



**113 REGENT'S PARK ROAD
LONDON NW1 8UR**

FLOOD RISK REPORT

FOR

BIBENDUM WINE LIMITED

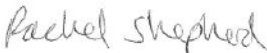
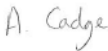


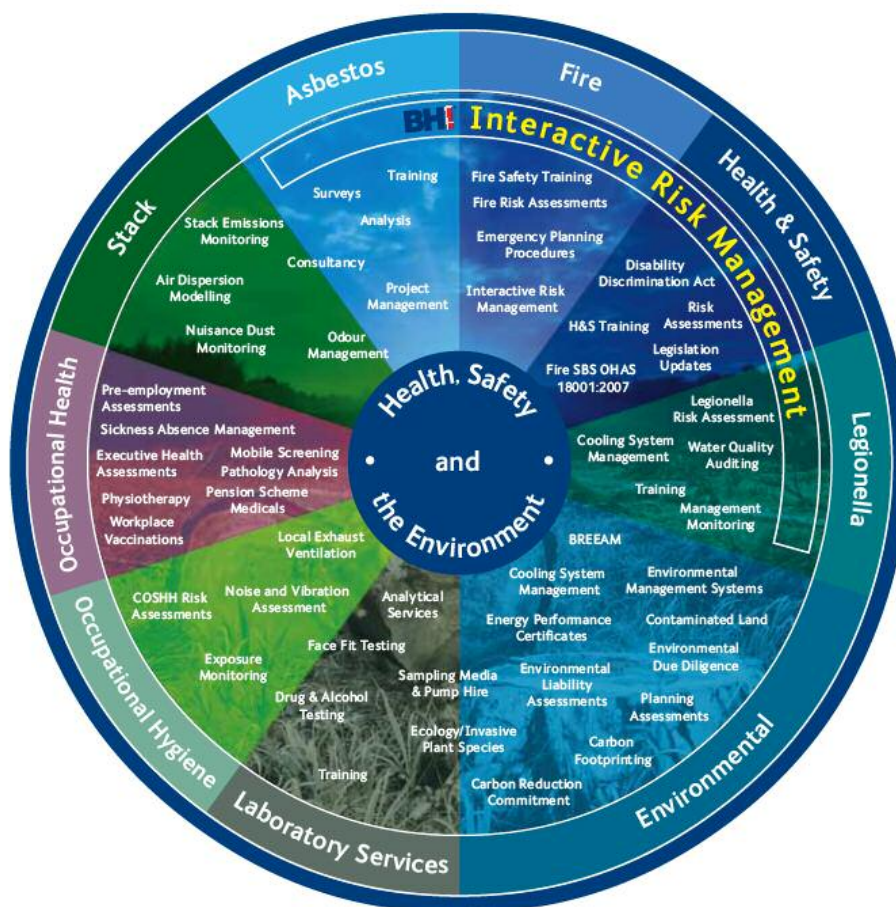
November 2014

Our Ref: HLEC31922/004R

RPS Health, Safety & Environment
14 Cornhill
London
EC3V 3ND

Tel: 020 7280 3200
Email: rpslon@rpsgroup.com

Report Status:	Final	
Project Reference:	HLEC31922	
	Name:	Signature:
Report Author:	Rachel Shepherd	
Technical Reviewer:	Alison Cadge	
Date:	19th November 2014	
<p><i>This report has been prepared in the RPS Group Quality Management System to British Standard EN ISO 9001:2008</i></p> <p><i>RPS Health, Safety & Environment is part of the RPS Group Plc with around 5,000 staff based at over 85 offices located throughout the UK, Ireland and the Netherlands and in the USA, Canada, the Russian Federation, Australia, Malaysia, Singapore and Abu Dhabi. RPS offers an unparalleled range of commercially focused services relating to property and land due-diligence, site development and geo-environmental investigations (including liability reviews, planning feasibility, EIAs and flood risk, energy & sustainability assessments).</i></p> <p><i>RPS Health, Safety & Environment (London office) is certified to Environmental Management Standard ISO 14001.</i></p>		





CONTENTS

	PAGE
EXECUTIVE SUMMARY	4
1 INTRODUCTION	5
2 SITE DESCRIPTION AND SETTING	6
3 PROPOSED DEVELOPMENT.....	7
4 CONSULTATIONS & REGULATORY INFORMATION	8
5 ASSESSMENT OF FLOOD RISK	10
6 CONCLUSIONS & RECOMMENDATIONS	13

APPENDIX A

Figures

APPENDIX B

Development Plans

APPENDIX C

General Notes

EXECUTIVE SUMMARY

Report Summary:

This Flood Risk Report has been prepared in relation to the Permitted Development application for the subject site. The site currently comprises a part three-, part four- storey building with basement vaults and office accommodation arranged over ground, first and second floors. External car parking spaces are also available. The proposed works comprise the conversion of the entire building to residential use, with eight flats arranged over ground through second floors and storage units and cycle parking in the basement.

The assessment considers the risk to the site from key sources of flooding, including fluvial and tidal sources, surface water, sewer surcharging, groundwater and man-made features such as canals and reservoirs. The level of flood risk has been assessed based on available data provided by the Environment Agency, the Local Authority and the Water Authority.

Overall, the site is considered to be at a low risk of flooding from all sources assessed. The development is therefore considered to be safe from a flood risk perspective. In addition, given the nature of the proposed works (comprising conversion of an existing building only) there will be no increase in flood risk as a result of the development proposal.

No further assessment or mitigation is considered necessary in relation to flood risk issues.

1 INTRODUCTION

RPS was commissioned to prepare a Flood Risk report in relation to the proposed conversion of *113 Regent's Park Road, London NW1 8UR* to residential use.

The aim of this report is to provide an assessment of flood risk to the property, identify any impacts on flood risk resulting from the proposed works, and to provide recommendations for reducing this risk (where applicable). The report has been produced with reference to the guidance detailed in the National Planning Policy Framework (NPPF).

The following has been undertaken as part of the assessment:

- Assessment of the topographical, hydrological and hydrogeological setting through review of information sourced from the British Geological Survey, the Environment Agency and the Ordnance Survey;
- Review of readily available (online) flood risk mapping provided by the Environment Agency;
- Review of the Strategic Flood Risk Assessment produced by the Local Authority outlining flood risk from various sources within the borough; and
- Consultation with the Water Authority regarding known records of sewer flooding at the property.

