BELGARD GARDENS MIXED-USE DEVELOPMENT

Belgard Road, Tallaght, Dublin 24

BUILDING LIFE CYCLE REPORT & PLANNING STAGE ESTATE MANAGEMENT STRATEGY

MARLET aramark

DOCUMENT HISTORY

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1.0. INTRODUCTION

Aramark Property were instructed by Marlet Property Group (Atlas GP Limited) to provide an Estate Management Strategy and Building Lifecycle Report for their proposed mixed-use scheme at Belgard Road, Tallaght, Dublin 24.

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 establishing and Estate Management Strategy and Building Lifecycle Report.

The Building Lifecycle Report has been developed on foot of newly revised guidelines for Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities) under Section 28 of the Planning and Development Act 2000 (as amended). These guidelines supersede the previous 2015 document.

Within the new guidelines, new guidance is being provided on residential schemes.

Section 6.13 of the Apartment Guidelines 2018 requires that apartment applications 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 the residents."*

2.0. DESCRIPTION OF DEVELOPMENT

The development will consist of a mixed use residential development (total GFA 55,180 sqm) comprising a new urban quarter and streets with 5 no. blocks to provide 438 no. apartment units (including live/work units) and associated amenity facilities, a 403 no. bedspace student accommodation scheme and associated amenity facilities, childcare facility (c.380 sqm), 6 no. retail / commercial units (c.632 sqm in total) and a security room (c.52 sqm). This will comprise phase I of the overall development of the c.7.2 ha. site and will be located on a net site area of 3.45 ha. (excluding proposed temporary car park at grade).

The development will consist of the demolition of all existing buildings on the site ranging from one to three storeys in height and the removal of hardstanding throughout. Proposed buildings for demolition include 2 – 3 storey Belgard Square (c.11,362 sqm) and associated single storey security hut (c.9 sqm); 3 storey Belgard House (c.9,706 sqm) and associated single storey security hut (c.14 sqm); 2 storey former Uniphar factory (c.7,780 sqm), associated 2 storey office building (c.1,033 sqm) and associated single storey security hut (c.14 sqm).

The proposed development will consist of:

- 5 no. blocks ranging from 4 – 10 storeys comprising a new urban quarter and streets to provide 438 no. apartment units consisting of 158 no. 1 beds, 230 no. 2 beds and 50 no. 3 beds (total apartment units include 8 no. live/work units with a total c.509 sqm work areas at ground floor) and c.732 sqm of tenant/resident service amenities, all within Blocks A1, A2, A3 and B1;
- Balconies / winter gardens / terraces to be provided on all elevations at all levels for each residential block;
- Block B2 to comprise a 403 no. bedspace student accommodation scheme and associated student amenity and staff facilities (c.815 sqm);
- Childcare facility (c.380 sqm) and external playing area (c.242sqm);
- 6 no. retail/commercial units (c.632 sqm in total);
- Security room (c.52 sqm);
- 107 no. car parking spaces below podium (a temporary car park at grade will be provided until such time as the completion of the permanent below podium car park);
- 22 no. car parking spaces at surface level;
- 1,227 no. bicycle parking spaces below podium and at surface level;
- 4 no. semi-private courtyards of c.5,516sqm;
- Public plaza (c.2,366 sqm);

• Public realm & landscaping (c.7,442sqm).

The proposed development will include the provision of a new north – south street bisecting the site (to later connect to the planned Airton Road Extension) with 2 no. East – West internal streets proceeding east towards Belgard Road (pedestrian access only onto Belgard Road) and proceeding west (to later connect to lands in ownership of SDCC if required). Works to public roads to include replacement of roundabout with a signalised junction and provision of cycle lanes on Belgard Square North and provision of a pedestrian crossing at Belgard Road.

The proposed development will also include boundary treatments, public lighting, green roofs, solar panels, ESB substations and switch rooms, CHP plant, commercial and residential waste facilities and all ancillary works and services necessary to facilitate construction and operation. The proposed development will also include provision of site boundary protection where required to facilitate development phasing.

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 Belgard Gardens mixed-use development and explores the practical implementation of the Design and Material principles which has informed design of building roofs, facades, internal layouts and detailing of the proposed development.

Building materials proposed for use on block 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 such as hardscape in the public realm will contribute to lower maintenance costs for future residents and occupiers.

As the building design develops a schedule will be generated from the items below detailing maintenance and replacement costs over the lifespan of the materials and development constituent parts. 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.

1.0. APPENDIX

[Schedule of elements with anticipated maintenance and lifecycle maintenance and repair costs over anticipated lifecycle of the development. This will be a live document and critical changes in the development will need to be allowed for. The document could eventually form the basis of an Operational Strategy Document.]

4.0. EXTERNAL BUILDING FABRIC SCHEDULE

4.1. Roofing

4.1.1. Green roof

Location	Low level Roofs to Blocks A1, A2, A3, B1 & Student Accommodation
Description	Green roof system • Sedum Blanket on; • Extensive Roof Garden Growing Media on; • Drainage & Reservoir Layer on; • Protection Fleece on; • Roof Waterproofing System on; • Insulation layer on; • Screed layer on; • Precast RC roof slab to engineer's detail.
Lifecycle	Average lifecycle of 13-35 years on most green roofs. Lifecycle will be extended with robust proven detailing to adjoining roof elements and appropriate and regular maintenance of the roof materials. The green roofs have been selected in locations that are visible to the development occupants to enhance the aesthetic of the external areas.
Required maintenance	Quarterly maintenance visits, no irrigation necessary with Sedum blankets
Year	Quarterly every year as detailed in the remedial works above
Priority	Medium
Selection process	The areas of green roof proposed are small compared to the overall development but provide maximum wellbeing benefit as they are at low level. Regular roof types were considered here, such as flat roof and pitched slate, but natural soft finish was regarded desirous and of benefit to residents given its positioning.
Reference	Sedum roofs are a popular and varied choice for green roofs, they require little maintenance

4.1.2. Roof terrace

Location	Low level roofs
Description	• Selected paving slabs on; • Pedestal support system on; • Roof Waterproofing System on; • Insulation layer on; • Screed layer on; • Precast RC roof slab to engineers' detail
Lifecycle	Average lifecycle of 78 years. Constructed with a long life-cycle reinforced concrete slab, wall and column system. These are heavy wearing

	materials, which are only susceptible to atmospheric pollution, carbonation of concrete, reinforcement corrosion etc. Generally, tend to be a long-lasting material if well maintained and were installed appropriately.
Required maintenance	General repair works, watching out for water incursion and timely maintenance of same
Year	Annually
Priority	High
Selection process	Alternative technologies would include steel frame with timber decking or hybrid of these with concrete in-filling. Concrete maintains the longest lifespan of these compared to poorly detailed steel frame or joist systems.
Reference	N/A

