BUILDING LIFECYCLE REPORT

PROPOSED DEVELOPMENT:

DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT (SHD)

MAIN STREET, DUNDRUM, DUBLIN 14

CLIENT:

DUNDRUM RETAIL GP DAC

ACTING FOR AND ON BEHALF OF DUNDRUM RETAIL LIMITED PARTNERSHIP

aramark

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INTRODUCTION

1.0 INTRODUCTION

Aramark Property were instructed by Dundrum Retail GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership), to provide a Building Lifecycle Report for their proposed mixed-use development comprising of 11 no. urban blocks, ranging in height from 4-5 storeys on Main Street, Dundrum to 9-16 storeys to the Dundrum Bypass and include a foodstore, retail, café/restaurant and a creche all at ground floor level.

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. This is achieved by producing a Building Lifecycle Report.

This Building Lifecycle Report has been developed on foot of the revised guidelines for Sustainable Urban Housing: Design Standards for New Apartments - Guidelines for Planning Authorities issued under Section 28 of the Planning and Development Act 2000 (as amended) December 2020. Within the new guidelines, new guidance is being provided on residential schemes.

Section 6.13 of the Operation and Management of Apartment Development Guidelines (December 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, as well as demonstrating what measures have been specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents."

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DESCRIPTION OF DEVELOPMENT

2.0 DESCRIPTION OF DEVELOPMENT

The development comprises 11 no. urban blocks arranged around the central pedestrian spine and a series of 4 courtyards corresponding to 4 separate “zones” or character areas.

The buildings range in height from 4-5 storeys on Main Street to 9-16 storeys to the Dundrum Bypass.

The development will consist of c. 881 no. residential units. This development also includes a foodstore, retail, café/restaurant and a creche are at ground floor level, fronting Main Street, as detailed in the Schedule of Accommodation included with this submission.

The development will include the demolition of all existing structures on the site with the exception of No.’s 1-3 Glenville Terrace which will be refurbished.

Vehicular and cycle parking is provided below podium with visitor cycle parking spaces in the public realm. Vehicular access to serve the proposed development will be provided via Dundrum Bypass. The existing vehicular entrance on Main Street will be closed.

Pedestrian connections and linkages are proposed through the site, forming connections that are not currently possible from within the site to Main Street; to the south via Church Square and Ballinteer Road Bridge; and west via the proposed new Sweetmount Bridge connecting Main Street to the residential communities west of the Bypass.

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EXECUTIVE SUMMARY

3.0 EXECUTIVE SUMMARY – BUILDING LIFE CYCLE REPORT

Measures to effectively manage and reduce costs for the benefit of residents

The following document reviews the outline specification set out for the proposed residential development comprising of 11 no. urban blocks, ranging in height from 4-5 storeys on Main Street, Dundrum to 9-16 storeys to the Dundrum Bypass and include a foodstore, retail, café/restaurant and a creche all at ground floor level plus explores the practical implementation of the design and material principles which has informed design of building roofs, façades, internal layouts and detailing of the proposed development.

Building materials proposed for use on elevations and in the public realm achieve a durable standard of quality that will not need regular fabric replacement or maintenance outside general day to day care. The choice of high quality and long-lasting materials, as well as both soft and hardscape in the public, semi-public and private realm will contribute to lower maintenance costs for future residents and occupiers.

Please note that detailed specifications of building fabric and services have not been provided at this stage. This report reflects the outline material descriptions contained within GRID Architects' planning drawings received.

For any elements where information was not available, typical examples have been provided of building materials and services used for schemes of this nature and their associated lifespans and maintenance requirements. All information is therefore indicative subject to further information at detailed design stage.

As the building design develops this document will be updated and a schedule will be generated from the items below detailing maintenance and replacement costs over the lifespan of the materials and development constituent parts in a summary document. This will enable a robust schedule of building component repair and replacement costs which will be available to the property management company so that running, and maintenance costs of the development are kept within the agreed Annual operational budget, this will take the form of a Planned Preventative Maintenance Schedule (PPM)* at operational commencement of the development.

