

79 GUILFORD ST WICN 1DF

OUTLINE DRAINAGE STRATEGY

Project Ref: J001413

May 2019

Revision A

REVISION HISTORY

Rev	Purpose	Date	Issued By	Approved
0	Initial Issue	26/04/19	MJE	
Α	Updated drawings	15/05/2019	MJE	PB

INTRODUCTION

The site comprises of a 5 storey (including basement) terrace house at 79 Guilford Street with a single storey rear extension. Under the new proposals the existing basement is extended towards the rear. The existing single storey rear extension is demolished and a new single storey extension is constructed in its place. Please refer to BUF Architects drawings in appendix A.

1. DETAILS OF SURFACE WATER DRAINAGE SCHEME

1.1 <u>Existing Surface Water Drainage Strategy</u>

The current strategy comprises a piped gravity system which is a combined sewer throughout the site and discharges to an existing combined sewer located in Guilford Street. Please refer to survey information in appendix B

1.2 Existing Site

Currently the site is covered by the main house and rear extension. The existing rear garden is partly surfaced by pea gravel above a plastic membrane (impermeable) and wooden decking covering an area adjacent to rear wall of the main house. The raised planting beds in the rear garden will provide some infiltration and temporary retention. The estimated impermeable area of the site is 142m2. The total site area is 161.4m2. Please refer to existing survey drawings in appendix C

1.3 New Development

The proposed development consist of renovation of the main house. Demolition of the existing rear extension and the construction of two single storey galleries with adjacent courtyards. The existing basement is increase to the rear of the property. It is proposed to include SuDS elements in the proposed surface water drainage.

The lower gallery roof will have a Sedum roof by Bauder and the lower courtyard will make use of permeable paving. Please refer to GSE drawings SK-P201 & 202 in appendix D. These two systems will provide temporary retention and infiltration respectfully as well as evaporation. The area of the green roof is 20.6m2 and permeable paving is 10.6m2. This leaves a total impermeable area of 130.2m2 in the proposed scheme. This provides a net reduction of impermeable area of 11.8m2. As such, the peak discharge off the site will be less than the existing.

Owing to the low outfalls proposed, in order to achieve self cleansing velocities we are not proposing to attenuate this flow further than the provision of the green roof and permeable paving.

1.4 Proposed New Drainage Strategy

The majority of existing drainage will be removed and new surface and foul lines will be laid as shown on GSE drawing SK-P-200 in appendix D.

The proposed strategy is to run the surface drainage via a piped gravity system separate from the foul system to discharge into the existing manhole in the front lightwell. This will be connected to the final manhole on site before discharging into the public sewer by gravity on Guilford Street. The existing drainage run from final manhole to public sewer is to be utilized.

It is to be noted that the rear lightwells, the RWP from the green roof and from cavity drainage system are pumped to the final manhole as shown on GSE drawing SK-P-200 in appendix D. All pump chambers to have 24 hour storage and a high level alarm fitted.

All other surface water drainage discharges by gravity to the final manhole.

1.5 <u>Identification of flooding risk.</u>

The site is consider to be a very low risk of flooding. The site lies within the Environment Agency's Flood Zone 1. Guilford Street falls within Critical Drainage Area Group 3 but does not fall within a Local Flood Risk Zone (LFRZ). Please refer to sections 5 and 10.8 in the site investigation report (extract) in appendix E.

The inclusion of SuDS elements in the proposed scheme will further reduce the flood risk.

2. <u>DETAILS OF FOUL WATER DISPOSAL SCHEME</u>

2.1 Existing Foul Water Drainage Strategy

The current strategy comprises a piped gravity system which is a combined sewer throughout the site and discharges to an existing combined sewer located in Guilford Street.

2.2 <u>Existing discharge from Site</u>

The existing property is a 5 storey (including basement) terrace house at 79 Guilford Street with a single storey rear extension.

2.3 <u>Proposed discharge from Development</u>

The primary use of the property is a single dwelling. There will be occasional gallery viewings at the property. We are of the opinion that the peak in discharge from the site during gallery viewings will have minimal effect on the overall discharge from the site. This increase should be offset by the reduction of the surface water runoff as discussed in section 1.

2.4 <u>Proposed New Drainage Strategy</u>

The majority of existing drainage will be removed and new surface and foul lines will be laid as shown on GSE drawing SK-P-200.

The proposed strategy is to run the foul drainage via a piped gravity system separate from the surface water system to discharge into the existing manhole in the front lightwell. This will be final manhole on site before discharging into the public sewer by gravity on Guilford Street. The existing drainage run from final manhole to public sewer is to be utilized.

It is to be noted that the rear bathroom is pumped to the final manhole as shown on GSE drawing SK-P-200. This is due to the rear basement level being lower that the rest of basement. All pump chambers to have 24 hour storage and a high level alarm fitted. All other foul water drainage discharges by gravity to the final manhole.

3. <u>IMPACT ON GROUND WATER</u>

3.1 The amount of proposed infiltration from the permeable paving will not have an adverse effect on groundwater conditions.

4. IMPACT ON STRUCTURAL STABILITY

4.1 The proposed drainage will not affect structural stability of this property or adjoining properties.

5. MANAGEMENT PLAN FOR THE LIFETIME OF THE DEVELOPMENT

5.1 The on-site drainage will be managed and maintained by an appointed Management Body

Yours sincerely

Mike Egan

Green Structural Engineering Ltd.

Michael agan

The following appendices are included with this report:

APPENDICES

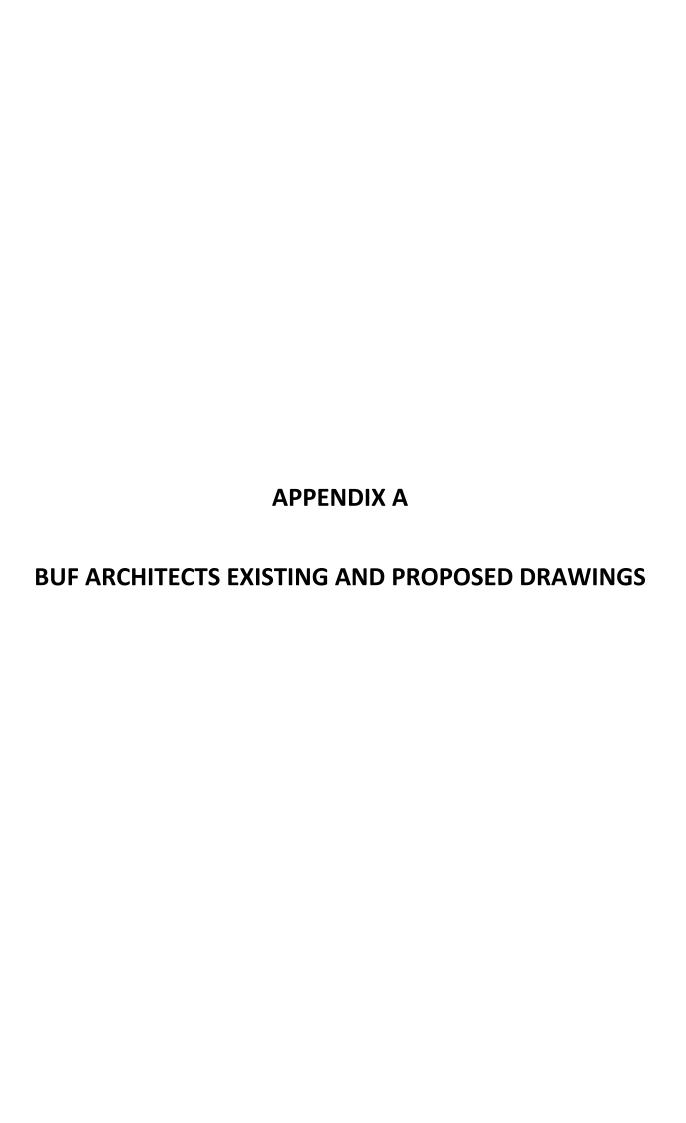
Appendix A - BUF Architects existing and proposed drawings

Appendix B - Existing Drainage Survey

Appendix C - Edward Gardner Survey Drawings

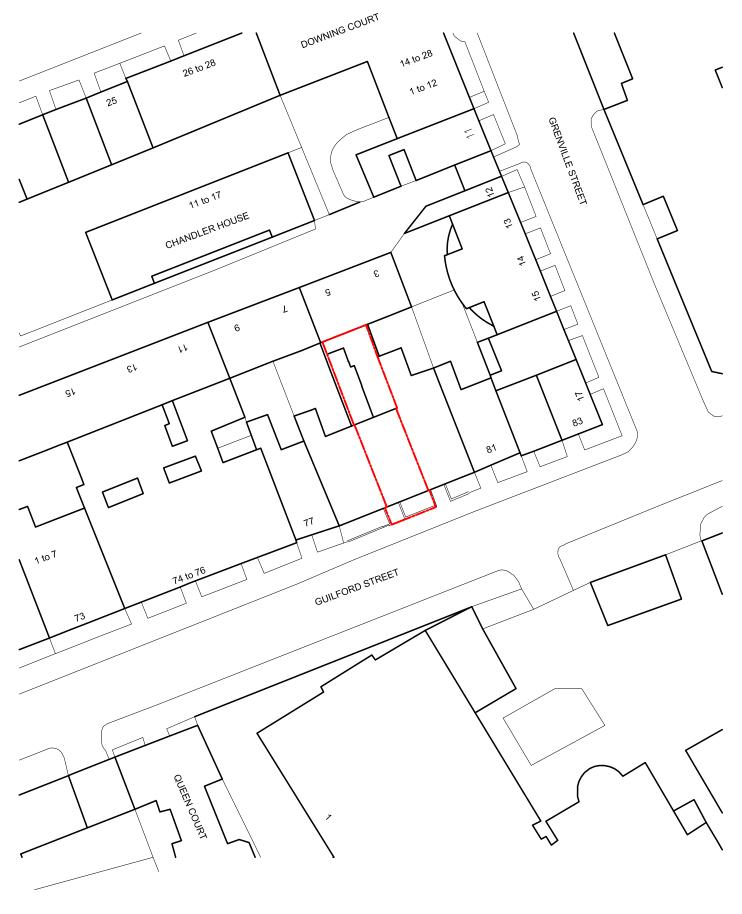
Appendix D - GSE Proposed Drainage Drawings

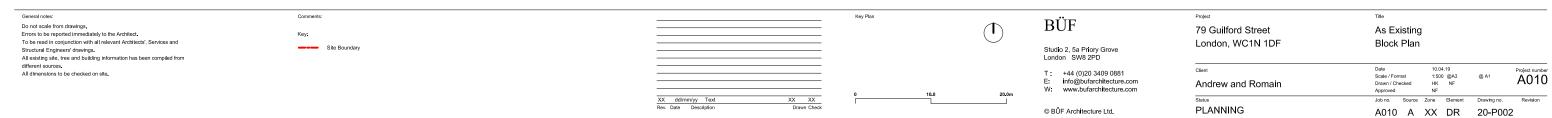
Appendix E - Extract of Site investigation Report