4.1.3. **Fall arrest system for roof maintenance access**

Location	All roofs
Description	• Fall Protection System on approved anchorage device. • Roofing for mechanical attachment through the insulation to various decks. • Weathering to be strictly in accordance with membrane manufacturer's Specifications. • *Overall system length*: Refer to roof plans for indicative layouts. Final layouts and system lengths by appointed sub-contractor. • *Intermediate support spacing* as per manufacturer's specification. • *Accessories/ Other requirements*: items required to complete the installation, e.g. bends and curves in rigid rails, corner units for flexible cable systems, turntables, rotary exit units. • *Installation:* In accordance with BS 7883 by the system manufacturer or a contractor approved by the system manufacturer. • *Structural anchors:* Type recommended by the system manufacturer to suit the structure/ fabric into which they will be fixed.
Lifecycle	25-30 years dependent on quality of materials purposed. Generally steel finishes to skyward facing elements can be expected to maintain this life expectancy.
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. A FPS must comply with relevant quality standards.
Reference	N/A

4.1.4. **Roof cowls**

Location	All roofs
Description	• Roof Cowl System to be supplied with weather apron for flat roofs. • Stainless Steel goose neck tube to facilitate power supply to external roof level bolted to roof and weathered using proprietary weather apron.
Lifecycle	25-35 years
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**

Location	All flashing locations
Description	Lead to be used for all flashing and counter flashings.
Lifecycle	Typical life expectancy of 72 years recorded for lead flashings. Recessed joint sealing will require regular inspections.
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 (63 years) and zinc (48 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**

Location	All roofs
Description	• *Rainwater outlets:* Suitable for asphalt roof membranes. • *Pipework:* Cast Aluminium downpipes – *Below ground drainage:* To M&E/ Structural Engineers design and specification. • *Disposal:* To surface water drainage to Structural Engineers design. • *Controls:* To M&E/ Structural Engineers design and specification. • *Accessories:* allow for outlet gradings, spigots, downspout nozzle, hopper heads, balcony and main roof outlets.
Lifecycle	Aluminium 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 51 years and plastic, less so at 30 years
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, aluminium 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. Concrete

Location	Walls
Description	External concrete work shall be finished to engineer's specification
Lifecycle	While concrete has a high embodied energy, it is an extremely durable material. Concrete frame has a typical life expectancy of 81 years.
Required maintenance	In general concrete requires little maintenance. Most maintenance is preventative: checking for hairline cracks, plant growth on walls, or other factors that could signal problems or lead to eventual damage.
Year	Annual
Priority	Low
Selection process	Concrete is a durable/structural product which is chosen for its structural properties, in general.
Reference	N/A

4.3.2. Brickwork finish

Location	Walls
Description	• Brickwork outer leaf, insulated cavity concrete blockwork/RC concrete inner leaf, with sand/cement scratch coat, metal clips and plaster board with smooth skim finish. • Mortar joints in brickwork to be white finish with a flush joint.
Lifecycle	While bricks have a high embodied energy, they are an extremely durable material. Brickwork in this application is expected to have a lifespan of 86 years or more. The mortar pointing however has a shorter lifespan of 25-50 years.
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	Fair-faced brick is an attractive finish that bears well against other finishing products such as render to blockwork wall in terms of lifespan (86 vs 53 years). The brickwork does require re-pointing however at 25-50 years.
Reference	N/A

4.3.3. **SFS (steel framing system) wall core finish**

Location	Walls
Description	Acrylic finish render system on insulation layer on cement board sheathing layer on external-grade metal studs with insulation and 2no. layers of plaster board with air tightness membrane between, smooth skim finish to inside.
Lifecycle	Steel framing systems are expected to have a lifespan of 83 years.
Required maintenance	In general steel-framed walls require little maintenance. Most maintenance is preventative: checking for hairline cracks, plant growth on walls, or other factors that could signal problems or lead to eventual damage.
Year	Annual
Priority	Low
Selection process	Steel framing is a durable and adaptable structural product and can be more time and cost effective to traditional methods of construction.
Reference	N/A

4.3.4. **Render finish**

Location	Walls
Description	Acrylic finish render system on insulation layer on concrete blockwork/RC concrete leaf with sand/cement scratch coat, metal clips and plaster board with smooth skim finish.
Lifecycle	Renders in general are expected to have a lifecycle of circa 25 years.
Required maintenance	Regular inspections to check for cracking and de-bonding. Most maintenance is preventative.
Year	Annually
Priority	Medium
Selection process	Acrylic render is an attractive finish with the added benefit of this product being BBA certified against other render systems. Appropriate detailing will contribute to a long lifespan for this installation
Reference	N/A

Location	Walls
Description	Sand/cement render coat on blockwork outer leaf, insulation layer on concrete blockwork/RC concrete leaf with sand/cement scratch coat, metal clips and plaster board with smooth skim finish.
Lifecycle	Renders in general are expected to have a lifecycle of circa 25 years.
Required maintenance	Regular inspections to check for cracking and de-bonding. Most maintenance is preventative.
Year	Annually
Priority	Medium
Selection process	Appropriate detailing will contribute to a long lifespan for this installation.

Reference	N/A

4.4. **External cladding**

Location	Walls
Description	Decorative metal façade panels (uninsulated) on galvanised metal fixing system on insulated metal panel with tongue and grooved fittings and factory-fitted vapour seal on galvanised top hat metal system on concrete blockwork/RC concrete inner lead with sand/cement scratch coat, metal clips and plaster board with smooth skim finish.
Lifecycle	Typical life expectancy of over 35 years.
Required maintenance	Metal rainscreen 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	Metal rainscreen 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	N/A

4.5. **External windows & doors**

Location	All buildings
Description	• Selected Aluminium/timber composite window system – All units to be double/triple glazed with thermally-broken, aluminium-clad, timber frames. <u>OR</u> • Selected uPVC window system – All units to be double/triple glazed with thermally-broken frames, re-enforced to take account of the dynamic pressures in relation to the height of the installation within the building. • 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	Timber windows have a typical lifespan of 35 – 50 years, aluminium cladding can extend this lifespan by 10-15 years.

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 cleaning and regular painting regime. Check for condensation on frame from window and ensure ventilation.
Year	Annual
Priority	Medium
Selection process	Timber windows, especially when alu-clad compare favourably when compared against Aluminium (44 years), uPVC (37 years) and Steel windows (50 years)
Reference	N/A

4.6. **Balconies**

4.6.1. **Metal**

Location	Balconies
Description	• Propped cantilevered balconies to inner courtyards – Metal frame to engineer's detail, galvanised, primed with painted finish to selected colour. • Thermally broken farrat-plate connections back to main concrete structure of building. • Pre oiled Cedar ribbed treated deck boards on steel substructure to engineer's specification. • Galvanised tray formed between steel substructure to engineer's specification. • Fibre cement board with open joints to be provided to the balcony soffits.
Lifecycle	70 years dependent on maintenance of components
Required maintenance	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

4.6.2. **Concrete**

Location	Concrete balconies
Description	• Fully cantilevered concrete balconies at selected locations • Thermally broken concrete to concrete connectors back to main concrete structure of building – to Engineers Detail. • Resin finish to concrete deck.

