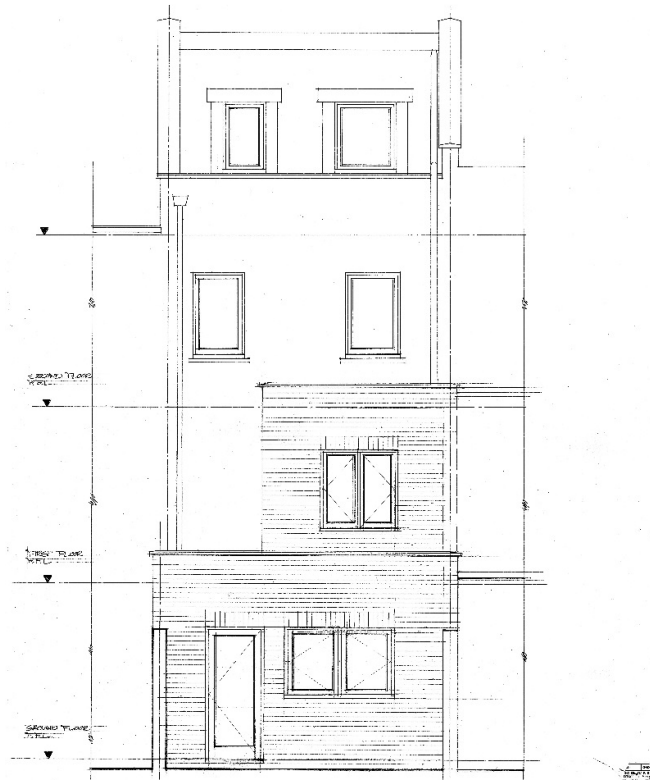


58 Parkway, London, NW1 7AH



Daylight Calculations Summary Results

February 17th 2017

Encon Associates Limited
10 Chapel Lane
Arnold
Nottingham
NG5 7DR

Contents	Page
1. Introduction	3
2. Daylight Maps	4
3. Client Plan Drawings	5
4. IES Daylight Results	7
5. Daylight Results table	8
6. Conclusions	9

Introduction

This report summarises the daylight performance of the studio space for the proposed development at 58 Parkway, London NW1 7AH. Daylight Calculations were undertaken for all sample rooms to determine the daylight factor, which indicates the balance between the daylight outside and the amount of daylight within a room.

Daylight Factor can be used as a measure of the average indoor illuminance (from daylight) on the working plane within a room. It is expressed as a percentage of the simultaneous outdoor illuminance on a horizontal plane under an unobstructed overcast sky.

Daylight analysis was carried out using dynamic simulation software. The results of the daylight calculations are attached to this report.

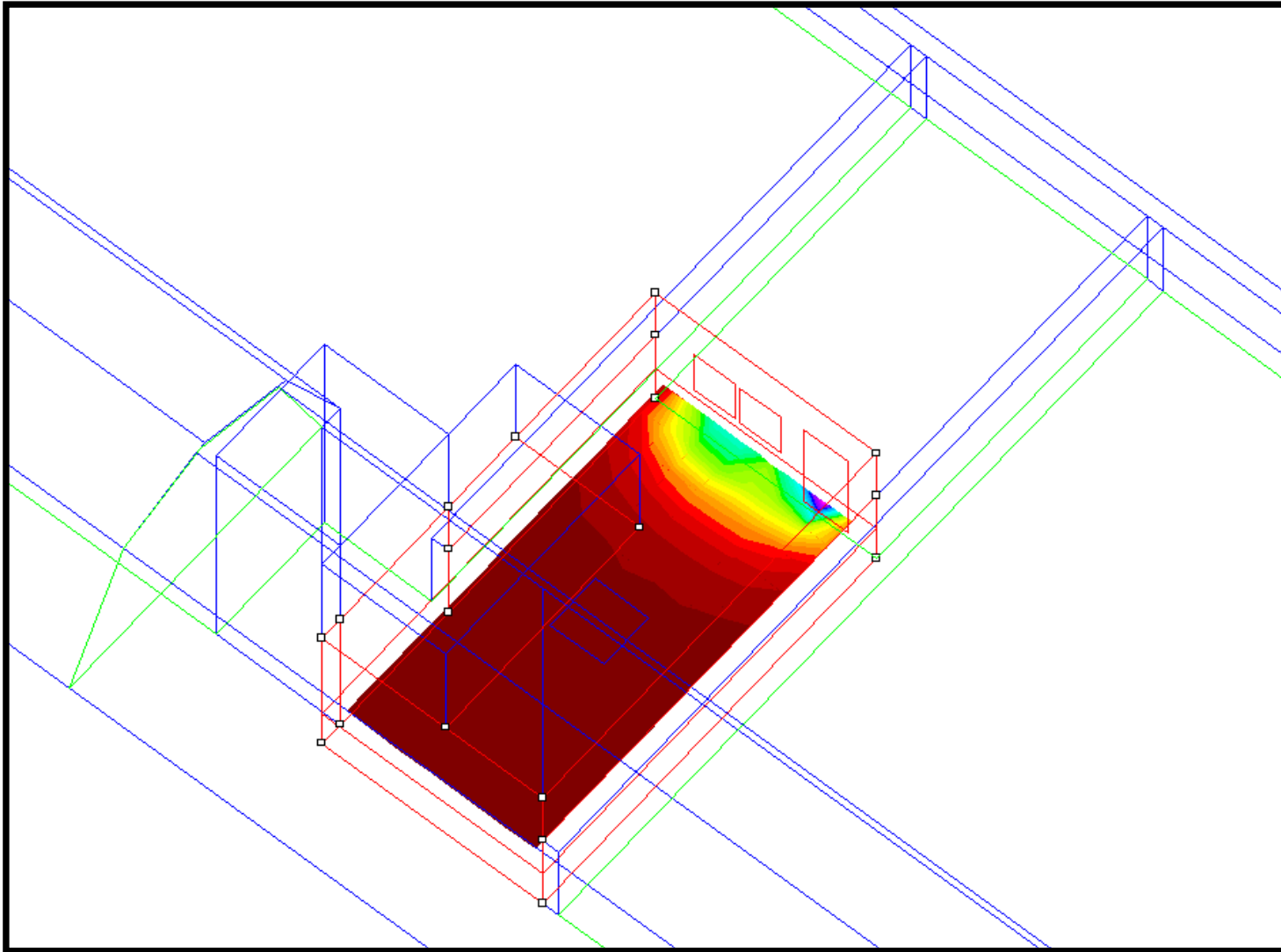
Other input parameters, including the building orientation, geometry, window head heights and buildings internal finishes were specified in accordance with the following drawings provided by Transformation Architects: 58 Parkway.pdf, 1991-104B.pdf, 1991-105A.pdf, 1991-106A.pdf, 1991-107.pdf, 1991-108A.pdf and 1991-110.pdf.

