

CHAPTER 3

ALTERNATIVES

3.0 ALTERNATIVES

3.1 INTRODUCTION

- 3.1 The requirement to consider alternatives within an EIAR is set out in Annex IV (2) of the EIA Directive (2014/52/EU) and in Schedule 6 of the Planning and Development Regulations, 2001, as amended (“the Regulation”), which state:

*“A description of the **reasonable alternatives** studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment.”*

- 3.2 Schedule 6(2)(b) of the Regulations implement this requirement by requiring the following information:

(b) “a description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects;”

- 3.3 Reasonable alternatives may include project design proposals, location, size and scale, which are relevant to the proposed development and its specific characteristics. The regulations require that an indication of the main reasons for selecting the preferred option, including a comparison of the environmental effects to be presented in the EIAR.

- 3.4 The *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (2018)* – states:

“The Directive requires that information provided by the developer in an EIAR shall include a description of the reasonable alternatives studied by the developer. These are reasonable alternatives which are relevant to the project and its specific characteristics. The developer must also indicate the main reasons for the option chosen taking into account the effects of the project on the environment.”

“Reasonable alternatives may relate to matters such as project design, technology, location, size and scale. The type of alternatives will depend on the nature of the project proposed and the characteristics of the receiving environment. For example, some projects may be site specific so the consideration of alternative sites may not be relevant. It is generally sufficient for the developer to provide a broad description of each main alternative studied and the key environmental issues associated with each. A ‘mini- EIA’ is not required for each alternative studied.”

- 3.5 As such, the consideration and presentation of the reasonable alternatives studied by the project design team is an important requirement of the EIA process.

- 3.6 This section provides an outline of the main alternatives examined during the design phase. It sets out the main reasons for choosing the development as proposed, taking into account and providing a comparison on the environmental effects.
- 3.7 This section assesses the evolution of development and the alternatives examined by the Applicant relating to the location, size and scale and project design and technology of the proposed development. This section provides a full justification for the proposed development and provides a comparison of the environmental effects of each alternative option.
- 3.8 The main alternatives examined throughout the design process are set out as follows:
- Do Nothing Alternative;
 - Alternative project locations;
 - Alternative designs/layouts;
 - Alternative processes; and
 - Alternative mitigation measures.
- 3.9 This chapter describes the alternatives that were considered for the proposed development, where applicable, under each of these headings and the reasons for the selection of the chosen options, including a comparison of environmental effects.

3.1.1 Do Nothing Alternative

- 3.10 In the event that the Proposed Development does not proceed, the specific need for this commercial, amenity and residential development would still exist for the site, and as such the Proposed Development would need to be built elsewhere. The implementation of the masterplan to create a new residential and commercial community on underutilized industrial lands between Omni Park District centre and Santry Park has already commenced, with the recently completed Swiss Cottage and Santry Place developments. An SHD application has recently been lodged with An Bord Pleanála for the “Heiton Buckley” site on the corner of Santry Avenue and Swords Road and the Bord recently granted the Omni Living scheme on the former Queensway site adjacent to Omni Park. An additional application to extend Santry Place development has also been recently lodged.
- 3.11 The land is zoned ‘Z4 – District Centre’ within which mixed-services facilities are permissible. Consideration of an alternative location would equate to a ‘do-nothing’ alternative for the subject site. The lands would remain underutilized industrial lands and would not maximise upon the development potential of the site. According to the Dublin City Council (DCC) Development Plan 2016-2022 and the proposed Development Plan 2022-2028 new development within areas zoned as ‘Z4 – District Centre’ should:
- “enhance their attractiveness and safety for pedestrians and a **diversity of uses** should be promoted to maintain their vitality throughout the day and evening. In this regard, opportunity should be taken **to use the levels above ground level for additional commercial/retail/ services or residential use with appropriate social facilities.** “*
- 3.12 As such, it is considered that this development will support a diverse range of uses and ensure vitality throughout the day in Omni Park.

