

03 THE SQUARE

MEDICAL USE REDESIGN + REFURBISHMENT
DESIGN + ACCESS STATEMENT
05 | 02 | 2024

ACCESS + MOVEMENT 11

OVERVIEW + CONTEXT
INTERNAL MOVEMENT PLAN
SITE + BUILDING SECURITY

ACCESS + MOVEMENT

Overview + Context

11.1

ACCESS STRATEGY

A full assessment of the connectivity of the Site to local facilities has been undertaken as part of an Active Travel Zone assessment.

The proposals will provide cycle parking provision, including the type and number of cycle parking spaces in accordance with guidance.

The proposed pedestrian network will integrate the Site with the surrounding infrastructure.

Car parking, including EV charging and blue badge provision will be provided in accordance with occupier requirements and will result in a reduction compared with the existing provision. This will include spaces for staff and visitor designated areas.

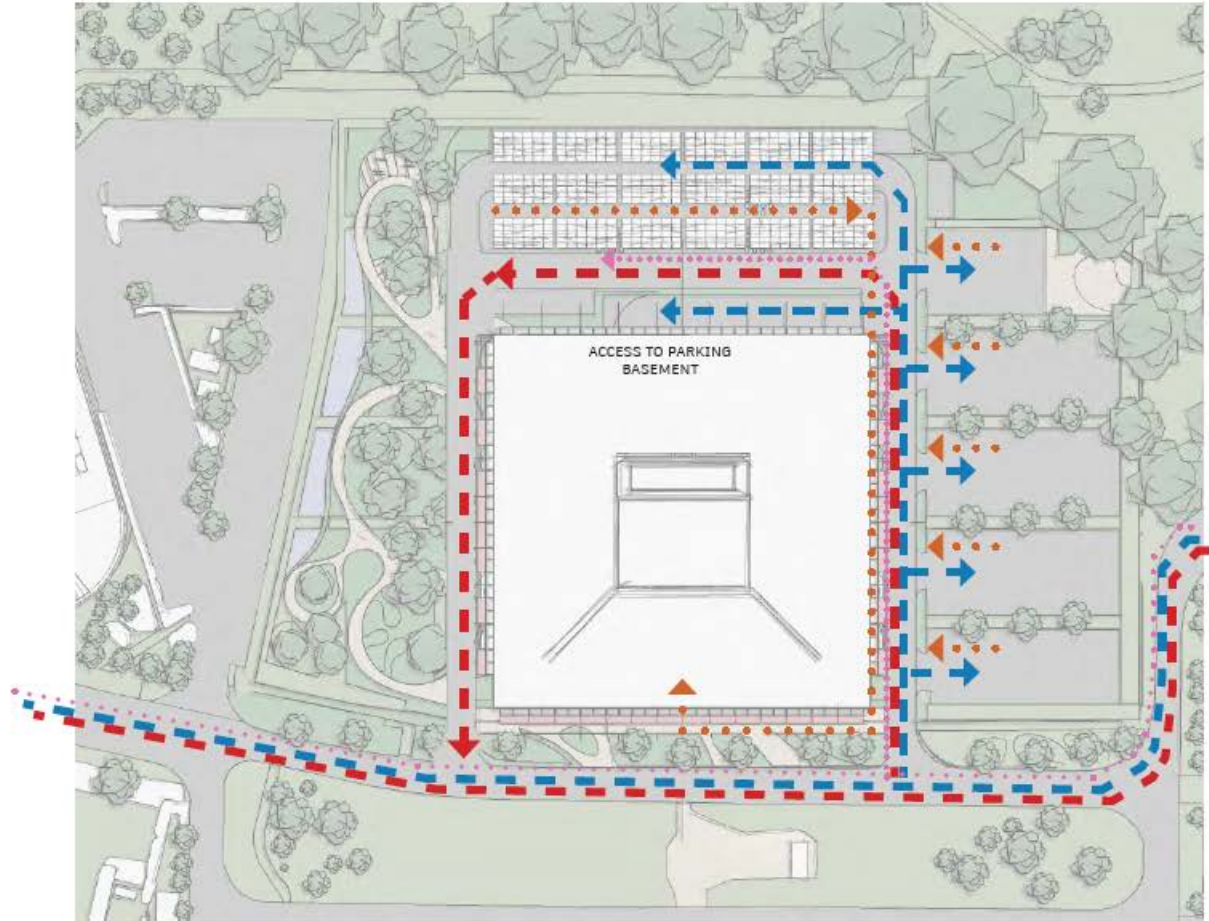
A TA has been prepared in-line with Transport for London's Healthy Streets approach / format. This document will then be further supported by a Framework Travel Plan, Delivery & Servicing Plan, Car Park Management Plan and a Construction Logistics Plan.

Associated vehicular trips set out within the TA show a comparison between the existing and proposed uses, tested with TRICS data for a sensitivity test and data obtained from a comparable site.

The layout will be designed to incorporate appropriate and adequate set down space for ambulance, refuse collection and delivery and servicing trips.

A tracking exercise will be undertaken of the layout to ensure that it works efficiently and effectively.

- ● ● ● ● CYCLING ROUTE/ ACCESS
- ● ● ● ● PATIENT/ VISITOR GARDEN ACCESS
- ● ● ● ● PEDESTRIAN CIRCULATION/ ACCESS
- ● ● ● ● VEHICULAR ACCESS
- ● ● ● ● FIRE TENDER ACCESS



ACCESS + MOVEMENT

11.2

Internal Movement Plan

INTERNAL MOVEMENT STRATEGY

Wayfinding System:

Implement a clear and intuitive wayfinding system throughout the medical building. Utilize colour-coded signage, floor maps, and directional indicators to guide patients, visitors, and staff to their destinations. Ensure that key areas such as waiting rooms, examination rooms, and administrative offices are prominently marked.

Staff Communication Channels:

Establish effective communication channels for staff members to coordinate and share information. Utilize a secure messaging system or mobile app to facilitate real-time communication, reducing response times and improving collaboration between different departments.

Patient Flow Optimization:

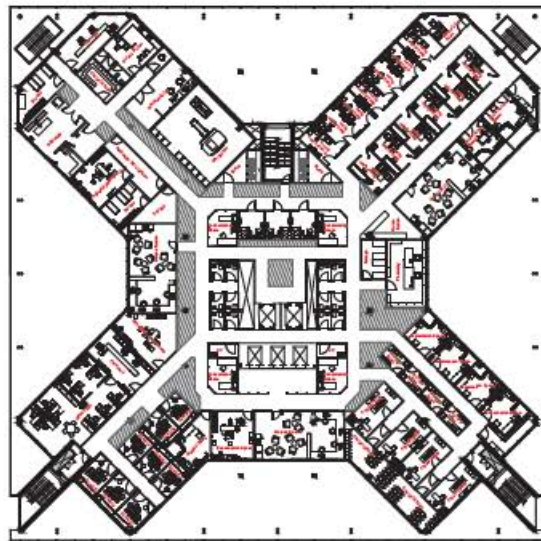
Analyse and streamline the patient journey from check-in to check-out. Consider implementing digital check-in systems, appointment reminders, and patient tracking solutions to minimize wait times and enhance overall patient satisfaction. Ensure that waiting areas are well-designed for comfort and privacy.

Flexible Workspace Design:

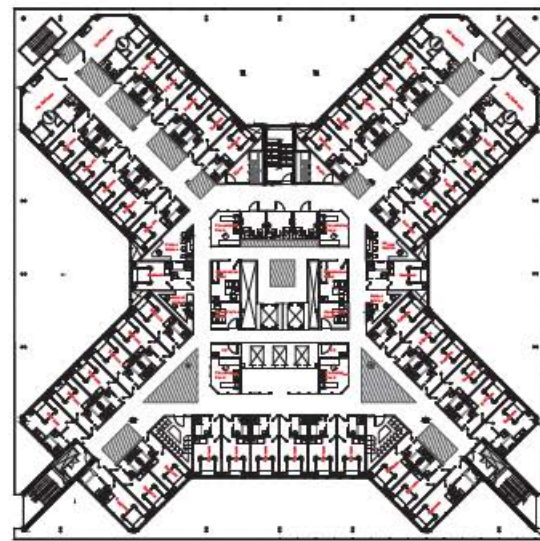
Evaluate the current layout of workspaces and optimize them for efficiency. Consider implementing flexible workstations, shared office spaces, and collaboration zones to encourage teamwork and adapt to the changing needs of the medical staff.



