



**HAYES HIGGINS PARTNERSHIP**  
CHARTERED ENGINEERS • PROJECT MANAGERS

## 2-4 Dublin Street Balbriggan Refurbishment



### Civil and Structural Engineering

### Planning Report

June 2023

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## DOCUMENT CONTROL SHEET

	<b>Client</b>	Fingal County Council							
	<b>Project Title</b>	2-4 Dublin St Balbriggan refurbishment							
	<b>Project Ref.</b>	22D001							
	<b>Document Title</b>	Civil and Structural Report (Planning Report)							
	<b>Document No.</b>	22D001_Report 01							
	<b>This Document Comprises</b>	DCS	PD	TOC	Text	-	-	-	Appendices
	<b>Check</b>								

Revision	Status	Author	Reviewed By	Approved By	Issue Dates
1	Stage 1	SG	SM	DH	04.05.22
2	Stage 1 M&E removed from Report	SG	SM	DH	13.05.22
3	Stage 2A	SG	DH	DH	23.09.22
4	Pre-Planning	SG	DH	DH	20.12.22
5	Planning	SG	DH	DH	12.06.23

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## **1.0 INTRODUCTION**

An inspection of No. 2-4 Dublin St., Balbriggan was carried out on April 21st, 2022. The weather was fine and dry and a subsequent visit with detailed examination of timberwork on the 24<sup>th</sup> of August 2022.

The 2 storey building faces west onto the Dublin Road and dates from the 1860's and is a protected structure. A 1960's single storey lean-to retail building is attached to the southern gable which will be demolished and replaced with a modern single storey extension to the side and rear to create an external courtyard with access from a laneway off St Georges Square.

The contemporary extensions on either side of the staircase to the rear of the main house will be demolished and infilled, returning the original form of the existing building

## **2.0 SCOPE**

This report was carried out based on visual inspections to assess the soundness of the building structure, work undertaken to review the project brief, utility service drawings, civil and structural design development and project viability in conjunction with the other design team members.

Opening up works were undertaken prior to inspection to expose a number of lintels, floor joints, roof voids and local areas of walling for inspection/assessment. Further opening up works were carried out to determine the depth to foundation level of the existing building. Asbestos was identified within the building which has been removed by specialist contractors. made for its removal.

## **3.0 EXISTING BUILDING**

### **3.1 General Building Description**

The 1860's building is a detached 5-bay, 2-storey structure constructed with rendered walls and slate roof. The windows are square headed with rendered soffits and reveals and with limestone cills. The attached 1960's extension is a single storey structure with rendered walls and a steep lean-to slate roof.

### **3.2 Walls**

The rendered walls are generally in sound structural condition. Cracking is apparent in the render at a limited number of locations. The vertical cracking at the northwest corner does

not extend to through the wall, however it will require remediation by internal strapping. Plaster cracks are visible in the rear wall but can be repaired by internal stitching or strapping. A local area of render has separated from a south facing section of wall at the rear, this is being removed and replastered..

A timber lintel over a north facing window has some decay and needs repair/replacement. Most window heads require replacing with precast lintels.

### **3.3 Ground Floor**

Ingress of water from below at ground floor has caused decay to many timber components and are regarded as unfit for future use. The ground floors will be removed and replaced with ground bearing reinforced concrete floors with the potential requirement for underpinning of the existing walls.

### **3.4 First Floor**

The first floor is constructed with timber joists and plastered ceilings. The floors generally felt solid underfoot however joists to the first floor are badly affected by woodworm in some areas and requires treatment. New Spliced Timber Joists are required to replace damaged / decayed Timber Joist Ends.

Overall, the 1st floor can only take 1.5kN/sq.m live loading - equivalent to standard domestic loading. This is based on the timber grading strengths noted in the Examination of Timberwork in Appendix. This loading will withstand the live / dead loads associated with proposed first floor use as Artist Studios such as painter, photographers, fashion designers etc. typically one artist per studio with no heavy machinery.

### **3.5 Stairs and Balustrade**

A structural assessment of the existing timber stairs has been carried out and an extra timber goalpost frame is required to support the stairs and a steel beam is required to strengthen the stairs opening. The stairs balustrade requires stiffening to comply with current Building Regulations.

### **3.6 Roof**

The slate roof which runs north south is M shaped with a central valley across the centre of the building. Sever decay was observed to valley boards, rafter ends, and ceiling joist ends, and the rafters and ceiling joists are in general not attached to each other. Due to the condition of the existing roof it is considered more cost effective to replace the roof with a

new cut roof timber structure to the same profile as the existing roof, replacing all valleys, flashings etc.

The chimney stacks appears to be in sound condition, some work is required to the capping and flashings.

## **4.0 PROPOSED SINGLE STOREY EXTENSION STRUCTURAL DESIGN**

### **4.1 General Building Description**

The proposed ground floor extension to the side and rear of the existing protected structure building will consists of load bearing blockwork, ground bearing concrete floor slabs with the roof internal partitions constructed of blockwork and Cross Laminated Timber (CLT) and the roof support structure constructed of CLT/GluLam to specialist design with all visible CLT of visual grade. The form of construction should not present any difficulties above those which would normally be encountered in a project of this size for service integration. The issues to be addressed include planning service routes and allowing dedicated access to same and sufficient floor to roof. With proper consultation between the Design Team members at detailed design stage adequate provision for service opens in walls and floors can be achieved without any difficulty. The structure will be coordinated with the Design Team at regular Design Team Coordination Meetings.

### **4.2 Perimeter / Party Walls**

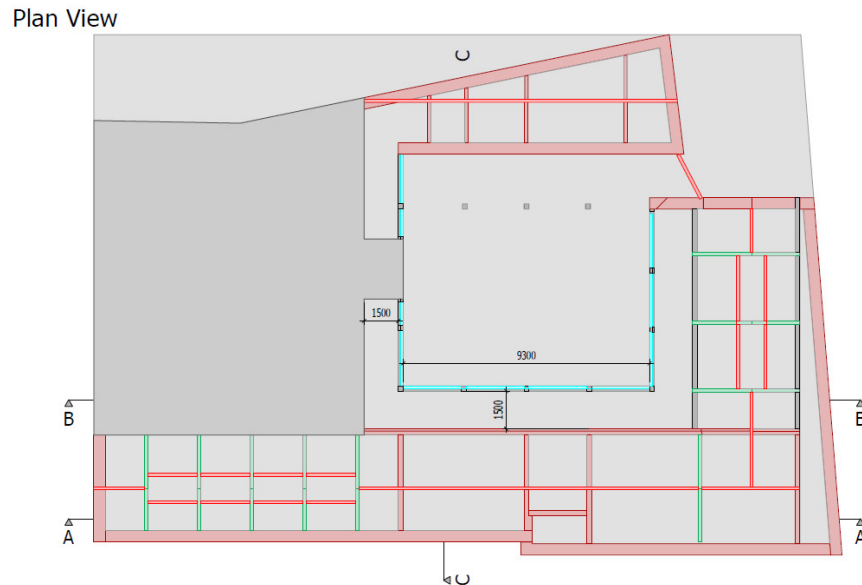
On the southern boundary to the rear the existing stone boundary wall will be retained with a 215mm loadbearing solid block wall with a weatherproof capping detail. To the front this wall will have a 215mm solid black wall with insulation, cavity and brick external leaf.

The rear and northern party wall will be constructed of 215mm loadbearing solid block wall abutting the existing party walls with a waterproof capping detail.

### **4.3 Ground Floor**

The ground floor will be a ground bearing 150mm thick reinforced concrete slab with a 75mm screed with slab edge thickening to support the load bearing walls.

#### 4.4 Roof



The roof structure by specialist design will be Glulam Beams with CLT supported on loadbearing blockwork walls around the perimeter and CLT Columns in the Courtyard area with CLT structural supports to roof glazing and building stability which will be integral to the design. The designated flat roof area to the southeast area of the roof for roof plant will be strengthened to support the anticipated extra loading from the proposed equipment.

#### 5.0 DRAINAGE

The existing building is serviced with pipe sizes ranging from 100mm to 150mm in a range of materials all flowing by gravity to a combined manhole in the rear yard with an outflow 150mm PVC combined gravity sewer discharging to the public sewer network on St Georges Square.

All existing drainage pipes under the existing building and in the rear yard will be decommissioned and grubbed up and backfilled with C16/20 lean mix to ensure no settlement of the floor and yard and replace with new foul and surface water drainage pipes to the out-flow manhole designed to achieve self-cleaning velocities of 0.75m/s and all works will be carried out in accordance with the specific requirements of Fingal Co Co and Irish Water.

The proposed refurbishment of the building is not envisaged to increase the loading on the sewer system and the condition of the existing 150mm sewer pipe connection which discharges to St Georges Square has been verified by CCTV survey and is proposed to reuse this connection. This will be further developed at design stage.

## Surface Water

All existing surface water drainage pipes within the proposed site are to be decommissioned, removed and backfilled with C16/20 lean mix to ensure no settlement of floors and or courtyards.

In accordance with the “Fingal Development Plan 2017-2023 and standards of FCC’s Water Services Department It is proposed to provide sustainable storm water drainage infrastructure for the site conveying water more slowly to the existing drainage system which will includes the following SuDS features

- Integrated Constructed Tree Pit
- Courtyard Perimeter Drainage Channels connected to Integrated Constructed Tree Pit
- Downpipe planters

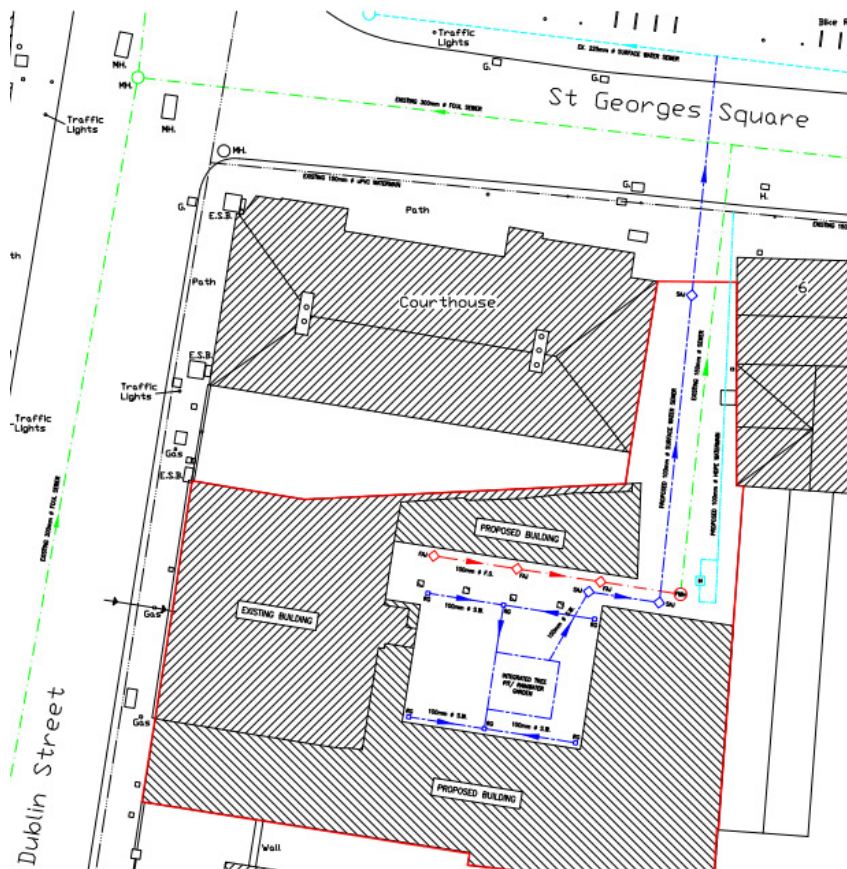
### SUDS Selection Hierarchy Sheet

Suds Measures	Measures to be used on this site	Rationale for selecting/not selecting measure
Source Control		
Swales	X	Not compatible with the proposed design
Tree Pits	✓	Tree in Courtyard will be Planted in Integrated Constructed Tree Pit
Rainwater Butts	x	To be reviewed with architect and client.
Rainwater harvesting	x	Not suitable for this project
Soakaways	x	Not suitable for this project
Infiltration trenches	x	Not a suitable surface for the proposed use in the Courtyard
Permeable pavement <ul style="list-style-type: none"> <li>• Grasscrete,</li> <li>• Block paving,</li> <li>• Porous Asphalt</li> </ul>	x	Not a suitable surface for the proposed uses in the Courtyard area
Green Roofs	x	Building roof pitch too steep
Filter strips	x	Not suitable for this project
Bio-retention systems/Raingardens	x	Courtyard rainwater gullies and perimeter drainage channel connected to integrated tree pit.
Blue Roofs	x	Building roof pitch too steep
Filter Drain	x	The proposed courtyard area is not suitable for filter drains
Site Control		
Detention Basins	x	Inadequate site area to include a detention basin
Retentions basins	x	Inadequate site area to include a retention basin



