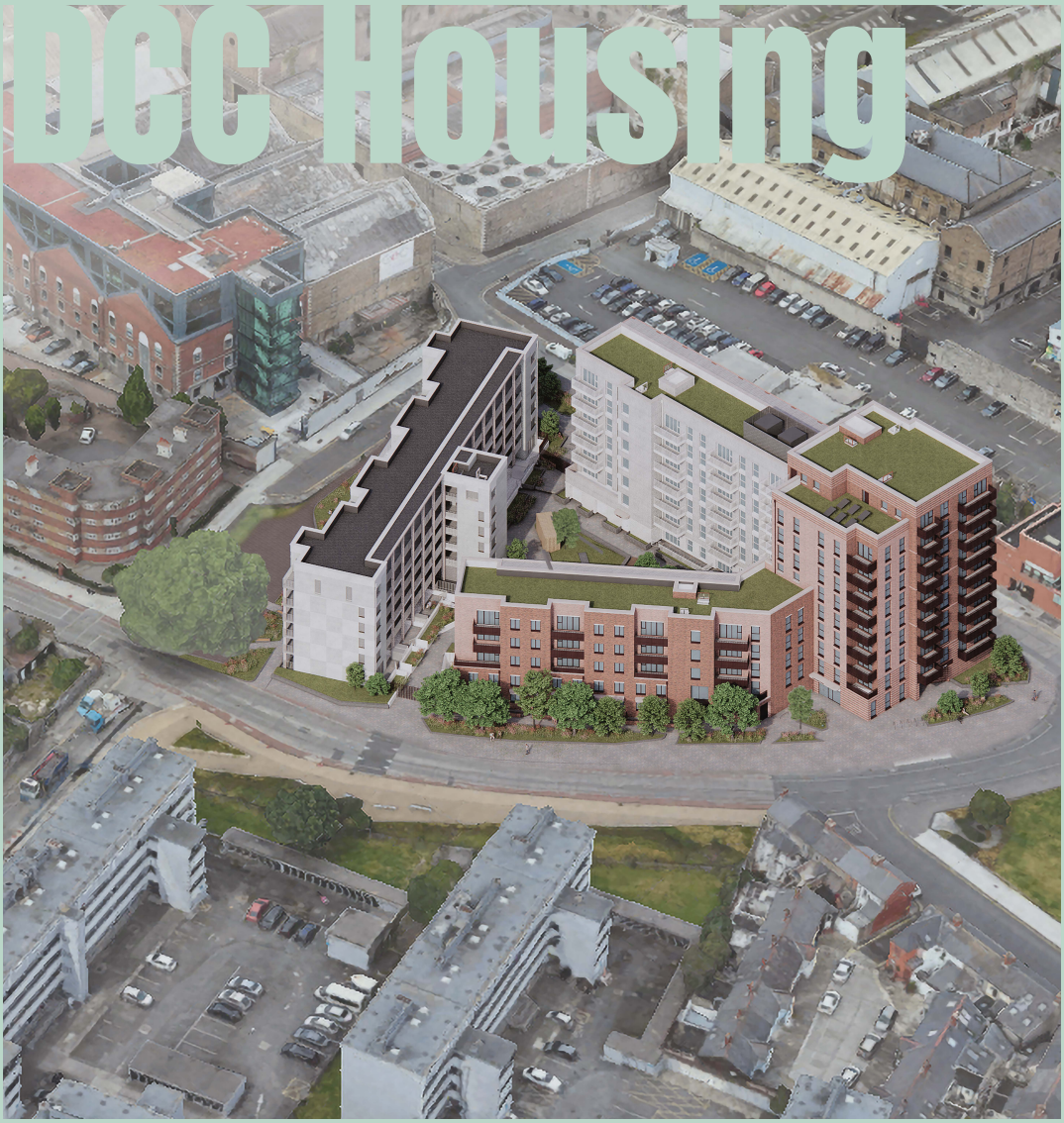
School Street

DCC Housing



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Appendix 2 Building Lifecycle Report

12 September 2025

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1. Introduction

This report was prepared by Metropolitian Workshop Architects on behalf of Dublin City Council, to accompany a Part 8 proposal for development at School Street/ Thomas Court Bawn Estate.