Given that the proposal is for a change of use of the existing property, there is no requirement under the NPPF to apply the Sequential Test or Exception Test in relation to this application.

2 SITE DESCRIPTION AND SETTING

2.1 Site Description

The site is located near Chalk Farm at national grid reference TQ 27983 84236. It is within a mixed commercial and residential setting. A site location plan is provided in Figure 1.

The site occupies an area of approximately 0.06 hectares. It is currently occupied by a part-three, part-four storey office building arranged over ground, first and second floor, with basement storage vaults. Parking spaces are also provided to the rear and front of the site.

According to Ordnance Survey spot heights, the site is located at approximately 37.5m AOD. Surrounding topography slopes down towards the southeast.

2.2 Hydrological Setting

The nearest surface water feature is Regents Canal, 480m southeast of the site.

The nearest main watercourse is the River Thames, 4.5km southeast of the site. It flows in an easterly direction and is tidally influenced in the vicinity of the site.

2.3 Hydrogeological Setting

According to BGS mapping, the site is underlain by the London Clay Formation, which generally comprises low permeability clay with variable sandy and silty parts. Environment Agency mapping indicates that this is an Unproductive Stratum. These formations have a low permeability and have negligible significance for water supply or base flow.

No readily available BGS borehole logs were located in close proximity to the site.

3 PROPOSED DEVELOPMENT

3.1 Description of Development

The Permitted Development application is for the conversion of the existing building to residential use, providing eight flats over ground, first and second floors. Car parking spaces will be provided for residents and bicycle spaces and residential storage units will be provided in the basement. Development plans are provided in Appendix B.

4 CONSULTATIONS & REGULATORY INFORMATION

4.1 Environment Agency

The Environment Agency flood map (available online) indicates that the site is located within Flood Zone 1 where the annual probability of flooding from fluvial / tidal sources is classified as less than 1 in 1000. The Environment Agency Flood Map is provided in Figure 2.

The Environment Agency Risk of Flooding from Surface Water map indicates that the southern half of the site is at a 'very low' risk of surface water flooding. This corresponds with an annual probability of flooding that is less than 1 in 1000. However, the northern half of the site appears to be at a 'high' risk of surface water flooding, whereby the annual probability is greater than 1 in 30.

Environment Agency mapping also indicates that the site is not located within an area potentially at risk from reservoir flooding.

4.2 Local Authority

The North London Strategic Flood Risk Assessment (SFRA) was published in August 2008. It provides an overview of flood risk from various sources within the North London boroughs, including the London Borough of Camden. Information of relevance to this assessment is summarised below:

- Generally, Camden has a particularly high risk of flooding from sewers and surface water. As a result of the lack of fluvial watercourses in the borough there is a low fluvial flood risk. Groundwater flooding was found to present a relatively low risk. The risk of flooding from reservoirs is considered to be low. Regent's Canal presents an unknown risk to the borough.
- No flooding events have been recorded at the site. The nearest recorded flood event occurred approximately 350m south of the site and was attended to by the London Fire Brigade (no further details were provided). The subject site is not located in a surface water flood risk area.
- A surface water flood risk area has been identified at 'West Hampstead, Cricklewood, South Hampstead and West to Church End'. However, the exact area at risk has not been delineated, although it appears to be located approximately 2km northwest of the subject site.
- Camden suffered widespread surface water flooding in August 2002 due to a high intensity rainfall event. The subject site was not affected by either this or a 1975 event. The nearest road affected in 1975 was Gloucester Avenue, 35m east of the site and the closest road affected by the 2002 flooding was Primrose Hill Road, 265m southwest of the site.

- Groundwater contours indicate that water rests at least 70m below the ground surface at the subject site. No groundwater flooding incidents have been recorded within the Borough of Camden.
- Fewer than three flooding incidents were recorded by Thames Water within the postcode area of the subject site in the ten years between 1997 and 2007.
- There are two small reservoirs located in Hampstead Heath, over 2km north of the subject site, which form part of a group of ponds owned by the City of London Corporation.

The London Borough of Camden 'Camden Flood Risk Management Strategy' states that Regent's Canal and locks are owned and maintained by the Canal & River Trust (formerly British Waterways). It is the responsibility of the Trust to ensure that no flooding occurs from the canal network. The document also states that there is a low risk of flooding from Regent's Canal.

4.3 Water Authority

Thames Water has advised that they have no records of flooding as a result of the surcharging of public sewers in the subject area.

5 ASSESSMENT OF FLOOD RISK

5.1 Background

The following assessment is based on the data presented in the preceding sections of this report. It should be noted that flooding can occur at any location and cannot always be predicted. However, this report aims to identify any specific or known risks relating to the subject property, based on available information sources.

5.2 Fluvial / Tidal Flooding

Fluvial and tidal flooding refers to flooding from surface watercourses and their tributaries, estuaries and the sea. Environment Agency mapping indicates that the site is located within Flood Zone 1, whereby the annual probability of fluvial or tidal flooding is classified as less than 1 in 1000. No minor watercourses (for which the Environment Agency has not provided an indicative floodplain) are recorded in close proximity to the site.

It is confirmed in the North London SFRA that the Borough of Camden has a low fluvial flood risk and that there are no fluvial watercourses within the Borough.

The National Planning Policy Framework (NPPF) details the suitability of different land uses within each flood zone. Under the Planning Practice Guidance (PPG) to the NPPF, the proposed land use is classified as 'more vulnerable' and such uses are generally considered compatible with Flood Zone 1.

Overall, the risk associated with flooding from fluvial sources is considered to be low.

5.3 Flooding from sewers

Sewer flooding can occur during periods of heavy rainfall when a sewer becomes blocked or is of inadequate capacity.

Thames Water has advised that the subject property has no recorded history of sewer flooding, and a relatively small number of sewer flooding incidents were reported within the SFRA for the postcode area. In the event of sewer surcharging in the vicinity of the site, water would likely flow southeast away from the site, following local topography.

Overall, the risk associated with flooding from sewers is considered to be low.

5.4 Surface water (pluvial) flooding

This can occur during intense rainfall events, when water cannot soak into the ground or enter drainage systems. Overland flow is likely to follow the local topography, ponding in valleys or topographical depressions.

