BUILDING LIFECYCLE REPORT

PROPOSED DEVELOPMENT: 42a PARKGATE STREET AMENDMENTS DUBLIN 8

CLIENT:

RUIRSIDE DEVELOPMENTS LIMITED



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01 EXECUTIVE SUMMARY

1.0 EXECUTIVE SUMMARY – BUILDING LIFE CYCLE REPORT

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

This Building Lifecycle Report is in response to amendments of previously permitted applications, ABP Reg. Ref. 306569-20 (SHD 1) and 310567-21 (SHD 2).

The following document reviews the amended specification set out for the proposed amended large-scale residential development at No. 42A Parkgate Street, Dublin 8 and explores the practical implementation of the design and material principles which has informed design of roofs, façades, internal layouts and detailing of the proposed development and building typologies.

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, and communal open space 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 Reddy Architecture + Urbanism's amended Design Statement and revised 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



02 DESCRIPTION OF DEVELOPMENT

2.0 DESCRIPTION OF DEVELOPMENT

The proposed development seeks amendments to ABP Reg. Ref. 306569-20 (SHD 1) and 310567-21 (SHD 2), at No. 42A Parkgate Street, Dublin 8, including:

- 40 no. 'Build To Rent' residential apartments (30 no. 2-bed/4 person & 10 no. 2-bed/3 person units from 1st to 8th floors inclusive, each unit with private 'winter garden' and/or balcony), replacing consented office floor area (over 6 floors) within the Block B2 office building.
- Co-working and community space at ground floor level, replacing consented café/restaurant at Block B1.
- Ancillary internal private residential communal amenity area at mezzanine level, including lobby, residents' lounge and fitness area, replacing consented coworking space at Block B2.
- And all ancillary and associated site, structural and landscape works proposed to tie amended Block B2 in with the consented development, including:
- Design adjustments at the interface of proposed Block B2 with the consented Block A tower building and Block B1, including increase in roof parapet height (by 1.0m):
- Amendments to landscaping at roof level of consented Block B2 and part of Block B1 to accommodate proposed changes to roof levels associated with Block B2 change of use.
- Changes to the northern Parkgate Street façade of consented Block B2 to suit residential use and accommodate external private amenity (wintergardens & balconies).
- Changes to the southern internal façade of consented Block B2 to suit residential use and accommodate external private amenity (balconies).
- 20 no. additional visitor bicycle spaces within consented public realm at surface level.
- Reconfiguration of floor plan and Increase in floor area of consented basement/undercroft at Block B1, to accommodate additional ancillary residential bicycle storage.
- Reconfiguration of ground and mezzanine floors of consented Block B1 to accommodate the proposed residential amenities and additional ancillary refuse, circulation, plant and non-residential back of house areas.



03 INTRODUCTION

3.0 INTRODUCTION

Aramark Property were instructed by Ruirside Developments Limited, to provide an amended Building Lifecycle Report for their amended large-scale residential development at No. 42A Parkgate Street, Dublin 8.

The purpose of this report is to provide 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 to effectively manage and reduce costs for the benefit of the residents. This is achieved by producing an amended Building Lifecycle Report.

This amended 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 (July 2023) issued under Section 28 of the Planning and Development Act, 2000 (as amended). Within the new guidelines, new guidance is being provided on residential schemes.

Section 6.12 of the Operation and Management of Apartment Developments (July 2023) 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."





04

EXTERNAL BUILDING FABRIC SCHEDULE

4.0 EXTERNAL BUILDING FABRIC SCHEDULE

4.1 Roofing

4.1.1 Greei	n Roofs	(Manufacturer	/ Supplier	TBC)
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Location	Blocks B1 & B2 Selected Flat Roof Areas (maintenance access only)
Description	Extensive green roof system to engineer's specification.
Lifecycle	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
Year Priority	Quarterly Medium
Year Priority Selection process	Quarterly Medium 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.