	• Fibre cement board with open joints to be provided to the balcony soffits.
Lifecycle	While concrete has a high embodied energy, it is an extremely durable material. Concrete frame has a typical life expectancy of 81 years.
Required maintenance	Regular visual inspections of slab junction at connections and general concrete slabs
Year	Annual
Priority	High
Selection process	Engineered detail; designed for strength and safety
Reference	N/A

4.7. **Balcony balustrades and handrails**

Location	All balcony balustrades and handrails
Description	**Glazed Balustrade Option:** • Approved glass balustrade. • *Guarding:* Manufacturer's standard - Frameless tempered glass (safety glass) • *Handrails:* Manufacturer's standard - Powder coated aluminium handrails. • *Fixing:* In accordance with manufacturers details. **Winter Gardens:** • Approved balcony glass system (frameless) • *Guarding:* Manufacturers standard - Frameless tempered glass (safety glass) • *Handrails:* Manufacturers standard - Powder coated aluminium handrails. • *Fixing:* In accordance with manufacturers details. **Metal Balustrade Option:** • Galvanised, primed with painted finish.
Lifecycle	General glass and metal items with a 25-45 year lifespan.
Required maintenance	Regular visual inspection of connection pieces for impact damage or alterations.
Year	Annual
Priority	High
Selection process	Long lifespan versus timber options
Reference	N/A

5.0. INTERNAL BUILDING FABRIC SCHEDULE

5.1. Floors

5.1.1. Common areas – apartment stair cores & entrances

Location	Ground floor entrance lobby
Description	• Selected anti-slip porcelain or ceramic floor tile. • Provide for inset matwell.
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

Location	Lift core and apartment lobbies
Description	Selected carpet inlay on underlay.
Lifecycle	Lifespan expectation of 20-25 years in heavy wear areas for the tiling, 13-year lifespan for carpet. Likely requirement to replace for modernisation within this period also.
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	Stairs
Description	Selected carpet finish on underlay with approved nosings.
Lifecycle	13-year lifespan for carpet. Likely requirement to replace for modernisation within this period also.
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	Lifts
Description	Tiles to match adjacent apartment lobbies
Lifecycle	Lifespan expectation of 20-25 years in heavy wear areas for the tiling
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

5.1.2. **Tenant amenity areas**

Location	Gym area
Description	Selected timber flooring with selected underlay, weights area to receive selected raised designated zone, where the flooring can be built-up locally to accommodate this use and reduce potential impact sound with selected rubber matting or similar approved.
Lifecycle	Timber flooring with selected underlay has an expected life expectancy of 10-15 years dependent on use. A gym would be a high-use area which can significantly shorten timber floor lifespan.
Required maintenance	Sweep clean regularly ensuring to remove any dirt. Clean up spills immediately and use only recommended floor cleaners.
Year	Quarterly
Priority	Medium
Selection process	Appropriate use of timber floors, specifically in gym areas controls acoustic impact
Reference	N/A

Location	Club lounge
Description	Selected parquet timber flooring with selected underlay.
Lifecycle	Parquet timber flooring with selected underlay has an expected life expectancy of 25-35 years dependent on use.
Required maintenance	Sweep clean regularly ensuring to remove any dirt. Clean up spills immediately and use only recommended floor cleaners.
Year	Quarterly
Priority	Medium
Selection process	Parquet flooring for club lounge
Reference	N/A

Location	Meeting & media room

Description	Selected carpet finish on underlay.
Lifecycle	Selected carpet finish on underlay with approved nosings.
Required maintenance	13-year lifespan for carpet. Likely requirement to replace for modernisation within this period also.
Year	Visual inspection with regular cleaning
Priority	Quarterly inspection and cleaning as necessary
Selection process	Low
Reference	Using carpet allows flexibility to alter and change as fashions alter and change providing enhanced flexibility
	N/A

Location	All other 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

Location	All 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

5.1.3. **Student accommodation**

Location	Public areas
Description	• Selected anti-slip porcelain or ceramic floor tile. • Provide for inset matwell.
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

Location	Stairs
Description	Selected carpet finish on underlay, with approved nosings.
Lifecycle	13-year lifespan for carpet. Likely requirement to replace for modernisation within this period also.
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	Lifts
Description	Tiles to match adjacent apartment lobbies
Lifecycle	Lifespan expectation of 20-25 years in heavy wear areas for the tiling
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 – apartment stair cores & entrances

Location	Ground floor entrance lobby
Description	Selected contract vinyl wall paper feature. OR Selected paint finish with primer to skimmed plasterboard
Lifecycle	2-10 years for finishes; 39 years for plasterboard
Required maintenance	Regular maintenance required, damp cloth to remove stains and replacement when damaged
Year	Bi-annually
Priority	Low
Selection process	Used as feature in common areas against paint
Reference	N/A

Location	Lift core and apartment lobbies
Description	Selected contract vinyl wallpaper, class O rated OR Selected paint finish with primer to skimmed plasterboard
Lifecycle	2-10 years for finishes; 39 years for plasterboard
Required maintenance	Regular maintenance required, damp cloth to remove stains and replacement when damaged
Year	Bi-annually
Priority	Low
Selection process	Used as feature in common areas against paint
Reference	N/A

5.2.2. Tenant amenity areas & student accommodation

Location	Changing areas & Toilets
Description	Selected ceramic wall tile to plasterboard (moisture board to wet areas)
Lifecycle	Typical life expectancy of 37 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

Location	Club lounge
Description	Selected wallpaper and selected paint finish with primer to skimmed plasterboard

Lifecycle	2-10 years for finishes; 39 years for plasterboard
Required maintenance	Regular maintenance required, damp cloth to remove stains and replacement when damaged
Year	Bi-annually
Priority	Low
Selection process	Decorative
Reference	N/A

Location	Reception
Description	Selected wallpaper and selected paint finish with primer to skimmed plasterboard
Lifecycle	2-10 years for finishes; 39 years for plasterboard
Required maintenance	Regular maintenance required, damp cloth to remove stains and replacement when damaged
Year	Bi-annually
Priority	Low
Selection process	Decorative
Reference	N/A

5.2.3. **Internal handrails & balustrades**

Location	All buildings
Description	Proprietary glazed panel system face fixed to stairs stringer / landing slab edge via polished stainless-steel brackets and clamps fixed to concrete slab to manufacturer's details & specifications. OR Metal balustrade option.
Lifecycle	25-30 years typical lifecycle
Required maintenance	Regular inspections looking are holding down bolts and joints
Year	Annually
Priority	High
Selection process	Hard wearing long life materials against timber options
Reference	N/A

5.3. **Carpentry & joinery**

5.3.1. **Stairs**

Location	All buildings
Description	Stairs stringer / landing slab edge to be finished with thick plate bolted to slab with stainless steel fixings.

