GREAT MOMENTS
FOR EVERYONE,
EVERYDAY

MAJID AL FUTTAIM – SUSTAINABILITY

SUSTAINABLE BUILDING POLICY

MAFH-SUS-POL- V11

Amendments Table

Version	Date	Amendment Content
4.0	4 July 2014	Addition of Appendix 3
5.0	22 August 2014	Changes from Steering Group
6.0	15 November 2014	Comments from Property Management Team
7.0	20 November 2014	Addition of minimum energy & water standards
8.0	4 February 2015	Correction to BREEAM energy credits
9.0	1 July 2017	Update in line with Minimum Sustainability Standards for Development
10.0	1 December 2020	Updates to reflect Net Positive target and the market evolution on sustainability aspects, such as: - Update to align with *Dare Today, Change Tomorrow* strategy - Any variance of the policy to be approved by CEO and CSO as part of governance - Policy implementation section - Recommendation for WELL - Recommendation for LEED EBOM and ARC - Recommendation for Net Zero/ Positive - Request for case study - Innovation related to WOW, Centre of Excellence and Day 1 portal - Reference to Majid Al Futtaim's Sustainable Procurement policy - Increased renewable energy generation from 7.5% to 25% - Increased energy savings requirement from 17% to 20% for retained assets - Updates on U-values (added a more realistic one for non-retained /villas assets) - Non-potable water use for 100% of the irrigation demand - Addition of requirements related to Circular Economy - Addition of requirements related to Health and Wellbeing - Addition of Embodied Carbon calculations requirements and targets - Addition of Climate Risk Assessment Tool
11.0	2026	- Policy now encompasses all of Majid Al Futtaim Group and includes Net zero Science-based Target commitment and Climate Adaptation in its scope - Environmental management section for new developments now includes health and safety adherence to ISO 45001 Standards - Life Cycle Cost Assessment merged with Feasibility Studies for sustainability and cost efficiency

		- Fundamental commissioning and verification are divided into the Design and Construction phases - Flood Risk Strategies, requirement for temporary construction facilities, and updates on U-values added - Operational Waste Recycling updated with feasibility studies and life cycle cost analysis; Construction and Demolition Waste Management requires a minimum of 80% waste diversion - Certified wood requirement increased to 75%; recycled/reused materials requirement increased to 15%, with 20% locally sourced materials - Water reduction calculations required during the Design Phase; 25% reduction in embodied carbon and achievement of energy reduction targets mandated for every project - Maximising the safety and accessibility of assets is now a requirement - Increased renewable energy requirement from 25% of peak load to 35% of annual consumption or demand load, with street lighting to be supplied by renewable energy where technically and commercially feasible, and with solar hot water systems prioritised. - Updated the procurement requirements to expand the list of equipment categories and align with additional energy efficiency standards, including ESMA 5-star rating and specialised equipment considerations - New Appendix B developed to address tailored requirements for Retail operations.

Table of Contents

List of Abbreviations

Abbreviation	Full Form / Definition
AHUs	Air Handling Units
ANSI	American National Standards Institute
ARC	Arc Skoru (Performance Platform for LEED)
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ASTM	American Society for Testing and Materials
BMS	Building Management System
BoD	Basis of Design
BRE	Building Research Establishment
BREEAM	Building Research Establishment Environmental Assessment Method
BTU	British Thermal Unit
BU	Business Units
cd/m²	Candela per square metre (luminance unit)
CFC	Chlorofluorocarbon
CHP	Combined Heat and Power
CIE 126-1997	International Commission on Illumination Standard for Daylight Measurements
CIE 150-2003	International Commission on Illumination Standard for Glare Measurement
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CoC	Chain of Custody
CSA	Canadian Standards Association
CxA	Commissioning Authority
EBOM	Existing Buildings: Operations and Maintenance
EIA	Environmental Impact Assessment
EPDs	Environmental Product Declarations
ESMA	Emirates Authority for Standardization and Metrology
ESTIDAMA	Abu Dhabi's Green Building Certification System (Pearl Rating System)
ExCom	Executive Committee
FF&E	Furniture, Fixtures, and Equipment
FSC	Forest Stewardship Council
GGBS	Ground Granulated Blast-Furnace Slag
H&S	Health and Safety
HVAC	Heating, Ventilation, and Air Conditioning
HVAC&R	Heating, Ventilation, Air-Conditioning, and Refrigeration
IES	Illuminating Engineering Society
IFC	Issued for Construction
ISO 45001	International Standard for Occupational Health & Safety Management Systems
LCCA	Life Cycle Cost Assessment

LED	Light Emitting Diode
LEED	Leadership in Energy and Environmental Design
LPD	Lighting Power Density
MTC	Malaysian Timber Certification
ODS	Ozone Depleting Substance
OPR	Owner's Project Requirements
PEFC	Programme for the Endorsement of Forest Certification
PIR	Passive Infrared Sensor
PPA	Power Purchase Agreement
RO	Reverse Osmosis
SCAQMD	South Coast Air Quality Management District
SCM	Supplementary Cementitious Materials
SFI	Sustainable Forestry Initiative
SHGC	Solar Heat Gain Coefficient
SQE	Suitably Qualified Ecologist
SRI	Solar Reflectance Index
STP	Sewage Treatment Plant
SUPs	Single-Use Plastics
TSE	Treated Sewage Effluent
USGBC	U.S. Green Building Council
VFD	Variable Frequency Drive
VOC	Volatile Organic Compound
VSD	Variable Speed Drive
VT	Visible Light Transmittance
WC	Water Closet
WELL	WELL Building Standard

Purpose of the Policy

At Majid Al Futtaim Group (referred to hereinafter as "we", "our"), we are committed to the implementation and delivery of our sustainability strategy, *Dare Today, Change Tomorrow*, through which we manage the socio-economic and environmental issues that are most material to our business. Majid Al Futtaim Group means Majid Al Futtaim Group LLC and any entity that is directly or indirectly controlling it, controlled by it or under common control with it by another Majid Al Futtaim entity.

Dare Today, Change Tomorrow is underpinned by three fundamental business priorities:

- Transforming Lives in the communities we serve, to enable a healthy, fulfilling, and sustainable way of life.
- Rethinking Resources where we address our use of resources to create a positive impact.
- Empowering Our People to unlock their full potential.

Developing and operating a Sustainable Building Policy for new standalone assets supports these business priorities while delivering long-term value through reduced operating costs, enhanced asset performance, and improved rental and capital value for Majid Al Futtaim, its tenants, and homeowners. Adopting this policy is one of the ways in which we deliver on the Rethinking Resources pillar across our development and operational activities.

Scope of the Policy

The policy addresses our intent of fulfilling our long-term target under the Rethinking Resources pillar of our *Dare Today, Change Tomorrow* strategy, by addressing the following material issues and sustainable business aspirations:

- **Decarbonisation:** Extends beyond carbon removals to include emissions reductions across operations, energy efficiency, renewable energy, embodied carbon in construction, and supply chain engagement, targeting priority emission sources across our operations and supply chain.
- **Water Stewardship**: Extends beyond simply balancing how much water we use and replenish, to also address water quality, local basin-level risk, nature-based solutions, and community collaboration. It brings together efficiency, leakage control, reuse, and shared resource protection.
- **Circular Economy:** Embeds circularity across all aspects of our operations by prioritising waste prevention, resource efficiency, and responsible material use. This includes reducing food waste, phasing out single-use plastics (SUPs) and managing residual waste in line with circular economy principles, with a focus on diversion, recovery, and continuous improvement.

- **Climate Adaptation:** Assesses climate-related risks and opportunities across projects and operations and explores appropriate risk management and resilience measures.

This Sustainable Building Policy has been developed to establish clear guidelines and requirements for new standalone buildings currently managed by Retail (Carrefour) and Development BUs.

