BUTLER
HEGARTY
ARCHITECTS

16 St Peter's Road

Condition Discharge

REFERING TO APPLICATION 22/1754/HOT
DECISION NOTICE 1 SEPTEMBER 2022

DETAILED APPLICATION:
U0136964

Structural Impact Assessment
Prior to the commencement of development, a detailed structural impact assessment report should be submitted to and approved in writing by the Local Planning Authority and carried out in accordance with the approved details. The structural report should set out the structural works needed to the make the openings in the side wall and the foundations of the extension and how it will be physically connected to the main house and boot room. Should, during the course of construction and through monitoring, an occurrence be identified regarding structural, foundation or ground movement to the host building, the applicant shall immediately notify the Local Planning Authority to enable the relevant department within the Council to be notified.

REASON
In order to safeguard the special architectural or historic interest of the grade II listed building and character of the Conservation Area.

Condition Discharge Statement:
The required detailed structural impact assessment provided by the structural engineers and BHA drawing Sk908 illustrates and describes the method of working to form the openings in the wall submitted with this application. This information for the discharge of this condition should be read along with the submission to discharge related condition ref. U0136965.

The drawings from the structural engineers show how the foundation to the new extension will be formed. The proposals show the new extension will have raft foundation (see Elite Designers' drawing 2023-166-01_C founded at the same depth as the existing building, thus not undermining it or changing its bearing substrata. The super structure of the new extension has been designed to be independent from the main house. See Elite Designers' drawings 2023-166-01_C and 2023-166-102_C.

Condition Discharge Documents:

Please refer to Elite Designers:
- STRUCTURAL IMPACT ASSESSMENT_2023-166
- 2023-166-00-A: GENERAL NOTES
- 2023-166-101_C PROPOSED PLANS & RAFT DETAILS
- 2023-166-102-C PROPOSED STRUCTURAL DETAILS
- 2023-166-01-A PROPOSED SECOND FLOOR PLAN
- 2023-166-02-A PROPOSED ROOF PLAN

Please refer to BHA drawings:
- Sk908A_Method Statement for Southeast Side Elevation External Wall Openings

STRUCTURAL IMPACT ASSESSMENT

Project information

Job No: 2023-166

Client: Mr John Oldcorn

Address: 16 St Peter's Road, Twickenham TW1 1QX

Contents

1.0 Introduction:

Elite Designers are conducting the proposed structural design works at the above property in line with the currently approved planning. It is proposed to create a new opening in the side wall of the listed building and erection single storey side extension to the property. In engineering terms, this is a straightforward process.

This document comprises a comprehensive structural impact statement regarding the proposed installation of the new openings in the side wall of main building and new raft foundation for the house extension to the listed building located at 16 St Peter's Road, Twickenham TW1 1QX.

As a structural engineers with expertise in historic preservation, we have thoroughly assessed the potential structural impact of this modification and would like to present our findings. Please note that this statement focuses solely on structural matters and does not comment on any other non-structural works that may or may not be carried out on the building.

2.0 Description of the existing structure:

The construction of the existing building is formed of concrete walls with traditional timber joist floors and timber roof construction. The floor joists span onto the internal and external concrete walls that transfer the loads down to foundation level.

Based on our site assessment the garage appears to be an addition to the main house rather than an integral part of it hence the stability of the main house will not be affected by demolition of the garage and rebuilding it as an extension to the house.

It is important to note that the proposed installation of the new wall openings and raft foundations in and next to the listed building will consider the existing main building construction. The new elements do not compromise the integrity or stability of the building. Any necessary reinforcements or modifications will be implemented to accommodate the new wall openings and foundations while maintaining the structural strength of the existing structure.

Preservation of the historic fabric and architectural character will be prioritized throughout the installation process. Skilled craftsmen with expertise in working with listed structures will be involved to ensure that the necessary precautions are taken to protect the integrity and historical significance of the building.

By considering the existing wall structure and implementing appropriate measures, the proposed installation of the new openings can be successfully integrated into the side wall of the listed building while respecting its structural heritage.

3.0 Evaluation of Existing Structure:

We have conducted a thorough evaluation of the existing structure to assess its compatibility with the proposed structural works. This evaluation includes a review of condition of the supporting elements, and the impact of proposed works on the overall stability of the structure.

3.1 Potential Impact on Existing Structure:

The creation of new wall openings will primarily involve strengthening the existing wall in area directly adjacent to the opening where the opening will

be positioned. This targeted strengthening will ensure that the immediate area around the new opening has sufficient structural support to accommodate the additional load imposed by the new installation.
The proposed installation will not require any significant alterations or reinforcements to the surrounding elements. The timber floor, internal walls, and other components of the building structure will remain intact and unaffected by the creation of the new openings. Therefore, the overall historic fabric and architectural integrity of the building will be preserved.
To ensure the successful integration of the new elements without compromising the structural stability or historic significance, the installation process will be carried out by skilled professionals experienced in working with concrete structures and historic preservation.

3.2 Compliance with Safety Regulations and Building Codes

The proposed project will fully comply with all relevant safety regulations and building codes. Appropriate measures will be taken to ensure the safety of workers, visitors, and the surrounding areas during the construction period. This includes adherence to established safety guidelines, proper scaffolding, personal protective equipment, and safe working practices.

HEALTH & SAFETY REQUIREMENTS AND NOTES

A. The Health and Safety Regulations has been amended in April 2015, which places more onus on residential clients procuring building works, more similar to that which has long existed in the commercial building sector.
B. The clients / property owners have various duties including the appointment of a Principial Designer (normally the Architect) and a Principal Contractor (the builder) to construct the works in a safe manner. Please speak to your Architects and refer to this web link: http://www.hse.gov.uk/pubns/indg411.pdf for detail.
C. Please note Elite Designers DO NOT provided the role of Principal Designer. Please refer to Architects in this regard.
D. The Contractor is responsible for the stability of the existing structure and all retained earth works, both on the site and on adjoining sites and must take all necessary precautions to safeguard their stability. All temporary works and the stability of the works in general during construction is the responsibility of the Contractor.
E. The Contractor is to obtain relevant C.O.S.H.H. information with regards to the materials he proposes to use in the works and is to ensure that all operatives are aware of the requirements stated in the C.O.S.H.H. regulations
F. The Contractor must pay particular attention to health and safety matters and methods of working. The Contractor is to decide upon the sequence of working and must always use best practice with particular care when working at height and below ground, when dismantling, demolishing and installing temporary support for inserting new elements to support existing structure.
G. The contractor should advise the client and consultant team if they become aware of any particular health and safety concerns or if they discover any deleterious materials (i.e. such as asbestos etc.) We are not experts in matters such as deleterious materials and are not employed to advise.
H. ED are not employed by the client to provide contract administration or general supervision and may not be aware of the works and general progress on site. It is essential that the contractor alert both the client

and ED if any unforeseen elements or material design variations arise, leading to any changes to the structural drawings/specifications/scope of work.

I. It is important that the Contractor alerts the client and design team if there are any trades or skills required from the drawings and other contract documents, that are not within the immediate expertise of the Contractor.

3.3 Schedule of works / Method of construction:

This method statement is intended as a general guide and should be adapted and customized to the specific requirements and conditions of the project.