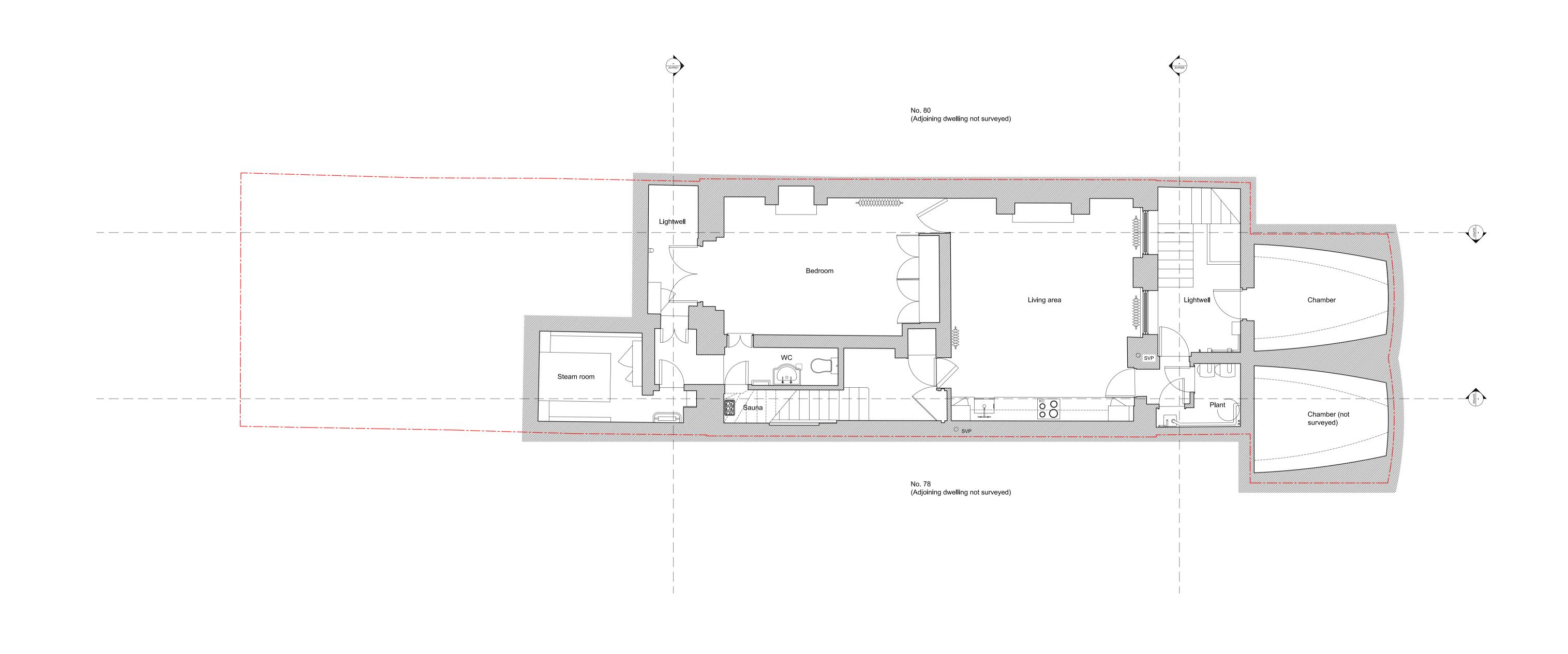


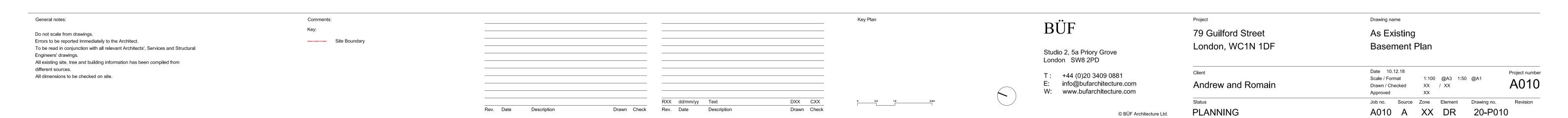
A010 A XX DR 20-P001	Status PLANNING	ĕ	50.0m	25.0	°	Drawn Check	Rev. Date Description	
	Client Andrew & Romain	T: +44 (0)20 3409 0881 E: Info@bufarchltecture.com						different sources. All dimensions to be checked on site.
	London, WC1N 1DF	Studio 2, 5a Priory Grove London SW8 2PD						To be read in conjunction with all relevant Architects', Services and Structural Engineers' drawings. All existing site, tree and building information has been compiled from
	79 Guilford Street	BUF	\ni					Do not scale from drawings. Errors to be reported immediately to the Architect.
	Project	1.			Key Plan			General notes:

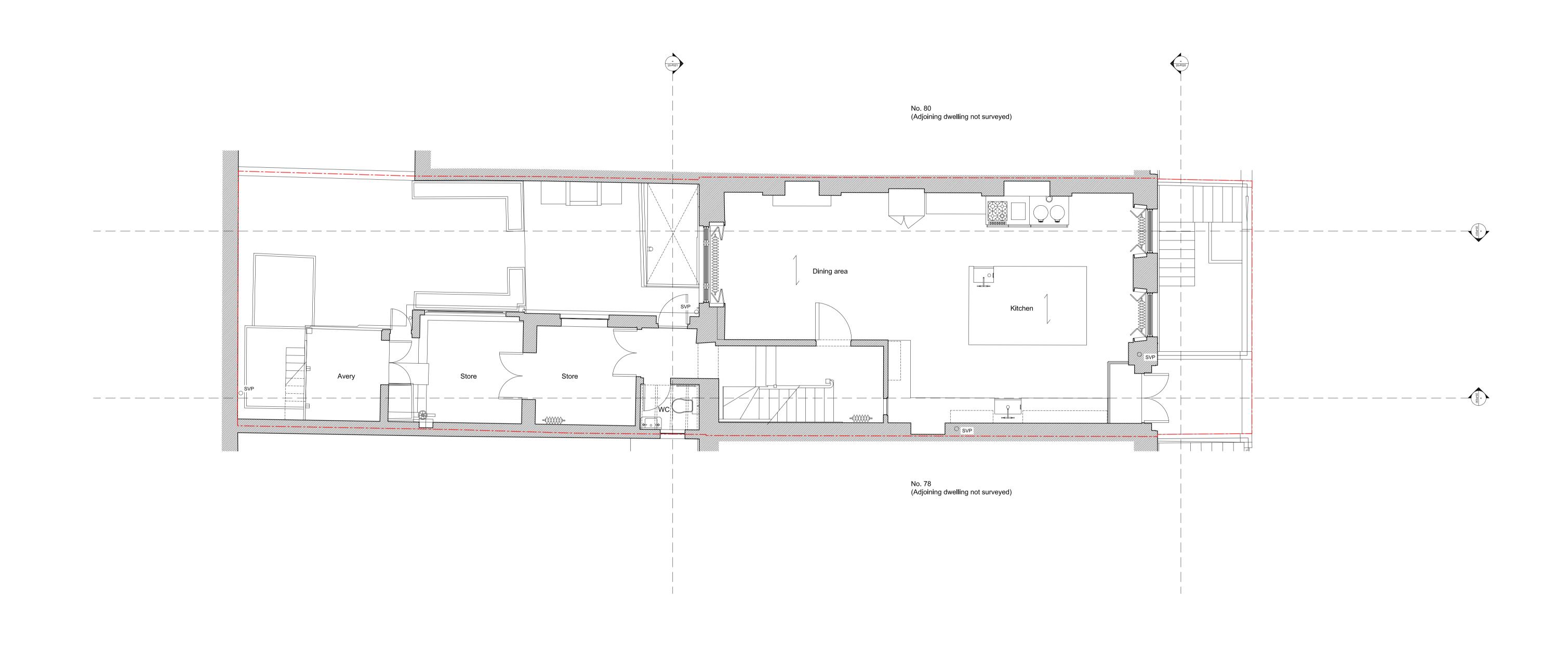


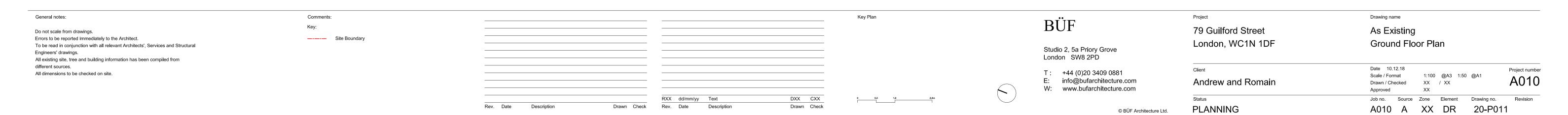


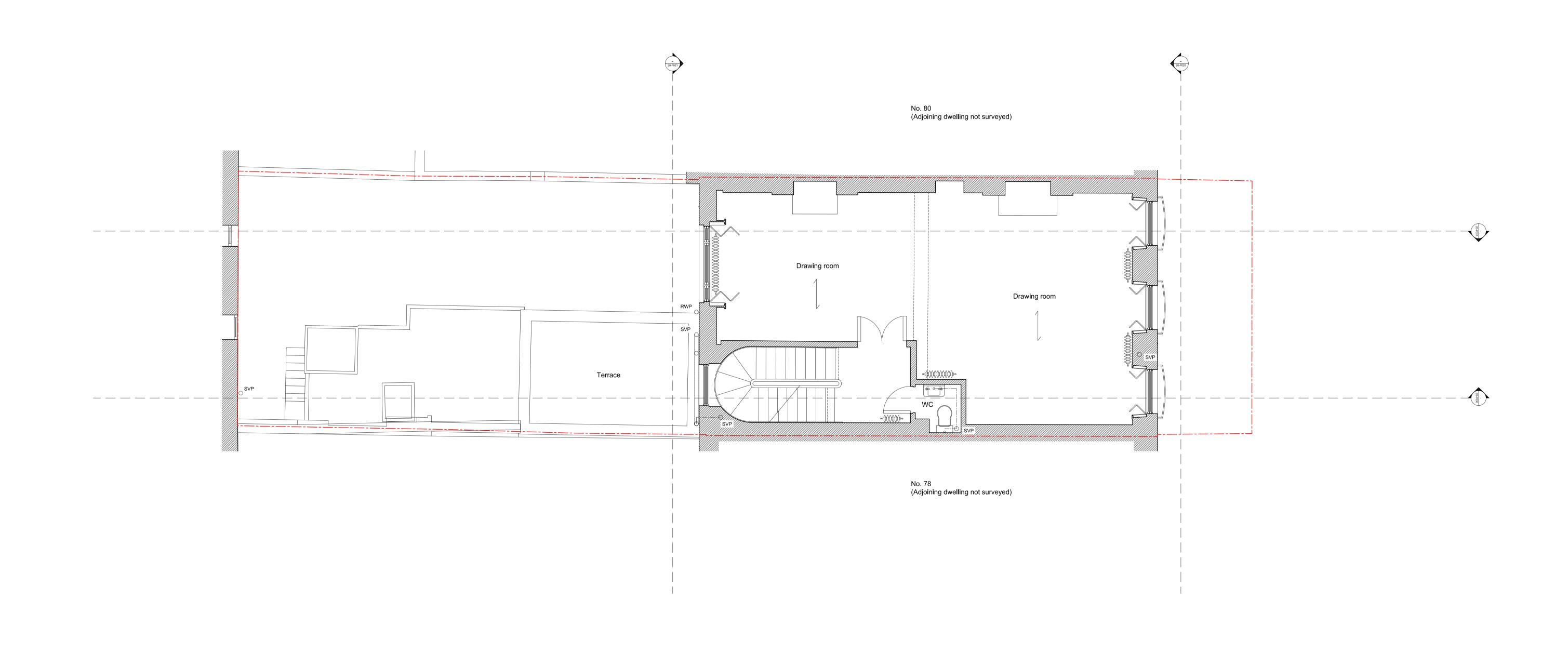


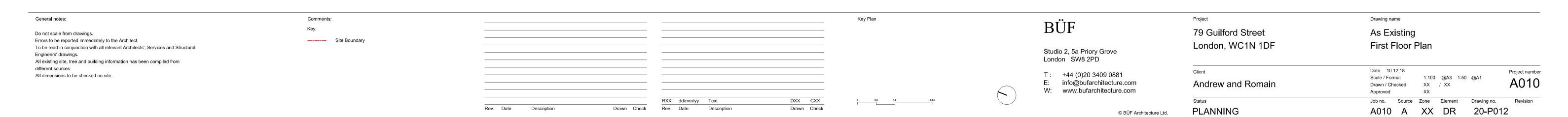


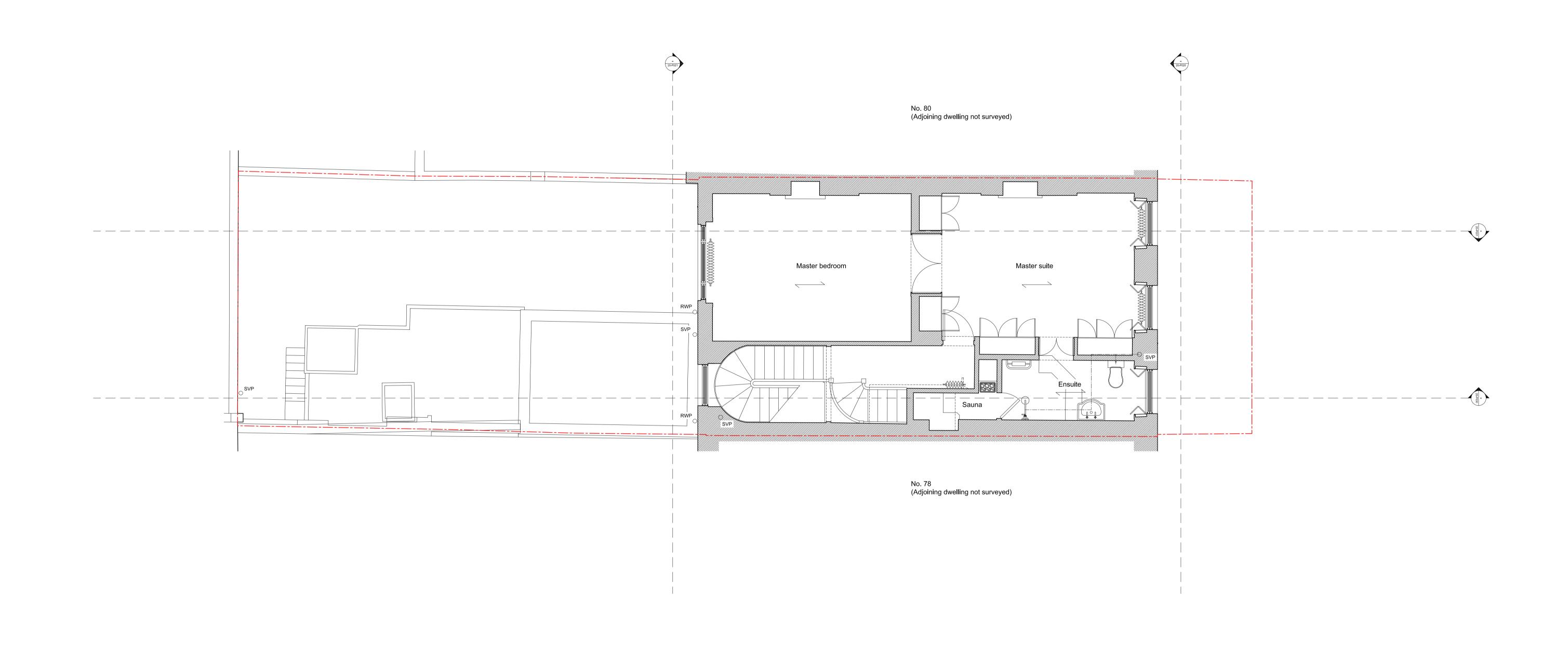


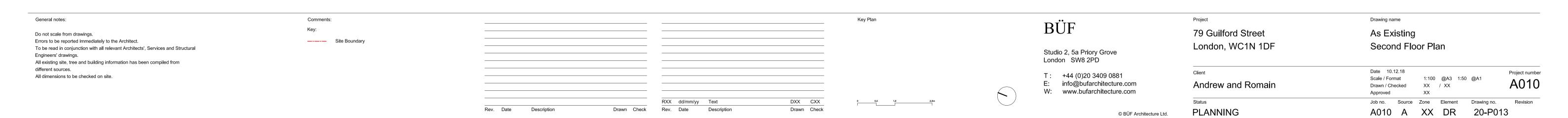


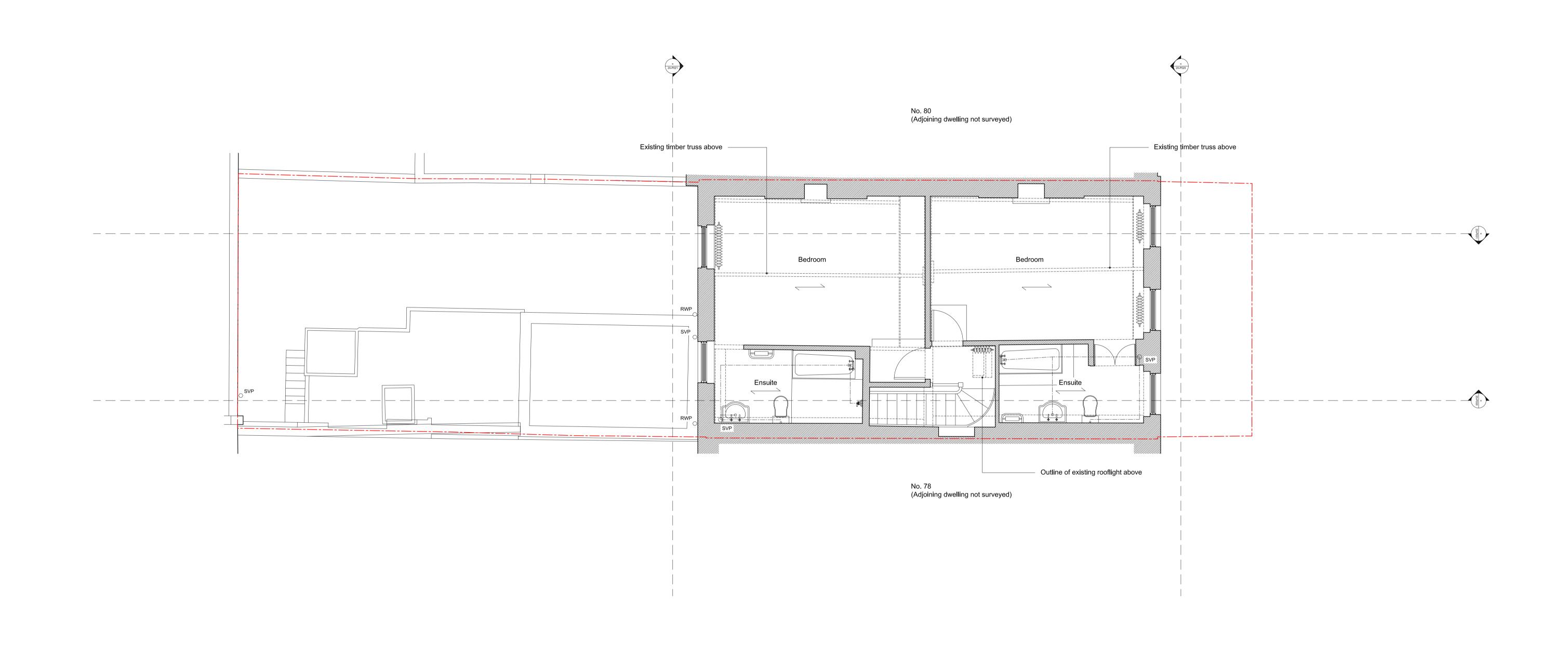


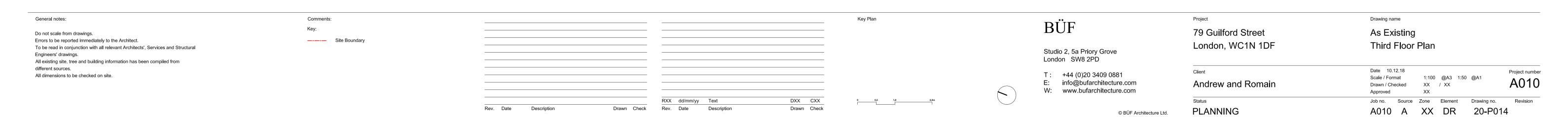


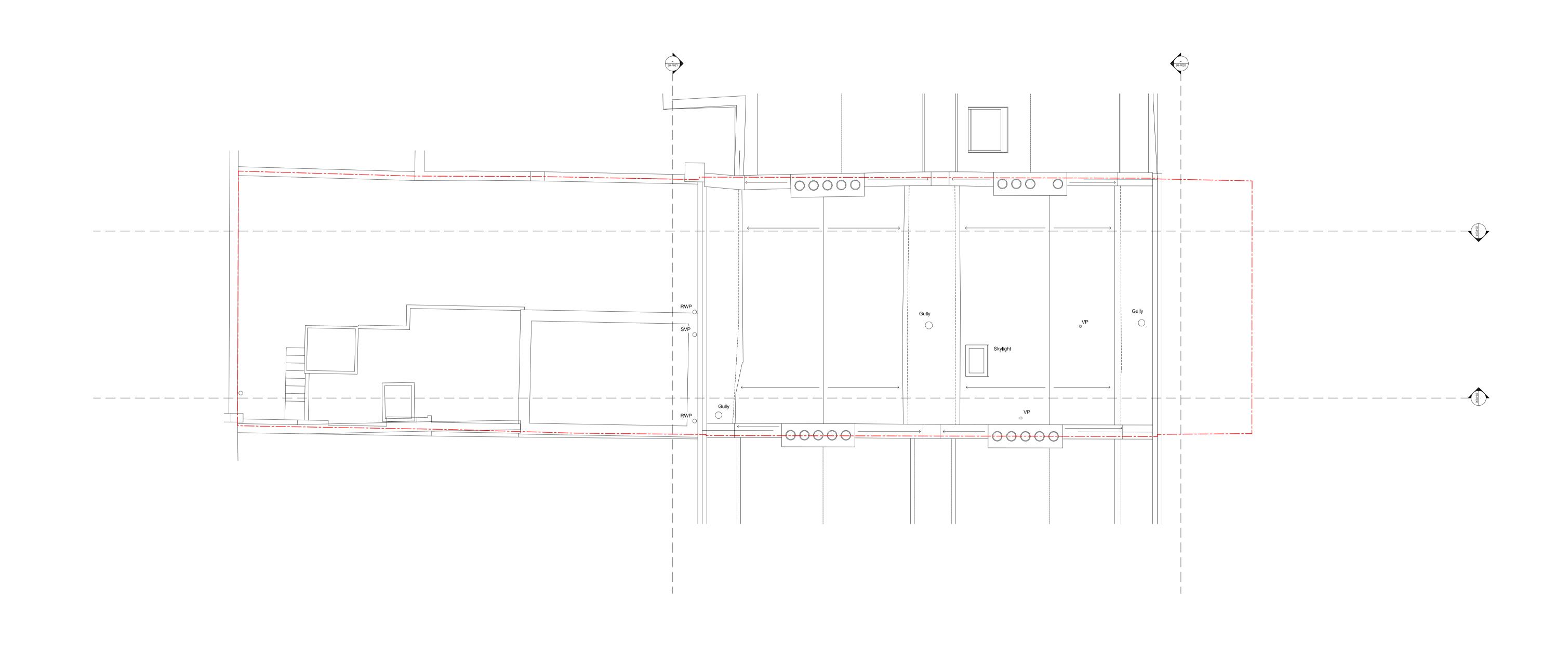


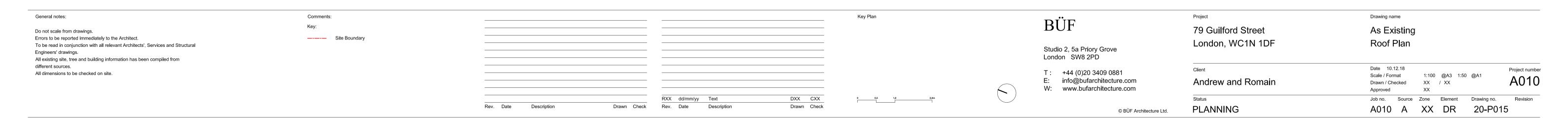














General notes:

Do not scale from drawings.

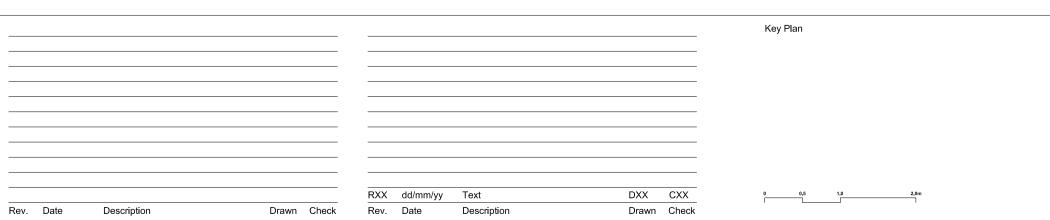
Errors to be reported immediately to the Architect.

To be read in conjunction with all relevant Architects', Services and Structural Engineers' drawings.

All existing site, tree and building information has been compiled from different sources.

All dimensions to be checked on site.

Comments:
Key:
Site Boundary



BÜF

Studio 2, 5a Priory Grove
London SW8 2PD

T: +44 (0)20 3409 0881
E: info@bufarchitecture.com
W: www.bufarchitecture.com

© BÜF Architecture Ltd.