For Our Entertainment and Lifestyle BUs that do not currently manage standalone buildings, the following approach will apply:

- Applicability Upon Future Development: If standalone buildings are introduced within these Business Units, all requirements outlined in this policy should be considered and implemented based on feasibility analyses and internal recommendations.
- Learning from Experience: Lessons learned from existing Business Units managing standalone buildings will inform and improve the implementation process, enabling a gradual transition of these requirements to mandatory compliance where applicable.

This approach ensures consistency across the Group while recognising operational differences and evolving business needs across BUs.

Policy requirements

Green Building Standards:

a) All new standalone developments must achieve, at a minimum, one of the following recognised green building standards or an equivalent: LEED Gold (USGBC), 3 Pearl (Estidama), or BREEAM Very Good (BRE).
b) The Development Management team shall lead the selection of the most appropriate green building rating system for each development, provided that the selected system meets or exceeds the minimum standards defined in this policy, and shall embed these requirements within the appointment and scope of all design team members.
c) At the end of each development project, a case study and a summary of the sustainability achievements and lessons learned by the project must be provided by the consultant/ contractor along with Project Management and Development team for use in sustainability reporting.

Innovation and Best Practices:

a) To encourage the implementation and/or pilot of innovative technological measures or materials that will be relevant to the Rethinking Resources targets.

b) To ensure that the innovative ideas are shared, and if deemed relevant and feasible, be rolled across BUs.
c) To comply with Majid Al Futtaim's policies and tools. This includes, but is not limited to, the following: Pre-acquisition policy, Climate Risk Tool, Near Zero Fit-out and Refurbishment Policy, Sustainable Procurement policy, Decarbonisation Forecasting Tool; EMS policy, Zero waste policy, Employment Conditions Policy, Smoke-Free policy, Sustainability policy etc.

Minimum Sustainability Standards for Developments:

a) For the Development and Project Management teams to lead compliance with the Minimum Sustainability Standards for new standalone assets, and to drive the design team, consultants, and contractors to achieve them. A detailed overview of the Minimum Sustainability Standards is provided in Appendix A. Additional implementation guidance for Majid Al Futtaim Retail is included in Appendix B.

Governance of the Policy

As an integral component of our commitment to sustainability, we expect the adherence to our sustainable building policy by all BUs and divisions engaged in the conception, implementation, and management of properties pertaining to new assets. This policy is governed and maintained by the Corporate Sustainability function. For refurbishment or fit-out activities, kindly adhere to the Near-Zero Policy for New Fit-Outs and Major Refurbishment Projects.

A Sustainable Building Working Group has been initiated to conduct yearly basis meetings to review the policy and recommend any updates or improvements for approval. The Working Group has representatives from each BU and the Corporate Sustainability team. The Working Group also engages relevant Project Management, Procurement, and Facility Management functions, as appropriate, to support effective implementation of the policy.

This policy shall be reviewed as needed in response to changes in government regulations or updates to Majid Al Futtaim internal policies.

The policy, including Appendix A and B, must be complied with in full, unless a formal variance is approved in accordance with the governance process set out below. Any minor variance shall be justified and sent for approval by the Corporate Sustainability team. However, any major variance is subject to approval by the ExCom.

Sustainable Building Working Group Objectives

d) Review internationally recognised sustainable building standards, as required, to identify best-practice benchmarks for development.

e) Conduct ongoing and thorough research to actively identify and analyse emerging sustainable building standards, aiming to integrate those that offer the greatest potential to enhance our operations and contribute significant value to our commitments.
f) Share best practice in achieving sustainable building ratings internally across projects and teams, as well as externally with industry, academics, and national and international bodies.
g) Continuously review, measure, benchmark, and improve systems, processes, training, and technologies to enhance building performance across the asset life cycle.
h) Proactively explore and identify innovative solutions for pilot projects. These pilot initiatives can then be presented and shared among group members to foster collaborative learning and advancement.

Roles & Responsibilities

The Corporate Sustainability team provides oversight and guidance for this policy and supports its consistent interpretation and application across the Group. Business Units are accountable for ensuring that the policy requirements are embedded within their respective projects, decisions, and delivery processes.

Development and Project Management teams, together with appointed consultants and contractors, are responsible for implementing the policy requirements through planning, design, procurement, construction, and handover activities, and for demonstrating compliance in line with this policy and its appendices.

The Sustainable Building Working Group supports the governance of this policy through review and recommendations, as outlined in the Working Group Objectives.

Policy Implementation

This policy must be complied with in full by all consultants, contractors, Development and Project Management teams working in the development and operation of the projects. This version of the policy applies to new projects that start after the date of the final signature of this document. Projects that commenced prior to the date of final signature shall continue to comply with the previous approved version of the Sustainable Building Policy.

The policy (or the applicable previous approved version, where relevant) must be part of the Design team, consultants and main construction contractors' tender documents and contracts at early design stages and IFC/ tender documents.

Policy compliance is embedded within the design stage submissions, whereby each submission package must demonstrate alignment with the policy requirements. Confirmation of compliance is expected as part of the design documentation submitted for review.

This policy must be read in conjunction with existing relevant Majid Al Futtaim's Policies, Design Standards, and local codes. If there is any conflict of information, the most stringent requirement shall apply.

Relevant employees, consultants, and contractors within the scope of this policy will be made aware of its requirements through appropriate communication and awareness campaigns. Where relevant, guidance or training may be provided to support consistent understanding and effective application of the policy across projects and BUs.

Breach of the Policy

Failure to comply with this Policy, without an approved variance, results in escalation and corrective actions, including the issuance of a corrective action plan with defined timelines, increased monitoring and follow-up audits, escalation to Excom, and impact on performance evaluations, in line with the severity and recurrence of the non-compliance.

Appendix A: Minimum Sustainability Standards for Development

#	Item	Purpose	Design Standard	Stage Applicable
General				
1.1	Sustainable Buildings	To ensure that all new developments meet minimum sustainability standards and achieve a Green Building Rating System Certification.	All new projects and major renovations must comply with one of the following green building ratings systems: LEED GOLD (USGBC), 3 Pearl (ESTIDAMA), or BREEAM Very Good (BRE) Rating. The implementation of the rating systems is a must during the design and construction phases, with the above standard set as a foundation, with an aspiration to attain higher ratings.	Design and Construction
1.2	Environmental Management and Health and Safety (H&S)	To ensure that all new developments are managed in line with the appropriate Environmental Management and Health and Safety Standards.	Adopt the Principles of ISO 14001: 2015 as a standard for Environmental Management in support of the Sustainability Standard, and encourage contractors to also adopt these principles. All contractors are to adhere to or adopt to ISO 45001 occupational health and safety management standard requirements and reduce the frequency rate of physical and mental H&S incidents among their employees.	Construction
1.3	Feasibility Studies and Life Cycle Cost Assessment	To explore and identify the most cost-effective solutions and technologies that can contribute to the company's decarbonisation targets.	The appointed consultants for the project must undertake studies during design stages to find the optimal building performance considering key elements of the project and its cost benefits to minimise life cycle costs and maximise project value. The study must assess different systems/ technologies to significantly reduce the potable water use and carbon emissions of the project in a way that is economically beneficial and technically feasible. Technologies that would be beneficial to the project in line with the decarbonisation target should be considered. At a minimum, the following components should be analysed, as applicable: - HVAC systems - Renewable Energy	Design

#	Item	Purpose	Design Standard	Stage Applicable
			- Water Recycling and Generation - Building Envelope - FF&E (fixed furniture and equipment) Studies should include as a minimum: - Systems performance analysis considering different options - Life cycle cost assessment for each option - Feasibility assessment and advice on the best solution Implement the ones deemed financially and technically feasible.	