3.3.1 Pre-Construction Preparations:

- Obtain the necessary permits and approvals from the relevant authorities before commencing the construction activities.
- Conduct a detailed survey of the existing wall structure to accurately identify the location and dimensions of the new openings. This will guide the subsequent steps of the construction process.
- Prepare a detailed plan and sequence of work, ensuring that all necessary materials, tools, and equipment are available before starting the construction activities.
- As part of the pre-construction process, the contractor will take necessary precautions to secure the area of the roof light installation and ensure that weather conditions do not damage the existing roof structure.

The following measures will be implemented:

- Securing the Area:
  The contractor will cordon off the area surrounding the new structural elements installation to restrict access and create a safe working zone. This will prevent unauthorized personnel from entering the area and minimize the risk of accidents or damage to the roof structure.

- Temporary Covering:
  Once the new openings inside wall are created, the contractor will ensure that the exposed area is adequately protected. This may involve temporarily covering the opening with a suitable temporary material or boarding to prevent water ingress or damage to the internal floor structure.

3.3.2 Health and Safety:

- Prioritize the health and safety of all personnel involved in the construction process. Provide appropriate personal protective equipment (PPE) and ensure its proper use.
- Erect suitable scaffolding or working platforms to provide safe access to the work area. Regularly inspect and maintain the scaffolding to ensure its stability and integrity throughout the construction process.
- Identify and assess potential hazards associated with cutting existing rafters, such as falling debris or exposure to sharp edges. Implement

control measures to mitigate these risks and ensure a safe working environment.
- Adhere to all relevant health and safety regulations, codes of practice, and guidelines during the construction process.

3.3.3 Construction Procedure: New Wall Openings:

Installation procedure outlined in points below and in attached document:
'Sk908_Method Statement for Southeast Side Elevation External Wall Openings'

- Mark the exact location and dimensions of the new openings on the existing side wall, based on the survey conducted during the pre-construction phase.
- Erect temporary support structures, if necessary, to provide additional support to the existing floor structure during the cutting and modification process.
- Cut the existing wall at the predetermined positions to create an opening for the new openings. Use appropriate cutting tools and techniques to ensure clean and accurate cuts, minimizing any damage to the surrounding elements.
- Install new structural elements around newly created opening, such as additional steel angles. These new elements should be carefully integrated with the existing wall structure to ensure structural stability and compatibility.
- Securely fix and connect the new elements to the existing wall structure using suitable fasteners or connectors, ensuring proper load transfer and continuity of the load path.
- Install the new windows into the prepared opening, following the manufacturer's instructions and recommendations. Ensure that the installation is watertight and properly sealed to prevent any water ingress.
- Conduct regular inspections and quality checks throughout the construction process to verify the structural integrity and compliance with the design specifications.

3.3.4 Construction Procedure: New Raft Foundations:

- Excavate the area following the approved foundation layout and dimensions.
- Ensure the excavation is clean and free from debris, with the bottom levelled and compacted as per engineering specifications.
- Install any required formwork for the foundation, ensuring it is properly supported and secured.
- Place a layer of blinding concrete at the base of the excavation to provide a level and stable surface for the foundation.
- Transport the concrete to the site using appropriate equipment and pour it into the foundation formwork.
- Monitor the pouring process to avoid overpouring or spillage
- Protect the foundation from adverse weather conditions such as extreme heat, rain, or frost during the initial curing period.
- Once the foundation has achieved sufficient strength, backfill the excavated area with suitable material in layers, compacting each layer to the specified density.

3.3.5 Completion:

- Upon completion of the construction activities, conduct a thorough inspection of the newly formed elements and the surrounding structure to ensure compliance with the design requirements and relevant regulations.
- Make any necessary adjustments to ensure the functionality and aesthetic integration of the new elements.
- Remove all construction debris and waste from the work area, leaving the site in a clean and safe condition.
- Document all construction activities, including any modifications made to the existing structure, as part of the project record for future reference.

4.0 Conclusion:

In conclusion, the formation of the new opening and foundations will have minimal to negligible impact on the existing or surrounding structure of the main building.
The load path within the wall structure will remain unchanged, and no additional load will be added to the existing foundations. The installation process will prioritize the preservation of the historic fabric and architectural integrity of the building.

It is essential to appreciate that certain elements of the house are of significant age, and performance expectations should be adjusted accordingly. As with any historic structure, minor defects may arise over time, and addressing them can be integrated into routine maintenance procedures.

By adhering to these guidelines, the preservation of the historic fabric and character of the building will be prioritized while effectively addressing any necessary repairs or modifications that may arise during the wall re-decorating.

Kind Regards

Prepared by:

Bart Kopyto

Structural Engineer at Elite Designers

Checked by:

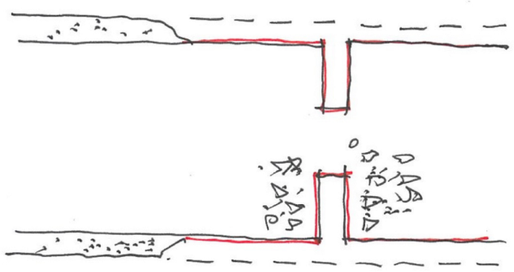
Nigel Reynolds

Director at Elite Designers

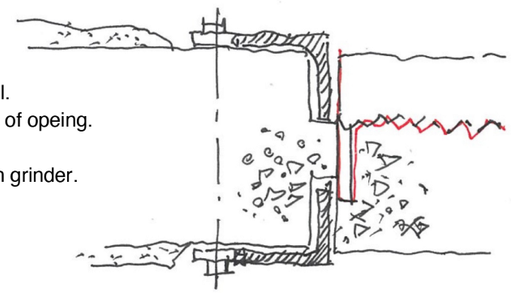
5.0 Appendix:

Sk908_Method Statement for Southeast Side Elevation External Wall Openings

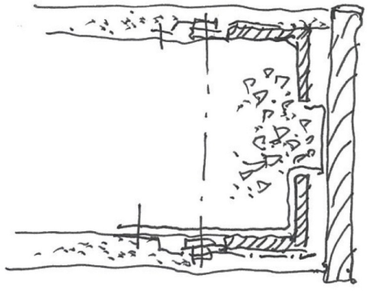
Stage One
Hack off render either side of wall.
Pilot hole in each corner to locate opening.
Cut slots with grider either side of of wall
approx 10mm wide 100 deep.



Stage Two
Insert 100x 100 angles with lugs either side of wall.
Fixing bolts bewteen angles set 150mm from face of opeing.
Finalise install angle frame to top and bottom.
Cuts out concrete to one side and cut through with grider.



Stage Three
Remove rest of concrete and complete opening.
Site weld angel together at each corner
to steelwork complete box.
Install opening lining timbers and re-render wall
on expanded metal lathing.