*PPM under separate instruction

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EXTERNAL BUILDING FABRIC SCHEDULE

4.0 EXTERNAL BUILDING FABRIC SCHEDULE

4.1 Roofing

4.1.1 Green Roofs (Manufacturer / Supplier TBC)

Location	All flat roof areas (maintenance access only)
Description	Extensive green roof system to engineer's specification.
Lifecycle	Average lifecycle of 35 years on most green roofs. As used across the industry nationally and in the UK, long lifecycle typically achieved by robust detailing to adjoining roof elements, regular inspection and maintenance regime to ensure the upkeep of roofing product / materials.
Required 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.
Year	Quarterly
Priority	Medium
Selection process	A green roof will add to the character of the overall scheme, as well as providing attenuation to storm water run-off and less burden on rainwater goods, increased thermal and sound insulation to the building and increased biodiversity. Natural soft finishes can provide visual amenity for residents where roof areas are visible or accessible from within areas of the scheme. Sedum roofs are a popular and varied choice for green roofs requiring minimal maintenance.
Reference	GRID Architects' planning drawings & design statement.

4.1.2 Roof (Manufacturer / Supplier TBC)

Location	Selected Flat Roof Areas (maintenance access only)
Description	• Single layer membrane roof system to engineer's specification. • Selected membrane and pressed metal cappings.
Lifecycle	Average lifecycle of 15-25 years on most membrane roofs. Lifecycle will be extended with robust proven detailing to adjoining roof elements and appropriate and regular maintenance of the roof materials.
Required maintenance	Half-yearly maintenance visits to include inspection of membrane material for puncture / cracks on sheeting; seams and flashing details; around drainage and ventilation outlets and removal of any vegetation/moss blockages to prevent ponding.
Year	Half-Yearly / Annual
Priority	Medium
Selection process	A membrane roof with appropriate built-up system will provide durability, lacks water permeability and easily maintain without shutting down building operations during application.
Reference	GRID Architects' planning drawings and design statement.

4.1.3 Roof Terraces (Manufacturer / Supplier TBC)

Location	Selected Communal Terraces
Description	• Paving with light weight slabs on; • Patent pads on; • Cushion layer on; • Roof deck build up to architects' and engineers' instructions. As used across the industry nationally and the UK, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Lifecycle	Average lifecycle of 30 years. As used across the industry nationally and the UK, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	Regular maintenance visits to include inspection of drainage outlets under decking and removal of any blockages. General repair works, watching out for displacement of slabs, mortar decay and removal of organic matter.
Year	Quarterly
Priority	Medium
Selection process	Paving slabs provide a robust and long-lasting roof terrace surface, requiring considerably less maintenance.
Reference	GRID Architects' planning drawings & Design Statement.

4.1.4 Fall Arrest System for Roof Maintenance Access

Location	Flat roof areas to all blocks (maintenance access only)
Description	210 Guided Type Fall Protection System; Latchways ManSafe for Approved Bituminous Felt Membrane Roofing to various decks. Anchorage device: Latchways Constant Force™ post for Bituminous Felt Membrane. Installation in accordance with BS 7883 by the system manufacturer or a contractor approved by the system manufacturer.
Lifecycle	25-30 years dependent on quality of materials. Generally, steel finishes to skyward facing elements can be expected to maintain this life expectancy. As used across the industry nationally and the UK, long lifecycle is typically achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	Check and reset tension on the line as per manufacturer's specifications. Check all hardware components for wear (shackles, eye bolts, turn buckles). Check elements for signs of wear and/or weathering. Lubricate all moving parts. Check for structural damage or modifications.
Year	Annually
Priority	High
Selection process	Fall protection systems are a standard life safety system, provided for safe maintenance of roofs and balconies where there is not adequate parapet protection. Fall protection systems must comply with relevant quality standards.
Reference	N/A

4.1.5 Roof Cowls

Location	Selected Flat Roof Areas
Description	Roof Cowl System to be supplied with weather apron for flat roofs.
Lifecycle	25-35 years. As used across the industry nationally and the UK, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	Check fixings annually, inspect for onset of leading-edge corrosion if epoxy powder coat finish and treat.
Year	Annually
Priority	Low
Selection process	Standard fitting for roof termination of mechanical ventilation system.
Reference	N/A

