# CONSTRUCTION MANAGEMENT PLAN

THE OLD DAIRY
WAKEFIELD STREET
LONDON
WC1N

**1. DOCUMENT INFORMATION**

**2. INTRODUCTION**

**3. THE PROPOSED WORKS**

3.1 DEMOLITION
3.2 EXCAVATION
3.3 CONSTRUCTION

**4. ENVIRONMENTAL CONTROLS**

**5. TRAFFIC MANAGEMENT AND CONTROL**

**6. DRAWINGS**

| 1. | DOCUMENT INFORMATION |
|---|---|

| 1.1 : DATE OF ISSUE |
|---|
| 12th May |

| 1.2 : DOCUMENT TYPE AND ISSUE NUMBER |
|---|
| Construction Management Plan / Rev 3 |

1.3: PRINCIPAL CONTRACTOR RESPONSIBLE FOR IMPLEMENTING THIS DOCUMENT

| | |
|---|---|
| Name | Steve Luckings |
| Company | HPM Developments |
| Position | Construction Manager |
| Tel | 020 7493 4020 |
| Email | steve@hpmdevelopments.com |

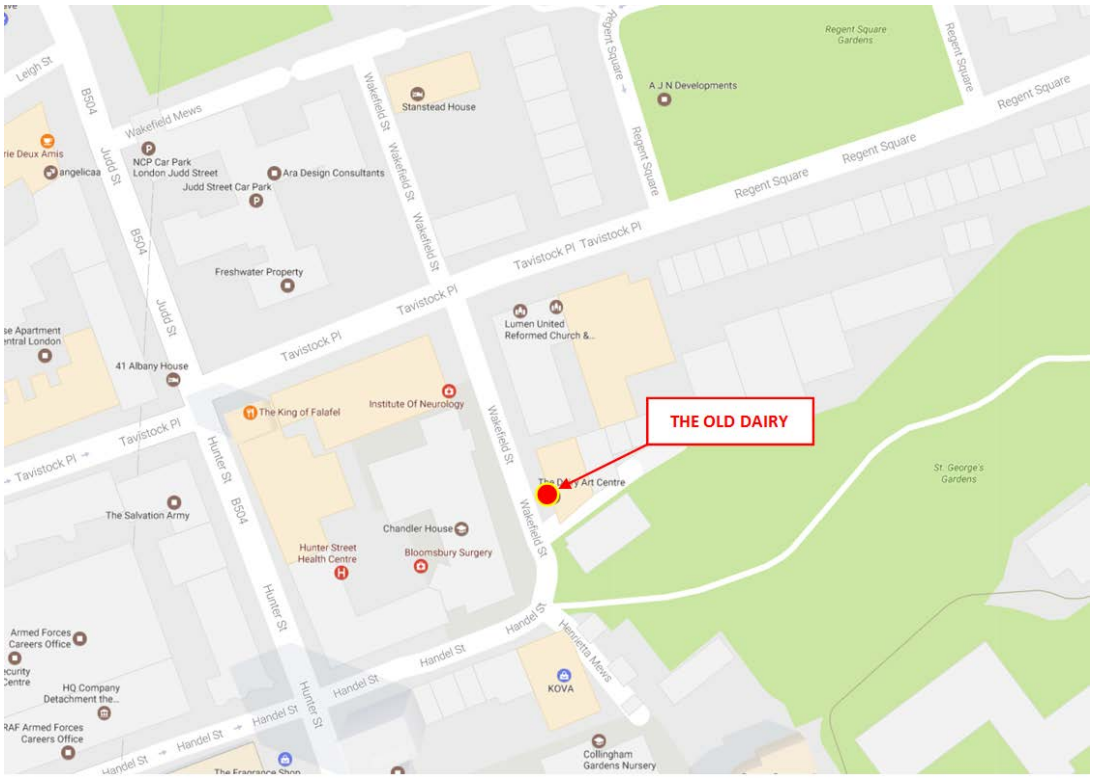
1.4: CONTACT DETAILS FOR THE PERSON RESPONSIBLE FOR COMPLETING THIS DOCUMENT

| | |
|---|---|
| Name | Alan Prodger - CMIOSH, RMACC |
| Company | South Downs Safety Ltd |
| Position | H&S Advisor |
| Tel | 07775 508548 |
| Email | alan@southdownssafety.co.uk |

| **2.** | **INTRODUCTION** |
|---|---|

| 2.1 : FULL ADDRESS OF SITE |
|---|
| The Old Dairy, Wakefield Street, London, WC1N |

| 2.2: INTRODUCTION |
|---|
| HPM Developments have been appointed as Principal Contractor on this project by the WX Investments Ltd (hereafter 'the client') to provide a Construction Management Plan for the proposed development known as the 'The Old Dairy' at Wakefield Street, London WC1.<br><br>The purpose of the report is to outline the proposed management plan for the construction activities including the demolition, excavation, new construction, traffic management and environmental controls and is in support of the proposed planning application for:<br><br>The redevelopment of the site following the demolition of the existing warehouse to provide a mixed-use development comprising residential (Use Class C3) and commercial uses. |

| 2.3: SITE LOCATION |
|---|
| The proposed development is located in Wakefield Street, London WC1N and adjacent to St. George's Gardens, Heathcote Street, Bloomsbury, London WC1N 2NY. The garden's OS grid reference is TQ30482.<br>  <br> |

| **3.** | **THE PROPOSED WORKS** |
|---|---|

The proposed works will comprise a development of two-storey plus basement buildings, including two commercial units arranged over three storeys at the western end of the site, and 13 residential apartments comprising 1 x 1 bed, 10 x 2 bed and 2 x 3 bed unit.

3.1: DEMOLITION

Demolition will be undertaken in a controlled and logical sequence, be subject to detailed planning by the principal contractor and will broadly comprise:

a) The isolation of all incoming services and the draining of any tanked fuel, heating and plumbing systems.

b) The 'soft strip' of the fixtures and fittings remaining from the buildings current use, including but not limited to electrical, gas and water services, conduits and remnants of any heating and or air conditioning systems.

c) Removal of non-load bearing partitions and other non-structural items from within the building envelope.

d) Removal of glazed units and other sheet materials such as the roof construction to the building envelope.

e) Removal of masonry walls and any steel and concrete superstructure down to ground floor level.

f) Removal of the existing ground floor slab, below ground drainage associated with the above building.

g) Removal of foundations and other related sub-structure

Demolition adjacent to the southern boundary will need to take account of the listed wall and the integral nature of the two masonry elements.