Suds Measures	Measures to be used on this site	Rationale for selecting/not selecting measure
Regional Control		
Ponds	x	The proposed area is an enclosed courtyard area with no available room on site for large bodies of water to instal Pond / Wetlands
Wetlands	x	
Other		
Attenuation tank – only as a last resort where other measures are not feasible	x	No overall increase in roof or hardstanding area. All stormwater drains and gullies are connected to the courtyard integrated tree pit which will delay surface water runoff from the site to the existing drainage system
Oversized pipes– only as a last resort where other measures are not feasible	x	Not necessary for this site.

A new surface water connection will be connected from the proposed development to the existing surface water drainage in St Georges Square separating the foul and surface water systems.

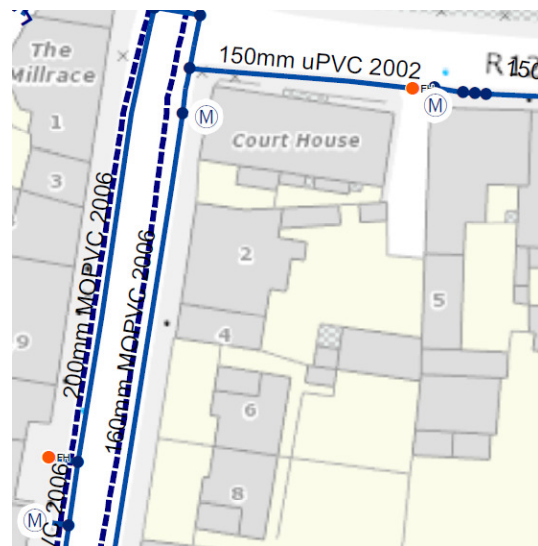


Extract from Proposed Drainage Drawing in Appendix 4

## 6.0 WATER SUPPLY

The proposed refurbishment is not expected to result in an overall increase in water consumption for the building, however a new metered water services connection to Irish Water Water Distribution Network on Dublin Street or St Georges Square to replace the existing old water connection.

There are existing Fire Hydrants on Dublin Street and St Georges Square and a new 100mm watermain will be laid along the access lane from St Georges Square with a fire hydrant on the hammerhead.



Extract from Irish Water Water Distribution Network

## 6.0 HEALTH & SAFETY ASSESSMENT

### 6.1 Risk Assessments

Preliminary Design Risk Assessments will be prepared as the Design Development Stage progresses.

## 7.0 SUMMARY & CONCLUSIONS

### 7.1 Summary

This Pre-Planning Stage Design Report has been prepared by Hayes Higgins Partnership at the request of our client Paul Keogh Architects and Fingal County Council.

The report relates to the pre planning submission design work undertaken to review the project brief, assess the suitability of the site and the project viability in conjunction with the other design team members.

Due to the condition of the existing roof, it is proposed to replace with a new cut timber roof. The existing timber stairs will be retained with extra timber goalpost support installed along with strengthening the stairs ope and stiffening the existing balustrade. Existing walls of the Protected Structure and Boundary walls that are being retained will require underpinning

As the building is a protected structure all works will be designed and carried out in accordance with the requirements of the conservation officer.

The proposed single storey extension will be a hybrid structure with reinforced ground beard floor slabs, loadbearing perimeter wall with CLT columns supporting a CLT / glulam roof structure

New metered watermain connections will serve the development with a new 100mm watermain in the access lane from St Georges Square with a looped fire hydrant.

A new gravity fed storm drainage network is proposed to service the proposed toilets and kitchen within the development connected to the existing combined sewer in the access lane.

With no overall increase in surface water loading SuDS features will include downpipe rainwater planters, courtyard perimeter drainage channels connected to an integrated constructed tree pit with overflow to the existing combined sewer in the access will delay surface water from the development.

## 7.2 Conclusion

The site is suitable for the proposed development.

**APPENDIX 1 Existing Building Photographs**



Front Elevation



Rear Elevation



Rear Elevation



Access to Neighbouring Yard



Northwest Corner of 2-4 Dublin Street



Stairs Timber Balustrade



Ground Floor Tiled Floor





## **APPENDIX 2 Timber Assessment Report**

**Examination of Timberwork at 2-4 Dublin Street, Balbriggan.**

**Gordan Knaggs & Associates**

**The Gables, Baldoyle Road, Sutton, D13 E620**

### **Summary.**

A visit was paid to 2-4 Dublin Street, Balbriggan, Co. Dublin on 24<sup>th</sup>. August 2022.

Timberwork to the ground floor, first floor and roof was examined. Components were

visually strength graded, the species present identified, and assigned to Strength

Classes. Decay was present, mainly at ground floor and roof level, with areas at a high

moisture content on the ground floor. Deficiencies were noted at the eaves of the

roofs. General recommendations are made for remedial measures.

### **Examination.**

The moisture content of timber was measured with a calibrated moisture meter (Tramex PTM 2.0)

Moisture in masonry was scanned with a non-contact meter (Tramex Moisture Encounter)

Timber components were visually strength graded according to the provisions of BS 4978/ I.S.127 – Visual strength grading of softwood timber.

Locations are referred to plans prepared by Paul Keogh Architects.

The front of the building examined is assumed to face West.

#### **1. Ground floor.**

Living room, north side.

Suspended timber floor without sub-floor ventilation. Only 300mm space between sub-floor and top surface. Joist ends at front wall decayed, with severe decay to the wallplate below. At an ope at the side (north) wall two shallow tassel walls were present, with totally decayed wallplates bedded in mortar without a DPC. Moisture content (MC) of joists, wallplates and floorboards all over 20%, many over 30%.

Skirting boards also over 20% MC. Window 'heads' continuous across front windows, 200mm deep, with severe sloping grain (1 in 3). Plaster layer under 'head', and marks of plaster laths on the exposed face, suggesting this was originally a beam spanning across the front – see Figure 1. Timber sound where exposed, MC 17.7% between windows, but severe sloping grain (1 in 3) so Reject on grading.

Hallway.

Suspended timber floor to front portion, rear solid. Joist at front resting on slate on sub-floor, 150mm between sub-floor and surface. Slight decay to joists and floorboards at front, MC 24-27% at front, 23-26% at step to rear of timber floor.

Bottom of studs to panelling to side of stairs up to 35% MC with slight decay. Active or recent woodworm attack to the stair strings near the base. Probable decay to base of these strings.

Living room, south side.

Solid floor. Scan on slab gave high readings throughout, indicating the absence of a DPM. Skirting boards generally over 20% MC. Separate heads to windows, 70mm

deep. Bearing of heads dubious, these barely visible at the ends between the windows, not visible at outer ends.

Kitchen.

Solid floor. Scan on slab gave high readings throughout. Skirting boards generally over 25%, with slight local decay. Wainscoting decayed near rear wall – see Figure 2. Wainscoting to north wall at 30-35% MC, to west wall 33% at base, 20% at top, to south (passageway) wall 28-29% at base with decay. Plywood panel on rear wall up to 40% MC, decayed at bottom. Head to adjacent rear window 200x50mm with very poor bearing, 25-31% MC. From outside this head is exposed, decayed, and wetted from gutter above. Window frame decayed. Head to side (north) window approx. 250x40mm. MC 29%, slight decay.

Rear room, south side.

Floor tiled, MC high. Modern shallow skirting boards, up to 35% at rear wall with decay. Window head of three sections, MC 20-21%, apparently sound on surface but probable decay deep within wall. Considerable cracking of external render above window.

## **2. First floor.**

Bedroom, front northwest corner.

Joists 180x75mm at 300-360mm centres, generally of SS (Special structural) grade.

Secondary chipboard flooring on battens on T&G boards. Window heads 75mm deep,

sound where visible. Signs of wetting down rear wall under decayed valley, now dry.

Bedroom, front southwest corner.

Joists 180-185x50-75mm at 300mm centres. Severe woodworm attack (not active) to the ends of at least two joists at front between windows, attack in other joists may well be present. Window heads 75mm deep, visually sound and dry. Lath and plaster ceiling below.

Landing.

Joists 120x40mm, with 90mm header to stairs. Shallow notching present. GS (General structural) grade.

Bedroom, northeast corner (over kitchen).

Joists generally 180x75mm at 300mm centres, SS grade. Plasterboard ceiling below.

Plywood on battens to floor. Head to side window 75mm, sound, head to rear window 50-60mm, also sound. Rear window decayed at base, with apparent water ingress from gutter to rear extension (this from a low level below the window head). Decay to the joist ends below can be expected.

Bedroom, southeast corner.

Floor joists exposed from below. These covered with limewash with plaster pugging on laths to underside of floorboards indicating that this was originally without plaster to the bottom of the joists. Nails to bottom edge indicate a later lath and plaster ceiling

below – see Figure 3. Joists 170-175x35-45mm at 300mm centres, generally of SS grade but slight loss of section due to wane. Two rows solid bridging, some missing. Head to rear window 40-45mm deep, 15-18% MC, no decay seen. A recess with cupboard to left suggests that a second window was present here before the rear extension was added. High MC in wall to right of recess suggests that a head, if present, may be decayed.

### **3. Roof.**

Two ridges run north-south, with a central valley between. A modern (white) sarking membrane is present, indicating relatively recent re-slating. A slight sag is visible at the front slope. Common rafters, ceiling joists and collar ties are present, with some hangers and runners at ceiling level. Original rafters are generally 100-110x40-45mm at 300mm centres. These are marked with mortar at the top edge, one side, indicating former mortar pugging to the underside of the slates. Additional sections have been added alongside to the rear – see Figure 4, generally 80x32mm, possibly to level out sags in the roofs. Where sound, rafters are generally of SS grade, but see below re. decay. The added sections are below the section size specified in the grading standard but might be regarded as being of GS grade. Ceiling joists are generally of GS grade where sound.

Severe decay (Wet rot) is present to valley boards, rafter ends and ceiling joist ends over the bedroom at the northwest corner between the chimney breast and landing –

see Figure 5 - extending across the landing to the adjacent bedroom. This area is presently dry. Decay was seen at many other areas of the perimeter of the roof. It is clear that this decay occurred before the roof was re-slatted, with no indication of subsequent water ingress in most areas.

Some local decay and woodworm attack was also seen in the collar ties. The rafters and ceiling joists are, in general, not attached to each other. This is best seen at the front wall, north side, where these rest on separate wallplates – the lower ceiling joists are on a 100x40mm wallplate, while the rafters are on a 150x40mm section – see Figure 6.

#### **Identification.**

Samples were taken from joists and roofing components, thin sections prepared, and the species present microscopically identified. Almost all were of Scots pine, *Pinus sylvestris*, commonly known as Red deal or redwood. Later additions to rafters are of White deal, *Picea abies*.

