91 Regent's Park Road –
Daylight and Sunlight Report – Addendum

October 2018

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Report addendum prepared for Mr Zamain Keshwani by Ian Preston, Principal Consultant at Abitar, 25th October 2018.
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Executive Summary

Abitar were appointed to produce an addendum to their original assessment report on the impact of the proposed new residential development at 91 Regent's Park Road on the availability of daylight and sunlight in nearby existing buildings.

The addendum is based on the methods and guidelines recommended in the Building Research Establishment publication BR 209, *Site layout and planning for daylight and sunlight – a guide to good practice* (2011).

The six windows assessed in the original report have been considered in relation to the new design, in which the proposed rear extension has been reduced from three to one additional storey.

The analysis indicates that the proposed development will have no impact on the availability of daylight at the second- and third-floor rear windows of the adjoining mid-terrace building, 93 Regent's Park Road. In addition, it is unlikely to have any significant impact on daylight levels at the first-floor rear window or on either daylight or sunlight levels at the two worst-case lower windows on the opposite side of Erskine Road: 89a Regent's Park Road and 1a Erskine Road. However, the ground-floor rear shop window at 93 Regent's Park Road fails the daylight impact test.

It should be noted that the availability of daylight at the ground-floor window at the rear of 93 Regent's Park Road is already heavily obstructed by nearby existing and consented structures. This window is therefore highly sensitive to additional obstruction. The consented development at 6 Erskine Road immediately to the rear, which is adding new structures and increasing the height of several existing buildings, is already reducing daylight levels at 93 Regent's Park Road and making obstructed windows more-sensitive to additional obstruction.

The ground floor at 93 Regent's Park Road is occupied by a shop comprising a single room extending from the front to rear elevation. The shop floor also receives daylight through larger openings in the south-east-facing front elevation that will not be affected by the proposed development. Electric lighting is already in use during daylight hours. These factors will reduce the actual impact of the proposed extension in terms of daylight, total light and energy usage.

The guidelines for existing buildings in BR 209 are primarily intended for habitable rooms in dwellings. BR 209 does not specify whether they should also be applied to retail premises. Arguably daylight is not essential in the shop at 93 Regent's Park Road. The use of electric lighting supports this argument.

BR 209 states that its own guidance “is purely advisory and the numerical target values within it may be varied to meet the needs of the development and its location.” It is not uncommon for low-level windows in built-up urban locations such as inner London to be adversely affected by extensions, particularly where the affected windows and/or the extension lie close to the boundary between properties.

Introduction

This report relates to the redesigned new residential development at 91 Regent's Park Road, London NW1. Abitar were appointed to produce an assessment of the impact of the proposed extension on the availability of daylight and sunlight in existing nearby buildings.

BR 209

BR 209, *Site layout and planning for daylight and sunlight – a guide to good practice* (2011), describes procedures for assessing the impact of new developments on the availability of daylight and sunlight in existing buildings. These procedures are discussed in greater detail below.

It should be noted that BR 209 states its own guidance "is purely advisory and the numerical target values within it may be varied to meet the needs of the development and its location" (p. v). Page 1 says: "The advice given here is not mandatory… Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design."

Project Description

The proposed new development will add a residential loft conversion with rear dormer window on the fourth floor of the main building at 91 Regent's Park Road and a single additional floor (reduce from three additional floors) above the existing single-storey retail premises to the rear.

This analysis assesses the potential impact of the proposal on the ground- to third-floor windows closest to the boundary with number 91 in the rear elevation at 93 Regent's Park Road.

The first- to third-floor windows (shaded yellow on the drawing – right) are believed to be those of flats. The first-floor window is believed to be a bathroom owing to the presence of an obscured patterned film on the window (ref: site photo IMG_1675), in which case assessment would not be required. However, the window has been assessed for completeness. The ground-floor window (shaded orange) is at the back of the shop floor.

BR 209 only requires the lowest window in each window wall to be assessed but because the lowest window failed the daylight test, upper windows were also assessed in order to establish the extent of the proposal's impact.

Owing to relative room sizes, orientation, outlook and the position of the staircase, it is assumed that living rooms are at the front of the building facing south-east. For this reason, and owing to their north-western orientation, the rear windows require daylight analysis but not sunlight analysis.

89a Regent's Park Road (Erskine House) and 1a Erskine Road (Bay Tree Cottage) are the closest potentially affected buildings to the proposed development on the south-west side of Erskine Road. Both are five-storey terraced houses and are believed to comprise flats.

There are no ground-floor front windows at 89a Regent's Park Road, therefore the first-floor window is considered, as well as the ground-floor front window at 1a Erskine Road. Details of room functions were not available. Although it is likely that living rooms are located at the rear of both buildings to take advantage of the south-west orientation, it is also possible that living rooms are located at the front; therefore both daylight and sunlight assessments were carried out.

