# Ringwood Blarney, Phase 2

## Proposed Residential Development

# Daylight Analysis Report

Ringwood,
Shean upper,
Blarney,
Co. Cork.

Client
Clockstrike Ltd.

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| Client | Clockstrike Ltd | ☑ |
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| Planning Consultant | Coakley O'Neill Town Planning Ltd | ☑ |

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| Issue | 1# | 2025-11-24 | Draft issue for review |
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# Sketch/draft
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C Concept
D Design
G General information
T Tender
W Works/construction
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# 1 Introduction

## 1.1 Report purpose

This report gives information on daylight studies within the proposed development in particular the revised RFI proposal of Blocks A-D.

## 1.2 Instruction

DKPartnership (DKP) have been commissioned by Clockstrike Ltd. to carry out the analysis and report for the proposed development at Ringwood, Shean Upper, Blarney, Co. Cork.

## 1.3 Standards and guidelines overview

For this report we applied the recommendations and guidelines of the following documents.

- The Building Research Establishment report, BR 209 (2022) Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice. (referred to as the BRE Report).
- British European Standard BS EN 17037:2018 +A1:2021 also referred to as the UK Annex
- Irish European Standard IS EN 17037:2018

## 1.4 Geographical overview

Image 1.1 the (google maps) site is an overview of the site area with the proposed development approximately outlined in red.




Image 1.1: Proposed development site boundary. Imagery © Google 2025.

# 2 Executive summary

## 2.1 Analysis conducted

This report details the achieved calculated daylight reception within the new development, in particular the revised RFI proposal of Blocks A-D.

## 2.2 Performance of proposed units - Summary of results

### Daylight reception analysis of the proposed development

For the daylight assessment, results have been analysed within these standards:

- Assessed in accordance with IS EN17037 / BS EN17307, carried out in accordance with Method 1 and Method 2 described in the methodology section.
- Assessed in accordance with BS EN 17037:2018 National Annex.

The results from table 3.1 are reviewed under each standard. The daylight reception assessment has been targeted to habitable rooms within the proposed development. Receptors / rooms within the proposed development are indicated in image 3.1 to 3.4.

- Duplex blocks A, B, C and D: a selection of habitable rooms on the ground floor and first floor which are observed to be in the most daylight challenging positions or rooms positioned with close by obstacles have been assessed. Once a (lowest level) room is compliant, rooms at higher levels with similar configuration / parameters are deemed compliant on the basis that the room daylight factor would have improved due to the better vertical sky view angle of higher located rooms.

IS EN17037 / BS EN17307: To achieve recommendations outlined in IS EN 17037:2018 / BS EN 17307:2018, a given room must achieve: a target daylight factor of 2.0% or in terms of illuminance 300 lux on over 50% of the floor area for over 50% of the available daylight hours. And a minimum target daylight factor of 0.7% or in terms of illuminance 100 lux on over 95% of the floor area for over 50% of the available daylight hours. From the calculation result table 3.1 we note all of the proposed rooms calculated daylight results achieved in excess of the guidelines.

- Duplex blocks A, B, C and D: Overall, examined residential rooms for the proposed blocks achieved on average a daylight factor (DF) of 2.5% and an illuminance of 377 lux on over 50% of the floor area for over 50% of the available daylight hours. An average DF of 0.87% and an illuminance of 124 lux on over 95% of the floor area for over 50% of the available daylight hours was achieved.

In an urban environment it can more often be the case that complete fulfilment with the guidelines is not attainable. Within the BS EN 17037 it acknowledges that a rigid application of the European Standard could prove to be a difficult task as it offers only a single target for new buildings and IS EN17037 currently has no specific National Annex. The British Annex of BS EN 17037, daylight recommendations differ depending on the function of a room and offers minimum daylight provision targets for kitchens, living rooms and bedrooms.
Therefore, Given the similarity of weather, light and design patterns between Ireland and the UK and the lack of specific localisation Annex details in the Irish version, the alternate minimum daylight provision targets set out in the national annex of BS EN 17037 are reviewed next.

BS EN 17037:2018 National Annex: To achieve the alternate minimum daylight recommendations for Dublin, the room in question must achieve: Kitchen 1.3% target daylight factor or in terms of illuminance 200 lux. Living room 1.0% target daylight factor or in terms of illuminance 150 lux, and bedrooms 0.7% target daylight factor or in terms of illuminance 100 lux all over 50% of the floor area for over half the daylight hours. From the calculation result table 3.1 we note that all of the rooms calculated daylight are well in excess of these minimum guidelines.