4.1.2 Flat Roofs (Manufacturer / Supplier TBC)

Location	Block B2 Selected Flat Roof Areas (maintenance access only)
Description	 Single layer membrane roof system to engineer's specification. Selected membrane and pressed metal capping.
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	Reddy Architecture + Urbanism revised drawings & design statement.



Location	Blocks B1 + B2 Selected Communal Terraces (Hard Landscaping)
Description	 Intensive green roof system to architects and engineers' specifications. Light weight precast concrete/stone paving slabs on support system.
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 and removal of any blockages. General repair works, watching out for displacement of slabs, mortar decay and removal of organic matter. Power-washing of hard surfaces.
Year	Quarterly / annual
Priority	Medium
Selection process	Paving slabs provide a robust and long-lasting roof terrace surface, requiring considerably less maintenance when compared to timber decking or gravel surfaces.
Reference	Reddy Architecture + Urbanism revised drawings & design statement.

4.1.3 Roof Terraces (Manufacturer / Supplier TBC)

4.1.4 Fall	Arrest System for Roof Maintenance Access
Location	Flat roof areas to all blocks (maintenance access only)
Description	 Fall Protection System on approved anchorage device. Installation in accordance with BS 7883:2019 (Anchor System designed to protect people working at height) 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

4.1.4 Fall Arrest System for Roof Maintenance Access

4.1.5 Roof Cowls

Selected Flat Roof Areas
Roof Cowl System to be supplied with weather apron for flat roofs.
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.
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	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). Provided appropriate safety precautions are taken, lead is the recommended choice for large residential, commercial, or industrial builds. 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	 Rainwater outlets: Suitable for specified roof membranes Pipework: Cast aluminium downpipes/uPVC downpipes Below ground drainage: 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 (Manufacturer / Supplier TBC)

Location	Blocks B1 + B2 Façades (North and South)
Description	Contrasting light and dark tone brickwork.
Lifecycle	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.
Required maintenance	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.
Year	Annual
Priority	Low
Selection process	Aesthetic, lightweight, cost-efficient and low maintenance cladding option, indistinguishable from traditional brick construction.
Reference	Reddy Architecture + Urbanism revised drawings & design statement.

4.3.2 Metal (Manufacturer / Supplier TBC)

Location	Blocks B1 & B2 Selected Façades
Description	Zinc/aluminium metal cladding system.
Lifecycle	Lifespan expectancy generally in excess of 40 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	Selected cladding 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	Selected cladding protects the building's structure from rainwater and weathering. Metal cladding systems are also chosen for their aesthetic impact, durability and weathering properties.
Reference	Reddy Architecture + Urbanism revised drawings & design statement.

4.3.3 Stone (Manufacturer / Supplier TBC)

Location	Block B2 Selected Facades (North)
Description	Light coloured stone clad framing.
Lifecycle	Stone finish cladding is expected to have a lifespan in the region of 60-80 years.
Required maintenance	In general, given its durability, stone requires little maintenance and weathers well. Most maintenance is preventative; check for deterioration of mortar, plant growth, or other factors that could signal problems or lead to eventual damage.



Year	Annual
Priority	Low
Selection	Stone is a natural and highly durable material offering a robust
process	aesthetic. Has a high durability.
Reference	Reddy Architecture + Urbanism revised drawings & design statement.

