Statement of Response to An Bord Pleanala Opinion

Proposed SHD

Lands at St Joseph's House and adjoining properties at Brewery Road and Leopardstown Road, Dublin 18.

On behalf of Homeland Silverpines Limited



September 2021



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INTRODUCTION

We, Brock McClure Planning & Development Consultants, 63 York Road, Dún Laoghaire, Co. Dublin, have prepared this Statement of Response on behalf of **Homeland Silverpines Limited** Sandford Road, Ranelagh, Dublin 6 for a Strategic Housing Development proposal on lands at St. Joseph's House and adjoining properties at Brewery Road and Leopardstown Road, Dublin 18.

This Statement of Response is lodged as an accompanying report for the subject proposal and should be read in conjunction with all plans and particulars submitted as part of the overall planning application.

This response has been prepared with direct input from:

- Homeland Silverpines Limited Applicant
- O'Mahony Pike Design Architects
- Brock McClure Planning Consultants
- Barrett Mahony Consulting Engineers
- Mitchell & Associates Landscape Architects
- The Tree File Arboricultural Consultants
- Wildlife Surveys Ecologists
- ARC Architectural Consultants (Sunlight and Daylight)
- Fallon Design Energy and Electrical Engineers
- Modelworks Visual Consultants
- BFluid Microclimate Consultants
- Aramark Property Consultants
- AWN Noise and Construction Management
- ILTP Traffic and Transport Consultants
- O'Herlihy Access Consultants Universal Access Consultants
- ISM Telecommunication Specialists
- IE Consulting Water/Civil Engineers
- Slattery Conservation Conservation Specialists
- Rubicon Heritage Specialists Archaeological and Cultural Heritage

2 REQUIREMENT FOR THIS STATEMENT

This report is a response to the issues raised by An Bord Pleanála (ABP) in its Notice of Pre-Application Consultation Opinion dated 16 October 2020, in relation to a proposed strategic housing development and Leopardstown Road, Dublin 18. Case Reference ABP- 307355-20 refers.

The notice issued referenced the following:

"An Bord Pleanala has considered the issues raised in the pre-application consultation process and, having regard to the consultation meeting and the submission of the planning authority, is of the opinion that the documents submitted with the request to enter into consultations require further consideration and amendment to constitute a reasonable basis for an application for strategic housing development"

The opinion sets out that 3 key issues should be addressed in the documents submitted with any formal Strategic Housing Development planning application that may progress for the proposal. These matters can be summarised as follows:

- 1. Development Strategy
- 2. Residential Amenity
- 3. Foul Water

The opinion further set out specific information that should be submitted with the application. Section 3 of this statement sets out a comprehensive Design Team response to the requested items.

Furthermore, An Bord Pleanala also requested the submission of the following specific information with any planning application for permission:

- 1. A Traffic and Transport Assessment
- 2. Detail on Dual Aspect Ratios
- 3. Updated landscape plans delineating the public open space and communal open space.
- 4. A Noise Impact Assessment
- 5. An Updated Sunlight / Daylight analysis
- 6. Wind Micro Climate Study
- 7. Detailed Schedule of Accommodation showing compliance with Apartment Guideline Standards
- 8. Response to the Issues raised in Appendix C of the Planning Authority Report Issued
- 9. A detailed phasing plan
- 10. Details on Material Contravention of the Development Plan

Section 4 of this report sets out the applicant's and design team's response to the above requested items

In addition, pursuant to Article 285(5)(a) of the Planning and Development (Strategic Housing Development) Regulations 2017, the opinion issued by the Board, requested that the following authorities be notified in accordance with Section 8(1)(b) of the Planning and Development (Housing) and Residential Tenancies Act 2016:

- Irish Water
- Transport Infrastructure Ireland
- National Transport Authority
- Minister for Culture, Heritage and the Gaeltacht (built heritage)
- Heritage Council (built heritage)

- An Taisce The National Trust for Ireland (built heritage)
- The relevant Childcare Committee
- The Department Of Education and Skill.

We can confirm that the prescribed bodies identified by An Bord Pleanala have been contacted and a full digital copy of the planning application currently under consideration has been furnished to the authorities referenced. We confirm that the digital copy was the preferred format for prescribed bodies of the formal strategic housing development planning application. Where required by the prescribed body a USB of the digital material has also been issued.

In addition to the above, we note that the application form for this Strategic Housing Development proposal requires the following information:

12 (e) Where An Bord Pleanala notified the applicant of its opinion that the documents enclosed with the request for pre-application consultations required further consideration and amendment in order to constitute a reasonable basis for an application for permission, a statement setting out any changes made to the proposals in consequence.

A statement setting out the key changes made to the proposal as a consequence of the opinion requesting further consideration of the Development Strategy, Residential Amenity and Foul Water proposals for the scheme has been incorporated into Section 3 of this report.

12 (f) Where An Bord Pleanala notified the applicant that specified additional information should be submitted with any application for permission, a statement setting out that such information accompanies the application.

As set out above, Section 4 of this report sets out the applicant's and design team's response to the above requested items.

RESPONSE TO ISSUES RAISED BY AN BORD PLEANÁLA 3

An Bord Pleanála considers that the following issues need to be addressed in the documents submitted that could result in them constituting a reasonable basis for an application for strategic housing development:

- **Development Strategy**
- **Residential Amenity** 2.
- Foul Water

The opinion of An Bord Pleanala in relation to these matters and the response from the applicant are identified below for the convenience of An Bord Pleanala.

Development Strategy 3.1

"Further consideration and Justification of the documents as they relate to the overall design and layout of Blocks D & F, of the proposed interface with Leopardstown Road, the transition with existing dwelling and the justification for any material contravention of the height strategy in the development plan and compliance with Section 3.2 of the Urban Development and Building Heights: Guidelines for Planning Authorities (2018)"

This response has been prepared with direct input from O'Mahony Pike Architects who have enclosed a specific report entitled 'Response to ABP Opinion', as included in Appendix E of their Design Statement Report. The text below is reflective of their design response to the above item with supplementary commentary from Brock McClure Consultants on the matters raised.

Overall design and layout of Blocks D & F

Following on from the issue of the An Bord Pleanala opinion, the design of Blocks D & F were the subject of a period of design review. The design team collectively agreed that Block F in particular required further consideration and amendment given its proximity to the neighbouring properties on St. Ivor's Mall and Minstrel Court. Block D on the contrary was considered to be more centrally within the development and sufficiently removed from these more sensitive boundaries. We note however that design revisions have been incorporated to a new set back upper level for this particular Block.

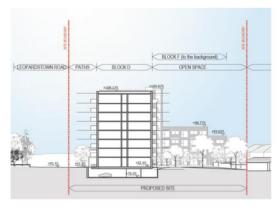
The key revisions are set out further below.

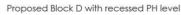
Block D

Block D has been revised to incorporate a new set back top level. A comparison graphic is identified below for the convenience of An Bord Pleanala.

Figure 1 - Previous and Proposed Block D Section

(EOPARDSTOWN ROAD)







BLOCK D

The building height overall at this particular section of Block D is 8 storeys i.e. the portion of the block in closest proximity to the adjoining properties at Silverpines. Evidently, the upper level of this block has been set back and overall distanced to the shared boundary with Silverpines are identified as falling between 33.3 and 35.1 m as shown in the image above.

This reworking of the top level lightens the massing and provides additional Dual aspect units with private terraces on this upper level.

Block F

As set out above, Block F was redesigned following the issue of the ABP Opinion in order to improve the relationship with neighbouring properties and to provide an appropriate transition between the developments at Minstrel Court, Silverpines and Sir Ivors Mall.

This building has been revised to now provide for 3 and 4 storey development along the sensitive boundaries of Minstrek Court, Silverpines and Sir Ivors Mall with an element of increased height along Leopardstown Road (6 storeys) to deliver legibility to the scheme and announcement of the development on approach from Sandyford. It is also important to set out that significant improvement of separation distances and set back from boundary are now delivered from Block F to adjoining properties and the shared boundary. We note specifically

In terms of landscape and visual impact, the following commentary is notable from Chapter 12 of the LVIA assessment prepared by Modelworks:

"Block F is thus intended to both protect the amenities of the neighbouring houses and address Leopardstown Road with a frontage of appropriately urban character" (LVIA report – EIAR Chapter 12)"

Other factors of Daylight and Sunlight

The enclosed EIAR chapter on Daylight and Sunlight reviews all properties at Sir Ivors Mall and Silverpines. An Bord Pleanala is directed to this material for comprehensive analysis on any perceived impacts to these properties. By way of a summary, the following has been identified by ARC:

The following analysis in terms of daylight access to adjoining zones is identified on pages 9 and 10 of the EIAR daylight and sunlight chapter:

"ARC's analysis indicates a potential for the proposed development to result in "imperceptible" to "slight" to "moderate" changes in daylight access within existing buildings facing towards the application site in neighbouring residential estates at The Chase (including Sir Ivor Mall and Minstrel Court), Silver Pines (including the Anne Sullivan Centre), Leopardstown Lawns and Leopardstown Avenue. Under a worst case scenario, it is predicted that the impact of the proposed development on daylight access within existing buildings on lands to the west, north and east will be consistent with emerging trends for development in the area, particularly having regard to the scale of development previously permitted on the site and in the wider Sandyford Area....