The purpose of this report is to provide an initial assessment of long term running and maintenance costs as they would apply on a per residential unit basis at the time of application, as well as demonstrating what measures have been specifically considered to effectively manage and reduce costs for the benefit of the residents and building owner. This is achieved by producing a Building Lifecycle Report.

The Sustainable Urban Housing; Design Standards for New Apartments – Guidelines for Planning Authorities were published in December 2020 (hereafter referred to as the Apartment Guidelines). The Apartment Guidelines introduced a requirement to include details on the management and maintenance of apartment schemes. Section 6.13 of the Apartment Guidelines 2018 requires that apartment applications:

"*... include a building lifecycle report, which in turn includes an assessment of long-term running and maintenance costs as they would apply on a per residential unit basis at the time of application as well as demonstrating what measures have been specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents*."

This Building Life Cycle Report document sets out to address the above requirements of Section 6.13 of the Apartment Guidelines.

Additionally, the Dublin City Development Plan 2022-2028 section 15.9.14 notes that '*all residential developments should include a building lifecycle report that sets out the long term management and maintenance strategy of a scheme. The lifecycle report should include an assessment of the materials and finishes proposed, the ongoing management strategy, the protocol for maintenance and repair, the long term maintenance costs for residents and the specific measures that have been taken to effectively manage and reduce the costs for the benefit of residents*.'

The Employer's Requirements for Detail Design of Quality Housing by the Department of Housing, Planning and Local Government require that the building is to be designed and constructed using materials, systems and components with durability giving a life span requirement from 20 years to 60 years dependent on the element. Floors, balconies, walls, claddings and roofs have a 60 year requirement, waterproofing flat roofs and balconies have a 30 year requirement alongside external completions (windows and doors).

All materials specified for this application align with this requirement.

2. Description of Development

The proposed redevelopment is for the existing School St / Thomas Court Bawn Estate and construction of 124 apartments at School Street/Thomas Court Bawn Estate, Dublin 8. The site is bounded by School Street, Taylor's Lane, Marrowbone Lane and Thomas Court Bawn (opposite Anne Devlin Park), Dublin 8.

The existing 0.653 hectare site currently comprises of 2 no. five-storey housing blocks (School Street Flats (including 38 homes and a community facility at first floor) and Thomas Court Bawn (including 40 homes).

The proposed development, which will be managed by Dublin City Council, comprises of:

• The demolition of the existing Thomas Court Bawn block, ancillary structures, boundary walls/railings and site clearance works (Phase 1) and the renovation of the existing School Street Flats block (Phase 2).

• Construction of 122 apartment units in 3 no. apartment blocks (Block A, Block B and Block C) comprising 41 no. 1 bed apartments, 65 no. 2 bed apartments, 18 no. 3 bed apartments.

o Block A1 (facing School Street and Thomas Court Bawn) is 7 storeys with 27 units (27 no. 2-bed units)

o Block A2 (facing School Street and Thomas Court Bawn) is 10 storeys with 35 units (10 no. 1-bed, 16 no. 2-bed & 9 no. 3-bed)

o Block B (facing Thomas Court Bawn/Marrowbone Lane) is 5 storeys with 18 units (3 no. 1-bed, 6 no. 2-bed, 9 no. 3-bed)

o Block C (facing Taylor's Lane) is 6 storeys comprising Deep retrofit and extension to the existing School Street Flats block to include an additional floor and modifications to all elevations with 44 units (28 no. 1-bed, 16 no. 2-bed)

• Provision of a multi-use community facility (including childcare facility) of 151 sq.m. at ground floor of Block A2 with an outdoor play area of 111 sq.m.

