

2020

Building Lifecycle Report

FOR PROSPOSED RESIDENTIAL DEVELOPMENT AT CAPDOO &
ABBAYLANDS, CLANE, CO. KILDARE
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INVESTMENTS LIMITED

Executive Summary

This Building Lifecycle Report addresses requirements as outlined in the 'Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities)' as they relate to this proposed residential project.

Considered scheme design and choice of building materials, together with the effective management by the appointed Property Management Company and each homeowner playing their part, will help contribute towards a desirable, vibrant community into the future.

The document reviews the outline building specification for the proposed development and assesses the associated long term running and maintenance cost per unit. The report includes detail of measures proposed to manage and reduce costs for the benefit of future residents.

The report considers the use of durable materials and finishes for external elevations (e.g. brickwork, self-coloured render and metal railings) so as to reduce the need for regular maintenance and/or replacement, outside of general housekeeping works. The choice of such high quality and long-lasting materials, will minimise maintenance costs for residents and occupiers into the future. A similar approach is proposed in the choice of building material for internal finishes, for electrical and plumbing installations, and for landscaping of public and private open space areas.

As the building design develops and material choices are confirmed, this document is to be updated to help inform the appointed property management company of expected running and maintenance costs for the development, and to aid more accurate scheduling of works and service charge budgets.

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1. Introduction

This Building Lifecycle Report has been prepared by Brian Connolly Associates on behalf of Westar Investments Limited to accompany a planning application for construction of 333 no. residential units and all associated site works on lands at Capdoo & Abbeylands, Clane, Co Kildare.

This document has been prepared with reference to the requirements of the recently revised 'Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities), published in March 2018.

These Guidelines direct that detail on the management and maintenance of apartment schemes be included in all planning applications where construction of apartments is proposed. This is set out in Sections 6.11 to 6.14 of the Apartment Guidelines, under "Operation & Management of Apartment Developments".

Specifically, Section 6.13 of the Apartment Guidelines 2018 requires that applications for apartment developments 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, as well as demonstrating what measures have been specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents".

Over the following pages, this Building Lifecycle Report will address the requirements of Section 6.13 of the Apartment Guidelines as they relate to this planning application.

2. Description of the Proposed Development

This project consists of an application for a Strategic Housing Development by Westar Investments Limited (the applicant) for a new residential development on lands measuring approximately 10.36 hectares at Capdoo & Abbeylands, Celbridge Road, Clane, Co. Kildare.

The application is for a development that includes 333 dwellings consisting of: 121 no. 2, 3 & 4 bedroom housing units, 144 no. 1, 2 & 3 bedroom apartments, 68 no. 1, 2 & 3 bedroom duplex & maisonette type units, a crèche and a public park adjacent to the River Liffey with 3 no. vehicular/pedestrian accesses and site, landscaping and associated infrastructural works. The subject site is situated on the eastern side of Regional Road R403 in the eastern environs of Clane Town, c. 650m from the Town Centre¹.

The proposed development site consists of a large irregularly-shaped parcel of land, 3.6 Ha in size, and is comprised of two undeveloped agricultural fields situated on the eastern side of Regional Road R403 in the eastern environs of Clane Town. Vehicular access is provided to the site via the Brooklands Housing Estate.

The site abuts agricultural landholdings on its northern and in part on north-western site boundary, whilst existing residential developments, in the form of The Brooklands, Abbey Park and Alexander Walk Housing Estates, are located to the immediate south and abut the subject sites eastern and western boundaries. The River Liffey extends the length of the site boundary on the eastern side.

This proposed project would represent development of lands located within Key Development Area (KDA) 1 as identified in the Clane Local Area Plan, 2017-2023. Development is proposed for the entirety of lands zoned C: New Residential within the KDA, while extensive linkages are proposed to allow for future connection northwards to lands currently zoned SR: Strategic Reserve. Two number main access points are proposed at the south-western and south-eastern boundaries of the site, through the existing Brooklands and Alexander Walk housing developments respectively.