#### **Strength classes.**

SS grade Red deal falls into Strength Class C24. GS grade falls into C16.

#### **Discussion and Recommendations.**

Ingress of water from below at ground floor has caused decay to many timber

components there, and all should be regarded as unfit for further use. The heavier window heads might be retained, if the bearing is adequate. Active or recent woodworm attack under the stairs should be treated.

Joists to the first floor are badly affected by woodworm in some areas. Elsewhere woodworm attack appears limited, and the joists might be retained if allowance is made for the loss of section. The woodworm attack at this level is of considerable age and, if the timber remains dry, is not particularly susceptible to further attack. Any replacement timber here, as elsewhere, should be treated before installation and any components cut or notched on site should be re-treated.

There are serious deficiencies at roof level, with decayed timber being left in-situ after re-slating, and an absence of bond between the rafters and ceiling joists. Major repair work will be necessary.

**Notes.**

1. Access to floors and roof areas was limited to preciously opened areas. Further decay or damage is most likely to be present in unexamined areas and further notching of joists may also be present.
2. Timber at moisture contents in excess of 20% is at risk of attack by fungi (decay) and is more at risk of woodworm attack.
3. A rear extension (to be demolished) and outbuildings were not examined.
4. This examination was carried out after a long period of generally dry weather. The moisture components can be expected to rise during the winter.



Figure 1. Heavy head across windows, living room northwest corner, with plaster to underside of head and marks of laths on face.





Figure 2. Decay to wainscoting in kitchen.



Figure 3. Underside of first floor, southeast corner, showing early limewash to joists.



Figure 4. Original rafters, with mortar marks to top edge (top LH corner)



Figure 5. Decay at central valley. Severe decay to all components under lead valley.

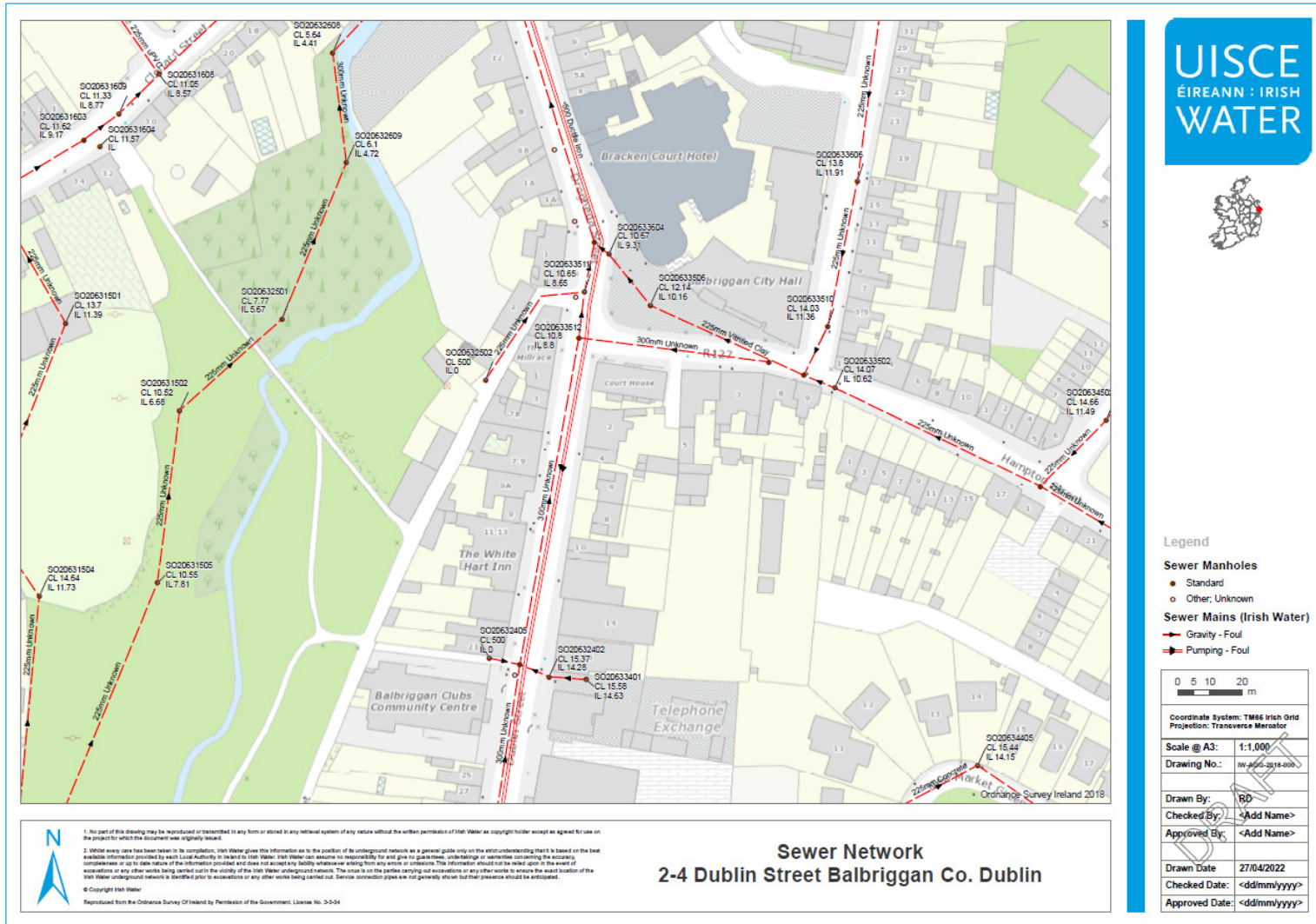


Figure 6. Rafters and ceiling joists on separate wallplates at front, not fixed together.

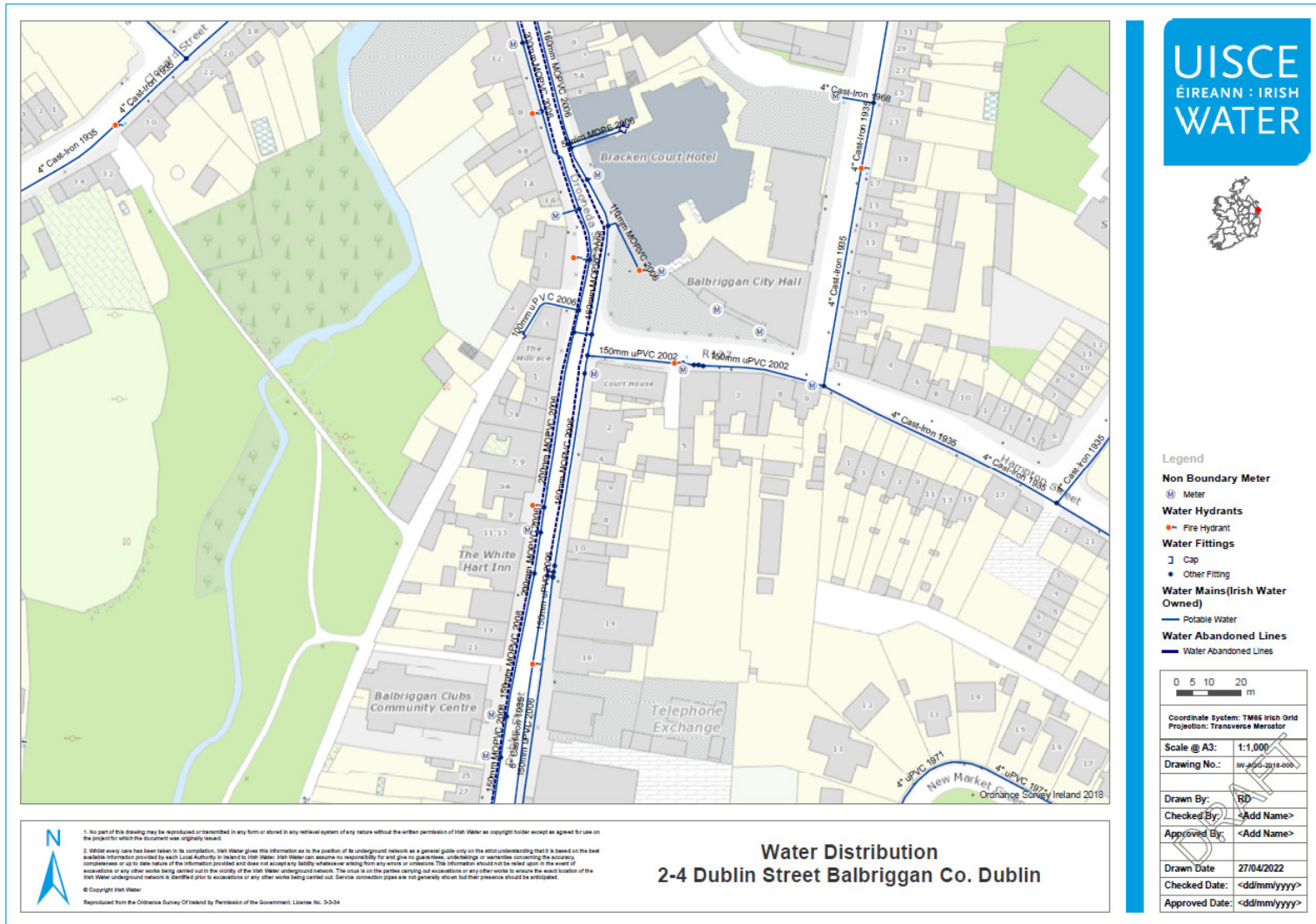


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## **APPENDIX 3 Utility Drawings**



Irish Water Sewer Network



- Legend**
- Non Boundary Meter**
    - Meter
  - Water Hydrants**
    - Fire Hydrant
  - Water Fittings**
    - Cap
    - Other Fitting
  - Water Mains (Irish Water Owned)**
    - Potable Water
  - Water Abandoned Lines**
    - Water Abandoned Lines



