

81 BELSIZE PARK GARDENS

Flood Risk Assessment

Prepared for: Land and Site Acquisitions Limited

SLR Ref: 425.12338.00001
Version No: V3.0
March 2022



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1.0 Introduction

SLR Consulting Limited (SLR) has been appointed by Land and Site Acquisition Limited to prepare this Flood Risk Assessment (FRA) in support of a planning application for the change of use of 81 Belsize Park ("the Site") from a gym to residential.

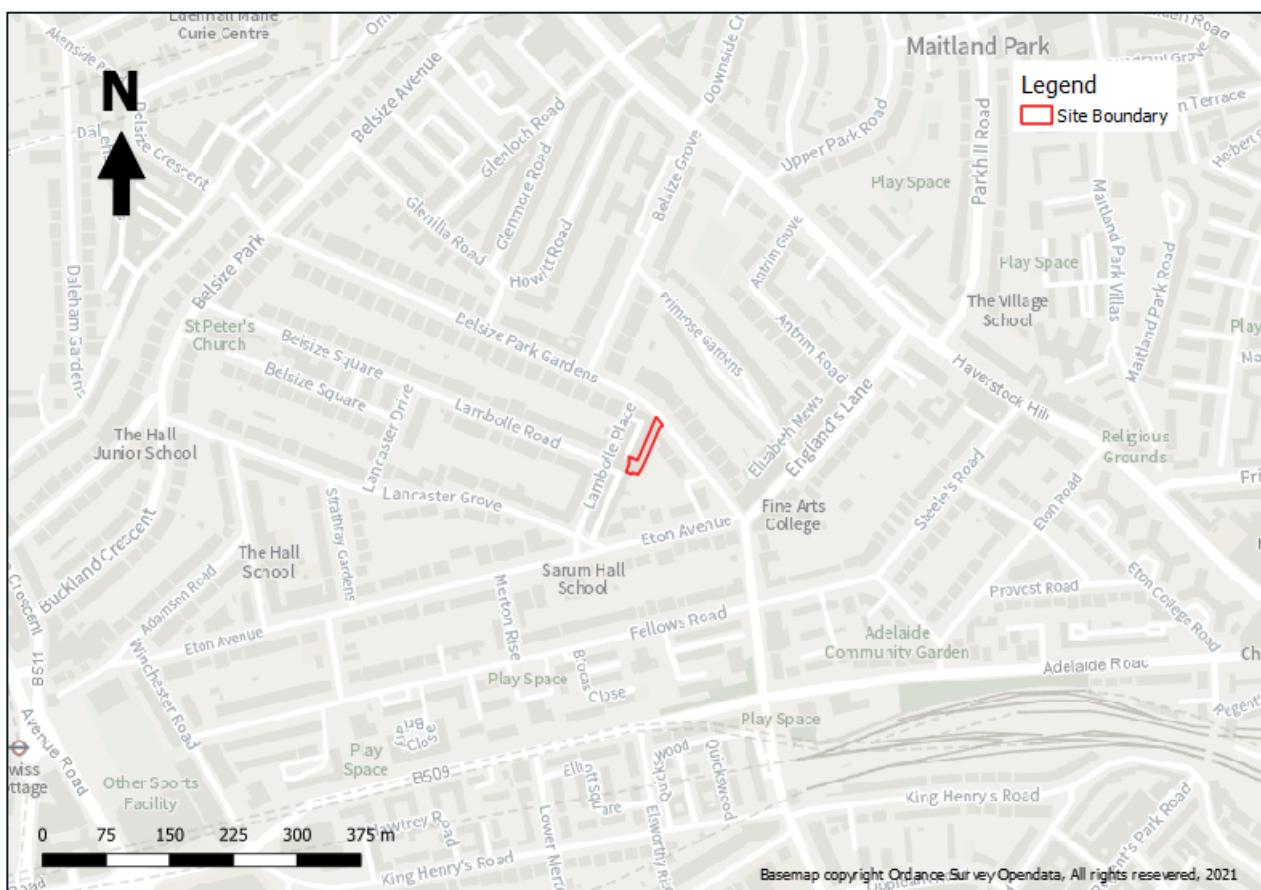
This FRA has been prepared under the direction of a Technical Director of SLR who specialises in flood risk and associated planning matters. The report has been completed in accordance with guidance presented within the National Planning Policy Framework (NPPF)¹ and its associated Planning Practice Guidance (PPG)², taking due account of current best practice documents relating to assessment of flood risk published by the British Standards Institution BS8533³.

The site is under the jurisdiction of the London Borough of Camden who are both the planning authority and the Lead Local Flood Authority (LLFA).

1.1 Site Location

81 Belsize Park Gardens, highlighted in Figure 1-1, is located in Camden (NW3 4NJ) and is centred at coordinates 495825, 201360.

Figure 1-1: Site Location Plan



- 1 National Planning Policy Framework: Communities and Local Government (July 2021)
- 2 Planning Practice Guidance: Communities and Local Government (March 2014)
- 3 BS8533:2017, Assessing and managing flood risk in development: Code of Practice (December 2017)

1.2 Development Proposals

The proposed development is to create eighteen flats in the existing building involving a change of use from a gym building to residential. The proposed works will involve an internal reconfiguration of the property, but there will be no significant changes to the external fabric of the building or associated hardstanding

For the avoidance of doubt, we are applying for prior approval under Class MA, Schedule 2 of The Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended). Plans for the scheme are included in Appendix 01.

2.0 Baseline Environmental Context

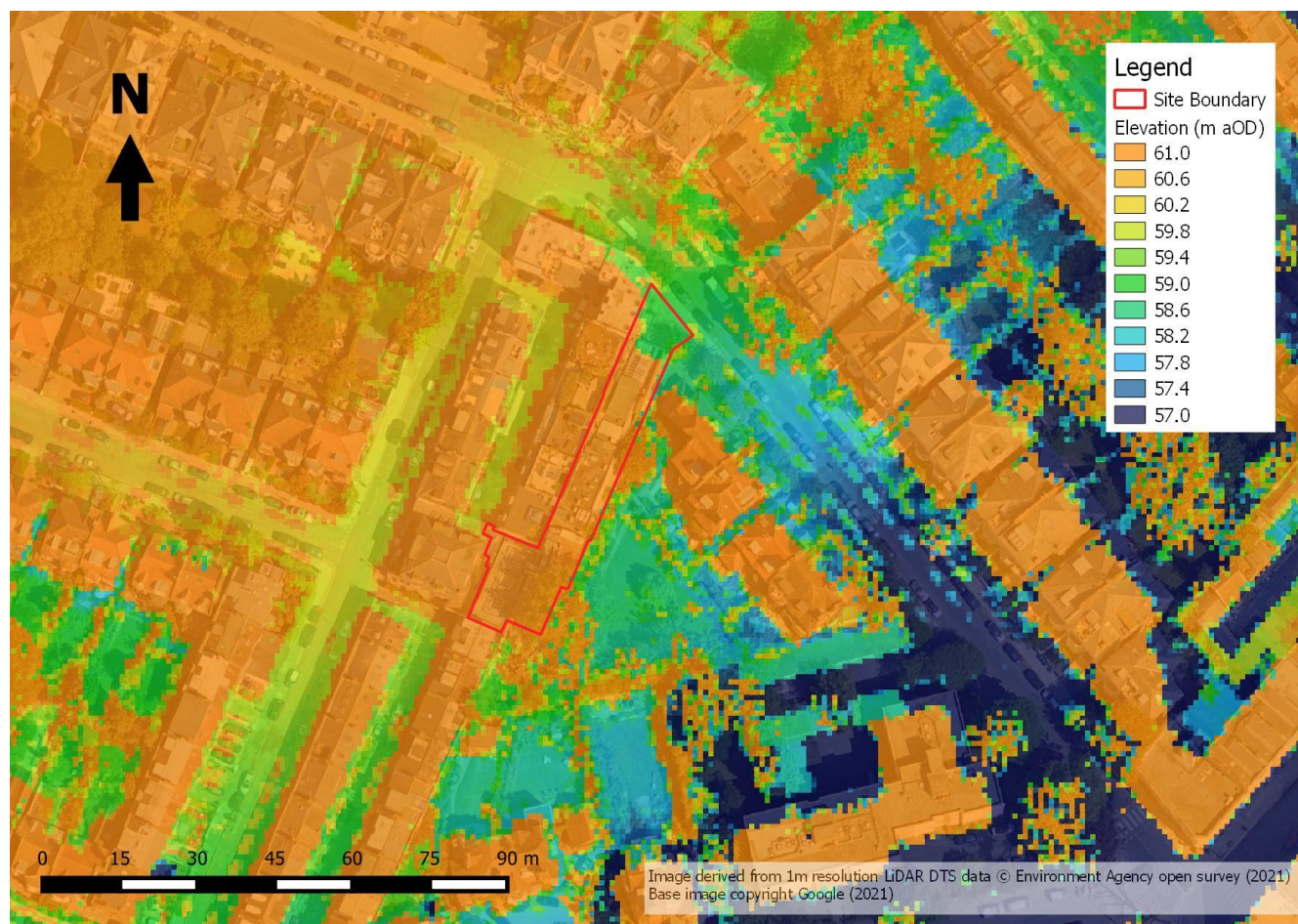
The Site, which is accessed off Belsize Park Gardens (road) to the north, covers an area of c.0.08ha which is almost entirely comprised of the existing building. A secondary access route to the west exists onto Lancaster Stables (road).

The surrounding area is predominantly residential, albeit with a number of commercial units at ground floor level to west of Lancaster Stables. The existing gym building directly adjoins the row of properties to the west that front onto Lancaster Stables.

2.1 Topography

1m resolution LiDAR elevation data for the Site has been downloaded from the Environment Agency⁴ open data website and used to develop a plot of topographic levels across the Site and surrounding area (Figure 2-1). The LiDAR data presented is a digital surface model (DSM) and therefore shows the first reflective surface which includes features such as trees and buildings where these are present.

Figure 2-1: LiDAR Digital Surface Model (DSM) elevation plot



4 Environment Agency Open survey, <https://environment.data.gov.uk/ds/survey/##/survey> accessed August 2021

This shows the site to be situated at an elevation of approximately 58.9 metres above Ordnance Datum (aOD). Levels along Belsize Park Gardens (road) to the north are around 0.1m lower than the site, but sloping along the road to the southeast (i.e. marginally lower relative to the site in the southeast corner).

Locally ground levels slope from the northwest to the southeast across the site.

2.2 Geology and Hydrogeology

British Geology Survey (BGS) mapping indicates that site, and the entire local area, is underlain by the London Clay with no superficial deposits. In reality as an urban site it is likely that some Made Ground will be present at the surface consisting of demolition material and reworked natural deposits.

The London Clay mainly comprises bioturbated or poorly laminated, blue-grey or grey-brown, slightly calcareous silty clay, with some layers of sandy clay. This unit typically has a low permeability and, in line with this, the Environment Agency have designated it is an '*unproductive*' strata. Groundwater flows within the London Clay beneath the site are likely to be near zero.

2.3 Local Hydrology

Storm water runoff from the property is drained to a below ground system that drains to the local sewer network. Thames Water asset plans (Appendix 2) indicate that combined sewers are present to the north beneath Lancaster Stables and to the east beneath Belsize Park Gardens.

There are no surface water features on or adjacent to the site. Based on Ordnance Survey mapping the nearest significant surface water features are lakes within Hamstead Heath (to the north) and the Regents Canal (to the southeast) both of which are about 1.2km from the site.

Mapping of the 'Lost rivers of London'⁵ indicates that one of the headwaters of the River Tyburn (now all culverted) is approximately 275m to the west of the site. This system feeds the boating Lake within Regents Park.

5 The Lost Rivers of London (Revised & extended with colour maps), Nicolas Bartyon and Stephen Myers, Historical Publications Ltd; 3rd Revised edition (29 Feb. 2016)

3.0 Planning Policy and Guidance

3.1 Proposal Summary

As discussed at Section 1.2, the proposed development consists of residential units. Under the development types defined within the PPG² this would be considered as a “*more vulnerable*” development type with respect to flood risk. The existing land use as a gym would be a “*less vulnerable*” (i.e. the development would increase the vulnerability with respect to flood risk).

In line with guidance for residential development this assessment considers the risk posed to the scheme with an assumed development lifetime of 100 years.

3.2 Planning Context

3.2.1 Planning Policy

National Planning Policy

This FRA report has been completed in accordance with guidance presented in NPPF¹ and with reference to the PPG for flood risk and coastal change².

Local Planning Policy

The London Plan was updated in March 2021⁶. Policy SI 12 (Flood Risk Management) relates to flood risk and has been considered in the preparation of the assessment.

Supplementary planning guidance relating to flood risk was published by Camden Council in 2019⁷

This document states that;

“Developments must not increase the risk of flooding, and are required to put in place mitigation measures where there is known to be a risk of flooding (Local Plan policies CC2 and CC3). Major developments will be required to constrain runoff volumes for a 1 in 100 year, 6 hour rainfall event, where feasible. All sites in Camden of one hectare or more require a Flood Risk Assessment in line with the National Planning Policy Framework.”

3.3 Flood Risk and Planning

3.3.1 Environment Agency and Chiltern and South Bucks Flood Zone Classification

The definition of Environment Agency flood zones is provided in PPG Table 1: Flood Zones:

- Zone 1 - Low Probability (Flood Zone 1) is defined as land which could be at risk of flooding from fluvial or tidal flood events with less than 0.1% annual probability of occurrence (1:1,000 year) i.e. considered to be at ‘low probability’ of flooding.
- Zone 2 - Medium Probability (Flood Zone 2) is defined as land which could be at risk of flooding with an annual probability of occurrence between 1% (1:100 year) and 0.1% (1:1,000 year) from fluvial sources and between 0.5% (1:200 year) and 0.1% (1:1,000 year) from tidal sources i.e. considered to be at ‘medium probability’ of flooding.

⁶ The London Plan, The Spatial Strategy for Greater London, March 2021, https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf

⁷ Water and Flooding, Camden Planning Guidance, London Borough of Camden, March 2019, <https://www.camden.gov.uk/documents/20142/4823269/Water+and+Flooding+CPG+-+March+2019.pdf/c7633c7d-2b93-cb52-ee01-717fa0416e84>

- Zone 3a - High Probability (Flood Zone 3a) is defined as land which could be at risk of flooding with an annual probability of occurrence greater than 1% (1:100 year) from fluvial sources and greater than 0.5% (1:200 year) from tidal sources i.e. considered to be at 'high probability' of flooding.
- Zone 3b - the Functional Floodplain (Flood Zone 3b) is defined as land where water has to flow or be stored in times of flood. Local Planning Authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain in agreement with the Environment Agency. In the absence of definitive information, it is often defined as land that would flood with an annual probability of occurrence of 5% (1:20 year) or greater.