4.4 External Windows & Doors

Location	Blocks B1 & B2 Selected Façades
Description	 Full height, mixture of clear and obscure glazed windows with uPVC / Aluminum painted timber coated frames to select finish. All units to be double/tripled glazed with thermally broken frames. 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	Aluminium clad timber has a typical lifespan of 45-60 years in comparison to uPVC which has a typical lifespan of 30-40 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	Check surface of windows and doors regularly so that damage can be detected. Vertical moldings can become worn and require more maintenance than other surface areas. 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	uPVC is durable and low maintenance with an average lifespan of 30 - 40 years. Alu-clad timber windows compare favorably when compared to the above, extending timber windows typical lifespan of 35-50 years by 10-15 years.
Reference	N/A

4.5 Balconies

4.5.1 Structure

Location	Block B2 Selected Facades (South)
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	Engineered detail; designed for strength and safety.
process	
Reference	N/A

4.5.2 Balustrades and Handrails

Location	Block B2 Balconies (South)
Description	 Frameless tempered glass (safety glass) Glass supported on framing system positioned behind glass. Approved toughened safety glass and steel including fixings in accordance with manufacturer's details.
Lifecycle	• General glass and metal items have a lifespan of 25-45 years. Longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	Annual visual inspection of connection pieces for impact damage or alterations.
Year	Annual
Priority	High
Selection process	Metal and glass options will have a longer lifespan and require less maintenance than timber options (10-20 years).
Reference	N/A

Location	Block B2 Winter Gardens (North)
Description	 Approved balcony glass system (frameless). Guarding: Manufacturers standard - Frameless tempered glass (safety glass). Fixings: In accordance with manufacturer's details.
Lifecycle	General glass item with a 25 - 45 year lifespan. 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	Annual visual inspection of connection pieces for impact damage or alterations.
Year	Annual
Priority	High
Selection process	Metal and glass options will have a longer lifespan and require less maintenance than timber options (10-20 years).
Reference	N/A



05 INTERNAL BUILDING FABRIC SCHEDULE

5 INTERNAL BUILDING FABRIC SCHEDULE

5.1 Floors

5.1.1 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	 20-30 years lifespan for floor tiles 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	Visual inspection with regular cleaning, intermittent replacement of
maintenance	chipped / loose tiles
Year	Annual for floor tiles.
	Quarterly inspection and cleaning of carpets as necessary
Priority	Low
Selection	Durable, low maintenance floor finish. Slip rating required at entrance
process	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 nosing's to
	stairs.
Lifecycle	• 10–15-year lifespan for carpet. Likely requirement to replace for modernisation within this period also.
	 20-year lifespan for aluminium nosing's.
Required	Visual inspection with regular cleaning.
maintenance	
Year	Quarterly inspection and cleaning as necessary.
Priority	Low
Selection	Using carpet allows flexibility to alter and change as fashions alter and
process	change providing enhanced flexibility.
Reference	N/A



Location	Lift Lobbies
Description	Carpet/vinyl and porcelain tiles to match adjacent apartment common
	lobbies.
Lifecycle	• 20-30 years lifespan for floor tiles 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	Visual inspection with regular cleaning, intermittent replacement of
maintenance	chipped / loose tiles.
Year	Annual
Priority	Low
Selection	Slip rating required for lifts, few materials provide this and are as hard
process	wearing. Using carpet allows flexibility to alter and change as fashions
	alter and change providing enhanced flexibility.
Reference	N/A

5.1.2 Tenant Areas

Location	Amenity Space, Gymnasium and Co Working Space
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	Visual inspection. Sweep clean regularly ensuring to remove any dirt.
maintenance	Clean up spills immediately and use only recommended floor cleaners.
Year	Annual
Priority	Low
Selection	Materials chosen for aesthetics, durability and low maintenance.
process	
Reference	N/A

Location	All wet areas (e.g. WC's)
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	Visual inspection, intermittent replacement of chipped / loose tiles.
maintenance	
Year	Annual
Priority	Low
Selection	Slip rating required at entrance lobby, few materials provide this and
process	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	Regular maintenance required and replacement when damaged.
maintenance	
Year	Bi-annually
Priority	Low
Selection	Decorative and durable finish.
process	
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	Regular maintenance required and replacement when damaged.
maintenance	
Year	Bi-annually
Priority	Low
Selection	Decorative and durable finish.
process	
Reference	N/A

