2673 - 52 Avenue Road, Structural Method Statement - 12 Unit Scheme

Contents

Appendices

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Approved by: Daniele Sepioni MEng MICE and Neil Cameron CEng MIStructE

1. Introduction

Heyne Tillet Steel (HTS) have been appointed by Domvs London (Global Holdings) Ltd. (Domvs) to provide structural guidance on the proposed residential development at 52 Avenue Road, NW8 6HS. The scheme consists of the demolition of the existing structure, the construction of a lower ground with further basement level below and the erection of a new three-storey structure. The proposed 12-unit development scheme involves the erection of 3 blocks, housing 4 units each.

HTS have extensive experience of projects involving both basement construction and RC Frame design and have also previously worked on many other properties in the area. As a result of this we have a comprehensive understanding of the underlying ground conditions in the area.

This Structural Method Statement (SMS) report has been prepared by HTS to review and identify the key constraints to the site and advise on any abnormal risks and the mitigation steps to be taken early on during the design process. The report provides specific details of structural design, excavation, temporary works, construction techniques and potential impact of sub-structure works on the existing and neighbouring structures.

In support of the SMS, a phase one desk study for the site has been conducted by A-Squared Studio Engineers Ltd. (A-Squared), attached in Appendix A. This report provides preliminary geological and hydrological information for the ground beneath the site. A geotechnical report is planned to take place for the site.

A detailed set of existing archive drawings plans have been provided by Domvs, attached in Appendix B alongside a topographic survey for the site. Assumptions on the existing property have been based on these drawings as well as an existing building survey carried out by Lambert Smith Hampton group Ltd. (LSH) and inspected by HTS. Further opening-up works may be required to confirm the condition of the existing structure.

Image 1 - Site Overview

Image 2 - Proposed Architectural Elevation

2. Existing Conditions

2.1 The Site

The site is located in the London Borough of Camden on Avenue Road and can be located by the National Grid reference 527010,1183845 or approximately by the postcode NW8 6HS. The site is approximately 0.6km south southeast of Swiss Cottage Underground station and approximately 0.5km northeast of St Johns Wood Underground Station.

The immediate local area is entirely residential, with large, detached properties two or three storeys above street level, similar to the development. Regents Park and Primrose Hill are to the south and east of the property respectively.

The site sits on the corner of Avenue Road and Elsworthy Road with the existing structure recessed from the roadside to Avenue Road to sit in the north-east corner of the site. Access to the site is possible from both Avenue Road to the South-west of the site, with the main access to the site being Elsworthy Road to the North of the site.

The remainder of the site is unoccupied and generally undeveloped land, however there is evidence of 2 houses which formerly occupied the site which have been demolished. The previous properties may be assumed to have had a 1-storey basement as consistent with other local properties built in a similar era. It is currently unknown if the foundations for the original buildings have been removed and infilled.

The garden on the west side is overgrown with vegetation and largely inaccessible as are the external areas on the north and south borders.

The site is approximately 2840m^2 and rectangular in shape with the footprint of the existing L-Shaped building on the site measuring 26m x 22m with 7m wide wings. The ground level rises across the site from approximately 44mOD to the south corner of the site, to 46.5mOD at the North of the site.

The closest existing LUL tunnel is the Jubilee which runs below St Johns Wood Park, approximately 250m to the west. The tunnel exclusion zone does not intersect the site boundary.

Image 5 - Existing Site Condition

The historical bomb damage map shows the site experienced `blast damage, minor in nature' during World War II.

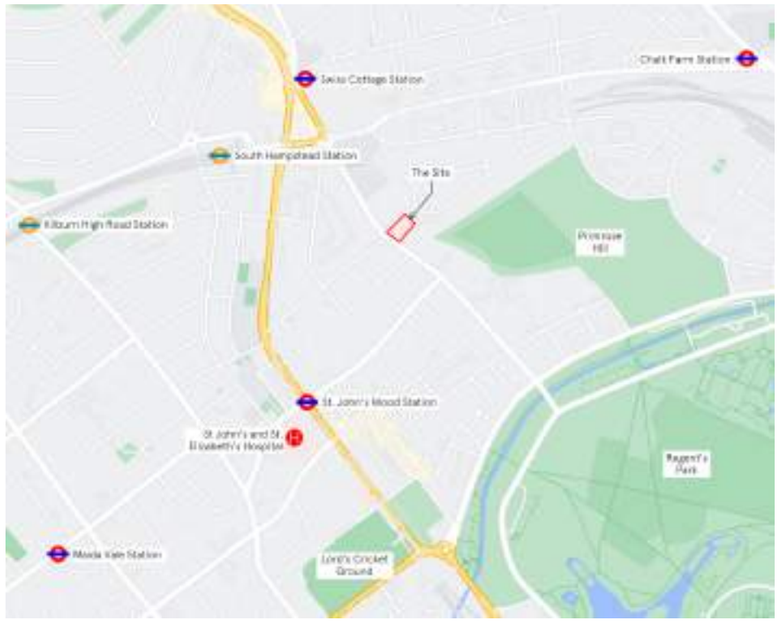


Image 3 - Site Location

Image 4 - Transport for London, Property Asset Public Web Map

Image 6 - Transport for London, Property Asset Public Web Map

A preliminary unexploded ordnance (UXO) risk assessment has been carried out by 6 Alpha Associates.

The assessment indicates that Hampstead Metropolitan Borough (the borough that the site was located in during World War II) recorded "moderate" level of bombing.

The report from 6 Alpha states that:

"The potential for unexploded WWI and WWII ordnance to exist at the site is addressed as being Likely. Given the findings of the preliminary UXO report, it is recommended that future intrusive works are informed by a Detailed UXO Assessment or appropriate precautionary on-site mitigation measures are implemented."

A review of the information by A-Squared suggests that:

"Recommended risk mitigation measures included within the assessment include a UXO risk management plan detailing action to undertake in the event of encountering UXO and a UXO awareness briefing delivered to all personnel conducting intrusive works. For borehole, piles and trenches, intrusive magnetometer surveys at all positions to the maximum bomb penetration depth (up to 15m) is recommended."

Historic maps of the area show that two townhouses originally occupied the site, which were constructed between 1850 and 1871-72. It is reasoned that this original structure was demolished prior to the construction of the current property in between 1958 and 1968.

Based on historical maps, it appears that the site is close to the course of the lost River Tyburn which runs northwest – southeast adjacent to the site and is believed to be culverted within the combined sewer network beneath Avenue Road Carriageway.

It will be required to be understood whether the proposed basement excavation will be affected by this water source.

The site is located within flood zone 1 according to EA flood maps. The site is assumed to be located on London Clay classified as a non-productive strata (Non-aquifer) and therefore the site does not lie in an area of groundwater vulnerability.

Image 7 - The London County Council: Bomb Damage Maps 1939-1945

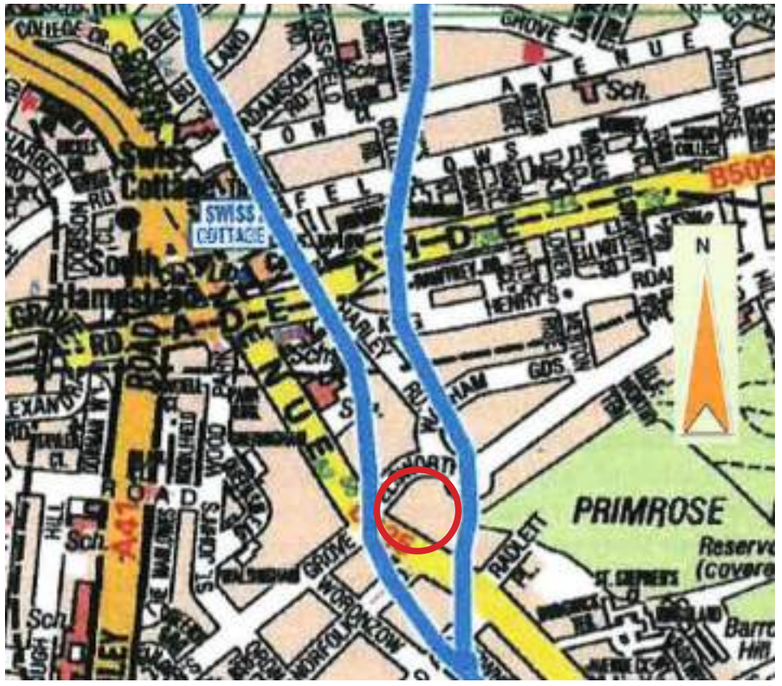


Image 8 - The Upper Course of the Tyburn in Hampstead

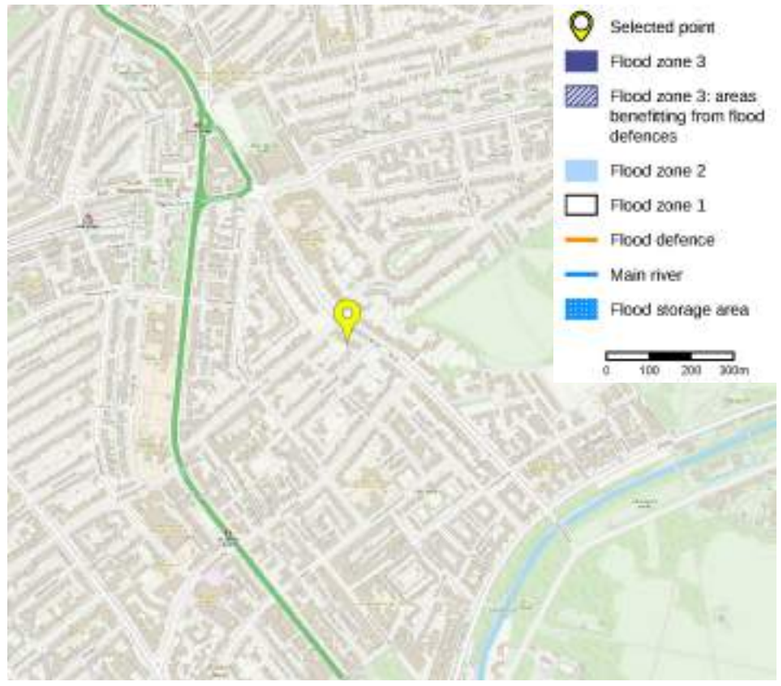


Image 9 - Flood Map for planning

2.2 Existing Buildings

A Building Survey Report was prepared in 2019 by Lambert Smith Hampton Ltd. and has been included as Appendix C. There is a derelict detached two storey residential dwelling house dating from the 1950's with staff accommodation wing. The accommodation is unoccupied, boarded up and secured with a monitored 24-hour alarm system managed by Veritas Maintenance and Security. The construction consists of loadbearing solid brick walls (rendered), pitched main roof, subsidiary flat roof areas, timber windows and doors and a combination of suspended timber and solid floors.

The existing floorplate structures are a combination of solid RC and timber construction. Sections of the ground floor ceiling have been taken down and the timber joists are exposed. The timber joists are built into the solid external walls with some timbers being rotten. The vertical structure comprises of loadbearing solid brick masonry walls externally, with internal loadbearing masonry walls. Openings in the internal walls have been boxed out using steel beams to transfer structure above.

A concrete staircase is situated within the reception at the north part of the building.

Stability is assumed to be provided by diaphragm action within the floors carrying lateral loads back to the masonry walls which act as shear walls to carry the lateral loads to foundations.

There is an outdoor swimming pool to the south corner of the property.

2.3 Condition of Existing Structure

Multiple elements of the existing structure are in poor or unusable condition, including roof and wall external elements, as well as corrosion of structural steel elements. Several original elements have seen total failure with collapse of roofs and ceilings observed.

An inspection of the foundations of the building has not yet been carried out. However, upon visual inspection there was no significant cracking to the building fabric which is indicative of foundation failure. It is assumed that existing foundations are shallow foundations in nature as is common in small domestic structures originating in the 1950s.

Image 10 - Collapsed Roof

Image 11 - Condition of Internal Elements

Image 12 - Existing Facade

Image 13 - Existing Rear Facade

2.4 Neighbouring Buildings

The site is bounded by the carriageway of Elsworthy Road to the north-west of the site, 57 Elsworthy Road to the north-east, 50 Avenue Road to the south-east and the carriageway of Avenue Road to the south-west. Masonry Party walls are shared between the site, 57 Elsworthy Road and 50 Avenue Road. The property situated on the site is a detached property and the bordering properties do not appear connected to number 52 in any way.

Planning records show permission granted for a double storey basement underneath No 50 Avenue Road in 2017. Based on the drawings submitted with the planning application there appears to be a non-structural party wall connecting the two properties. Depending on whether the structure in the planning application was built, the party wall is suggested to be the retention of the existing single storey masonry site boundary wall bordering the site between 50 and 52.

There were no relevant planning submissions to impact the proposals from the other bordering property, 57 Elsworthy Road.

The current property is not consistent with the majority of neighbouring properties which appear to be of similar construction, size and form to each other. The historical maps show most of the properties in the area were constructed around the same time period, utilising the same materials and are of a similar form.

Image 14 - 57 Elsworthy Road

Image 15 - Location Map Key

Image 16 - Street Aesthetic

Image 17 - 50 Avenue Road

2.5 Existing Ground Conditions

Initial Geotechnical Information was gathered using our experience of working on projects in the local area and taken from surrounding historical borehole logs. British Geological Survey data suggests that it is likely that the bedrock geology is London Clay Formation–Clay & Silt, with no evidence of superficial deposits.

Site investigation information carried out on nearby sites have shown that the underlying ground conditions for the area is a thin layer of made ground overlying stiff London Clay. The site is assumed to be located on London Clay classified as a non-productive strata (Non-aquifer) and therefore the site does not lie in an area of groundwater vulnerability.

A site-specific ground investigation was undertaken by A2SI between 01/11/2021 and 05/11/2021 with return monitoring results on the 11th and 23rd November 2021 and 9th December 2021. Details of the ground investigation findings are presented in the Geotechnical Design Report, which is included as Appendix A.

The following ground conditions are taken from a site investigation by A-Squared. The site investigation comprised of 2no. 40m-deep cable percussion boreholes and 6no. window samples to depths of 5m.

Ground Level was taken as +46mAOD.

Typically, the ground conditions can be summarised as follows:

+ Made Ground (depth to 0.7m below ground (+46.0mAOD to 45.3mAOD))
    + Firm grey, brown sandy gravelly CLAY with low cobble content. Sand is fine to coarse. Gravel is angular to subangular of brick, concrete, and flint. The Made Ground also contained fragmented roots and rootlets.
    + Three zones contained a layer of concrete and/or brickwork ranging between 0.1 and 0.9m in thickness, and some contained a thin layer of topsoil.
+ London Clay Formation – underlying soil strata (+45.3mAOD to +6.0mAOD))
    + Firm to stiff mottled grey slightly gravelly silty CLAY with subangular to subrounded gravel and fine to coarse flint.

Water was not discovered during the exploratory investigation works.

Further investigations were undertaken with the installation of groundwater and ground gas monitoring standpipe piezometers within each investigative position to allow for groundwater and ground gas/vapour monitoring.

Groundwater level gauging has been carried out on three of the six proposed rounds, on 11/11/2021, 23/11/2021 and 09/12/2021. Groundwater was not encountered during any of these initial three monitoring rounds. Subsequent monitoring rounds have therefore not been undertaken.

It is however notted that a pore-water pressure 'field' (which will not be readily identified with conventional standpipe installations) will be present within the low permeability London Clay. The long-term application of these water pressures to the substructure will be accounted for in the design.

2.6 Basement Impact Assessment Summary

A basement impact assessment has also been undertaken by A-Squared for the 12-unit scheme with the following conclusion:

The BIA has concluded that the risks to the adjacent properties, slopes, and infrastructure (including ultimate and serviceability limit state considerations) is limited and will be mitigated in a reasonable fashion as part of design development. The BIA has concluded that there is a very low risk of groundwater and surface water flooding and that there are no impacts to the wider hydrogeological environment as a result of the proposed development and there are no impacts to the wider hydrological environment.