Given that the potential for development to result in impacts on daylight access diminishes with distance, it is the finding of ARC's analysis that the proposed development will have no undue adverse impact on daylight access within buildings in the wider area surrounding the application site."

The following analysis in terms of sunlight access to adjoining zones is identified on pages 26 and 27 of the daylight and sunlight chapter:

"During the mornings and early afternoons of the spring, summer and autumn months, shadows cast by the proposed development will extend west and north to The Chase (including Sir Ivor Mall and Minstrel Court) and to Silver Pines (including the Anne Sullivan Centre) resulting in an "imperceptible" to "moderate" impact in sunlight access to a small number of rooms facing towards the application site and rear gardens bounding the application site, with the rear gardens

of Nos. 24 and 25 Silver Pines likely to experience potentially "moderate" to "significant" additional overshadowing for a considerable part of the day during the spring and autumn months.

Interface with Leopardstown Road

Block D serves to announce the entrance off Leopardstown road with the 10 storey element anchoring the Plaza set between Blocks A & B. The geometry works to tie in with Blocks A & B while also addressing Leopardstown road and maximising the Public Open space provision to the rear of the buildings.

The diagrams below show how the design response was built up with strong consideration to the legibility of the structures and a hierarchy of secondary elements fronting onto Leopardstown Road. The form first addressing the geometry set out in Blocks A & B, which are set out to work with the existing St. Josephs house orientation and also merging this with the relationship and streetscape the Blocks are creating along Leopardstown road.







Primary + Secondary Elements



Streetscape - Building Array & Pocket Gardens

Figure 2 – Design Analysis

As seen in the CGI's below, there has been considerable consideration of the relationship of the new blocks as they interface onto Leopardstown Road. Formed from the initial intent to retain as many of the existing trees on site, there are tree groves to the front of Blocks C and D providing visual landscaping relief to the street edge. The form of these blocks cranking back from the street with a lower 5 storey element creates variety along the Leopardstown Road.



View to Homezone, plaza & St Josephs House



View to Public Open space

Figure 3 - CGIs

A pergola at the lower levels offers a pedestrian scale to the new street frontage with new tree planting on this boundary also to enhance the pedestrian amenity. The streetscape section shown below illustrates that at the narrowest point there is an improved urban realm condition with wider footpath and new tree planting before the pergola is reached and the new facade line.

The LVIA report also comments on the current traffic dominated character of the road with high walls disconnecting the existing properties from the street, in this regard the development creating a change to the street scape were viewed as positive and as 'generating an urban streetscape character and adding vitality to the streets on approach to the Leopardstown junction'.

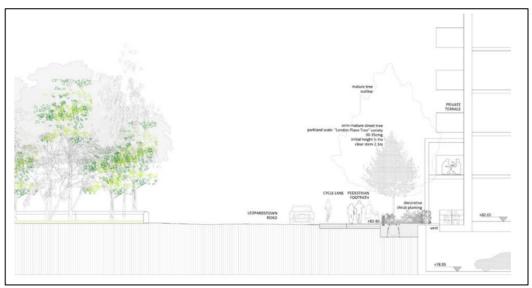
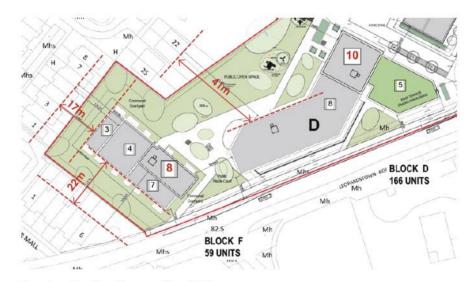


Figure 4 - Streetscape at Leopardstown Road

Transition to existing Dwellings

As set out above, there has been a re-modelling of Block F to allow for a gradual transition from the residential neighbouring properties to St. Ivor's Mall and Minstrel Court. Block F now facilitates a gradual scaling from the neighbouring properties to a 3 storey element and then on to a 6 storey element. This is the most sensitive boundary as it is the only part of the site which directly backs on to neighbouring gardens. Pre Planning Application and Current proposals for separation distances from Block F are identified below:



Pre Application Separation Distances

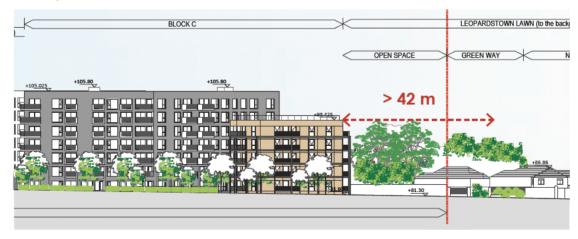
Figure 5 - Pre-Application Separation Distances



Figure 6 - Currently Proposed Separation Distances

Evidently, minimum separation distances of 22m are now delivered along the boundary with Sir Ivors Mall and Minstrel Court. Separation Distances at the closest point are identified as 41m between Block D and properties at Silverpines.

Blocks A, B & C are all set behind the existing tree line and have the added set back of the Green way directly adjacent to their boundary, which forms the separation to Leopardstown Lawns. The separation distance from Blocks to neighbouring rear elevations range from 42m - 48m along this Greenway edge. Further relief is given along this edge by the secondary elements introduced to Blocks B & C which step down in scale to 4 - 5 stories with only the gable elevations fronting on to this boundary.



Proposed Block C to Leopardstown Lawn

Figure 7 - Proposed Block C to Leopardstown Lawn

The Daylight & Sunlight chapter 18 of the EIAR also details the impacts on these neighbours would be imperceptible to moderate.

Building Height Strategy

A balance was struck to achieve the density required for a site of this size while also providing ample Open space. The current scheme has in excess of 25% Public Open space well above the 10% required and again exceeds the Communal Open space requirements. For the length of new street frontage created there was an opportunity to gradually step in scale and height from the neighbouring properties to the central Block D.

Block D with its 10 storey element serves to anchor the plaza at the end to the Communal gardens and also signifies the location of the Amenity spaces on the Ground floor along the home zone entry road off Leopardstown road. The main body of the Block steps down to a 7 storey brick massing with a setback PH level which is broken away from the 10 storey element. While a secondary element to Leopardstown Road steps down to 5 storey providing variation to the new street frontage created by this scheme.

Block C frames the other side of the home zone entry off Leopardstown Road and although it is stepping down in scale it serves as a marker along Leopardstown road to the access point to the Green way. Similarly to Block D a secondary element to Leopardstown Road steps down to 5 storey providing variation to the new urban street.

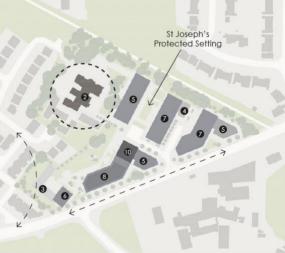
Blocks B and A step down into the site along this Green way edge to the North forming a comfortable relationship to the existing St. Josephs house to the back of the site while also providing a sense of passive surveillance over the Green way.

Block F as explained in the previous pages has undergone the greatest redesign of all Blocks with the frontage onto Leopardstown road reduced from 8 to 6 storey and the main body of the building stepping down to 3 storey serving as a gradual transition to the neighbouring properties of St. Ivor's Mall and Minstrel Court.

The Sunlight analysis also verifies that the height in the current scheme works well and allows for all of the standards to be met across the Public open space, for more details on the sunlight daylight please refer to ARC reports.