- Overall compliance for proposed development = 100%

In summary, the calculation results have achieved full compliance under IS EN17037 / BS EN17307 and BS EN 17037:2018 National Annex guidelines. This indicates an overall good level of daylight for the proposed development under the guidelines. We conclude, the proposed development can provide a good level of residential daylight amenity to future occupants.

# 3 Performance of proposed development – Calculation results and conclusion

## Daylight Reception:

3.1 Receptor selection – Rooms within the proposed development

The daylight reception assessment has been targeted to habitable rooms within the proposed development. Receptors / rooms within the proposed development are indicated in image 3.1 to 3.4 below. Duplex blocks A, B, C and D; a selection of habitable rooms on the ground floor and first floor which are observed to be in the most daylight challenging positions or rooms positioned with close by obstacles have been assessed. Once a (lowest level) room is compliant, rooms at higher levels with similar configuration / parameters are deemed compliant on the basis that the room daylight factor would have improved due to the better vertical sky view angle of higher located rooms.




Image 3.1: Level 00 (ground floor). Duplex Block A and B (receptor no. 1–14).




Image 3.2: Level 00 (ground floor). Duplex Block C and D (receptor no. 15–28).




Image 3.3: Level 01 (first floor). Duplex Block A and B (receptor no. 29–50).

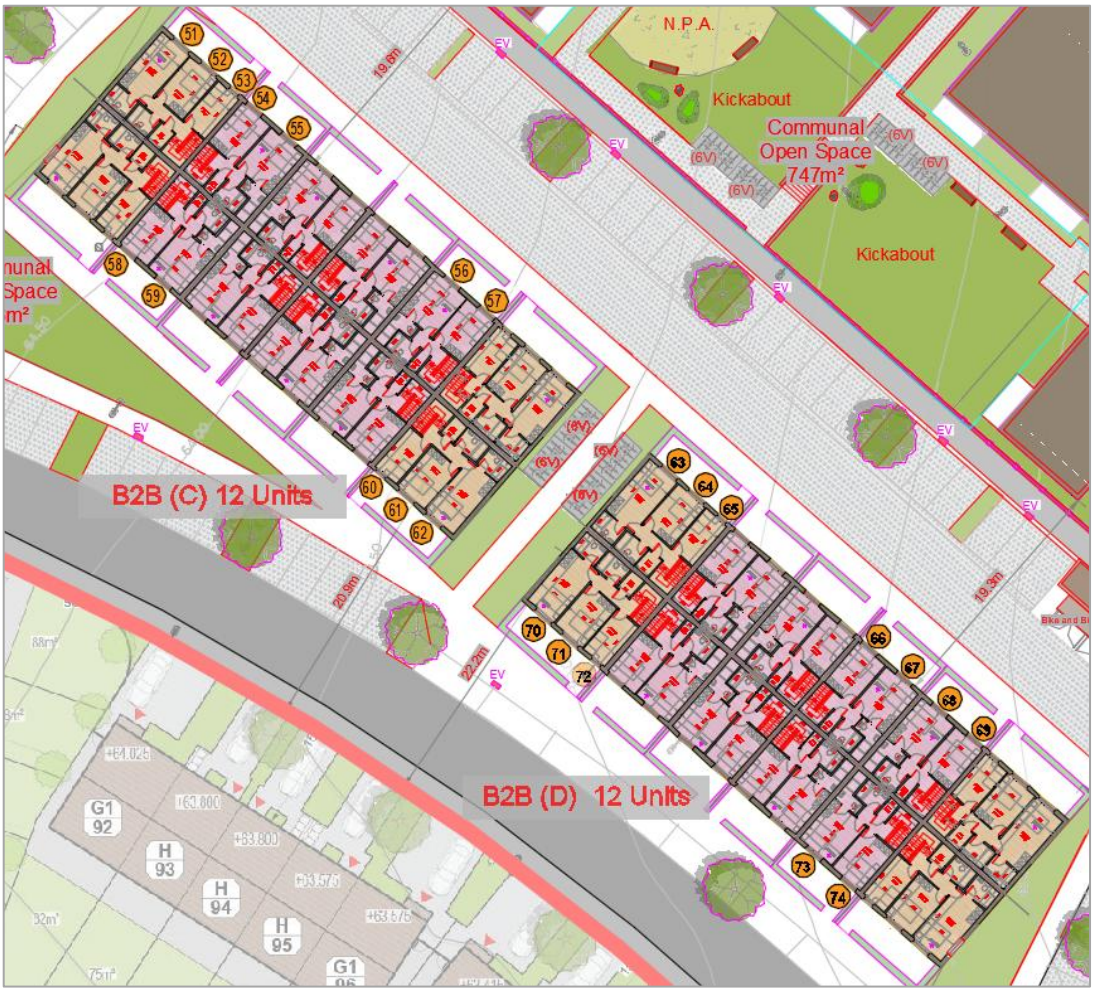



Image 3.4: Level 01 (first floor). Duplex Block C and D (receptor no. 51–74).

## 3.2 Calculation result table

The results table below provide the full calculation results of the selected receptors / rooms. IS EN17037 / BS EN17037 daylight factor and illuminance levels are provided and the National Annex (NA) target values in BS EN17037. The calculation results have been given the following colour code guide depending on its level of resulting compliance within each guideline.

**Compliance hierarchy**

| | |
|---|---|
| ☑☑ | >=100% |
| ☑ | <100% , >95% |
| ☑ | <95% , >90% |
| !! | <90% , >80% |
| x | <80% |

