

# BUILDING LIFE CYCLE REPORT

Development at Barrington, Brennanstown Road, Dublin 18



March 2022

Barrington, Brennanstown Road, Dublin 18

The logo for Cairn PLC, featuring the word "CAIRN" in a large, bold, white sans-serif font, with "PLC" in a smaller font size directly below it. The text is set against a solid dark red rectangular background.

Prepared by:

Reddy Architecture + Urbanism

Waterman Moylan Consulting Engineers

OCSC

Murray & Associates Landscape Architects

McGill Planning Consultants

On behalf of:

Cairn Homes Properties Ltd.



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## INTRODUCTION

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. This is set out in Section 6.11 to 6.14 - “*Operation & Management of Apartment Developments*”, specifically Section 6.13.

Section 6.13 of the Apartment Guidelines 2020 requires that apartment applications shall:

*“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 Life Cycle Report document sets out to address the requirements of Section 6.13 of the Apartment Guidelines. The report is broken into two sections as follows:

### **Section 01:**

An assessment of long-term running and maintenance costs as they would apply on a per residential unit basis at the time of application.

### **Section 02:**

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

## PROPOSED DEVELOPMENT

The proposed 'Build-to-Rent' (BTR) development will consist of the construction of 8 no. blocks in heights up to 10 storeys comprising 534 residential units, a creche, a retail unit, residential support facilities and residential services and amenities. The proposal also includes car and cycle parking, public and communal open spaces, landscaping, bin stores, plant areas, substations, switch rooms, and all associated site development works and services provision. A full description of the development is provided in the statutory notes and in Chapter 3 of the EIAR submitted with this application.

## SECTION 01

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

#### 1.1. 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, including communal areas of open space, and any public areas not taken in charge by the local authority, are kept within the agreed Annual operational budget.

The property management company will enter into a contract directly with the Residents Management Company (RMC) for the ongoing management of the built development. This contract will be for a maximum period of 15 years and in the form prescribed by the PSRA.

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

- Timely formation of a Residents Management Company (RMC) – which will be a company limited by guarantee having no share capital. All future purchasers will be obliged to become members of this RMC.
- Preparation of annual service charge budget for the development common areas.
- Fair and equitable apportionment of the Annual operational charges in line with the Multi Units Development Act 2011 (MUD Act).
- Engagement of independent legal representation on behalf of the RMC in keeping with the MUD Act - including completion of Developer RMC 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.
- RMC Reporting.
- Accounting Services.
- Corporate Services.
- Insurance Management.
- After Hours Services.
- Staff Administration.

#### 1.2. Service Charge Budget

The property management company has a number of key responsibilities, primarily the compiling of the service charge budget for the development for agreement with the RMC. 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 for the RMC. The BIF report once adopted by the RMC, 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 RMC 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.*

**With Build-to-Rent schemes the management of all of the above items are undertaken by the Management Company operating the facility on behalf of the commercial entity that owns the entire property.**

