

12.0 **Appendix A**

Structural Report





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**118 Malden Road
London
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Condition Report



Report provided for:

William Carter Limited
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NW3 4ES



24th May 2024

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1.0 Introduction

- 1.1. Martin Redston Associates (MRA) have been instructed by William Carter Limited, the client, to carry out a structural condition and feasibility study of the property at 118 Malden Road, London, NW5 4BY.
- 1.2. Inspection of the property was carried out on 24 April 2024. Access was obtained to all floors and the front and rear external areas. No opening up or other investigation of inaccessible elements was undertaken; this report sets out the results of this inspection and is intended to provide detail in respect of the condition of the existing structure and to summarise the upgrading works required.
- 1.3. As per the Camden Planning Guidance notes, we understand that it should be assumed that developments should retain, refurbish and extend existing structures unless there is clear justification why this is not possible that makes demolition and rebuild necessary. We have adopted this approach when considering the design of the works
- 1.4. This report has been prepared exclusively for our client, William Carter Limited. MRA will accept no responsibility for any of the opinions, comments, or recommendations if they are used or adopted by a third party.
- 1.5. All references to left and right, front and rear are relative to a viewer standing outside the subject property and looking towards the main front entrance.
- 1.6. A set of photographs from the inspection are enclosed in Appendix A and should be read in conjunction with this report.

2.0 Ground conditions

- 2.1. By reference to the Geotechnical and Environmental Associates (GEA) Soil report the underlying soils consist of 'made ground' up to 0.6m over silty clay, orange, brown clayey sand and very stiff clay on London Clay formation. The London clay formation was encountered and extended beyond 2.0m. Groundwater was encountered at 1.22m below the existing basement level.
- 2.2. The London Clay is of a very high plasticity and high shrinkage potential and can be affected by cycles of wet and dry weather which can cause shrinking and swelling and ultimately contribute to some movements of wall foundations. The presence of huge plane trees growing near to the property has caused damage by the action of tree roots beneath shallow foundations.



3.0 Description of the existing building

- 3.1. 118 Malden Road is a four-storey (including a basement with front vaults) end of terrace residential and commercial property believed to have been constructed in the mid to late 19th Century. Its previous use was as a doctor's surgery at ground, first and second floor levels and residential accommodation at basement level. Currently the building is unused and it is understood that it has been unoccupied for over a decade.
- 3.2. The building is of a typical traditional construction with external masonry walls and internal walls of masonry and stud partition. These in turn support timber floors and a butterfly pitched timber roof structure.
- 3.3. At the rear of the main house there is a single storey outrigger type extension which extends to the rear boundary of the site. The existing basement extends beneath part of the rear extension, adjacent to the main house. It is understood that the extension was constructed sometime in the 1990's.
- 3.4. The single story rear extension has a flat roof terrace accessible from the internal staircase situated within the main house.
- 3.5. The basement at the rear is situated partially below the single story extension and partially below the small courtyard area adjacent to the main house. In order to bring natural light, the courtyard ground floor is constructed with a 'walk on glass' panel construction.
- 3.6. A visual survey of the entire building, including the rear area, was carried out in order to inspect and assess the current state of the existing structure.
- 3.7. The building is currently unoccupied and showing neglect, signs of deterioration and a lack of maintenance over a significant period of time. There are also some signs of structural distress.
- 3.8. It is understood that the building has suffered from subsidence in the past. Evidence of movement associated with subsidence was apparent during the inspection.

4.0 Observations

4.1. Basement

The basement structure is generally observed to be in dilapidated condition. The internal subdividing walls are masonry and there is a concrete ground bearing slab. There are some localised areas where the structure is showing distress. There are a series of diagonal cracks in the flank wall and chimney breast masonry and some minor cracks can be seen in the walls within the basement.

The basement is showing signs of dampness with paint peeling off the flank wall. The walls of the vaults to the front are exhibiting some degree of damp and the mortar between the bricks is showing some significant localised decay. The entire front lightwell of the vault is heavily supported with a series of temporary timber props at its top and sides and was not safe to access during our inspection. There is significant cracking to the front section of the wall and above its window, directly in front of the vault and lightwell. There are significant signs of distress and movement of the front wall possibly due to the continued deterioration and instability of the front lightwell and vault. This front wall at basement level is significantly leaning inwards and is believed to be the cause of the lateral pressure coming from the front vaults area.



The front lightwell and vault was not accessible during the survey and could only be observed from the entrance.

4.2. Ground floor

The ground floor structure of the main section of the building was observed to be in fairly poor condition. The internal subdividing walls are timber stud of lath and plaster and single brick wall to the rear. The main house has suspended timber floors while the rear is a concrete ground bearing slab. The timber floor section was observed to be uneven, bouncy and with creaking sounds in most areas of the floor when walked on. In general the suspended timber floor is structurally distorted and unstable in some areas.

There are a series of vertical and diagonal crack lines to the front wall, flank wall and ceiling of the main house.

Between the existing main house and rear annex extension above the basement is showing signs of structural distress. This may be due to structural movement from the plane trees at the junction of Malden Road and Gilden Crescent and is compounded by significant diagonal crack lines noted on the main rear extension wall. Another significant vertical line crack was noted running from top to bottom of the flank wall and end bearing of the lintel beam from the courtyard to the rear. There was a notable crack/gap between the rear extension and main house by the party wall section.

Various cracks were noted to the internal partition walls above doors and ceilings. The cracks in the ground floor area vary from hairline up to 6mm in width. To the rear at its worst the crack sizes are 10 -15mm width.

Signs of dampness were observed in some sections of the ceiling.

In the covered courtyard area there are horizontal acrow props bracing the flank wall and masonry internal wall. There are also vertical props on timber runners on the toughened glass floor and boarded opening roof section over.

4.3. First floor

The first floor structure of the building is observed to be in fairly good condition. The internal subdividing walls are timber stud of lath and plaster. The suspended floors are timber joist floor construction with timber floor boards. The floor is uneven and bouncy in some areas, with noticeable gaps between the floor and masonry walls. The suspended timber floor is showing signs of distortion and structurally unstable in some areas and cracking was noticed on the floor by the fireplace.

A series of diagonal and line cracks were observed on the flank wall and ceilings. These cracks vary from hairline up to 3mm in width. Cracking can also be noticed in various locations on the walls and ceiling, with sections of existing ceiling falling off. The remaining cracks on the walls and ceiling vary from 3mm to hairline in size.

Various locations on the existing masonry, stud wall and ceiling were observed to be showing signs of dampness.

The wooden window frames to both the front and back are showing signs of deterioration possibly due to dampness and a lack of maintenance over a period of time. The timber staircase appears to be unstable with some treads slightly damaged.



It was observed that the flat roof terrace, accessed via the first floor landing, appears to have a gap between and around the masonry party wall and flat roof parapet wall.

4.4. Second floor

The second floor structure of the building is in fairly poor condition. The internal subdividing walls are timber stud of lath and plaster and deformed in length. The suspended floors are timber joist construction with timber floor boards. As with the first floor below, the floor is uneven and bouncy in some areas, with noticeable gaps between the floor and masonry walls. In general the suspended timber floor is showing signs of distortion and is structurally unstable in most areas. Cracking was noticed on the floor section by the fireplace.

A cracking line was observed between the front masonry wall and party wall plus the flank wall, stud spine wall and between the flank wall and spine wall. Diagonal and vertical crack lines can be seen on the flank wall and the internal walls and ceilings.

Masonry rear and flank wall paint was observed to be peeling off possibly due to dampness. The wooden window frames to both the front and back are showing signs of deterioration possibly due to dampness and lack of maintenance over a period of time.

The timber staircase appears to be very unstable and would require repacking or propping to access the room above the second floor

4.5. Landing room above second floor / roof

The landing room floor structure above the second floor is in very poor condition. The internal partition walls are constructed of timber stud with lath and plaster walls. The suspended floors are timber joist construction and have timber floor boards. In general the suspended timber floor is showing signs of distortion and seems structurally unstable with gaps observed between the floor and the masonry walls.

The ceiling appears partially damaged and structurally unstable. There are a series of cracks on the walls, floor and ceiling. There are signs of dampness to the walls and ceiling.

The timber staircase was noted to be structurally unstable and would require propping for access. There appears to be gaps forming between the top stair and the room, and also the stair and the wall.

4.6. Front Facade

The front façade and brickwork appear to be in fairly poor condition. Some discoloration and stepping of the brickwork is visible at first floor level, probably from the previous rebuilding of this section. There is a significant joint crack line with sealant between the entire length of the brick wall of the party wall.

Crack lines were noted at the corner edge (front façade and side flank wall) of the rendered section and exposed brick wall. These cracks follow the pattern between the render and exposed brick wall from above ground floor to second floor level.

There is also a gap (crack) between the front corner render and flank wall section from ground floor to first floor. It appears that the section of the remaining existing brick wall pier is bowing and could be due to excessive load reaction of the existing timber beam over the front face. This existing timber beam appears to be deteriorating with signs of decay slightly browning and may be due to structural overload from the existing masonry wall and structure above



The section of the existing brick wall above the second-floor window to the top parapet wall appears dark in colour and showing signs of dampness and appears to have a series of diagonal cracks in places. Standing from the bottom at street level and looking at the top it appears that the top section of the parapet above the second-floor window is leaning forwards. The majority of the lime mortar in the brick wall in this area appears to have worn off.

The pavement floor above the light well (temporarily supported beneath) is showing signs of depression.

4.7. Rear Facade

The rear facade of the main house was accessed via an opening in the landing of the first floor which allowed for standing on the flat roof terrace of the rear extension.

The rear façade is in poor condition and there are signs of distress to the brickwork. It appears that the top parapet wall above the roof is bulging inwards. There appear to be cracks and gaps around the window and brick wall of the second floor. Cracks appear above the window heading towards the roof parapet wall. The wall around the small window on the second floor appears recent and badly reconstructed. The top wall section mortar beds appear to be wearing out, possibly due to a lack of maintenance.