Project

79 Guilford Street

London, WC1N 1DF

Client

As Existing

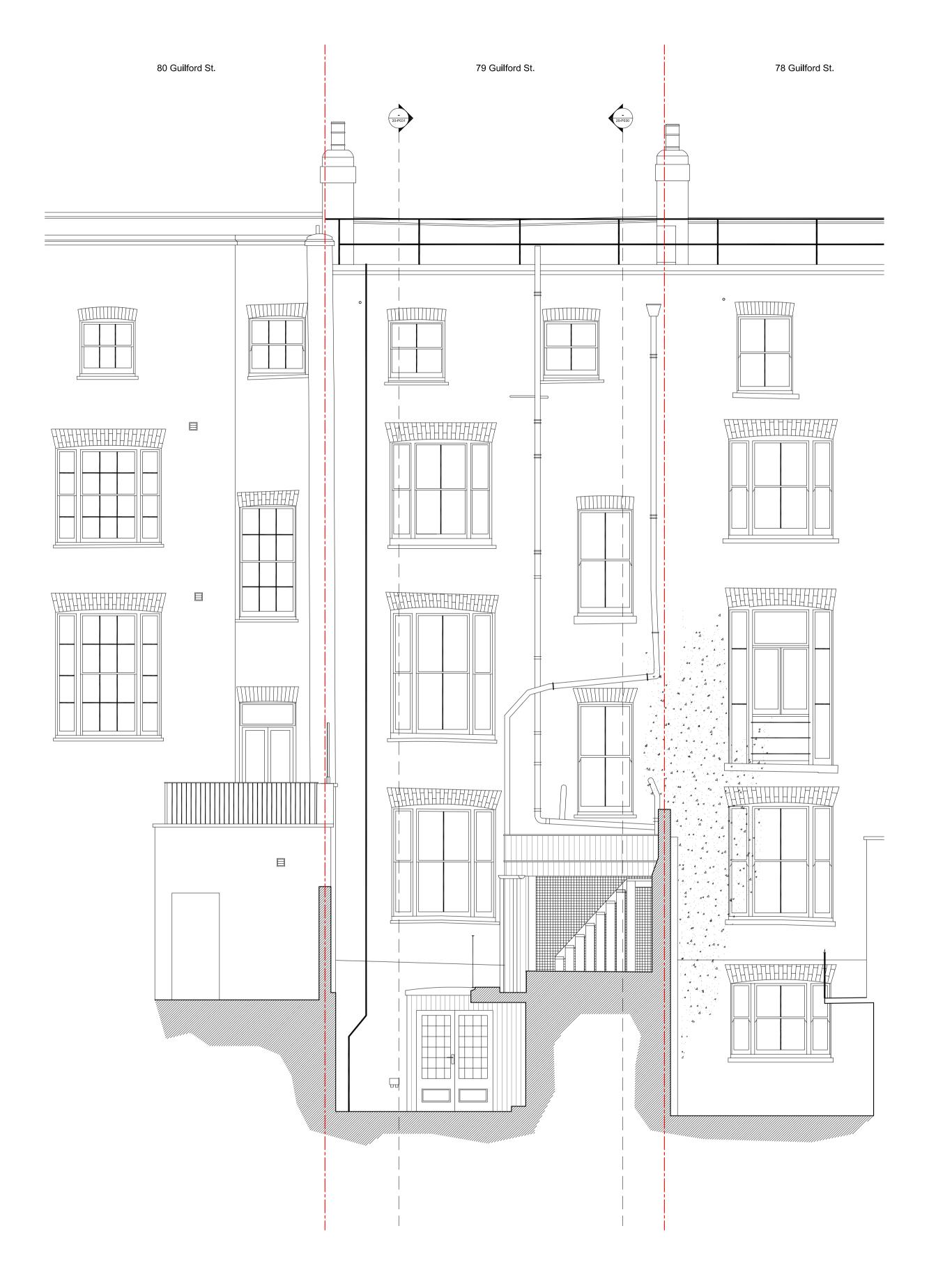
Elevation AA

Date 20.02.19

Scale / Format 1:100 @A3 1:50 @A1

Drawn / Checked XX / XX

Approved XX



General notes:

Do not scale from drawings.

Errors to be reported immediately to the Architect.

To be read in conjunction with all relevant Architects', Services and Structural Engineers' drawings.

All existing site, tree and building information has been compiled from different sources.

All dimensions to be checked on site.

Comments:

----- Site Boundary

BÜF

Studio 2, 5a Priory Grove London SW8 2PD

T: +44 (0)20 3409 0881
E: info@bufarchitecture.com
W: www.bufarchitecture.com

79 Guilford Street
London, WC1N 1DF

Client

As Existing
Elevation BB

Client

Date 20.02.19
Scale / Format 1:100 @A3 1:50 @A1
Drawn / Checked XX / XX

Approved XX / XX

OB81
Client
Andrew and Romain

Scale / Format
Drawn / Checked
Approved
XX

Status

Project number
A010

A010

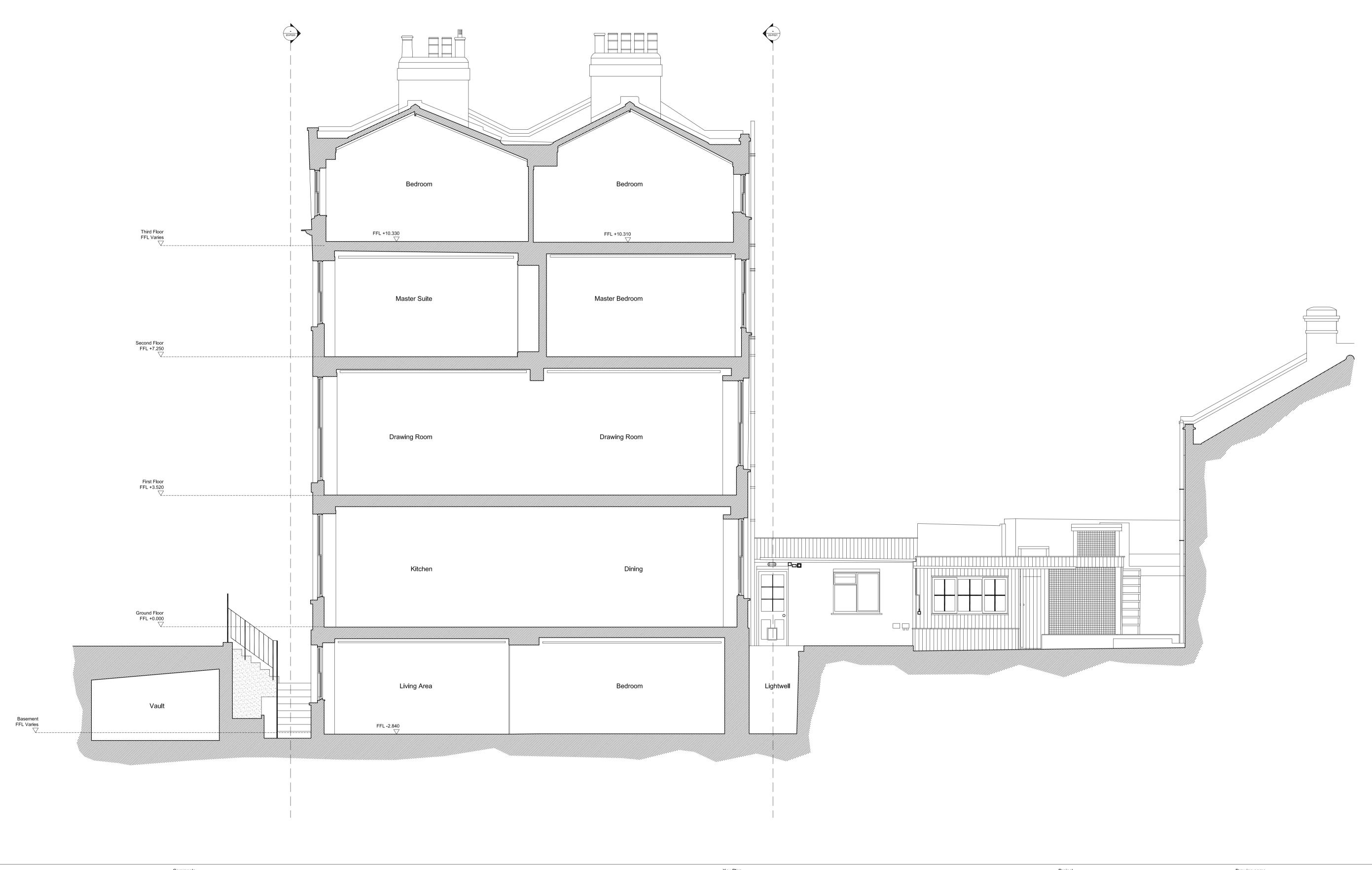
Revision

Project number
A010

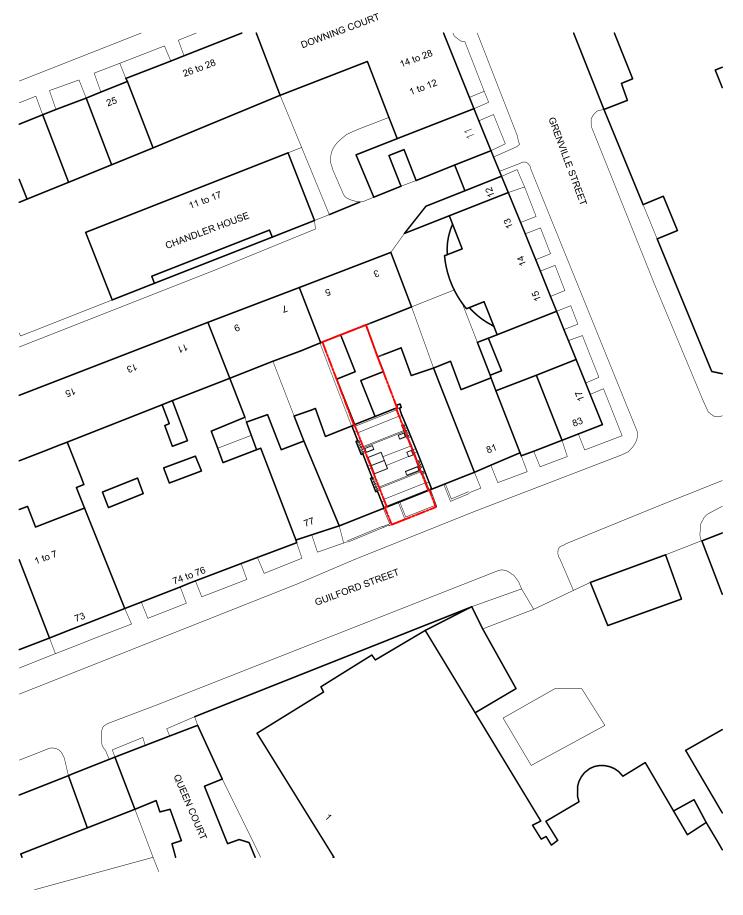
A01

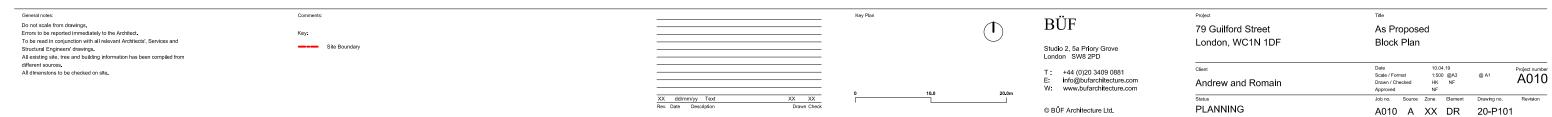


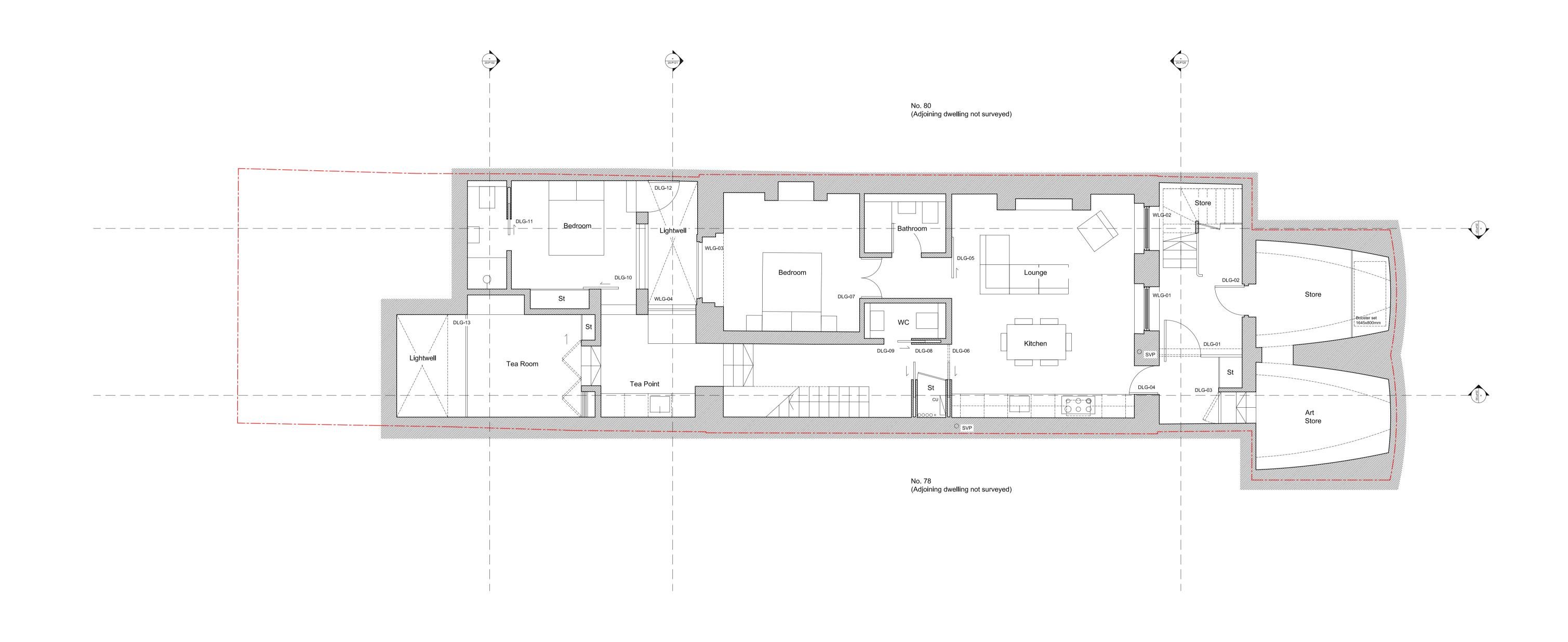
Drawing name General notes: BÜF 79 Guilford Street As Existing Do not scale from drawings. Errors to be reported immediately to the Architect. ----- Site Boundary London, WC1N 1DF Section AA To be read in conjunction with all relevant Architects', Services and Structural Studio 2, 5a Priory Grove London SW8 2PD Engineers' drawings. All existing site, tree and building information has been compiled from different sources. Date 20.02.19 T: +44 (0)20 3409 0881
E: info@bufarchitecture.com
W: www.bufarchitecture.com All dimensions to be checked on site. Scale / Format Andrew and Romain Drawn / Checked XX / XX DXX CXX
Drawn Check RXX dd/mm/yy Text Job no. Source Zone Element Rev. Date Description A010 A XX DR 20-P030 Drawn Check Rev. Date Description PLANNING © BÜF Architecture Ltd.