3.1.2 Alternative Project Locations

- 3.13 As noted in Section 4.13 of the 2018 Guidelines *“some projects may be site specific so the consideration of alternative sites may not be relevant.”*
- 3.14 We also refer to the Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA. 2022), which states that in some instances alternative locations may not be applicable or available for a specific project which is identified for a specific location.
- 3.15 In the first instance, the Proposed Development is in accordance with the zoning and other relevant policies and objectives of the current DCC Development Plan 2016 – 2022 and proposed DCC Development Plan 2022-2028. The site is zoned as ‘Zone Z4 – To provide for and improve mixed-use facilities’ and the predominant form of employment within Omni Park provides for commercial, retail, industrial and café/restaurant uses. The most recent use of industrial or light industrial is included as a permissible use for Z4 however the Proposed Development provides a more diverse mix of uses including residential, childcare and café/restaurant uses. Therefore, the Proposed Development represents a significant improvement in the alignment with the zoning goals of Z4 - District Centre.
- 3.16 The location of the Proposed Development was also chosen to complement the associated proximal developments as mentioned in Section 3.1.1 such as the recently completed Swiss Cottage and Santry Place developments as well as the “Heiton Buckley” site on the corner of Santry Avenue and Swords Road (assuming a successful application) and the recently permitted Omni Living scheme on the former Queensway site adjacent to Omni Park. Having regard to the site-specific nature of both the Proposed Development and future developments, further consideration of alternative site locations is not considered essential in respect of the EIAR legislation and guidance.
- 3.17 Given the current zoning of the site, the surrounding land uses, the proximity to similar associated developments, and the availability of necessary services and infrastructure, the Proposed Development is the most appropriate use for the site.

3.1.3 Alternative Design/Layouts

3.18 Please see Figure 3.1 for the initial design concept for the site:

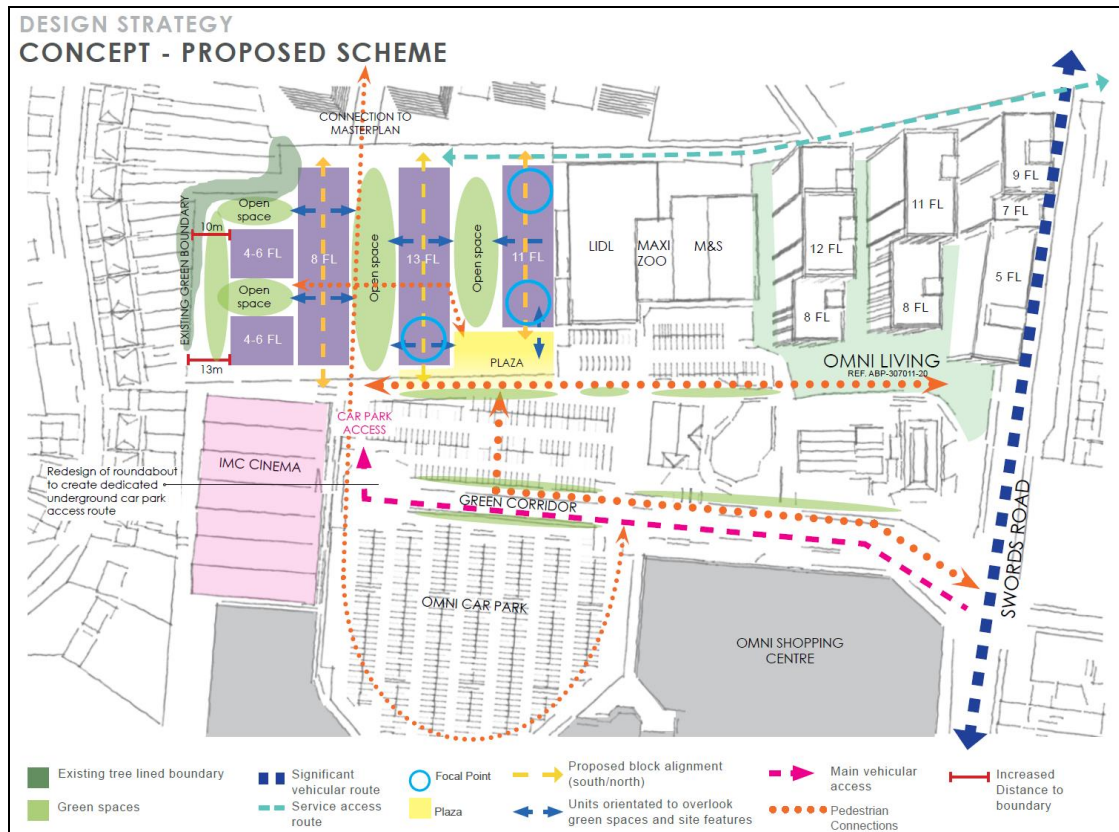


Figure 3.1 Pre-Planning Design Concept (JFA 2021)

3.19 On Tuesday 16th March 2021 a meeting was held online (due to COVID-19 restrictions) with the relevant local authority, Dublin City Council, and members of the design and developer team to present the above design concept.