1.4	Fundamental commissioning and verification	To support the design, construction, and eventual operation of a project that meets the requirements for energy, water, indoor environmental quality, and durability.	Design (Commissioning Authority) Phase:
			- By the end of the design development phase, engage a commissioning authority (CxA)
			- Develop an Owner's Project Requirements (OPR) document
			- Develop a Basis of Design (BoD) document
			- The CxA must do the following:
			  - Review the OPR, BoD, and project plan
			  - Develop and implement a commissioning plan
			  - Confirm incorporation of commissioning requirements into the construction documents
			  - Develop construction checklists
			  - Develop a system test procedure
			  - Verify system test execution
			  - Maintain an issues and benefits log throughout the commissioning process
			
			Prepare a final commissioning report
			
			Construction Phase:
			
			Complete the commissioning process activities for mechanical, electrical, plumbing, and renewable energy systems and assemblies, in accordance with ASHRAE Guideline 0-2005 and ASHRAE Guideline 1.1-2007 for HVAC& R Systems, as they relate to energy, water, indoor environmental quality, and durability.
				Design (CxA) and Construction

#	Item	Purpose	Design Standard	Stage Applicable
			Refer to LEED (Reference Guide: https://www.usgbc.org/leed) for more details on the requirements the above activities, processes, and outputs must meet.	
1.5	Construction activity pollution prevention	To reduce pollution from construction activities by controlling soil erosion, waterway sedimentation, and airborne dust.	Create and implement an erosion and sedimentation control plan for all construction activities associated with the project. The plan must conform to the local erosion and sedimentation requirements. Projects must apply to the plan regardless of size. The plan must describe the measures implemented, including images of the site.	Construction
1.6	Light pollution reduction	To encourage the reduction of night-time light pollution and its associated impacts on human and ecological health.	1. For interior lighting, ensure that the angle of maximum candela from each interior luminaire, as positioned in the building, must not exit through the windows. Alternatively, for non-residential buildings, all non-emergency interior lighting must be controlled to automatically turn off outside the normal hours of occupancy. Manual override must be enabled to allow for any out-of-hours use. 2. Where possible, eliminate the need for external lighting through effective design that achieves it without adversely affecting the safety and security of the site and its users. 3. Ensure all external lighting – if applicable, except for safety and security lighting, can be automatically switched off between 23:00 and 07:00. Safety and security lighting provided during these hours should comply with the lower levels of lighting recommended by CIE 150-2003 and CIE 126-1997. 4. Ensure that illuminated advertisements comply with maximum luminance (CD/m^2) specified by BREEAM or local requirements if those are more stringent.	Design
1.7	Construction Environmental data	To reduce and report the use of resources and	Provide environmental data on a monthly basis during the entire construction period including:	Construction

#	Item	Purpose	Design Standard	Stage Applicable
		waste generation onsite, aiming to increase efficiency and waste diversion.	- Energy source and consumption - Water source and consumption - Waste generation and diversion - Materials log recording environmental features such as regional (origin) and recycled contents, certified wood, Environmental Product Declaration (EPDs), etc. Majid Al Futtaim's template for construction environmental data reporting must be used. At the start of the project, the main contractor must present a plan to reduce water and energy consumption and increase waste diversion during construction.	
1.8	Climate Risk Reduction Strategies	Ensure the asset site and location is evaluated against all climatic risk.	- Asset level climate risk assessment using Majid Al Futtaim - Climate Risk Tool to be performed during acquisition, development, planning and design stages. - Any standalone asset, including malls, Carrefour, communities etc., must go through the climate risk study. Physical climate risks that should be assessed in full include coastal flooding, fluvial flooding, flash floods, temperature extremes and heat stress, drought and water stress, and supply chain disruption.	Planning and Design
1.9	Flood risk strategies	Ensure urban stormwater and flood management solutions are installed at all sites where flooding (coastal or fluvial) is a material risk.	Based on physical climate risk analysis for standalone assets, if flooding is considered a material risk for the development, install, retrofit, or enhance urban stormwater drainage systems to handle a 1-in-1 year rainfall event flow and 1-in-100-year rainfall event flow, or as per recommendations based on the asset. - If not considered a material risk, the local regulations requirements should be applied. Identifying the most appropriate solutions for location, install or enhance engineered flood defense measures (e.g., flood barriers, bund walls, removable barriers, concrete fences, permeable surfaces) and nature-based solutions (e.g., green roofs, sustainable urban drainage systems, green spaces, bioswales, wetland restoration/creation, mangrove/seagrass restoration/creation).	Design

#	Item	Purpose	Design Standard	Stage Applicable
Circular Economy				
2.1	Operational waste and recycling	To reduce the waste that is generated by building occupants and hauled to and disposed of in landfills.	A feasibility study and life cycle cost analysis must be carried out to aid in the selection of the most cost-effective and efficient options to be implemented. Commercial buildings and communities: 1. Conduct a waste stream study to identify the project's top five recyclable waste streams and list the top four waste streams for which collection and storage space will be provided. 2. Provide dedicated, clearly labelled areas accessible to waste haulers and building occupants for the separation, collection, and storage of recyclable materials for at least the top four recyclable waste streams identified by the waste study. Ensure the capacity is appropriate to the expected volumes of waste and locate the collection and storage bins close the source of recyclable waste. 3. If any of the top four waste streams are batteries, mercury-containing lamps, or electronic waste, take appropriate measures for safe collection, storage, and disposal. 4. Where consistent generation in volume of the appropriate operational waste streams is likely to exist, e.g., large amounts of packaging or compostable waste generated by the building's use and operation, provide the following facilities: a. Static waste compactors or balers; situated in a service area or dedicated waste management space. b. Vessels for composting suitable organic waste resulting from the building's daily operation and use; OR adequate space for storing segregated food waste and compostable organic material prior to collection and delivery to an alternative composting facility.	Design and Operations

#	Item	Purpose	Design Standard	Stage Applicable
			c. Where organic waste is to be stored or composted on site, a water outlet is provided adjacent to or within the facility for cleaning and hygiene purposes. d. Refer to LEED requirements for more detail on data quality and sources for points 1-3. Residential: 5. Provide recycling bins embedded in kitchen cabinets, if feasible. 6. Provide external recycling and general waste bins for waste storage before collection. 7. If composting services is provided in the community – as per feasibility study – provide facilities for organic waste collection within the residential unit. 8. Provide calculations showing sizing of the bins is appropriate as per local regulations or rating systems recommendations.	
2.2	Construction and demolition waste management	To reduce construction and demolition waste disposed of in landfills and incineration facilities by recovering, reusing, and recycling materials.	Develop and implement a construction and demolition waste management plan, including waste diversion goals for at least five materials. Specify whether materials will be separated or comingled and describe the diversion strategies planned, the target location, and how the recycling facility will process the material (LEED Prerequisite). During construction, recycle, reuse and/or salvage non-hazardous construction and demolition materials and meet all the following: - Diverted materials must include at least five materials streams. - Have appropriate procedures in place for measuring, reducing, and reporting waste on site (see BREEAM for more detail) Divert a minimum of 80% of the waste material or reduce the total waste material to no more than 12.2 kg of waste per square metre of the building's floor area.	Construction
2.3	Temporary Construction	To reduce waste generation and increase diversion from landfill.	- All site offices must identify the waste types (paper, plastic, food waste, etc.) being generated and have waste	Construction