2.7 Ground Movement Assessment Summary

The potential impact/damage induced on primary façade/wall elements of the buildings surrounding the proposed scheme have been evaluated on the basis of the calculated ground movement. In total, 97 façades of the neighbouring buildings were considered for the study. The results from the GMA suggest that the maximum damage classification for the neighbouring properties is Category 1 – Very Slight.

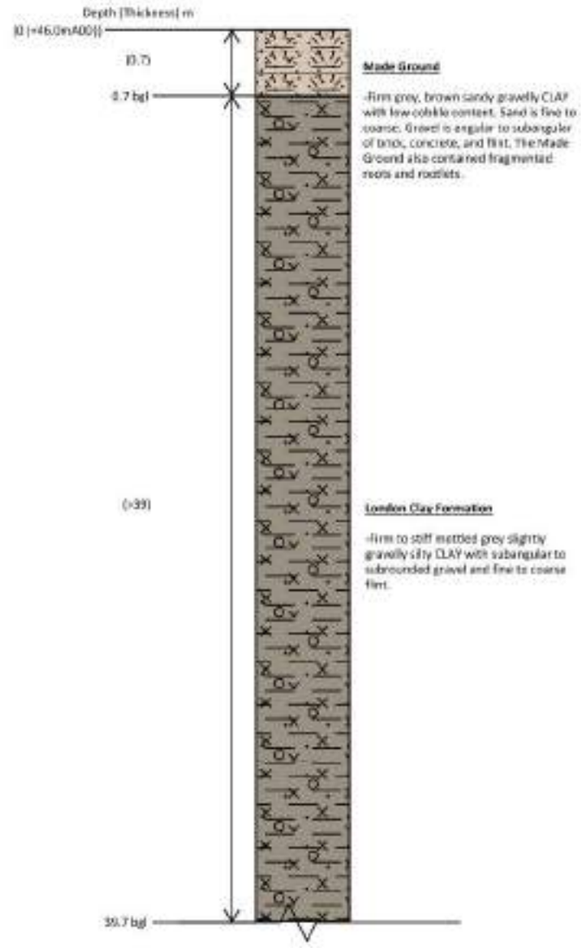


Image 18 - Assumed Existing Ground Conditions

3. Proposed Works

3.1 Proposed Development

The following description should be read in conjunction with Domvs proposals in Appendix D and HTS drawings in Appendix E. The proposed scheme comprises the following:

+ Construction of a construction of a lower ground with further basement level below under the footprint of the majority of the site. The new basement will occupy a total area of approximately 56m x 41m. The basement is proposed to be formed in reinforced concrete.
+ Demolition of the existing structure. Three new blocks will be formed by RC frames for the superstructure.

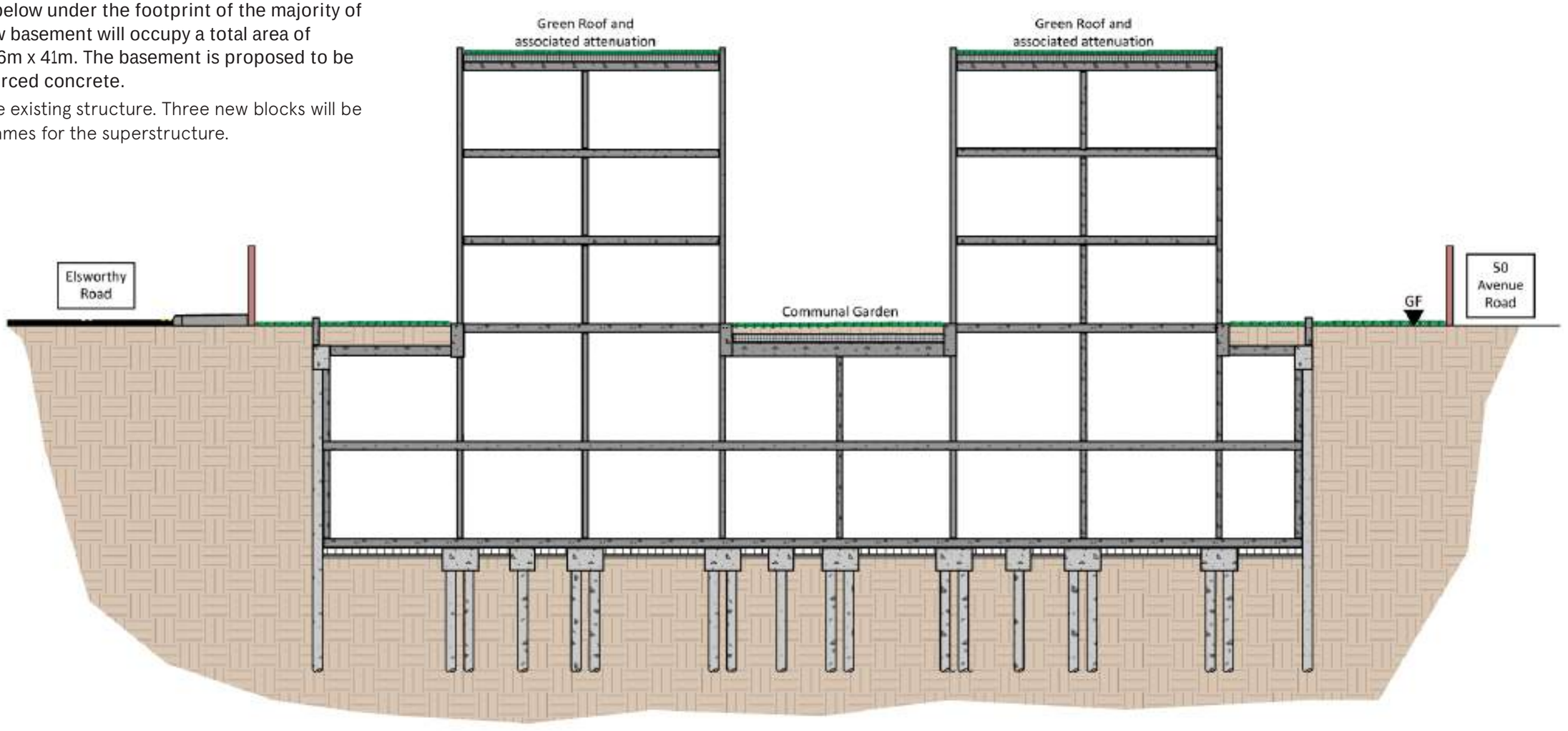


Image 19 - Proposed Section Sketch

3.2 Proposed Substructure

The basement structure for the scheme has been proposed based on HTS's extensive experience of basement construction methodologies and techniques. The proposals mitigate the risk of damage caused by excessive movement, to the retained façade, neighbouring structures and nearby infrastructure.

The shape and size of the basement is dependent on the root protection zones as outlined in the original arboriculturalist report carried out by Landmark Trees in October 2021. An updated report is being carried out by Landmark Trees in May 2022 and can be found as Appendix F.

The new basement perimeter walls will be formed using a 450mm dia. secant piled wall with a reinforced concrete liner wall internally (approx. nominal 440mm thickness). It is anticipated that the piled walls will be temporarily propped to allow for the basement excavation to take place down to formation level.

The depth of the proposed Lower Ground Floor level of the basement is assumed to be approximately 4.2m below Ground Floor FFL, with the lowest level (Basement level) approximately 9.2m below ground Floor FFL. The formation level of the pool, jacuzzi and associated service void is a further 2.2m below Rear Basement Floor FFL. All levels subject to change following scheme development.

The proposed basement will be designed to achieve a Grade 3 level of waterproofing protection as outlined in BS 8102:2009. A bentonite lining (or similar) will be provided between the reinforced concrete liner. An internal drained cavity system will act as a secondary barrier. As part of this system, any water seepage will be collected in a sump and be pumped up to a high level where it will drain under gravity into the main drainage system.

The new 350mm thick basement slab, lower ground floor slab, ground floor slab and liner walls will be constructed using reinforced concrete to form a stiff concrete box. The reinforced liner walls will be designed to resist hydrostatic pressures while the contiguous piled wall will resist soil and surcharge pressures. The basement slab will also be designed to resist any hydrostatic or heave pressures, with heave board being introduced below the suspended slab. Tension piles may be required to ensure the basement box is not buoyant in the permanent case.

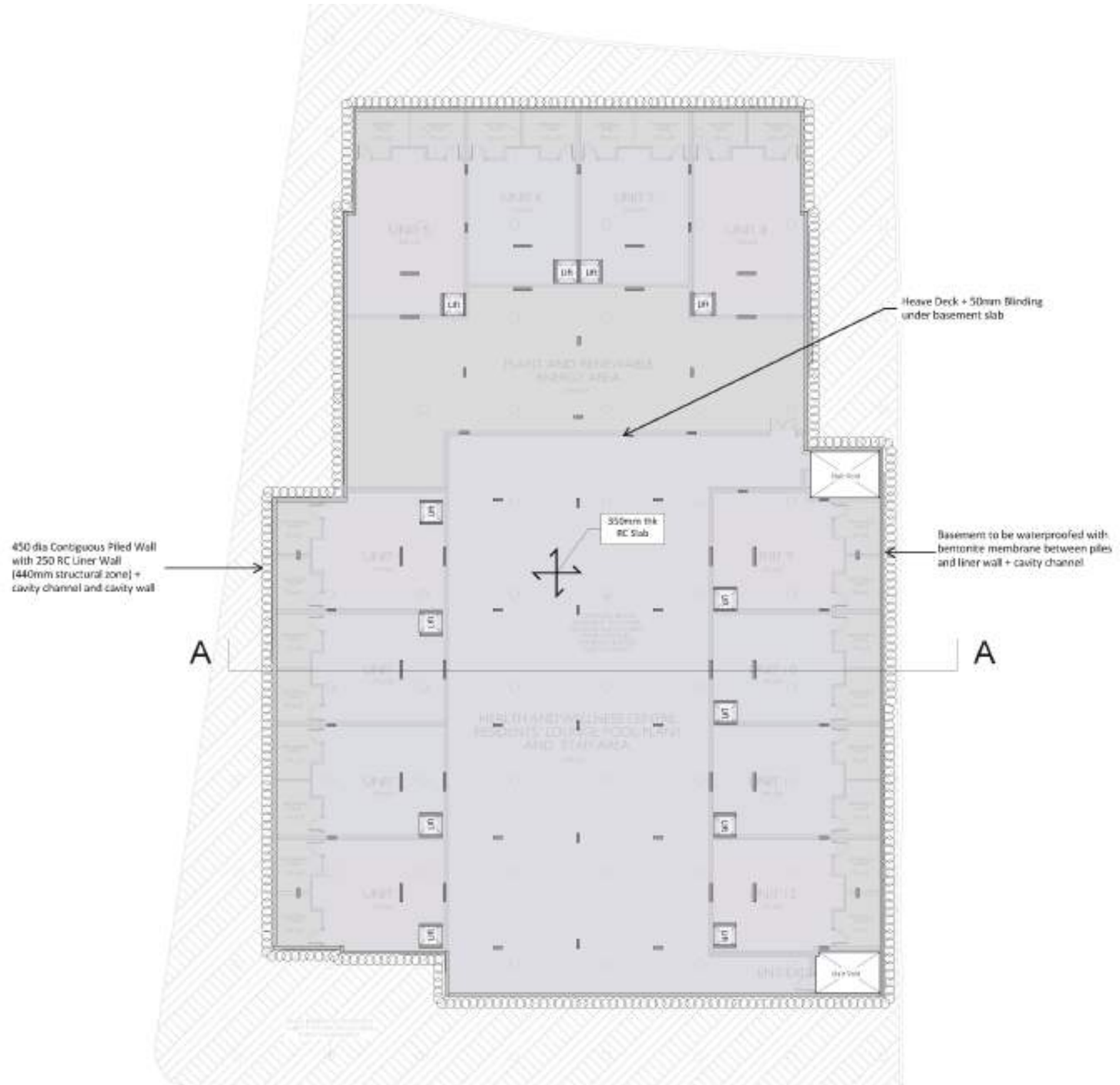


Image 20 - Proposed Basement Plan

3.3 Proposed Superstructure

The new superstructure will be constructed as an RC frame. The floor structure is to consist of RC flat slabs spanning onto RC walls and columns. Stability is provided by RC walls around the lift core and stairs. Horizontal loads are transferred via diaphragm action to the core/shear walls and subsequently transferred to the ground via piles below. Vertical loads are transferred to the RC walls and columns which are further transferred to the contiguous piles of the basement wall or pile caps below basement level. There are no significant transfers to note, however at ground floor level the slab steps locally to allow for 1m of soil to be reinstated to form the proposed external ground level. The steps will be formed by introducing downstand beams at the location of the steps. Further downstand beams have been introduced to form openings in the slab where lightwells are proposed.

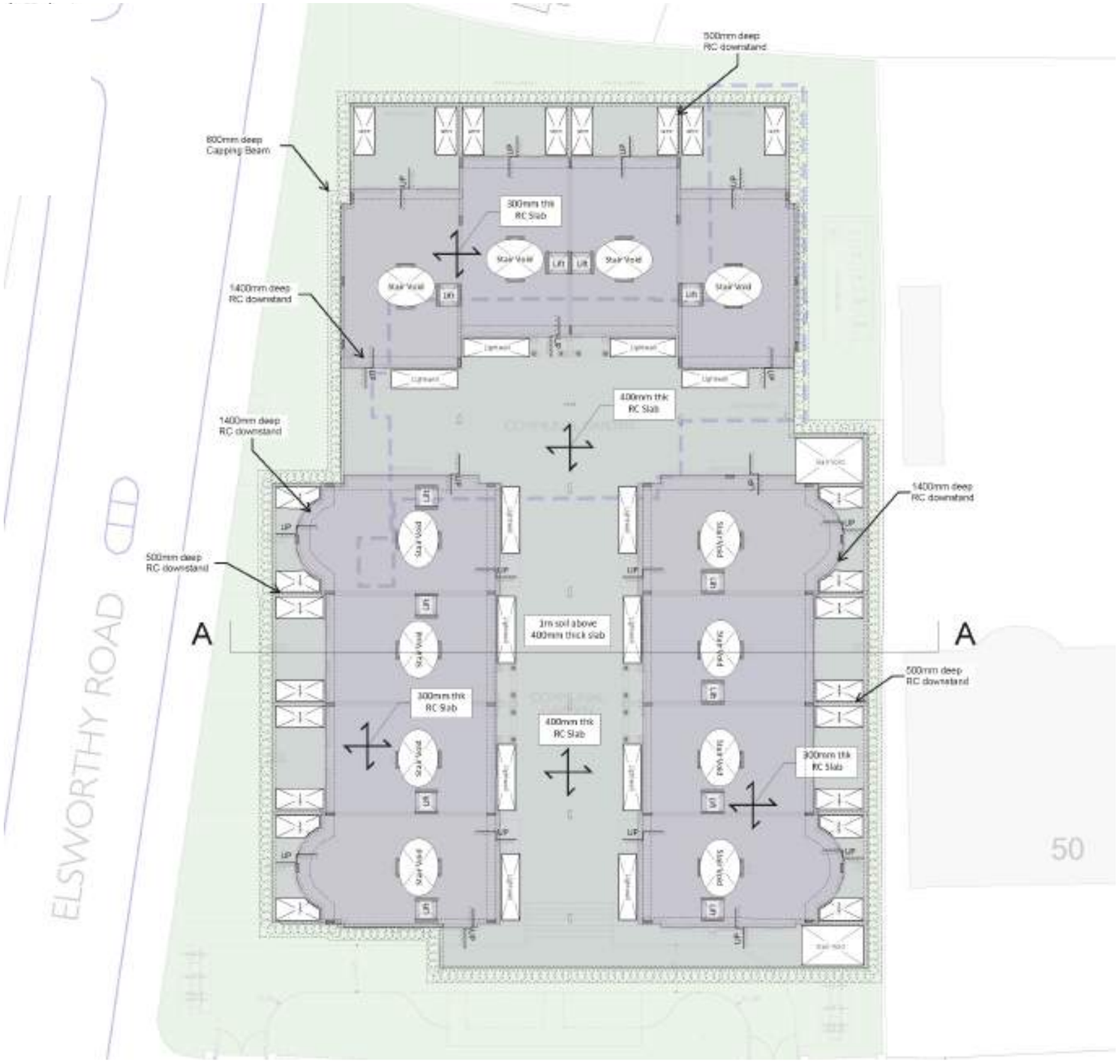


Image 21 - Proposed Ground Floor Plan

4. Temporary Works and Sequence of Construction

4.1 Construction Generally

It is assumed that the below measures and assumed sequence of works are considered in the eventual design and construction of the proposed works. Refer to the drawing in Appendix E for full HTS assumed sequence of construction for the basement works.