Proposals would also see an extension of the existing river walkway/green belt along entire eastern boundary of the subject site; from its current end point at the northern boundary of the Alexander Walk housing estate, northwards along the River Liffey to the northernmost boundary of the subject site. Provision will be made for future extension of the green belt along the Liffey, while a cycle and pedestrian connection back westward through the development towards Clane Town Centre (via Brooklands and the R403) would be delivered in the early stages of the proposed project.

4. Long term running and maintenance costs as they would apply on a per residential unit basis at the time of application

Units in this proposed project will be designed and constructed using quality materials and the skills of highly competent trade's people. The Applicant and Design Team have many years of experience to rely upon and the design has been informed from early stages through discussion with the Local Authority and An Bord Pleanála, and published guidance including the Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities).

Careful consideration of long term running and maintenance costs for the end-user have been accounted for from the outset of this project, and this conscious thought process is essential in providing an end product which will require minimal maintenance into the future.

Certainty around long term running and maintenance costs for the development be further strengthened via robust legal and financial arrangements supported by effective and appropriately resourced maintenance and operational regimes, i.e. Property Management Company & Service Charge Budget.

- **Property Management Company and Owners Management Company**

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 maintenance and running costs of the development's common areas are kept within the agreed annual service charge budget.

The Property Management Company will enter into a contract directly with the Owner's Management Company for the ongoing management of the completed development and will have a number of key responsibilities, including:

- Timely formation of an Owners Management Company – which will be a company limited by guarantee having no share capital. All future purchasers will be obliged to become members
- Preparation of annual service charge budget for the development's common areas
- Apportioning of the Annual operational charges in line with the MUD Act (equitable division)
- 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 the 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 and Staff Administration

- Service Charge Budget

In accordance with the Multi Unit Developments Act 2011 (“MUD” Act), the service charge budget typically 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.

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 OMC.

The BIF report once adopted by the Owners Management Company, would determine an adequate estimated annual cost provision requirement based on the needs of the development, often 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 OMC 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.

Notwithstanding the above, it should be noted that the detail associated with each element heading in the BIF report, can only be determined after detailed design and the procurement/ construction of the development.

5. Measures specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents

It is intended that all residential units in this development will be certified under the Irish Green Building Council's 'Home Performance Index', an initiative developed by the Irish Green Building Council and University College Dublin, supported by the Environmental Protection Agency (EPA) Green Enterprise Programme. The Home Performance Index provides a label for quality sustainable residential development, complementing existing schemes used in the commercial sector such as BREEAM and LEED.

Certification under the Home Performance Index label provides home buyers with the assurance that their homes have been designed and constructed with care to ensure low running costs, enhance occupant wellbeing and minimise environmental impact. Further information on this certification can be found here <https://www.igbc.ie/certification/hpi/>.

In addition, units proposed in this development will achieve a minimum A2 Building Energy Rating and will meet the standard required to be nearly Zero Energy Buildings (nZEB) as directed under the European Energy Performance of Buildings Directive Recast 2010 (EPBD).

The tables overleaf provide a summary of measures proposed to assist with the effective management and reduction of costs associated with the completed development for the end-user/occupant.

- Building Design

Measure	Description	Benefit
Building Aspect / Daylight	The design, separation distances and layout of the apartment blocks and other residential units aims to maximise provision of natural daylight. Design will take account of guidance contained in Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities).	Reduces reliance on artificial lighting, thereby reducing costs. Note: A Shadow and Daylight Analysis and report prepared by Chris Shackleton Consultants has been submitted as part of this application.
Accessibility	All units will comply with the requirements of Building Regulations and Technical Guidance Documents Parts K and M	Reduces the level of future adaptation and associated costs for residents.
Ventilation	Use of natural ventilation to common areas is under consideration.	Reduce energy usage costs of ventilation systems and associated maintenance/upgrade costs.
Security	The scheme is designed to incorporate principals of passive surveillance to deter antisocial behaviour. Allowance made for inclusion of CCTV monitoring details and secure bicycle stands for apartment blocks.	Helps to reduce potential security/management cost
Amenity Space	Provision of public and communal open space.	Encourages community and social interaction among residents.
Private Open Space	Provision of balconies and openable windows, provides access to the outdoors and allows individuals to clean windows themselves.	Facilitates interaction with outdoors. Reduces the cost and reliance on 3rd party contractors for cleaning & maintenance.