In assessing the boundary between Flood Zones 1, 2 and 3, the protection afforded by flood defence structures, and other local circumstances, is not taken into account by the Environment Agency. Based upon the Environment Agency Flood Map for Planning⁸ (Figure 3-1) the Site lies in Flood Zone 1 and is a considerable distance away from areas of Flood Zone 2 and 3.

Figure 3-1: Extract of Environment Agency Flood Map for Planning



3.3.2 Flood Risk Compatibility

As discussed in Section 3.3.1, based on Environment Agency mapping the site is located in Flood Zone 1 and, as detailed in Section 3.1, the development proposals are considered a '*more vulnerable*' development type.

8 Flood Map for Planning Service: Website <https://flood-map-for-planning.service.gov.uk/> [Accessed July 2020]

PPG Table 3: Flood risk vulnerability and flood zone ‘compatibility’ (reproduced as Table 3-1) confirms that, with respect to flood risk, ‘*more vulnerable*’ development types are considered appropriate in Flood Zone 1.

Table 3-1: Flood Risk Vulnerability and Flood Zone ‘Compatibility’

Flood Risk Vulnerability Classification (PPG Table 2)		Essential Infrastructure	Highly Vulnerable	More Vulnerable	Less Vulnerable	Water Compatible
Flood Zone (PPG Table 1)	Zone 1	✓	✓	✓	✓	✓
	Zone 2	✓	Exception Test Required	✓	✓	✓
	Zone 3a	Exception Test Required	x	Exception Test Required	✓	✓
	Zone 3b (functional floodplain)	Exception Test Required	x	x	x	✓

Key: ✓ Development is appropriate x Development should not be permitted

3.3.3 Sequential Test

The aim of the Sequential Test as set out in NPPF is to:

“...steer new development to areas with the lowest risk of flooding from any source. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding.”

The Environment Agency flood map for planning (Figure 3-1) and Strategic Flood Risk Assessments are geared to providing the basis for applying this test. As set out in this report, based on these sources and other available data the site is at low risk of flooding.

The proposed development is for a change of use of an existing building. Environment Agency guidance⁹ clearly states that the Sequential Test does not apply to change of use applications. Even if it were of relevance the low prevailing flood risk would mean that the scheme would pass the Sequential Test.

3.4 Climate Change

In February 2016 the Environment Agency issued guidance on the impacts of climate change on flood risk in the UK to support the NPPF. This was most recently updated in July 2021¹⁰. This advice sets out that peak rainfall intensity, sea level, peak river flow, offshore wind speed and extreme wave heights are all expected to increase in the future as a result of climate change.

PPG recommends that considerations for future climate change are included in FRA’s for proposed developments. As discussed in detail in Section 4.2.2, flood risk from fluvial sources and tidal sources (and therefore wind speed and waves heights) are not of relevance in this area. As such the consideration of climate change in this assessment is limited to potential changes in rainfall intensity.

10 Environment Agency, Flood Risk Assessments: Climate change allowances, February 2016 (Updated July 2021)

3.4.1 Rainfall Intensity

The Environment Agency climate change guidance acknowledges that there is uncertainty with respect to the absolute level of change that is likely to occur with respect to rainfall and that both the absolute level of change and the level uncertainty increase over time. As such the document provides estimates of possible changes that reflect three different time horizons and two different emission scenarios. These recommended allowances for rainfall depths are set out in Table 3-2.

Guidance states that flood risk assessments should assess both the 'Central' and 'Upper End' allowances to understand the range of impact, which equates to uplifts of 20% and 40% respectively for a 100-year development lifetime (Table 3-2).

**Table 3-2: Peak Rainfall Intensity Allowance in Small and Urban Catchment
(Use 1961 to 1990 baseline)**

River Basin District	Allowance	Total potential change anticipated for 2015 to 2039	Total potential change anticipated for 2040 to 2059	Total change anticipated for 2060 to 2115
Applies across all of England	Upper End	10%	20%	40%
	Central	5%	10%	20%

4.0 Potential Sources of Flooding

4.1 Methodology & Best Practice

This FRA report has been prepared in accordance with the advice and requirements prescribed in current best practice documents relating to management of flood risk in development published by the Construction Industry Research and Information Association (CIRIA), and British Standard BS8533.

A screening study has been completed to identify whether there are any potential sources of flooding at the site which may warrant further consideration. If required, any potential significant flooding issues identified in the screening study are then considered in subsequent sections of this assessment.

4.2 Screening Study

Potential sources of flooding include

- Flooding from sea or tidal flooding;
- Flooding from rivers or fluvial flooding;
- Flooding from surface water and overland flow;
- Flooding from groundwater;
- Flooding from sewers and mains water systems;
- Flooding from reservoirs, canals and other artificial sources; and
- Flooding from infrastructure failure.

4.2.1 Flooding from Sea or Tidal Flooding

The site is located approximately 5km from the tidal River Thames and is at an elevation of over 50m aOD. Based on this the risk of flooding from the sea or tidal flooding is negligible.

4.2.2 Flooding from Rivers or Fluvial Flooding

The site is remote from mapped surface water features and the headwater of the River Tyburn discussed in Section 2.3 runs at an elevation that is lower than the site and is also separated from it by a ridge of higher land.

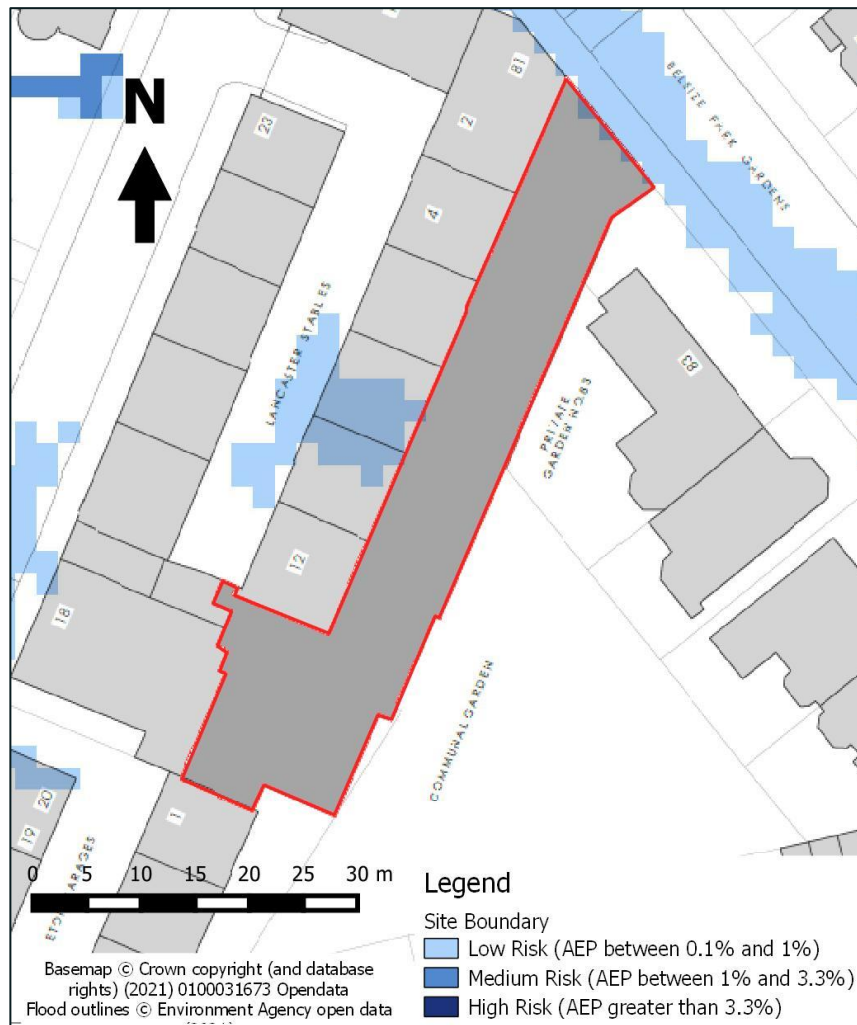
Based on this the risk of flooding from rivers or fluvial flooding is negligible.

4.2.3 Flooding from Surface Water and Overland Flow

Any surface runoff from the higher ground to the northwest would be blocked / diverted around the site by the adjacent buildings along Lancaster Stable. There is no gradient to direct surface flows from along Belsize Park Garden's onto the site (i.e. runoff on the road would just flow to the southeast following prevailing gradient). Ground levels to the south and east are lower than the site and so any surface runoff in those area would drain away from the site.

Surface Water flood modelling has been undertaken by the Environment Agency and mapped outputs from this¹¹ for the area at and around the site are reproduced in Figure 4-1. This confirms the conceptual understanding and indicates that the risk of flooding from surface water or overland flow at the site is very low¹².

Figure 4-1: Risk of surface water flooding



4.2.4 Flooding from Groundwater

Given the underlying geology (London Clay) significant flows of groundwater at, around or below the site are unlikely. As no basement levels are proposed within the building (which have potential to penetrate the London Clay to more permeable geology below) it can be concluded the groundwater flood risk is low.

¹¹ Environment Agency long term flood risk mapping, <https://flood-warning-information.service.gov.uk/long-term-flood-risk/postcode> [accessed August 2021]

¹² We note that an area of 'low' flood risk on the western boundary of the site relates to an area of low ground illustrated on LiDAR digital terrain model data. This data set has been processed to remove buildings and trees that are shown on the digital surface model shown in Figure 2-1; however, the processing is based on an algorithm and in heavily urbanised areas is prone to error. In this instance the low area does not exist and hence the slightly elevated surface water flood risk in this area is also not realistic.

4.2.5 Flooding from Sewers and Mains Water Systems

Combined sewers and mains water systems are present beneath Lancaster Stables and Belsize Park Gardens (refer to Appendix 02). While there are no known problems or vulnerabilities within these systems, failures and surcharge are always possible. However, if this occurred at the site, in line with the routing described in Section 4.2.3, there are no pathways for surcharged flows to flow into this property.

Based on this it is concluded that the risk of flooding from sewers and mains water systems at the site is very low

4.2.6 Flooding from Reservoirs, Canals and other Artificial Sources

There are no water bodies classified as reservoirs or canals in location upstream or upgradient of the site. Based on this the risk of flooding from reservoirs, canals and artificial sources is assessed to be negligible.

4.2.7 Flooding from Infrastructure Failure

The site is not defended and is not believed to be protected from flooding by any other artificial infrastructure. Based on this the risk of flooding from infrastructure is assessed to be negligible.

4.3 Summary of Flood Screening

Table 3-2 summarises the flood screening assessment.

Table 4-1: Potential Risk Posed by Flooding Sources

Potential Source	Potential Flood Risk at Site?
Sea or Tidal Flooding	No
Rivers or Fluvial Flooding	No
Surface Water and Overland Flow	No
Groundwater	No
Sewers and Water Mains	No
Reservoirs, Canals and other Artificial Sources	No
Infrastructure Failure	No

5.0 Conclusions

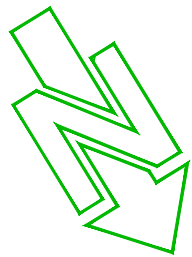
This Flood Risk Assessment (FRA) has been undertaken SLR Consulting on behalf of Land and Site Acquisition Limited.

Based on the work it is noted that;

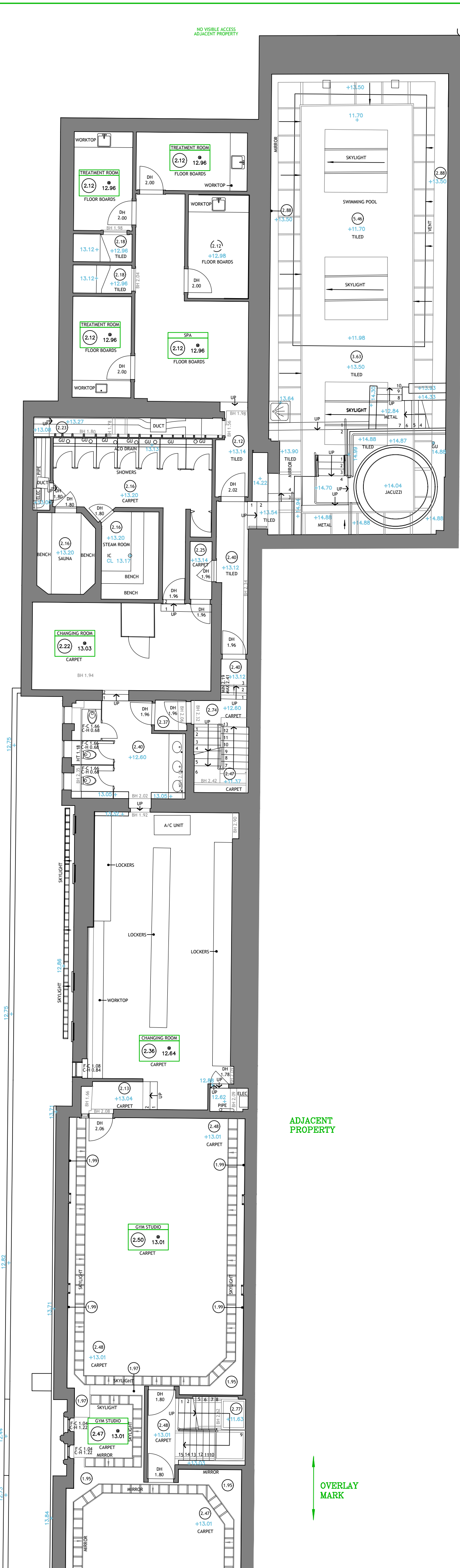
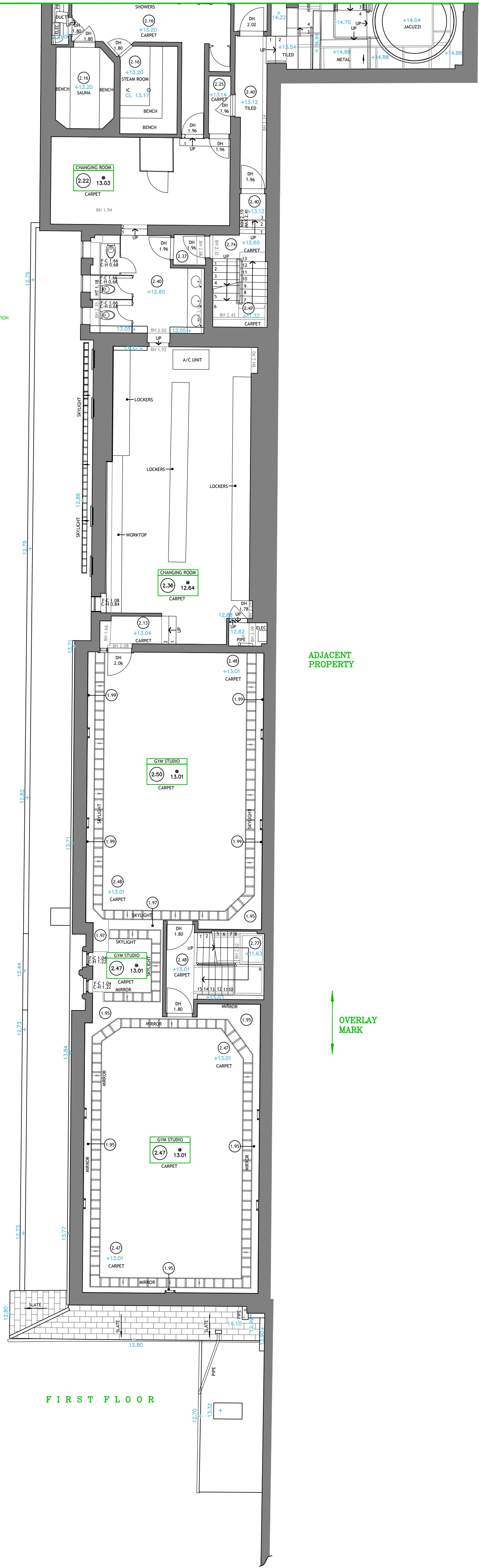
- The site is located in Flood Zone 1 and is remote from any surface water features and is not at risk for fluvial or tidal sources;
- Environment Agency mapping indicates that the site is at very low risk of surface water flooding. A review of the site context and ground elevations confirms that there is no realistic path for offsite flows to drain into the property;
- Combined sewers and mains water pipes are present beneath the roads around the site. A review of the site context and ground elevations confirms that there is no realistic path for surcharged flows from these to flow into the property; and
- The proposals for the site are for internal reconfiguration for the building. There will be no significant external changes and no changes to the existing approach for managing stormwater runoff at the site.