Lifecycle	While concrete has a high embodied energy, it is an extremely durable material. Concrete frame has a typical life expectancy of 81 years.
Required maintenance	Regular visual inspections of slab junction at connections and general concrete slabs
Year	Annual
Priority	High
Selection process	Concrete is selected here for its high durability, against similar timber and/or metal systems
Reference	N/A

5.3.2. **Internal doors and frames**

Location	All buildings
Description	Selected white primed and painted solid internal doors. All fire rated doors and joinery items to be manufactured in accordance with B.S. 476. Timber saddle boards.
Lifecycle	31 years average expected lifespan
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

5.3.3. **Skirtings & architraves**

Location	All buildings
Description	Skirtings and architraves. Painted MDF
Lifecycle	31 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

5.3.4. **Window boards**

Location	All buildings
Description	Window boards. Painted MDF
Lifecycle	31 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

6.0. BUILDING SERVICES

6.1. Mechanical systems

6.1.1. Mechanical plant

Location	Plant Rooms
Description	Centralised Heating Plant – Specification to be further detailed by JV Tierney & Co. at detailed design stage.
Lifecycle	Annual Maintenance / Inspection to Boilers / CHP. Annual Maintenance / Inspection to Pumps. Annual Maintenance / Inspection to Water Tanks. Annual Maintenance / Inspection to Booster-sets. Annual Maintenance / Inspection to DHS Tanks. Annual Maintenance / Inspection of district heating system pipework, valves, accessories and insulation. €25,000 for annual PPM inspections and servicing 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 for this item.

6.1.2. Soils and waste

Location	All Areas
Description	PVC / Cast iron Soils and Wastes Pipework
Lifecycle	Annual inspections required for all pipework within landlord areas. €4,500 annual maintenance cost. 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 for this item.

6.1.3. **Water services**

Location	Apartments, Cluster Kitchens, etc
Description	Copper Water Services Pipework and associated fittings and accessories.
Lifecycle	Annual inspections required for all pipework within landlord areas. €4,500 annual maintenance cost. 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 for this item.

6.1.4. **Gas services**

Location	Plant Room
Description	Gas Detection Systems.
Lifecycle	Annual Maintenance / Inspection Gas detection systems within landlord plant rooms. €500 annual maintenance cost. Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Required maintenance	Annual Service Inspections, testing and certification 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 for this item.

6.1.5. **Heating services**

Location	Apartment / Student Clusters
Description	Heat interface Units (HIU)
Lifecycle	Annual Inspection of Heat Interface Unit in each unit. €150 Per Unit annual maintenance cost. 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	

6.1.6. **Ventilation services**

Location	Apartment / Student Clusters
Description	Extract fan and grilles
Lifecycle	Annual inspection of extract fan and grilles. Annual Inspection of BMS link and operation of fan and boost / setback facility. €100 Per Unit annual maintenance cost. 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 for this item.

6.1.7. **Ventilators**

Location	
Description	• AXS 140 combined AOV smoke ventilator and roof access hatch by Colt Ireland or similar approved. • *Type:* Glazed & openable. • *Controls:* Linear actuator. • *Materials:* Glazing: 28 mm insulating glass unit. • *Finish as delivered:* Principal components polyester powder coated. • *Seals:* Required. • *Guards:* Security. • *Typical U-value*: 1.3W/m2K • *Fire/ smoke control performance:* Connect fire alarm system (Size as required in approved Fire Safety Certificate) & over ride openable for roof maintenance. • *Accessories/Special features:* Insulated upstand. • *Fixing:* in accordance with manufactures details.
Lifecycle	
Required maintenance	
Year	
Priority	
Selection process	
Reference	

6.2. **Electrical 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 switchgear every 3 years. €3,000 Annual Maintenance. €4,000 Every three years for Thermographic imaging. 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 for this item.

6.2.2. **Lighting services internal**

Location	All Areas – Internal
Description	Lighting
Lifecycle	Annual Inspection of All Luminaires Quarterly Inspection of Emergency Lighting. €8,000 Annual Maintenance Cost. 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
Reference	n/a for this item.

6.2.3. **Lighting services external**

Location	All Areas – Internal
Description	Lighting
Lifecycle	Annual Inspection of All Luminaires Quarterly Inspection of Emergency Lighting €5,000 Annual Maintenance Cost 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 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 for this item.

1.1.1. **Protective services – Fire Alarm**

Location	All areas – Internal
Description	Fire alarm
Lifecycle	Quarterly Inspection of panels and 25% testing of devices as per IS3218 requirements. €8,000 Annual Maintenance Costs 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
Reference	n/a for this item.

1.1.2. **Protective services – Fire Extinguishers**

Location	All areas – Internal
Description	Fire Extinguishers.
Lifecycle	Annual Inspection
Required maintenance	Annual with Replacement of all extinguishers at year 10
Year	
Priority	€5,000 Annual Maintenance Costs 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 for this item.

1.1.1. **Renewable services**

Location	Roof

Description	PV Array on roof Supporting the Part L requirements in conjunction with the CHP installation in the plantroom
Lifecycle	Quarterly Clean Annual Inspection €2,500 for Cleaning and inspections. 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 CIBSE recommended lifecycles.
Reference	n/a for this item.

ESTATE MANAGEMENT STRATEGY REPORT

7.0. INTRODUCTION

Aramark Property were instructed by Marlet (Atlas GP Limited), to provide a report on the estate management strategy on **the proposed facilities and public realm maintenance & management** of their proposed mixed use scheme on c. 16 acre site in Tallaght Dublin 24. The subject site is located within the Tallaght Town Centre beside Tallaght Hospital, Institute of Technology Tallaght and the square Shopping Centre.

The site to the west is currently vacant and may be bought forward for residential use in the future.

The road dividing the subject site south to north will be taken in charge everything else will remain under a yet to be formed management company. This road will be taken in charge through a process of consultation and acceptance of practical completion between the developer and South Dublin County Council.

Post construction, a controlling management company will be established and the public realm within the scheme will remain open and be accessible to the public 24/7. As with any mix use scheme, the main challenge for the developer will be to maintain a secure, peaceful and attractive environment on a 24/7 basis while each occupier in the development carries out their business.

Every element of the development has their own specific use and requirements and these interests will be managed by a professional well established property management company with a proven track record in schemes of a similar structure.

The intention of this report is to set out the management strategy for the scheme post construction in order to demonstrate how once operational, the mechanics of the property management and public realm maintenance will work in practice and be maintained to the highest standards.

8.0. SUMMARY OF RELEVANT EXPERIENCE

Aramark Property is the largest dedicated property management provider in Ireland, with over 40 years' experience on office, retail, residential and mixed-use developments. Some of our relevant case studies on major mixed-use schemes that involve public realm and estate management would be:

- The Irish Life Centre
- Capital Dock
- Georges Quay
- Parts of the IFSC such as Georges Dock 2,3,4 & IFSC House
- Beacon South Quarter
- Tallaght Cross West
- Riverside 4 – SJRQ Estate
- Major retail schemes such as Dundrum Town Centre, Ilac Centre, Nutgrove Centres
- Numerous residential, retail, and industrial parks

Our role within these developments includes the property management of the estate areas as well as management of some individual stakeholder's properties. Each estate has a number of interested parties and it is Aramark's role to maintain the estate to a high standard as well as meeting the requirements of the different interested parties.