The brick lintels over the windows at first and second floor appear to have been recently repaired. However, cracks are appearing and the first floor window lintel is showing signs of failure. There is significant distortion and unevenness on the majority of the rear facade.

4.8. Flank wall Facade

It should be noted that it was not possible to fully or properly observe the flank wall condition due to restricted access between the flank wall and the neighbouring property's flank wall (small passageway).

The flank wall façade is observed to be in a moderate condition, as does the render, with no significant signs of distress. However, there are some significant cracks internally at the basement and ground floor. There appear to be gaps (cracks) between the front corner render and flank wall section from ground floor to first floor.

There is an exposed external chimney breast as part of the flank façade close to the rear elevation. The chimney breast is part of the entire height of the flank wall and projects beyond the roof level.

5.0 Summary of Findings

- 5.1. It is apparent that the building has been experiencing movement over a period of time and we understand that it has previously experienced subsidence on two separate occasions. The results of the site investigation confirmed that the damage was caused by clay shrinkage caused by moisture extraction by the huge plane trees in the corner of Malden Road and Gilden Crescent, to the side of the property, causing ongoing foundation movement.



- 5.2. The basement of the property is showing signs of dampness, with a series of diagonal cracks in the flank wall and chimney breast masonry, indicating movement in these areas

The flank wall foundation will need to be underpinned in the basement to a depth with firm clay to help mitigate against further subsidence issues. Remedial works will be required internally on the flank wall to stitch the various cracks and make the wall good.

- 5.3. The walls of the vaults to the front are exhibiting areas of significant mortar decay. The entire front lightwell is heavily supported with timber propping. There is significant cracking to the front section of the wall and above its window. There are also signs of distress and movement of the front wall which is significantly leaning inwards. It is considered that this area is currently unsafe and requires immediate attention.

A section of the front wall with significant cracks will be required to be rebuilt above the existing beam at ground floor. From our visual inspection, the existing timber beam over the wide opening at front ground floor level, supporting the structure above at first, second floor and roof levels, is showing signs of deterioration. It needs to be removed and replaced with a newly designed steel beam on new adequate supports. The removal of the existing timber beam and installation of the new steel beam frame will involve temporary support over the existing beam to prop the structure above.

- 5.4. The ground floor of the property was found to be in a fairly poor condition. The timber floor sections were observed to be uneven and bouncy in most areas inspected. In general, these floors are structurally unstable and distorted.

Design analysis will be carried out to determine if the existing timber floor joists are structurally adequate. However, from our visual inspection it is our opinion that the majority of the existing timber joist appears structurally unstable. In this regard the existing floor joists will require strengthening and, in most areas, replacement with newly designed floor joists.

Remedial works will be required to repair and fix cracks in the masonry wall, with Helifix bar to specialist recommendation. Existing timber lath and plaster stud walls will need to be repaired or replaced with new timber plasterboard stud walls.

- 5.5. Significant cracking was observed between the main house and rear annex extension, within the main rear extension wall and flank wall, with crack sizes in the worst affected areas of between 10 – 15mm. There are currently horizontal acrow props bracing the flank wall and masonry internal walls

Currently, the degree of damage for the external cracking would be classified as category 3-4 on the scale of 10-25 (indicating the need for breaking out and replacing sections of walls) in Building Research Establishment Digest 251 (BRE), Assessment of damage in a low rise building.

In this regard, the affected walls will have to be removed and rebuilt.

It is our opinion that the rear section is experiencing ground movement. This section will have to be rebuilt on new deeper foundations, designed to avoid future movement.

- 5.6. The first floor of the property was observed to be in moderate condition. The suspended timber floors were found to be uneven and bouncy in some areas with noticeable gaps between the floor and masonry walls. The timber floors are showing signs of distortion and are structurally unstable in some areas. Cracking was noted in the floor section by the fireplace



Design analysis will need to be carried out to determine whether the existing timber floor joists are structurally adequate. However, from our visual inspection it is our opinion that the majority of the existing timber at first floor appears structurally unstable. In this regard the existing floor joist will require strengthening and, in most areas, replacement with newly designed floor joists.

- 5.7. Various cracks from hairline up to 3mm were observed in the flank wall and various other locations in the walls and ceiling.

Remedial works, structural repair to the cracks in the wall can be undertaken with Helibar resin bond as recommended by Helifix limited. This should be applied both internally and externally.

- 5.8. Various locations on the masonry, stud walls and ceilings were observed to be damp.
- 5.9. The timber staircase appears to be structurally unstable. It is our opinion and from our visual inspection that the existing timber stairs need to be strengthened or removed and replaced with a new staircase designed accordingly by specialists.
- 5.10. The second floor of the property was observed to be in a fairly poor condition.
- 5.11. The internal walls are timber stud and are deformed in places along their length. Some of the existing internal walls will be required to be repaired and, in some cases, removed and reinstated with new internal timber stud walls.
- 5.12. The suspended timber floors were found to be uneven and bouncy in some areas with noticeable gaps between the floor and masonry walls. The timber floors are showing signs of distortion and are structurally unstable in most areas. Cracking was noted in the floor section by the fireplace

Design analysis will need to be carried out in order to determine whether the existing timber floor joists are structurally adequate. However, from our visual inspection it is our opinion that the majority of the existing timber at second floor appears structurally unstable. In this regard the existing floor joists will require strengthening and, in most areas, replacement with newly designed floor joists.

- 5.13. A crack line was observed between the front masonry wall and party wall plus the flank wall, stud spine wall, and between the flank wall and spine wall. Diagonal and vertical cracks were also observed on the flank wall and internal walls and ceiling.
- 5.14. The timber staircase appears to be structurally very unstable.
- It is our opinion and from our visual inspection that the existing timber stairs need strengthening or removal and replacement with a new staircase designed accordingly by specialists.
- 5.15. The landing room above the second floor was observed to be in a very poor condition structurally. It is our opinion from our visual inspection that the existing floor will require major structural strengthening for it to be structurally sound. In that regard it will be more prudent to remove/ demolish and reinstate this floor.



- 5.16. The front facade appears to have been partially rebuilt in the past as evidenced by some discoloration and stepping of the brickwork. A significant joint crack was noted down the entire length of the party wall and cracks between the front corner render and flank wall section.

The top parapet wall appears dark in colour and is showing signs of dampness. It appears to have a series of diagonal cracks in places and appears to be leading forwards. The majority of the lime mortar on the brick wall in this area is wearing off.

Closer inspection will have to be carried out to the top section of the wall to determine the extent of the cracks, state of the existing wall at the parapet level and whether it can be repaired or will need to be reinstated.

- 5.17. From our visual inspection, the existing timber beam over the wide opening at front ground floor level, supporting the structure above at first, second floor and roof levels, is showing signs of deterioration. It needs to be removed and replaced with a newly designed steel beam on new adequate supports. The removal of the existing timber beam and installation of the new steel beam frame will involve temporary support over the existing beam to support the structure above. A temporary support scheme is attached. This will involve an experienced contractor to support and ensure the structure is stable before removing the existing beam and installation of the new beam and columns (steel frame) below.

- 5.18. The rear façade was observed to be in a poor condition with signs of distress to the brickwork. The top parapet wall is bulging inwards and there are a number of cracks around and above window openings and signs of failure in lintels over the first floor windows. There is significant distortion and unevenness to the majority of the rear façade

It is our opinion that, based on our visual inspection, the rear façade masonry wall will have to be carefully removed and reinstated.

- 5.19. The flank wall façade was observed to be in a moderate condition with some cracking evident to the front corner at first floor level adjacent to the front façade. This section is where the timber beam is being supported and the brick pier beneath is showing signs of failure due to the excessive cracks and light bowing. As part of the temporary support to the front façade, this corner brick pier will have to be removed and a new column + steel frame installed in this location.

Current Proposals

- 6.0 The current design scheme involves the creation of four flats at the property. As part of these works, an extension of the basement is proposed to the rear. The works also involves the construction of a roof extension.

We have prepared a structural design for the proposed scheme which is enclosed in appendix B.

In summary, the following structural alterations are required:

- 6.1. Basement:

- I. Reconstruction of walls to vaults



- II. New concrete slab
- III. Underpinning of existing structure
- IV. Installation of steel frame
- V. Formation of new basement involving...
- VI. Removal and of existing structure and construction of new walls etc

6.2. Ground Floor:

- I. Installation of steel frame
- II. Removal and replacement of floor structure
- III. Removal and of existing structure and construction of new walls etc
- IV. Demolition and reconstruction of rear extension – list works required.

6.3. First Floor:

- I. Installation of steel frame
- II. Removal and replacement of floor structure
- III. Removal and of existing structure and construction of new walls etc

6.4. Second Floor:

- I. Installation of steel frame
- II. Removal and replacement of floor structure
- III. Removal and of existing structure and construction of new walls etc

6.5. New Third Floor:

- I. Installation of new steelwork
- II. New masonry walls
- III. New floor structure
- IV. New roof over.