Coordinate system: TM66 Irish Grid  
Projection: Transverse Mercator

Scale @ A3: 1:1,000  
Drawing No.: SW-600-0014-000

Drawn By: RD  
Checked By: <Add Name>

Approved By: <Add Name>

Drawn Date: 27/04/2022  
Checked Date: <dd/mm/yyyy>

Approved Date: <dd/mm/yyyy>

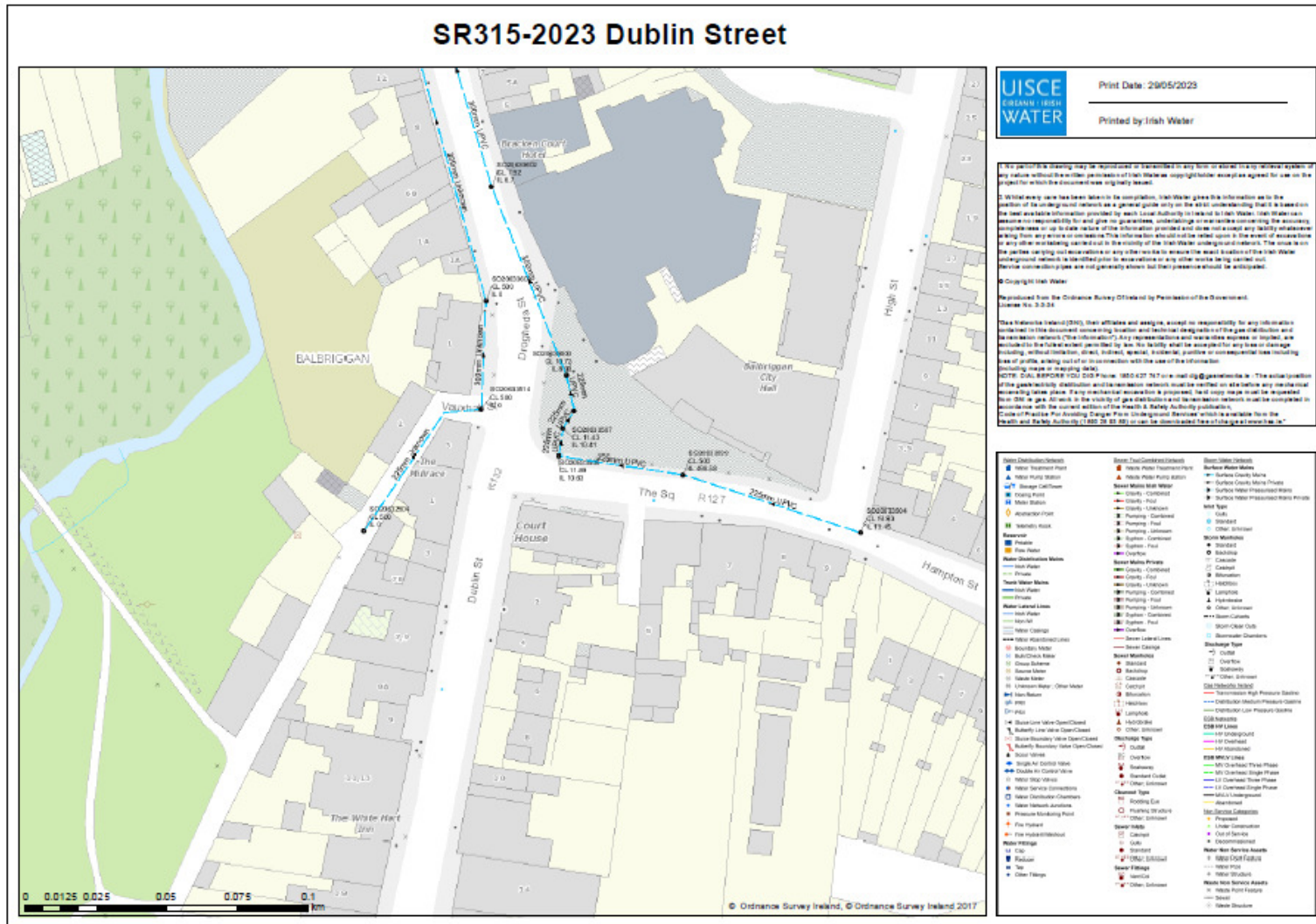


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**Water Distribution**  
**2-4 Dublin Street Balbriggan Co. Dublin**





**APPENDIX 4 Civil & Structural Drawings**

**NOTES**

GENERAL

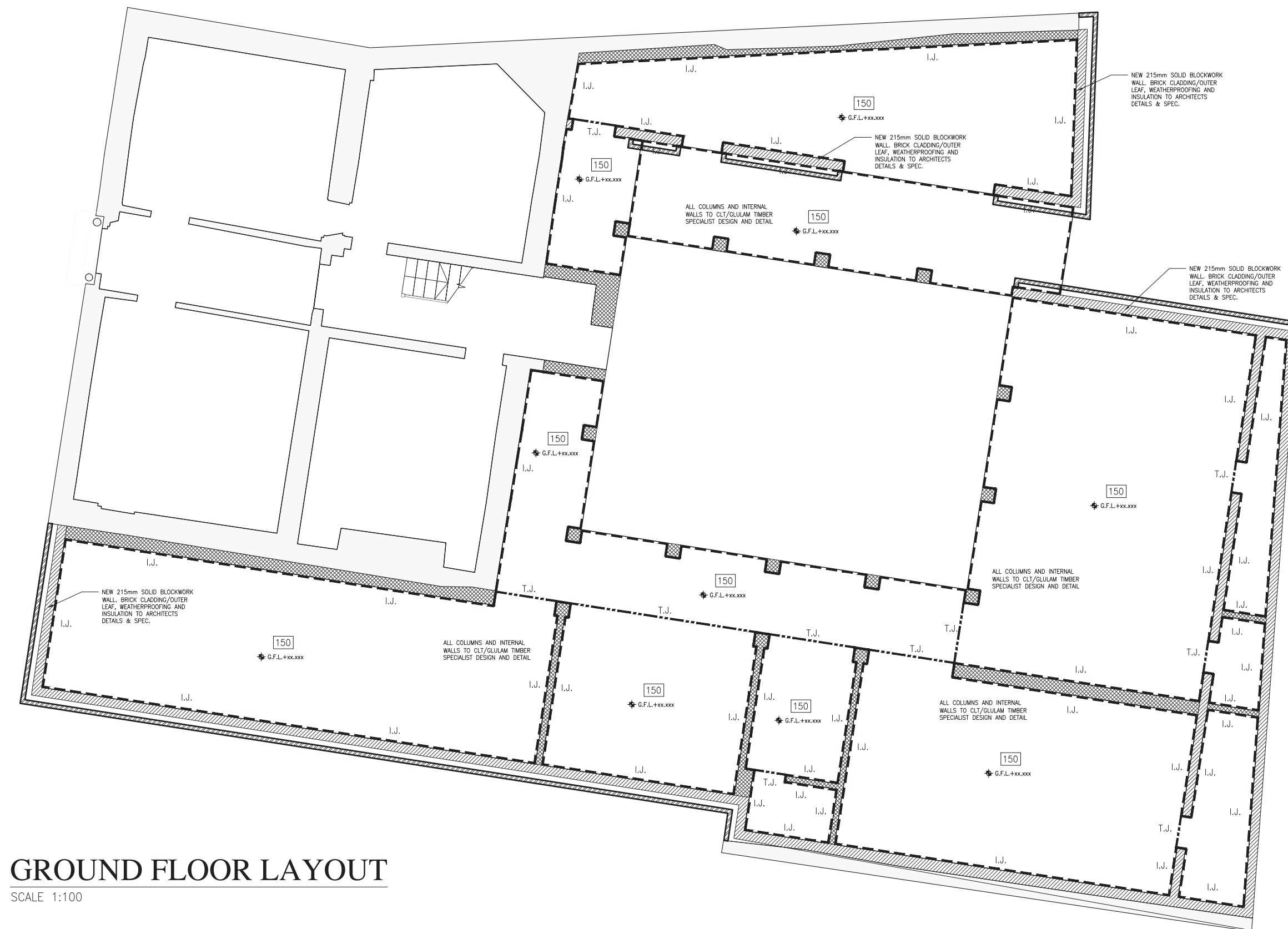
- 1.) THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ALL RELEVANT HAYES HIGGINS ENGINEERING DRAWINGS AND SPECIFICATIONS.
- 2.) DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

**MEMBER SCHEDULE**

MEMBER	COMMENTS
L1	100(W)x65(D)mm PRECAST R.C LINTEL MIN. 100mm END BEARING, AS REQUIRED
L2	100(W)x215(D)mm PRECAST R.C LINTEL (H12) MIN. 100mm END BEARING, AS REQUIRED UNDER EXISTING FLOOR/ROOF JOISTS
J1	*EXISTING 50X185mm TIMBER JOISTS @ 305mm CRS.
J2	*EXISTING 50X175mm TIMBER JOISTS @ 305mm CRS.
J3	EXISTING TIMBER RAFTERS AND JOISTS @300mm CRS.
BR1	NEW 100X25mm TIMBER DIAGONAL BRACING NAILED TO UNDERSIDE OF RAFTERS.
B1	NEW 150X35mm TIMBER BINDERS WITH 750mm min OVERLAP AT EACH JOINT.
BM1	NEW 125X65mm STEEL CHANNEL, CRANKED AND FULLY WELDED.
BM2	NEW 100X50mm STEEL CHANNEL
P1	NEW 70X70mm SHS POST WITH 10mm STEEL BASEPLATE.
*NOTE:	EXISTING FLOOR JOIST SIZES VARY IN WIDTH (47-70mm) AND DEPTH (175-190mm)

**LEGEND**

- I.J. ISOLATION JOINT
- T.J. TRANSVERSE JOINT
- 150 NEW 75mm SCREED ON 150mm INSITU R.C. SLAB WITH 2 LAYERS OF A393 MESH WITH FLOOR SLAB EDGE THICKENING AT PERIMETER, RADON BARRIER, INSULATION AND FINISH TO ARCHITECT'S SPEC.
- 215mm SOLID BLOCKWORK WALL, BRICK CLADDING/OUTER LEAF, WEATHERPROOFING AND INSULATION TO ARCHITECTS DETAILS & SPEC.
- COLUMNS AND INTERNAL WALLS TO CLT/GLULAM TIMBER SPECIALIST DESIGN AND DETAIL
- CLT/GLULAM TIMBER TRUSSES TO SPECIALIST DESIGN AND DETAIL
- NEW/EXISTING ROOF TIMBERS AS SPECIFIED



**GROUND FLOOR LAYOUT**

SCALE 1:100

REV	DATE	DESCRIPTION	DWG BY	APP. BY
ISSUED				
INFORMATION ONLY				
CLIENT				
PROJECT NAME 2-4 DUBLIN STREET, BALBRIGGAN				
DRAWING NAME GROUND FLOOR PLAN				
PROJECT No. 22D001				
DRAWING No. 001		REVISION I		
SCALE 1:100		DRAWN DATE Sept '22		
CAD DRAWN BY DW	CHECKED BY LM	APPROVED BY DH		

**HAYES HIGGINS PARTNERSHIP**  
 The Glass House, 11 Coke Lane  
 Smithfield, Dublin 7. Tel: 01 6612321  
 E-mail: admin@hayeshiggins.ie  
 Gas House Lane, Kilkenny. Tel: (056) 7764710  
 Email: info@hhp.ie

**NOTES**

**GENERAL**

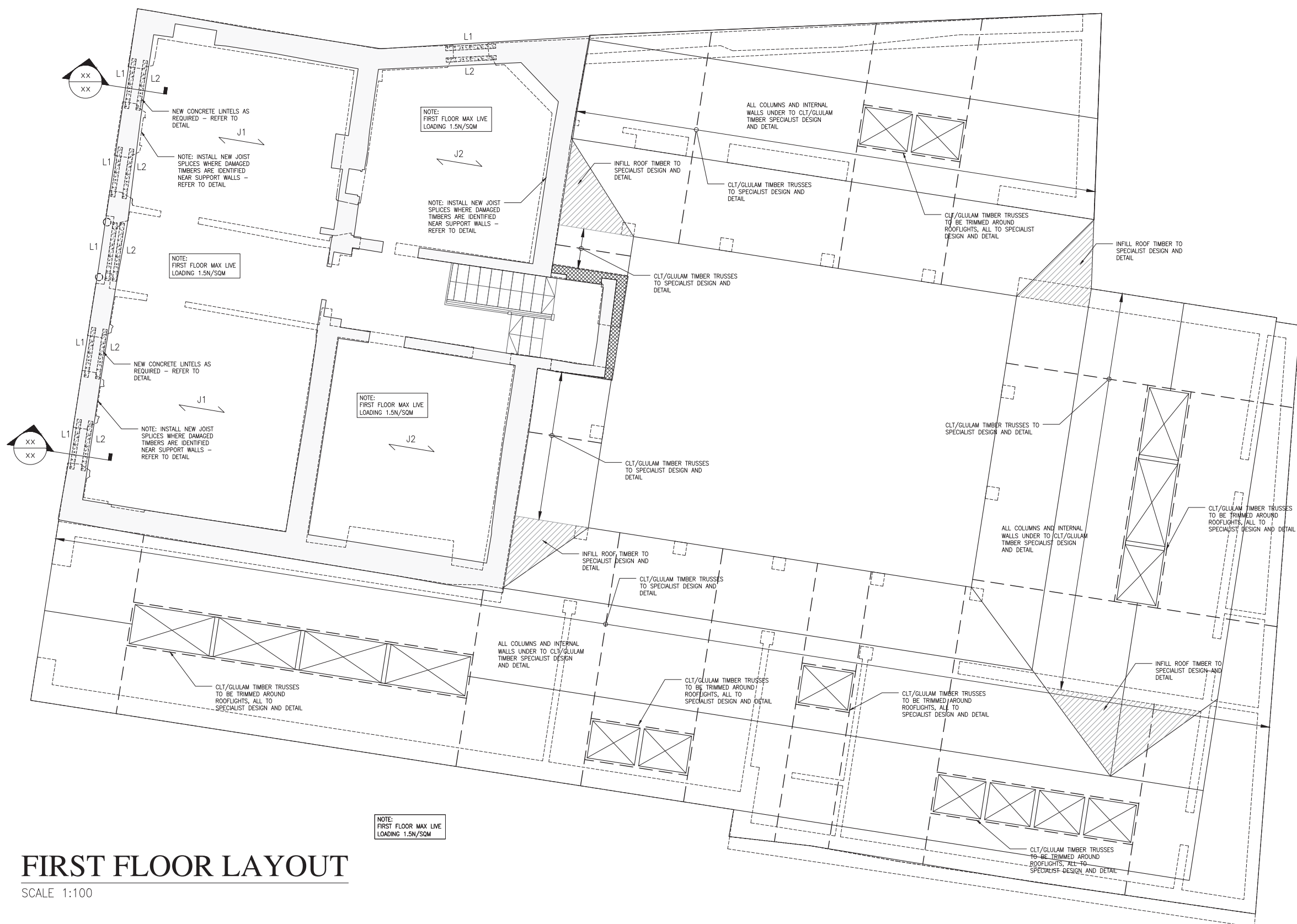
- 1.) THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ALL RELEVANT HAYES HIGGINS ENGINEERING DRAWINGS AND SPECIFICATIONS.
- 2.) DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