Ground Floor



First Floor



Upper Floor

ACCESS + MOVEMENT

11.3

Site + Building Security

ACCESS CONTROL

Physical Access:

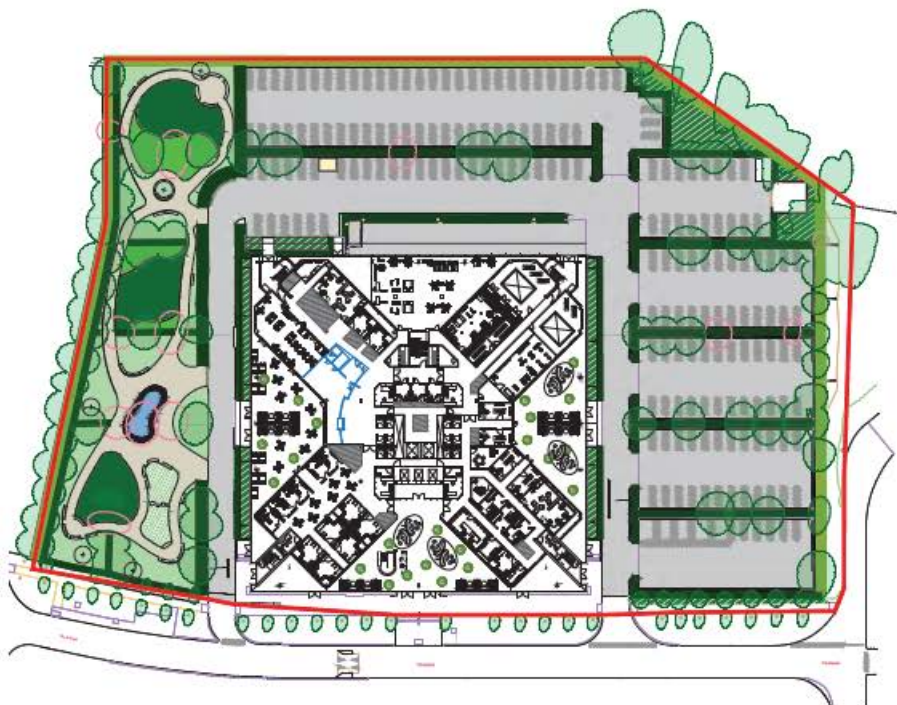
Install access control systems at all entry points. Implement card readers, biometric scanners, or keypads for secure access. Restrict access to certain areas based on roles

Visitor Management:

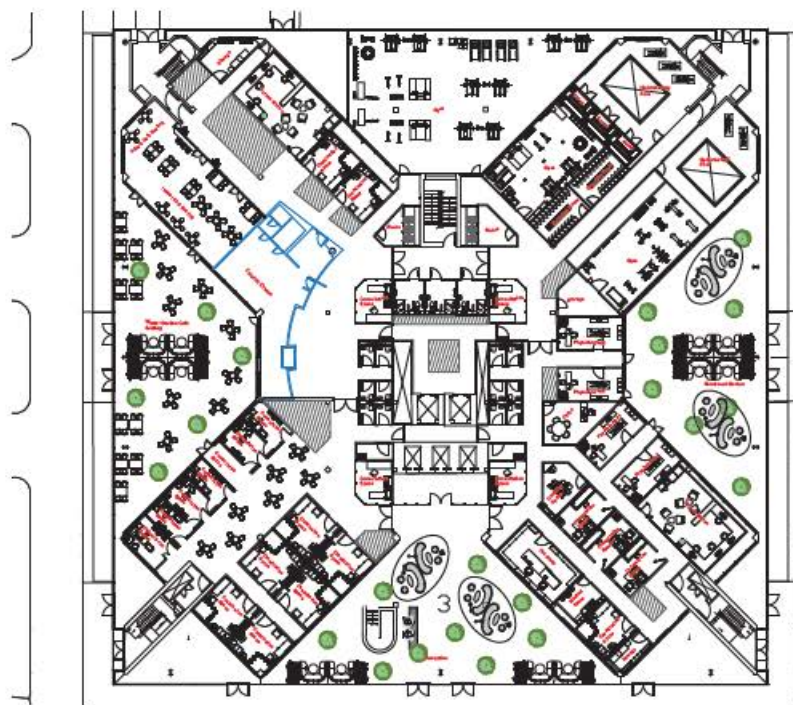
Require all visitors to sign in at the reception. Issue temporary badges or passes for authorized access. Conduct background checks for vendors and contractors.

CCTV Cameras:

Install CCTV cameras at key points, including entrances, exits, hallways, and parking lots. Ensure cameras cover both indoor and outdoor areas.