7.0 Conclusion

- 7.1. The building has experienced movement over a period of time. Cracking was observed within the building structure at all levels but most significantly at ground floor level in the area of the rear extension and rear of the house where cracks of between 10 - 15mm in width were observed. This damage has likely been caused by moisture extraction by the huge plane trees in the corner of Malden Road and Gilden Crescent, to the side of the property, causing ongoing foundation movement.
- 7.2. The current foundations to the main house and rear extension are not of a significant depth and width. As such they will have to be designed to a suitable depth to potentially guard against further ground movements caused by the trees adjacent to the site. They are also not adequate to take the added loads that will be imposed by the proposed works. The structure to the rear which has been most affected cannot be retained and should be rebuilt on new foundations of a sufficient depth as part of the rear extension. The new design proposals involve the complete remodelling of this area. Underpinning is required to the footprint of the existing main building where the original stepped footings are retained. The rear existing retaining wall will have to be demolished to create the new basement extension further to the rear.
- 7.3. An extension of the basement is proposed. This will require the formation of a new reinforced concrete basement slab on a new perimeter with reinforced concrete retaining walls. A new steel frame structure will also be required.
- 7.4. The existing front lightwell and vault (currently temporarily supported) is at near collapse and is causing significant cracking and movement to the front wall at ground floor level. This may be due to the plane tree and also the heavy traffic now being experienced on Malden Road. The existing vault is believed to be constructed of masonry and was probably not designed for the loads and lateral pressures that the building is now experiencing. Rebuilding sections of the lightwell with a reinforced concrete retaining wall and slab above should be undertaken to provide a stable and robust structure.
- 7.5. The front façade is supported on a timber beam above ground floor level. This existing timber beam needs to be replaced with a new steel frame. Suitable temporary propping will be required as indicated in the enclosed drawings to facilitate these works together with the rebuilding of the walls to the vaults beneath. This will involve the propping of the wall above the existing beam, carefully removing the existing beam, then installing a new steel frame over. The upper section of brickwork forming the parapet wall will need to be assessed up close to determine whether it can safely be retained and repaired or needs to be rebuilt.
- 7.6. The rear façade is in a poor condition and due to the creation of new openings at all floors including the installation of associated steelwork and additional loads being imposed by the proposed new roof structure, this wall needs to be reconstructed.
- 7.7. The proposed scheme to the main house requires the installation of a series of new steel frames internally at all floors. Removal of the entire existing suspended timber floor structure and installation of new suspended timber floors to the steel frame is required. The new building is classified as 4 storey over basement and should meet the NHBC Technical Guidance Note "The Building Regulations 2004 Edition requirement A3 – Disproportionate Collapse. Therefore to meet the robustness requirements, the building has to be framed and in addition, restraint straps installed to tie the walls to the floors at every level of the building.



- 7.8. As part of the works, the majority of the existing internal walls will be removed to facilitate the replacement of the floors, installation of the steel frame and changes to the internal layouts.
- 7.9. The existing masonry external walls (front, rear and flank side wall) will be unstable laterally without any internal walls and floors in the process and temporary support to the external walls will be required during the works.
- 7.10. New openings are proposed within the flank wall façade. New internal steel frames to the flank wall will need to be provided around these new openings tying and restraining the wall back into the steel frame of the main building. The existing external chimneybreast above the openings will be removed as part of these works and the façade above the openings rebuilt. Temporary supports will be required during these works to maintain the stability of the façade.
- 7.11. In conclusion, a large proportion / the entirety of the structure requires significant alteration and / or repair. The structure from the back of the main house to the rear of the site has suffered significant movement with cracking present measuring up to 15mm in width. The degree of damage for the external cracking would be classified as category 3-4 which indicate the cracking in the range of 10-25mm crack (indicating the need for breaking out and replacing sections of walls) in Building Research Establishment Digest 251 (BRE), Assessment of damage in a low rise building. This part of the building has experienced significant structural distress and would require reinstating.
- 7.12. During the inspection of the building, it was observed that the majority of the existing floors display structural distortion and are unstable in areas. Whilst repairs could be attempted, these would involve strengthening the existing floor joists in some areas whilst other areas will need replacing. It is therefore our opinion that it would be prudent to replace the floor structure.
- 7.13. A new basement structure is proposed to the rear. Underpinning is required to stabilise the main house. The existing basement slab will need to be removed together with the reconfiguration of walls at basement level to suit the new layouts. The walls to the front of the vaults are unsafe and need to be rebuilt.
- 7.14. The existing rear façade is in a poor condition and if retained in its current configuration will need partial rebuilding. Under the current proposals, it will need to be rebuilt.
- 7.15. The front elevation is in a fairly poor condition with cracking to the brickwork along the line of the party wall and on the flank corner at first floor level. The cracking to the flank corner is consistent with a failure of the timber bressumer beam in this location. The beam needs to be replaced. The top lift of brickwork forming the parapet is in a poor condition and some rebuilding is needed. Works required to temporarily support the retained first and second floor lifts of brickwork during these works and the works to the vaults beneath and during the removal of the floor structure which is currently providing lateral restraint to the brickwork are complicated by the presence of large window openings and the condition of the existing brickwork. Given the proportion of the façade that could be retained and the complexity of providing temporary support, we recommend the reconstruction of this elevation following the installation of new supporting steelwork.
- 7.16. The flank façade needs to be partially rebuilt to enable new window openings to be formed. New steel window frames will be installed over the new openings to restrain the building. The building will be framed internally for disproportionate collapse and restraint. Some significant cracking was observed to the flank wall internally which will require remedial works. Given the extent of works required to the front and rear facades, the removal of the floors, new basement structure and additional imposed loads resulting from the new roof structure, it is likely that further rebuilding works will be required to this wall.






- 7.17. In view of the above and extent of works required, it is our opinion that the existing building should be demolished in phases and reconstructed to its former state. This will enable the installation of robust structure in accordance with the NHBC Technical Guidance Note "The Building Regulations 2004 Edition requirement A3 – Disproportionate Collapse. It is our view that a retention and repair approach would require and result in largely new structural refurbishment anyway, but that piecemeal construction has significant disadvantages; it is harder to control, the results are often of varied quality and works to temporarily support structure will be complicated and inefficient. Under the current proposals, the building needs to be largely reconstructed. If left in its current configuration, significant structural repair and upgrading works would still be required for the reasons provided above.









Appendix A - Photo Record

Front Elevation







Photograph	Location	Photograph
	<p><u>Front Elevation</u></p> <p><u>Left side photo</u> Discoloured brickwall at first floor. Joint with crack line with sealant between the party wall</p>	.
	<p><u>Front Elevation</u> Front elevation of property showing alleyway 'gap' small passageway between neighbouring property</p>	
	<p><u>Left side photo</u> Splitting crack/gap at the corner of the front facade and flank wall visible by alleyway.</p>	









	<p><u>REAR ELEVATION</u> <u>Left side photo</u> Brickwork appears to be poorly constructed around the top small window..</p> <p><u>Right side Photo</u> Brickwork appears to be poorly constructed around the top small window.</p>	
	<p><u>REAR ELEVATION</u> <u>Left side photo</u> Brickwork appears to be poorly constructed around the top small window..</p> <p><u>Right side Photo</u> Paint peeling off wall around window</p>	
	<p><u>REAR ELEVATION</u> <u>Left side photo</u> Poorly repaired brick lintel with falling plaster below</p> <p><u>Right side Photo</u> Brickwork appears to signs of distortion and unevenness</p>	









	<p><u>BASEMENT</u></p> <p><u>Left side photo</u> Paint peeling off the wall showing signs of dampness.</p> <p><u>Right side Photo</u> Courtyard roof with toughened glass. Dampness of wall</p>	
	<p><u>Left side photo</u> Basement courtyard roof with toughened glass. Signs of dampness of walls.</p> <p><u>Right side Photo</u> Temporary support system in front lightwell to vault</p>	
	<p><u>Left side Photo</u> Signs of dampness on the wall and floor of the basement.</p> <p><u>Right side Photo</u> Temporary support system in front lightwell to vault</p>	

	<p><u>GROUND FLOOR</u></p> <p><u>Left side Photo</u> Diagonal crack on masonry wall, top of Lintel bearing leading to ceiling</p> <p><u>Right side Photo</u> Cracking (gap) on corner wall to wall, and ceiling to wall.</p>	
	<p><u>Left side Photo</u> Vertical line crack on & below beam then diagonal crack on masonry wall, beam bearing leading to ceiling</p> <p><u>Right side Photo</u> Boarded courtyard void with temp support showing signs of cracking on the ceiling.</p>	
	<p><u>Left side Photo</u> Section of damage ceiling with damp patches on ceiling</p> <p><u>Right side Photo</u> Boarded courtyard void with temp support</p>	



	<p><u>Left side Photo</u> Section of damaged wall and floor with damp patches on skirting and wall .</p>	
	<p><u>FIRST FLOOR</u></p> <p><u>Left side Photo</u> Gaps between floor boards with and signs of unevenness on the floor</p> <p><u>Right side Photo</u> Paint peeling off external window sill.</p>	
	<p><u>Left side Photo</u> Bottom section of timber floor with signs of rot and vertical cracks on timber frame</p> <p><u>Right side Photo</u> signs of unevenness on the floor</p>	



	<p><u>SECOND FLOOR</u></p> <p><u>Left side Photo</u> damage boards and gaps between floor boards with and signs of unevenness on the floor</p> <p><u>Right side Photo</u> damage boards and gaps between floor boards with and signs of unevenness depression on floor</p>	
	<p><u>Left side Photo</u> Damp signs on wall and ceiling.</p> <p><u>Right side Photo</u> Vertical crack line at junction of wall with patches of damp</p>	
	<p><u>Left side Photo</u> Horizontal crack line between ceiling and wall.</p> <p><u>Right side Photo</u> Vertical crack line at junction of wall downwards to floor level</p>	



	<p><u>ROOF ABOVE SECOND FLOOR LANDING</u></p> <p><u>Left side Photo</u> Water tank on mounted platform seated on the floor.</p> <p><u>Right side Photo</u> Tap with pipes and signs of dampness on wall</p>	
	<p><u>Left side Photo</u> Unevenness of floor. Floor sloping from stairs.</p> <p><u>Right side Photo</u> Paint peeling off wall with signs of dampness on wall</p>	
	<p><u>Left side Photo</u> Gap between tops stair and floor and you enter in to room Vertical cracks on walls</p> <p><u>Right side Photo</u> Cracks signs on steps and between wall and stairs. (bouncy stairs)</p>	