• 218 long stay bicycle parking spaces, and 72 short stay bicycle parking spaces

• 9 no. residential car parking spaces and 1 no. Motorcycle space on Taylor's Lane; Provision of public and private open spaces with boundary treatments, landscaping, pavements, revision to pedestrian access, public lighting, new public realm connection running north-south along Taylors Lane; upgrade of public realm and street frontage improvements on School Street and Marrowbone Lane/Thomas Court Bawn and 1044 sq.m of communal open space in the new central courtyard;

• Construction of new ESB substation and meter rooms, stores, bin and cycle storage, plant rooms, ancillary structures; and

• All ancillary roads, site services, development works and necessary enabling works above and below ground.

3. Lifecycle Report Requirements

The Dublin City Development Plan 2022-2028 section 15.9.14 notes that the Building Lifecycle Report should address the following headings:

(A) Assessment of long term running and maintenance costs	
Property/Owner Management Company & Common Areas	Refer to Section 4 Operational Management Plan below in this report.
Service Charge Budget	Not applicable for this development
(B) Measures to manage and reduce costs	
Treatment, materials and finishes	Refer to the below pages 9,10, 11 for a brief description of materials and finishes. Additionally refer to the Architectural design statement and Architectural planning drawings for further information on finishes and materials.
Construction methodology	At detailed design stage, a variety of construction methods will be considered and the pros and cons of each reviewed with cost management and reduction in mind. A detailed inspection plan will be requested from contractors as part of the tender process to ensure regular inspection of the works to monitor quality and mitigate against the risk of the post-occupancy issues which could incur repair costs.
Material Specification	At detailed design stage a clear set of appropriate performance requirements will be set out as part of the tender Preliminaries to ensure the scheme is constructed in line with design life requirements. The design will be specified at a minimum to comply with national building regulations and where possible to exceed these requirements
Landscaping	Refer to the below page 12 for a brief description of materials and finishes. Additionally refer to the Landscape Architects design statement and planning drawings for further information.
Waste Management	Refer to page 13 and also the Architectural Design Report for further information.
Human Health and well-being	Refer to page 14 and also the Architectural Design Report for further information.
Residential management	Refer to page 15 of this report
Energy and carbon emissions	Refer to page 7 and 8 of this report. Additionally refer to the MEP and energy and sustainability reports as issued with this application.
Transport and Accessibility	Refer to page 15 of this report. Additionally refer to the Transport consultants Mobility Management Plan and Traffic Transport Assessment as issued with this application.

A. Long Term Running and Maintenance Costs

Operational management plan

It is intended that the development will be delivered through a Public Works Traditional Contract. DCC will be responsible for maintenance and tenancy management services. DCC will be responsible for the life cycling of building elements on behalf of Dublin City Council and the residents.

As part of the contract , a specification will be developed that will outline the level of robustness and life expectancy of materials to be used, the required maintenance regimes and the residual life of building elements.

The specification will cover external envelope materials, internal and external communal areas and all areas within the public realm including approaches to providing lighting, heating, hot water provision and other services.

At this planning stage, consideration has been given to the external materials to buildings, boundaries, and the public realm, and also outline energy carbon reduction strategies. The materials and services proposed will be durable and will provide a long life and low maintenance requirements for the residents.

The units are not planned for individual resale. The MUDS Act and in particular the requirement to establish an Owners Management Company (OMC) shall not apply to these units unless at some stage in the future it is decided to offer the units for individual sale. In that event an OMC would be required but at this stage that is not envisaged.

As part of the public works contract, a specification will be developed that will outline the level of robustness and life expectancy of materials to be used, the required maintenance regimes and the residual life of building elements. The performance specification will cover external envelope materials, internal and external communal areas and all areas within the public realm including approaches to providing lighting, heating, hot water provision and other services.

The detail associated with each element heading i.e., specification and estimate of the costs to maintain / repair or replace, can only be determined after detailed design and the procurement/ construction of the development and therefore has not been included in this document.