Based on the above the proposed change of use of 81 Belsize Park Gardens from a gym (Use Class E) building to residential (Use Class C3) to create 18 flats is considered to be acceptable in flood risk terms. The completed development would not be subject to significant levels of flood risk even when considered over a 100 year projected development lifetime. This assessment has demonstrated that the proposal will not increase flood risk and is compliant with Local Plan Policy CC3 (Water and Flooding).

APPENDIX 01: DEVELOPMENT PLANS



APPROXIMATE
DIRECTION
OF NORTH



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Drawing Naming Convention:

Job No\Code\Dwg Type\Location\Ref
Code: 13 = Existing 14 = Proposed
Dwg Type: B = Building E = Elevation
S = Section T = Topographical
Location: B = Basement C = Ceiling Plan
E = External F = Front
G = Ground S = Side
1 = First Re = Rear
R = Roof GA = General Layout
M = Mezzanine AA = Section A-A
Ref Ref to individual dwg I.D. (e.g. Revision)

Standard Abbreviations (where applicable):

Building Survey	Land Survey
AB AIR BRICK	B BOLLARD
ACU AIR CONDITIONING UNIT	BB BELISHA BEACON
AP ACCESS PANEL	BS BUS STOP
AV AIR VALVE	BSB BUS SHELTER
BH BEAM HT	BT B.T. COVER
BR BOILER	CAM CAMERA
BSL BEAM SLOTT LEVEL	CATV CABLE TV COVER
CB CUPBOARD	CL COVER LEVEL
CC CEILING CHANGE	ELC ELECTRIC COVER
CH CLEAR INTERNAL HT	EP ELECTRIC POLE
C-A CILL TO APEX HT	ER EARTH ROD
C-H CILL TO HEAD HT	FP FLAG POLE
C-S CILL TO SPRING HT	FW FOWL WATER
DB DOOR BASE HT	GU GULLY
DH DOOR HEAD HT	GV GAS VALVE
DR DRAIN	HYD FIRE HYDRANT
EXP EXTRACTOR FAN	IB ILLUMINATED BOLLARD
FA FIRE ALARM	IC INSPECTION COVER
F-A FLOOR TO APEX HT	IL INVERT LEVEL
F-C FLOOR TO CILL HT	LP LAMP POST
F-H FLOOR TO HEAD HT	MH MANHOLE
F-S FLOOR TO SPRING HT	MK MARKER POST
GEA GROSS EXTERNAL AREA	P POST
GIA GROSS INTERNAL AREA	PM PARKING METER
GU GULLY	PI PIPE
HW HOT WATER TANK	PLA PAVEMENT LIGHT
NIA NET INTERNAL AREA	RD RODDING RYE
NTS NOT TO SCALE	RS ROAD SIGN
RAD RADIATOR	RWP RAIN WATER PIPE
RE RECESS HEAD HEIGHT	SA SITE AREA
RFV RAISED FLOOR VOID	SB SIGN BOARD
RL ROOF LIGHT	SI SIGN
RSL ROLLER SHUTTER	SL SOFFIT LEVEL
RWP RAIN WATER PIPE	SV STOP VALVE
S SWITCH	SVP SOIL VENT PIPE
SKY SOCKET	SW STORM WATER
SVP SOIL VENT PIPE	TBC TELEPHONE CALL BOX
V VENT	TL TRAFFIC LIGHT
VA WARDROBE	TP TELEGRAPH POLE
	UTL UNABLE TO LOCATE
	UTR UNABLE TO RAISE
	VP VENT PIPE
	WM WATER METER
	WT WATER TAP

Symbols (where applicable):

Direction of sloping ceiling	2.65	2.65	10.00
FLOOR TO STRUCTURAL CEILING HT	FLOOR TO SUSPENDED CEILING HT	FLOOR LEVEL RELATIVE TO DATUM	

Notes:

The Survey has been computed on an arbitrary grid.
All Levels are in metres and relate to an arbitrary site datum.
Station X1 Value 10.00m
All direction arrows indicate DOWN unless otherwise stated.
Drainage pipe sizes (where shown) have been gauged from the surface (for safety reasons) and should be regarded as approximate only.
Visible features in the vicinity of any boundaries, as shown on this survey, may not represent the extent of legally conveyed ownership.
Whilst every effort has been made to determine wall materials, no guarantee is given. Materials should be regarded as assumed unless verified by a qualified third party.

Rev	Date	By	Description
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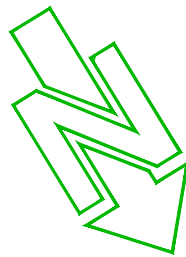


Client: LANDHOLD DEVELOPMENTS

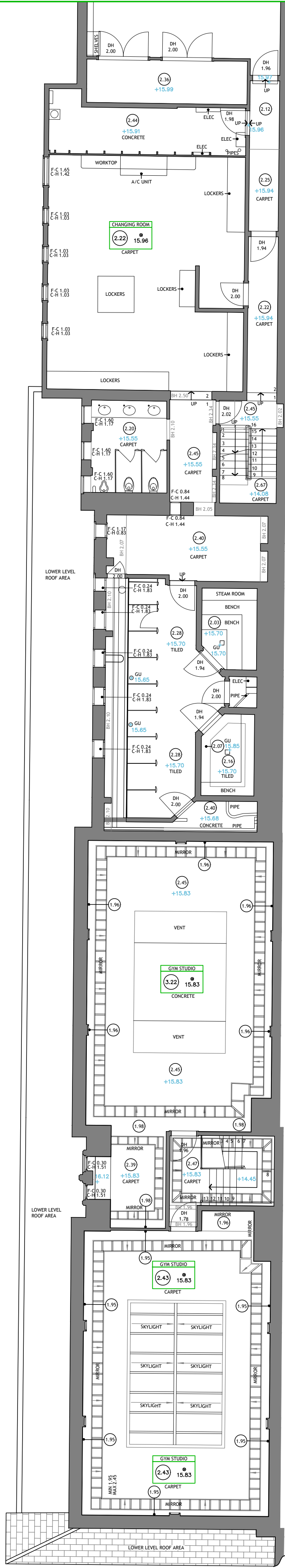
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Drawing Title: EXISTING FIRST FLOOR

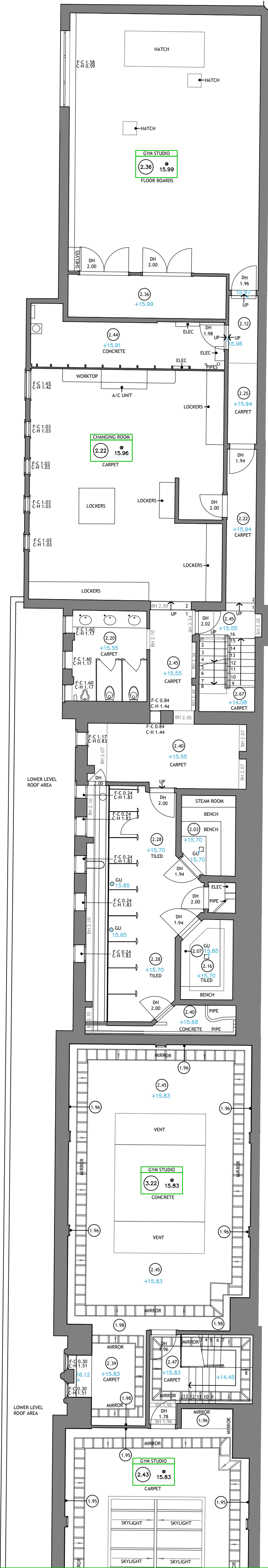
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APPROXIMATE
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SECOND FLOOR



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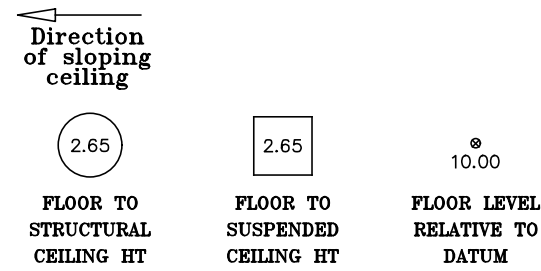
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S = Section T = Topographical
Location: B = Basement C = Ceiling Plan
E = External F = Front
C = Ground S = Side
1 = First Re = Rear
R = Roof GA = General Layout
M = Mezzanine AA = Section A-A
Ref Ref to individual dwg I.D. (e.g. Revision)

Standard Abbreviations (where applicable):

Building Survey	Land Survey
AB AIR BRICK ACU AIR CONDITIONING UNIT AH ACCESS HATCH AP ACCESS PANEL AV AIR VALVE BH BREAK HT BR BOILER BSL BEAM SLOTT LEVEL CB CUPBOARD CC CEILING CHANGE CH CLEAR INTERNAL HT C-A CILL TO APEX HT C-H CILL TO HEAD HT C-S CILL TO SPRING HT DB DOOR BASE HT DH DOOR HEAD HT DR DRAIN EXP EXTRACTOR FAN FA FIRE ALARM F-A FLOOR TO APEX HT F-C FLOOR TO CILL HT F-H FLOOR TO HEAD HT F-S FLOOR TO SPRING HT GEA GROSS EXTERNAL AREA GIA GROSS INTERNAL AREA GU GULLY HT HEATER HW HOT WATER TANK NIA NIT INTERNAL AREA NTS NOT TO SCALE RAD RADIATOR RH RECESS HEAD HEIGHT RFV RAISED FLOOR VOID RL ROOF LIGHT RSH ROLLER SHUTTER RWP RAIN WATER PIPE S SWITCH SKY SOCKET SVP SOIL VENT PIPE V VENT WA WARDROBE	B BOLLARD BB BELISHA BEACON BS BUS STOP BSH BUS SHELTER BT B.T. COVER CAM CAMERA CATV CABLE TV COVER CL COVER LEVEL ELEC ELECTRIC COVER EP ELECTRIC POLE ER EARTH ROD FP FLAG POLE FW FOWL WATER GU GULLY GV GAS VALVE HYD PIPE HYDRANT IB ILLUMINATED BOLLARD IC INSPECTION COVER IL INVERT LEVEL LP LAMP POST MH MANHOLE MKR MARKER POST P POST PM PARKING METER PI PIPE PLA PAVEMENT LIGHT RO ROADING RYE RS ROAD SIGN RWP RAIN WATER PIPE SA SITE AREA SB SIGN BOARD SI SIGN SL SOFFIT LEVEL SV STOP VALVE SVP SOIL VENT PIPE SW STORM WATER TCB TELEPHONE CALL BOX TL TRAFFIC LIGHT TP TELEGRAPH POLE UTL UNABLE TO LOCATE VP VENT PIPE WM WATER METER WT WATER TAP

Symbols (where applicable):



Notes:

The Survey has been computed on an arbitrary grid.
All Levels are in metres and relate to an arbitrary site datum.
Station X1 Value 10.00m
All direction arrows indicate DOWN unless otherwise stated.
Drainage pipe sizes (where shown) have been gauged from the surface (for safety reasons) and should be regarded as approximate only.
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Rev Date By Description

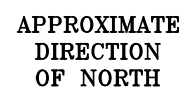
ARENA
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LAND & MEASURED BUILDING SURVEYS
96 Farringdon Road, London EC1R 3EA
020 7837 7721 www.arena-ps.com
surveys@arena-ps.com