## 3.2: EXCAVATION

Excavation will be sequenced in conjunction with the installation of contiguous piles to maximise the building foot print for the permanent works. It is proposed that the perimeter temporary works do not have props compromising the foot print of the slab areas however, waling beams and clear spanning props will be required just above the lower ground floor structural slab level, which coincides with the approximate mid-height of the exposed length of the contiguous pile.

The following excavation sequence is anticipated:

a) Clear the ground following demolition of the buildings on site.

b) Establish site datum and set out and install the contiguous piling.

c) Install contiguous piling to a suitable designed depth below the structural slab level of the basement slab.

d) Install temporary plunge columns to contiguous piles to receive temporary works supporting North and West boundary walls.

e) Commence excavation with appropriate plant and temporarily terminate the excavation operations at the lower ground floor slab level.

f) Waling beams will be installed within the excavation to the perimeter and fixed back to the contiguous piling wall. At appropriate designed intervals steel tubular props will be placed to span across the excavation and at suitable points to the return walls.

g) Excavation can then continue to the basement slab formation level, at which point the construction of the permanent works can begin.

The two excavations on site have the following respective volumes:

- 1) Units 1 and 2 (commercial) will have a volume of approximately 450 cubic metres
- 2) Units 1-5 (residential) will have a volume of approximately 750 cubic metres

Earth arising will be removed from the excavation using the 360′ excavators from low level to ground levels where trucks will be loaded adjacent to the excavation. Trucks will not be overloaded and will make use of retractable sheeting so to prevent any material dropping form the vehicle whilst in transit.

Banks-men will be provided to supervise the loading of vehicles and so to ensure that they leave (and arrive) site in accordance with traffic management requirements. Banks-men are to supervise the cleanliness of the site and the route taken by vehicles entering and leaving the site.

All vehicles will make use of an appropriate wheel wash to be located at the site entrance / exit.

3.3: CONSTRUCTION

**Basement construction**

It is proposed to form the basement with an in-situ reinforced concrete 'raft' type slab at basement level, RC liner/retaining walls to the perimeter, and a suspended RC slab at ground floor level. There will be internal RC walls and columns at basement level to support the ground floor slab over. Based on the findings of the site investigation carried out by Site Analytical Services, the basement raft slab will be located in the stiff, high strength clay, which is located at depths of 2.0 – 3.0m below ground level across the site. A heave protection material will be adopted beneath the slab to counter the potential for ground movement identified in the Site Investigation Report.

Prior to the basement being constructed, the existing boundary walls to the north and west (which are to be retained) will be underpinned with traditional mass concrete underpins in an agreed sequence of 1m lengths. A reinforced concrete retaining wall will then be formed in front of the underpinning to resist all lateral earth pressures and surcharges. Temporary support to these walls will be required throughout these works and are summarised in section *'works to retain North boundary wall'* below.

The south wall to the basement of the houses and flats will be formed with a contiguous piled wall, which will then be lined with a reinforced concrete wall to form the basement structure. This piled wall will generally run parallel to the listed boundary wall to St George's Gardens for a length of approximately 80m, with a distance to the boundary of approximately 2.0m at its closest point. Towards the west of the site this piled wall will turn towards the existing boundary wall, where it will terminate approximately 1.0 from the face of the wall. The piled wall will be formed with 450mm and 600mm diameter Rotary Bored Piles which will be designed by the specialist piling contractor. A reinforced concrete capping beam will be formed along the top of the piled wall to tie to piles together at ground level. The contiguous piled wall will be designed to resist all lateral earth pressures and vertical surcharge loads and will therefore provide both temporary support during the excavation works and construction of the basement, and the permanent retaining structure for the completed basement.

Works against the listed boundary wall to St George's Gardens are outlined below.

**Works to retain North boundary wall**

The boundary wall to the north and north-west of the site is to be retained in the permanent case as part of the new development, and also in the temporary case during construction. Prior to the underpinning of the North boundary wall temporary support works will be installed to stabilise the wall during the proposed works. As the methodology of the temporary works has been developed it has been decided to adopt raking props down to temporary piled bases to provide restraint to the horizontal walings, in place of temporary steel towers on partial underpins previously proposed.

**Works against listed boundary wall to St Georges Gardens**

The basement to the commercial unit to the west of the site will be formed against the listed boundary wall to St George's Gardens. Prior to the basement being constructed, the existing boundary wall will be underpinned with traditional mass concrete underpins in an agreed sequence of 1m lengths. A reinforced concrete retaining wall will then be formed in front of the underpinning to resist all lateral earth pressures and surcharges. This section of the development is being formed adjacent to three houses which were built in circa 2010, and record information indicates that the basement to these houses was also formed in this manner.

**MOVEMENT MONITORING**

A monitoring regime will be put in place to record any movement to adjacent walls and buildings, including the boundary wall to the north and west, the listed boundary wall to St George's Gardens to the south, and the existing houses to the west of the site. Monitoring targets will be placed in agreed locations, and readings taken weekly by total station theodolite to record any movement. If pre-agreed trigger values are achieved, the methodology being adopted will be reviewed and the frequency of the readings increased.

| 4. | ENVIRONMENTAL CONTROLS |
|---|---|

4.1 : SITE MANAGEMENT

The site works will be managed by an experienced site construction manager. During the various stages of the development, there will also be specialist demolition and ground works site managers / agents and these persons will liaise with the contract administrator so to ensure a safe and fully coordinated method of working is maintained throughout the duration of the works.

The site will be registered with the Considerate Contractors Scheme. One of the provisions of the scheme is to have the contact details of the site's representative so that members of the public may make their observations or complaints known to the person who can best address them.

