PROPOSED MIXED USE COMMERCIAL + RESIDENTIAL DEVELOPMENT ON THE CORNER OF **KENNELSFORT ROAD UPPER AND WHEATFIELD ROAD, PALMERSTOWN, DUBLIN 20**

April 2022

DOWNEY

Document prepared by

Downey Planning & Architecture.

No. 29 Merrion Square,

D02RW64,

Dublin 2.

On behalf of

Hollyville Investments Ltd.

for Lands at

20 Kennelsfort Road Upper;

Palmerstown,

Dublin 20

April 2022

DOWNEY

01|INTRODUCTION

Section 6.13 of the "Sustainable Urban Housing: Design Standards for New Apartments - Guidelines for Planning Authorities 2020" requires that planning applications for apartment development:

"shall 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"
"demonstrate what measures have been specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents"

This building Lifecycle Report document sets out to address the requirements of Section 6.13 of Apartment Guidelines 2020.

Project Description:

The proposed development will consist of a commercial + residential scheme comprising 50 no. apartment units in 1 block (ranging in height from 4-5 storeys) comprising 25 no. 1-beds and 25 no. 2-beds, with ancillary residential amenity and commercial facilities at ground floor level.

Ground Floor commercial facility will comprise a Gastro pub/restaurant with off license with access to Kennelsfort Road Upper and 2 retail units, both accessed by Wheatfield Road. Residents communal open spaces will be located at 1st and 3rd floors and will comprise 444m² in area.

A total of 52 no. car parking spaces are proposed with 32 resident + 16 commercial car spaces located across Kennelsfort Road Upper, + 4 commercial car spaces located in front of the development on Wheatfield Road, plus 2 motorbike spaces and 128 no. bicycle parking spaces (96 no. internal spaces at ground floor and 32 no. external spaces), public/communal open space, landscaping, boundary treatment, 1 ESB Station at ground floor and all associated engineering and site works necessary to facilitate the development. Vehicular, pedestrian and cycle access and egress to the site will be via Kennelsfort Road Upper and Wheatfield Road. The proposed development will also consist of the demolition of the existing no. 2 storey The Silver Granite Pub and all associated site structures.

AN ASSESSMENT OF LONG TERM RUNNING AND MAINTENANCE COSTS AS THEY WOULD APPLY ON A PER RESIDENTIAL UNIT BASIS AT THE TIME OF APPLICATION

Property Management Company and Owners Management Company (OMC)

2.1 Property Management of the Common Areas of the development

A property management company will be engaged at an early stage of the development to ensure that all property management functions are dealt with for the development and that the running and maintenance costs of the common areas of the development are kept within the agreed Annual operational budget.

The **Property Management Company** will enter into a contract directly with the OMC for the ongoing management of the built development. Note This contract will be for a maximum period of 3 years and in the form prescribed by the PSRA.

The **Property Management Company** also has the following responsibilities for the apartment development once constructed:

- Timely formation of an Owners Management Company (OMC) – which will be a company limited by guarantee having no share capital. All future purchasers will be obliged to become members of this OMC
- Preparation of annual service charge budget for the development common areas
- Fair and equitable apportionment of the Annual operational charges in line with the MUD Act
- Engagement of independent legal representation on behalf of the OMC in keeping with the MUD Act - including completion of Developer OMC Agreement and transfer of common areas
- Transfer of documentation in line with Schedule 3 of the MUD Act
- Estate Management
- Third Party Contractors Procurement and management
- OMC Reporting
- Accounting Services
- Corporate Services
- Insurance Management
- After Hours Services
- Staff Administration

2.2 Service Charge Budget

The property management company (MC) has a number of key responsibilities with first and foremost being the compiling of the **service charge budget** for the development. The **service charge budget** covers items such as cleaning, landscaping, refuse management, utility bills, insurance, maintenance of mechanical/electrical lifts/ life safety systems, security, property management fee, etc, to the development common areas in accordance with the Multi Unit Developments Act 2011 ("MUD" Act).