4.2 Site Set-Up

It is assumed that deliveries, removals and access for operatives will take place directly from Elsworthy Road. Deliveries will be made inside the site by vehicles reversing onto the site under instruction from a trained banksman. When deliveries are made, the pavement will be marshalled by 2no. banksmen who will prevent pedestrians from entering the work area and stop work if necessary, allowing them to pass safely. It is assumed site accommodation and welfare facilities will be provided within the main property during the duration of the works. It may be possible to utilise the existing courtyard space for storage and deliveries on initial set up.

Construct site hoardings, Entrance gates and possibly a temporary pavement tunnel on pavement boundaries to provide protection to passers-by from site activities. It is assumed site accommodation and welfare facilities will be provided within the main property during the duration of the works. Terminate/protect any live services and temporarily divert all active drainage. Install temporary drainage as required for site facilities.

Monitoring survey targets will be installed on the party walls to either side of the site (57 Elsworthy Road and 50 Avenue Road) to monitor any potential movement that may occur during works. Movement should be monitored to an agreed frequency and accuracy in line with a traffic light warning system. This will be agreed during the party wall negotiations.

It is assumed that excavated earth can be collected by a waiting lorry or skip located within the site boundary. The site may also accommodate a conveyor to aide earth removals.

4.3 Proposed Sequence of Construction

4.3.1 Demolition

Soft strip of the existing property. Demolition of the existing structures on site and grubbing out of all foundations. When the structure has been demolished, the piling mat should be installed above the extents of the new basement.

4.3.2 Piling

Following installation of the piling mat, the contiguous pile wall should be installed from ground level, around the perimeter of the proposed basement. The contiguous piled wall should be piled to a depth of no less than 2m below the bottom of the basement concrete box. RC capping beams are to be cast to the top of the piled wall to act as a waling beam for the temporary works. Temporary piles are to also be installed at ground floor level. These piles are to be utilised for propping of the basement in the temporary case. In the permanent case, following the piles are to be cut to the required level and be utilised as the tension piles for the basement.

4.3.3 Excavation Phase 1

The principles for removal of spoil shall be agreed. Given the scope of works it is likely that spoil can be removed from the building to a holding skip located in the courtyard. Grab lorries may be used to remove spoil from the skip.

The basement area is to be excavated to approximately 10m below ground floor level. As the excavation continues temporary waler beams and props will be installed close to the proposed slab levels to minimise defections of the piled wall until the permanent slab props are installed.

Once sufficient temporary works are installed the entire basement is to be excavated down to Basement Floor formation level.

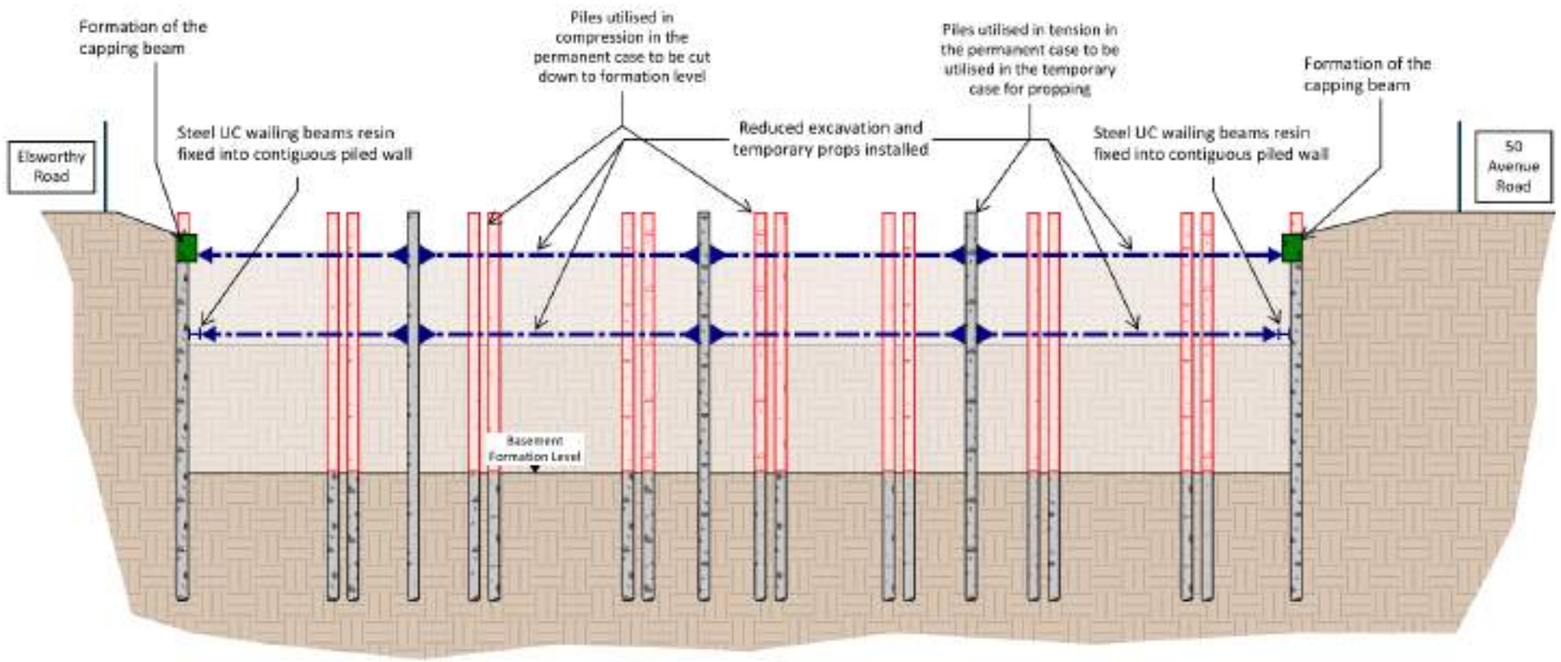


Image 22 - Excavation Sequence

4.3.4 Casting of Basement Slabs and Liner Walls

At formation level, below ground drainage will be installed where required and a blinding layer is to be cast. The reinforcement for the pilecaps will be laid following this with the RC pile caps being cast to the underside of the basement slab. The basement slab reinforcement will be fixed including the started bars for the RC walls and columns. Once poured and cured, the liner walls and will be fixed and poured.

4.3.5 Construction to Ground Floor

The internal RC columns and walls surrounding the stair and lift voids can be constructed before laying the reinforcement for and pouring the slab at lower ground floor. Once this has cured, the same sequence can be repeated to form the structure up to the underside of the Ground Floor. Reinforcement for the slabs and the associated downstands to form the steps in the slabs are to be installed alongside required starter bars for the vertical superstructure elements. The slab can be cast following this. Once the ground floor slab has been poured and cured and the basement box is fully installed the temporary propping can be removed. A suitable 'mole hole' should be allowed for in the ground floor slab to allow for removal of temporary works.

4.3.6 Superstructure Construction

Once the ground floor slab has been cast, the RC superstructure works can commence. The superstructure frame of columns walls and slabs will be cast on site in sequence. Primarily the columns and walls will be cast up to the underside of the first-floor slab. The reinforcement for the first-floor slab will be laid and the concrete poured and cured. Once the concrete has cured to a sufficient strength, the same sequence can be followed to form the second floor and the roof. The walls positioned around the stairs and lift voids provide the laterally stability for the RC structure, with the slabs acting as a diaphragm to translate any lateral loadings back to these elements where the loads will be transferred down to the foundations.

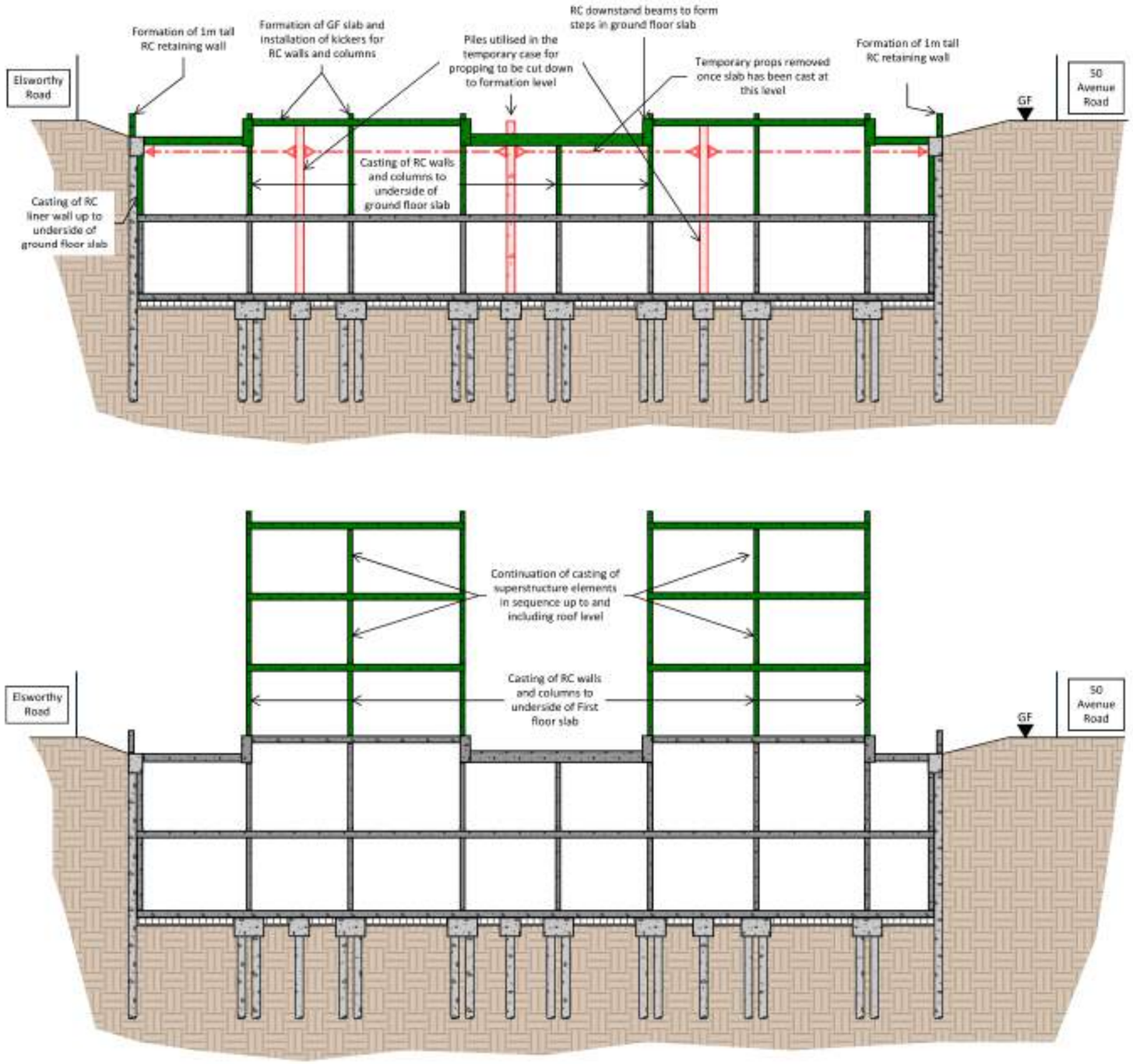


Image 23 - Basement and Superstructure Construction

Appendix A

Geotechnical Site Investigation Report

HEYNE TILLETT STEEL

Appendix B

Existing Site Information

Co-ordinate Table			
Station	Easting	Northing	Level
1	527041.587	183870.717	46.607
2	527013.931	183874.682	46.540
6	527032.774	183845.369	46.041
20	527027.814	183867.804	46.087
21	527011.713	183896.756	46.619
22	527071.952	183928.908	47.015
23	526958.413	183831.585	44.949
50	527018.583	183849.105	46.359

All levels related to Ordnance Survey active GPS network, at survey station 20.

DISCLAIMERS

Every effort has been made to confirm tree species on site, yet it is advised to confirm these details with an arborist before proceeding with any design.

Every effort has been made to confirm drainage run, type and size on site, yet it is advised to check these details against statutory authority records before proceeding with any design.

KEY

Survey control station △ 5
Gate (single)
Gate (double)
Tree Spread and Girth shown to scale
Banking
Foliage Line
Drainage run, direction of flow and pipe size 100
Approximate Position

ABBREVIATIONS

Air Handling Unit	AHU	Water Meter	WM
Belisha Beacon	BB	Eaves Level	EL
Bollard	BD	Ridge Level	RL
Borehole	BH	Roof Level	RFL
BT Inspection Cover	BT	Soffit Level	SFL
Cable Television Cover	CTV	Threshold Level	THL
Drainage Channel	DC	Parapet Wall Level	PWL
Electricity Cover	EC	Finished Floor Level	FFL
Electricity Pole	EP	Head Level	HL
Earth Rod	ER	Sill Level	SL
Fire Hydrant	FH	Cover Level	CL
Gas Valve	GV	Invert Level	IL
Gate Post	GP	No Visible Pipes	NVP
Gully	GY	Unable to Lift	UTL
Inspection Cover	IC	Foul Water	FW
Junction Box	JB	Sump Level	SUL
Kerb Outlet	KO	Surface Water	SW
Lamp Post	LP	Brick Paviors	BP
Manhole	MH	Concrete	CON
Marker Post	MK	Concrete Paving Slabs	CPS
Post	P	Flower Bed	F\B
Pipe	PE	Shrub Bed	S\B
Road Sign	RS	Tactile Paving	TAC
Rodding Eye	RE	Unsurfaced	U\S
Marker Post	MK	Brick Wall	BW
Sign Post	SP	Retaining Wall	RW
Stop Valve	SV	Chainlink Fence	CLF
Stop Tap	ST	Chestnut Paling Fence	CPF
Telegraph Pole	TP	Iron Railing Fence	IRF
Traffic Light	TL	Metal Security Fence	MSF
Vent Pipe	VP	Post and Chain Fence	PCF
Post and Rail Fence	PRF	Post and Wire Fence	PWF
Wooden Panel Fence	WPF		

Client
DOMVS LONDON

Project
52-54 AVENUE ROAD, LONDON, NW8

Title
TOPOGRAPHICAL SURVEY

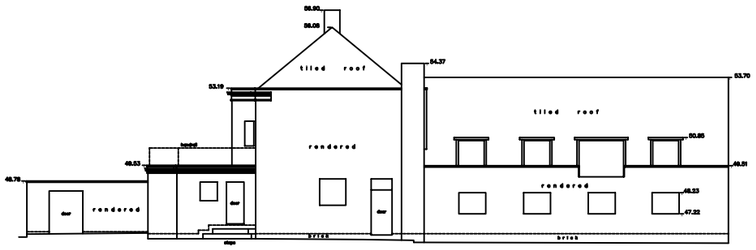
Drawing Number
TS21-451-1

Revision	Description	Date

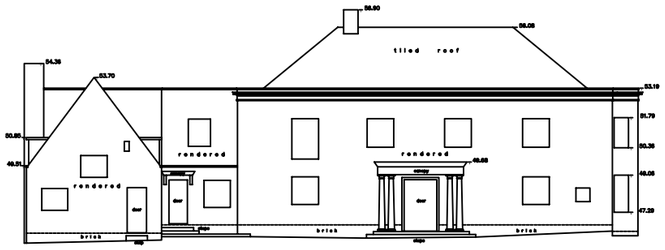
Scale	Sheet	
1:200@A1	1 of 1	
Drawn by: JGS	Checked by: AJB	Date of Survey: SEP 2021

Surveys
Tel: 01438 841300
enquiries@terrainsurveys.co.uk
www.terrainsurveys.co.uk

Accreditations
chartered ices
THE SURVEY ASSOCIATION
ISOQAR REGISTERED 0026 UKAS QUALITY MANAGEMENT
Certificate Number 7198 ISO 9001
Constructionline Gold Member
CHAS® Accredited Contractor CHAS.co.uk



SOUTH EAST ELEVATION



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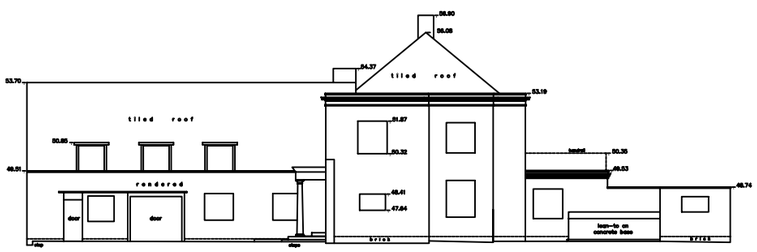
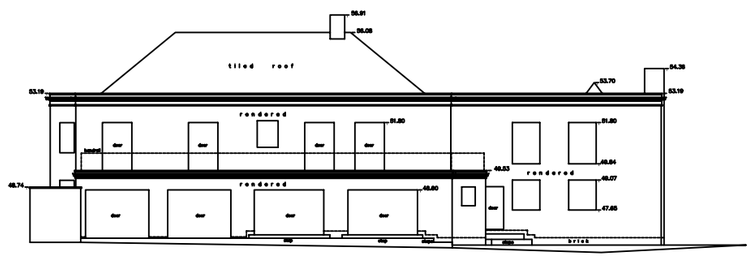


NORTH WEST ELEVATION



SOUTH WEST ELEVATION

Revision	Description	Date

LEGEND

To view individual floors all layers begining with " C " must be turned on and thawed, along with all of the layers begining with the relevant floor prefix.

