



Moorfield
Group

SUSTAINABLE
CONSTRUCTION
AND MAJOR
REFURBISHMENT
GUIDE – May
2023 v2

Application of guide

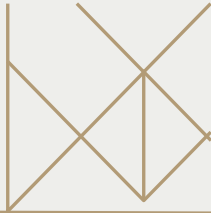
We are pleased to present Moorfield Group's sustainable construction and refurbishment guide.

These guidelines are designed to be flexible and not overly prescriptive, however they set out the principles we use in ensuring that sustainability is considered in all aspects of the work we carry out. The overarching objective of our approach is to create enhanced investment returns by considering the impact on the environment of our activities. We ensure high sustainability standards are integrated into our projects through assessing, identifying and setting objectives to improve the sustainability profile of any project over and above that of any statutory requirement, where economically viable in the context of property investment.

We seek to improve the sustainability profile of any project over and above any statutory requirement, minimum best practice or acceptable standard through identifiable and marketable documentation or accreditation e.g. EPCs, DEC's, BREEAM, LEED.

Major refurbishment is defined as **a construction project that results in the fundamental remodelling or adaptation of existing elements of the building envelope, structure and renewal of key building services.** And where, on completion of the works, such remodelling/renewal will materially impact on the performance of the building.

Table of Contents



- 1. Management / Brief**
- 2. Community / Social Value**
- 3. Health & Wellbeing**
- 4. Energy**
- 5. Transport**
- 6. Water**
- 7. Materials**
- 8. Waste**
- 9. Ecology and Biodiversity**
- 10. Pollution control**

1. Management / Brief

Minimum Requirements

- A commitment from the project team, from the outset, to keep sustainability, wellness and social value at the forefront of design and feasibility planning
- Wherever possible, contractor to demonstrate compliance with ISO:14001 Environmental Management System, preferably certified by an UKAS accredited body
- Project Manager to ensure that contractors are aware of sustainability requirements, ensure this guide is part of the project brief and that the design incorporates future flexibility as appropriate
- Achieve at least a 'B' EPC rating or BREEAM Very Good (but targeting BREEAM Excellent) for all new construction and major refurbishment. The same rating should be targeted on all other projects depending on the scope of the existing building specification.
- A commitment from the project team, at the end of the project to provide evidence of all improvements made incorporating detailed data on quantifiable improvements wherever possible. The aim is to ensure every asset has a comprehensive manual with all technical information describing the building that would be necessary for future asset and investment management

Additional Requirements

- Project Manager to ensure that designs incorporate recommendations from relevant design
- Achieve at least a BREEAM 'Very Good' on all new construction or major refurbishments
- Contractor to name individuals responsible for management of sustainability programmes, including a suitable qualified BREEAM Sustainability Champion, where relevant

2. Community / Social Value

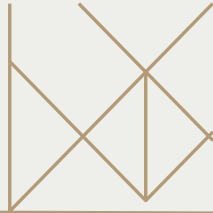
Minimum Requirements

- Engage and communicate with stakeholders and third parties and demonstrate consideration for neighbours during construction activities
- Project Manager, contractor, and any appointed supplier, is required to adhere to the UK Modern Slavery Act 2015 to combat slavery and human trafficking
- Contractor to register and provide a certificate of compliance with the Considerate Constructors Scheme and operate in line with Moorfield's Responsible Contractor Policy.
- Contractor to provide scorecard for Considerate Contractors Questionnaire
- Project Manager, contractor, and any appointed supplier, to ensure that all workers are paid the Real Living Wage
- Project Manager or contractor to identify affected stakeholders and impacted groups
- Project Manager or contractor to identify risk of nuisance and/or disruption to stakeholders such as excess noise or increased traffic congestion

Additional Requirements

- Contractor to monitor and record site-related community impacts. Mitigation measures to be agreed at outset, and set targets where relevant
- Contractor to use, where appropriate, local labour and find ways to benefit the local community
- Contractor to provide a Community Impact Assessment incorporating local job creation, local resident's wellbeing and walkability score etc.

3. Health & Wellbeing



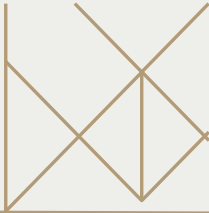
Minimum Requirements

- Project Manager and Contractor to ensure both in design and construction that public, operatives and occupier's safety during construction is considered, controlled and monitored
- Factors such as air quality, lighting, occupant controls, views and interior layout should be considered during design to improve the health and satisfaction of occupiers
- Incorporate bike spaces/facilities to accommodate cycle commuters and best practice end-of-trip facilities such as showers and lockers where appropriate
- Consider the use of natural ventilation and other forms of passive internal fresh air environments
- Maximise where possible the use of natural daylight to improve wellbeing in design
- Fire safety consultants to be appointed to oversee and evidence works done by contractor on all development work

Additional Requirements

- Consider the development of Indoor Air Quality Plans to ensure quality of environment for future occupiers
- Consideration should be given to the attainment of a 'Fitwel' or 'Well' standard

4. Energy



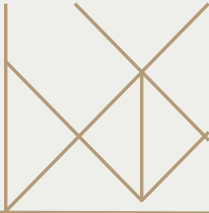
Minimum Requirements

- Project Manager and Contractor to ensure an energy efficient design
- If being replaced, the Project Manager and Contractor to design and install energy efficient plant and mechanical and electrical systems that reduce carbon dioxide emissions
- A feasibility study of low and zero carbon technologies, including district heating networks, CHP and renewables should be undertaken for new-build projects, and shall be considered for major refurbishment projects where appropriate
- Where possible, commission whole building EPCs as opposed to each demise when services are shared
- Sub-metering to be considered for installation to help understand building usage, end-use consumption and comparison benchmarking
- Include Automatic Meter Reading (AMR) meters where appropriate and practicable
- Consider the use of smart technology including application-based systems that help assess and consequently manage building usage and reduce energy consumption