Key Plan Drawing name General notes: Comments: BÜF 79 Guilford Street As Existing Do not scale from drawings. Errors to be reported immediately to the Architect. ----- Site Boundary London, WC1N 1DF Section BB To be read in conjunction with all relevant Architects', Services and Structural Studio 2, 5a Priory Grove London SW8 2PD Engineers' drawings. All existing site, tree and building information has been compiled from different sources. Date 20.02.19 Project number T: +44 (0)20 3409 0881
E: info@bufarchitecture.com
W: www.bufarchitecture.com All dimensions to be checked on site. 1:100 @A3 1:50 @A1 Scale / Format Andrew and Romain Drawn / Checked XX / XX DXX CXX
Drawn Check RXX dd/mm/yy Text Job no. Source Zone Element Rev. Date Description A010 A XX DR 20-P031 Drawn Check Rev. Date Description PLANNING © BUF Architecture Ltd.

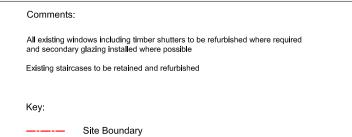


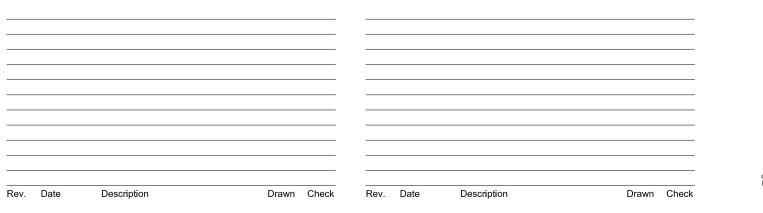


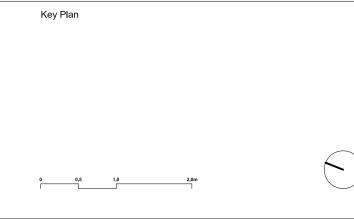


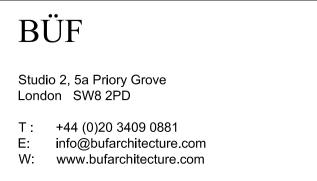


General notes:









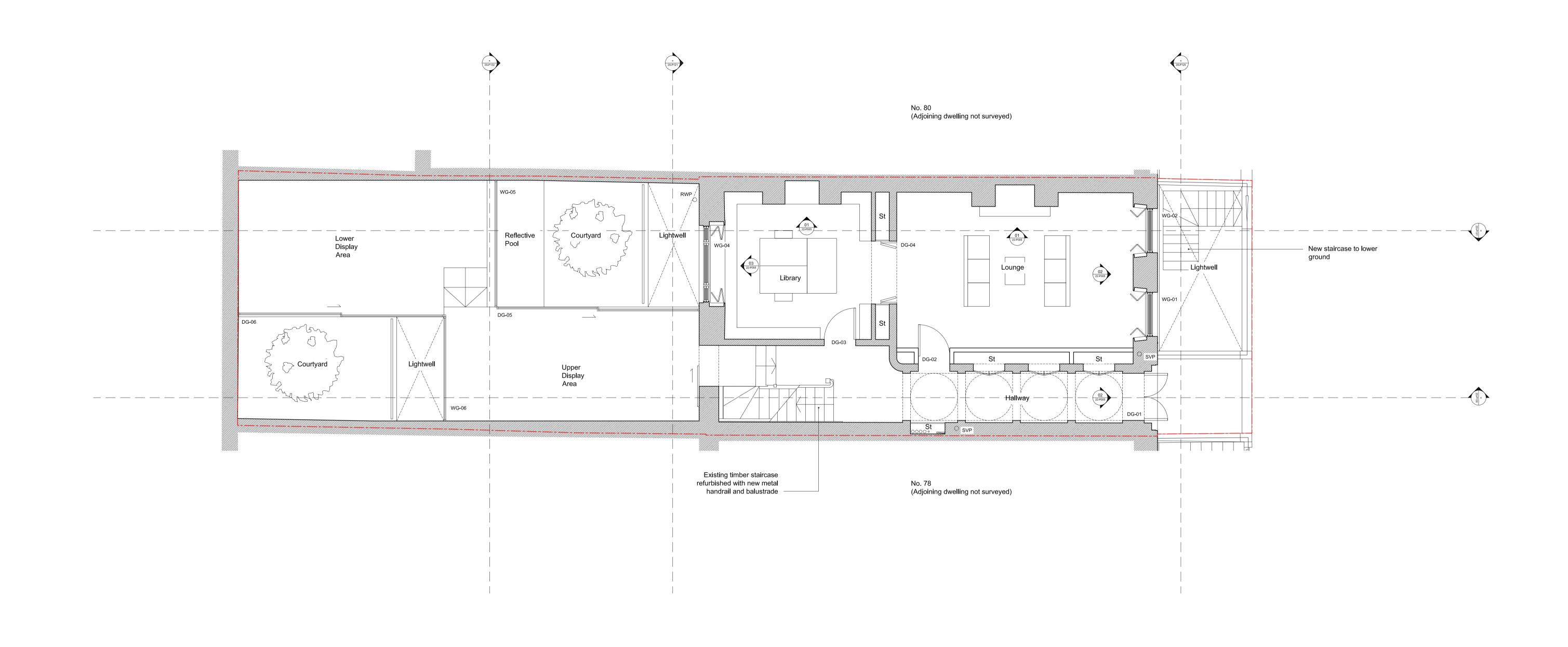
© BÜF Architecture Ltd.

Project

79 Guilford Street

London, WC1N 1DF

Date 10.12.18
Scale / Format 1:100 @03



General notes:

Do not scale from drawings.

Errors to be reported immediately to the Architect.

To be read in conjunction with all relevant Architects', Services and Structural Engineers' drawings.

All existing site, tree and building information has been compiled from different sources.

All dimensions to be checked on site.

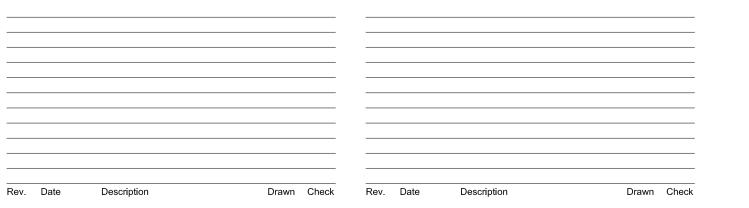
Comments:

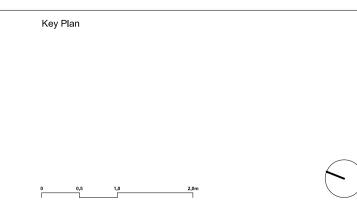
All existing windows including timber shutters to be refurbished where required and secondary glazing installed where possible

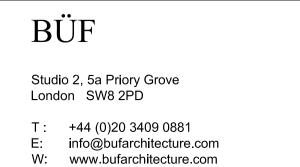
Existing staircases to be retained and refurbished

Key:

—-—- Site Boundary







© BÜF Architecture Ltd.

Project Drawing name

79 Guilford Street As Proposed
London, WC1N 1DF Ground Floor Plan

Client Date 10.12.18
Scale / Format 1:100 @A3 1:50 @A1
Andrew and Romain Drawn / Checked XX / XX

