

# LRD Forest Road, Forrest Great, Swords, Co. Dublin

Sun on Ground Assessment  
Applicant: Golden Port Homes Limited

*"The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design." - BR 209*

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## 1.1 Summary of Assessment

3D Design Bureau (3DDB) were commissioned to carry out an updated Sun on Ground (SOG) assessment for the large-scale residential development (LRD) at Forest Road, Forrest Great, Swords, Co. Dublin.

This assessment was undertaken in response, to a request for further information (RFI) issued under application register reference LRD0057/S3E. Specifically, the Planning Authority noted:

*"7. Based on the 'Daylight and Sunlight Assessment Report' submitted, the communal open spaces serving duplex units in zones B, C, and D would not achieve compliance with BRE Guidelines in respect of sunlight. Furthermore, having regard to the layout and dimensions of these spaces and the spaces in Zone A serving Block B, the Planning Authority is not satisfied that a satisfactory standard of residential amenity would be afforded to future residents. The applicant is requested to submit a revised layout to address this."*

These revised spaces are indicated in Figure 1.1 below.

In response, the design lead, Crawford Architecture, prepared an updated design in consultation with RMDA Landscape Architects to address the concerns raised. 3DDB then updated the analytical model and ran the updated SOG analysis based on the revised drawings and 3D model provided.

The analytical model was prepared, and the calculations were carried out using the same approaches and methodologies as in the previous report.