#	Item	Purpose	Design Standard	Stage Applicable
	Facilities – Waste Management		management facilities in place to collect recyclables and general waste separately. - Waste contractor(s) must remove the recyclables and general waste and provide a monthly report on the amount of waste collected and the destination of waste.	
2.4	Design for flexibility, adaptability, durability, and disassembly	To recognise and encourage measures taken to accommodate future changes of use of the building over its lifespan; to minimise the frequency of replacement and maximise materials optimisation.	New project designs must account for the following aspects and incorporate them to the fullest extent possible. 1. Design for flexibility, adaptability, durability, and disassembly 2. Maximise the utilisation rate of physical assets by minimising unoccupied areas and promoting multi-functional use of space through modularity. 3. Implement adaptation measures in the design to facilitate future adaptation, where practical and cost-effective. Design measures to be considered: - Use of products or systems which allow easy replacements. - Layout in standardised grids. - Use of inherent finishes to allow replacement. - Use of standardised material sizes. - Provision to add extensions or alterations to increase building capacity. - Provision of capacity in infrastructure to enable future expansion and adaptation. - Identifying or recognising potential future functional requirements. - Efficient use of space to allow for any increase in occupancy. - Routes and methods for major plant replacement, e.g., networks and connections should have flexibility and capacity for expansion. - The potential for the building to be extended either horizontally, vertically or both. 4. Durability: The building must incorporate suitable durability and protection measures or be designed with features or solutions to prevent damage to vulnerable parts of the	Design

#	Item	Purpose	Design Standard	Stage Applicable
			internal and external building and landscaping elements. Such as: - Protection from the effects of high pedestrian traffic in main entrances, public areas, and thoroughfares (corridors, lifts, stairs, doors, etc.) - Protection against any internal vehicular or trolley movement within 1m of the internal building fabric in storage, delivery, corridor, and kitchen areas - Protection against, or prevention from, any potential vehicular collision where vehicular parking, manoeuvring and delivery occur - Protect relevant parts of the building to limit material degradation due to environmental factors (weather conditions, temperature variation, winds, etc.).	
2.5	Legally harvested wood	To encourage the use of timber sourced from legal and sustainable sources.	- Demonstrate that at least 75% (by cost) of the timber and composite wood products used on the project must be certified wood under at least one of the schemes below, if feasible. - Temporary construction timber, (including but not limited to formwork and hoardings), must be either reused OR also certified and legally sourced. - All wood sourced must come with Chain of Custody Certification (CoC) under any one or any combination of the internationally recognised certification schemes (e.g. Forest Stewardship Council (FSC); Program for the Endorsement of Forest Certification scheme (PEFC); Canadian Standards Association (CSA), the Sustainable Forestry Initiative (SFI) and the Malaysian Timber Certification Scheme (MTC), etc.) - Additionally, demonstrate that all timber is legally sourced and not on the CITES (Convention on International Trade in Endangered Species) list of endangered species (Appendix I, II and III).	Design and Construction

#	Item	Purpose	Design Standard	Stage Applicable
2.6	Recycled content materials	To increase the demand for recycled materials in order to reduce demand on natural resources, reduce waste and reduce embodied carbon.	As commercially available in the market (at least 2 suppliers) the following must be used in the projects: - Recycled/Reused: 15% of materials by cost to have recycled content or be reused (from previous projects or other sources) - Use recycled aggregates for road base and pavers with recycled content. - Regional Materials: A minimum of 20% of the building materials used in the project should be locally sourced. These materials, including those transported by rail or water, must be extracted, harvested, or recovered, and manufactured within a total travel distance of 500 miles (800 kilometres) from the project site, using a weighted average. - GGBS: Demonstrate through either the use of supplementary cementing materials (SCMs) (including fly ash, ground granulated blast furnace slag (GGBFS) and silica fumes) or the increased use of aggregates or admixtures, that the project has reduced the overall amount of Portland cement used and associated embodied greenhouse gas emissions. GGBS/fly ash shall be used as per the below percentages: - Substructure: ▪ OPC with 66% to 80% GGBS (Max. W/C ratio is 0.45) ▪ OPC with 36% to 55% Fly ash (Max. W/C ratio is 0.40) - Superstructure: ▪ For C32/40 (OPC with 36% to 65% GGBS), Max. W/C ratio is 0.45. ▪ For C32/40 (OPC with 36% to 55% Fly ash), Max. W/C ratio is 0.40. ▪ For C40/50 (OPC with 36% to 65% GGBS), Max. W/C ratio is 0.35. ▪ For C40/50 (OPC with 26% to 35% Fly ash), Max. W/C ratio is 0.35. ▪ For ≥ C45/55 (OPC with 26% to 35% GGBS), Max. W/C ratio is 0.35. ▪ For ≥ C45/55 (OPC with 16% to 20% Fly ash), Max. W/C ratio is 0.35.	Design and Construction

#	Item	Purpose	Design Standard	Stage Applicable
			- Recycled steel: For Steel-framed Buildings, at least 50% of all structural steel (by weight) has a minimum of 25% post-consumer recycled content or is reused OR for Concrete-framed Buildings, at least 80% of all reinforcing or stressing steel (by weight) has a minimum of 30% post-consumer recycled content.	
2.7	Environmental Product Declaration	To encourage the specification of construction materials with low environmental impact.	Specify and install at least 5 products that are covered by EPDs. The EPD must be compliant with ISO 14025, ISO21930, EN15804.	Design and Construction
Water Stewardship				
3.1	Water quality	To minimise the risk of water contamination in building services and ensure the provision of clean, fresh sources of water for building users.	- All water systems must be designed in compliance with the measures outlined in the relevant health and safety best practice guides/regulations to minimise the risk of microbial contamination, e.g., legionella. - Where humidification is required, a failsafe humidification system is to be provided. **For public buildings:** A suitable supply of accessible potable (filtered and disinfected to the relevant standards) drinking water is supplied as follows in permanently staffed areas: - Point-of-use water coolers/ fountains - Provision in each staff kitchenette, or in a suitable location on each floor level, and in a staff canteen (if provided). - Tenanted spaces preparing food or serving food (including supermarkets) - In hotels, potable water must be readily available to guests.	Design
3.2	Outdoor Water Use Reduction	To minimise outdoor water use.	If possible, design a landscape that does not require a permanent irrigation system beyond a maximum two-year establishment period.	Design

<table>
<tr><th>#</th><th>Item</th><th>Purpose</th><th>Design Standard</th><th>Stage Applicable</th></tr>
<tr><td></td><td></td><td></td><td>Alternatively, reduce the project's landscape water requirement by at least 40% from the calculated baseline for the site's peak watering month. This can be achieved through a combination of:
- Plant species selection
- Irrigation system efficiency
- Use of moisture retaining soil additives (e.g., Zeoplant)
- Smart irrigation system, including moisture sensors.

Non-potable water use for 100% of the irrigation demand through:
- HVAC condensate drain recovery
- Treated grey water, alternative water sources including reclaimed wastewater/ treated sewage effluent (TSE)
- Refrigeration system condensate (Carrefour, F&B)
- Treated captured rainwater/stormwater in areas where rainfall is reasonable and regular

If achieving the above is not feasible, a study must be conducted to justify the limitations and ensure that the maximum achievable solution has been implemented.</td><td></td></tr>
<tr><td>3.3</td><td>Indoor water use reduction</td><td>To minimise indoor water consumption.</td><td>Ensure all relevant appliances, fixtures, equipment, are water efficient. A minimum 40% reduction in the building water use must be achieved as compared to the LEED/ BREEAM baseline. Water calculations should be provided.
The following requirements outline the basic water flow rates expected for the project. The designer shall develop calculations during design stages to test different flow rates as applicable to the project with the aim of achieving the minimum saving required or higher in a cost-effective manner.

