

10 Lyndhurst

Structural Methodology Statement

31 January 2024

5737-MOM-XX-XX-SP-C-11002-P01

Contents

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Author

B Kiransal
MEng IStructE



Checker

M Hutchison
BEng CEng MStructE



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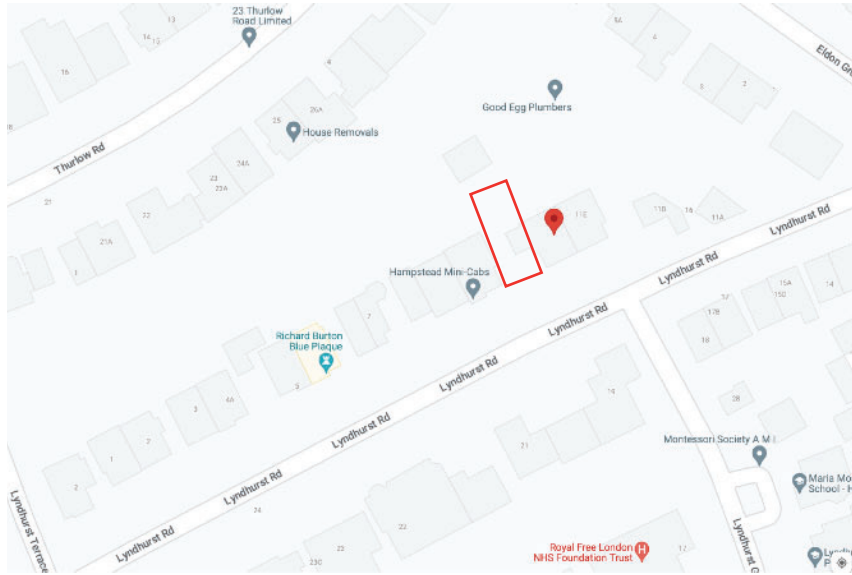
Issue History

Rev.	Date	Comments
1	31.01.2024	First Issue for planning



Introduction

The Structural Methodology Statement has been created to describe the existing site conditions and proposed demolition and new built, 10 Lyndhurst Road, London.



The structure — located within London Borough of Camden, is a two storey semi-detached masonry house. Due to the poor condition of the existing structure it is proposed to demolish the existing property and replace it with a 2 storey dwelling with a basement and a rear garden annex.

This report includes the following:

- Summary of existing and proposed structures
- Preliminary Geotechnical Summary by GEA
- Structural drawings
- Sequencing of works

Construction of basements with new built structures are considered to be fairly typical of a project of this nature. This method statement provides a suitable approach for accomplishing this scheme whilst maintaining the structural integrity of the adjacent properties to the site.

Ground and water (GEA) carried out a desk study, ground investigation and ground movement assessment of the site (report dated January 2024). Potential issues with the proposed design have been identified and where necessary, methods for managing and mitigating the effects associated with these works have been outlined.

It should be noted that the proposals shown in this document may be refined or adjusted during the design process, however the design principles of minimising ground movement and avoiding adverse effects on surrounding ground and adjacent structures remain unchanged.

Momentum has significant experience working on projects of this nature, and the proposals in this report are based on similar basement projects constructed near to and under existing buildings.



1. Existing Structure

1.1. Introduction

The structure is located at the following address:

10 Lyndhurst Road
London
NW3 5PX

National grid reference for the site is TQ 26784 85510.

The structure is Annex of a Victorian 2 storey semi-detached property. The following elements were observed for the existing structure:

- The house is semi-detached and has a party wall on 3 No locations; one neighbouring property and two no garden wall; side and rear.
- It has a rear and front garden where the front garden is a leasehold and no external pathway between the two gardens.
- Main access point to the property is through the front entrance.
- Ground floor make up is assumed to be concrete whilst the first floor make up is traditional suspended timber joists

1.2. Current condition

Based on the Defects Investigation Report (P112_000 RICS defect report - 10 Lyndhurst Rd NW3 5PX) for the property and following a site visit on the 14th September 2023, it was noted that the condition of the property is poor and advised to be demolished.

- Signs of defect on flat roof.
- Signs of cracking on walls.
- Signs of moisture ingress or water damage.
- Evidence of dry rot infestation in structural timbers at the first floor and roof levels.
- There are areas of structural disrepair and roof finishes and parapet gutters are failed requiring wholesale reconstruction.

1.3. Site Investigation

Ground and Water (GW) carried out a desk study, ground investigation and ground movement assessment of the site.

A Ground Investigation & Basement Impact Assessment report was produced by G&W (dated January 2024). This report also forms part of a Basement Impact Assessment (BIA), which has been carried out in accordance with guidelines from the London Borough of Camden (LBC) in support of a planning application. Refer to report in Appendix C.

The report was produced following a site investigation on 12th December 2023. This included boreholes, trial pits, standard penetration testings and dynamic probing.





Front face of the property



Rear face of the property



Rear end garden wall where the garden annex will be located

2. Proposed development

2.1. Introduction

The following sections describe the proposed development and principal structural elements in the design. This includes both permanent and temporary works, as follow:

- New reinforced concrete box basement with an increased footprint compared to the existing structure.
- Ground floor to be RC concrete.
- Lightweight superstructure consisting of both timber, steelwork and masonry facade.
- 1 storey external annex consisting concrete substructure and timber superstructure.

See Appendix A for General Arrangement and sections.

2.2. Substructure

New RC basement box is proposed with mass concrete underpinning of the existing load bearing walls. The current proposal includes the following:

Main structure

- A mass concrete underpinning of the load bearing walls on both sides of the property. The existing load bearing masonry will be underpinned sequentially in 1m sections with mass concrete, width to suit existing.
- New basement RC box to be cast in 1m sections adjacent to the existing neighbouring walls. The basement reinforced concrete floor will be spanning between the new RC retaining wall toes and the new ground floor will be spanning between top of new retaining walls, forming the new RC basement box whilst propping the retaining walls top and bottom.
- All basement slabs will be supported on compressive fill to protect against heave.

Annex

- A mass concrete underpinning of the masonry garden wall, rear end of the proposed structure. The existing garden wall will be underpinned sequentially in 1m sections with mass concrete. Foundations widths are designed to keep bearing pressures within allowable limits.
- Foundation to be a combination of screw piles and ground beams spanning between.
- Ground floor reinforced concrete slab to span between ground beams.
- Slabs will be supported on compressive fill to protect against heave.

Underpinning

Underpinning of the existing walls will be carried out carefully using a traditional mass concrete sequence. This will avoid placing unnecessary stresses on the existing masonry fabric. Underpinning widths will be limited to a maximum of 1m. Mass concrete pins will be used typically unless reinforced concrete ones are required.

The appointed contractor should be suitably experienced and competent for the task. A suitable method statements will be required from the contractor to ensure good practice is followed.

Foundations

Existing masonry walls being underpinned will have their corbels removed on one side. New RC basement box will spread the load to a width to suit the allowable bearing pressure based on the findings of the Site Investigation.

Retaining structures

The concrete box which acts like a propped retaining wall will be constructed using concrete liner walls on the two sides. Excavation will be carried out carefully using sequences. Excavation widths will be limited to a maximum of 1m.

The retaining structure will be propped during the excavation of the basement where required and until the ground floor slab is cast. This propping will be formed by steel waling beams and props across the excavation or raked down to basement slab level. Temporary works will be developed by the contractor's temporary works engineer to suit the contractor's preferred method of working.

Waterproofing

The new basement structure will be waterproofed using a proprietary system specified by the Architect. This is likely to be a waterproofing geotextile membrane cast between the compressive fill and the reinforced concrete basement box with either waterproof concrete or a cavity drain system forming a second barrier.

As there will be potential for groundwater to collect behind the retaining walls, the basement will be waterproofed and designed to withstand hydrostatic pressures in accordance with BS8102:2009: Code of Practice for the Protection of Below Ground Structures against Water from the Ground.