FLOOR PREFIXES
B = Basement
G = Ground
1 = First Floor
2 = Second Floor
3 = Third Floor
4 = Fourth Floor

p = Plinth Height
s = Sill Height
h = Head Height
c = Ceiling Height
b = Beam Height
sp = Spring Point Height
fc = False Ceiling Height
ss = Structural Ceiling Height
+35.20 Detailed spot level
52.76 Elevation spot levels

RL = Ridge Level
EL = Eaves Level
RFL = Road Level
SFL = Soffit Level
THL = Threshold Level

Elevation\Section Line
Box partition
Step up
Slope up
Stair cut line
Exposed Beam
Hidden Beam
Fit Work

terrain
Land and Architectural Surveyors
North Terrace Ltd
Suite 1
Chelsea Innovation Centre
Building 2
Chelsea
Creek
London
SW6 2GA
Tel 0845 0520000
Fax 0845 0520007
enquiries@northterrace.co.uk
www.northterrace.co.uk

Client
HANOVER ESTATES LTD

Project
**52-54 AVENUE ROAD
LONDON, NW8**

Title
ELEVATIONS

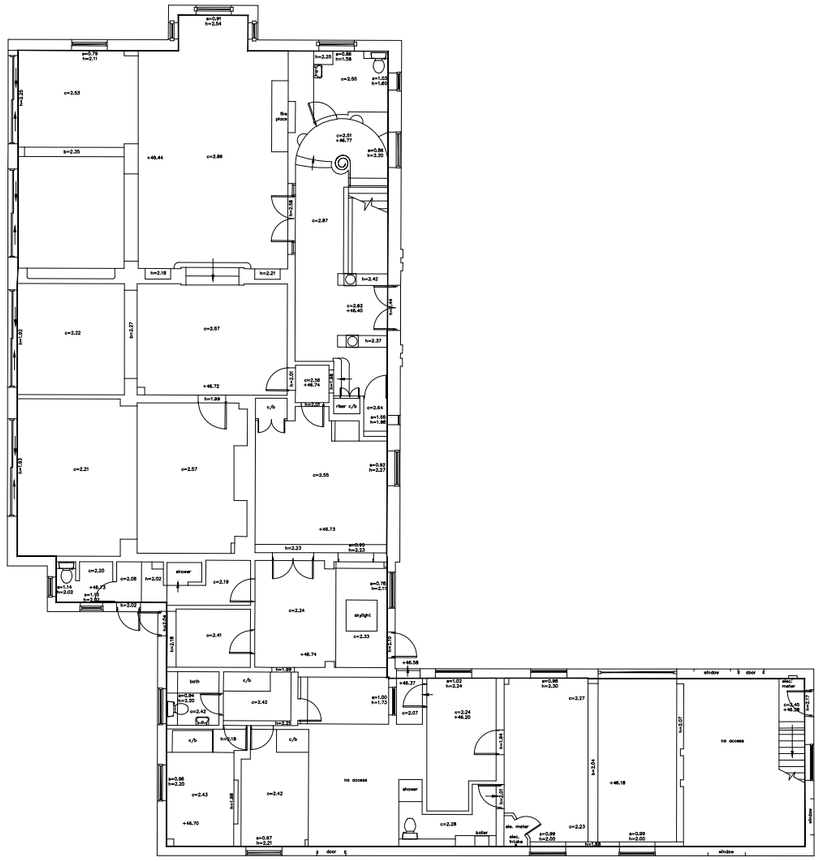
Drawn by	Checked by
NAA	CDW
Scale 1:100	Date AUG 2006

Drawing Number TS06-102N\2

Sheet 1 of 2

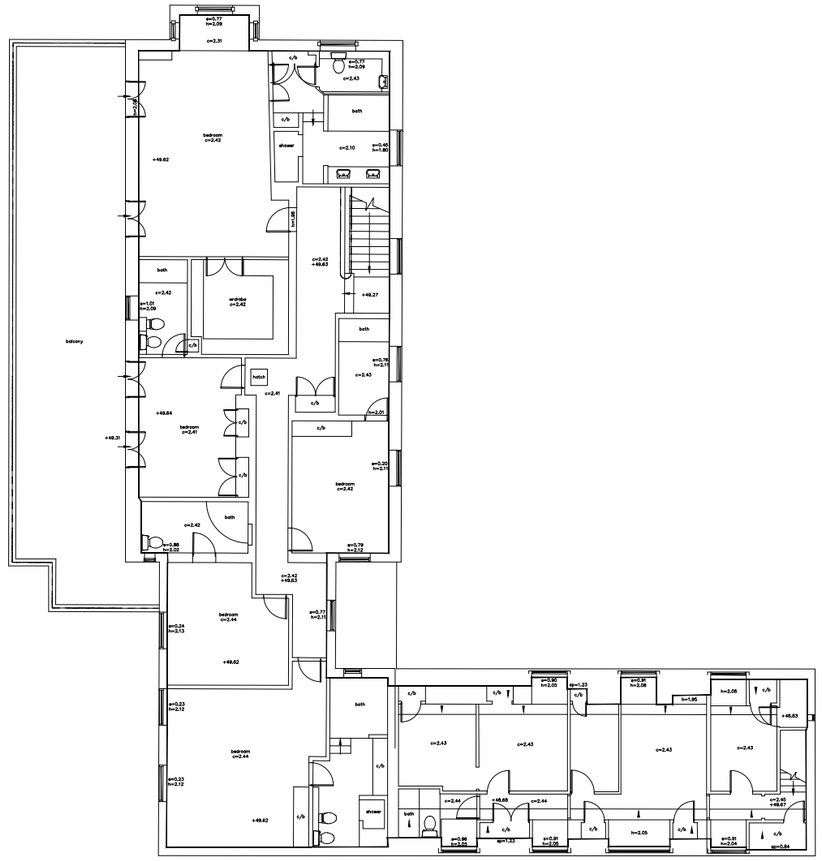
All levels related to OSBM on N face of NE corner of No 1a Norfolk Road.

Value 44.03m



Ground Floor

Gross Internal Area=384.2sqm



First Floor

Gross Internal Area=293.82sqm

2 0 10 metres

SCALE BAR

Revision	Description	Date

LEGEND

To view individual floors all layers begining with " C " must be turned on and thawed, along with all of the layers begining with the relevant floor prefix.

FLOOR PREFIXES

B = Basement
G = Ground
1 = First Floor
2 = Second Floor
3 = Third Floor
4 = Fourth Floor

p = Plinth Height
s = Sill Height
h = Head Height
c = Ceiling Height
b = Beam Height
sp = Spring Point Height
fc = False Ceiling Height
sc = Structural Ceiling Height
+35.20 Detailed spot level
52.76 Elevation spot levels

RL = Ridge Level
EL = Eaves Level
RFL = Roof Level
SFL = Soffit Level
THL = Threshold Level

A A` Elevation\Section Line

Box partition
Step up
Slope up
Stair cut line
Exposed Beam
Hidden Beam
Fit Mark

terrain
Land and Architectural Surveyors

Terrain Surveys Ltd
Bridge Chambers
28a High Street
Welwyn
Herts
AL6 9EQ

Tel 01438 841300
Fax 01438 841301
enquiries@terrainsurveys.co.uk
www.terrainsurveys.co.uk

Client
G2 LIMITED

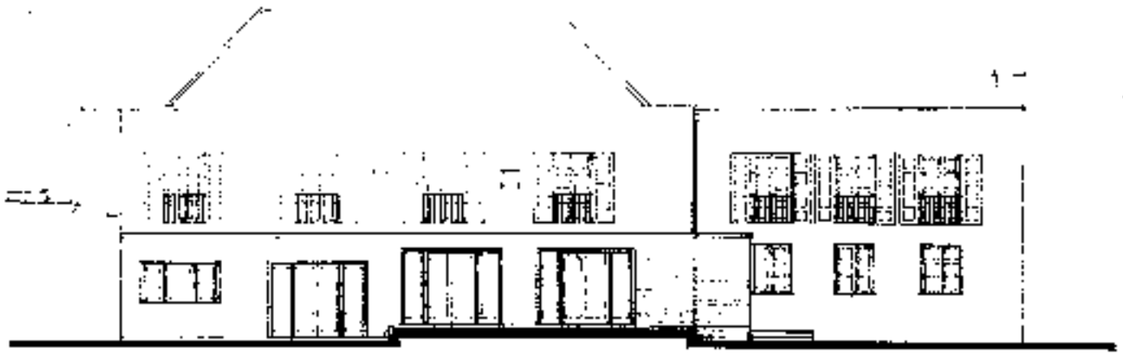
Project
52-54 AVENUE ROAD
LONDON NW8

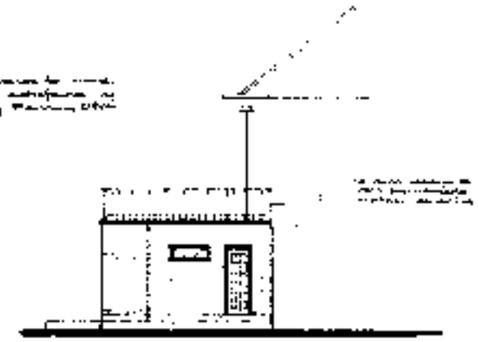
Title
FLOOR PLANS

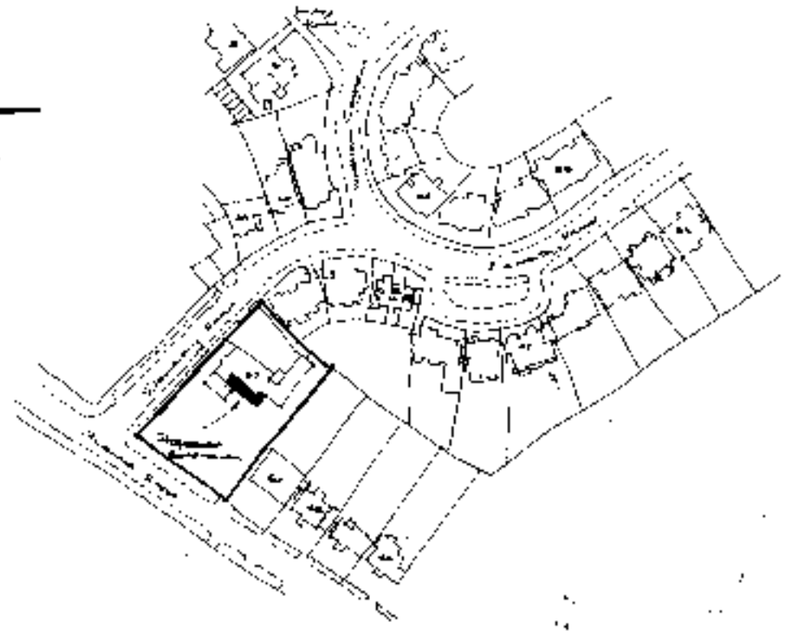
Drawn by	Checked by
JL	NAA
Scale 1:100	Date May 2012
Drawing Number TS12-157J/1	Revision 0
Sheet 1 of 1	

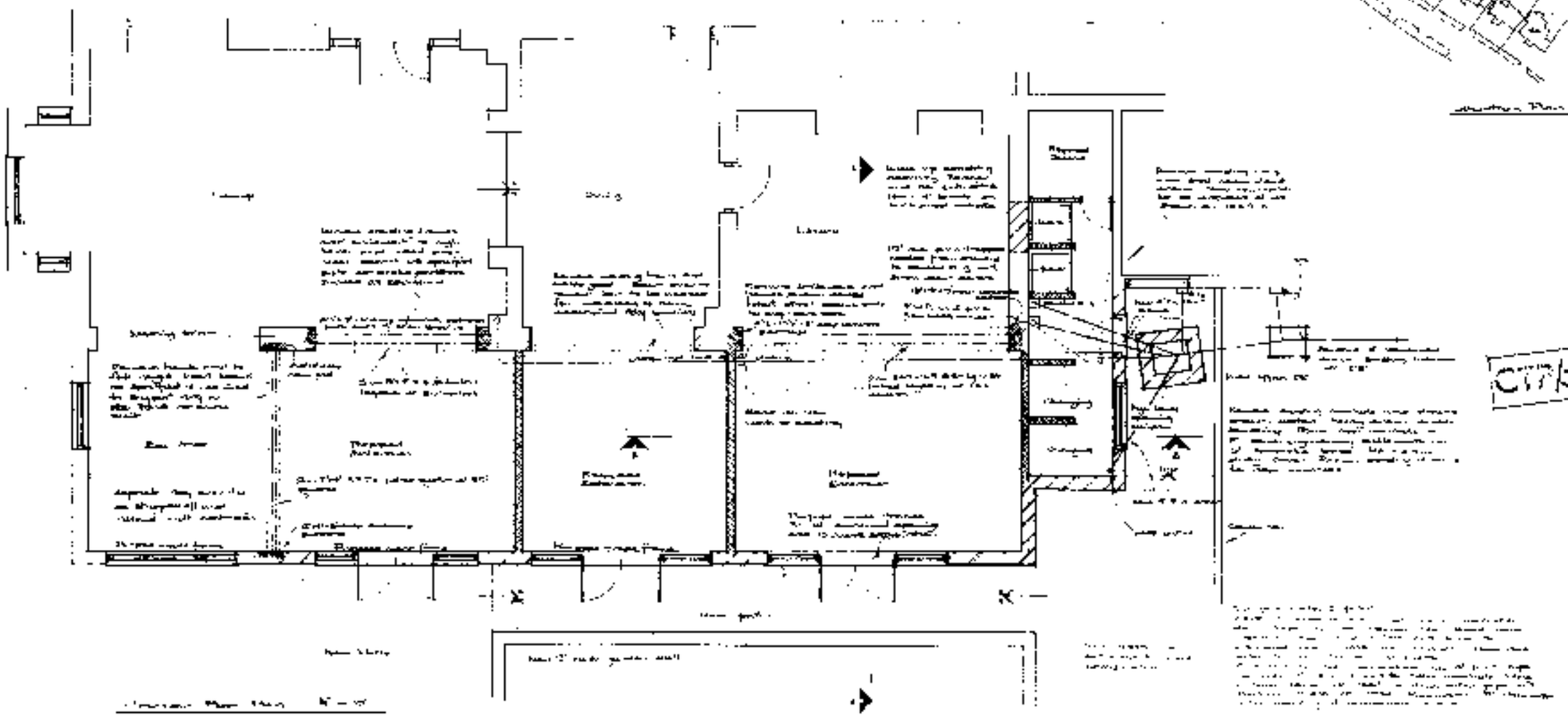
All levels related to previos survey drawing number TS06-102N.