5.2.2 Tenant Areas

Location	Amenity Space, Gymnasium and Co Working Space
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	Regular maintenance required and replacement when damaged.
maintenance	
Year	Bi-annually
Priority	Low
Selection	Decorative and durable finish.
process	
Reference	N/A



Location	Wet areas (e.g. WC's)
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	Bi-annual inspection to review damage, local repairs as necessary,
maintenance	particular detailed inspection in wet room areas.
Year	Annually
Priority	Medium
Selection	Wet room application requires moisture board and tiling.
process	
Reference	N/A

5.3 Ceilings

Location	Common areas & tenant areas
Description	Selected paint finish with primer to skimmed plasterboard ceiling on metal frame ceiling system. 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	Tenant 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	Regular maintenance required and replacement when damaged.
maintenance	
Year	Bi-annually
Priority	Low
Selection	Decorative and durable finish.
process	
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	Regular inspections of holding down bolts and joints
maintenance	
Year	Annually
Priority	High
Selection	Hard-wearing long-life materials against timber options
process	
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 (Fire Tests). 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	General maintenance in relation to impact damage and general wear
maintenance	and tear
Year	Annual
Priority	Low, unless fire door High
Selection	Industry standard
process	
Reference	N/A

5.5.2 Skirtings & Architraves

Location	All buildings
Description	Painted timber / Medium-density fibreboard (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	General maintenance in relation to impact damage and general wear
maintenance	and tear
Year	Annual
Priority	Low
Selection	Industry standard
process	
Reference	N/A



5.5.3 Window Boards

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



06 BUILDING SERVICES

6.0 BUILDING SERVICES

6.1 Mechanical Systems

6.1.1 Mechanical Plant

Location	Residential
Description	Water Heating is proposed to consist of Centralised Air Source Heat Pumps (ASHP), with supplementary back-up Modulating Gas Boilers. Further details to be provided by Mechanical & Electrical (M&E) Consultant at detailed design stage.
Lifecycle	 Annual Maintenance / Inspection to Heating System Annual Maintenance / Inspection to Air Source Heat Pumps Annual Maintenance / Inspection to Gas Boilers 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 (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

Location	Non-Residential and Common Areas
Description	Water Heating shall consist of Centralised Air Source Heat Pumps (ASHP), with supplementary back-up Modulation Gas Boilers. Further details to be provided by the M&E Consultant at detailed design stage.
Lifecycle	 Annual Maintenance / Inspection of Air Source Heat Pumps Annual Maintenance / Inspection of Gas Boilers 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. Annual Maintenance / Inspection to Photovoltaic Panels. 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	Annual Service Inspections to be included as part of Development
maintenance	Planned Preventative Maintenance (PPM) Programme
Year	Annually
Priority	Medium



Selection	All equipment to be detailed as part of the detailed design section of the
process	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 and High-Density Polyethylene (HDPE)
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	Annual Service Inspections to be included as part of Development
maintenance	Planned Preventative Maintenance (PPM) Programme
Year	Annually
Priority	Medium
Selection	All equipment to be detailed as part of the detailed design section of
process	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	Residential / Apartments
Description	 Centralised Air Source Heat Pumps (ASHP), with supplementary back- up modulating Gas Boilers for domestic Hot Water. The water services installation in the Landlord and core areas 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 Air Source Heat Pump (ASHP). Annual Inspection of Gas Boilers. 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 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	Ducted Heat Recovery Ventilation Unit (DHRV) shall be provided within
	each Apartment.
	 Cooker Hoods shall be installed in the kitchens.
Lifecycle	Annual inspection of Ducted Heat Recovery Ventilation Unit (DHRV)
	 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	Annual Service Inspections to be included as part of Development
maintenance	Planned Preventative Maintenance (PPM) Programme
Year	Annually
Priority	Medium
Selection	All equipment to be detailed as part of the detailed design section of the
process	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	Annual / Every three years to be included as part of Development
maintenance	Planned Preventative Maintenance (PPM) Programme
Year	Annually
Priority	High
Selection	All equipment to meet and exceed Electricity Supply Board (ESB),
process	IS10101:2020, 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) 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	Annual / Quarterly Inspections certification as required per above
maintenance	remedial works.
Year	Annually / Quarterly
Priority	High
Selection	All equipment to meet requirements and be in accordance with the
process	current IS3217:2013 + A1 2017, Part M and Disability Access
	Certificate (DAC) Requirements.
Reference	N/A