Heave

Compressive fill material to be installed under the basement slab to prevent any heave due to the expansion of the London clay from unloading the clay.

Excavation

The ground investigation has highlighted that the proposed new basement will result in a formation level within the London Clay. Therefore it was noted that groundwater is unlikely to be encountered within the basement excavation and spread foundations at the proposed depths may be designed to apply a net allowable bearing pressure of 100 kN/m².

During construction should groundwater/perched water be encountered across the site, dewatering from sumps introduced into the floor of the excavation may be required.

2.3. Superstructure

The current proposals include the following:

- Installation of both RC beam and RC columns within basement, supporting superstructure.
- The construction of a reinforced concrete slab at ground floor level spanning between top of basement box retaining walls and RC beams forming two levels (lower and upper).
- Installation of transfer steel columns supporting timber structure above.
- The construction of timber joists and ply decking floors on the first floor in two separate levels, spanning between timber beams and load bearing walls.
- Installation of load bearing timber stud walls.
- Installation of external masonry panels (by others) supported by timber stud walls.

2.4. Construction sequence and temporary works

A construction sequence and indicative temporary propping scheme for the basement has been developed to support the planning application.

To carry out safe demolition of the existing structure a more detailed sequence of demolition and temporary works will be developed by the contractor's temporary works engineer. This will ensure the stability of the neighbouring properties is maintained during the works with minimal damage. An indicative construction sequence for the work is as follows:

Phase 1 - Demolishment and installation of garden annex

- (i) Demolition of the existing structure.
- (ii) Install screw piles at the rear end by the garden party wall for the garden annex structure.
- (iii) Form ground beams spanning between piles.
- (iv) Form reinforced ground floor slab spanning between ground beams with up-stand at rear garden acting as a small retaining wall.
- (v) Install timber superstructure for the garden annex.

Phase 2 - Construction of main structure

- (i) Sequentially underpin the masonry party walls on either side with mass concrete.
- (ii) Excavate and form concrete box lower slab and retaining walls. Use temporary props to support the top of retaining walls before excavation. Due to the depths of the excavation, it will need to be installed in 1m wide sections. Sequences are to be propped at each stage.
- (iii) Form RC column and beams providing support for ground floor slab.
- (iv) Form RC ground floor slab spanning between basement box retaining walls and RC beams. Providing lateral stability to top of retaining wall.
- (v) Install transfer steel columns providing support for timber elements at first floor level.
- (vi) Install timber superstructure.
- (vii) An experienced and competent contractor is critical to the success of the project. Suitable method statements will be required from Contractors to ensure good practice is followed.

The proposed construction sequence is shown in Appendix B.

2.5. Drainage

Below ground drainage is proposed to have a pump system within the basement level based on the high invert level of a manhole located at the front garden of the property and implement gravity system where possible.

Within the G&W report it is noted that the amount of surface water draining into the ground may be subject to change due to the amount of hardstanding across the entire site was anticipated to increase. In accordance with the London Plan Policy 5.13 Sustainable Drainage the surface water run-off will be managed as close to its source as possible in line with the drainage hierarchy highlighted within the G&W report (Appendix C) and as below.

- store rainwater for later use;
- use infiltration techniques, such as porous surfaces in non-clay areas;
- attenuate rainwater in ponds or open water features for gradual release;
- attenuate rainwater by storing in tanks or sealed water features for gradual release;
- discharge rainwater direct to a watercourse;
- discharge rainwater to a surface water sewer/drain;
- discharge rainwater to the combined sewer.

Foul and surface water is intended to discharge to Thames Water sewers in the main road. Complete strategy to be provided once full CCTV survey is completed.

2.6. Basement movement monitoring

The adjoining properties should be monitored for line and level during the underpinning, excavation and construction of the new basement. This could be carried out by the main contractor or by a specialist monitoring contractor. A suggested method would be to fix reflective targets to the adjoining structures and record the relative movements of each wall using laser measurements.

Measurements should be taken once a week during underpinning works and the results recorded. If the cumulative movement in any direction (perpendicular to the wall, along the plane of the wall, or vertically) reaches +/- 5mm, work should be stopped and appropriate action agreed between the representatives for 10A Lyndhurst Road and the adjoining properties. Measurements should be taken once a month for the remainder of the construction programme once underpinning is complete.

The cost of the movement monitoring should be agreed between the movement monitoring contractor and the client.

3. Ground Investigation & BIA report

A Ground Investigation & Basement Impact Assessment report was produced by G&W (dated January 2024). The report was produced following a site investigation on 12th December 2023.

3.1. Ground conditions

The findings for the ground conditions are listed below (See Appendix C for the full report):

Environmental checks

- The site fell within a Flood Zone 1, not benefitting from flood defences or flood storage areas. There was no risk of reservoir flooding on-site. The site and surrounding area was at very low risk of surface water flooding.
- The site is not affected by radon emissions. Although, as the site is a basement however, it is considered to be a vulnerable structure and upgrading waterproofing to include some radon protection is recommended.
- Fresh roots were noted to 0.30m bgl within TP2, 0.50m bgl within WS3 and TP1a/b/c, as well 1.00m bgl within WS1 and WS3. Fresh roots were also noted to the full depth of TP4 (0.45m bgl) and TP5 (0.40m bgl).

Preliminary UXO Risk Assessment

- A review of the data available on www.zeticauxo.com/ revealed the site was located within the London high-risk area associated with unexploded ordnance (UXO). The London area is further separated into 25No. categories based on bombing densities, where green is indicated for areas having <10 bombs dropped per km² and red is indicated for areas having >150 bombs dropped per km². The site is situated within the orange area, ~halfway through the spectrum.
- It is recommended that a Preliminary UXO report is purchased for the site to better assess the UXO risk.

Geology

- The BGS Geological Map for the area revealed that the site was underlain by the Claygate Member, underlain by the London Clay Formation bedrock. No superficial deposits, outcrops of other bedrock deposits or areas of Made/Worked Ground were noted within close proximity of the site.
- At the rear end of the garden made ground was encountered, comprised of dark brown gravelly sandy silty clay, sand was fine to coarse, gravel was fine to coarse and sub-angular to sub-rounded flint. Extending to a depth of 0.00m to 0.60m below existing ground level.
- The Claygate Member comprised brown/orange mottled slightly sandy silty clay. It extended to depths of 2.90m to 3.20m below existing ground level.
- The London Clay Formation comprised grey/brown/orange mottled silty clay. It extended to the full depth of the investigation of 5.00 m below existing ground level.

Aquifers

- As the site was underlain by a Secondary (A) Aquifer, underlain by Unproductive Strata, there was considered to be a risk of groundwater flooding; however, this is considered to be low as a result of the anticipated cohesive nature of the soils.

Groundwater

- No groundwater strikes were noted during the site investigation. It should be noted that groundwater strikes may have been obscured by the drilling processes.
- It was anticipated that groundwater was perched on top of the London Clay Formation, within the Claygate Member. Perched water was also likely to be found within the Made Ground and underlying strata where silty/sandy/gravelly bands are noted, especially after periods of intense or prolonged rainfall. Based on the proposed basement depth, it was possible that some water may be encountered during construction.
- No surface water features or watercourses were noted within a 250m radius of the site.
- The site was not located within the catchment of any of the pond chains of Hampstead Heath.
- The amount of hardstanding across the entire site was anticipated to increase; therefore, the amount of surface water draining into the ground may be subject to change.

- No surface water features were noted within a 250m radius of the site. The nearest surface water feature was observed to be the Hampstead Heath Pond 1, noted ~620m north-west of the site. The Grand Union Canal was noted ~2.10km south-east of the site. The easterly flowing River Thames was noted ~6.10km south-east of the site. No old rivers were noted in close proximity to the site.

Ground contamination

- Elevated levels of lead were found within all samples; therefore, a Full Contamination Assessment is recommended, which was not within the scope of G&W Investigation Report.
- See section 3.2 for further information.

Existing foundations

- The investigation has indicated that the existing foundations of the neighbouring properties extend to depths of between 0.56 m and 2.75 m below existing lower ground floor level.
- Existing foundation levels and dimensions to be confirmed on site when work starts.