**MEMBER SCHEDULE**

MEMBER	COMMENTS
L1	100(W)x65(D)mm PRECAST R.C LINTEL MIN. 100mm END BEARING, AS REQUIRED
L2	100(W)x215(D)mm PRECAST R.C LINTEL (H12) MIN. 100mm END BEARING, AS REQUIRED UNDER EXISTING FLOOR/ROOF JOISTS
J1	*EXISTING 50X185mm TIMBER JOISTS @ 305mm CRS.
J2	*EXISTING 50X175mm TIMBER JOISTS @ 305mm CRS.
J3	EXISTING TIMBER RAFTERS AND JOISTS @300mm CRS.
BR1	NEW 100X25mm TIMBER DIAGONAL BRACING NAILED TO UNDERSIDE OF RAFTERS.
B1	NEW 150X35mm TIMBER BINDERS WITH 750mm min OVERLAP AT EACH JOINT.
BM1	NEW 125X65mm STEEL CHANNEL, CRANKED AND FULLY WELDED.
BM2	NEW 100X50mm STEEL CHANNEL
P1	NEW 70X70mm SHS POST WITH 10mm STEEL BASEPLATE.
*NOTE:	EXISTING FLOOR JOIST SIZES VARY IN WIDTH (47-70mm) AND DEPTH (175-190mm)

**LEGEND**

- ISOLATION JOINT
- TRANSVERSE JOINT
- NEW 75mm SCREED ON 150mm INSITU R.C. SLAB WITH 2 LAYERS OF A393 MESH WITH FLOOR SLAB EDGE THICKENING AT PERIMETER, RADON BARRIER, INSULATION AND FINISH TO ARCHITECT'S SPEC.
- 215mm SOLID BLOCKWORK WALL, BRICK CLADDING/OUTER LEAF, WEATHERPROOFING AND INSULATION TO ARCHITECT'S DETAILS & SPEC.
- COLUMNS AND INTERNAL WALLS UNDER TO CLT/GLULAM TIMBER SPECIALIST DESIGN AND DETAIL
- CLT/GLULAM TIMBER TRUSSES TO SPECIALIST DESIGN AND DETAIL
- NEW/EXISTING ROOF TIMBERS AS SPECIFIED



SCALE 1:100

REV	DATE	DESCRIPTION	DWG BY	APPR. BY
ISSUED				
INFORMATION ONLY				
CLIENT				
PROJECT NAME 2-4 DUBLIN STREET, BALBRIGGAN				
DRAWING NAME FIRST FLOOR PLAN				
PROJECT No. 22D001				
DRAWING No. 002		REVISION 1		
SCALE 1:100		DRAWN DATE Sept '22		
CAD DRAWN BY DW	CHECKED BY LM	APPROVED BY DH		
<b>HAYES HIGGINS PARTNERSHIP</b> The Glass House, 11 Coke Lane Smithfield, Dublin 7. Tel: 01 6612321 E-mail: admin@hayeshiggins.ie Gas House Lane, Kilkenny. Tel: (056) 7764710 Email: info@hhp.ie				

**NOTES**

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- 2.) DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

**MEMBER SCHEDULE**

MEMBER	COMMENTS
L1	100(W)x65(D)mm PRECAST R.C LINTEL MIN. 100mm END BEARING, AS REQUIRED
L2	100(W)x215(D)mm PRECAST R.C LINTEL (H12) MIN. 100mm END BEARING, AS REQUIRED UNDER EXISTING FLOOR/ROOF JOISTS
J1	*EXISTING 50X185mm TIMBER JOISTS @ 305mm CRS.
J2	*EXISTING 50X175mm TIMBER JOISTS @ 305mm CRS.
J3	EXISTING TIMBER RAFTERS AND JOISTS @300mm CRS.
BR1	NEW 100X25mm TIMBER DIAGONAL BRACING NAILED TO UNDERSIDE OF RAFTERS.
B1	NEW 150X35mm TIMBER BINDERS WITH 750mm min OVERLAP AT EACH JOINT.
BM1	NEW 125X65mm STEEL CHANNEL, CRANKED AND FULLY WELDED.
BM2	NEW 100X50mm STEEL CHANNEL
P1	NEW 70X70mm SHS POST WITH 10mm STEEL BASEPLATE.
*NOTE:	EXISTING FLOOR JOIST SIZES VARY IN WIDTH (47-70mm) AND DEPTH (175-190mm)

**LEGEND**

	ISOLATION JOINT
	TRANSVERSE JOINT
	NEW 75mm SCREED ON 150mm INSITU R.C. SLAB WITH 2 LAYERS OF A393 MESH WITH FLOOR SLAB EDGE THICKENING AT PERIMETER. RADON BARRIER, INSULATION AND FINISH TO ARCHITECT'S SPEC.
	215mm SOLID BLOCKWORK WALL. BRICK CLADDING/OUTER LEAF, WEATHERPROOFING AND INSULATION TO ARCHITECTS DETAILS & SPEC.
	COLUMNS AND INTERNAL WALLS TO CLT/GLULAM TIMBER SPECIALIST DESIGN AND DETAIL
	CLT/GLULAM TIMBER TRUSSES TO SPECIALIST DESIGN AND DETAIL
	NEW/EXISTING ROOF TIMBERS AS SPECIFIED

REV	DATE	DESCRIPTION	DWG BY	APP. BY

ISSUED INFORMATION ONLY

CLIENT

PROJECT NAME  
2 - 4 DUBLIN STREET, BALBRIGGAN

DRAWING NAME  
ROOF LAYOUT

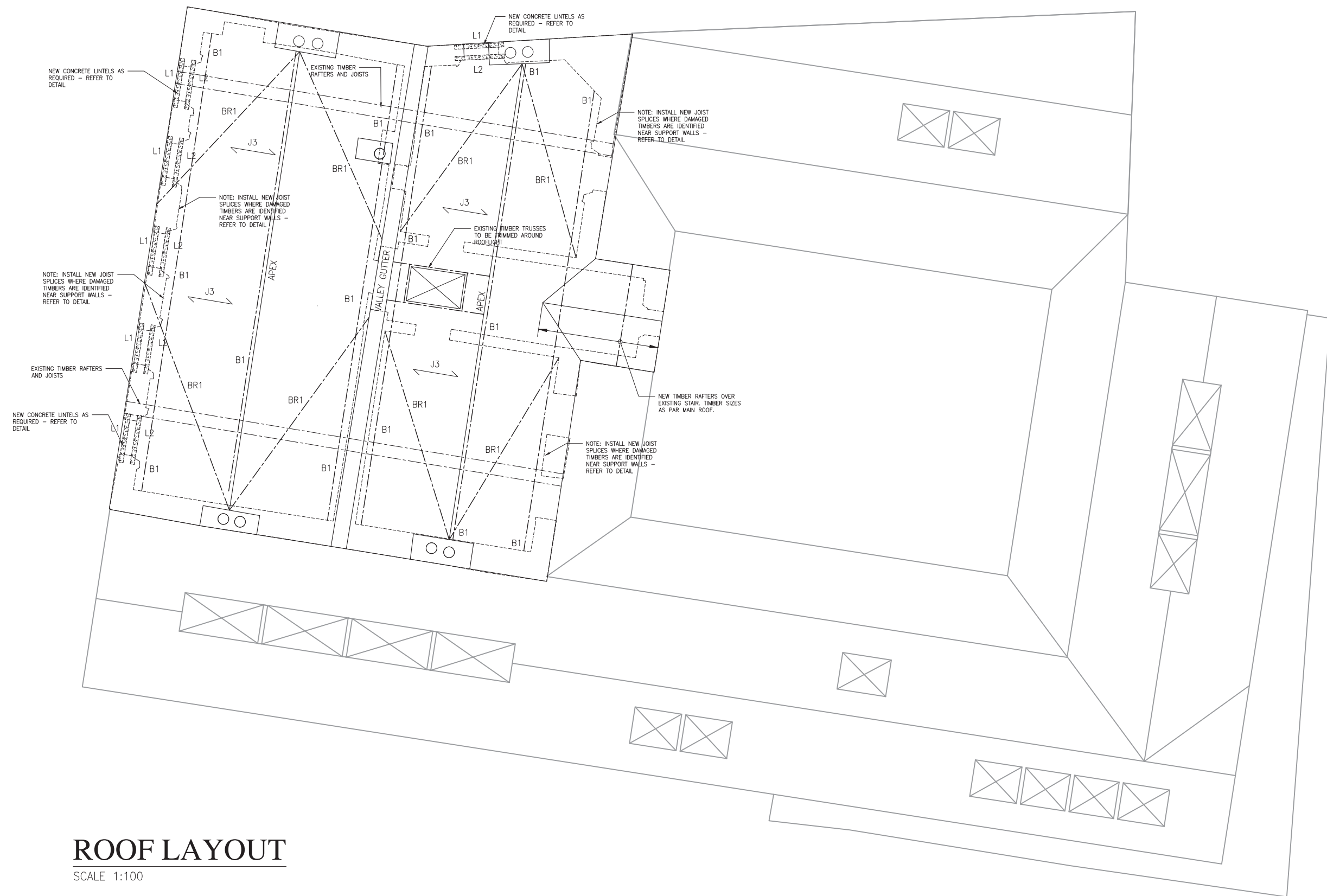
PROJECT No.  
22D001

DRAWING No. 003	REVISION 1
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SCALE 1:100	DRAWN DATE Sept '22
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CAD DRAWN BY DW	CHECKED BY LM	APPROVED BY DH
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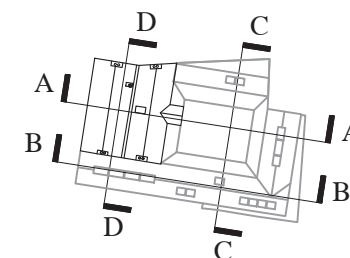
**ROOF LAYOUT**

