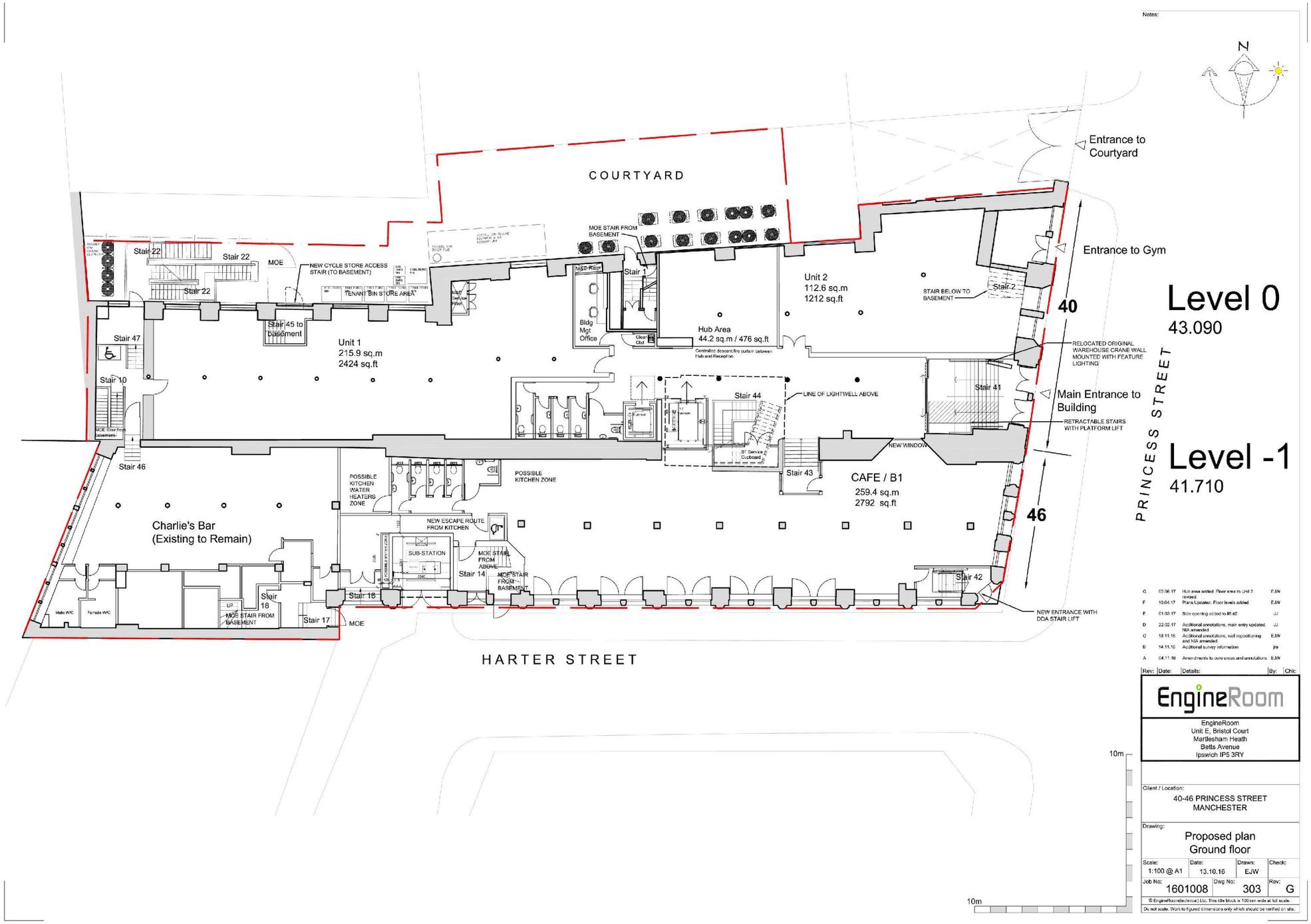
Drawing:
Proposed plan
Basement

Scale:	Date:	Drawn:	Check:
1:100 @ A1	13.10.16	EJW	

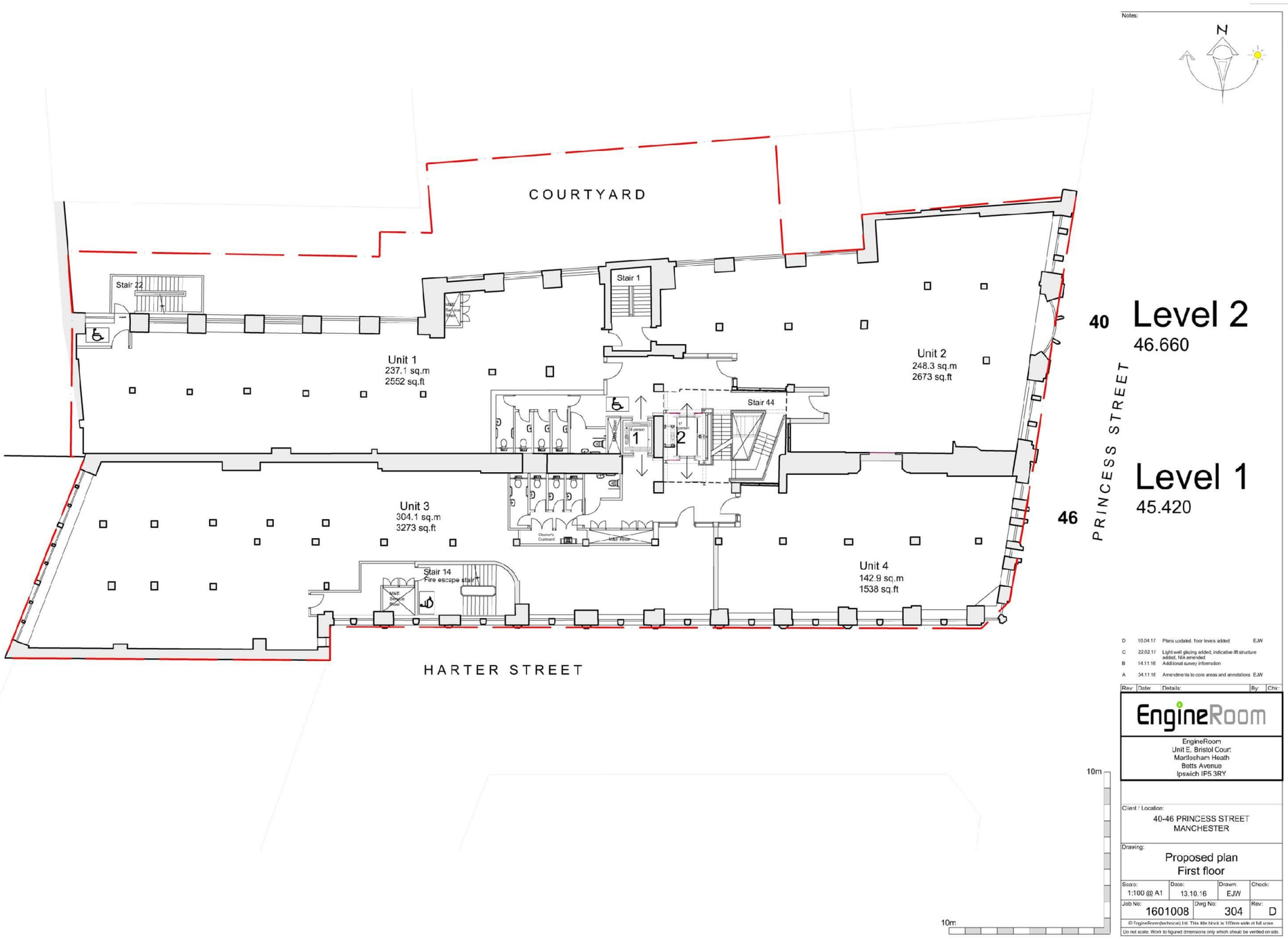
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1601008	302	E

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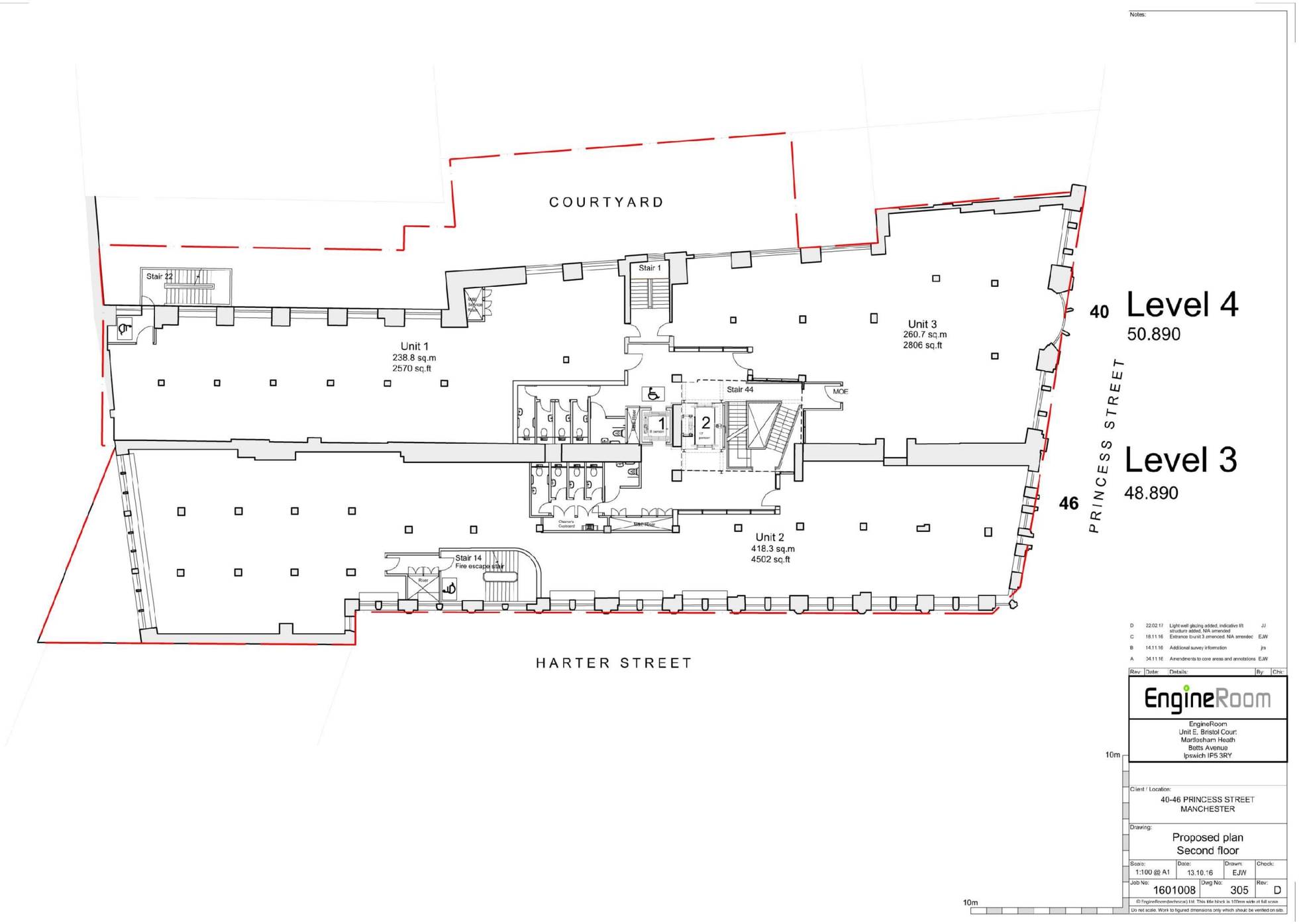
APPENDIX C- PROPOSED **GA PLANS**