Commercial/Public Buildings:
<table><tr><th>Water Fixture or Fitting</th><th>Ultra-Efficient Flow Recommendation, @ 415kPa as applicable</th></tr><tr><td>Water closet (WC) Dual flush</td><td>4.5 L/flush at Full & 3 L/flush at low flush</td></tr><tr><td>Urinal</td><td>0.5 L/flush or Waterless</td></tr><tr><td>Public lavatory faucets</td><td>1.0 L/min recommended</td></tr></table></td><td>Design</td></tr>
</table>

<table>
<tr><th>#</th><th>Item</th><th>Purpose</th><th>Design Standard</th><th>Stage Applicable</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><td>Private (only used by staff) washroom faucets</td><td>1.0 L/min recommended</td></tr>
<tr><td>Showerheads</td><td>6.5 L/min @550kpa</td></tr>
<tr><td>Kitchen faucets</td><td>5.5 L/min</td></tr>
<tr><td>Kitchen pre-rinse spray valves</td><td>3.5 L/min</td></tr>
</table>
Residential:
<table>
<tr><th>Sanitary fitting type</th><th>Recommend flow rate</th></tr>
<tr><td>Water closet (WC) Dual flush</td><td>4.5 L/flush at Full & 3 L/flush at low flush</td></tr>
<tr><td>Hand wash basins (Private)</td><td>1.9 L/min</td></tr>
<tr><td>Hand wash basins (Public)</td><td>1.9 L/min</td></tr>
<tr><td>Kitchen sinks</td><td>3.78 L/min</td></tr>
<tr><td>Dual flush water closets</td><td>4.5/3 LpF Dual Flush</td></tr>
</table>
</td><td></td></tr>
<tr><td>3.4</td><td>Water metering</td><td>To support water management and identify opportunities for additional water savings by tracking water consumption.</td><td>Ensure adequate water metering provisions are made for the building, including:
- A water meter on the main water supply to the building and the associated grounds
- Easily accessible sub-meters on all water-consuming plants, systems, building areas, or irrigated landscaped areas if available.
- Enable the connection of each meter to an appropriate utility monitoring and management system capable of automatic metering, e.g., a building management system (BMS), for monitoring water consumption
- Ensure that metering allows accurate monitoring of the water consumption of all the following exterior water uses heat rejection equipment, external hose bibs,</td><td>Design</td></tr>
</table>

#	Item	Purpose	Design Standard	Stage Applicable
			irrigation systems, swimming pools, and water features (optional for Residential but mandatory for landlord area).	
3.5	Water monitoring and leak detection	To minimise the impact of water leaks.	For all buildings other than residential, install water leak detection in all relevant locations. A permanent automated water leak detection system that alerts the building occupants to the leak OR an inbuilt automated diagnostic procedure for detecting leaks should be considered.	Design
3.6	Water efficient equipment	To reduce water consumption by encouraging specification of water efficient equipment.	Identify all water demands from uses other than domestic-scale drinking and sanitary use components, e.g. swimming pools, lagoons, vehicle wash and irrigation equipment (see BREEAM for detailed definitions). Introduce systems or processes to reduce the water demand, and demonstrate, through either good practice design or specification, a meaningful reduction in the total water demand of the development.	Design
3.7	Water recycling	To minimise potable water use, promoting the use of recycled water.	Undertake a study to assess different systems/technologies to significantly reduce the potable water use of the development. After conducting a study, if deemed feasible, implement one or a combination of water recycling systems such as: - Use treated sewage effluent (TSE) - Implement a collection and recycling system to reuse on-site condensate and/or rainwater for non-potable applications including toilet/urinal flushing, landscape irrigation, custodial/janitorial uses, fire protection, cooling towers make-up water and car washing. - Install a Reverse Osmosis (RO)/water polishing plant system - Implement a Sewage Treatment Plant (STP) onsite to recycle the wastewater and to reuse it onsite. - Any other system that can be used for water recycling and that is deemed feasible for the project.	Design
3.8	Construction Temporary Facilities (including site offices and satellite facilities) - WATER	To reduce water consumption from construction site facilities.	Ensure all relevant appliances, fixtures, equipment installed in construction temporary facilities are water efficient. Following water specifications to be used for water-efficient flow and flush fixtures (each country should go as low as possible based on availability in their respective region).	Construction

<table>
<tr><th>#</th><th>Item</th><th>Purpose</th><th>Design Standard</th><th>Stage Applicable</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><th>Water Fixture or Fitting</th><th>Ultra-Efficient Flow Recommendation, 415kPa as applicable</th></tr>
<tr><td>Water closet (WC) Dual flush</td><td>4.5 L/flush at Full & 3 L/flush at low flush</td></tr>
<tr><td>Urinal</td><td>0.5 L/flush or Waterless</td></tr>
<tr><td>Public lavatory faucets</td><td>1.0 L/min recommended</td></tr>
<tr><td>Private (only used by staff) washroom faucets</td><td>1.0 L/min recommended</td></tr>
<tr><td>Showerheads</td><td>6.5 L/min @550kpa</td></tr>
<tr><td>Kitchen faucets</td><td>5.5 L/min</td></tr>
<tr><td>Kitchen pre-rinse spray valves</td><td>3.5 L/min</td></tr>
</table>
</td><td></td></tr>
<tr><td colspan="5">Decarbonisation</td></tr>
<tr><td>4.1</td><td>Embodied Carbon</td><td>To better understand the carbon emissions linked to our development activities and inform future carbon reduction plans necessary to achieve our decarbonisation targets.</td><td>A materials Life Cycle Assessment should be carried out using either Majid Al Futtaim’s Embodied Carbon calculator or an internationally recognised software.
At a minimum, the building materials used for the construction of the facade, structure and foundations of a development or retrofit project should be included in the embodied carbon calculations. This should cover stages A1 to A5 as follows:
- Stages A1 - A3 consider the manufacturing of a material. This is also coined as “Cradle-to-Gate.”
- Stages A4 - A5 considers the carbon footprint left during the construction and transport of materials to the site.

Every project must achieve a 25% reduction and aim to reach 30% in embodied carbon as compared to the baseline. If these targets are not met, remedial actions, such as carbon offsetting, must be considered:

Baseline (defined following guidance from the consultant):
Shopping malls: 850 Kg/CO2e per m2
Residential: 650 Kg/CO2e per m2
Hotels: 750 Kg/CO2e per m2</td><td>Design and Construction</td></tr>
</table>

#	Item	Purpose	Design Standard	Stage Applicable
			Some measures to be considered to reduce the projects' embodied carbon: - Materials that require less transportation - The mode of transportation - Materials with recycled content (recycled steel, cement replacement – GGBS) - Materials with low carbon intensity - Construction waste diversion - Construction activities (power, diesel consumption, etc)	
4.2	Minimum Energy Performance	To achieve the lowest possible energy use contributing to the achievement of our decarbonisation targets	Achieve at least 30% (retained assets) and 25% (non-retained assets /Residential) reduction from the ASHRAE latest baseline. This may be demonstrated through relevant calculations or energy modelling, as applicable to the project. Reduction may be achieved through a combination of strategies, including but not limited to: - Project to design as per ASHRAE latest update. - Adopt low U-values for building envelope (see below) - Focus on renewable energy production within project boundaries, including solar PV, wind, geothermal - Incorporate architectural features such as passive solar shading or daylight optimisation - Consider radiant floor cooling in mall circulation corridors and hotel lobbies - Where appropriate, use Combined Heat and Power (CHP) using a vapour absorption chiller package - In dry climatic zones (e.g., Riyadh), use two-stage evaporative cooling for kitchen hood makeup air. - Where possible, consider implementing displacement ventilation in management suite and mall circulation corridors. - Install Variable Speed Drives (VSD) on Air Handling Units (AHUs) - Install Light Emitting Diode (LED) lighting design in all areas - Consider engineering design solutions such as Variable Frequency Drives (VFD), Variable Speed Drives (VSD), Passive Infrared Sensors (PIR), thermal wheels, etc.	Design