Appendix B - Proposed New Scheme

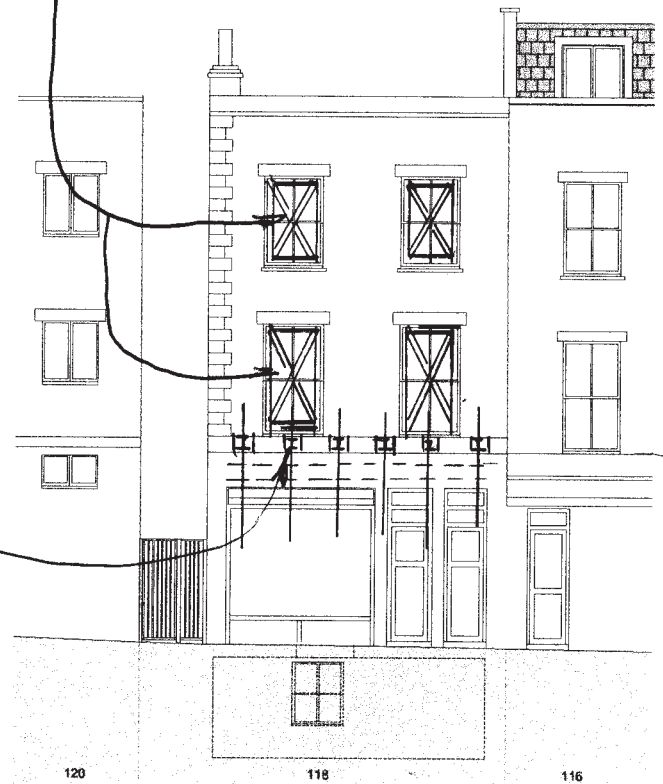
Temporary Works Proposal to remove existing Timber Beam and install new steel Frame steel beams & columns

SEQUENCE OF WORKS

- + Install steel beam needles & Peri MULTI PROP to existing front facade wall as per drawing SK-01 & SK-02.
- + Inspect / check if temporary support to front facade wall (steel beam needles and props) are properly installed with scaffold ties and cross bracing and ensure stability.
- + Carefully remove existing Timber Beam below Temp works.
- + Install new steel Frame as per Permanent structural design
- + Ensure that the permanent structure "new steel beam on steel columns" are completely installed and new structure stable.
- + Carefully remove all temporary support above installed permanent structure. Then make good masonry wall.
- + Complete installation of new permanent "steel frame" structure.

Existing external window openings to be boarded and braced.

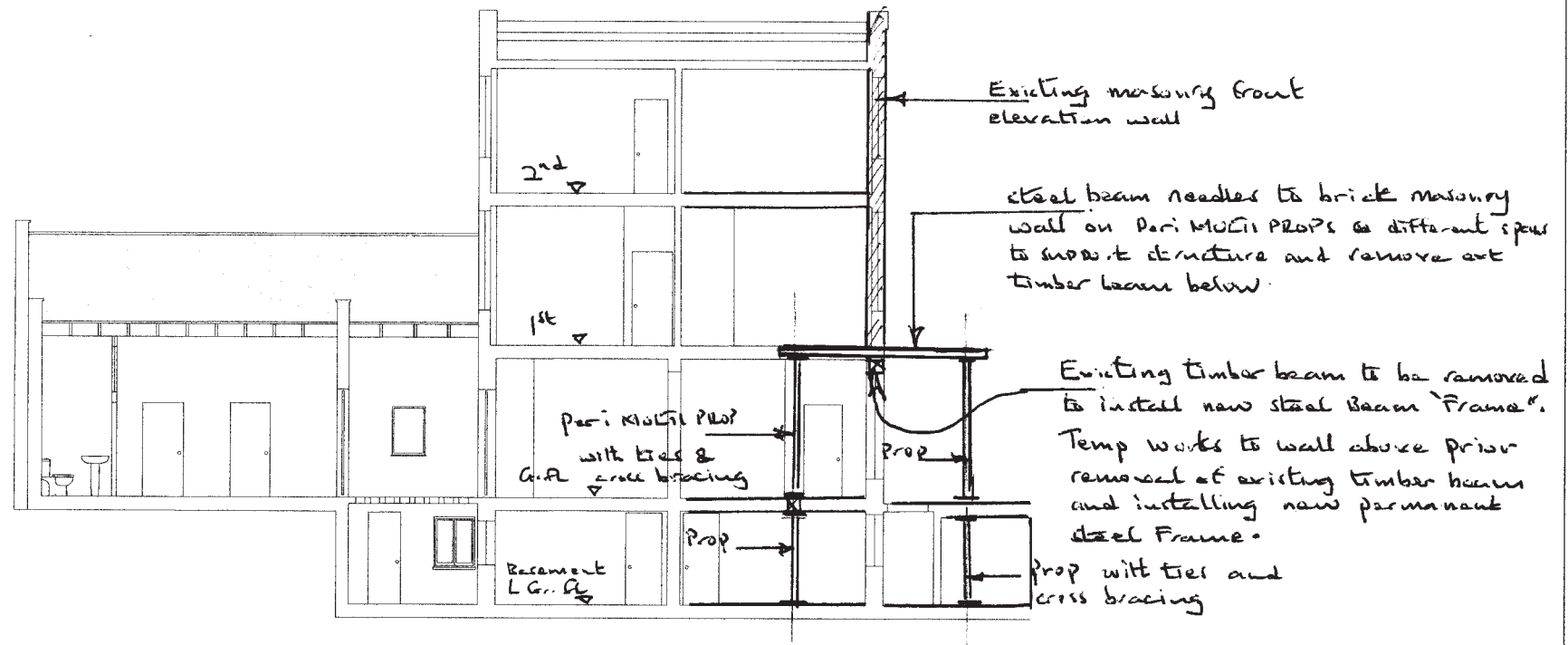
Steel Beam needles above existing Timber beam and to support structure above on Peri MULTI PROPS.



FRONT ELEVATION TEMP SUPPORT

SK-01

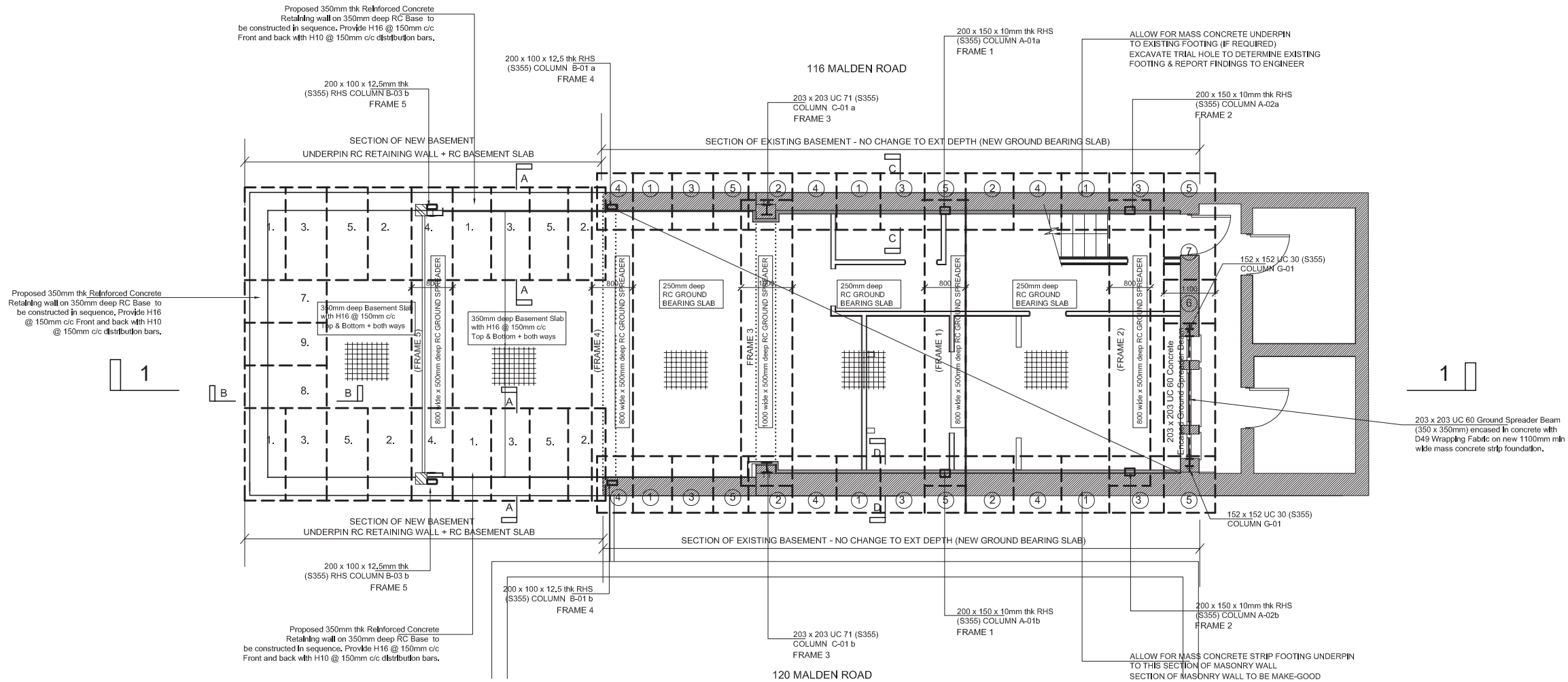
Front Facade Temp works Proposal



CROSS - SECTION AA

SK-02

Front Facade Temp Supports Proposal



BASEMENT FOUNDATION PLAN

Scale 1:50 @ A1 & 1:100 @ A3

Contractor to allow continuity distribution reinforcement between each "pin"
5H16 800mm long Dowel bar chemically fixed 400mm embedded in wall and 400mm projecting for the next cast pin.
4 H16, 800mm long Dowel bar chemically fixed 400mm embedded in base and 400mm projecting for the next cast pin

If for any reason water is found in the excavation percolating from within the Clay layers, the ground will be carefully assessed, pumps will be installed to carry the water away from the excavation and shoring of the excavation will be implemented in accordance with normal safe construction practice.