3.2. Basement Impact Assessment

The impact of the proposed basement construction has been assessed by GEA. Potential issues have been identified for the property. These concerns have been assessed within the report and are summarised in the following sections (See Appendix C for the full report).

Extent of groundwater

- As the site was underlain by a Secondary (A) Aquifer, underlain by Unproductive Strata, there was considered to be a risk of groundwater flooding; however, this is considered to be low as a result of the anticipated cohesive nature of the soils.
- A groundwater monitoring well should be installed as part of the site investigation, as well as groundwater dip measurements following the site works, to investigate groundwater levels.

Soil heave

- Given the overburden pressure release following excavation of soil, as well as the loading of retaining wall foundations, the pressure across the basement is likely to cause differential settlement and heave.
- Regarding the bulk basement construction, care will need to be taken to ensure that the slab is protected through accommodating heave (primarily) and any seasonal if applicable.
- Foundations should be designed in accordance with soils of high volume change potential.
- A maximum amount of heave of 24.10mm was noted following the mass excavation of the basement void (Model 3), and was noted to be the maximum amount of heave during the construction phases.
- The highest risk of movement will likely occur during the construction of the basement and later through long-term heave of the constructed basement.

Retaining Walls & Underpinning of existing foundations

- No specific concerns regarding retaining walls were highlighted. Proper design will ensure the integrity of the proposed and adjacent structures.
- Given the design of basements, retaining walls should be appropriately designed to withstand the horizontal pressure of adjacent strata.
- New foundations should be taken through any Topsoil/Made Ground before founding onto competent, moisture stable soils. New foundations or underpins bearing in the firm Claygate Member or underlying London Clay may be designed to apply a net allowable bearing pressure of 100 kN/m².

External Annex foundations

- For the shallow footings of the annex, given the presence of cohesive soils at shallow depth, special foundation precautions may be required to prevent possible future shrinkage/swelling of the soils affecting the integrity of the faces of foundations (underfloor void diameter/compressible material/void formers etc).
- A compressible layer must be provided to accommodate potential seasonal movement, based on NHBC guidance.
- Foundations should be taken through any Topsoil/Made Ground before founding onto competent, moisture stable soils. It is recommended that an absolute minimum depth of 1.00m bgl is designed to apply a net allowable bearing pressure of 120 kN/m².

- Proposed foundations consists of screw piles as an alternative solution.

Nearby trees

- Foundations must not be placed within fresh root penetrated and/or desiccated soils with volume change potential. It is recommended that foundations are taken at least 300mm into non-fresh root penetrated strata if the soils have volume change potential, or into soils of no volume change potential.
- The influence of trees on or surrounding the site will need to be taken into account in final design (NHBC Standards Chapter 4. 2) (tree rings).

Ground contamination

- Aggressive ground conditions are identified therefore it is recommended a suitable concrete class should be used for all sub-surface concrete used for all foundations, based on the levels of sulphates and the pH within the ground it is being constructed on/through.
- In accordance with BRE Special Digest 1, 2005, 'Concrete in Aggressive Ground' a Sulphate Design Class of DS-1 could be used and Table C1 of the Digest indicated an ACEC (Aggressive Chemical Environment for Concrete) classification of AC-1.
- Testing in accordance with BRE Special Digest is required to be undertaken and a concrete specification is to be provided.

Basement Construction

- If the construction works take place during the winter months, when the groundwater level is expected to be at its higher elevation, water could accumulate thus dewatering could be required to facilitate the construction and prevent the base of the excavation blowing before the slab was cast.
- The lower ground floors must be suitably tanked to prevent ingress of groundwater and also surface water run-off. A dewatering or permitting grout contingency plan should be included within the Construction Method Statement and considered in the final design.
- As there will be potential for groundwater to collect behind the retaining walls, the basement should be waterproofed and designed to withstand hydrostatic pressures in accordance with BS8102:2009: Code of Practice for the Protection of Below Ground Structures against Water from the Ground.
- Should groundwater/perched water be encountered across the site, dewatering from sumps introduced into the floor of the excavation may be required. Consideration could be given to creating a coffer dam using contiguous piled or sheet piled walls to aid construction below the perched water.

Site Drainage

- The principles of SUDS and the requirements of the London Plan Policy 5.13 Sustainable Drainage should be applied to reduce the risk of flooding from surface water ponding and collection associated with the construction of the basement.
- In accordance with the London Plan Policy 5.13 Sustainable Drainage the surface water run-off should be managed as close to its source as possible in line with the drainage hierarchy highlighted within the G&W report (Appendix C).
- The submission of a Sustainable Urban Drainage Scheme (SUDS) is likely to be required for this site due to the proposed development increasing the amounts of hardstanding.
- Consultation with the Environment Agency must be sought regarding any use that may have an impact on groundwater resources, abstractions and surface water features/watercourses.

3.3. Ground movement

The report comprises an analysis of the ground movements arising from the proposed basement and foundation scheme.

The findings for the ground movement are listed below (See Appendix C for the full report):

- All walls were assessed as having Category 0 (Negligible) damage.
- It is recommended to monitor the adjacent properties and structures during the construction stages as good practice.
- It is conventionally considered that given the ground conditions and good workmanship, the amount of structural movement of underpinned walls can be expected to reach a maximum of -5.00mm per stage of underpinning.

- The magnitude of the horizontal movement of the underpinned wall was assumed to be equal to the vertical movement of the wall, 5.00mm.
- The southern extreme of the Overground London Underground line is about 20.00m north of the northern boundary of the proposed basement. Ground movement relating to the underpinned basement is to extend 14.00m. Therefore, no ground movement is to be expected at the location of the tunnel.

4. Conclusion

This report has been created to describe the existing site conditions and proposed development to the site. It is proposed the existing structure is demolished and replaced with a 2 storey dwelling with a basement and a rear garden annex.

This method statement provides a suitable approach for delivering this scheme whilst maintaining the structural integrity of both the existing property and adjacent properties to the site. Using current best practice, and careful sequencing of construction and temporary works, it is considered that movements can be kept within acceptable limits.

An experienced and competent contractor is critical to the success of the project. Suitable method statements will be required from Contractors to ensure good practice is followed.

Detailed specifications and monitoring strategies will be produced to ensure that the project is carried out competently and effectively.

Following the Ground investigation & BIA report issued by G&W (January 2024), it is recommended the following:

- Monitoring of the ground water to determine the extent of any seasonal fluctuations.
- Design of the basement slab for uplift due to heave.
- Potential dewatering required during construction of the basement only.
- Form the retaining walls and underpinning of the existing foundations using a traditional 'hit and miss' approach.
- Foundations or underpins should bear within the Claygate Member or underlying London Clay.
- Design of foundations using a net allowable bearing pressure of 100 kN/m².
- Specify DS-1/AC-1s concrete.
- Solutions to mitigate contamination should be taken into consideration (i.e safe method of work, clean top soil for landscaping, contact local authorities for waste disposal).
- Maximum vertical and horizontal settlements predicted to be less than 5mm.
- Elevated levels of lead were found within all samples; therefore, a Full Contamination Assessment is recommended
- A qualified arboriculturist should be consulted for advice on the impact of nearby trees to the construction of the basement.
- Full CCTV survey to be completed.
- The submission of a Sustainable Urban Drainage Scheme (SUDS) is likely to be required for this site due to the proposed development increasing the amounts of hardstanding.
- It is recommended that a Preliminary UXO report is purchased for the site to better assess the UXO risk.