Client: LANDHOLD DEVELOPMENTS

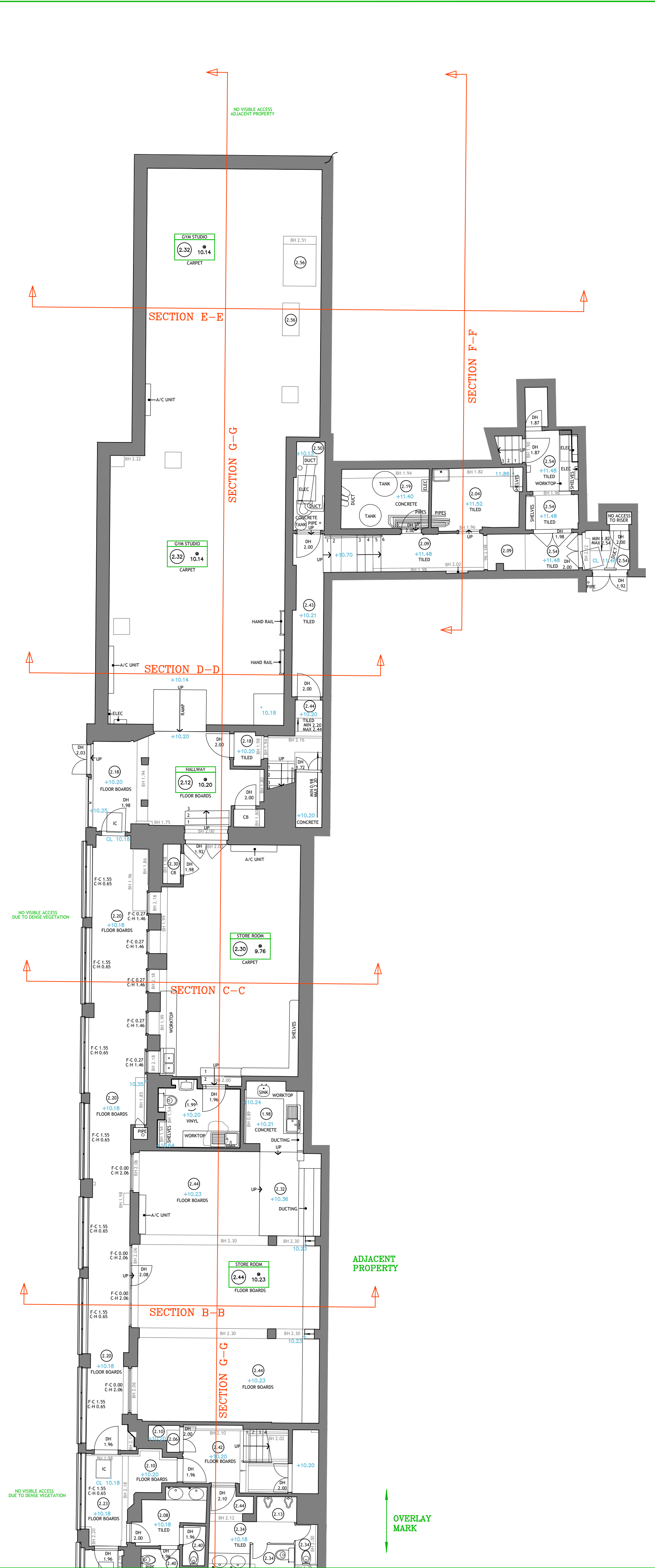
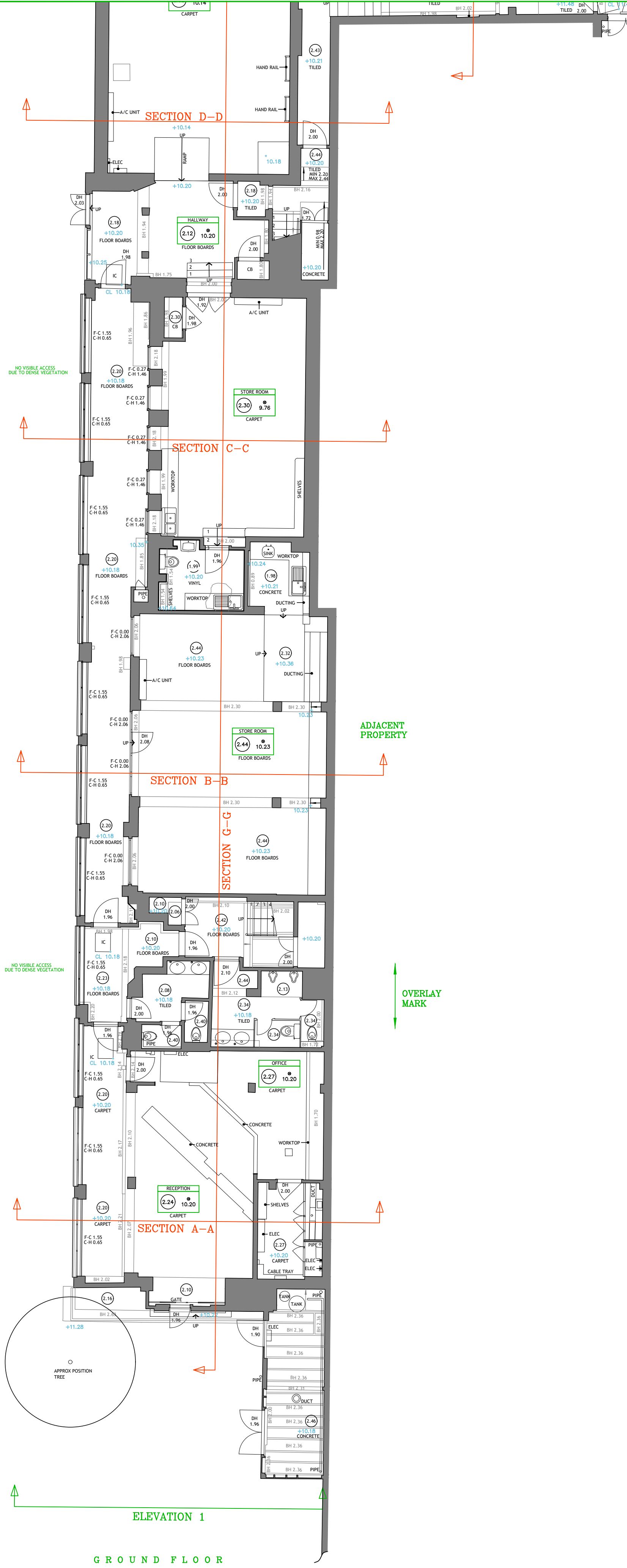
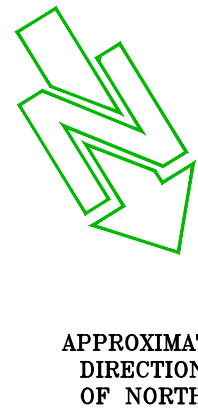
Project: 81 BELSIZE PARK GARDENS
LONDON NW3

Drawing Title: EXISTING SECOND FLOOR

Date: 21.07.21	Scale: 1:100@A1	Surveyor: AIB	Drawn: ST	Checked: SEJ
Job No: 21055	Drawing No: 21055-13-B-2	Sheet No: 3 OF 9	Rev:	



Job No: 21055	Drawing No: 21055-13-B-3	Sheet No: 4 OF 9	Rev:
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Drawing Naming Convention:

Job No\Code\Dwg type\Location\Ref

Code: 13 = Existing 14 = Proposed

Dwg Type: B = Building E = Elevation
S = Section T = Topographical

Location: B = Basement C = Ceiling Plan
E = External F = Front
G = Ground S = Side
1 = First Re = Rear
R = Roof GA = General Layout
M = Mezzanine AA = Section A-A

Ref Ref to individual dwg I.D. (e.g. Revision)

Standard Abbreviations (where applicable):

Building Survey	Land Survey
AB AIR BRICK	B ROLLARD
ACU AIR CONDITIONING UNIT	BB BELISHA BEACON
AP ACCESS PANEL	BS BUS STOP
AV AIR VALVE	BSB BUS SHELTER
BH BREAK HT	BT B.T. COVER
BR BOILER	CAM CAMERA
BSL BEAM SLOTTED LEVEL	CATV CABLE TV COVER
CB CUPBOARD	CL COVER LEVEL
CC CEILING CHANGE	CLC COVER LEVEL
CH CLEAR INTERNAL HT	ELEC ELECTRIC COVER
C-A CILL TO APEX HT	EP ELECTRIC POLE
C-H CILL TO HEAD HT	ER EARTH ROD
C-S CILL TO SPRING HT	FP FLAG POLE
DB DOOR BASE HT	FW FOWL WATER
DH DOOR HEAD HT	GU GULLY
DR DRAIN	GV GAS VALVE
EXP EXTRACTOR FAN	HYD PIPE HYDRANT
FA FIRE ALARM	IB ILLUMINATED BOLLARD
F-A FLOOR TO APEX HT	IC INSPECTION COVER
F-C FLOOR TO CILL HT	IL INVERT LEVEL
F-H FLOOR TO HEAD HT	LP LAMP POST
F-S FLOOR TO SPRING HT	MH MANHOLE
GEA GROSS EXTERNAL AREA	MKR MARKER POST
GIA GROSS INTERNAL AREA	P POST
GU GULLY	PM PARKING METER
HT HEATER	PI PIPE
HW HOT WATER TANK	PLA PAVEMENT LIGHT
NIA NET INTERNAL AREA	RD RODDING RYE
NTS NOT TO SCALE	RS ROAD SIGN
RAD RADIATOR	RWP RAIN WATER PIPE
RE RECESS HEAD HEIGHT	SA SITE AREA
RFV RAISED FLOOR VOID	SB SIGN BOARD
RL ROOF LIGHT	SI SIGN
RSL ROLLER SHUTTER	SL SOFFIT LEVEL
RWP RAIN WATER PIPE	SV STOP VALVE
S SWITCH	STP SOIL VENT PIPE
SKT SOCKET	SW STORM WATER
SVP SOIL VENT PIPE	TB TELEPHONE CALL BOX
UTL UNABLE TO LOCATE	TL TRAFFIC LIGHT
VENT VENT	TP TELEGRAPH POLE
WM WATER METER	UTL UNABLE TO LOCATE
WT WATER TAP	UTR UNABLE TO RAISE
	VP VENT PIPE
	WM WATER METER
	WT WATER TAP

Symbols (where applicable):

Direction of sloping ceiling

2.65

2.65

10.00

FLOOR TO STRUCTURAL CEILING HT

FLOOR TO SUSPENDED CEILING HT

FLOOR LEVEL RELATIVE TO DATUM

Notes:

The Survey has been computed on an arbitrary grid.

All Levels are in metres and relate to an arbitrary site datum.

Station X1 Value 10.00m

All direction arrows indicate DOWN unless otherwise stated.

Drainage pipe sizes (where shown) have been gauged from the surface (for safety reasons) and should be regarded as approximate only.

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Rev	Date	By	Description

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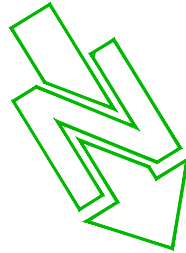
Client: LANDHOLD DEVELOPMENTS

Project: 81 BELSIZE PARK GARDENS
LONDON NW3

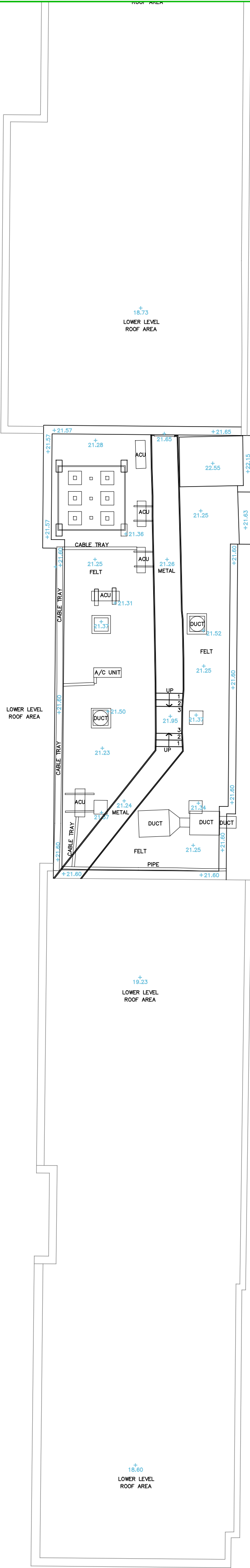
Drawing Title: EXISTING GROUND FLOOR

Date:	Scale:	Surveyor:	Drawn:	Checked:
19.07.21	1:100@A1	AIB	ST	SEJ

Job No:	Drawing No:	Sheet No:	Rev:
21055	21055-13-B-G	1 OF 9	

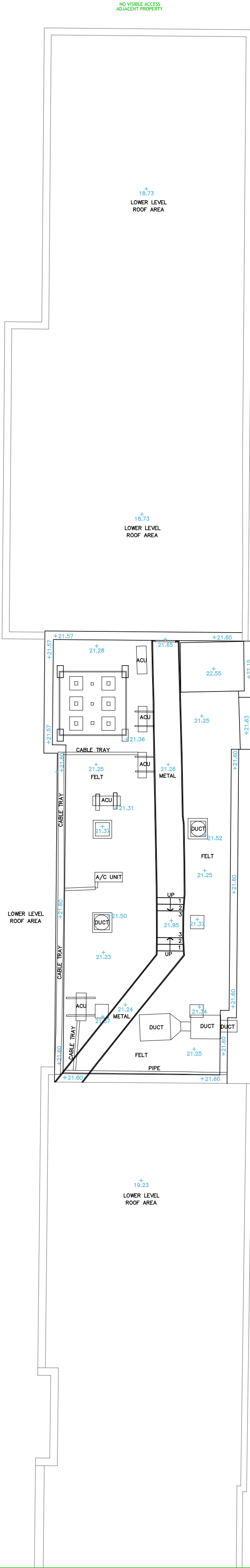


APPROXIMATE
DIRECTION
OF NORTH



ADJACENT
PROPERTY

OVERLAY
MARK

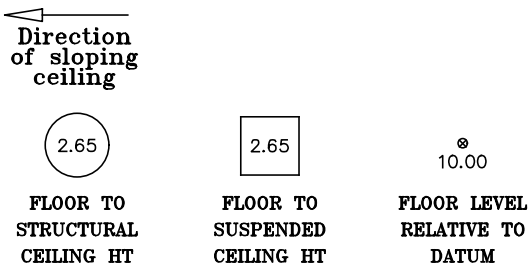


ADJACENT
PROPERTY

OVERLAY
MARK

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Drawing Naming Convention:	
Job No\Code\Dwg type\Location\Ref	
Code:	13 = Existing 14 = Proposed
Dwg Type:	B = Building E = Elevation S = Section T = Topographical
Location:	B = Basement C = Ceiling Plan E = External F = Front G = Ground S = Side 1 = First Re = Rear R = Roof GA = General Layout M = Mezzanine AA = Section A-A
Ref	Ref to individual dwg I.D. (e.g. Revision)
Standard Abbreviations (where applicable):	
Building Survey	Land Survey
AB AIR BRICK ACU AIR CONDITIONING UNIT AH ACCESS HATCH AP ACCESS PANEL AV AIR VALVE BH BREAK HT BR BOILER BSL BEAM SOFFIT LEVEL CB CUPBOARD CC CEILING CHANGE CH CLEAR INTERNAL HT C-A CILL TO APEX HT C-H CILL TO HEAD HT C-S CILL TO SPRING HT DB DOOR BASE HT DH DOOR HEAD HT DR DRAIN EXP EXTRACTOR FAN FA FIRE ALARM F-A FLOOR TO APEX HT F-C FLOOR TO CILL HT F-H FLOOR TO HEAD HT F-S FLOOR TO SPRING HT GEA GROSS EXTERNAL AREA GIA GROSS INTERNAL AREA GU GULLY HA HEATER HW HOT WATER TANK NIA NET INTERNAL AREA NTS NOT TO SCALE RAD RADIATOR RH RECESS HEAD HEIGHT RFV RAISED FLOOR VOID RL ROOF LIGHT RSL ROLLER SHUTTER RWP RAIN WATER PIPE S SWITCH SKY SOCKET SVP SOIL VENT PIPE V VENT WA WARDROBE	B BOLLARD BB BELISHA BEACON BS BUS STOP BSH BUS SHELTER BT B.T. COVER CAM CAMERA CATV CABLE TV COVER CL COVER LEVEL ELEC ELECTRIC COVER EP ELECTRIC POLE ER EARTH ROD FP FLAG POLE FW FOUL WATER GU GULLY GV GAS VALVE HYD PIPE HYDRANT IB ILLUMINATED BOLLARD IC INSPECTION COVER IL INVERT LEVEL LP LAMP POST MH MANHOLE MKR MARKER POST P POST PM PARKING METER PI PIPE PLA PAVEMENT LIGHT RO RODDING RYE RS ROAD SIGN RWP RAIN WATER PIPE SA SITE AREA SB SIGN BOARD SI SIGN SL SOFFIT LEVEL SV STOP VALVE SVP SOIL VENT PIPE SW STORM WATER TCB TELEPHONE CALL BOX TL TRAFFIC LIGHT TP TELEGRAPH POLE UTL UNABLE TO LOCATE VP VENT PIPE WM WATER METER WT WATER TAP

Symbols (where applicable):



Notes:

The Survey has been computed on an arbitrary grid.