George's Quay

Irish life Centre

Beacon South Quarter

Dundrum Town Centre

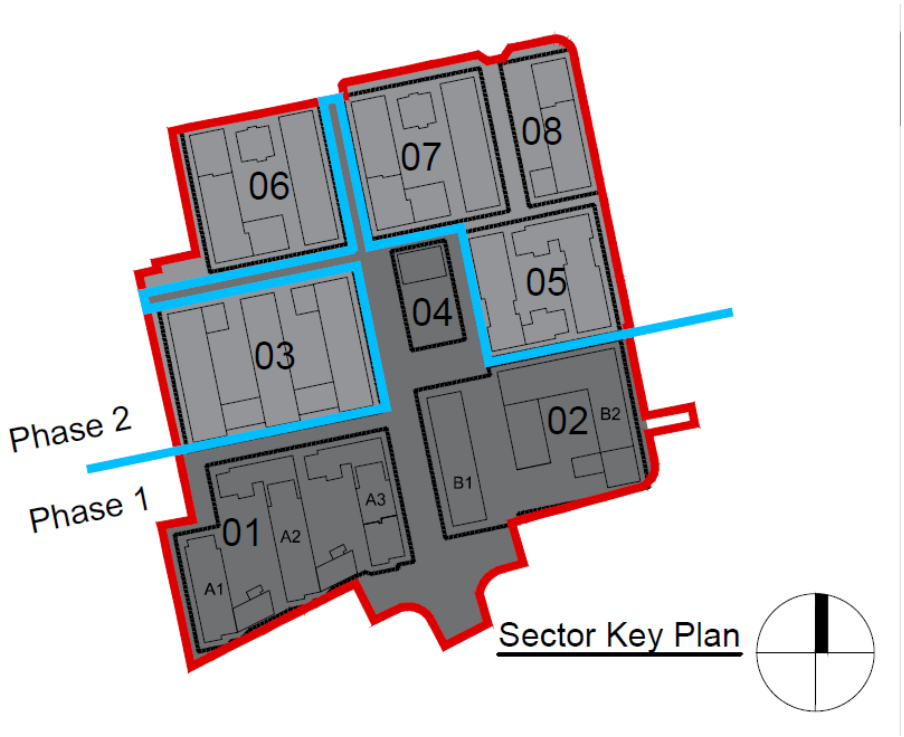
9.0. ESTATE MANAGEMENT STRUCTURE

The proposed scheme will be divided into two phases.

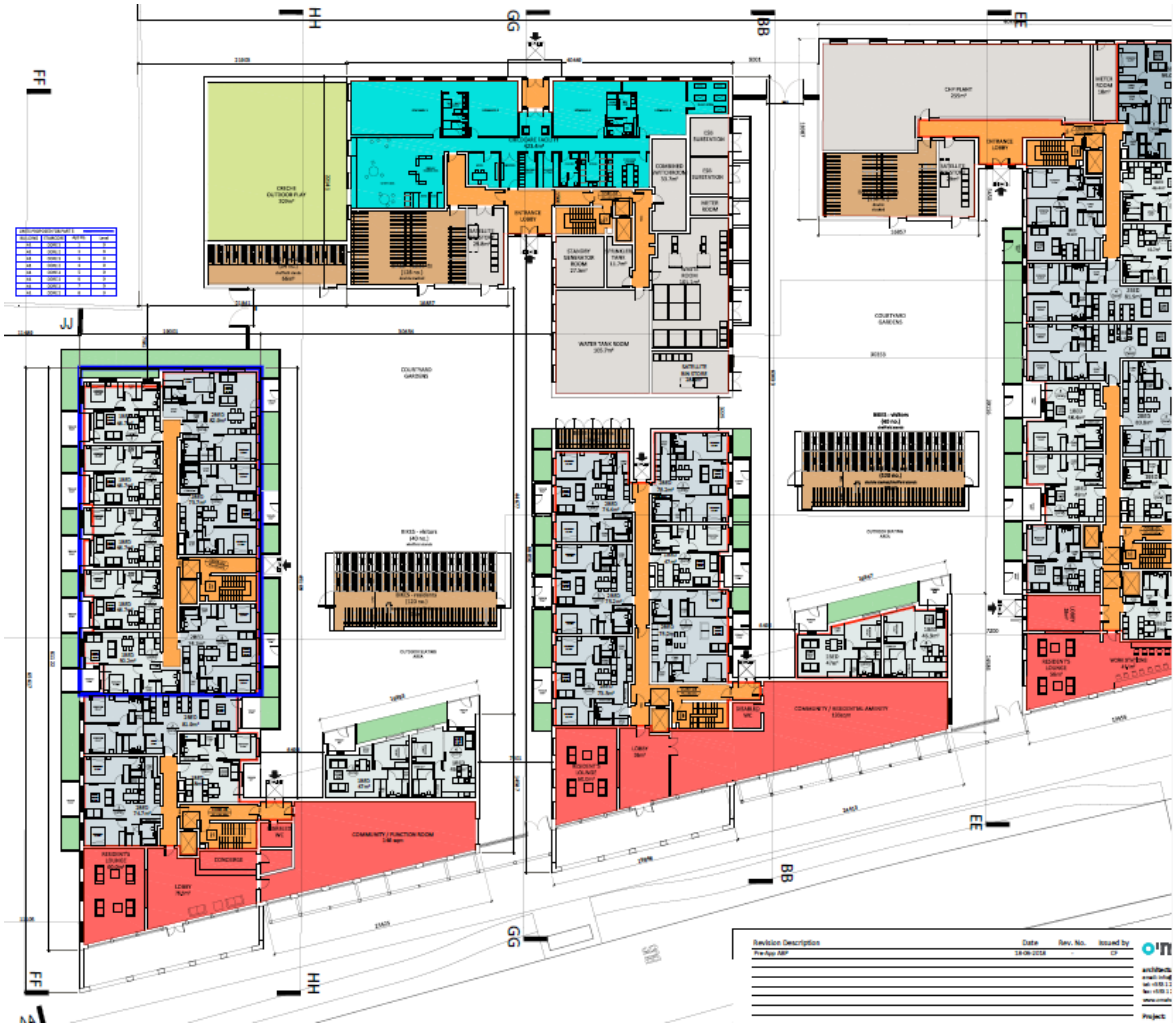
Phase 1 will include a crèche, a 403 bed space student accommodation scheme and 438 apartments. The residential units proposed will be a mix of student accommodation and private apartments. Retail, childcare facilities and resident amenities will also be included in phase 1. Phase 1 will also include the civic plaza. The civic plaza will double up as a hard surface sports arena and an attenuation point in extreme flood events.

Part V developer obligations for phase 1 will be offered through the delivery of a 44 apartments of various aspect and sizes located in Block A1 floors 1-5. Location shown above. More details and schedule are available in the architectural pack. It is usually the preference of the local authority or nominated housing body that these units are located together in order for the efficient self-management of them in a singular core. With this in mind this location is proposed.