PRELIMINARY SCHEME FOR PLANNING APPLICATION

B	10.11.23	REVISED DRAWING	SG
A	20.09.23	REVISED DRAWING	SG
			-
Rev	Date	Description	App

Title
FOUNDATION PLAN

Martin Redston Associates
Consulting Civil & Structural Engineers
4 Edward Square, London N1 OSP
Tel: 020-7837 5377

Date	14th August 2023	Sheet No.	Rev
Eng.	SG	Scale	1:50 @ A1 1:100 @ A3
Job No.	23.206	01	B
Project	118 Malden Road London NW5 4BY		

EXCAVATION FOR REINFORCED CONCRETE RETAINING WALLS

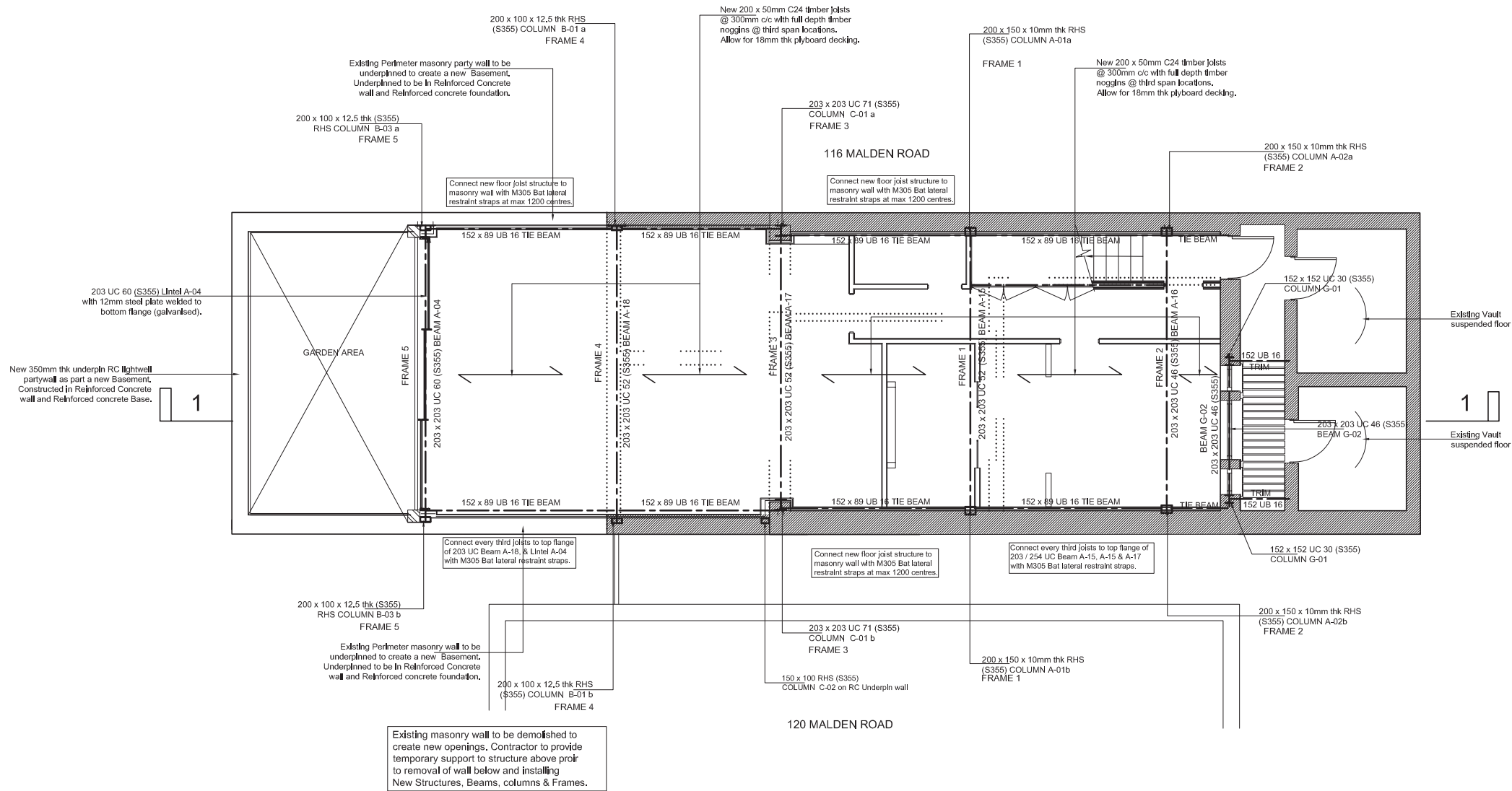
- WORKING IN STRIPS NOT EXCEEDING 1M LONG EXCAVATE TO REQUIRED DEPTH ADJACENT EXISTING STRUCTURE.
- CAST NEW CONCRETE BASE AND ALLOW 24 HOURS TO CURE. STARTER BARS TO EXTEND 400 ABOVE BASE FOR LAPPING PURPOSES (SEE DETAILS FOR BAR SIZES).
- VERTICAL & HORIZONTAL REINFORCEMENT TO BE CONSTRUCTED IN ACCORDANCE WITH DESIGN INFORMATION AND ANY REINFORCEMENT SCHEDULES PROVIDED BY THE ENGINEER.
- SHUTTERING & PROPPING TO BE DESIGNED BY CONTRACTOR.
- CAST NEW CONCRETE WALL ENSURING GROUND BEHIND NEW FOUNDATION & WALL IS FULLY BACKFILLED AND COMPACTED. CHECK AT REGULAR INTERVALS TO ENSURE THIS DURING CONSTRUCTION.
- NEVER EXCAVATE TWO ADJACENT STRIPS WITHOUT ALLOWING 3 DAYS BETWEEN OPERATIONS.

- WHEN ADJACENT SECTIONS ARE OPENED UP THE EXPOSED CONCRETE SURFACES SHOULD BE THOROUGHLY CLEANED OF ALL LOOSE MATERIAL & SCABBLED TO FORM A GOOD KEY.
- ALL REASONABLE CARE IS TO BE TAKEN TO PREVENT INJURIES TO PERSONS WORKING NEAR EXPOSED BARS ETC. (THREADED COUPLERS WOULD BE SUITABLE).
- ALL NEW CONCRETE BELOW GROUND TO BE SULPHATE RESISTING CEMENT CONC. GRADE 35.
- TRIAL PIT TO BE EXCAVATED TO CONFIRM EXISTANCE OF ANY EXISTING STRUCTURE.
- REINFORCEMENT SHALL BE TO BS-8110 WITH MAIN BARS TO BE GRADE 460 (HIGH YIELD).
- READY MIX CONCRETE MUST BE OBTAINED FROM A PLANT THAT HOLDS A CURRENT CERTIFICATE OF ACCREDITATION UNDER THE QUALITY SCHEME FOR READY MIX CONCRETE.
- NO CONCRETE IS TO BE PLACED WHEN THE AMBIENT AIR TEMPERATURE IS LESS THAN 5 DEGREES C.

SEQUENCE OF UNDERPINNING

- WORKING IN STRIPS NOT EXCEEDING 1M LONG EXCAVATE TO REQUIRED DEPTH BENEATH EXISTING FOOTING.
- HACK AWAY TO PROVIDE LEVEL SOFFIT TO EXISTING BRICK FOOTING AND THOROUGHLY CLEAN BEFORE UNDERPINNING.
- CAST NEW CONCRETE TO WITHIN 75mm OF SOFFIT OF EXISTING FOOTING AND ALLOW 24 HOURS TO CURE.
- RAM IN DRY PACK MORTAR BETWEEN NEW AND EXISTING FOOTINGS.
- NEVER EXCAVATE TWO ADJACENT STRIPS WITHOUT ALLOWING 3 DAYS FROM TIME OF DRY PACKING.
- WHEN ADJACENT SECTIONS ARE OPENED UP THE EXPOSED CONCRETE SURFACES SHOULD BE THOROUGHLY CLEANED OF ALL LOOSE MATERIAL AND SCABBLED TO FORM A GOOD KEY.
- UNDERPINNING TO BE 1000mm WIDE UNLESS NOTED OTHERWISE.

- UNDERPINNING TO BE 1000mm WIDE UNLESS NOTED OTHERWISE.
- ALL NEW CONCRETE BELOW GROUND TO BE SULPHATE RESISTING CEMENT CONC. GRADE 35.
- DRY PACK - 3 : 1 SAND CEMENT.
- WHEN LOWERING FLOORS IN BASEMENTS, ALL WALLS MUST BE UNDERPINNED BEFORE DIGGING OUT FLOOR.
- CONTRACTOR TO CAREFULLY INSPECT ALL EXISTING MASONRY PRIOR TO UNDERPINNING EACH BAY IN SEQUENCE. REPORT ANY ANOMALIES TO ENGINEER FOR ADVICE AND REASSESSMENT OF SCHEME.
- UNDERPINNING SECTIONS TO BE CAST IN NUMERICAL ORDER. SEE FOUNDATION PLAN FOR DETAILS.
- TANKING REQUIRED, TO CONTRACTORS SPECIFICATION. ALL OTHER WATERPROOFING AND DRAINAGE TO ARCHITECTS SPECIFICATION.