## SECTION 02

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

### 2.1 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																		
<b>BER Certificates</b>	<p>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 dwellings this will equate to the following emissions.</p> <p>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</p>	<p>Higher BER ratings reduce energy consumption and running costs.</p>																		
<b>Fabric Energy Efficiency</b>	<p>Building Fabric Performance</p> <p>The U-values being proposed will be in line with the requirements set out by the current regulatory requirements of the Technical Guidance Documents Part L 2021 “Conservation of Fuel and Energy Buildings other than Dwellings”.</p> <p>U-values</p> <p>The U-Values that will be targeted for the dwellings in this development will exceed the minimum targets set out in Part L 2021. The table below sets out the minimum requirements of each of these standards and the targets range that will be adopted for the site.</p> <table border="1" data-bbox="464 1294 1106 1637"> <thead> <tr> <th>U-Values</th> <th>Range of Target Values Proposed</th> <th>Part L 2019 Compliant Values</th> </tr> </thead> <tbody> <tr> <td>Floor</td> <td>0.10 to 0.18 W/m2K</td> <td>0.18 W/m2K</td> </tr> <tr> <td>Roof (Flat)</td> <td>0.15 to 0.18 W/m2K</td> <td>0.20 W/m2K</td> </tr> <tr> <td>Roof (Pitched)</td> <td>0.11 to 0.16 W/m2K</td> <td>0.16 W/m2K</td> </tr> <tr> <td>Walls</td> <td>0.12 to 0.18 W/m2K</td> <td>0.18 W/m2K</td> </tr> <tr> <td>Windows</td> <td>1.2 to 1.4 W/m2K</td> <td>1.4 W/m2K</td> </tr> </tbody> </table> <p>Thermal Bridging</p> <p>Thermal bridges occur at junctions between planar elements of the building fabric and are typically defined as areas where heat can escape the building fabric due to a lack of continuity of the insulation in the adjoin elements. Careful design and detailing of the manner in which insulation is installed at these junctions can reduce the rate at which the heat escapes. Standard good practice details are available and are known as Acceptable Construction Details (ACDs). Adherence to these details is known to reduce the rate at which heat is lost.</p>	U-Values	Range of Target Values Proposed	Part L 2019 Compliant Values	Floor	0.10 to 0.18 W/m2K	0.18 W/m2K	Roof (Flat)	0.15 to 0.18 W/m2K	0.20 W/m2K	Roof (Pitched)	0.11 to 0.16 W/m2K	0.16 W/m2K	Walls	0.12 to 0.18 W/m2K	0.18 W/m2K	Windows	1.2 to 1.4 W/m2K	1.4 W/m2K	<p>Lower U-values and improved air tightness is being considered to help minimise heat losses through the building fabric, reduce the energy consumption and thus minimise carbon emissions.</p>
U-Values	Range of Target Values Proposed	Part L 2019 Compliant Values																		
Floor	0.10 to 0.18 W/m2K	0.18 W/m2K																		
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Walls	0.12 to 0.18 W/m2K	0.18 W/m2K																		
Windows	1.2 to 1.4 W/m2K	1.4 W/m2K																		



Measure	Description	Benefit
	<p>The rate at which heat is lost is quantified by the Thermal Bridging Factor of the dwelling which is entered into the overall dwelling Part L calculation. It is intended that all building junctions will either be designed in accordance with the Acceptable Construction Details (issued by The Department of the Environment) or that thermal modelling will be carried out for all thermal bridges on the dwellings within proposed development. The resultant Thermal Bridging Factor will be in the range of 0.04W/m2K to 0.08W/m2K.</p> <p><b>Air Tightness</b></p> <p>A major consideration in reducing the heat losses in a building is the air infiltration. This essentially relates to the ingress of cold outdoor air into the building and the corresponding displacement of the heated internal air. This incoming cold air must be heated if comfort conditions are to be maintained. In a traditionally constructed building, infiltration can account for 30 to 40 percent of the total heat loss, however construction standards continue to improve in this area.</p> <p>In order to ensure that a sufficient level of air tightness is achieved, air permeability testing will be specified carried out on all dwellings. A design air permeability target of 3 m3/m2/hr has been identified for the apartments and houses on the site.</p>	
<b>Energy Labelled White Goods</b>	<p>The white good package planned for provision in the apartments and houses 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:</p> <ul style="list-style-type: none"> <li>• Oven - A plus</li> <li>• Fridge Freezer - A plus</li> <li>• Dishwasher - AAA</li> <li>• Washer/Dryer – B</li> </ul>	<p>The provision of high rated appliances in turn reduces the amount of electricity required for occupants.</p>
<b>External Lighting</b>	<p>The proposed lighting scheme within the development consists of 8m and 6m pole mounted fittings as indicated on the drawings. The luminaire selected is the CU Phusco P862 &amp; P852 fitting, this fitting was selected for the following reasons;</p> <ul style="list-style-type: none"> <li>• Low level lighting</li> <li>• Minimal upward light spill</li> <li>• Low voltage LED lamps</li> <li>• Pre-approved by Dun Laoighaire Rathdown County Council</li> </ul> <p>Each light fitting shall be controlled via an individual Photoelectric Control Unit (PECU). The operation of the lighting shall be on a dusk-dawn profile.</p>	<p>The site lighting has been designed to provide a safe environment for pedestrians, cyclists and moving vehicles, to deter anti-social behavior and to limit the environmental impact of artificial lighting on existing flora and fauna in the area.</p> <p>Having PECU allows for the optimum operation of lighting which minimizes energy consumption.</p>