In addition to the above please refer to the Material Contravention Statement enclosed herewith





Previous Building Height Responding to context

Building Height Responding to context

Figure 8 - Building Height Responding to Context





Revised view over Leopardstown Road showing 10 storey anchor

Revised view to Block D from Communal Gardens

Figure 9 - Views of Block D as a Visual Marker

3.2 Residential Amenity

Further Consideration and/or justification of the documents as they relate to the impact of Block D & F on the residential amenity of both the occupants of the existing neighbouring dwellings and future occupants of the proposed development, having regard inter alia to the following:

- The location and design of blocks D & F to the rear of the neighbouring dwellings and the potential for a negative impact on the visual and residential amenity,
- The location of the proposed residential amenity areas on the upper floors, the levels of overshadowing on the proposed public open space areas and the potential for a negative impact on the residential amenity of the future occupants.

Block F

Details provided under Section 3.1 (above) should be considered as a response to this Item.

In summary and in order to reduce the impact on the neighbouring properties, a full redesign of Block F was developed. A 3 storey element to St Ivor's Mall and to Minstrel Court has been delivered, which now maintains the 22m separation from the existing dwellings. The units themselves are now dual aspect through units and all balconies are inset within the building form to further mitigate any issues of overlooking. The taller element of Block F has been limited to 6 storeys Leopardstown road at the junction to Tudor Lawns. There is a separation distance of approximately 8om from this front face of Block F to the nearest Property.

The Daylight & Sunlight chapter 18 of the EIAR also details the impacts on these neighbours would be imperceptible to moderate.

Block D

Details provided under Section 3.1 (above) should be considered as a response to this Item.

Block F (3-6 Storeys) serves as a transition from the boundary to Block D (5 - 10 storeys) which we see as being of justifiable height and scale for the development creating much needed street frontage onto Leopardstown Road. With Block C (5-7 storeys) now continuing with this rhythm along the street to anchor the greenway to the North East of the site. Separation Distances of up to 41m are now delivered between Block D properties at Silverpines.

The Daylight & Sunlight chapter 18 of the EIAR also details the impacts on these neighbours would be imperceptible to moderate.

Separation Distances from Blocks D and F to properties at Silverpines, Minstrel Court and Sir Ivors Mall are set out below for visual clarity:

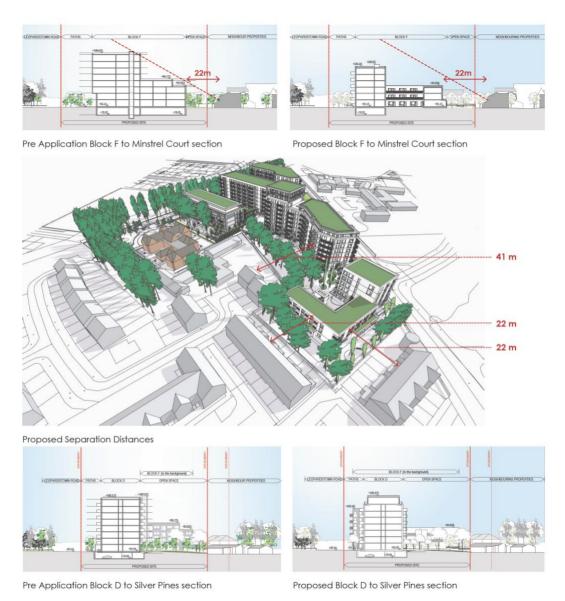


Figure 10 – Separation Distances

General Comments on Adjoining Residential Amenity

As per the sunlight analysis (Chapter 18 of the EIAR), we can see there is no negative impact on the Public open space within our site which offers a further buffer between the development and Silver Pines properties. There is also shown to be Imperceptible level of change to those existing dwellings in that report.

Further to the above, Block D now also has an additional set back to the upper levels and a break between the Pent House level and the 10 storey corner element which reduce the visual impact to the neighbouring properties in Silver Pines situated behind the Public Open space. The commentary on Block D within the LVIA chapter of the EIAR is generally positive from all viewpoints that were assessed, in referring to the neighbouring existing housing estates it stated the following:

'Viewpoints 11,12, and 13 assess the effects on the existing residential neighbourhood to the north west and west of the site. Due to mitigation measures taken in the design process (specifically with regard to proposed Block F) the visual effects on these areas would be neutral. No negative effects were identified'.



Proposed Separation Distances

Figure 11 - Proposed Separation Distances

The images below show the changes from the Tripartite submission to the current scheme with the redesign of both Blocks. There has been a positive increase in the distances from the first floor opposing windows in the latest masterplan with revised Block F. There is also a reduction in the height of Block F in relation to the neighbouring properties.

Within the sunlight & daylight chapter 18 of the EIAR an assessment for the neighbouring properties are given as to the impact on the VSC & sunlight access to sample windows of those properties around Block F. For properties of St. Ivor's mall, Minstrel Court and also 22-25 Silver Pines the impacts are Imperceptible to moderate. There has been dramatic change to Block F following the pre-application stage and the sunlight assessment has been used as a tool to help inform this revised scheme.

With regard to Block D we were again guided by the Sunlight & daylight assessment and have allowed for some minor amendments to Block D mainly at the PH level, where we have introduced a set back and also created a break between the 10 storey pop up and the rest of the PH level. As detailed above chapter 18 of the EIAR details the results for properties 22-25 Silver Pines which have a setback of more than 41m from Block D with a considerable Public open space as a buffer.

A Land and Visual Impact Assessment prepared by Richard Butler is included separately at Chapter 12 of the EIAR submitted with this application which looks at the impacts on the visual amenity in relation to Block F and Block D.



Previous pre-application option

Figure 12 – Pre-Application Option



Proposed Current option

Figure 13 - Current Option

Upper Level Amenity Areas

Within Block D there is a residents lounge located on the sixth floor opening onto a south facing roof terrace overlooking Leopardstown road. Both of these south facing terraces benefit from great sunlight access as detailed in ARC's report on the Sunlight and Daylight within the scheme.

Within the Block D to the north of the terrace the lounge has views over the Communal gardens between Blocks B&C. This upper level will afford the residents a more private place to use for lounging, family gatherings and the like.

Chapter 11 of the EIAR details the wind analysis of these terraces:

The analysis show that the areas are well protected by a combination of glazed screen and roof coverage. Block C is suitable for every activity, including long-term sitting. On the roof terrace on Block D, there is a small area that is suitable for short-term sitting instead of long-term sitting.

However, this analysis has been performed considering the worst-case scenario conditions, considering the whole year... the frequency of such high wind is below 5%.

To counter the effects on Block D landscape mitigation has been included in our final design, see details on top image.

The remaining Residents amenities including a gym are centrally located along the home zone within Block D on the Ground floor to activate that access road into the development and also open onto the Main public open space at the corner addressing the plaza.

Public Open space

In terms of sunlight access to open space areas, the subject application proposes 17 no. open spaces and detailed quantitative analysis was carried out (Figure below).



Figure 14 - Indicative diagram showing location of open spaces assessed. Communal open spaces are shown in red. Public open spaces shown in green, Visual open spaces shown in purple and Creche open spaces shown in yellow

ARC have set out in their analysis that most of the proposed open spaces are predicted to receive a level of sunlight in excess of the level recommended by the BRE Guide for amenity space and will appear adequately sunlit throughout the year within the meaning on the BRE Guide. There are 2 exceptions that being Communal Open Space Area 5 and Visual Amenity Area 6.

As set out in section 3.0 of the accompanying Sunlight and Daylight assessment prepared by ARC, Communal open Space 05 in red above will likely receive less sunlight than the BRE Guide recommendations. However, ARC's analysis has indicated that 7 no. of the proposed 8 no. communal space will achieve at least two sunshine over at least half their respective areas on 21st March.

In addition, visual open Space o6 is likely to receive less sunlight than the BRE Guide recommendation. ARC's analysis however has indicated that three if the proposed four visual amenity space areas will achieve at least two sunshine over at least half their respective areas on 21st March. Finally all public open space areas and both of the creche areas will achieve at least two sunshine over at least half their respective areas on 21st March.

It is worth setting out at this point that visual amenity space is not included in calculations for the quantum of open space. Furthermore, the size of Communal Area 5, is identified as 977 sq m. This removed from the overall quantum of Open Space delivered (9,885 sq m), leaves a figure of 8,908 sq m, which as set out in the Statement of Consistency still meets the requirements for open space provision in terms of quality space that receives the appropriate amount of daylight space. In summary, 8,908 sq m of the open space areas delivered across the scheme are meeting the sunlight requirements.

The main Public Open space within the Development is nestled behind Block D, leading a route from Leopardstown road between Blocks D & F through to the forecourt at St Joseph's house and linking back to the Greenway and Public Park beyond to the north.

