BUILDING LIFECYCLE REPORT

PROPOSED DEVELOPMENT:
LACKENROE SHD

CLIENT:

BLUESCAPE
LIMITED

aramark

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INTRODUCTION

1.0 INTRODUCTION

Aramark Property were instructed by Bluescape Limited, to provide a Building Lifecycle Report for their proposed mixed-use residential scheme at Lackenroe, Glounthaune, Co. Cork.

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 construction of a mixed-use residential development of 289 no. residential units consisting of 201 no. dwelling houses and 88 no. apartment/duplex units, a two storey creche, 4 no. ESB substations and all ancillary site development works. The proposed development will be constructed on lands to the north and south of the public road, L-2970, known locally as 'the Terrace'. A portion of the site to the south of 'the Terrace' was formerly within Ashbourne Garden and is considered to be within the curtilage and attendant grounds of Ashbourne House, which is a Protected Structure (Ref 00498).

The proposed development to the north of 'the Terrace' provides for 260 no. residential units comprising of 196 no. dwelling houses, 64 no. apartment/duplex units and a two storey creche. The 196 no. dwelling houses includes 5 no. 4 bedroom detached dwellings, 44 no. 4 bedroom semi-detached dwellings, 12 no. 4 bedroom townhouses, 2 no. 3 bedroom detached dwellings, 22 no. 3 bedroom semi-detached dwellings, 47 no. 3 bedroom townhouses and 64 no. 2 bedroom townhouses. The 64 no. apartment/duplex units contains 5 no. 3 bedroom units, 32 no. 2 bedroom units and 27 no. 1 bedroom units contained in 6 no. three storey apartment buildings, with ancillary bicycle parking and bins stores.

The proposed development to the south of 'the Terrace' provides for 29 no. residential units comprising of 5 no. dwelling houses and 24 no. apartments. The 5 no. dwellings include 1 no. 3 bedroom detached dwelling, 2 no. 3 bedroom townhouses and 2 no. 2 bedroom townhouses. The proposed apartments are provided in a four-storey mixed-use building containing a ground floor community unit and a commercial unit with apartments at ground and upper floor levels comprising 3 no. 3 bedroom units, 7 no. 2 bedroom units and 14 no. 1 bedroom units with ancillary car parking, bicycle parking and bin stores.

Vehicular access to 2 no. dwellings in the lands to the north of 'the Terrace' will be provided via an upgraded entrance from 'the Terrace' with vehicular access to the remainder of dwellings in the lands to the north of 'the Terrace' via the signalised junction from the L-2968 and internal road network permitted by Cork County Council reference 17/5699 and An Bord Pleanála reference 300128-17. A separate secondary emergency access is also proposed from the L-2969 to the north.

Vehicular access to the 5 no. dwellings to the south of the 'the Terrace' will be via a new entrance from 'the Terrace' and the proposed apartment building will be accessed from Johnstown Close. The proposed development also makes provision for a pedestrian link from the proposed development north of 'the Terrace' to Johnstown Close via 'the Terrace' which will include a signalised pedestrian crossing and associated traffic calming measures on 'the Terrace'.

Ancillary site works include the demolition of 1 no. existing derelict dwelling house and associated outbuildings, landscaping and servicing proposals including the realignment of the existing pedestrian/cycle route on Johnstown Close and the undergrounding of existing overhead lines.

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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 mixed-use residential scheme at Lackenroe, Glounthaune, Co. Cork and 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 O'Mahony Pike 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 Roof (Manufacturer / Supplier TBC)

Location	Selected Flat Roof Areas (maintenance access only)
Description	Kingspan Thermaroof built up roof to engineer's specification.
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 to ensure the upkeep of roofing product / 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	Deady Gahan Architects' planning drawings & design statement.

4.1.2 Pitched Roofs (Manufacturer / Supplier TBC)

Location	Duplex Apartments & Houses
Description	Contrasting Concrete Tiled Roof.
Lifecycle	Lifecycle of 80 -100 years for concrete tiled roofs. As used across the industry nationally and in the UK, long lifecycle typically achieved by regular inspection and maintenance regime to ensure the upkeep of roofing tiles.
Required maintenance	Annual inspection internally and externally for slipped/cracked tiles, slates and flashings, leaks etc. Carry out localised repairs as required.
Year	Annual
Priority	Medium
Selection process	Concrete tiles are chosen for its aesthetic qualities and are durable and long-lasting materials which few other roofing materials can achieve. Pitched roofs by design ensure run-off of rainwater and therefore, less deterioration to roofing materials.
Reference	Deady Gahan Architects' planning drawings & design statement.