Appendix A

Structural Drawings



NOTES

- CONTEXT:**
- 01. 10 Lyndhurst Road front garden
 - 02. Entrance to 10 Lyndhurst Road from garden
 - 03. 10 Lyndhurst Road front garden
 - 04. 10 Lyndhurst Road front garden
 - 05. 10 Lyndhurst Road front garden
 - 06. 10 Lyndhurst Road front garden
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 - 29. 10 Lyndhurst Road front garden
 - 30. 10 Lyndhurst Road front garden
 - 31. 10 Lyndhurst Road front garden
 - 32. 10 Lyndhurst Road front garden

PROPOSED:

- 101. The Cottage, 10 Lyndhurst Road
- 102. Garden path
- 103. Bin store with return roof
- 104. New lawn
- 105. New lawn
- 106. Planting beds
- 107. Level garden terrace
- 108. Retain and refurbish brick boundary wall
- 109. Existing door
- 110. Existing door
- 111. Existing door
- 112. Existing door
- 113. Existing door
- 114. Existing door
- 115. Existing door
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- 127. Existing door
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- 130. Existing door

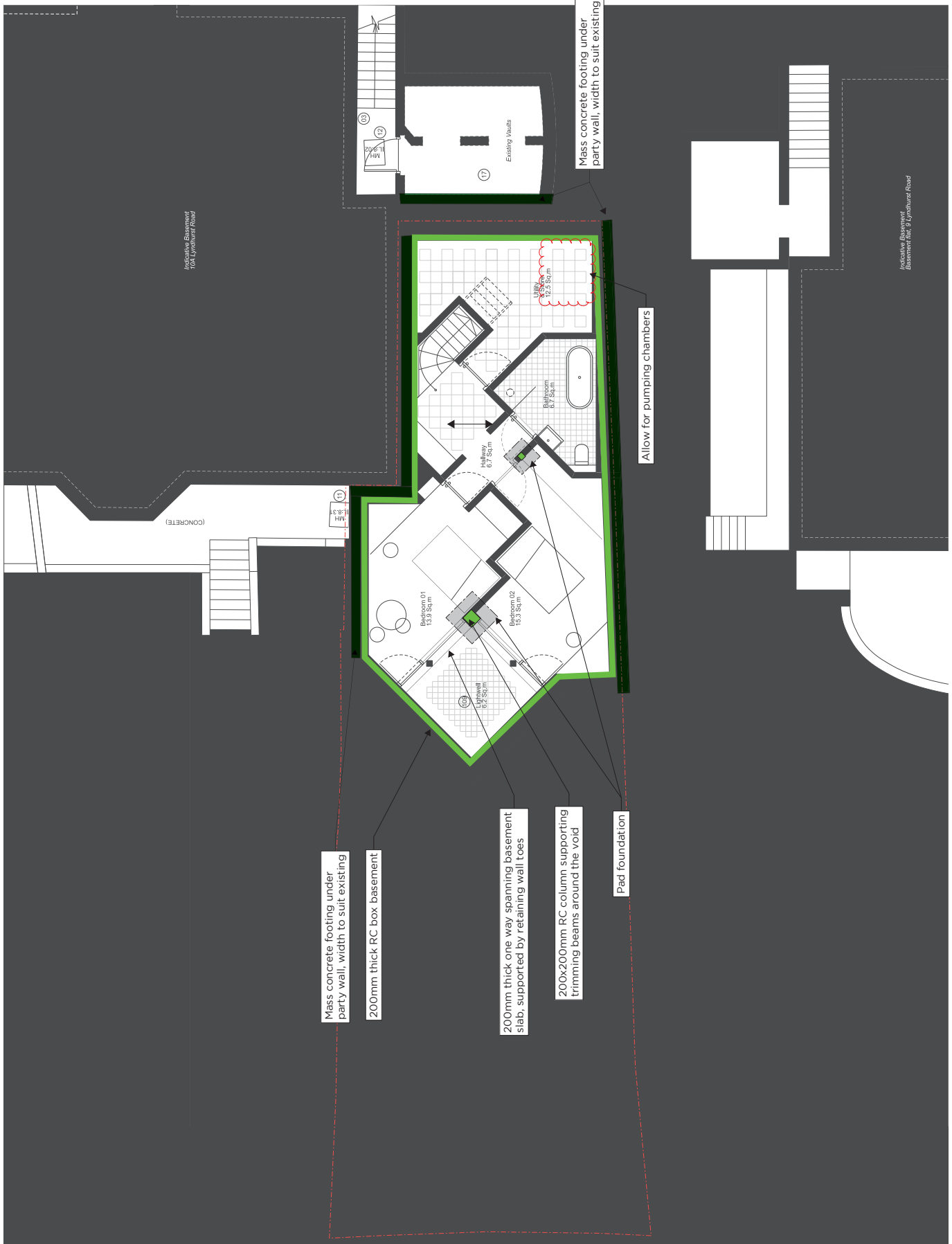
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I	18.01.24	Stage 3 - SE Issue
H	11.01.24	Stage 3 - Studio Update
G	10.01.24	Stage 3 - ASHP Relocated
F	14.12.23	Stage 3 - Draft
E	30.11.23	Stage 3 - Draft
D	24.11.23	Stage 3 - Draft Post ROL & D/S
C	17.10.23	Consultant Issue - DPR
B	13.10.23	Consultant Issue - DPR
A	29.08.23	Consultant Issue - DPR

MARY DUGGAN
 Royal Institute of British Architects (RIBA) Part 3 Registered Architect
 01225 444194 | 020 7739 9939
 www.momentumentum.com

MOMENTUM
 structural engineers
 Bath | London
 01225 444194 | 020 7739 9939
 www.momentumentum.com

Project Title
 10 Lyndhurst Road
 Drawing Title
 Preliminary Scheme (Planning)
 Drawing Reference
 5737 SK 240131
 Date
 31.01.2024
 By
 BK





NOTES

- CONTEXT:**
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 - 129. New lawn
 - 130. New lawn

revision	date	amendment
I	18.01.24	Stage 3 - SE Issue
H	11.01.24	Stage 3 - Studio Update
G	10.01.24	Stage 3 - ASHP Relocated
F	14.12.23	Stage 3 - Draft
E	30.11.23	Stage 3 - Draft
D	24.11.23	Stage 3 - Draft ROL & D/S
C	17.10.23	Consultant Issue - DPR
B	13.10.23	Consultant Issue - DPR
A	29.08.23	Consultant Issue - DPR

MARY DUGGAN
 ARCHITECT
 10 Lyndhurst Road, Bath, BA1 1JG
 01225 444194 | 020 7739 9839
 www.momentumental.com

MOMENTUM
 structural engineers
 Project Title: 10 Lyndhurst Road
 Drawing Title: Preliminary Scheme (Planning)
 Drawing Reference: 5737 SK 240131
 Date: 31.01.2024
 By: BK