SCALE 1:100

**NOTES**

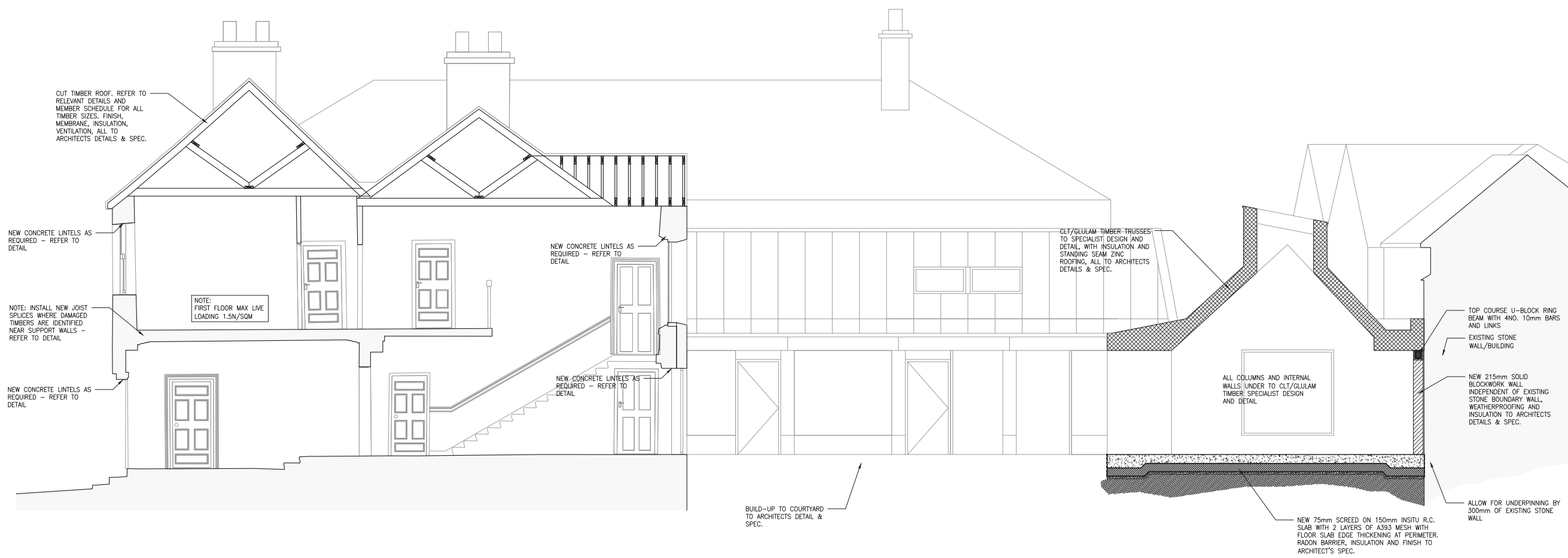
**GENERAL**

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- 2.) DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.



**KEY PLAN**

SCALE 1:1000



**SECTION A-A**

SCALE 1:100

REV	DATE	DESCRIPTION	DWG BY	APP. BY

ISSUED  
INFORMATION ONLY

CLIENT

PROJECT NAME  
2 - 4 DUBLIN STREET, BALBRIGGAN

DRAWING NAME  
SECTION A-A

PROJECT No.  
22D001

DRAWING No. 004	REVISION 1
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SCALE 1:100	DRAWN DATE Sept '22
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CAD DRAWN BY DW	CHECKED BY LM	APPROVED BY DH
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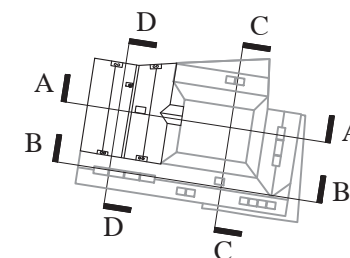
**HAYES HIGGINS PARTNERSHIP**

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Gas House Lane, Kilkenny. Tel: (056) 7764710  
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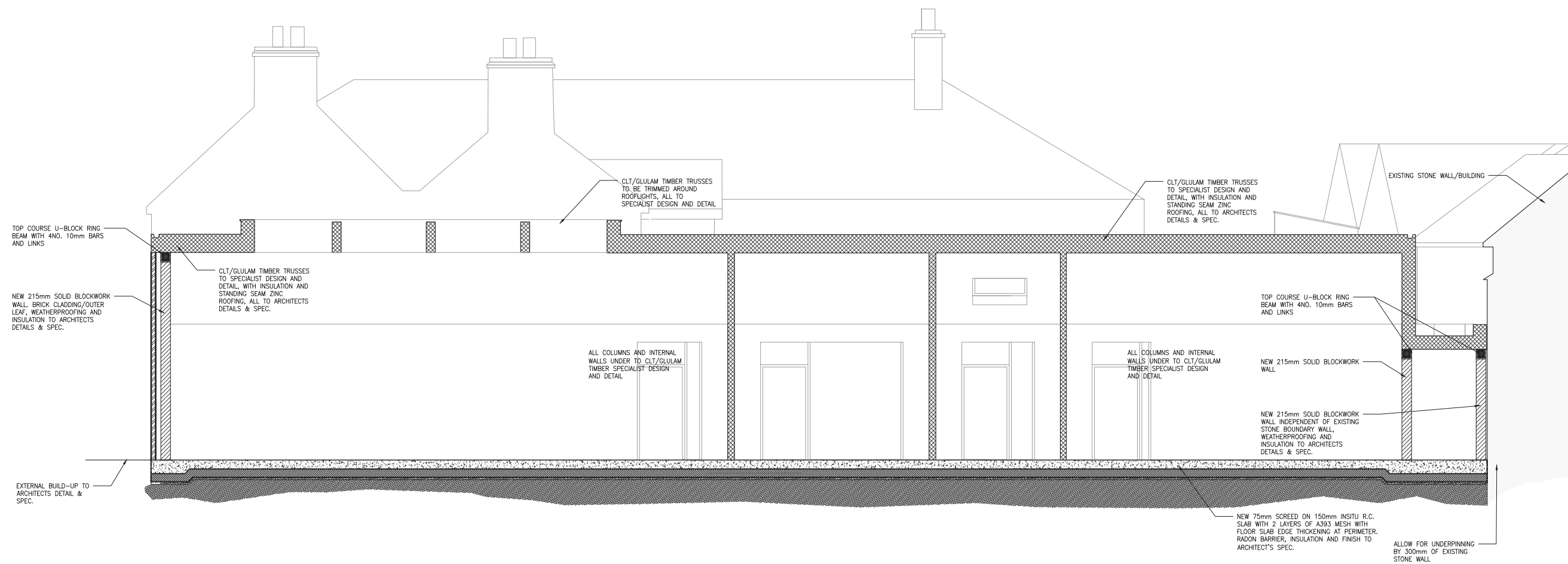
**NOTES**

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**KEY PLAN**  
SCALE 1:1000



**SECTION B-B**

SCALE 1:100

REV	DATE	DESCRIPTION	DWG BY	APPR. BY

ISSUED  
**INFORMATION ONLY**

CLIENT

PROJECT NAME  
2 - 4 DUBLIN STREET, BALBRIGGAN

DRAWING NAME  
SECTION B-B

PROJECT No.  
22D001

DRAWING No. 005	REVISION 1
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SCALE 1:100	DRAWN DATE Sept '22
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CAD DRAWN BY DW	CHECKED BY LM	APPROVED BY DH
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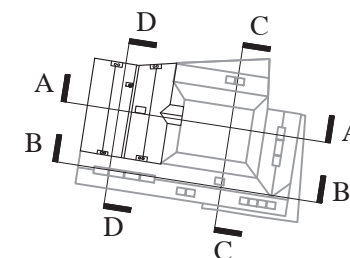
**HAYES HIGGINS PARTNERSHIP**

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**KEY PLAN**  
SCALE 1:1000



**SECTION C-C**

SCALE 1:100

REV	DATE	DESCRIPTION	DWG BY	APP. BY

ISSUED

INFORMATION ONLY

CLIENT

PROJECT NAME  
2 - 4 DUBLIN STREET, BALBRIGGAN

DRAWING NAME  
SECTION C-C

PROJECT No.  
22D001

DRAWING No. 006	REVISION 1
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SCALE 1:100	DRAWN DATE Sept '22
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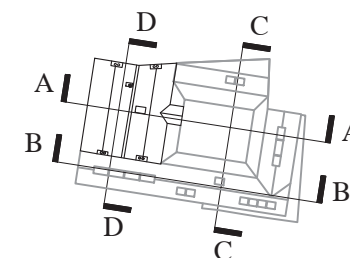
CAD DRAWN BY DW	CHECKED BY LM	APPROVED BY DH
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Gas House Lane, Kilkenny. Tel: (056) 7764710  
Email: info@hhp.ie

**NOTES**

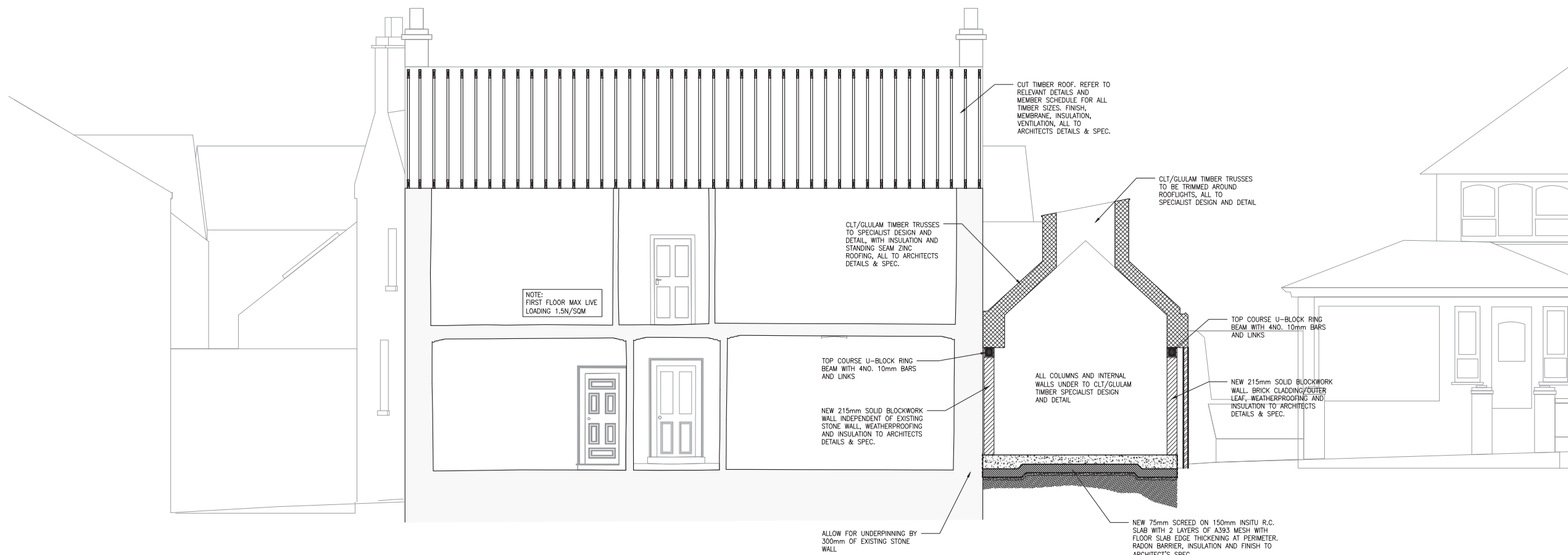
**GENERAL**

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- 2.) DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.