#	Item	Purpose	Design Standard	Stage Applicable
			- Solar cooling and/or thermal energy storage should also be considered. Refer to LEED/ Estidama/BREEAM for further details on energy modelling and documentation.	
4.3	Building Envelope	To reduce the environmental impact of inefficient buildings by maximising the thermal performance of the building envelope.	The following requirements outline the baseline thermal performance of the building envelope. The designer shall develop studies during the design stages to find the optimal envelope thermal performance. The studies shall test different values through the project energy model and analyse the impact of the thermal parameters' variance on the energy performance of the building. The outcome of the studies shall be a cost-effective building envelope performance, which could be higher or lower than the below, as long as it is suitable to achieve the project energy performance and sustainability goals. A. Maximum standard U-values: a. External wall maximum average U-value: 0.18 W/m2K (commercial Buildings) / 0.35 W/m2K (residential buildings/villas) b. Areas of suspended slab between conditioned and unconditioned floors or areas are to be insulated to a maximum U-value: 0.35 W/m2K c. Roof maximum average 'U' value: 0.16 W/m2K (commercial Buildings) / 0.3 W/m2K (residential buildings/villas) d. Glazing: i. maximum U-value for vertical glass and frame: 1.9 W/m^2K (commercial Buildings) / 2.1 W/m2K (residential) ii. maximum U-value for roof /sky light glass and frame: 1.5 W/m2K and glass only 1.2 W/m^2K. iii. Solar Heat Gain Coefficient (SHGC): max 0.17 to 0.21 to suit MEP thermal calculations iv. Light Transmittance (VT): min 0.3 to 0.40 to suit MEP thermal calculations B. Avoidance of thermal bridges should be taken into consideration and air tightness should be considered.	Design

#	Item	Purpose	Design Standard	Stage Applicable
			C. The following standards should be followed for building envelope leakage testing: EN 13829:2001, ATTMA TS1:2007, TSL1:2010 and TSL2:2010	
4.4	Energy Modelling	To use energy modelling to identify potential energy and load reduction strategies.	Develop a comprehensive energy model using appropriate dynamic simulation modelling software and calculate the baseline building energy consumption according to the building performance rating method outlined in Appendix G from the latest edition of ASHRAE Standard 90.1, developed in collaboration with American National Standards Institute (ANSI) and Illuminating Engineering Society (IES). This should be done at the design stage, revised at the detailed design stage (and during construction if any variation from design occurs) and is mandatory for all new assets above 1,000 sq. feet gross sellable area. In cases where full energy modelling is not feasible due to budget or resource constraints, alternative options may be considered, including: 1. Prescriptive Compliance Path: Complying with ASHRAE 90.1's prescriptive energy requirements for building envelope, HVAC, and lighting systems. 2. Simplified Energy Assessment Tools: Using tools like COMcheck (for LEED) or SBEM (for BREEAM) to evaluate building energy performance. 3. Passive Design Strategies: Prioritising energy-efficient building orientation, thermal mass, shading, and glazing design before detailed modelling. 4. Component-Based Assessment: Evaluating the energy performance of specific components (e.g., HVAC, lighting, envelope) using manufacturer data and prescriptive requirements. 5. Integration of Renewable Energy: Incorporating on-site renewable energy systems to offset overall building energy demand.	Design and Construction (if any variations from the design)
4.5	Renewable Energy Production	To reduce the environmental impact associated with fossil	Achieve a minimum of 35% of total landlord annual energy consumption (if energy model is available) OR demand load	Design

#	Item	Purpose	Design Standard	Stage Applicable
		fuels by maximising the on-site production of renewable energy.	through renewable energy systems for retained assets where technically and commercially feasible. For asset types or developments where achieving 35% is not feasible due to authority limitations, site constraints, technology maturity, or building typology (e.g., enclosed shopping malls), the consultant shall conduct a feasibility study to determine the maximum technically and commercially achievable percentage and recommend design interventions to reach it. This could be achieved by installing an appropriate selection of the following, as applicable and feasible: • Parking canopy covered with PV panels • Roof or façade mounted PV panels • Other renewable energy alternatives • Power Purchase Agreement (PPA) For all developments, solar water heater systems must be prioritised unless proven infeasible. Streetlights: For all developments, 100% of the streetlights' loads must be powered by renewable energy solutions, unless proven infeasible. A feasibility study with a life cycle cost assessment must be conducted to identify the most suitable approach, which may consider centralised or decentralised solutions. Renewable energy generation should be maximised wherever possible, in line with Majid Al Futtaim's decarbonisation target, using the feasibility study results to set the final % target for each project. This requirement is mandatory for Majid Al Futtaim's retained assets and recommended for others where feasible.	
4.6	Advanced Energy Metering	To support energy management and	For commercial and/or multi-tenant buildings, track building-level and system-level energy use:	Design

#	Item	Purpose	Design Standard	Stage Applicable
		identify opportunities for additional energy savings.	- Ensure metering infrastructure is designed to provide full (100%) coverage of projected annual energy consumption across all fuel types. - Provide a digital energy meter and British Thermal Unit (BTU) meter for every tenant/building user, ensuring the energy consumption of all tenant areas can be monitored. - Provide a digital energy meter and BTU meter for each significant landlord area (car park, management offices, energy centre, etc.) and other significant areas as agreed during the design. - Install separate metering for power and lighting. - Connect all metering via a Building Management System (BMS) to an energy monitoring dashboard to allow real-time profiling and management of energy consumption. - Use of advanced technology, such as digital twins, where feasible. Refer to LEED for details on the characteristics that must be met by the advanced metering system.	
4.7	Energy Efficient Vertical Transport Systems	To specify and install energy efficient vertical transportation systems.	- Conduct an analysis of the transport demand and usage patterns to determine the optimum number and size of lifts, escalators, or travellators. - Install Variable Frequency Drives (VFD) drives on motors. - Soft start for escalators and travellators Refer to BREEAM for more detail on the above requirements to ensure the maximum number of credits is achieved.	Design
4.8	Energy Efficient Equipment (Landlord)	To recognise and encourage procurement of energy efficient equipment to ensure optimum performance and energy savings in operation.	Ensure the procurement of the most energy-efficient equipment to achieve optimum operational performance and energy savings for the following categories, where such equipment is provided by Majid Al Futtaim: - Office equipment, small power, and plug-in equipment - Kitchen and laundry equipment (including ovens, cookers, mixers, blenders, fryers, grills, rotors, heaters, ice-making machines, dishwashers) - Residential areas with domestic-scale appliances (individual and communal facilities) - Cash counters, if available	Design

#	Item	Purpose	Design Standard	Stage Applicable
			- Air curtains - Laptop and digital (LED) screens for marketing - Ironing and laundry systems - Packing and wrapping machines - Commercial refrigerators - Coolers and water dispensers The installed appliances must achieve one of the following certifications: - ENERGY STAR rating (minimum 5-star where applicable) - EU Energy Efficiency Labelling Scheme (minimum A rating) - ESMA 5-star rating - An equivalent rating under a recognised scheme, provided the appliance meets or exceeds the performance of ENERGY STAR or EU standards Where specialised equipment is not covered by these rating schemes, the most energy-efficient available technology must be selected in line with the latest industry standards.	
4.9	Low Carbon /Passive Design	To encourage the adoption of design measures which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems, by efficient use of passive design strategies and use of nature-based solutions.	- Carry out an analysis of the proposed building site during the Concept Design stage and identify opportunities for passive design solutions, including free cooling, building orientation, window area, external and internal shading, and nature-based solutions such as green roof, green wall, etc., that would reduce building energy demand. - Implement passive design and free cooling measures to reduce the overall building energy demand, primary energy consumption, or CO_2 emissions by at least 5%. - Carry out a feasibility study by the completion of the Concept Design stage to establish and implement the most appropriate recognised local low or zero carbon energy sources for the development.	Design
4.10	Fundamental Refrigerant Management	To minimise stratospheric damage resulting from the use of	Do not use chlorofluorocarbon (CFC)-based refrigerants in heating, ventilating, air-conditioning, and refrigeration (HVAC&R) systems.	Design