All Levels are in metres and relate to an arbitrary site datum.

Station X1 Value 10.00m

All direction arrows indicate DOWN unless otherwise stated.

Drainage pipe sizes (where shown) have been gauged from the surface (for safety reasons) and should be regarded as approximate only.

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Whilst every effort has been made to determine wall materials, no guarantee is given. Materials should be regarded as assumed unless verified by a qualified third party.

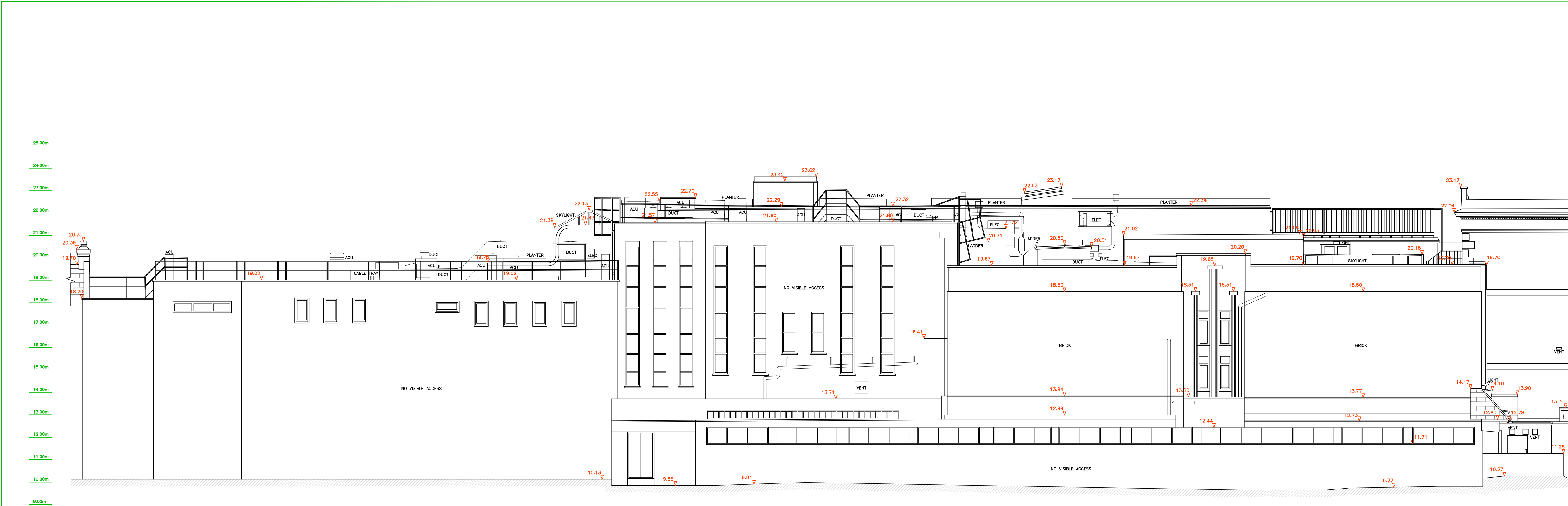
Rev	Date	By	Description
A R E N A PROPERTY SERVICES LIMITED CHARTERED SURVEYORS LAND & MEASURED BUILDING SURVEYS 96 Farringdon Road, London EC1R 3EA 020 7837 7721 www.arena-ps.com surveys@arena-ps.com			
Client: LANDHOLD DEVELOPMENTS			
Project: 81 BELSIZE PARK GARDENS LONDON NW3			
Drawing Title: EXISTING ROOF PLAN			
Date: 19.07.21	Scale: 1:100@A1	Surveyor: AIB	Drawn: ST
Job No: 21055	Drawing No: 21055-13-B-R	Sheet No: 5 OF 9	Checked: SEJ



Notes:

- The Survey has been computed on an arbitrary grid.
- All Levels are in metres and relate to an arbitrary site datum.
- Station Xi Value 10.00m
- All direction arrows indicate DOWN unless otherwise stated.
- Drainage pipe sizes (where shown) have been gauged from the surface (for safety reasons) and should be regarded as approximate only.
- Visible features in the vicinity of any boundaries, as shown on the survey, may not represent the extent of legally conveyed ownership.
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Job No: 21055	Drawing No: 21055-13-E-1	Sheet No: 6 OF 9	Rev:
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EXISTING ELEVATION 2

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Drawing Naming Convention:

Job No\Code\Dwg Type\Location\Ref

Code: 13 = Existing 14 = Proposed

Dwg Type: B = Building E = Elevation
S = Section T = Topographical

Location: B = Basement C = Ceiling Plan
E = External F = Front
G = Ground S = Side
1 = First R = Rear
M = Mezzanine GA = General Layout
AA = Section A-A

Ref Ref to individual dwg I.D. (e.g. Revision)

Standard Abbreviations (where applicable):

Building Survey	Land Survey
AB AIR BRICK	B BOLLARD
ACU AIR CONDITIONING UNIT	BB BELISHA BEACON
AE ACCESS HATCH	BS BUS STOP
AF ACCESS PANEL	BSB BUS SHUTTER
AV AIR VALVE	BT B.T. COVER
BR BREAK HT	CAM CAMERA
DB BOILER	CATV CABLE TV COVER
BSL BEAM SOFFIT LEVEL	CL COVER LEVEL
CB CUPBOARD	ELC ELECTRIC COVER
CC CEILING CHANGE	EP ELECTRIC POLE
CH CLEAR INTERNAL HT	ER EARTH ROD
C-A CILL TO APEX HT	FP FLAG POLE
C-H CILL TO HEAD HT	FW FOWL WATER
C-S CILL TO SPRING HT	GU GULLY
DB DOOR BASE HT	GV GAS VALVE
DH DOOR HEAD HT	HYD FIRE HYDRANT
DR DRAIN	IB ILLUMINATED BOLLARD
EXP EXTRACTOR FAN	IC INSPECTION COVER
FA FIRE ALARM	IL INVERT LEVEL
F-A FLOOR TO APEX HT	LP LAMP POST
F-C FLOOR TO CILL HT	MH MANHOLE
F-H FLOOR TO HEAD HT	MKR MARKER POST
F-S FLOOR TO SPRING HT	P POST
GEA GROSS EXTERNAL AREA	PM PARKING METER
GIA GROSS INTERNAL AREA	PI PIPE
GU GULLY	PLA PAVEMENT LIGHT
HT HEATER	RD ROADING RYE
HW HOT WATER TANK	RS ROAD SIGN
NIA NET INTERNAL AREA	RWP RAIN WATER PIPE
NTS NOT TO SCALE	SA SITE AREA
RAD RADIATOR	SB SIGN BOARD
RE RECESS HEAD HEIGHT	SI SIGN
RFV RAISED FLOOR VOID	SL SOFFIT LEVEL
RL ROOF LIGHT	SV STOP VALVE
RSH ROLLER SHUTTER	SWP SOIL VENT PIPE
RWP RAIN WATER PIPE	SW STORM WATER
S SWITCH	TBC TELEPHONE CALL BOX
SKT SOCKET	TL TRAFFIC LIGHT
SVP SOIL VENT PIPE	TP TELEGRAPH POLE
V VENT	UTL UNABLE TO LOCATE
VA WARDROBE	UTR UNABLE TO RAISE
	VP VENT PIPE
	WM WATER METER
	WT WATER TAP

Symbols (where applicable):

Direction of sloping ceiling

2.65

2.65

10.00

FLOOR TO STRUCTURAL CEILING HT

FLOOR TO SUSPENDED CEILING HT

FLOOR LEVEL RELATIVE TO DATUM

Notes:

The Survey has been computed on an arbitrary grid.

All Levels are in metres and relate to an arbitrary site datum.

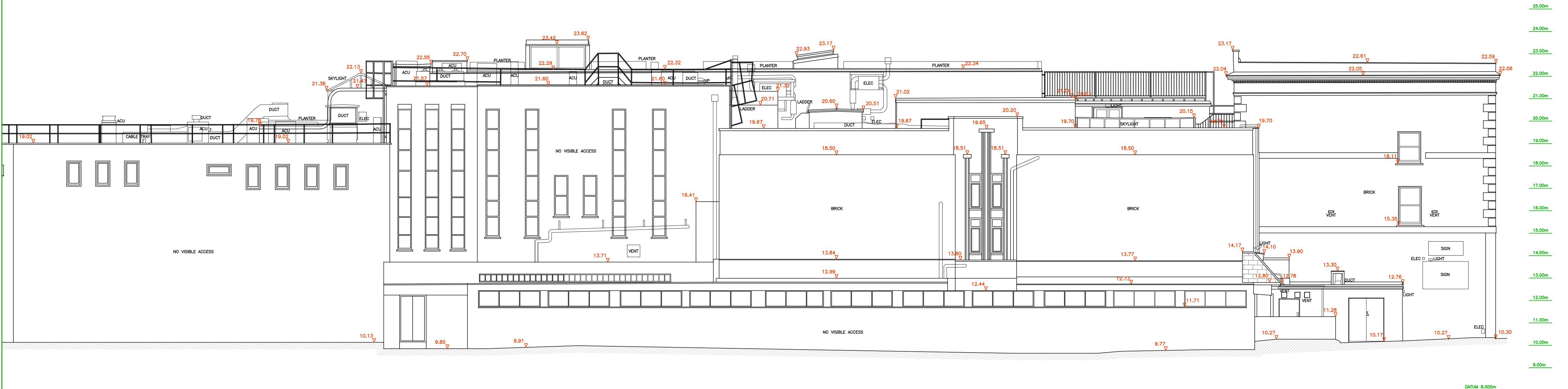
Station X1 Value 10.00m

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EXISTING ELEVATION 2

Rev

Date

By

Description

ARENA PROPERTY SERVICES LIMITED

CHARTERED SURVEYORS

LAND & MEASURED BUILDING SURVEYS

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020 7837 7721

www.arena-ps.com

surveys@arena-ps.com

Client:

LANDHOLD DEVELOPEMENTS

Project:

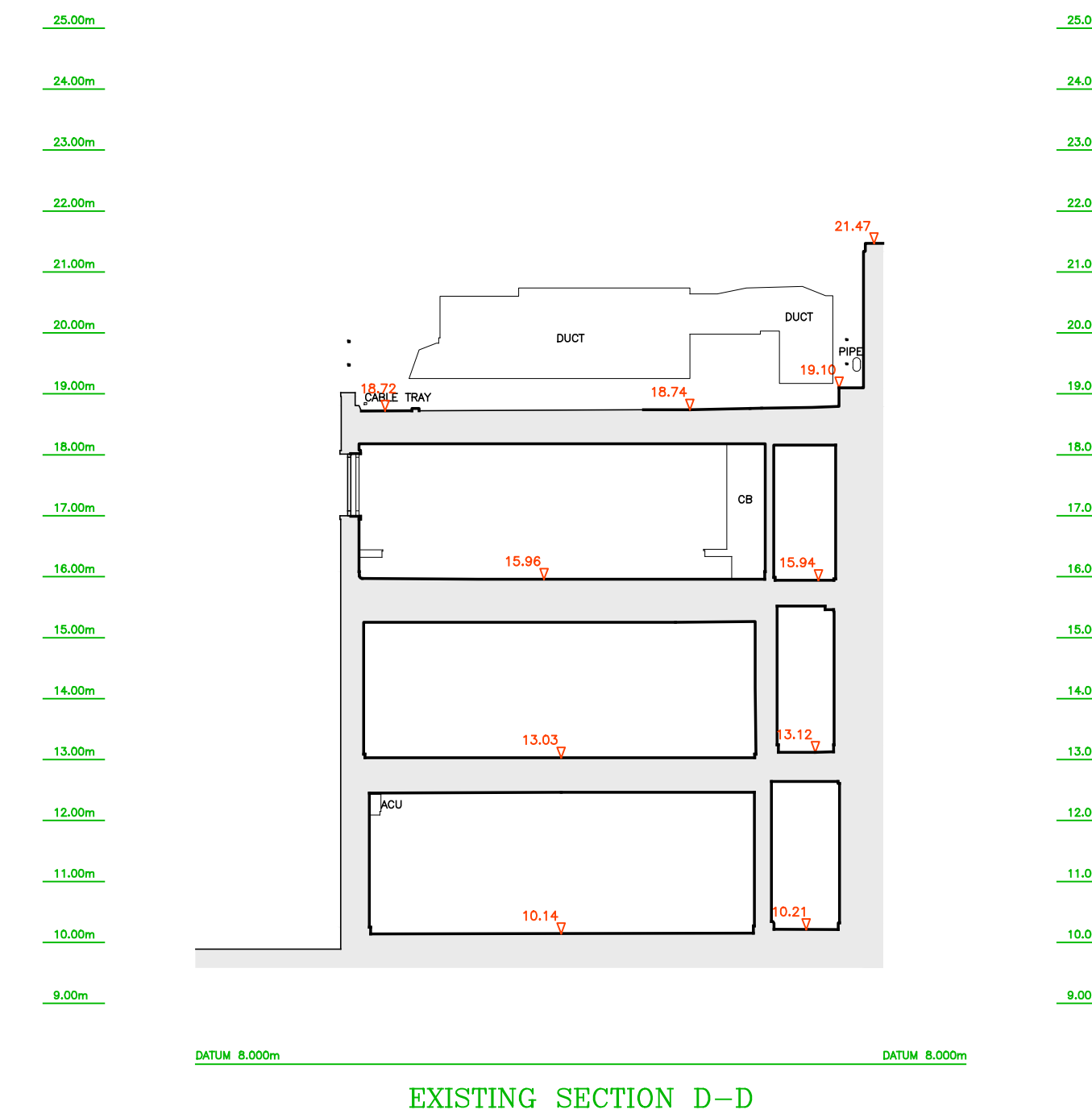
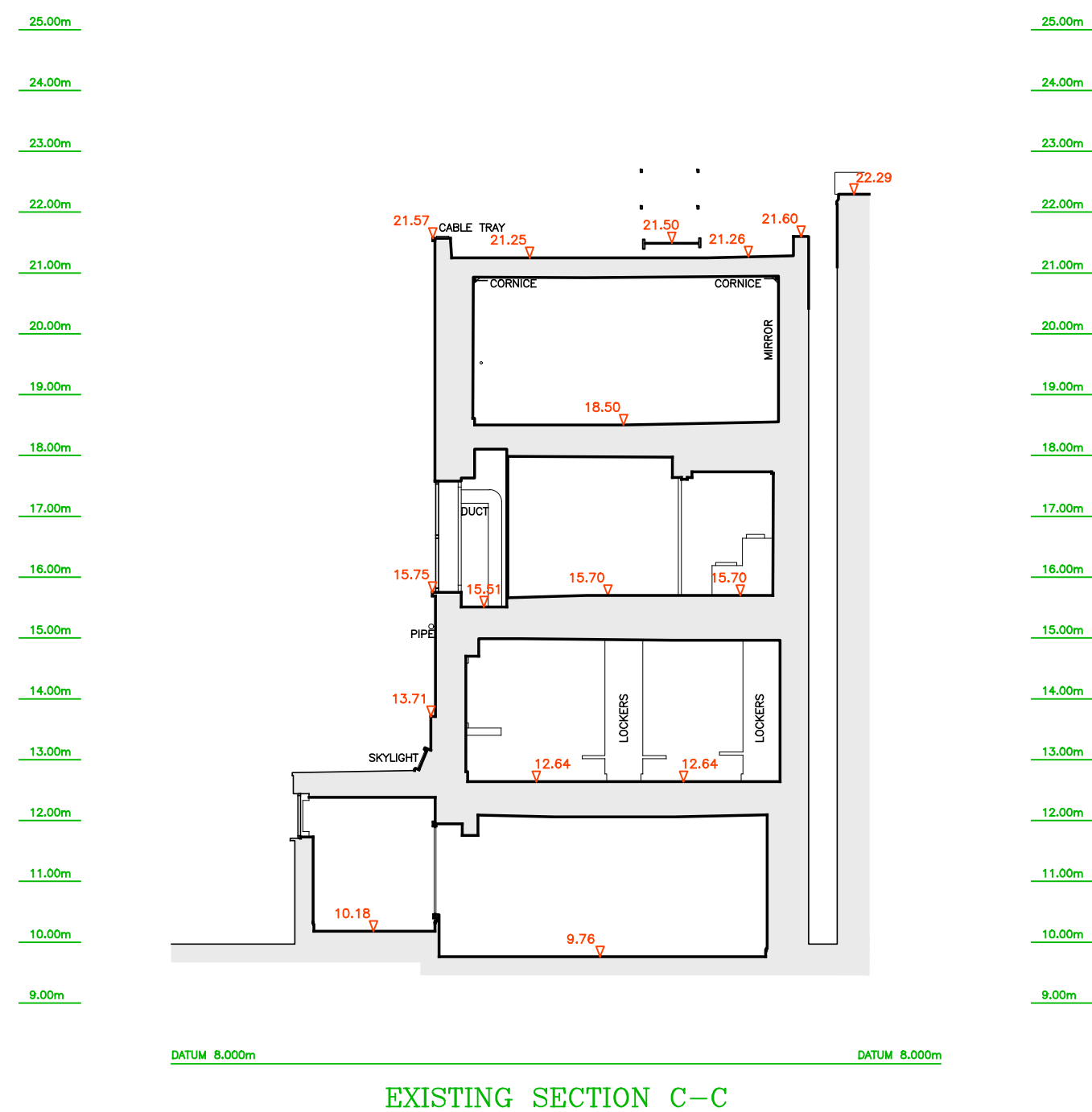
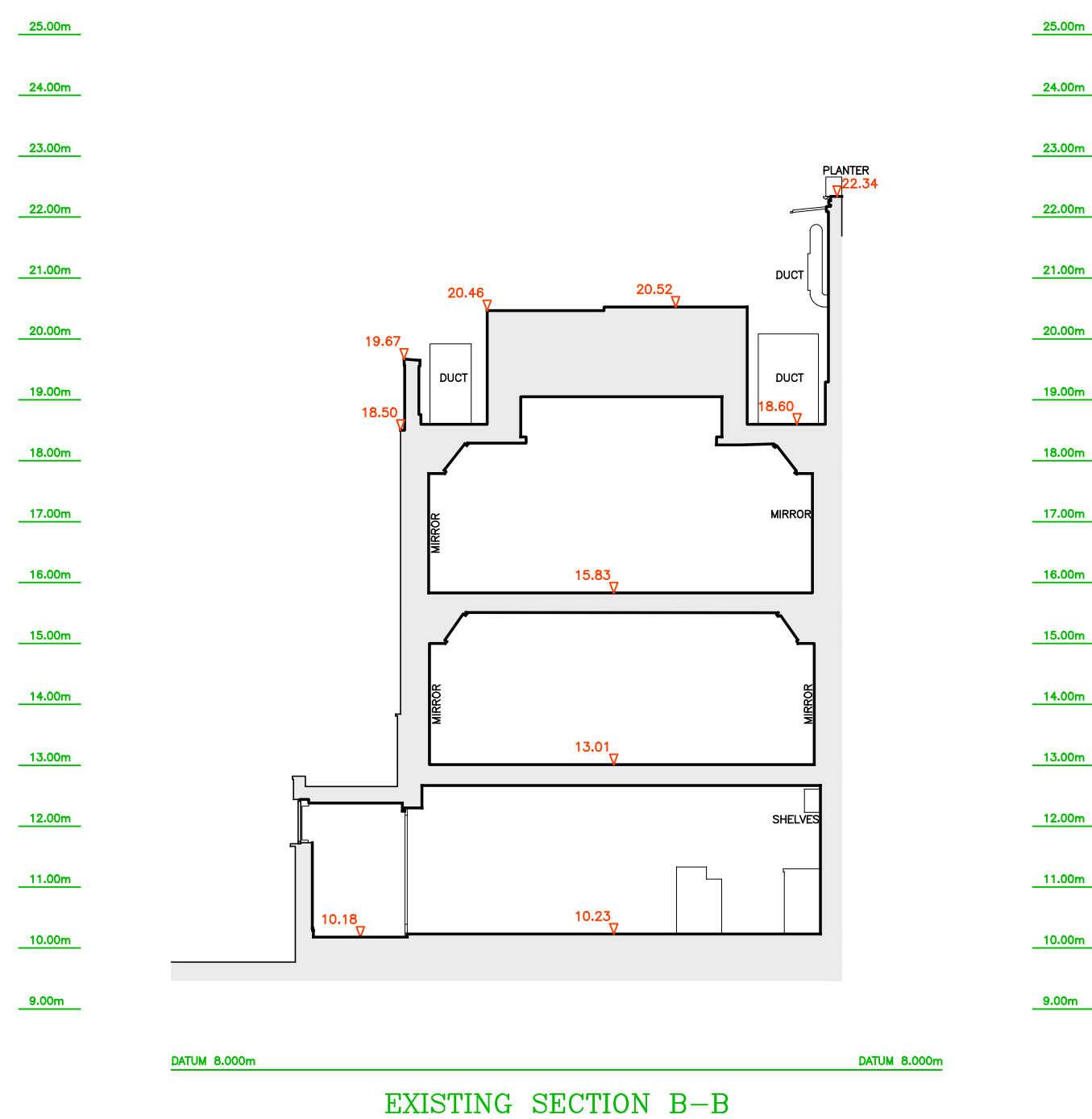
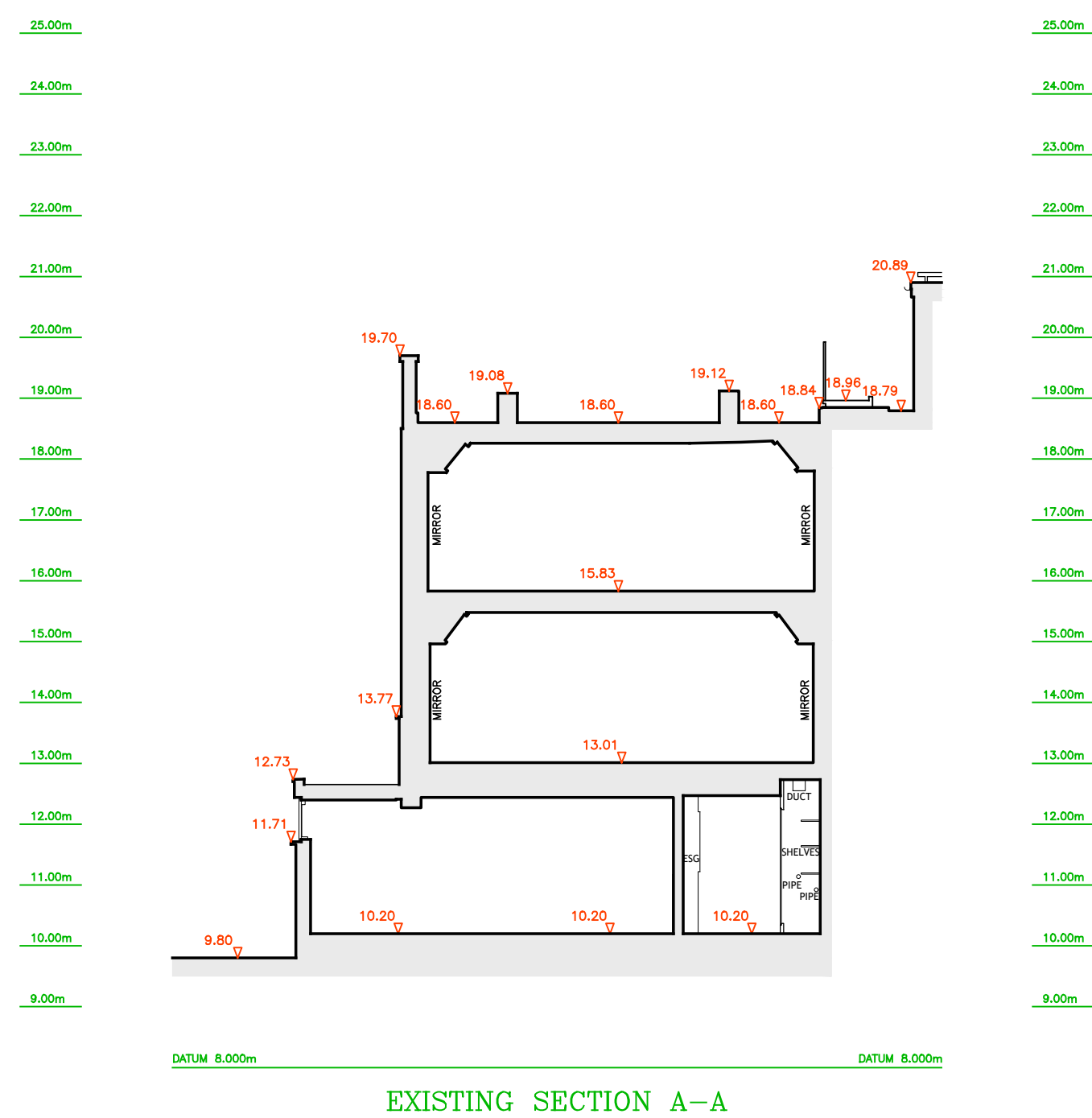
81 BELSIZE PARK GARDENS

LONDON NW3

Drawing Title:

EXISTING ELEVATION 2

Date:	Scale:	Surveyor:	Drawn:	Checked:
19.07.21	1:100@A1	AIB	ST	SEJ
Job No:	Drawing No:	Sheet No:	Rev:	
21055	21055-13-E-2	7 OF 9		



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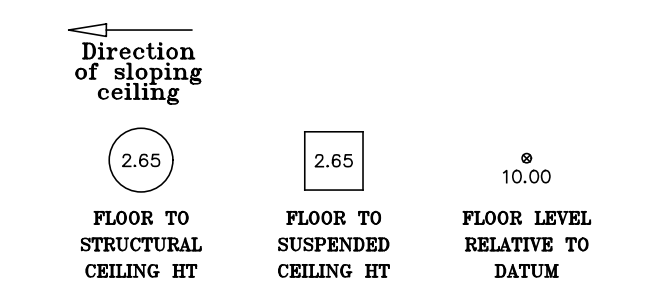
Drawing Naming Convention:

Job No	Code	Dwg type	Location	Ref
Code:	13 = Existing	14 = Proposed		
Dwg Type:	B = Building S = Section	E = Elevation T = Topographical		
Location:	B = Basement E = External G = Ground 1 = First R = Roof M = Mezzanine	C = Ceiling Plan F = Front S = Side Re = Rear GA = General Layout AA = Section A-A		
Ref	Ref to individual dwg	LD. (ex. Revision)		

Standard Abbreviations (where applicable):