Method

Assessment of daylight and sunlight in the buildings was carried out according to the methods described in the BRE publication BR 209 – *Site layout and planning for daylight and sunlight: A guide to good practice* (2011) and in Abitar's original report.

Assessment of Obstructions

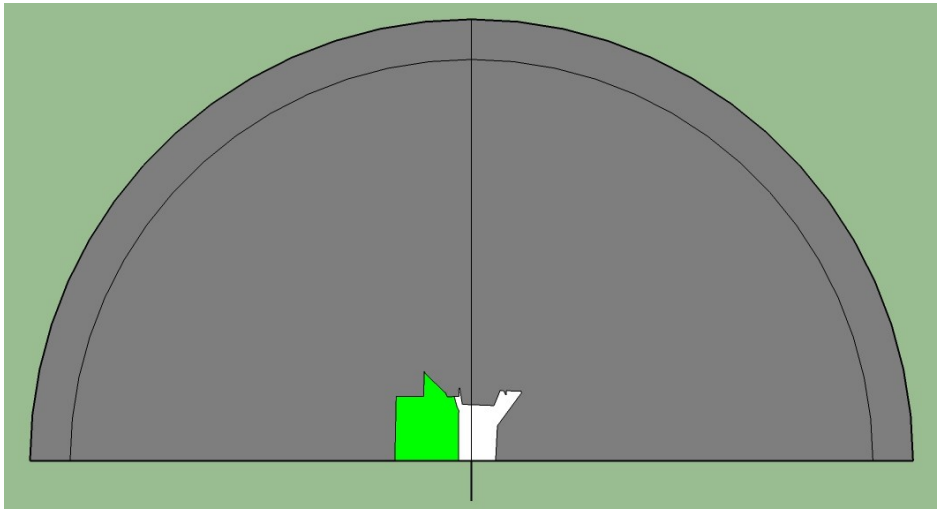
Obstructions were assessed using the following revised drawings provided by Alexander Martin Architects:-

> 91 Regent's Park Road, Planning issue drawings (plans, elevations and sections as proposed), Alexander Martin Architects, dwg no.s 168-AP-101B, 102–106D, 200C, 201–204D, 300–302D.

Results

Impact on Daylight Levels at 93 Regent's Park Road

Rear ground-floor window



The direction finder above shows existing and consented obstructions at the window in grey and the proposed extension in green.

Is distance of new development more than 3 x its height above window?	**No**
Does new development subtend more than 25% at window?	**Yes**
Is vertical sky component (VSC) < 27%	**Yes (11.5%)**
Is VSC less than 0.8 times its previous value?	**Yes (0.63)**

This window is currently heavily obstructed by the surrounding structures: the parapet of the existing single-storey building at 91 Regent's Park Road (Primrose Valet), the rear outrigger at 93 Regent's Park Road, and Leeder House, Core 1 and Building 2 within the consented development at 6 Erskine Road.

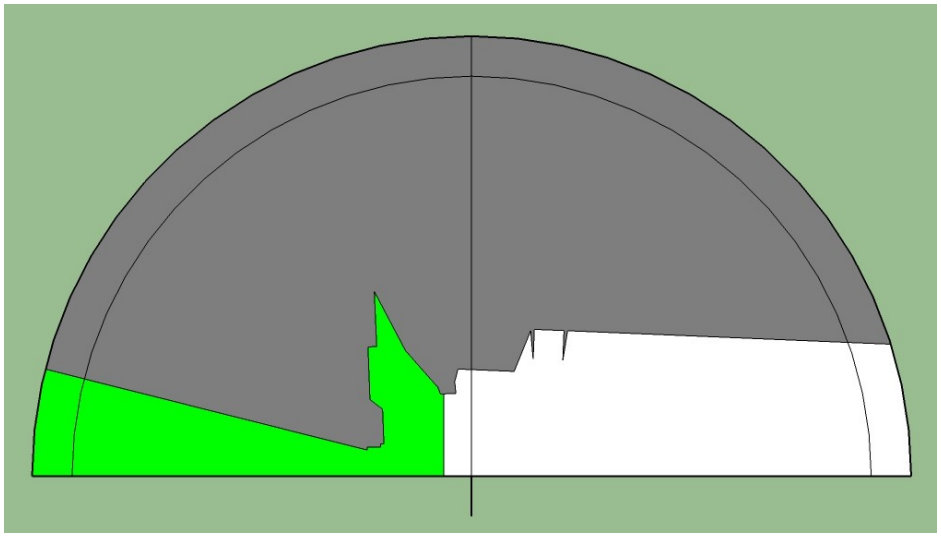
The window will be additionally obstructed by the proposed one-storey extension to the rear of 91 Regent's Park Road. The VSC will be 11.5%, below the threshold level of 27%, corresponding to an angle of visible sky of 37.5°, and 0.63 times the current VSC.