The following are **Low energy technologies** that are being considered for the development and during the design stage 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
<b>Condensing Boilers</b>	If gas fired heating is adopted, condensing boilers will be provided as they have a higher operating efficiency, typically over 90%, than standard boilers and have the benefit of lower fuel consumption resulting from the higher operating efficiencies.	Condensing boiler have lower fuel consumption resulting from the higher operating efficiencies.
<b>Mechanical Ventilation Heat Recovery</b>	Centralised mechanical ventilation will be provided to all dwellings to ensure that the air quality within the dwellings will be adequate. The inclusion of Heat Recovery Ventilation into the centralised ventilation system will be considered and assessed in order to minimise the energy usage within the dwelling.	Mechanical Heat Recovery Ventilation provides ventilation with low energy usage. The MVHR reduces overall energy and ensures a continuous fresh clean air supply.
<b>PV Solar Panels</b>	PV Solar Panels will be considered in order to meet the renewable energy contribution required by Part L of the Building Regulations. These panels convert sunlight into electricity which can be used within the dwelling.  The panels are typically placed on the South facing side of the building to maximise the solar exposure.	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.
<b>Air Source Heat Pump</b>	As part of the overall energy strategy for houses, the use of Air Source Heat Pumps will be assessed to determine their technical and commercial feasibility.  These systems extract heat energy from the outside air and, using a refrigerant cycle, raise the temperature of the heat energy using a refrigerant vapour compression cycle.	Air source heat pumps use electrical energy from the grid to drive the refrigerant cycle but do so extremely efficiently. Modern heat pumps will typically provide 4 to 5 times more heat energy to the dwelling than the electrical energy they consume.
<b>Combined Heat and Power</b>	Combined Heat and Power, (CHP), is a technology being evaluated. This technology generates electricity and captures the waste heat from the generation unit that can be used to heat the building and hot water within the development.	CHP can achieve energy efficiencies by reusing waste heat from electricity generation for space heating and domestic hot water services in the apartment developments.  As electricity from CHP is both generated and consumed onsite, this also eliminates energy losses from transmission of the electricity.
<b>E-car Charging Points</b>	Within the basement parking areas, ducting shall be provided from a local landlord distribution board to designated E-car charging car park spaces. This will enable the management company the option to install a number of E-car charging points within the	Providing the option of E-car charging points will allow occupants to avail of the ever-improving efficient electric car

Measure	Description	Benefit
	basement carpark to cater for E-car demand of the residence. Ducting and on street infrastructure will also be provided throughout the housing development to provide EV charging facilities in on street parking spaces. This system operates on a single charge point access card. A full re-charge can take from one to eight hours using a standard charge point.	technologies.
<b>Natural Ventilation</b>	Natural ventilation is being evaluated as one ventilation strategy to minimise energy usage and noise levels.	The main advantages of natural ventilation are: <ul style="list-style-type: none"> <li>• Completely passive therefore no energy required.</li> <li>• Reduced environmental impact as minimal equipment disposal over life cycle.</li> </ul>

## 2.2 Materials


The practical implementation of the Design and Material principles has informed the design of internal layouts, detailing of the proposed apartment buildings, and building facades. The façade materials will consist of brick, render and glazing.

### 2.2.1. Buildings

Buildings are designed in accordance with the Building Regulations (Part D Amendment) Regulations 2013, 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 provided to stair cores and corridors where possible.	Avoids the requirement for continuous artificial lighting
Openable window sections are provided to all stair cores within the development providing Natural/Passive ventilation to common circulation areas.	Openable window sections are provided to all stair cores within the development providing natural daylight and ventilation throughout all common areas. Avoids costly mechanical ventilation systems and associated maintenance and future replacement.
External paved and landscaped areas	All of these require low/minimal maintenance
Roof construction includes significant areas of traditional pitched roofs to the duplex and housing units.	Minimises ongoing maintenance