Building Survey		Land Survey	
AB	AIR BRICK	B	BOLLARD
ACU	AIR CONDITIONING UNIT	BB	BELISHA BRACON
AD	ACCESS HATCH	BS	BUS STOP
AP	APPROACH PANEL	BUS	BUS SHUTTER
AV	AIR VALVE	CB	B.T. COVER
BH	BEAM HIT	CAM	CAMERA
BSL	BEAM SPOFF	CABLE	CABLE TV COVER
CC	CEILING CHANGE	CL	COVER LEVEL
CB	CLEAR INTERNAL HIT	ELEC	ELECTRIC COVER
C-H	CLEAR EXTERIOR HIT	E	ELECTRIC HOLE
C	CILL TO HEAD HIT	ER	EARTH ROD
C-S	CILL TO SPRING HIT	EW	FLAG POLE
DB	DOOR BASE HIT	FW	FOUL WATER
DD	DOOR HEAD HIT	GU	GULLY
DR	DRAIN	GV	GAZE VALVE
EX	EXTERIOR FAN	HYD	HYDRIANT
FA	FIRE ALARM	ID	ILLUMINATED BOLLARD
F-A	FLOOR TO APEL HIT	IB	INVERT LEVEL
F-H	FLOOR TO HEAD HIT	LP	LAND POST
F-S	FLOOR TO SPRING HIT	LM	LAND MARK
G	GROSS INTERNAL AREA	MR	MARKER POST
GIA	GROSS EXTERNAL AREA	PM	PAVING
GU	GROSS INTERNAL AREA	PI	PIPER
H	HEATER	PL	PLACEMENT LIGHT
HW	HOT WATER TANK	RO	ROBIDDING EYE
NL	NOT TO SCALE	RS	ROAD SIGN
NTS	NOT TO SCALE	RWP	RIVER WATER COVER
RD	RADIATOR	SA	SITE AREA
RE	RAISED FLOOR HEIGHT	SB	SIGN BOARD
RFV	RAISED FLOOR VOID	SI	SIGN
RL	ROOF LIGHT	SL	SLOTTED LEVEL
RSH	ROOF SHUTTER	SV	SOFT VALVE
RWP	ROOF WATER PIPE	SVT	SOFT VENT PIPE
SW	SWITCH	SW	STORM WATER
SWP	SWITCH WATER PIPE	TB	TELEPHONE (ALL BOLLARDS)
SVA	SOFT VENT PIPE	TF	TROUGH LIGHT
		TL	TELEGRAPHIC POLE
		UTL	UNABLE TO RAISE UTILITY
		UTR	UNABLE TO RAISE VENT PIPE
		VE	VENT PIPE
		W	WATER METER
WA	WARDROBE	WT	WATER TAP

Symbols (where applicable).



Notes:

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Station XI Value 10.00m

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Rev	Date	By	Description
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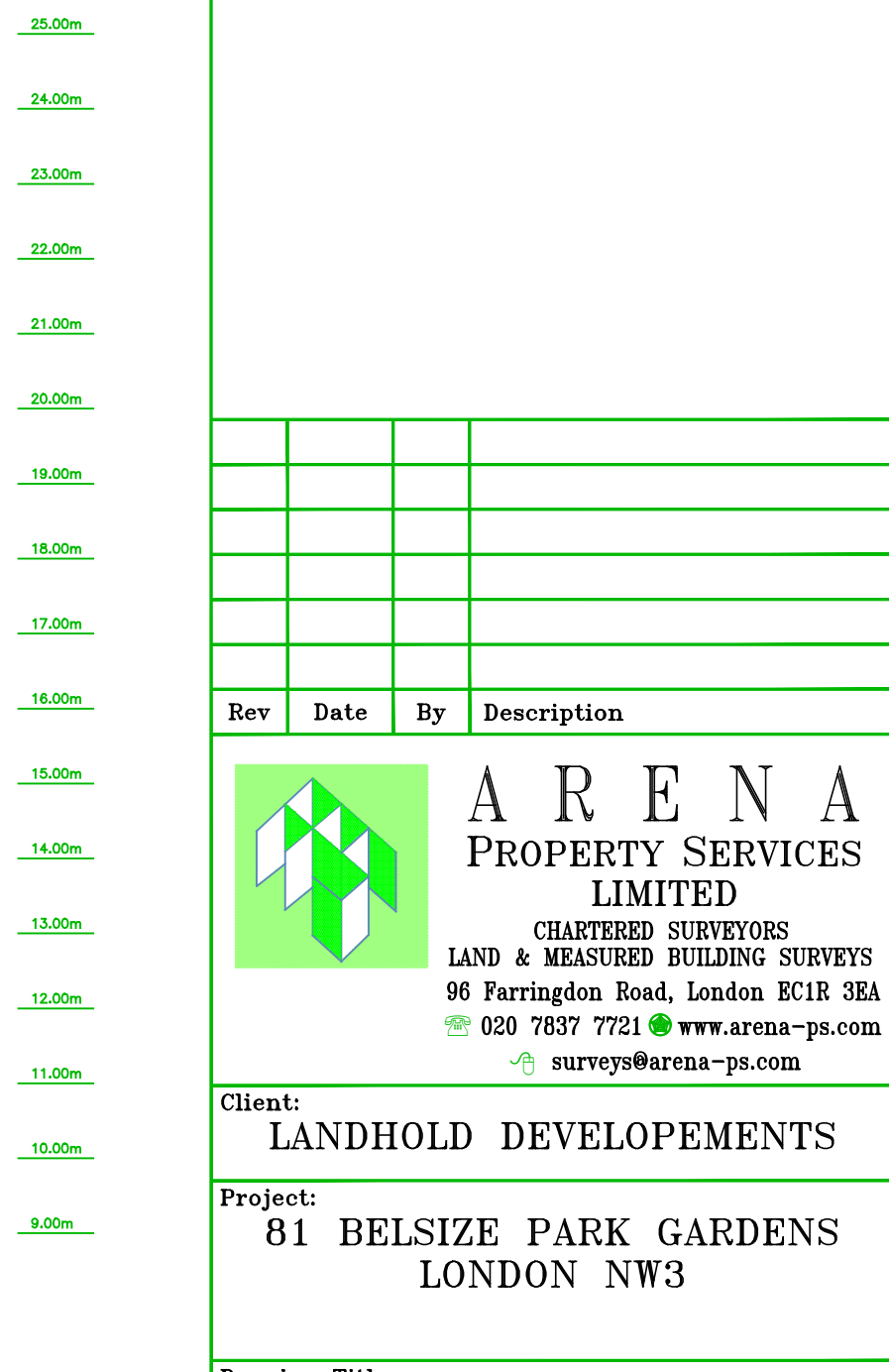
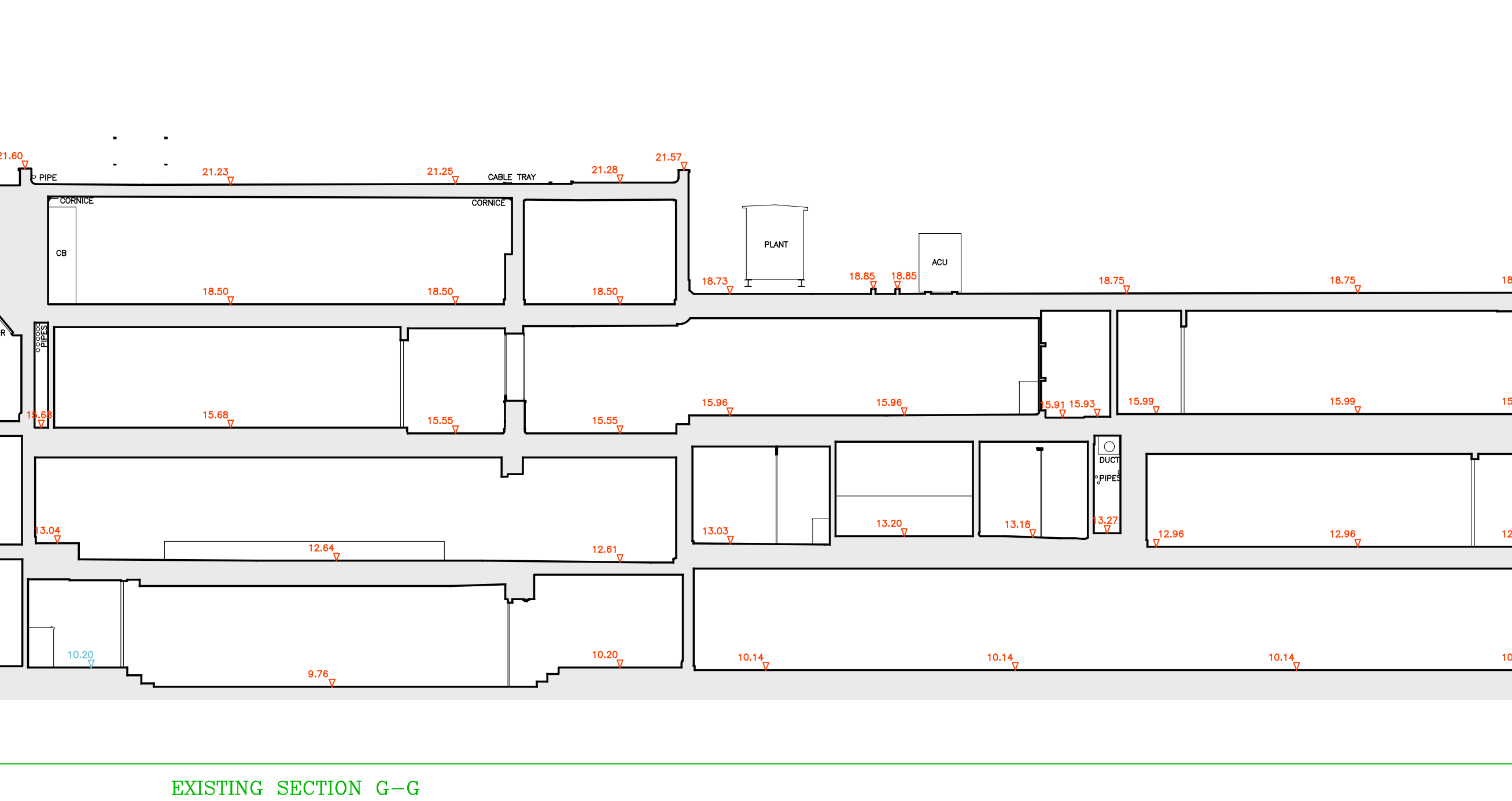
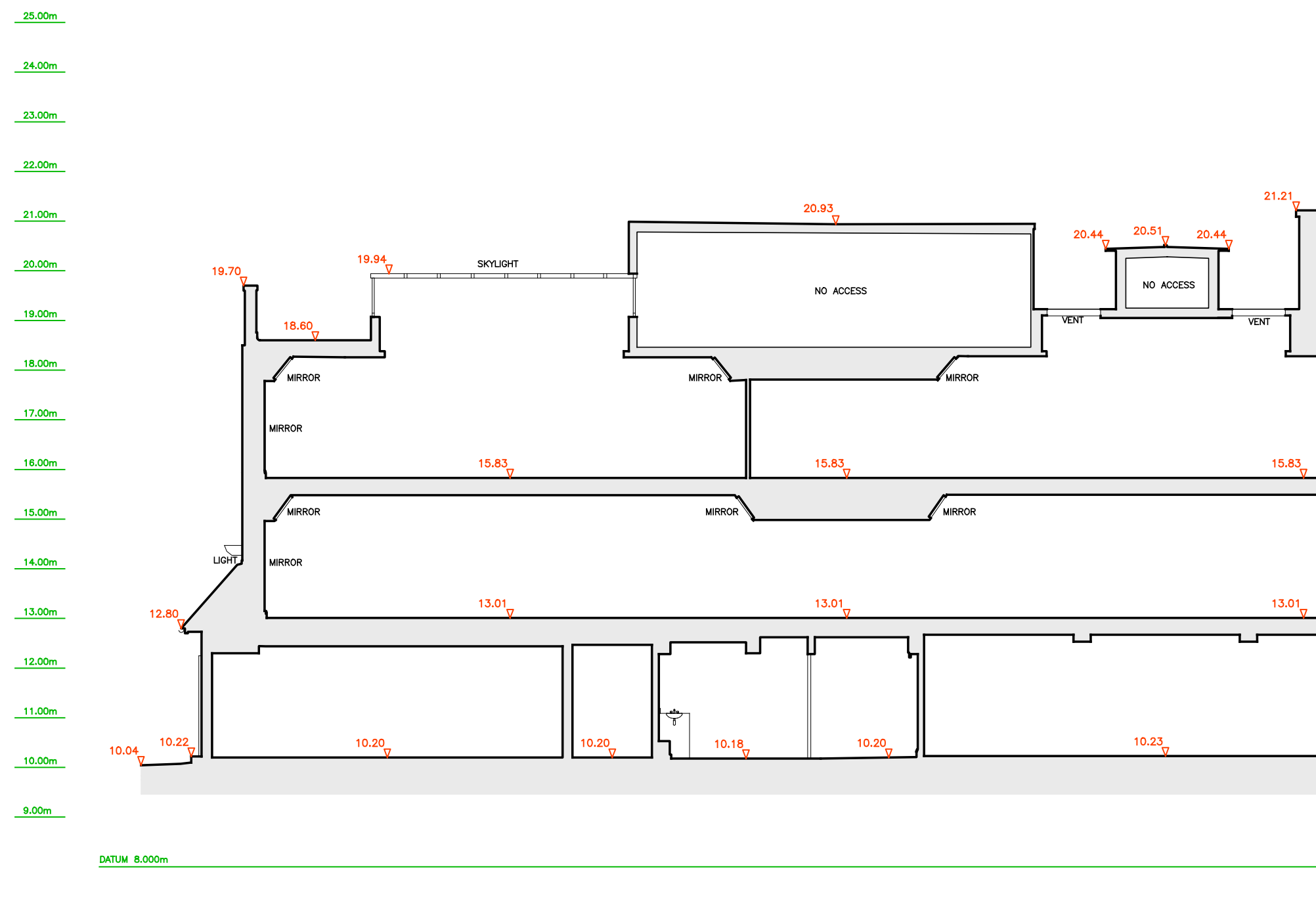


Client: LANDHOLD DEVELOPEMENTS

Project:
81 BELSIZE PARK GARDENS
LONDON NW3

Drawing Title:
EXISTING SECTIONS
A, B, C, D

Date: 19.07.21	Scale: 1:100@A1	Surveyor: AIB	Drawn: ST	Checked SEJ
Job No: 21055	Drawing No: 21055-13-S-GA	Sheet No: 8 OF 9	Rev:	