Section 2.2.7 of BR 209 (p. 7) states that, where the VSC will be "both less than 27% and less than 0.8 times its former value, occupants of the existing building will notice the reduction in the amount of skylight. The area lit by the window is likely to appear more gloomy, and electric lighting will be needed more of the time."

The analysis shows this window will be the only opening significantly affected by the proposed development.

This is discussed below in the Conclusions section.

Rear first-floor window



The direction finder above shows existing and consented obstructions at the window in grey and the proposed extension in green.

Is distance of new development more than 3 x its height above window?	**No**
Does new development subtend more than 25% at window?	**Yes**
Is vertical sky component (VSC) < 27%	**Yes (24%)**
Is VSC less than 0.8 times its previous value	**No (0.81)**

This window is currently quite heavily obstructed by the surrounding structures: the buildings on the south-west side of Erskine Road, and Leeder House, Core 1 and Building 2 within the consented development at 6 Erskine Road. It will be additionally obstructed by the proposed one-storey extension to the rear of 91 Regent's Park Road.

The VSC is below the threshold level of 27% both before and after development, and will be approximately 0.81 times its current value (> 0.8 times). Daylighting is therefore not likely to be significantly affected.

Furthermore, this room is believed to be a bathroom owing to the presence of an obscured patterned film on the window, visible on site photo IMG_1675. If this is the case, daylight and sunlight assessment are not required as bathrooms are not treated as habitable rooms.

Rear second- and third floor windows

No assessment is required as the reference points at the centre of both windows are now higher than the parapet of the new extension (see Section BB).

Impact on Daylight Levels in Erskine Road

Ground-floor front window, 1a Erskine Road (Bay Tree Cottage) and First-floor front window, 89a Regent's Park Road (Erskine House)

The assessment of the previously submitted proposal comprising three additional storeys indicated that it would be unlikely to have a significant impact on daylight levels at the worst-case windows on the opposite side of Erskine Road; therefore assessment of the reduced-height single-storey extension is not required. Furthermore, the distance of the nearest corner of the proposed extension is well over three times its height above the window reference points, confirming that further assessment is not required.

Impact on Sunlight Levels

As previously stated, the rear windows at 93 Regent's Park Road face north-west and there are not believed to be any living rooms at the back of the building. For these reasons, no sunlight analysis of this property is required.

The original report indicated that a full sunlight assessment of the worst-case windows on the opposite side of Erskine Road was not required owing to the orientation of the window wall and the relative position of the proposed development. This situation remains unchanged by the revised design; therefore no further sunlight assessment is required.

Conclusions

All the assessed windows in Regent's Park Road and Erskine Road pass the BR 209 daylight and sunlight tests, with one exception.

The rear window of the ground-floor shop at 93 Regent's Park Road will have a vertical sky component (VSC) 0.63 times its pre-development value.

It should be noted that the pre-development VSC for the ground-floor window is 18.25%, already well below the threshold level of 27%.

The window is already obstructed by existing and consented buildings. Heavily obstructed windows are particularly sensitive to additional obstructions.

The consented development at 6 Erskine Road – particularly the new Core 1 building, the increase in the height of Building 2 and the addition of a condenser enclose to the roof of Leeder House - has added to previously existing obstructions of the window, reducing the previous VSC values and making the window more sensitive to further obstruction.

The window serves a shop at 93 Regent's Park Road that also receives daylight through a large window and glazed door in the south-east-facing front elevation. At the time of the daylight assessor's site visit (early afternoon on a bright day in July 2017), electric lighting was turned on in the shop. Electric lighting can also be seen on Google Streetview images of the area.

For these reasons, the actual impact of the proposed extension on levels of daylight, total light (natural and artificial) and energy usage within the shop will be less than is suggested by the result of the VSC test.

Furthermore, the guidelines for existing buildings in BR 209 are primarily intended for habitable rooms in dwellings (section 2.2.2, p. 7). It may also be applied to non-domestic buildings where there is a reasonable expectation of daylight. BR 209 lists a number of building types where this applies, but does not mention retail premises. Section 5.6.3 (p. 26) states, with reference to the design of new developments, that "In some circumstances the need for daylight at ground floor level may not be so great, eg where shops occupy the ground floor."

Arguably daylight is not essential in the shop at 93 Regent's Park Road. The existing use of electric lighting during daylight hours supports this argument.

BR 209 states that its own guidance "is purely advisory and the numerical target values within it may be varied to meet the needs of the development and its location." It is not uncommon for low-level windows in built-up urban locations such as inner London to be impacted by extensions, particularly where the affected windows and/or the extension lie close to the boundary between properties. This is the case for the ground-floor rear window at 93 Regent's Park Road, which is less than 1.5 m from the site boundary.

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