Additional Requirements

- Incorporate integrated engineering systems and system controls, such as a Building Management System, and incorporate monitors to report on performance in design
- Consider the introduction of passive solar design
- Consider the use of renewable energy sources including: solar thermal heating, photovoltaic, ground source heating and cooling
- Consider the use of energy efficient measures within lighting, air conditioning, space heating, water heating, ventilation and occupant controls and utilise passive energy where practicable and appropriate
- Design for improved amounts of natural daylight to reduce energy consumption

5. Transport



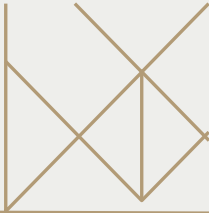
Minimum Requirements

- Where appropriate and practicable in the design, provide showers, changing facilities and storage facilities for cyclists and runners
- Where appropriate and practicable, provide covered, secure and lit cycle storage for use by the buildings occupiers
- Where appropriate and practicable, consider potential changes to make access easier and safer via public transport facilities
- Where appropriate and practicable, provide electric charging points or enable infrastructure for future installation in the design
- Where appropriate and practicable, consider locally-sourced materials to reduce transport distances

Additional Requirements

- Where appropriate, Project Manager to arrange for a Green Travel Plan for the building

6. Water



Minimum Requirements

- Contractor to produce a site water management strategy
- Design and install, where possible, water efficiency measures such as low flow fittings
- Project Manager to include water meters in the building design, preferably with Automated Meter Reading (AMR) capability
- Where practicable, utilise rainwater harvesting and grey water recycling in the design

Additional Requirements

- Where appropriate and practicable in the design, provide water efficient plant controls including automatic shut off systems such as PIRs
- Where appropriate and practicable in the design, provide water consumption monitors and water leak detection devices linked with Building Management Systems
- Where practicable, utilise soft landscaping and attenuation tanks to minimise additional load to the underground drainage system and mitigate flood risk

7. Materials

Minimum Requirements

- Project Manager and Contractor, where reasonable, to favour specification / installation of materials with low environmental impact, including those that disclose environmental impacts ([Environmental Product Declarations](#))
- Project Manager and Contractor, where reasonable, to favour specification / installation of materials with low impact on human health, including those that disclose potential health hazards ([Health Product Declarations](#))
- Project Manager and Contractor to ensure design and construction prioritises products / designs that use materials with low Volatile Organic Compounds (VOCs)
- [Project Manager and Contractor to ensure design and construction prioritises](#) materials that are easy to clean or require infrequent cleaning
- [Project Manager and Contractor to ensure design and construction prioritises materials and packaging that can easily be recycled](#)

Additional Requirements

- Design and construction to include materials that contain high recycled content, are reclaimed and/or are readily reused/ recycled
- Consider the use of pre-fabricated building components
- Utilise robust detailing that is easy to construct and subsequently easy to adapt or remove
- Where possible, materials are to be specified that can be repaired/restored to extend their service life
- Project Manager and Contractor during design and installation to provide chain of custody certificates and sustainability credentials to demonstrate that materials have been sourced responsibly and locally if possible. All directly procured timber to be sourced with full FSC certification or agreed equivalent e.g. PEFC

8. Waste

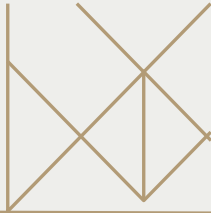
Minimum Requirements

- Produce a Site Waste Management Plan pre-construction to minimise the production of waste and the supply to landfill
- Project Manager and Contractor to reduce waste during design and through construction methodology; and reuse existing materials and recycle/compost waste wherever possible
- Contractor to segregate non-hazardous and hazardous waste and provide waste recovery, collection and segregation system
- Contractor to ensure any supplier moving waste off site is a registered waste carrier and that all compliance documentation is held on file in accordance with legal requirements
- Identify and record the amount and type of waste created on site and removed off site
- All reasonable efforts to sort and recycle waste building materials

Additional Requirements

- Contractor to target at least 75% by weight or 65% by volume of non-hazardous waste to be diverted from landfill
- Contractor to recycle paper, cardboard, plastics, glass and organic waste and use bio-degradable packaging for easier disposal
- Contractor to use materials with minimal packaging to reduce waste

9. Ecology and Biodiversity



Minimum Requirements

- Where appropriate, Project Manager and Contractor to carry out an ecological assessment of the site to identify any protected / endangered species and arrange mitigation measures to minimise damage to the existing environment and disruption to wildlife
- Where relevant, the design to include low maintenance landscaping regime
- The design to avoid the specification of water intensive plant species
- Where appropriate and practicable, prepare a biodiversity action plan to minimise the loss of site ecology
- During design consider use of indigenous plant species in landscaped areas and net gain of biodiversity

Additional Requirements

- During design consider the introduction of in-built habitats, e.g. green roofs and green walls, where appropriate and practicable
- During design consider the use of bird or bat nesting boxes, where appropriate and practicable

10. Pollution Control

Minimum Requirements

- The design and construction methodology is to minimise project impact on air pollution, water pollution, ground pollution, air quality pollution and noise pollution
- Contractor to control on site storage, have spillage guides in place and ensure staff are adequately trained