6.2.3 Lighting Services External

Location	All Areas – Internal
Description	Lighting – All Light-Emitting Diode (LED) 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	Annual / Quarterly Inspections certification as required as per the
maintenance	Planned Preventative Maintenance (PPM) schedule.
Year	Annually / Quarterly
Priority	High
Selection	All equipment to meet requirements and be in accordance with the
process	current IS3217:2013 + A1 2017, Part M and Disability Access
	Certificate (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	Annual / Quarterly Inspections certification as required as per the
maintenance	Planned Preventative Maintenance (PPM) schedule.
Year	Annually / Quarterly
Priority	High
Selection	All equipment to meet requirements and be in accordance with the
process	current IS3218:2013 + A1 2019 and the Fire Cert
Reference	N/A



6.2.5 Protective Services – Fire Extinguishers

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

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

Location	Residential / Apartments.
Description	Apartment Sprinkler System
Lifecycle	Weekly / Annual Inspection
Required	Weekly Check of Sprinkler Pumps and plant and annual testing and
maintenance	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	The Apartment sprinkler system shall be installed in accordance with
process	BS 9251:2005 – Sprinkler Systems for Residential and Domestic
	Occupancies – Code of Practice
Reference	N/A

6.2.7 **Protective Services – Dry Risers**

Location	Common Area Cores of Apartments
Description	Dry Risers
Lifecycle	Weekly / Annual Inspection
Required	Visual Weekly Checks of Pipework and Landing Valves with Annual
maintenance	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	The system shall be installed in accordance with BS 5041 - Fire
process	Hydrant Systems Equipment & BS 9999 – Effective Fire Safety in the
	Design, Management and Use of Buildings.
Reference	N/A



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 Automatic Opening Vents (AOV) 					
	 All systems to be backed up by life safety systems. 					
Required	Annual Service Inspections to be included as part of Development					
maintenance	Planned Preventative Maintenance Programme					
Year	Weekly / Annually					
Priority	Medium					
Selection	All equipment to be detailed as part of the detailed design section of the					
process	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					

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

6.2.9 Sustainable Services

Location	Residential / Apartment
Description	Heat Pumps (ASHP)
Lifecycle	 Annual Maintenance of Air Source Heat Pumps (ASHP) Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Required	Annual Service Inspections to be included as part of Development
maintenance	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

Location	Non-Residential and Common Areas
Description	Heat Pumps, (ASHP).
Lifecycle	 Annual Maintenance of Air 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 (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



Location	Roof				
Description	PV / Solar Thermal Array on roof supporting the Part L / NZEB				
	requirements in conjunction with Exhaust Air Source Heat Pumps.				
	Full Details to be provided at detailed 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	Quarterly / Annual				
maintenance					
Year	Annually				
Priority	Medium				
Selection	All equipment to be detailed as part of the detailed design section of the				
process	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				



07 APPENDIX 1

7.0 APPENDIX 1 – SCHEDULE FOR COSTS EVALUATION

7.1 Schedule for Cost Evaluation

The Schedule for Costs Evaluation provides a framework to allow costs per apartment, quantified from the development, to be applied. At detailed design stage, schedule of areas and quantity of items is provided by the Architects and Quantity Surveyors to allow quantification of the lifecycle replacement costs during the lifespan of the building.

Further to this, once detailed design is confirmed, annual cost of maintenance will also be calculated to include with the schedule, to complete the overall costs evaluation.