Proposed Site



Proposed Ground Floor



ESG + SUSTAINABILITY 12

ENERGY EFFICIENCY

BREEAM

SUSTAINABLE DESIGN FEATURES

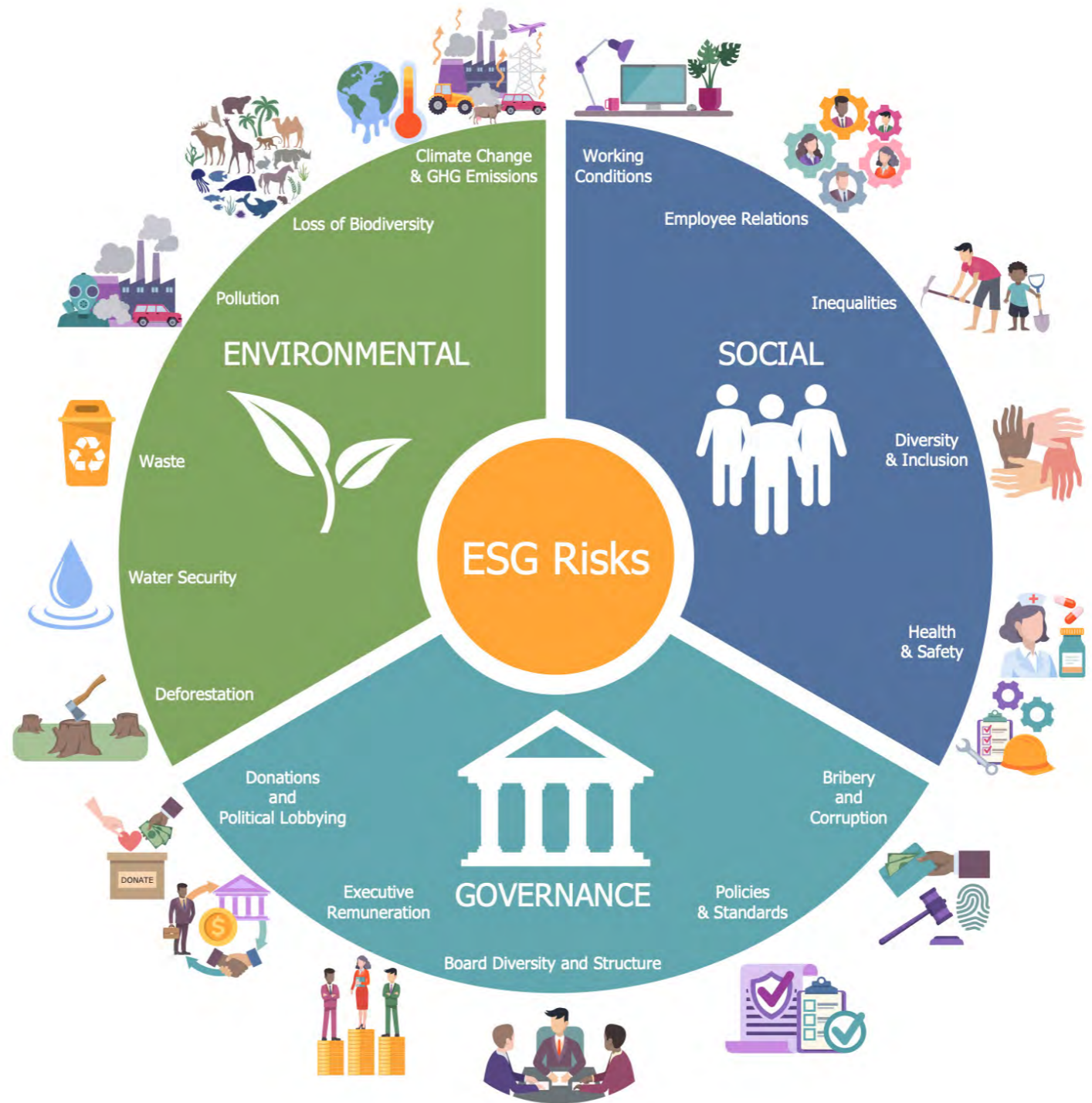
ESG + SUSTAINABILITY

12.1

Energy Efficiency

ENERGY & SUSTAINABILITY

- The existing building will be retained and improved, minimising embodied carbon emissions and raw material consumption.
- A fabric first approach will be employed to minimise energy consumption during operation.
- Passive means of ventilation and cooling will be prioritised, supplemented by highly efficient systems where required.
- The proposals will replace the existing natural gas heating systems with all-electric space and water heating systems
- The incorporation of renewable technologies, such as air source heat pumps (ASHPs) will be considered as the design continues to progress
- The scheme will achieve a minimum 35% reduction of carbon dioxide emissions over the Part L baseline through on-site means alone
- Any residual carbon emissions will be offset to zero through a contribution to LB Hillingdon's carbon offset fund
- Circular economy principles will be embedded within the design of the proposals to ensure materials are maintained at their highest value, and to minimise the generation of waste
- Materials will be procured in consideration of their environmental impacts, as well as the impacts that they may have on future site users



ESG + SUSTAINABILITY

Energy Efficiency

12.1

ENERGY

A Sustainability and Energy Statement has been prepared, containing an Energy Strategy that outlines the measures embedded within the design of the proposed development to minimise energy consumption, and associated carbon dioxide emissions, during its operation. The proposed development will be designed to comply with the requirements of SI2 and SI3 of the London Plan, achieving a minimum 35% reduction in carbon dioxide emissions of the existing building through on-site means, and overall achieving net-zero carbon emissions in operation. The Energy Strategy follows the Mayor's Energy Hierarchy, seeking to first reduce energy demand and deliver clean energy, before implementing renewable technologies. The design measures to be implemented are as follows:

Be Lean:

Under the first tier of the Energy Hierarchy, energy demand will be reduced through the implementation of a 'fabric first' approach. This will include the provision of high levels of insulation to achieve u-values that are reduced as far as possible, considering the intention to retain the existing building. A high level of air tightness will also be targeted, where practicable and technically feasible. The proposals will be designed reduce energy consumption through passive measures, such as the provision of openable areas of glazing which will reduce the need for artificial lighting and, where appropriate, mechanical ventilation and cooling. The energy efficiency measures will be incorporated in accordance with the requirements of both the Greater London Authority (GLA) and the London Borough of Hillingdon (LBH). The proposed development will, where practicable, endeavour to achieve a reduction in carbon emissions over the existing building through energy efficiency measures alone.

Circular Economy

A Circular Economy Statement has been prepared to accompany the application, detailing the measures that have been embedded within the scheme to ensure materials employed are utilised at their maximum value for as long as possible, and that the volumes of waste generated across the life-cycle of the proposals are minimised. The evolution of the design of the proposed development has considered the flexibility and adaptability of the scheme, as well as its durability, resilience to changing demand and climate impacts, and the ease with which it may be maintained during its operation and dismantled at the end of its life.

Embodied and whole life carbon

A Whole Life Carbon Assessment has been undertaken in line with the guidance provided by the Greater London Authority (GLA) and the Royal Institute of Chartered Surveyors (RICS) Professional Statement: Whole Life Carbon Assessment for the Built Environment. The intention to retain the existing building as part of the proposed development will aid in reducing embodied carbon emissions, however the scheme will seek to further minimise embodied carbon through the employment of durable materials, the consideration of low-carbon construction techniques, and the procurement of local materials, where feasible and appropriate. Lean design principles will also be taken into consideration within the design of the proposals, to minimise the quantities of materials required to construct the scheme. This, in combination with the proposed energy strategy which will seek to minimise operational carbon dioxide emissions, will ensure the whole life carbon emissions associated with the proposed development have been minimised as far as practicable.

Be Clean:

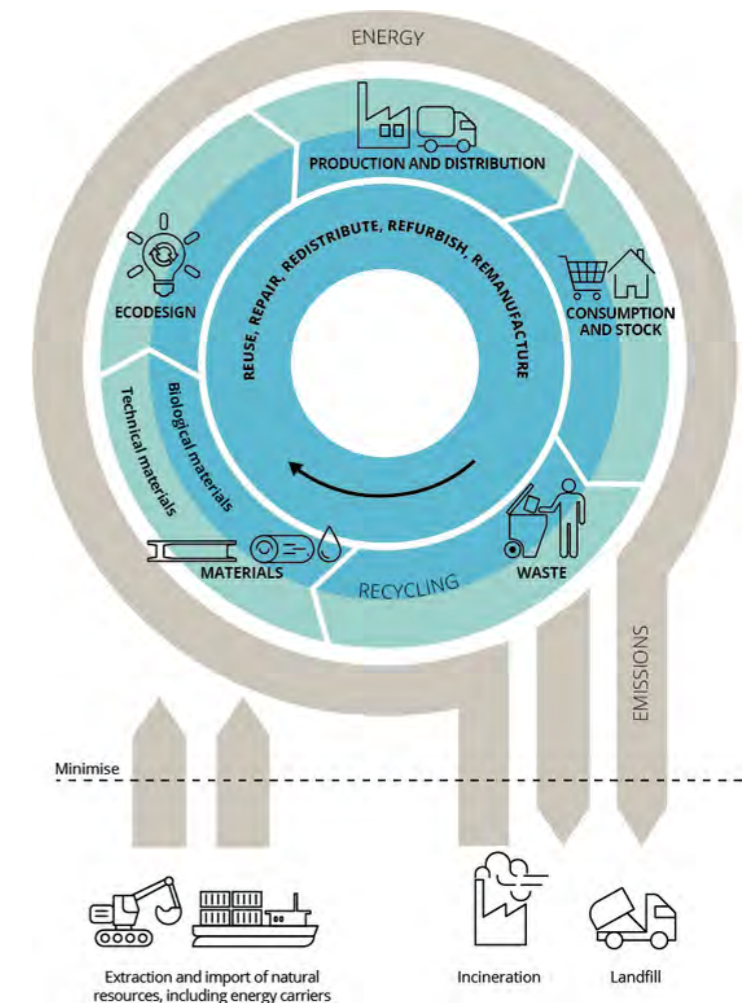
The proposed development site is located within a Heat Network Priority Area, however it is understood that there are no existing district heat or energy networks present within the surrounding area. It is intended, however, that the proposed development be future-proofed to enable a connection to a district heat or energy network, should one come forward in the future.

Be Green:

The space and water heating demands of the proposed development will be served by a highly efficient air source heat pump (ASHP) system or multi-function heat recovery (hybrid) chillers. The system will be designed to deliver energy efficient heating, whilst minimising distribution losses. The proposed ventilation systems will incorporate heat recovery.