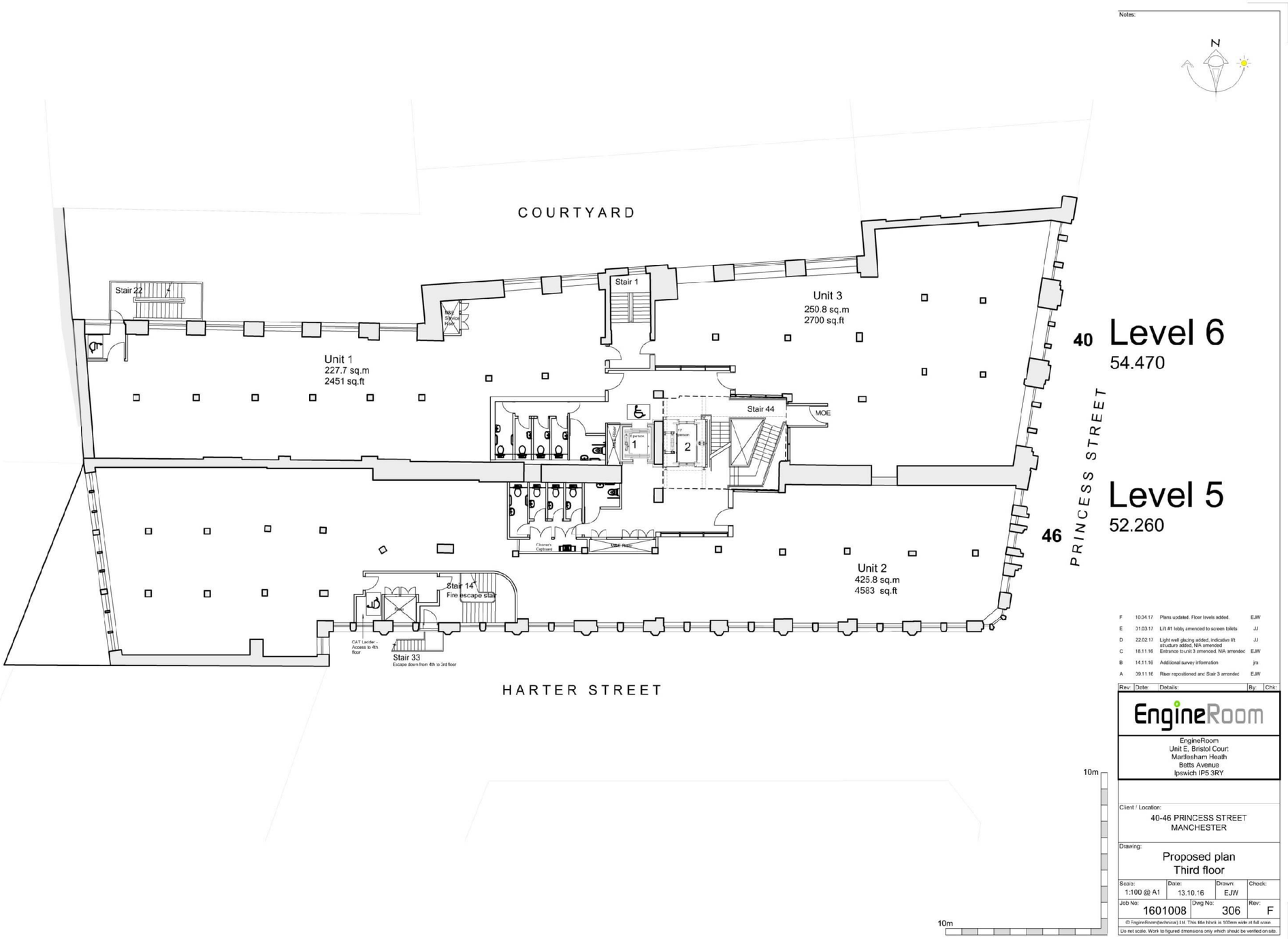
APPENDIX C- PROPOSED **GA PLANS**



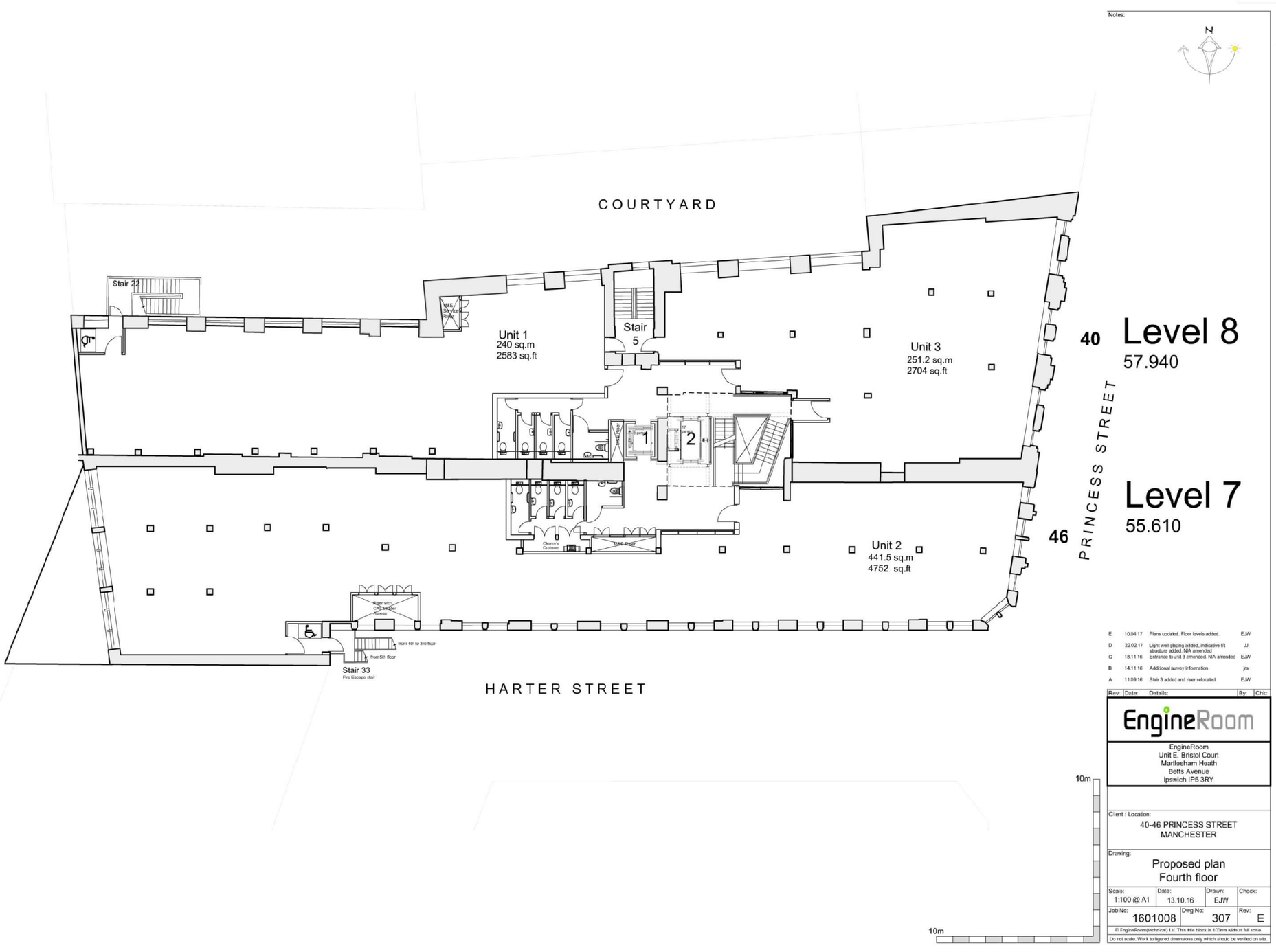
APPENDIX C- PROPOSED **GA PLANS**



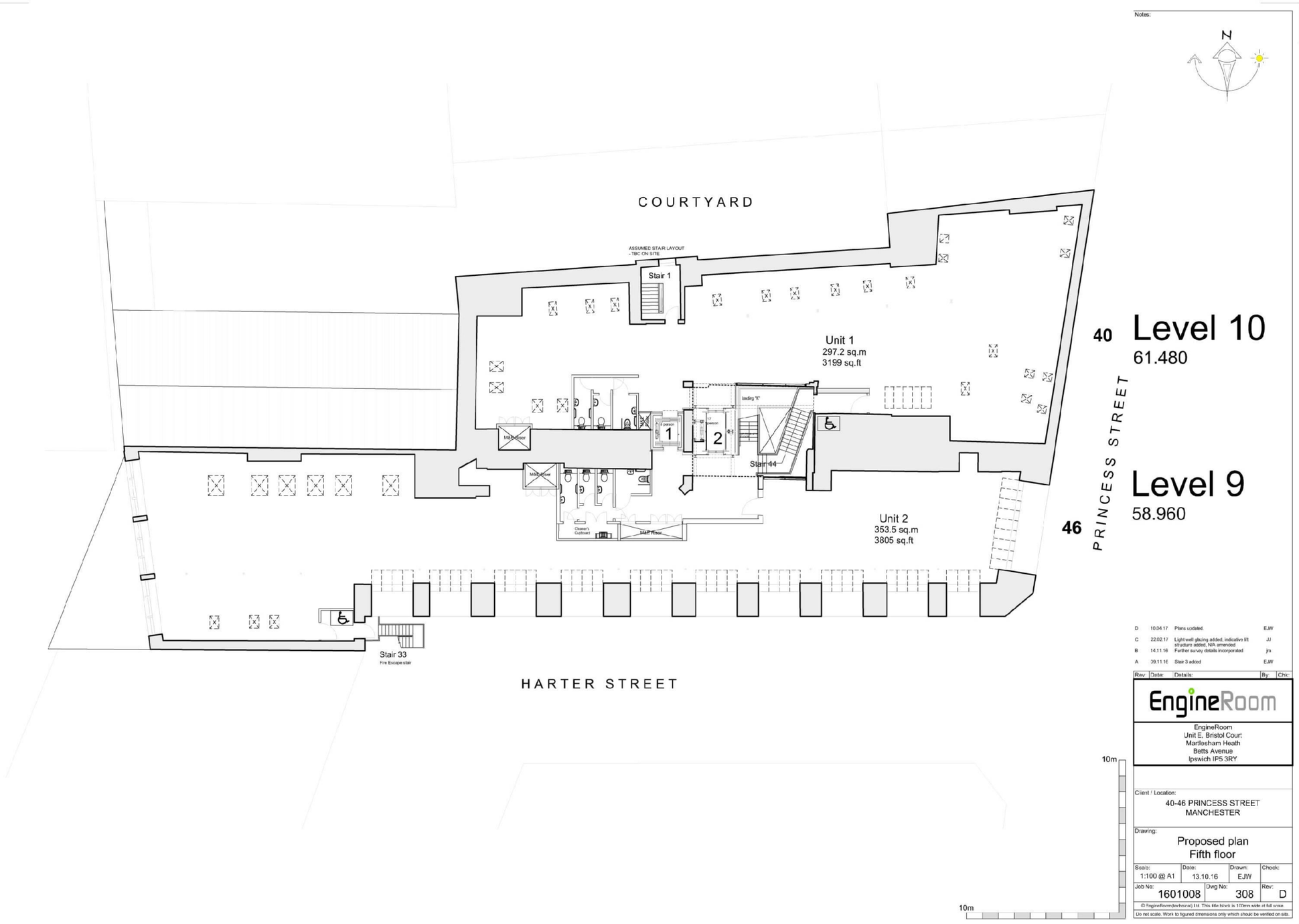
APPENDIX C- PROPOSED **GA PLANS**



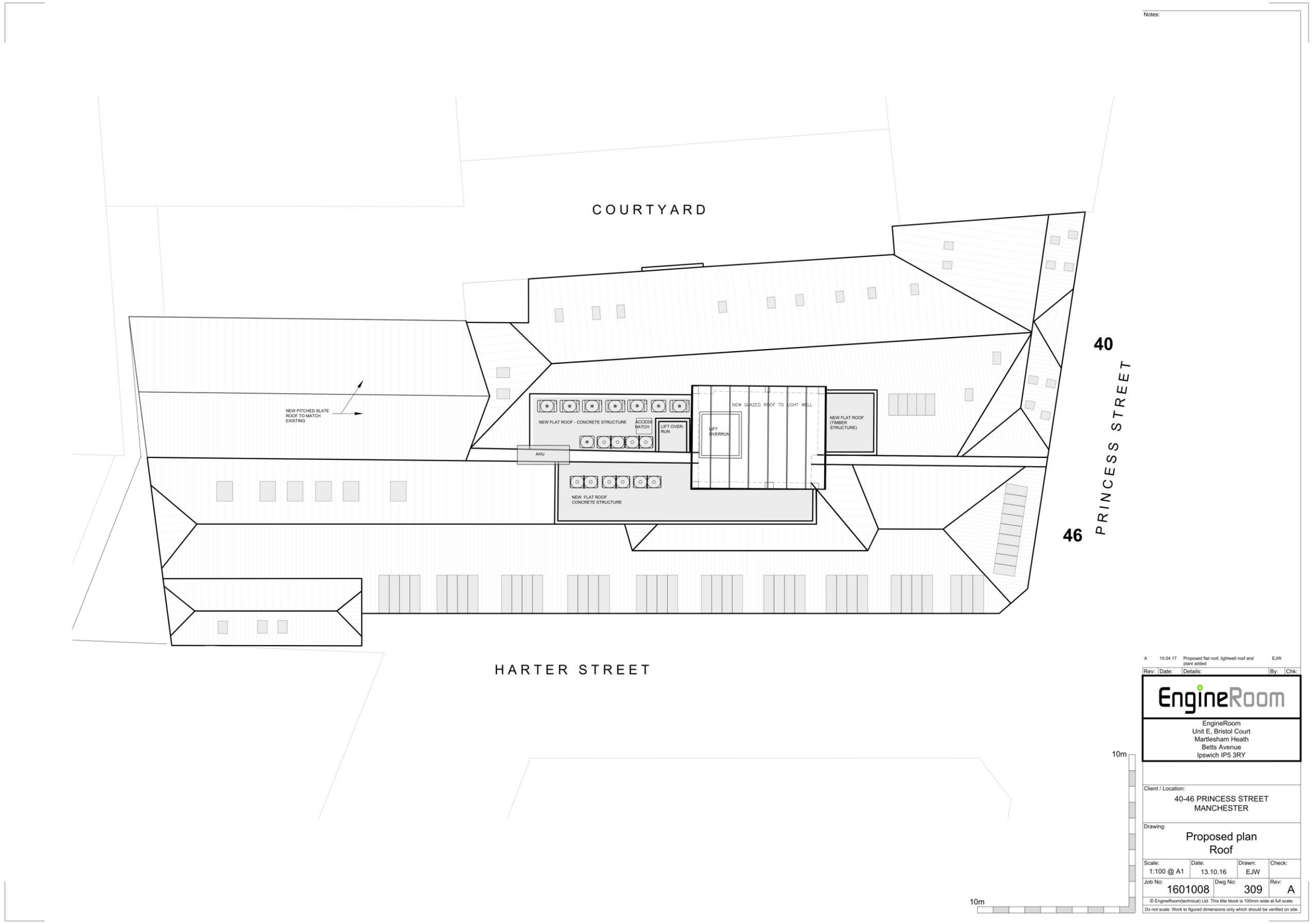
APPENDIX C- PROPOSED **GA PLANS**



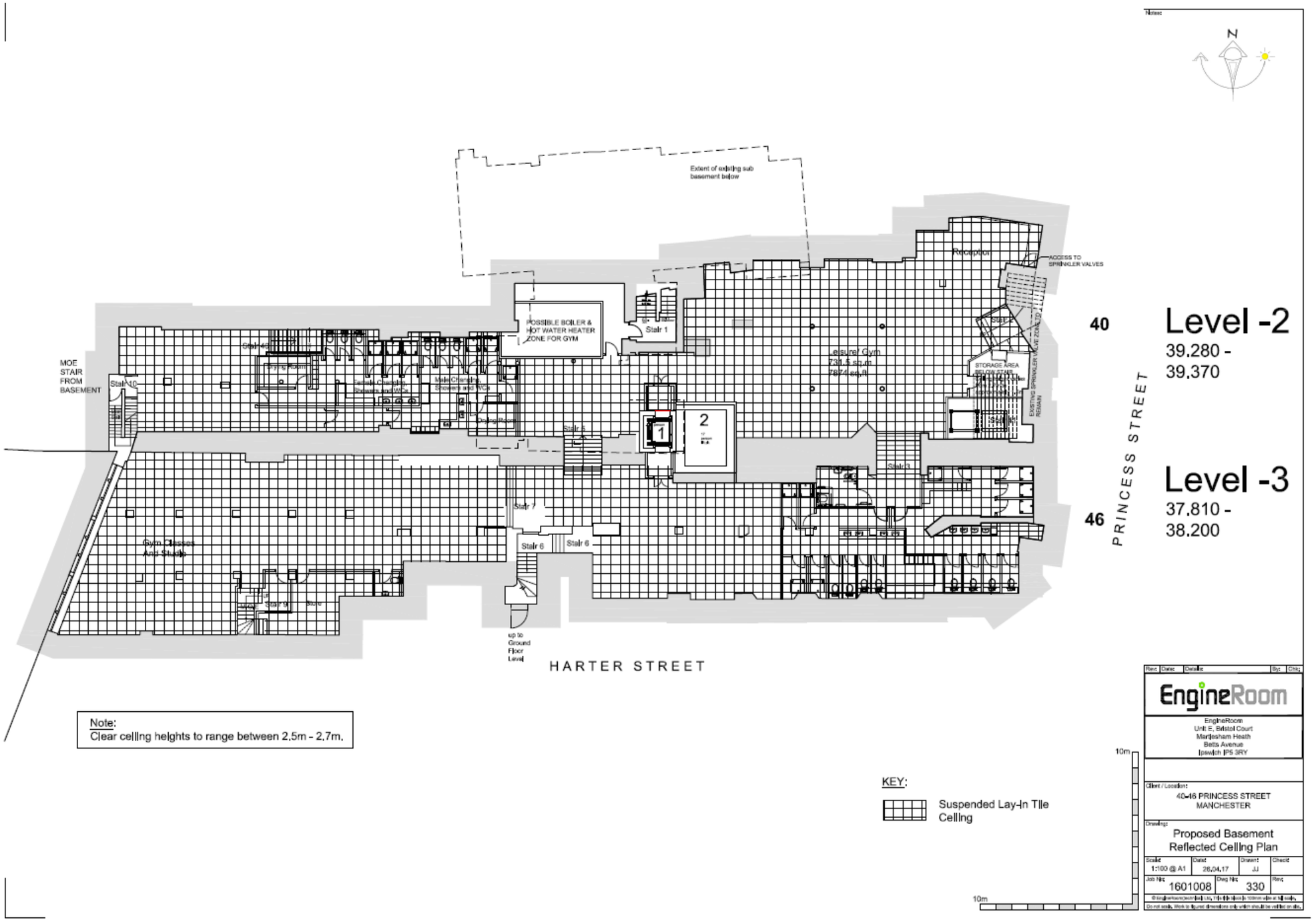
APPENDIX C- PROPOSED **GA PLANS**



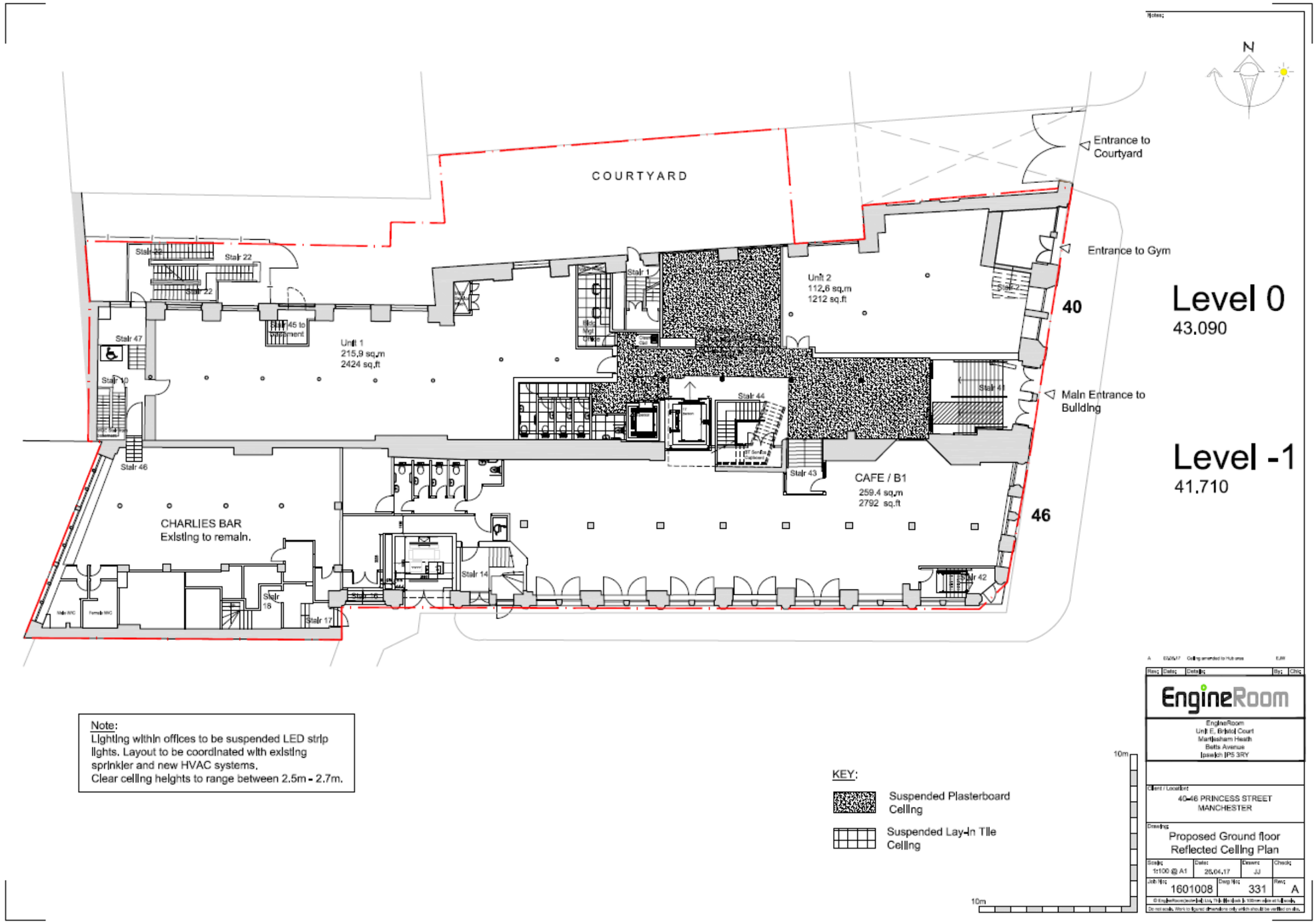
APPENDIX C- PROPOSED **GA PLANS**



APPENDIX C- PROPOSED **GA PLANS – RCPS**



APPENDIX C- PROPOSED **GA PLANS – RCPS**



Note:
Lighting within offices to be suspended LED strip lights. Layout to be coordinated with existing sprinkler and new HVAC systems.
Clear ceiling heights to range between 2.5m - 2.7m.

KEY:

Suspended Plasterboard Ceiling

Suspended Lay-In Tile Ceiling

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Betts Avenue
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Client / Location:
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Drawing:
Proposed Ground floor
Reflected Ceiling Plan

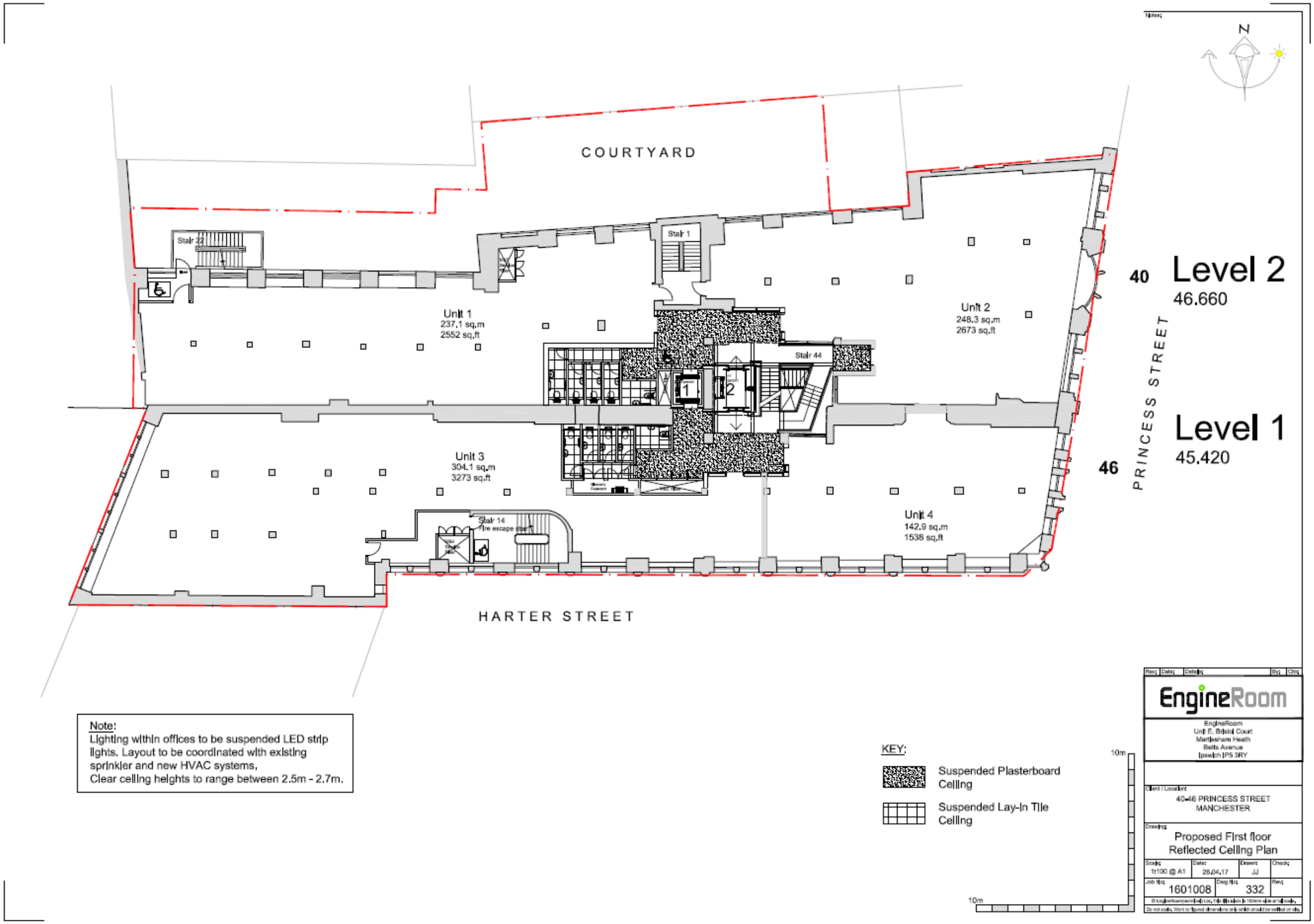
Scale:	Date:	Drawn:	Check:
1:100 @ A1	25.04.17	JJ	

Job No:	Dwg No:	Rev:
1601008	331	A

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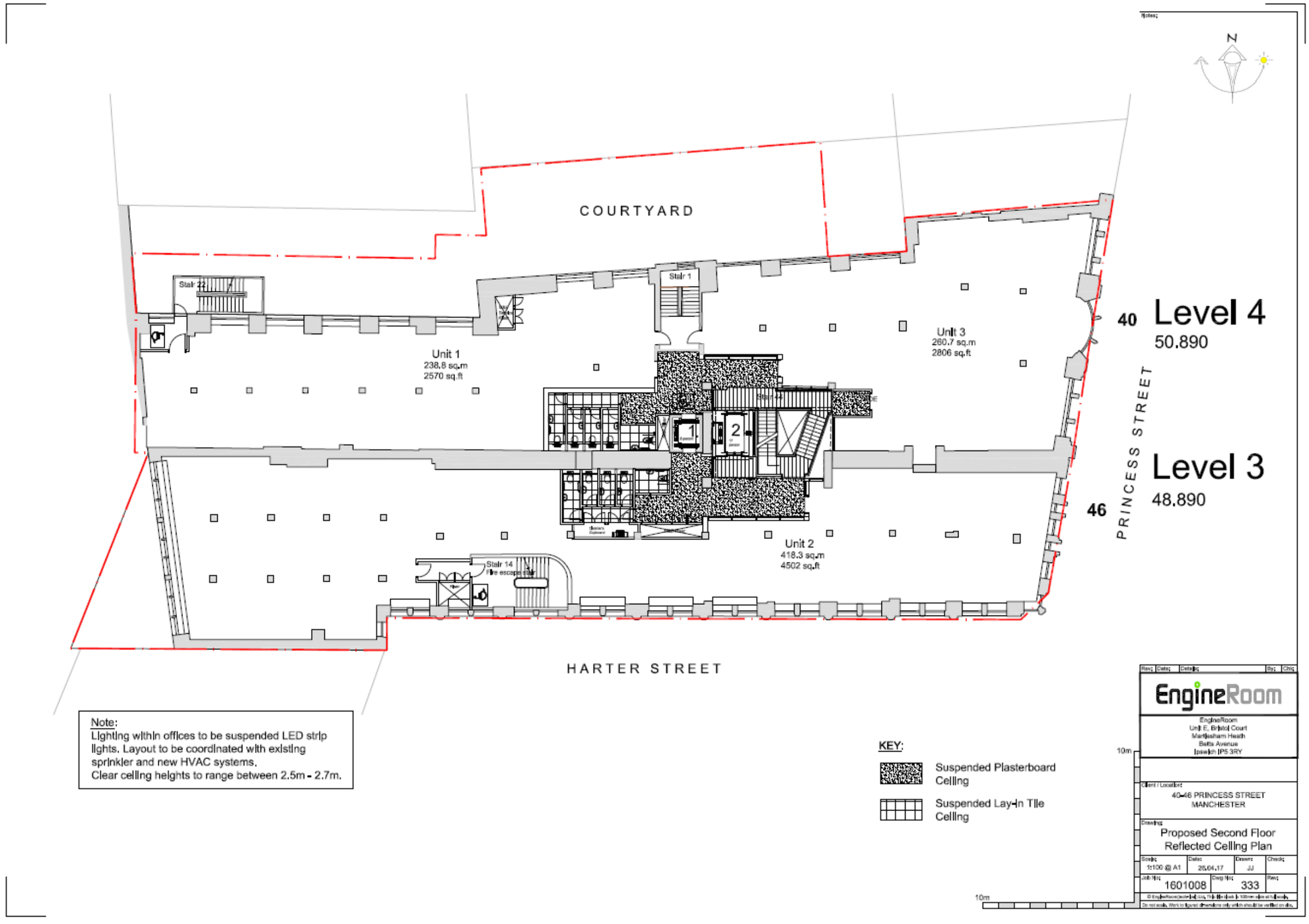
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APPENDIX C- PROPOSED **GA PLANS – RCPS**