| Receptor | Level/Floor | Block /Unit ID | Room / type | glass area | room area | glass ratio | Dept/Width | ∑ VSC ∟ (total) | ISEN17037 DAY LIGHT FACTOR | | | | ISEN17037 ILLUMINANCE | | | | BSEN17037 ANNEX | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 50% area 50% sun hrs | | 95% area 50% sun hrs | | 50% area 50% sun hrs | | 95% area 50% sun hrs | | illuminance | day light factor |
| | | | | | | | | | % | min % | % | min % | lx | min lx | lx | min lx | min lx | min % |
| 1 | 00 | Duplex A | Living-Kitchen | 9.44 | 32.0 | 29.5 | 2.68 | 32% | 4.15 | 2.00 | 1.45 | 0.70 | 628 | 300 | 207 | 100 | 200 | 1.3 |
| 2 | 00 | Duplex A | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 34% | 2.28 | 2.00 | 0.80 | 0.70 | 344 | 300 | 114 | 100 | 200 | 1.3 |
| 3 | 00 | Duplex A | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 34% | 2.28 | 2.00 | 0.80 | 0.70 | 344 | 300 | 114 | 100 | 200 | 1.3 |
| 4 | 00 | Duplex A | Living-Kitchen | 9.44 | 32.0 | 29.5 | 2.68 | 31% | 4.02 | 2.00 | 1.41 | 0.70 | 608 | 300 | 201 | 100 | 200 | 1.3 |
| 5 | 00 | Duplex A | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 31% | 2.14 | 2.00 | 0.75 | 0.70 | 324 | 300 | 107 | 100 | 200 | 1.3 |
| 6 | 00 | Duplex A | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 31% | 2.14 | 2.00 | 0.75 | 0.70 | 324 | 300 | 107 | 100 | 200 | 1.3 |
| 7 | 00 | Duplex A | Living-Kitchen | 9.44 | 34.3 | 27.6 | 1.30 | 31% | 3.95 | 2.00 | 1.38 | 0.70 | 598 | 300 | 197 | 100 | 200 | 1.3 |
| 8 | 00 | Duplex B | Living-Kitchen | 9.44 | 34.3 | 27.6 | 1.30 | 29% | 3.69 | 2.00 | 1.29 | 0.70 | 557 | 300 | 184 | 100 | 200 | 1.3 |
| 9 | 00 | Duplex B | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 36% | 2.48 | 2.00 | 0.87 | 0.70 | 375 | 300 | 124 | 100 | 200 | 1.3 |
| 10 | 00 | Duplex B | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 36% | 2.48 | 2.00 | 0.87 | 0.70 | 375 | 300 | 124 | 100 | 200 | 1.3 |
| 11 | 00 | Duplex B | Living-Kitchen | 9.44 | 34.3 | 27.6 | 1.30 | 28% | 3.55 | 2.00 | 1.24 | 0.70 | 537 | 300 | 177 | 100 | 200 | 1.3 |
| 12 | 00 | Duplex B | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 33% | 2.28 | 2.00 | 0.80 | 0.70 | 344 | 300 | 114 | 100 | 200 | 1.3 |
| 13 | 00 | Duplex B | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 33% | 2.28 | 2.00 | 0.80 | 0.70 | 344 | 300 | 114 | 100 | 200 | 1.3 |
| 14 | 00 | Duplex B | Living-Kitchen | 9.44 | 34.3 | 27.6 | 1.30 | 28% | 3.55 | 2.00 | 1.24 | 0.70 | 537 | 300 | 177 | 100 | 200 | 1.3 |
| 15 | 00 | Duplex C | Living-Kitchen | 9.44 | 34.3 | 27.6 | 1.30 | 25% | 3.08 | 2.00 | 1.08 | 0.70 | 466 | 300 | 154 | 100 | 200 | 1.3 |
| 16 | 00 | Duplex C | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 30% | 2.08 | 2.00 | 0.73 | 0.70 | 314 | 300 | 104 | 100 | 200 | 1.3 |