This **service charge budget** also includes an allowance for a **Sinking Fund** and this allowance is determined following the review of the Building Investment Fund (BIF) report prepared by for the MC. The BIF report once adopted by the MC, determines an adequate estimated annual cost provision requirement based on the needs of the development over a 30-year cycle period. The BIF report will identify those works which are necessary to maintain, repair, and enhance the premises over the 30-year life cycle period, as required by the Multi Unit Development Act 2011.

In line with the requirements of the MUD Act, the members of the MC will determine and agree each year at a General Meeting of the members, the contribution to be made to the Sinking Fund, having regard to the BIF report produced.

A sample format of the typical BIF report is set out in Appendix A.

NOTE: 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.

MEASURES SPECIFICALLY CONSIDERED BY THE PROPOSER TO EFFECTIVELY MANAGE AND REDUCE COSTS FOR THE BENEFIT OF RESIDENTS.

3.1 Energy and Carbon Emissions

The following are an illustration of the energy measures that are planned 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 of the dwellings. A BER 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 this will equate to the following emissions. A2 – 25-50 kwh/m2/yr with CO2 emissions circa 10kgCO2/m2 year A3 – 51-75 kwh/m2/yr with CO2 emissions circa 12kgCO2/m2 /year	Higher BER ratings reduce energy consumption and running costs.

<table>
<tr><th>Measure</th><th>Description</th><th>Benefit</th></tr>
<tr><td>Fabric Energy Efficiency</td><td>The U-values being investigated will be in line with the requirements set out by the current regulatory requirements of the Technical Guidance Documents Part L, titled “Conservation of Fuel and Energy Buildings other than Dwellings”.
Thermal bridging at junctions between construction elements and at other locations will be minimised in accordance Paragraphs 1.2.4.2 and 1.2.4.3 within the Technical Guidance Documents Part L. See below Table 1 of Part L, Building Regulations.

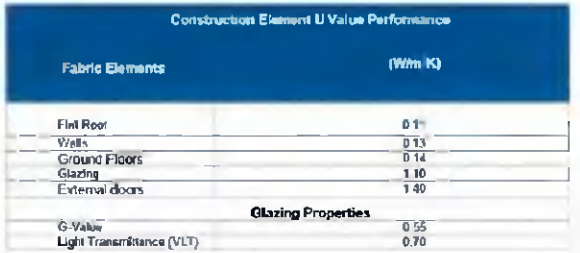
Table 1 Maximum elemental U-value (W/m²K)[1, 2]
<table><tr><th>Column 1
Fabric Elements</th><th>Column 2
Area-weighted Average Elemental U-Value (Um)</th><th>Column 3
Average Elemental U-value – individual element or section of element</th></tr><tr><td>Roofs

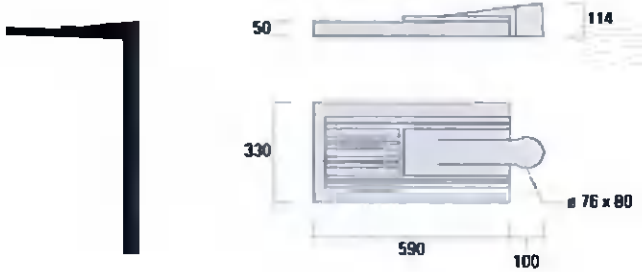
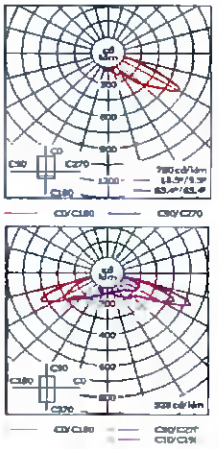
Pitched roof
- Insulation at ceiling
- Insulation on slope

Flat roof</td><td>

0.16
0.16

0.20</td><td>0.3</td></tr><tr><td>Walls</td><td>0.21</td><td>0.6</td></tr><tr><td>Ground floors[3]</td><td>0.21</td><td>0.6</td></tr><tr><td>Other exposed floors</td><td>0.21</td><td>0.6</td></tr><tr><td>External doors, windows and rooflights</td><td>1.6[4]</td><td>3.0</td></tr></table>Notes.
1 The U-value includes the effect of unheated voids or other spaces.
2 For alternative method of showing compliance see paragraph 1.3.2.3.
3 For insulation of ground floors and exposed floors</td><td>Lower U-values and improved air tightness is being considered to help minimise heat losses through the building fabric, lower of energy consumption and thus minimise carbon emissions to the environment.