At this planning stage, consideration has been given to the external materials to buildings, boundaries, and the public realm, and outline energy and carbon reduction strategies. The materials and services proposed will be durable and will provide a long life and low maintenance requirements for the residents

B. Measures to manage and reduce costs

Energy and Carbon Emissions

The following are an illustration of the energy measures that have been designed for and which DCC will be able to consider for the units to assist in reducing costs for the occupants.

Measure	Description	Benefit
BER Certificates	A Building Energy Rating (BER) certificate will be provided for each dwelling in the proposed development which will provide detail of the energy performance. A BER is calculated based on the energy use for space and hot water, heating, ventilation, and lighting. A2/A3 rating for both the new build and retrofit apartments as a minimum will be targeted. The viability of achieving an A2/A3 rating in the retrofit will be dependent on the final fabric intervention strategies which will be fully developed at the next stage of the design.	Lower BER ratings reduce energy consumption and running costs
Fabric Energy Efficiency	The fabric u-values for the new build apartments will improve upon the minimum requirements of Part L of the Building Regulations "Conservation of Fuel and Energy Buildings other than Dwellings" 2021. Extensive fabric improvements are proposed to the retrofit apartments including external/cavity insulation, upgrade of windows, improvement of airtightness. Refer to the Climate Action Energy Statement for further information on fabric efficiency.	Lower U-values and improved air tightness will be utilised to help minimise heat losses through the building fabric. This will reduce energy consumption and thus minimise carbon emissions.
Lighting Efficiency	Low energy LED lighting will be used throughout the development, for both internal and external lighting, to mimise energy consumption. Automatic controls such as motion sensors in communal areas and photocells on external lighting will be used to maximise efficiency in use. External lighting will be provided to ensure a safe environment for pedestrians, cyclists and moving vehicles, to deter anti-social behavious and to limit the environmental impact of articicial lighting on existing flora and fauna in the area.	Low energy lamps and automatic controls improve energy efficiency. Adequate lighting levels ensure safe environments.
Centralised Heating System/ Heat Pumps	In accordance with the Dublin City Development Plan 2022 – 2028 space and domestic water heating throughout the development will be provided by a centralised heating system. Low Temperature Hot Water (LTHW) will be generated in a central plant room and distributed to individual apartments via a heat network. Fossil fuel heat sources will not be used, with air source heat pumps providing the vast majority of the heating and hot water demand.	Heat pumps operate with seasonal efficiencies greater than 300% which significantly reduces the energy consumption of space and domestic water heating. Utilising centralised heating systems maximises the operational efficiency of space and domestic hot water heat systems by operating and managing the systems centrally.

Measure	Description	Benefit
Mechanical Ventilation Heat Recovery or Demand controlled ventilation	Mechanical Ventilation with Heat Recovery MVHR) utilises the extract air from wet rooms to heat incoming fresh air which is supplied to habitable rooms. Centralised Continuous Mechanical Extract Ventilation (CMEV) extracts air from wet rooms on a continual basis, with fresh air provided by wall or trickle vents. Demand control systems can vary the extract rates depending on humidity levels in the space. MVHR will be utilised in all new build apartments. Further investigations are required at the next stage of the design to determine the viability of utilise MVHR in retrofit apartments. Alternatively CMEV will be used.	MVHR provides continuous ventilation to habitable rooms with low energy usage. Continuous extract is also provided from wet rooms, with exhausted air preheating the incoming fresh air via a heat exchanger in the unit. 90% of the heat can be recovered through this process that would otherwise be wasted. MEV, or demand control ventilation, relies on continuous extract from wet rooms, without heat recovery. It incorporates automated wall vents which open/close dependent on internal humidity conditions. MEV is more power efficient than the MVH. MVHR is more beneficial in energy terms when the outdoor air is cold.
PV panels	Photovoltaic (PV) Panels utilise solar energy to generate electricity which can either be used on soite or fed back into the electricity grid. The panels are typically placed on the roof and orientated towards south to maximise energy production.	PV Solar Panels offer the benefit of reducing fossil fuel consumption and carbon emissions to the environment. They also reduce the overall requirement to purchase electricity from the grid.
ECAR Charging Points	A percentage of parking spaces will be ducted for future installation of EV charging in accordance with the requirements Part L of the Building Regulations, Conservation of Fuel and Energy Buildings other than Dwellings 2021 and the Dublin City Development Plan 2022 – 2028	Providing infrastructure for EV charging will facilitate the provision of EV charging as the national car fleet moves away from fossil fuels

Treatment, Materials and finishes

All dwellings are designed in accordance with the Building Regulations, in particular Part D 'Materials and Workmanship', which includes all elements of the construction.