| 17 | 00 | Duplex C | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 30% | 2.08 | 2.00 | 0.73 | 0.70 | 314 | 300 | 104 | 100 | 200 | 1.3 |
| 18 | 00 | Duplex C | Living-Kitchen | 9.44 | 34.3 | 27.6 | 1.30 | 22% | 2.81 | 2.00 | 0.98 | 0.70 | 426 | 300 | 140 | 100 | 200 | 1.3 |
| 19 | 00 | Duplex C | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 33% | 2.21 | 2.00 | 0.77 | 0.70 | 334 | 300 | 110 | 100 | 200 | 1.3 |
| 20 | 00 | Duplex C | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 33% | 2.21 | 2.00 | 0.77 | 0.70 | 334 | 300 | 110 | 100 | 200 | 1.3 |
| 21 | 00 | Duplex C | Living-Kitchen | 9.44 | 34.3 | 27.6 | 1.30 | 28% | 3.55 | 2.00 | 1.24 | 0.70 | 537 | 300 | 177 | 100 | 200 | 1.3 |
| 22 | 00 | Duplex D | Living-Kitchen | 9.44 | 34.3 | 27.6 | 1.30 | 22% | 2.81 | 2.00 | 0.98 | 0.70 | 426 | 300 | 140 | 100 | 200 | 1.3 |
| 23 | 00 | Duplex D | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 30% | 2.08 | 2.00 | 0.73 | 0.70 | 314 | 300 | 104 | 100 | 200 | 1.3 |
| 24 | 00 | Duplex D | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 30% | 2.08 | 2.00 | 0.73 | 0.70 | 314 | 300 | 104 | 100 | 200 | 1.3 |
| 25 | 00 | Duplex D | Living-Kitchen | 9.44 | 34.3 | 27.6 | 1.30 | 29% | 3.62 | 2.00 | 1.27 | 0.70 | 547 | 300 | 181 | 100 | 200 | 1.3 |
| 26 | 00 | Duplex D | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 32% | 2.21 | 2.00 | 0.77 | 0.70 | 334 | 300 | 110 | 100 | 200 | 1.3 |
| 27 | 00 | Duplex D | Living-Kitchen | 4.40 | 27.5 | 16.0 | 1.19 | 32% | 2.21 | 2.00 | 0.77 | 0.70 | 334 | 300 | 110 | 100 | 200 | 1.3 |
| 28 | 00 | Duplex D | Living-Kitchen | 9.44 | 34.3 | 27.6 | 1.30 | 24% | 3.02 | 2.00 | 1.05 | 0.70 | 456 | 300 | 150 | 100 | 200 | 1.3 |
| 29 | 01 | Duplex A | Bed room | 2.52 | 13.5 | 18.6 | 1.85 | 34% | 2.41 | 2.00 | 0.84 | 0.70 | 365 | 300 | 120 | 100 | 100 | 0.7 |
| 30 | 01 | Duplex A | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 34% | 2.68 | 2.00 | 0.94 | 0.70 | 405 | 300 | 134 | 100 | 100 | 0.7 |
| 31 | 01 | Duplex A | Bed room | 2.52 | 13.5 | 18.6 | 1.85 | 35% | 2.41 | 2.00 | 0.84 | 0.70 | 365 | 300 | 120 | 100 | 100 | 0.7 |
| 32 | 01 | Duplex A | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 35% | 2.68 | 2.00 | 0.94 | 0.70 | 405 | 300 | 134 | 100 | 100 | 0.7 |
| 33 | 01 | Duplex A | Bed room | 2.52 | 14.6 | 17.3 | 1.35 | 32% | 2.14 | 2.00 | 0.75 | 0.70 | 324 | 300 | 107 | 100 | 100 | 0.7 |
| 34 | 01 | Duplex A | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 32% | 2.55 | 2.00 | 0.89 | 0.70 | 385 | 300 | 127 | 100 | 100 | 0.7 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 35 | 01 | Duplex A | Bed room | 1.67 | 8.6 | 19.3 | 1.48 | 32% | 2.01 | 2.00 | 0.70 | 0.70 | 304 | 300 | 100 | 100 | 100 | 0.7 |