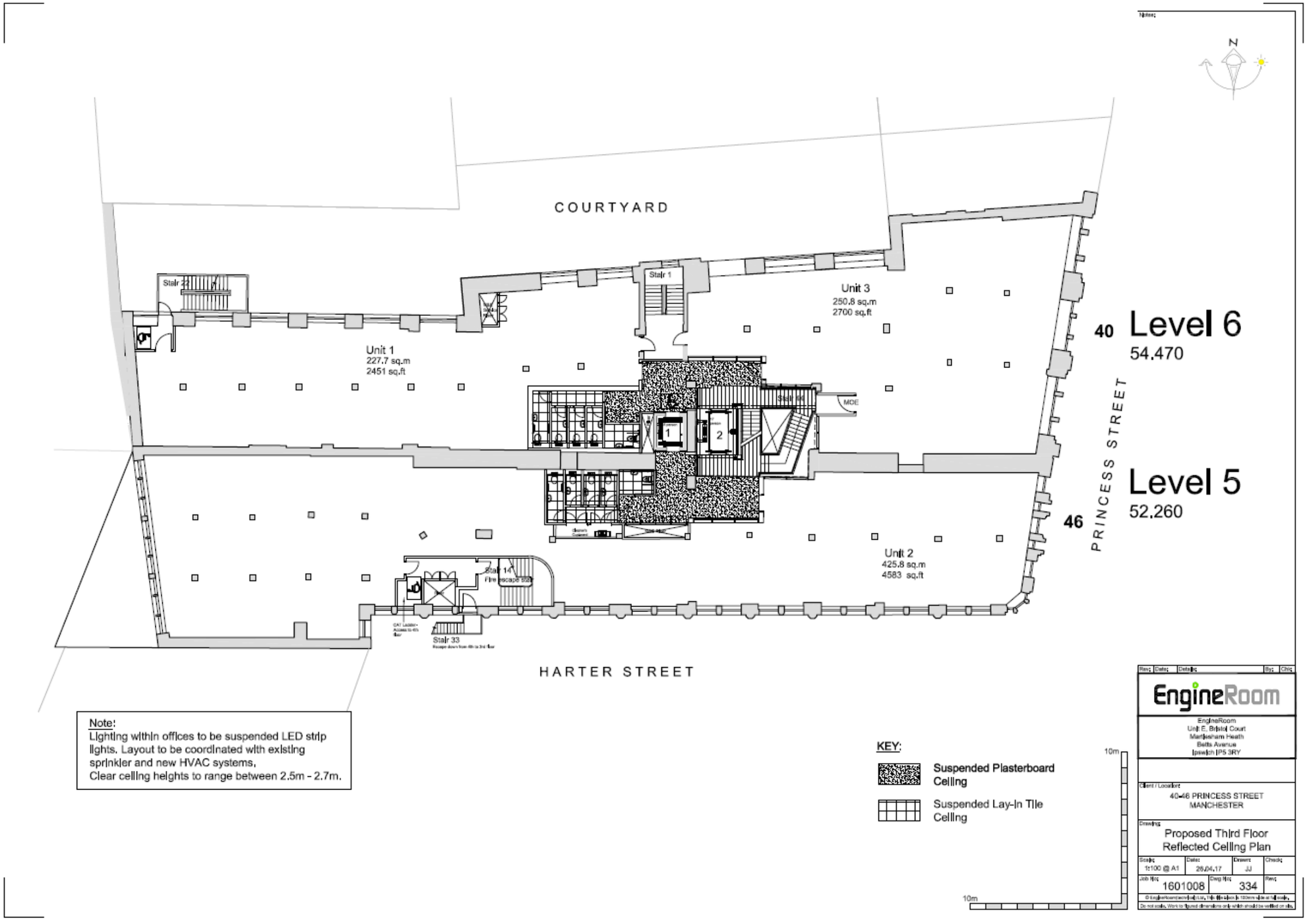


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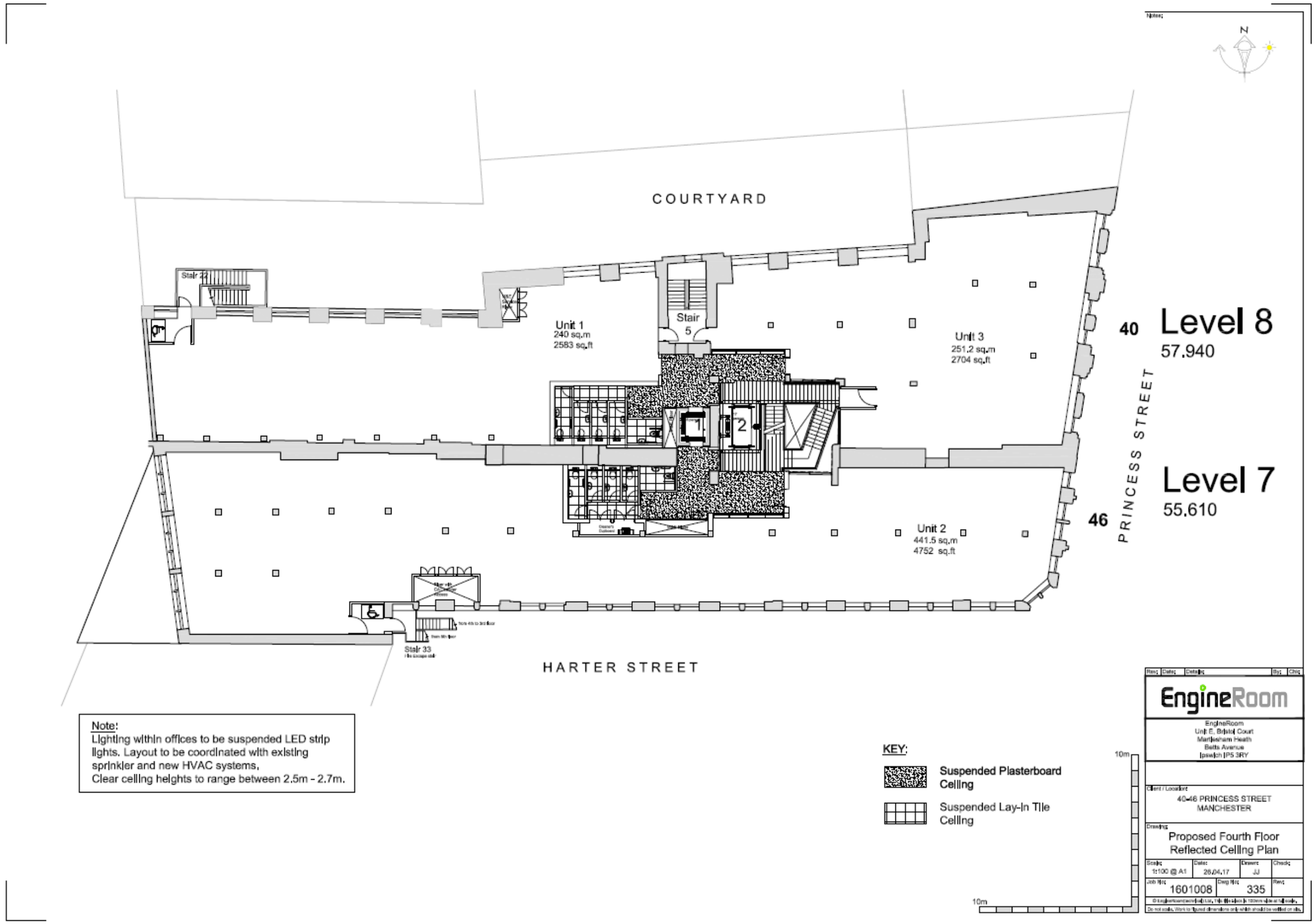
APPENDIX C- PROPOSED **GA PLANS – RCPS**



APPENDIX C- PROPOSED GA PLANS – RCPS

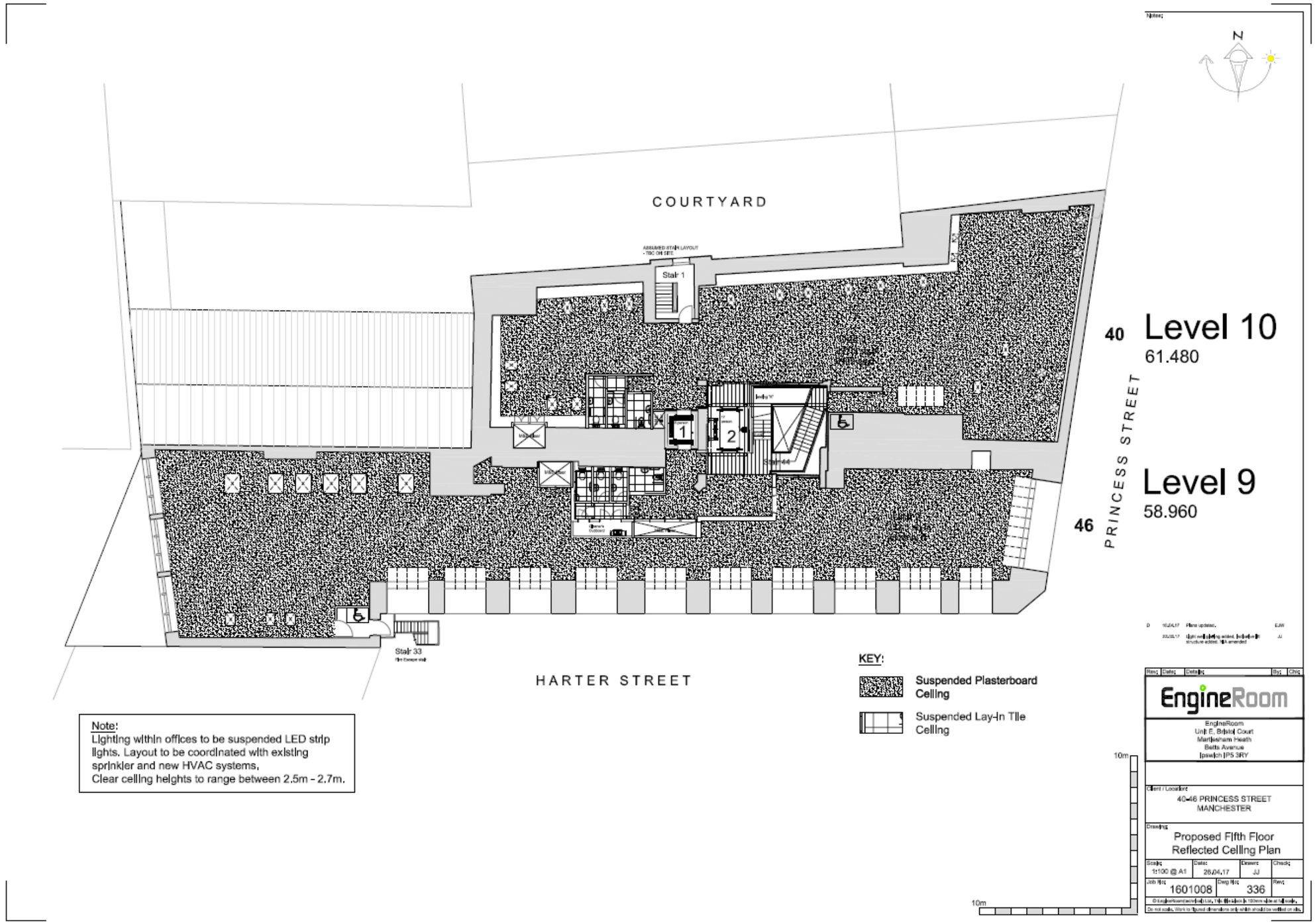


APPENDIX C- PROPOSED **GA PLANS – RCPS**

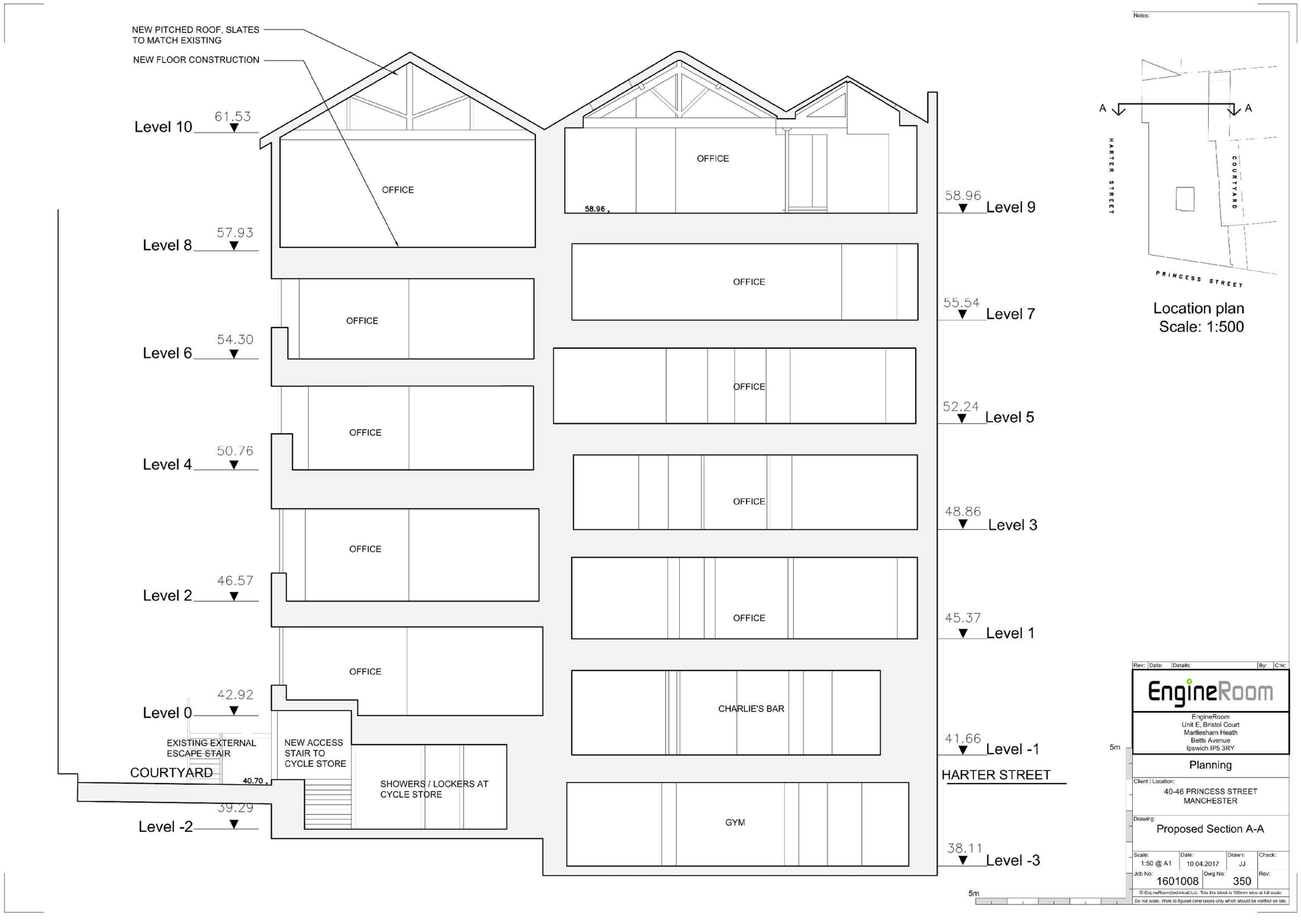


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APPENDIX C- PROPOSED **GA PLANS – RCPS**



APPENDIX D- PROPOSED **SECTIONS**



Location plan
Scale: 1:500

Rev: | Date: | Details: | By: | Chk:

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Unit E, Bristol Court
Martlesham Heath
Betts Avenue
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Planning

Client / Location:
40-46 PRINCESS STREET
MANCHESTER

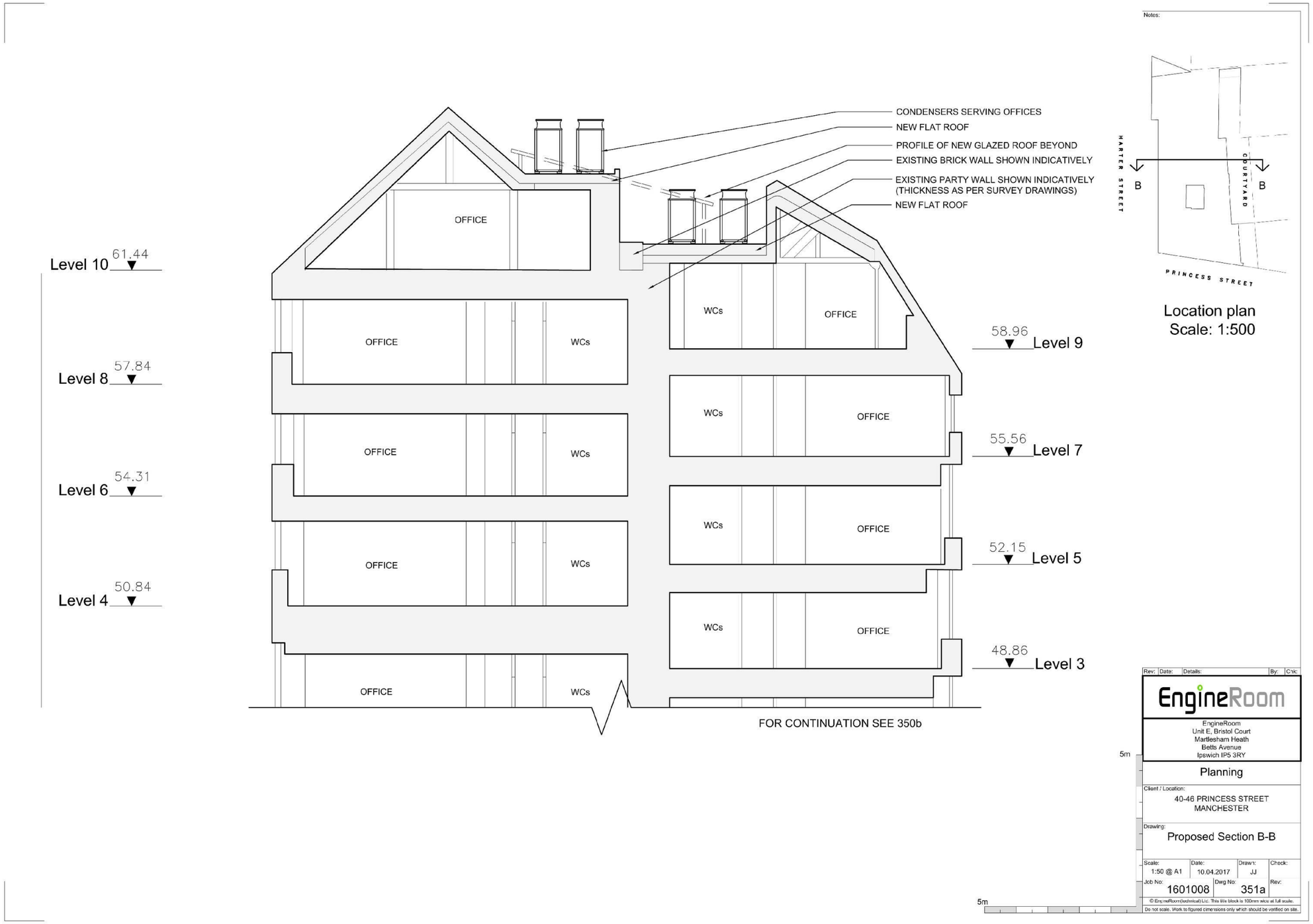
Drawing:
Proposed Section A-A

Scale:	Date:	Drawn:	Check:
1:50 @ A1	10.04.2017	JJ	

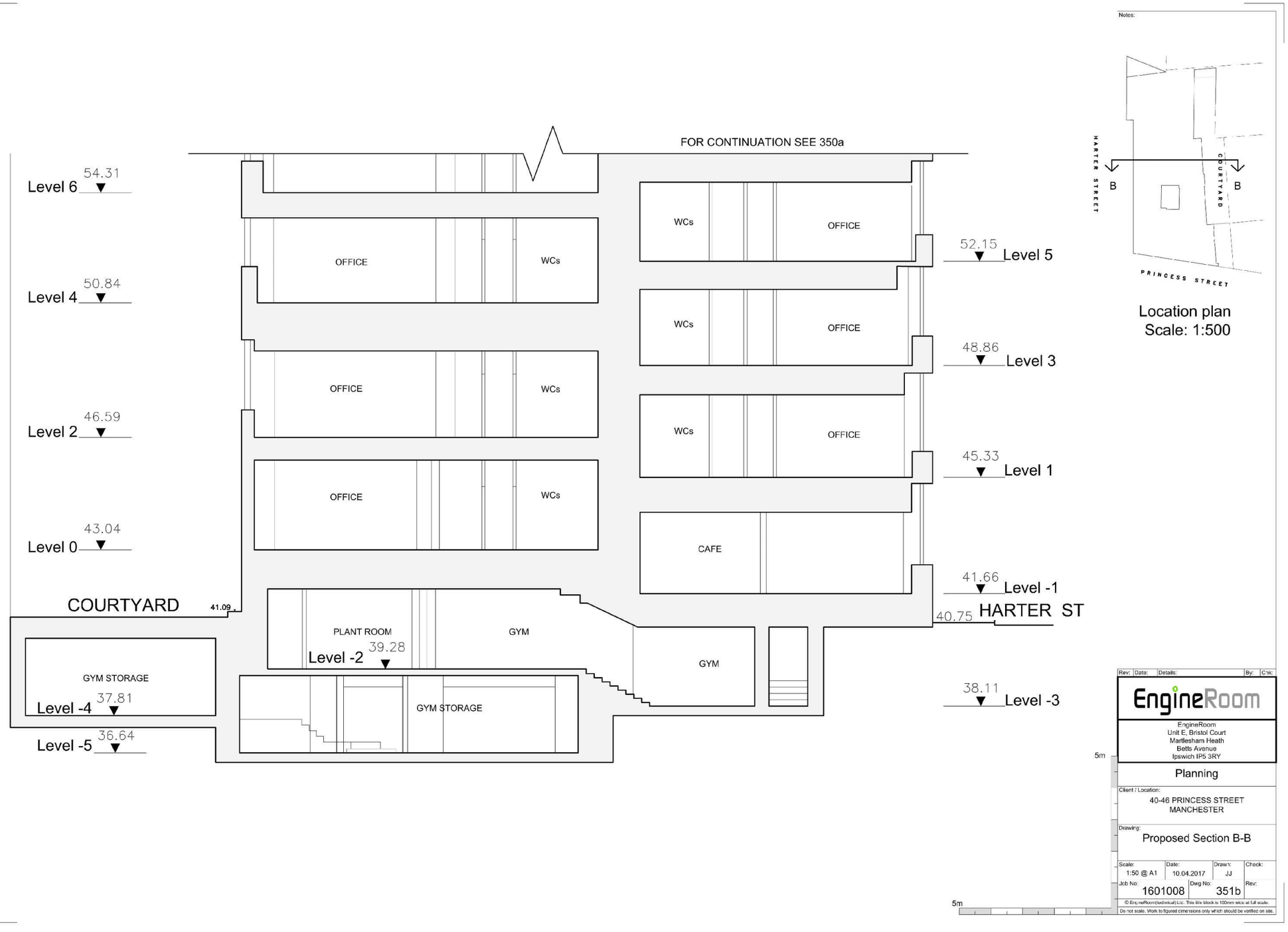
Job No:	Dwg No:	Rev:
1601008	350	

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APPENDIX D- PROPOSED **SECTIONS**