The Design Principles and Specification are applied to both the apartment units and the common parts of the building. The below lists general measures that have been taken in the specification of materials and finishes:

General Measures Description	Benefit
Consideration is given to the requirements of the Building Regulations and includes reference to BS 7543:2015, 'Guide to Durability of Buildings and Building elements, Products and Components', which provides guidance on the durability, design life and predicted service life of buildings and their parts. All common parts of the proposed Apartment buildings and, the durability and performance of these are designed and specified in accordance with Figure 4; Phases of the Life Cycle of BS7543; 2015. (Please see Appendix B for this figure). The common parts are designed to incorporate the guidance, best practice principles and mitigations of Annexes of BS 7543: 2015 including: Annex A Climatic Agents affecting Durability Annex B Guidance on materials and durability Annex C Examples of UK material or component failures Annex D Design Life Data sheet.	Ensures that the long-term durability and maintenance of Materials is an integral part of the Design and Specification of the proposed development
Use of brickwork to the majority of the envelope of buildings (and particularly where robustness and durability are required), with render in minor areas where less robustness is required. Render is never located on ground floor areas and is contained to deck access or internal courtyard areas. Where render is to be applied to external insulation a spec	Requires minimal on-going maintenance
Use of high-performance powder-coated windows, doors and railings.	Requires minimal on-going maintenance

The following tables outline the typical performance indicators for a range of external materials as described on the planning drawings:

Green and Blue warm Roof	
Description	Blue & Green warm roof; Pre cultivated Sedum vegetation blanket combined with blue roof void. Substrate; concrete deck
Typical life expectancy	Employers Requirements require 30 years. Average lifecycle is 30-35 years on most green roofs. Lifecycle will be extended with robust proven detailing to adjoining roof elements and appropriate and regular maintenance of the roof materials.
Robustness & Security	Generally not in vulnerable locations
Replacement & Repair	Easily replaced in case of damage
Typical Maintenance	Quarterly maintenance visits to include inspection of drainage layer and outlets and removal of any blockages to prevent ponding. Inspection of vegetation layer for fungus and decay. Carry out weeding as necessary. No irrigation necessary with sedum blankets.
Rainwater Drainage	
Description	Rainwater outlets: Suitable for specified roof membranes Pipework: PPC aluminium/PVC downpipes and gutters
Typical life expectancy	Employers Requriements require 30 years. Aluminium gutters and downpipes have an expected life expectancy of 50 years in rural and suburban conditions. PVC has 30 years.
Robustness & Security	Good resistance to accidental damage
Replacement & Repair	Easily replaced
Typical Maintenance	As with roofing systems routine inspection is key to preserving the lifecycle of rainwater systems. Regular cleaning and rainwater heads and gutters, checking joints and fixings and regularly cleaning polyester coated surfaces (no caustic or abrasive materials).
Windows and doors	
Description	Thermally broken Aluclad composite windows and doors.
Typical life expectancy	Employers Requirements require 30 years. PPC aluminium has a typical life expectancy of 45-50 years.
Robustness & Security	Good resistance to accidental damage
Replacement & Repair	Moderate- able to be touched up.