4.2 : WORKING HOURS

Site working hours will be:

| | |
|---|---|
| Monday to Friday | 08:30 to 18:00 |
| Saturday | 09:00 to 13:00 |
| Sunday | No Work Permitted |
| Bank holidays | No Work permitted |

| 4.3: SITE ACCOMMODATION |
|---|
| The site offices and welfare facilities will be located at a suitable and agreed location on site as the work progresses. This will vary from time to time as operations dictate, but in broad terms the site offices will always be as close as possible to the site frontage to maintain control over site access and the general movement of traffic to and from the site. |

| 4.4: PROPOSED CONTROL OF DUST AND DIRT EMISSIONS |
|---|
| Where at all possible the site will be hoarded and shielded with Monoflex so to contain dust and debris, dust producing activities such as demolition, are to be watered. The site entrance / exit and adjacent areas will be hosed and swept clean at the end of each working day. |

| **5.** | **TRAFFIC MANAGEMENT AND CONTROL** |
|---|---|

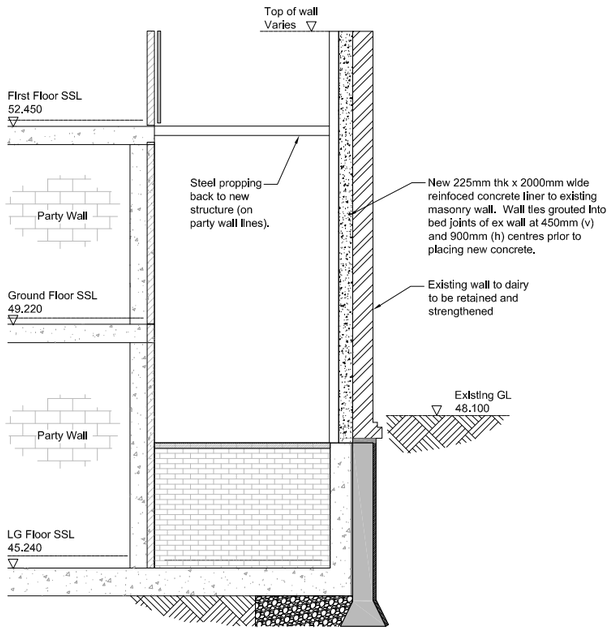
| 5.1 : TRAFFIC MANAGEMENT |
|---|
| A traffic management plan is to be implemented by the principal contractor and this will include, but will not limited to vehicle routes, holding areas, turning areas and protocol whilst in the vicinity of the site. In broad terms all deliveries will be given staged time slots and these will be arranged so that no vehicles will be required to wait on the street for access on to site or for the site to be cleared.<br><br>Handel Street and Wakefield Street leading to and from the site are serving both residential and commercial properties and we understand in general have only light traffic flow.<br><br>We propose that all construction related traffic approach the site via the B504 Hunter Street and turns into Handel Street which then leads to the site. All departing site traffic is to turn right and head North to Tavistock Place at which point either the A5200 Gray's Inn road or the B504 Hunter Street can be reached.<br><br>Site traffic is to enter and leave the site using an agreed route and is to be in one direction only, so to prevent congestion and to minimise disruption to the immediate vicinity. The site entrance/exit is to have a wheel wash facility in place and banks men to supervise the movements of vehicles in and out of the site.<br><br>The principal contractor is to make himself available to receive communications from neighbours and is to provide sufficient contact details to allow an ongoing dialogue which allows comments to be considered and addressed. |

| | |
|---|---|
| **5.** | **DRAWINGS** |

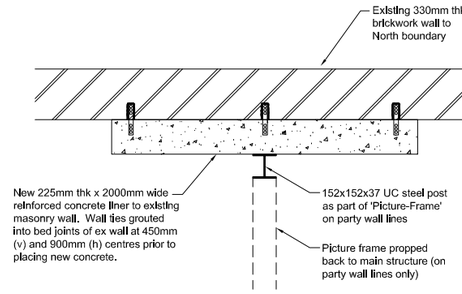

## GROUND FLOOR PLAN

2000mm wide x 225mm thk RC Liner to existing wall with ties grouted into wall at 450mm (v) and 900mm (h) centres

Steel 'Picture frame' fixed between new liner and main structure. Thermal break material required against new structure.