Despite the identification of the rear of the site as at a 'high' risk of surface water flooding (according to EA mapping), it is noted that this appears to relate to the external yard area only and that access/egress to the property would not be affected as Regents Park Road to the south of the site is at a 'very low' or 'low' risk of surface water flooding. Residential uses at basement level are for a low vulnerability use only (i.e. storage).

No flooding incidents were reported at the subject site in the SFRA (although other parts of the borough have historically been affected) and the site is not located within an identified surface water flood risk area.

Overall, the risk associated with surface water flooding is considered to be low.

5.5 Groundwater flooding

This can occur in low-lying areas when groundwater levels rise above surface levels, or within underground structures. BGS mapping indicates that the site is underlain by the low permeability London Clay Formation which is unlikely to contain shallow groundwater. Groundwater contour levels in the SFRA indicate a resting level of at least 70m below ground levels and no groundwater flooding incidents have been recorded at the subject site.

Overall, the risk associated with groundwater flooding is considered to be low.

5.6 Other Sources

Other potential sources of flooding include man-made structures such as reservoirs and canals. Regent's Canal is located 480m southeast of the subject site, however the Camden Flood Risk Management Strategy considers it to pose a low risk. Environment Agency mapping shows that the site is not within an area considered to be at risk from reservoir flooding. The two small reservoirs in Hampstead Heath are located over 2km away and the Environment Agency states that reservoir flooding is 'extremely unlikely to happen'.

As with any urban location, there is the risk of a break in a water main causing localised flooding at the site. However, the risk at this location is no greater than at any other location served by water mains.

Overall the risk associated with flooding from other sources (such as reservoirs and canals) is considered to be low.

5.7 Impact of Development on Flood Risk

Given that the proposed works comprise the conversion of the existing property only, with no external alterations to the building footprint or drainage system, there will be no off-site increase in flood risk as a result of the proposed works.

6 CONCLUSIONS & RECOMMENDATIONS

6.1 Conclusions

This assessment has considered the potential risks to the application site associated with flooding from fluvial and tidal sources, sewer surcharging, surface water (pluvial) flooding, groundwater flooding and flooding from other (man-made) sources.

Overall, on the basis of information reviewed by RPS, the subject site is not considered to be at a significant risk of flooding from any of the sources assessed. The development is considered to be safe from a flood risk perspective, and will not result in an increase in flood risk off-site.

6.2 Recommendations

No further assessment or mitigation is considered necessary in relation to flood risk for the Permitted Development application.