The following parameters have been used/assumed for this simulation:

- 5000 Lux has been taken as the luminance at the zenith (cd/m^2) which is CIE Standard Overcast Sky as per BREEAM requirements
- Illuminance levels are based on a horizontal working plane at 0.850m as per PJ Littlefair Guidance.
- The margin for the working plane at walls and obstructions is 0m
- All surfaces have been indicated as default values in the absence of further information.
- Double glazing has been assumed with a default transmittance value of 70 %
- Daylight from neighbouring rooms has not been included for the purpose of this calculation.
- Location has been set as 'London Heathrow, United Kingdom (ASHRAE Climate Zone derived)', being the nearest town or city with climate data available, and in the absence of further information.

For a room to be classed as having adequately daylight the average daylight factor within an occupied space must be at least 1.5% for all Bedrooms, Living Rooms and Dining Rooms and must be at least 2.0% for all kitchens. Where an open plan layout is adopted, the most onerous average daylight factor is applied (i.e. Living/Kitchen room would be 2.0% due to the kitchen element)

(P.J. Littlefair , Site Layout planning for daylight and sunlight: a guide to good practice, 2002)
(BSI Group, Lighting for buildings - Part 2: Code of practice for daylighting, BS8206-2;2008)



Analysis calculation summary:

Room ID	Room name	Calculation succeeded
00000001	Studio Room Assessed	OK

Room 00000001 (Studio Room Assessed)

Analysis calculation for room -

Summary results for working planes and floor

Surface	Quantity	Values			Uniformity (Min./Ave.)	Diversity (Min./Max.)
		Min.	Ave.	Max.		
Working plane 1 Reflectance=0% Transmittance=100% Grid size=0.50 m Area=30.340m ² Margin=0.00 m	Daylight factor	0.0 %	2.4 %	29.7 %	0.02	0.00
	Daylight illuminance	5.69 lux	293.77 lux	3634.11 lux	0.02	0.00
	Sky view	1.00	1.00	1.00	1.00	1.00

Average Daylight Factor Table

58 Parkway, London, NW1 7AH

Room Name	Min.	Ave.	Max.	Unif	Unif	Compliant	Area
Studio Room	0.00	2.40	29.70	0.02	0.00	Yes	29.42

Total Area (Occupied Rooms)	29.4	100% Adequately Daylit Space
80% Threshold for 2.0% DF Compliance	23.5	
Total Area (2.0% DF Compliant Occupied Rooms)	29.4	
Total No. Of Occupied Rooms Assessed	1	

Conclusions

In conclusion, it is clear that the use of large glazing elements and a glazed door to the Studio room results in an adequate average daylight factor with a result of 2.4%. This exceeds the required average of 2.0% to meet adequate lighting levels within the space.

Overall it can be concluded that the current design meets the required average daylight factors throughout to achieve adequately lit rooms when read in line with P J Littlefair guidance.