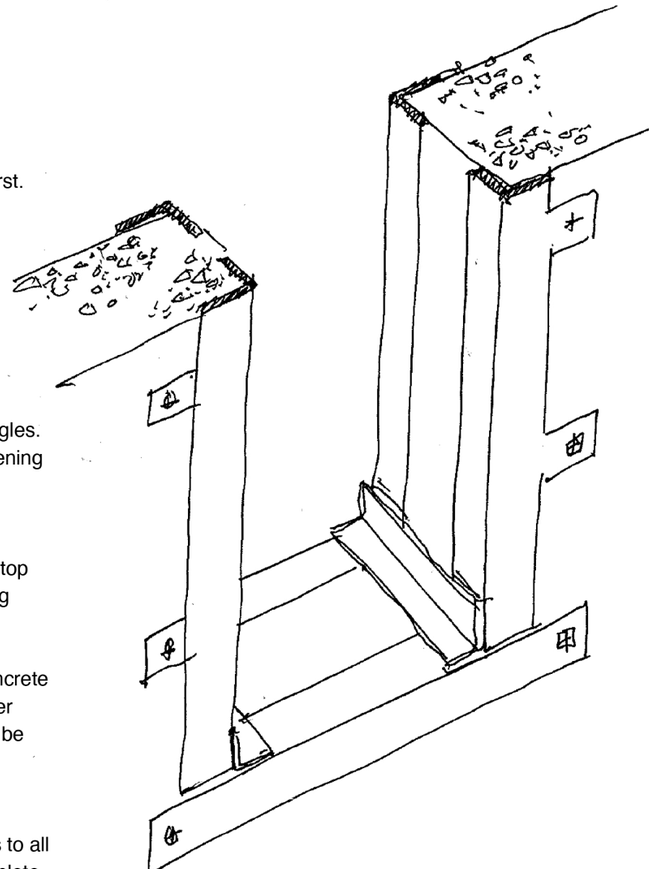
Angles inserted into wall first.

Bolt through to connect angles.
Set minimum 150 from opening
edge

Cut and insert bottom and top
angles to complete opening

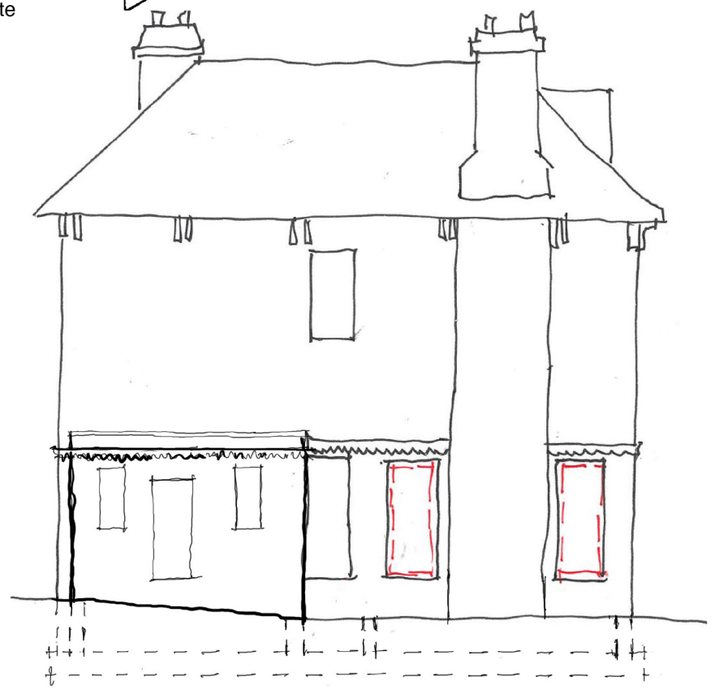
Hack away one side of concrete
and cut through with grinder
middle of concrete area to be
removed

Insert and site weld angles to all
corners of opening to complete
box



Elevation showing plane of
concrete wall with Hole

New openings shown in red



Butler Hegarty Architects
Unit 3.3, Islington Studios, 159-163 Marlborough Road, London, N19 4NF
tel: 020 72638933 email: mail@butlerhegartyarchitects.co.uk

16 St. Peters Road
Title: Method Statement for Southeast Side Elevation
External Wall Openings
Drawing No: 0122823-**Sk908** Scale nts @ A3

GENERAL NOTES:

- TO BE READ IN CONJUNCTION WITH ALL RELEVANT METHOD STATEMENTS & SPECIFICATIONS ISSUED FOR THE JOB.
- ALL DIMENSIONS ARE IN mm U.N.O.
- NO DIMENSIONS TO BE SCALED FROM THESE DRAWINGS, WORK TO FIGURED DIMENSIONS ONLY. FOR DETAILS OF SETTING OUT REFER TO SETTING OUT DRAWINGS.
- ALL ELEVATIONS ON PLANS ARE WITH RESPECT TO ARBITRARY DATUM TO BE ESTABLISHED ON SITE.
- ALL DIMENSIONS TO BE CHECKED ON SITE BY THE CONTRACTOR AND ANY DISCREPANCIES BROUGHT TO THE ENGINEER'S ATTENTION.
- REASONABLE OPPORTUNITY TO BE GIVEN TO ELITE DESIGNER LTD TO INSPECT ALL STRUCTURAL WORKS BEFORE COVERING UP.
- ALL CONCRETE WORKS TO COMPLY WITH THE NATIONAL STRUCTURAL CONCRETE SPECIFICATION FOR BUILDING CONSTRUCTION.
- ALL STEELWORK TO BE IN ACCORDANCE WITH THE NATIONAL STRUCTURAL STEELWORK SPECIFICATION (N.S.S.S.)
- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT EDITION OF THE NATIONAL BUILDING REGULATIONS & B.S STANDARDS.

FOUNDATIONS:

- ALL CONCRETE SHALL BE GRADE C40N20, UNLESS NOTED OTHERWISE.
- ALL EXCAVATIONS FOR FOUNDATIONS SHALL BE INSPECTED AND APPROVED BY ELITE DESIGNERS LTD PRIOR TO CONCRETING.
- EXISTING FOUNDATIONS SHALL NOT BE UNDERMINED OR INTERFERED WITH IN ANY MANNER AND EVERY PRECAUTION SHALL BE TAKEN TO ENSURE THAT THE FORMATION LEVEL REMAINS DRY, FORMATION LEVELS AS SHOWN MAY VARY DEPENDING ON CONDITIONS ENCOUNTERED ON SITE.
- CONTRACTOR TO REPORT IMMEDIATELY TO THE ENGINEER IF IT IS DISCOVERED THAT THE SUBSOIL CONDITION IS POORER THAN THE EXPECTED SOIL CONDITION ESTIMATED BASED ON SOIL INVESTIGATION REPORT.
- ALL MATERIALS & WORKMANSHIP TO CONFORM TO BS 8002.
- WHERE DEEMED NECESSARY BY THE ENGINEER ALL FOUNDATIONS TO BE TAKEN DOWN WITH MASS CONCRETE (GRADE C20) AS FAR AS GROUND WITH ADEQUATE BEARING CAPACITY.
- ALL WALLS TO BE CENTERED ON FOUNDATIONS, RISING WALLS TO GROUND FLOOR TO BE CONSTRUCTED IN SOLID CONCRETE BLOCK WORK UP TO DPC LEVEL, THEREAFTER, AS SHOWN ON PLAN.

PILES:

- PILES SHALL BE DESIGNED BY AN APPROVED PILE DESIGNER IN ACCORDANCE WITH BS 8110 & THE I.C.E SPECIFICATION FOR PILING AND EMBEDDED WALLS AND FORWARDED TO ELITE DESIGNERS LTD PRIOR TO WORK COMMENCING.
- PILES SHALL BE DESIGN AS UN-PROPPED DURING CONSTRUCTION.
- PILES TO HAVE LOAD CAPACITY AS INSTRUCTED SEPERATELY BY ELITE DESIGNERS LTD. CONTRACTOR SHALL ENSURE THAT ALL ADJACENT LIVE SERVICES HAVE BEEN LOCATED.
- PILE TESTING, INTEGRITY TESTING 100%, DYNAMIC TEST 5 NO PILES IN ACCORDANCE WITH I.C.E. SPECIFICATION.
- PILE LOADING TO BE CONFIRMED. FINAL PILE LAYOUT TO BE DETERMINED SUBJECT TO FULL SITE INVESTIGATION.