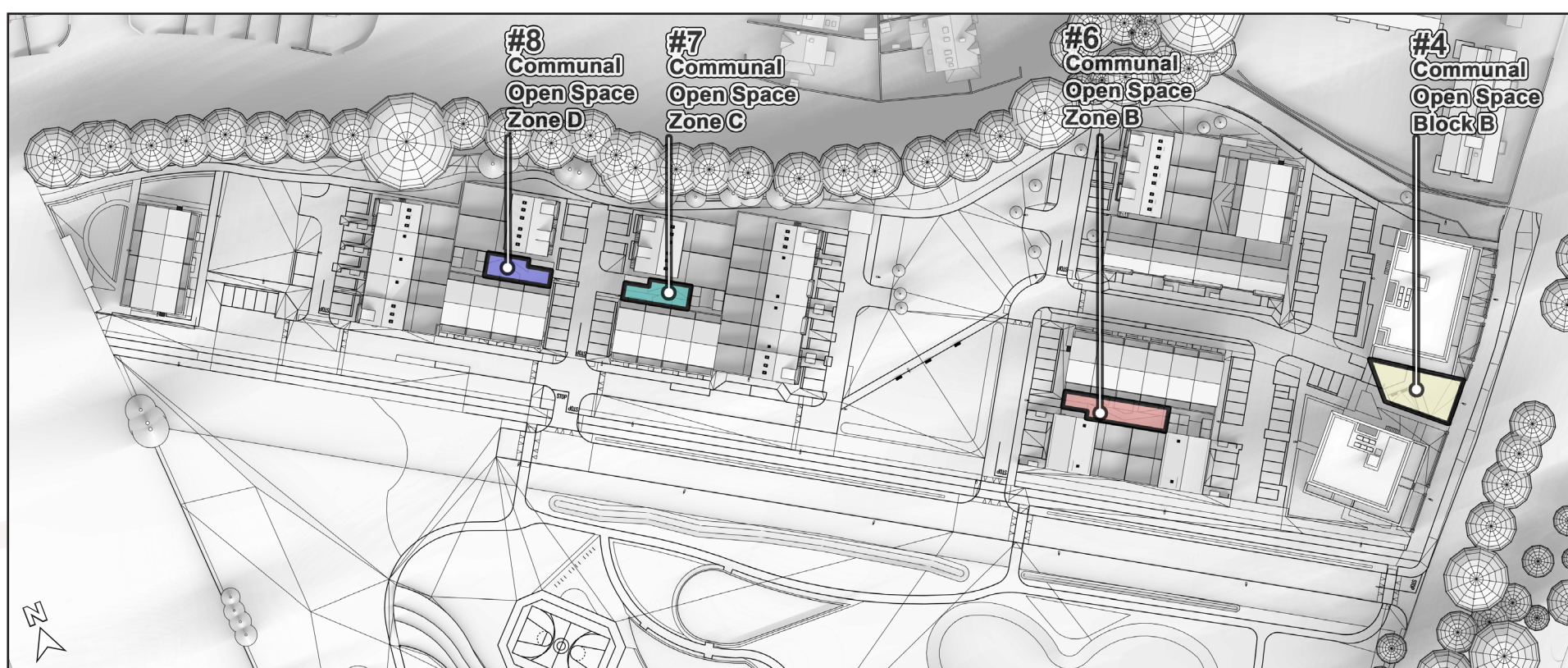


Figure 1.1: Revised spaces referenced in the RFI.

## 1.2 Analysis of results

In total 10 no. spaces have been assessed. These are 3 public open spaces and 7 communal open spaces. Although the RFI refers to particular spaces, the assessment has been carried out for all spaces for the sake of completeness.

Based on the new study, 9 out of 10 areas now meet the sunlight guidelines, compared with 7 out of 10 in the original study. Only one communal space remains below the threshold, whereas three were previously non-compliant.

The assessed areas are shown in Figure 1.2 on the next page. For comparison with the previous layout, please refer to the original report.

The shortfall continues to arise in communal area #7 (Zone C), which is constrained by its position to the north of duplex units and its narrow layout, both of which limit sunlight penetration. Despite not meeting the criteria this space records an improvement when compared with the previous layout. The area capable of receiving 2 hours of sunlight on March 21st in this space has increased to 37.17%, compared with 16.76% previously.

In comparison to the original report findings, the revised assessment demonstrates a clear improvement in overall performance, while confirming that the wider development continues to benefit from well-sunlit public and landscaped open spaces, which provide important amenity value for residents and the community.

Table No. 1.2.0 - SOG in Proposed Outdoor Amenity Areas Results:					
Assigned Area Number	Assessed Area	Area Capable of Receiving 2 Hours of Sunlight on March 21st	Recommended minimum	Level of Compliance with BRE Guidelines*	Meets BR 209 Criteria*
1	Public Open Space 1	99.53%	50.00%	BRE Compliant	Yes
2	Public Open Space 2	100.00%	50.00%	BRE Compliant	Yes
3	Communal Open Space - Block A	100.00%	50.00%	BRE Compliant	Yes
4	Communal Open Space - Block B	87.62%	50.00%	BRE Compliant	Yes
5	Communal Open Space - Zone A	71.83%	50.00%	BRE Compliant	Yes
6	Communal Open Space - Zone B	77.85%	50.00%	BRE Compliant	Yes
7	Communal Open Space - Zone C	37.17%	50.00%	74%	No
8	Communal Open Space - Zone D	54.13%	50.00%	BRE Compliant	Yes
9	Communal Open Space - Zone E	99.14%	50.00%	BRE Compliant	Yes
10	Greenbelt - Open Space	96.77%	50.00%	BRE Compliant	Yes

\* Section 2.2.23 of the BRE Guidelines recommends that for a garden or amenity to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on March 21st.

### Compensatory Design Measures

While the Communal Open Space in Zone C remains below the 50% BRE guideline, the following compensatory design measures and contextual factors have been supplied by the project architect in support of the overall high standard of amenity for future residents of the associated duplex units:

1. The bike parking was moved from the front of the unit to the back to increase security for residents and to make the communal open space deeper, and more usable. The corner where the bike parking is situated is not counted in the communal open space area of 84m<sup>2</sup>.
2. These units benefit a southerly aspect over a large public open space to the south of the site with a playground, sports facilities and walking trail.
3. There is a large public open space (2154m<sup>2</sup>) on the site, 31m away. There is an additional public open space (519m<sup>2</sup>) 71m away. Residents have ample choice of open amenity to use.
4. The upper unit has a south facing balcony at second floor level, which is 0.5m<sup>2</sup> above the minimum area.
5. The ground floor unit has a terrace 0.6m<sup>2</sup> above the minimum requirement.
6. The design of the duplexes is south facing, onto a new distributor road. The duplexes create a strong building line and presence along the new road, which is beneficial from an urban design and architecture point of view.
7. The duplexes are close to the footpath, enhancing passive surveillance at this point close to the site, which is a positive for security, however this means that open space has to go to the back of the duplexes.