Value









LONDON BOROUGH OF CAMDEN
27 AUG 1980
PLANS APPROVED
ON BEHALF OF THE COUNCIL

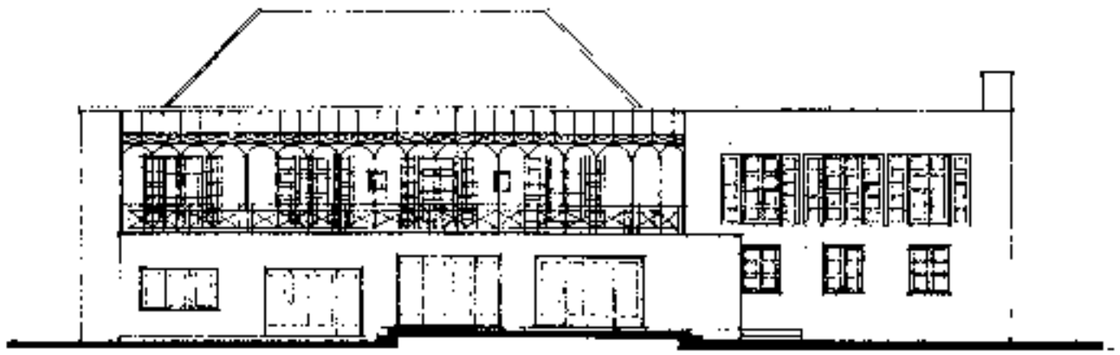
CTP/J38/4/11/30640

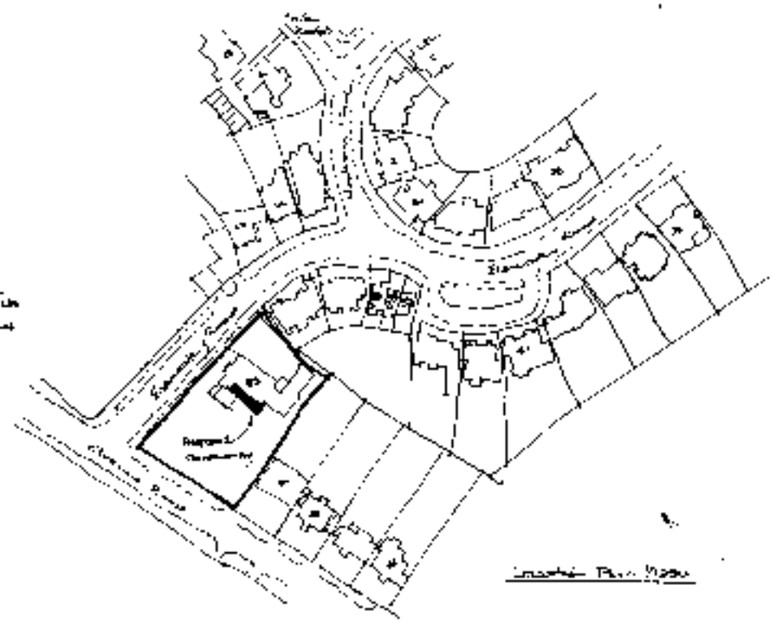
52 AVENUE ROAD NW8

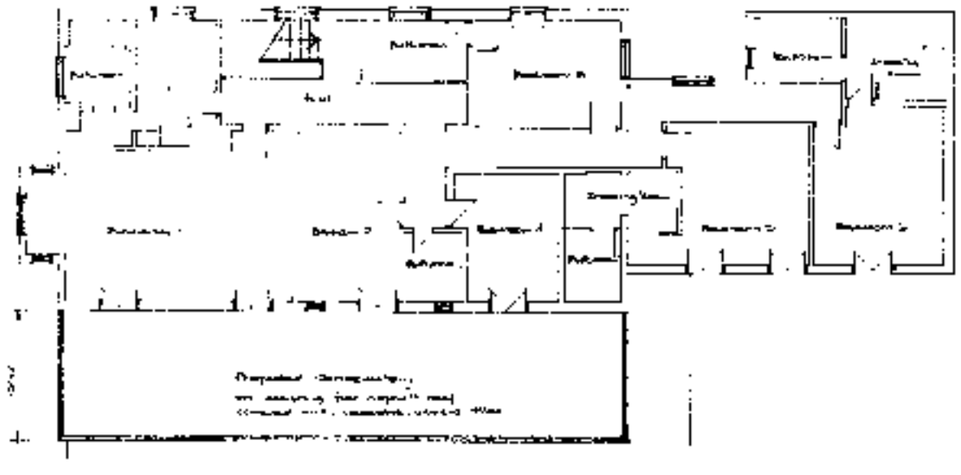
TEAM CONSULTANTS.
183/191 BALLARDS LANE,
FINCHLEY,
LONDON, N3 1LL

01-349 2877

Scales	Date	Dwg.No.





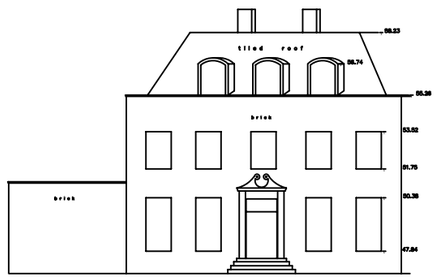


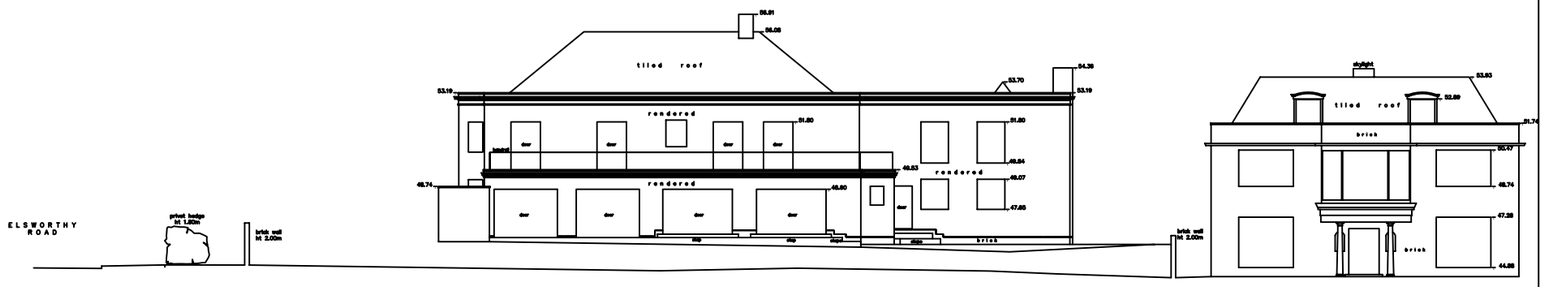
LONDON BOROUGH OF BARNET
TOWN AND COUNTRY PLANNING ACTS
27 AUG 1980
PLANS APPROVED
ON BEHALF OF THE COUNCIL

CTP/58/4/11/30640

TEAM CONSULTANTS.
183/193, BALLARDS LANE,
FINCHLEY,
LONDON, N3 1LL.
01-349 2877

Scales	Date	Dwg. No





SOUTH WEST ELEVATION AND STREET SCENE

Scheme 43.03a

Revision	Description	Date

LEGEND

To view individual floors all layers begining with " c " must be turned on and thawed, along with all of the layers begining with the relevant floor prefix.

FLOOR PREFIXES
B = Basement
G = Ground
1 = First Floor
2 = Second Floor
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4 = Fourth Floor

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s = Sill Height
h = Head Height
c = Ceiling Height
b = Beam Height
sp = Spring Point Height
fc = False Ceiling Height
sc = Structural Ceiling Height
+35.20 Detailed spot level
+52.76 Elevation spot levels

RL = Ridge Level
EL = Eaves Level
RFL = Roof Level
SFL = Soffit Level
THL = Threshold Level

Elevation\Section Line

Box partition
Step up
Slope up
Stair cut line
Exposed Beam
Hidden Beam
FR Mark

terrain
Land and Architectural Surveyors
Tenth Bumps Hill
Cathole Hamilton Radio
Kilburn Road
Cathole
Kent
TN9 2RH
Tel 01622 832555
Fax 01622 832557
cathole@terrainsurveys.co.uk
www.terrainsurveys.co.uk

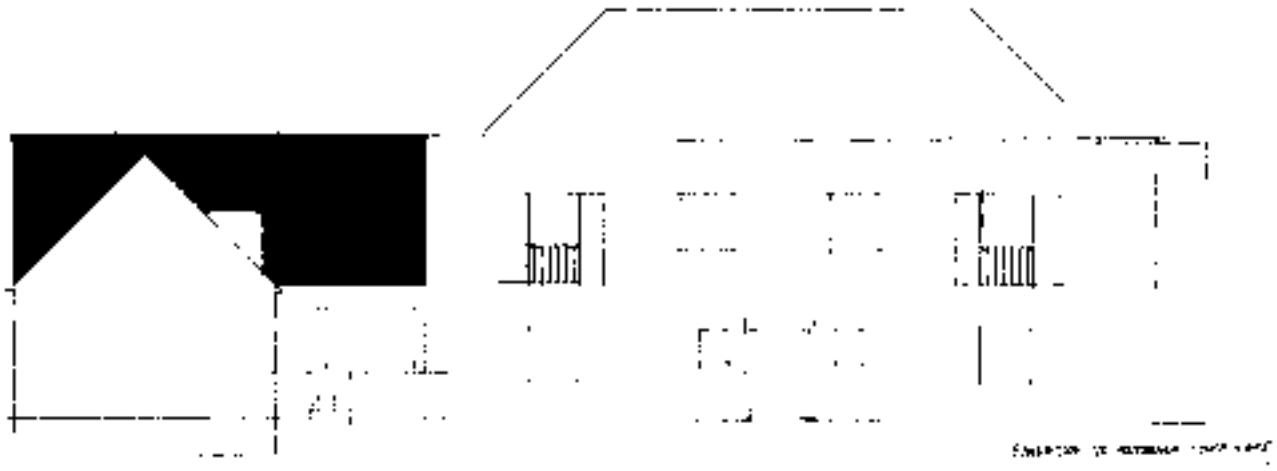
Client
HANOVER ESTATES LTD

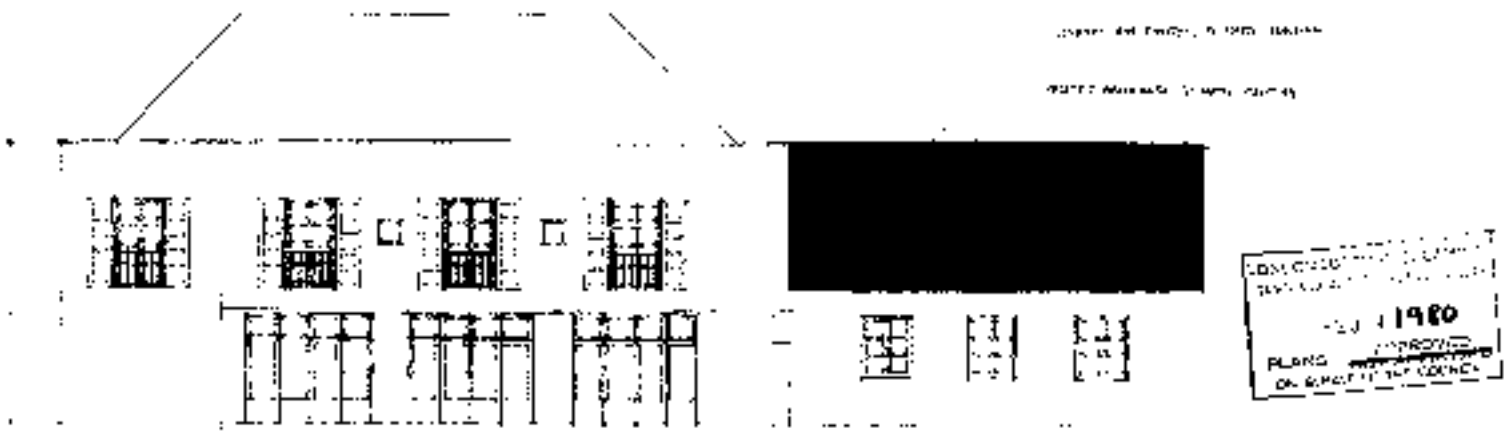
Project
**52-54 AVENUE ROAD
LONDON, NW8**

Title
ELEVATION / SECTION

Drawn by	Checked by
NAA	CDW
Scale 1:100	Date AUG 2006
Drawing Number	TS06-102N\3
Sheet 2 of 2	

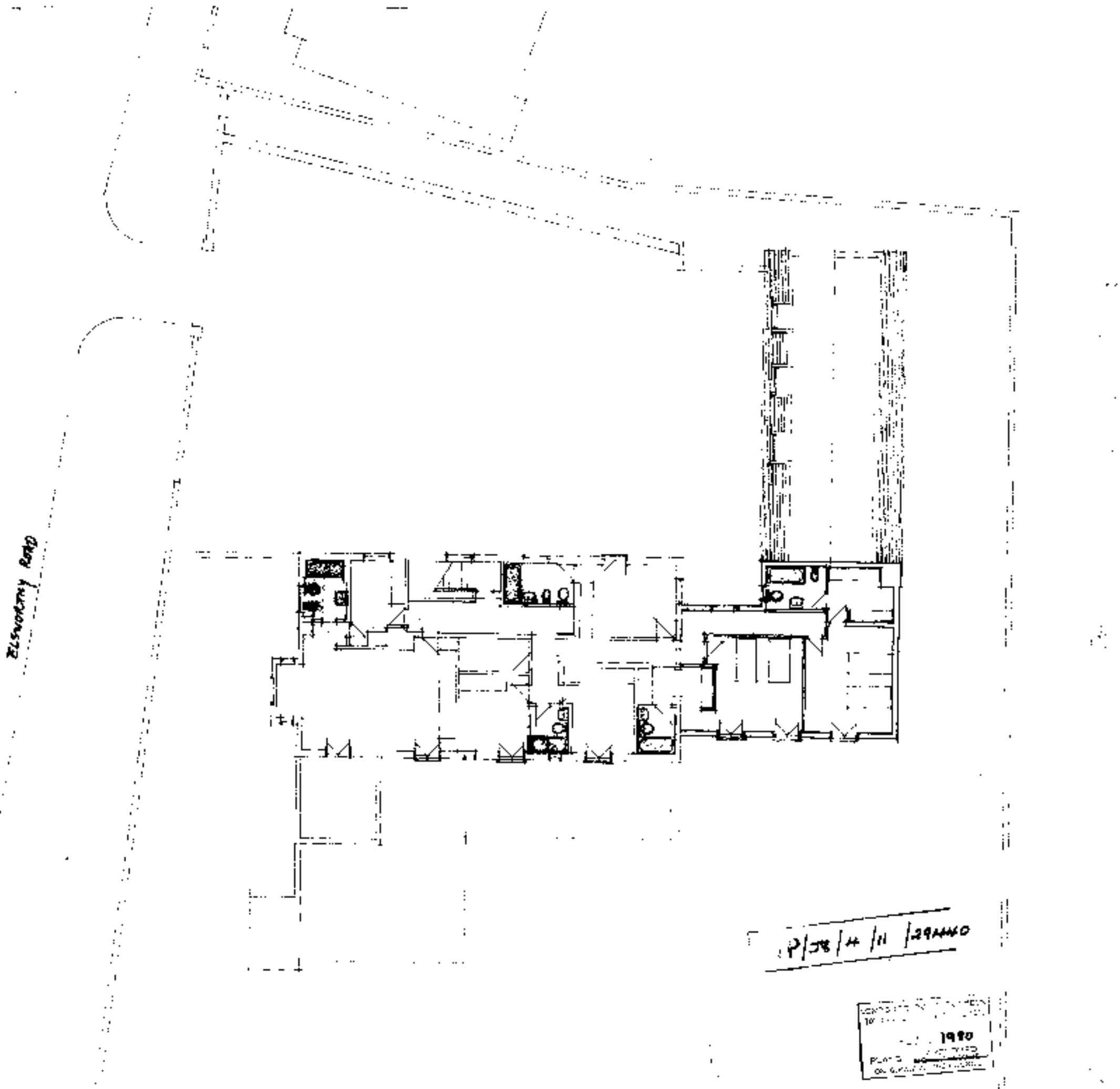
All levels related to OSBM on N face of NE corner of No 1a Norfolk Road.
Value 44.03m





CTS 38/4/11/Q9NW

52 AVENUE ROAD, LONDON N.W.8.
BEDROOM ELEVATION AT FIRST FLOOR LEVEL.
ELEVATIONS TO COURTYARD AND GARDEN.
SCALE 1/8"~1' DRG NO AE/11/2. DEC 79.
PETER, THOMSON ASSOCIATES.