Be Seen:

As required by policies contained within the London Plan, the main plant to be provided for the proposed development will be sub-metered, and installed in line with the Building Regulations and CIBSE TM39 in order to monitor and measure energy consumption at the site.



ESG + SUSTAINABILITY

12.1

Energy Efficiency

HIVE - M&E REPORTING

The mechanical, electrical and public health services will be designed to ensure compliance with the local planning policies.

The provision of a safe, efficient and comfortable building in accordance with CIBSE guidance. The MEP services shall be fully coordinated with the Architecture, Structural, Civil, all other specialist designs and FF&E supplied or specified by the client. The design shall be in compliance with all relevant regulations and HSE guidance.

As a general principle, the design and installation shall allow for flexibility of the mechanical, electrical and public health services. These installations shall be such as to enable changes, adaptations, extensions etc. to meet the future changing needs of the Client, without major disruptions to the building.

This shall be achieved by the provision of adequate isolation points, spare connections, etc. In addition, services shall be routed such that as far as practicable space is available for future supplementary systems to be provided. Space allowances for services shall be in accordance with BSRIA TN10/92.

During Stage 1 design we have undertaken initial non-intrusive surveys of the site and the associated services infrastructure.

These surveys have provided some detail of the site characteristics and services infrastructure, but the site services phasing and distribution can only be developed at a point in time whereby building mechanical and electrical loads are determined and when in receipt of a GPR survey.

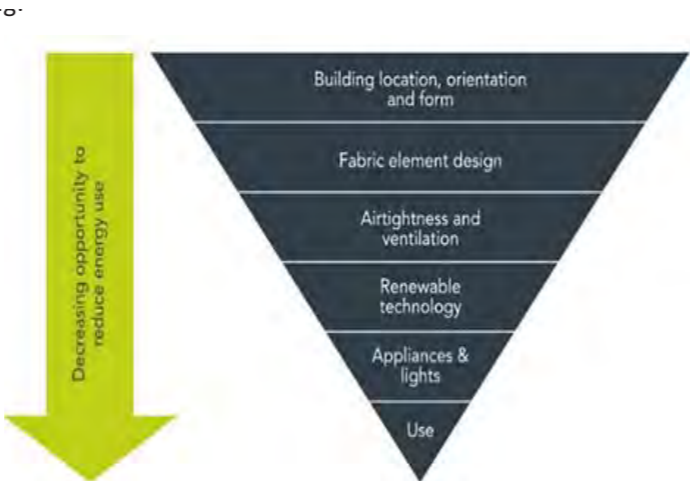
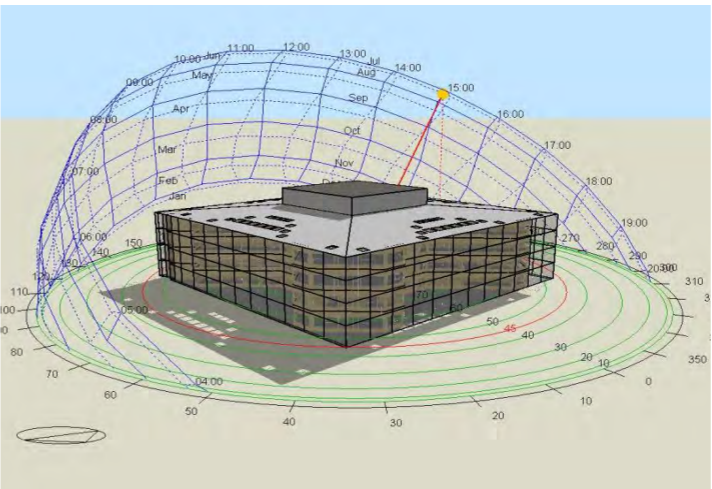
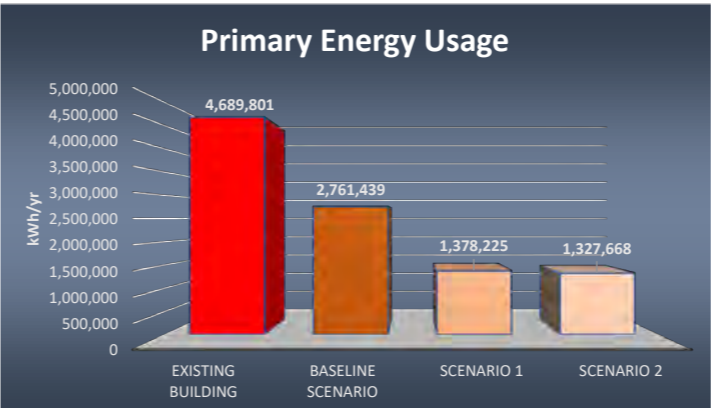
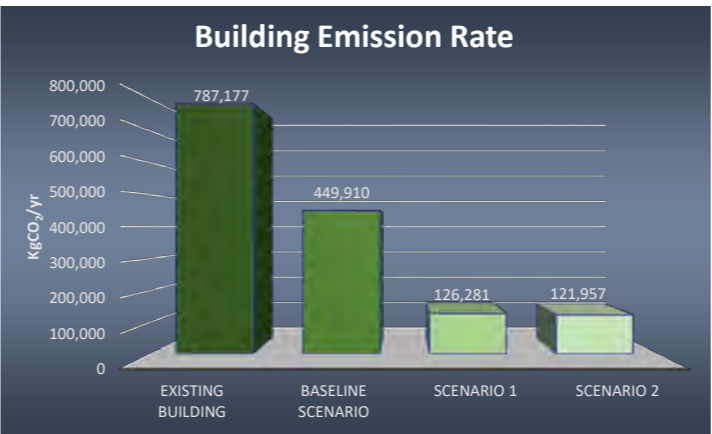


Figure 7 Low Carbon Hierarchy



Energy Performance Certificate

Non-Domestic Building

3 The Square,
Stockley Park
Hayes
Uxbridge
UB11 1ET

Certificate Reference Number:
6294-3709-5709-0297-2909

This certificate shows the energy rating of this building. It indicates the energy efficiency of the building fabric and the heating, ventilation, cooling and lighting systems. The rating is compared to two benchmarks for this type of building: one appropriate for new buildings and one appropriate for existing buildings. There is more advice on how to interpret this information in the guidance document *Energy Performance Certificates for the construction, sale and let of non-dwellings* available on the Government's website at www.gov.uk/government/collections/energy-performance-certificates.

Energy Performance Asset Rating

More energy efficient

A+

A 0-25

B 26-50

C 51-75

D 76-100

E 101-125

F 126-150

G Over 150

Less energy efficient

11 This is how energy efficient the building is.

Net zero CO₂ emissions

Technical information

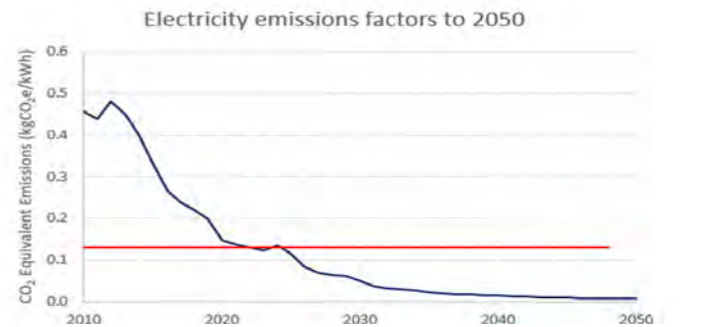
Main heating fuel: Grid Supplied Electricity
Building environment: Air Conditioning
Total useful floor area (m²): 11087
Building complexity: Level 4
Building emission rate (kgCO₂/m² per year): 11
Primary energy use (kWh_e/m² per year): 119.75

Benchmarks

Buildings similar to this one could have ratings as follows:

8 If newly built

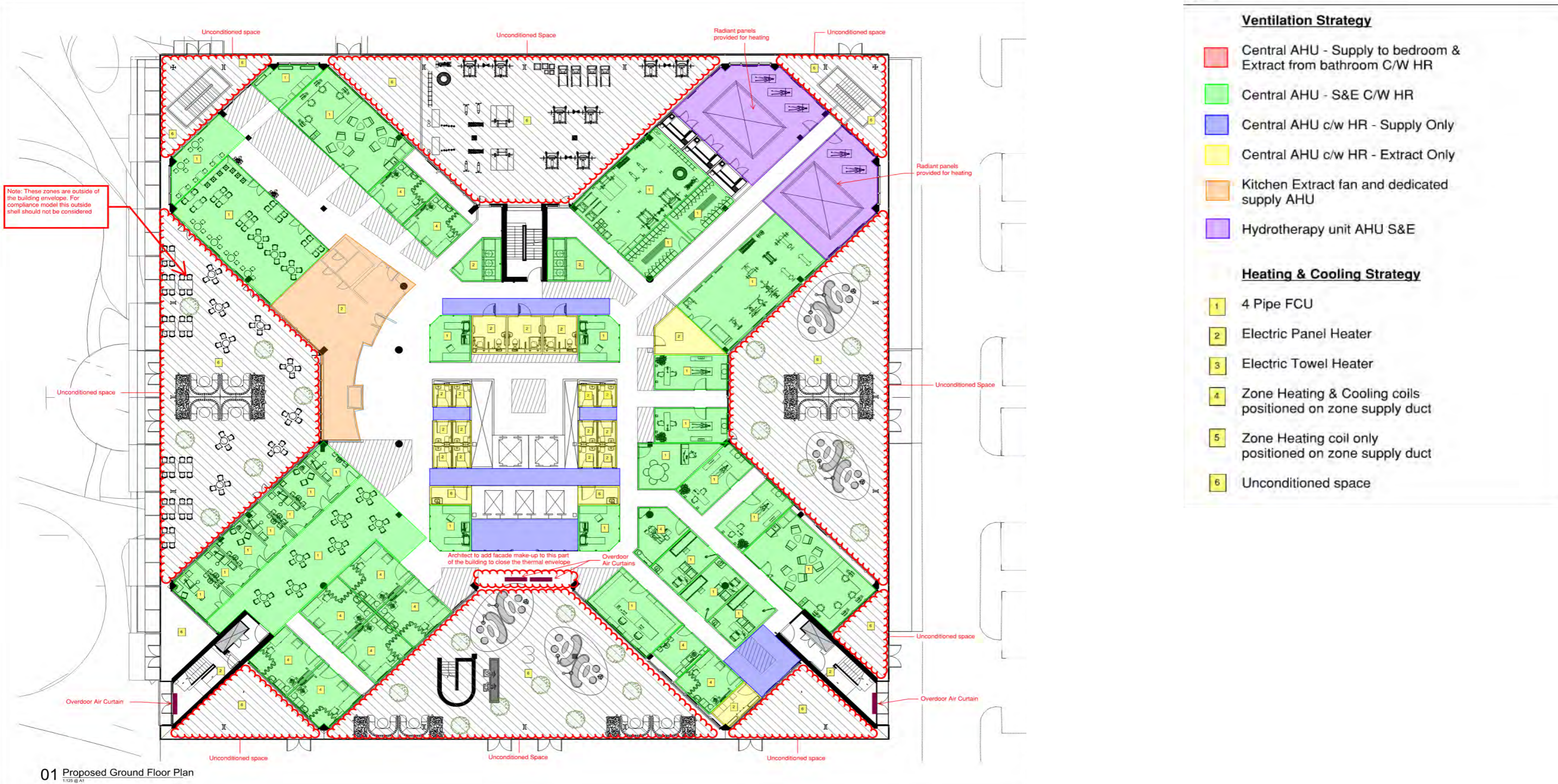
33 If typical of the existing stock



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SUSTAINABILITY

12.1

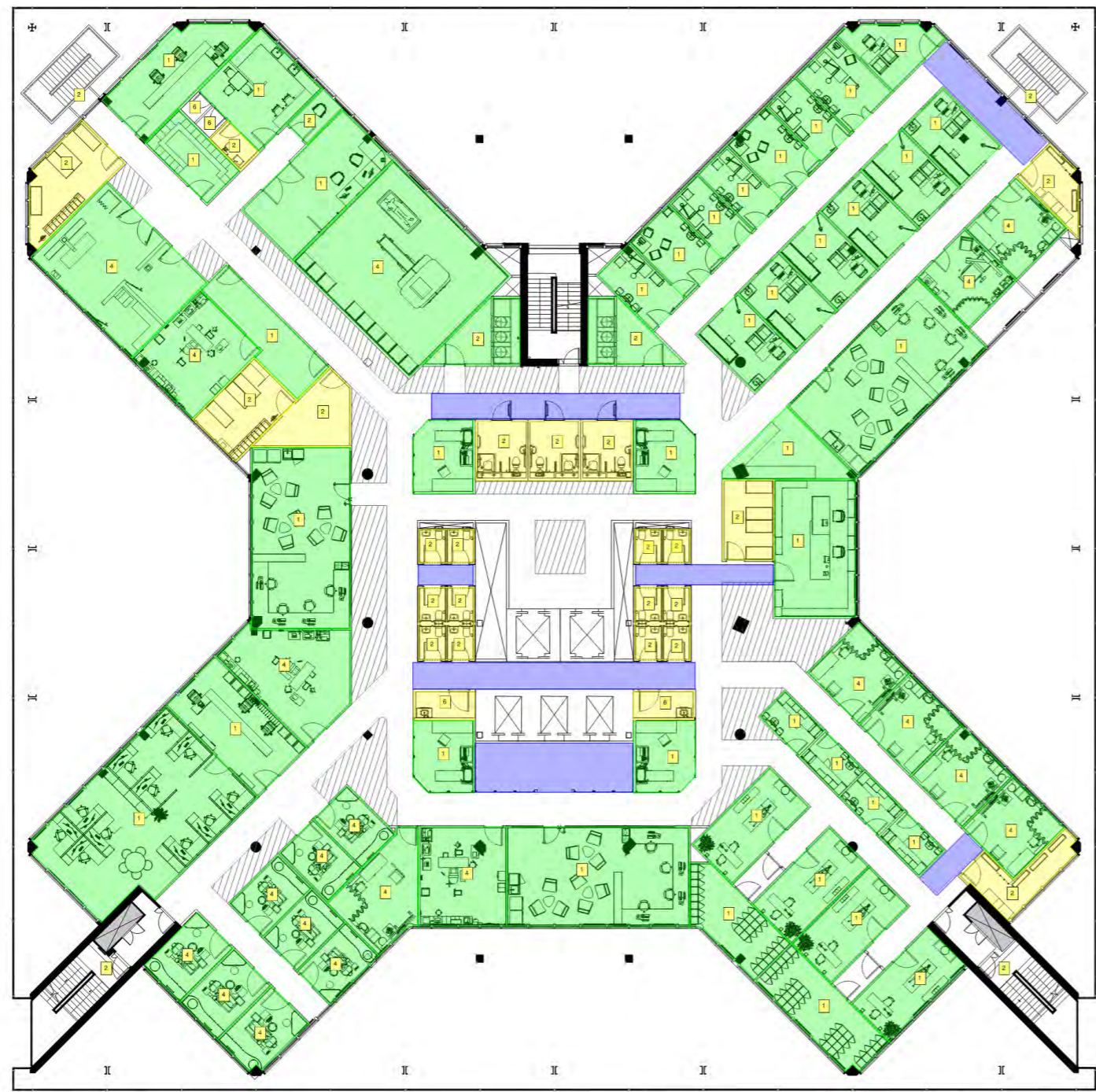
Energy Efficiency



ESG +
SUSTAINABILITY

12.1

Energy Efficiency



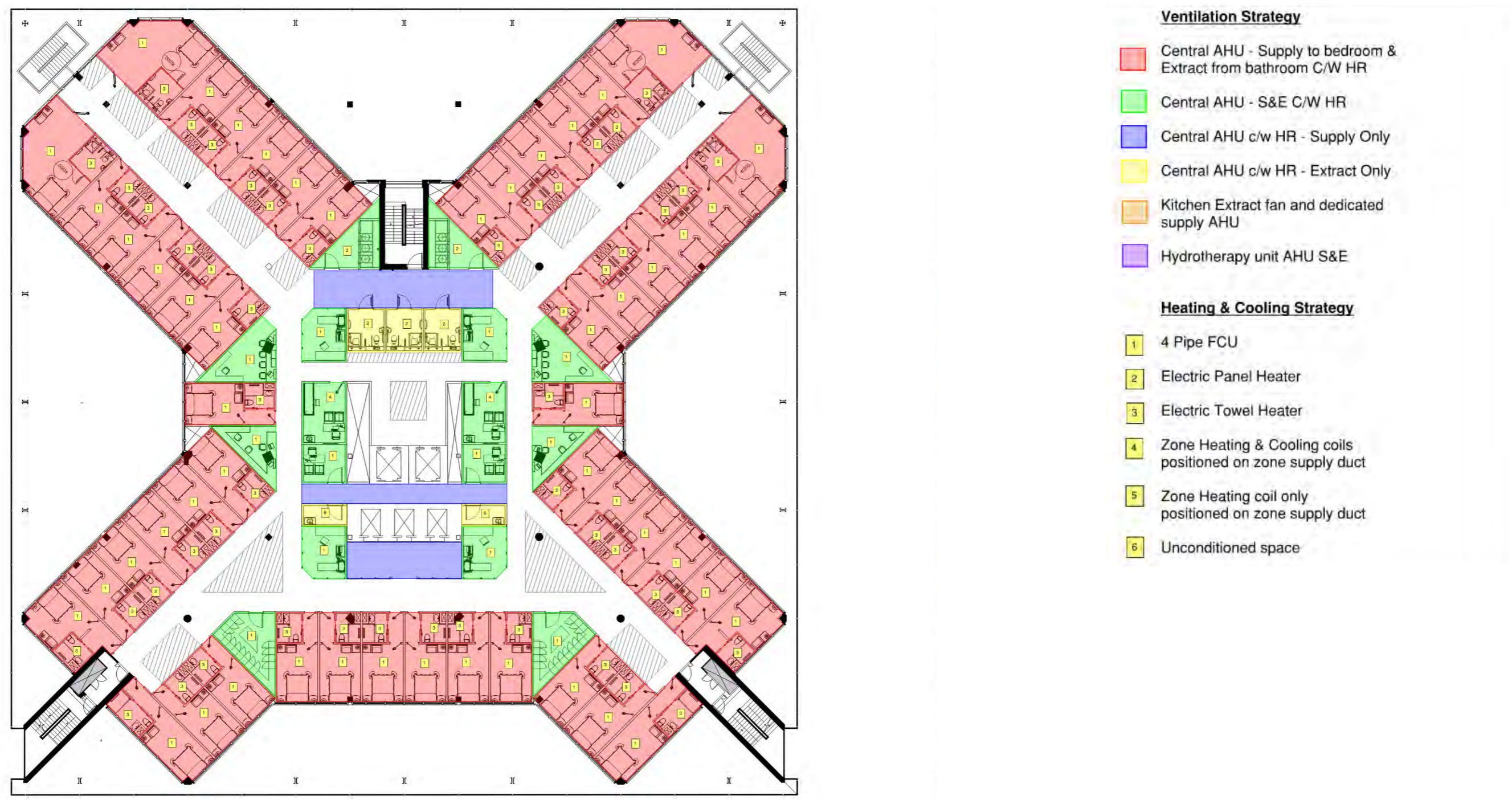
- Ventilation Strategy
- Central AHU - Supply to bedroom & Extract from bathroom C/W HR
 - Central AHU - S&E C/W HR
 - Central AHU c/w HR - Supply Only
 - Central AHU c/w HR - Extract Only
 - Kitchen Extract fan and dedicated supply AHU
 - Hydrotherapy unit AHU S&E
- Heating & Cooling Strategy
- 4 Pipe FCU
 - Electric Panel Heater
 - Electric Towel Heater
 - Zone Heating & Cooling coils positioned on zone supply duct
 - Zone Heating coil only positioned on zone supply duct
 - Unconditioned space