- Building Construction Materials

Measure	Description	Benefit
Design & Material Selection	Materials selected and chosen with due consideration to their durability, design life and maintenance requirements. Consideration given to Buildings Regulations, with particular reference to BS 7543:2015 'Guide to Durability of Buildings and Building Elements, Products and Components'. Consideration given where possible to use of recycled materials and those awarded an Environmental Products Declaration.	Longevity, durability. Minimises ongoing maintenance and replacements requirement.
Building Envelope	Use of brickwork, pigmented render systems and standing seam/metal cladding to building envelope	Requires little or no maintenance aside from regular house-keeping.
External Windows & Doors	Use of factory finished timber, alu-clad or PVC windows and doors is being considered.	Requires little or no maintenance aside from regular house-keeping.
Balconies & Railings	Glazed balustrades and use of factory finished, powder coated steel balconies & railings.	Requires little or no maintenance aside from regular house-keeping.

- Building Installations

Measure	Description	Benefit
Electric Car Charging Points	Design includes for ducting to cater for designated electric car charging points. Charging to be provided from a local landlord distribution board. System would operate under management of the Operating Management Company and via use of charge point access card.	Provides option for residents to move to greener, more cost efficient modes of transport.
Mechanical Demand Controlled Ventilation	Consideration given to use of mechanical ventilation for residential units by way of Demand Controlled Ventilation	Improved air quality and reduced space heating costs.
Low Energy LED Lighting	To be used in residential units and landlord areas.	Lower energy consumption, leading to lower costs and lower carbon emissions.
Condensing Boilers	Consideration given to use of condensing boilers. These have a higher operating efficiency than standard boilers (typically over 90%) and have the benefit of lower fuel consumption resulting from the higher operating efficiencies.	Reduced energy consumption and running costs
Exhaust Air Heat Pump	Consideration given to use as they can provide up to 100% of the heating requirements of a dwelling. Can also work in conjunction with underfloor heating.	Reduced energy consumption and running costs. Sustainable energy source.
PV Solar Panels	PV Panels convert energy in sunlight into electrical power which can be used in the home. May not be practical to install for each individual residential unit but consideration given to PV electrical power generation for public common areas.	Reduced energy consumption and running/service charge costs.

- Energy Usage & Emissions

Measure	Description	Benefit
BER Certificates	A Building Energy Rating (BER) Certificate will be provided for each dwelling in the proposed development. This document details the energy performance of each dwelling. A BER is calculated through energy use for space and hot water heating, ventilation, lighting and occupancy. It is proposed that all units will achieve an A2 rating, equating to energy usage of 25 to 30kwh/m ² with CO2 emissions circa 10kgCO ₂ /m ² / year.	Improved BER ratings reduce energy consumption and running costs
Home Performance Index	This certification provides home buyers with the assurance that their homes have been designed and constructed with care to ensure low running costs, enhance occupant wellbeing and minimise environmental impact.	Improved ratings reduce energy consumption and running costs
Fabric Energy Efficiency	U Values for the development will be in line with the current regulatory requirements of Technical	Lower U-values and improved air tightness will help minimise heat losses through the building fabric,