REINFORCEMENT ESTIMATES:

- RC PILE CAPS ALLOW 115 Kg/m³.
  (60% T25, 25% T16 & 15% Links)
- RC PAD FOOTINGS ALLOW 90 Kg/m³.
  (95% T 16 & 5% Links)
- RC GROUND BEAMS ALLOW 230 Kg/m³.
  (70% T25, 10% T12 & 20% Links)
- RC GROUND BEARING SLABS ALLOW 85 Kg/m³.
  (100% Mesh)
- RC STAIRS & LANDINGS 135 Kg/m³.
  (60% T16, 35% T12 & 10 % Links)
- RC WALLS 65Kg/m³.
  (80% T16 & 20% T12)
- RC RETAINING WALLS 170Kg/m³.
  (80% T16 & 20% T12)

REINFORCED CONCRETE NOTES:

- CONCRETE ABOVE SUB STRUCTURE SHALL BE GRADE C35N20 UNLESS NOTED OTHERWISE.
- COVER TO REINFORCEMENT SHALL BE 35MM UNLESS NOTED OTHERWISE.
- ALL REINFORCEMENT SHALL BE HIGH TENSILE DEFORMED TYPE 2 BARS WITH A HIGH YIELD STRENGTH OF 500 N/mm² UNLESS NOTED OTHERWISE.
- ALL STEEL MESH SHALL HAVE A HIGH YIELD TENSILE STRENGTH OF 485 N/mm² UNLESS NOTED OTHERWISE.
- MINIMUM OF 400mm LAPS SHALL BE PROVIDED IN MESH REINFORCEMENT.

- ALL REINFORCEMENT TO BE INSPECTED AND APPROVED BY ELITE DESIGNERS LTD PRIOR TO POURING OF CONCRETE.
- • CONCRETING WORKS SHALL NOT BE CARRIED OUT IF THE AIR TEMPERATURE IS LOWER THAN 2 DEGREES OR IF FROST IS EXPECTED.
- BEFORE PLACING STRUCTURAL CONCRETE ON HARDCORE OR OTHER ABSORBENT STRATA, LAY DAMP PROOF MEMBRANE ON SAND BLINDING. ENSURE MINIMUM LAPS AND SEAL TO MANUFACTURE'S REQUIREMENTS. ADEQUATELY PROTECT MEMBRANE FROM PUNCTURING, AND CAREFULLY REPAIR ANY PUNCTURES WHICH DO OCCUR.
- UNLESS AN ARCHITECTURAL SCREED IS TO BE PROVIDED, ALL FLOOR SLABS TO RECEIVE POWER TROWELED FINISH, APPLYING SUFFICIENT PRESSURE TO CLOSE THE SURFACE, TO GIVE A UNIFORM SMOOTH FINISH FREE FROM TROWEL MARKS AND OTHER BLEMISHES. AFTER CURING, APPLY AN APPROVED RESIN SEALER TO CONCRETE WEARING SURFACE FLOORS IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS. ALL SLABS SHALL BE WET CURED FOR AT LEAST 7 DAYS AFTER CASTING, SUBMIT CURING DETAILS FOR REVIEW AND ACCEPTANCE.
- MAXIMUM POUR SIZE TO BE 15m IN LENGTH AND 200m² IN AREA, THE RATIO OF THE SIDES IS NOT TO EXCEED 1:1.5. JOINTS ARE TO BE ARRANGED SO AS TO MINIMISE THE OCCURRENCE OF SHRINKAGE CRACKS.
- SUDDEN IRREGULARITIES IN CONCRETE FINISH ARE NOT PERMITTED. THE VARIATION IN SURFACE FINISH IS TO BE NOT MORE THAN 5mm UNDER A 3m STRAIGHTEDGE AND/OR 2mm UNDER A 1m STRAIGHTEDGE.
- ALL PRECAST CONCRETE TO BE DESIGNED AND DETAILED BY PRECAST SUPPLIER. DESIGN CALCULATIONS AND DRAWINGS TO BE SUBMITTED FOR REVIEW AND ACCEPTANCE BY ENGINEER PRIOR TO FABRICATION.

STEELWORK:

- ALL STEELWORK TO BE AT LEAST GRADE S355 TO B.S. EN 10025 U.N.O
- ALL INTERNAL BOLTS TO BE GRADE 8.8 TO B.S. 3692 GALVANISED TO B.S. 729 OR B.S.4921-(43 MICRONS). ALL EXTERNAL BOLTS, NUTS AND WASHERS TO BE STAINLESS STEEL WITH EPDM WASHERS.
- CORROSION PROTECTION: ALL INTERNAL STEEL WORK TO BE SHOT BLASTED TO SWEDISH STANDARD SA2.5 AND PAINTED WITH TWO COATS OF ZINC PHOSPHATE PRIMER TO A MINIMUM DRY FILM THICKNESS OF 75 MICRONS. ALL EXTERNAL STEELWORK TO BE SHOT BLASTED TO SWEDISH STANDARD SA2.5 AND HOT DIP GALVANISED TO 140 MICRONS.
- ALL STEELWORK BELOW GROUND LEVEL SHALL BE ENCASED IN CONCRETE.
- ALL WELDS SHALL BE 6mm FULL PROFILE FILLET WELDS UNLESS NOTED OTHERWISE.
- STEEL BEAMS SUPPORTED BY MASONRY WALLS SHOULD BEAR ONTO CONCRETE PAD STONE AS SHOWN.
- FIREPROOFINIG TO CONSIST OF INTUMESCENT PAINT APPLIED BY SPECIALISED CONTRACTOR TO BS 476 WITH 60MIN FIRE RATING AND TO BE COMPATABLE WITH CORRISION PROTECTION OF STEEL.

LINTELS:

- ALL LINTELS TO INTERNAL BLOCK WORK TO HAVE MINIMUM END BEARING OF 200mm.
- ALL LINTELS TO BE PRECAST CONCRETE LINTELS OR STAINLESS STEEL TYPE WITH CAPACITIES AS FOLLOWS:
  - FOR CLEAR SPANS UP TO 1200mm USE 100 X 65mm dp LINTELS WITH CAPACITY OF 1.2 Kn/m, 140 X 65mm dp LINTELS WITH CAPACITY OF 1.7 Kn/m & 215 X 65mm dp LINTELS WITH CAPACITY OF 2.5 Kn/m.
  - FOR CLEAR SPANS UP TO 1800mm USE 100 X 140mm dp LINTELS WITH CAPACITY OF 1.2 Kn/m, 140 X 140mm dp LINTELS WITH CAPACITY OF 1.7 Kn/m & 215 X 140mm dp LINTELS WITH CAPACITY OF 2.5 Kn/m.