### 2.2.2. Material Specification

Measure Description	Benefit	
<p>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.</p> <p>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:</p> <ul style="list-style-type: none"> <li>• Annex A Climatic Agents affecting Durability</li> <li>• Annex B Guidance on materials and durability</li> <li>• Annex C Examples of UK material or component failures</li> <li>• Annex D Design Life Data sheets</li> </ul>	Ensures that the long-term durability and maintenance of Materials is an integral part of the Design and Specification of the proposed development.	
<p>The primary façade material of the apartment blocks is brickwork, with some areas of render. There will also be feature areas of pressed metal sheeting at amenities and building entrances.</p> <p>The render system specified will have algae and mould resistant properties which would result in low maintenance and counteract staining and discolouration.</p>		These materials will require none or minimal on-going maintenance.
Use of factory finished and uPVC windows and doors.	Requires minimal on-going maintenance.	
Powder coated metal balconies, balustrades and copings are proposed for the apartment blocks.	Requires minimal on-going maintenance.	

### 2.3 Landscape

Measure	Description	Benefit
<b>Site Layout and Design</b>	Generous and high-quality mature landscape with ecological corridors designed within the proposed development. Pedestrians prioritized over the car. Significant street tree planting and soft landscaping within courtyards and public spaces.	SUDs drainage system and landscape maintenance preferable
<b>Paving and Decking Materials</b>	Use of robust materials with high slip resistance to be used for paving. Durable and robust equipment (e.g. play, exercise, fencing etc.) to be used throughout.	Require no on-going maintenance.
<b>Planting details</b>	Proven trees staking details. Shrub, hedging, herbaceous and lawn installation planting details provided.	Correctly installed planting will develop into well established and robust soft landscape reducing future

			maintenance.
<b>Green Roofs</b>	Use of green roofs and traditional roof coverings with robust and proven detailing to roof elements.		Green Roofs
<b>Paving Materials</b>	Use of robust materials with high slip resistance to be used for paving. Durable and robust equipment (e.g. play, exercise, fencing etc.) to be used throughout. Within the key landscape spaces, a cohesive and robust suite of paving and furniture materials integrated with a considered soft landscape design are to provide for a flexible and long-lasting public and communal spaces.		Required ongoing maintenance significantly reduced through use of robust materials installed with proven details.
<b>Planting details</b>	Suitable plant species and specification combined with the provision of adequate soil growing medium, both into ground and over podium, are to ensure a well-established planting scheme.		Correctly specified planting will develop into well established and robust soft landscape reducing future maintenance.

## 2.4 Waste Management

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

Measure	Description	Benefit
<b>Construction and Demolition Waste Management Plan</b>	Details regarding Construction and Demolition Waste Management Plan prepared by AWN Consulting Ltd.	The Construction and Demolition Waste Management Plan demonstrates how the scheme has been designed to comply with best practice.
<b>Operational Waste Management Plan</b>	The application is accompanied by an Operational Waste Management Plan prepared by AWN Consulting Ltd.	The report demonstrates how the scheme has been designed to comply with best practice.
<b>Storage of Non-Recyclable Waste and Recyclable Household Waste</b>	Residential waste storage allows for a weekly (seven day) storage capacity for MDR, food, glass and residual (i.e. nonrecyclable). Residential bins will be provided within dedicated storage rooms within the core of each residential block.	Easily accessible by all residents and minimises potential littering of the scheme
	Domestic waste management strategy: Grey, Brown and Green bin distinction. Competitive tender for waste management collection.	Helps reduce potential waste charges.
<b>Composting</b>	Organic waste bins to be provided throughout.	Helps reduce potential waste charges.

## 2.5 Health & Well Being

The following are illustrations of how the health and well-being of future residents are considered.