APPENDIX D- PROPOSED **SECTIONS**



Location plan
Scale: 1:500

Rev:	Date:	Details:	By:	Chk:

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40-46 PRINCESS STREET
MANCHESTER

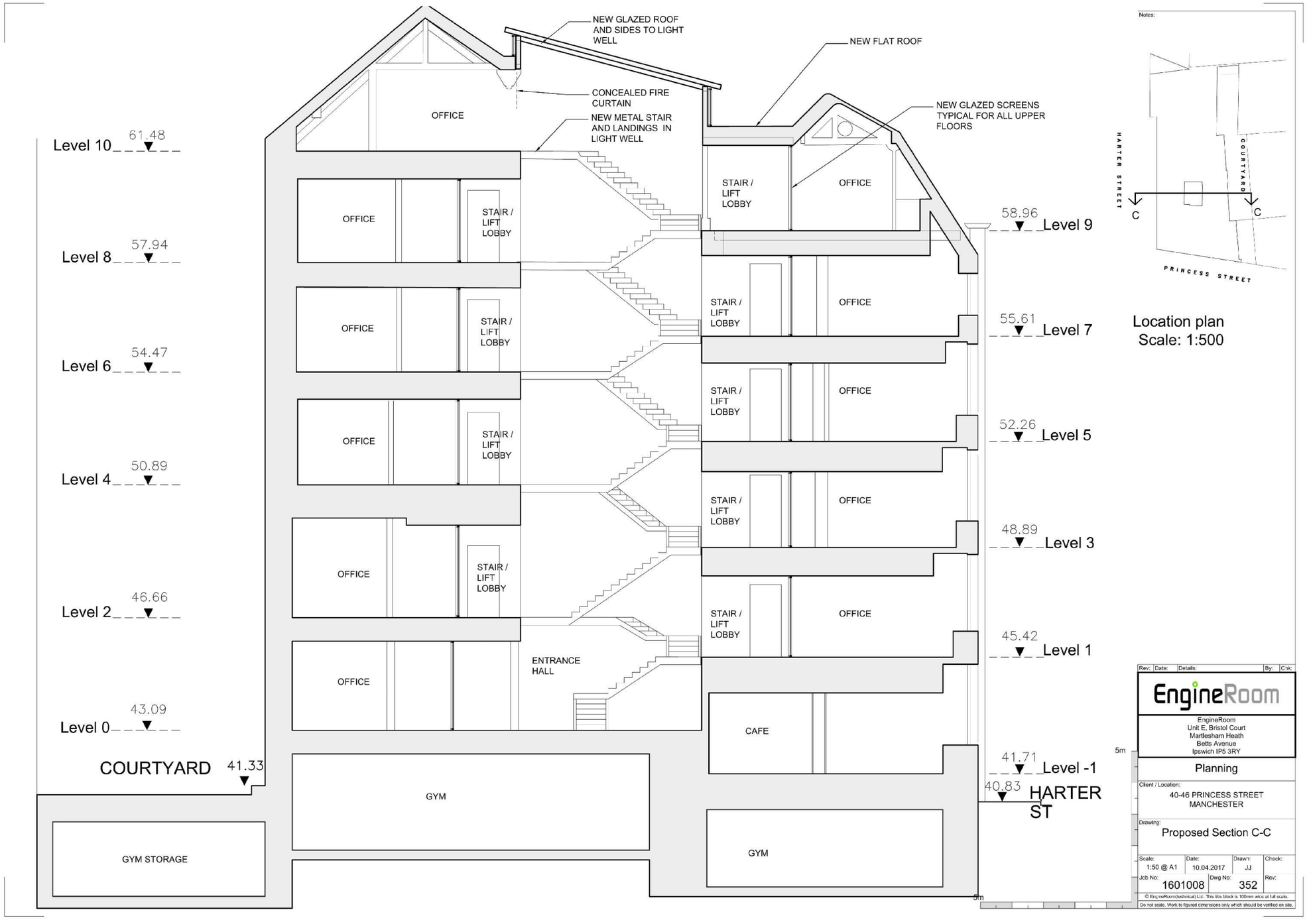
Drawing:
Proposed Section B-B

Scale:	Date:	Drawn:	Check:
1:50 @ A1	10.04.2017	JJ	

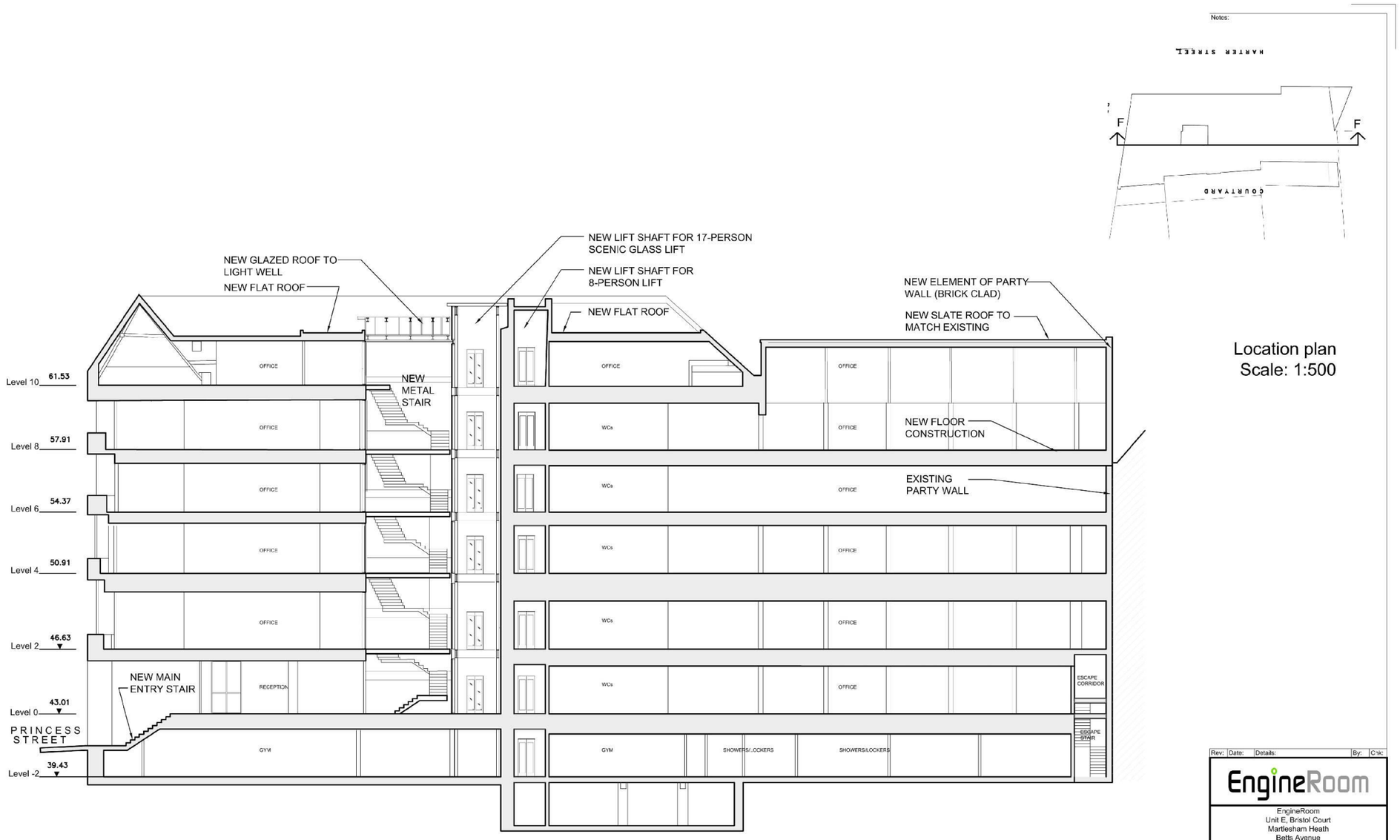
Job No: 1601008 Dwg No: 351b Rev:

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APPENDIX D- PROPOSED **SECTIONS**



APPENDIX D- PROPOSED **SECTIONS**



Location plan
Scale: 1:500

Rev:	Date:	Details:	By:	Chk:

EngineRoom

EngineRoom
Unit E, Bristol Court
Martlesham Heath
Betts Avenue
Ipswich IP5 3RY

Planning

Client / Location:
40-46 PRINCESS STREET
MANCHESTER

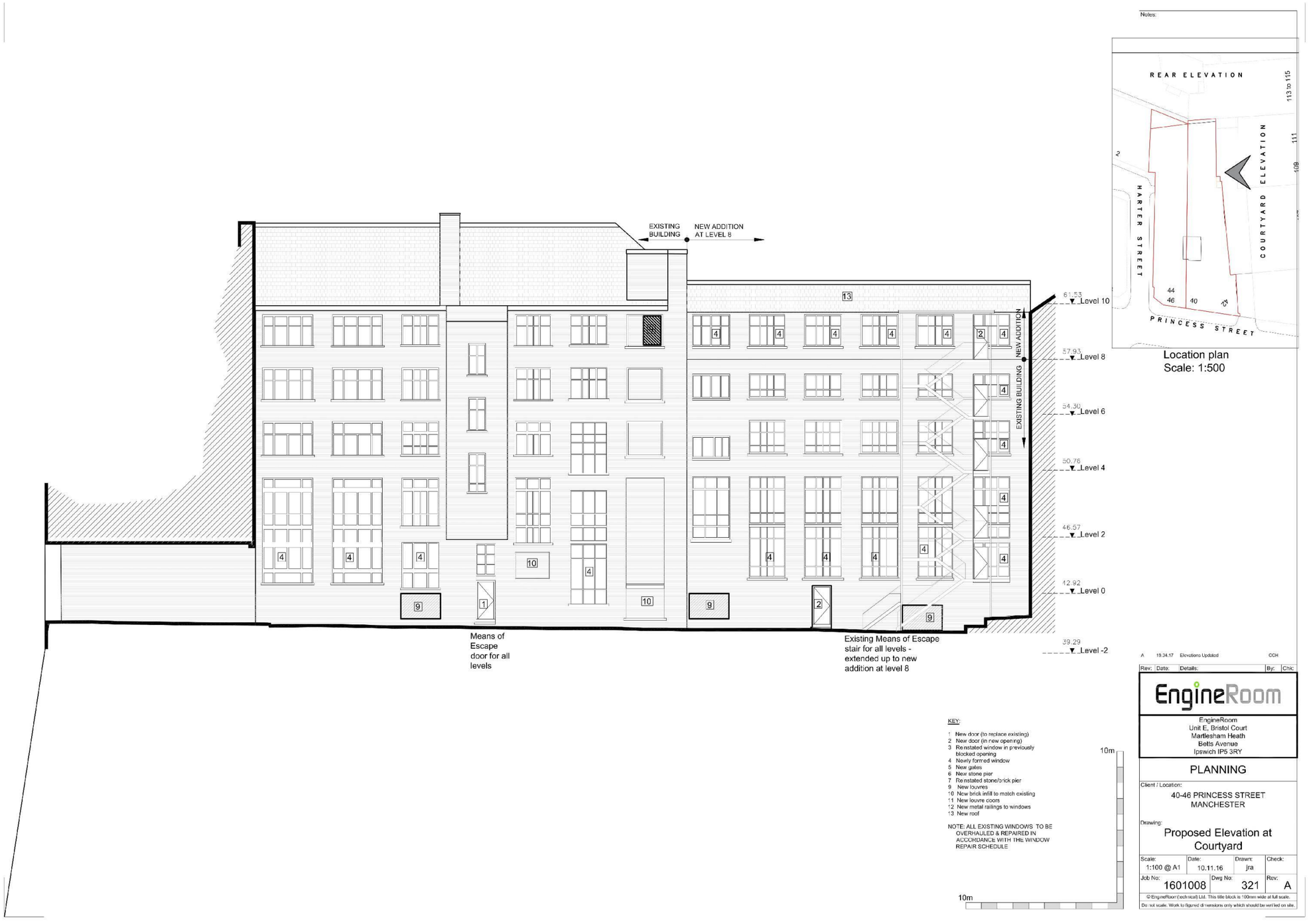
Drawing:
Proposed Section F-F

Scale:	Date:	Drawn:	Check:
1:100 @ A1	10.04.2017	JJ	

Job No:	Dwg No:	Rev:
1601008	354	

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APPENDIX E- PROPOSED **ELEVATIONS**



Notes:

Location plan
Scale: 1:500

KEY:

1 New door (to replace existing)
2 New door (in new opening)
3 Re-instated window in previously blocked opening
4 Newly formed window
5 New gates
6 New stone pier
7 Re-instated stone/brick pier
9 New louvres
10 New brick infill to match existing
11 New louvre doors
12 New metal railings to windows
13 New roof

NOTE: ALL EXISTING WINDOWS TO BE OVERHAULED & REPAIRED IN ACCORDANCE WITH THE WINDOW REPAIR SCHEDULE

Rev:	Date:	Details:	By:	Chk:
A	19.04.17	Elevations Updated		CCH

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Betts Avenue
Ipswich IP5 3RY

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Client / Location:
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MANCHESTER

Drawing:
Proposed Elevation at Courtyard

Scale:	Date:	Drawn:	Check:
1:100 @ A1	10.11.16	jra	

Job No:	Dwg No:	Rev:
1601008	321	A

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APPENDIX E- PROPOSED **ELEVATIONS**

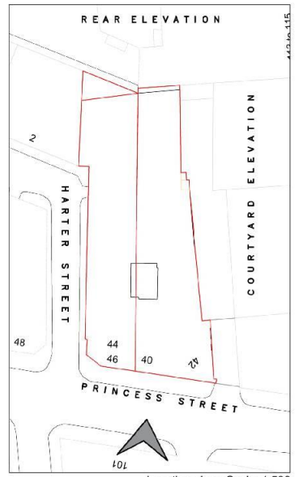


KEY:

1 New door (to replace existing)
2 New door (in new opening)
3 Reinstated window in previously blocked opening
4 Newly formed window
5 New gates
6 New stone pier
7 Reinstated stone/brick pier
9 New louvres
10 New brick infill to match existing
11 New louvre doors
12 New metal railings to windows
13 New roof

NOTE: ALL EXISTING WINDOWS TO BE OVERHAULED & REPAIRED IN ACCORDANCE WITH THE WINDOW REPAIR SCHEDULE

Notes:



Location plan - Scale: 1:500

KEY:

1 New door (to replace existing)
2 New door (in new opening)
3 Reinstated window in previously blocked opening
4 Newly formed window
5 New gates
6 New stone pier
7 Reinstated stone/brick pier
9 New louvres
10 New brick infill to match existing
11 New louvre doors
12 New metal railings to windows
13 New roof

NOTE: ALL EXISTING WINDOWS TO BE OVERHAULED & REPAIRED IN ACCORDANCE WITH THE WINDOW REPAIR SCHEDULE

10m

10m

Rev:	Date:	Details:	By:	Chk:
B	10.04.17	Elevations Updated		CCH
A	21.11.16	N.E Basement stairs- GF entrance updated to JB show double doors		

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Planning

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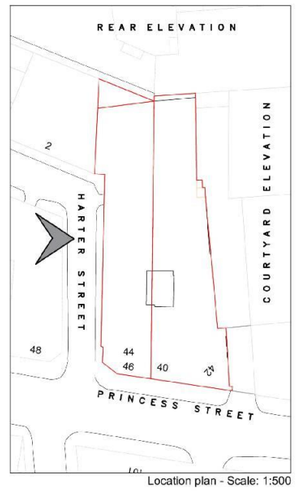
Drawing:
Proposed Elevation
Princess Street

Scale:	Date:	Drawn:	Check:
1:100 @ A1	10.11.16	jra	
Job No: 1601008	Dwg No: 322	Rev: B	

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APPENDIX E- PROPOSED **ELEVATIONS**





Location plan - Scale: 1:500

Notes:

KEY:

1 New door (to replace existing)
2 New door (in new opening)
3 Reinstated window in previously blocked opening
4 Newly formed window
5 New gates
6 New stone pier
7 Reinstated stone/brick pier
9 New louvres
10 New brick infill to match existing
11 New louvre doors
12 New metal railings to windows
13 New roof

NOTE: ALL EXISTING WINDOWS TO BE OVERHAULED & REPAIRED IN ACCORDANCE WITH THE WINDOW REPAIR SCHEDULE

10m

10m

Rev:	Date:	Details:	By:	Chkd:
A	20.04.17	Elevation Updated	CCH	

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Planning

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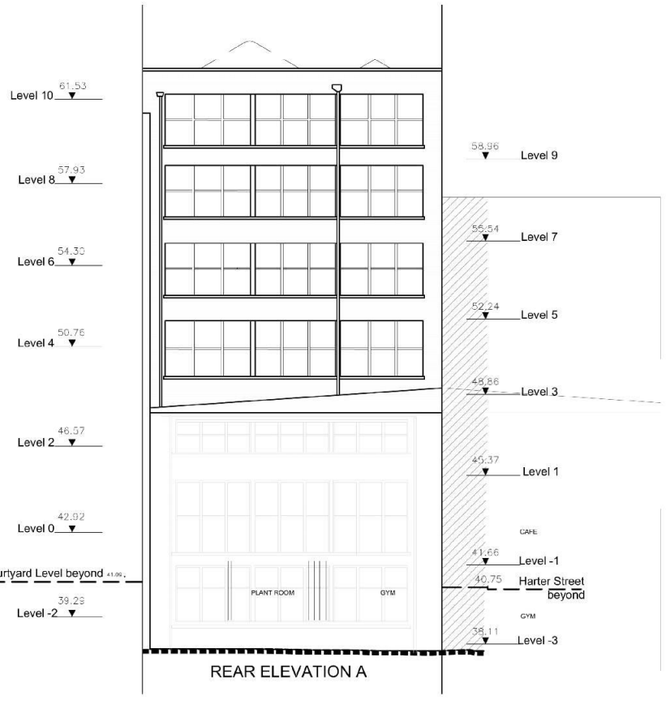
Drawing:
Proposed Elevation Harter Street

Scale:	Date:	Drawn:	Check:
1:100 @ A1	10.11.16	jra	

Job No:	Dwg No:	Rev:
1601008	323	A

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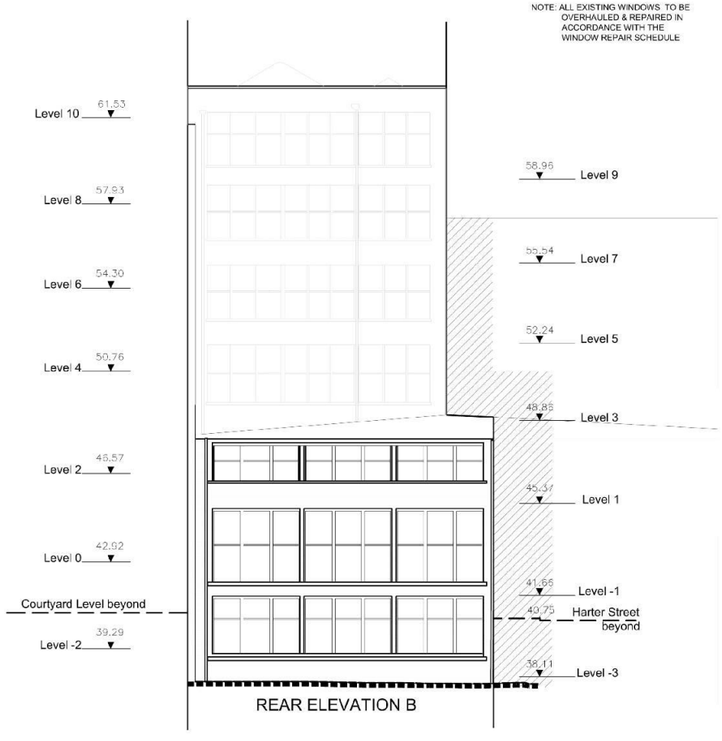
APPENDIX E- PROPOSED **ELEVATIONS**



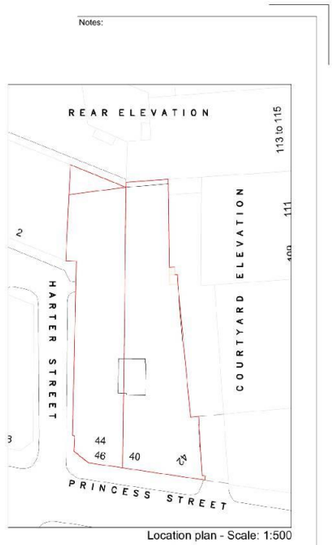
44-46 PRINCESS STREET

KEY:

Suspended Plasterboard Ceiling



44-46 PRINCESS STREET



Location plan - Scale: 1:500

A 10.04.17 Elevations Upcated CCH

Rev: Date: Details: By: Chk:

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PLANNING

Client: / Location:
40-46 PRINCESS STREET
MANCHESTER

Drawing:
Proposed Rear Elevation
4a &4b

Scale:	Date:	Drawn:	Check:
1:100 @ A1	10.11.16	jra	

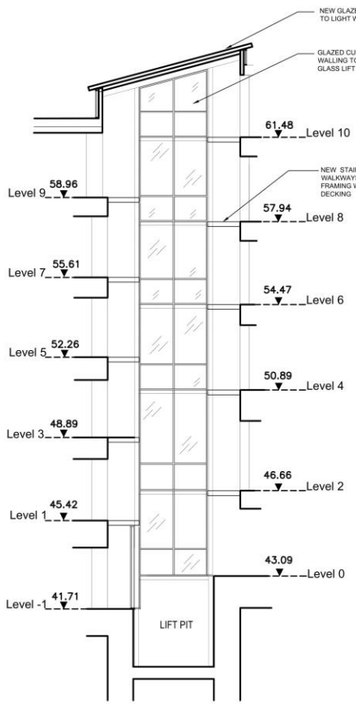
Job No:	Dwg No:	Rev:
1601008	324	A

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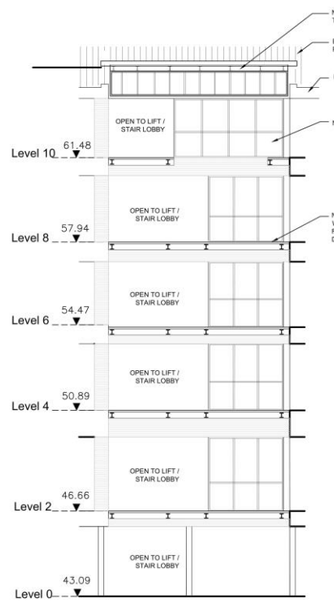
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10m

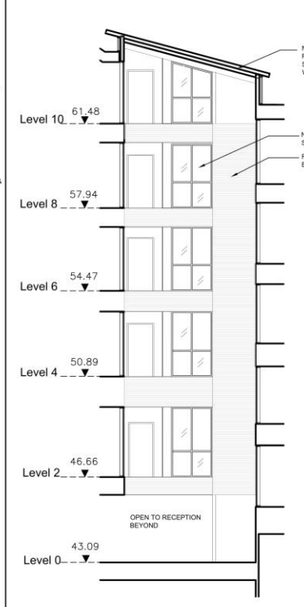
APPENDIX E- PROPOSED **ELEVATIONS**



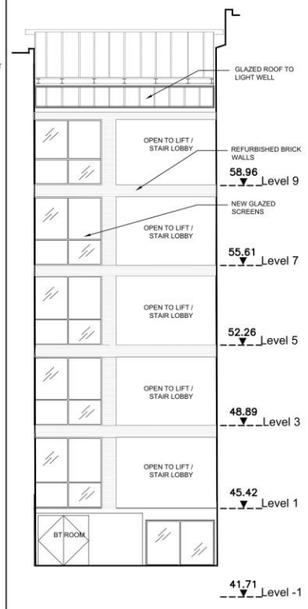
ELEVATION 1



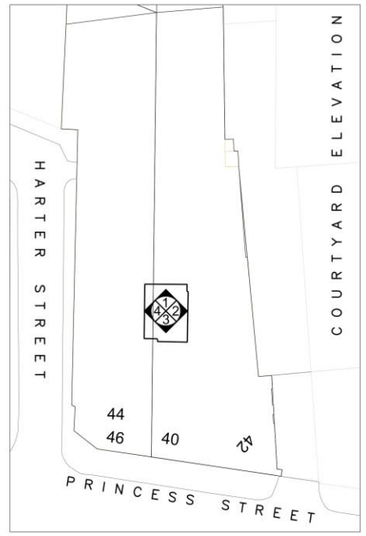
ELEVATION 2



ELEVATION 3



ELEVATION 4



Rev:	Date:	Details:	By:	Chk:
A	20.04.17	Elevations Updated		CCH

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Betts Avenue
Ipswich IP5 3RY

PLANNING

Client / Location:
40-46 PRINCESS STREET
MANCHESTER

Drawing:
Proposed Elevations at Light Well

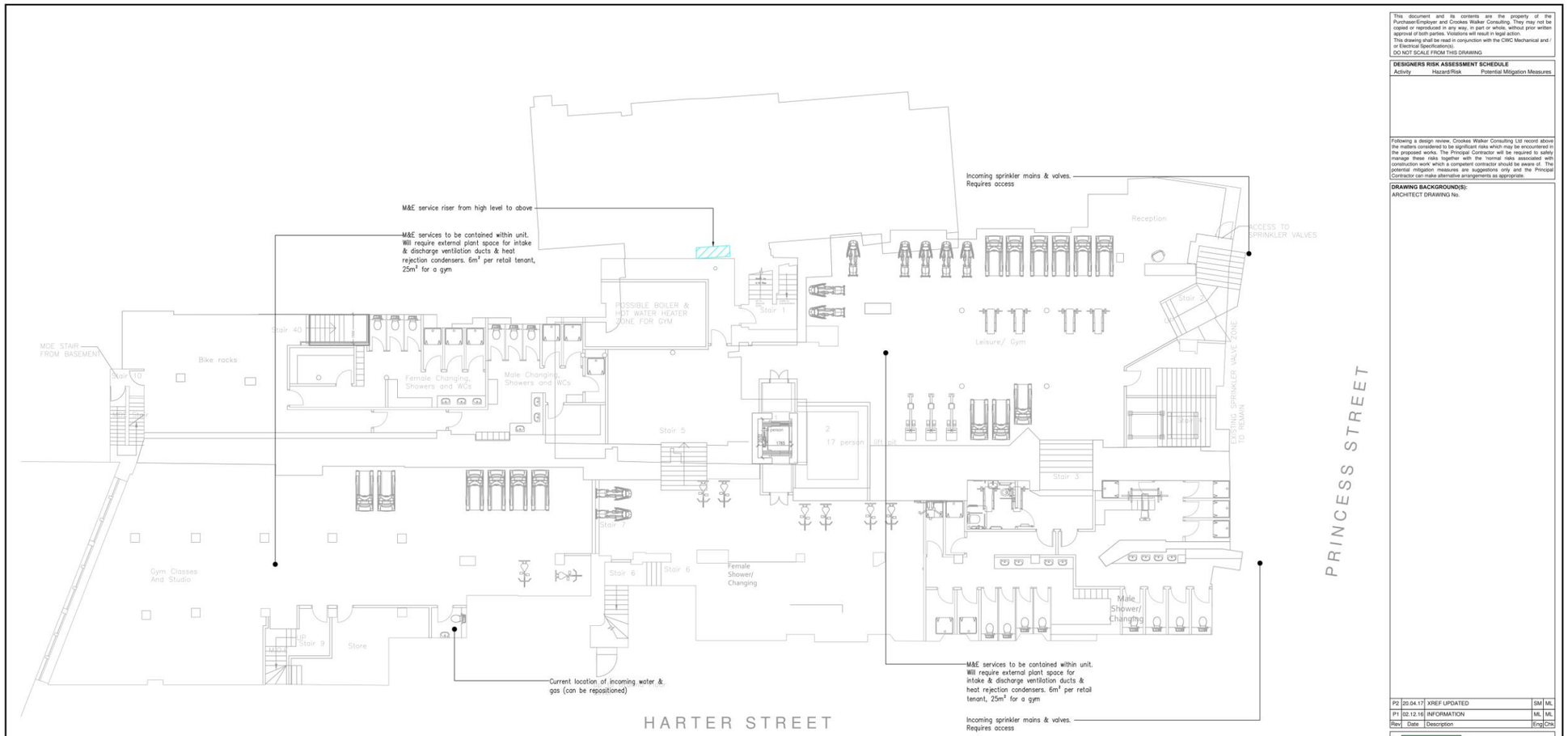
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Job No:	Dwg No:	Rev:
1601008	325	A

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10m
10m

APPENDIX F- PROPOSED **SERVICES LAYOUTS**



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Activity	Hazard/Risk	Potential Mitigation Measures

Following a design review, Crookes Walker Consulting Ltd record above the matters considered to be significant risks which may be encountered in the proposed works. The Principal Contractor will be required to safely manage these risks together with the normal risks associated with construction work' which a competent contractor should be aware of. The potential mitigation measures are suggestions only and the Principal Contractor can make alternative arrangements as appropriate.

DRAWING BACKGROUND(S):
ARCHITECT DRAWING No.

Rev	Date	Description	Eng	Chk
P2	20.04.17	XREF UPDATED	SM	ML
P1	02.12.16	INFORMATION	ML	ML

CWC crookes walker consulting
Alberton House
30 St Mary's Parsonage
Manchester
M3 2WJ
Tel: 0161 834 9999
Fax: 0161 834 2066
E-mail: admin@cwcon.co.uk
Website: www.cwcon.co.uk

Client: PARAGON

Project: 40 - 46 PRINCESS STREET MANCHESTER

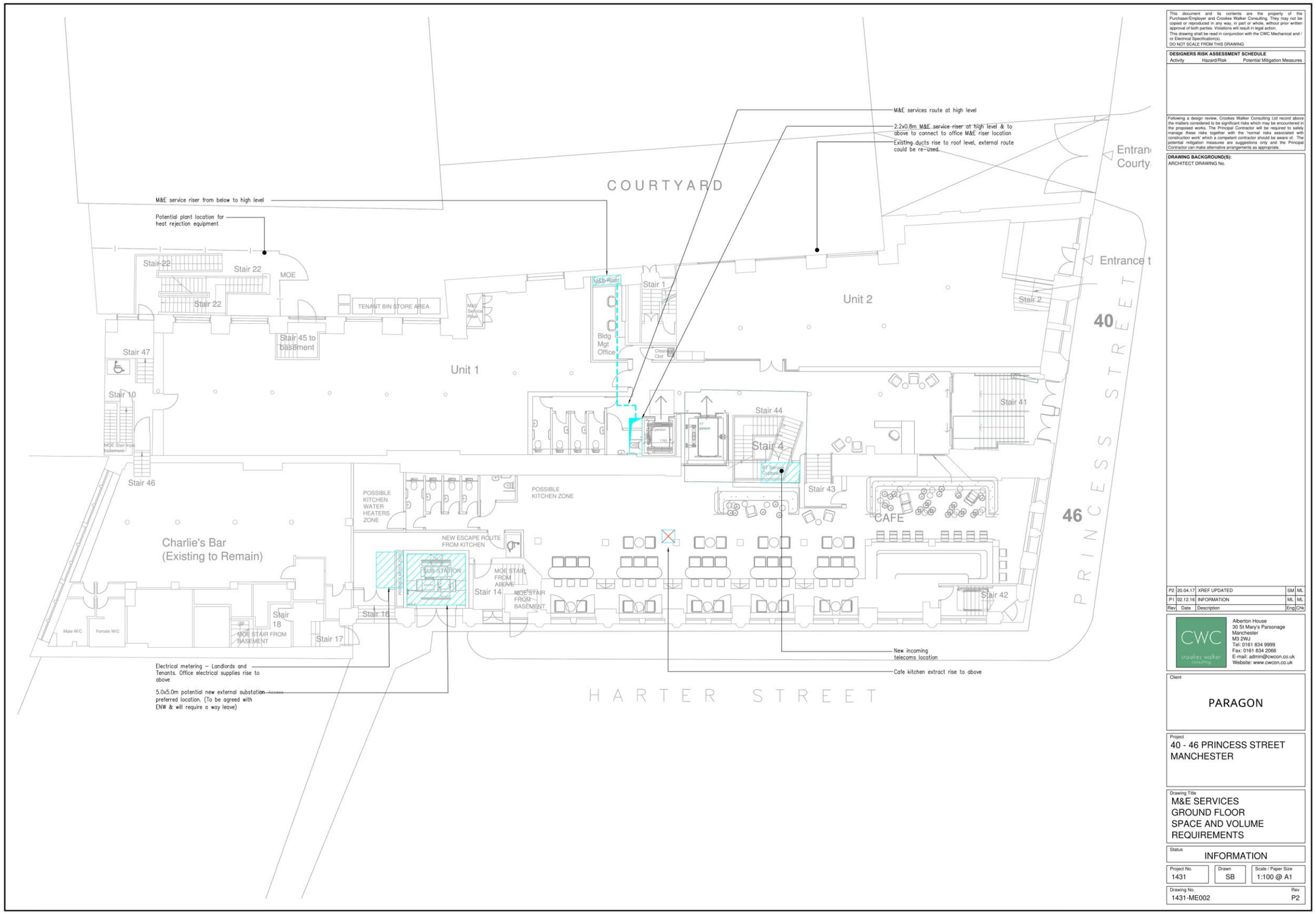
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Status: INFORMATION

Project No.	Drawn	Scale / Paper Size
1431	SB	1:100 @ A1

Drawing No.: 1431-ME001 Rev: P2

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DESIGNERS RISK ASSESSMENT SCHEDULE

Activity	Hazard/Risk	Potential Mitigation Measures

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DRAWING BACKGROUND(S):
ARCHITECT DRAWING No.

Rev.	Date	Description	Eng	Chk
P2	20.04.17	XREF UPDATED	SM	ML
P1	02.12.16	INFORMATION	ML	ML

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30 St Mary's Parsonage
Manchester
M3 2WJ
Tel: 0161 834 9999
Fax: 0161 834 2066
E-mail: admin@cwcon.co.uk
Website: www.cwcon.co.uk

Client: PARAGON

Project: 40 - 46 PRINCESS STREET MANCHESTER

Drawing Title: M&E SERVICES GROUND FLOOR SPACE AND VOLUME REQUIREMENTS

Status: INFORMATION

Project No.	Drawn	Scale / Paper Size
1431	SB	1:100 @ A1

Drawing No.: 1431-ME002 Rev: P2

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DESIGNERS RISK ASSESSMENT SCHEDULE

Activity	Hazard/Risk	Potential Mitigation Measures

Following a design review, Crookes Walker Consulting Ltd record above the matters considered to be significant risks which may be encountered in the proposed works. The Principal Contractor will be required to safely manage these risks together with the 'normal risks associated with construction work' which a competent contractor should be aware of. The potential mitigation measures are suggestions only and the Principal Contractor can make alternative arrangements as appropriate.

DRAWING BACKGROUND(S):
ARCHITECT DRAWING No.

Rev.	Date	Description	Eng	Chk
P2	20.04.17	XREF UPDATED	SM	ML
P1	02.12.16	INFORMATION	ML	ML

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Fax: 0161 834 2066
E-mail: admin@cwcon.co.uk
Website: www.cwcon.co.uk

Client: PARAGON

Project: 40 - 46 PRINCESS STREET MANCHESTER

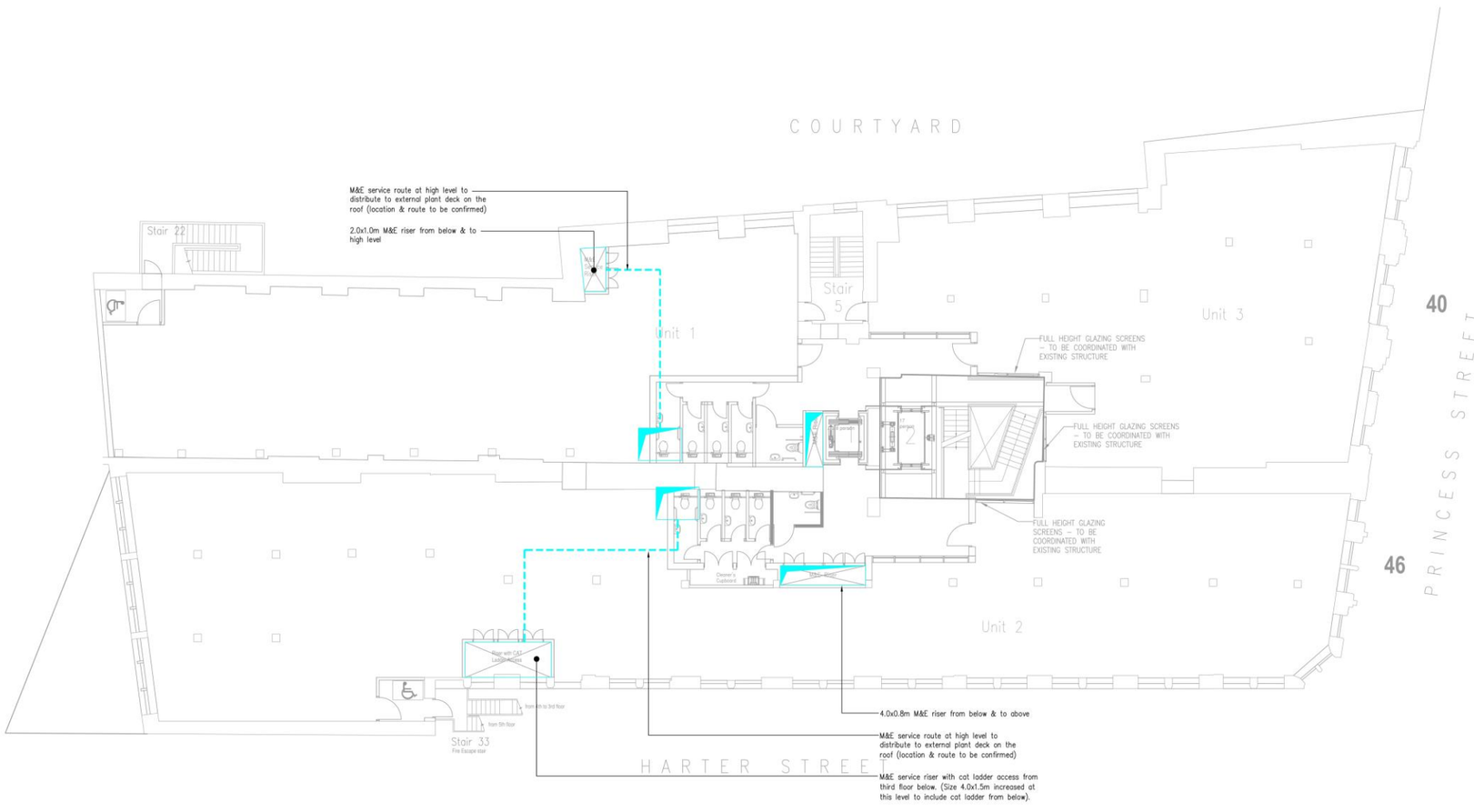
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Status: INFORMATION

Project No.	Drawn	Scale / Paper Size
1431	SB	1:100 @ A1

Drawing No.: 1431-ME003 Rev: P2

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DESIGNERS RISK ASSESSMENT SCHEDULE

Activity	Hazard/Risk	Potential Mitigation Measures

Following a design review, Crookes Walker Consulting Ltd record above the matters considered to be significant risks which may be encountered in the proposed works. The Principal Contractor will be required to safely manage these risks together with the 'normal' risks associated with construction work' which a competent contractor should be aware of. The potential mitigation measures are suggestions only and the Principal Contractor can make alternative arrangements as appropriate.

DRAWING BACKGROUND(S):
ARCHITECT DRAWING No.

Rev	Date	Description	Eng	Chk
P2	20.04.17	XREF UPDATED	SM	ML
P1	02.12.16	INFORMATION	ML	ML

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Alberton House
30 St Mary's Parsonage
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M3 2WJ
Tel: 0161 834 9999
Fax: 0161 834 2066
E-mail: admin@cwcon.co.uk
Website: www.cwcon.co.uk

Client: PARAGON

Project: 40 - 46 PRINCESS STREET MANCHESTER

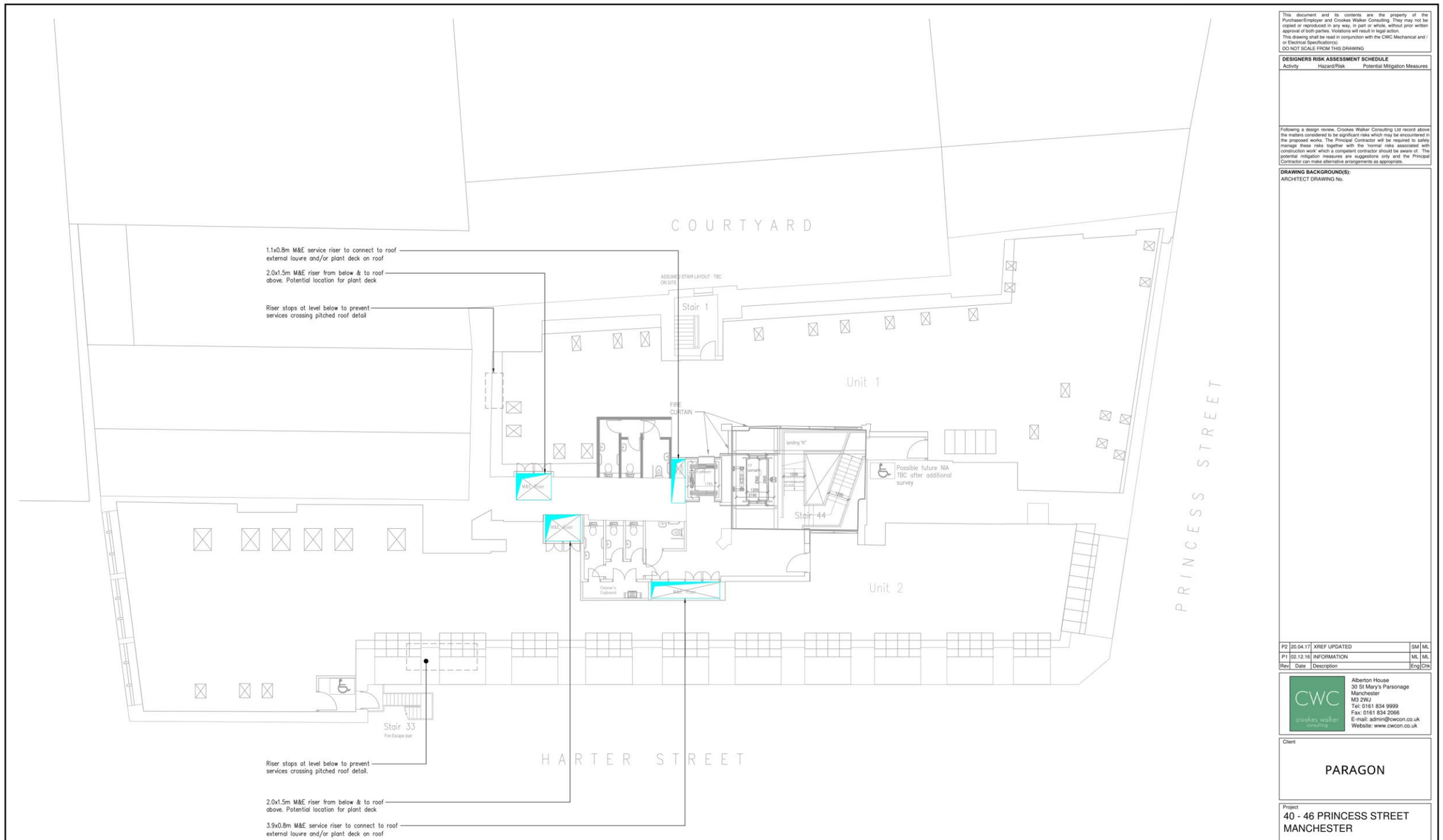
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Status: INFORMATION

Project No.	Drawn	Scale / Paper Size
1431	SB	1:100 @ A1

Drawing No.: 1431-ME004 Rev: P2

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DESIGNERS RISK ASSESSMENT SCHEDULE

Activity	Hazard/Risk	Potential Mitigation Measures

Following a design review, Crookes Walker Consulting Ltd record above the matters considered to be significant risks which may be encountered in the proposed works. The Principal Contractor will be required to safely manage these risks together with the 'normal risks associated with construction work' which a competent contractor should be aware of. The potential mitigation measures are suggestions only and the Principal Contractor can make alternative arrangements as appropriate.