MASONRY:

- ALL BLOCK WORK WALLS TO BE AGGREGATE CONCRETE BLOCKS OF MINIMUM 7N/MM² COMPRESSIVE STRENGTH, UNLESS NOTED OTHERWISE.
- ALL MORTAR TO BE TYPE (iii) TO BS5628-1 : 2005.
- WALL TIES TO BE EITHER POLYPROPYLENE OR STAINLESS STEEL VERTICAL TWIST TYPE TO BS 845, WITH MINIMUM EMBEDDMENT OF 50mm IN EACH LEAF. TIES TO BE SPACED @ 450mm CENTRES VERTICALLY AND 750mm CENTRES HORIZONTALLY. ADDITIONAL TIES TO BE PROVIDED WITHIN 225mm OF ALL OPENINGS AND MOVEMENT JOINTS @ 225mm CENTRES VERTICALLY.
- ALL BLOCK WORK WALLS TO BE TIED TO STEELWORK STANCHIONS @ 225mm CENTRES VERTICALLY USING PROPRIETARY STAINLESS STEEL TIES SECURED TO COLUMNS SUCH AS ANCON BRICLOK OR SIMILAR APPROVED.
- MOVEMENT JOINTS TO BE PROVIDED IN MASONRY WALLS AS INDICATED ON PLAN OR AS FOLLOWS: BRICK WORK = 12M CENTRES, BLOCK WORK = 8M CENTRES.
- ALL DPC's TO BE LDPE DPC TO BS 6515.
- FACING BRICKS FROM THE IBSTOCK BRICK RANGE WITH RECESSED POINTING. COLOR TO CLIENTS SPECIFICATION.

LINTELS:

ALTERATIONS ARE REQUIRED TO BOTH SOLID BRICK WALLS AND CAVITY WALLS.
THE FOLLOWING LINTELS ARE TO BE USED FOR DIFFERENT WIDTH AND THICKNESS OF WALLS

SOLID WALLS

4" THICK WALLS UP TO 1M WIDE OPENING PRECAST LINTEL	65X100.
4" THICK WALLS UP TO 1.5M WIDE OPENING PRECAST LINTEL	100X100.
4" THICK WALLS UP TO 2.5M WIDE OPENING PRECAST LINTEL	215X100.
9" THICK WALLS UP TO 1M WIDE OPENING PRECAST LINTEL	2NO. 65X100.
9" THICK WALLS UP TO 1.5M WIDE OPENING PRECAST LINTEL	2NO.100X100.
9" THICK WALLS UP TO 2.5M WIDE OPENING PRECAST LINTEL	2NO.215X100.
13" THICK WALLS UP TO 1M WIDE OPENING PRECAST LINTEL	3NO. 65X100.
13" THICK WALLS UP TO 1.5M WIDE OPENING PRECAST LINTEL	3NO.100X100.
13" THICK WALLS UP TO 2.5M WIDE OPENING PRECAST LINTEL	3NO.215X100.

CAVITY WALLS

300MM THICK WALLS UP TO 1M WIDE OPENING CATNIC LINTEL CG	90/100.
300MM THICK WALLS UP TO 1.5M WIDE OPENING CATNIC LINTELCG	90/100.
300MM THICK WALLS UP TO 2.5M WIDE OPENING CATNIC LINTELCH	90/100.

LINTELS ARE NOT TO BE USED OVER OPENING WHICH ARE CREATED UNDER POINT LOADS FROM EXISTING OR PROPOSED BEAMS. ONLY TIMBER FLOOR CAN BE SUPPORTED WITH THE ZONE OF INFLUENCE BY THESE LINTELS. ENGINEER IS TO BE INFORMED FOR LINTEL DESIGN IN THESE CASES.

Notes:

1. This drawing is to be read in conjunction with all relevant architects, engineers & specialist sub-contractors drawings and the specification.

2. Any discrepancies between the site conditions and these drawings to be reported to Elite Designers. Dimensions must not be scaled and should be checked on site.

3. All dimensions are in millimetres, levels are in metres a.o.d. (above ordnance datum).

FOR TENDER

Rev.	Date	Description	by	ch'd	app
A	29/02/24	ISSUED FOR TENDER	BK	JGF	NJR

Project
16 ST. PETERS ROAD
TWICKENHAM
TW1 1QX

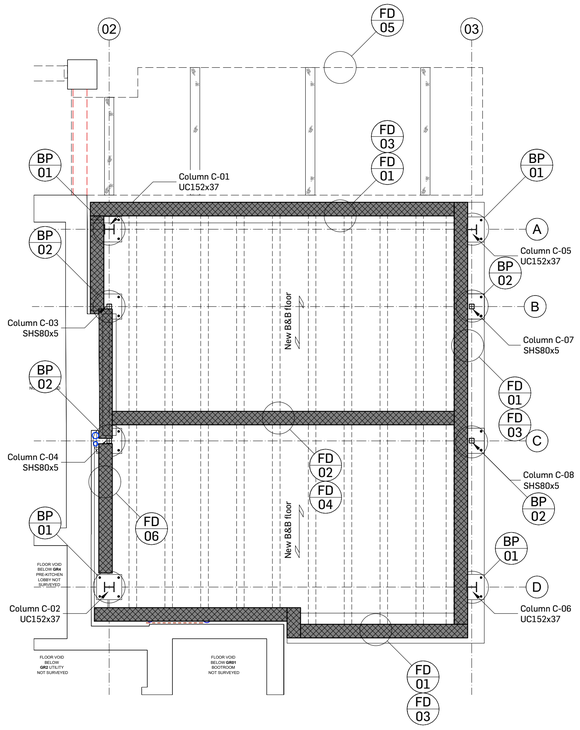
Title
GENERAL NOTES

C/A
Mr John Oldcorn

Elite Designers Structural Engineers
3 Princeton Court
53-55 Felsham Road
Putney
London SW15 1AZ
+44 (0)20 8785 4499
elitedesigners.co.uk

Scales (A3)	AS SHOWN	
Drawn	BK	19/02/2024
Ch'd(Eng.)	JGF	19/02/2024
Approved	NJR	19/02/2024

Drg. No. 2023-166- 00
Rev. A



KEY:

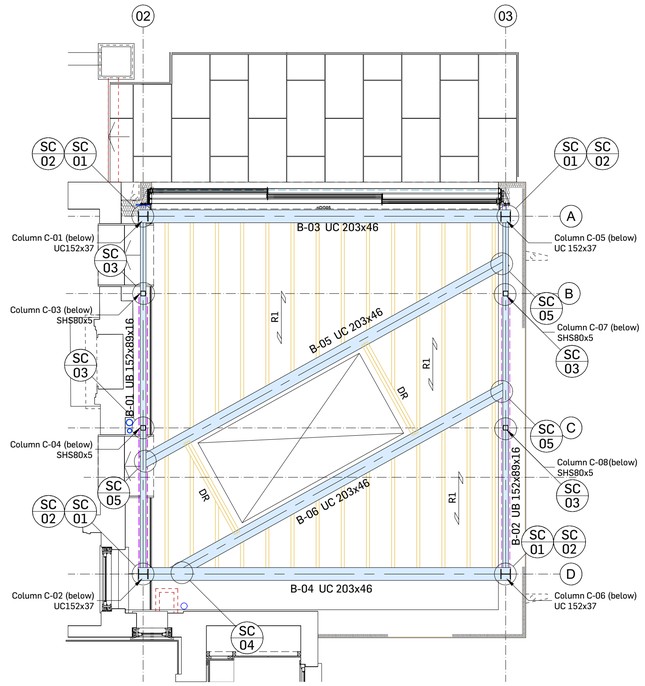
New dwarf wall supporting B&B floor: minimum 215thk 7N/mm2 dense blocks

New B&B floor

Stressline I-beams 125x150@ 530c/c infill with aggregate concrete medium dense blocks

PROPOSED EXTENSION PLAN - FOUNDATIONS

SCALE 1:50



KEY:

J1 — Timber rafters: 50x200 C24 @400 c/c

DR — Double up timber rafters bolted together with M12 bolts at 500c/c

PROPOSED EXTENSION PLAN - SUPERSTRUCTURE

SCALE 1:50

Notes:

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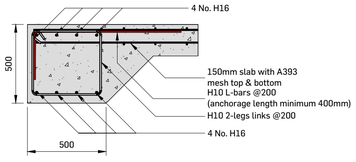
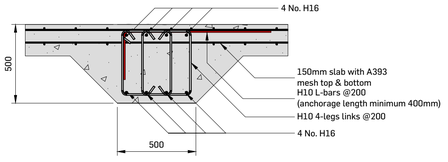


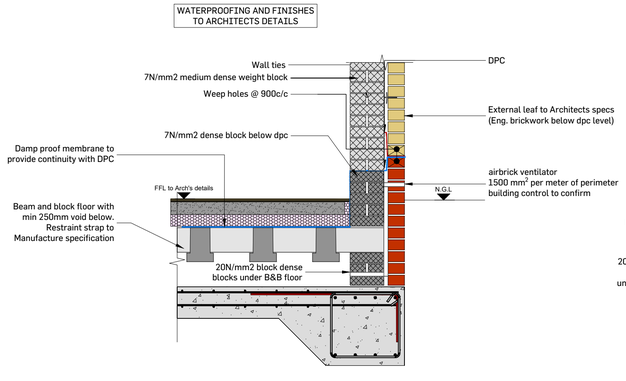
FD 01 — RAFT FOUNDATION - EDGE DETAIL

Scale: 1:20



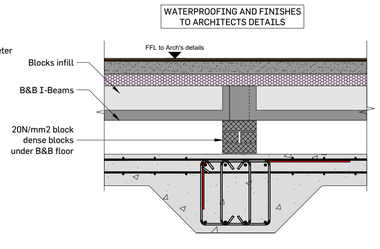
FD 02 — RAFT FOUNDATION - INTERNAL BEAM DETAIL

Scale: 1:20



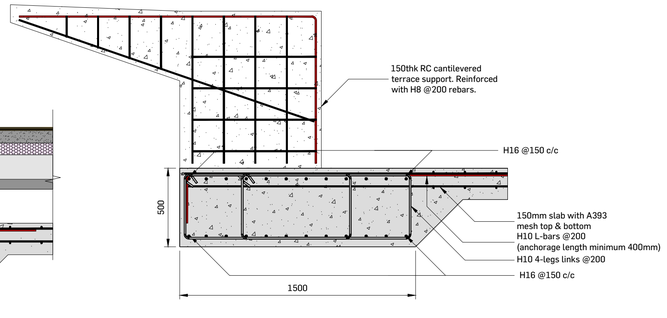
FD 03 — FOUNDATION DETAIL

Scale: 1:20



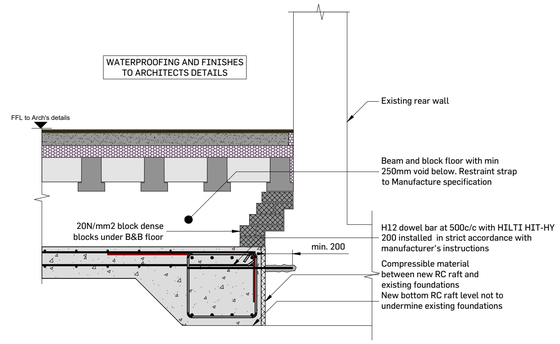
FD 04 — FOUNDATION DETAIL

Scale: 1:20



FD 05 — RAFT FOUNDATION - EDGE DETAIL

Scale: 1:20



FD 06 — FOUNDATION DETAIL

Scale: 1:20

0 1 2

FOR TENDER

Rev.	Date	Description	by	ch'd	app
C	14/03/24	FD/06 revised	BK	JGF	NJR
B	29/02/24	ISSUED FOR TENDER	BK	JGF	NJR
A	19/02/24	ISSUED FOR INFORMATION	BK	JGF	NJR

Project: 16 ST. PETERS ROAD, TWICKENHAM, TW1 1QX

Title: PROPOSED PLANS & RAFT DETAILS

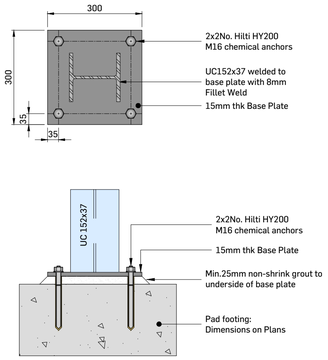
C/A: Mr John Oldcorn

Elite Designers Structural Engineers
3 Provation Court
53-55 Felsham Road
Putney
London SW15 1AZ
+44 (0)20 8785 4499
elitedesigners.co.uk

Scales (A3)	AS SHOWN	
Drawn	BK	19/02/2024
Ch'd(Eng.)	JGF	19/02/2024
Approved	NJR	19/02/2024

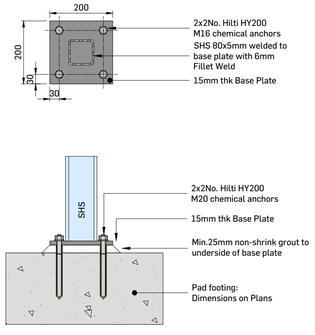
Drg. No. 2023-166-101

Rev. C



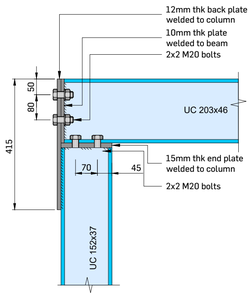
BP 01 **UC BASE PLATE ELEVATION**
Scale: 1:10

Note:
High Strength expanding grout such as Fosroc Conbextra HF with Fosroc Cebex 100 additive to be installed to fill any gaps between pad footing and base plate. Grout not to be restrained during installation so that grout can expand to fill gap underneath base plate with out causing uplift stresses between them.

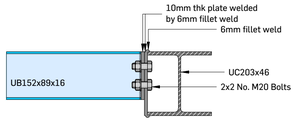


BP 02 **SHS BASE PLATE ELEVATION**
Scale: 1:10

Note:
High Strength expanding grout such as Fosroc Conbextra HF with Fosroc Cebex 100 additive to be installed to fill any gaps between pad footing and base plate. Grout not to be restrained during installation so that grout can expand to fill gap underneath base plate with out causing uplift stresses between them.