NOTES

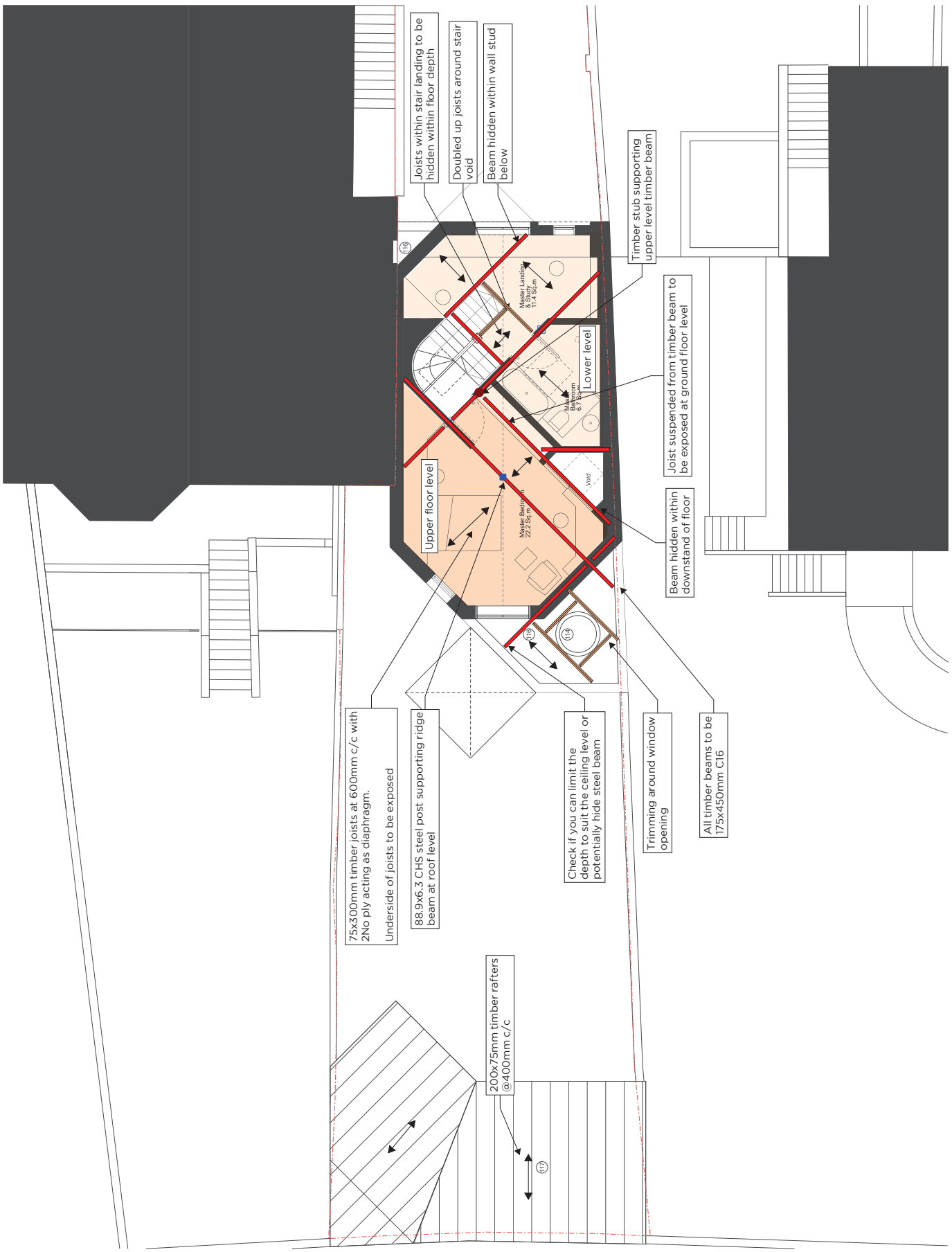
- CONTEXT:
- 01. Lyndhurst Road front garden
 - 02. Entrance to 10 Lyndhurst Road from garden
 - 03. 10 Lyndhurst Road front garden
 - 04. 10 Lyndhurst Road front garden
 - 05. 10 Lyndhurst Road front garden
 - 06. 10 Lyndhurst Road front garden
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 - 31. 10 Lyndhurst Road front garden
 - 32. 10 Lyndhurst Road front garden

- PROPOSED:
- 101. The Cottage, 10 Lyndhurst Road
 - 102. Garden path
 - 103. Bin store with return roof
 - 104. New lawn
 - 105. New lawn
 - 106. Planting beds
 - 107. Level garden terrace
 - 108. Level garden terrace
 - 109. Retained and refurbished brick boundary wall
 - 110. Level garden terrace
 - 111. Level garden terrace
 - 112. Level garden terrace
 - 113. High glazed windows
 - 114. Glass studio door
 - 115. Glass studio door
 - 116. Standing seam metal roof
 - 117. Standing seam metal roof
 - 118. Standing seam metal roof
 - 119. Stone blocks and cills
 - 120. Stone blocks and cills
 - 121. Stone blocks and cills
 - 122. Stone blocks and cills
 - 123. Stone blocks and cills
 - 124. Stone blocks and cills
 - 125. Stone blocks and cills
 - 126. Stone blocks and cills
 - 127. Stone blocks and cills
 - 128. Stone blocks and cills
 - 129. Stone blocks and cills
 - 130. Stone blocks and cills

revision	date	amendment
I	18.01.24	Stage 3 - SE Issue
H	11.01.24	Stage 3 - Studio Update
G	10.01.24	Stage 3 - ASHP Relocated
F	14.12.23	Stage 3 - Draft
E	30.11.23	Stage 3 - Draft
D	24.11.23	Stage 3 - Draft Post ROL & D/S
C	17.10.23	Consultant Issue - DPR
B	13.10.23	Consultant Issue - DPR
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MARY DUGGAN
 ARCHITECT
 10 Lyndhurst Road, Bath, BA1 1JG
 01225 444194 | 020 7739 9839
 www.momentumeengineering.com

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 structural engineers
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Notes

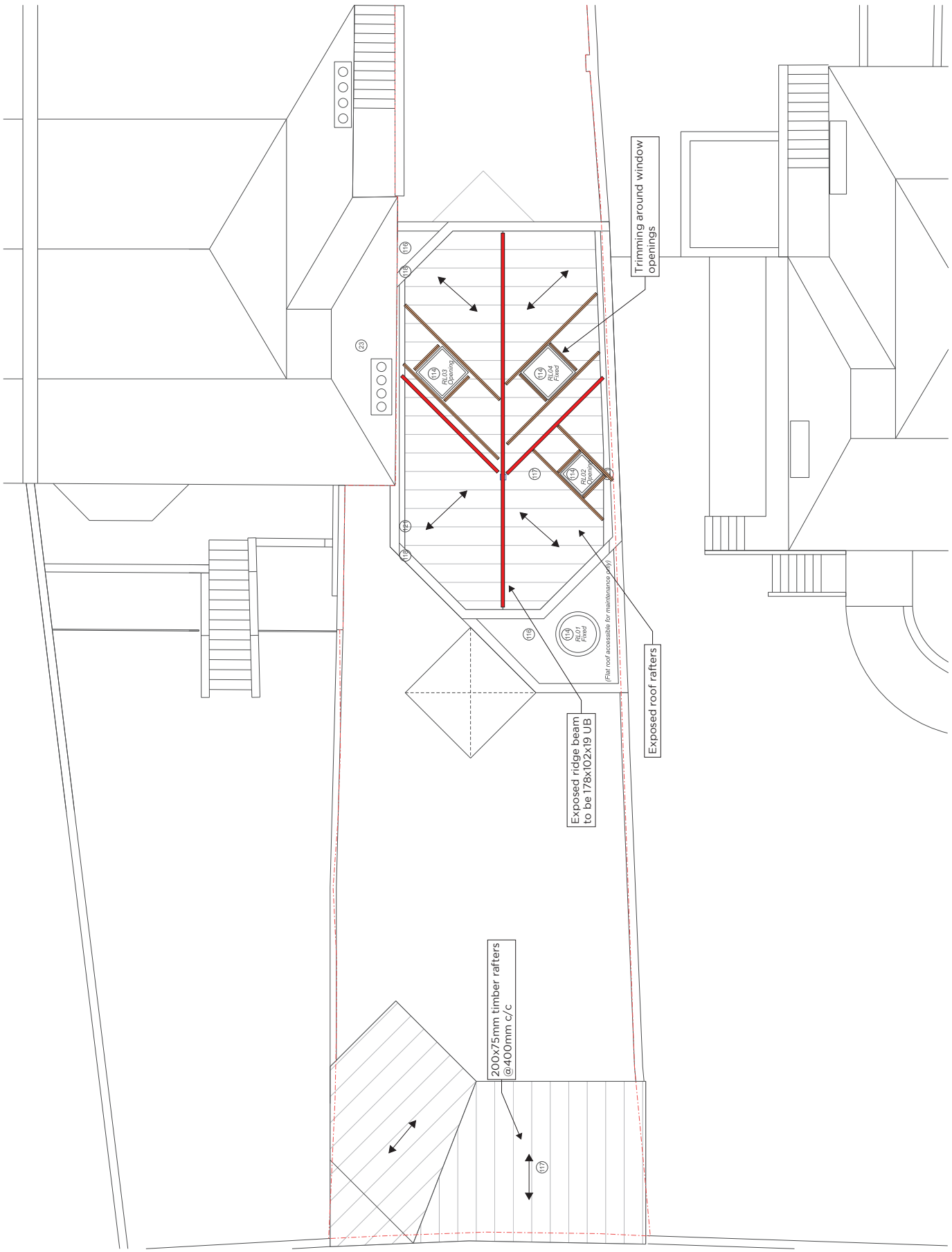
- CONTEXT:**
- 01. 10 Lyndhurst Road front garden
 - 02. Entrance to 10 Lyndhurst Road from garden
 - 03. 10 Lyndhurst Road front garden
 - 04. 10 Lyndhurst Road front garden
 - 05. 10 Lyndhurst Road front garden
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 - 31. 10 Lyndhurst Road front garden
 - 32. 10 Lyndhurst Road front garden