**KEY PLAN**

SCALE 1:1000



**SECTION D-D**

SCALE 1:100

REV	DATE	DESCRIPTION	DWG BY	APP. BY

ISSUED

INFORMATION ONLY

CLIENT

PROJECT NAME  
2 - 4 DUBLIN STREET, BALBRIGGAN

DRAWING NAME  
SECTION D-D

PROJECT No.  
22D001

DRAWING No. 007	REVISION 1
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SCALE 1:100	DRAWN DATE Sept '22
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CAD DRAWN BY DW	CHECKED BY LM	APPROVED BY DH
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 Smithfield, Dublin 7. Tel: 01 6612321  
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 Email: info@hhp.ie



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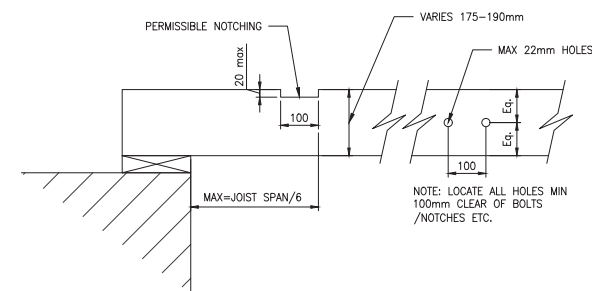
**MEMBER SCHEDULE**

MEMBER	COMMENTS
L1	1000x40x20mm PRECAST R.C. Lintel, MIN. 100mm END BEARING, AS REQUIRED
L2	1000x2150x20mm PRECAST R.C. Lintel, D12 REIN. 100mm END BEARING, AS REQUIRED UNDER EXISTING FLOOR/ROOF JOIST
J1	EXISTING 50x150mm TIMBER JOISTS @ 300mm C/S
J2	EXISTING 50x175mm TIMBER JOISTS @ 300mm C/S
J3	EXISTING TIMBER RAFTERS AND JOISTS @300mm C/S
B1	NEW 100x250mm TIMBER DIAGONAL BRACING NAILED TO INSIDE OF RAFTERS
B2	NEW 100x250mm TIMBER BRACERS WITH 150mm MIN OVERLAP AT EACH JOINT
B3	NEW 100x50mm STEEL CHANNEL, CHANNEL AND FULLY WELDED
B4	NEW 100x50mm STEEL CHANNEL
P1	NEW 100x250mm SHS POST WITH 150mm STEEL BRICKS

NOTE: EXISTING FLOOR JOIST SIZES VARY IN WIDTH (47-75mm) AND DEPTH (175-190mm)

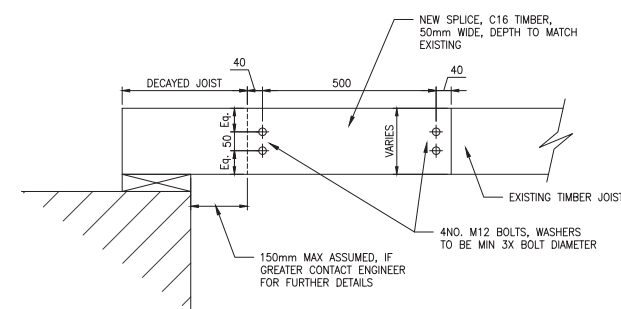
**LEGEND**

	ISOLATION JOINT
	TIMBER JOINT
	NEW TIMBER SCRIBED ON EXISTING
	NEW TIMBER SCRIBED ON EXISTING WITH 150mm OVERLAP
	25mm SOLID BLOCKWORK
	75mm SOLID BLOCKWORK
	COLUMN AND RETINAL WALL TO EXISTING
	CELLULAR TIMBER INSULATION
	NEW EXISTING ROOF TIMBERS AS SPECIFIED



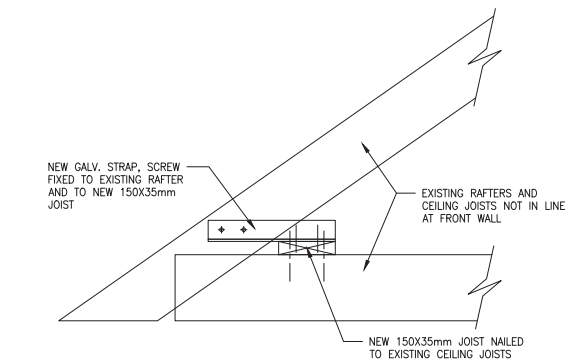
**TYPICAL NOTCH AND SERVICE OPENINGS**

SCALE 1:10



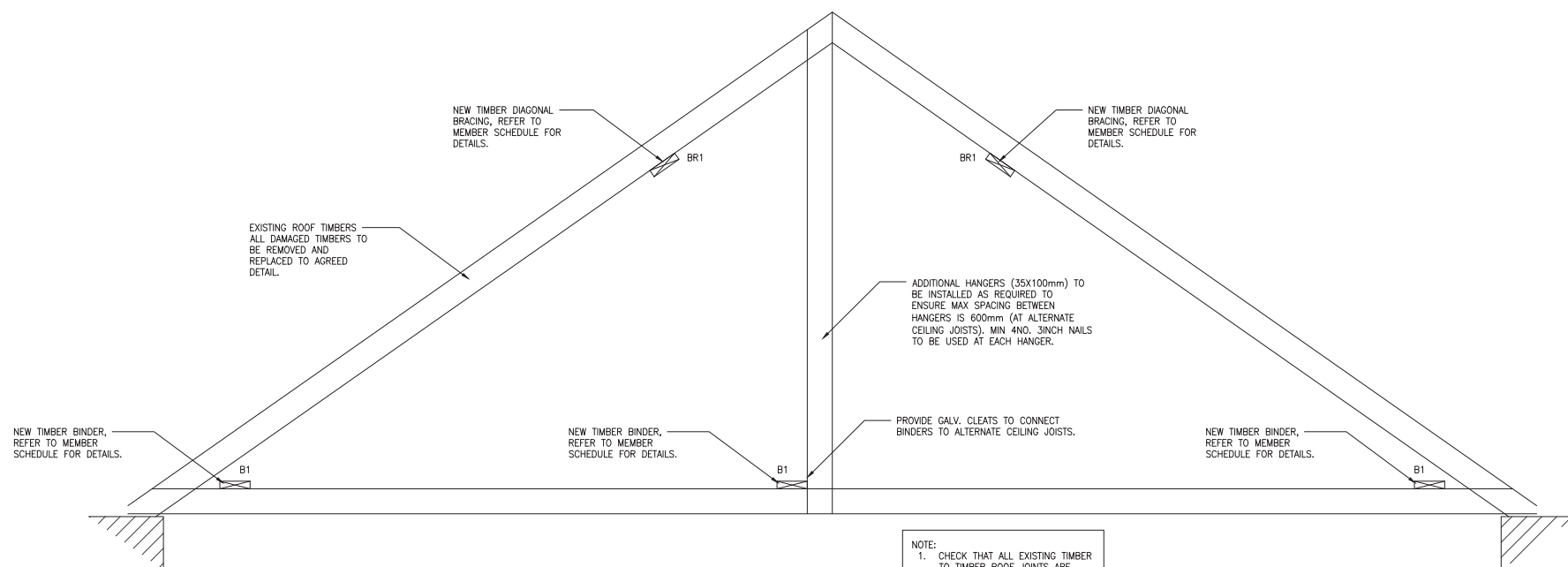
**TYPICAL SPLICE DETAIL**

SCALE 1:10



**RECTIFICATION DETAIL TO ROOF TIMBERS AT FRONT WALL**

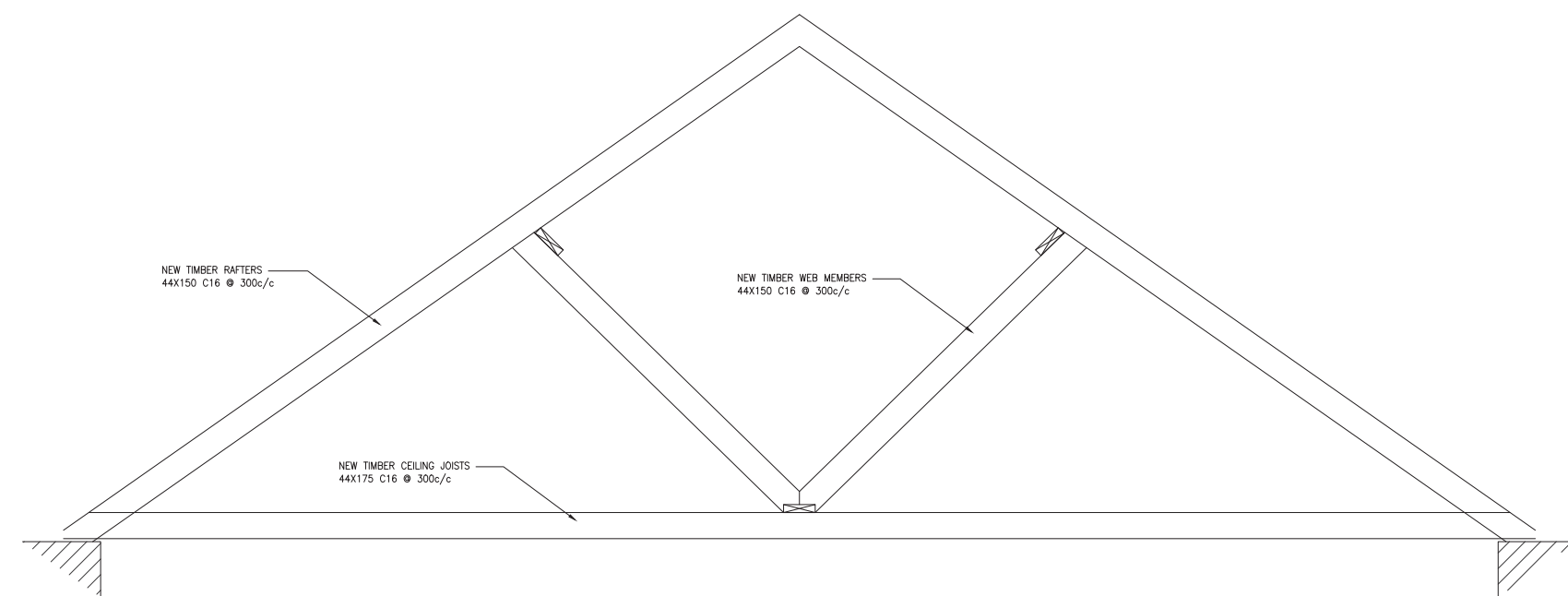
SCALE 1:10



**TYPICAL SECTION THROUGH EXISTING ROOF (IF RETAINED)**

SCALE 1:20

NOTE:  
1. CHECK THAT ALL EXISTING TIMBER TO TIMBER ROOF JOINTS ARE SECURELY/FULLY NAILED IN PLACE.  
2. INSTALL NEW TIMBER SPLICING WHERE REQUIRED.