#	Item	Purpose	Design Standard	Stage Applicable
		ozone depleting substances (ODS).		
4.11	Construction Temporary Facilities - ENERGY	To reduce carbon emissions from construction site facilities applicable to the geographic location.	Contractors shall carry out a feasibility assessment for energy-efficient and alternative power solutions for all temporary facilities, including site offices and construction facilities. The assessment must first evaluate the use of solar-hybrid systems (e.g., solar panels on available roof and shade structures with generator backup) and adopt them where feasible. If the solar-hybrid option is not feasible, the assessment should consider temporary substation(s) subject to network availability and authority approvals. Where neither option is feasible, conventional generator/battery systems may be used, with measures to minimise diesel use or consider the use of alternative fuel (eg. biodiesel). All findings and justifications must be documented during early construction planning.	Construction
Health and Wellbeing				
5.1	Minimum indoor air quality performance	To maximise the indoor air quality in mechanically ventilated buildings.	Design mechanical ventilation systems in compliance with ASHRAE Standard 62.1 latest version: - For mechanically ventilated spaces, determine the minimum outdoor air intake flow for mechanical ventilation systems using the ventilation rate procedure from ASHRAE 62.1–2010. - Meet the minimum requirements of ASHRAE Standard 62.1–2010, Sections 4–7, Ventilation for Acceptable Indoor Air Quality. For mechanically ventilated spaces (and for mixed-mode systems when the mechanical ventilation is activated), monitor outdoor air intake flow as follows: 1. For variable air volume systems, provide a direct outdoor airflow measurement device capable of measuring the minimum outdoor air intake flow. This device must measure the minimum outdoor air intake flow with an accuracy of +/–10% of the design minimum outdoor airflow rate, as defined by the ventilation requirements above. An alarm must	Design

#	Item	Purpose	Design Standard	Stage Applicable
			indicate when the outdoor airflow value varies by 15% or more from the outdoor airflow setpoint. 2. Ensure that the minimum exhaust rates for kitchen extracts are in compliance with ASHRAE 62.1–2010, and that the exhaust location and filtering are adapted to maximise air quality. For constant-volume systems, balance outdoor airflow to the design minimum outdoor airflow rate defined by ASHRAE Standard 62.1–2010 (with errata), or higher. Install a current transducer on the supply fan, an airflow switch, or a similar monitoring device.	
5.2	Environmental Tobacco Smoke Control	Minimise tobacco smoke in buildings to reduce the negative health effects and maximise the indoor air quality.	Apply the following rules: 1. Prohibit smoking throughout the building, including car parks. 2. Prohibit smoking outside the building (including shisha) except in designated smoking areas located at least 25 feet (7.5 metres) from all entrances, outdoor air intakes, and operable windows. 3. Signage must be posted within 10 feet (3 metres) of all building entrances indicating the No-Smoking Policy. Hotel bars, F&B space and guest rooms allowing smoking must be fitted with high-efficiency tobacco smoke filtration units.	Design and Operations
5.3	Low Toxicity products	To minimise the effect of toxic compounds in building materials on indoor air quality.	Interior Paints and Coatings: 100% of installed products meet California Air Resources Board (CARB) 2007, Suggested Control Measure (SCM) for Architectural Coatings, or South Coast Air Quality Management District (SCAQMD) Rule 1113, effective June 3, 2011, for Volatile organic compound (VOC) content or in Annex II, Phase II, Table A of European Directive 2004/42/CE: 2004. Interior Adhesives and Sealants: 100% of installed products meet South Coast Air Quality Management District (SCAQMD) Rule 1168. Volatile organic compound (VOC) limits correspond to an effective date of July 1, 2005, and rule amendment date of January 7, 2005. These are the limits typically used in LEED, WELL and Estidama. Formaldehydes:	Design and Construction

#	Item	Purpose	Design Standard	Stage Applicable
			Demonstrate that all internal construction materials do not exceed formaldehyde Volatile organic compound (VOC) content class E1 levels. No asbestos: Ensure no materials containing asbestos are used within the building.	
5.4	Daylight	To connect building occupants with the outdoors, reinforce circadian rhythms, and reduce the use of electrical lighting by introducing daylight into the space.	If deemed feasible, design to achieve spatial daylight autonomy for at least 55% of regularly occupied space. In other words, at least 55% of the space receives at least 300 lux [28 fc] of sunlight for at least 50% of operating hours each year.	Design
5.5	Lighting and Controls	To specify and install energy-efficient lighting and controls.	- Install energy-efficient lighting to achieve a minimum 30% reduction over ASHRAE 90.1 (latest version), selecting high-efficiency Light Emitting Diode (LED) fixtures for all visual comfort lights. - Process lighting, which is outside Lighting Power Density (LPD) calculations, such as spotlights, lighting in the cabinets, product display, decorative lights, etc., must be selected with high lumen efficacy Light Emitting Diode (LED) lights. - Avoid providing cove lighting, which is indirect lighting concealed within the ceilings primarily for decorative purposes. - Occupancy sensors must be installed in office areas, toilets, and pantries to switch off the artificial lights when the area is unoccupied. Additionally, occupancy sensors must be installed in back-of-house areas, storage spaces and corridors except in areas where security /safety mandates otherwise. - A daylight photocell sensor must be installed to dim the light if there is sufficient daylight lux level during the daytime (3 levels of control shall be provided according to 30%-70%-100 % lux levels).	

#	Item	Purpose	Design Standard	Stage Applicable
			- Time-based control to operate separate lighting circuits at non-operational periods (stocktaking activity, janitorial activity, etc.)	
5.6	Thermal Comfort	To promote occupants' productivity, comfort, and well-being by providing quality thermal comfort.	All spaces in mechanically ventilated projects meet the design, operating and performance criteria of ASHRAE Standard 55-2013 Section 5.3, Standard Comfort Zone Compliance.	Design
Site and Community Impact				
6.1	Additional Infrastructure	To increase the proportion of expenditure which contributes to the local economy.	Before the start of the project, perform a local needs assessment (if not yet existing) to identify the local needs of the community in which the project is located. Based on the assessment, identify if any additional infrastructure (beyond the local code requirements) can be implemented. Use the Additional Infrastructure Framework to assess the feasibility and the relevance of the infrastructure (for a copy of the framework, please contact the sustainability team).	Planning and Design
6.2	Heat Island Reduction	To minimise the effects of the built environment on microclimates (human and wildlife habitats) by reducing heat islands.	Minimum strategies to be adopted: a. Sidewalk with Solar Reflectance Index (SRI) of 0.33 b. Shading by tree canopy c. High-reflectance roof with Solar Reflectance Index (SRI) of 90 d. Use an open grid pavement system, if applicable e. Parking canopy covered with photovoltaic panels (if deemed feasible) f. Vegetated roof (if deemed feasible) Reference standards: a. Cool Roof Rating Council Standard (CRRC-1): coolroofs.org b. American Society for Testing and Materials (ASTM) Standards E903 and E892: astm.org Refer to LEED Sustainable Sites Credit: Heat Island Reduction to ensure that the adopted measures cover a sufficient area to receive the full 2 points.	Design
6.3	Enhancing Site Ecology	To conserve existing natural areas and	For standalone assets and where relevant, a suitably qualified ecologist (SQE) should be appointed no later than the conclusion	Planning and Design

#	Item	Purpose	Design Standard	Stage Applicable
		restore damaged areas to provide habitat and promote biodiversity.	of the design brief, i.e., the ecologist is appointed at the beginning of the Concept Design stage. - The SQE shall provide an ecology report with appropriate ecological recommendations for the enhancement of the site's ecology at Concept Design stage. The report is based on a site visit or survey by the SQE. - At least 50% of the recommendations within the ecology report for enhancement of site ecology have been, or will be, implemented in the final design and build. - In countries with no legal requirement for SQE reports or implementation percentage, Environmental Impact Assessment (EIA) serves as the primary regulatory tool.	
6.4	Accessibility	To maximise the safety and accessibility of assets by adhering to the accessibility guidelines.	All assets should be constructed and operated without barriers to accessibility and social discrimination to customers, tenants and staff who have any form of disability. - Conduct an accessibility assessment and adhere to local or international guidelines on designing for accessibility (ex, ADA standards).	Planning and Design

Appendix B: Implementation Guidance – Majid Al Futtaim Retail

To support the first-time inclusion of Majid Al Futtaim Retail under this policy, and to enable a practical and phased approach, each new policy release will introduce more stringent criteria, allowing sufficient time for BUs to adapt while ensuring continuous improvement. The requirements have been internally categorised into three tiers:

- Mandatory (M): Full compliance is required.
- Partially Mandatory (PM): Specific compliance points are outlined.
- Recommended (R): Activities that may impact cost, time, and require additional resources. Feasibility analyses for these recommended activities will be conducted in-house.