Results of the Daylight & sunlight Analysis by ARC for the Public Open space shows that there is no negative impact on the Public open space which is exceeding the requirements. It is predicted to achieve sunlight to 50% or more of the space from 11 am - 4pm on the 21st March in line with the BRE guide benchmark of at least 2 hours. For more details on the sunlight daylight please refer to ARC reports. The other public open spaces of the woodland walk & areas and entrance off Silver Pines along the Greenway also achieve a high level > 50% of Sunlight access between 9 am- 3pm, far above the minimum of 2 hours required.

3.3 Foul Water

Further consideration and/or justification of the documents relating to the foul water connection proposed having regard to the concerns raised by the Planning authority during the Tripartite meeting relating to capacity of the Waste Water Treatment system on the opposite side of Leopardstown Road (Kilmacud Crokes grounds) and the report of Irish Water advising that the waste water connection point was to be determined when the West Pier DAP model is completed (expected Q4 2021).

This response has been prepared with direct input from Barrett Mahony Consulting Engineers.

Barrett Mahony Consulting Engineers confirm that discussions were held with Irish Water following the Tripartite meeting. Detailed modelling of the sewer system was then carried out by RPS for Homeland Silverpines Limited. RPS liaised with IW during this process. On foot of this modelling, a solution was agreed with Irish Water to provide a wastewater pumping station on the subject site with a pumped discharge to the foul sewer in Silver Pines housing estate adjacent to the development. This sewer connects to the Sandyford system. The updated Confirmation of Feasibility letter from IW, dated the 12th of July 2021, sets out their requirements. An updated buried foul layout drawing and accompanying pumping station detail drawings were then prepared to reflect the requirements of IW. These drawings are part of the final application package.

4 RESPONSE TO SPECIFIC INFORMATION REQUESTED

Pursuant to article 285(5)(b) of the Planning and Development (Strategic Housing Development) Regulations 2017, in addition to the requirements as specified in articles 297 and 298 of the Planning and Development (Strategic Housing Development) Regulations 2017, the following specific information was requested:

4.1 Item 1

A Traffic and Transport Assessment including, inter alia, a rationale for the proposed car parking provision should be prepared, to include details of car parking management, car share schemes and a mobility management plan.

Applicant Response

The rationale for the proposed car parking provision including details of car parking management is set out in Chapter 8 of the TTA report. The car parking has been provided having regards to the Apartment Guideline 2020 and the location of the proposed development which will well serve by public transport and walking and cycle routes. A mobility management plan is included as Chapter 11 of the TTA report to further support and promote the further use of sustainable travel modes. Please find attached 'Traffic and Transport Assessment and Mobility Management Plan' prepared b ILTP Consulting which accompanies this response.

The **car parking provision** for the proposed development was guided by the following policy documents:

- Dun Laoghaire Rathdown (DLR) Council (DLRCC) Development Plan 2016-2022
- Sustainable Urban Housing: Design Standards for New Apartment Guidelines 2020
- Wider Transport and Sustainability Polices for the Greater Dublin Area (GDA)

The current DLRCC Development Plan state that that quantitative Car Parking Standards should comply with Development Plan requirements. We note generally that the requirements detailed under the Development Plan are as follows:

Apartments:

- 1 space per 1 bed
- 1.5 spaces per 2 beds
- 2 spaces per 3 beds +

We note however that the DOHPLG Apartment Guidelines (2020), includes recommendations for provision of car and cycle parking for apartments depending on the urban location of the proposed development. These urban locations are defined and described in the guidelines as follows:

"Central and/or Accessible Urban Locations

Such locations are generally suitable for small- to large-scale (will vary subject to location) and higher density development (will also vary), that may wholly comprise apartments, including:

- Sites within walking distance (i.e. up to 15 minutes or 1,000-1,500m), of principal city centres, or significant employment locations, that may include hospitals and third-level institutions;
- Sites within reasonable walking distance (i.e. up to 10 minutes or 800-1,000m) to/from high capacity urban public transport stops (such as DART or Luas); and
- Sites within easy walking distance (i.e. up to 5 minutes or 400-500m) to/from high frequency (i.e. min 10 minute peak hour frequency) urban bus services.

Intermediate Urban Locations

Such locations are generally suitable for smaller-scale (will vary subject to location), higher density development that may wholly comprise apartments, or alternatively, medium-high density residential development of any scale that includes apartments to some extent (will also vary, but broadly >45 dwellings per hectare net) including:

- Sites within or close to i.e. within reasonable walking distance (i.e. up to 10 minutes or 800-1,000m), of principal town or suburban centres or employment locations, that may include hospitals and third level institutions;
- Sites within walking distance (i.e. between 10-15 minutes or 1,000-1,500m) of high capacity urban public transport stops (such as DART, commuter rail or Luas) or within reasonable walking distance (i.e. between 5-10 minutes or up to 1,000m) of high frequency (i.e. min 10 minute peak hour frequency) urban bus services or where such services can be provided;
- Sites within easy walking distance (i.e. up to 5 minutes or 400-500m) of reasonably frequent (min 15 minute peak hour frequency) urban bus services.

Peripheral and/or Less Accessible Urban Locations

Such locations are generally suitable for limited, very small-scale (will vary subject to location), higher density development that may wholly comprise apartments, or residential development of any scale that will include a minority of apartments at low-medium densities (will also vary, but broadly <45 dwellings per hectare net), including:

- Sites in suburban development areas that do not meet proximity or accessibility criteria;
- Sites in small towns or villages.

For these classification, the Apartment Guidelines recommend the following approach to car parking provision:

'Central and /or Accessible Urban Locations:

In larger scale and higher density developments, comprising wholly of apartments in more central locations that are well served by public transport, the default policy is for car parking provision to be minimised, substantially reduced or wholly eliminated in certain circumstances. The policies above would be particularly applicable in highly accessible areas such as in or adjoining city cores or at a confluence of public transport systems such rail and bus stations located in close proximity.

Intermediate Urban Locations:

In suburban/urban locations served by public transport or close to town centres or employment areas and particularly for housing schemes with more than 45 dwellings per hectare net (18 per acre), planning authorities must consider a reduced overall car parking standard and apply an appropriate maximum car parking standard.

Peripheral and/or Less Accessible Urban Locations:

As a benchmark guideline for apartments in relatively peripheral or less accessible urban locations, one car parking space per unit, together with an element of visitor parking, such as one space for every 3-4 apartments, should generally be required."

We can confirm that the proposed development is located in close proximity to the following public transport services:

• Less that 10-minute walk from the Green Luas Line Sandyford and Central Park Stops. Services at 4 minute intervals during peak hour periods.

• Less than 10-minute walk from a number of Dublin Bus Routes in Leopardstown Road and Brewery Road.

Given the location of the proposed development to the south of Dublin City centre, the services and facilities in the area, and the short walking distance to frequent Luas services and reasonably frequent bus services it is considered that the subject site lies within an **Intermediate Urban Location.** Based on the proposed developments intermediate location the Apartment Guidelines recommends the following relating to the proposed development:

'Planning authorities must consider a reduced overall car parking standard and apply an appropriate maximum car parking standard."

It is in considering the above, that a reduced car parking standard for the proposed development is in accordance with the guidelines and is appropriate for the subject site.

We would ask that due consideration to the overall provision of 0.46 spaces per residential unit as being acceptable in this instance. It is our considered view that the standards noted in the Development Plan are <u>not minimum standards required</u>. Section 8.2.4.5 of the current development Plan set out some rationale for reduced parking standards and of the reasoning for reduced car parking standards is its 'proximity of the proposed development to public transport'.

ILTP Consulting has set out a clear and detailed rationale behind the provision of car parking at this site as set out in the Traffic and Transport Assessment, which should be duly considered by An Bord Pleanala. The key points of this rationale are as follows:

The proposed development is ideally suited to facilitate significantly reduced parking from the normal requirements as set out in the Dun Laoghaire Rathdown County Council Development Plan, and in line with the New Apartment Guidelines for the following reasons:

- The proposed development is well located in proximity to high quality public transport; less than 5 minutes walking of a QBC with services direct to the City Centre and less than 10min walk to Sandyford Luas;
- The proposed development is well located within 10min walk and 5min cycle to Sandyford Business Park, a Major Employment Centre;
- The proposed development is well located within 15min walk and 5min cycle to amenities and services in Stillorgan Village;
- There is excellent cycle infrastructure in the area with dedicated cycle lanes along the Leopardstown Road and N31 Brewery Road connecting to the N11;
- The proposed development will provide 843 No. cycle parking spaces, including secure and safe cycle parking.