01 Proposed First Floor Plan
1:125 @ A1

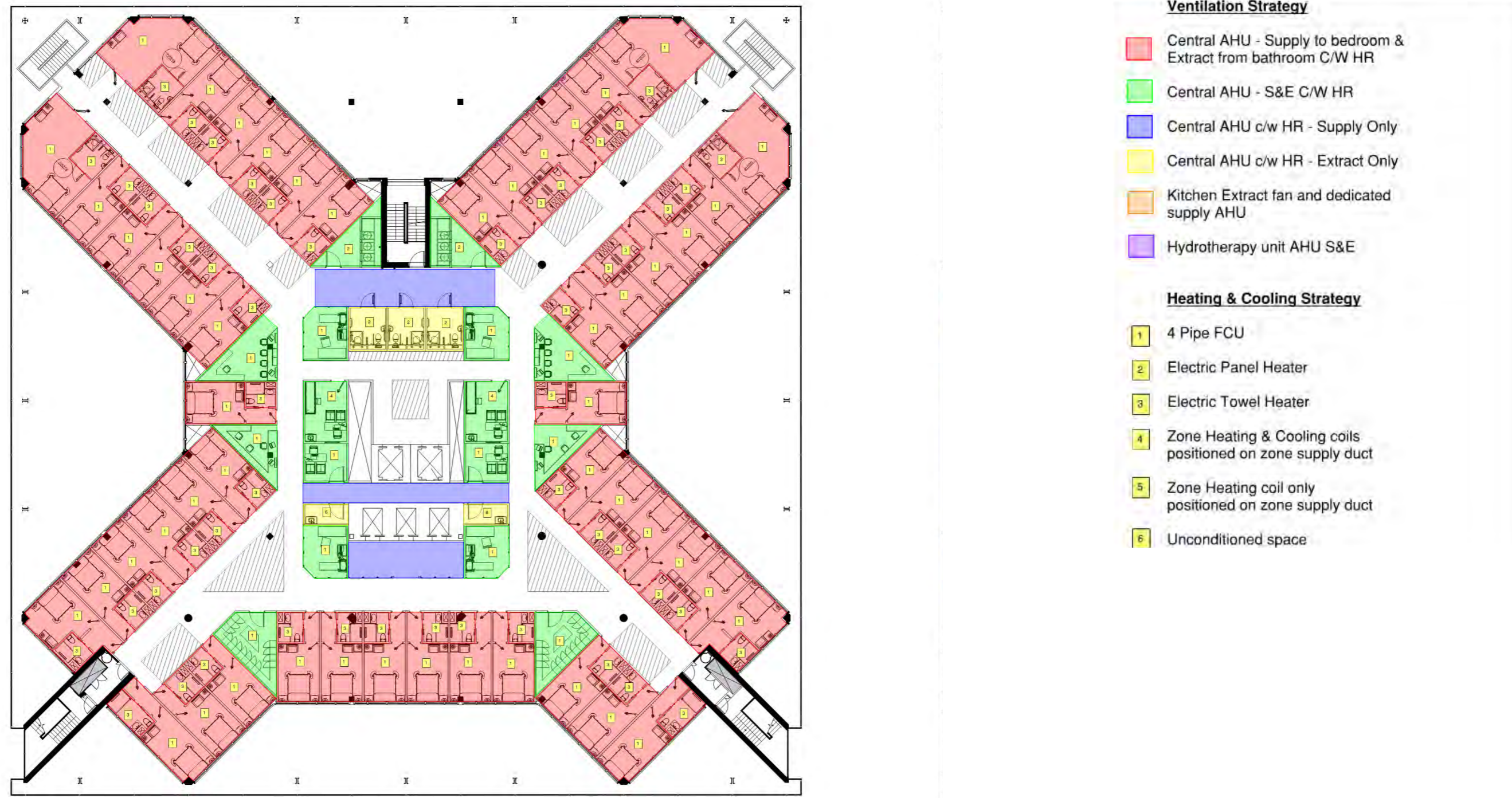
ESG +
SUSTAINABILITY

12.1

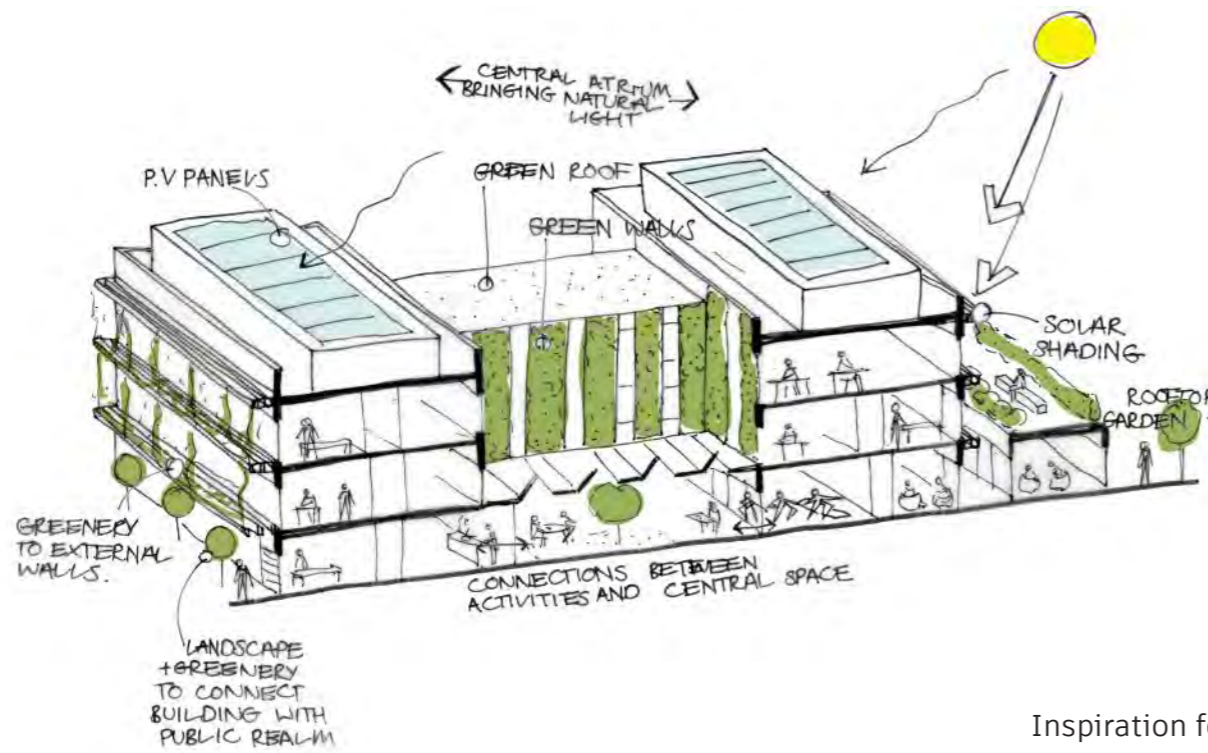
Energy Efficiency



01 Proposed Second Floor Plan



01 Proposed Third Floor Plan
1:125 @ A1



Inspiration for Efficiency

SUSTAINABLE ARCHITECTURE & DESIGN

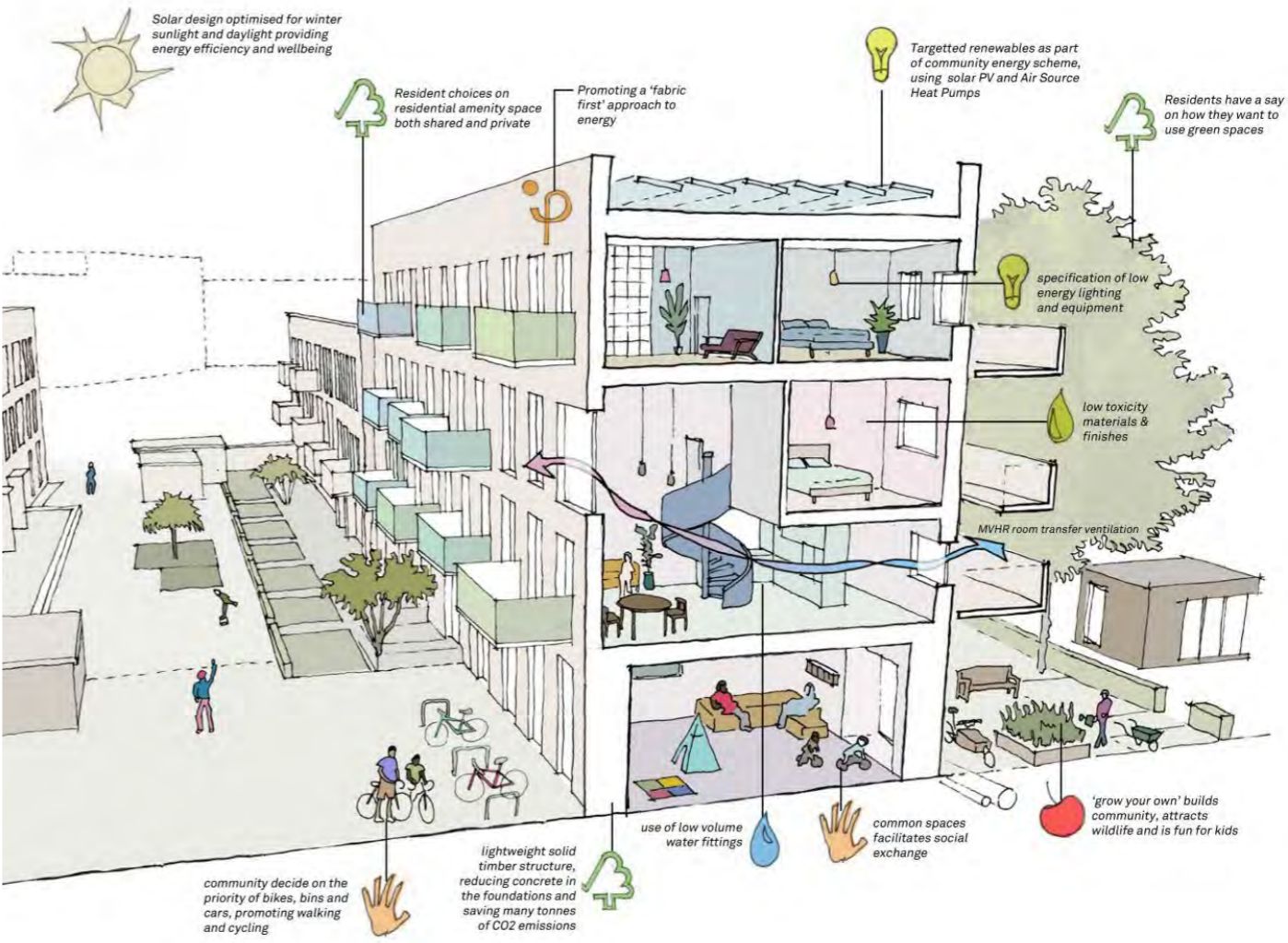
At Hale, we believe that architectural design and sustainable design are inextricably linked. By incorporating sustainable principles into our designs, we can create buildings that have a minimal impact on the environment. We have a long history of designing sustainable buildings. We have a deep understanding of the latest sustainable design techniques, and we are committed to using these techniques to create buildings that are both environmentally friendly and aesthetically pleasing.

We believe that sustainable design is the future of architecture. As the world becomes increasingly aware of the importance of sustainability, there is a growing demand for sustainable buildings. We are proud to be at the forefront of this movement, and we are committed to creating sustainable buildings that will benefit our clients, our communities, and the environment for years to come.