- PROPOSED:**
- 101. The Cottage, 10 Lyndhurst Road
 - 102. Garden path
 - 103. Bin store with setium roof
 - 104. New lawn
 - 105. New lawn
 - 106. Planting beds
 - 107. Paved garden terrace
 - 108. Paved garden terrace
 - 109. Paved garden terrace
 - 110. Paved garden terrace
 - 111. Paved garden terrace
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 - 129. Paved garden terrace
 - 130. Paved garden terrace

revision	date	amendment
I	18.01.24	Stage 3 - SE Issue
H	11.01.24	Stage 3 - Studio Update
G	10.01.24	Stage 3 - ASHP Relocated
F	14.12.23	Stage 3 - Draft
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C	17.10.23	Consultant Issue - DPR
B	13.10.23	Consultant Issue - DPR
A	29.08.23	Consultant Issue - DPR

MARY DUGGAN
 ARCHITECT
 Royal Studios, Unit 2, 2nd Floor, Black Horse, Old Bath Road, Bath, BA2 9JG
 01225 444194 | 020 7739 9839
 www.momentumentum.com

MOMENTUM
 structural engineers
 Project Title: 10 Lyndhurst Road
 Drawing Title: Preliminary Scheme (Planning)
 Drawing Reference: 5737 SK 240131
 Date: 31.01.2024
 By: BK





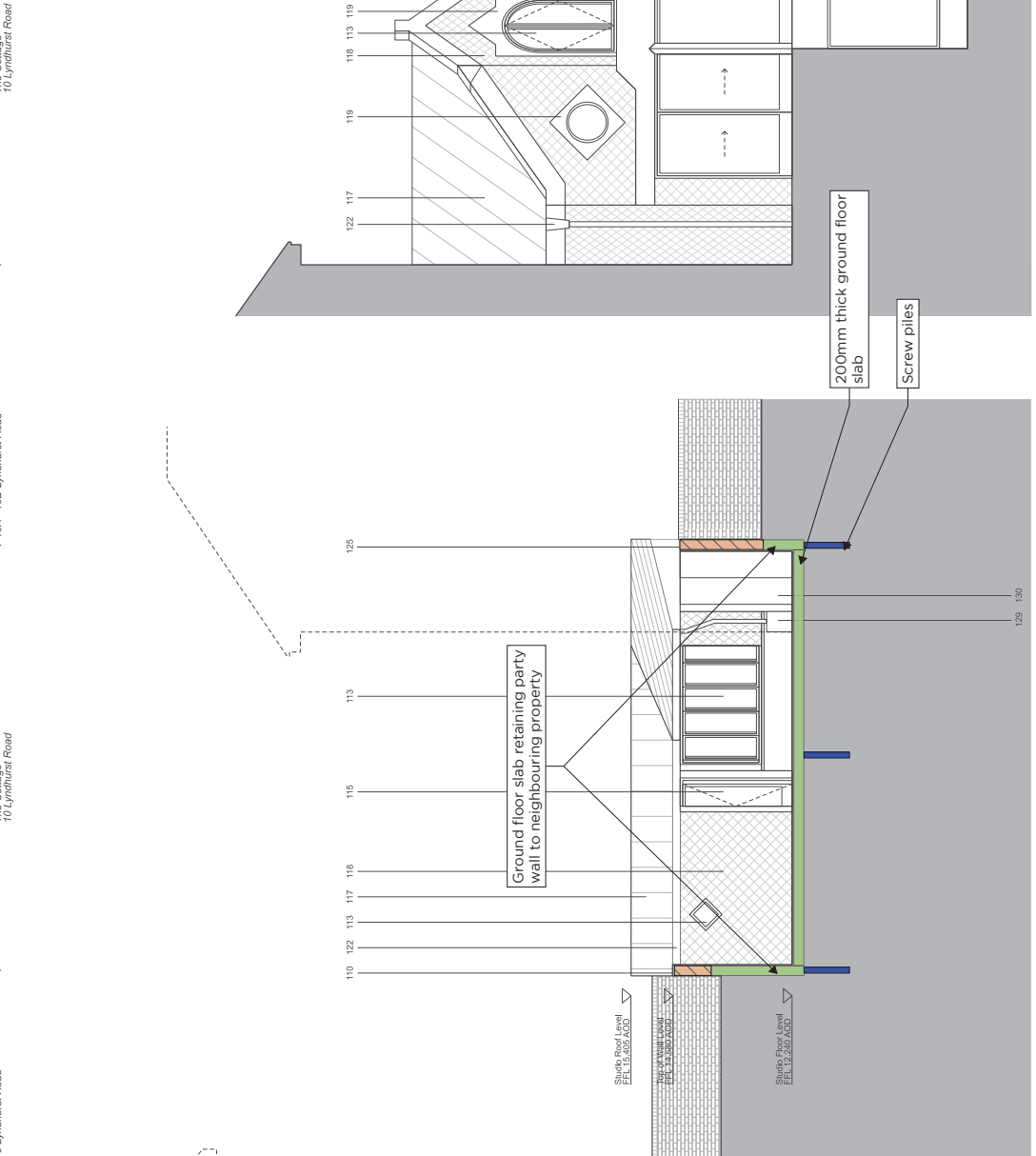
Notes

- CONTEXT:
- 01. The Cottage, 10 Lyndhurst Road front garden
 - 02. Entrance to 10 Lyndhurst Road from garden
 - 03. 700mm wide path to 10 Lyndhurst Road
 - 04. 1000mm wide path to 10 Lyndhurst Road
 - 05. 1000mm wide path to 10 Lyndhurst Road
 - 06. 1000mm wide path to 10 Lyndhurst Road
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 - 32. 1000mm wide path to 10 Lyndhurst Road

- PROPOSED:
- 101. The Cottage, 10 Lyndhurst Road
 - 102. Garden path
 - 103. Bin store with setium roof
 - 104. New lawn
 - 105. New lawn
 - 106. Planting beds
 - 107. New lawn
 - 108. New lawn
 - 109. New lawn
 - 110. Retained and refurbished brick boundary wall
 - 111. Front door
 - 112. Front door
 - 113. High glazed windows
 - 114. Glass studio door
 - 115. Glass studio door
 - 116. Standing seam metal roof
 - 117. Standing seam metal roof
 - 118. Stone blocks and calls
 - 119. Stone blocks and calls
 - 120. Stone blocks and calls
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 - 139. Stone blocks and calls
 - 140. Stone blocks and calls

The Cottage
10 Lyndhurst Road

9 Lyndhurst Road
104 - 10D Lyndhurst Road



02 - REAR ELEVATION OBLIQUE VIEW

01 - GARDEN STUDIO ELEVATION

C	18.01.24	Stage 3 - SE Issue
B	11.01.24	Stage 3 - Studio Update
A	14.12.23	Stage 3 - Draft

revision date amendment

MARY DUGGAN

ROYAL INSTITUTE OF ARCHITECTS
100, NEWINGTON GREEN, LONDON SE14 6NU

DRAWING NOT FOR CONSTRUCTION. For use only for information. All items provided are intended as indicative purposes only. All drawings are subject to change without notice. No liability for inaccuracies or omissions. Measurements have been taken to the best of our knowledge and are subject to change. All drawings are subject to the UK Government Code of Practice for Building Information Modelling (BIM) and the UK Government Code of Practice for Building Information Modelling (BIM) and the UK Government Code of Practice for Building Information Modelling (BIM).