3.20 A number of specific issues were raised, and constructive criticism was provided by the local authority which informed the design:

1. **Setback:** the buildings have been repositioned on the site and are now set back at a greater distance from the western boundary to provide the existing houses with greater privacy.
2. **Height:** all blocks have been reduced in height to a more appropriate scale and the distance between blocks was also increased to improve the sunlight and daylight levels both externally and internally and to create two generous open spaces. The landmark building was also reduced in scale and the design has been amended to provide high quality materials and features to enhance the public plaza.
3. **Pedestrian Access:** pedestrian links and additional landscape features have been added to provide the residents with high quality spaces and access to the existing amenities in Omni Park.

4. Vehicular Access: the entrance of the underground car park was relocated from the north of the site to the south of the site to integrate successfully with the existing traffic system on site.
 5. Plaza: the Plaza has been significantly increased in scale and in amenity value through integration of the existing car parking area to the south and by providing clear and attractive access routes.
 6. Mix of Uses: there is an existing imbalance in the current uses on this district centre zoned site and now the Proposed Development seeks to redress this imbalance in compliance with the current DCC Development Plan 2016 – 2022 the proposed DCC Development Plan 2022 – 2028 and zoning objective.
 7. Daylight and Sunlight: the distance between blocks has been increased, apartment layouts have been rearranged and poor performing units have been adjusted to become shallower and window sizes maximized.
- 3.21 The revised design ensures that the residential amenities of the neighbouring houses will not be negatively impacted by the proposal. The distance between existing houses and gardens and the proposed new buildings has been increased to a minimum of 10m, which when paired with the length of gardens gives a greater distance between buildings, preserving privacy and limiting overshadowing.
- 3.22 The courtyard areas have been changed due to repositioning of the buildings on site to facilitate the increase in distance to the boundary and between blocks to improve the sunlight and daylight, as well as provide the largest communal open space possible. An improved landscape layout is now included.
- 3.23 All windows facing west toward the boundary will have high level windows in bedroom spaces to limit overlooking upon Shanliss Avenue and preserve privacy while facilitating excellent sunlight and daylight conditions within the apartments. The western boundary will be extensively planted to complement the mature trees in existence outside of the site along this boundary. The existing trees will be protected during construction.
- 3.24 The original scheme proposed two playgrounds - one adjacent to the creche (Block B) and another one to the west of the site. As per the applicant's request, the location of the playground adjacent to the creche was changed to reduce the noise from the creche playground and to locate the second playground in a more appropriate area, away from the boundary and with better surveillance. A third playground for older children was added to the northwest corner.
- 3.25 Blocks A & B have been lowered in height along the western boundary, reflecting the lower scale development to the west and acting as a buffer to the higher density blocks towards the east of the site. The location of the higher density blocks toward the east of the site ensures that sunlight, daylight and privacy is retained for the existing gardens along the western boundary. There are also less sensitive boundaries towards the east of the site. Massing of units has been reduced and further adjusted through articulation of the façades reducing the scale of the larger blocks to blend in within the changing scale of the Santry area. The creation of a central taller building provides a focal point for the scheme and will attract passers by from the Swords Road into the Public Plaza and Omni district centre.
- 3.26 The changes made to the facades were intended to improve the aesthetic of the buildings. The blocks reflect their residential character in terms of composition and materials. However, the two facades facing the plaza - East facade of Block C and South facade of Block D - were designed to enhance the Plaza. The concept of a

light frame facing the plaza (Block D) was kept but the material chosen was changed to keep it consistent with the rest of the scheme. All materials were chosen due to their quality, durability and colour.