DRAWING BACKGROUND(S):
ARCHITECT DRAWING No.

Rev	Date	Description		
P2	20.04.17	XREF UPDATED	SM	ML
P1	02.12.16	INFORMATION	ML	ML

Albertson House
30 St Mary's Parsonage
Manchester
M3 2WJ
Tel: 0161 834 9999
Fax: 0161 834 2066
E-mail: admin@cwcon.co.uk
Website: www.cwcon.co.uk

Client: PARAGON

Project: 40 - 46 PRINCESS STREET MANCHESTER

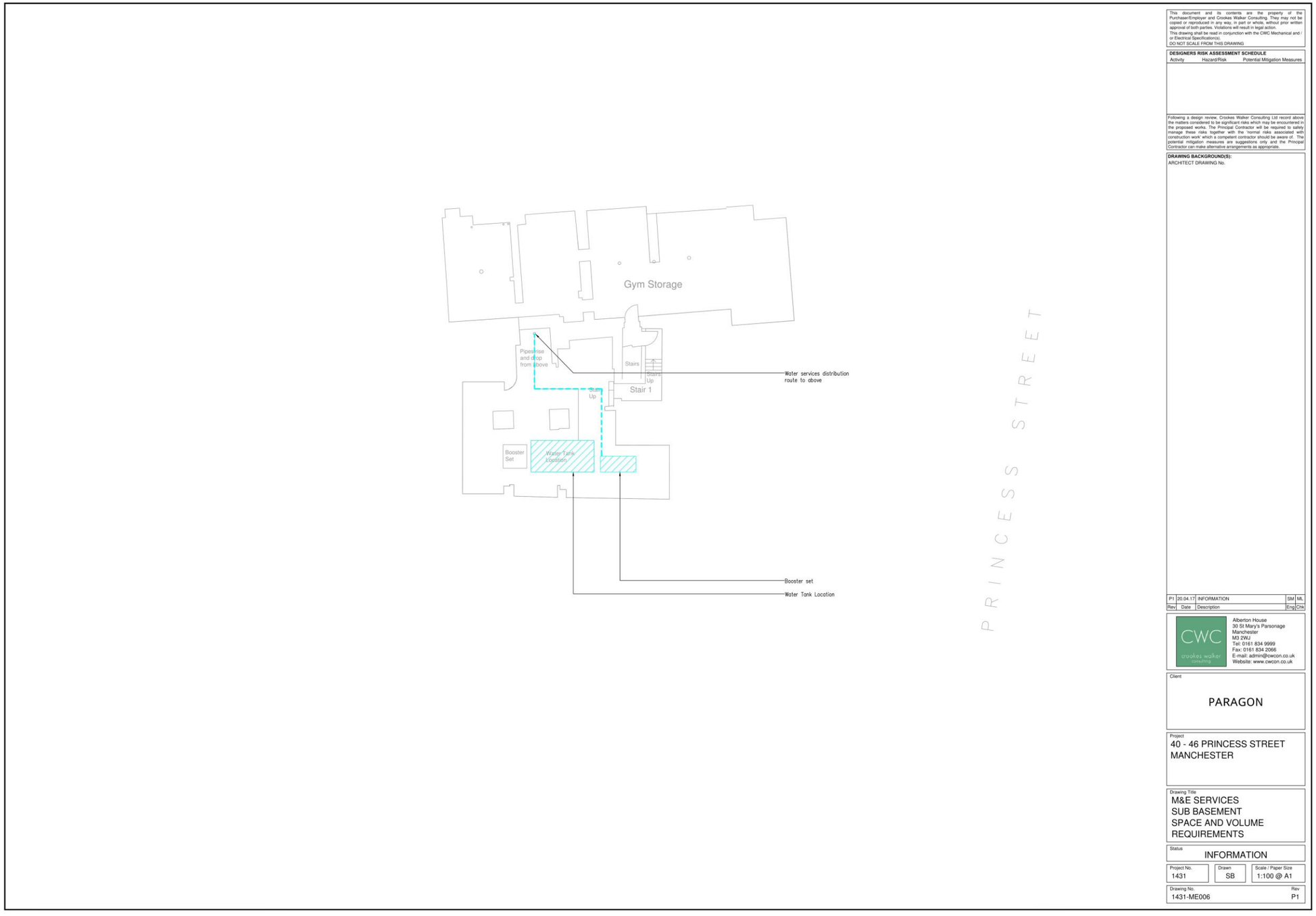
Drawing Title: M&E SERVICES FIFTH FLOOR SPACE AND VOLUME REQUIREMENTS

Status: INFORMATION

Project No.	Drawn	Scale / Paper Size
1431	SB	1:100 @ A1

Drawing No.: 1431-ME005 Rev: P2

APPENDIX F- PROPOSED **SERVICES LAYOUTS**



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DESIGNERS RISK ASSESSMENT SCHEDULE

Activity	Hazard/Risk	Potential Mitigation Measures

Following a design review, Crookes Walker Consulting Ltd record above the matters considered to be significant risks which may be encountered in the proposed works. The Principal Contractor will be required to safely manage these risks together with the 'normal risks associated with construction work' which a competent contractor should be aware of. The potential mitigation measures are suggestions only and the Principal Contractor can make alternative arrangements as appropriate.

DRAWING BACKGROUND(S):
ARCHITECT DRAWING No.

Rev	Date	Description	Eng	Chk
P1	20.04.17	INFORMATION	SM	ML

Alberton House
30 St Mary's Parsonage
Manchester
M3 2WJ
Tel: 0161 834 9999
Fax: 0161 834 2066
E-mail: admin@cwcon.co.uk
Website: www.cwcon.co.uk

Client: PARAGON

Project: 40 - 46 PRINCESS STREET MANCHESTER

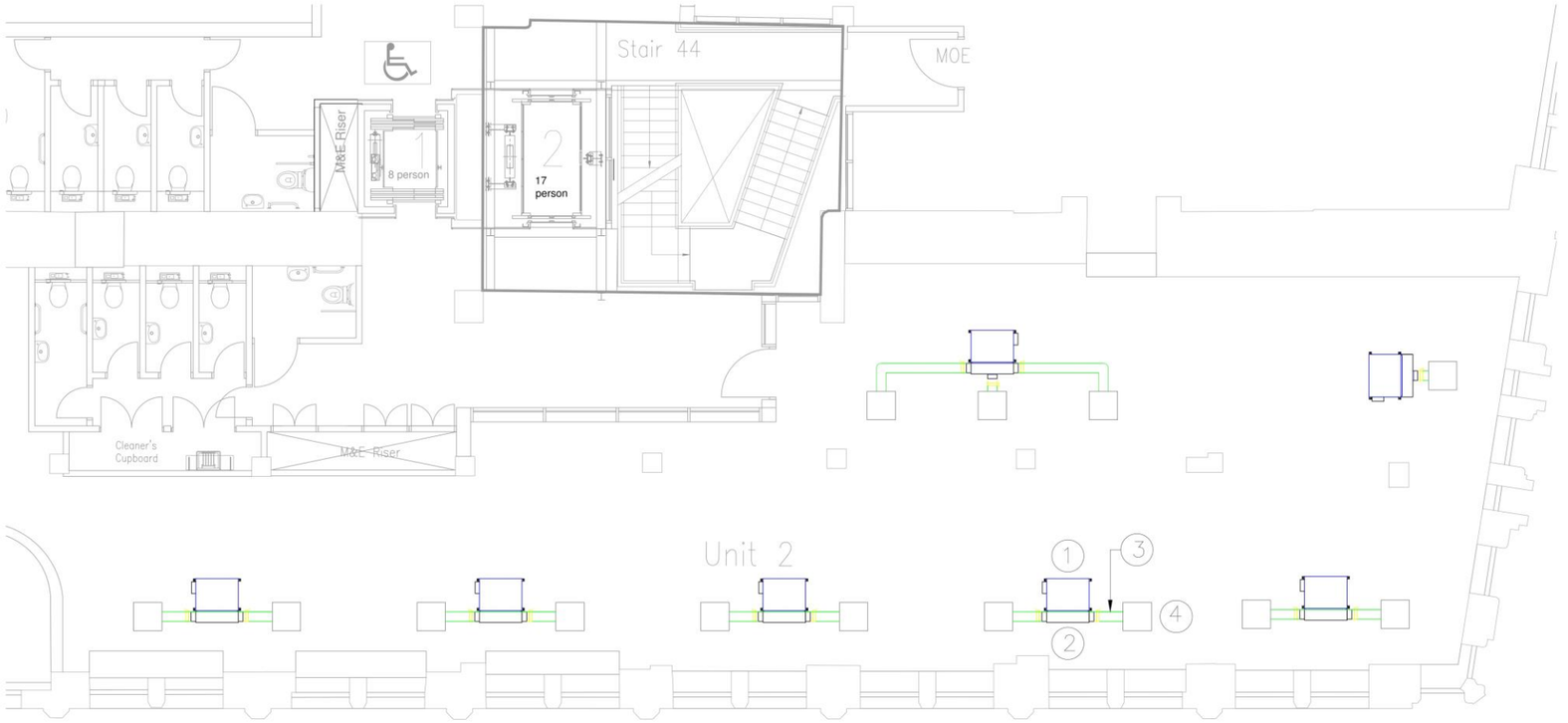
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Status: INFORMATION

Project No.	Drawn	Scale / Paper Size
1431	SB	1:100 @ A1

Drawing No.: 1431-ME006 Rev: P1

APPENDIX F- PROPOSED **SERVICES LAYOUTS**

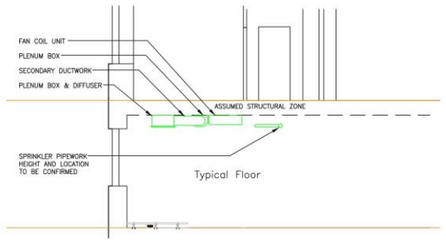


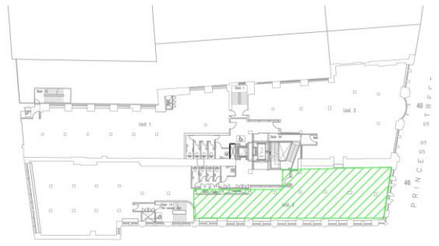
REFERENCE

1. FAN COIL UNIT
2. SUPPLY PLENUM
3. SPIRAL WOUND DUCT
4. SUPPLY SWIRL DIFFUSER

NOTES

FAN COIL UNIT ZONE
PERIMETER ZONE - 6.0M X 4.5M
CENTRAL ZONE - 50 TO 80 M2





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DESIGNERS RISK ASSESSMENT SCHEDULE

Activity	Hazard/Risk	Potential Mitigation Measures

Following a design review, Crookes Walker Consulting Ltd record above the matters considered to be significant risks which may be encountered in the proposed works. The Principal Contractor will be required to safely manage these risks together with the 'normal risks associated with construction work' which a competent contractor should be aware of. The potential mitigation measures are suggestions only and the Principal Contractor can make alternative arrangements as appropriate.

DRAWING BACKGROUND(S):
ARCHITECT DRAWING No.

Rev	Date	Description	Eng	Chk

CWC crookes walker consulting
Alberton House
30 St Mary's Parsonage
Manchester
M3 2WJ
Tel: 0161 834 9999
Fax: 0161 834 2066
E-mail: admin@cwcon.co.uk
Website: www.cwcon.co.uk

Client: PARAGON

Project: 40 - 46 PRINCESS STREET MANCHESTER

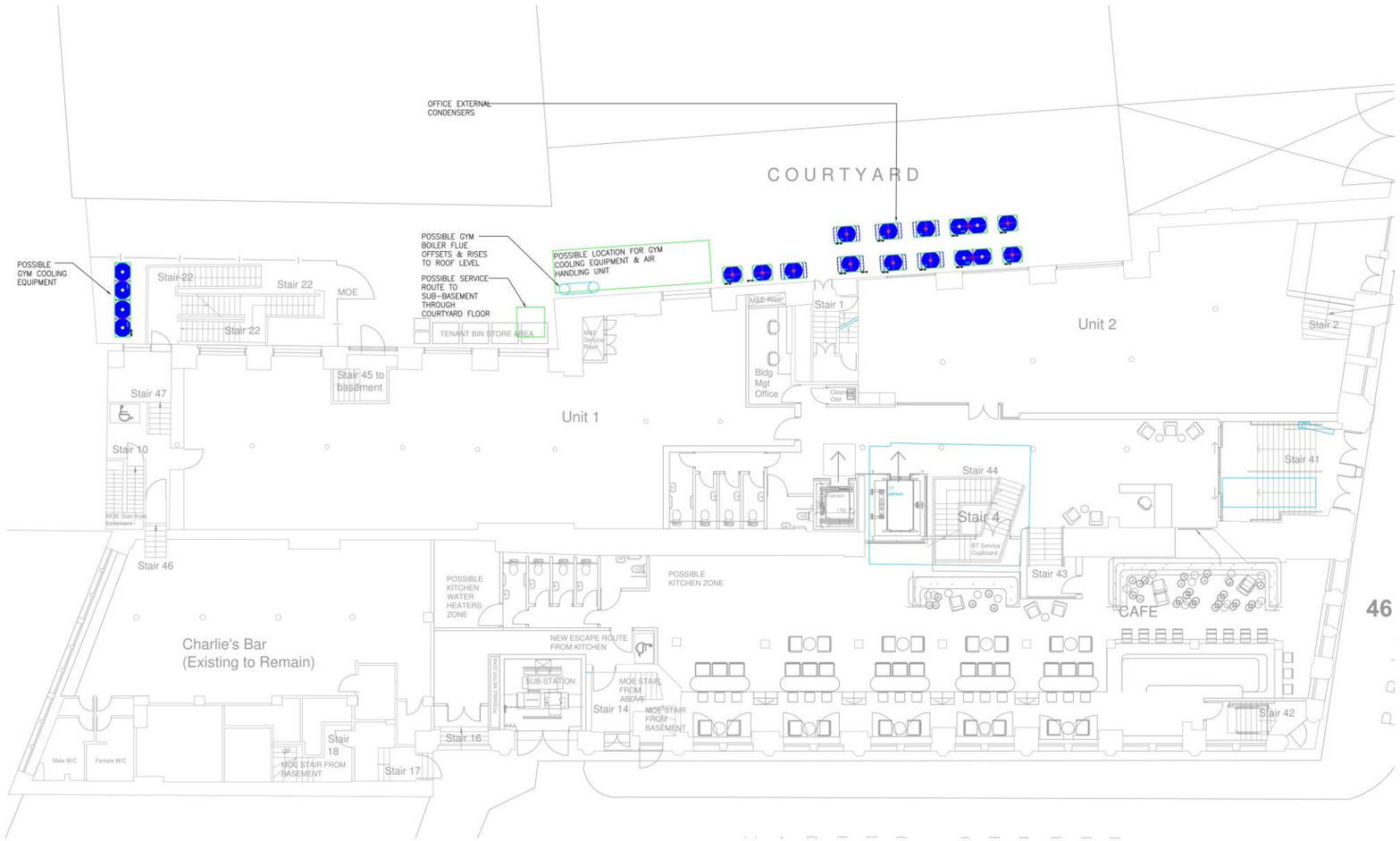
Drawing Title: M&E SERVICES TYPICAL FLOOR FAN COIL UNIT ARRANGEMENT

Status: INFORMATION

Project No.	Drawn	Scale / Paper Size
1431	ML	1:100 @ A1

Drawing No.: 1431-ME007 Rev: P1

APPENDIX F- PROPOSED **SERVICES LAYOUTS**



TYPICAL PLANT IMAGES





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DESIGNERS RISK ASSESSMENT SCHEDULE

Activity	Hazard/Risk	Potential Mitigation Measures

Following a design review, Crookes Walker Consulting Ltd record above the matters considered to be significant risks which may be encountered in the proposed works. The Principal Contractor will be required to safely manage these risks together with the 'normal' risks associated with construction work' which a competent contractor should be aware of. The potential mitigation measures are suggestions only and the Principal Contractor can make alternative arrangements as appropriate.

DRAWING BACKGROUND(S):
ARCHITECT DRAWING No.

Rev	Date	Description	Eng	Chk

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30 St Mary's Parsonage
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Fax: 0161 834 2066
E-mail: admin@cwcon.co.uk
Website: www.cwcon.co.uk

Client: PARAGON

Project: 40 - 46 PRINCESS STREET MANCHESTER

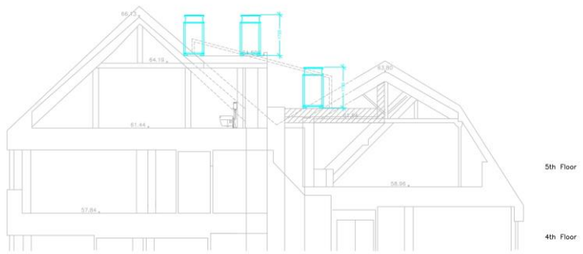
Drawing Title: M&E SERVICES GROUND FLOOR EXTERNAL PLANT

Status: INFORMATION

Project No.	Drawn	Scale / Paper Size
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Drawing No.: 1431-ME008 Rev: P1

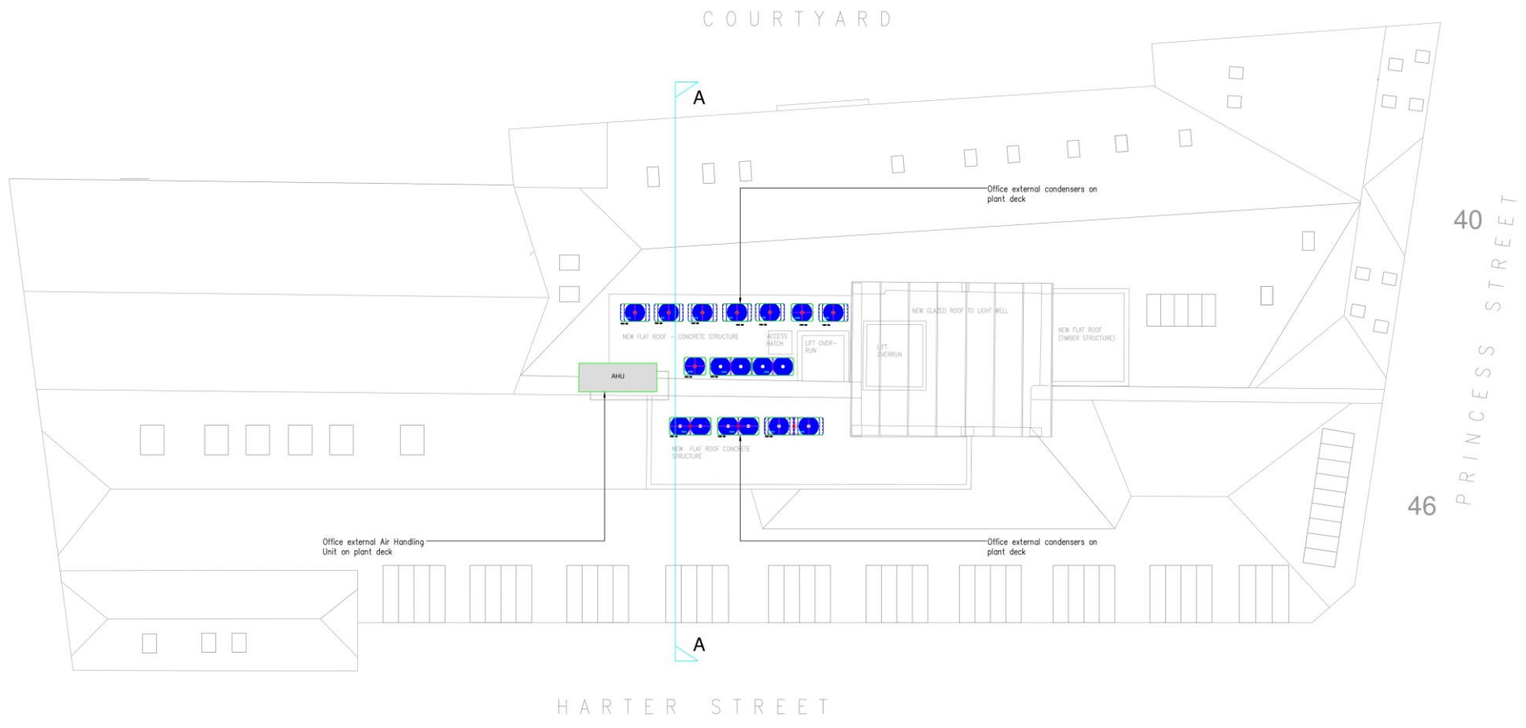
APPENDIX F- PROPOSED **SERVICES LAYOUTS**



A ME009 SECTION
SECTION THROUGH ROOF PLANT 1:100

TYPICAL PLANT IMAGES





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DESIGNERS RISK ASSESSMENT SCHEDULE

Activity	Hazard/Risk	Potential Mitigation Measures

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DRAWING BACKGROUND(S):
ARCHITECT DRAWING No.