**PROPOSED CUT ROOF TIMBER SIZING TO EXISTING ROOF (IF EXISTING ROOF STRUCTURE IS REPLACED)**

SCALE 1:20

REV	DATE	DESCRIPTION	DWG BY	APPR BY

**ISSUED INFORMATION**

CLIENT

PROJECT NAME  
2 - 4 DUBLIN STREET, BALBRIGGAN

DRAWING NAME  
ROOF DETAILS

PROJECT No.  
22D001

DRAWING No.  
008

REVISION  
1

SCALE  
1:20

DRAWN DATE  
Sept '22

CAD DRAWN BY  
DW

CHECKED BY  
LM

APPROVED BY  
DH

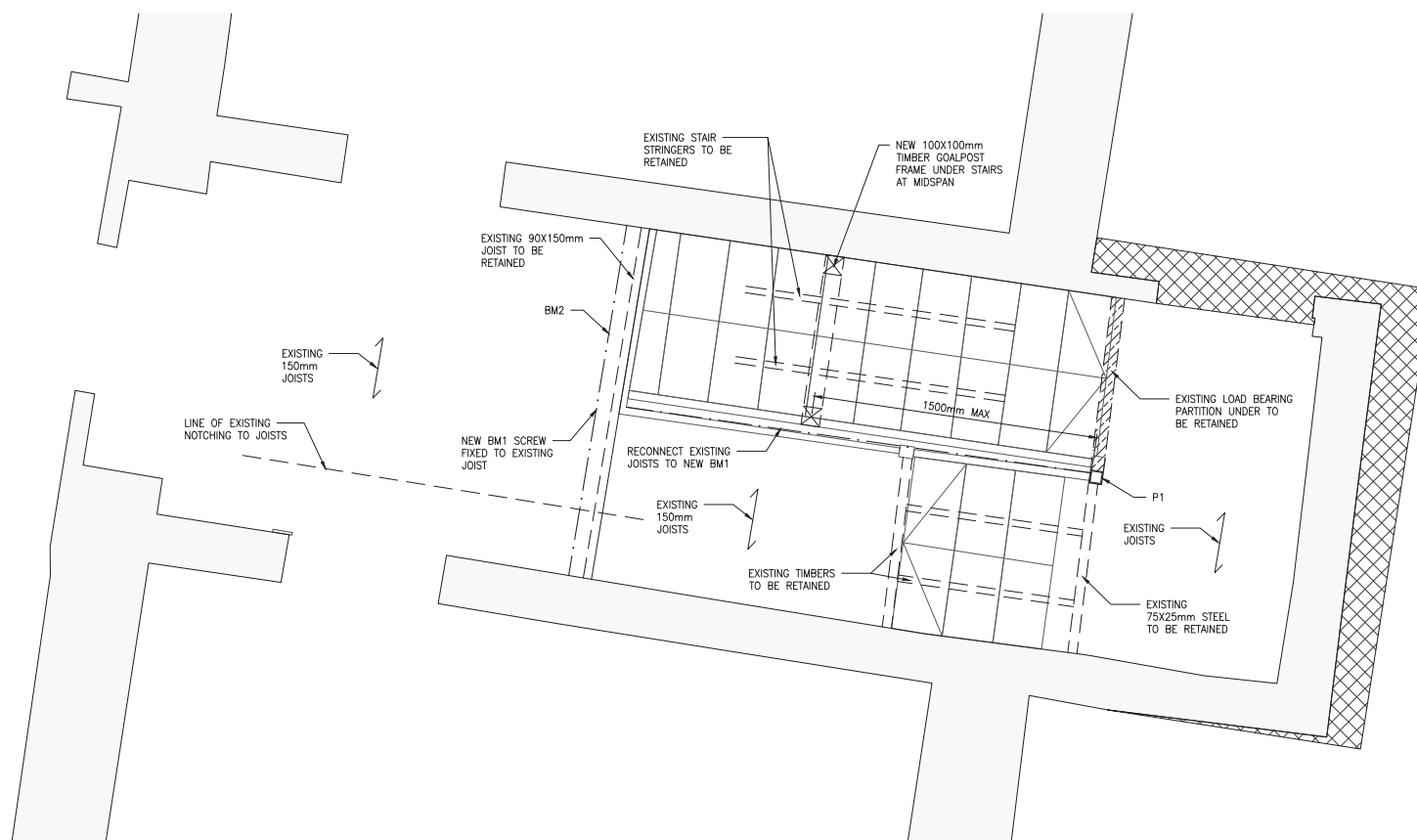
**HAYES HIGGINS PARTNERSHIP**

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Smithfield, Dublin 7. Tel: 01 6612321  
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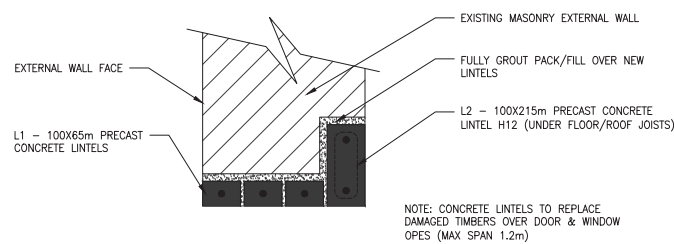
**PROPOSED WORKS TO EXISTING STAIRCORE**

SCALE 1:20

MEMBER	COMMENTS
L1	100X150mm PRECAST R.C. LINTEL, 100mm END BEARING, AS REQUIRED
L2	100X215mm PRECAST R.C. LINTEL, 100mm END BEARING, AS REQUIRED UNDER EXISTING FLOOR/ROOF JOISTS
J1	EXISTING 50X150mm TIMBER JOISTS @ 300mm C/S
J2	EXISTING 50X175mm TIMBER JOISTS @ 300mm C/S
J3	EXISTING TIMBER RAFTERS AND JOISTS @ 800mm C/S
BM1	NEW 100X25mm TIMBER BRACING, BRACING MADE TO INCREASE OF BRACING min OVERLAP AT EACH JOINT
BM2	NEW 100X25mm TIMBER BRACING WITH 75mm min OVERLAP AT EACH JOINT
BM3	NEW 100X25mm STEEL CHANNEL, CHANNEL AND FULLY WELDED
BM4	NEW 100X25mm STEEL CHANNEL
P1	NEW 100X25mm SHS POST WITH 10mm STEEL BRIDGE PLATE

**LEGEND**

	ISOLATION JOINT
	TRANSVERSE JOINT
	NEW TIMBER SCRIBED ON EXISTING
	NEW TIMBER WITH 10mm GAP TO EXISTING
	25mm SOLID BLOCKWORK
	COLUMNS AND RETAINING WALLS TO EXISTING
	CLADDING TIMBER BRUDES TO SPECIALIST DESIGN AND SPEC.
	NEW EXISTING ROOF TIMBERS AS SPECIFIED



**DETAIL 01**

SCALE 1:10

REV	DATE	DESCRIPTION	DWG BY	APPR BY

**INFORMATION**

CLIENT

PROJECT NAME  
2 - 4 DUBLIN STREET, BALBRIGGAN

DRAWING NAME  
STAIRCORE DETAILS

PROJECT No.  
22D001

DRAWING No. 009 REVISION 1

SCALE 1:20 DRAWN DATE Sept '22

CAD DRAWN BY DW CHECKED BY LM APPROVED BY DH

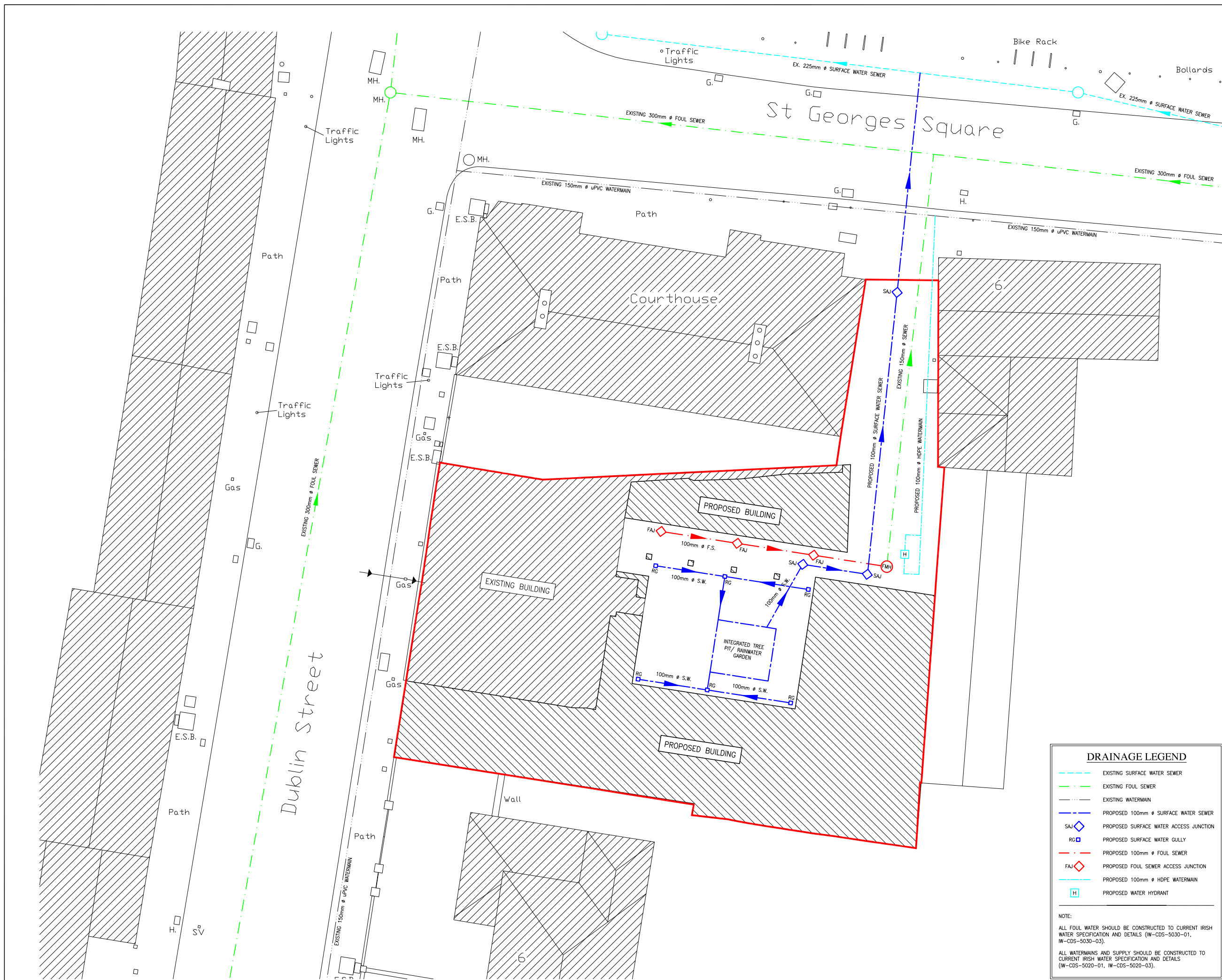
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**DRAINAGE LEGEND**

- EXISTING SURFACE WATER SEWER
- EXISTING FOUL SEWER
- EXISTING WATERMAIN
- PROPOSED 100mm # SURFACE WATER SEWER
- SAJ PROPOSED SURFACE WATER ACCESS JUNCTION
- RG PROPOSED SURFACE WATER GULLY
- PROPOSED 100mm # FOUL SEWER
- FAJ PROPOSED FOUL SEWER ACCESS JUNCTION
- PROPOSED 100mm # HDPE WATERMAIN
- PROPOSED WATER HYDRANT

**NOTE:**  
 ALL FOUL WATER SHOULD BE CONSTRUCTED TO CURRENT IRISH WATER SPECIFICATION AND DETAILS (IW-CDS-5030-01, IW-CDS-5030-03).  
 ALL WATERMANS AND SUPPLY SHOULD BE CONSTRUCTED TO CURRENT IRISH WATER SPECIFICATION AND DETAILS (IW-CDS-5020-01, IW-CDS-5020-03).

P	12.06.23	ISSUED FOR PLANNING	ROC	SG
REV	DATE	DESCRIPTION	DWG BY	APPR BY
ISSUED				
<b>PLANNING</b>				
CLIENT				
PROJECT NAME 2 - 4 DUBLIN STREET, BALBRIGGAN				
DRAWING NAME <b>PROPOSED DRAINAGE LAYOUT</b>				
PROJECT No. <b>22D001</b>				
DRAWING No. <b>100</b>		REVISION <b>P</b>		
SCALE 1:200		DRAWN DATE 12.12.22		
CAD DRAWN BY R.O.C.	CHECKED BY S.H.	APPROVED BY D.H.		
<b>HAYES HIGGINS PARTNERSHIP</b> The Glass House, 11 Coke Lane Smithfield, Dublin 7. Tel: 01 6612321 E-mail: admin@hayeshiggins.ie Gas House Lane, Kilkenny. Tel: (056) 7764710 Email: info@hhp.ie				