The schedule will be modified to suit when developer's Architects and Quantity Surveyors provide requisite schedules of areas and quantity and cost of items for the development.

The sampled schedule attached lays out all Building Fabric and Building Services Elements, associated specification and locations. These are then quantified as cost per unit, alongside maintenance costs with VAT rate, and broken into Annual Costs, and many specific commentaries, for the eventual end user of the property.





SAMPLE Life Cycle Costs Summary of Costs

<u> Element - Building Fabric</u>	Specification	Location(s)	Areas / Quantity	Cost Per unit	Maintenance Cost	Total Cost	Vat Rate	Vat Inclusive Cost	Anticipated Life Span (Yrs)	Annual Cost	Vat Rate	Vat Inclusive Cost	Comments
Floor Finishes	Carpet	Staircores / Common Areas					13.5%		12	- 3	13.5%		
Floor Finishes	Tiles	Common Areas / Apartments					13.5%		25	6	13.5%		
Floor Finishes	Timber	Apartment					13.5%		12	•	13.5%		
Wall Finishes	Paint	Staircores / Common Areas					13.5%						
Wall Finishes	Paint	Common Areas / Apartments					13.5%						
Wall Finishes	Paint	Apartment					13.5%						
Roof Coverings	Felt Roof, Green Roof	Roof					13.5%		25	- 9	13.5%		
Common Area Doors	TBC	Multiple Locations					13.5%		30	e .	13.5%		
Apartment Doors	TBC	Multiple Locations					13.5%		30	•	13.5%		
External Doors	TBC	Multiple Locations					13.5%		20				
Windows	TBC	Apartments					13.5%		60		13.5%		
External Cladding	TBC	External					13.5%		60	£ .			
External Walls	TBC	External					13.5%		60	6 · · ·			
Loose furniture	Loose furmiture	Apartments					23.0%		12	- 3	23.0%		
Fixtures and Fittings	Kitchens, Wardrobes, etc	Apartments					13.5%		12	- 3	13.5%		
White Goods	Kitchen Appliances	Apartments					23.0%		7		23.0%		
External Furniture	Seats, Tables, Playground	External					13.5%		20	· 9			
Balcony	Flooring, Handrails, Balustrade. etc	External											
Element - Building Services													
Distribution Network	Pipework Distribution	Basemen					13.5%		60	• •	13.5%		
Gas Fired CHP / ASHP Gas Fired Boilers	Gas Fired CHP Units	Basement Basement							15 25				
Buffer Vessel		Basement					13.5%		15	• 9	13.5%		
Main Board	Electrical Main Board	Basement					13.5%		30	• 9	13.5%		
Electrical Boards	Landlord Boards	Various Levels					13.5%		20	6 -	13.5%		
Water Tanks	Replacement Cold Water , Mains Water and Fire	Basement					13.5%		35	•	13.5%		
Booster Pumps	pooster rumps associated	Basement					13.5%		15	· .	13.5%		
Smoke Extract - Impulse Fans	Basement Carparks	Basement					13.5%		25	•	13.5%		
Lifts	Lift Replacement	All Cores					13.5%		35	•	13.5%		
Lighting - Landlord	Car Park , External , Staircores	Basement					13.5%		ЭO	• 9	13.5%		
Standby Generators	Replacement of Landlord Generator	External					13.5%		40		13.5%		
Fire Alarm	Landlord Fire Alarm	Various					13.5%		20	•	13.5%		
Apartment Boards	Apartment Boards	Apartment					13.5%		20	, "	13.5%		
Apartment HIU	Heat Interface Unit	Apartment					13.5%		20	• 9	13.5%		
Apartment HRU	Ventilaiton Heat Recovery Unit	Apartment					13.5%		20	• 9	13.5%		
Site Lighting	External Lighting	Site											
_													



08 CONCLUSION & CONTACT DETAILS

8.0 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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