Standard Abbreviations (where applicable):			
Building Survey		Land Survey	
AB	AIR BRICK CONDITION	D	DRAIN
ACU	AIR CIRCULATION	BB	BELLSH BRACON
AV	ACCESS HATCH	BS	BUS STOP
AP	APPROACH PANEL	B	BUS SHIFTER
AV	AIR VALVE	CB	B.T. COVER
BD	BEAM RT	CAM	CAMERA
BSL	BELLSH BR	CL	CABLE TV COVER
BSL	BEAM SOFFIT LEVEL	CE	CLEAR TV COVER
CB	CR	ELEC	ELECTRIC POLE
CS	CRILING CHANGING	EP	ELECTRIC POLE
CIH	CLEAR INTERNAL HT	ER	ERATH ROAD
C-A	CUT TO APEX HT	FL	FLAP POLE
C-H	CIL TO CIL HEAD HT	FW	FOUL WATER
C-S	CIL TO SPRING HT	GL	GLASS POLE
DB	DOOR BASE HT	GV	GAS VALVE
DE	DOOR HEAD HT	HYD	PIPE HYDRANT
DR	DRAIN	IL	ILLUMINATED HOLLARI
EXF	EXTRACTOR FAN	IC	INSPECTION COVER
F-A	FIRE ALARM	LI	LIANT
F-C	FLOOR TO APEX HT	LP	LAND POLE
F-C	FLOOR TO CIL HT	ML	MANHOLE
F-C	FLOOR TO CIL HT	MR	MARKER POST
F-S	FLOOR TO SPRING HT	P	POST
G-A	GROSS INTERNAL AREA	PM	PARKING METER
GLA	GROSS INTERNAL AREA	PI	PIPE
GU	GULCH	PLA	PAVEMENT LIGHT
HT	HEAD	RO	RODING PIPE
HW	HW WATER TANK	RD	ROAD SIGN
INT	NET INTERNAL AREA	RP	RAIN WATER PIPE
NAD	NET AREA	SA	SITE AREA
RAD	RADIATOR	SB	SIGN BOARD
RE	RECESS HEAD LIGHT	SI	SIGN
RF	RECESS FLOOR VOID	SL	SLOPE
RL	ROOF LIGHT	SV	SOFT VALVE
RSH	RECESS HEAD LIGHT	SW	SOFT VALVE
RWP	RAIN WATER PIPE	SW	STORM WATER
S	SWITCH	TCB	TELEPHONE CALL BOX
SET	SET	TR	TRAFFIC LIGHT
SVP	SOFT VALVE PIPE	TF	TELEGRAPH POLE
V	VENT	UN	UNABLE TO REPAIR
W	WARDROBE	UTR	UNABLE TO RAISE
		VP	VENT PIPE
		WT	WATER METER
		WT	WATER PIP

Direction
of sloping
ceiling

FLOOR TO STRUCTURAL CEILING HT	FLOOR TO SUSPENDED CEILING HT	FLOOR LEVEL RELATIVE TO DATUM
2.65	2.65	10.00

Notes:

- The Survey has been computed on an arbitrary grid.
- All Levels are in metres and relate to an arbitrary site datum.
- Station XI Value 10.00m
- All direction arrows indicate DOWN unless otherwise stated.
- Drainage pipe sizes (where shown) have been gauged from the surface (for safety reasons) and should be regarded as approximate only.
- Visible features in the vicinity of any boundaries, as shown on this survey, may not represent the extent of legally covered ownership.
- Whilst every effort has been made to determine wall materials, no guarantee is given. Materials should be regarded as assumed unless verified by a qualified third party.

Rev	Date	By	Description
 ARENA PROPERTY SERVICES LIMITED CHARTERED SURVEYORS LAND & MEASURED BUILDING SURVEYS 96 Farringdon Road, London EC1R 3EA 📞 020 7837 7721 🌐 www.arena-ps.com surveys@arena-ps.com			

Client: LANDHOLD DEVELOPEMENTS				
Project: 81 BELSIZE PARK GARDENS LONDON NW3				
Drawing Title: EXISTING SECTION E, F, G				
Date: 19.07.21	Scale: 1:100@A1	Surveyor: AIB	Drawn: ST	Checked: SEJ
Job No: 21055	Drawing No: 21055-13-S-GA1	Sheet No: 9 OF 9		Rev:

APPENDIX 02: THAMES WATER ASSET PLANS

Asset location search



Property Searches

SLR Consulting
83 Victoria Street
LONDON
SW1H 0HW

Search address supplied 81 Belgrave Gardens

Your reference E00.60674.00PP

Our reference ALS/ALS Standard/2021_4483436

Search date 6 August 2021

Knowledge of features below the surface is essential for every development

The benefits of this knowledge not only include ensuring due diligence and avoiding risk, but also being able to ascertain the feasibility of any development.

Did you know that Thames Water Property Searches can also provide a variety of utility searches including a more comprehensive view of utility providers' assets (across up to 35-45 different providers), as well as more focused searches relating to specific major utility companies such as National Grid (gas and electric).

Contact us to find out more.



Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW
DX 151280 Slough 13



searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk



0800 009 4540

Search address supplied: 81 Belgrave Gardens,

Dear Sir / Madam

An Asset Location Search is recommended when undertaking a site development. It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This search provides maps showing the position, size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0800 009 4540, or use the address below:

Thames Water Utilities Ltd
Property Searches
PO Box 3189
Slough
SL1 4WW

Email: searches@thameswater.co.uk

Web: www.thameswater-propertysearches.co.uk

Waste Water Services

Please provide a copy extract from the public sewer map.

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority.

Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners.

This report relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus.

The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

Clean Water Services

Please provide a copy extract from the public water main map.

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies.

For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer Centre on 0800 316 9800. The Customer Centre can also arrange for a full flow and pressure test to be carried out for a fee.



For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Payment for this Search

A charge will be added to your suppliers account.

Further contacts:

Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. For further information please contact our Customer Centre on Tel: 0845 920 0800. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, budget estimates, diversions, building over issues or any other questions regarding operational issues please direct them to our service desk. Which can be contacted by writing to:

Developer Services (Waste Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

Clean Water queries

Should you require any advice concerning clean water operational issues or clean water connections, please contact:

Developer Services (Clean Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.

NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

Manhole Reference	Manhole Cover Level	Manhole Invert Level
3605	59.65	58.06
3603	60.03	57.67
4602	57.77	53.04
3606	n/a	n/a
3604	60.12	55.97
471A	n/a	n/a
3512	n/a	n/a
3511	n/a	n/a
3618	n/a	n/a
3617	n/a	n/a
361A	n/a	n/a
3602	60.08	n/a
2504	n/a	n/a
The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.		



ALS Sewer Map Key

Public Sewer Types (Operated & Maintained by Thames Water)

	Foul: A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
	Surface Water: A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.
	Combined: A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.
	Trunk Surface Water
	Trunk Foul
	Storm Relief
	Trunk Combined
	Bio-solids (Sludge)
	Vent Pipe
	Proposed Thames Surface Water Sewer
	Proposed Thames Water Foul Sewer
	Gallery
	Foul Rising Main
	Surface Water Rising Main
	Combined Rising Main
	Sludge Rising Main
	Proposed Thames Water Rising Main
	Vacuum

Notes:

- 1) All levels associated with the plans are to Ordnance Datum Newlyn.
- 2) All measurements on the plans are metric.
- 3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate direction of flow.
- 4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.
- 5) 'na' or 'D' on a manhole level indicates that data is unavailable.

Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

	Air Valve
	Dam Chase
	Fitting
	Meter
	Vent Column

Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

	Control Valve
	Drop Pipe
	Ancillary
	Weir

End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol, Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

	Outfall
	Undefined End
	Inlet

Other Symbols

Symbols used on maps which do not fall under other general categories

	Public/Private Pumping Station
	Change of characteristic indicator (C.O.C.I.)
	Invert Level
	Summit

Areas

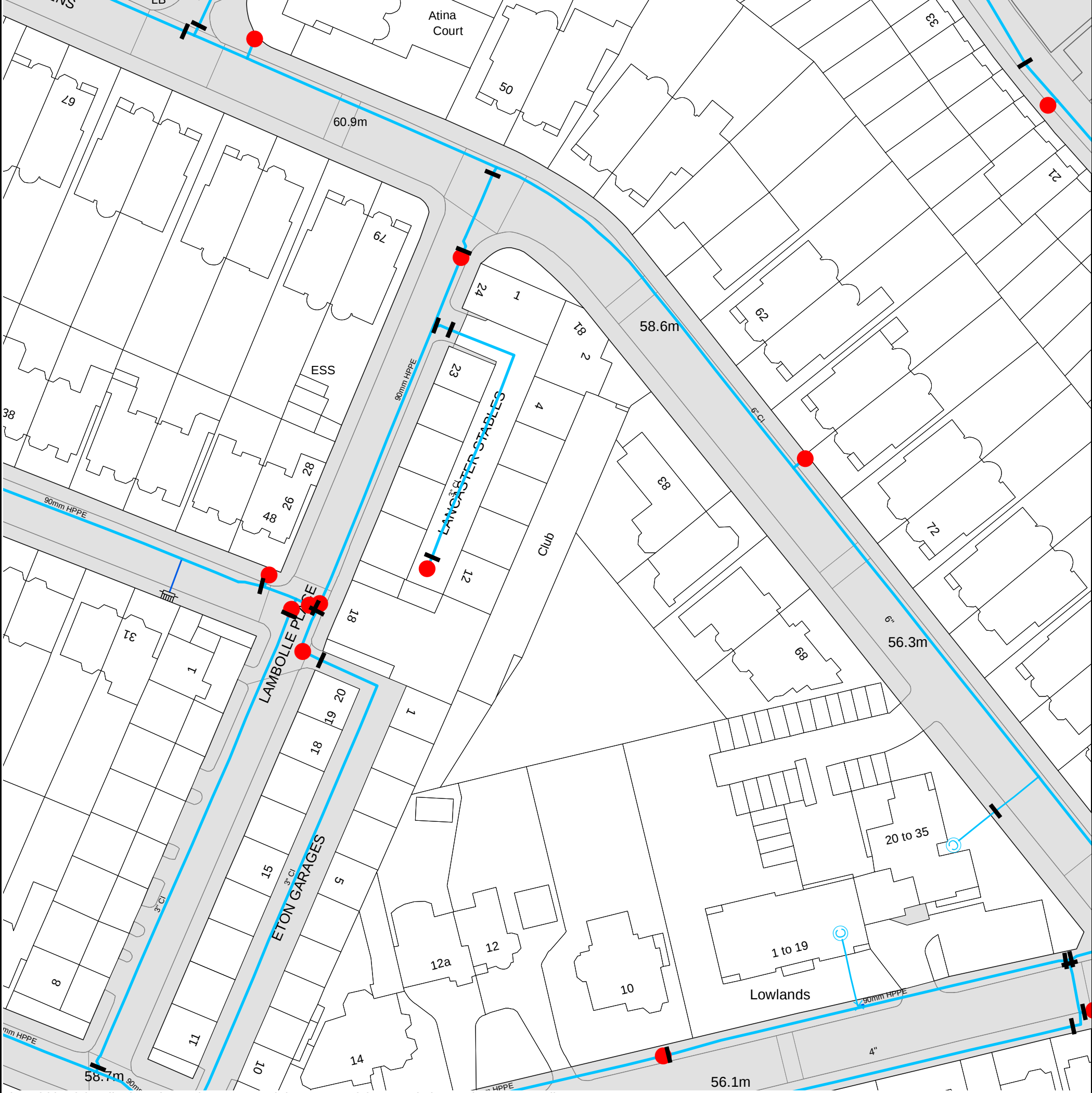
Lines denoting areas of underground surveys, etc.

	Agreement
	Operational Site
	Chamber
	Tunnel
	Conduit Bridge

Other Sewer Types (Not Operated or Maintained by Thames Water)

	Foul Sewer		Surface Water Sewer
	Combined Sewer		Gully
	Culverted Watercourse		Proposed
			Abandoned Sewer

- 6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimetres. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology present on the plan, please contact a member of Property Searches on 0800 009 4540.



The width of the displayed area is 200 m and the centre of the map is located at OS coordinates 527374, 184635.
The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

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ALS Water Map Key

Water Pipes (Operated & Maintained by Thames Water)

4"	Distribution Main: The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.
16"	Trunk Main: A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.
3" SUPPLY	Supply Main: A supply main indicates that the water main is used as a supply for a single property or group of properties.
3" FIRE	Fire Main: Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.
3" METERED	Metered Pipe: A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.
	Transmission Tunnel: A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.
	Proposed Main: A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

Valves

	General Purpose Valve
	Air Valve
	Pressure Control Valve
	Customer Valve

Hydrants

	Single Hydrant
--	----------------

Meters

	Meter
--	-------

End Items

Symbol indicating what happens at the end of a water main.

	Blank Flange
	Capped End
	Emptying Pit
	Undefined End
	Manifold
	Customer Supply
	Fire Supply

Operational Sites

	Booster Station
	Other
	Other (Proposed)
	Pumping Station
	Service Reservoir
	Shaft Inspection
	Treatment Works
	Unknown
	Water Tower

Other Symbols

	Data Logger
--	-------------

Other Water Pipes (Not Operated or Maintained by Thames Water)

	Other Water Company Main: Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.
	Private Main: Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.

Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of Thames Water Utilities Ltd until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment 14 days from due date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service, or will be held to be invalid.
4. Thames Water does not accept post-dated cheques-any cheques received will be processed for payment on date of receipt.
5. In case of dispute TWUL's terms and conditions shall apply.
6. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
7. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
8. A charge may be made at the discretion of the company for increased administration costs.

A copy of Thames Water's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us on 0800 316 9800

If you are unhappy with our service you can speak to your original goods or customer service provider. If you are not satisfied with the response, your complaint will be reviewed by the Customer Services Director. You can write to her at: Thames Water Utilities Ltd. PO Box 492, Swindon, SN38 8TU.

If the Goods or Services covered by this invoice falls under the regulation of the 1991 Water Industry Act, and you remain dissatisfied you can refer your complaint to Consumer Council for Water on 0121 345 1000 or write to them at Consumer Council for Water, 1st Floor, Victoria Square House, Victoria Square, Birmingham, B2 4AJ.

Ways to pay your bill

Credit Card	BACS Payment	Telephone Banking	Cheque
Call 0800 009 4540 quoting your invoice number starting CBA or ADS / OSS	Account number 90478703 Sort code 60-00-01 A remittance advice must be sent to: Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW. or email ps.billing@thameswater.co.uk	By calling your bank and quoting: Account number 90478703 Sort code 60-00-01 and your invoice number	Made payable to ' Thames Water Utilities Ltd ' Write your Thames Water account number on the back. Send to: Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW or by DX to 151280 Slough 13

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