BASEMENT FLOOR PLAN
(Showing GROUND FLOOR STRUCTURE above)
Scale 1:50 @ A1 & 1:100 @ A3

NOTES

- ALL DIMENSIONS TO BE VERIFIED ON SITE.
- READ IN CONJUNCTION WITH ARCHITECT'S DRAWINGS.
- ALL STEELWORK DESIGNED TO BS 5950 FABRICATED TO BS 5950.
- ALL STEEL MEMBERS TO BE GRADE S355 STEEL.
- APPLY 2 COATS OF RED OXIDE PRIMER TO ALL STEEL PRIOR TO ERECTION.
- ALL STEEL BEAMS TO HAVE ½ HOUR FIRE RESISTANCE CAPABILITY MIN (e.g. 12.5 mm PLASTERBOARD AND 7mm SKIM).
- ALL WELDING TO BE 4mm FILLET WELDS CARRIED OUT IN WORKSHOP.
- ALL BLACK BOLTS TO BE GRADE 8.8.
- ALL TIMBERWORK DESIGNED TO BS 5268.
- DOUBLE JOISTS TO BE BOLTED TOGETHER WITH M-12 BOLTS + 63mm dia. TP CONNECTORS AND WASHER PLATE @ 450 c/c.

- CONNECTIONS:
TIMBER/BRICK: BAT SPH HANGER WHEN THERE IS A MINIMUM OF 675mm OF BRICKWORK ABOVE, IF NOT USE MAXI SPEEDY HANGERS.
TIMBER/TIMBER: BAT JIFFY HANGER OR FRAMING ANCHOR.
ALLOW FOR BAT M305 STRAPS @ 1200 c/c FOR RESTRAINT.
- CONCRETE PADSTONES TO BE GRADE 25 (1:2:4).
- ALL TEMPORARY PROPPING BY THE CONTRACTOR.
- ALL WATERPROOFING AND DRAINAGE TO ARCHITECT'S SPECIFICATION.
- ALL WORKS TO BE APPROVED BY THE BUILDING CONTROL OFFICER.
- NO WORK TO COMMENCE ON SITE PRIOR TO BUILDING CONTROL APPROVAL OF STRUCTURAL DETAILS.
- ANY BEAMS, JOISTS HANGERS, OR OTHER STRUCTURAL WORKS ATTACHED TO PARTY WALL MAY BE SUBJECT TO PARTY WALL AGREEMENT.

**PRELIMINARY SCHEME
FOR PLANNING APPLICATION**

A	20.09.23	REVISED DRAWING	–
Rev	Date	Description	App
Title BASEMENT FLOOR PLAN Showing FLOOR Structure above			
Martin Redston Associates Consulting Civil & Structural Engineers 4 Edward Square, London N1 OSP Tel: 020–7837 5377			
Date 14th August 2023		Sheet No.	Rev
Eng. SG	Scale 1:50 @ A1 1:100 @ A3	02	A
Job No. 23.206			
Project 118 Malden Road London NW5 4BY			

NOTES

1. ALL DIMENSIONS TO BE VERIFIED ON SITE.
2. READ IN CONJUNCTION WITH ARCHITECT'S DRAWINGS.
3. ALL STEELWORK DESIGNED TO BS 5950 FABRICATED TO BS 5950.
4. ALL STEEL MEMBERS TO BE GRADE S355 STEEL.
5. APPLY 2 COATS OF RED OXIDE PRIMER TO ALL STEEL PRIOR TO ERECTION.
6. ALL STEEL BEAMS TO HAVE 1 HOUR FIRE RESISTANCE CAPABILITY MIN (e.g. 12.5 mm PLASTERBOARD AND 7mm SKIM).
7. ALL WELDING TO BE 6mm FILLET WELDS CARRIED OUT IN WORKSHOP.
8. ALL BLACK BOLTS TO BE GRADE 8.8.
9. ALL TIMBERWORK DESIGNED TO BS 5268.
10. DOUBLE JOISTS TO BE BOLTED TOGETHER WITH M-12 BOLTS + 63mm dia. TP CONNECTORS AND WASHER PLATE @ 450 c/c.
11. CONNECTIONS:
TIMBER/BRICK: BAT SPH HANGER WHEN THERE IS A MINIMUM OF 675mm OF BRICKWORK ABOVE, IF NOT USE MAXI SPEEDY HANGERS.
TIMBER/TIMBER: BAT JIFFY HANGER OR FRAMING ANCHOR.
ALLOW FOR BAT M305 STRAPS @ 1200 c/c FOR RESTRAINT.
12. CONCRETE PADSTONES TO BE GRADE 25 (1:2:4).
13. ALL TEMPORARY PROPPING BY THE CONTRACTOR.
14. ALL WATERPROOFING AND DRAINAGE TO ARCHITECT'S SPECIFICATION.
15. ALL WORKS TO BE APPROVED BY THE BUILDING CONTROL OFFICER.
16. NO WORK TO COMMENCE ON SITE PRIOR TO BUILDING CONTROL APPROVAL OF STRUCTURAL DETAILS.
17. ANY BEAMS, JOISTS HANGERS, OR OTHER STRUCTURAL WORKS ATTACHED TO PARTY WALL MAY BE SUBJECT TO PARTY WALL AGREEMENT.