- 3.27 High quality landscaping with, cyclists and pedestrians prioritised over car has been designed with an increase in soft landscaping to improve overall attenuation of rainwater, provide natural shading and offer improved biophilia for residents.
- 3.28 In the original scheme the proposed vehicular entrance was at the back of the site along the northern boundary. However, DCC expressed concerns that the access to the proposed development cut through the Marks & Spencers service area, which would in turn have to be rearranged to support the development. To address these concerns, the entrance to the underground car park was relocated to the existing Omni Park access point to integrate successfully with the existing traffic movement on site. Also, the following changes were made to the proposed number of parking spaces:
- Prior to DCC meeting: 231 no. car spaces, 650 no. Bikes and 23 no. EV charging points.
 - After DCC meeting: 213 no. car spaces, 768 no. bikes and 22 no. EV charging points.
- 3.29 A Public Plaza is proposed to the southeast of the site which will lead users into the proposed development and create a network of open spaces through the neighbourhood. This will link into pedestrian connections to the Swords Road and future connections to the north to ensure that the scheme forms part of a truly integrated district centre. In terms of site layout, additional design changes were made to the proposed plaza. It was thought by DCC that the integration of the plaza with the car park to the south should be improved to make it more cohesive so the plaza was redesigned to improve its integration whilst also incorporating elements from the new landscape proposal.
- 3.30 A careful study has been carried out in relation to Sunlight & Daylight levels including the impact on proximal properties and the future scheme. In general the scheme has been designed to maximise natural sunlight and daylight in every apartment and public space, however there are some individual spaces which fall marginally below the BRE standard, particularly units on lower levels where overhead balconies have a shadowing impact.
- 3.31 As a result of this study, all units have been redesigned to ensure that the areas most dependent on natural sunlight and daylight i.e. living rooms, dining spaces, kitchens and bedrooms are located to the front of the unit with storage and bathroom spaces which don't depend on natural light positioned to the rear of the unit, in naturally darker areas. Materials have been specifically selected to maximise the reflectance of light throughout the units.
- 3.32 Every unit benefits from a private balcony or terrace and where possible this has been placed beside the main living room ensuring that all residents can benefit from the balcony equally. Where the balcony is overly detrimental to the natural daylighting of the units, the position has been adjusted as much as possible to preserve a high level of sunlight and daylight. A quadruple facing and generously glazed Resident Amenity space has been included on the ground floor of Block B, addressing both Courtyard 1 & 2. This will enable residents to benefit from bright sunlit space throughout the day on the ground floor.

- 3.33 All communal outdoor spaces as well as the Public Plaza have been assessed with regard to natural light. The Public Plaza will be a sunny south facing space available to residents and the local community equally. The play spaces in Courtyard 1 and the central linking space in Courtyard 2 also benefit from high levels of sunlight and daylight and will provide even further compensation to units falling marginally below the desired standard.
- 3.34 Please see Figure 3.2 below for the revised design concept which was developed by the design team to incorporate the above changes.

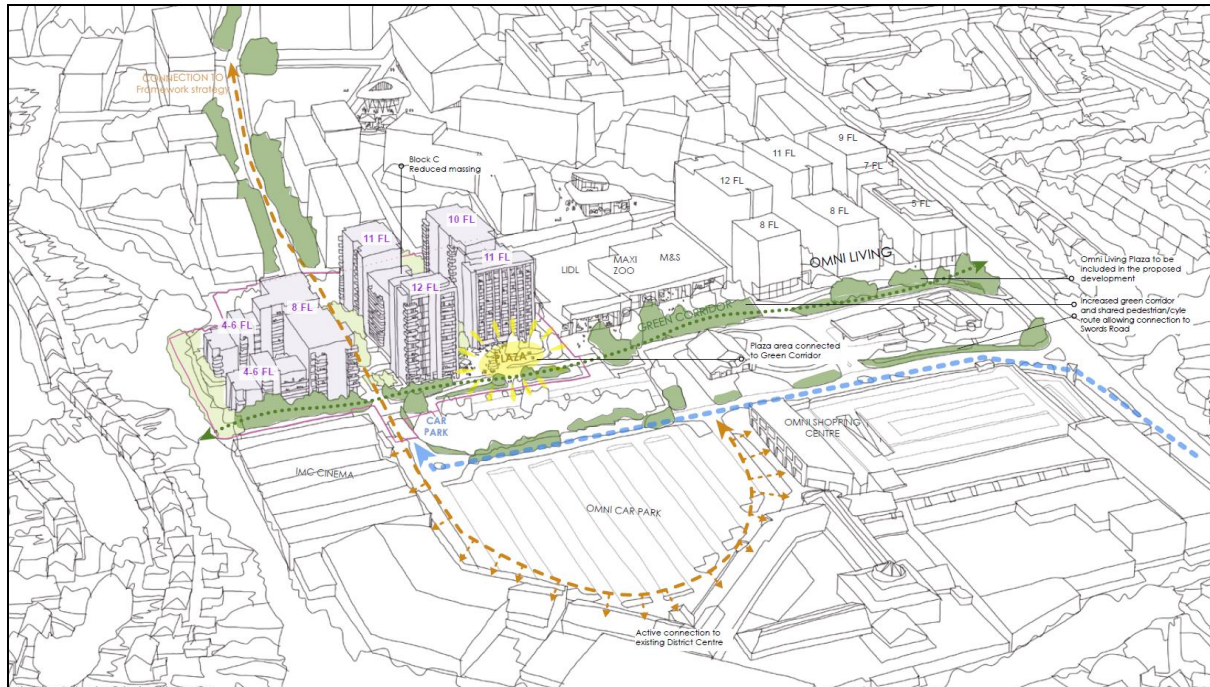


Figure 3.2 Final Design Concept (JFA 2022)