SC 01 **STEEL CONNECTION**
Scale: 1:10



SC 02 **STEEL CONNECTION**
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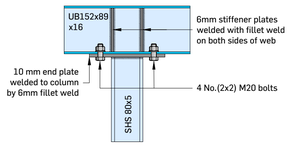

SC 03 **STEEL CONNECTION**
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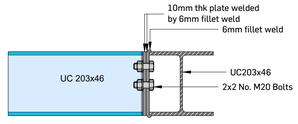
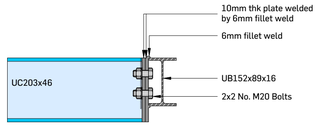


SC 04 **STEEL CONNECTION**
Scale: 1:10



SC 05 **STEEL CONNECTION**
Scale: 1:10

0 1 2

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FOR TENDER

Rev.	Date	Description	by	ch'd	app
C	14/03/24	Drawing number amended	BK	JGF	NJR
B	29/02/24	ISSUED FOR TENDER	BK	JGF	NJR
A	19/02/24	ISSUED FOR INFORMATION	BK	JGF	NJR

Project
16 ST. PETERS ROAD
TWICKENHAM
TW1 1QX

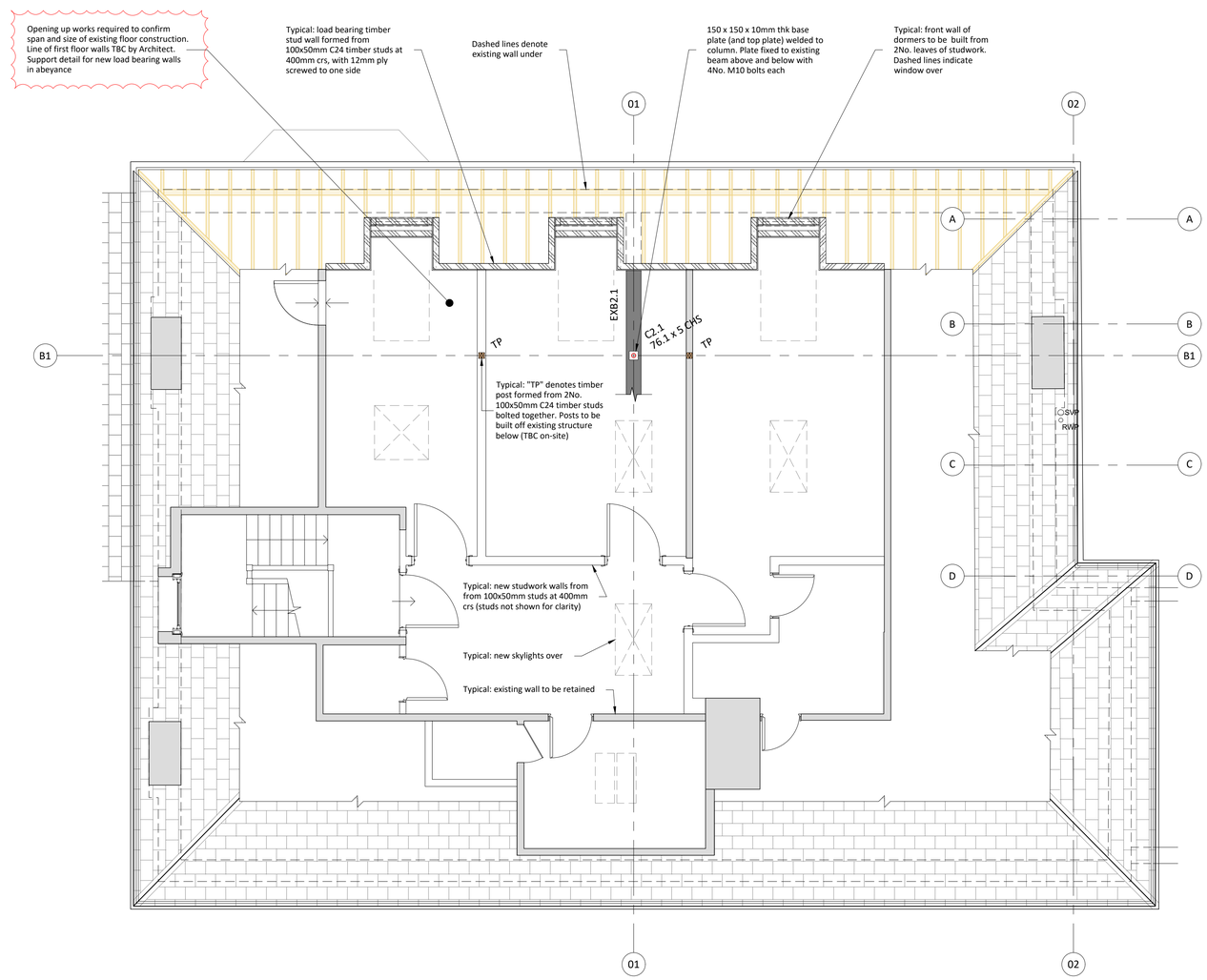
Title
PROPOSED STRUCTURAL DETAILS

C/A
Mr John Oldcorn

Elite Designers Structural Engineers
3 Princeton Court
53-55 Felsham Road
Putney
London SW15 1AZ
+44 (0)20 8785 4499
elitedesigners.co.uk

Scales (A3)	AS SHOWN	
Drawn	BK	19/02/2024
Ch'd(Eng.)	JGF	19/02/2024
Approved	NJR	19/02/2024

Drg. No. 2023-166-102
Rev. C



PROPOSED SECOND FLOOR PLAN

SCALE 1:50

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Rev.	Date	Description	by	ch'd	app
A	00/00/00	FOR INFORMATION	RS	JGF	JGF

Project
16 St. Peters Road
London
TW1 1QX

Title
PROPOSED SECOND FLOOR PLAN

C/A
John Oldcorn

Elite Designers Structural Engineers
3 Princeton Court
53-55 Felsham Road
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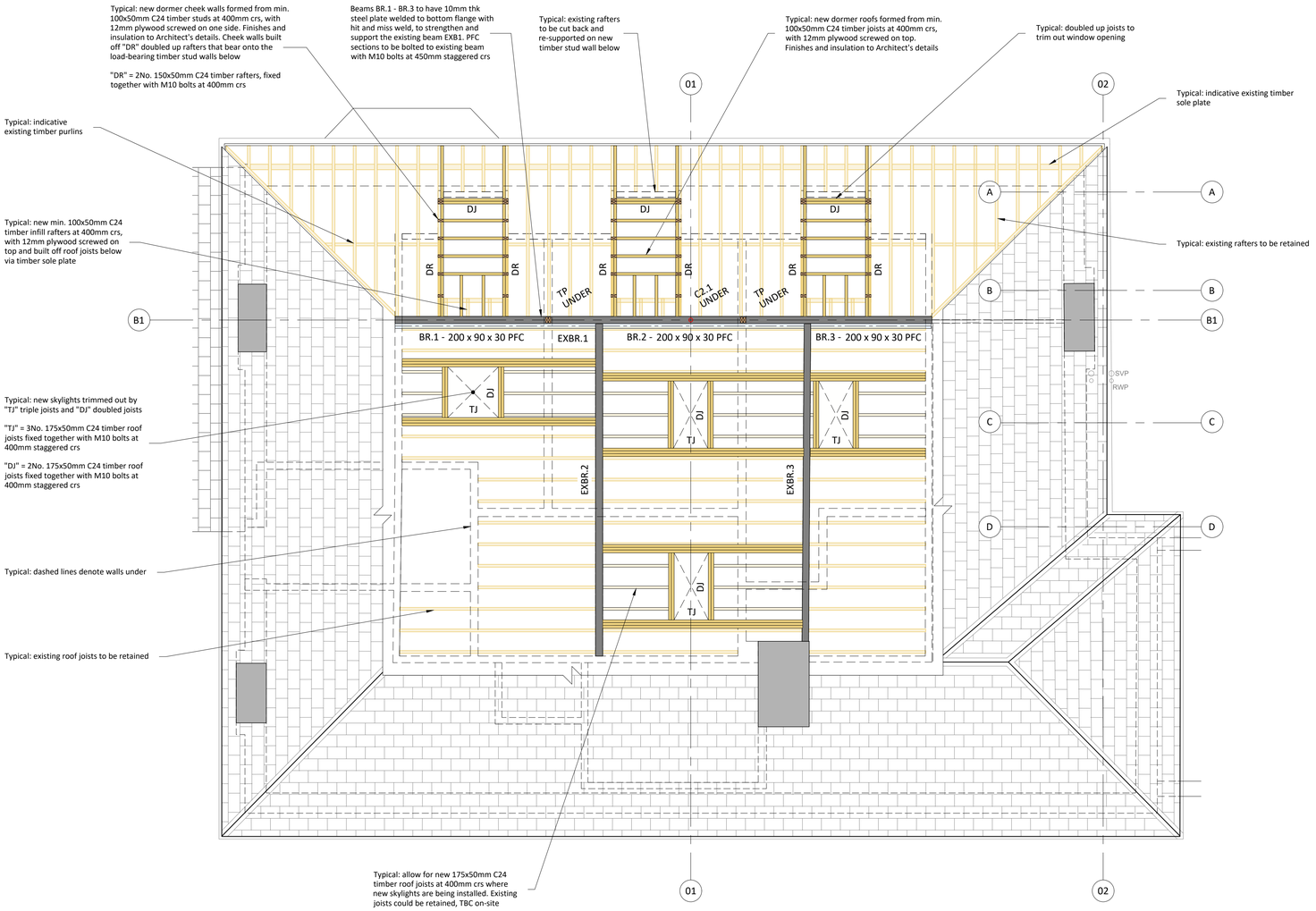
London SW15 1AZ
+44 (0)20 8785 4499
elitedesigners.co.uk