| 36 | 01 | Duplex A | Bed room | 2.52 | 13.5 | 18.6 | 1.85 | 32% | 2.21 | 2.00 | 0.77 | 0.70 | 334 | 300 | 110 | 100 | 100 | 0.7 |
| 37 | 01 | Duplex A | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 32% | 2.48 | 2.00 | 0.87 | 0.70 | 375 | 300 | 124 | 100 | 100 | 0.7 |
| 38 | 01 | Duplex A | Bed room | 2.52 | 13.5 | 18.6 | 1.85 | 32% | 2.28 | 2.00 | 0.80 | 0.70 | 344 | 300 | 114 | 100 | 100 | 0.7 |
| 39 | 01 | Duplex A | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 32% | 2.48 | 2.00 | 0.87 | 0.70 | 375 | 300 | 124 | 100 | 100 | 0.7 |
| 40 | 01 | Duplex A | Bed room | 1.67 | 8.6 | 19.3 | 1.48 | 32% | 2.01 | 2.00 | 0.70 | 0.70 | 304 | 300 | 100 | 100 | 100 | 0.7 |
| 41 | 01 | Duplex A | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 32% | 2.55 | 2.00 | 0.89 | 0.70 | 385 | 300 | 127 | 100 | 100 | 0.7 |
| 42 | 01 | Duplex A | Bed room | 2.52 | 14.6 | 17.3 | 1.35 | 32% | 2.08 | 2.00 | 0.73 | 0.70 | 314 | 300 | 104 | 100 | 100 | 0.7 |
| 43 | 01 | Duplex B | Bed room | 2.52 | 14.6 | 17.3 | 1.35 | 34% | 2.21 | 2.00 | 0.77 | 0.70 | 334 | 300 | 110 | 100 | 100 | 0.7 |
| 44 | 01 | Duplex B | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 34% | 2.68 | 2.00 | 0.94 | 0.70 | 405 | 300 | 134 | 100 | 100 | 0.7 |
| 45 | 01 | Duplex B | Bed room | 1.67 | 8.6 | 19.3 | 1.48 | 34% | 2.08 | 2.00 | 0.73 | 0.70 | 314 | 300 | 104 | 100 | 100 | 0.7 |
| 46 | 01 | Duplex B | Bed room | 2.52 | 13.5 | 18.6 | 1.85 | 34% | 2.41 | 2.00 | 0.84 | 0.70 | 365 | 300 | 120 | 100 | 100 | 0.7 |
| 47 | 01 | Duplex B | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 34% | 2.68 | 2.00 | 0.94 | 0.70 | 405 | 300 | 134 | 100 | 100 | 0.7 |
| 48 | 01 | Duplex B | Bed room | 1.67 | 8.6 | 19.3 | 1.48 | 34% | 2.08 | 2.00 | 0.73 | 0.70 | 314 | 300 | 104 | 100 | 100 | 0.7 |
| 49 | 01 | Duplex B | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 34% | 2.61 | 2.00 | 0.91 | 0.70 | 395 | 300 | 130 | 100 | 100 | 0.7 |
| 50 | 01 | Duplex B | Bed room | 2.52 | 14.6 | 17.3 | 1.35 | 34% | 2.21 | 2.00 | 0.77 | 0.70 | 334 | 300 | 110 | 100 | 100 | 0.7 |
| 51 | 01 | Duplex C | Bed room | 2.52 | 14.6 | 17.3 | 1.35 | 32% | 2.08 | 2.00 | 0.73 | 0.70 | 314 | 300 | 104 | 100 | 100 | 0.7 |
| 52 | 01 | Duplex C | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 32% | 2.48 | 2.00 | 0.87 | 0.70 | 375 | 300 | 124 | 100 | 100 | 0.7 |
| 53 | 01 | Duplex C | Bed room | 1.67 | 8.6 | 19.3 | 1.48 | 32% | 2.01 | 2.00 | 0.70 | 0.70 | 304 | 300 | 100 | 100 | 100 | 0.7 |
| 54 | 01 | Duplex C | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 31% | 2.41 | 2.00 | 0.84 | 0.70 | 365 | 300 | 120 | 100 | 100 | 0.7 |