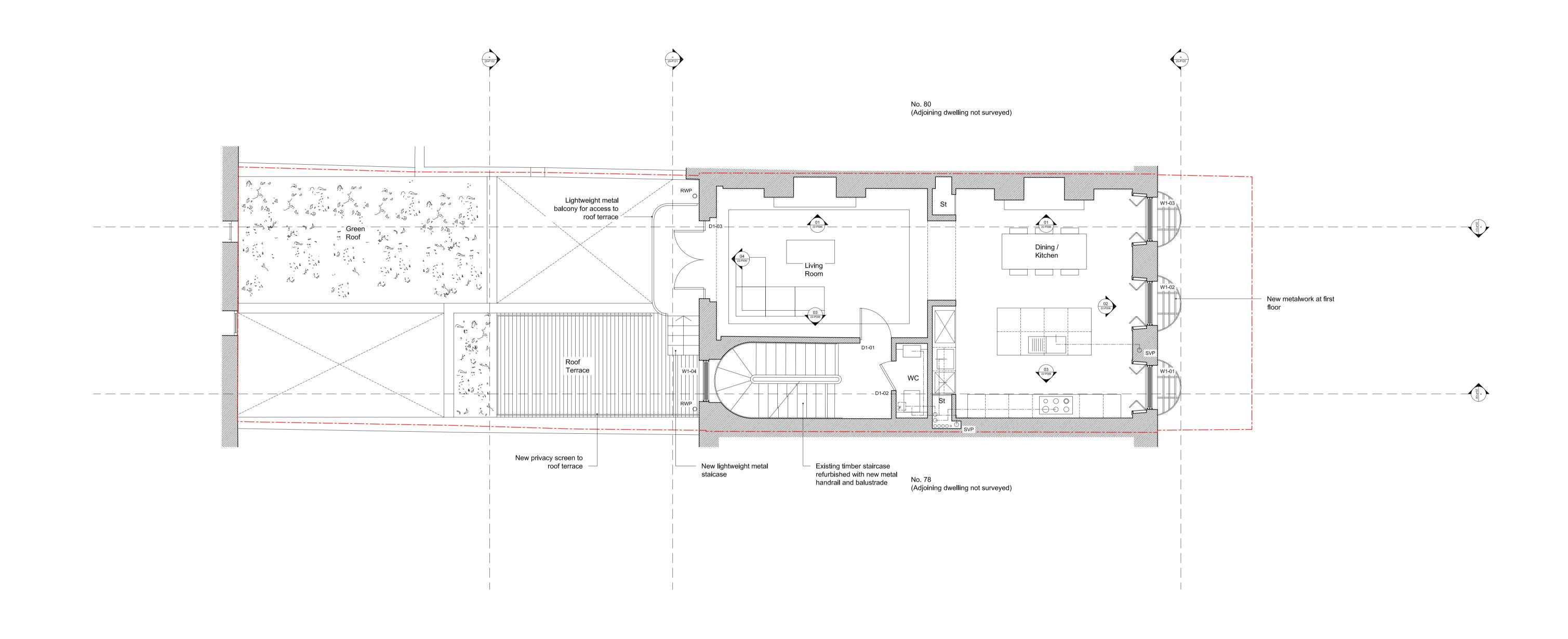
PLANNING

Job no. Source Zone Element

A010 A XX DR

Project number

20-P111



Project number

20-P112

1:100 @A3 1:50 @A1

A010 A XX DR

PLANNING

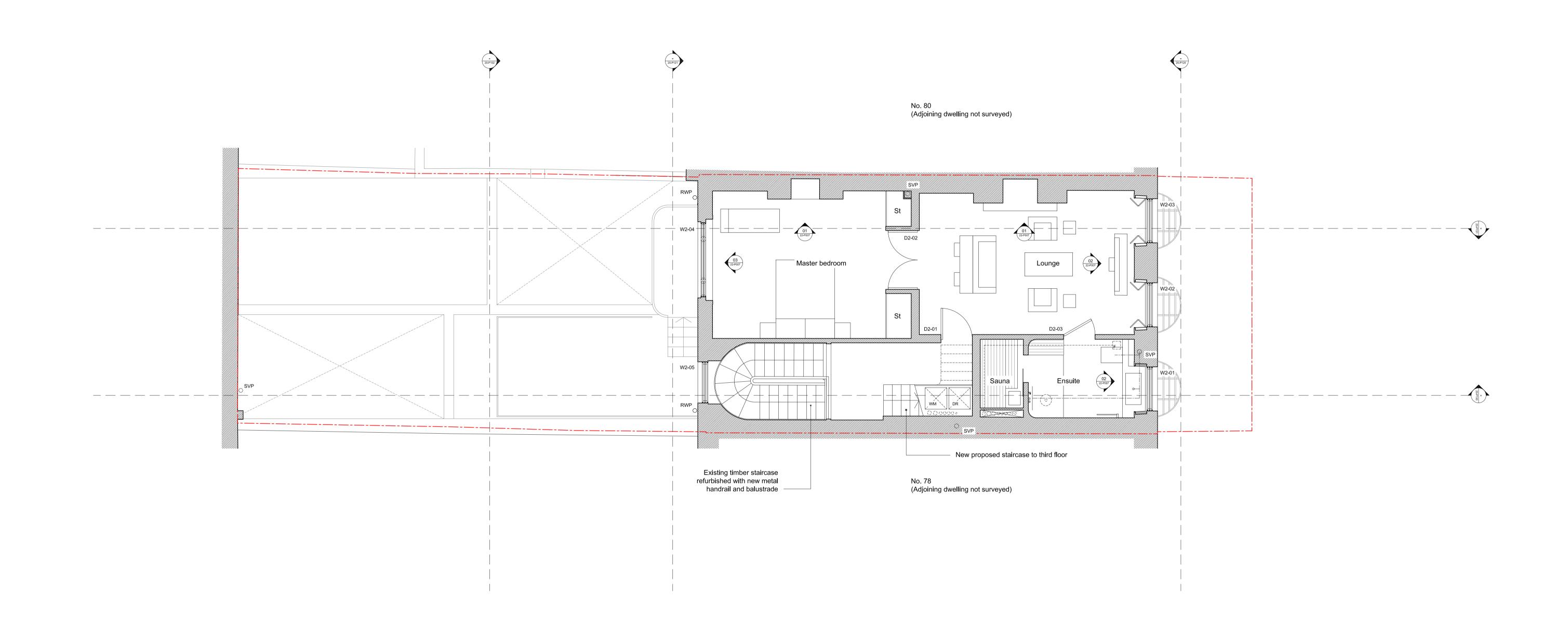
© BÜF Architecture Ltd.

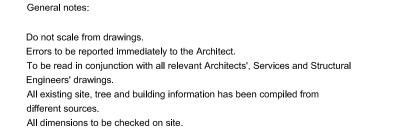


Drawn Check Rev. Date Description

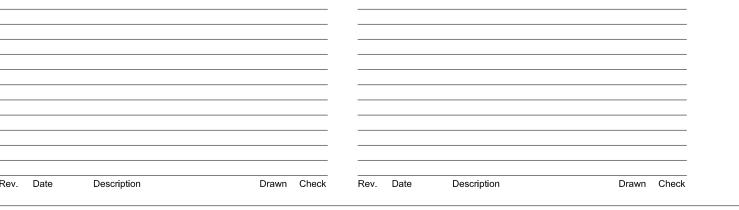
Rev. Date Description

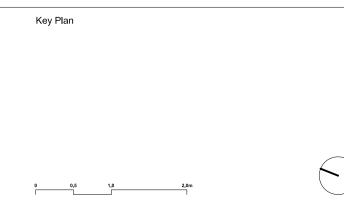
Drawn Check

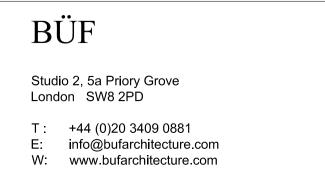












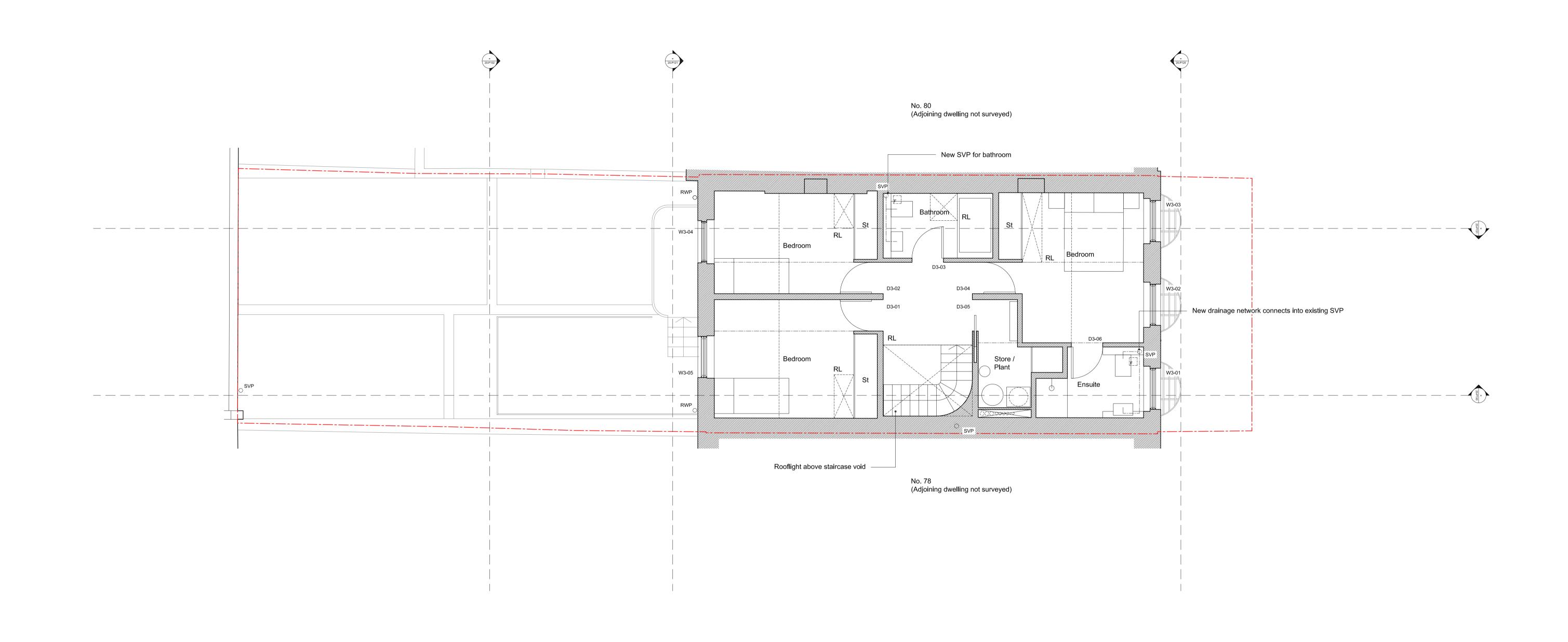
© BUF Architecture Ltd.

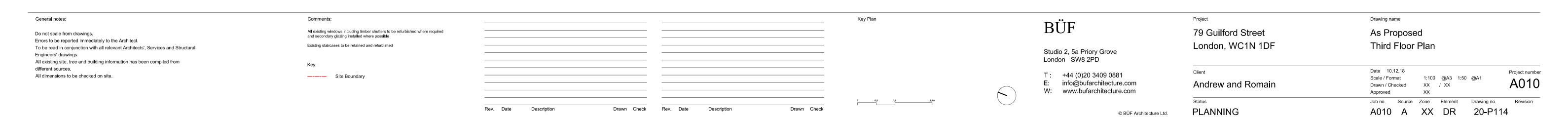
PLANNING

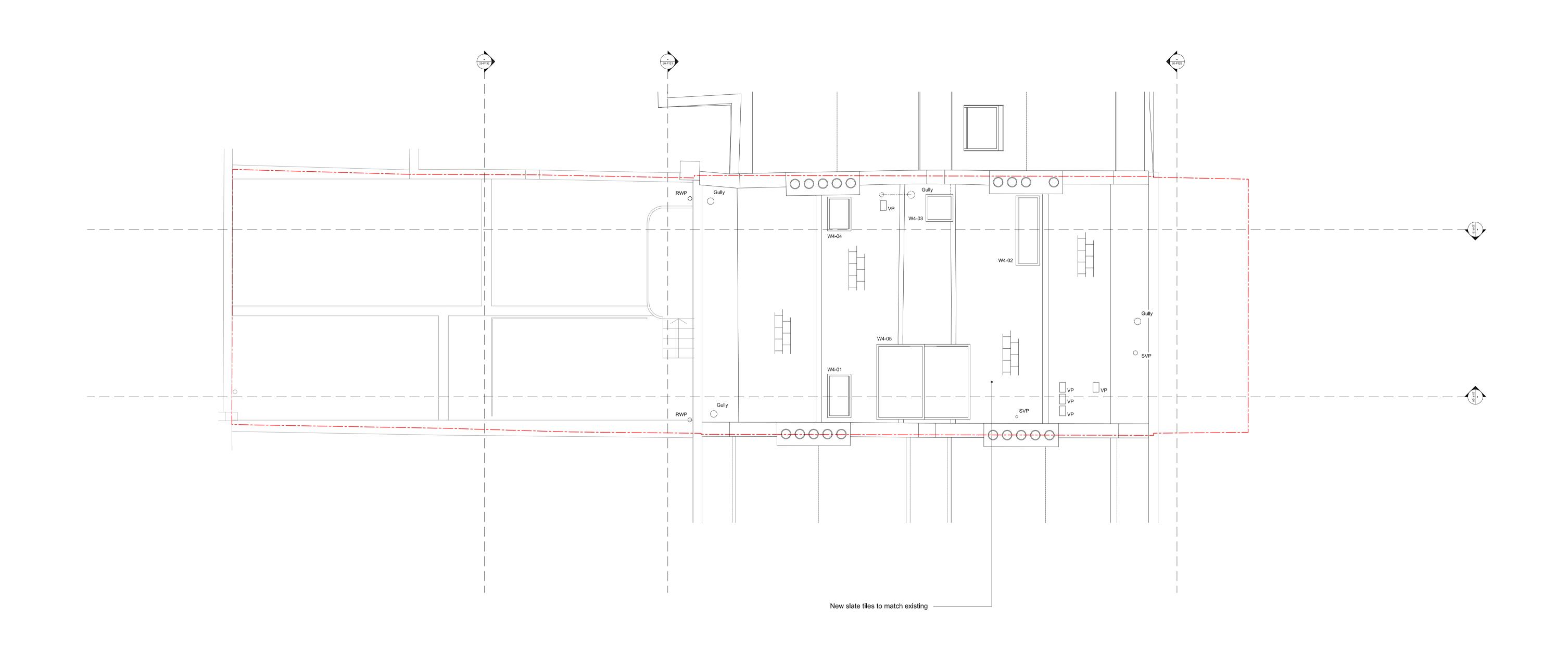
Project	Drawing name
79 Guilford Street	As Proposed
London, WC1N 1DF	Second Floor Plan
Dient Client	Date 10.12.18 Project number
Andrew and Romain	Scale / Format 1:100 @A3 1:50 @A1 Drawn / Checked XX / XX A010

Job no. Source Zone Element Drawing no.