P/38/11/29MMO

1980

52 AVENUE ROAD, LONDON NW8.
BEDROOM EXTENTION AT FIRST FLOOR LEVEL.
PLAN AT 1ST FLOOR LEVEL.
SCALE 1/8"=1' DRAWING NO 11/1 DATE OCT 79
PETER PHIPSON ASSOCIATES.

HEYNE TILLETT STEEL

Appendix C

Existing Building Report

HEYNE TILLETT STEEL

Appendix D

Architectural Proposals

N

70

56

THE
PAVILION

COMMUNAL GARDEN

EXIT

WEST
BLOCK

COMMUNAL
GARDEN

EAST
BLOCK

50

ELSWORTHY ROAD

AVENUE ROAD

0 20M

PLANNING

DOMVS
LONDON

WWW.DOMVSLONDON.COM

PROJECT:
AVENUE GARDENS

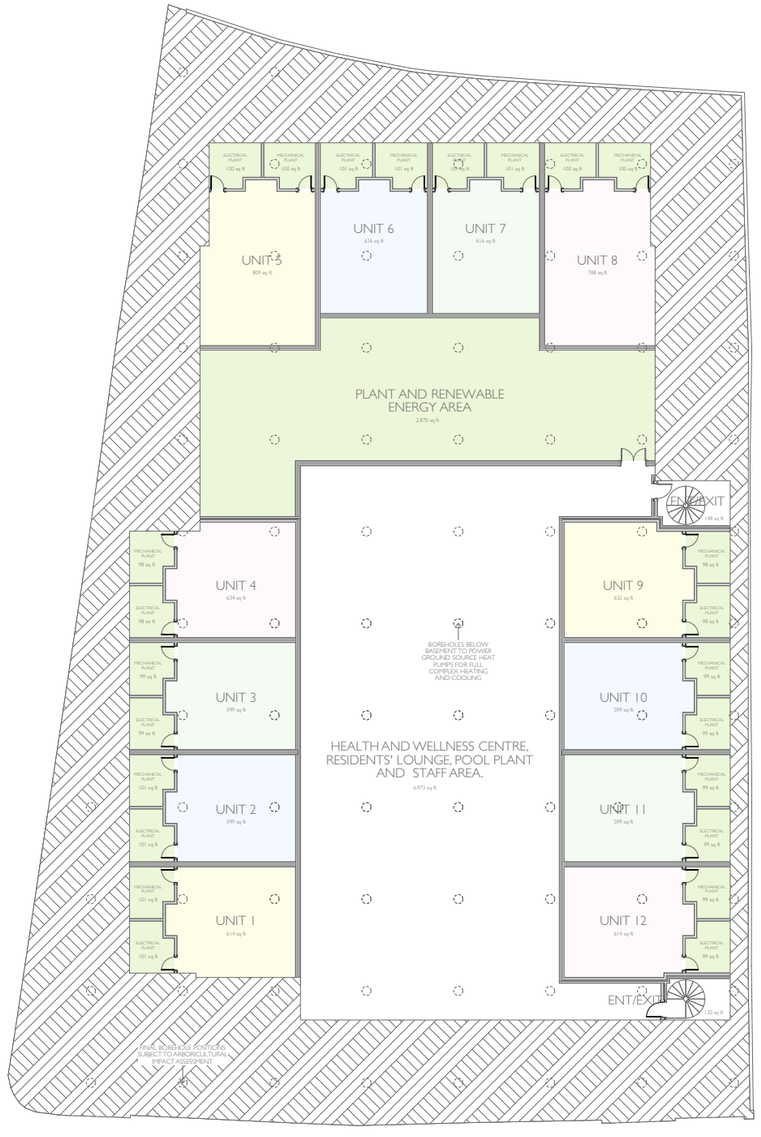
TITLE:
PROPOSED SITE PLAN
12 UNIT SCHEME

Date: APRIL 2022

Scale: 1:200 @ A1 Drawn: SDK

DRAWING NUMBER: 208-252C

N



0 20M

PLANNING

DOMVS
LONDON

WWW.DOMVSLONDON.COM

PROJECT:
AVENUE GARDENS

TITLE:
PROPOSED BASEMENT PLAN - 12 UNIT SCHEME

Date: APRIL 2022

Scale: 1:200 @ A1 Drawn: SDK

DRAWING NUMBER: 208-253B

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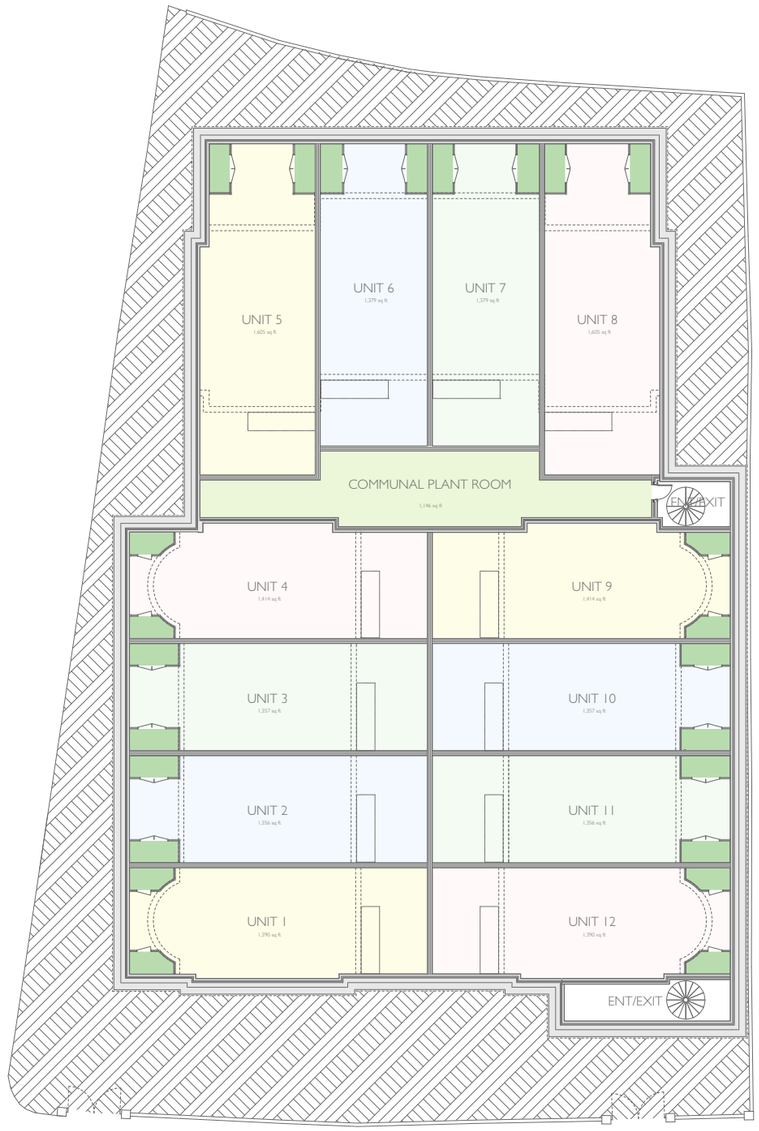