4.1.6 Flashings

Location	All flashing locations
Description	Code 5 lead to be used for all flashing and counter flashings.
Lifecycle	Typical life expectancy of 70 years recorded for lead flashings. Recessed joint sealing will require regular inspections. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	Check joint fixings for lead flashing, ground survey annually and close-up inspection every 5 years. Re-secure as necessary.
Year	Ground level inspection annually and close-up inspection every 5 years
Priority	Medium
Selection process	Lead has longest life expectancy of comparable materials such as copper (60 years) and zinc (50 years). Lead is easily formed into the required shapes for effective weathering of building junctions according to standard Lead Sheet Association details.
Reference	N/A

4.2 Rainwater Drainage

Location	All buildings
Description	Gravity Rainwater Drainage System: • Rainwater outlets: Alumasc or equally approved suitable for specified roof membranes. • Pipework: UPVC downpipes – ref. Wavin or equally approved. • Below ground drainage: High Density Poly-Ethylene (HDPE) or equivalent in basement to Engineers' design and specification. • Disposal: To surface water drainage to Engineers' design. • Controls: To Engineers' design and specification. • *Accessories:* allow for outlet gradings, spigots, downspout nozzle, hopper heads, balcony and main roof outlets.
Lifecycle	Metal gutters and downpipes have an expected life expectancy of 40 years in rural and suburban conditions (25 years in industrial and marine conditions), this is comparable to cast iron of 50 years and plastic, less so at 30 years. As used across the industry nationally and the UK, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required 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).
Year	Annually, cleaning bi-annually
Priority	High
Selection process	As above, metal fittings compare well against cast iron (in terms of cost) and plastic (in terms of lifespan and aesthetic).
Reference	N/A

4.3 External Walls

4.3.1 Brick

Location	Facing / Stepped brickwork to selected colour
Description	Selected colour bricks have a high embodied energy, they are an extremely durable material. Brickwork in this application is expected to have a lifespan of 50-80 years. The mortar pointing however has a shorter lifespan of 25-50 years. Longer lifecycle achieved by regular inspection and maintenance regime.
Lifecycle	In general, given their durability, brickwork finishes require little 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.
Required maintenance	Annual
Year	Low
Priority	Aesthetic, lightweight, cost-efficient and low maintenance cladding option, indistinguishable from traditional brick construction.
Selection process	Aesthetic, lightweight, cost-efficient and low maintenance cladding option, indistinguishable from traditional brick construction.
Reference	GRID Architects' planning drawings & design statement.

4.3.2 Metal Cladding

Location	Façades
Description	• Metal roof parapet, vertical frame / panels and spandrel panels. • Weathering Steel vertical panels (Building 2B)
Lifecycle	Typical life expectancy of over 40 years. As used nationwide and in the UK, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	Metal panel requires little maintenance and is resistant to corrosion. It can contribute to lower ongoing maintenance costs in comparison to exposed porous materials which may be liable to faster deterioration. Long term cleaning requirements should be taken into consideration.
Year	Inspection annually; cleaning 5 yearly
Priority	Low
Selection process	Metal side panel protects the building's structure from rainwater and weathering. Metal panels are also chosen for their aesthetic impact, durability and weathering properties.
Reference	GRID Architects' planning drawings & design statement.

4.4 External Windows & Doors

Location	Façades
Description	• Powder Protective Coating (PPC) aluminium window and door frames to approved colour. • Selected units to be double/triple glazed with thermally efficient framework. • All opening sections in windows to be fitted with suitable restrictors. Include for all necessary ironmongery; include for all pointing and mastic sealant as necessary; fixed using stainless steel metal straps screwed to masonry reveals; include for all bends, drips, flashings, thermal breaks etc.
Lifecycle	PPC aluminium has a typical lifespan of up to 45 years. Longer lifecycle can be achieved by regular inspection and maintenance regime as per manufacturer's recommendation.
Required maintenance	Check surface of windows and doors regularly so that damage can be detected. Lubricate at least once a year. Ensure regular cleaning regime. Check for condensation on frame from window and ensure ventilation.
Year	Annual
Priority	Medium
Selection process	PPC aluminium is durable, resistant to corrosion, energy efficient and require low maintenance.
Reference	GRID Architects' planning drawings & design statement.