Measure	Description	Benefit
<b>Natural / Day Light</b>	The buildings have been favorably orientated. The design, separation distances and layout of the buildings have been designed to optimize the ingress of natural daylight/sunlight to the proposed dwellings to provide good levels of natural light.	Reduces reliance on artificial lighting thereby reducing costs.
<b>Accessibility</b>	All units will comply with the requirements of Part M/K.	Reduces the level of adaptation, and associated costs, potentially necessitated by residents' future circumstances.
<b>Security</b>	The scheme is designed to incorporate passive surveillance with the following security strategies likely to be adopted: <ul style="list-style-type: none"> <li>• CCTV monitoring details</li> <li>• Car registration recognition at entrance gate of basement parking area.</li> <li>• Secure bicycle stands – covered by CCTV</li> <li>• Routine access fob audits</li> </ul>	Help to reduce potential security/management costs.
<b>Natural Amenity</b>	Large public areas of open space are evenly distributed throughout the site where they can be overlooked by surrounding residential units.	Proximity and use of parks promote a healthy lifestyle

## 2.6 Management

Consideration has been given to the ensuring the residents have a clear understanding of their property

Measure	Description	Benefit
<b>Home User Guide</b>	Once a resident completes signs their lease, a resident's box will be provided which will include: <ul style="list-style-type: none"> <li>• <b>Residents' manual</b> – this will provide important information for the purchaser on details of their 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.</li> <li>• <b>A Residents Pack</b> prepared by the RMC 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.</li> </ul>	Residents are as informed as possible so that any issues can be addressed in a timely and efficient manner.

## 2.7 Transport

Measure	Measure Description	Benefit
<b>Access to Public Transport (Luas)</b>	The proposed Brennanstown Luas stop is located adjacent to the proposed residential development and is within 13 minutes' walk of Carrickmines Luas Stop on the Green Line	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.
<b>Access to Public Transport (Bus Services)</b>	There are two bus routes within 12 minutes' walk of the proposed development, includes numbers 63 and 63A bus services located on Brighton Road and Glenamuck Road. The 63 and 63A route travels from Dun Laoghaire to Kiltarnan Village.	These bus services provide access to a range of additional destinations above that serviced by Irish Rail services. The proximity, frequency and range of additional destinations served by these local bus services enhance the accessibility levels of the proposed residential development in addition to providing a viable and practical sustainable alternative to journeys undertaken by the private motor car.
<b>Permeable Connections</b>	Provision and subsequent maintenance of dedicated pedestrian and cycle infrastructure on-site, and their connectivity with adjoining third party lands and the off-site networks, providing convenient access to local services including shops, schools, and restaurants.	Ensure the long-term attractiveness of walking and cycling to a range of local education, retail facilities/services.
<b>Bicycle Storage</b>	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 vehicle.
<b>E-car Facilities</b>	Ducting will be provided to designated E-car charging car park spaces. 10% of all car parking will be provided with E-Car Charging points.	To accommodate the growing demand for E-car which assist in decarbonising society and reducing oil dependency.
<b>Car Share</b>	Dedicated car share spaces are proposed to be included in the development.	The availability and ease of access to car share facilities contributes to reducing the reliance on the private motor vehicle.

## APPENDIX A:

### ITEMS INCLUDED IN A TYPICAL BIF

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

<b>BUILDING INVESTMENT FUND (SINKING FUND) CALCULATIONS</b>			
<b>Ref</b>	<b>Element</b>	<b>Life Expectancy</b>	<b>Amount</b>
<b>1.00</b>	<b>Roofs</b>		
1.01	Replacement felt roof covering incl. insulation to main roofs/ overhaul to green roofs.	18	
1.02	Replacement parapet details	18	
1.03	Replacement/ repairs to facias	18	
1.04	Replace roof access hatches	25	
1.05	Specialist Roof Systems - Fall arrest	25	
1.06	Overhaul waterproofing details to penthouse paved areas	12	
<b>2.00</b>	<b>Elevations</b>		
2.01	Recoat metal panels to penthouse apartments	25	
2.02	Minor repairs and preparation for decorations of rendered areas	18	
2.03	Replace exit/ entrance doors	25	
2.04	Replace rainwater goods	25	
2.05	Recoat powder coated finishes to balconies / Grills to Basement vents	20	
2.06	Periodic replacement and overhauling of external fixings	5	
2.07	Replace balcony floor finishes	25	
<b>3.00</b>	<b>Staircores &amp; lobbies (3 No. Cores)</b>		
3.01	Decorate Ceilings	7	
3.02	Decorate Walls	7	
3.03	Decorate Joinery	7	
3.04	Replace fire doors	25	