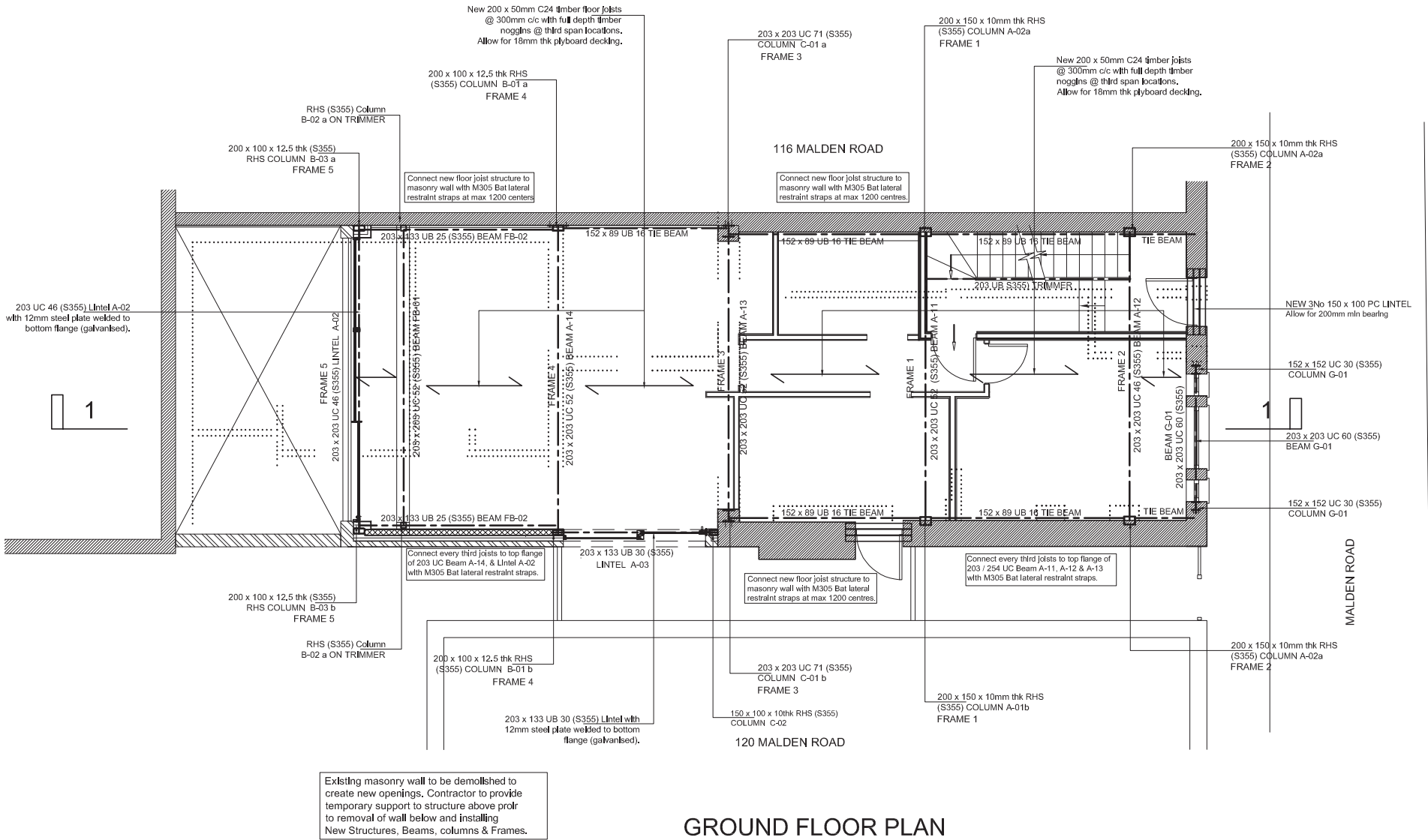
PRELIMINARY SCHEME
FOR PLANNING APPLICATION

A	20.09.23	REVISED DRAWING	
Rev	Date	Description	App

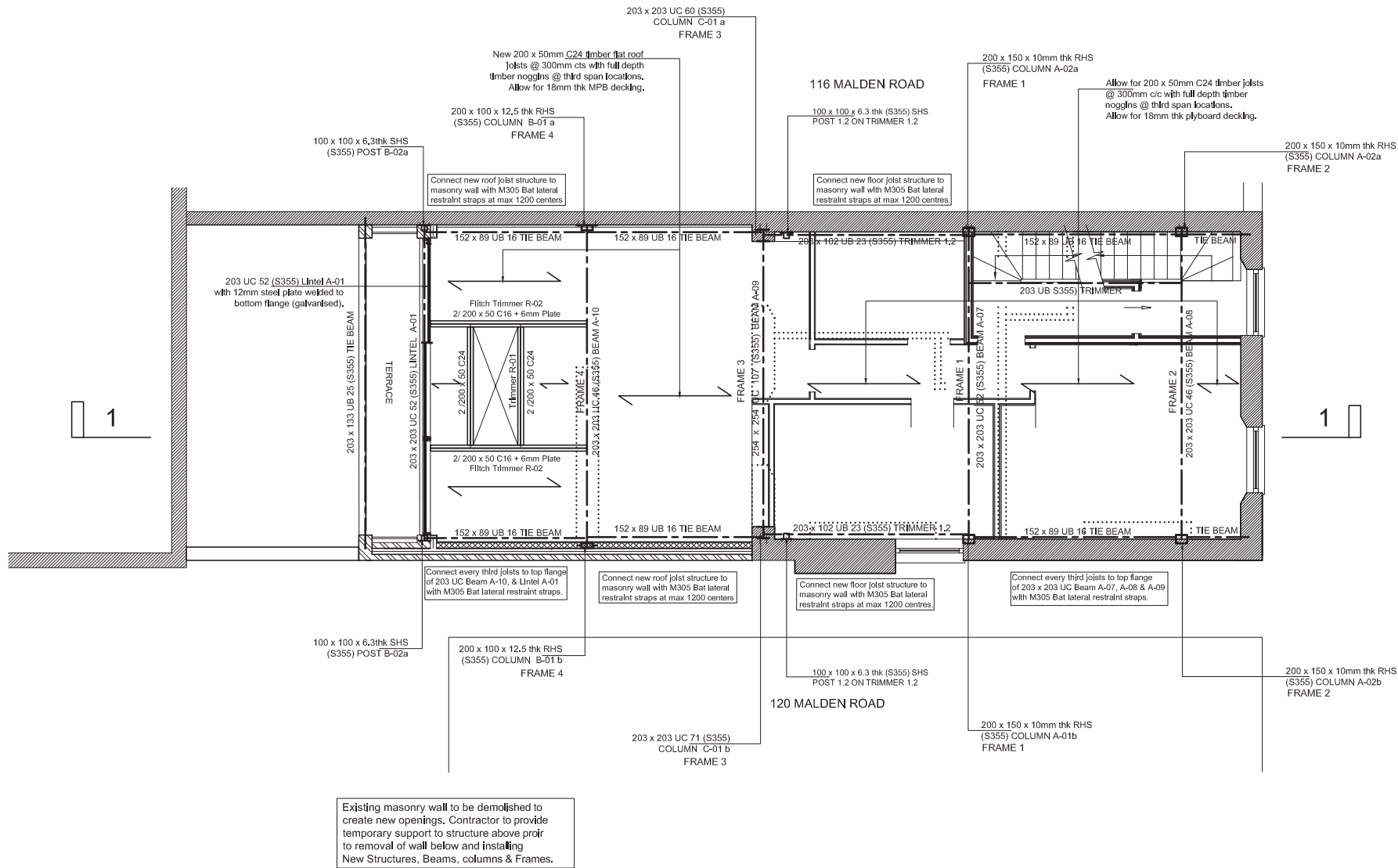
Title
GROUND FLOOR PLAN
Showing FLOOR Structure above

Martin Redston Associates
Consulting Civil & Structural Engineers
4 Edward Square, London N1 OSP
Tel: 020-7837 5377

Date	August July 2023	Sheet No.	Rev
Eng.	SG	Scale	1:50 @ A1 1:100 @ A3
Job No.	23.206	03	-
Project	118 Malden Road London NW5 4BY		



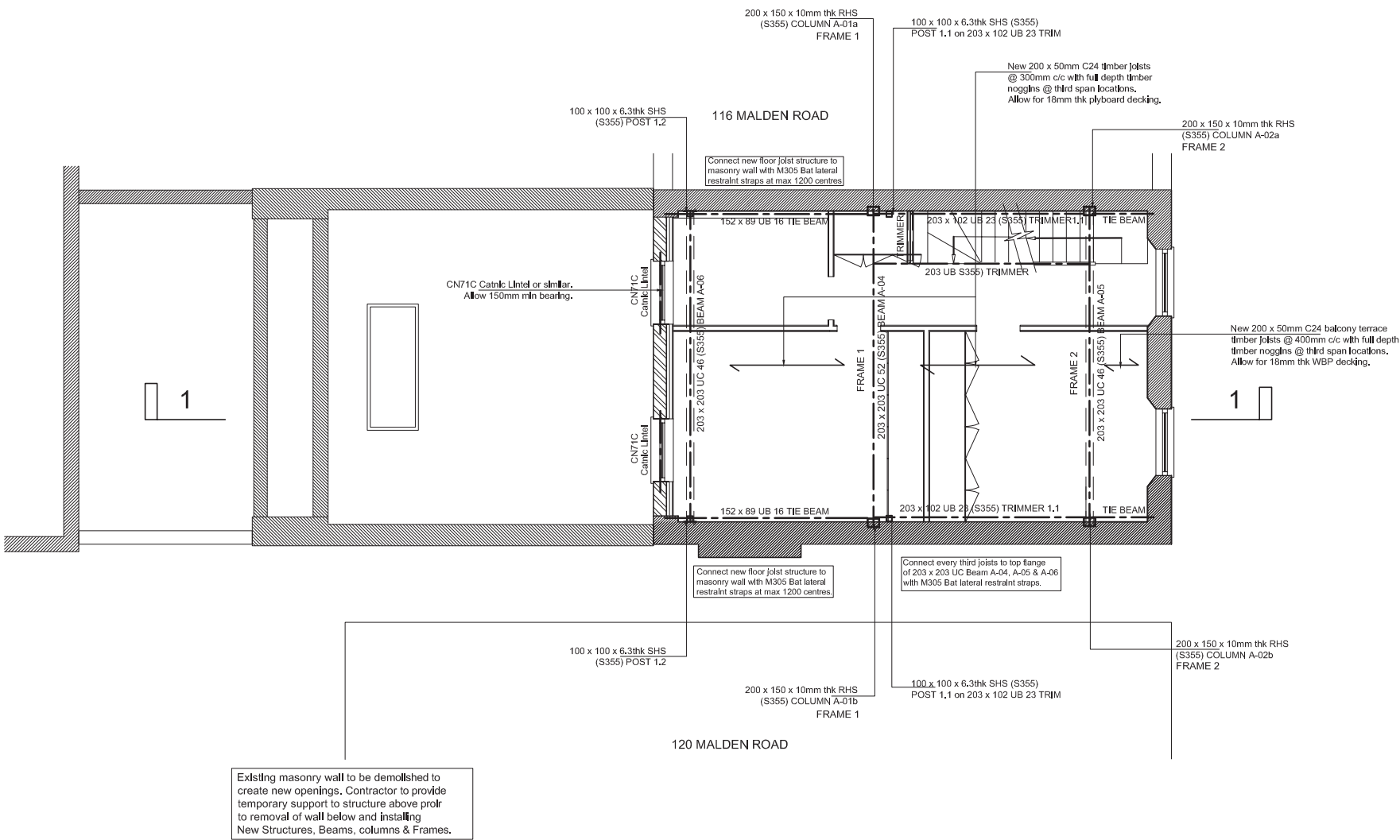
GROUND FLOOR PLAN
(Showing FIRST FLOOR STRUCTURE above)
Scale 1:50 @ A1 & 1:100 @ A3



FIRST FLOOR PLAN
(Showing SECOND FLOOR STRUCTURE above)
Scale 1:50 @ A1 & 1:100 @ A3

PRELIMINARY SCHEME
FOR PLANNING APPLICATION

A	20.09.23	REVISED DRAWING	
Rev	Date	Description	App
Title FIRST FLOOR PLAN Showing FLOOR Structure above			
Martin Redston Associates Consulting Civil & Structural Engineers 4 Edward Square, London N1 OSP Tel: 020-7837 5377			
Date	14th August 2023	Sheet No.	Rev
Eng.	SG	Scale	04 A
Job No.		23.206	
Project		118 Malden Road London NW5 4BY	



SECOND FLOOR PLAN

(Showing LOFT FLOOR STRUCTURE above)