APPENDIX A

Figures

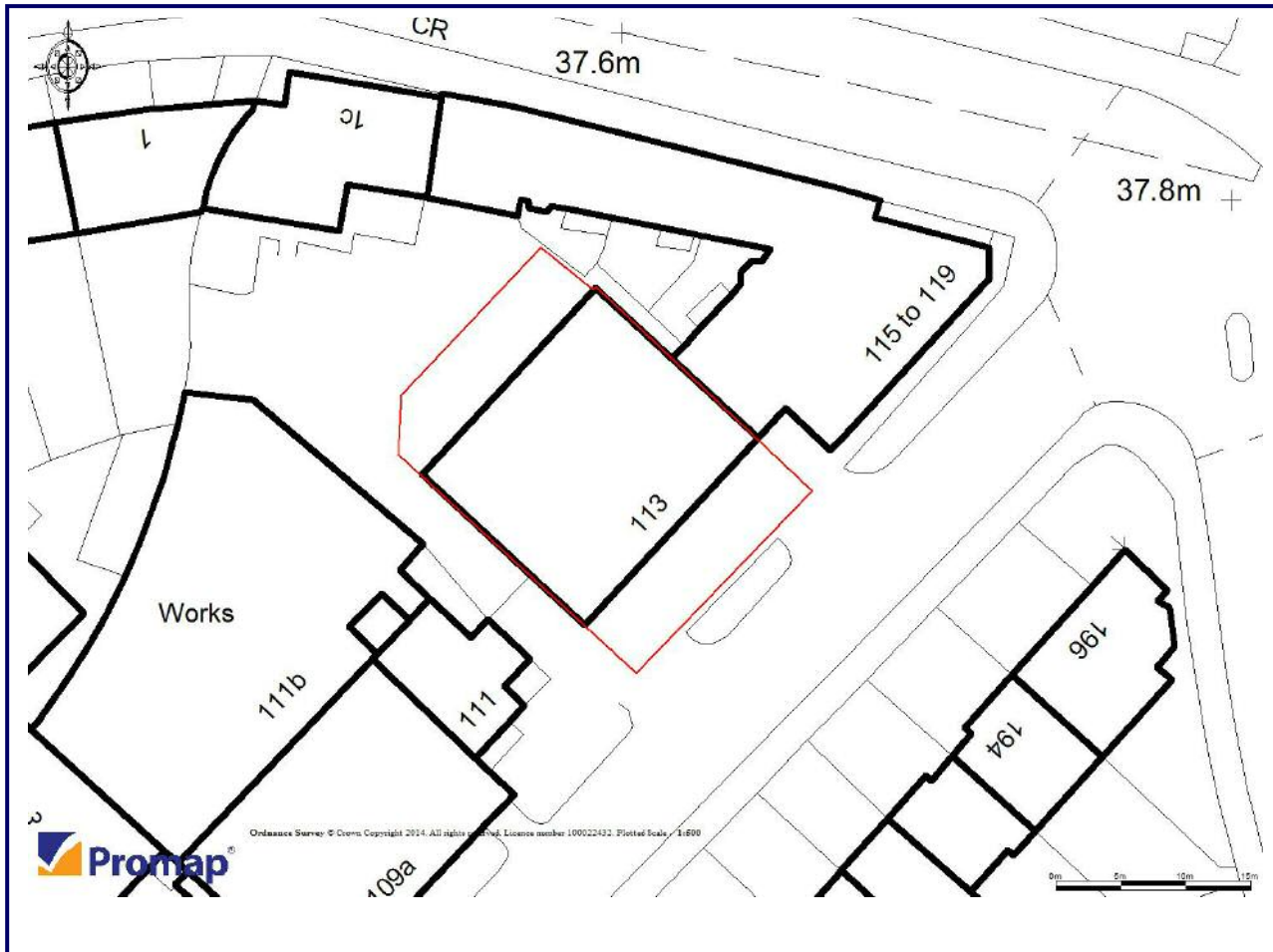


Figure 1: Site Location Plan

Map Date: Current

Scale: Not to scale

RPS
14 Cornhill
London
EC3V 3ND

☎ 020-7280-3200
🌐 www.rpsgroup.com

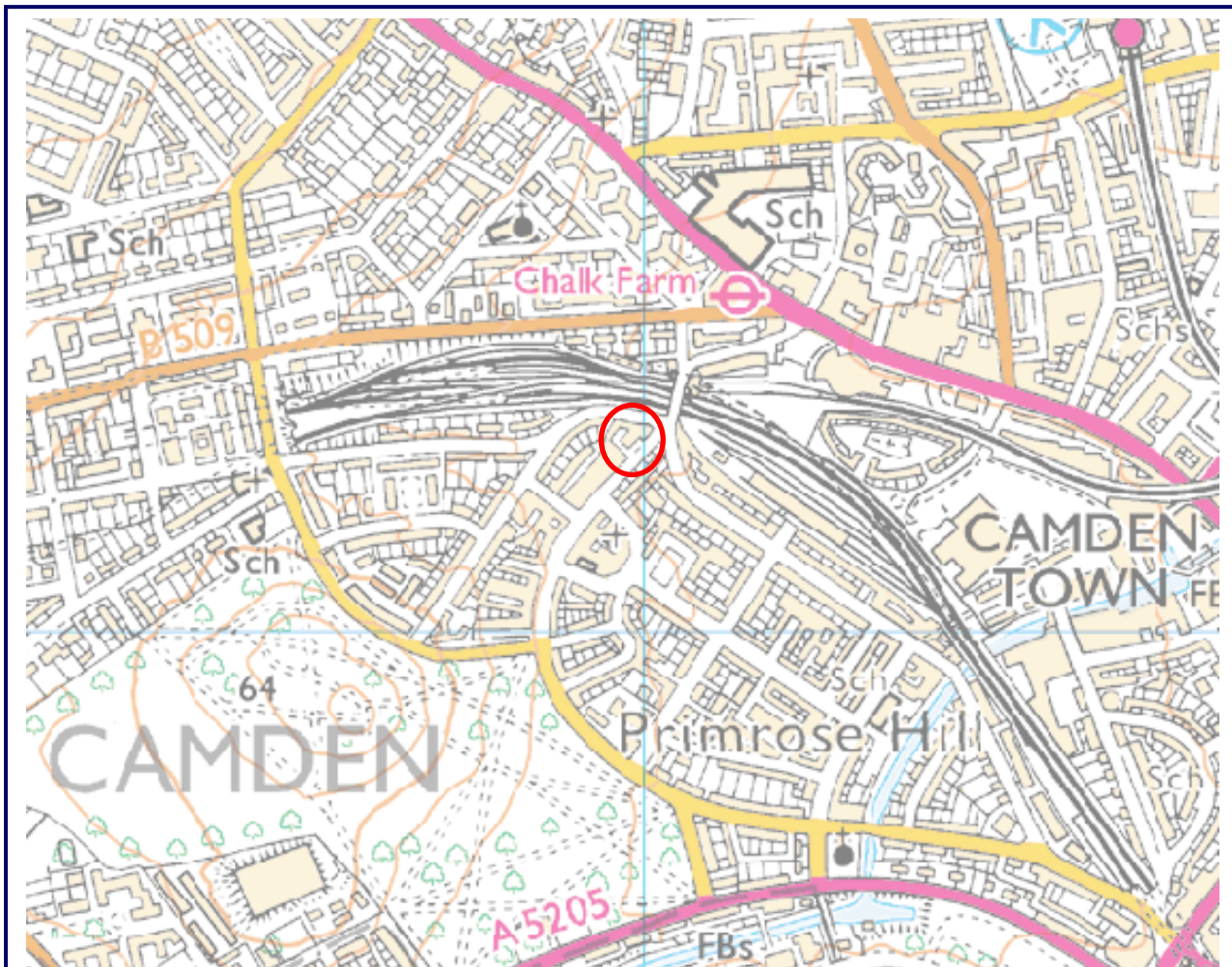


Figure 2: Environment Agency Flood Map

Map Date: Current

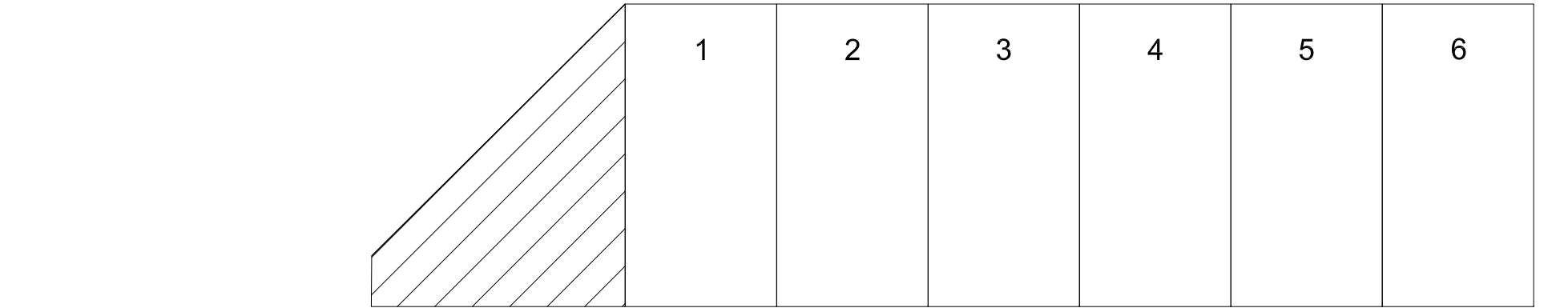
Scale: Not to scale

RPS
14 Cornhill
London
EC3V 3ND

☎ 020-7280-3200
🌐 www.rpsgroup.com

APPENDIX B

Development Plans



Key Plan



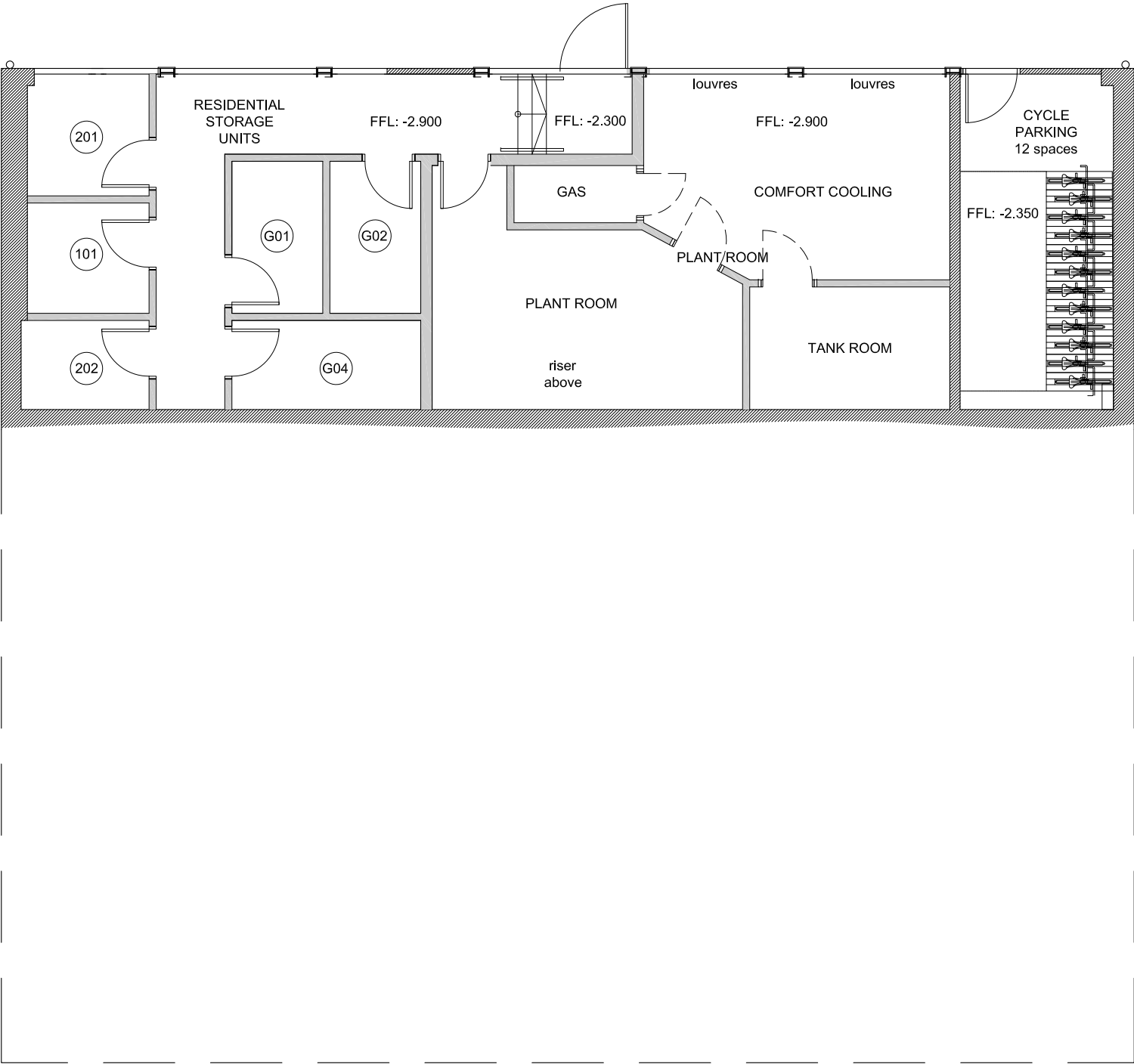
General Notes

The drawing is copyright of Darling Associates. This drawing shall not be scaled. All dimensions are in mm unless otherwise stated. All dimensions shall be checked on site prior to commencing the works and any discrepancies to be reported to Darling Associates. All works shall conform to the current edition of the building regulations and other statutory requirements. All materials and workmanship shall conform with the relevant British Standard specifications and codes of practice. If this drawing forms part of an application for planning permission, it shall not be used for any other purpose without the express permission of Darling Associates. This drawing may incorporate