3.1.4 Alternative Processes

- 3.35 This section typically examines the project processes in relation to likely emissions to air and water, likely generation of waste and likely effect on traffic to determine the process that is least likely to impact on these parameters.
- 3.36 In terms of the Proposed Development processes, the pre-planning initial design concept and the final design concept necessitate the same power requirements, and result in the same waste and environmental emissions. The Proposed Development is guided by the applicant's standard specifications, and the flexibility to select alternative processes is limited for this type of development as opposed to an activity that has more complex equipment and processes.
- 3.37 Notwithstanding this, the applicant did include a number of renewable energy measures in the design of the site:
1. Low energy LED public lighting shall be designed and specified in accordance with the Chartered Institution of Building Services Engineers (CIBSE) lighting guide and Dublin City Council public lighting standards and shall include:
 - Low level lighting

- Utilise low voltage LED lamps
- Minimum upward light spill
- Be pre-approved by / in accordance with the Dublin City Council

Each light fitting will be controlled via an individual Photoelectric Control Unit (PECU). The operation of the lighting shall be on a dusk-dawn profile.

2. A Building Energy Rating (BER) certificate will be provided for each unit in the proposed development to provide detail of the energy performance of the units. This is calculated through energy use for space and hot water heating, ventilation, and lighting and occupancy. It is proposed to target an A2/A3 rating for the apartments which will equate to the following emissions. A2 – 25-50 kwh/m²/yr with CO₂ emissions circa 10kgCO₂/m² year A3 – 50-75 kwh/m²/yr with CO₂ emissions circa 12kgCO₂/m² /year.
3. Lower u-values and improved airtightness will be achieved to reduce the amount of heat loss throughout the building fabric, and lower the consumption of energy and therefore carbon emissions.
4. High standard white goods with high energy efficiency ratings will be provided in all units. It is expected to install appliances of the following ratings:
 - Oven – A+
 - Fridge Freezer – A+
 - Dishwasher – AAA
 - Washer / Dryer – B
5. Air Source Heat Pumps (ASHPs) will be implemented to achieve reduction in gas central heating requirements.
6. Ventilation for the development will be provided by means of MVHR (Mechanical Ventilation with Heat Recovery) with extract fans serving WCs/en-suites to improve air quality and reduced costs in providing alternative heating etc.

3.1.5 Alternative Mitigation

3.38 For each aspect of the environment, each specialist has considered the existing environment, likely impacts of the proposed development and reviewed feasible mitigation measures to identify the most suitable measures appropriate to the environmental setting of the proposed development. In making a decision on the most suitable mitigation measure the specialist has considered relevant guidance and legislation. In each case, a comparison of environmental effects was made, and the specialist has reviewed the possible mitigation measures available and considered the use of the mitigation in terms of the likely residual impact on the environment. The four established strategies for mitigation of effects have been considered: avoidance, prevention, reduction and offsetting (not required in this development). Mitigation measures have also been considered based on the effect on quality, duration of impact, probability and significance of effects.

3.39 The selected mitigation measures are set out in each of the EIA Report Chapters 5-16.

3.1.6 Conclusions on Alternatives

- 3.40 The Proposed Development was carefully designed, taking into consideration the site context and existing neighboring commercial and residential properties and the local environmental conditions including air quality, noise and vibration and visual impact.
- 3.41 The proposal will allow the development potential of the site to be maximised within the mixed use Omni Park shopping centre while improving natural screening through landscaping treatments along the site perimeter particularly along the western boundary.

3.2 REFERENCES

Department of Housing, Local Government and Heritage (2018) *“Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessment”*

Dublin City Council (2016) *“Dublin City Council Development Plan 2016-2022”*

Environmental Protection Agency (2022) *“Guidelines on the Information to be Contained in Environmental Impact Assessment Reports”*