Scales (A1)	AS SHOWN	Drg. No.	Rev.
Drawn	RS 00/00/00	2023-166-01	A
Ch'd(Eng.)	JGF 00/00/00		
Approved	JGF 00/00/00		



PROPOSED ROOF PLAN

SCALE 1:50

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Rev.	Date	Description	by	ch'd	app
A	00/00/00	FOR INFORMATION	RS	JGF	JGF

Project
16 St. Peters Road
London
TW1 1QX

Title
PROPOSED ROOF PLAN

C/A
John Oldcorn

Elite Designers Structural Engineers
3 Princeton Court
53-55 Felsham Road
Putney
London SW15 1AZ
+44 (0)20 8785 4499
elitedesigners.co.uk

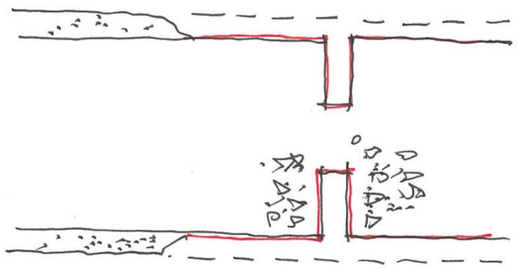
Scales (A1)	AS SHOWN	Drg. No.	Rev.
Drawn	RS 00/00/00	2023-166-02	A
Ch'd(Eng.)	JGF 00/00/00		
Approved	JGF 00/00/00		

Stage One
Mark the proposed opening on the concrete wall using chalk or other non-permanent markers.

Use a diamond-blade concrete saw for precision and minimal vibration.

Wet cutting is recommended to control dust and minimize the impact on the surrounding environment.

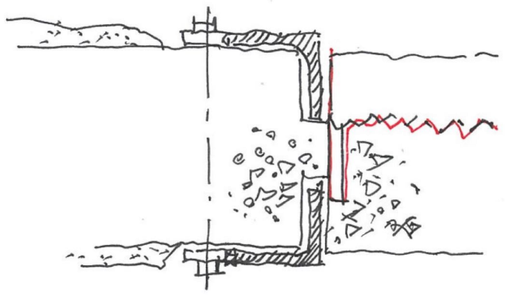
Hack off render either side of wall.
Pilot hole in each corner to locate opening. Cut slots with grinder either side of of wall approx 10mm wide 100 deep.



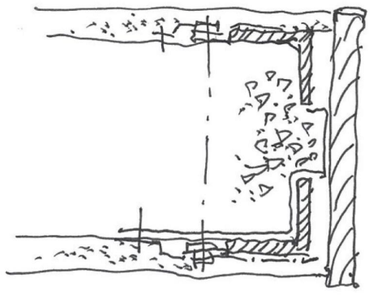
Stage Two
Insert *EA100x8 L-angles* with lugs either side of wall.

Fixing bolts bewteen angles set 150mm from face of opeing. Finalise install angle frame to top and bottom.

Cuts out concrete to one side and cut through with grinder.



Stage Three
Remove rest of concrete and complete opening.
Site weld angel together at each corner to steelwork complete box.
Install opening lining timbers and re-render wall on expanded metal lathing.

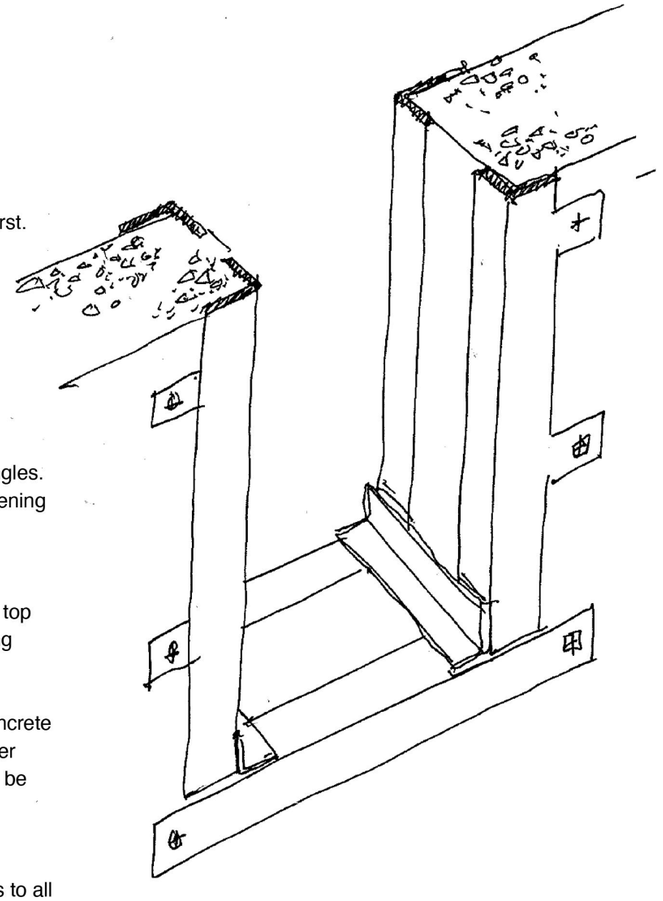


Angles inserted into wall first.

Bolt through to connect angles. Set minimum 150 from opening edge

Cut and insert bottom and top angles to complete opening

Hack away one side of concrete and cut through with grinder middle of concrete area to be removed



Insert and site weld angles to all corners of opening to complete box

Elevation showing plane of concrete wall with Hole

New openings shown in red

Rev A.	Amended to note 15/03/24 Elite Designers Structural Engineers Comments (added in italics)	**Mar 24**

Butler Hegarty Architects
Unit 3.3, Islington Studios, 159-163 Marlborough Road, London, N19 4NF
tel: 020 72638933 email: mail@butlerhegartyarchitects.co.uk

16 St. Peters Road
Title: Method Statement for Southeast Side Elevation
External Wall Openings
Drawing No: 0122823-**Sk908A** Scale nts @ A3