information from other professionals. Darling Associates cannot accept responsibility for the integrity and accuracy of such information. Any clarification and/or additions that are required appertaining to such information should be sought from the relevant profession or their appointment representative.

Drawings, specifications and schedules are to be read in conjunction with the following where applicable: Employer's Requirements documents, Agreements to Lease, Structural Engineer's drawings and specifications, Civil Engineer's drawings and specifications, Survey Drawings, Party Wall/ Boundary Awards. Other specialist design consultant's requirements as appointed by the Main Contractor. Other specialist design sub-contractor's requirements as appointed by the Main Contractor.

Notes

REV	NOTES	DATE	BY	AUTH
-	-	dd.mm.yy	-	-



DARLING ASSOCIATES
ARCHITECTS

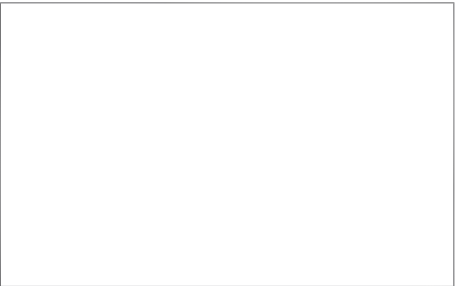
1 Greencoat Row mail@darlingassociates.net
London SW1P 1DH www.darlingassociates.net
UK +44 20 7630 0500

PD

TITLE Proposed Basement Floor Plan			
PROJECT 113 Regent's Park Road			
SCALE AT A1: 1:50	SCALE AT A3: 1:100	DRAWN CS	ISSUED VP
DATE 01 Dec 2014	JOB NO. 14053	DRAWING (03)-P-PD-01	REV -