Nearby census data suggests that green modes of transit are more popular for commuting among local apartment residents than private cars, which highlights the accessibility to good quality Public Transport.

A total car parking provision of 259 no. car parking spaces is proposed, of which 232 no. spaces will be at basement level and 27 no. spaces will be at ground level. Of the car parking spaces assigned to the proposed development:

- 211 no. dedicated car parking spaces are allocated to the residents, which equates to a ratio of 0.46 per apartment.
- 26 no. spaces will be reserved for visitor car parking.

¹ https://www.dlrcoco.ie/sites/default/files/atoms/files/cdp2016_section8.pdf

- 9 no. spaces will be assigned for Crèche Staff parking and drop off. (6 for staff parking and 3 for creche drop off)
- 3 no. spaces for café staff
- 30. no. spaces will have electric vehicle charging points assigned as per DLRCC requirements.
- 4% will be reserved as dedicated mobility impaired spaces.
- 4% will be allocated as spaces for car sharing clubs (10 no. car parking spaces).
- 10 no. Motorcycle parking will also be provided within the development.

Given the location of the proposed development, adjacent to high intensity employment and the excellent public transport and cycle route serving the development coupled with the Government's Apartment Guidelines a car to apartment ratio of 0.46 is considered appropriate. In addition, visitor car parking, GoCar and disabled car parking will be provided. It is also proposed to provide at surface level 6 no. car parking spaces for staff working in the crèche plus an additional 3 no. drop off spaces. The 6 no. staff spaces meet the CDP car parking standards. However, given the location of the development and its proximity to public transport services this is more than adequate to meet the staff needs of the development.

Furthermore, given the fact that the crèche is proposed to mainly facilitate residents of the proposed development most will be dropped off at the crèche on foot. Therefore the 3 no. drop off spaces proposed should be more than adequate to accommodate any external drop off demand.

The proposed café element is intended to serve local needs only and those who walk of cycle through the proposed development. 2 no. spaces are proposed for the café staff, which will be located in the basement.

A minimum of 4% of the total parking allocation can be allocated for disabled access parking and this will be allocated by the Management Company on an 'as-needs' basis to ensure that the needs for specialised car parking will be adequately provided for.

The Development can include provision for an appropriate level of electric car charge points at basement level to enable those residents who own electric cars to charge them overnight. However, it is also intended to allow for the future upgrading of all car parking to be Electric Vehicle (EV) powered to accommodate the growing numbers of EVs over time.

In addition, a Car Club or 'Go Car' type facility is also included in order to reduce the need for car ownership whilst making cars available for residents to meet periodic car needs. The Car Share Club facility, exclusively be for residential use would be operated and controlled by the Management Company.

It is considered that given the specified uses within the proposed development this is appropriate car parking provision and is consistent with current housing policy and standards.

Car Parking Management Plan

A car parking management strategy will be prepared and operated by the Management Company to ensure that those most in need of a car parking space will be prioritised. The disabled space will be allocated on a needs basis to ensure that those with disability and need the use of a car will be prioritised.

For the residential element the follow car parking ratios are proposed per unit:

- 1. It is proposed to allocate 0.2 space per studio apartment.
- 2. It is proposed to allocate a ratio of 0.5 for 1 or 2 bed apartments.
- 3. It is proposed to allocate 1 space per 3 bed apartment.

In addition, 2 no. public car share facility (such as GoCars) spaces will be provided at the surface, which will also be available to the wider community.

In addition, the management company will operate its own Car Share Club for residents of the proposed development. This will provide for a range of vehicle tyles (all electric powered), for occasional use by residents of the proposed development.

The Car Parking Management Plan will be agreed with the planning authority in advance of the occupation of the development and be subject to periodic reviews.

Mobility Management Plan

As included with this application ILTP have prepared a Mobility Management Plan (MMP) which includes the provision for the appointment of a Mobility Manager, which will ultimately come under the remit of the Management Company. This individual will be responsible for the delivery of the programme and will act as an interface between the various stakeholder groups. The Mobility Manager will also be involved in monitoring of the mode of travel from the residential development. This ideally will be done on an annual basis. Monitoring of travel patterns will facilitate the provision of sustainable transport modes and ensure that once modal targets are met that there is no slippage and instead efforts made to further improve the situation.

The Mobility Manager will be appointed after the completion and occupation of the first residential block. The Mobility Manager will implement a number of key measures. These will include:

- Providing new residents with a Travel Welcome Pack giving full details of transport options, cycle/walking maps and information on local services
- Induction sessions for new households and follow up visits
- Instigate and regularly update a travel notice board in each of the blocks providing travel information. This may also be provided online subject to demand.

Combined with the roll-out of these measures a travel plan will be implemented with the objective of developing a sustainable transportation and access policy for residents of the proposed development both during and after the construction.

The proposed residential development will promote sustainable travel patterns due to its location, layout, design and proximity to the public transport and cycle networks. These will be complimented with a MMP and the appointment of a Mobility Manager to promote sustainable travel patterns by residents. In addition, the proposed residential development is located and accessed in a manner that will minimise the traffic impact on the existing road network and ensure high levels of permeability and accessibility to other sustainable travel modes.

4.2 Item 2

Drawings that detail dual aspect ratios should be clearly laid out and be accompanied by a detailed design rationale report.

Applicant Response

Appendix C of the Master planning and Architectural Design Statement prepared by O' Mahony Pike Architects includes comprehensive detail on the level of dual aspect provision delivered within the current scheme. Specifically, 232 no. of the 463 no. units proposed will have the benefit of dual aspect equating to 50.1% of the total number of units.

One of the specific planning policy requirements of the DOHPLG Apartment Guidelines (2020), SPPR 4 states that a minimum of 33% of dual aspect units will be required in more central and accessible urban locations, and 50% in suburban or intermediate locations. The overall design allows for 51% which is in keeping with the objective of the 2020 Guidelines.

4.3 Item 3

Updated landscape plans delineating the public open space and communal open space and including useable space for play provision necessary to comply with section 4.13 of the Sustainable Urban Housing Design Standards for New Apartments Guidelines for Planning Authorities.

Applicant Response

Public and Communal Open Space

The Sustainable Urban Housing Design Standards for New Apartments Guidelines for Planning Authorities 2020 (Apartment Guidelines) sets out the standards for communal open space provision as:

- 4 sqm for studios
- 5 sqm for 1 beds
- 7 sqm for 2 beds
- 9 sqm for 3 beds

In considering the above, we note the following proposal and calculations for public open space vis - a - vis the Apartment Guidelines and the DLRCC Development Plan 2016-2022 standards:

DLR Standards

10% of the total site area - Site Area 25,880 sq m = 10% Public Open Space requirement is 2,588 sq m.

Apartment Guidelines Standards

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4 sq m for studios - 85 x 4 sq m = 340 sq m