**TYPICAL RESTRAINT TO EXISTING WALL**
**(Approx 10m c/c - On party wall lines)**
Scale 1:50 @ A1




**PLAN ON RESTRAINT DETAIL**
(1:20 @ A1)

Project:
The Old Dairy

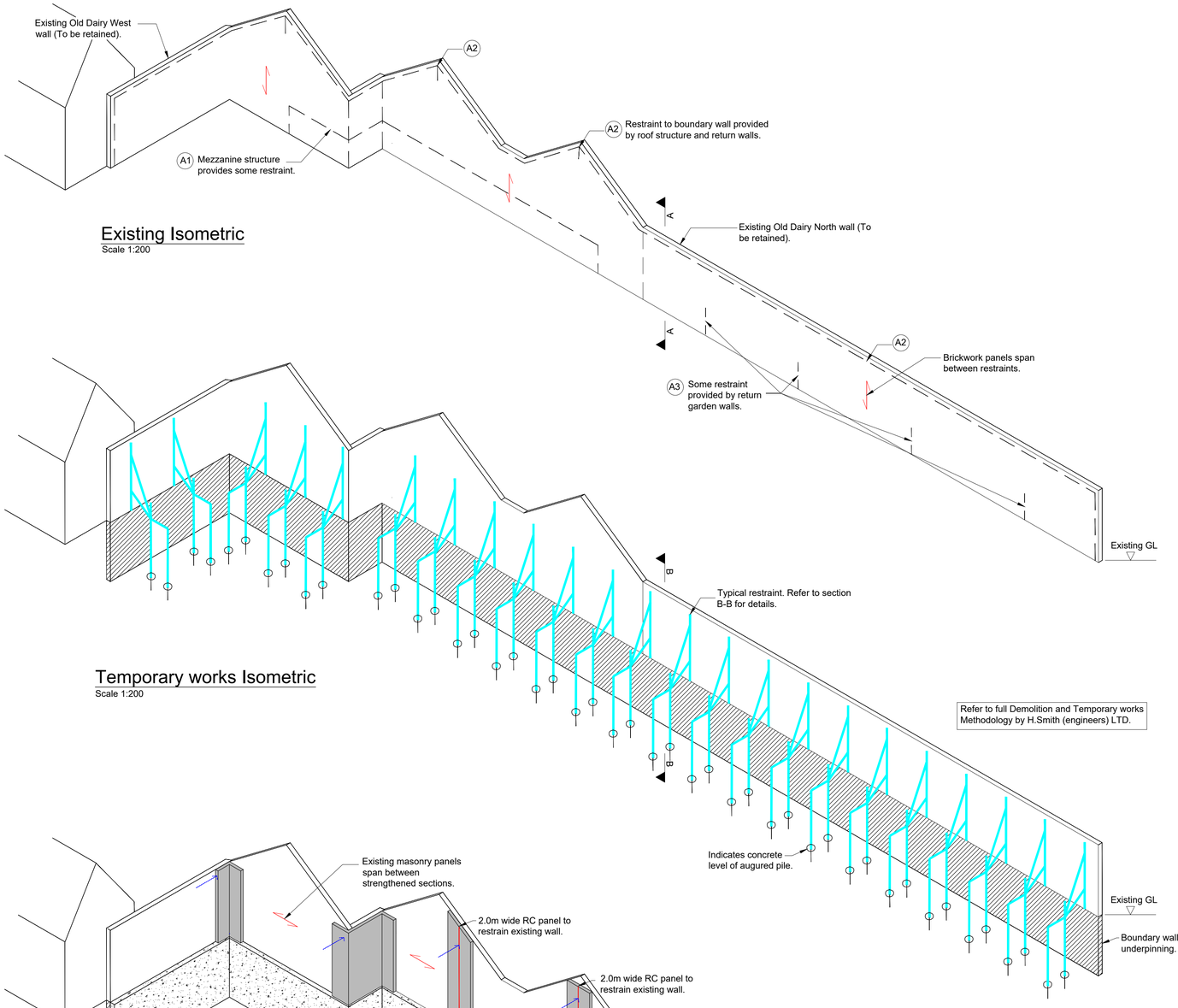
Drawing Title:
North Wall Restraint

Drawing No:
217017/ SK05 P4

Drawn By: DG

Date: March 2017

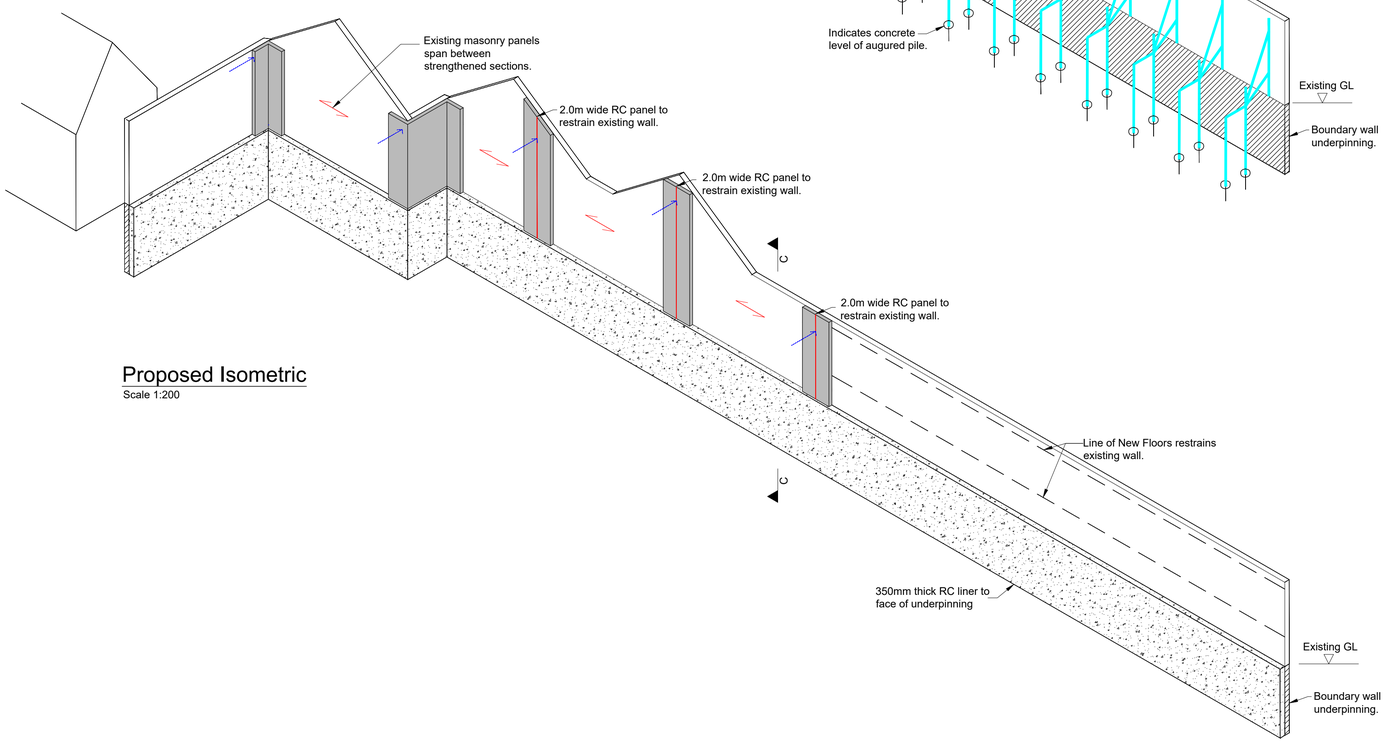
mnp
mason navarro pledge
Bancroft Court
Hitchin
Hertfordshire SG5 1LH
Telephone: 01462 632012
Fax: 01462 632233
Email: office@mnp.co.uk
www.mnp.co.uk