  </td></tr>
<tr><td>Energy Labelled White Goods</td><td colspan="2">The white good package planned for provision in the apartments will be of a very high standard and have a high energy efficiency rating. It is expected that the below appliance ratings will be provided:
• Oven - A plus
• Fridge Freezer - A plus
• Dishwasher - AAA
• Washer/Dryer - B</td><td>The provision of high rated appliances in turn reduces the amount of electricity required for occupants.</td></tr>
</table>

Measure	Description	Benefit
External Lighting	**General Description** Rectangular Pole Top Street Fitting mounted on pole IP66. Class I or Class II. IK08. Marine-grade, die-cast aluminium alloy complete with Dali Dimmable driver Luminire complete with multi step dimming **Fitting Information** Manufacturer: WE-EF or Equivilant Manufacturing standard: EN 60 598 Catalogue number: N/A Finish: RAL7016 Anthracite grey Light Source Type: LED-24/48W / 700 mA Control Gear Type: Integral EC electronic converter Dimmable & Type: 0 - 10V Dimmable Control Gear Location: Integral Power Factor: > 0.9 Total Luminaire Wattage: 55W CRI/Colour Temperature: 80 / 3000K Beam: Asymmetric - Forward Throw Luminaire Efficacy: 107 lm/W Light Output Ratio: 100% **Fitting Information** Manufacturer: WE-EF or Equivilant Manufacturing standard: EN 60 598 Catalogue number: N/A Finish: RAL7016 Anthracite grey Light Source Type: LED-24/48W / 700 mA Control Gear Type: Integral EC electronic converter Dimmable & Type: 0 - 10V Dimmable Control Gear Location: Integral Power Factor: > 0.9 Total Luminaire Wattage: 55W CRI/Colour Temperature: 80 / 3000K Beam: rectangular, forward-throw [R65] Luminaire Efficacy: 107 lm/W Light Output Ratio: 100%  	The public lighting design for residential development is to provide adequate illuminance for vehicular and pedestrian access for residents and general public. Provides a safe environment for pedestrians, cyclists and moving vehicles, to deter anti-social behaviour and to limit the environmental impact of artificial lighting on existing flora and fauna in the area. The design of the public lighting includes low energy LED lighting throughout. Energy efficient light fittings are the key element in reducing the developments energy consumption. The design of Public Lighting with regard to the energy consumption has been carefully considered for the lifetime of the development. - Low energy LED light fittings with high quality efficient lamps will provide considerable operational saving for the development. - Greater energy savings will also result using the inbuilt multi-step dimming program during late hours of darkens along the public lighting spaces.

The following are low energy technologies that are being considered for the development and during the design state of the development the specific combination from the list below will be decided on and then implemented to achieve the A2/A3 BER Rating.

Measure	Description	Benefit
Heating & Hot water	An Exhaust Air Heat pump EAHP solution shall be designed for the apartments. It extracts energy from the warm air as it leave the home via the ventilation system and uses it to heat the radiators and domestic hot water. The installation of an EAHP is self-contained within each apartment and only requires and ESB connection and standard mains water connection.	An exhaust air heat pump can provide for the heating requirements of a well-insulated apartment in some of the coldest conditions. When working efficiently, it can reduce consumption for heating by up to 50% when compared to conventional heating systems
Space Heating	The units will be heated with steel, horizontal panel radiators in each room of the units and designed for the operating temperature of the heat pump. Each unit shall have two heating zones, the first zone will be the main open plan kitchen / living room and the second zone will be the bedrooms.	Smart technology can be used to control the system by phone app. Also, by having 2 zones further helps reduce energy consumption by not or reducing the heat input into unoccupied spaces.
Ventilation	The ventilation for the apartments shall be provided by the EAHP and be classed as mechanically ventilated. The central extract shall operate on the principle of mechanical extract ventilation (MEV). MEV will be commissioned with two dedicated extract flow rates for the unit, one for background ventilation and one for boost ventilation.	Optimum levels of ventilation and air quality will be maintained 24/7 for the health and comfort of residents.