5 sq m for 1 beds - 117 x 5 sq m = 585 sq m

7 sq m for 2 beds - 248 x 7 sq m = 1,736 sq m

9 sq m for 3 beds - 13 x 9 sq m = 117 sq m
```

Total Communal Open Space required = 2,778 sq m

The proposed development will provide for a significant public open space and communal open space facility offering within the development. We note specifically that the following are proposed:

Open Space (approx. 9,885 sq m) is proposed in the form of the following:

- public open space areas (approx. 6,680 sq m) including a public plaza/court area, a play area, and woodland trail; and
- communal open space areas (approx. 3,205 sq m) including areas adjacent to St. Joseph's House, courtyard, play areas and 2 no. roof garden areas proposed at fifth floor level of Blocks C and D (approx. 400 sq m and 408 sq m respectively).
- Visual Amenity Open Space (approx. 1,000 sq m)
- Pedestrian Connections are proposed throughout the site and to the adjoining Leopardstown Park.

This provision is over and above requirements of the relevant Development Plan and the Apartment Guidelines. We note specifically that c.38% of the total site area is dedicated as public open space, which is significant for a key suburban location, proximate to public transport nodes. It is our view that proposals are therefore sufficient in addressing requirements.

Play Space

In terms of Children's Play areas, the proposed development has considered the recreational needs of children and incorporates children play equipment as part of the communal amenity space within the scheme. Section 4.13 of the Sustainable Urban Housing Design Standards for New Apartments Guidelines for Planning Authorities, states that the following children's play needs around the apartment building should be catered for as follows:

- within the private open space associated with individual apartments;
- within small play spaces (about 85 100 sq. metres) for the specific needs of toddlers and children up to the age of six, with suitable play equipment, seating for parents/guardians, and within sight of the apartment building, in a scheme that includes 25 or more units with two or more bedrooms; and
- within play areas (200–400 sq. metres) for older children and young teenagers, in a scheme that includes 100 or more apartments with two or more bedrooms.

The apartment guidelines state that "one-bedroom or studio type units should not generally be considered to contribute to a requirement for any childcare provision and subject to location, this may also apply in part or whole, to units with two or more bedrooms."

The proposed development of 436 no. units provides for the following unit mix:

- 85 no studio units
- 117 no. 1 bed units
- 248 no. 2 bed units
- 13 no. 3 bed units

The proposed development provides for a total of 261 no. 2 beds and 3 beds and therefore the proposed development which provides a play space in excess of 100 sqm is appropriately designed. A small children's play area is proposed in line with the Apartment Guidelines for a residential development of this size. This is provided within the main communal open space area. Please refer to the landscape proposal for further information. The dedicated 0-6 years old play zones are within 150m of the entire proposed development and the older child play space is within 300m.

The playground areas are located centrally within the apartment development in an area that is overlooked and passively supervised by the adjacent apartments and footpath. The chosen play equipment enables individual play, group play, and social interaction, imaginative play, climbing, spinning and sliding movement. There is adjacent sculptural seating for supervising adults as well picnic tables for social interaction.

4.4 Item 4

Noise impact Assessment including the impact of the traffic noise and any mitigation measures necessary to reduce a negative impact on the amenity of future occupants.

Applicant Response

A Noise Impact Assessment has been prepared by AWN Consulting Ltd., (AWN) to accompany this report as a specialist chapter of the EIAR. Baseline noise monitoring has been undertaken across the Proposed Development. All noise surveys were conducted in general accordance with ISO 1996: 2017: Acoustics –Description, measurement and assessment of environmental noise.

The potential for inward noise impact on the proposed development has been assessed. The assessment has been carried out with reference to the guidance contained in Professional Guidance on Planning & Noise (ProPG), BS 8233:2014 Guidance on Sound Insulation and Noise Reduction for Buildings (BSI); and the local and national Noise Action Plans relevant to the area. In addition, information from the traffic impact assessment prepared by ILTP submitted with this application has

been used to determine the predicted change in noise levels. The development lands in question are in proximity to the Leopardstown Road which lies to the south of the site. Noise from the road has the potential to impact the residential developments proposed for the site itself.

In order to determine the inward noise impact for noise sensitive properties proposed as part of the development, it was necessary to determine the internal noise levels within the proposed buildings. These can then be compared against appropriate internal noise criteria from BS 8233, as summarised in Table 1 below.

Activity	Location	(07:00 to 23:00hrs)	(23:00 to 07:00hrs)
Resting	Living Room	35 dB L _{Aeq, 16hr}	-
Dining	Kitchen/Dining Room Area	40 dB L _{Aeq, 16hr}	-
Sleeping (Daytime Resting)	Bedroom	35 dB LAeq, 16hr	30 dB L _{Aeq, 8hr} 45 dB L _{AFmax}

Table 1 - ProPG Internal Noise Levels

It was possible to calculate internal noise levels within the residential properties proposed within the site, taking account of the existing and future potential noise environment, proposed constructions and the relevant sound insulation provided by the building elements (i.e. walls, roof, glazing etc.).

The glazed elements and ventilation paths of the building envelope are typically the weakest element from a sound insulation perspective. In general, all wall constructions (i.e. block work or concrete and spandrel elements) offer a high degree of sound insulation, much greater than that offered by the glazing systems. Therefore, noise intrusion via the wall construction will be minimal.

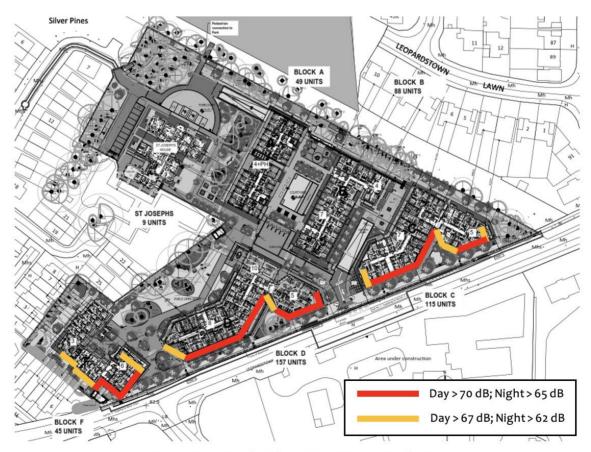


Figure 15 – Locations for Enhanced Acoustic Façade Specification

In this instance the facades highlighted in the figure above will be provided with glazing and ventilation that have sufficient sound insulation performance to achieve the internal ambient noise level criteria.

This assessment has determined that based on the current architectural plans performance values as set out in Tables 2 and Table 3 will be required. Other facades in the development have no minimum requirement for sound insulation.

	Octave Band Centre Frequency (Hz)						
Façade	125	250	500	1k	2k	4k	R _w
RED	22	29	35	45	44	44	40
ORANGE	22	24	30	42	40	22	36

Table 2 - Sound Insulation Performance Requirements for Glazing, SRI (dB)

	Octave Band Centre Frequency (Hz)						
Façade	125	250	500	1k	2k	4k	D _{ne,w}
RED	35	40	40	50	55	55	48
ORANGE	35	35	35	42	42	42	40

Table 43 - Sound Insulation Performance Requirements for Ventilation, SRI (dB)

The overall R_w and $D_{ne,w}$ outlined above are provided for information purposes only. The over-riding requirement is that the glazing and ventilation systems have sufficient acoustic performance to achieve the internal ambient noise criteria as outlined in Table 1 above which may also be achieved using alternative glazing and ventilation configurations.

It is important to note that the acoustic performance specifications detailed herein are minimum requirements which apply to the overall glazing and ventilation systems. In the context of the acoustic performance specification the 'glazing system' is understood to include any and all of the component parts that form part of the glazing element of the façade, i.e. glass, frames, seals, openable elements etc.

The assessment has demonstrated that the recommended internal noise criteria can be achieved through consideration of the proposed façade elements at the design stage. The calculated glazing and ventilation specifications are preliminary and are intended to form the basis for noise mitigation at the detailed design stage. Futher details of noise assessment is included in Chapter 9 of the EIAR – Noise and Vibration.

4.5 Item 5

An Updated Sunlight/Daylight analysis showing an acceptable level of residential amenity for future occupiers and neighbours of the proposed development, which includes detail on the standards achieved within the proposed residential units, in private and shared open space, and in public areas within the development and in adjacent properties.

Applicant Response

ARC Architectural Consultants Ltd. have prepared a Sunlight and Daylight analysis and EIAR Chapter enclosed herewith which show acceptable levels of residential amenity for future occupiers and neighbours of the purposed development, which includes detail on the standards achieved within the proposed residential units, in private and shared open space, and in public areas withing the development and in adjacent properties.

Daylight Access to Units:

As part of this Assessment of Sunlight & Daylight Access within the Proposed Development, ARC undertook an assessment of the likely daylight access within the proposed residential units. A representative sample of rooms within the proposed development was studied at the lowest levels of accommodation given that daylight access to lower levels will be the most obstructed in terms of daylight access so issues in respect of daylight access are most likely to occur at the lowest levels of

accommodation. An emphasis was placed on analysis of rooms likely to receive lower levels of daylight (e.g. rooms with the potential to receive lower levels of daylight access due to their location within the proposed development and/or due to their layout and fenestration).

ARC engaged with the Design Team during a prolonged design phase to in order to identify rooms that would not be capable of achieving the recommendations of the BRE Guide with regard to daylight access and to propose design measures to improve daylight access. This process included detailed quantitative assessment of sample unit types proposed to identify where issues might occur with regard to daylight access, with emphasis on analysing units at the lowest level of unit type at which it was proposed (i.e. daylight access to lower levels will be the most obstructed in terms of daylight access so issues in respect of daylight access are most likely to occur at the lowest levels of accommodation). Where issues were identified in respect of early design iterations of unit types, detailed quantitative analysis of potential design solutions for the improvement of daylight access was carried out (e.g. different window sizes; alternative balcony arrangements).