Project Title
10 Lyndhurst Road
Drawing Title
Preliminary Scheme (Planning)
Drawing Reference
5737 SK 240131
Date
31.01.2024
By
BK

MOMENTUM
structural engineers
Bath
01225 444194 | 020 7739 9639
www.momentumeengineering.com



NOTES

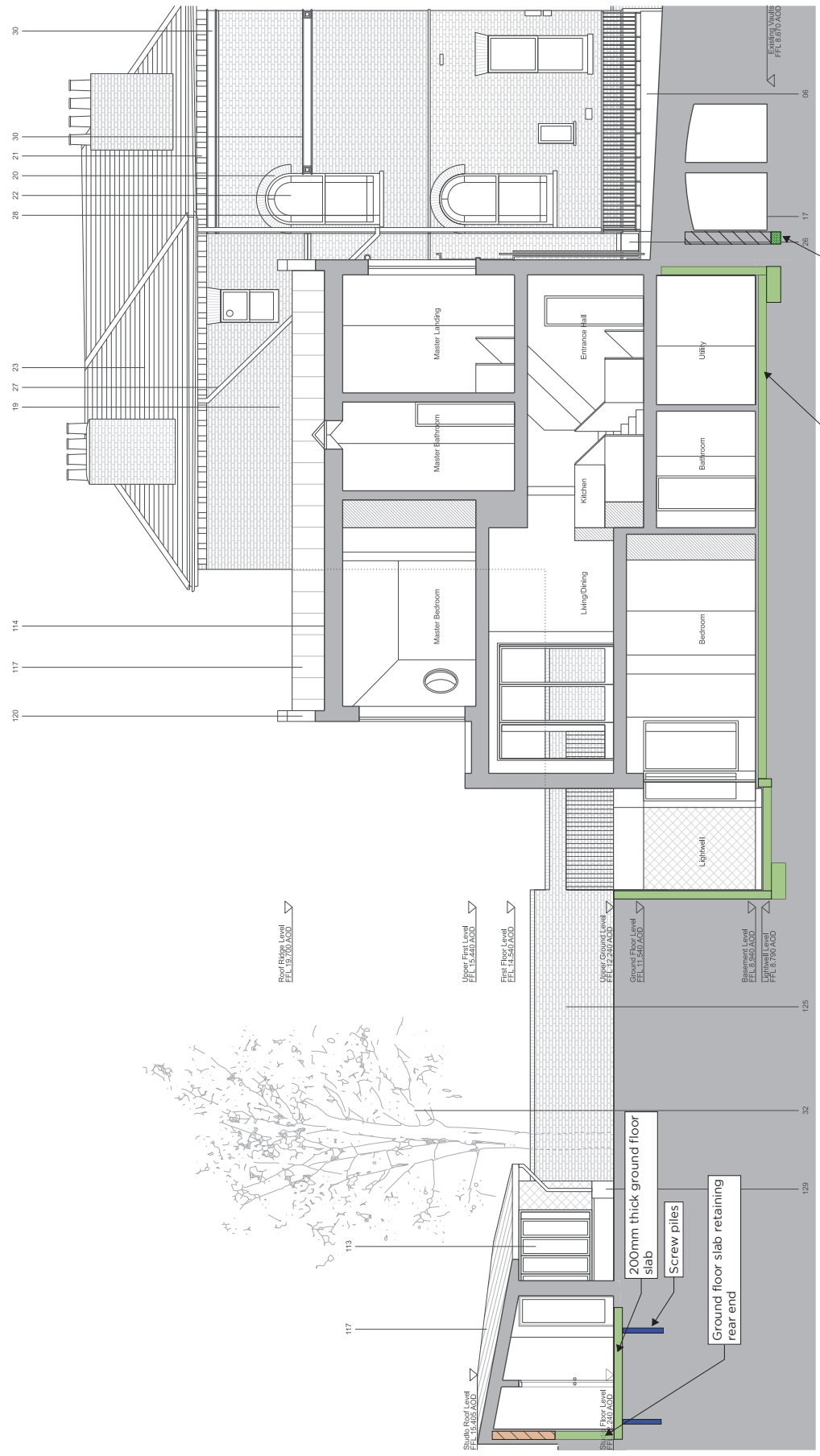
- CONTEXT:
- 01. Lyndhurst Road front garden
 - 02. Entrance to 10 Lyndhurst Road from garden
 - 03. 10 Lyndhurst Road front garden
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 - 31. 10 Lyndhurst Road front garden
 - 32. 10 Lyndhurst Road front garden

- PROPOSED:
- 101. The Cottage, 10 Lyndhurst Road
 - 102. Garden path
 - 103. Bin store with satum roof
 - 104. New lawn
 - 105. New lawn
 - 106. Planting beds
 - 107. Retained garden terrace
 - 108. Retained garden terrace
 - 109. Retained garden terrace
 - 110. Retained and refurbished brick boundary wall
 - 111. Front door
 - 112. Front door
 - 113. High glazed windows
 - 114. Glass door
 - 115. Glass door
 - 116. Glass door
 - 117. Standing seam metal roof
 - 118. Standing seam metal roof
 - 119. Stone blocks and calls
 - 120. Stone blocks and calls
 - 121. Stone blocks and calls
 - 122. Stone blocks and calls
 - 123. Air Source Heat Pump (ASHP) with acoustic enclosure
 - 124. New bedroom window to 10 Lyndhurst Road
 - 125. New bedroom window to 10 Lyndhurst Road
 - 126. New bedroom window to 10 Lyndhurst Road
 - 127. New bedroom window to 10 Lyndhurst Road
 - 128. New bedroom window to 10 Lyndhurst Road
 - 129. New bedroom window to 10 Lyndhurst Road
 - 130. Garden tool store

F	18.01.24	Stage 3 - SE Issue
E	11.01.24	Stage 3 - Studio Update
D	14.12.23	Stage 3 - Draft
C	30.11.23	Stage 3 - Draft
B	24.11.23	Stage 3 - Draft Post ROL & D
A	29.08.23	Consultant Issue - DPR amendment