Key Plan



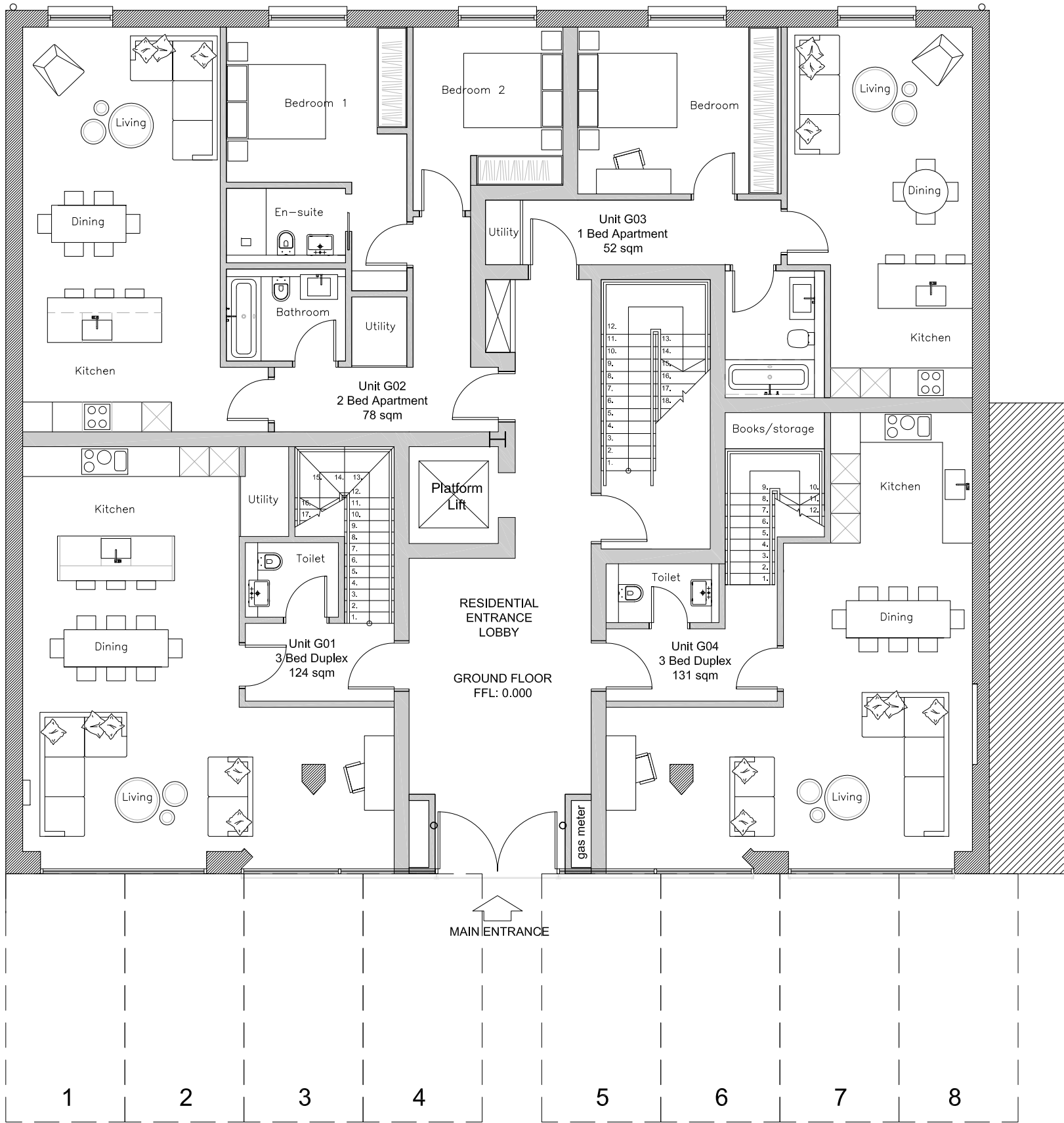
General Notes

The drawing is copyright of Darling Associates. This drawing shall not be scaled. All dimensions are in mm unless otherwise stated. All dimensions shall be checked on site prior to commencing the works and any discrepancies to be reported to Darling Associates. All works shall conform to the current edition of the building regulations and other statutory requirements. All materials and workmanship shall conform with the relevant British Standard specifications and codes of practice. If this drawing forms part of an application for planning permission, it shall not be used for any other purpose without the express permission of Darling Associates. This drawing may incorporate information from other professionals. Darling Associates cannot accept responsibility for the integrity and accuracy of such information. Any clarification and/or additions that are required appertaining to such information should be sought from the relevant profession or their appointment representative.

Drawings, specifications and schedules are to be read in conjunction with the following where applicable: Employer's Requirements documents, Agreements to Lease, Structural Engineer's drawings and specifications, Civil Engineer's drawings and specifications, Survey Drawings, Party Wall/ Boundary Awards. Other specialist design consultant's requirements as appointed by the Main Contractor. Other specialist design sub-contractor's requirements as appointed by the Main Contractor.

Notes

REV	NOTES	DATE	BY	AUTH
-	-	dd.mm.yy	-	-



DARLING ASSOCIATES
ARCHITECTS

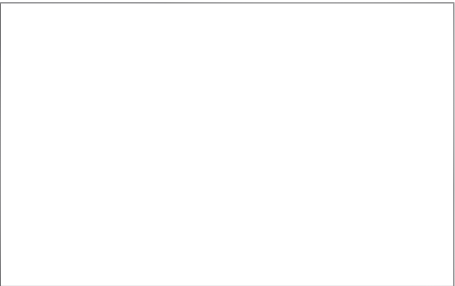
1 Greencoat Row
London SW1P 1DH
UK
mail@darlingassociates.net
www.darlingassociates.net
+44 20 7630 0500

PD

TITLE Proposed Ground Floor Plan			
PROJECT 113 Regent's Park Road			
SCALE AT A1: 1:50	SCALE AT A3: 1:100	DRAWN CS	ISSUED VP
DATE 01 Dec 2014	JOB NO. 14053	DRAWING (03)-P-PD-02	REV -