	Guidance Document Part L, “Conservation of Fuel and Energy Buildings other than dwellings”. Careful design consideration will be given to minimise thermal bridging at junctions throughout.	lower energy consumption and thus minimise carbon emissions to the environment.
Energy Labelled White Goods	Should the applicants provide a white goods package for the apartments, they will be A rated appliances to achieve a high energy efficiency rating.	Provision of A rated appliances would turn reduce the amount of electricity required and lower day to day running costs for building occupants.
External lighting	A detailed lighting design has been undertaken for the development, detail of which is included separately. The scheme will include 8m and 6m pole mounted fittings as indicated on the design drawings. The luminaire selected is the XSPME. The design makes allowance for: <ul style="list-style-type: none"> - Low Level lighting - Minimal upward light spill - Low voltage LED lamps - Pre-approval by Kildare County Council 	Lighting will be designed to achieve the required standard and to provide a safe environment for pedestrians, cyclists and moving vehicles. Design incorporates measures to deter anti-social behaviour and to limit the environmental impact of artificial lighting on existing fauna and flora. PECU allows for the optimum operation of lighting which minimises costs.
Rainwater Harvesting	Consideration given to use of water butts to provide for grey water storage. Use for non-potable supply in the home.	Reuse of scarce water resource and reduction in water charges which may be introduced in future

- Waste Management

Measure	Description	Benefit
Construction and Operational Waste Management Plan	The application is accompanied by a Preliminary Construction Waste Management Plan. An Operational Waste Management Plan has also been included.	The report demonstrates how the scheme complies with best practice.
Storage of Non-Recyclable Waste and Recyclable Household Waste	Domestic waste management strategy will include: <ul style="list-style-type: none"> - Centralised bin storage and collection area - Separate grey, brown and green bin. - Regular competitive tender for waste management collection. 	Helps reduce potential waste charges
Composting	Organic waste bins will be available throughout.	Promote reuse of organic waste material and reduction of potential waste charges.

- Building Management

Measure	Description	Benefit
Operating Management Company	A Residents' Pack (prepared by the OMC) will be provided to each resident. This will typically provide a range of detail including; 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 as informed as possible so that any issues can be addressed in a timely and efficient manner.
Home Buyers Guide	A handover pack (including Homeowner Guide) will be issued via email to new Homeowners upon closing. This pack will contain important information regarding the new home, including: GPRN (where applicable), MPRN. Contact details for all relevant suppliers and user instructions for appliances and devices in the property are also included.	Residents are as informed as possible so that any issues can be addressed in a timely and efficient manner.

- Landscaping – Public & Private Areas

Measure	Description	Benefit
Natural Amenity	Pocket parks to be created as part of landscaping design, with existing trees and hedgerows retained where practicable. Extension of green belt and walkway along the River Liffey, with generous planting and hard surface play area. Extensive cycle, pedestrian and vehicular linkages will be created to travel through the development and beyond towards town centre, public transport and other amenities.	Facilitates community interaction, socialising and play- resulting in improved well-being of residents and wider public users of the river walkway.
Landscaping	Detailed landscape design included as part of this application. Planting proposals intended to complement the local setting as well as being fit for purpose in respect of private and public realm uses. Design takes account of spatial constraints imposed by garden sizes and the width of planting strips. Native tree species selected in significant numbers for planting where possible.	Reduction in frequency and associated maintenance costs.
Permeability	Cycle and Pedestrian permeability prioritised throughout the development with generous links toward Town Centre, Public Transport nodes, River Liffey parkland/walkway etc.	Facilitates improved well being of residents and promotion of a less car dominated lifestyle and neighbourhood.
Paving & Decking Materials	Sustainable, robust materials, with high slip resistance to be used. Design to incorporate principals of SUDs to aid on site attenuation.	Robust materials and elements reduce the frequency of required repair and maintenance.
Maintenance & Management	Maintenance and management requirements have been considered through the design process. Complex planting arrangements have been omitted to avoid onerous maintenance and management requirements	Maintenance and annual service charge costs reduced