A010 A XX DR 20-P113





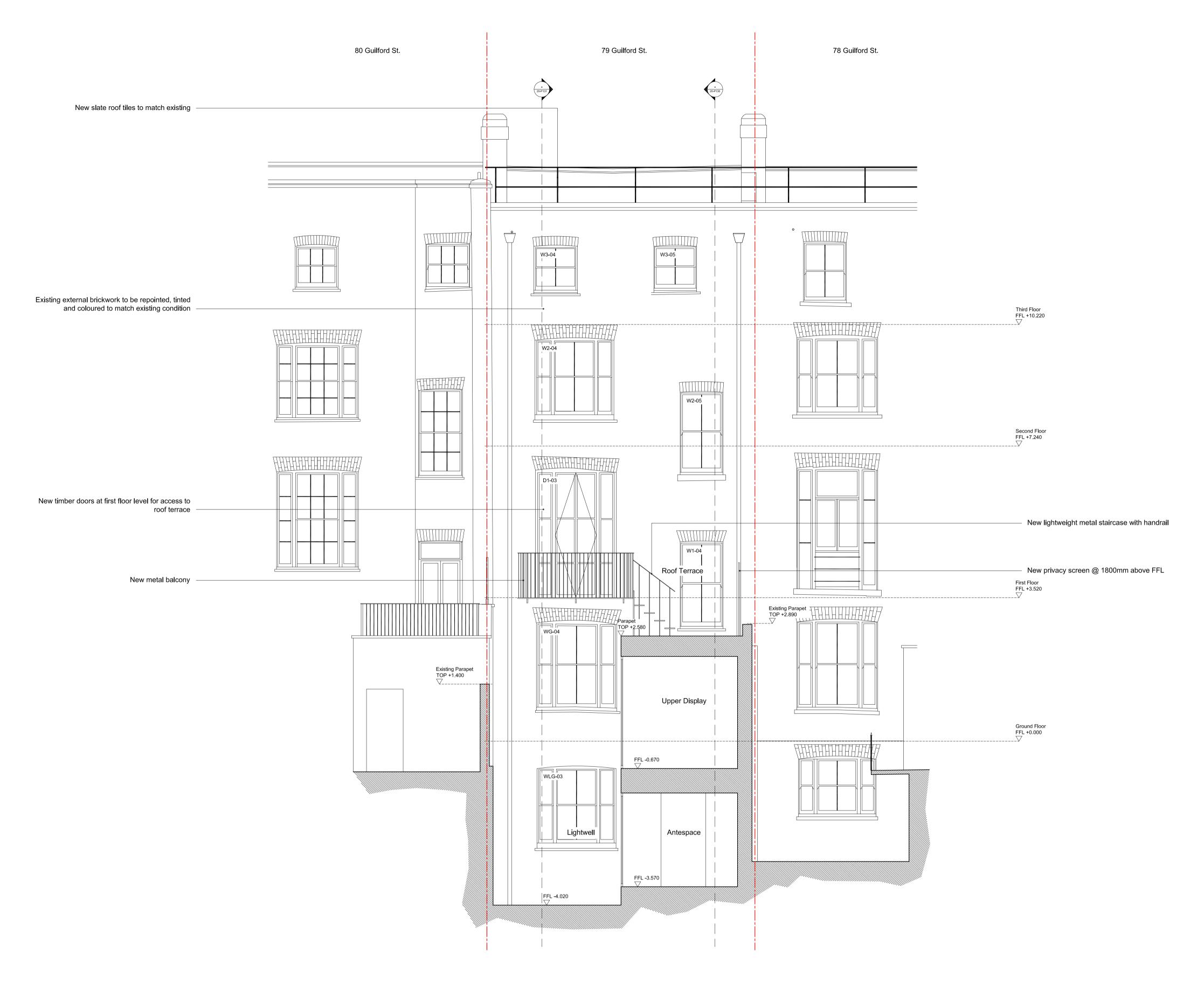


General notes: Drawing name BÜF 79 Guilford Street All existing windows including timber shutters to be refurbished where required and secondary glazing installed where possible As Proposed Do not scale from drawings. Errors to be reported immediately to the Architect. London, WC1N 1DF Roof Plan Existing staircases to be retained and refurbished To be read in conjunction with all relevant Architects', Services and Structural Studio 2, 5a Priory Grove London SW8 2PD Engineers' drawings. All existing site, tree and building information has been compiled from different sources. Date 10.12.18 Project number T: +44 (0)20 3409 0881 All dimensions to be checked on site. —-—- Site Boundary Scale / Format 1:100 @A3 1:50 @A1 E: info@bufarchitecture.com Andrew and Romain Drawn / Checked XX / XX W: www.bufarchitecture.com Job no. Source Zone Element Drawn Check Rev. Date Description A010 A XX DR Drawn Check Rev. Date Description 20-P115 **PLANNING**

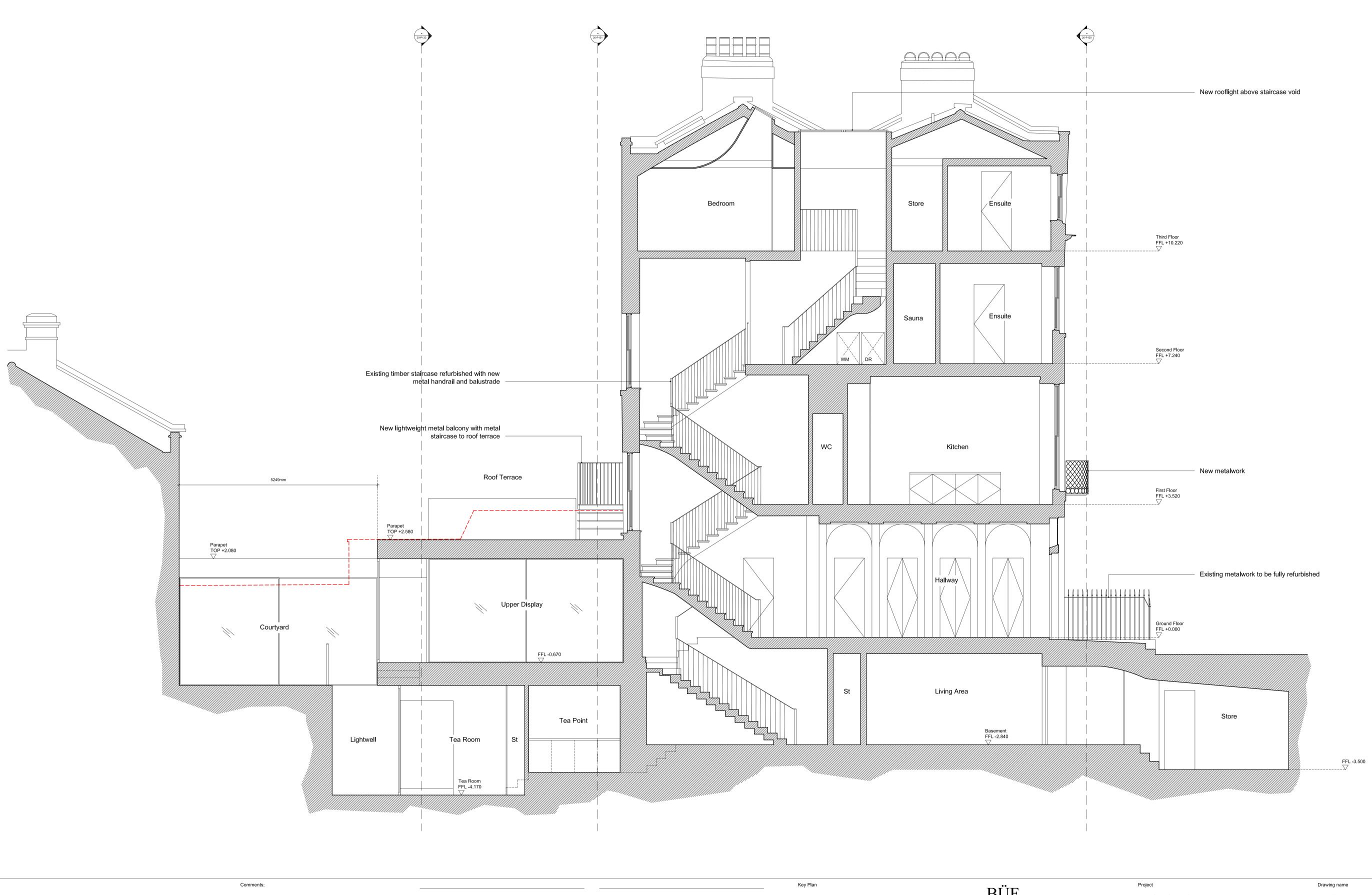
© BÜF Architecture Ltd.



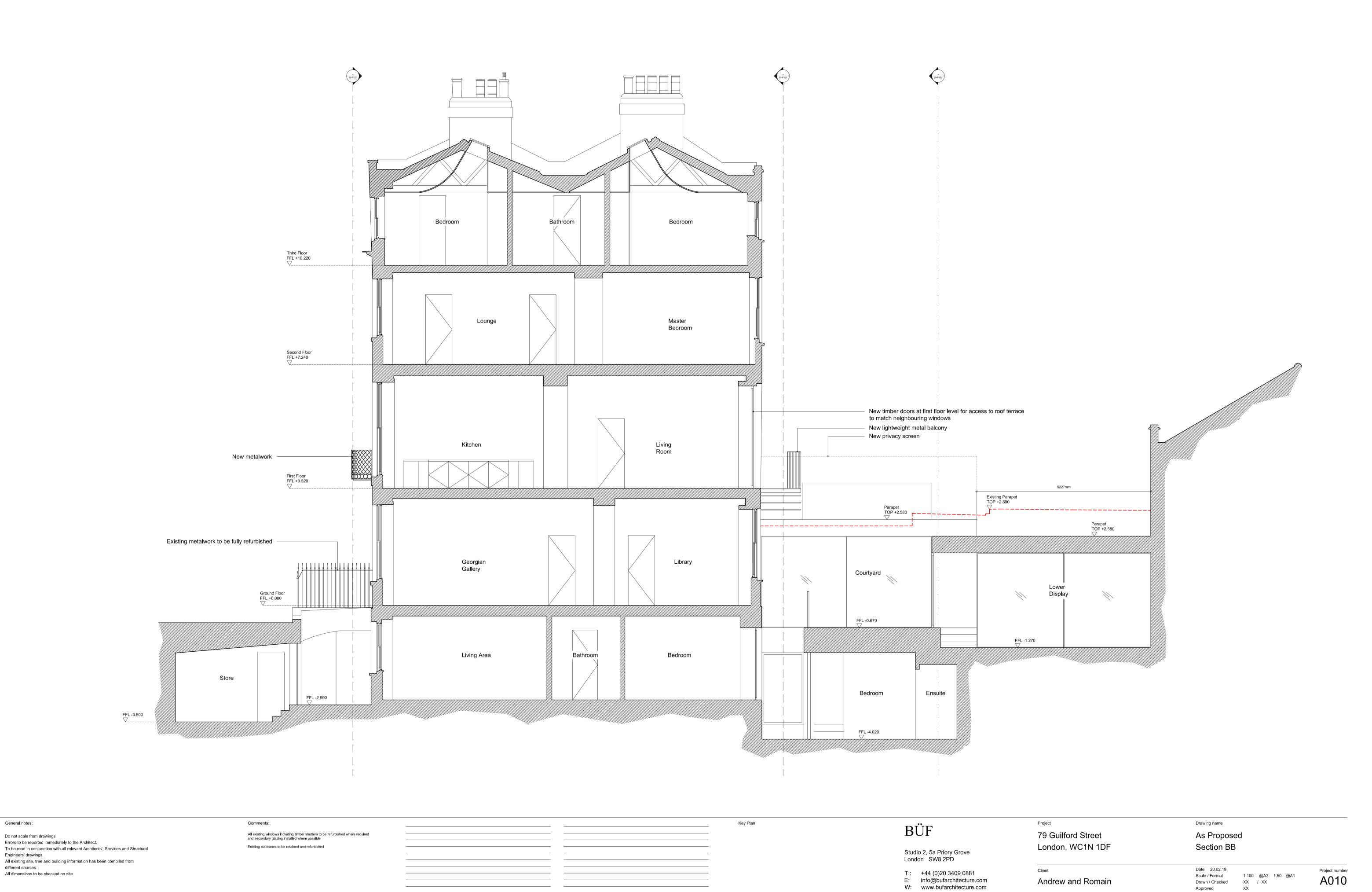
General notes: Drawing name BÜF 79 Guilford Street All existing windows including timber shutters to be refurbished where required and secondary glazing installed where possible As Proposed Do not scale from drawings. Errors to be reported immediately to the Architect. London, WC1N 1DF Elevation AA Existing staircases to be retained and refurbished To be read in conjunction with all relevant Architects', Services and Structural Studio 2, 5a Priory Grove London SW8 2PD Engineers' drawings. All existing site, tree and building information has been compiled from different sources. Date 20.02.19 Project number T: +44 (0)20 3409 0881 All dimensions to be checked on site. —-—- Site Boundary Scale / Format E: info@bufarchitecture.com Andrew and Romain Drawn / Checked XX / XX W: www.bufarchitecture.com 0 0.5 1.0 2.0m Job no. Source Zone Element Drawn Check Drawn Check Rev. Date A010 A XX DR 20-P120 Rev. Date PLANNING © BUF Architecture Ltd.