Phase 2 will include a community centre, commercial units and a further (approx.) 1,100 apartments. The residential element will consist of private apartments and assisting living units. There will also be a community centre and resident amenities built in this phase with commercial and retail aspects.



Part V allocation outlined in blue as proposed in Block A1 Core 2 floors 1-5



10.0. ESTABLISHMENT OF "ESTATE MANAGEMENT COMPANY"

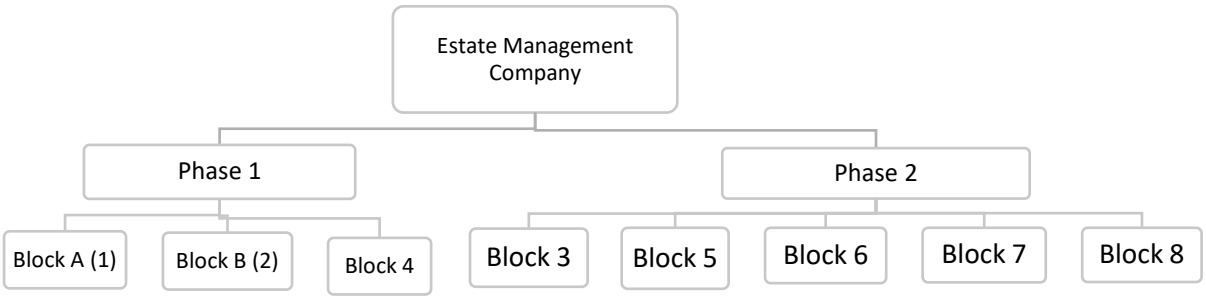
It is Atlas GP Limited's intention to establish an estate management company. The purpose of this estate management company will be to establish a controlling entity that will assume ownership over the development post construction phase. This will ensure the estate common areas, public realm and shared areas of the development are retained as the legal responsibility of this Management Company.

The constitution of the management company will be drafted by legal counsel and the shareholding will be made up pro-rata by the apportionment of the buildings that occupy the scheme. The management company will retain control of all shared areas and external public realm. Each building as it is finished will contribute to the cost of running the estate, it will be necessary to construct a service charge matrix and each unit will contribute to this based on their apportionment. Each unit will be legally contracted to contribute to the service charge regime through leasing arrangements established.

Phase 1 will consist of Blocks A and B which are shown below and will be residential and student Accommodation. As the different blocks are finished these will be added to the service charge budget. Each block will have its own block budget along with contributing to the overall estate budget.

The only area which will be outside the control of the management company (once handed over) will be the new North – South street bisecting the site (to later connect to the planned Airton Road Extension). This will initially be completed by development team and drainage including (bio retention strips) and lighting will be incorporated and maintained by the development team until the process of 'taking in charge' takes place. Lighting and services will be designed as such that they can be 'switched' from being maintained from the site to public street infrastructure in the future.

Proposed Structure – Hierarchy of Title



Legal Entity

The Estate Management Company will be formed as a separate legal entity for the sole purpose of management of the estate shared common areas. The entity will be formed prior to the sale of any of the units within the development so as the structure and legal entity is set out prior to any sale. In order to effectively maintain the development, the Estate Management Company will then be responsible for appointing an independent property management agent to manage the operational, financial and legal aspects associated with the estate common area management.

Appointment of Property Management Agent and Associated Responsibilities:

The timing of the appointment of an experienced property management agent by Atlas GP Limited and subsequent engagement between the agent and the Belgard Gardens Estate Management Company would be recommended to take to place at least six months in advance of completion. Our experience shows that the successful outcome on completion can be aided when a property management agent is in place in order to consult and advise on the operational management strategy.

The property management company would be appointed to manage the estate common areas on behalf of the newly constituted 'Belgard Gardens' management company to ensure that the common areas are well managed, and the development is maintained to an extremely high level in line with the proposed high end planning application for this scheme.

The agents for the estate management company will be responsible for setting the operational service charge budget for the common areas of the estate. In order to effectively manage the estate an annual budget would be billed to all owners on a quarterly in advance basis to ensure enough funds are

received so as to enable effective management of the estate. Each stakeholder will be billed their calculated apportionment of the budget and this income will then be used to run the estate management company.

Summary of cost headings and maintenance protocol for areas covered by the estate service charge budget:

The service charge budget will cover all aspects of the estate and public realm management. Please see a brief overview of the services we would anticipate would be covered:

Management Costs

This aspect of the budget would cover any direct management of the estate. This includes the managing agent's costs, any on site staffing costs, the company audit fee and any other consultancy works that may be required.

Utilities

Any costs incurred for Water usage (from any water feature or watering of the landscaping), electricity (public lighting etc.) and gas (if any).

Energy conservation has been incorporated into the design in many ways. Numerous measures such as the CHP system, extensive PV panel installations and the most modern long lasting LED lighting systems including a specification that all internal common light fittings, where safely practical, have been designed to include passive infra-red sensors (PIR's).

Electric charge points for EV's are catered for in the design – there will also be infrastructure for future increase in capacity requirements as the roll out of EV's continues.

Part of the design also includes the ability to 'tap in' to the local district heating network that is envisaged for the area. The engineering is specified to include 'pipes' in the eastern boundary of the site to allow this once the network is established.

The estate management team will host sustainability workshops at least annually. Incorporated in these will be talks from energy and waste specialists and suppliers to the industry who will give talks to residents and users of the estate on the benefits of a sustainable strategy. This sustainable strategy will enhance the life cycle of equipment and lead to lower running costs of the development.

Soft Services

Security

This element of the budget will allow for any Security Guarding that may be required. It will also make a provision for the maintenance and repair to any security systems including CCTV, access control systems amongst others.

Cleaning & Waste

The options for the selected finishes are reviewed by Aramark to ensure what is proposed is durable and easy to maintain with strong life cycle properties.

The cleaning of the estate will also be covered as will the provision of waste management services which covers litter bins on the estate and any waste generated by the estate management (not tenant waste). It is vitally important that the estate is kept as clean as possible and any vandalism or graffiti is addressed as quickly as possible. A façade cleaning and maintenance schedule will be incorporated alongside the window cleans to include 4 x annual visits per annum to clean and inspect all external façades. This will enhance longevity and lifespan of the chosen products. A review has been carried out to ensure ease of maintenance and access for servicing and cleaning crews.

A very high standard of estate management will ensure that the estate will not attract anti-social behaviour or vandalism. The main civic plaza that is planned in Belgard Gardens will need specific attention to ensure it remains an attractive recreational facility for both residents of the scheme and also people from the surrounding areas. There will be strategically located outside refuse collection points that will allow the public to dispose of waste. These will be managed and serviced daily by the estate management teams and form part of the waste protocols which will be defined by the appointed agents.

Tenant waste will also be itemised as a separate schedule. Included in this will be the ongoing management of the proposed mix of waste storage receptacles with a move towards compactor systems wherever possible. An operational waste management strategy has been defined by Awn consulting and this has been reviewed and inputs provided by Aramark.