Balconies & Railings	
Description	Powder coated metal
Typical life expectancy	Employers Requirements require 30 years. The metal balcony structure is typically 70 years, general metal items have a 25-45 year lifespan.
Robustness & Security	High resistance to accidental damage
Replacement & Repair	Moderate- able to be touched up
Typical Maintenance	Low maintenance. Regular visual inspection of connection pieces for impact damage or alterations.
External walls	
Description	Clay brick
Typical life expectancy	Employers Requirements require 60 years. Birck is an extremely durable material. Brickwork in this application is expected to have a lifespan of 50-80 years. Mortar pointing has a shorter lifespan of 25-50 years.
Robustness & Security	Very high resistance to accidental damage
Replacement & Repair	Excellent- easily replaced.
Typical Maintenance	Very low maintenance. Most maintenance is preventative: checking for hairline cracks, deterioration of mortar, plant growth on walls, or other factors that could signal problems or lead to eventual damage.
External render	
Description	External render finish applied to blockwork (new build) or insulation (existing).
Typical life expectancy	Employers Requirements require 60 years. Life expectancy is circa 25 years however the render is in low-traffic areas and can be repaired locally.
Robustness & Security	High resistance to accidental damage. Render will be reinforced by a mesh when applied to external insulation.
Replacement & Repair	Good - able to be repaired locally
Typical Maintenance	Medium level of maintenance, will require painting regularly.

Landscape

The following tables outline the typical performance indicators for a range of external landscape materials as described on the planning drawings:

Measure	Description	Benefit
Hard Landscaping Materials	Sustainable, robust materials, with high slip resistance to be used for paving. Durable and robust finishes to be selected for all play elements, fencing, furniture, bin and bicycle storage units.	Materials selected to minimise ongoing maintenance inputs. Robust, well chosen materials allow the long term aesthetic quality of the site to remain high.
Soft Landscape Materials	Planting proposals have been formulated to complement the local setting as well as being fit for purpose in respect of private and public realm uses and spatial constraints imposed by garden sizes and the width of planting strips. Native tree species have been selected for planting along boundaries and across open spaces while non-native species have also been selected where spatial constraints are a factor. The plant selection proposed has a proven record to thrive in the Irish climate.	Reduction in the frequency of required soft landscape maintenance. Positive impact on the surrounding natural environment.
Site Layout and Design	Pedestrian and cyclist friendly hierarchy of public streets facing spaces and semi private open spaces are complemented by generous and high-quality landscape treatments including street tree planting and soft landscaping within public spaces providing long term high quality residential environments.	Safe, high quality residential environments reduce vandalism and antisocial behaviour issues while also seamlessly incorporating into the existing public realm environment.
Maintenance & Management	Maintenance and management requirements have been considered through the design process. Complex planting arrangements have been omitted thus avoiding onerous maintenance and management requirements.	Estate maintenance costs reduced
Sustainability & Biodiversity	Sustainability aspects of the proposed development include the use of native trees where possible across the site. Other species have been carefully selected for compatibility with the size of available spaces which is an important factor in long term management. The overall objective is to enhance the biodiversity potential of the site in addition to providing seasonal interest and variety.	Enhanced sustainability of the site in context of the surrounding landscape. Long-term management and care will allow the site's biodiversity impact to thrive.

Waste Management

The following measures illustrate the intentions for the management of Waste:

Measure	Description	Benefit
Construction Waste Management Plan	An Outline Construction Demolition Resource Waste Management Plan has been included with this application. A Construction and Operational Waste Management Plan will be developed by the contractor in due course.	Achieving best practice in the segregation of waste, recycling and reusing where possible, reducing material to landfill and promoting the circular economy.
Operational Waste Management Plan	This application includes an Operational Waste Management Plan. Refer to Architectural Design Statement.	The report demonstrates how the scheme has been designed to comply with local, regional, and national waste legislation.
Storage of Non-Recyclable & Recyclable Household Waste	Inclusion of centralised waste storage areas. Domestic waste management strategy: Grey, Brown and Green bin distinction. Enough space to accommodate regular collection of bins. Domestic waste management strategy: General waste, mixed recyclable and organic bin distinction.	Easily accessible by all residents, minimizes potential littering of the scheme, reduce potential waste charges and not limit waste contractor selection.
Composting	Organic waste bins to be provided in waste storage areas	Reduces materials to landfill and waste charges