0 20M

PLANNING

DOMVS
LONDON

WWW.DOMVSLONDON.COM

PROJECT:
AVENUE GARDENS

TITLE:
PROPOSED LOWER GROUND FLOOR PLAN - 12 UNIT SCHEME

Date: APRIL 2022

Scale: 1:200 @ A1 Drawn: SDK

DRAWING NUMBER: 208-254B

N

70

56

50

ELSWORTHY ROAD

AVENUE ROAD

PRIVATE GARDEN

UNIT 5
916 sq ft

UNIT 6
864 sq ft

UNIT 7
864 sq ft

UNIT 8
916 sq ft

GLASS LIGHT

RAINWATER PIPE

COMMUNAL GARDEN

EXISTING BUILDING

ENT

UNIT 4
878 sq ft

UNIT 9
878 sq ft

UNIT 3
819 sq ft

UNIT 10
819 sq ft

UNIT 2
819 sq ft

UNIT 11
819 sq ft

UNIT 1
950 sq ft

UNIT 12
950 sq ft

0 20M

PLANNING

DOMVS
LONDON

WWW.DOMVSLONDON.COM

PROJECT:
AVENUE GARDENS

TITLE:
PROPOSED GROUND FLOOR PLAN

Date: APRIL 2022

Scale: 1:200 @ A1 Drawn: SDK

DRAWING NUMBER: 208-255A

PLANNING

DOMVS
LONDON

WWW.DOMVSLONDON.COM

PROJECT:
AVENUE GARDENS

TITLE:
PROPOSED FIRST FLOOR PLAN - 12 UNIT SCHEME

Date: APRIL 2022

Scale: 1:200 @ A1 Drawn: SDK

DRAWING NUMBER: 208-256A

N

70

56

ELSWORTHY ROAD

UNIT 5
753 sq ft

UNIT 6
783 sq ft

UNIT 7
783 sq ft

UNIT 8
754 sq ft

UNIT 4
910 sq ft

UNIT 3
819 sq ft

UNIT 2
819 sq ft

UNIT 1
883 sq ft

UNIT 9
910 sq ft

UNIT 10
819 sq ft

UNIT 11
819 sq ft

UNIT 12
883 sq ft

50

AVENUE ROAD

0 20M

PLANNING

DOMVS
LONDON

WWW.DOMVSLONDON.COM

PROJECT:
AVENUE GARDENS

TITLE:
PROPOSED SECOND FLOOR PLAN - 12 UNIT SCHEME

Date: APRIL 2022

Scale: 1:200 @ A1 Drawn: SDK

DRAWING NUMBER: 208-257

N

70

56

ELSWORTHY ROAD

UNIT 5

UNIT 6

UNIT 7

UNIT 8

UNIT 4

UNIT 3

UNIT 2

UNIT 1

UNIT 9

UNIT 10

UNIT 11

UNIT 12

50

AVENUE ROAD

0 20M

PLANNING

DOMVS
LONDON

WWW.DOMVSLONDON.COM

PROJECT:
AVENUE GARDENS

TITLE:
PROPOSED ROOF PLAN - 12 UNIT SCHEME

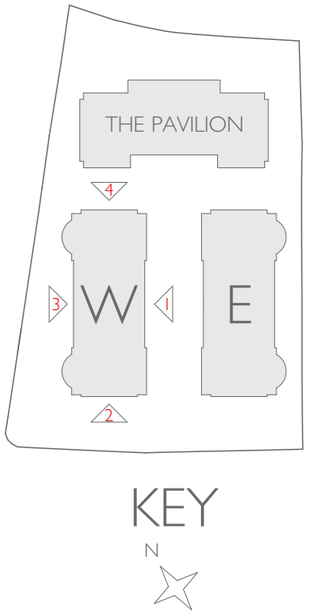
Date: APRIL 2022

Scale: 1:200 @ A1 Drawn: SDK

DRAWING NUMBER: 208-258

ELEVATION 1

ELEVATION 2



KEY

N

0 2 4 6 8 10M

ELEVATION 3

ELEVATION 4

WEST BUILDING 1:100

PLANNING

DOMVS
LONDON

WWW.DOMVSLONDON.COM

PROJECT:
AVENUE GARDENS

TITLE:
WEST BUILDING
PROPOSED ELEVATIONS
- 12 UNIT SCHEME

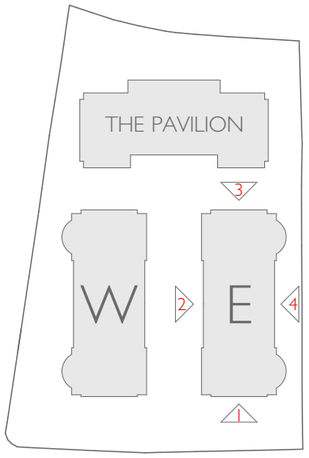
Date: APRIL 2022

Scale: 1:100 @ A1 Drawn: SDK

DRAWING NUMBER: 208-272B

ELEVATION 1

ELEVATION 2



KEY

N

0 2 4 6 8 10M

ELEVATION 3

ELEVATION 4

EAST BUILDING 1:100

PLANNING

DOMVS
LONDON

WWW.DOMVSLONDON.COM

PROJECT:
AVENUE GARDENS

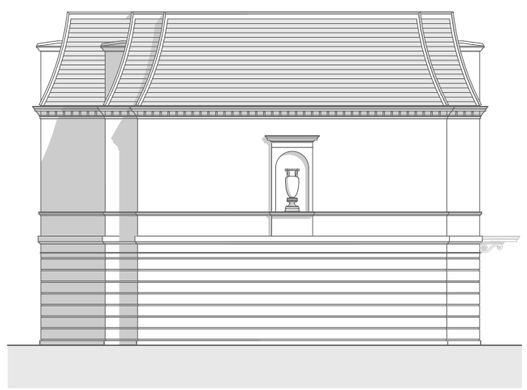
TITLE:
EAST BUILDING
PROPOSED ELEVATIONS
- 12 UNIT SCHEME

Date: APRIL 2022

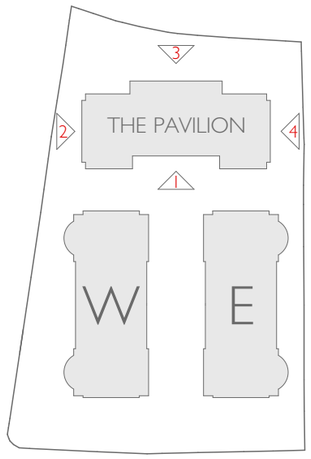
Scale: 1:100 @ A1 Drawn: SDK

DRAWING NUMBER: 208-273B

ELEVATION 1



ELEVATION 2



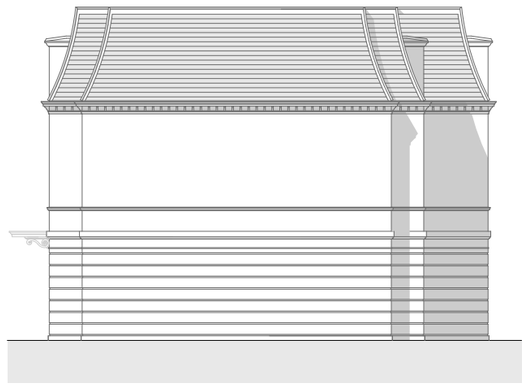
KEY

N

PLANNING

0 2 4 6 8 10M

ELEVATION 3



ELEVATION 4

THE PAVILION 1:100

DOMVS
LONDON

WWW.DOMVSLONDON.COM

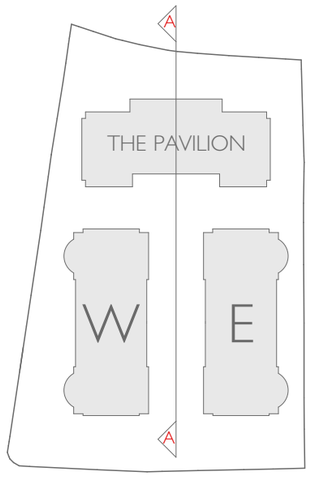
PROJECT:
AVENUE GARDENS

TITLE:
THE PAVILION
PROPOSED ELEVATIONS
- 12 UNIT SCHEME

Date: APRIL 2022

Scale: 1:100 @ A1 Drawn: SDK

DRAWING NUMBER: 208-274B



KEY

N

0 4 8 12 16 20M

PROPOSED SECTION A - A 1:200

PLANNING

DOMVS
LONDON

WWW.DOMVSLONDON.COM

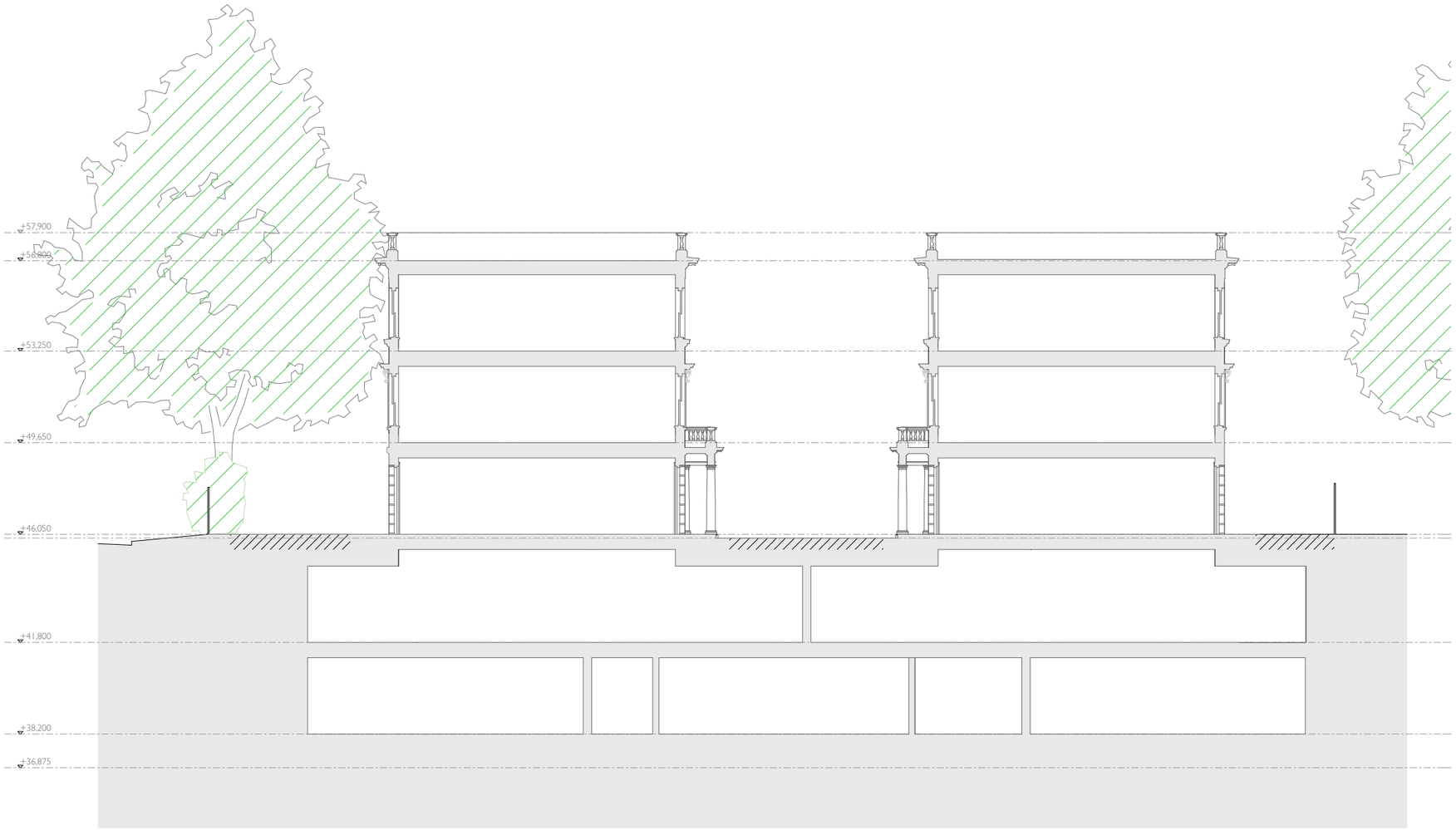
PROJECT:
AVENUE GARDENS

TITLE:
PROPOSED SECTION A - A
- 12 UNIT SCHEME

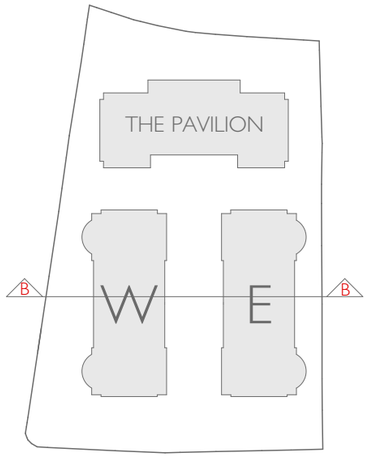
Date: APRIL 2022

Scale: 1:200 @ A1 Drawn: SDK

DRAWING NUMBER: 208-290A



PROPOSED SECTION B - B 1:100



KEY

N

PLANNING

DOMVS
LONDON

WWW.DOMVSLONDON.COM

PROJECT:
AVENUE GARDENS

TITLE:
PROPOSED SECTION B - B
- 12 UNIT SCHEME

Date: APRIL 2022

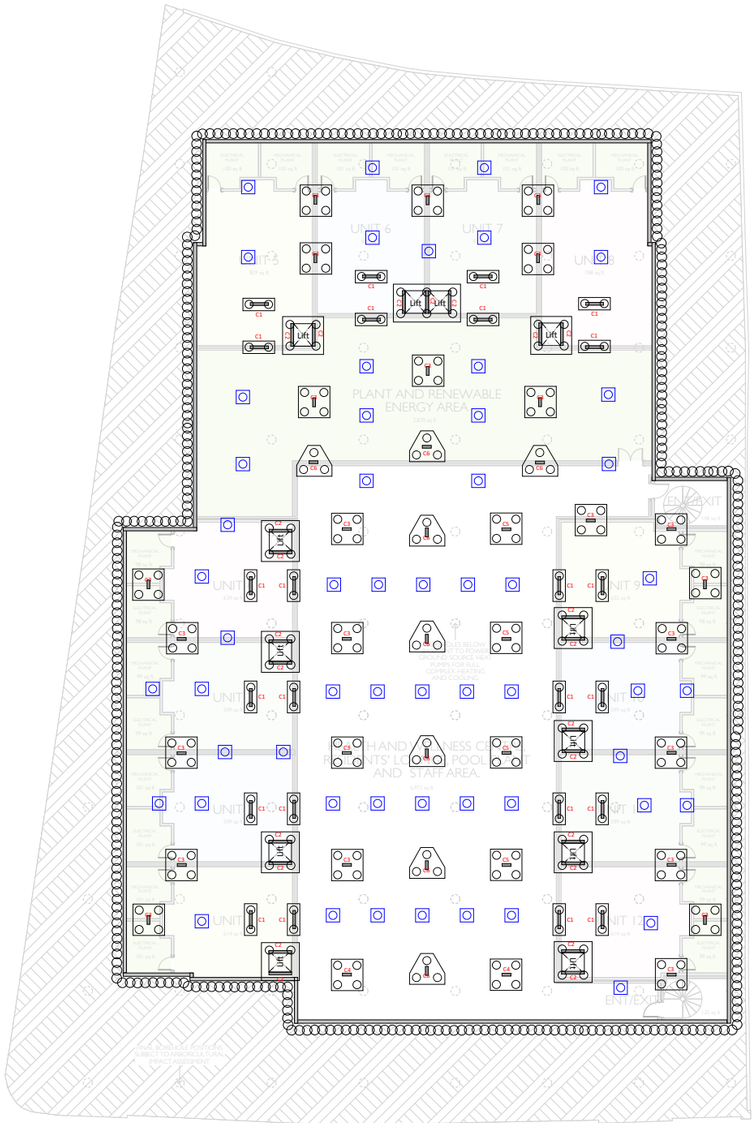
Scale: 1:100 @ A1 Drawn: SDK

DRAWING NUMBER: 208-291A

Appendix E

HTS Drawings

N



Summary - Proposed Structure

	Unfactored Loads		
Name	DL (kN)	LL (kN)	DL+LL (kN)
C1	1200	275	1475
C2	1200	275	1475
C3	2600	575	3175
C4	1700	350	2050
C5	2900	500	3400
C6	1850	400	2250

DL = (SW +SDL)

Liner Walls		
Name	DL (kN/m)	LL (kN/m)
W1	175.0	40.0

Name	Diameter	Capacity
Tension Piles	450mm	800kN

Notes:

Foundations: 450mm dia piles assumed in all locations
Pile cap geometry TBC

Job	52 - 54 Avenue Road		Date 10/05/22
Title	Proposed 12 Unit Structural Drawings - Pile Layout		Eng. AD
Job No.	2673	Sheet SK006 - 1 of 8	Rev. P1

HEYNE TILLETT STEEL

Notes:

Slabs: RC depth as annotated

Columns: 200x600 RC UNO

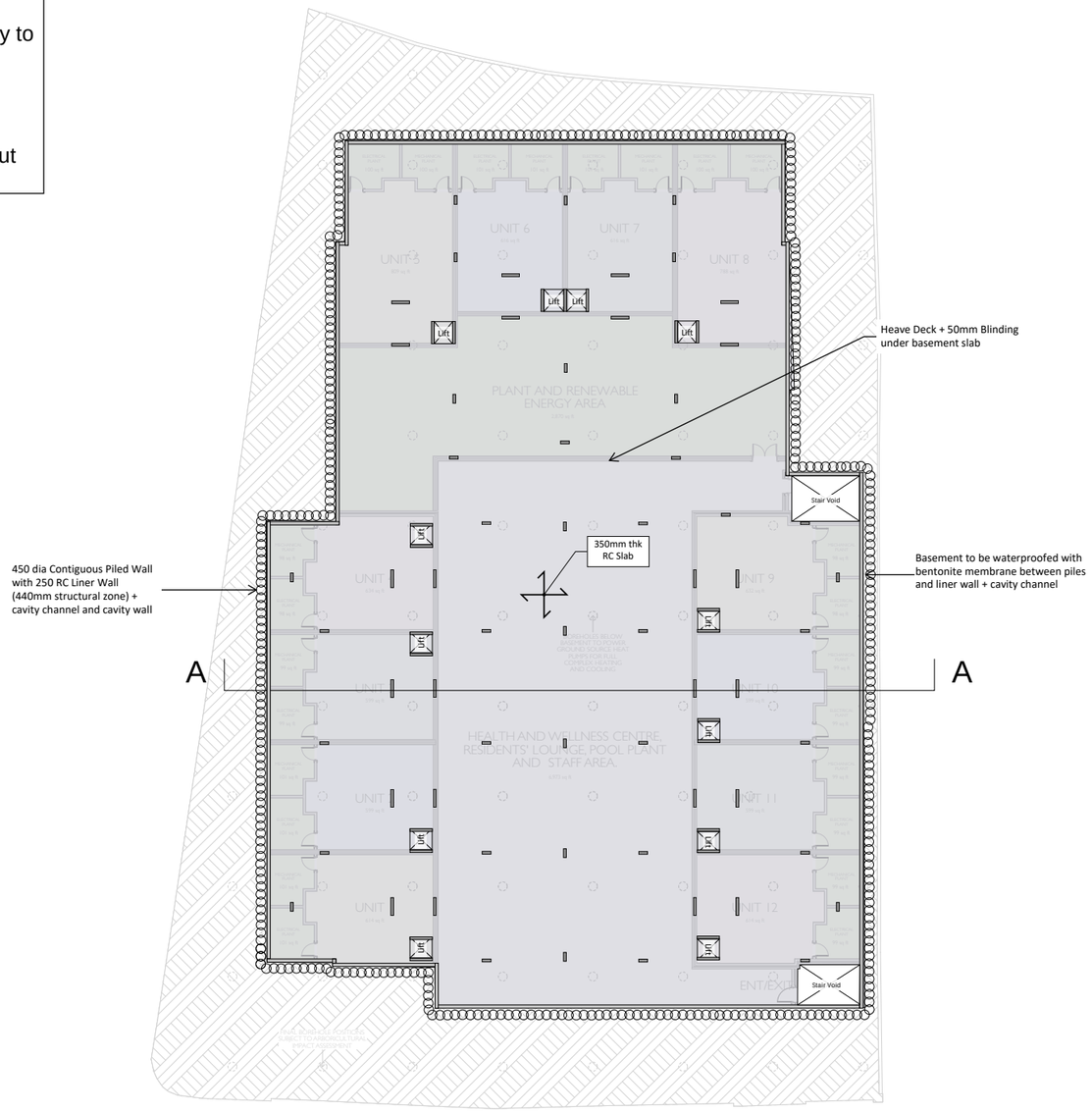
Walls: Stair Core walls to be 1200x200 RC UNO
Lift Core walls to be 1500x200 RC UNO

Facade material, build up and construction methodology to be confirmed by architect

Upstand and service opening positions and geometry to be confirmed by architect

Finished Floor Levels to be confirmed by architect

Shear wall location(s) to be confirmed following layout freeze



Job	52 - 54 Avenue Road			Date	10/05/22
Title	Proposed 12 Unit Structural Drawings - Basement GA			Eng.	AD
Job No.	2673	Sheet	SK006 - 2 of 8	Rev.	P1

HEYNE TILLETT STEEL

Notes:

Slabs: RC depth as annotated

Columns: 200x600 RC UNO

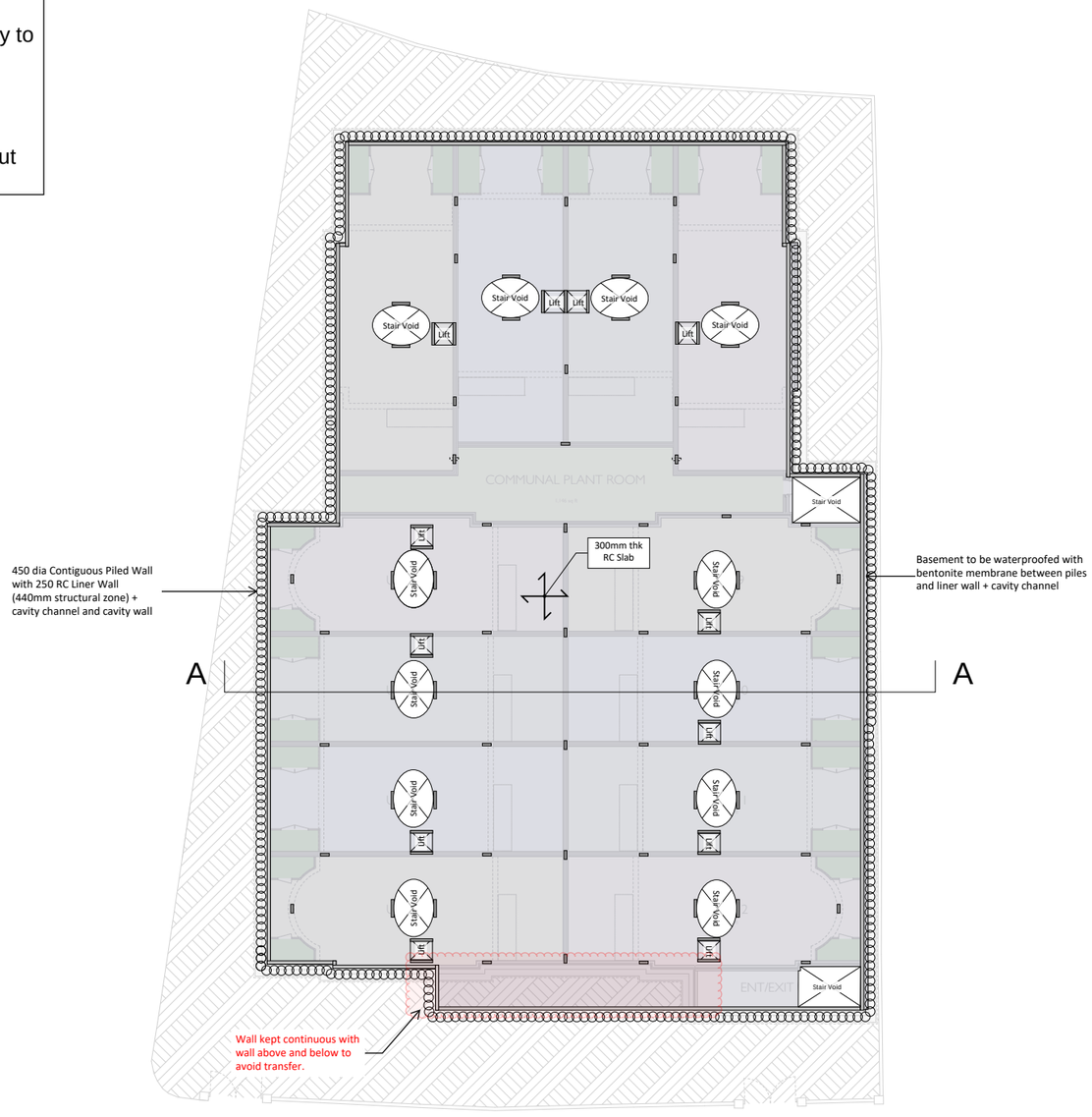
Walls: Stair Core walls to be 1200x200 RC UNO
Lift Core walls to be 1500x200 RC UNO