For full details on the methodology used in assessing daylight access, please refer to the accompanying Sunlight and Daylight Assessment prepared by ARC submitted with this application. In summary ARC's analysis predicts that all sample study rooms (a large proportion of which represent a worst case scenario) within the proposed development will achieve levels of daylight access at or above the minimum Average Daylight Factor recommended by the BRE Guide for living rooms (i.e. 1.5% Average Daylight Factor) and for bedrooms (i.e. 1% Average Daylight Factor). ARC's analysis further indicates that all kitchen / living / dining rooms in unit types throughout the proposal are likely to receive a level of daylight access in excess of the recommended 2% Average Daylight Factor for mixed function rooms².

Given that worst case analysis units were included in the assessment sample, ARC's analysis would suggest that all units within the proposed development are likely to achieve Average Daylight Factors in excess of the minimum standards outlined in the BRE Guide.

Sunlight Access to Open Spaces:

Section 3 of the Building Research Establishment's Site layout planning for daylight and sunlight: a guide to good practice sets out design advice and recommendations for site layout planning to ensure good sunlight access and suggests that, for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours sunlight on 21st March. ARC had regard to the BRE Guide in undertaking this assessment of sunlight access to open spaces within the proposed development.

Please note that, in determining whether or not to include existing and proposed substantial trees in the three dimensional model for the purposes of this quantitative analysis, ARC made reference to the BRE Guide (as updated in 2011), which states that the "question of whether trees or fences should be included in the calculation depends upon the type of shade they produce. Normally trees and shrubs need not be included, and partly because the dappled shade of a tree is more pleasant than the deep shadow of a building (this applies especially to deciduous trees)." Given this, ARC did not show the shadows cast by trees on the shadow study diagrams.

As part of this analysis, ARC assessed the likely proportion of the proposed communal open space serving the proposed residential development predicted to receive sunlight access on 21st March.

In summary the result suggest that most of the proposed open spaces are predicted to receive a level of sunlight in excess of the level recommended by the BRE Guide for amenity spaces and will appear adequately sunlit throughout the year within the meaning of the BRE Guide. Having regard to the location of open spaces throughout the site, ARC's analysis indicates that open space provision will

The British Standard states that: "Where one room serves more than one purpose, the minimum average daylight factor should be that for the room type with the highest value. For example, in a space which combines a living room and a kitchen the minimum average daylight factor should be 2%."

afford residents a place within the proposed development where residents can go to sit and enjoy the sunshine on a sunny day for a significant portion of the day for most of the year.

Impact to Adjoining Properties:

In terms of impact on adjoining properties, the following is noted in terms of daylight and sunlight:

The following analysis in terms of daylight access to adjoining zones is identified on pages 9 and 10 of the EIAR daylight and sunlight chapter:

"ARC's analysis indicates a potential for the proposed development to result in "imperceptible" to "slight" to "moderate" changes in daylight access within existing buildings facing towards the application site in neighbouring residential estates at The Chase (including Sir Ivor Mall and Minstrel Court), Silver Pines (including the Anne Sullivan Centre), Leopardstown Lawns and Leopardstown Avenue. Under a worst case scenario, it is predicted that the impact of the proposed development on daylight access within existing buildings on lands to the west, north and east will be consistent with emerging trends for development in the area, particularly having regard to the scale of development previously permitted on the site and in the wider Sandyford Area.

Due to the extent of intervening distance, the construction of the proposed development has the potential to result in little or no change in daylight access within residences to the south of Leopardstown Road or to the Children's Sunshine Home. However, the potential impact of the proposed development on existing buildings at the LauraLynn House Children's Hospice is likely to range from none to "imperceptible" to "significant". The proposed development has the potential to result in a "significant" change in daylight access to north-facing rooms within the LauraLynn House Children's Hospice opposing the proposed Block C, the hospice use of this complex is assumed to be particularly sensitive to impacts on daylight access.

Given that the potential for development to result in impacts on daylight access diminishes with distance, it is the finding of ARC's analysis that the proposed development will have no undue adverse impact on daylight access within buildings in the wider area surrounding the application site."

The following analysis in terms of sunlight access to adjoining zones is identified on pages 26 and 27 of the daylight and sunlight chapter:

"During the mornings and early afternoons of the spring, summer and autumn months, shadows cast by the proposed development will extend west and north to The Chase (including Sir Ivor Mall and Minstrel Court) and to Silver Pines (including the Anne Sullivan Centre) resulting in an "imperceptible" to "moderate" impact in sunlight access to a small number of rooms facing towards the application site and rear gardens bounding the application site, with the rear gardens of Nos. 24 and 25 Silver Pines likely to experience potentially "moderate" to "significant" additional overshadowing for a considerable part of the day during the spring and autumn months.

To the north and east, the proposed development is likely to result in "slight" to "moderate" overshadowing of sections of the adjoining greenway route at various times throughout the day over the course of the year. Notwithstanding shadows cast by the proposed development, the section of greenway route between Brewery Road and Leopardstown Road is likely to remain capable of achieving the level of sunlight recommended by the BRE Guide for amenity spaces to appear adequately sunlit throughout the year.

ARC's analysis shows that the construction of the proposed development will result in some additional overshadowing of lands to the east of the site during the afternoons and evenings throughout the year. The impact of additional overshadowing will range from "imperceptible" to "moderate" overshadowing of closest rear gardens and houses at Leopardstown Lawn and Leopardstown Avenue during the afternoons and evenings throughout the year.

While the potential of new development to result in material additional overshadowing of lands to the south is low, it is noted that the proposed development is likely to result in additional overshadowing of north-facing windows at the LauraLynn House Children's Hospice facing

towards Leopardstown Road during the late evenings of the summer months. As a hospice is a use, which could be considered particularly sensitive to changes in the sunlight environment, the impact of the proposed development on sunlight access to the LauraLynn Children's Hospice is assessed as none to "moderate" to "significant" under a worst case scenario.

For a time around mid winter, shadows cast by the proposal are predicted to extend as far as the public park at Leopardstown Park, although this additional overshadowing is not predicted to interfere with the capacity of the public park to achieve the amount of sunlight recommended by the BRE Guide for amenity space. As the shadow environment at this time of year is dense, the impact of this additional overshadowing on Leopardstown Park is predicted to range from "imperceptible" to "slight"."

4.6 Item 6

Wind micro-climate study, including analysis of balconies and upper level roof gardens.

Applicant Response

A wind and micro-climate study was undertaken by BFluid and is included in chapter 11 of the EIAR. The Wind and Micro-climate assessment have been carried out to identify the possible wind patterns around the proposed Berwick Pines Development considering mean and peak wind conditions typically occurring in Dublin. The criteria of Lawson's Wind Comfort and Distress have been adopted to define if a specific area of the development could be comfortable and safe to pedestrians for its designated activity (i.e. standing/walking/strolling).

The proposed Berwick Pines Development has been designed in order to produce a high quality environment that is attractive and comfortable for pedestrians of all categories. To achieve this objective, throughout the design process, the impact of wind has been considered and analysed, in the areas where critical patterns were found, the appropriate mitigation measures were introduced.

The wind modelling study has been performed through an Advanced Computational Fluid Dynamics (CFD) analysis; this numerical methodology simulates the movement of wind within the prescribed area. The simulations have been carried out using the concept of Large Eddy Simulation (LES) and Reynolds Average Navier-Stokes (RANS).

A total of 18 different wind scenarios have been studied considering variation of wind magnitude and directions in line with their frequency of occurrence based on 30 years of historical weather data. An exceedance of occurrence of 5% of the duration was considered in line with the Comfort and Distress criteria. Through the wind assessment it has been possible to highlight, at design stage, areas of concern in terms of downwash/funnelling/downdraft/ and to identify critical flow accelerations that could potentially occur.

The assessment has been carried out considering the impact of wind on the following configurations:

- The "Existing Receiving Environment (Baseline)": in this case the assessment has considered the impact of the local wind on the existing area / buildings prior to construction of the proposed development. For this assessment, a statistical analysis of 30 years of historical weather wind data has been carried out to find the most critical wind speeds and directions and the frequency of occurrence of the same.