Health and Safety

The estate managing team, post handover, will design a health and safety strategy and tenant and occupiers' handbook that will ensure the development has the utmost health and safety standards which ensure the wellbeing of the residents and the staff that will be managing the development. This will also govern the protocols for contractors visiting site to carry out works.

The central plaza being the focal point of the development, will have a specific ad important health and safety focus. The estate management team will work with the insurance surveyors to ensure that this policy is suitable for an area of high use public realm. There will an individual set of risk assessments and method statements (RAMS) for any event that takes place in the area and any third-party vendors will undergo a due diligence safety and insurance vetting process as is the norm in other estates we are familiar with that host event such as outside markets, food events and more.

Hard Services

An allowance will also be made for any maintenance required on estate plant and machinery. This includes any pumps, lifts, barriers, gates etc. located within the estate area. There will also be a budget for general repairs which will cover basic works such as lighting repairs and any rectification to areas of the estate that may become damaged or dilapidated.

Based on the landscape plans received from Brady Shipman Martin, BSM, the gardening and outside space, along with the sedum roofs in Belgard Gardens will be of the forefront of the estate management company. The landscaping is covered in detail further on in this report, however it will be essential for an appropriate maintenance schedule to be devised and implemented by the managing agents. This schedule will include annual contracts that specify bi monthly visits by the external contractors and this service will be closely managed and tailored to suit the scheme specifics to ensure a high standard is upheld.

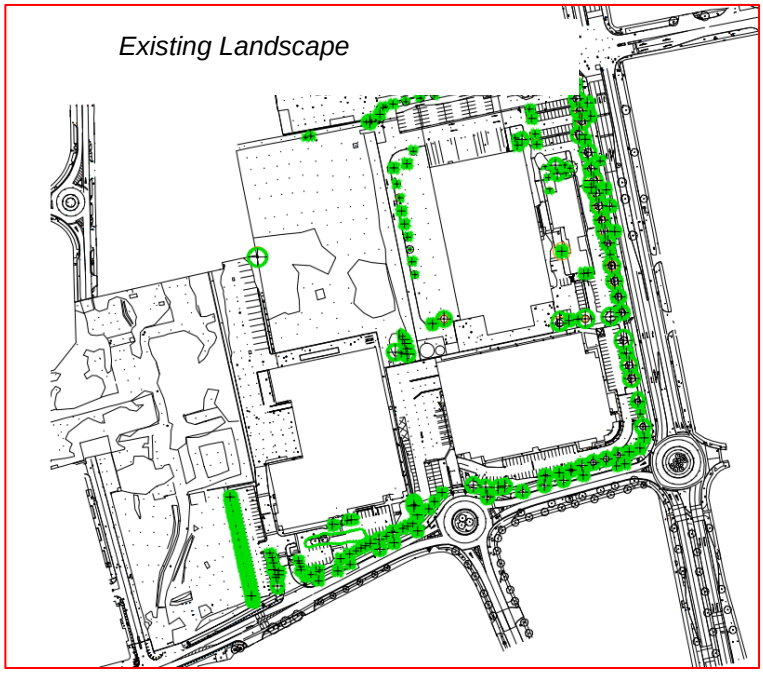
There will be a sinking fund allowance to account for any major works that may be required into the future. The level of this sinking fund will be guided by 10 year PPM strategy.

11.0. ESTATE AND PUBLIC REALM MANAGEMENT STRATEGY

From our review of the reports that have been carried out on the proposed development by various consultant engineers, the below items are specific areas of concern that we would like to highlight. These are all items that can be easily overcome if a pro-active management strategy is implemented by the Management Company.

Landscaping Benefits

The existing site topography is relatively flat with the exception of a platform in the north western section of the site. The existing landscaping in the interior section of the site is not of a good quality, and the most significant landscaped elements are overgrown boulevard trees to the Belgard Road and Belgard north frontages.



In the proposed development, the key design considerations was connectivity and integration with the immediate locality and adjoining developments. Another component of the design is to retain the strong tree-line to Belgard Road where possible. The design principle is to follow the open character successfully established in Tallaght Town Centre core area.

The proposed development provides for all activity to be routed via the new square to ensure a vital heart to the new neighbourhood. This core will be preserved for pedestrian and bicycle priority.

Vehicular movements between the site are facilitated through a street from Belgard Square North diverting to Cookstown Road extension.

The design principles proposed have the end user as priority. Given the differing use types proposed the provision of a central square and focus on pedestrian accessibility will further enhance and assist the integration of the occupier community and overall feel of the scheme.

Publicly accessed plaza and associated benefits

The site is currently accessed through Belgard Road and Belgard Square North.

Two proposed new routes extending Airton Road and Cookstown Road will complete the block, opening up the future potential of the site as a link between Tallaght Hospital, I.T.T., the Civic Offices and the industrial estates to the north.

The design connectivity and layout will ensure that the development will have an immediate local connection. The open policy of the development (i.e. not gated) will also encourage pedestrian access and use as a throughput locally.

Security strategy and located of static guards /concierge

We would envisage a concierge service within the completed development. This service could operate from the Management Suite. The overriding responsibility of the Concierge is to create a sense of community and service within the scheme.

Site presence of a security / concierge hub should be located within the civic building.

Additional tenants offering – Hero App, Bike Club, Car Club Scheme

An extremely important aspect of a scheme will be tenant amenities. This will require a strategic review.

Whilst arguably the developments location means that there is immediate access to local amenities in the general Tallaght area provided by way of restaurants, health and well-being together with retail and leisure, the market expectation and ambition for the development should be to provide a lifestyle service. This point of difference will ensure that the scheme is positioned as the premier development in the locality.

Our research bears out that the market will have a minimum expectation for the following services and amenities:

- Bicycle Club Membership
- Car Club Scheme
- Electric car charging facilities

- Free Wi Fi in communal areas
- Access to communal print facilities

In addition to the above, external seating areas and manicured communal gardens incorporating relaxing seating areas within a secure community are becoming an expectation.

The incorporation of the above noted amenities will further enhance the proposed development.

The Hero by Aramark App is a concierge service and potential services that might be available via the app are shown below, many of which would be provided through third party providers. The Hero App provides a robust Concierge service through technology. These services are a subset of the services that would be available to residents of the scheme. Some of the on-site resident's facilities could also be booked via the App.

- Dry Cleaning Drop Off / Collection
- Bike Repair
- Car Valet
- Beauty & Hair Treatments
- Taxi
- Booking an expert – personal trainer / catering chef / fitness class
- Hiring and use of electric / hybrid car

It is envisaged that local suppliers in the Tallaght community can be signed up to provide the services offered through the Hero App platform.

Security systems and access control

Control Room – the control room will be the central security hub and will be located in one of the retained areas.

It would be recommended that the estate security providers will man the estate security office control room 24/7. We would recommend that there be 2 security guards on duty at all times. One to remain in the security room with access to the cameras at all times and to be available to answer calls from residents and intercoms and the other guards duty would be to carry out patrols throughout the day. We would also recommend there should also be an Estate Facilities Manager on site during 'normal' working hours 9am – 5pm weekdays along with a property manager to deal with issues from the residential and commercial tenant's issues on a daily basis.