4.5 Balconies

4.5.1 Structure

Location	Façades
Description	• Concrete balcony system to engineer's detail, or • Powder-coated steel frame balcony system to engineer's detail • Thermally broken farrat plate connections to main structure of building.
Lifecycle	• Metal structure has a typical life expectancy of 70 years dependent on maintenance of components. • Precast concrete structures have a high embodied energy; however, it is an extremely durable material. Concrete frame has a typical life expectancy of 80 years. As used across the industry nationally and the UK, longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	Relatively low maintenance required. Check balcony system as per manufacturer's specifications. Check all hardware components for wear. Check elements for signs of wear and/or weathering. Check for structural damage or modifications.
Year	Annual
Priority	High
Selection process	Engineered detail; designed for strength and safety.
Reference	N/A

4.5.2 Balustrades and Handrails

Location	Balconies
Description	• Metal balustrade with PPC steel handrail to selected finish. • Fixings in accordance with manufacturer's details.
Lifecycle	Typical life expectancy of over 40 years. As used nationwide and in the UK, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	Regular visual inspection of connection pieces for impact damage or alterations
Year	Annual
Priority	High
Selection process	Designed for strength and safety. Metal finish are chosen for their aesthetic impact, durability and weathering properties.
Reference	N/A

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INTERNAL BUILDING FABRIC SCHEDULE

5 INTERNAL BUILDING FABRIC SCHEDULE

5.1 Floors

5.1.6 Common Areas

Location	Entrance lobbies / Common corridors
Description	• Selected anti-slip porcelain or ceramic floor tile complete with inset matwell. • Selected loop pile carpet tiles.
Lifecycle	• Lifespan expectation of 20-25 years in heavy wear areas, likely requirement to replace for modernisation within this period also. • 10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also.
Required maintenance	Visual inspection with regular cleaning, intermittent replacement of chipped / loose tiles
Year	• Annual for floor tiles. • Quarterly inspection and cleaning of carpets as necessary
Priority	Low
Selection process	Durable, low maintenance floor finish. Slip rating required at entrance lobby, few materials provide this and are as hard wearing. Using carpet allows flexibility to alter and change as fashions alter and change providing enhanced flexibility.
Reference	N/A

Location	Stairwells, landings / half landings
Description	Selected carpet covering. Approved anodised aluminium nosings to stairs.
Lifecycle	• 10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also. • 20-year lifespan for aluminium nosings.
Required maintenance	Visual inspection with regular cleaning.
Year	Quarterly inspection and cleaning as necessary.
Priority	Low
Selection process	Using carpet allows flexibility to alter and change as fashions alter and change providing enhanced flexibility.
Reference	N/A

Location	Lift Lobbies
Description	Carpet/vinyl and porcelain tiles to match adjacent apartment common lobbies.
Lifecycle	• Lifespan expectation of 20-30 years in heavy wear areas, likely requirement to replace for modernisation within this period also. • 10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also.
Required maintenance	Visual inspection with regular cleaning, intermittent replacement of chipped / loose tiles.
Year	Annual
Priority	Low
Selection process	Slip rating required for lifts, few materials provide this and are as hard wearing. Using carpet allows flexibility to alter and change as fashions alter and change providing enhanced flexibility.
Reference	N/A

5.1.7 Residential Amenity Areas

Location	Residential Amenity Areas
Description	• Timber laminate / parquet flooring, or • Carpet covering • Provide for inset matwell
Lifecycle	• Laminated / parquet timber flooring has an expected life expectancy of 25-35 years dependent on use • 10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also
Required maintenance	Visual inspection. Sweep clean regularly ensuring to remove any dirt. Clean up spills immediately and use only recommended floor cleaners.
Year	Annual
Priority	Low
Selection process	Materials chosen for aesthetics, durability and low maintenance.
Reference	N/A

Location	Residential Amenity Wet Areas
Description	Selected anti-slip ceramic floor tile.
Lifecycle	Lifespan expectation of 20-25 years in heavy wear areas, likely requirement to replace for modernisation within this period also.
Required maintenance	Visual inspection, intermittent replacement of chipped / loose tiles.
Year	Annual
Priority	Low
Selection process	Slip rating required at entrance lobby, few materials provide this and are as hard wearing.
Reference	N/A