TENANTS OF THIS DOCUMENT

Environmental, social, and governance (ESG) factors are increasingly important to businesses and investors. As a result, there is a growing demand for architectural designs that incorporate ESG principles. This document provides an overview of the key ESG factors that are considered during Hale’s architectural design. It also discusses the benefits of incorporating ESG principles into architectural design, and provides some examples of how this can be done.



BREEAM STRATEGY - MEDICAL FACILITY

Project: Conversion of Office Facility to Medical Rehabilitation Facility
Name: 03 The Square
Location: London, United Kingdom

Overall Objective

The overall objective of the BREEAM strategy is to achieve an “Excellent” rating for the conversion of the office facility to a medical rehabilitation facility. This will be accomplished by implementing a range of measures that will improve the sustainability performance of the building.

Key Measures

Energy: Implement energy-efficient measures such as installing LED lighting and upgrading the HVAC system.

Water: Reduce water consumption by installing water-efficient fixtures and using rainwater harvesting.

Materials: Use sustainable materials such as recycled and locally sourced materials.
Waste: Reduce waste by implementing a recycling and composting program.

Health and Well-being: Create a healthy and comfortable indoor environment by improving natural ventilation and using low-VOC paints and finishes.

Site

Sustainable transport: Encourage the use of sustainable transport modes such as public transport, cycling, and walking by providing convenient access to these modes of transport.

Ecology: Protect and enhance the ecology of the site by creating a green roof and planting native trees and shrubs.

Pollution: Reduce pollution by using low-emission construction vehicles and implementing a dust management plan.

Management

BREEAM plan: Develop a BREEAM plan that outlines the measures that will be implemented to achieve the “Excellent” rating.
Commissioning: Commission all building systems to ensure that they are operating efficiently.

Monitoring

Monitoring: Monitor the performance of the building to identify areas for improvement.
Additional Measures

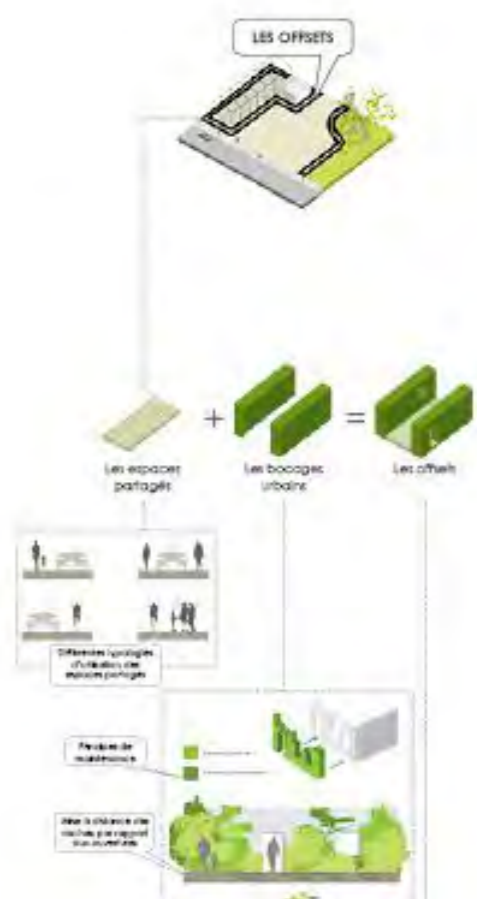
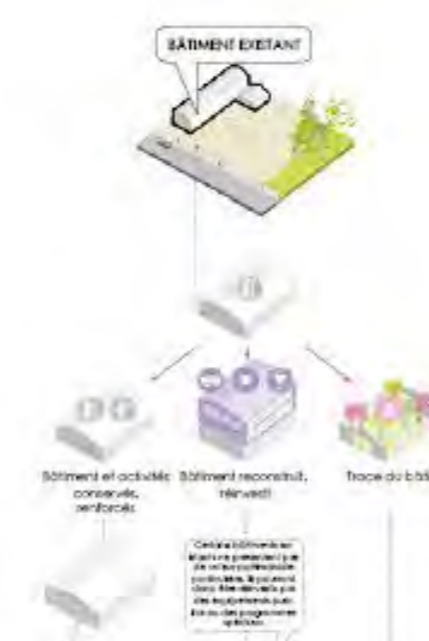
Renewable energy: Install renewable energy systems such as solar panels or wind turbines.

Water conservation: Use water-efficient landscaping and install waterless urinals.

Waste management: Implement a comprehensive waste management plan that includes recycling, composting, and waste reduction initiatives.

Indoor air quality: Improve indoor air quality by using low-VOC paints and finishes and installing air filtration systems.

Occupational health and safety: Implement a comprehensive occupational health and safety plan to protect the health and safety of staff and patients.



BREEAM Assessment

The BREEAM assessment will be carried out by a qualified BREEAM assessor. The assessor will assess the building against the BREEAM criteria and award a rating based on the building’s performance.

Conclusion

The implementation of this BREEAM strategy will result in a more sustainable medical rehabilitation facility that has a positive impact on the environment and the health and well-being of its occupants.

ESG + SUSTAINABILITY

12.2

Sustainable Design Features

ESG & SUSTAINABILITY

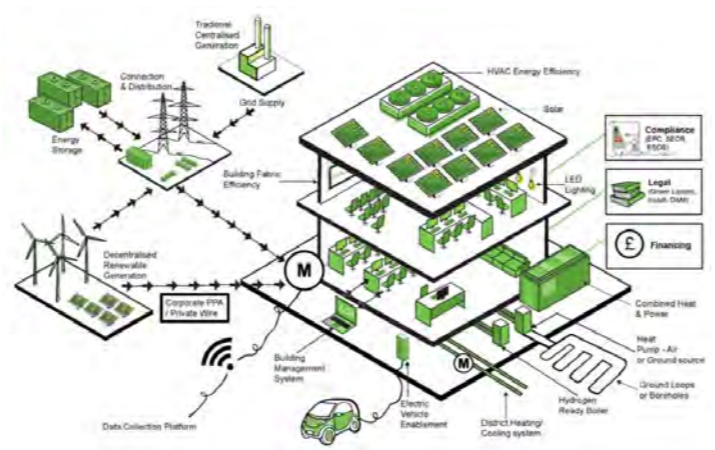
Aspirational Accreditation:

- Net Zero Carbon -
 - Cycling Score -
 - ISO 14001 -
- In operation
Gold Certified

Management & governance policies and systems including the BSRIA soft landings framework.

Design and construction Aspirations:

- Improved **Energy efficiency** of building
- Insulation** - Improved thermal Performance
- Heating and cooling - **Fabric enhancements**
- Energy sources and consumption - new M&E
- Material choices - **Sustainable low Carbon**
- Well-being of building users - **Increased amenity and active frontage**
- Sense of community -
- Accessibility and inclusivity** of building users
- Lighting and **indoor air quality** improvements
- Thermal comfort** through new M&E systems
- Incorporation of **green spaces** - New **restorative gardens** as well as improved winter gardens



ESG Conscious typologies and items:

- PV / Solar Array - Roof & Landscaping
- Air Permeability - Up to an agreed standard
- Upgraded Insulation / UV
- Acoustics - Up to an agreed standard
- Mixed Mode Ventilation
- Heat Recovery - Ventilation
- Heat Recovery - Wastewater
- External Shading
- Floor To Floor M&E Split
- Cool (Reflective) Roof Systems
- Led Lighting
- Pir Absence Detection
- Daylight Control
- Illuminance Control
- Heat Pumps
- Fuel Cell & Electrical Storage
- Calcium Sulphate RAF & Breathe-board
- Non-Galvanised Steel M&E
- EV Bike / Car Charging & Sharing Bays
- Pre-Refurbishment Audit & Globe-chain
- Smart Systems
- Ecology & Biodiverse Architecture