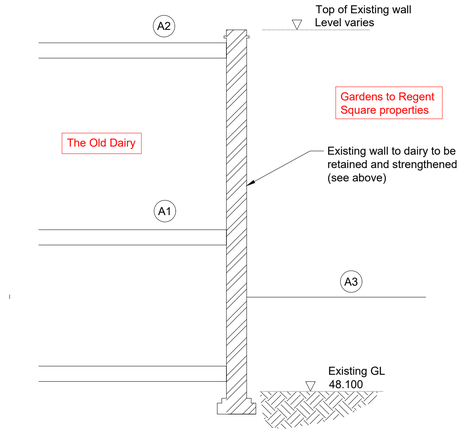

## Existing Isometric
Scale 1:200



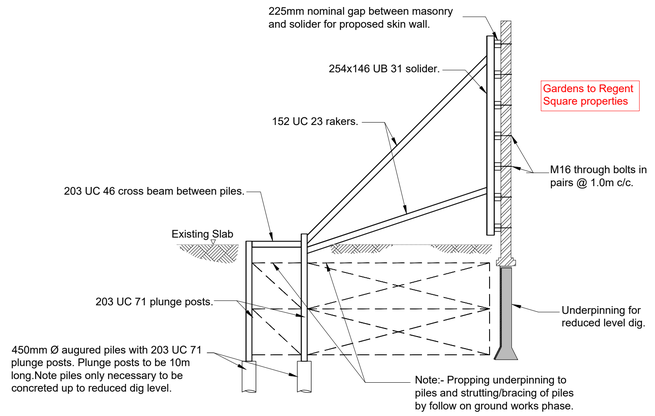

## Temporary works Isometric
Scale 1:200



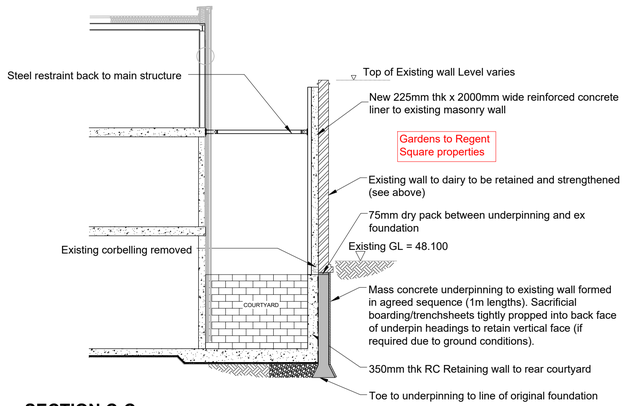

## Proposed Isometric
Scale 1:200




## SECTION A-A
Scale 1:50 @ A1




## SECTION B-B
Scale 1:100 @ A1




## SECTION C-C
Scale 1:100 @ A1

General

1.1 This drawing is to be read in conjunction with all Architect's, Engineer's and Services Engineer's drawings and specifications.
1.2 Do not scale from any of the structural drawings. All dimensions to be verified on site and any discrepancies should be highlighted.
1.3 The contractor is responsible for the stability of the building and adjoining structures during construction and shall design, install, adapt and maintain all necessary propping and temporary works. A method statement for the temporary works must be submitted to the contractor administrator for comment before work begins.
1.4 Fire protection to all structural elements to Architect's details.
1.5 All waterproofing to the Architect's details.
1.6 All materials to comply with the relevant British Standard.

P1 Preliminary Issue 10.05.17 DG

| REV | COMMENTS | DATE | CHK |
|---|---|---|---|

STATUS
**PRELIMINARY**

mnp
mason navarro pledge
Consulting Civil and Structural Engineers
Bancroft Court, Hitchin, Hertfordshire SG5 1LH
Telephone: 01462 632012 Fax: 01462 632233
Email: office@mnp.co.uk www.mnp.co.uk