Key Plan



General Notes

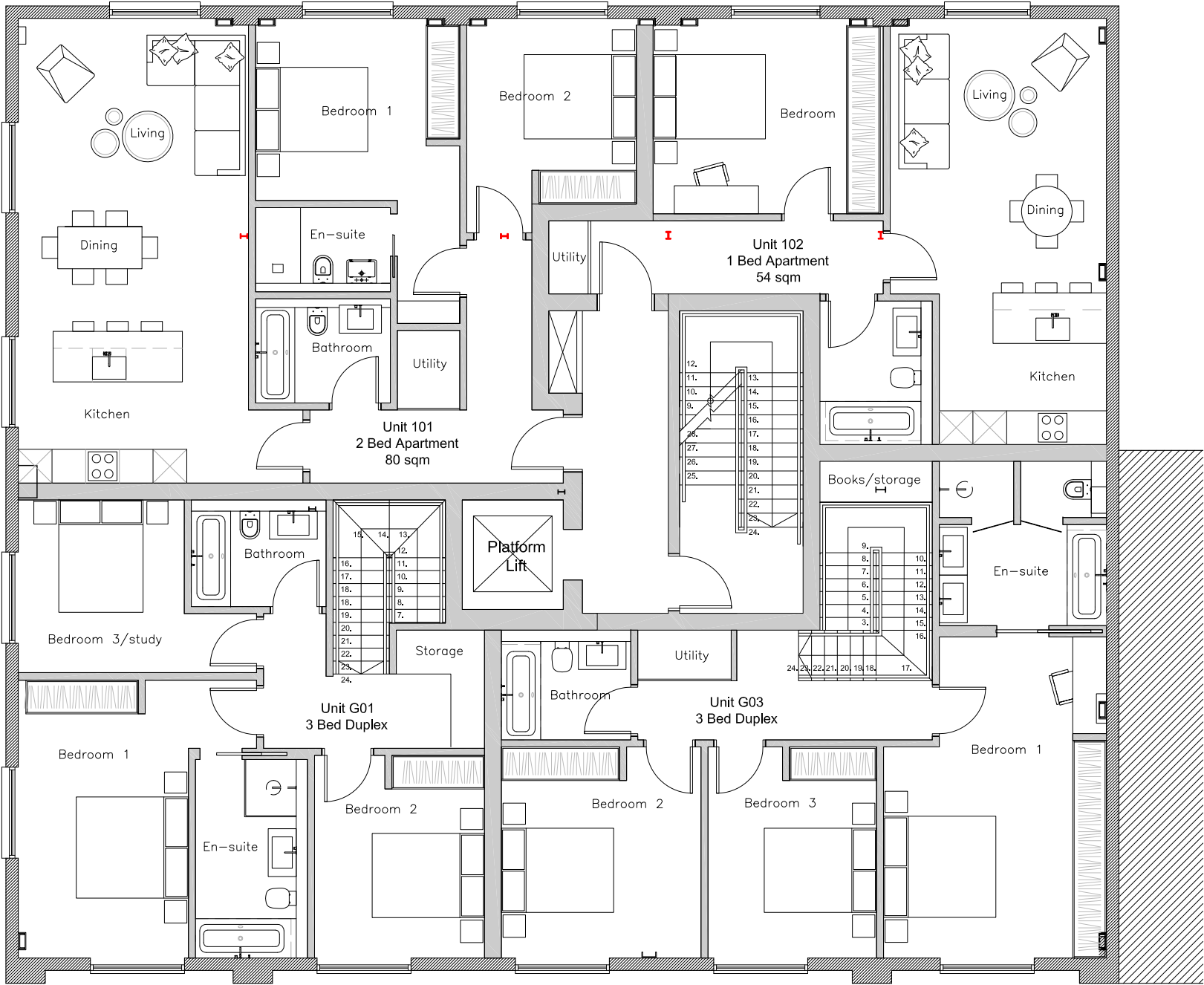
The drawing is copyright of Darling Associates. This drawing shall not be scaled. All dimensions are in mm unless otherwise stated. All dimensions shall be checked on site prior to commencing the works and any discrepancies to be reported to Darling Associates. All works shall conform to the current edition of the building regulations and other statutory requirements. All materials and workmanship shall conform with the relevant British Standard specifications and codes of practice. If this drawing forms part of an application for planning permission, it shall not be used for any other purpose without the express permission of Darling Associates. This drawing may incorporate information from other professionals. Darling Associates cannot accept responsibility for the integrity and accuracy of such information. Any clarification and/or additions that are required appertaining to such information should be sought from the relevant profession or their appointment representative.

Drawings, specifications and schedules are to be read in conjunction with the following where applicable: Employer's Requirements documents, Agreements to Lease, Structural Engineer's drawings and specifications, Civil Engineer's drawings and specifications, Survey Drawings, Party Wall/ Boundary Awards. Other specialist design consultant's requirements as appointed by the Main Contractor. Other specialist design sub-contractor's requirements as appointed by the Main Contractor.

Notes

REV	NOTES	DATE	BY	AUTH
-	-	dd.mm.yy	-	-

I Indicates column to be removed.



DARLING ASSOCIATES
ARCHITECTS

1 Greencoat Row London SW1P 1DH UK
mail@darlingassociates.net
www.darlingassociates.net
+44 20 7630 0500

PD

TITLE Proposed First Floor Plan			
PROJECT 113 Regent's Park Road			
SCALE AT A1: 1:50	SCALE AT A3: 1:100	DRAWN CS	ISSUED VP
DATE 01 Dec 2014	JOB NO. 14053	DRAWING (03)-P-PD-03	REV -