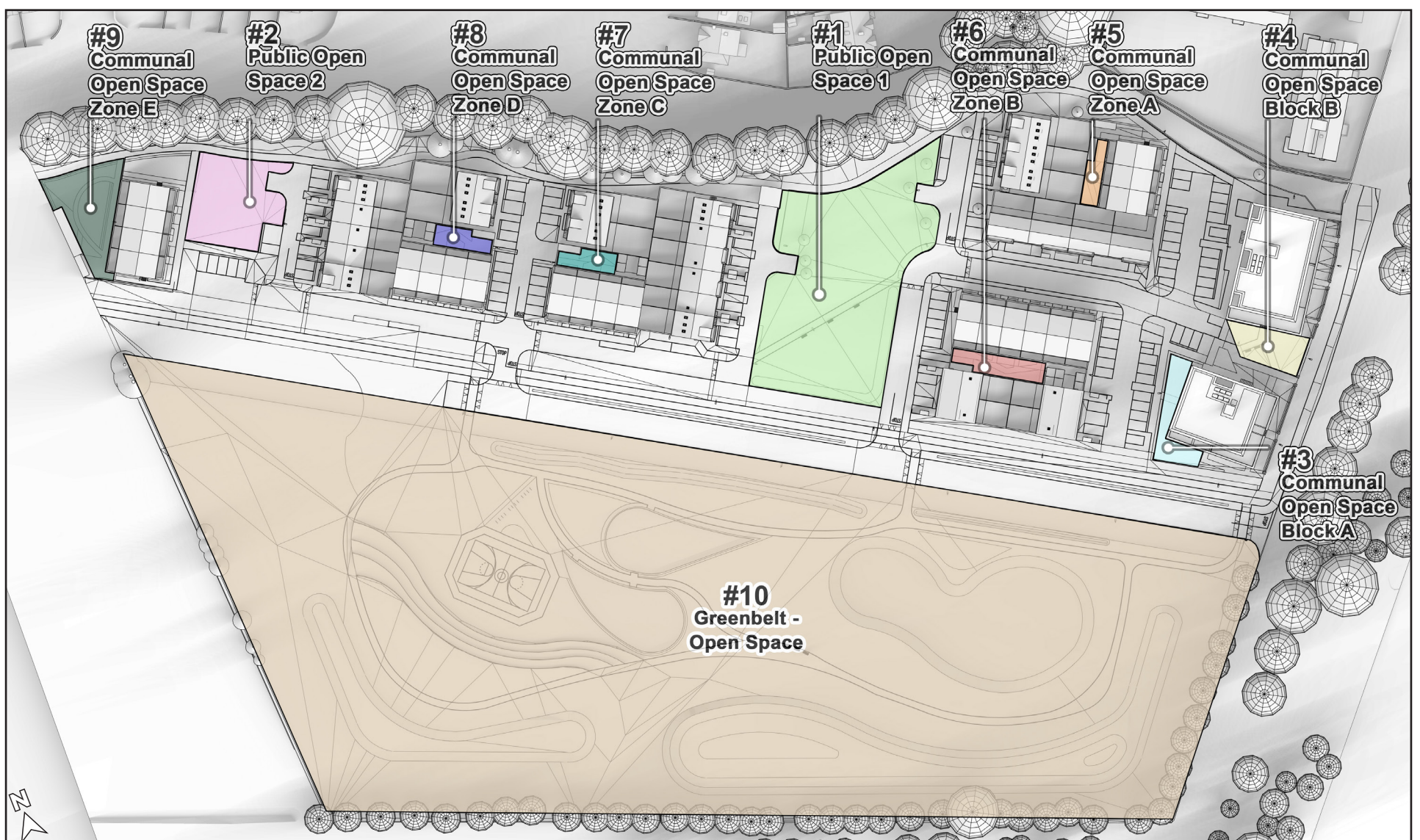


Figure 1.2: Indication of the amenity areas that have been analysed.