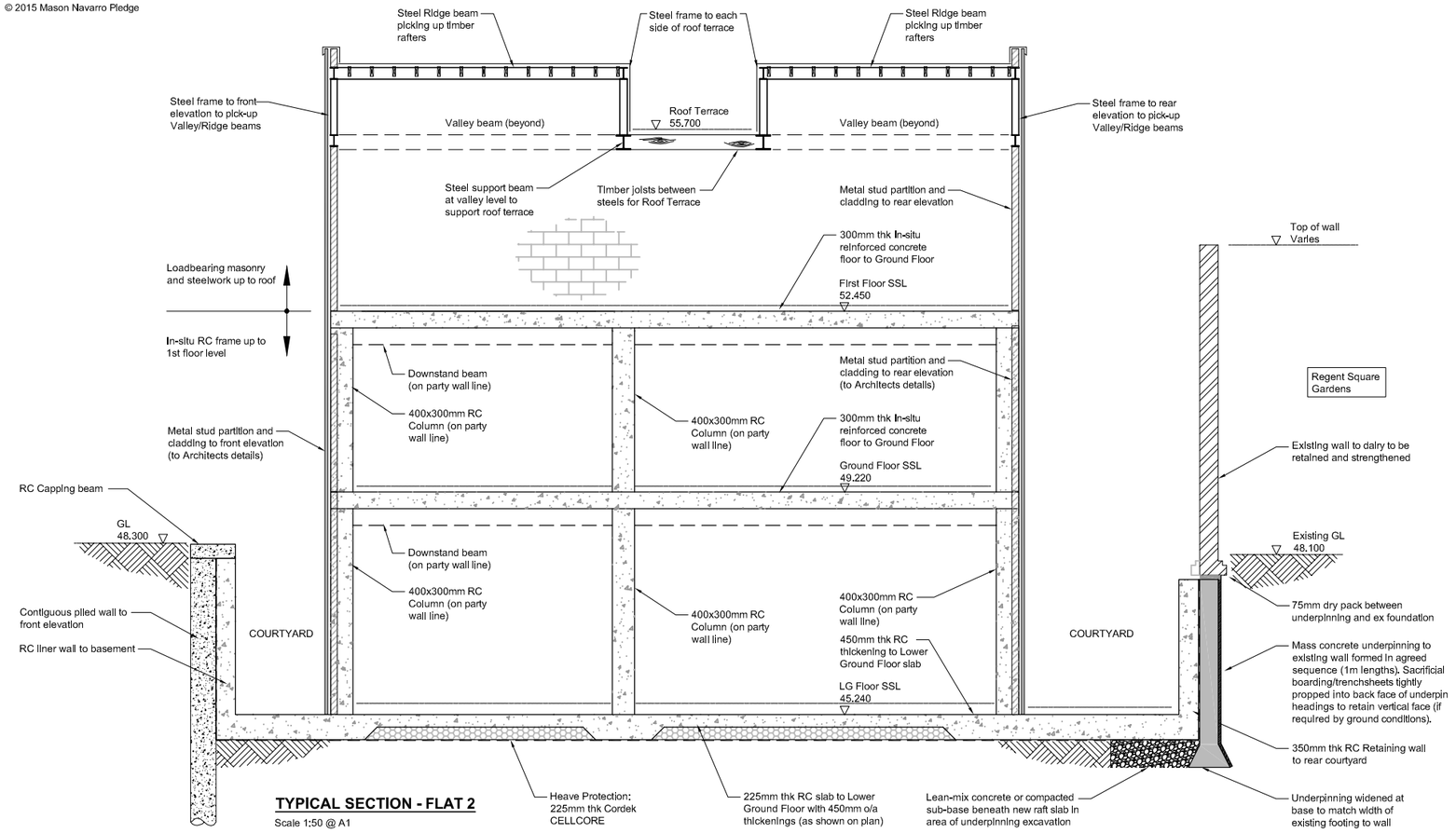
CLIENT

PROJECT
**THE OLD DAIRY**

DRAWING TITLE
**NORTH WALL RESTRAINT PERMANENT & TEMPORARY WORKS**

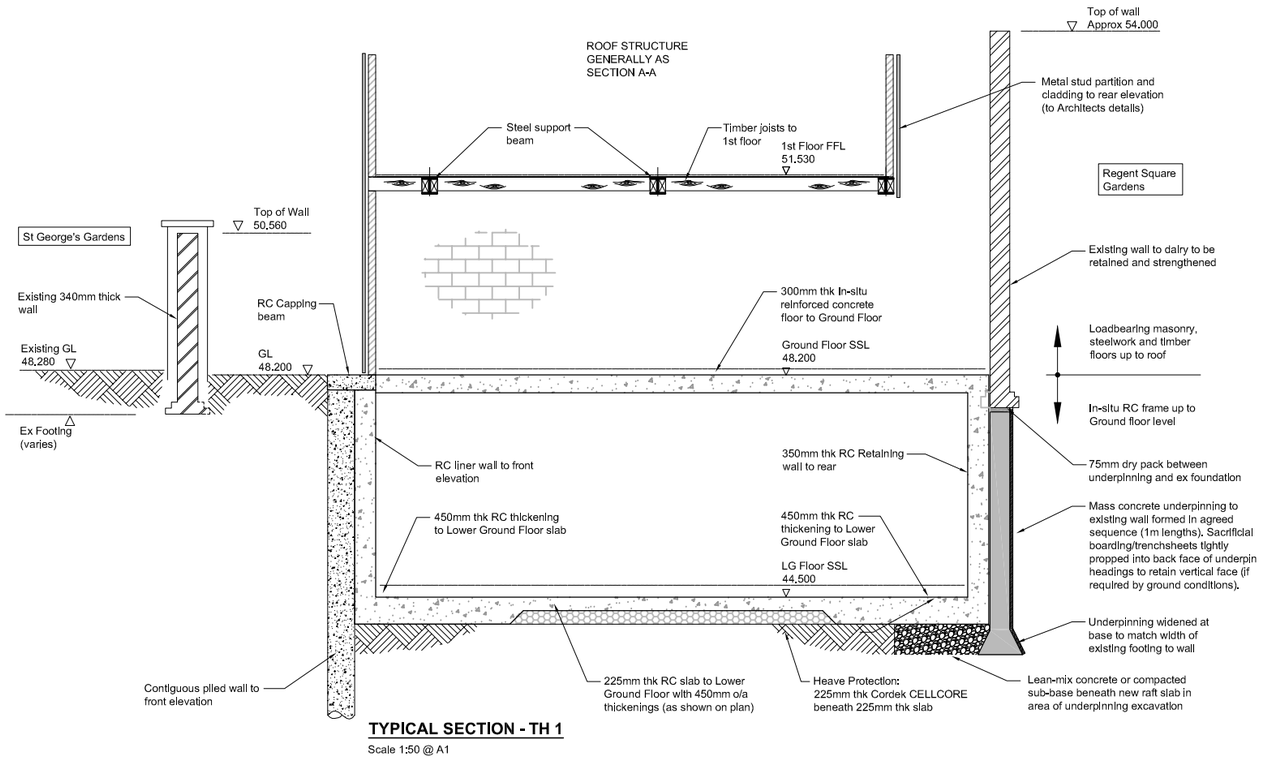
| SCALE @ A1 | DATE |
|---|---|
| As shown | MAY 17 |
| DRAWN BY | CHECKED BY |
| LDH | DJG |

| JOB No. | DRAWING No. | REV |
|---|---|---|
| 217017 | SK06 | P1 |



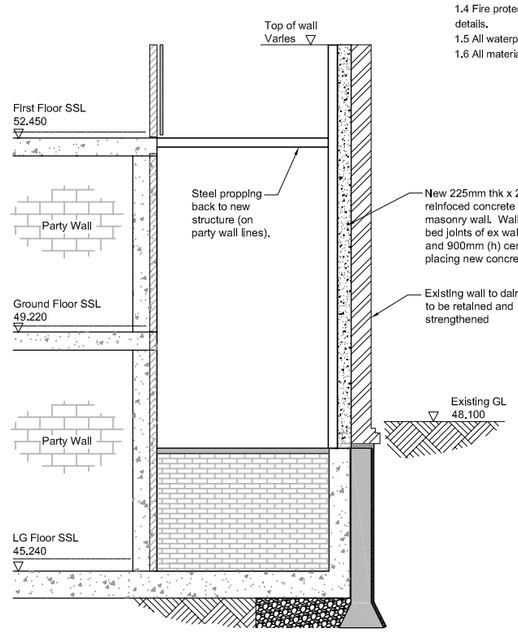

## TYPICAL SECTION - FLAT 2

Scale 1:50 @ A1




## TYPICAL SECTION - TH 1

Scale 1:50 @ A1




## TYPICAL RESTRAINT TO EXISTING WALL (Approx 10m c/c - On party wall lines)

Scale 1:50 @ A1

General

1.1 This drawing is to be read in conjunction with all Architect's, Engineer's and Services Engineer's drawings and specifications.
1.2 Do not scale from any of the structural drawings. All dimensions to be verified on site and any discrepancies should be highlighted.
1.3 The contractor is responsible for the stability of the building and adjoining structures during construction and shall design, install, adapt and maintain all necessary propping and temporary works. A method statement for the temporary works must be submitted to the contractor administrator for comment before work begins.
1.4 Fire protection to all structural elements to Architect's details.
1.5 All waterproofing to the Architect's details.
1.6 All materials to comply with the relevant British Standard.

| REV | COMMENTS | DATE | CHK |
|---|---|---|---|
| P3 | Preliminary Issue | 10.05.17 | DG |
| P2 | Preliminary Issue | 09.03.17 | DG |
| P1 | Preliminary Issue | 27.02.17 | DG |

STATUS
**PRELIMINARY**

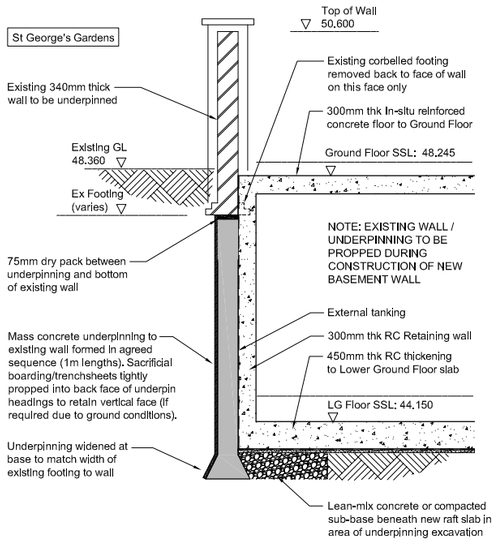
mnp
mason navarro pledge
Consulting Civil and Structural Engineers
Bancroft Court, Hitchin, Hertfordshire SG5 1LH
Telephone: 01462 632012 Fax: 01462 632233
Email: office@mnp.co.uk www.mnp.co.uk