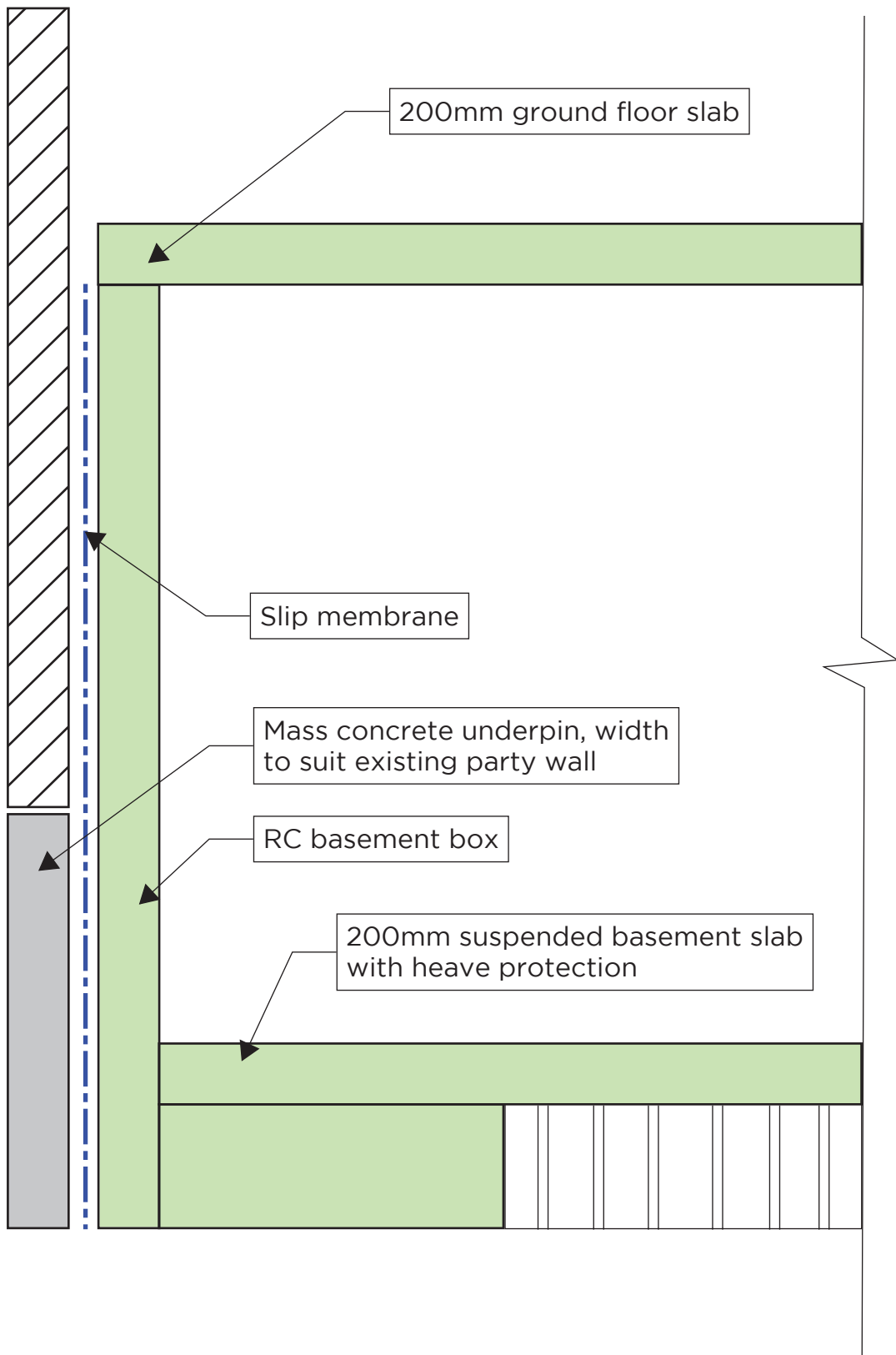
MARY DUGGAN
 Royal Institute of British Architects (RIBA) Chartered Architect
 10 Lyndhurst Road, Bath, BA1 1AB
 01225 444194 | 020 7739 9839
 www.momentumental.com

MOMENTUM
 structural engineers
 London
 Bath
 01225 444194 | 020 7739 9839
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200mm thick suspended basement slab, to be cast on compressible fill

Existing party wall to be underpinned with mass concrete width to suit



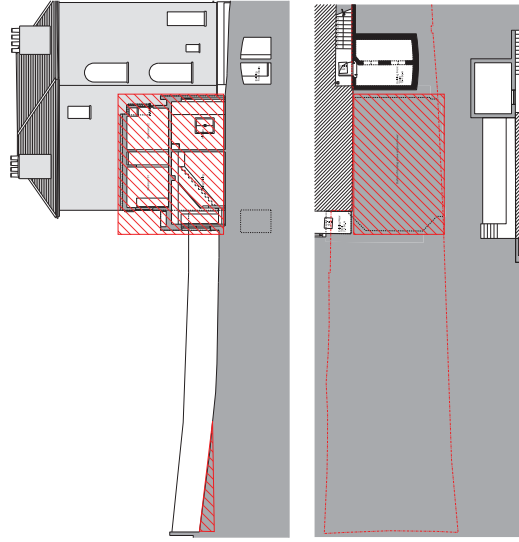
Typical basement wall section

Project Title
 10 Lyndhurst Road
 Drawing Title
 Preliminary Scheme (Planning)
 Drawing Reference
 5737 SK 240131

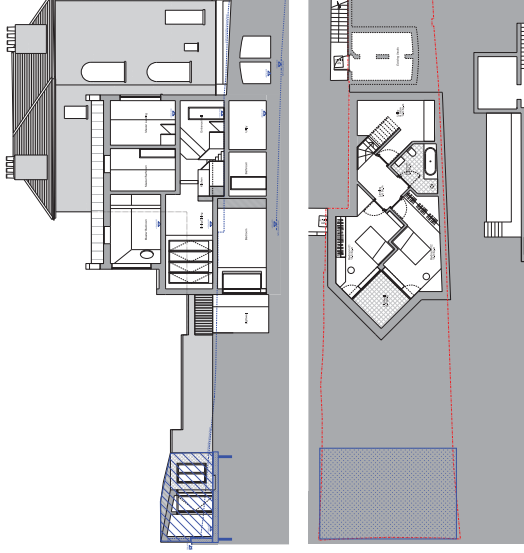
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structural engineers
 Bath | London
 01225 444194 | 020 7739 6939
www.momentumengineering.com
 By BK
 Date 31.01.2024

Appendix B

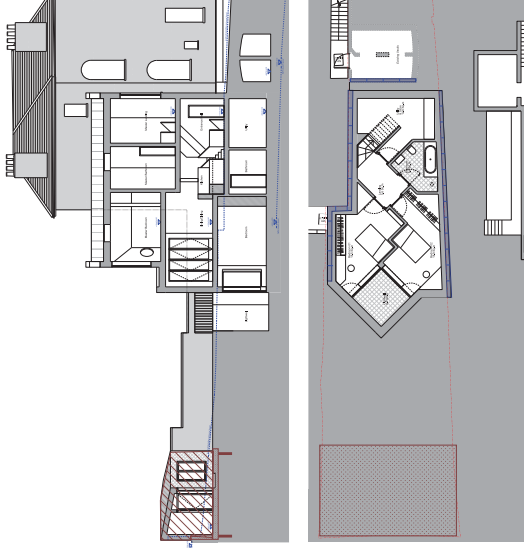
Sequencing



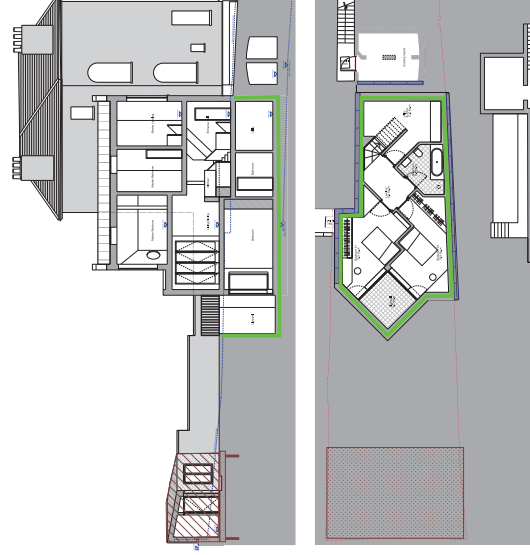
Step 1: Demolish existing property and excavate rear garden



Step 2: Install garden annex foundation and superstructure



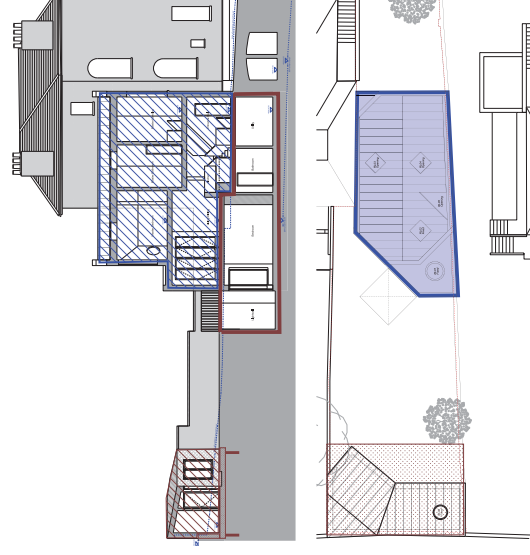
Step 3: Underpin neighbouring properties at 1m strips



Step 4: Excavate and form concrete box lower slab and retaining walls in 1m wide sections. Props to be installed at each stage.



Step 5: Install ground floor slab and remove props



Step 6: Install superstructure