Measure	Description	Benefit
ECAR Charging Points	Electric vehicle car park spaces shall be provided within the development in accordance with current guidelines and project drawings. Ten percent shall be installed for pre-occupation and all car park spaces shall be enabled for 3rd party operated EV charging points. This will be managed with open access for all residents and the number and points can be added as demand increases.	Providing the option of E-car charging points will allow occupants to avail of the ever-improving efficient electric car technologies.
Smart Building Technology	The Developer anticipates providing significant Resident controls on various aspects including smart heating systems facilities* booking systems and integration with external services providers	

3.2 Materials

The practical implementation of the Design and Material principles has informed design of building facades, internal layouts and detailing of the proposed apartment buildings.

3.2.1 Buildings

Apartment Buildings 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 and specific measures taken include:

Measure Description	Benefit
Daylighting to circulation areas	Avoids the requirement for continuous artificial lighting
Natural/Passive ventilation system to circulation areas	Avoids costly mechanical ventilation systems and associated maintenance and future replacement
Natural ventilation to carpark (and other common areas)	Avoids costly mechanical ventilation systems and associated maintenance and future replacement
Secure basement level cycle and refuse storage areas. Refuse is collected from a surface level collection point.	Avoids access lifts and any handling/moving equipment.
External paved and landscaped areas	All of these require low/minimal maintenance

3.3 Material Specification

Measure 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. Entrance stair hall 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 sheets	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 and ultra-compact and high-performance surface to envelope  **1** - Brick - Ligure Vandersanden handmade - Outhaus or similar **2** - Brick - Roman Optima - Outhaus or similar **3** - Cosentino Dekton Laurent - Natural Collection or Similar	Requires no on-going maintenance.

3.4 Landscape

	Measure Description	Benefit
Green Roofs	Use of Green roofs and traditional roof coverings with robust and proven detailing to some roof elements. 	Attenuation reduces the burden on vulnerable rainwater goods, resulting in fewer elements that could require replacement or repair. Green roofs are energy efficient. In summer the green roof protects the building from direct solar gain and in winter the green roof minimises heat loss. Energy conservation translates into fewer greenhouse gas emissions. Green roofs improve air quality. Plants trap dust particles from the air and evapotranspiration cools ambient temperatures.
Paving and Decking Materials	At ground level, the public realm will be paved with a contemporary pattern of permeable cast concrete block paving (silver grey & dark grey) which will complement the modern look of the proposed building. Conservation Kerbs (Silver Grey) will line Bio-retention SuDS beds. Steel planters with integrated timber bench top seating will create an attractive and useable space. Garden Terraces will be less formal in feel, with softer materials including composite timber decking, timber Pergolas & concrete flag paving.  Silver Grey permeable Paving & Dark Grey Banding  Raised planters precedent	Require no on-going maintenance.

ITEMS INCLUDED IN A TYPICAL BIF

The BIF table below illustrates what would be incorporated for the calculation of a Sinking Fund.

	Building Investment Fund (Sinking Fund)	
Ref	Element	Life Expectancy
1.00	Roofs	
1.01	Replacement felt roof covering incl. insulation to main roofs	18
1.02	Replacement parapet details	18
1.03	Replace roof access hatches	25
1.04	Specialist Roof Systems - Fall arrest	25
2.00	Elevations	
2.01	Replace exit/entrance doors	25
2.02	Replace rainwater goods	25
2.03	Repair render	18
2.04	Periodic replacement and overhauling of external fixings	5
3.00	Stair Cores and Lobbies	
3.01	Decorate Ceilings	7
3.02	Decorate Walls	7
3.03	Decorate Joinery	7
3.04	Replace fire doors	25
3.05	Replace carpets (stairwells and lobbies)	12
3.06	Replace entrance mats	10
3.07	Replace nosings	12
3.08	Fixed furniture and Equipment	18