CLIENT

PROJECT
**The Old Dairy**

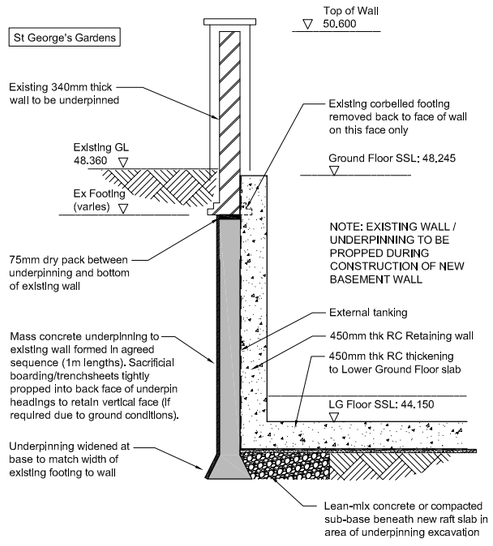
DRAWING TITLE
**Typical Sections (Sheet 1)**

| SCALE @ A1 | DATE |
|---|---|
| As Shown @ A1 | Feb 17 |
| DRAWN BY: DG | CHECKED BY: - |
| JOB No. 217017 | DRAWING No. SK10 | REV P3 |



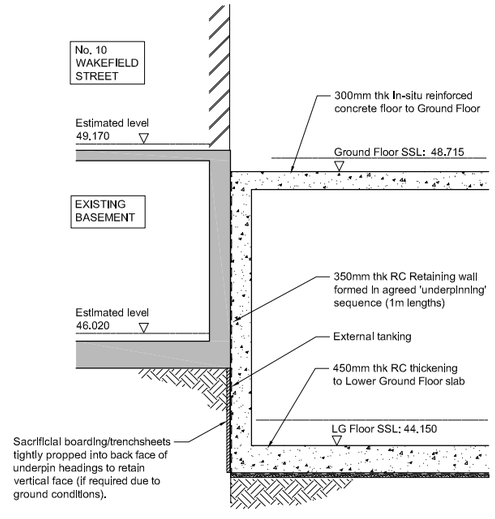

## SECTION A-A

Scale 1:50 @ A3




## SECTION B-B

Scale 1:50 @ A3

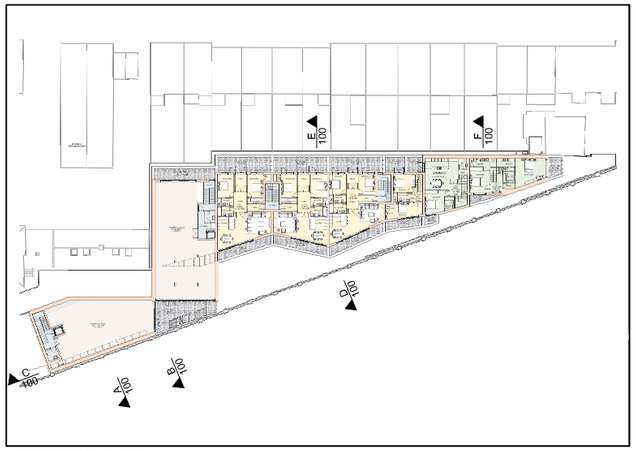



## SECTION C-C

Scale 1:50 @ A1

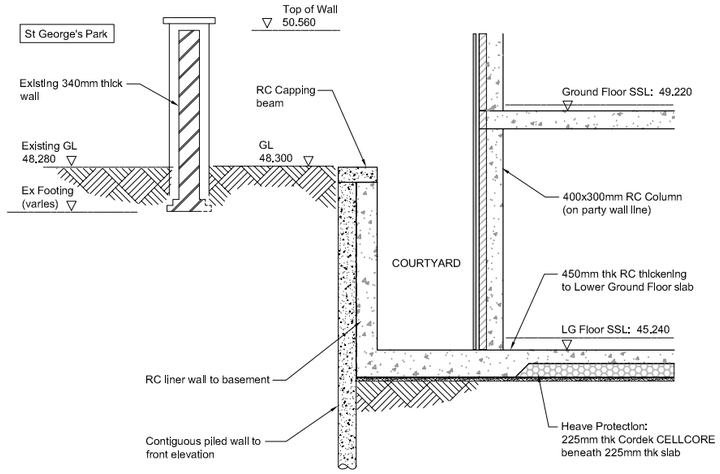
General

1.1 This drawing is to be read in conjunction with all Architect's, Engineer's and Services Engineer's drawings and specifications.
1.2 Do not scale from any of the structural drawings. All dimensions to be verified on site and any discrepancies should be highlighted.
1.3 The contractor is responsible for the stability of the building and adjoining structures during construction and shall design, install, adapt and maintain all necessary propping and temporary works. A method statement for the temporary works must be submitted to the contractor administrator for comment before work begins.
1.4 Fire protection to all structural elements to Architect's details.
1.5 All waterproofing to the Architect's details.
1.6 All materials to comply with the relevant British Standard.