| 55 | 01 | Duplex C | Bed room | 2.52 | 13.5 | 18.6 | 1.85 | 31% | 2.21 | 2.00 | 0.77 | 0.70 | 334 | 300 | 110 | 100 | 100 | 0.7 |
| 56 | 01 | Duplex C | Bed room | 2.52 | 13.5 | 18.6 | 1.85 | 31% | 2.14 | 2.00 | 0.75 | 0.70 | 324 | 300 | 107 | 100 | 100 | 0.7 |
| 57 | 01 | Duplex C | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 31% | 2.41 | 2.00 | 0.84 | 0.70 | 365 | 300 | 120 | 100 | 100 | 0.7 |
| 58 | 01 | Duplex C | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 34% | 2.61 | 2.00 | 0.91 | 0.70 | 395 | 300 | 130 | 100 | 100 | 0.7 |
| 59 | 01 | Duplex C | Bed room | 2.52 | 13.5 | 18.6 | 1.85 | 34% | 2.35 | 2.00 | 0.82 | 0.70 | 355 | 300 | 117 | 100 | 100 | 0.7 |
| 60 | 01 | Duplex C | Bed room | 1.67 | 8.6 | 19.3 | 1.48 | 34% | 2.08 | 2.00 | 0.73 | 0.70 | 314 | 300 | 104 | 100 | 100 | 0.7 |
| 61 | 01 | Duplex C | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 34% | 2.61 | 2.00 | 0.91 | 0.70 | 395 | 300 | 130 | 100 | 100 | 0.7 |
| 62 | 01 | Duplex C | Bed room | 2.52 | 14.6 | 17.3 | 1.35 | 34% | 2.21 | 2.00 | 0.77 | 0.70 | 334 | 300 | 110 | 100 | 100 | 0.7 |
| 63 | 01 | Duplex D | Bed room | 2.52 | 14.6 | 17.3 | 1.35 | 31% | 2.08 | 2.00 | 0.73 | 0.70 | 314 | 300 | 104 | 100 | 100 | 0.7 |
| 64 | 01 | Duplex D | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 31% | 2.48 | 2.00 | 0.87 | 0.70 | 375 | 300 | 124 | 100 | 100 | 0.7 |
| 65 | 01 | Duplex D | Bed room | 1.67 | 8.6 | 19.3 | 1.48 | 32% | 2.01 | 2.00 | 0.70 | 0.70 | 304 | 300 | 100 | 100 | 100 | 0.7 |
| 66 | 01 | Duplex D | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 32% | 2.48 | 2.00 | 0.87 | 0.70 | 375 | 300 | 124 | 100 | 100 | 0.7 |
| 67 | 01 | Duplex D | Bed room | 2.52 | 13.5 | 18.6 | 1.85 | 32% | 2.21 | 2.00 | 0.77 | 0.70 | 334 | 300 | 110 | 100 | 100 | 0.7 |
| 68 | 01 | Duplex D | Bed room | 2.52 | 13.5 | 18.6 | 1.85 | 32% | 2.21 | 2.00 | 0.77 | 0.70 | 334 | 300 | 110 | 100 | 100 | 0.7 |
| 69 | 01 | Duplex D | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 32% | 2.48 | 2.00 | 0.87 | 0.70 | 375 | 300 | 124 | 100 | 100 | 0.7 |
| 70 | 01 | Duplex D | Bed room | 2.52 | 14.6 | 17.3 | 1.35 | 34% | 2.21 | 2.00 | 0.77 | 0.70 | 334 | 300 | 110 | 100 | 100 | 0.7 |
| 71 | 01 | Duplex D | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 34% | 2.61 | 2.00 | 0.91 | 0.70 | 395 | 300 | 130 | 100 | 100 | 0.7 |
| 72 | 01 | Duplex D | Bed room | 1.67 | 8.6 | 19.3 | 1.48 | 34% | 2.08 | 2.00 | 0.73 | 0.70 | 314 | 300 | 104 | 100 | 100 | 0.7 |
| 73 | 01 | Duplex D | Bed room | 2.52 | 13.5 | 18.6 | 1.85 | 34% | 2.35 | 2.00 | 0.82 | 0.70 | 355 | 300 | 117 | 100 | 100 | 0.7 |
| 74 | 01 | Duplex D | Bed room | 2.52 | 11.5 | 22.0 | 1.71 | 34% | 2.61 | 2.00 | 0.91 | 0.70 | 395 | 300 | 130 | 100 | 100 | 0.7 |