General notes: Drawing name BÜF 79 Guilford Street All existing windows including timber shutters to be refurbished where required and secondary glazing installed where possible As Proposed Do not scale from drawings. Errors to be reported immediately to the Architect. London, WC1N 1DF Elevation BB Existing staircases to be retained and refurbished To be read in conjunction with all relevant Architects', Services and Structural Studio 2, 5a Priory Grove London SW8 2PD Engineers' drawings. All existing site, tree and building information has been compiled from different sources. Date 20.02.19 Project number T: +44 (0)20 3409 0881
E: info@bufarchitecture.com
W: www.bufarchitecture.com All dimensions to be checked on site. —-—- Site Boundary Scale / Format 1:100 @A3 1:50 @A1 Andrew and Romain Drawn / Checked XX / XX 0 0.5 1.0 2.0m Job no. Source Zone Element Drawn Check Rev. Date Description A010 A XX DR Drawn Check Rev. Date 20-P121 **PLANNING** © BÜF Architecture Ltd.



General notes: BÜF 79 Guilford Street As Proposed All existing windows including timber shutters to be refurbished where required and secondary glazing installed where possible Do not scale from drawings. Errors to be reported immediately to the Architect. London, WC1N 1DF Section AA Existing staircases to be retained and refurbished To be read in conjunction with all relevant Architects', Services and Structural Studio 2, 5a Priory Grove London SW8 2PD Engineers' drawings. All existing site, tree and building information has been compiled from different sources. Date 20.02.19 T: +44 (0)20 3409 0881
E: info@bufarchitecture.com
W: www.bufarchitecture.com All dimensions to be checked on site. Scale / Format Andrew and Romain Drawn / Checked 0 0.5 1.0 2.0m Drawn Check A010 A XX DR 20-P130 Drawn Check Rev. Date **PLANNING** © BÜF Architecture Ltd.



0 0.5 1.0 2.0m

Drawn Check

Rev. Date Description

Drawn Check Rev. Date

Job no. Source Zone Element

A010 A XX DR

PLANNING

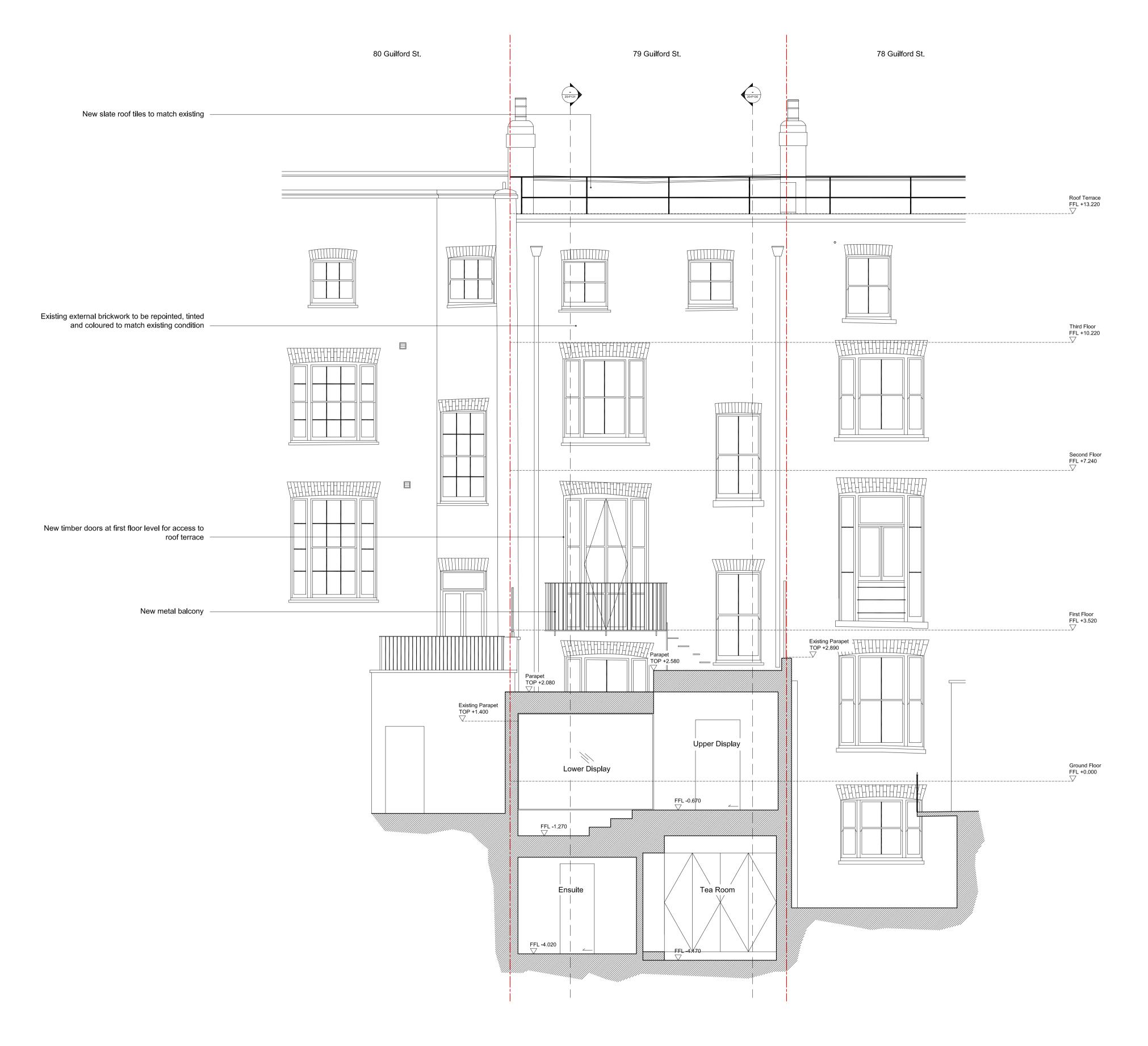
© BÜF Architecture Ltd.

20-P131

General notes:

Engineers' drawings.

different sources.



Comments: Drawing name General notes: Key Plan BÜF 79 Guilford Street As Proposed Do not scale from drawings. Errors to be reported immediately to the Architect. London, WC1N 1DF Section CC To be read in conjunction with all relevant Architects', Services and Structural Studio 2, 5a Priory Grove London SW8 2PD Engineers' drawings. All existing site, tree and building information has been compiled from different sources. Date 20.02.19 Project number T: +44 (0)20 3409 0881
E: info@bufarchitecture.com
W: www.bufarchitecture.com All dimensions to be checked on site. Scale / Format 1:100 @A3 1:50 @A1 Andrew and Romain Drawn / Checked XX / XX 0 0.5 1.0 2.0m Job no. Source Zone Element Drawn Check Rev. Date Description A010 A XX DR 20-P132 Drawn Check Rev. Date **PLANNING** © BÜF Architecture Ltd.

APPENDIX B

EXISTING DRAINAGE SURVEY







Project

Project Name: 79 Guildford Street, London WC1N 1DR

Project Date: 14/05/2018

Project Standard: MSCC5 Sewers & Drainage GB (SRM5 Scoring)





24 Holborn Viaduct, London Tel. 0207 125 0295 jamie @jsnowdrainagelondon.co.uk

Table of Contents

Project Name	Project Number	Project Date
79 Guildford Street, London WC1N 1DR	-	14/05/2018

Project Information	P-1
Project Pictures	P-5
Section Profile	P-7
Section: 1; MH01-MH03	1
Section: 2; MH03-SEWER	4
Section:3;GULLY1-MH03	6
Section: 4; GULLY 2-MH03	8



24 Holborn Viaduct, London Tel. 0207 125 0295 jamie @jsnowdrainagelondon.co.uk

Project Information

Project Name	Project Number	Project Date
79 Guildford Street, London WC1N 1DR		14/05/2018

Client

Description: Terraced Residential Property

Street: 79 Guilford Street

Town or City: London
Post Code: WC1N 1DR

Contractor

Company: JSD Solutions 24/7 Ltd

Contact:Jamie SnowDepartment:Drainage DivisionStreet:24 Holborn Viaduct

 Town or City:
 London

 Post Code:
 EC1A 2BN

 Phone:
 0207 125 0295

 Mobile:
 07946 480 288

Email: jamie@jsnowdrainagelondon.co.uk



24 Holborn Viaduct, London Tel. 0207 125 0295 jamie @isnowdrainagelondon.co.uk

Project Information

Project Name	Project Number	Project Date
79 Guildford Street, London WC1N 1DR		14/05/2018

Project Notes

1. DESCRIPTION OF PROPERTY

Terraced Residential Property

2. DRAINAGE SYSTEM

This is a combined drainage system accessible by Manhole 3 to the rear of the property. Manhole 1 is located to the rear of the property beneath decking with no access at time of the survey. MH02 is beneath the wood flooring inside the property with no access at time of the survey. The pipework is circular in shape, 100/150mm in diameter and vitrified clay material. Further specific variations can be found in the report content.

3. SHARED

We are assuming the drainage system serves this property only, however, due to no access to MH01 & MH02 we cannot rule out there being no connection from the neighbouring properties until the survey is complete. We are also unable to confirm the condition and location of incoming pipes entering MH01 & MH02 due to no access.

4. CIRCUMSTANCES

·General investigation Works.

5. SUMMARY

SERVICE

The survey has highlighted a limescale build-up between MH03 & MH01, which as a result, is restricting full flow of the drainage system.

RECOMMEND

By use of specialist cutting equipment, remove hardened scale build-up to fully restore flow.

COST FOR WORKS £280 PLUS VAT

STRUCTURAL

No major defects were noted and the system is in a sound structural condition.

In addition to the above, we would like to highlight the mortar joints within MH03 brickwork has worn away, as a result is not structurally watertight. We would recommend the joints be refilled and the concrete making good.

COST FOR WORKS £290.00 PLUS VAT

Once access has been made to MH01 & MH02 we can continue the survey to highlight the remainder of the system's condition, purpose and location.



24 Holborn Viaduct, London Tel. 0207 125 0295 jamie @jsnowdrainagelondon.co.uk

Project Information

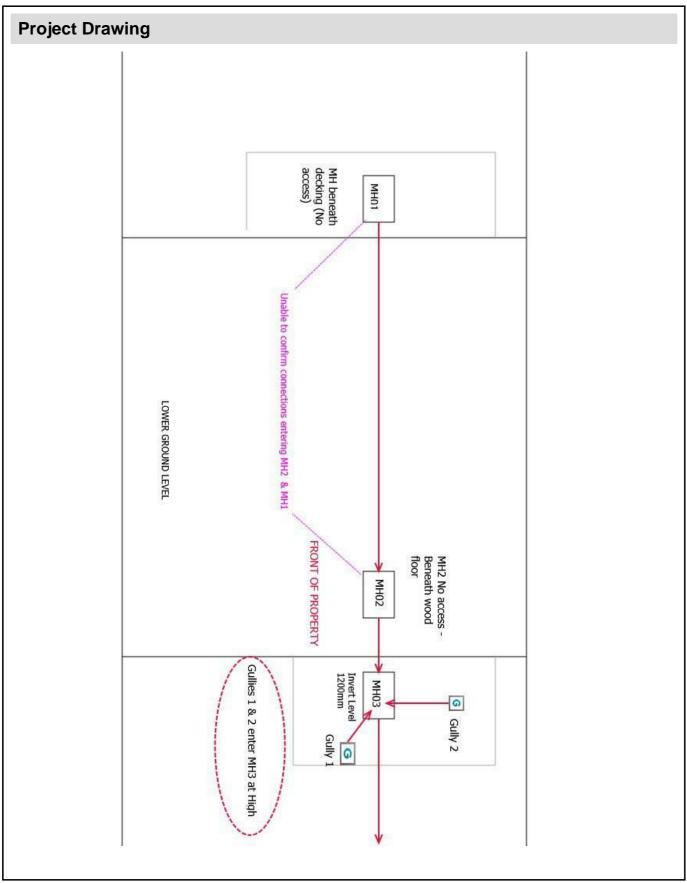
_		
Project Name	Project Number	Project Date
79 Guildford Street, London WC1N 1DR		14/05/2018



24 Holborn Viaduct, London Tel. 0207 125 0295 jamie @jsnowdrainagelondon.co.uk

Project Information

Project Name	Project Number	Project Date
79 Guildford Street, London WC1N 1DR		14/05/2018





24 Holborn Viaduct, London Tel. 0207 125 0295 jamie @jsnowdrainagelondon.co.uk

Project Pictures

Project Name	Project Number	Project Date
79 Guildford Street, London WC1N 1DR		14/05/2018



IMG-20180514-WA0013



MH03 INTERCEPTOR (FRONT OF PROPERTY)



MH03 BLOCKED



MH03 CLEAR



IMG-20180514-WA0009



MH01 BENEATH DECKING



24 Holborn Viaduct, London Tel. 0207 125 0295 jamie @jsnowdrainagelondon.co.uk

Project Pictures

Project Name	Project Number	Project Date
79 Guildford Street, London WC1N 1DR		14/05/2018



MH02 BENEATH FLOORING