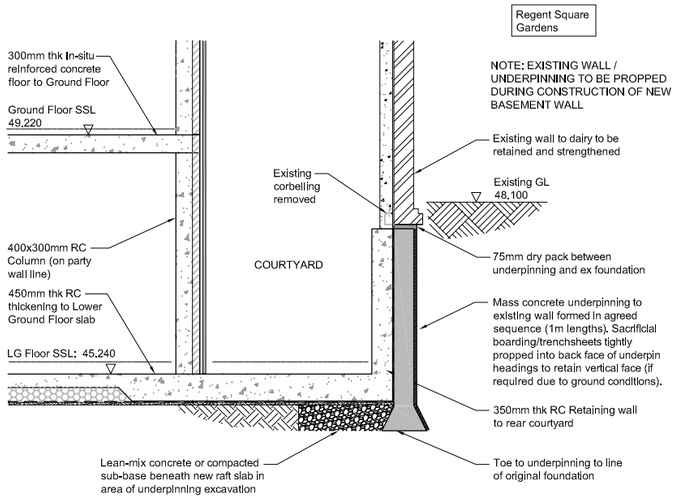

## LOCATION PLAN

NOT TO SCALE



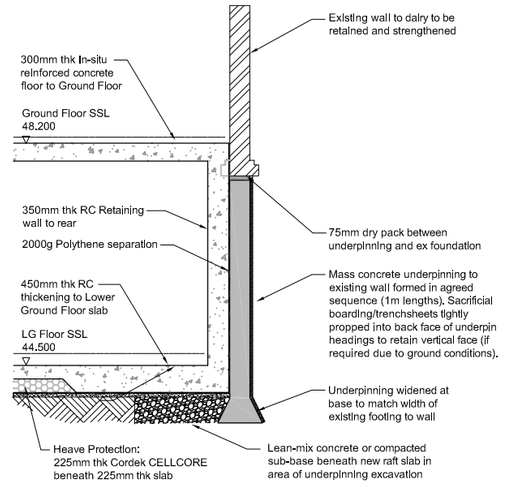

## SECTION D-D

Scale 1:50 @ A1




## SECTION E-E

Scale 1:50 @ A1




## SECTION F-F

Scale 1:50 @ A1

| REV | COMMENTS | DATE | CHK |
|---|---|---|---|
| P2 | Preliminary Issue | 10.05.17 | DG |
| P1 | Preliminary Issue | 09.03.17 | DG |

STATUS
**PRELIMINARY**

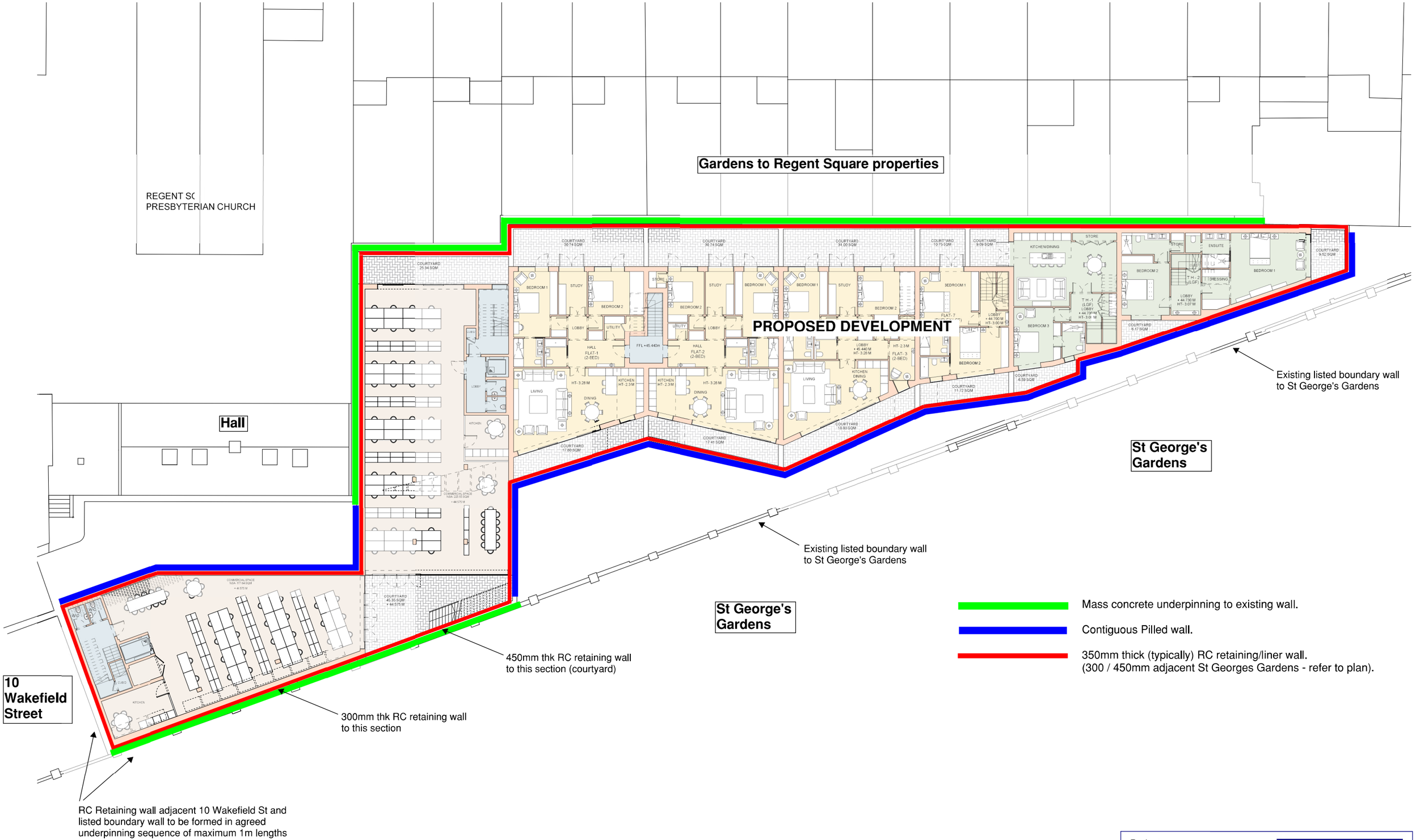
mnp
mason navarro pledge
Consulting Civil and Structural Engineers
Bancroft Court, Hitchin, Hertfordshire SG5 1LH
Telephone: 01462 632012 Fax: 01462 632333
Email: office@mnp.co.uk www.mnp.co.uk

CLIENT

PROJECT
**The Old Dairy**

DRAWING TITLE
**Typical Sections (Sheet 2)**

| SCALE @ A1 | DATE |
|---|---|
| As Shown @ A1 | Feb 17 |
| DRAWN BY | CHECKED BY |
| DG | - |
| JOB No. | DRAWING No. | REV |
| 217017 | SK11 | P2 |




## PROPOSED LOCATION OF UNDERPINNING AND CONTIGUOUS PILING TO BASEMENT WORKS

Project:
The Old Dairy

Drawing Title:
Proposed Underpinning and Contiguous Piling

Drawing No:
217017/ SK30

Drawn By: DG

Date: April 2017

mason navarro pledge
Bancroft Court
Hitchin
Hertfordshire SG5 1LH
Telephone: 01462 632012
Fax: 01462 632233
Email: office@mnp.co.uk
www.mnp.co.uk