Table 3.1: Calculation results: Daylight performance of proposed development.

### 3.3 Daylight reception of proposed development conclusion

For the daylight assessment, results have been analysed within these standards:

- Assessed in accordance with IS EN17037 / BS EN17307, carried out in accordance with Method 1 and Method 2 described in the methodology section.
- Assessed in accordance with BS EN 17037:2018 National Annex.

The results from table 3.1 are reviewed under each standard. The daylight reception assessment has been targeted to habitable rooms within the proposed development. Receptors / rooms within the proposed development are indicated in image 3.1 to 3.4.

- Duplex blocks A, B, C and D: a selection of habitable rooms on the ground floor and first floor which are observed to be in the most daylight challenging positions or rooms positioned with close by obstacles have been assessed. Once a (lowest level) room is compliant, rooms at higher levels with similar configuration / parameters are deemed compliant on the basis that the room daylight factor would have improved due to the better vertical sky view angle of higher located rooms.

IS EN17037 / BS EN17307: To achieve recommendations outlined in IS EN 17037:2018 / BS EN 17307:2018, a given room must achieve: a target daylight factor of 2.0% or in terms of illuminance 300 lux on over 50% of the floor area for over 50% of the available daylight hours. And a minimum target daylight factor of 0.7% or in terms of illuminance 100 lux on over 95% of the floor area for over 50% of the available daylight hours. From the calculation result table 3.1 we note all of the proposed rooms calculated daylight results achieved in excess of the guidelines.

- Duplex blocks A, B, C and D: Overall, examined residential rooms for the proposed blocks achieved on average a daylight factor (DF) of 2.5% and an illuminance of 377 lux on over 50% of the floor area for over 50% of the available daylight hours. An average DF of 0.87% and an illuminance of 124 lux on over 95% of the floor area for over 50% of the available daylight hours was achieved.

In an urban environment it can more often be the case that complete fulfilment with the guidelines is not attainable. Within the BS EN 17037 it acknowledges that a rigid application of the European Standard could prove to be a difficult task as it offers only a single target for new buildings and IS EN17037 currently has no specific National Annex. The British Annex of BS EN 17037, daylight recommendations differ depending on the function of a room and offers minimum daylight provision targets for kitchens, living rooms and bedrooms.
Therefore, Given the similarity of weather, light and design patterns between Ireland and the UK and the lack of specific localisation Annex details in the Irish version, the alternate minimum daylight provision targets set out in the national annex of BS EN 17037 are reviewed next.

BS EN 17037:2018 National Annex: To achieve the alternate minimum daylight recommendations for Dublin, the room in question must achieve: Kitchen 1.3% target daylight factor or in terms of illuminance 200 lux. Living room 1.0% target daylight factor or in terms of illuminance 150 lux, and bedrooms 0.7% target daylight factor or in terms of illuminance 100 lux all over 50% of the floor area for over half the daylight hours. From the calculation result table 3.1 we note that all of the rooms calculated daylight are well in excess of these minimum guidelines.

- Overall compliance for proposed development = 100%

In summary, the calculation results have achieved full compliance under IS EN17037 / BS EN17307 and BS EN 17037:2018 National Annex guidelines. This indicates an overall good level of daylight for the proposed development under the guidelines. We conclude, the proposed development can provide a good level of residential daylight amenity to future occupants.

End of Report