4.1.3 Fall Arrest System for Roof Maintenance Access (Manufacturer / Supplier TBC)

Location	Flat Roof Areas (maintenance access only)
Description	• Fall Protection System on approved anchorage device. • 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

4.1.4 Roof Cowls **(Manufacturer / Supplier TBC)**

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

4.1.5 Flashings **(Manufacturer / Supplier TBC)**

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). Lead is easily formed into the required shapes for effective weathering of building junctions according to Lead Sheet Association details.
Reference	N/A

4.2 Rainwater Drainage (Manufacturer / Supplier TBC)

Location	All buildings
Description	• Rainwater outlets: Wade or equally approved suitable for specified roof membranes. • Pipework: Mixture of new cast aluminium and new uPVC to Engineer's design and specification. • 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	Façades – All Buildings
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	Deady Gahan Architects' planning drawings & design statement.

4.3.2 Stone Cladding (Manufacturer / Supplier TBC)

Location	Façades
Description	Natural Stone Cladding with stainless steel fixing system on rigid insulation layer with waterproof layer on concrete blockwork/reinforced concrete inner leaf.
Lifecycle	Stone cladding is expected to have a lifespan in the region of 40-60 years. As used across the industry nationally and the UK, longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
Required maintenance	In general, given its durability, stone requires little maintenance and weathers well. 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	Stone is a natural and highly durable material offering a robust aesthetic. Options for stone cladding include reconstituted stone which is a cost-effective and adaptable cladding option when compared to natural stone cladding. It has the high durability associated with natural stone, with similar mechanical properties to precast concrete.
Reference	Deady Gahan Architects' planning drawings & design statement.

4.3.3 Render

Location	Façades – All Buildings
Description	Contrasting Natural Render Finish
Lifecycle	Renders in general are expected to have a lifecycle of circa 25 years. Longer lifecycle achieved by regular inspection and maintenance regime.
Required maintenance	Regular inspections to check for cracking and de-bonding. Most maintenance is preventative. Coloured render requires less maintenance than traditional renders.
Year	Annually
Priority	Medium
Selection process	Appropriate detailing will contribute to a long lifespan for this installation. Insulated render is a durable and low-maintenance finish with the added benefit of this product being BBA certified against other render systems.
Reference	Deady Gahan Architects' planning drawings & design statement.

4.3.4 Metal Cladding (Manufacturer / Supplier TBC)

Location	Façades
Description	• Selected colour PPC aluminium cladding system to wall and canopy projection feature (Townhouse Entrances). • PPC aluminium capping on galvanised metal straps (Parapet and Balcony).
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 and material require 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	Deady Gahan Architects' planning drawings & design statement.

4.4 External Windows & Doors

Location	Façades
Description	• Selected uPVC window and door frames to approved colour. • All units to be double-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	uPVC 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 mouldings 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, energy efficient, sound-proof, resistant to corrosion and require low maintenance.
Reference	Deady Gahan Architects' planning drawings & design statement.

Location	Façades – Commercial Unit
Description	• Full height, powder coated clear glazed curtain walling system. • Retail unit to be double-glazed with thermally efficient frames. • Any opening sections in panels 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	PCC 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	N/A

4.5 Balconies

4.5.1 Structure

Location	Façades – Duplex and Townhouse
Description	• Cantilevered and recessed precast concrete balcony system to engineer's details. • 'Concrete to concrete connectors' to main structure of building to engineer's detail.
Lifecycle	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 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 – Duplex and Townhouse
Description	• Anthracite-Grey vertical balustrades and railings • Fixings in accordance with manufacturer's details.
Lifecycle	Generally 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 option will have a longer lifespan and require less maintenance than timber options (10-20 years).
Reference	N/A

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INTERNAL BUILDING FABRIC SCHEDULE

5.0 INTERNAL BUILDING FABRIC SCHEDULE

5.1 Floors

5.1.1 Common Areas

Location	Apartment – 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, intermittent replacement of chipped / loose tiles
Year	Annual
Priority	Low
Selection process	Durable, low maintenance floor finish. Slip rating required at entrance lobby, few materials provide this and are as hard wearing.
Reference	N/A

Location	Apartment – 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	Apartment – Lift Lobbies
Description	Carpet/vinyl and porcelain tiles to match adjacent apartment and 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, 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.
Reference	N/A

5.2 Walls

5.2.1 Common Areas

Location	Apartment – Entrance lobbies / Common 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	Apartment – 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

5.3 Ceilings

Location	Apartment – Common 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

5.4 Internal Handrails & Balustrades

Location	Apartment – Stairs & landings
Description	Metal balustrade option
Lifecycle	25-30 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	Apartment – Common Areas
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	Apartment
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	Apartment
Description	Painted timber/MDF window boards
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

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BUILDING SERVICES

6.0 BUILDING SERVICES

6.1 Mechanical Systems

6.1.1 Mechanical Plant Apartments

Location	Apartment Plant Area
Description	Water Heating plant is proposed to consist primarily of Exhaust Air Heat Pumps with back up heater. Full specification to be further details to be provided by the M&E Consultant at detailed design stage.
Lifecycle	• Annual Maintenance Exhaust Air Heat Pumps, Hot Water Heat Pump • Annual Maintenance / Inspection to 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 CIBSE recommended lifecycles.
Reference	N/A