5.2 Walls

5.2.1 Common Areas

Location	Entrance lobbies / Corridors
Description	Selected paint finish with primer to skimmed plasterboard.
Lifecycle	2-10 years for finishes; 40 years for plasterboard. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	Regular maintenance required and replacement when damaged.
Year	Bi-annually
Priority	Low
Selection process	Decorative and durable finish.
Reference	N/A

Location	Lift cores / lobbies / corridors / stairs
Description	Selected paint finish with primer to skimmed plasterboard.
Lifecycle	2-10 years for finishes; 40 years for plasterboard. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	Regular maintenance required and replacement when damaged.
Year	Bi-annually
Priority	Low
Selection process	Decorative and durable finish.
Reference	N/A

5.2.2 Amenity Areas

Location	Residential Amenity Areas
Description	Selected paint finish with primer to skimmed plasterboard
Lifecycle	2-10 years for finishes; 40 years for plasterboard. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	Regular maintenance required and replacement when damaged.
Year	Bi-annually
Priority	Low
Selection process	Decorative and durable finish.
Reference	N/A

Location	Residential Amenity Wet Areas
Description	Selected ceramic wall tile to plasterboard (moisture board to wet areas).
Lifecycle	Typical life expectancy of 35-40 years, less in wet room areas to 20-25 years.
Required maintenance	Bi-annual inspection to review damage, local repairs as necessary, particular detailed inspection in wet room areas.
Year	Annually
Priority	Medium
Selection process	Wet room application requires moisture board and tiling.
Reference	N/A

5.3 Ceilings

Location	Common & Residential Amenity Areas
Description	Selected paint finish with primer to skimmed plasterboard ceiling on M/F frame. Acoustic ceiling to lift core and apartment lobbies. Moisture board to wet areas.
Lifecycle	2-10 years for finishes; 40 years for plasterboard. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	Regular maintenance required and replacement when damaged.
Year	Bi-annually
Priority	Low
Selection process	Decorative and durable finish
Reference	N/A

Location	Residential Amenity Wet Areas
Description	Selected paint finish with primer to skimmed moisture board ceiling.
Lifecycle	2-10 years for finishes; 40 years for plasterboard. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	Regular maintenance required and replacement when damaged.
Year	Bi-annually
Priority	Low
Selection process	Decorative and durable finish.
Reference	N/A

5.4 Internal Handrails & Balustrades

Location	Stairs & landings
Description	Mild steel painted balustrade and handrail.
Lifecycle	Over 40 years typical lifecycle. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	Regular inspections of holding down bolts and joints
Year	Annually
Priority	High
Selection process	Hard-wearing long-life materials against timber options
Reference	N/A

5.5 Carpentry & Joinery

5.5.1 Internal Doors and Frames

Location	All buildings
Description	• Selected white primed and painted/varnished solid internal doors, or hardwood veneered internal doors • All fire rated doors and joinery items to be manufactured in accordance with B.S. 476. Timber saddle boards. • Brushed aluminium door ironmongery or similar
Lifecycle	30 years average expected lifespan. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	General maintenance in relation to impact damage and general wear and tear
Year	Annual
Priority	Low, unless fire door High
Selection process	Industry standard
Reference	N/A

5.5.2 Skirtings & Architraves

Location	All buildings
Description	Painted timber/MDF skirtings and architraves
Lifecycle	30 years average expected lifespan. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	General maintenance in relation to impact damage and general wear and tear
Year	Annual
Priority	Low
Selection process	Industry standard
Reference	N/A

5.5.3 Window Boards

Location	All Buildings
Description	Painted timber/MDF window boards
Lifecycle	30 years average expected lifespan
Required maintenance	General maintenance in relation to impact damage and general wear and tear
Year	Annual
Priority	Low
Selection process	Industry standard
Reference	N/A

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BUILDING SERVICES

6.1 Mechanical Systems

6.1.1 Mechanical Plant

Location	Apartments
Description	Water Heating plant is proposed to consist of a centralised heating scheme with a combination of air to water heat pumps and water to water heat pumps. Further details to be provided by the M&E Consultant at detailed design stage.
Lifecycle	• Annual Maintenance / Inspection to Heating System. • Annual Maintenance of Air Source Heat Pumps. • Annual Maintenance of Water Source Heat Pumps. • Annual Maintenance / Inspection to Heating and Water Pumps. • Annual Maintenance / Inspection to Water Tanks. • Annual Maintenance / Inspection to Water Booster - sets. • Annual Maintenance / Inspection to DHS Tanks. • Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage. • Replacement of equipment at (End of Life) EOL to be determined at detailed design stage.
Required maintenance	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance Programme
Year	Annually
Priority	Medium
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles.
Reference	N/A