Facade material, build up and construction methodology to be confirmed by architect

Upstand and service opening positions and geometry to be confirmed by architect

Finished Floor Levels to be confirmed by architect

Shear wall location(s) to be confirmed following layout freeze



Job	52 - 54 Avenue Road	Date	10/05/22
Title	Proposed 12 Unit Structural Drawings - Lower Ground Floor GA	Eng.	AD
Job No.	2673	Sheet	SK006 - 3 of 8
		Rev.	P1

HEYNE TILLETT STEEL

Notes:

Slabs: RC depth as annotated

Columns: 200x600 RC UNO

Walls: Stair Core walls to be 1200x200 RC UNO
Lift Core walls to be 1500x200 RC UNO

Facade material, build up and construction methodology to be confirmed by architect

Upstand and service opening positions and geometry to be confirmed by architect

Finished Floor Levels to be confirmed by architect

Shear wall location(s) to be confirmed following layout freeze

Job	52 - 54 Avenue Road			Date	10/05/22
Title	Proposed 12 Unit Structural Drawings - Ground Floor GA			Eng.	AD
Job No.	2673	Sheet	SK006 - 4 of 8	Rev.	P1

HEYNE TILLETT STEEL

Notes:

Slabs: RC depth as annotated

Columns: 200x600 RC UNO

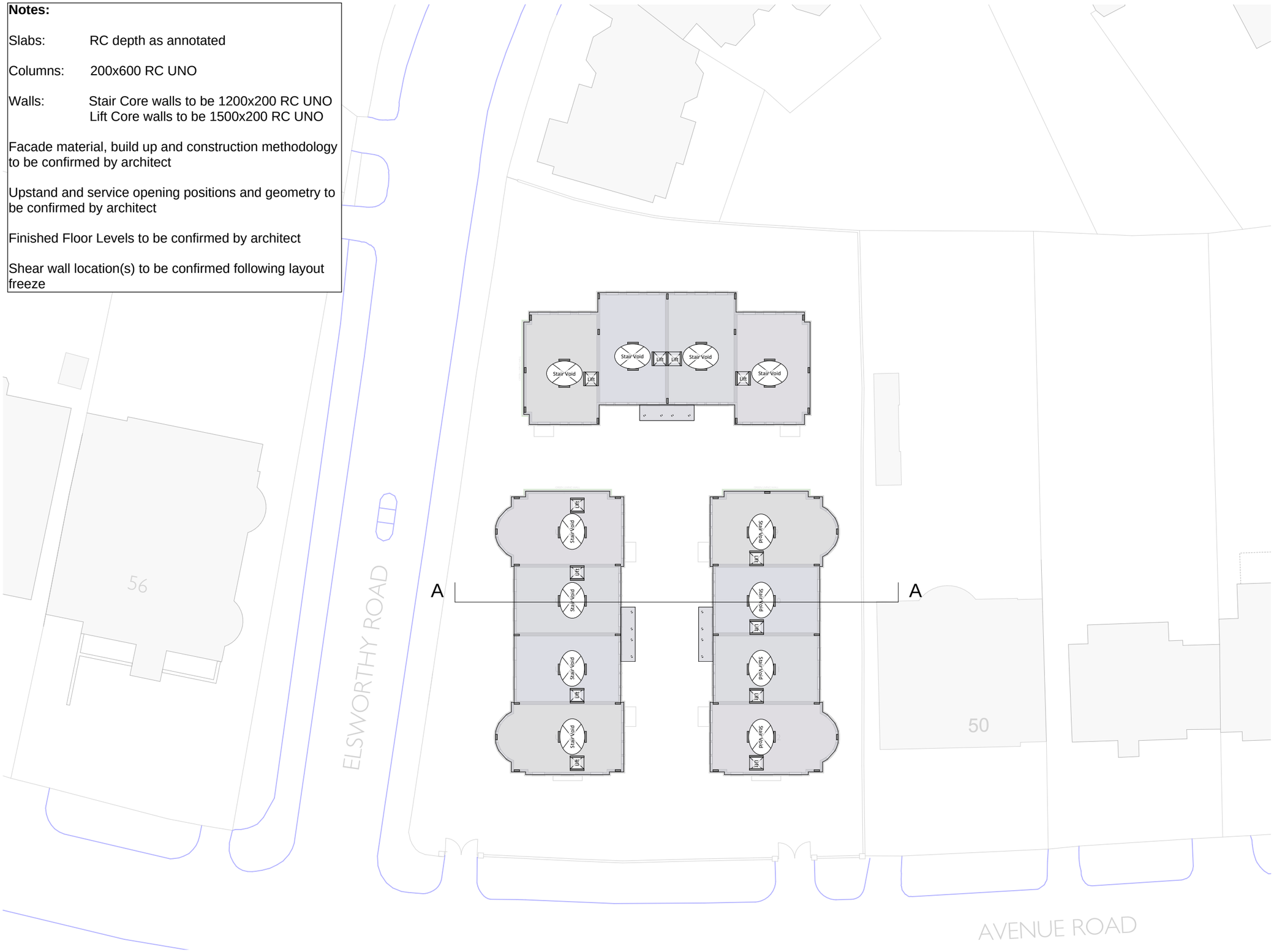
Walls: Stair Core walls to be 1200x200 RC UNO
Lift Core walls to be 1500x200 RC UNO

Facade material, build up and construction methodology to be confirmed by architect

Upstand and service opening positions and geometry to be confirmed by architect

Finished Floor Levels to be confirmed by architect

Shear wall location(s) to be confirmed following layout freeze



Job	52 - 54 Avenue Road			Date	10/05/22
Title	Proposed 12 Unit Structural Drawings - First Floor GA			Eng.	AD
Job No.	2673	Sheet	SK006 - 5 of 8	Rev.	P1

HEYNE TILLETT STEEL

Notes:

Slabs: RC depth as annotated

Columns: 200x600 RC UNO

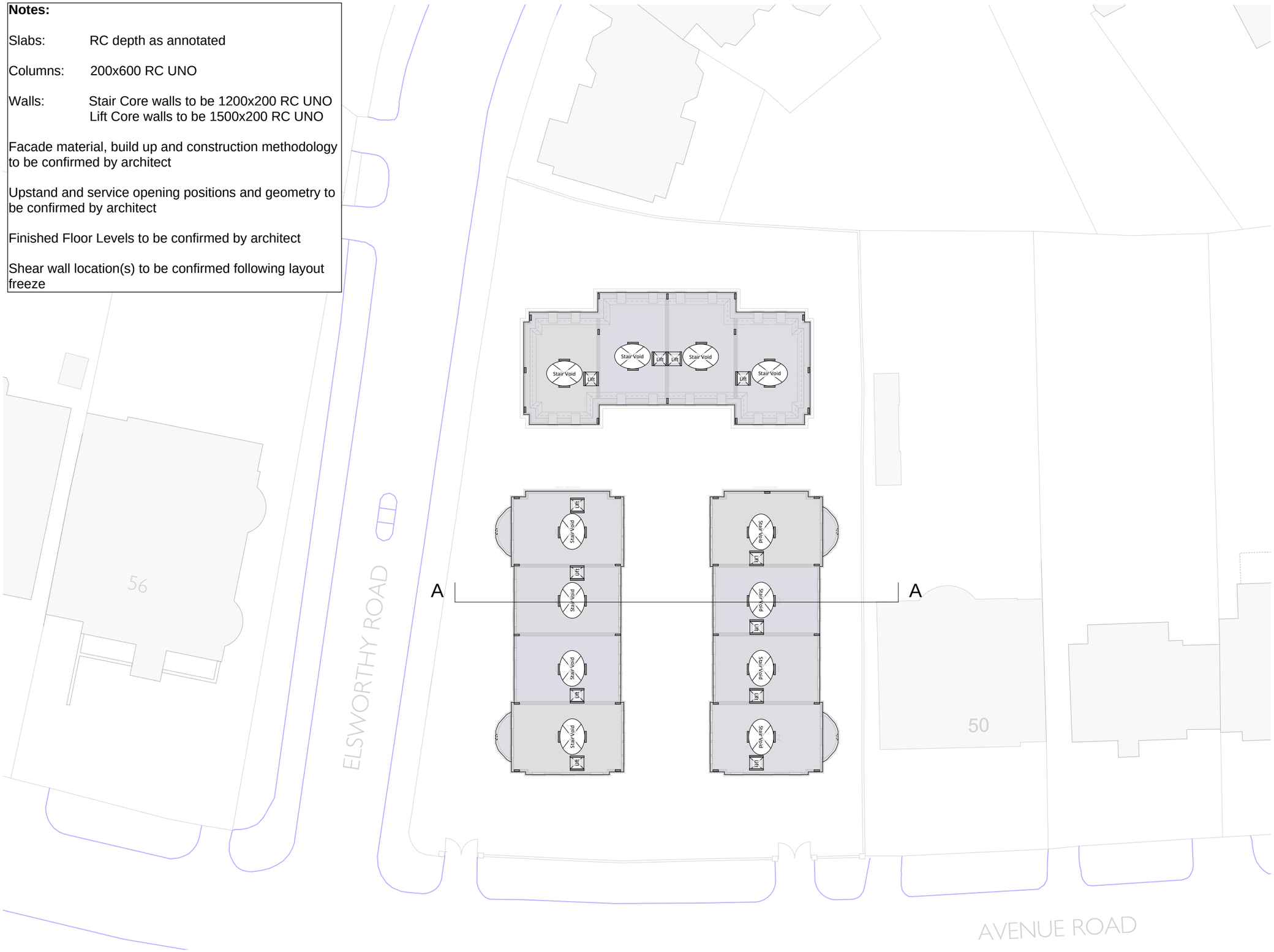
Walls: Stair Core walls to be 1200x200 RC UNO
Lift Core walls to be 1500x200 RC UNO

Facade material, build up and construction methodology to be confirmed by architect

Upstand and service opening positions and geometry to be confirmed by architect

Finished Floor Levels to be confirmed by architect

Shear wall location(s) to be confirmed following layout freeze



Job	52 - 54 Avenue Road			Date	10/05/22
Title	Proposed 12 Unit Structural Drawings - Second Floor GA			Eng.	AD
Job No.	2673	Sheet	SK006 - 6 of 8	Rev.	P1

HEYNE TILLETT STEEL

Notes:

Slabs: RC depth as annotated

Columns: 200x600 RC UNO

Walls: Stair Core walls to be 1200x200 RC UNO
Lift Core walls to be 1500x200 RC UNO

Facade material, build up and construction methodology to be confirmed by architect

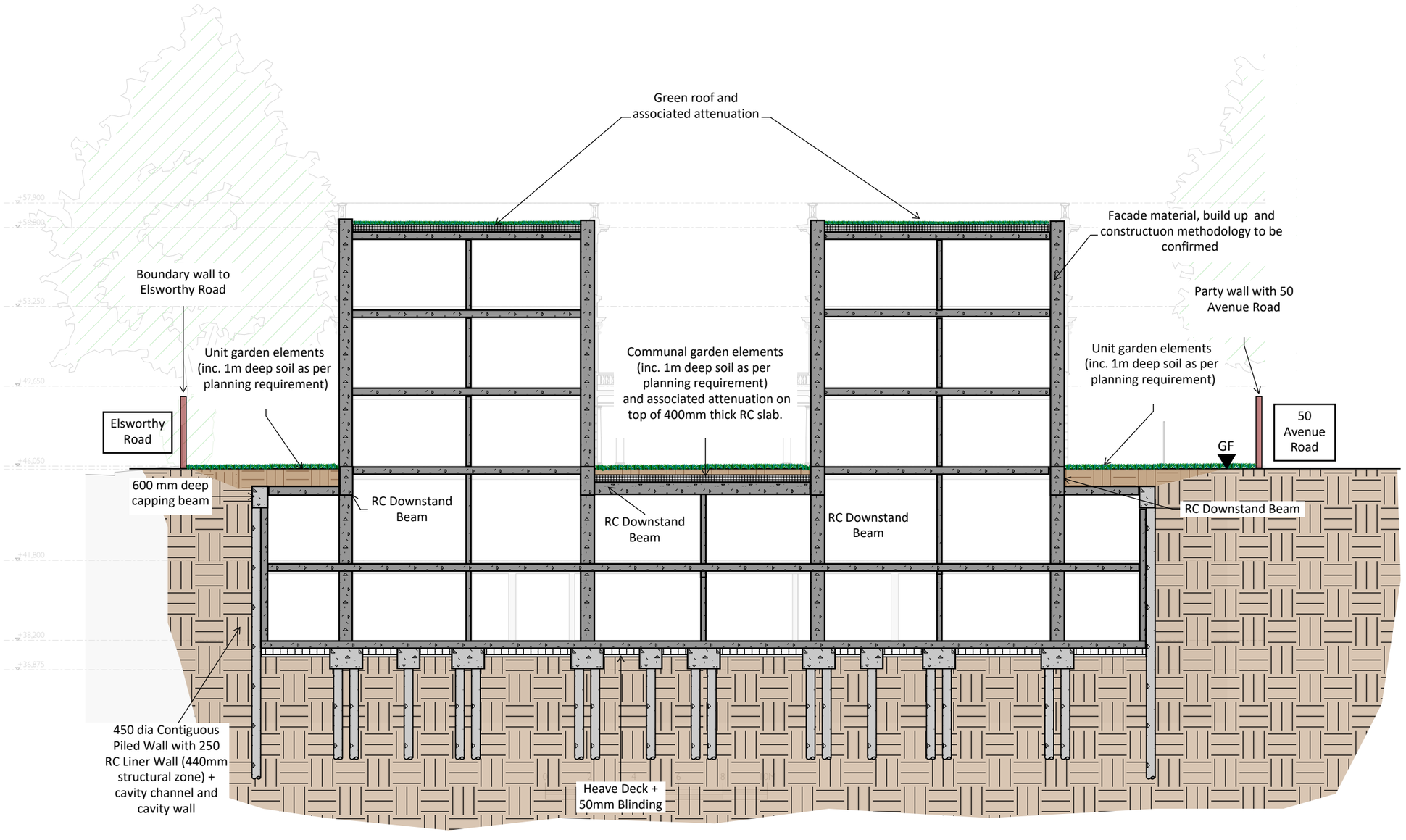
Upstand and service opening positions and geometry to be confirmed by architect

Finished Floor Levels to be confirmed by architect

Shear wall location(s) to be confirmed following layout freeze

Job	52 - 54 Avenue Road			Date	10/05/22
Title	Proposed 12 Unit Structural Drawings - Roof Level GA			Eng.	AD
Job No.	2673	Sheet	SK006 - 7 of 8	Rev.	P1

HEYNE TILLETT STEEL



PROPOSED SECTION B - B 1:100

Job	52 - 54 Avenue Road		Date 10/05/22
Title	Proposed 12 Unit Structural Drawings - Section A-A		Eng. AD
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HEYNE TILLETT STEEL

HEYNE TILLETT STEEL

Appendix F

Arboricultural Report

HEYNE TILLETT STEEL

bsi. ISO 9001 Quality Management
FS 592987