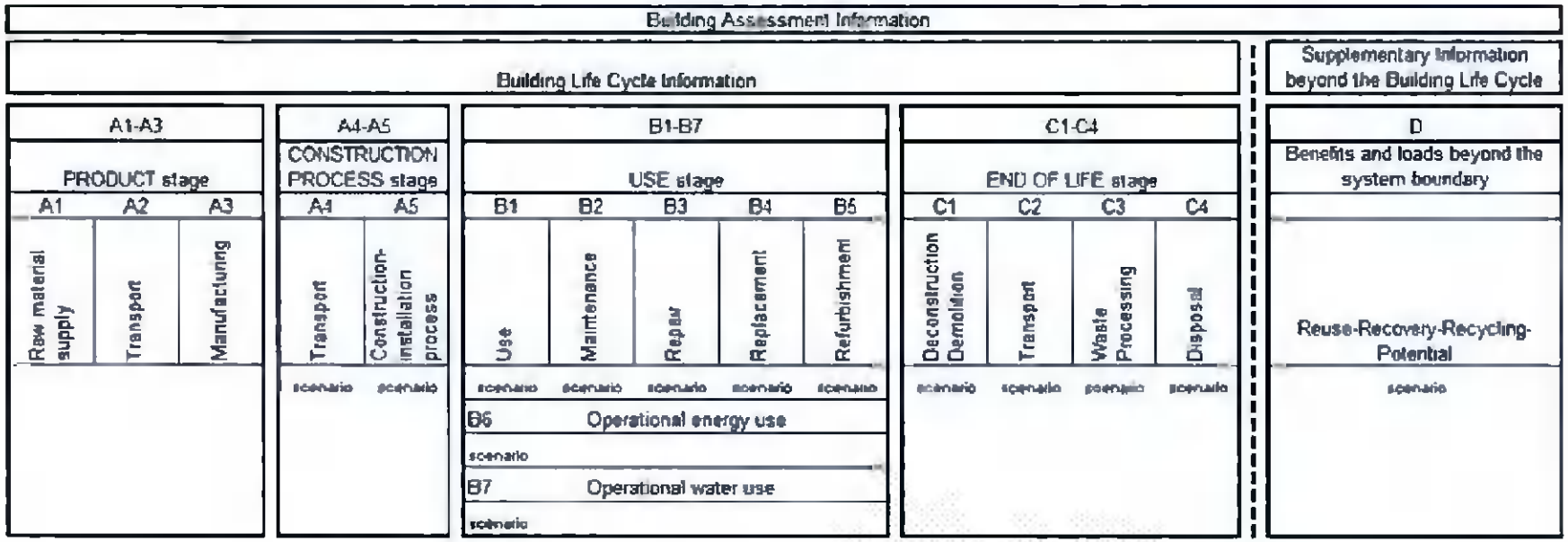
04 | APPENDIX A

	Building Investment Fund (Sinking Fund)	
Ref	Element	Life Expectancy
4.00	Basement Car Park	
	Check drains for accumulation of debris and other sediments	6
4.02	Repaint parking spaces and numbering	7
5.00	M&E Services	
5.01	Central Boilers	12
5.02	CHP Engine	12
5.03	Circulating Pumps	15
5.04	HIU Apartment Heat Exchangers	10
5.05	Exhaust Air Heat Pump	10
5.06	Replace internal light fittings	18
5.07	Replace External light fittings	18
5.08	Replace smoke detector heads	18
5.09	Replace manual break glass units	18
5.10	Replace Fire alarm panel	18
5.11	Replace lift car and controls	25
5.12	Replace AOV's	25
5.13	Replace security access control installation	15
5.14	External Mains water connection	20
5.15	Electrical Mains and Sub Mains distribution	20
5.16	Emergency Lighting	20

04 | APPENDIX A

	Building Investment Fund (Sinking Fund)	
Ref	Element	Life Expectancy
6.00	Exterior	
6.01	External boundary treatments –Recoat powder coated finishes to railings	60
6.02	15 year cutback of trees. Overhaul landscaping generally	20
6.03	Replace CCTV system	12
6.04	External handrails and balustrade	18

Phases of the Life Cycle of BS7543;2015



KEY

1. Highest severity of consequence of failure
2. Anticipated severity of consequence of failure
3. Lowest severity of consequence of failure
4. Minimum service life
5. Most likely service life
6. Maximum service life