Health and Wellbeing

The following are illustrations of how the health and wellbeing of future residents are considered:

Measure	Description	Benefit
Natural / Day Light	The design, separation distances and layout of the duplex / apartment blocks have been designed to optimize natural daylight/ sunlight and to provide good levels of natural light. Refer to Daylight and Sunlight Analysis Report for further information.	Reduces reliance on artificial lighting thereby reducing costs.
Accessibility	All units will comply with the requirements of Part M and Part K. In addition there are Universal Design and Universal Design+ units, refer to the HQA schedules and Archtiectural Design Statement for further information.	Reduces the level of adaptation, and associated costs, potentially necessitated by residents' future circumstances.
Security	The scheme has been designed in line with the Dublin City Development Plan 2022-2028 Chapter 15.4.5 Safe and Secure Design. The scheme is designed to incorporate passive surveillance with the following security strategies available for adaption into the design: • CCTV monitoring • Fobbed access into communal bin and shared bicycle facilities. • Controlled Access to individual circulation cores • Controlled access between Public Spaces and Residents Communal Spaces • Appropriately lit external spaces • Adequate lighting for public and semi private spaces	Aids in reducing potential security/ management costs. Enhances safety for residents and visitors
Natural Amenity	High quality external spaces are being provided for residents (communal courtyard with playspaces).	Facilitates community interaction, socialising, and play – resulting in improved wellbeing. Proximity and use of external green spaces promotes a healthy lifestyle.

Management

Consideration has been given to the ensuring the users will have a clear understanding of their property:

Measure	Description	Benefit
Home user guide	Consideration will be given to providing all residents with a home user guide. This will provide important information for the residents on details of the new property. It typically includes details of the property such as MPRN and GPRN, Information in relation to connect with utilities and communication providers, contact details for all relevant suppliers and User Instructions for appliances and devices in the property. A Residents Pack prepared by the OMC which will typically provide information on contact details for the Managing agent, emergency contact information, transport links in the area and a clear set of rules and regulations.	Residents are kept as informed as possible so that any issues can be addressed in a timely and efficient manner.
Caretaker	There will be a caretaker on site with a dedicated office. They will be available to help residents with any home user issues and generally contribute to ensuring maintenance and care of the development.	Ensures home user issues are managed

Transport

Consideration has been given to the ensuring the users will have a clear understanding of their property:

Measure	Description	Benefit
Access to Public Transport	The development is well served with bus stops on Thomas street (4min walk) and Cork street (8min), the luas red line and other city centre infrastructure. Heuston station is a 20mins walk away.	The availability, proximity and ease of access to high quality public transport services contributes to reducing the reliance on the private motor vehicle for all journey types.
Permeable Connections	Dedicated pedestrian and cycle infrastructure on-site, and their connectivity with adjoining lands and off-site networks.	Permeable connections for residents
Bicycle Storage	The provision of high-quality secure bicycle parking facilities, for both short term and long-term parking requirements.	Accommodates the uptake of cycling and reducing the reliance on the private motor vehicles.

Appendix. A:

The table below illustrates what would be incorporated for the calculation of a Building Investment Fund (Skinking Fund).

Building Element	Minimum Service Life (years) at Service Commencement Date
Structure/sub structure	60
Floor Structure	60
Roof Structure	60
Roof covering- up to 5 deg pitch	60
Roof covering- over 5 degree pitch	60
Windows	30
External wall/cladding inc. openings	30
External Doors	30
Internal partitions inc. openings	40
Internal finishes	15
Ceilings	40
Internal doors	30
Internal fixtures and fittings	15
Sanitary fittings	20
Kitchen sanitary fittings	20
Built in furniture	20
Mechanical Plant	As CIBSE Guide, Vol.B
Electrical Plant	As CIBSE Guide, Vol.B
Engineering service distribution systems	As CIBSE Guide, Vol.B
CCTV installations	20
Fire installations	20
Security installations	20
Communications installations	20
Lifts	40
Underground Drainage	60
External finishes- decorative coatings	25
External fences	30

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