- The "Potential Impact": in this case the assessment has considered impacts of wind on the existing environment area, the proposed Development, and its immediate vicinity, with the aim to identify potential impacts on future nearby buildings. For this scenario, Berwick Pines Development will introduce no negative wind effect on adjacent or nearby developments within its vicinity. Wind modelling of future phases around this development will need to be performed for all future phase developments.

Lawson's Criteria provides wind speed and frequency ranges for pedestrian comfort and safety. Lawson's criteria is considered to be an effective criterion. It has been widely accepted and adopted for the investigations of the wind environment associated with buildings in the UK.

If the predicted wind conditions exceed the threshold, then conditions are unacceptable for the type of pedestrian activity and mitigation measure should be implemented into the design.

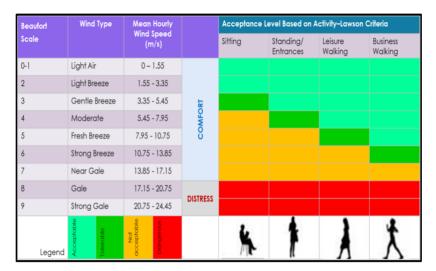


Figure 16 - Lawsons Scale

As a result of the final proposed and mitigated design, wind flow speeds at ground floor are shown to be within tenable conditions. Some higher velocity indicating minor funnelling effects are found near the South-West side of the development. However, as it is shown in the Lawson map indicate that the area can be utilised for the intended use.

Due to re-circulation effects between Block D and F, this area is suitable for short term sitting instead of long term sitting. These conditions are not occurring at a frequency that would compromise the pedestrian comfort, according to the Lawson Criteria.

In addition, the assessment considered the operational phase of the proposed development. In this case the assessment has considered the impact of wind on the existing area including the Proposed development. For this scenario, Proposed development has been simulated. Wind simulations have been carried out on all the various directions for which the development could show critical areas in terms of pedestrian comfort and safety. For this, the Lawson and Distress Maps have been presented to identify the suitability of each areas to its prescribed level of usage and activity. The results present parameters outlined within the acceptance criteria previously described.

Figures 5 & 6 below show the position of the two roof terraces on the development.



Figure 17 Location of roof Terraces on Block C



Figure 18 - Location of roof terraces on Block D

Results of velocity at 1.5m above the terraces for development show that the areas are well protected by a combination of glazed screen and roof coverage. The terrace on Block C is suitable for every activity, including long-term sitting. On the roof terrace on Block D, there is a small area that is suitable for short-term sitting instead of long-term sitting. However, this analysis has been performed considering the worst-case scenario conditions, considering the whole year. Terraces are not areas that are used all year around and long-term sitting is an activity performed during spring/summer months, when the frequency of such high wind is below 5%.

Further analysis of the results of velocity across the balconies for wind assessment are present in figures 11.78 to 11.93 in Chapter 11 of the EIAR (Wind and Microclimate). Results show that higher velocities can be found for the balconies exposed to South and South-West wind directions. However, these velocities are below the threshold values defined by the acceptance criteria and therefore are not critical for safety.

The existing environment and Proposed development would receive prevailing winds from South-West and South-East. All adverse wind impacts have been considered and shows to be suitable to its intended use. The existing site cumulative assessment has accounted for the modelling and simulation of all the topography and existing developments in the surrounding as the presence of adjacent buildings dictates how the wind will approach the proposed development.

From the wind modelling results, the Proposed development will introduce no negative wind effect on adjacent and nearby developments.

4.7 Item 7

A detailed schedule of accommodation which shall indicate compliance with relevant standards in the Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities' 2018, including its specific planning policy requirements.

Applicant Response

A detailed Housing Quality Assessment is enclosed with the material submitted from O'Mahony Pike Architects. Further details in terms of compliance with the guidelines reference is included in the Statement of Consistency enclosed herewith.

4.8 Item 8

Response to issues raised in Appendix C of Planning Authority Report, receive 14th of August 2020, which includes the internal reports of the Transportation Planning Dept. relating to the design of the vehicular access from the Leopardstown Road, the report of the Drainage Dept. relating, inter alia, surface water design and the Park Department relating, inter alia, landscaping and protection of trees.

Applicant Response

Comprehensive responses to all of the issues raised in Appendix C of the Dun Laoghaire Rathdown County Council Report dated 14th August 2020 have been prepared and are submitted with this application. Each expert has included their response to the above in the following reports:

- A response to the issues raised by the Transportation Department regarding the design of vehicular access from the Leopardstown Road is included in Appendix 1 of the Traffic and Transport and Mobility Management Plan prepared by ILTP Consultancy.
- A response to the issues raised by the Drainage Department to surface water design has been included in section 1.4.1.4 of the Civil Engineering Infrastructure Report prepared by Barrett Mahony Consulting Engineers.
- Finally, a response to the issues raised by the Parks Department relating to landscaping and protection of trees have been prepared jointly by Mitchell's and Associates Landscape

Architects and The Tree File, Consulting Arborists and included in the main Landscape Report prepared by Mitchells and Associates.

4.9 Item 9

A detailed phasing plan, including timing of delivery of the working to St Josephs protected structure.

Applicant Response

The construction works associated with the development will be undertaken in 3 no. phases. There will also be demolition and excavation phases associated with removing demolition material, excavating the basement, along with reprofiling spoil onsite.

The construction and demolition programme is intended to commence in the second half of 2022, with a 40-month programme.

Most of the existing structures on site except for St Joseph's House, will be demolished as part of initial enabling works before the construction of the proposed development. The demolition shall be in full compliance with BS 6187 "Demolition in Buildings" and all measure necessary will be taken to protect the adjoining buildings from damage and persons from injury. Prior to the demolition works a Construction and Demolition Waste Management Plan in accordance with the "Department of the Environment Heritage and Local Government Best Practice Guidelines on the preparation of Waste Management Plans for construction and demolition projects" will be updated and prepared by the appointed Demolition Contractor.

The demolition will commence with the removal of any hazardous materials by an appropriately qualified contractor for disposal at an appropriate licensed waste collection facility. All non-structural items will then be removed segregated for re-use or re-cycling where possible. The remainder of the building structure will be removed in an approved sequence outlined in a Method Statement prepared by the yet to be selected Demolition Contractor's Structural Engineer

The construction phase is split into 3 phases covering 6 blocks in total:

Phase 1

- Block A (5 storeys) comprising 49 no. apartments (13 no. 1 bed units, 33 no. 2 bed units and 3 no. 3 bed units);
- Block B (4 7 storeys) comprising 88 no. apartments (28 no. 1 bed units, 57 no. 2 bed units and 3 no. 3 bed units);

Phase 2

• Block C (5 - 7 storeys) comprising 115 no. apartments (26 no. studio units, 26 no. 1 bed units and 57 no. 2 bed units and 6 no. 3 bed units);

Phase 3

- Block D (5 10 storeys) comprising 157 no. apartments (36 no. studio unit, 40 no. 1 bed units and 81 no. 2 bed units) and residential amenity areas of approx. 636 sq m.
- Block E (St. Joseph's House) (2 storeys) comprising 9 no. apartments (8 no. 2 bed units and 1 no. 3 bed units) and a creche facility of 282 sq m and associated outdoor play areas of approx. 130 sq m;
- Block F (3 6 storeys) comprising 45 no. apartments (23 no. studio units, 10 no. 1 bed units;
 and 12 no. 2 bed units);



Figure 1 Phasing Strategy

4.10 Item 10

Where the applicant considers that the proposed strategic housing development would materially contravene the relevant development plan or local area plan, other than in relation to the zoning of the land, a statement indicating the plans objectives concerned and why permission should, nonetheless be granted for the proposed development, having regard to a consideration specified in section 37(2)(b) of the Planning and Development Act 2000. Notices published pursuant to Section 8(1)(a) of the Act of 2016 and Article 292(1) of the Regulations of 2017, shall refer to any such statement in the prescribed format.

Applicant Response

A Material Contravention Statement has been prepared and included with the application documentation.

Also, pursuant to Article 285(5)(a) of the Planning and Development (Strategic Housing Development) Regulations 2017, the prospective applicant is informed that the following Authorities should be notified in the event of making of and application arising from this notification in accordance with Section 8(1)(b) of the Planning and Development (Housing) and Residential Tenancies Act 2016:

- 1. Irish water
- 2. Transport Infrastructure Ireland
- 3. National Transport Authority
- 4. Minister for Culture, Heritage and the Gaeltacht (built heritage)
- 5. Heritage Council (built heritage)
- 6. An Taisce the National Trust for Ireland (built heritage)
- 7. The relevant Childcare Committee

8. The Department of Education and Skills

Applicant Response

We can confirm that the prescribed bodies identified by An Bord Pleanala have been contacted and a full digital copy of the planning application currently under consideration has been furnished to the authorities referenced. We confirm that the digital copy was the preferred format for prescribed bodies of the formal strategic housing development planning application. Where required by the prescribed body a USB of the digital material has also been issued.

5 CONCLUSION

We trust that the above report and enclosed documentation positively addresses the issues raised in An Bord Pleanala's Opinion.

The Design Team has finalised the scheme on the basis of feedback received through the consultation process and we submit that the final proposal now submitted is reflective of all comments received.