This approach is intended to support effective and scalable implementation during the initial rollout in the 2026 policy release.

#	Item	Categorisation	Implementation Guidance	Reasoning
General				
1.1	Sustainable Buildings	R	-	Additional cost and time to comply with certification, requiring additional cost for material compliance, resources and hiring or contracting a consultant for submissions.
1.2	Environmental management and Health and Safety	M	-	-
1.3	Feasibility Studies and Life Cycle Cost Assessment	PM	At a minimum, Retail will include a Life Cycle Cost Assessment (LCCA) for the following components, as applicable: • HVAC systems • Renewable energy • Water recycling and generation • Equipment, including those that involve refrigerant use	LCCA of building envelope not included as it will require specialist consultants i.e. building physics consultant and advanced modelling tools on site testing, all of which will have an impact on cost and time required for the project.
1.4	Fundamental commissioning and verification	R	-	Additional cost, resources and time required for this. Commissioning and verifications are conducted by the contractor for certain activities, only a few activities a third-party commissioning contractor for local compliance is engaged i.e. Air balancing testing for HVAC, water chlorine testing for legionella and bacteria.
1.5	Construction activity pollution prevention	R		Additional cost, resources and time required for this.
1.6	Light pollution reduction	M		-
1.7	Construction Environmental data	M		-
1.8	Climate Risk Reduction Strategies	PM	Retail will conduct asset-level climate risk assessments using the Majid Al Futtaim Climate	Additional cost and time related to risk mitigation strategy development and hiring specialist climate

#	Item	Categorisation	Implementation Guidance	Reasoning
			Risk Tool during the acquisition, development, planning, and design stages. Retail will not be required, at this stage, to extend the climate risk study to all standalone assets such as, Carrefour, nor to assess the full list of physical climate risks outlined in the policy.	consultants that may be required for certain regions, some examples Pakistan, Kenya, Georgia
1.9	Flood risk strategies	PM	-	Additional cost, resources and time required for this. If additional infrastructure is required to be installed, it should be planned and budgeted for accordingly.
Circular Economy				
2.1	Operational waste and recycling	M	-	-
2.2	Construction and demolition waste management	M	-	-
2.3	Construction Temporary Facilities – WASTE	M	-	-
2.4	Design for flexibility, adaptability, durability, and disassembly	M	-	-
2.5	Legally harvested wood	M	-	-
2.6	Recycled content materials	M	-	-
2.7	Environmental Product Declaration	R	-	Resource and time allocation needed, i.e. will affect the overall time duration of the project.
Water Stewardship				
3.1	Water quality	M		-
3.2.	Outdoor Water Use Reduction	M		-
3.3	Indoor water use reduction	PM	Retail will implement the requirement as outlined, provided that no third-party validation is required at the commissioning stage.	Third-party validation will add substantial cost and time to the project.
3.4	Water metering	M	-	-

#	Item	Categorisation	Implementation Guidance	Reasoning
3.5	Water monitoring and leak detection	M	-	-
3.6	Water efficient equipment	M	-	-
3.7	Water recycling	PM	Retail will undertake a study to assess different systems and technologies to significantly reduce potable water use. Based on the study results, Retail will implement one or more water recycling systems if deemed technically and financially feasible. Retail will not be required, at this stage, to implement an on-site Sewage Treatment Plant (STP) for wastewater recycling and reuse.	Reduction opportunities other than STP will be considered due to the following rationale i) Space limitations may arise ii) High capital requirement for STP (adding cost & time to the project) iii) Regulatory / Statutory limitations (not all regions that retail operates in will allow for STP) iv) Low effluent generation: standalone retail buildings may not generate enough wastewater to support an STP v) health and safety barrier: The Carrefour outlet itself will not be able to use any water recycled from STP due to the nature of the business
3.8	Construction Temporary Facilities (including site offices and satellite facilities) - WATER	M	-	-
Decarbonisation				
4.1	Embodied Carbon	R	-	Resources are needed to perform the life cycle assessment in line with the 25% target and 30% stretch goal. As baseline data for retail stores is not currently available, a study will be conducted at this stage to establish the baseline, after which reduction targets can be applied and monitored.
4.2	Minimum Energy Performance	M	-	-
4.3	Building Envelope	M	-	Retail should review the U-values applicable in the countries they operate in and use them as reference benchmarks.
4.4	Energy Modelling	PM	Retail will proceed with implementation as per the policy. Third-party review of the final energy model is not required.	Cost implication i.e. either requiring a third party to generate energy models / additional software licensing costs, as well as the resource (technical

#	Item	Categorisation	Implementation Guidance	Reasoning
				expertise) to run the modelling software if done in-house.
4.5	Renewable Energy Production	M	-	-
4.6	Advanced Energy Metering	PM	Retail will implement the requirement as outlined, with the exception of the following: - Providing digital energy and BTU meters for each significant landlord area (e.g. car park, management offices, lighting, energy centre, etc.) - Installing separate metering for power and lighting	Installing BTU meters for such downstream loads will add cost and time to the project. Separate metering for power and lighting will require, in some cases, redesigning of electrical layouts, adding cost to the project.
4.7	Energy Efficient Vertical Transport Systems	M	-	-
4.8	Energy Efficient Equipment (Landlord)	M	-	-
4.9	Low Carbon /Passive Design	M	-	-
4.10	Fundamental Refrigerant Management	M	-	-
4.11	Construction Temporary Facilities - ENERGY	R	-	Depending on the region of construction, some countries' regulations / statutory requirements would not allow for solar /renewable energy for site offices.
Health and Wellbeing				
5.1	Minimum indoor air quality performance	M	-	-
5.2	Environmental Tobacco Smoke Control	M	-	-
5.3	Low Toxicity products	PM	Retail will implement the requirement as outlined, with the exception of formaldehyde and asbestos-related requirements, which will be subject to local regulations and material availability.	For formaldehydes and asbestos, adjustments can be considered based on local regulatory requirements and material availability. For interior paints, coatings, adhesives, and sealants, the categorisation is Recommended as the stated compliance standard may be difficult to achieve and is more stringent than local regulations.

#	Item	Categorisation	Implementation Guidance	Reasoning
				Adjustments may be considered to align with local standards where applicable.
5.4	Daylight	PM	Achieving the daylight autonomy target will be considered where feasible, based on envelope design and its impact on thermal heat gains.	Due to the high complexity in the GCC region (UAE, Kuwait, Qatar, Saudi Arabia, Oman, Bahrain) the daylight autonomy required will affect the thermal gain therefore wherever the cost is impacted in terms of additional cooling, thermal insulation etc. this will not be implemented.
5.5	Lighting and Controls	M		-
5.6	Thermal Comfort	M	-	-
Site and Community Impact				
6.1	Additional Infrastructure	M	-	-
6.2	Heat Island Reduction	M	-	-
6.3	Enhancing Site Ecology	PM	Implementation of this requirement will be subject to local regulatory context and project-specific needs.	Additional cost to hire an ecologist
6.4	Accessibility	M	-	-