Rev	Date	Description	Eng	Chk
P2	21.04.17	ROOF TOP AHU RELOCATED	SM	ML
P1	20.04.17	PRELIMINARY ISSUE	SM	ML

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Website: www.cwcon.co.uk

Client: PARAGON

Project: 40 - 46 PRINCESS STREET MANCHESTER

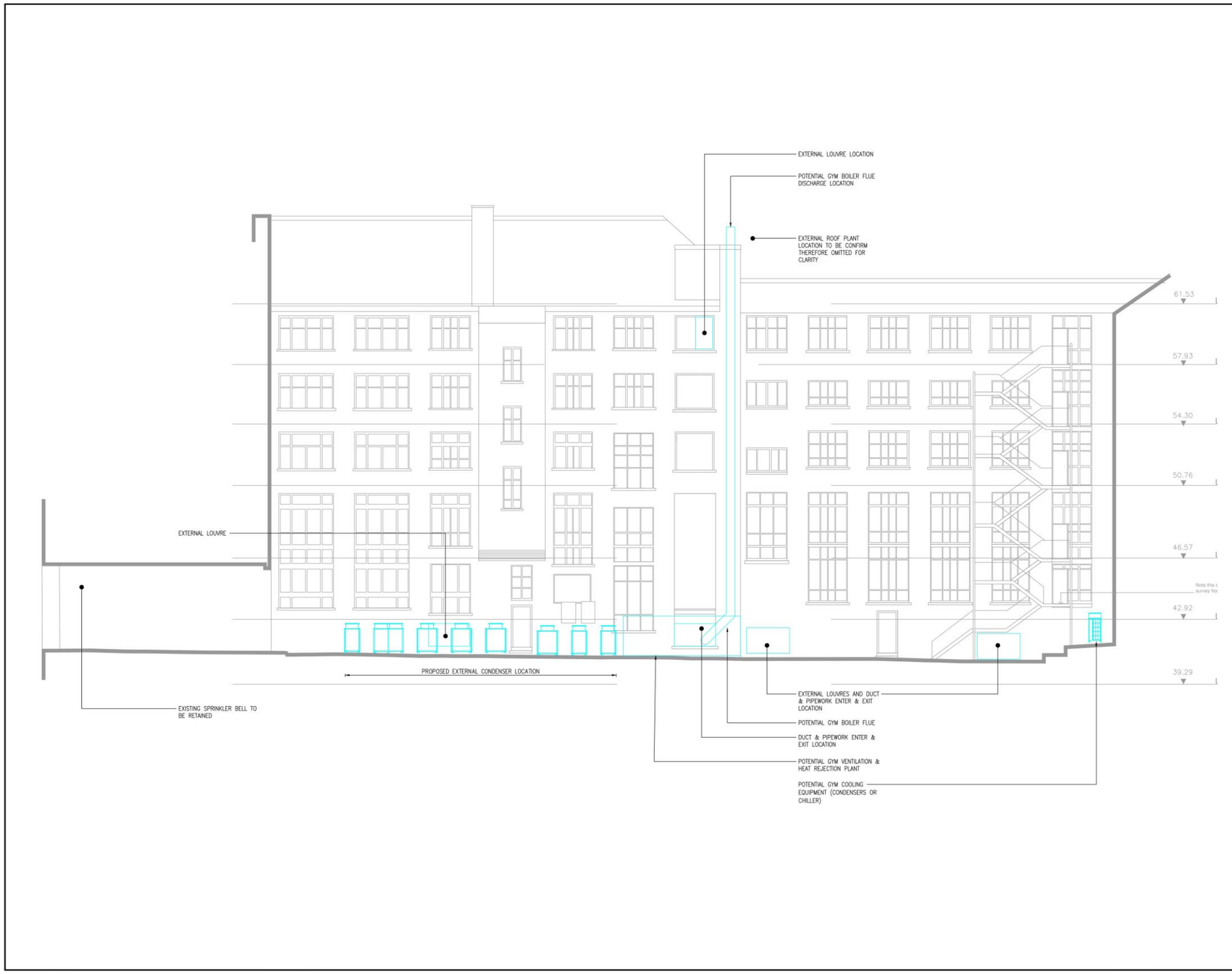
Drawing Title: M&E SERVICES ROOF LEVEL EXTERNAL PLANT

Status: INFORMATION

Project No.	Drawn	Scale / Paper Size
1431	SM	1:100 @ A1

Drawing No.: 1431-ME009 Rev: P2

APPENDIX F- PROPOSED **SERVICES LAYOUTS**



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Activity	Hazard/Risk	Potential Mitigation Measures

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Website: www.cwcon.co.uk

Client: PARAGON

Project: 40 - 46 PRINCESS STREET MANCHESTER

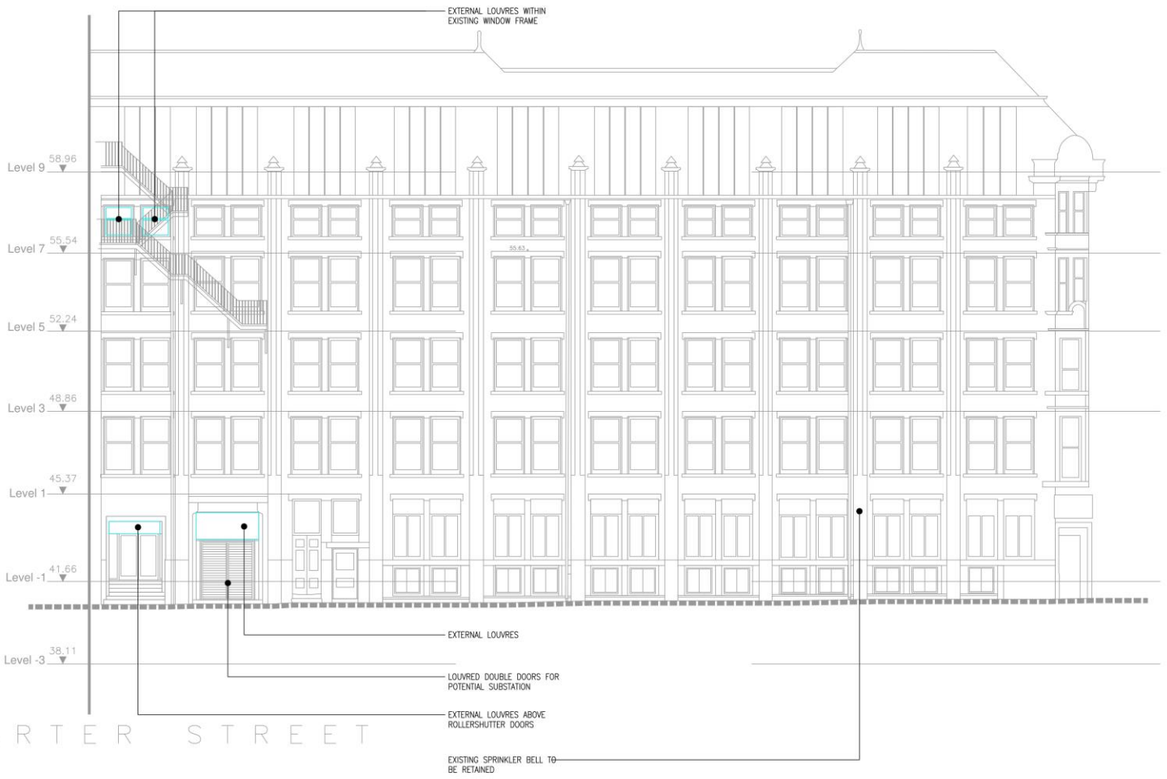
Drawing Title: M&E SERVICES COURTYARD ELEVATION

Status: PRELIMINARY

Project No.	Drawn	Scale / Paper Size
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Drawing No. 1431-ME010 Rev P1

APPENDIX F- PROPOSED **SERVICES LAYOUTS**



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Activity	Hazard/Risk	Potential Mitigation Measures

Following a design review, Crookes Walker Consulting Ltd record above the matters considered to be significant risks which may be encountered in the proposed works. The Principal Contractor will be required to safely manage these risks together with the 'normal' risks associated with construction work' which a competent contractor should be aware of. The potential mitigation measures are suggestions only and the Principal Contractor can make alternative arrangements as appropriate.

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M3 2WJ
Tel: 0161 834 9999
Fax: 0161 834 2066
E-mail: admin@cwcon.co.uk
Website: www.cwcon.co.uk

Client: PARAGON

Project: 40 - 46 PRINCESS STREET MANCHESTER

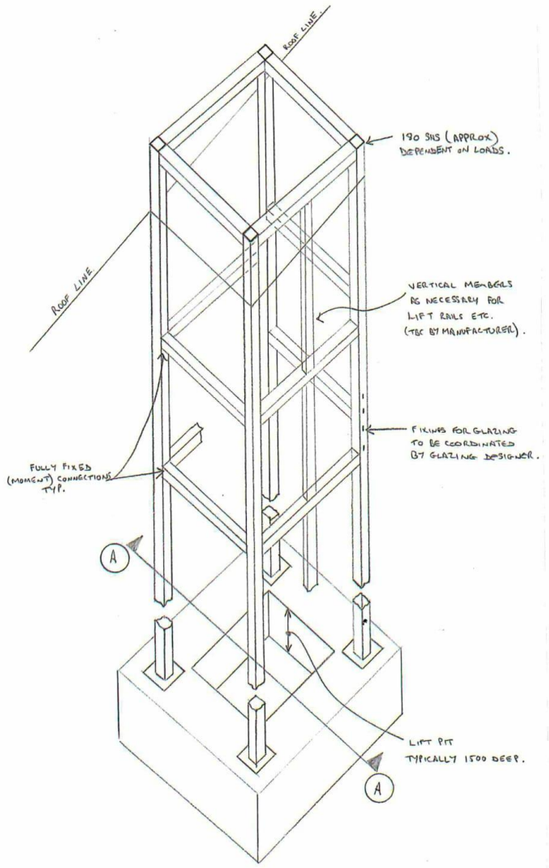
Drawing Title: M&E SERVICES HARTER ST ELEVATION

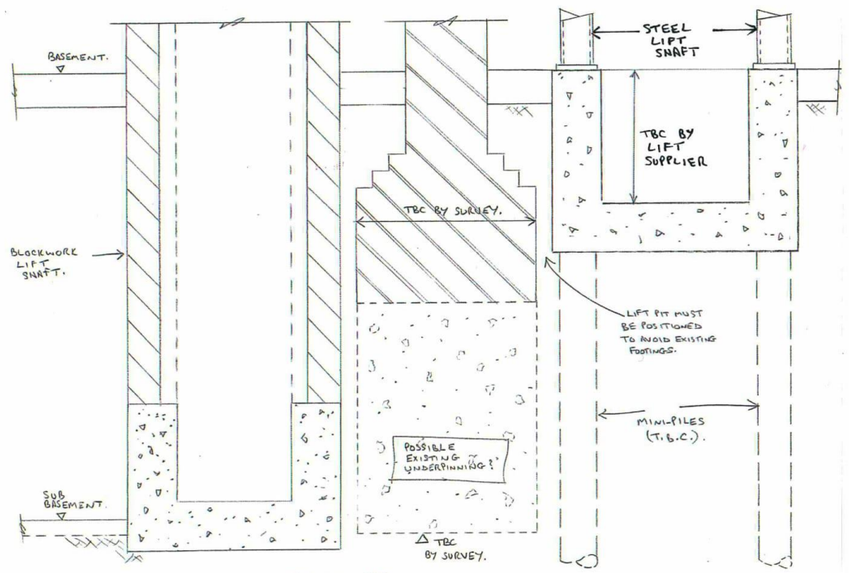
Status: PRELIMINARY

Project No.	Drawn	Scale / Paper Size
1431	ML	1:100 @ A1

Drawing No.: 1431-ME011 Rev: P1

APPENDIX G- PROPOSED **STRUCTRUAL INTERVENTIONS**





SECTION 'A'

General notes:

1. All arrangements are indicative only pending design development, completion of surveys and completion of intrusive investigations.
2. Any existing structure shown is indicative only and is to be confirmed by intrusive investigation.
3. These sketches are to be read in conjunction with all Architect's drawings, reports and other information.
4. Temporary works, including all propping during demolition and construction, are the responsibility of others.
5. Materials testing, including weldability testing where necessary, will be needed to determine capacity of existing members and connections to them.

GENERAL NOTES:	V01	FIRST ISSUE	12/04/17	TJM
	Rev:	Description:	Date:	By:

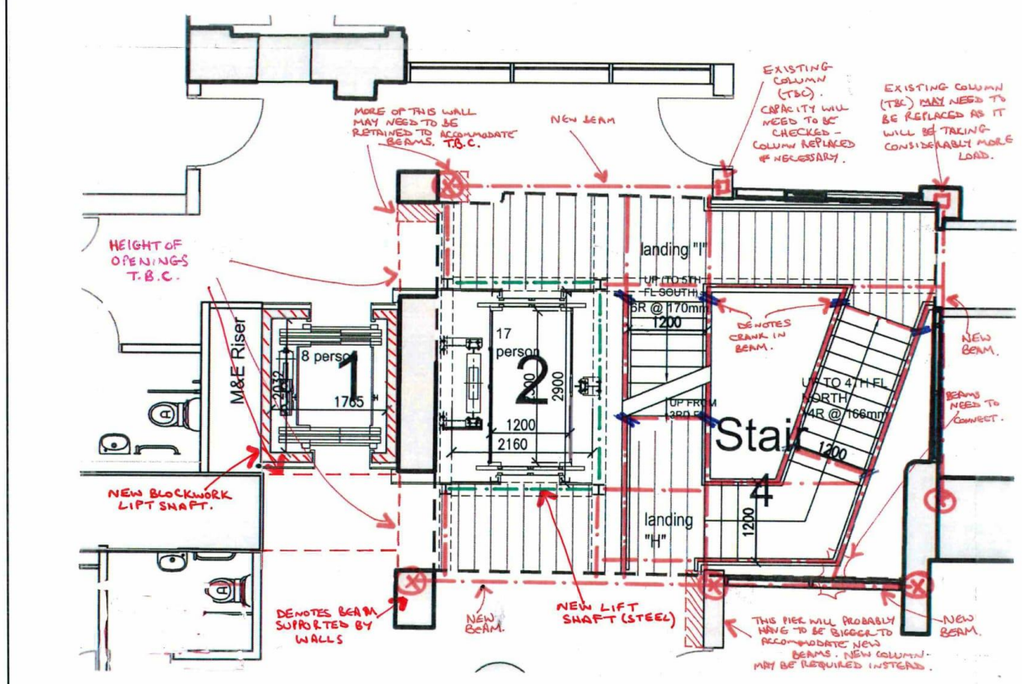
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Project: 40-46 Princess Street							Status: PRELIMINARY	
Drg Title: INDICATIVE ARRANGEMENT FOR NEW LIFT SHAFTS							Drawn By: TJM	Checked By:
							Designed By: TJM	Date: 12/04/17
							Scale: NTS	
Project No:	Originator:	Zone:	Level:	Type:	Discipline:	Category / Number:	Rev:	
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EngineRoom

APPENDIX G- PROPOSED **STRUCTRUAL INTERVENTIONS**



INDICATIVE ARRANGEMENT
(TYPICAL TO UPPER FLOORS).

General notes:

1. All arrangements are indicative only pending design development, completion of surveys and completion of intrusive investigations.
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Rev:	Description:	Date:	By:
V01	FIRST ISSUE	12/04/17	TJM

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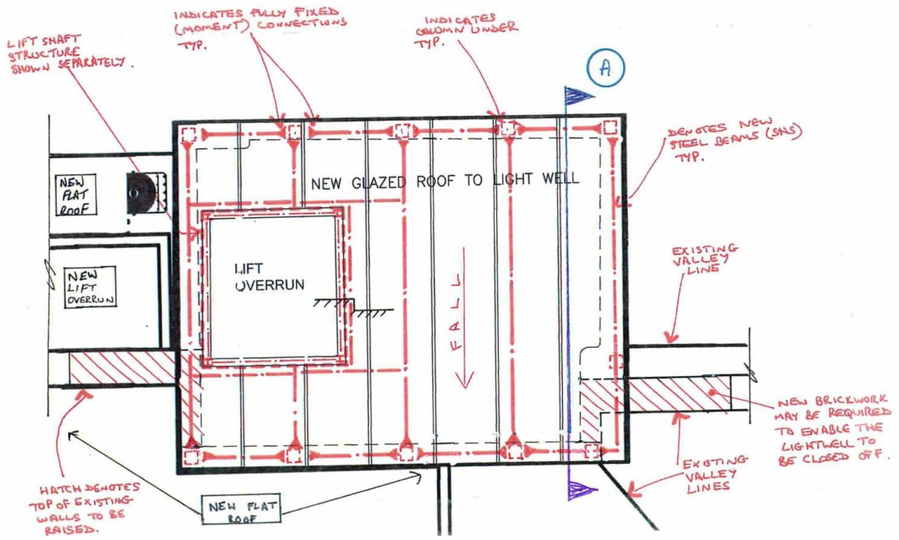
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Project: 40-46 Princess Street
Drg Title: INDICATIVE ARRANGEMENT FOR NEW LIGHTWELL STAIR
Status: PRELIMINARY
Drawn By: TJM | Checked By:
Designed By: TJM | Date: 12/04/17
Scale: NTS

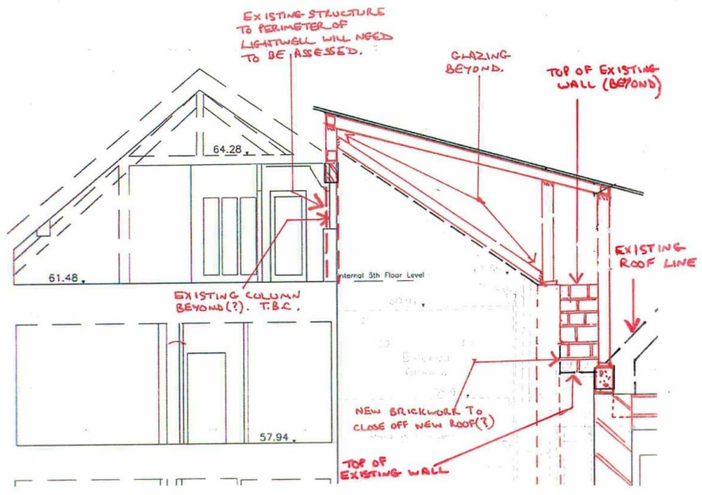
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APPENDIX G- PROPOSED **STRUCTRUAL INTERVENTIONS**



PART-PLAN. (ROOF)



SECTION 'A'

General notes:

1. All arrangements are indicative only pending design development, completion of surveys and completion of intrusive investigations.
2. Any existing structure shown is indicative only and is to be confirmed by intrusive investigation.
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5. Materials testing, including weldability testing where necessary, will be needed to determine capacity of existing members and connections to them.