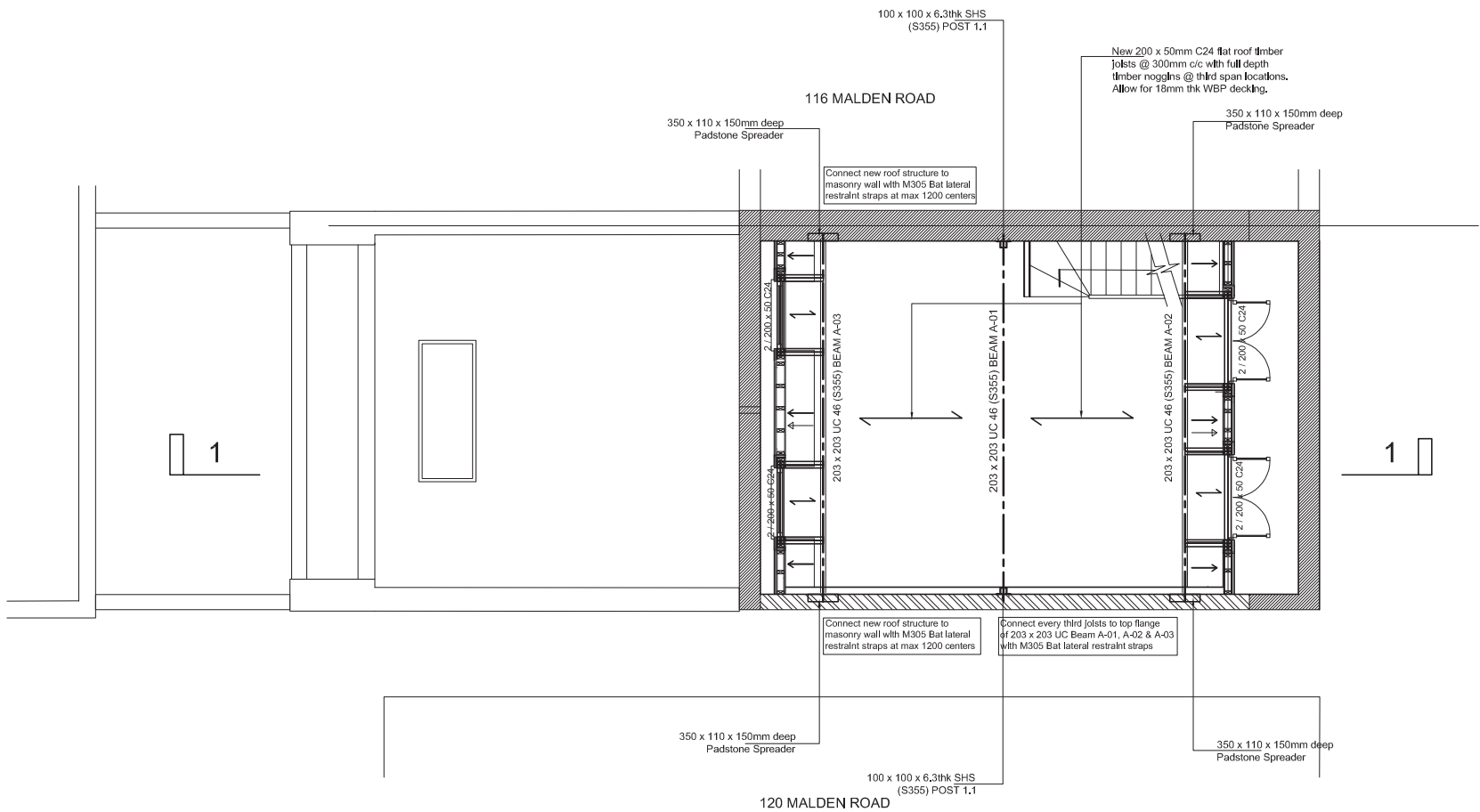
Scale 1:50 @ A1 & 1:100 @ A3

NOTES

1. ALL DIMENSIONS TO BE VERIFIED ON SITE.
2. READ IN CONJUNCTION WITH ARCHITECT'S DRAWINGS.
3. ALL STEELWORK DESIGNED TO BS 5950 FABRICATED TO BS 5950.
4. ALL STEEL MEMBERS TO BE GRADE S355 STEEL.
5. APPLY 2 COATS OF RED OXIDE PRIMER TO ALL STEEL PRIOR TO ERECTION.
6. ALL STEEL BEAMS TO HAVE 1 HOUR FIRE RESISTANCE CAPABILITY MIN (e.g. 12.5 mm PLASTERBOARD AND 7mm SKIM).
7. ALL WELDING TO BE 6mm FILLET WELDS CARRIED OUT IN WORKSHOP.
8. ALL BLACK BOLTS TO BE GRADE 8.8.
9. ALL TIMBERWORK DESIGNED TO BS 5268.
10. DOUBLE JOISTS TO BE BOLTED TOGETHER WITH M-12 BOLTS + 63mm dia. TP CONNECTORS AND WASHER PLATE @ 450 c/c.
11. CONNECTIONS:
 - TIMBER/BRICK: BAT SPH HANGER WHEN THERE IS A MINIMUM OF 675mm OF BRICKWORK ABOVE, IF NOT USE MAXI SPEEDY HANGERS.
 - TIMBER/TIMBER: BAT JIFFY HANGER OR FRAMING ANCHOR.ALLOW FOR BAT M305 STRAPS @ 1200 c/c FOR RESTRAINT.
12. CONCRETE PADSTONES TO BE GRADE 25 (1:2:4).
13. ALL TEMPORARY PROPPING BY THE CONTRACTOR.
14. ALL WATERPROOFING AND DRAINAGE TO ARCHITECT'S SPECIFICATION.
15. ALL WORKS TO BE APPROVED BY THE BUILDING CONTROL OFFICER.
16. NO WORK TO COMMENCE ON SITE PRIOR TO BUILDING CONTROL APPROVAL OF STRUCTURAL DETAILS.
17. ANY BEAMS, JOISTS HANGERS, OR OTHER STRUCTURAL WORKS ATTACHED TO PARTY WALL MAY BE SUBJECT TO PARTY WALL AGREEMENT.

PRELIMINARY SCHEME FOR PLANNING APPLICATION

A	20.09.23	REVISED DRAWING	—
Rev	Date	Description	App
Title SECOND FLOOR PLAN Showing LOFT FLOOR Structure			
Martin Redston Associates Consulting Civil & Structural Engineers 4 Edward Square, London N1 OSP Tel: 020-7837 5377			
Date	14th August 2023	Sheet No.	Rev
Eng.	SG	Scale	1:50 @ A1 1:100 @ A3
Job No.	23.206	05	A
Project	118 Malden Road London NW5 4BY		



Existing masonry wall to be demolished to create new openings. Contractor to provide temporary support to structure above prior to removal of wall below and installing New Structures, Beams, columns & Frames.

LOFT FLOOR PLAN
(Showing ROOF STRUCTURE Structure)
Scale 1:50 @ A1 & 1:100 @ A3

NOTES

1. ALL DIMENSIONS TO BE VERIFIED ON SITE.
2. READ IN CONJUNCTION WITH ARCHITECT'S DRAWINGS.
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4. ALL STEEL MEMBERS TO BE GRADE S355 STEEL.
5. APPLY 2 COATS OF RED OXIDE PRIMER TO ALL STEEL PRIOR TO ERECTION.
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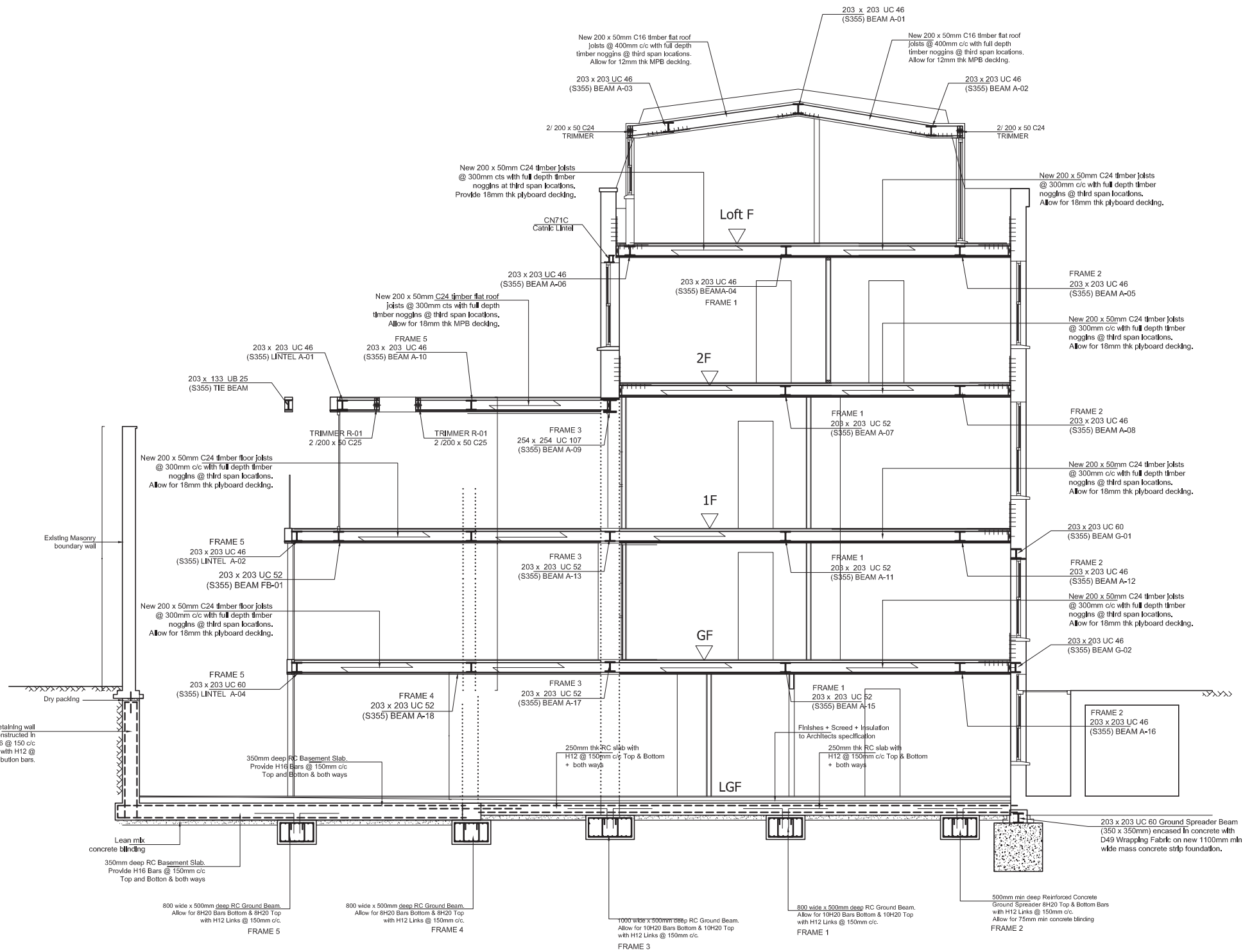
**PRELIMINARY SCHEME
FOR PLANNING APPLICATION**

-	-		
Rev	Date	Description	App

Title
LOFT FLOOR PLAN
Showing ROOF Structure above

Martin Redston Associates
Consulting Civil & Structural Engineers
4 Edward Square, London N1 OSP
Tel: 020-7837 5377

Date	14th August 2023	Sheet No.	Rev
Eng.	SG	Scale	1:50 @ A1 1:100 @ A3
Job No.	23.206	06	-
Project	118 Malden Road London NW5 4BY		



SECTION 1-1

NOTES

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PRELIMINARY SCHEME
FOR PLANNING APPLICATION

A	20.09.23	REVISED DRAWING	
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Title SECTION 1-1

Martin Redston Associates
Consulting Civil & Structural Engineers
4 Edward Square, London N1 OSP
Tel: 020-7837 5377

Date	14th August 2023	Sheet No.	Rev
Eng.	SG	Scale	1:50 @ A1 1:100 @ A3
Job No.	23.206	07	A
Project	118 Malden Road London NW5 4BY		