The control room has a fundamental and critical operational control role to perform in the day to day security operations of the Belgard Gardens Development. All electronic security protection and life

safety systems of the buildings will be transmitted to, monitored and controlled by the control room. Access to the control room will be controlled; those accessing the control room will have to enter through an access restricted door, which will be overseen by the control room operator.

Electronic Security Systems and Alarm Monitoring

A range of electronic security systems will be deployed throughout all of the facilities in Belgard Gardens. These systems will be monitored and managed from the security control room on site. Some of the electronic security and life safety systems will also be monitored by a contracted commercial Alarm Receiving Centre (ARC) in a facility designed and built to an IS 28 Standard and operating to SR 40 Standards and Assignment Instructions issued by Atlas GP Limited and subsequently Belgard Gardens Management Co. Ltd.

Systems Integration

The security design intent is that the electronic security systems will be integrated through a high level systems integration platform. The purpose of integration is to provide the control room operator with as much data in respect of each alarm event and related CCTV images on single Graphic User Interface (GUI) to facilitate ease of management and response by the control room operator at each workstation.

Each electronic security system will be completely separate and in the unlikely event of the High Level Integration System failing, each of the other systems will still be able to operate on a standalone basis.

The electronic security systems to be managed and monitored from the control room would be advised as follows:

Integrated Security Management System (ISMS)

An ISMS platform will be provided to integrate all of the individual electronic security system through a single Graphic User Interface (GUI) to enable the control room operator to seamlessly manage all of the systems.

Each individual building will have its own workstation with an ISMS platform having a GUI for the electronic security systems for that specific building.

CCTV Cameras.

- All estate cameras will be monitored from the control room.
- GDPR compliance will be paramount.
- All CCTV recording will take place in the control room.

- All cameras shall be controlled by a central switching matrix to allow any camera and graphical map to be switched to any monitor via a matrix control keyboard and a graphical touch screen system with icons to identify the location of each CCTV camera.
- Graphical maps will be displayed at each workstation.
- A bank of CCTV monitors will be installed in the control room to provide CCTV images as required.
- All CCTV cameras will not be required to be monitored simultaneously
- It is the intention that CCTV cameras will be 'alarm driven' thus providing the control room operator with timely and relevant information to assist in the management and response to incidents.
- CCTV cameras will be integrated with other security systems through the integration system.
- Each individual building will be able to access their own CCTV camera images through its own workstation utilising a GUI for the electronic security systems for that specific building.

Access control

- All electronic access control systems including access control devices that control barriers to car-parks, Biometric ID, Staff Cards, Smart Cards etc will be repeated to the control room.
- Access control system will encompass security features e.g. anti-pass back.
- The access control system will be integrated with other security systems through the integration system.
- Each individual building will be able to manage and control the access control system for that building through its dedicated ISMS platform building.

Car Park Management

The proposed development (phase 1) has provision for 107 podium car parking spaces. The design vision for the scheme is to create a living environment where pedestrian and cycle movement is prioritised.

The site is situated in a highly accessible area. As noted in this document the vision for the competed scheme is for the management to provide amenities and enhanced service offerings. This will specifically include bicycle club and go-car membership.

Different User Type Interaction

Residential - The residential scheme is likely to be managed by one operator and a younger end audience. The inclusion of private sale units will ensure that the age profile of the scheme is mixed and balanced. This mix and balance will ensure and assist the continued sense of community in the scheme.

Student use - On completion of the student accommodation the developer will engage a professional student accommodation managing agent such as Aramark Property. This agent will manage the student accommodation blocks and will liaise with the overall estate management company on the management of the students and how they interact with the estate and public realm and wider community. The estate management company will hold the ultimate hierarchical point of contact for the wider community and will communicate and establish a handbook and set of rules for the estate. All internal management and security of the student blocks will feed into and work in tandem with the overall security strategy of the estate which is set out above.

Retail and Ancillary uses - Generally customer access will be at ground level to the various blocks. There are various set down areas. Most of this use will be within day time hours and will be supervised via the security and access strategy.

Bike storage management

There is a large provision of 1,227 for bicycle storage spaces within the scheme. The management of how these are stored is key to maximising the use of bicycles and the safe storage of these. There will be a combination of storage types ranging from publicly available sheffield stand types to more dense stacking type systems. Each system will be carefully chosen and set out through consultation between the design team members to ensure the best system is used in the best and most practical locations.

We are currently liaising and working with a Bike Share Club operator that provides a dock less bike sharing community and we feel a development of this size will support initiatives such as these.

Drainage management and maintenance of green roofs – bio retention areas

There is specific reference to the drainage management and maintenance of attenuation areas and bio retention areas.

Green Roofs: for maintenance the following should be considered:

- A primary consideration is the requirement to access to allow regular inspections for quarterly maintenance visits so access to the roof for inspection. This has been incorporated into the design.
- Irrigation not required for high level green (sedum) roofs – but access to a water point is advantageous. Irrigation/water point will be allowed for in each lower level roof gardens / courtyards / plaza. Two will be provided in larger courtyards and plaza.
- Biodiverse planting on roofs - albeit require low maintenance some do require strimming of grass / pruning of selected plants in summer and regular inspection of drainage systems to remove unwanted debris. Birds are continuously bringing up unwanted debris and this requires maintenance. There is only sedum at highest roof levels – where this tends to be most of an issue. This issue still applies and is under design review.
- We propose the initial landscape contractor is retained and contracted for a minimum period of 12 - 24 months post completion to give full chance of thriving over 1-2 seasons.
- Health and safety – lanyards / tie in / safe access points for maintenance workers is all being considered at design level.

Attenuation:

- Attenuation tanks (whether foul or storm) or pumping systems will be subject to annual PPM schedule and maintenance according to best practice

Bio retention areas

- Like green roof recommendation the initial installation specialist will be retained over the following 12-24 months growing seasons to promote growing over consecutive seasons. This arrangement will be monitored and reviewed by the property managers.
- Weeds can be addressed under normal maintenance. Plant selection to be considered at detailed / construction stage – when potential issues can be minimised.
- Debris clearance will be scheduled as part of the outdoor servicing and this will be planned and specified early stage – minimum monthly clearance.

- Inspection for correct draw down / drainage after storm event will be planned. The engagement and monitoring of initial contractors is critical here.

12.0. MEGA PROJECT

The Micro Electricity Generation Association **(MEGA**) have been working with South Dublin County Council (SDCC) in the Energy, Environment and Smart City areas for some time and we are aware of their vision and some of their work to date. We welcome further initiatives from them and are prepared to engage further in terms of this development.

13.0. CONCLUSION

Based on the information provided, Aramark Property have considered the schemes proposals. From our experience to date of similar schemes we have set out an overview of how we believe the scheme can be successfully managed in best practice for the benefit of the stakeholders, the future occupiers and the wider community around Tallaght. We acknowledge this is a pre planning document based on information which may evolve further at the request of the planning authority South Dublin County Council or our client Atlas GP Limited.

APPENDIX

Blank PPM Schedule to be inserted here