6.1.2 Soils and Wastes

Location	All Areas / Kitchens / Bathrooms etc
Description	Soils and Wastes Pipework – uPVC above basement and High Density Poly-Ethylene (HDPE) in basement.
Lifecycle	• Annual inspections required for all pipework within landlord areas. • Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Required maintenance	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance (PPM) Programme
Year	Annually
Priority	Medium
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles.
Reference	N/A

6.1.3 Water Services

Location	Apartments
Description	Heat Interface Units with Centralised heat Store • The water services installation in the common basement, core areas and the individual heat interface units will be copper. • Within the apartments, the water services installation will be completed using a Pre-Insulated Multi Layered Alu-Plex type system.
Lifecycle	• Annual Inspection of Centralised Heat Store. • Annual Inspection of Heat Interface Units. • Annual inspections required for all pipework within common areas. • Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Required maintenance	Annual Inspections, including legionella testing to be included as part of Development Planned Preventative Maintenance (PPM) Programme
Year	Annually
Priority	High
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles.
Reference	N/A

6.1.4 Ventilation Services

Location	Apartments
Description	Centralised Air System • Centralised heat recovery ventilation ducted to each apartment • Supplementary natural ventilation via openable windows within the apartments.
Lifecycle	• Annual inspection of centralised heat recovery system • Annual inspection of extract fan / and grilles • Annual Inspection of operation of fan and boost / setback facility if provided on units. • Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Required maintenance	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance (PPM) Programme
Year	Annually
Priority	Medium
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles.
Reference	N/A

6.2 Electrical / Protective Services

6.2.1 Electrical Infrastructure

Location	Switch rooms / Risers
Description	Maintenance of Electrical Switchgear
Lifecycle	• Annual Inspection of Electrical Switchgear and switchboards. • Thermographic imagining of switchgear 50% of Medium Voltage (MV) Switchgear Annually and Low Voltage (LV) switchgear every 3 years. • Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Required maintenance	Annual / Every three years to be included as part of Development Planned Preventative Maintenance (PPM) Programme
Year	Annually
Priority	High
Selection process	All equipment to meet and exceed Electricity Supply Board, (ESB) The National Standards Authority of Ireland's National Rules for Electrical Installations, (I.S. 10101:2020) Chartered Institution of Building Services Engineers of Ireland's, (CIBSE) recommendations and be code compliant in all cases.
Reference	N/A

6.2.2 Lighting Services internal

Location	All Areas – Internal
Description	Lighting – Light-emitting Diode (LED) type lighting throughout with Presence detection in circulation areas and locally controlled in apartments.
Lifecycle	• Annual Inspection of All Luminaires • Quarterly Inspection of Emergency Lighting. • Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Required maintenance	Annual / Quarterly Inspections certification as required per above remedial works.
Year	Annually / Quarterly
Priority	High
Selection process	All equipment to meet requirements and be in accordance with the current National Standards Authority of Ireland's National Rules for Emergency Lighting Installations (I.S. 3217:2013 + A1 2017), Part M and Disability Access Certificate (DAC) Requirements.
Reference	N/A

6.2.3 Lighting Services External

Location	All Areas – External
Description	Lighting – All Light-emitting Diode (LED) type lighting with Vandal Resistant Diffusers where exposed.
Lifecycle	• Annual Inspection of All Luminaires • Quarterly Inspection of Emergency Lighting • Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Required maintenance	Annual / Quarterly Inspections certification as required as per the PPM schedule.
Year	Annually / Quarterly
Priority	High
Selection process	All equipment to meet requirements and be in accordance with the current National Standards Authority of Ireland's National Rules for Emergency Lighting Installations (I.S. 3217:2013 + A1 2017), Part M and DAC Requirements.
Reference	N/A