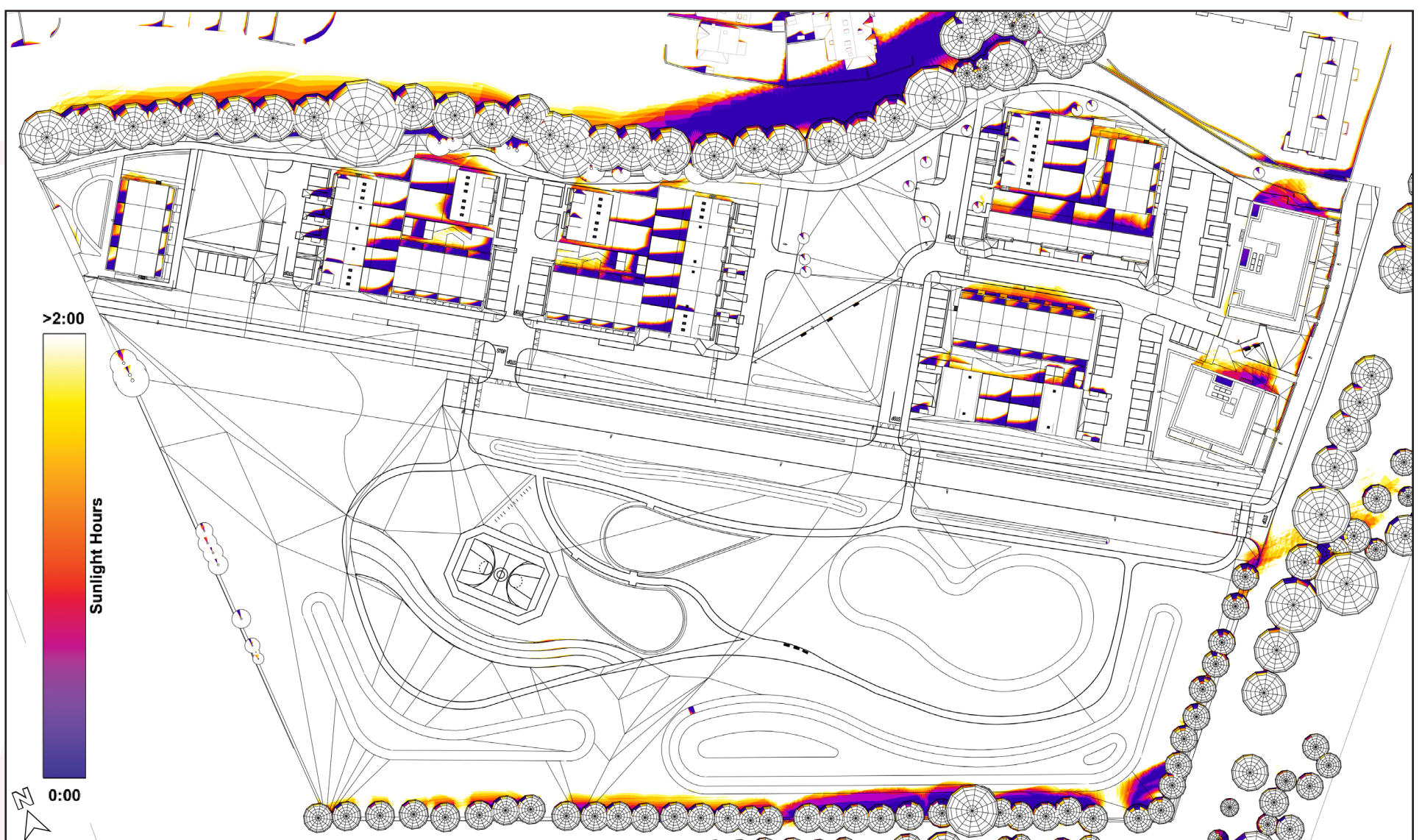


Figure 1.3: Area capable of receiving 2 hours of sunlight on March 21st shown in white.

## 1.3 Conclusion

In conclusion, the results indicate that the design revisions successfully achieved compliance in two of the three areas originally identified as non-compliant in the previous assessment. The remaining space, although still falling short of BRE guideline targets, demonstrated a measurable improvement in sunlight availability.

3DDB is therefore of the opinion that the concerns raised in the RFI have been effectively addressed.