Key Plan



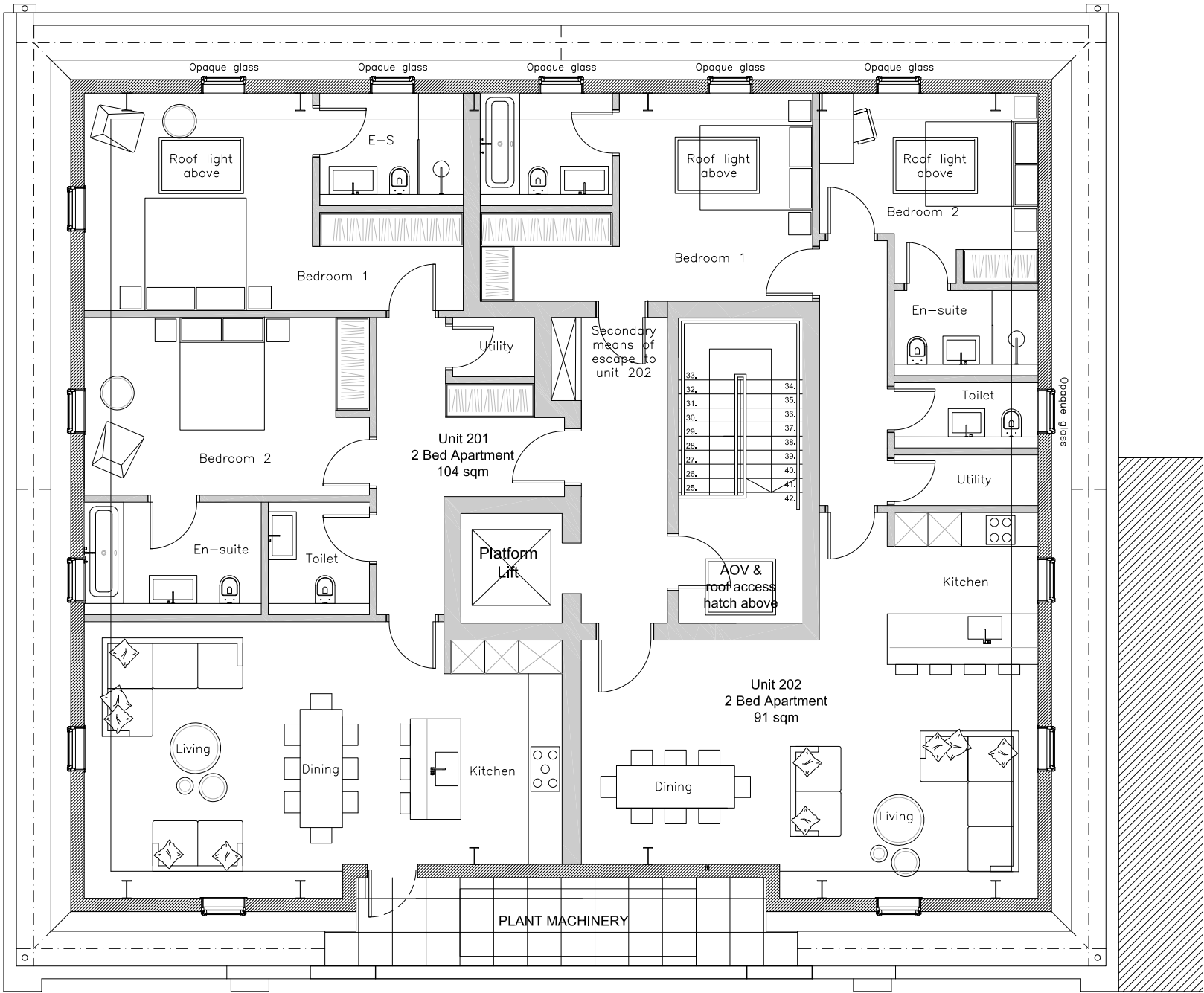
General Notes

The drawing is copyright of Darling Associates. This drawing shall not be scaled. All dimensions are in mm unless otherwise stated. All dimensions shall be checked on site prior to commencing the works and any discrepancies to be reported to Darling Associates. All works shall conform to the current edition of the building regulations and other statutory requirements. All materials and workmanship shall conform with the relevant British Standard specifications and codes of practice. If this drawing forms part of an application for planning permission, it shall not be used for any other purpose without the express permission of Darling Associates. This drawing may incorporate information from other professionals. Darling Associates cannot accept responsibility for the integrity and accuracy of such information. Any clarification and/or additions that are required appertaining to such information should be sought from the relevant profession or their appointment representative.

Drawings, specifications and schedules are to be read in conjunction with the following where applicable: Employer's Requirements documents, Agreements to Lease, Structural Engineer's drawings and specifications, Civil Engineer's drawings and specifications, Survey Drawings, Party Wall/ Boundary Awards. Other specialist design consultant's requirements as appointed by the Main Contractor. Other specialist design sub-contractor's requirements as appointed by the Main Contractor.

Notes

REV	NOTES	DATE	BY	AUTH
-	-	dd.mm.yy	-	-



DARLING ASSOCIATES
ARCHITECTS

1 Greencoat Row
London SW1P 1DH
UK

mail@darlingassociates.net
www.darlingassociates.net
+44 20 7630 0500

PD

TITLE			
Proposed Second Floor Plan			
PROJECT			
113 Regent's Park Road			
SCALE AT A1:	SCALE AT A3:	DRAWN	ISSUED
1:50	1:100	CS	VP
DATE	JOB NO.	DRAWING	REV
01 Dec 2014	14053	(03)-P-PD-04	-

APPENDIX C

General Notes

RPS HEALTH, SAFETY & ENVIRONMENT

Flood Risk Desk Study Report

General Notes

The following notes should be read in conjunction with the report:

1. This report contains only that available factual data for the site, which was obtained from the sources, described in the text. These data were related to the site on the basis of the location information made available to RPS by the client.
2. The assessment of the site is based on information supplied by the client. Relevant information was also obtained from other sources.
3. The desk study information is not necessarily exhaustive and further information relevant to the site may be available from other sources.
4. The report reflects both the information provided to RPS in documents made available for review and the results of observations and consultations by RPS staff.
5. Where data have been supplied by the client or other sources, including that from previous site audits or investigations, it has been assumed that the information is correct but no warranty is given to that effect. While reasonable care and skill has been applied in review of this data no responsibility can be accepted by RPS for inaccuracies in the data supplied.
6. This report is prepared and written in the context of the proposals stated in the introduction to this report and its contents should not be used out of context. Furthermore new information, changed practices and changes in legislation may necessitate revised interpretation of the report after its original submission.
7. The copyright in the written materials shall remain the property of the RPS Company but with a royalty-free perpetual licence to the client deemed to be granted on payment in full to the RPS Company by the client of the outstanding amounts.
8. The report is provided for sole use by the Client and is confidential to them, their professional advisors, no responsibility whatsoever for the contents of the report will be accepted to any person other than the Client. [Unless otherwise agreed]
9. These terms apply in addition to the RPS HSED "Standard Terms & Conditions" (or in addition to another written contract which may be in place instead thereof) unless specifically agreed in writing. (In the event of a conflict between these terms and the said Standard Terms & Conditions the said Standard Terms & Conditions shall prevail.) In the absence of such a written contract the Standard Terms & Conditions will apply.