6.2.4 Protective Services – Fire Alarm

Location	All areas – Internal
Description	Fire alarm
Lifecycle	• Quarterly Inspection of panels and 25% testing of devices as per IS3218:2013 + A1 2019 requirements. • Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Required maintenance	Annual / Quarterly Inspections certification as required as per the Planned Preventative Maintenance (PPM) schedule.
Year	Annually / Quarterly
Priority	High
Selection process	All equipment to meet requirements and be in accordance with the current National Standards Authority of Ireland's National Rules for Fire Alarm Systems (I.S. 3218:2013 + A1 2019) and the Fire Certificate.
Reference	N/A

6.2.5 Protective Services – Fire Extinguishers

Location	All Areas – Internal
Description	Fire Extinguishers and Fire Blankets
Lifecycle	Annual Inspection
Required maintenance	Annual with Replacement of all extinguishers at year 10
Year	Annually
Priority	Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Selection process	All fire extinguishers must meet the requirements of I.S. 291:2015 Selection, commissioning, installation, inspection and maintenance of portable fire extinguishers.
Reference	N/A

6.2.6 Protective Services – Sprinkler System All Areas (Where Applicable by Fire Cert)

Location	All Areas – Due to overall height exceeding 30 metres.
Description	Zone 1 Sprinkler System
Lifecycle	Weekly / Annual Inspection
Required maintenance	Weekly Check of Sprinkler Pumps and plant and annual testing and certification of plant by specialist.
Year	All
Priority	Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Selection process	The Sprinkler System shall be installed in accordance with The National Standards Authority of Ireland's National Rules for Fixed Firefighting Systems (EN 12845:2015)
Reference	N/A

6.2.7 Protective Services – Dry Risers

Location	Common Area Cores of Apartments
Description	Dry Risers
Lifecycle	Weekly / Annual Inspection
Required maintenance	Visual Weekly Checks of Pipework and Landing Valves with Annual testing and certification by specialist.
Year	Annually
Priority	Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Selection process	The system shall be installed in accordance with BS 5041 & BS 9999
Reference	N/A

6.2.8 Protective Services – Wet Risers

Location	Zone 1 only
Description	Wet Risers
Lifecycle	Weekly / Annual Inspection
Required maintenance	Visual Weekly Checks of Pipework and Landing Valves with Annual testing and certification by specialist.
Year	Quarterly
Priority	Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Selection process	The system shall be installed in accordance with BS 5041 & BS 9999
Reference	N/A

6.2.9 Protective Services – Stand-by Generator

Location	Basement
Description	Emergency Stand-by Power Generator to cover the life safety systems only in the event of power failure. Full Details to be provided at detailed design stage.
Lifecycle	• Quarterly Inspection • Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Required maintenance	Quarterly
Year	Annually
Priority	Medium
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles.
Reference	N/A

6.2.10 Fire Fighting Lobby Ventilation (To Fire Consultants Design and Specification)

Location	Common Area Lobbies
Description	Smoke Extract / Exhaust Systems
Lifecycle	• Regular Tests of the system • Annual inspection of Fans • Annual inspection of automatic doors and Automated Opening Vent (AOVs) • All systems to be backed up by life safety systems.
Required maintenance	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance Programme
Year	Weekly / Annually
Priority	Medium
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the CIBSE recommended lifecycles.
Reference	N/A

6.2.11 Sustainable Services

Location	Apartment
Description	Heat Pumps
Lifecycle	• Annual Maintenance of Air and Water Source Heat Pumps • Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Required maintenance	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance Programme
Year	Annually
Priority	Medium
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles.
Reference	N/A

Location	Roof
Description	Photovoltaic (PV) / Solar Thermal Array on roof Supporting the Part L / NZEB requirements. Full Details to be provided at detailed design stage.
Lifecycle	• Quarterly Clean • Annual Inspection • Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Required maintenance	Quarterly / Annual
Year	Annually
Priority	Medium
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles.
Reference	N/A

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CONCLUSION & CONTACT DETAILS

7.0 CONCLUSION & CONTACT DETAILS

Based on the information provided, Aramark Property have considered the schemes proposals. From our experience to date of similar schemes we manage, we have set out an overview of how we believe the overarching management of the scheme can be successfully managed in best practice for the benefit of the owners of this scheme, the future occupiers, and the wider community.

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DOCUMENT CONTROL SHEET

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