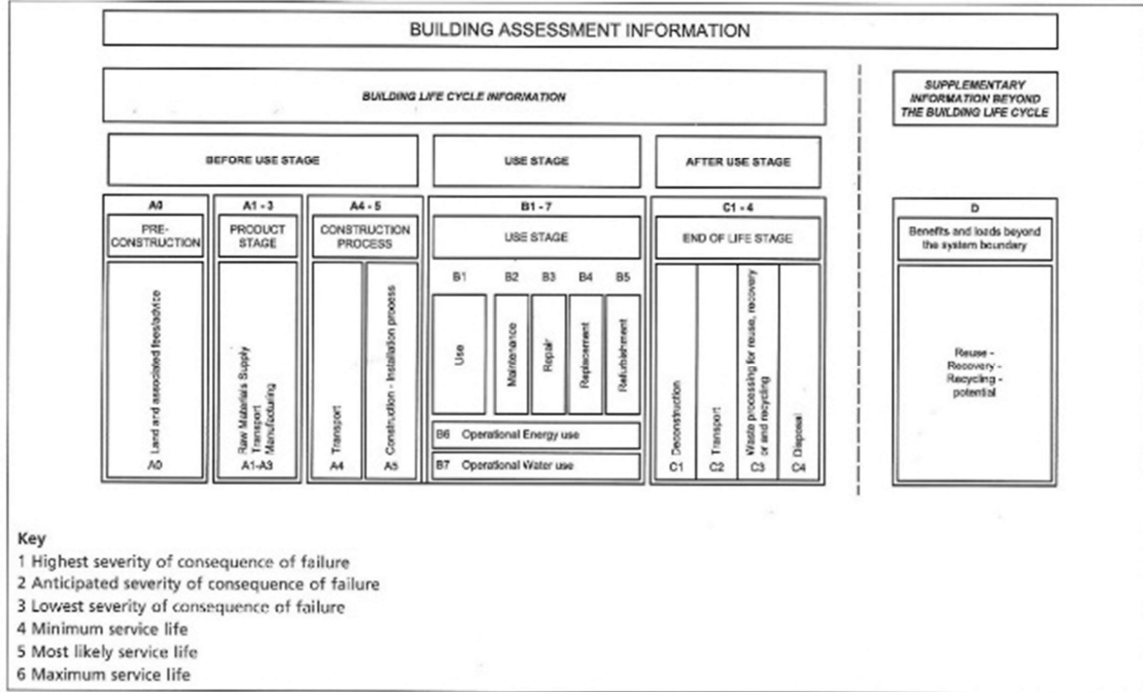
3.05	Replace carpets (stairwells & lobbies)	12	
3.06	Replace entrance mats	10	
3.07	Replace nosings	12	
3.08	Replace ceramic floors tiles Entrance lobbies	20	
3.09	Fixed Furniture & Equipment - Provisional Sum	18	
<b>4.00</b>	<b>Car Parking</b>		
4.02	Repaint parking spaces & Numbering	7	
4.04	Replace Bike stands	25	
<b>5.00</b>	<b>M&amp;E Services</b>		
5.01	General - Internal relamping	7	
5.02	Replace Internal light fittings	18	
5.03	Replace External light fittings (lights at entrance lobbies)	18	
5.04	Replace smoke detector heads	18	
5.05	Replace manual break glass units/ disabled refuge call points	18	
5.06	Replace Fire alarm panel	18	
5.07	Replace lift car and controls	25	
5.08	Replace AOV's	25	
5.08	Replace security access control installation	15	
5.09	Sump pumps replacement	15	
5.10	External Mains Water connection	20	
5.12	Electrical Mains and Sub Mains distribution	20	
5.13	Emergency Lighting	20	
5.14	Overhaul and/or replace Waste Pipes, Stacks & Vents	20	
<b>6.00</b>	<b>Exterior</b>		
6.01	External boundary treatments - Recoat powder coated Finishes to railings	60	
6.02	Replace external signage	18	
6.03	Replace cobblelock areas	18	
6.04	15-year cutback & thinning of trees. Overhaul landscaping generally	20	



6.05	Replace CCTV provision	12	
6.06	External Handrails and balustrade	18	

**APPENDIX B:**  
**Phases of the Life Cycle of BS7543; 2015**

Figure 4 Phases of the life cycle



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