Rev:	Description:	Date:	By:
V01	FIRST ISSUE	12/04/17	TJM

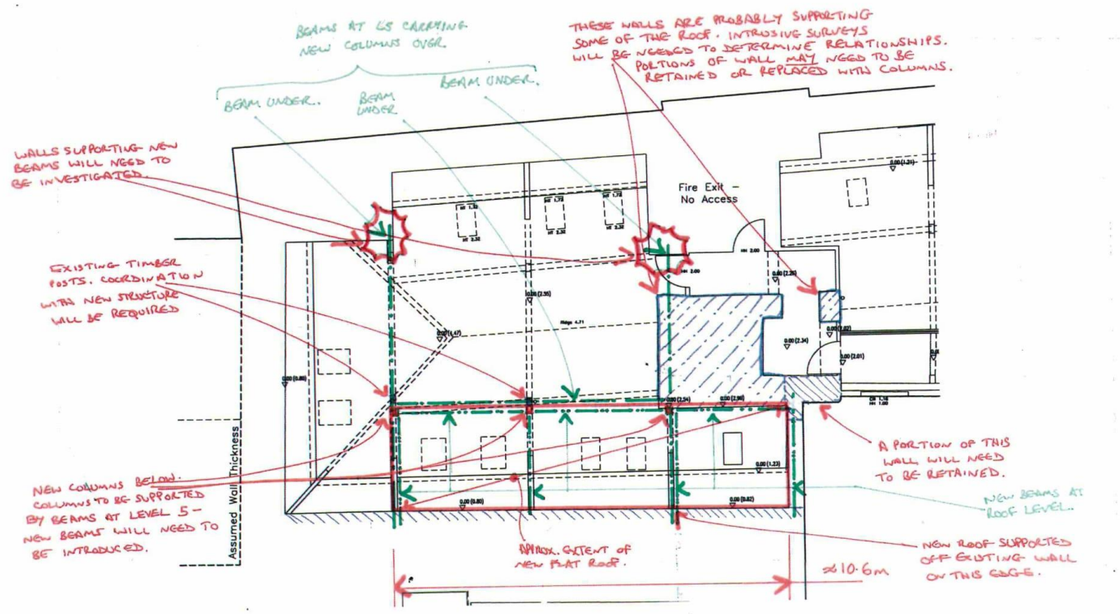
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Project: 40-46 Princess Street							Status: PRELIMINARY	
Drg Title: INDICATIVE ARRANGEMENT FOR NEW LIGHTWELL ROOF							Drawn By: TJM	Checked By:
							Designed By: TJM	Date: 12/04/17
							Scale: NTS	
Project No:	Originator:	Zone:	Level:	Type:	Discipline:	Category / Number:	Rev:	
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APPENDIX G- PROPOSED **STRUCTRUAL INTERVENTIONS**



INDICATIVE ARRANGEMENT
(SHOWING CHANGES AT ROOF & L5)

General notes:

1. All arrangements are indicative only pending design development, completion of surveys and completion of intrusive investigations.
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Rev:	Description:	Date:	By:
V01	FIRST ISSUE	12/04/17	TJM

GENERAL NOTES:

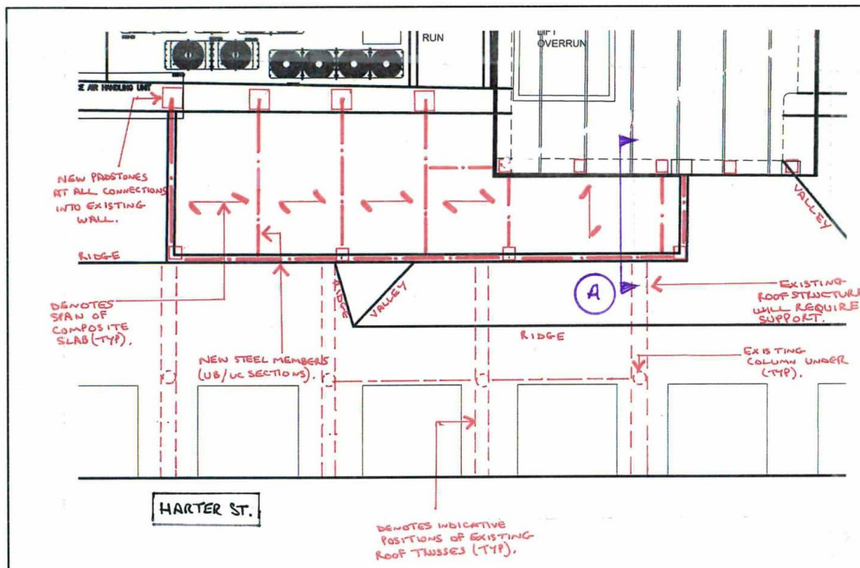
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Project: 40-46 Princess Street
Drg Title: INDICATIVE ARRANGEMENT FOR NEW FLAT ROOF (NORTH)
Status: PRELIMINARY
Drawn By: TJM | Checked By:
Designed By: TJM | Date:
Scale: NTS

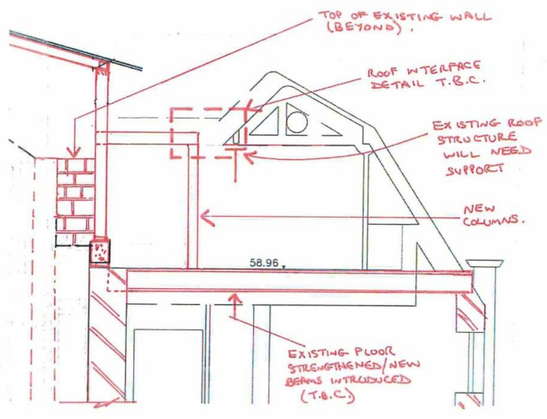
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APPENDIX G- PROPOSED **STRUCTRUAL INTERVENTIONS**



PART-PLAN (ROOF)



SECTION 'A'

General notes:

1. All arrangements are indicative only pending design development, completion of surveys and completion of intrusive investigations.
2. Any existing structure shown is indicative only and is to be confirmed by intrusive investigation.
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GENERAL NOTES:

Rev:	Description:	Date:	By:
V01	FIRST ISSUE	12/04/17	TJM

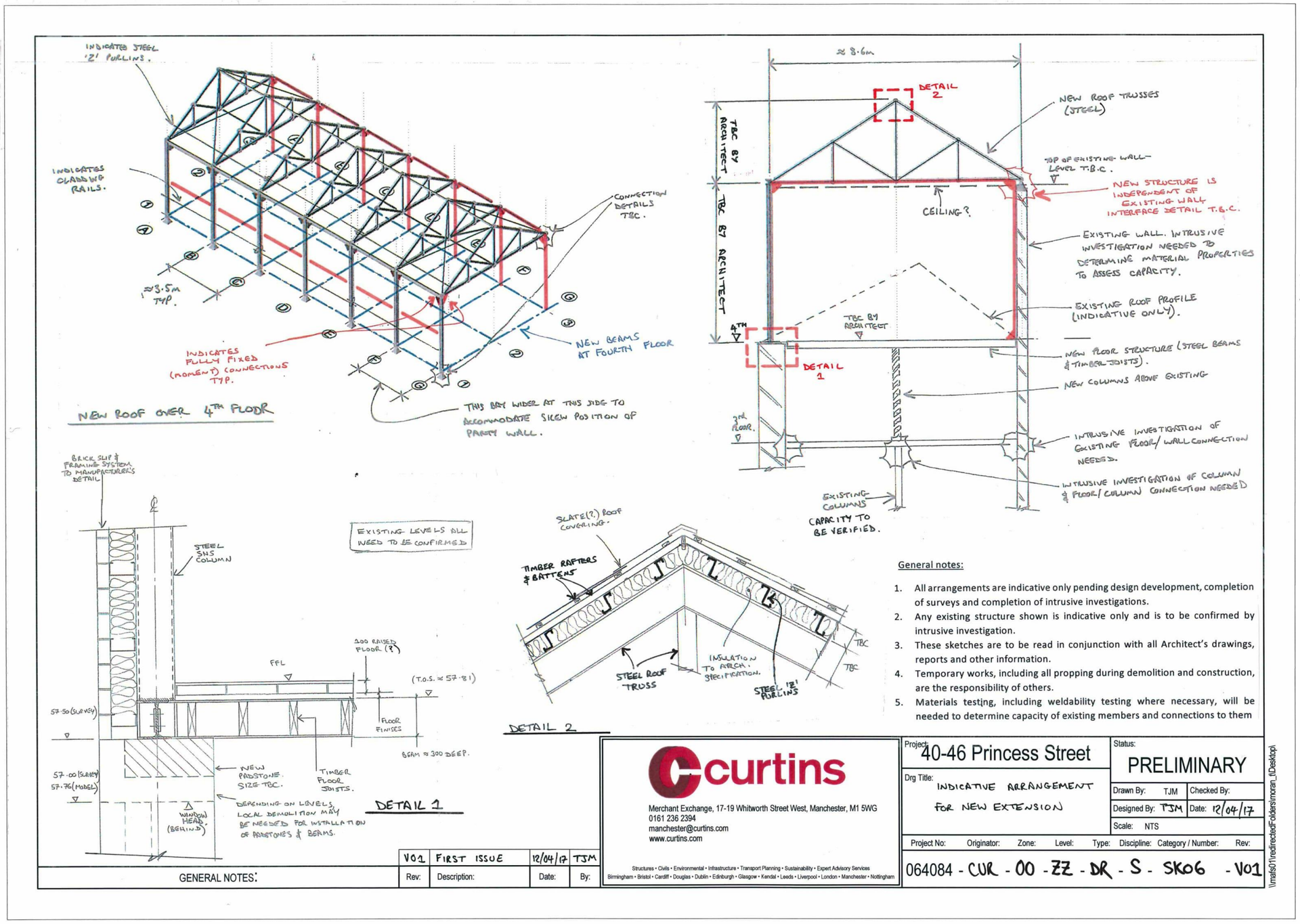
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Project: 40-46 Princess Street
Drg Title: INDICATIVE ARRANGEMENT FOR NEW FLAT ROOF (SOUTH).
Status: PRELIMINARY
Drawn By: TJM | Checked By:
Designed By: TJM | Date: 12/04/17
Scale: NTS

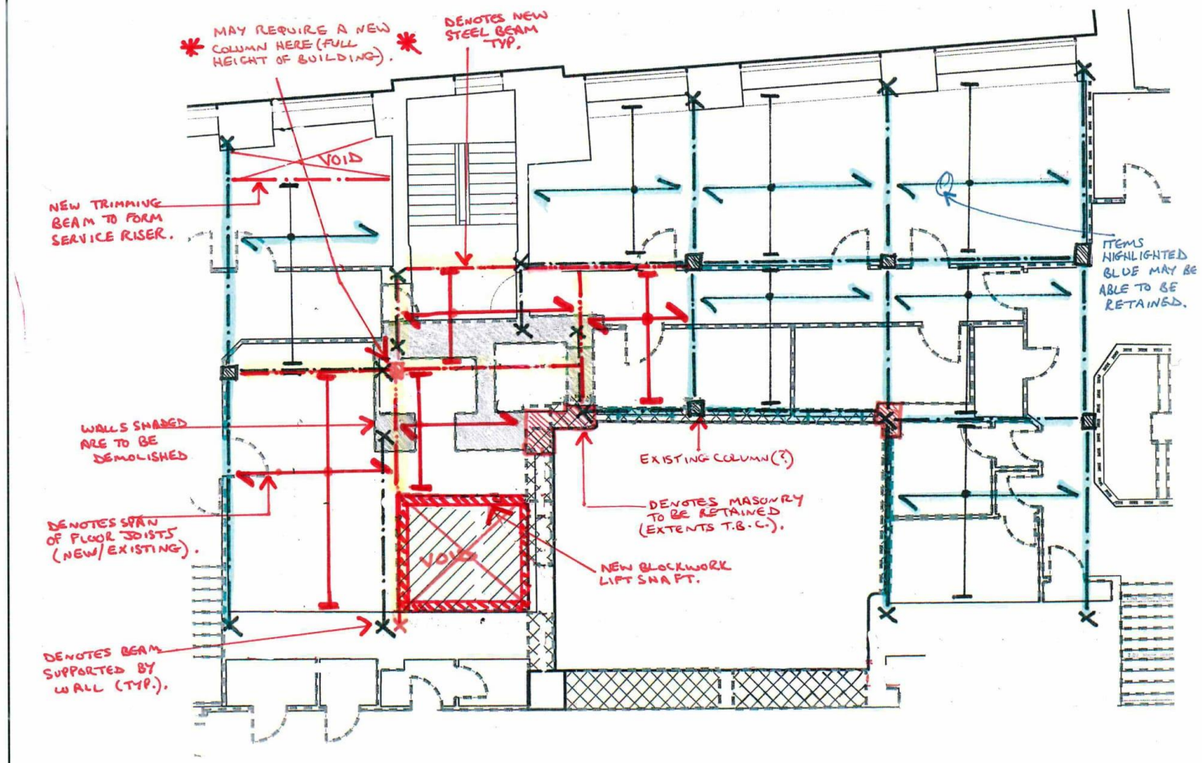
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APPENDIX G- PROPOSED **STRUCTRUAL INTERVENTIONS**



APPENDIX G- PROPOSED **STRUCTRUAL INTERVENTIONS**



INDICATIVE ARRANGEMENT
(TYPICAL TO UPPER FLOORS)

General notes:

1. All arrangements are indicative only pending design development, completion of surveys and completion of intrusive investigations.
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Rev:	Description:	Date:	By:
V01	FIRST ISSUE	12/04/17	TJM

GENERAL NOTES:

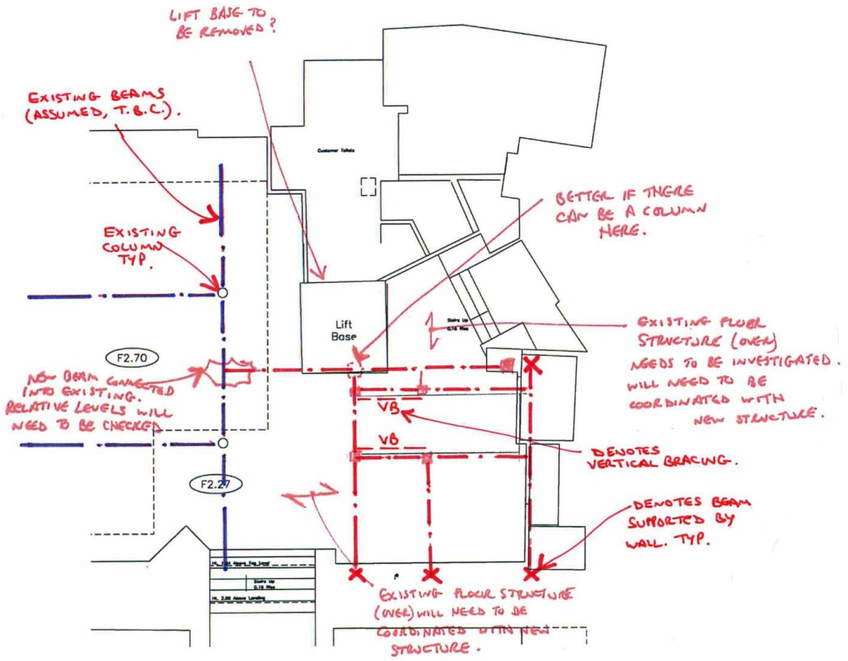
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Project: 40-46 Princess Street
Drg Title: REMOVAL OF EXISTING LIFT SHAFTS
Status: PRELIMINARY
Drawn By: TJM | Checked By:
Designed By: TJM | Date: 12/04/17
Scale: NTS

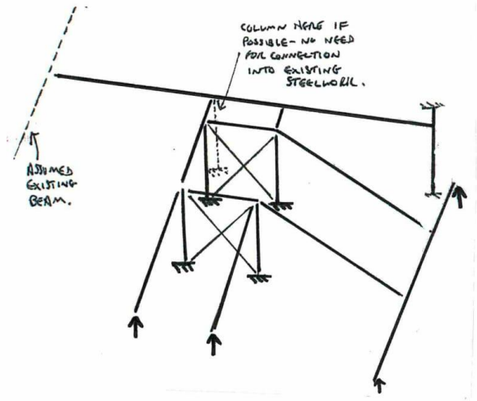
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APPENDIX G- PROPOSED **STRUCTRUAL INTERVENTIONS**



PART-PLAN (BASEMENT)
SHOWING STRUCTURE AT GROUND FLOOR



ISOMETRIC.

General notes:

1. All arrangements are indicative only pending design development, completion of surveys and completion of intrusive investigations.
2. Any existing structure shown is indicative only and is to be confirmed by intrusive investigation.
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Rev:	Description:	Date:	By:
V01	FIRST ISSUE	12/04/17	TJM

GENERAL NOTES:

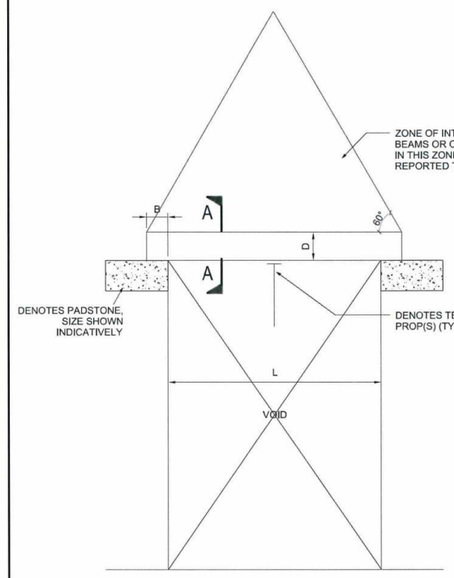
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Project: 40-46 Princess Street
Drg Title: INDICATIVE ARRANGEMENT FOR MAIN ENTRANCE RECONFIGURATION
Status: PRELIMINARY
Drawn By: TJM | Checked By:
Designed By: TJM | Date: 12/04/17
Scale: NTS

Project No:	Originator:	Zone:	Level:	Type:	Discipline:	Category / Number:	Rev:
064084	CUR	00	ZZ	DR	S	SK08	V01

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APPENDIX G- PROPOSED **STRUCTRUAL INTERVENTIONS**



L (mm)	B (mm)	D (mm)
<1000	100mm MIN	TBC
1000<L<3000	150mm MIN	TBC
>3000	200mm MIN	TBC

NEW OPENING FORMED WITH PRECAST CONCRETE LINTELS.

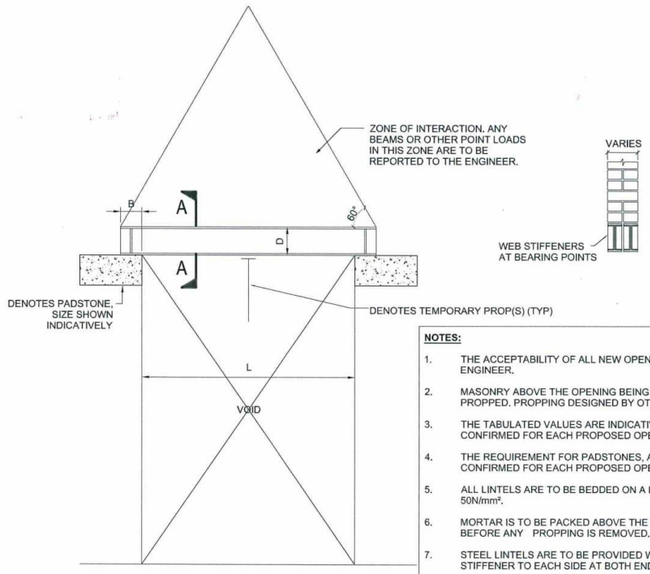
N.T.S.

NOTES:

1. THE ACCEPTABILITY OF ALL NEW OPENINGS IS TO BE CONFIRMED BY THE ENGINEER.
2. MASONRY ABOVE THE OPENING BEING FORMED IS TO BE SUITABLY PROPPED. PROPPING DESIGNED BY OTHERS.
3. THE TABULATED VALUES ARE INDICATIVE ONLY AND ARE TO BE CONFIRMED FOR EACH PROPOSED OPENING.
4. THE REQUIREMENT FOR PADSTONES, AND THEIR SIZES ARE TO BE CONFIRMED FOR EACH PROPOSED OPENING.
5. ALL LINTELS ARE TO BE BEDDED ON A LEVEL MORTAR BED OF MIN 50N/mm².
6. MORTAR IS TO BE PACKED ABOVE THE LINTEL AND ALLOWED TO CURE BEFORE ANY PROPPING IS REMOVED.

SUGGESTED METHOD STATEMENT

1. NEEDLE THROUGH EXISTING WALL TO TEMPORARILY SUPPORT MASONRY ABOVE NEW OPENING.
2. CAREFULLY REMOVE MASONRY UNITS TO FORM OPENING, TAKING CARE NOT TO DAMAGE ADJACENT UNITS.
3. INSTALL PADSTONES IF NEEDED.
4. INSTALL LINTEL AND TEMPORARILY PROP IF REQUIRED.
5. REMOVE PROP AFTER MORTAR PACKING ABOVE LINTEL HAS CURED.



L (mm)	B (mm)	D (mm)
<1000	100mm MIN	TBC
1000<L<3000	150mm MIN	TBC
>3000	200mm MIN	TBC

NEW OPENING FORMED WITH STEEL BEAMS

N.T.S.

NOTES:

1. THE ACCEPTABILITY OF ALL NEW OPENINGS IS TO BE CONFIRMED BY THE ENGINEER.
2. MASONRY ABOVE THE OPENING BEING FORMED IS TO BE SUITABLY PROPPED. PROPPING DESIGNED BY OTHERS.
3. THE TABULATED VALUES ARE INDICATIVE ONLY AND ARE TO BE CONFIRMED FOR EACH PROPOSED OPENING.
4. THE REQUIREMENT FOR PADSTONES, AND THEIR SIZES ARE TO BE CONFIRMED FOR EACH PROPOSED OPENING.
5. ALL LINTELS ARE TO BE BEDDED ON A LEVEL MORTAR BED OF MIN 50N/mm².
6. MORTAR IS TO BE PACKED ABOVE THE LINTEL AND ALLOWED TO CURE BEFORE ANY PROPPING IS REMOVED.
7. STEEL LINTELS ARE TO BE PROVIDED WITH A MIN. 1No. 12mm WEB STIFFENER TO EACH SIDE AT BOTH ENDS.

SUGGESTED METHOD STATEMENT

1. NEEDLE THROUGH EXISTING WALL TO TEMPORARILY SUPPORT MASONRY ABOVE NEW OPENING.
2. CAREFULLY REMOVE MASONRY UNITS TO FORM OPENING, TAKING CARE NOT TO DAMAGE ADJACENT UNITS. IF A LINTEL ABOVE AN EXISTING OPENING IS BEING REPLACED, REMOVE EXISTING LINTEL
3. INSTALL PADSTONES IF NEEDED.
4. INSTALL NEW LINTEL AND TEMPORARILY PROP IF REQUIRED.
5. REMOVE PROP AFTER MORTAR PACKING ABOVE LINTEL HAS CURED.

General notes:

1. All arrangements are indicative only pending design development, completion of surveys and completion of intrusive investigations.
2. Any existing structure shown is indicative only and is to be confirmed by intrusive investigation.
3. These sketches are to be read in conjunction with all Architect's drawings, reports and other information.
4. Temporary works, including all propping during demolition and construction, are the responsibility of others.
5. Materials testing, including weldability testing where necessary, will be needed to determine capacity of existing members and connections to them.

Rev:	Description:	Date:	By:
V01	FIRST ISSUE	12/04/17	TJM

GENERAL NOTES:

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Project: 40-46 Princess Street

Drg Title: TYPICAL LINTEL DETAILS

Status: PRELIMINARY

Drawn By: TJM | Checked By:

Designed By: TJM | Date: 12/04/17

Scale: NTS

Project No:	Originator:	Zone:	Level:	Type:	Discipline:	Category / Number:	Rev:
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