6.1.2 Mechanical Plant Duplexes

Location	Duplex Plant Area
Description	Water Heating plant is proposed to consist primarily of Exhaust Air Heat Pumps with back up heater. Full specification to be further details to be provided by the M&E Consultant at detailed design stage.
Lifecycle	• Annual Maintenance Exhaust Air Heat Pumps, Hot Water Heat Pump • Annual Maintenance / Inspection to 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 CIBSE recommended lifecycles.
Reference	N/A

6.1.3 Soils and Wastes

Location	All Areas
Description	PVC Soils and Wastes Pipework
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 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 CIBSE recommended lifecycles.
Reference	N/A

6.1.4 Water Services

Location	All Areas
Description	EAHP for domestic Hot Water Copper Water Services Pipework and associated fittings and accessories.
Lifecycle	• Annual Inspection of EAHP and Cylinder • 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 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 CIBSE recommended lifecycles.
Reference	N/A

6.1.5 Ventilation Services

Location	All Areas
Description	Centralised Mechanical Extract Ventilation System (MEV) Ducting & Grilles
Lifecycle	• Annual inspection of MEV and grilles • Annual Inspection of operation of fan and boost / setback facility. • 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 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 MV Switchgear Annually and 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 Programme
Year	Annually
Priority	High
Selection process	All equipment to meet and exceed ESB, ETCI, CIBSE recommendations and be code compliant in all cases.
Reference	N/A

6.2.2 Lighting Services Internal

Location	All Areas – Internal
Description	Lighting – 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 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 IS3217, Part M and DAC Requirements.
Reference	N/A

6.2.3 Lighting Services External

Location	All Areas – External
Description	Lighting – All 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 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 IS3217, Part M and DAC Requirements.
Reference	N/A

6.2.4 Protective Services – Fire Alarm – Apartments Only

Location	All Areas – Internal
Description	Fire alarm
Lifecycle	• Quarterly Inspection of panels and 25% testing of devices as per IS3218 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 PPM schedule.
Year	Annually / Quarterly
Priority	High
Selection process	All equipment to meet requirements and be in accordance with the current IS3218 and the Fire Cert
Reference	N/A

6.2.5 Protective Services – Fire Extinguishers – Apartment Only

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 – Apartment Sprinkler System

Location	Apartment
Description	Apartment 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 Apartment sprinkler system shall be installed in accordance with BS 9251:2005 – Sprinkler Systems for Residential and Domestic Occupancies – Code of Practice
Reference	N/A

6.2.7 Protective Services – Dry Risers - Apartment Only

Location	Common Area Cores
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	
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 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 AVOs • 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

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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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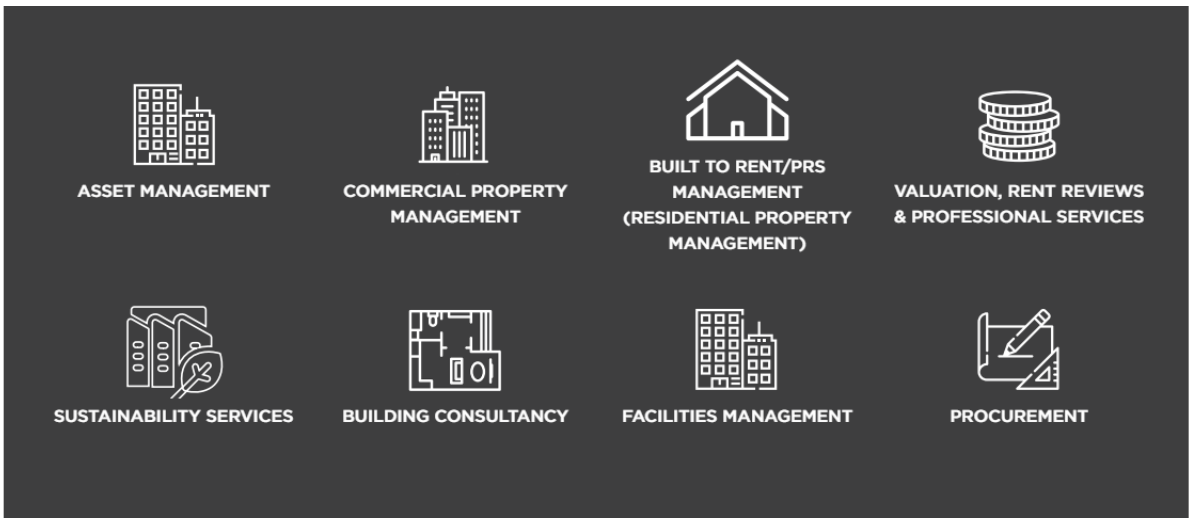
Aramark Key Service Lines



DOCUMENT CONTROL SHEET

Client:	BLUESCAPE LIMITED
Project Title:	LACKENROE SHD
Document Title:	BUILDING LIFECYCLE REPORT

Rev.	Status	Author	Reviewed By	Issue Date
AP 01.	DRAFT	David Feighery	Conor Fahey	28/05/2021
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